FooCrypt, A Tale of Cynical Cyclical Encryption.

Cryptography & Steganography

Documentation

- **FooCrypt**
  - **Versions**
    - X.Y.Z
      - [Current FooCrypt Release]
      - Where :
        - X = Major Release Number [UPGRADE]
        - Y = Minor Release Number [UPDATE]
        - Z = Patch Release Number [FIX]
    - XX.YY.ZZ
      - [Scheduled For 3rd Quarter 2025 Release]
      - Where :
        - XX = Major Release Number [UPGRADE]
        - YY = Minor Release Number [UPDATE]
        - ZZ = Patch Release Number [FIX]
  - **Release**
    - 12.0.0.Core
  - **Containing** :
    - FooCheck FooCrypt FooCrypt-Desktop FooCrypt-GUI FooCrypt-GUI-Data-1
    - FooCrypt-GUI-Data-2 FooSteg CLI_Test Decrypt_FooKey mOpenSSL
    - mFooKey Matrix_Test
    - mOpenSSL Compiled OpenSSL versions via : foocrypt-12-0-0-openssl-linux_x86_64.deb
    - Located in : /opt/FooCrypt-OpenSSL//Linux/bin_64/
      - openssl-3.0.16/bin/openssl : OpenSSL 3.0.16 11 Feb 2025 (Library: OpenSSL 3.0.16 11 Feb 2025)
      - openssl-3.2.4/bin/openssl : OpenSSL 3.2.4 11 Feb 2025 (Library: OpenSSL 3.2.4 11 Feb 2025)
      - openssl-3.3.3/bin/openssl : OpenSSL 3.3.3 11 Feb 2025 (Library: OpenSSL 3.3.3 11 Feb 2025)
      - openssl-3.4.1/bin/openssl : OpenSSL 3.4.1 11 Feb 2025 (Library: OpenSSL 3.4.1 11 Feb 2025)
      - openssl-3.5.0/bin/openssl : OpenSSL 3.5.0 8 Apr 2025 (Library: OpenSSL 3.5.0 8 Apr 2025)
  - **Operating Systems**
    - Darwin (macOS)
    - Linux (DEBIAN & RHEL Packaging Formats)
    - Live Linux (Any OS running a Hypervisor) Based on uBuntu 22.04 LTS Desktop
    - SunOS (Solaris x86 & OpenIndiana)
    - Windows 10+ running the W.S.L.2.+

Documentation Version

- [20250425115959]
  - The latest version of this document is available online via https://FooCrrypt.XYZ

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Note : QRCrypto's eAES® Quantum Resistant Cipher Engine is integrated in FooCrypt.11.0.0.Core, onwards.

Audience

- The 'FooCrypt, A Tale of Cynical Cyclical Encryption, Documentation' aims to deliver an understanding of the technical details, specifications, process's, methods, etc that are utilised within the 'FooCrypt, A Tale of Cynical Cyclical Encryption' toolkit to the reader.

- The intended audience level, is focused towards a 'lay person', and also provides details which are focused towards a 'technical person'.

- This Documentation includes proprietary terms and concepts, unique to the 'FooCrypt, A Tale of Cynical Cyclical Encryption' toolkit and QRCrypto's eAES® Quantum Resistant Cipher Engine, which may require further understanding from the reader.

- An evolving **Acronyms and Abbreviations** section is available to assist with the readers understanding of the proprietary terms and concepts.

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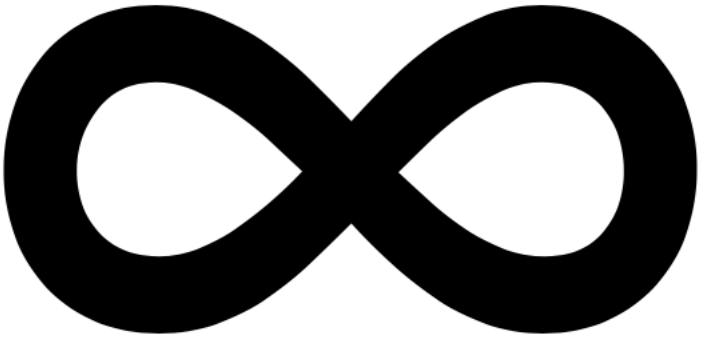
Introduction

‘FooCrypt makes a mountain out of a mole hill, and FooSteg hides the mountain in plain sight’

Protecting Data via An Effectively Infinite Brute Force & Obfuscation Solution(1)



(1) Lay persons terms representation of calculations covering combinations of a Data Image to recover the Secret Data Blob. Infinity symbol utilised to represent compute power verses time, utilising known side channel attacks methods, brute force attacks methods, et al.

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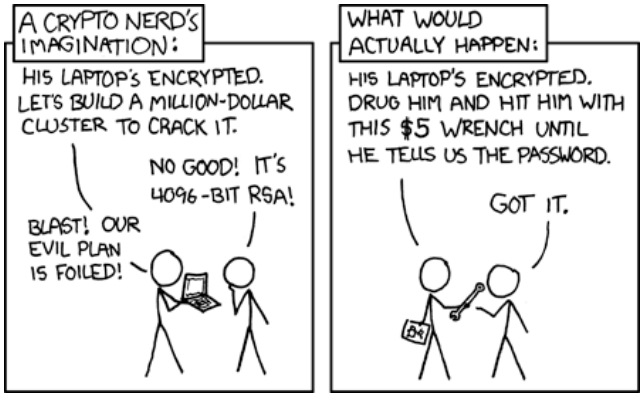
Executive Summary

FooCrypt, A Tale Of Cynical Cyclical Encryption is a Post-Quantum Cryptography Quantum+ Proof / Secure software solution via Cryptography and Steganography that provides you with the total peace of mind over the SECURITY & PRIVACY of YOUR DATA, whether it is sitting in situ on a MEDIA DEVICE or in TRANSIT.

Post-Quantum Cryptography (PQC) is about designing cryptographic solutions that can be used by today's [non-quantum] computers and that are resistant to both conventional and quantum cryptanalysis.

There is an age old comic by XKCD regarding the 'Security' of Data, and Brute Force Attacks :



https://imgs.xkcd.com/comics/security.png
https://xkcd.com/538/

FooCrypt, A Tale Of Cynical Cyclical Encryption Makes In-Secure & Secure Symmetric Algorithms Quantum+ Proof / Secure, via Cryptography & Steganography, since May, 2019 via FooCrypt.2.2.0.Core.

With the current emergence of Quantum Computing, the Crypto Nerds imagination has become a reality, one that is expected to occur between 2025 - 2030, because If you encrypt data that needs to be kept confidential for more than 10 years and an adversary could gain access to the encrypted data (cypher text), you need to take action now to protect your data. Otherwise, your security will be compromised as soon as an adversary gains access to a large quantum computer.

The reality of human brute force attacks, is a never ending battle that all those who have access to the passwords which protect the sensitive data and the encrypted data (cypher text), deal with on a daily basis. The advisories may be in person or via the more common electronic means (Hacking Groups / MALWare / Virus's / Worms, Etc).

Resilience is the key to data protection and data security, and utilising a Post-Quantum Cryptography solution to protect and secure your data, guarantees, that in a worst case scenario where your encrypted data is obtained by an adversary, it remains theoretically secured and protected for the longest amount of time.

FooCrypt, A Tale Of Cynical Cyclical Encryption :

- FooCrypt ensures current algorithms have their strength increased to be Quantum+ Proof / Secure
- Maximises the password length for each encryption cycle
- Applies <= 200 layers of encryption, per FooKey
- Maximises the time it would take an adversary to decrypt the encrypted data
- FooSteg (Steganography) obtains infinite protection of your Data, when the Data Image is in-transit and/or sitting in-situ on a storage device, independent of the Source Image
- FooStegCypher (Cryptography) enhances the strength of a Data Image when it is in-transit and/or sitting in-situ on a storage device, with the Source Image
- FooKey_Message (Cryptography and Steganography) enhances the strength of your messaging
- A FooKey can be created from any commonly sourced file or multiple random data sources (Pseudo and True)
- FooCrypt can be configured so that end users never know the actual password characters utilised to encrypt the data
- Adheres to Standard Business Security Policies and Implementations
- Is designed to operate with SMB (CIFS) / NFS / Disk Sharing / Etc , networking technologies
- Can be transparently integrated with any Business's Document Control / Storage Systems
- Removes the Common Flaws in all encryption technologies
- Utilises OpenSSL and/or LibreSSL as the default Encryption Engine
- Can be configured to utilise any Encryption Engine
- QRCrypto's eAES® Quantum Resistant Cipher Engine is integrated in FooCrypt.11.0.0.Core, onwards
- Will be under going Common Criteria EAL2+ and FIPS-140-3 Certifications

References and Recommended further reading :

1. **“Post-Quantum Cryptography: Current state and quantum mitigation”**
   ENSIA (European Union Agency For CyberSecurity), February 2021, and the May 03 2021 update,
   https://www.enisa.europa.eu/publications/post-quantum-cryptography-current-state-and-quantum-mitigation

2. **“What is Quantum Mitigation ????”,**
   A comparative analysis of FooCrypt capabilities verses The ENSIA February, 2021 and the May 03, 2021 ENSIA update.
   Mark A. Lane, Founder, FooCrypt, A Tale Of Cynical Cyclical Encryption, April 21, 2021.
   https://FooCrypt.XYZ/what-is-quantum-mitigation
   https://www.linkedin.com/pulse/what-quantum-mitigation-mark-a-lane/

3. **“Cryptography in a post-quantum world”**
   Accenture Labs, October 4, 2018
   https://www.accenture.com/us-en/insights/technology/quantum-cryptography

4. **“Quantum computing - the time is now”**
   Accenture Labs, June 13, 2017
   https://www.accenture.com/us-en/insights/technology/quantum-computing

* Note :
A current Executive Summary is available @ https://FooCrypt.XYZ

Licensing Dongle

- **USB Disk**
  - **Linux**
  - All you need for your Licensing Dongle, is a common (reliable) USB Disk that you purchase.
  - Simply supply the USB Disk Serial number as detected under Ubuntu Linux via the

    - `/usr/bin/lsusb -v -s [[bus]:[devnum]]` command

      - Where

        - `[[bus]:[devnum]]`

      - is as displayed via the

        - `/usr/bin/lsusb` command

      - displaying the USB Disk you have purchased for your USB Licensing Dongle.

ie:
(using a UNIX Shell Login Of foocrypt)

```
foocrypt@YourComputer:/home/foocrypt -> /usr/bin/lsusb
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 001 Device 003: ID 1bcf:2c00 Sunplus Innovation Technology Inc.
Bus 001 Device 002: ID 8087:07dc Intel Corp.
Bus 001 Device 004: ID 13fe:4200 Kingston Technology Company Inc.              < External USB 2.0
Disk Drive
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
```

ie:
(using a UNIX Shell Login Of foocrypt)

```
foocrypt@YourComputer:/home/foocrypt -> /usr/bin/sudo /usr/bin/lsusb -v -s 001:004 | egrep "iSerial|
iProduct|idVendor"
idVendor           0x13fe     Kingston Technology Company Inc.
iProduct                     2     USB DISK 2.0
iSerial                      3     0708593916196665  <- Serial Number FooCrypt Is Licensed To.
```

- During The Purchase Or Post Purchasing Prior To The Demonstration Period Expiring, Simply Provide The OutPut To The Following UNIX Shell Command

```
/usr/bin/sudo /usr/bin/lsusb -v -s 001:004 | egrep "iSerial|iProduct|idVendor"
```

- where 001:004 is the location of your USB Disk Which you want to use as the USB Licensing Dongle.

Once your license has been generated and emailed to you, you will need to create the

[FooHome]/.FooCrypt.Usb

file which contains the current `[[bus]:[devnum]]` of your USB License Dongle.

Note : USB Disk Address Changing

- Your USB License Dongle may change [[bus]:[[devnum]] locations based on the Computer / USB Port that you allocate to your virtual machine or computer running FooCrypt, A Tale Of Cynical Cyclical Encryption.

Note : Portability

- The Licensing Dongle will enable you total freedom and portability with your FooCrypt, A Tale Of Cynical Cyclical Encryption instance whilst maintaining licensing requirements.

Note : `/etc/sudoers`

- FooCrypt requires root level privileged access to the /usr/bin/lsusb command in order to see :

```
idVendor           0x13fe     Kingston Technology Company Inc.
iProduct           2          USB DISK 2.0
iSerial            3          0708593916196665
```

- Which is easily obtained by modifying the /etc/sudoers file granting the user which is running FooCrypt, password less access.

- `/etc/sudoers` Modifications using the UNIX Userid of foocrypt

```
foocrypt ALL=(ALL) NOPASSWD: /usr/bin/lsusb -v -s ???????
```

FooCrypt requires 2 files to be generated based on the hardware serial number of the physical hardware you are running 'FooCrypt, A Tale Of Cynical Cyclical Encryption.' on.

The 2 license files will be generated and supplied to the email address that was register during the purchasing process in accordance with the Licensing Agreements EULA, Software and Associated Models.

Upon receipt of the 2 license files from our licensing generation server, they are to be placed in the **[FooHome]** default directory which is available via the 'Preferences' window.

Using a text editor or vi or ed or vim or emacs, etc from within a shell process, simply copy the data from the email into each file and save the file.

- The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

  [-n | New FooHome Directory]

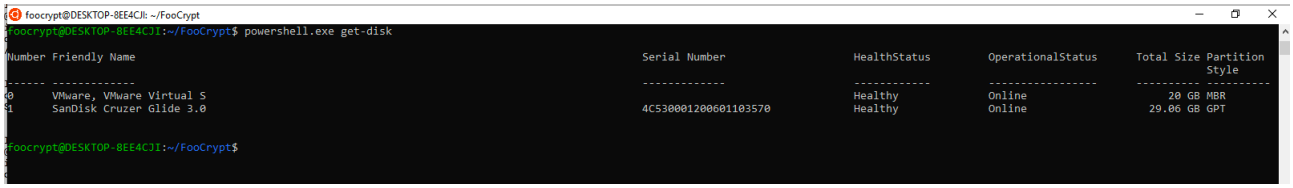
- ## Windows Windows Subsystem For Linux (W.S.L.)

- Due to uBuntu Bug ID 1818596 logged by FooCrypt against uBuntu 16.04 & 18.04 LTS running under WSL1 https://bugs.launchpad.net/ubuntu/+source/ksh/+bug/1818596 **FooCrypt recommends utilising WSL2 as a minimum for running FooCrypt on Windows 10 under the WSL. WSL2:** https://devblogs.microsoft.com/commandline/wsl-2-is-now-available-in-windows-insiders/

- All you need for your Licensing Dongle, is a common (reliable) USB Disk that you purchase.
- Simply supply the USB Disk Serial number as detected under Ubuntu Linux via the

  - `/usr/bin/powershell.exe  get-disk`
    - command and obtain the serial number of the USB Disk you wish to use as a licensing dongle.
      - (See Graphic 1 Below)

    - ## Graphic 1 : USB Disk Serial Number



    - In the example above, the USB Disk is located as Disk Number 1 and the serial number is `4C530001200601103570`.

    - Request the FooCrypt License Keys using the licensing dongle serial number as per https://FooCrypt.XYZ/licensing-keys-request

    - Once your license has been generated and emailed to you, you will need to create the **[FooHome]**/.FooCrypt.Usb containing the Licensing Dongle Disk Number

      - echo 1 > **[FooHome]**/.FooCrypt.Usb

    - file which contains the current [Disk Number] of your USB License Dongle.

Note : USB Disk Address Changing

- Your USB License Dongle may change [Disk Number] locations based on the Computer / USB Port that you allocate to your virtual machine or computer running FooCrypt, A Tale Of Cynical Cyclical Encryption.

Note : Portability

- The Licensing Dongle will enable you total freedom and portability with your FooCrypt, A Tale Of Cynical Cyclical Encryption instance whilst maintaining licensing requirements.

FooCrypt requires 2 files to be generated based on the hardware serial number of the physical hardware you are running 'FooCrypt, A Tale Of Cynical Cyclical Encryption.' on.

The 2 license files will be generated and supplied to the email address that was register during the purchasing process in accordance with the Licensing Agreements EULA, Software and Associated Models.

Upon receipt of the 2 license files from our licensing generation server, they are to be placed in the **[FooHome]** default directory which is available via the 'Preferences' window.

Using a text editor or vi or ed or vim or emacs, etc from within a shell process, simply copy the data from the email into each file and save the file.

- **Default [FooHome] Directory**

  - **macOS**
    - `[ Users Home Directory ]/Library/Caches/net.Cryptopocalypse.FooCrypt`
  - **Linux**
    - `[ Users Home Directory ]/FooCrypt`
  - **Solaris**
    - `[ Users Home Directory ]/FooCrypt`

    - **`[ FooHome ]/.FooCrypt.Key`**
    - **`[ FooHome ]/.FooCrypt.Lic`**
    - **`[ FooHome ]/.FooCrypt.Usb`**
      - [Linux Version Only For Licensing Via A Common USB Dongle (Serial Number Of A USB Disk You Purchase and Supply)]

  - Once the license files have been created, simply [re]start FooCrypt, to ensure that the license files validation completes without any errors.

  - License Files are verified upon each time you run either FooCrypt via a desktop shortcut or via the Command Line.

  - The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

    [-n | New FooHome Directory]
    - Must contain the FooCrypt License Files
    - FooCrypt must have write access

    - [Full Path To CLI] -n [New FooHome Directory]

      - /opt/FooCrypt/FooCrypt-GUI -n /home/FooCrypt/NewFooHome

Validation

- Validation of the DEFAULT and any further selected OpenSSL Engines is a compulsory requirement for you to perform.

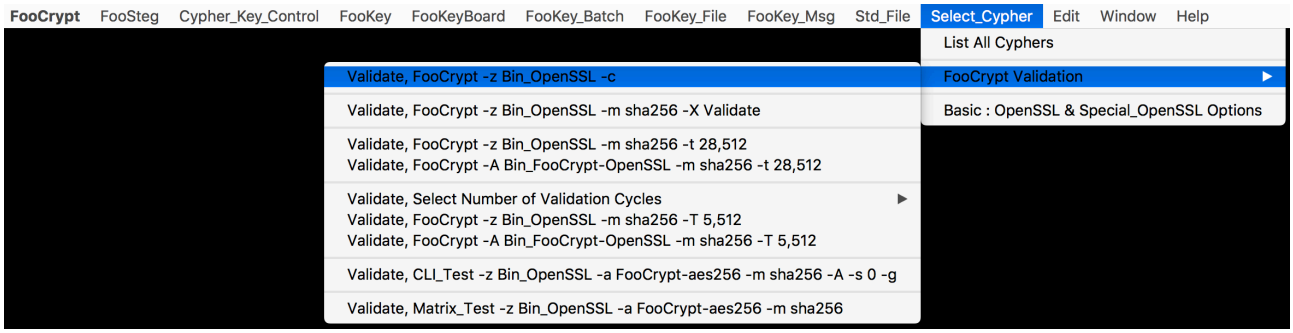
- Validation is performed either via the Graphical User Interface (GUI) or via the Command Line Interface (CLI)

- There are 4 steps to Validate your Operating System (OS) for FooCrypt.

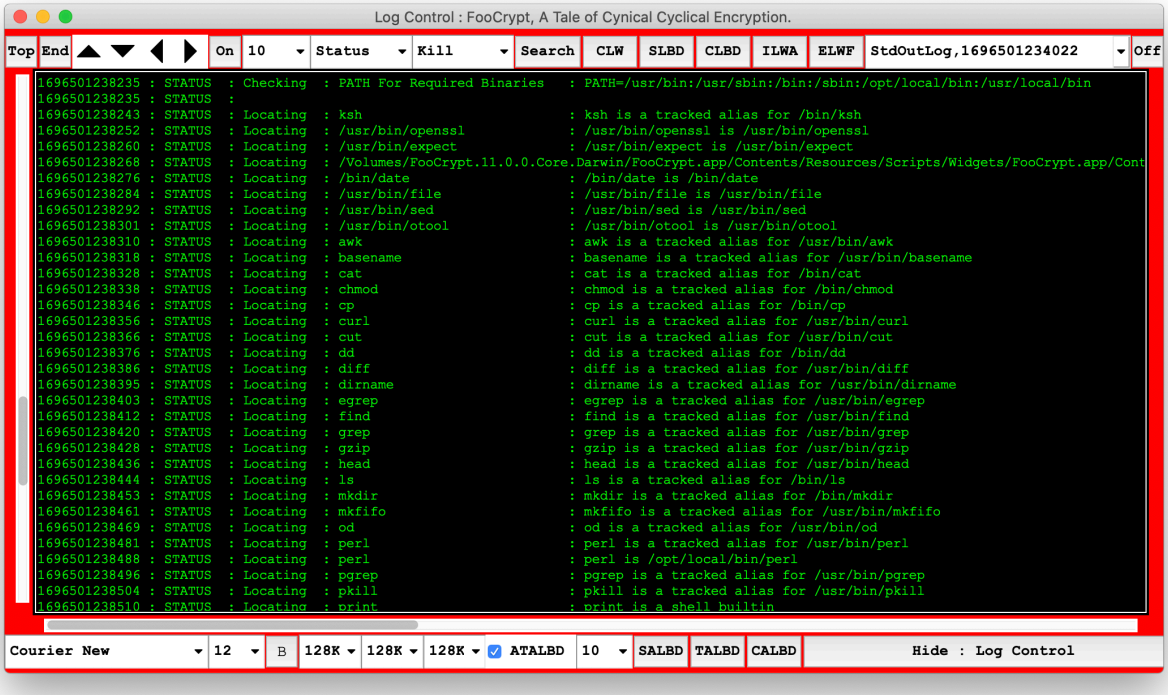
- **GUI**

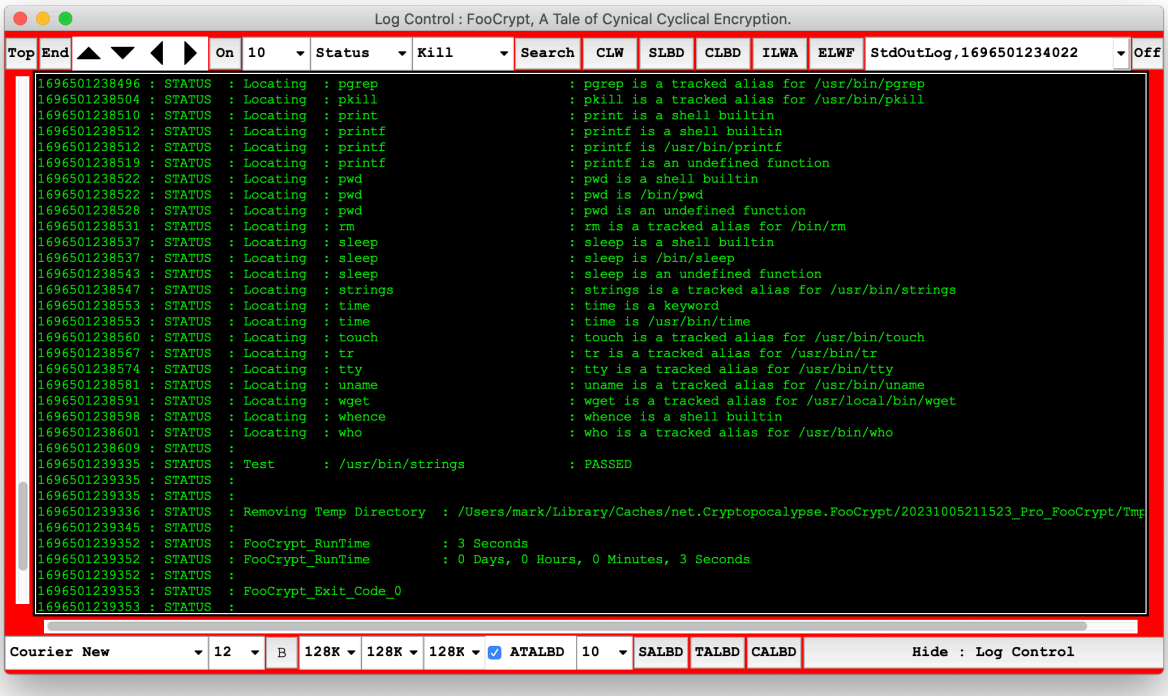
  5. Validate ALL FooCrypt Requirements
  - (See Graphics Below)
  - Menu Select -> Select_Cypher -> FooCrypt Validation \
    -> Validate All FooCrypt Requirements Against Your OS

  - **Graphic : Validate ALL FooCrypt Requirements**



- **Graphic : Example StdOut**
- **<u>Note : See Missing Files Below</u>**

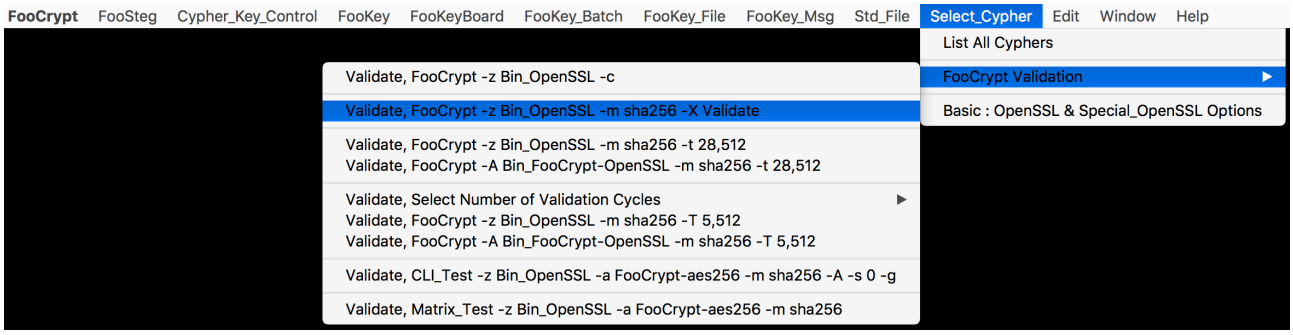




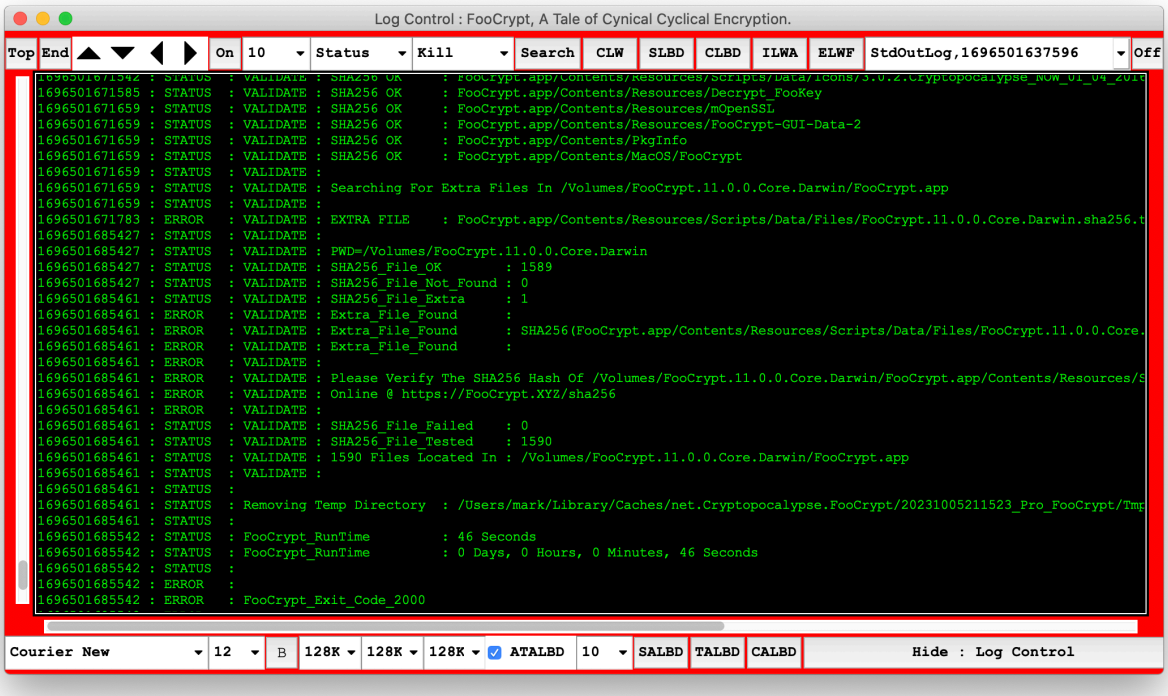
6. Validate ALL FooCrypt Application SHA256 Hash's

- (See Graphics Below)
- Menu Select -> Select_Cypher -> FooCrypt Validation \
  -> Validate All FooCrypt Application SHA256 Hash's

- **Graphic : Validate ALL FooCrypt Application SHA256 Hash's**



- **Graphic : Example StdOut**
- (FooCrypt.11.0.0.Core.Darwin)



7. Validate FooCrypt -z Bin_OpenSSL Cyphers

- For Selected Validation Cycles

- 5 Is default
  - (See Graphic Below)

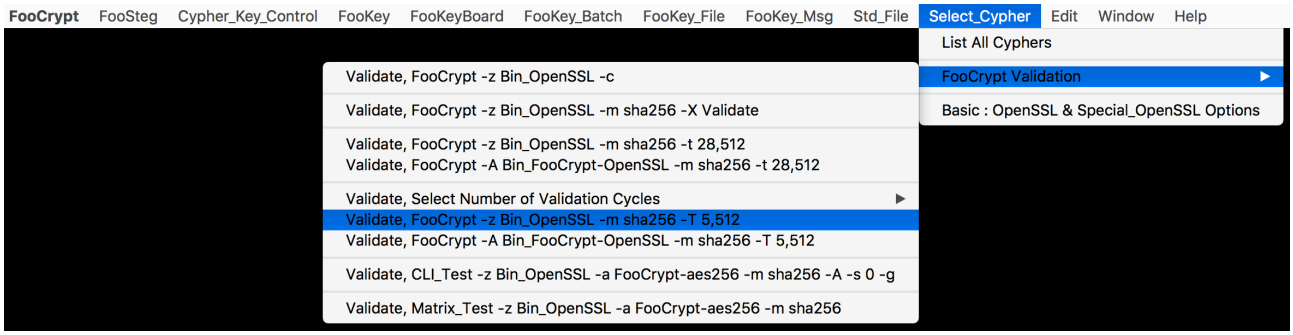
- 200 is the maximum via the GUI
  - (See Graphic Below)

- CLI Constraints
  - Cycles Valid Characters [0-9]
  - Cycles = NULL are reset to 5
  - Cycles > 200 are reset to 200

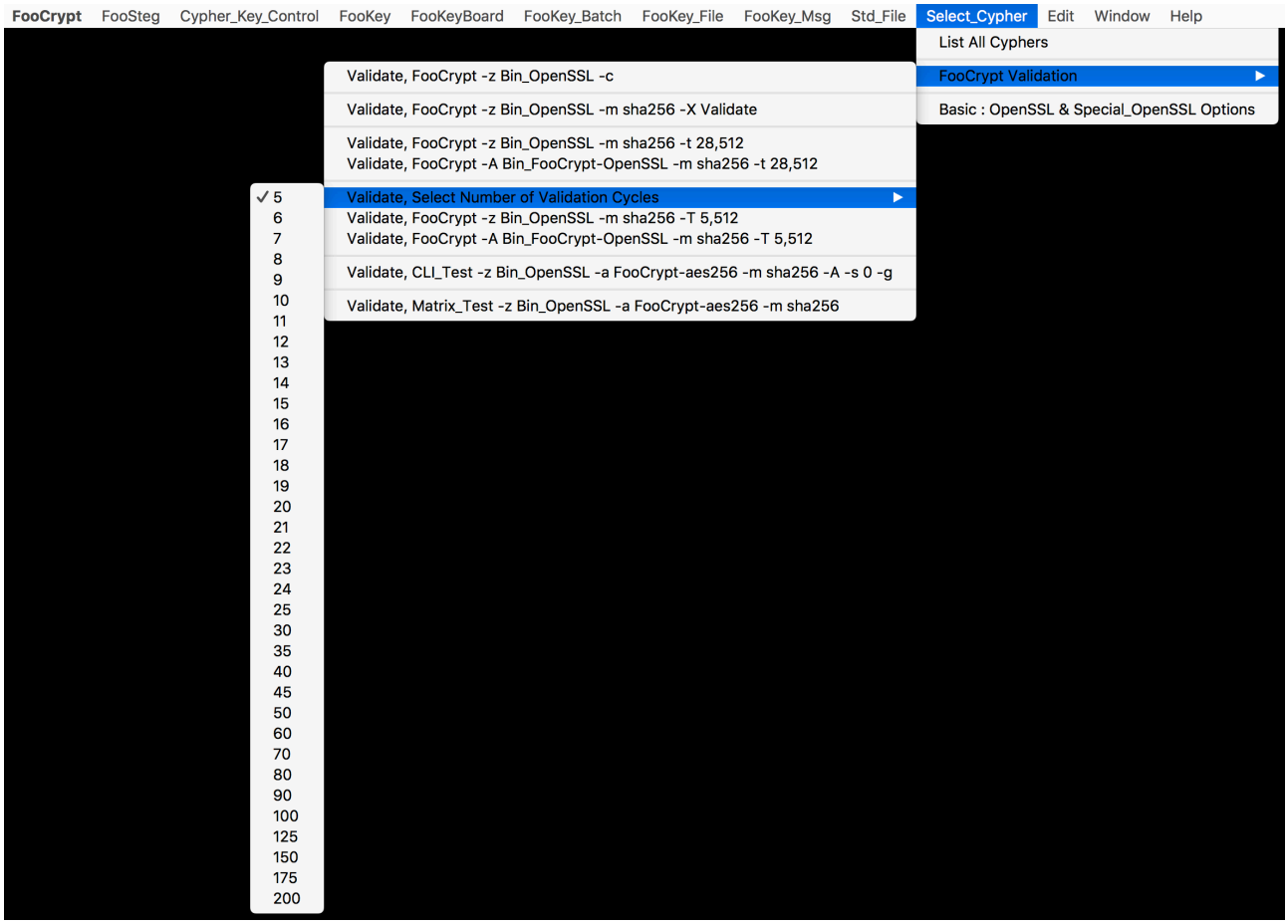
  - ARG_MAX Valid Characters [0-9]
  - ARG_MAX = NULL are reset to 255
  - ARG_MAX < 28 are reset to 28
  - ARG_MAX > 523 are reset to 523

- -> Select Cypher -> FooCrypt Validation \
  -> Validate, FooCrypt -z Bin_OpenSSL Cyphers For Selected Validation Cycles : 5 : Using 512 Characters

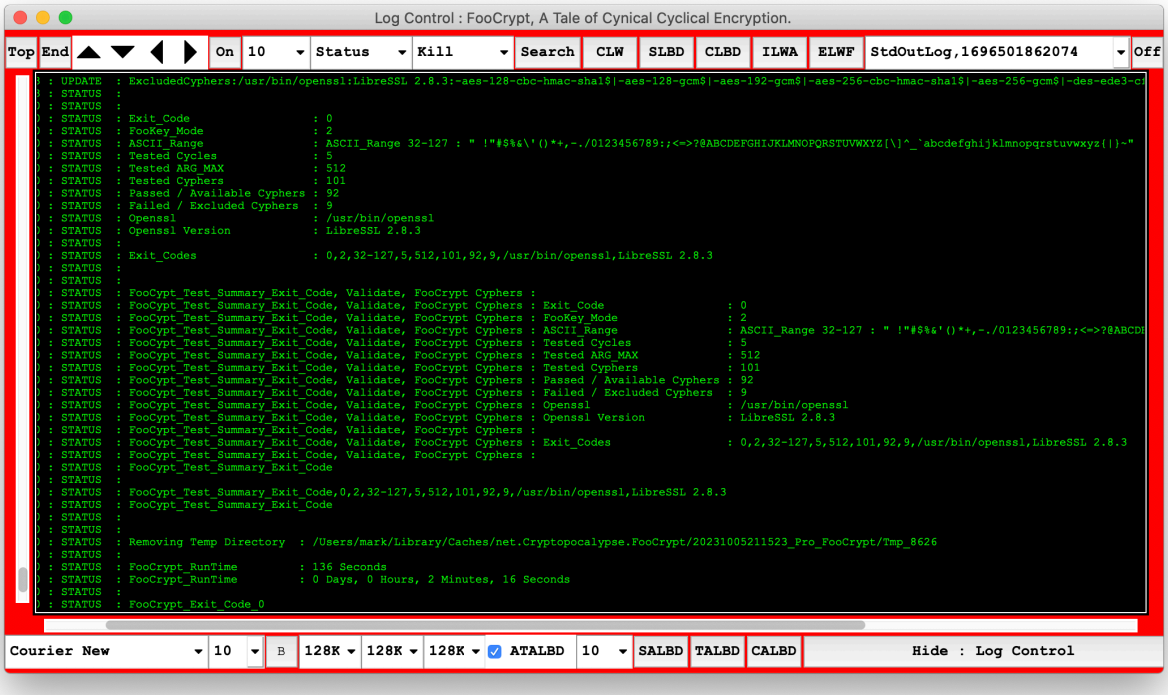
  - **Graphic : Validate FooCrypt -z Bin_OpenSSL Cyphers**



- **NOTE**
  - To Increase or Decrease The Number Of Validation Cycles
    - Menu Select -> Select_Cypher -> FooCrypt Validation \
    -> Validate, Select Number Of Validation Cycles \
    -> 1 - 200

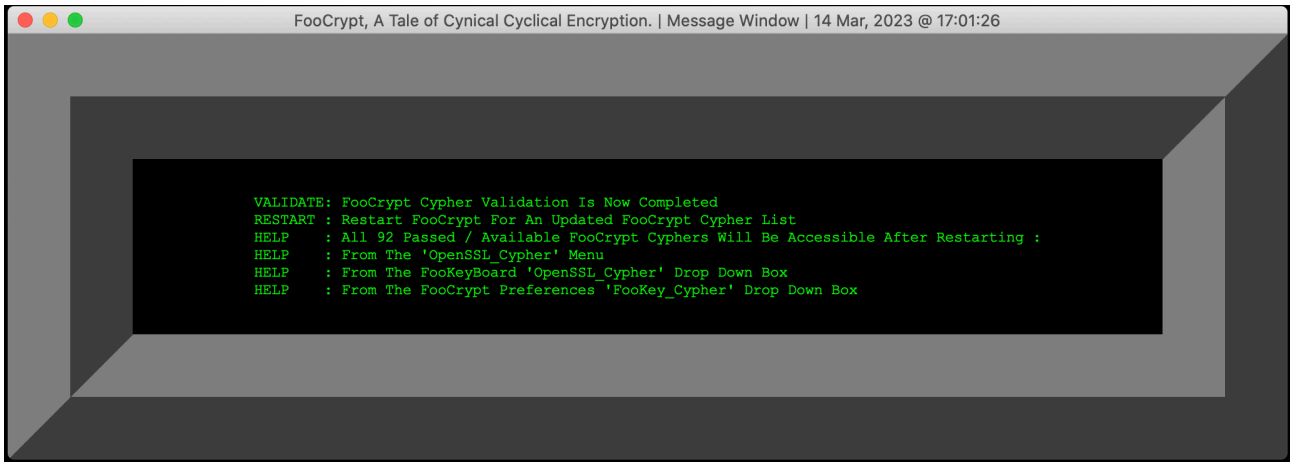


- **Graphic : Example StdOut**



- Once Validation has completed you will need to restart the FooCrypt GUI, so that FooCrypt is aware of the validated cyphers.
- (See Graphic Below)

- **Graphic : Restart FooCrypt**



4. Validate ARG_MAX

- Maximum length of a Password that FooCrypt can automatically pass onto OpenSSL per single cycle of encryption.
- **Note : 512 is Default**
- **CLI Constraints**
  - Start_ARG_MAX Valid Characters [0-9]
  - Start_ARG_MAX = NULL Are Reset To 255
  - Start_ARG_MAX < 28 Are Reset To 28
  - Start_ARG_MAX > 523 Are Reset To 523
  - Start_ARG_MAX >= End_ARG_MAX Are Rest To End_ARG_MAX - 1

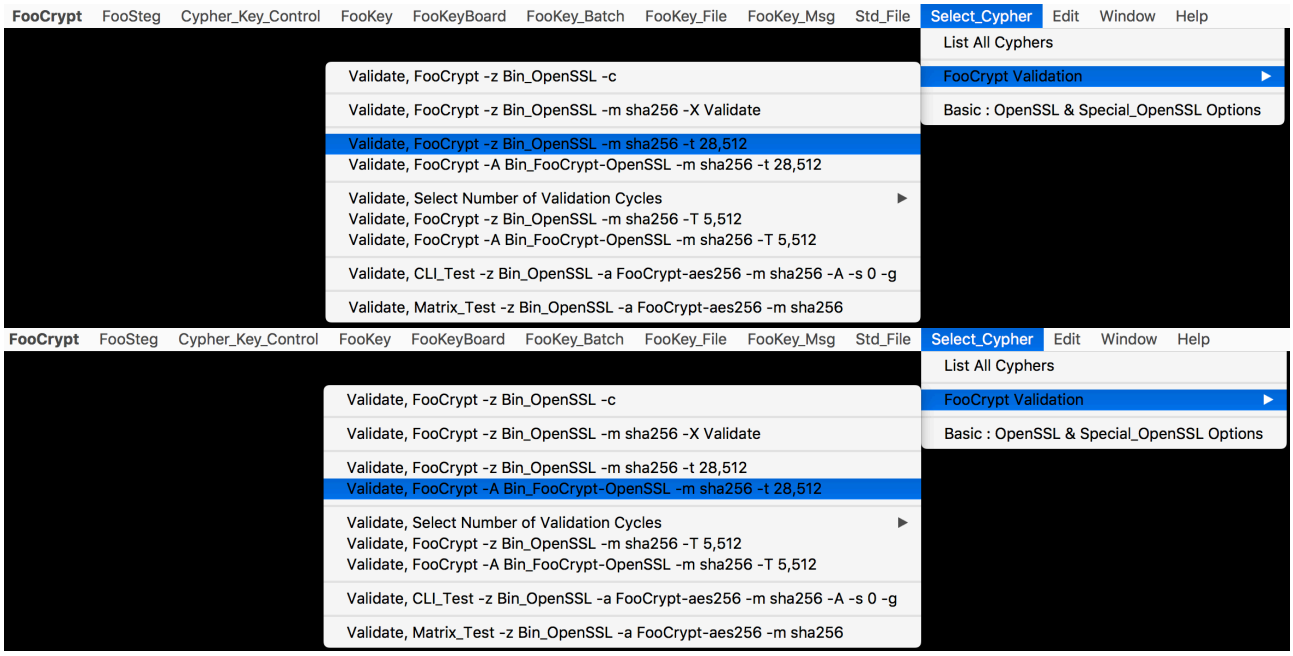
  - End_ARG_MAX Valid Characters [0-9]
  - End_ARG_MAX = NULL Are Reset To 525
  - End_ARG_MAX > 525 Are Reset To 525
  - End_ARG_MAX > 523 Have Been Previously Tested And Are Known To Fail
  - End_ARG_MAX <= Start_ARG_MAX Are Rest To Start_ARG_MAX + 1

  - FooCrypt_Preferences
    - Modify Test_Min_ARG_MAX and Test_MAX_ARG_MAX

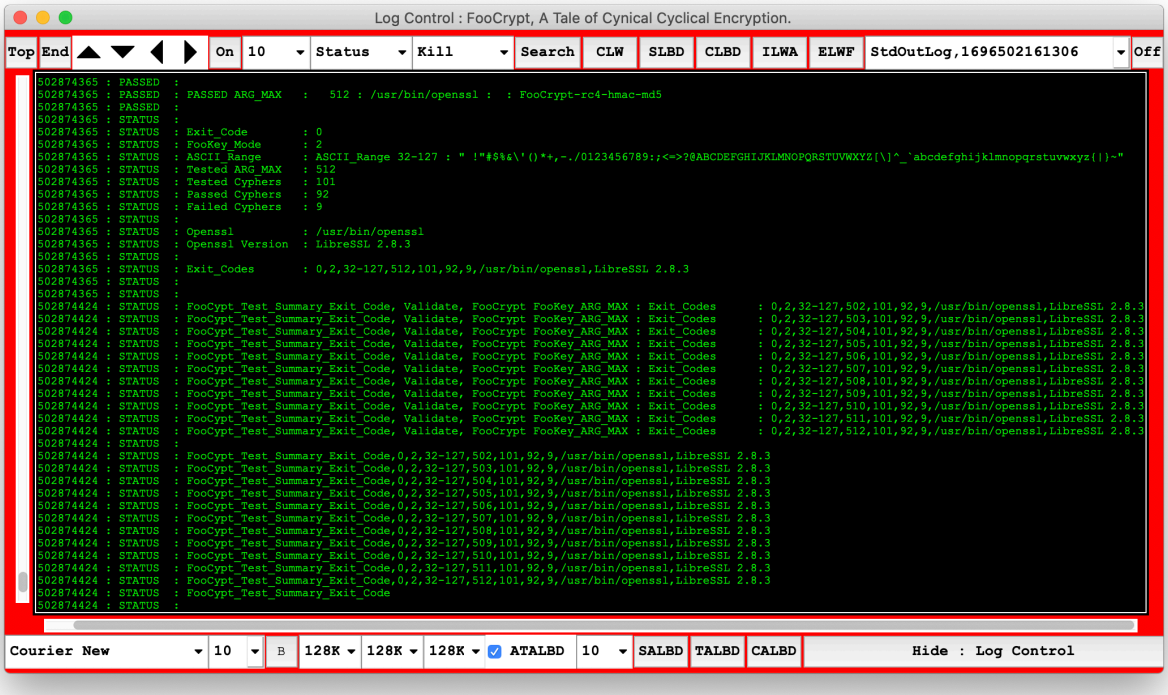
- **Graphic : Modify Test_Max_ARG_MAX**

Test_Min_ARG_MAX	28	Test_Max_ARG_MAX	512	FooKey_ARG_MAX	485

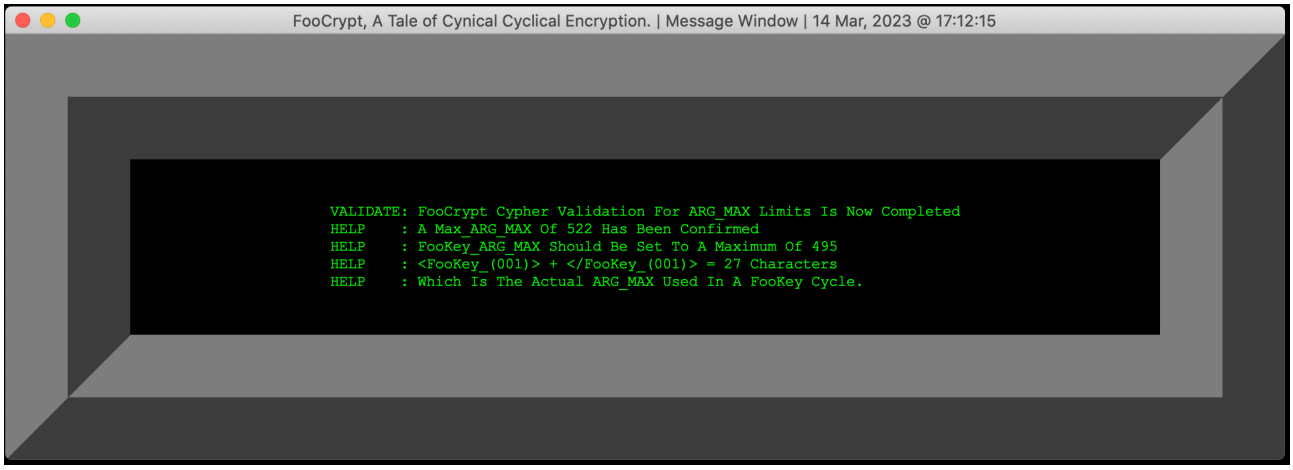
  - Menu Select -> Select_Cypher -> FooCrypt Validation \
  -> Validate All FooCrypt OpenSSL Cyphers for ARG_MAX Limits : 28 - 512 : Characters



- **Graphic : Example StdOut**



- **Graphic : Example Message**



- **CLI**

1. Validate ALL FooCrypt Requirements

- Check your macOS host for FooCrypt Requirements

- [*Quoted FULL PATH To FooCrypt] -c
  - Force_An_Error is hard coded into FooCrypt and will always display as an ERROR

  - Disk Image Full Path To Each FooCrypt CLI
&
[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt]

Any identified issues will be highlighted in the Log Control StdOutLog or via stderr and logged to the log file in **[FooHome]**

- **Table : Example StdOut**

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt] -c

```
STATUS  : Checking  : PATH For Required Binaries   : PATH=/usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  :
STATUS  : Locating  : ksh                          : ksh is a tracked alias for /bin/ksh
STATUS  : Locating  : /usr/bin/openssl             : /usr/bin/openssl is /usr/bin/openssl
STATUS  : Locating  : /usr/bin/expect              : /usr/bin/expect is /usr/bin/expect
STATUS  : Locating  : /bin/date                    : /bin/date is /bin/date
STATUS  : Locating  : /usr/bin/file                : /usr/bin/file is /usr/bin/file
STATUS  : Locating  : /usr/bin/sed                 : /usr/bin/sed is /usr/bin/sed
STATUS  : Locating  : /usr/bin/otool               : /usr/bin/otool is /usr/bin/otool
STATUS  : Locating  : awk                          : awk is a tracked alias for /usr/bin/awk
STATUS  : Locating  : basename                     : basename is a tracked alias for /usr/bin/basename
STATUS  : Locating  : cat                          : cat is a tracked alias for /bin/cat
STATUS  : Locating  : chmod                        : chmod is a tracked alias for /bin/chmod
STATUS  : Locating  : cp                           : cp is a tracked alias for /bin/cp
STATUS  : Locating  : curl                         : curl is a tracked alias for /usr/bin/curl
STATUS  : Locating  : cut                          : cut is a tracked alias for /usr/bin/cut
STATUS  : Locating  : dd                           : dd is a tracked alias for /bin/dd
STATUS  : Locating  : diff                         : diff is a tracked alias for /usr/bin/diff
STATUS  : Locating  : dirname                      : dirname is a tracked alias for /usr/bin/dirname
STATUS  : Locating  : egrep                        : egrep is a tracked alias for /usr/bin/egrep
STATUS  : Locating  : find                         : find is a tracked alias for /usr/bin/find
STATUS  : Locating  : grep                         : grep is a tracked alias for /usr/bin/grep
STATUS  : Locating  : gzip                         : gzip is a tracked alias for /usr/bin/gzip
STATUS  : Locating  : head                         : head is a tracked alias for /usr/bin/head
STATUS  : Locating  : ls                           : ls is a tracked alias for /bin/ls
STATUS  : Locating  : mkdir                        : mkdir is a tracked alias for /bin/mkdir
STATUS  : Locating  : mkfifo                       : mkfifo is a tracked alias for /usr/bin/mkfifo
STATUS  : Locating  : od                           : od is a tracked alias for /usr/bin/od
STATUS  : Locating  : pgrep                        : pgrep is a tracked alias for /usr/bin/pgrep
STATUS  : Locating  : pkill                        : pkill is a tracked alias for /usr/bin/pkill
STATUS  : Locating  : print                        : print is a shell builtin
STATUS  : Locating  : printf                       : printf is a shell builtin
STATUS  : Locating  : printf                       : printf is /usr/bin/printf
STATUS  : Locating  : printf                       : printf is an undefined function
STATUS  : Locating  : pwd                          : pwd is a shell builtin
STATUS  : Locating  : pwd                          : pwd is /bin/pwd
STATUS  : Locating  : pwd                          : pwd is an undefined function
STATUS  : Locating  : rm                           : rm is a tracked alias for /bin/rm
STATUS  : Locating  : sleep                        : sleep is a shell builtin
STATUS  : Locating  : sleep                        : sleep is /bin/sleep
STATUS  : Locating  : sleep                        : sleep is an undefined function
STATUS  : Locating  : strings                      : strings is a tracked alias for /usr/bin/strings
STATUS  : Locating  : time                         : time is a keyword
STATUS  : Locating  : time                         : time is /usr/bin/time
STATUS  : Locating  : touch                        : touch is a tracked alias for /usr/bin/touch
STATUS  : Locating  : tr                           : tr is a tracked alias for /usr/bin/tr
STATUS  : Locating  : tty                          : tty is a tracked alias for /usr/bin/tty
STATUS  : Locating  : uname                        : uname is a tracked alias for /usr/bin/uname
STATUS  : Locating  : wget                         : wget is a tracked alias for /usr/local/bin/wget
STATUS  : Locating  : whence                       : whence is a shell builtin
STATUS  : Locating  : who                          : who is a tracked alias for /usr/bin/who
STATUS  :
STATUS  : Test      : /usr/bin/strings             : PASSED
```

- *Note
  - Wish will not be detected when running [/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt] -c as it is inherited when running FooCrypt CLI from the FooCrypt GUI

    - **Note : See Missing Files Below**

2. Validate ALL FooCrypt OpenSSL Cyphers

- Run Validation of each Available Cypher for 5 Cycles with a Password Length of 512 Characters
  - (See Example Below)

- the only limits via the command line is the constraints of the Operating System that FooCrypt is running on

- [*Quoted FULL PATH To FooCrypt] -T [Number Of Cycles],[ARG_MAX]

- Disk Image Full Path To FooCrypt CLI

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt]

  - Cycles Valid Characters [0-9]
  - Cycles = NULL are reset to 5
  - Cycles > 200 are reset to 200

  - ARG_MAX Valid Characters [0-9]
  - ARG_MAX = NULL are reset to 512
  - ARG_MAX < 28 are reset to 28
  - ARG_MAX > 550 are reset to 512

- Note :
  LibreSSL : 0 to 511 characters
  OpenSSL : 0 to 512 characters

```
STATUS  : Help :   [ -K | FooKey_Mode ]
STATUS  : Help :          * Default : 4
STATUS  : Help :            * 1 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :            * 2 : 11.0.0+ Treats The Backslash '\' Character, As An Escape Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :            * 3 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :            * 4 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :                  * Where N = Numerical Characters 0 - 9
STATUS  : Help :
STATUS  : Help :   [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :          * Default : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : Help :          * ASCII_Range 32-127 : " !"#$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : Help :                  * Required :
STATUS  : Help :                    [ -t | Test All OpenSSL Ciphers For 1 Cycle To Determine ARG_MAX Length ]
STATUS  : Help :                      or
STATUS  : Help :                    [ -T | Validate All Cyphers For Cycles ]
```

Note : Utilising the backslash character '\' within a FooKey, with FooKey_Mode 1 & 2, can obfuscate the true length of the password, and increase the ARG_MAX results. This can be tested via the FooCrypt -u option.

- # Example : Example StdOut : LibreSSL

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt] \
-T 5,512 -v -z /usr/bin/openssl
Note : LibreSSL (OpenSSL) Shipped as part of macOS

```
TEST    :
TEST    : TESTING ARG_MAX  :   512 : /usr/bin/openssl : LibreSSL 2.8.3 : FooCrypt-aes256
TEST    :
FAILED  : Encryption Cycle :     1 : FooCrypt-aes256 : Encrypt_Exit_Code_1 :
VERBOSE : ERROR   : /usr/bin/openssl enc -aes256 -md sha256 -v   -e -in /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/
20230725133534_FooTest_FooCrypt/Tmp_29359/Test_File-aes256-Encrypt.1.b -out /Users/FooCrypt/Library/Caches/
net.Cryptopocalypse.FooCrypt/20230725133534_FooTest_FooCrypt/Tmp_29359/Test_File-aes256-Encrypt.2
VERBOSE : ERROR   : enter aes-256-cbc encryption password:
VERBOSE : ERROR   : bad password read
VERBOSE : ERROR   : 4697263724:error:28FFF064:lib(40):CRYPTO_internal:result too large:/AppleInternal/BuildRoot/Library/Caches/
com.apple.xbs/Sources/libressl/libressl-47.140.3/libressl-2.8/crypto/ui/ui_lib.c:839:You must type in 0 to 511 characters
VERBOSE : ERROR   : Encrypt:Exit_Code_1
VERBOSE : ERROR   : can not find channel named "exp7"
VERBOSE : ERROR   : while executing
VERBOSE : ERROR   : "expect eof"
STATUS  :
STATUS  : Encrypt Run Time : 0.30324387550354 Seconds
STATUS  :
FAILED  :
FAILED  : FAILED ARG_MAX   :   512 : /usr/bin/openssl : LibreSSL 2.8.3 : FooCrypt-aes256
FAILED  : FAILED ARG_MAX   :   512 : OutputFile Not Generated.
FAILED  :
```

- # Example : Example StdOut : OpenSSL

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt] \
-T 5,512 -v -z /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl
Note : OpenSSL compiled via mOpenSSL

```
TEST    :
TEST    : TESTING ARG_MAX  :   512 : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl : OpenSSL 3.1.1 30 May
2023 (Library: OpenSSL 3.1.1 30 May 2023) : FooCrypt-aes256
TEST    :
STATUS  : Encryption Cycle :     1 : FooCrypt-aes256 : Encrypt_Exit_Code_0 : Decrypt_Test_Exit_Code_0
STATUS  : Encryption Cycle :     2 : FooCrypt-aes256 : Encrypt_Exit_Code_0 : Decrypt_Test_Exit_Code_0
STATUS  : Encryption Cycle :     3 : FooCrypt-aes256 : Encrypt_Exit_Code_0 : Decrypt_Test_Exit_Code_0
STATUS  : Encryption Cycle :     4 : FooCrypt-aes256 : Encrypt_Exit_Code_0 : Decrypt_Test_Exit_Code_0
STATUS  : Encryption Cycle :     5 : FooCrypt-aes256 : Encrypt_Exit_Code_0 : Decrypt_Test_Exit_Code_0
STATUS  :
STATUS  : Encrypt Run Time : 1.30832195281982 Seconds
STATUS  :
STATUS  : Decryption Cycle :     1 : FooCrypt-aes256 : Decrypt_Exit_Code_0
STATUS  : Decryption Cycle :     2 : FooCrypt-aes256 : Decrypt_Exit_Code_0
STATUS  : Decryption Cycle :     3 : FooCrypt-aes256 : Decrypt_Exit_Code_0
STATUS  : Decryption Cycle :     4 : FooCrypt-aes256 : Decrypt_Exit_Code_0
STATUS  : Decryption Cycle :     5 : FooCrypt-aes256 : Decrypt_Exit_Code_0
STATUS  :
STATUS  : Decrypt Run Time : 0.913912057876587 Seconds
STATUS  :
PASSED  :
PASSED  : PASSED ARG_MAX   :   512 : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl : OpenSSL 3.1.1 30 May
2023 (Library: OpenSSL 3.1.1 30 May 2023) : FooCrypt-aes256
PASSED  :
```

- # Example : Example StdOut : OpenSSL

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt] \
-T 5,513 -v -z /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl
Note : OpenSSL compiled via mOpenSSL

```
TEST    :
TEST    : TESTING ARG_MAX  :   513 : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl : OpenSSL 3.1.1 30 May
2023 (Library: OpenSSL 3.1.1 30 May 2023) : FooCrypt-aes256
TEST    :
FAILED  : Encryption Cycle :     1 : FooCrypt-aes256 : Encrypt_Exit_Code_1 :
VERBOSE : ERROR   : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl enc -aes256 -md sha256 -v   -e -in /
Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230725134705_FooTest_FooCrypt/Tmp_23061/Test_File-aes256-Encrypt.1.b
-out /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230725134705_FooTest_FooCrypt/Tmp_23061/Test_File-aes256-Encrypt.2
VERBOSE : ERROR   : bufsize=8192
VERBOSE : ERROR   : enter AES-256-CBC encryption password:
VERBOSE : ERROR   : bad password read
VERBOSE : ERROR   : C08D0C1A01000000:error:14000064:UI routines:UI_set_result_ex:result too large:crypto/ui/ui_lib.c:896:You must
type in 0 to 512 characters
VERBOSE : ERROR   : C08D0C1A01000000:error:1400006B:UI routines:UI_process:processing error:crypto/ui/ui_lib.c:548:while reading
strings
VERBOSE : ERROR   : Encrypt:Exit_Code_1
VERBOSE : ERROR   : can not find channel named "exp7"
VERBOSE : ERROR   : while executing
VERBOSE : ERROR   : "expect eof"
STATUS  :
STATUS  : Encrypt Run Time : 0.355663061141968 Seconds
STATUS  :
FAILED  :
FAILED  : FAILED ARG_MAX   :   513 : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl : OpenSSL 3.1.1 30 May
2023 (Library: OpenSSL 3.1.1 30 May 2023) : FooCrypt-aes256
FAILED  : FAILED ARG_MAX   :   513 : OutputFile Not Generated.
FAILED  :
```

3. Validate ARG_MAX

- ARG_MAX is the maximum length of a Password that FooCrypt can automatically pass onto OpenSSL per single cycle of encryption.
  - (See Table Below)

- the only limits via the command line is the constraints of the Operating System that FooCrypt is running on

- [*Quoted FULL PATH To FooCrypt] -t [Start_ARG_MAX],[End_ARG_MAX]

- Disk Image Full Path To FooCrypt CLI

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt]

- Start_ARG_MAX Valid Characters [0-9]
- Start_ARG_MAX = NULL Are Reset To 512
- Start_ARG_MAX < 28 Are Reset To 28
- Start_ARG_MAX > 550 Are Reset To 550
- Start_ARG_MAX >= End_ARG_MAX Are Rest To End_ARG_MAX - 1

- End_ARG_MAX Valid Characters [0-9]
- End_ARG_MAX = NULL Are Reset To 550
- End_ARG_MAX > 550 Are Reset To 550
- End_ARG_MAX > 512 Have Been Previously Tested And Are Known To Fail
- End_ARG_MAX <= Start_ARG_MAX Are Rest To Start_ARG_MAX + 1

- Note :
  LibreSSL : 0 to 511 characters
  OpenSSL : 0 to 512 characters

```
STATUS  : Help :   [ -K | FooKey_Mode ]
STATUS  : Help :           * Default : 4
STATUS  : Help :             * 1 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 2 : 11.0.0+ Treats The Backslash '\' Character, As An Escape Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 3 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 4 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :                   * Where N = Numerical Characters 0 - 9
STATUS  : Help :
STATUS  : Help :   [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :           * Default : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : Help :           * ASCII_Range 32-127 : " !"#$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : Help :                   * Required :
STATUS  : Help :                     [ -t | Test All OpenSSL Ciphers For 1 Cycle To Determine ARG_MAX Length ]
STATUS  : Help :                       or
STATUS  : Help :                     [ -T | Validate All Cyphers For Cycles ]
```

Note : Utilising the backslash character '\' within a FooKey, with FooKey_Mode 1 & 2, can obfuscate the true length of the password, and increase the ARG_MAX results. This can be tested via the FooCrypt -u option.

- **Example : Validation StdOut**

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt] \
-t 511,513 -v -A /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/
Note : OpenSSL compiled via mOpenSSL

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```
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /usr/bin/openssl
TESTING :
TESTING : Found 8 Bin_FooCrypt-OpenSSL Versions
TESTING :
TESTING :
TESTING : Darwin Pro 19.6.0 Darwin Kernel Version 19.6.0: Tue Jun 21 21:18:39 PDT 2022; root:xnu-6153.141.66~1/RELEASE_X86_64 x86_64
TESTING :
TESTING : 1 / 8 : OpenSSL  : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl
TESTING :
```

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```
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 513
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL        : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 513
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL        : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 511
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 121
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 121
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL        : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,512,121,0,121,511,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,512,146,109,37,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 513
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL        : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,512,146,97,49,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 513
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL        : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,512,146,82,64,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 513
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL        : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,512,146,82,64,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 513
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL        : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,4,48-58,511,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
```

```
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 511
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code        : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode      : 4
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 512
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 101
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 101
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /usr/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,4,48-58,512,101,0,101,511,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  :
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,512,121,0,121,511,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,512,146,109,37,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,512,146,97,49,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,512,146,82,64,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,512,146,82,64,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,513,146,0,146,512,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,4,48-58,511,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code,1,4,48-58,512,101,0,101,511,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code
```

- **Example : Validation StdOut**

[/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt] \
-t 511,520 -v -u -K 2 -A /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/
Note : OpenSSL compiled via mOpenSSL

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```
STATUS  : Setting FooKey_Mode      : 2
STATUS  :
STATUS  : Setting Bin_FooCrypt-OpenSSL Versions Located In Absolute PATH to FooCrypt-OpenSSL Directory
STATUS  :
STATUS  : Searching PATH           : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/
STATUS  :
STATUS  : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64//openssl-3.0.8/bin/openssl
STATUS  : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64//openssl-3.0.9/bin/openssl
STATUS  : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64//libressl-3.5.3/bin/openssl
STATUS  : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64//openssl-1.1.1t/bin/openssl
STATUS  : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64//openssl-1.1.1u/bin/openssl
STATUS  : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64//openssl-3.1.1/bin/openssl
STATUS  : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64//openssl-3.1.0/bin/openssl
STATUS  :
STATUS  : Found 7 Bin_FooCrypt-OpenSSL Versions
```

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```
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl
TESTING : Bin_FooCrypt-OpenSSL     : /usr/bin/openssl
TESTING :
TESTING : Found 8 Bin_FooCrypt-OpenSSL Versions
TESTING :
TESTING :
TESTING : Darwin Pro 19.6.0 Darwin Kernel Version 19.6.0: Tue Jun 21 21:18:39 PDT 2022; root:xnu-6153.141.66~1/RELEASE_X86_64 x86_64
TESTING :
TESTING : 1 / 8 : OpenSSL  : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl
TESTING :
```

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```
STATUS  : Exit_Code        : 1
STATUS  : FooKey_Mode      : 2
STATUS  : ASCII_Range      : ASCII_Range 32-127 : " !"#$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : Tested ARG_MAX   : 517
STATUS  : Tested Cyphers   : 101
STATUS  : Passed Cyphers   : 0
STATUS  : Failed Cyphers   : 101
STATUS  :
STATUS  : Openssl          : /usr/bin/openssl
STATUS  : Openssl Version  : LibreSSL 2.8.3
STATUS  :
STATUS  : FooKey_ARG_MAX   :
STATUS  : FooKey_ARG_MAX   : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooKey_ARG_MAX   :
STATUS  : FooKey_ARG_MAX   : FooKey_ARG_MAX  : <= 516
STATUS  : FooKey_ARG_MAX   :
STATUS  : FooKey_ARG_MAX   : Exit_Code       : 1
STATUS  : FooKey_ARG_MAX   : FooKey_Mode     : 2
STATUS  : FooKey_ARG_MAX   : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooKey_ARG_MAX   : Tested ARG_MAX  : 517
STATUS  : FooKey_ARG_MAX   : Tested Cyphers  : 101
STATUS  : FooKey_ARG_MAX   : Passed Cyphers  : 0
STATUS  : FooKey_ARG_MAX   : Failed Cyphers  : 101
STATUS  : FooKey_ARG_MAX   : OpenSSL         : /usr/bin/openssl
STATUS  : FooKey_ARG_MAX   : OpenSSL Version : LibreSSL 2.8.3
STATUS  : FooKey_ARG_MAX   :
STATUS  : FooKey_ARG_MAX   : Exit_Codes      : 1,2,32-127,517,101,0,101,516,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooKey_ARG_MAX   :
STATUS  :
STATUS  :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,517,146,94,52,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 518
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
```

```
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/
openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,517,146,94,52,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 518
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/
openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/
openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/
openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/
openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/
openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/
openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/
openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 516
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 121
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 121
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,517,121,0,121,516,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/
openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,517,146,106,40,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 518
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/
openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,517,146,102,44,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 518
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/
openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
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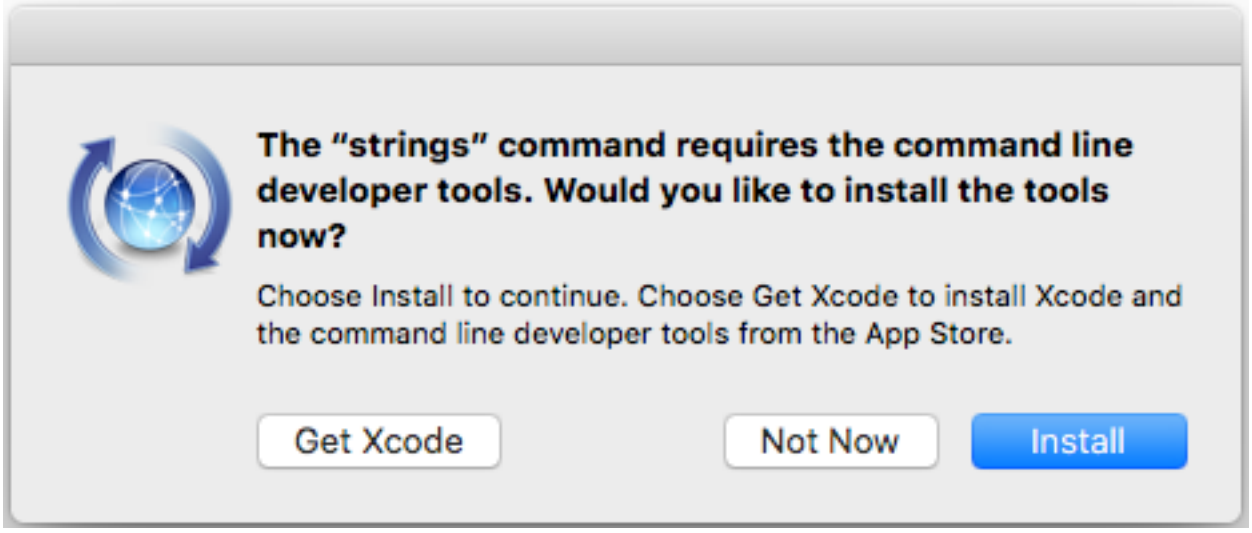
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,517,146,84,62,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 518
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/
openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,517,146,84,62,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 518
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 146
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/
openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,511,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,512,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,513,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,514,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,515,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 0,2,32-127,516,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Testing Has Confirmed A FooKey_ARG_MAX Setting Of :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_ARG_MAX  : <= 516
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Code       : 1
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : FooKey_Mode     : 2
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : ASCII_Range     : ASCII_Range 32-127 : " !"#$%&'()*+,-./0123456789:;<=>?
@ABCDEFGHIJKLMNOPQRSTUVWXYZ[]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested ARG_MAX  : 517
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Tested Cyphers  : 101
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Failed Cyphers  : 101
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL         : /usr/bin/openssl
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : OpenSSL Version : LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX : Exit_Codes      : 1,2,32-127,517,101,0,101,516,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code, Validate, FooCrypt FooKey_ARG_MAX :
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  :
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,517,146,94,52,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.8/bin/openssl,OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,517,146,94,52,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.9/bin/openssl,OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,121,106,15,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,517,121,0,121,516,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/libressl-3.5.3/bin/openssl,LibreSSL 3.5.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,517,146,106,40,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1t/bin/openssl,OpenSSL 1.1.1t  7 Feb 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,146,135,11,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,517,146,102,44,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1u/bin/openssl,OpenSSL 1.1.1u  30 May 2023
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,517,146,84,62,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.1/bin/openssl,OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May
2023)
```

```
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,146,95,51,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,517,146,84,62,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,518,146,0,146,517,/Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.0/bin/openssl,OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar
2023)
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,511,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,512,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,513,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,514,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,515,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code,0,2,32-127,516,101,92,9,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code,1,2,32-127,517,101,0,101,516,/usr/bin/openssl,LibreSSL 2.8.3
STATUS  : FooCypt_Test_Summary_Exit_Code
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230726120024_FooTest_FooCrypt
STATUS  :
STATUS  : FooCrypt_RunTime         : 5860 Seconds
STATUS  : FooCrypt_RunTime         : 0 Days, 1 Hour, 37 Minutes, 40 Seconds
STATUS  :
STATUS  : FooCrypt_Exit_Code_0
STATUS  :
```

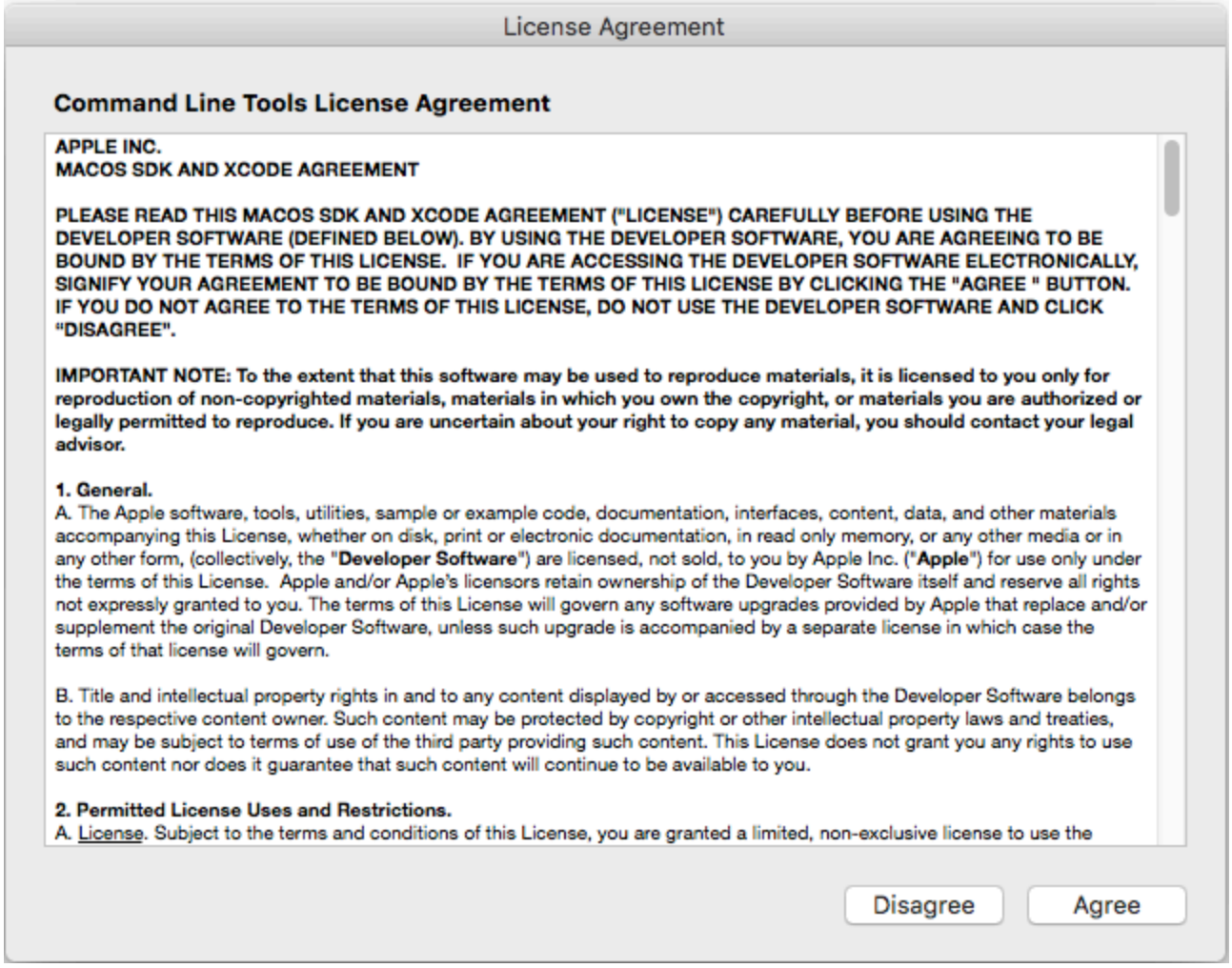
- **Missing Files**
  - **Darwin**
    - (See Graphics Below)
    - FooCrypt requires the installation of the strings command which is included in the XCODE Command Line Developer Tools.
    - You will be prompted to install the Tools via a popup once macOS detects that you are trying the run the CLI strings command.
    - Select Install to install the XCODE Developer Tools
    - XCODE is not required for FooCrypt to run on macOS.

    - **NOTE**
      - You Do Not Need To Select 'Get Xcode'

    - **Graphic : Install XCODE Developer Tools**



- **Graphic : Command Line Tools License Agreement**



License Agreement

Command Line Tools License Agreement

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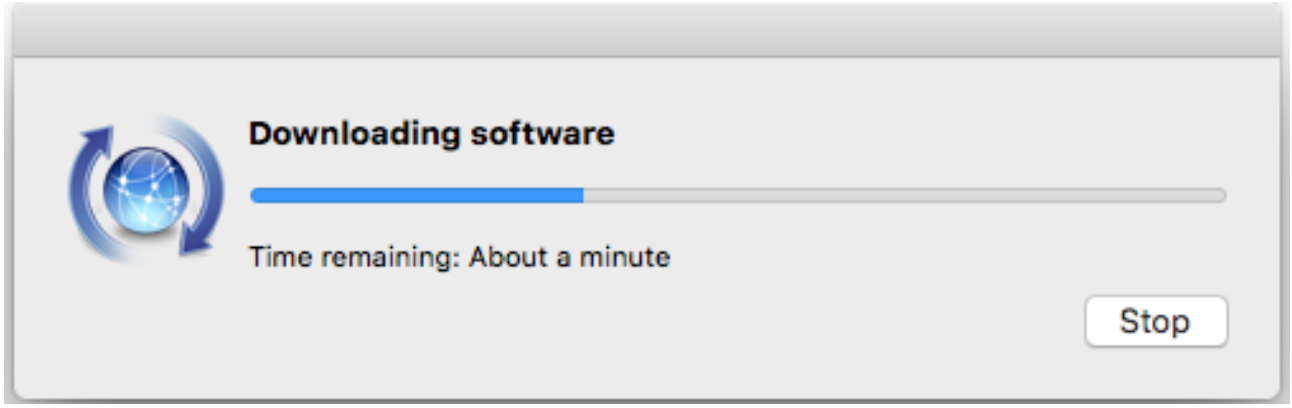
A. License. Subject to the terms and conditions of this License, you are granted a limited, non-exclusive license to use the

Disagree Agree

- **Graphic : Downloading Software**



Downloading software

Time remaining: About a minute

Stop

- **Linux**
  - FooCrypt requires the following DEBIAN packages and their dependancies to be installed.
  - You can install these requirements via the following command in a terminal

    - sudo apt install ksh expect tcl tk binutils gzip unzip
      - { enter your password when prompted }

    - sudo apt install firefox evince
      - { enter your password when prompted }
      - *firefox is required for viewing HTML [Online] & PDF Documentation From The FooCrypt Help Menu.
      - *evince is the standard Ubuntu PDF viewer for viewing the PDF Documentation From The Filesystem.
      - `[ /opt/FooCrypt/Scripts/Data/pdf/FooCrypt.X.Y.Z.Core.Linux.pdf ]`

- **Linux Live**
  - All files are included in the ISO

- **SunOS**
  - Not currently covered by this document

- **Windows Subsystem for Linux**
  - FooCrypt requires the following DEBIAN packages and their dependancies to be installed.
  - You can install these requirements via the following command in a terminal

    - sudo apt install ksh expect tcl tk binutils gzip unzip
      - { enter your password when prompted }

    - sudo apt install firefox evince
      - { enter your password when prompted }
      - *firefox is required for viewing HTML [Online] & PDF Documentation From The FooCrypt Help Menu.
      - *evince is the standard Ubuntu PDF viewer for viewing the PDF Documentation From The Filesystem.
      - `[ /opt/FooCrypt/Scripts/Data/pdf/FooCrypt.X.Y.Z.Core.Linux.pdf ]`

- **Create a symbolic link for powershell.exe in /usr/bin**

  - `sudo ln -s [ FULL PATH TO YOUR powershell.exe ] /usr/bin/powershell.exe`
    - ie:
    - `sudo ln -s /mnt/c/Windows/System32/WindowsPowerShell/v1.0/powershell.exe /usr/bin/powershell.exe`

- **Viewing Validated Cyphers**

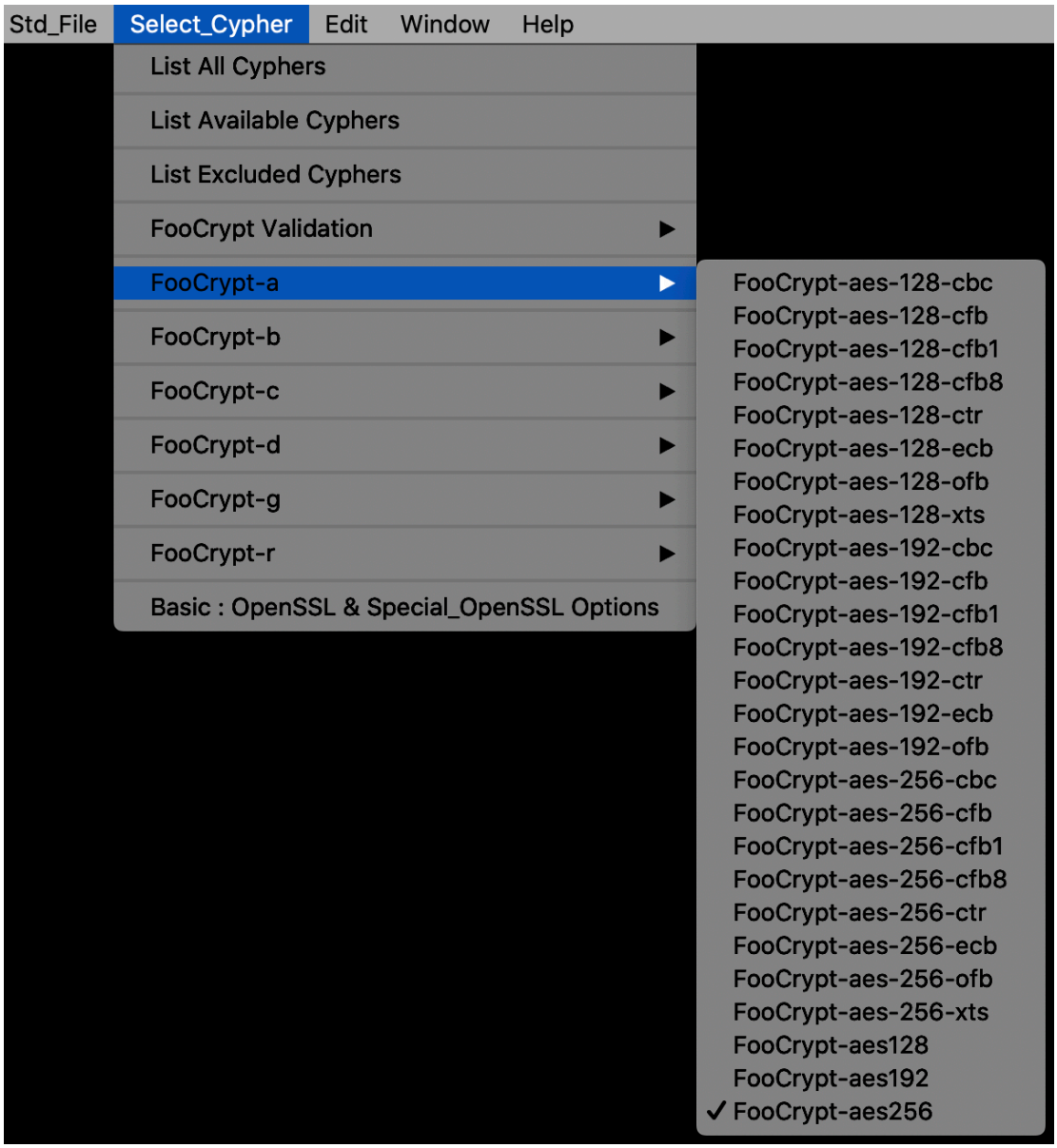
  - **GUI**
    - Menu Select -> Select_Cypher
    - (See Graphic Below)

    - Validated Cyphers are stored in a cascading menu groups prefixed by FooCrypt-[The First Character of the Cypher]

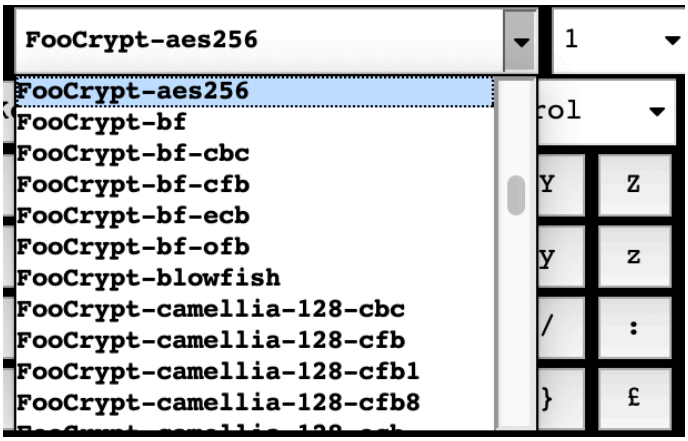
    - Preferences -> Default Cypher DDB
    - (See Graphic Below)

  - **Graphic : Menu Select -> Select_Cypher -> FooCrypt-a**

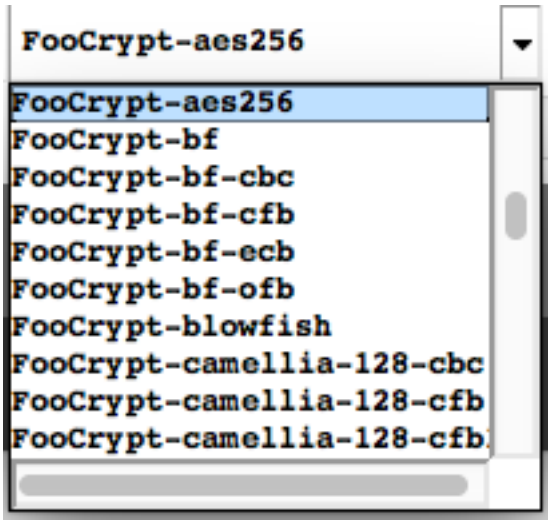
FooCrypt.11.0..0.Core.Darwin Validated OpenSSL (LibreSSL 2.8.3) Cyphers



- **Graphic : FooKeyBoard Select Cypher**



- **Graphic : Preferences Default Cypher**



- **CLI**
  - [Full Path To FooCrypt]/FooCrypt -H All
  - [Full Path To FooCrypt]/FooCrypt -H Available
  - [Full Path To FooCrypt]/FooCrypt -H Excluded

- **Example : Command Line StdOut After Validation**

/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt -H Excluded

```
STATUS  : Default Preferences      : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 2.8.3
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.46.dylib (compatibility version 47.0.0, current version 47.1.0)
STATUS  :        /usr/lib/libcrypto.44.dylib (compatibility version 45.0.0, current version 45.1.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility
version 1.0.0, current version 33.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1281.100.1)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers         : aes-128-cbc-hmac-sha1$|aes-128-gcm$|aes-192-gcm$|aes-256-cbc-hmac-sha1$|aes-256-gcm$|des-ede3-
cfb1$|id-aes128-GCM$|id-aes192-GCM$|id-aes256-GCM$
STATUS  :
STATUS  : Help :
STATUS  : Help :                 SUPPORTED CIPHERS
STATUS  : Help :                         Note that some of these ciphers can be disabled at compile
STATUS  : Help :                         time and some are available only if an appropriate engine is
STATUS  : Help :                         configured in the configuration file. The output of the enc
STATUS  : Help :                         command run with unsupported options (for example openssl
STATUS  : Help :                         enc -help) includes a list of ciphers, supported by your
STATUS  : Help :                         version of OpenSSL, including ones provided by configured
STATUS  : Help :                         engines.
STATUS  : Help :
STATUS  : Help :                         The enc program does not support authenticated encryption
STATUS  : Help :                         modes like CCM and GCM. The utility does not store or
STATUS  : Help :                         retrieve the authentication tag.
STATUS  : Help :
STATUS  : Help :                       Excluded  : Compile time CIPHERS on this system include :
STATUS  : Help :                       Excluded  : FooCrypt-aes-128-cbc-hmac-sha1
STATUS  : Help :                       Excluded  : FooCrypt-aes-128-gcm
STATUS  : Help :                       Excluded  : FooCrypt-aes-192-gcm
STATUS  : Help :                       Excluded  : FooCrypt-aes-256-cbc-hmac-sha1
STATUS  : Help :                       Excluded  : FooCrypt-aes-256-gcm
STATUS  : Help :                       Excluded  : FooCrypt-des-ede3-cfb1
STATUS  : Help :                       Excluded  : FooCrypt-id-aes128-GCM
STATUS  : Help :                       Excluded  : FooCrypt-id-aes192-GCM
STATUS  : Help :                       Excluded  : FooCrypt-id-aes256-GCM
STATUS  :
STATUS  : Removing Temp Directory  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230707220003_FooTest_FooCrypt
STATUS  :
STATUS  : FooCrypt_RunTime         : 2 Seconds
STATUS  : FooCrypt_RunTime         : 0 Days, 0 Hours, 0 Minutes, 2 Seconds
STATUS  :
STATUS  : FooCrypt_Exit_Code_0
```

- **Validation Results**
  - FooCrypt Is Able To Utilise All OpenSSL / LibreSSL Cyphers on Darwin, Linux, Solaris, directly via the GUI or CLI with or without Special Options.
  - (See FooCrypt -h for further details on Special Options)
- **Validation Testing Results : Online**
  - (See Online Results For Up To Date Testing and Validation Logs)

Licensing Keys

- FooCrypt requires 2 files to be generated based on the hardware serial number of the physical hardware you are running 'FooCrypt, A Tale Of Cynical Cyclical Encryption.' on.

- The 2 license files will be generated and supplied to the email address that was register during the purchasing process in accordance with the Licensing Agreements EULA, Software and Associated Models.

- Upon receipt of the 2 license files from our licensing generation server, they are to be placed in the **[FooHome]** default directory which is available via the 'Preferences' window.

- Using a text editor or vi or ed or vim or emacs, etc from within a shell process, simply copy the data from the email into each file and save the file.

- **Default [FooHome] Directory**

  - **macOS**
    - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt
  - **Linux**
    - [Users Home Directory]/FooCrypt
  - **Solaris**
    - [Users Home Directory]/FooCrypt

  - **[FooHome]/.FooCrypt.Key**
  - **[FooHome]/.FooCrypt.Lic**
  - **[FooHome]/.FooCrypt.Usb**
    - [Linux Version Only For Licensing Via A Common USB Dongle (Serial Number Of A USB Disk You Purchase and Supply)]

- Once the license files have been created, simply [re]start FooCrypt, to ensure that the license files validation completes without any errors.

- License Files are verified upon each time you run either FooCrypt from the FooCrypt.app or via running FooCrypt via the Command Line.

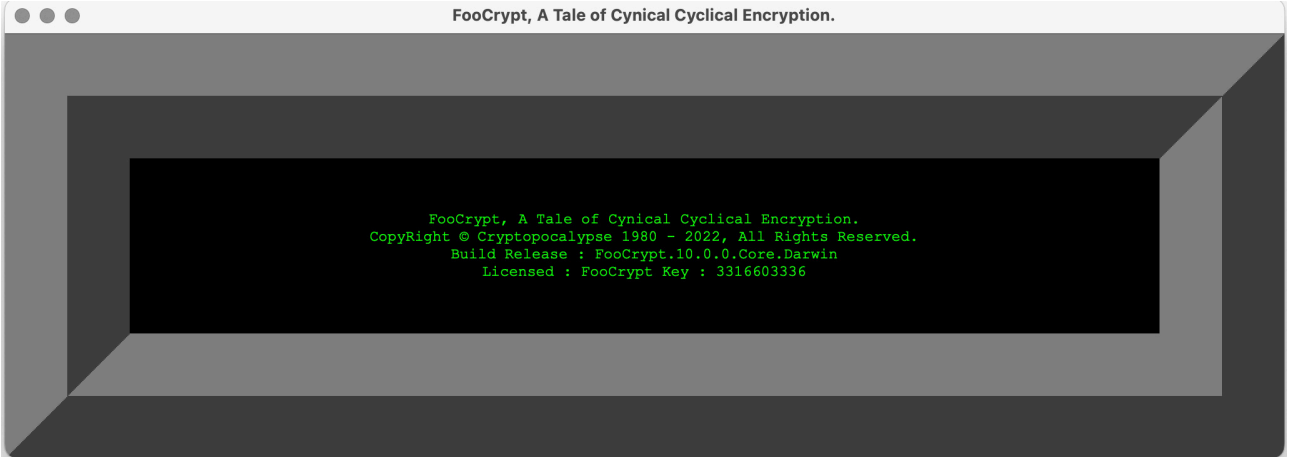
- The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

  [-n | New FooHome Directory]

- ## Command Line Example : License Validation

```
STATUS  : Passed FooCrypt Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 7804266226
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1/viN/VLINnJ0UhW82G3NMrhywbdqzB8jIDX1RsN7zKz4RlC48JL3Yy
STATUS  : NXuu+TeHcI92uEpIFRLdFQPcXjpuYLGi1GVydMwDqvQ0xGewt6WSSWTJtLVX+2qB
STATUS  : SI+Ix7m1OdsWPJaVEjBAH7ZLOgkBOZL86KzaAXwVGUKObGaXQ+REi3DnYNd93ree
STATUS  : xsFP8v/yPfiiA7tVWkSqIg==
STATUS  :
STATUS  :
STATUS  : System_Serial=VMtT27qq/VLw
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.X.Y.Z.Core.Darwin
STATUS  : CopyRight © Cryptopocalypse 1980 - 2022, All Rights Reserved.
STATUS  : License Verified
STATUS  :
```

- ## Graphic : Validated License



• Command Line Example : Failed License Validation

```
STATUS  : Passed FooCrypt Initialisation Integrity Check 1
ERROR   :
ERROR   : FooCrypt, A Tale of Cynical Cyclical Encryption.
ERROR   :
ERROR   : FooCrypt.X.Y.Z.Core.Darwin
ERROR   :
ERROR   : CopyRight © Cryptopocalypse 1980 - 2022, All Rights Reserved.
ERROR   :
ERROR   : License NOT Verified
ERROR   :
ERROR   : FooCrypt.X.Y.Z.Core.Darwin, Is Not Currently Licensed.
ERROR   :
ERROR   : FooCrypt.X.Y.Z.Core.Darwin, Demonstration Expiration Date : 00000000000000
ERROR   :
ERROR   : Please contact licensing support for an updated version.
ERROR   :
ERROR   : support@FooCrypt.XYZ
ERROR   :
ERROR   : Quoting your registered email address and system serial number.
ERROR   :
ERROR   : or
ERROR   :
ERROR   : Vist http://FooCrypt.XYZ
ERROR   :
ERROR   : FooCrypt, A Tale of Cynical Cyclical Encryption.
ERROR   :
ERROR   : FooCrypt.X.Y.Z.Core.Darwin
ERROR   :
ERROR   : CopyRight © Cryptopocalypse 1980 - 2022, All Rights Reserved.
ERROR   :
ERROR   :
ERROR   : FooCrypt.Key File Not Located
ERROR   :
ERROR   : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
ERROR   :
ERROR   :
ERROR   : FooCrypt, A Tale of Cynical Cyclical Encryption.
ERROR   :
ERROR   : FooCrypt.X.Y.Z.Core.Darwin, Is Not Currently Licensed.
ERROR   :
ERROR   : FooCrypt.X.Y.Z.Core.Darwin, Demonstration Expiration Date : 00000000000000
ERROR   :
ERROR   : Please contact sales for an updated version.
ERROR   :
ERROR   : sales@FooCrypt.XYZ
ERROR   :
ERROR   : Quoting your registered email address and license key.
ERROR   :
ERROR   : or
ERROR   :
ERROR   : Vist http://FooCrypt.XYZ
ERROR   :
ERROR   : FooCrypt, A Tale of Cynical Cyclical Encryption.
ERROR   :
ERROR   : CopyRight © Cryptopocalypse 1980 - 2022, All Rights Reserved.
ERROR   :
ERROR   : 101
STATUS  :
STATUS  : FooCrypt_RunTime       : 0 Seconds
STATUS  : FooCrypt_RunTime       : 0 Days, 0 Hours, 0 Minutes, 0 Seconds
STATUS  :
ERROR   :
ERROR   : FooCrypt_Exit_Code_101
ERROR   :
```

Note :

All binaries within the FooCrypt, A Tale of Cynical Cyclical Encryption ToolKit, will fail with the above standard out (StdOut) message if a valid license is not located and processed.

Supported Operating Systems

- **Darwin**
- **Linux**
- **Live Linux**
- **SunOS**
- **Windows**

Installation

- **Darwin**

  - **Standard Install**

    - FooCrypt has been engineered so that it can be stored and executed from any location / media.

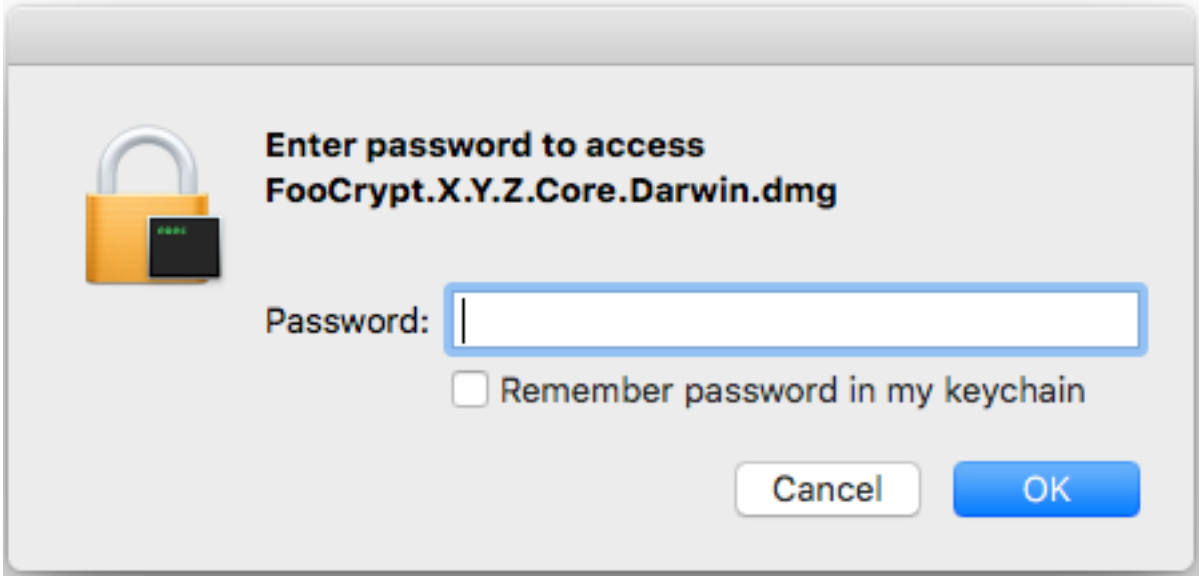
    For Example :

    - For An Advanced Installation of FooCrypt, A Tale Of Cynical Cyclical Encryption.

    1. **Open the downloaded disk image**
       - (See Graphic Below)
       - ‘`FooCrypt.X.Y.Z.Core.Darwin.dmg`‘

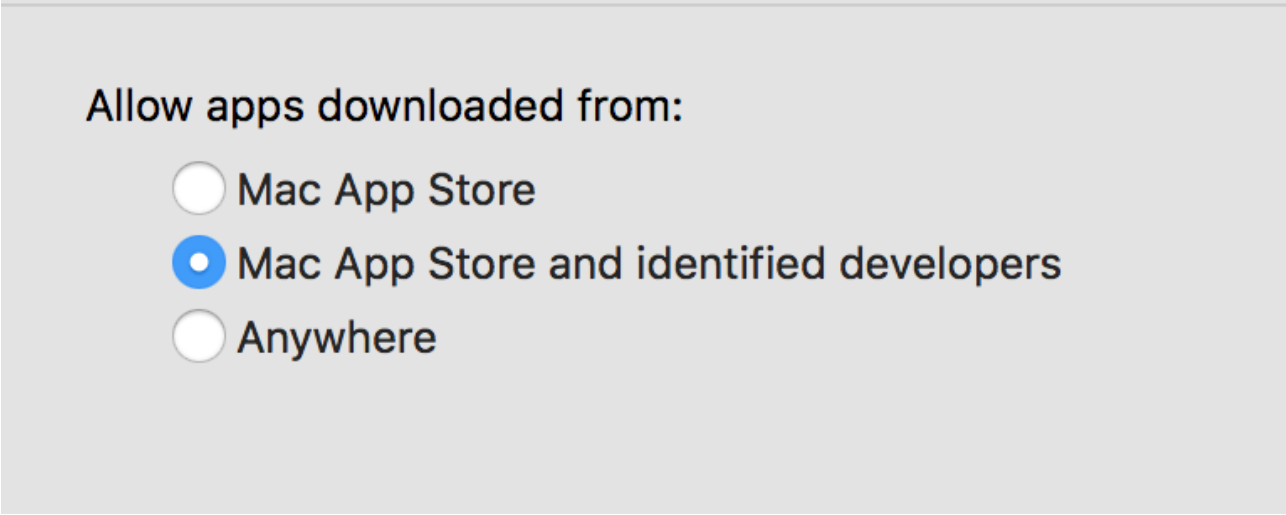
       - **Graphic : Open FooCrypt Disk Image**

    2. **Enter the password for the disk image.**
       - (See Graphic Below)
       - **Graphic : Disk Image Password**



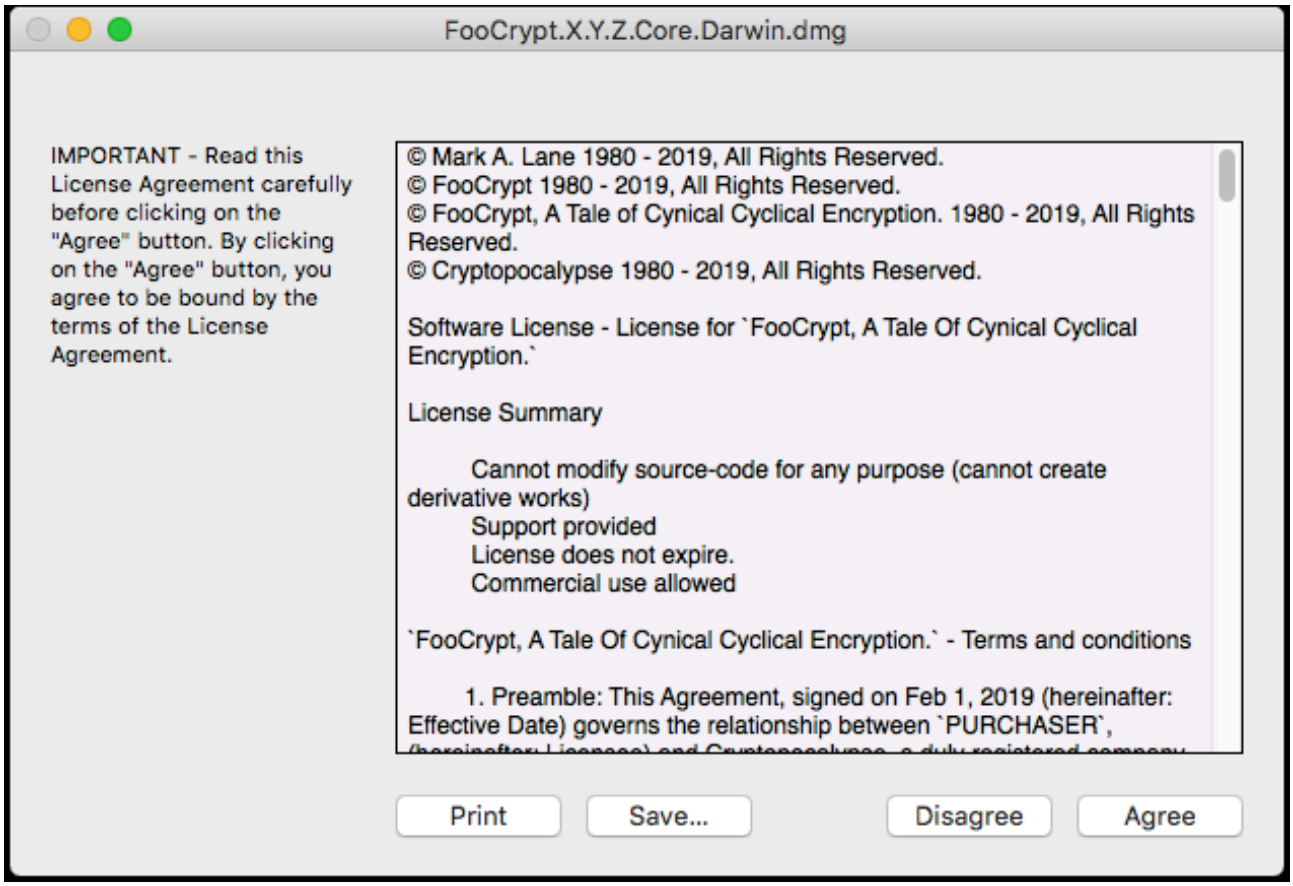
3. Modify ‘Security and Privacy’ Settings.

- (See Graphic Below)
- You may need to modify your security settings to allow FooCrypt to run as an identified developer application via ‘Security and Privacy’ Settings in the ‘Systems Preferences’ of your macOS installation.



4. Read and AGREE to the Licensing Terms and Conditions.

- (See Graphic Below)
- **Graphic : License Terms and Conditions**



5. Your preferred method of installing an Application

- (See Graphic Below)

- Once the disk image has been opened successfully by entering the correct password, all you have to do is open FooCrypt.app via your preferred method of installing an Application to any location you desire.

- Once you open the disk image file (DMG) the FooCrypt.X.Y.Z.Core.Darwin is mounted as a read only filesystem accessible via the following absolute PATH

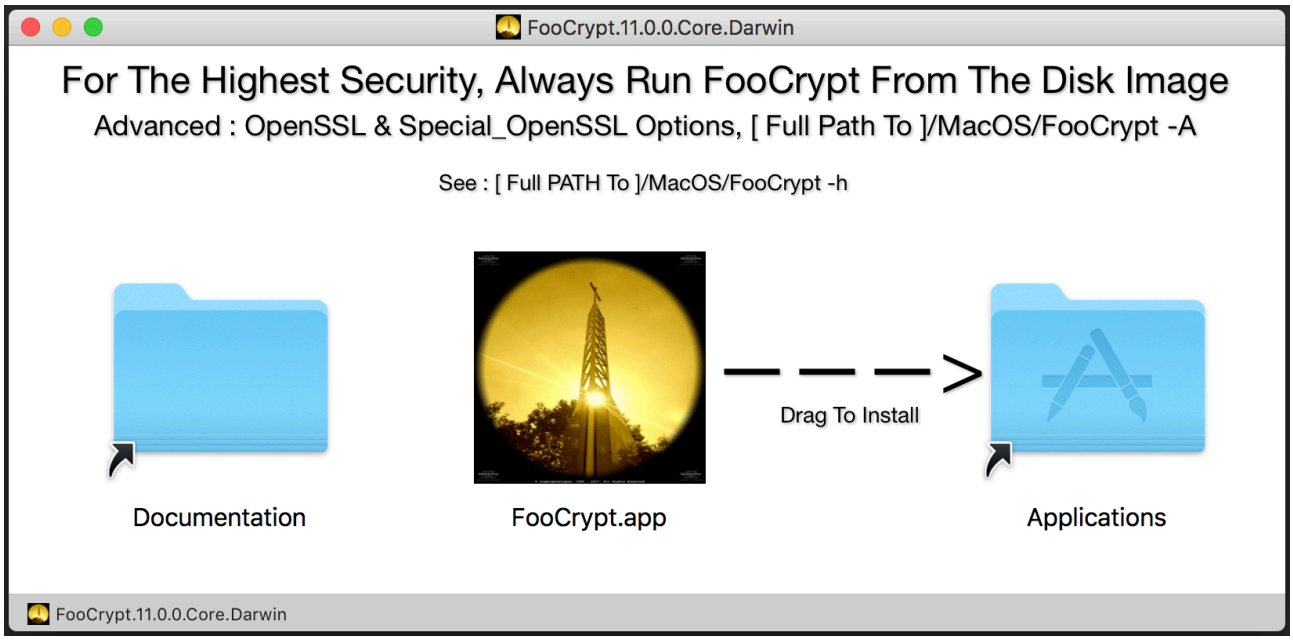
- **`/Volumes/FooCrypt.X.Y.Z.Core.Darwin`**

- **Graphic : `df -h | grep FooCrypt`**

```
-> df -h | grep FooCrypt
/dev/disk2s2                 117Mi   96Mi   21Mi    83%    2021         4294965258    0%   /Volumes/FooCrypt.X.Y.Z.Core.Darwin
->
```

6. `/Volumes/FooCrypt.X.Y.Z.Core.Darwin` Contents

- **FooCrypt Documentation in PDF Format**
  - `/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.X.Y.Z.Core.pdf`
- **License Directory**
  - `/Volumes/FooCrypt.X.Y.Z.Core.Darwin/License`
- **FooCrypt.app**
  - `/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app`
- **Graphic : `/Volumes/FooCrypt.X.Y.Z.Core.Darwin`**

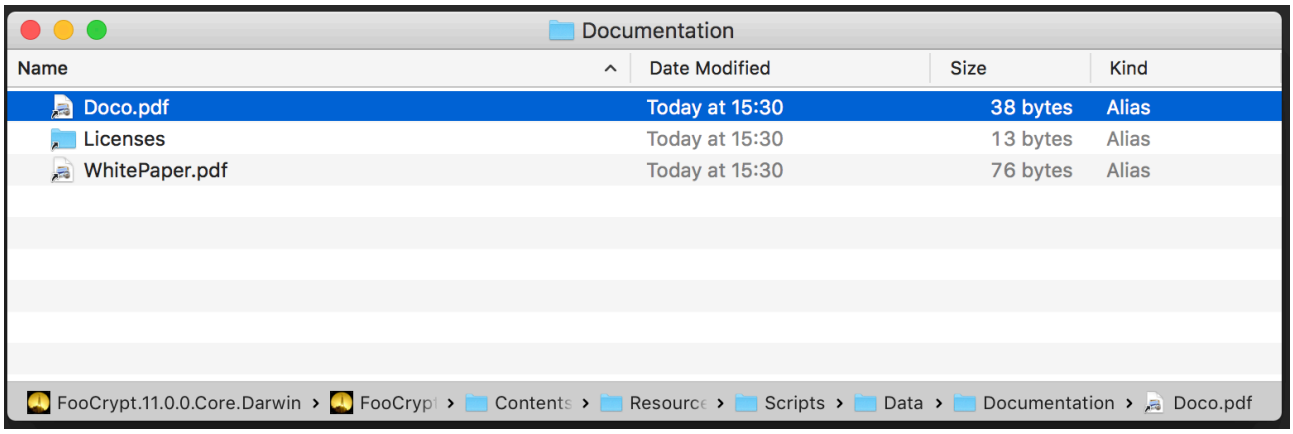


7. Documentation & License Directory Contents

- (See Graphic Below)
- The Documentation Folder Directory Contains the Following Files
- **Documentation**

```
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation//Doco.pdf -> ../pdf/FooCrypt.11.0.0.Core.Darwin.pdf
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation//Licenses -> ../../License
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation//WhitePaper.pdf -> ../pdf/FooCrypt.11.0.0.Core.Darwin_Cryptography_Steganography_WhitePaper.pdf
```

- **Graphic : Documentation Directory Contents**

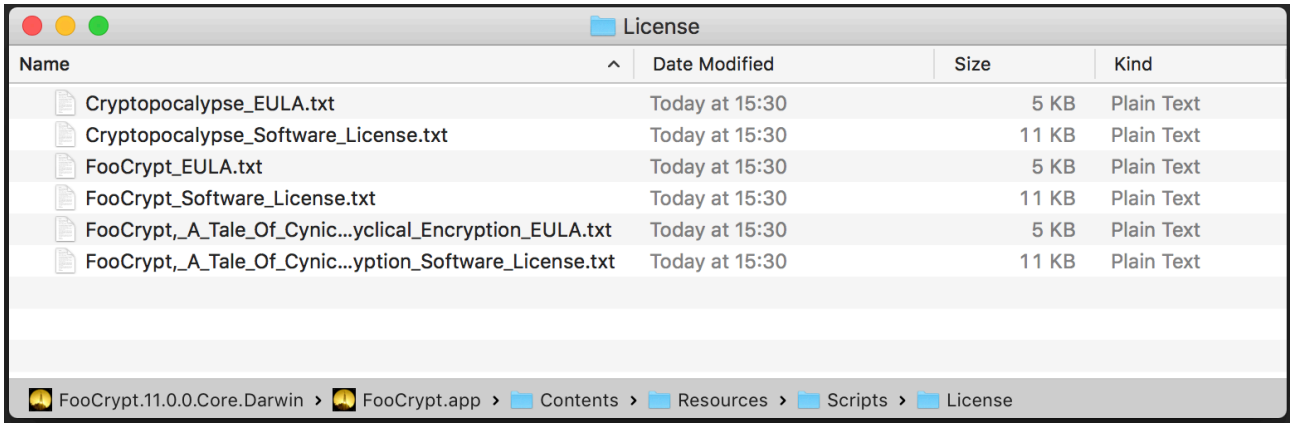


8. License Directory Contents

- (See Graphic Below)
- The Licenses Folder Directory Contains the Following Files
- **License Agreements**

```
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/Licenses/
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/Licenses//Cryptopocalypse_EULA.txt
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/Licenses//Cryptopocalypse_Software_License.txt
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/Licenses//FooCrypt,_A_Tale_Of_Cynical_Cyclical_Encryption_EULA.txt
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/Licenses//FooCrypt,_A_Tale_Of_Cynical_Cyclical_Encryption_Software_License.txt
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/Licenses//FooCrypt_EULA.txt
/Volumes/FooCrypt.11.0.0.Core.Darwin/Documentation/Licenses//FooCrypt_Software_License.txt
```

- **Graphic : License Directory Contents**



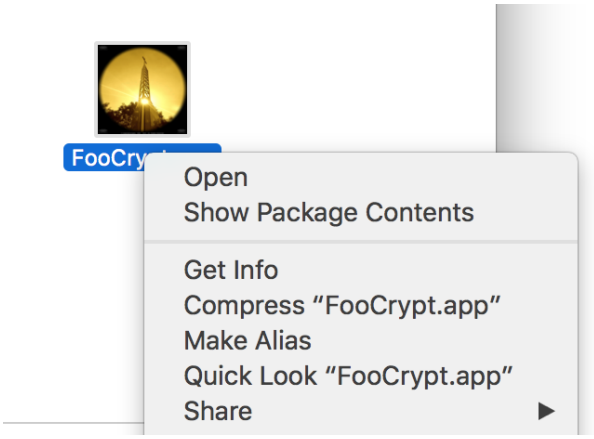
9. Opening the FooCrypt.app

- (See Graphic Below)
- Secondary click the FooCrypt.app to expose the Finder options
- Select Open to start FooCrypt directly from the disk image

- Double click the FooCrypt.app to start FooCrypt

- Drag and Drop the FooCrypt.app to your location of choice
- Double click the FooCrypt.app to start FooCrypt

- **Graphic : Opening the FooCrypt.app**



10. 32 BIT Binaries Detected Exemption.

- **FooCrypt.app is now completely 64 bit from FooCrypt.3.0.3.Core.Darwin Onwards**

```
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/MacOS/FooCrypt: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/CLI_Test: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Decrypt_FooKey: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCheck: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt-GUI-Data-1: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt-GUI-Data-2: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooSteg: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Matrix_Test: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libjpegtcl9.2.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libpngtcl1.6.28.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtifftcl3.9.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimg1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgbmp1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgdted1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimggif1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgico1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgjpeg1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgpcx1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgpixmap1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgpng1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgppm1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgps1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgraw1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgsgi1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgsun1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgtga1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgtiff1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgwindow1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgxbm1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libtkimgxpm1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/libzlibtcl1.2.11.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Wish.app/Contents/Frameworks/Tcl.framework/Versions/8.6/Resources/Scripts/expect5.45.4/libexpect5.45.4.dylib: Mach-O
64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Wish.app/Contents/Frameworks/Tcl.framework/Versions/8.6/Tcl: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Wish.app/Contents/Frameworks/Tk.framework/Versions/8.6/Tk: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Wish.app/Contents/MacOS/Wish: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/mOpenSSL: Mach-O 64-bit executable x86_64
```

Previous 32 bit FooCrypt.app References Below

- (See Graphic Below)
- FooCrypt.app is distributed with a 32 bit TCL/TK macOS application contained within the One binary contained within the /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets directory

- The TCL/TK StarKit FooCrypt.app is used by FooCrypt as the DEFAULT Bin Wish selection of FooCrypt-StarKit using a 32 BIT version of TCL/TK 8.5.1

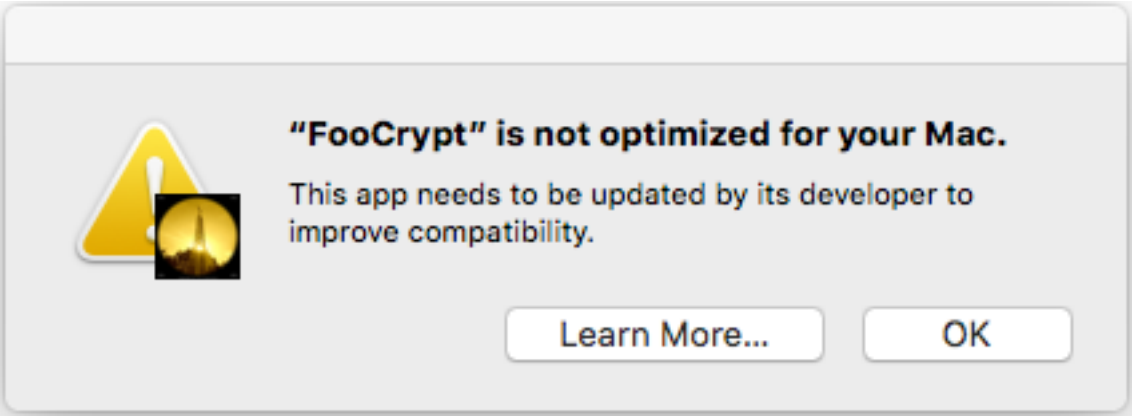
- See https://support.apple.com/en-au/HT208436

Your can determine whether a binary is 32 or 64 BITs by running the following command in a Terminal

- find /Volumes/FooCrypt.X.Y.Z.Core.Darwin -type f -exec file -p {} \; -exec head -c 1 /dev/zero \; \
  | xargs -0 -n 1 sh -c 'echo "$@" \
  | head -n 1' -- \
  | grep Mach-O

```
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/MacOS/FooCrypt: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt: Mach-O 64-bit executable x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/FooCrypt.app/Contents/MacOS/FooCrypt: Mach-O executable i386
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libjpegtcl9.2.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libpngtcl1.6.28.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtifftcl3.9.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimg1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgbmp1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgdted1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimggif1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgico1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgjpeg1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgpcx1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgpixmap1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgpng1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgppm1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgps1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgraw1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgsgi1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgsun1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgtga1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
/Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/Img-1.4.7/lib/Img1.4.7/libtkimgtiff1.4.7.dylib: Mach-O 64-bit dynamically linked shared library x86_64
```

- FooCrypt will be distributed with a default 64 BIT compliant TCL/TK StarKit well before Apple removes complete support for 32 BIT binaries.
- Select OK or Lean More regarding macOS 32 and 64 BIT support.
- **Graphic : 32 BIT Binary Detection**



10. Simply drag and drop, the FooCrypt.app

- Simply drag and drop, the FooCrypt.app Application Bundle to the location you desire.

For Example :

- **`/Applications`**
  - [For all users of your computer to have access to FooCrypt, A Tale Of Cynical Cyclical Encryption.]

- **`[ Your Home Directory ]/Applications`**
  - [For Just you to access to FooCrypt, A Tale Of Cynical Cyclical Encryption.]

- **`[ Any Absolute PATH NAME ]`**
  - [For Just you to access to FooCrypt, A Tale Of Cynical Cyclical Encryption.]

Such as :

2. An External Disk Drive

3. A Network Attached Storage Device

NOTE : Exemptions

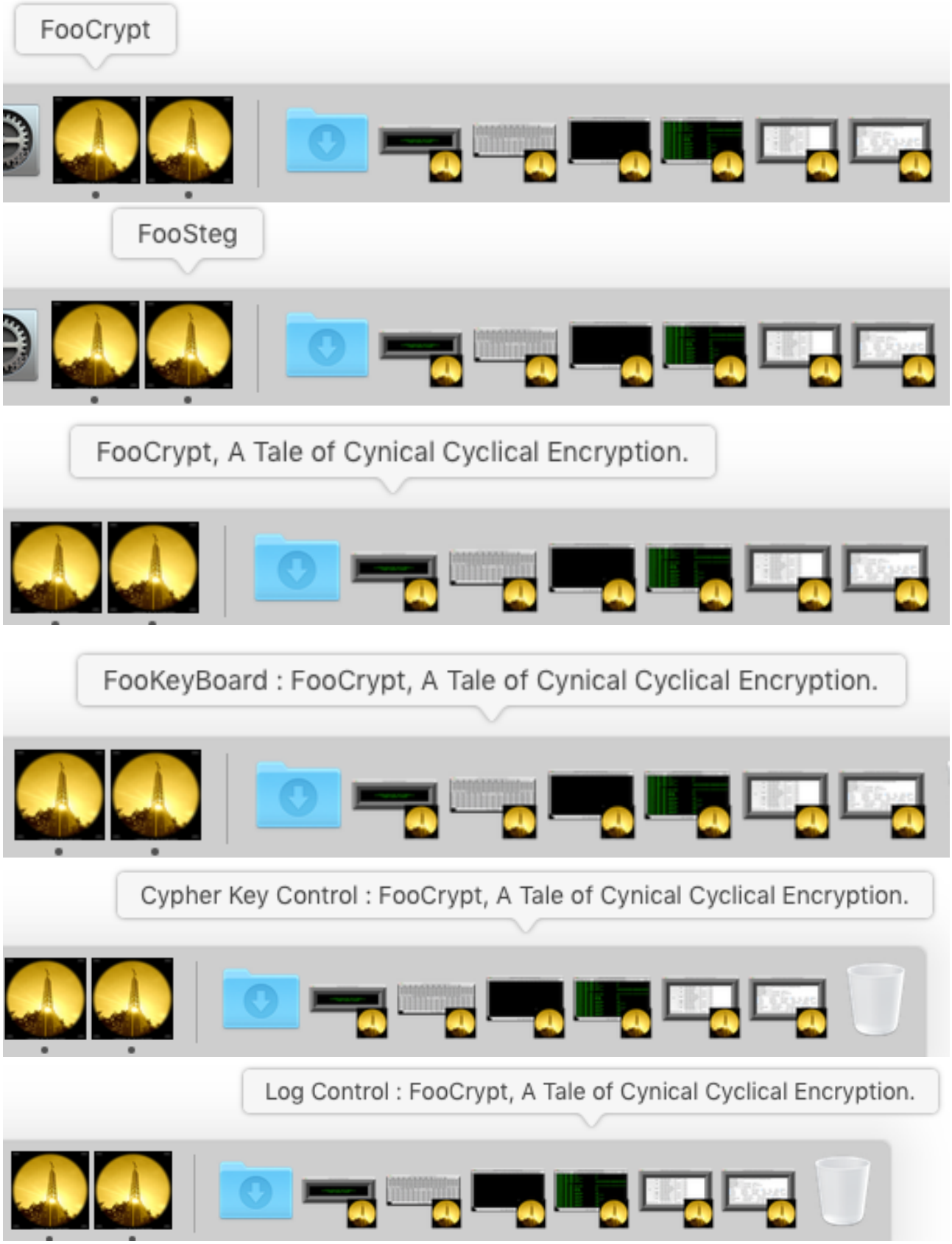
- There are some exemptions to the 'ABSOLUTE PATH NAME' which must be adhered to for FooCrypt to function appropriately.

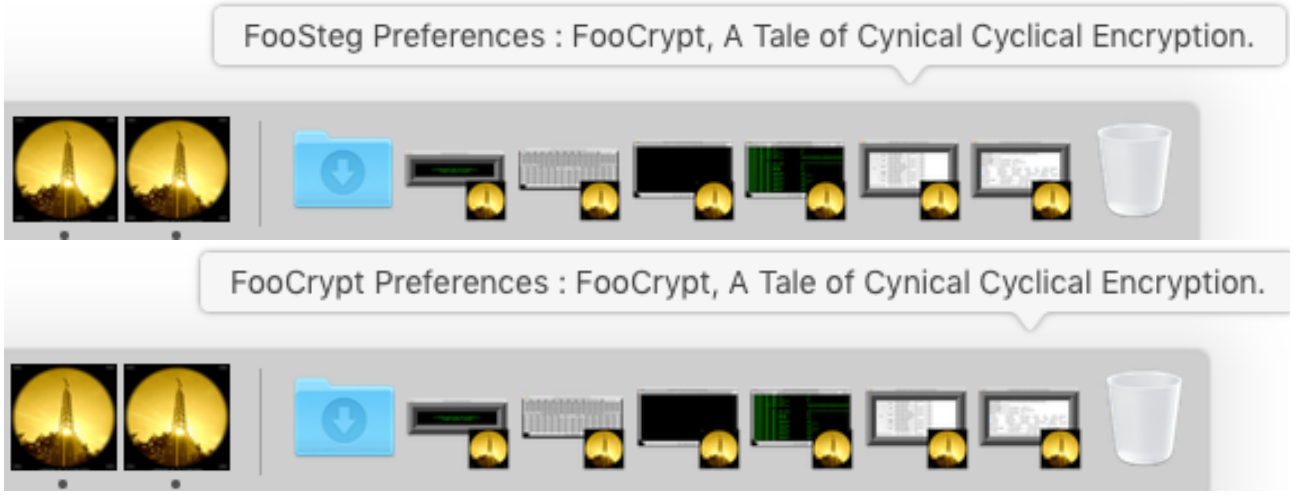
- See 'FROM ANYWHERE BUT' for further details.

- Then simply open the FooCrypt Application Bundle via your preferred method.

11. FooCrypt, in your DOCK

- FooCrypt, will then run and display as an icon in your 'DOCK'
- (See Graphics Below)





- The FooCrypt DOCK icon is used to perform window selection of all windows which have not been hidden.
- (See Graphic Below)

- **Graphic : FooCrypt, in your DOCK Window Selection**

12. Storage locations

- FooCrypt, A Tale Of Cynical Cyclical Encryption utilises temporary filesystem storage for it usage.

- By DEFAULT, the ABSOLUTE PATH NAME of the storage location is :

```
[ USER HOME DIRECTORY ]/Library/Caches/net.Cryptopocalypse.FooCrypt
```

Which Contains :

- **.FooKey**
  - [DEFAULT FooKey Location Containing DEMONSTRATION FooKey's]

- **.FooCrypt**
  - Contains
  - [FooCrypt Startup Preferences]

  - OpenSSL:[FULL PATH To Default OpenSSL Binary]
    Note:
    The OpenSSL Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-q | Absolute PATH to OpenSSL]

  - Expect:[FULL PATH To Default Expect Binary]
    Note:
    The Expect Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-E | Full PATH Of Expect Version To Use]

  - Wish:[Wish-Type]:[Full PATH To Default Wish Binary]
    - [Wish-Type]
      - FooCrypt-StarKit
      - FooCrypt-User
        - FooCrypt-User Is Only Available For X11 Windowing Systems
    Note:
    The Wish Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt MacOS Binary] \
      [-W | Full PATH Of Wish Version To Use]
      - Only Available For X11 Windowing Systems

  - ExcludedCyphers:[FULL PATH To Tested OpenSSL Binary]:[Excluded Cyphers List]
    Note:
    Each Tested OpenSSL Binary Will Have An Entry

- **.FooCrypt_Preferences**
  - [FooCrypt User Preferences]
  - All Configuration Settings From The Preferences Window
  - Created With Default Settings If The File Does Not Exist
  - Encrypted With The 'FooKey_Password' Defined In The Preferences Window Using The 'DEFAULT CYPHER' Defined In The Preferences Window And Stored As A 'base64 encoded' File
  - Total File Size Is Constrained By ARG_MAX
  - Can Contain Multiple Groups Of Preferences Settings

  - Updated Via
    - Menu Select -> FooCrypt -> Preferences -> Save

  - Loaded Via
    - Menu Select -> FooCrypt -> Preferences -> Load

  - Imported From Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Import

  - Exported To Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Export

- **.FooCrypt.Key**
  - [FooCrypt Licensing File]

- **.FooCrypt.Lic**
  - [FooCrypt Licensing File]

- **[YYYYMMDDHHMMSS]_[HOSTNAME]_FooCrypt**
  - [Temporary and Log File Directory created upon each invocation of FooCrypt.]

- For an Advanced Installation, it is recommended that the **[FooHome]** Directory be encrypted via your preferred method of FULL DISK Encryption.

- The **[FooHome]** Temporary and Log File Directory, can be modified upon starting FooCrypt via the Preferences window to any location you desire to meet your own personal security standards.

- Please ensure the 'FROM ANYWHERE BUT' is adhered to.

- It is also recommended that the **[FooHome]** directory, be backed up to ensure a suitable recovery of FooCrypt, that meets your requirements.

- The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

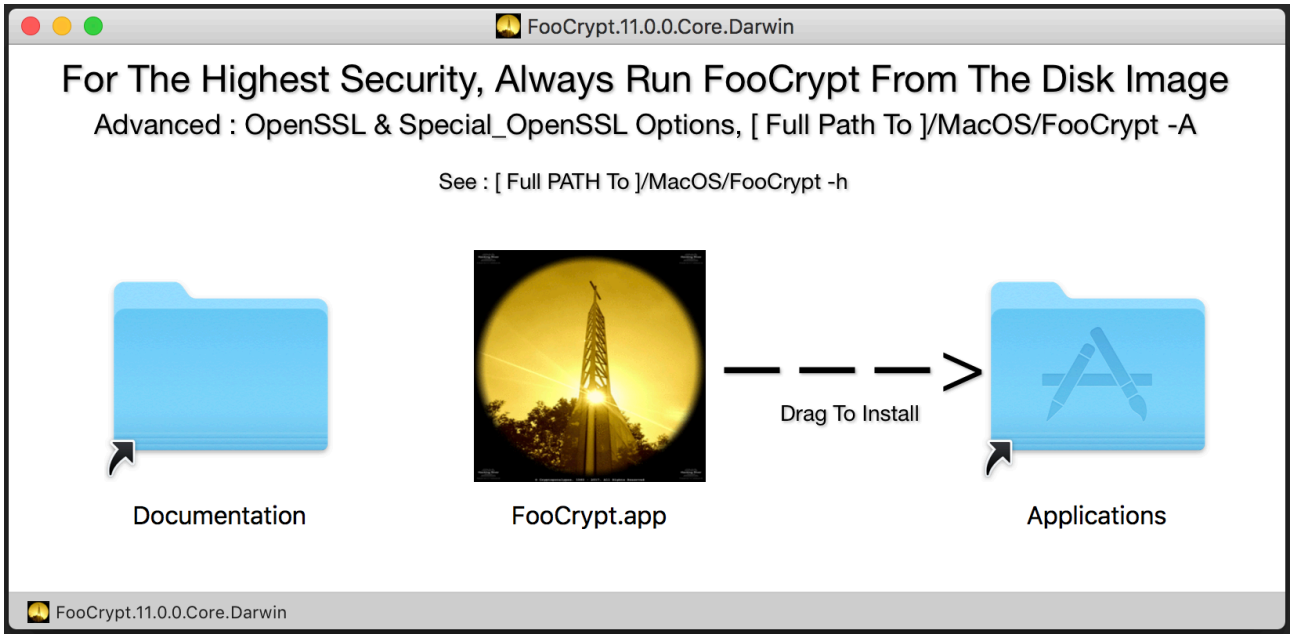
  [-n | New FooHome Directory]

- **No Need To Install**
  - FooCrypt has been engineered so that it can be stored and executed from any location / media.

  For Example :

  - For A No Need To Installation of FooCrypt, A Tale Of Cynical Cyclical Encryption.
  - **Perform Standard Install 1- 9 & 11**
  - **Select Open FooCrypt.app**
  - **FooCrypt will run from the read only disk image**

```
-> df -h | grep FooCrypt
/dev/disk2s2                 117Mi   96Mi   21Mi    83%    2021          4294965258    0%   /Volumes/FooCrypt.X.Y.Z.Core.Darwin
->
```



- **Running From The Disk Image**

  - FooCrypt has been engineered so that it can be stored and executed from any location / media.

  For Example :

  - For A No Need To Installation of FooCrypt, A Tale Of Cynical Cyclical Encryption.

  - **Perform Standard Install 1- 9 & 11**

  - **Select Open FooCrypt.app**

  - **FooCrypt will run from the read only disk image**

```
-> df -h | grep FooCrypt
/dev/disk2s2                 117Mi   96Mi   21Mi    83%    2021          4294965258    0%   /Volumes/FooCrypt.X.Y.Z.Core.Darwin
->
```

- **Running From AnyWhere**

  - FooCrypt has been engineered so that it can be stored and executed from any location / media.

  For Example :

  - For A No Need To Installation of FooCrypt, A Tale Of Cynical Cyclical Encryption.

  - **Perform Standard Install 1- 9 & 11**

  - **Select Open FooCrypt.app**

  - **FooCrypt will run from AnyWhere**
    - **NAS Storage**
    - **SAN Storage**
    - **USB Storage**
    - **DMG Disk Image**
    - **ISO Storage**
    - **DVD Disk**
    - **CD-ROM**
    - **Internal Hard Drive**
    - **External Hard Drive**

  - If it is NOT listed above, try it, and let us know

    - support@FooCrypt.XYZ

  - If you experience an issue with loading FooCrypt, please contact :

    - support@FooCrypt.XYZ

    - So we can assist in resolving the issue.

- **<u>From AnyWhere BUT</u>**

  - FooCrypt has been engineered so that it can be stored and executed from any location / media.

  - FooCrypt, A Tale Of Cynical Cyclical Encryption should be run via the ‘ABSOLUTE‘ PATH NAME, rather than the ‘RELATIVE‘ PATH NAME

  - FooCrypt, A Tale Of Cynical Cyclical Encryption should be located in an ‘ABSOLUTE‘ PATH NAME, which does not contain an :

    - ‘ ‘ Space
    - ‘&’ Ampersand

  - Further permutations and/or combinations of special characters and/or control characters may impede FooCrypt’s startup.

  - If you experience an issue with loading FooCrypt, please contact :

    - support@FooCrypt.XYZ

    - So we can assist in resolving the issue.

- **Uninstall**

  - FooCrypt has been engineered so that it can be stored and executed from any location / media.

1. Delete or drag and drop into the Trash

- Delete or drag and drop into the Trash, FooCrypt.app from the location you installed it to.

2. Escalate your privileges

- Escalate your privileges to the `root` account and use `pkgutil` to forget the package if you have added FooCrypt.app into the package database.

  - Open a `Terminal.app` shell and cut and paste the following :

  - `sudo pkgutil –forget net.Cryptopocalypse.FooCrypt`

3. Check Removal

- To check that FooCrypt.app has been removed or exists within the package database.

  - Open a `Terminal.app` shell and cut and paste the following :

  - `pkgutil –files net.Cryptopocalypse.FooCrypt`

4. DEFAULT [FooHome]

- The files contained in the DEFAULT **[FooHome]** directory `[ Users Home Directory ]/Library/Caches/net.Cryptopocalypse.FooCrypt` will still be available for removal or storage as you see fit.

- License Keys
  - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
  - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Lic

- DEFAULT FooKey Location
  - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey

- FooCrypt Startup Preferences
  - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt

- DEFAULT FooCrypt G.U.I. Configurations and user saved preferences
  - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt_Preferences

- DEFAULT FooCrypt run time temporary and logs directory
  - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt/YYYYMMDDHHMMSS

- **Linux**

  - **Standard Install**

    - To Install :
      - FooCrypt, A Tale Of Cynical Cyclical Encryption
      - Version : FooCrypt.X.Y.Z.Core.Linux

1. To check that FooCrypt is Not already installed :

- `dpkg -l | egrep -i foocrypt`

2. To Remove FooCrypt.X.Y.Z.Core.Linux

- `sudo dpkg -r foocrypt`
- `sudo dpkg –purge foocrypt`
  - *You may need to manually remove any local customisations including the Desktop items created by
    - `/opt/FooCrypt/Scripts/FooCrypt-Desktop`

3. Install the Ubuntu packages required by FooCrypt

- sudo apt install ksh expect tcl tk binutils gzip unzip
  - { enter your password when prompted }

- sudo apt install firefox evince
  - { enter your password when prompted }
  - *firefox is required for viewing HTML [Online] & PDF Documentation From The FooCrypt Help Menu.
  - *evince is the standard Ubuntu PDF viewer for viewing the PDF Documentation From The Filesystem.
  - `[ /opt/FooCrypt/Scripts/Data/pdf/FooCrypt.X.Y.Z.Core.Linux.pdf ]`

4. To Install FooCrypt.X.Y.Z.Core.Linux

- `sudo dpkg -i foocrypt-X.Y.Z-core-linux_x86_64.deb`
- `sudo apt-get install -f`
  - (To Install Missing Packages)

5. Accept The License Agreement

- Enter yes when prompted

6. Desktop Short Cuts (Ubuntu 22.04.3 LTS)

- To add the desktop shortcuts to your's or anyone else's Desktop by creating a symbolic link to the .desktop items contained in the usr/share/applications directory of the FooCrypt package.

  - `ksh -o vi`
  - `cd /opt/FooCrypt/usr/share/applications`
  -
```
ls *desktop | while read A
do
  ln -s ${PWD}/${A} $HOME/Desktop/${A}
done
```

- The pre configured .desktop items provide you with an icon, and an example of providing a desktop / dash link with the various options to running FooCrypt.

OR

- As any user :

  - `-> /opt/FooCrypt/Scripts/FooCrypt-Desktop -h`

```
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt -> /opt/FooCrypt/Scripts/FooCrypt-Desktop -h

        Usage : FooCrypt-Desktop

                [ -a | Append FooCrypt Favorites To The Favorites Bar ]

                [ -i | Add FooCrypt Desktop Icons To The Desktop ]

                [ -f | Replace All Favorites With The FooCrypt Favorites Bar ]

                [ -k | Force Keyboard Input To us, Remove All Other Inputs, /usr/bin/ibus exit ]

                [ -l | Set All Gnome Desktop Lockdowns to False ]

                [ -r | Remove All FooCrypt Desktop Modifications ]

                [ -s | FooCrypt Desktop Modification Status  ]

                [ -w | Replace Wallpaper With FooCrypt Desktop Wallpaper ]

                [ -h | Help ]

        LogFile : /home/FooCrypt/FooCrypt/.FooCrypt-Desktop.log
```

OR

- Add the `FooCrypt-Desktop.sh` script into the profiles.d etc directory.
  - See : `/opt/FooCrypt/etc/profile.d/FooCrypt-Desktop.sh` for further details

7. FooCrypt Images

- Lots of images located in `/opt/FooCrypt/Scripts/Data/Images` which you can utilise as desktop wallpapers.
  - (See FooCrypt Packaged Images)

8. Storage locations

- FooCrypt, A Tale Of Cynical Cyclical Encryption utilises temporary filesystem storage for it usage.

- By DEFAULT, the ABSOLUTE PATH NAME of the storage location is :

[USER HOME DIRECTORY]/FooCrypt

Which Contains :

- **.FooKey**
  - [DEFAULT FooKey Location Containing DEMONSTRATION FooKey's]

- **.FooCrypt**
  - Contains
  - [FooCrypt Startup Preferences]

  - OpenSSL:[FULL PATH To Default OpenSSL Binary]
    Note:
    The OpenSSL Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-q | Absolute PATH to OpenSSL]

  - Expect:[FULL PATH To Default Expect Binary]
    Note:
    The Expect Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-E | Full PATH Of Expect Version To Use]

  - Wish:[Wish-Type]:[Full PATH To Default Wish Binary]
    - [Wish-Type]
      - FooCrypt-StarKit
      - FooCrypt-User
        - FooCrypt-User Is Only Available For X11 Windowing Systems
    Note:
    The Wish Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt MacOS Binary] \
      [-W | Full PATH Of Wish Version To Use]
      - Only Available For X11 Windowing Systems

  - ExcludedCyphers:[FULL PATH To Tested OpenSSL Binary]:[Excluded Cyphers List]
    Note:
    Each Tested OpenSSL Binary Will Have An Entry

- **.FooCrypt_Preferences**
  - [FooCrypt User Preferences]
  - All Configuration Settings From The Preferences Window
  - Created With Default Settings If The File Does Not Exist
  - Encrypted With The 'FooKey_Password' Defined In The Preferences Window Using The 'Default Cypher' Defined In The Preferences Window And Stored As A 'base64 encoded' File
  - Total File Size Is Constrained By ARG_MAX
  - Can Contain Multiple Groups Of Preferences Settings

  - Updated Via
    - Menu Select -> FooCrypt -> Preferences -> Save

  - Loaded Via
    - Menu Select -> FooCrypt -> Preferences -> Load

  - Imported From Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Import

  - Exported To Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Export

- **.FooCrypt.Key**
  - [FooCrypt Licensing File]

- **.FooCrypt.Lic**
  - [FooCrypt Licensing File]

- **.FooCrypt.Usb**
  - [FooCrypt Licensing USB Dongle Location]

- **[YYYYMMDDHHMMSS]_[HOSTNAME]_FooCrypt**
  - [Temporary and Log File Directory created upon each invocation of FooCrypt.]

- For an Advanced Installation, it is recommended that the **[FooHome]** Directory be encrypted via your preferred method of FULL DISK Encryption.

- The **[FooHome]** Temporary and Log File Directory, can be modified upon starting FooCrypt via the Preferences window to any location you desire to meet your own personal security standards.

- Please ensure the 'FROM ANYWHERE BUT' is adhered to.

- It is also recommended that the **[FooHome]** directory, be backed up to ensure a suitable recovery of FooCrypt, that meets your requirements.

- The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

  [-n | New FooHome Directory]

- **Standard UnInstall**

1. To check that FooCrypt is installed :

   - `dpkg -l | egrep -i foocrypt`

2. To Remove FooCrypt.X.Y.Z.Core.Linux

   - sudo dpkg -r foocrypt
   - sudo dpkg —purge foocrypt
     - *You may need to manually remove any local customisations including the Desktop items created by
       - `/opt/FooCrypt/Scripts/FooCrypt-Desktop`

- **Live Linux**

1. Standard Install

- Designed and Built on a 64 bit Ubuntu LTS Desktop Environment using the Cubic Build System with post build scripts to customise the environment to the FooCrypt.X.Y.Z.Core.Live.Linux SOE

  - FooCrypt.X.Y.Z.Core.Live.Linux is Patched to the patch level and kernel from the source ISO ubuntu-22.04.3-desktop-amd64.iso with updates applied prior to the iso being released.

  - UEFI_22.04.3_LTS.FooCrypt.X.Y.Z.Core.Live.Linux.GDM3.iso
    - GDM3 Window Manager
      - GNOME2 Desktop
      - GNOME3 Desktop
      - XFCE4 Desktop
      -
  - UEFI_22.04.3_LTS.FooCrypt.X.Y.Z.Core.Live.Linux.SDDM.iso
    - SDDM Window Manager
      - XFCE4 Desktop

  - Containing :
      - FooCrypt.X.Y.Z.Core.Linux
      - FooCrypt.X.Y.Z.OpenSSL.Linux

- The Live Version Of FooCrypt.X.Y.Z.Core is a Live ISO Image instance running the 64 bit Linux Ubuntu LTS Desktop which can easily be burned onto a 4GB USB Disk to enable compatible PC's to boot from the USB Disk and take full advantage of the FooCrypt.X.Y.Z.Core.Live.Linux ISO.

- The FooCrypt.X.Y.Z.Core.Live.Linux ISO can also be easily used to boot up a virtual machine running in your hypervisor of choice so that you have direct access to FooCrypt.X.Y.Z.Core.Live.Linux from your current desktop environment.

- Simply install your hypervisor's tool set into the FooCrypt.X.Y.Z.Core.Live.Linux ISO instance, and share a local direct into the VM, and you have the most secure method available on a single PC to encrypt / decrypt your data.

- No need to add any physical disks into the VM for FooCrypt to utilise, as 4+GB of memory, and 2+virtualised cores from your CPU, will provide you with a totally secure environment.

- FooCrypt.X.Y.Z.Core.Live.Linux boots by DEFAULT with all inbound and outbound network traffic being 'REJECTED' so it is totally secure from the network side, thereby providing only local physical desktop access from your current operating system.

- FooCrypt.X.Y.Z.Core.Live.Linux will provide you with the freedom and comfort in knowing that your encrypted data was encrypted / decrypted in an environment, designed with security in mind.

2. By Default

- FooCrypt.X.Y.Z.Core.Live.Linux boots with the firewall denying all inbound traffic (See Section 5 Below)

- FooCrypt.X.Y.Z.Core.Live.Linux does NOT require any physical hard disk drive's.

- FooCrypt.X.Y.Z.Core.Live.Linux requires access to the serial number of the Licensing Dongle (NOT the filesystems).

- Default User : FooCrypt
  - (See Graphic 1 Below)

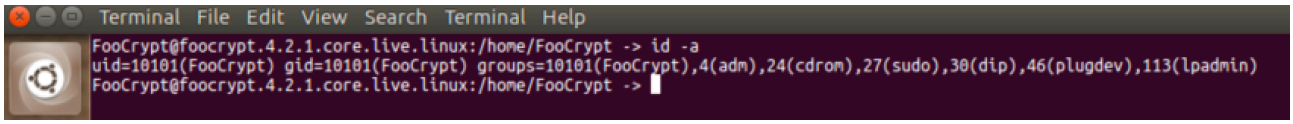
- Default Group : FooCrypt
  - (See Graphic 1 Below)

- FooCrypt password : FooCrypt

- Root Password : FooCrypt

- Privilege Escalations via sudo

- **Graphic 1 : id -a stdout**



3. Requirements

- Zip to extract the iso image from Downloaded Zip file
- Access to the UNIX dd command or equivalent tool (i.e.: uNetBootin) to create the Live USB Disk Bootable Disk
  - [`dd if=( Live Linux ISO ) of=/dev/( USB Disk Device ) bs=1m`]
- 4GB RAM (Virtual Machine Instance)
- A USB Disk (Licensing Dongle)
- Mouse
- KeyBoard where Software KeyBoard isn't required

OR

- Zip to extract the iso image from the Zip file
- Access to the UNIX dd command or equivalent tool (i.e.: uNetBootin) to create the Live USB Disk Bootable Disk
- [`dd if=( Live Linux ISO ) of=/dev/( USB Disk Device ) bs=1m`]
- Compatible hardware which can support running Ubuntu 22.04.3 LTS
- Compatible hardware which can support Booting From A DVD / USB
- A USB Disk (Licensing Dongle)
- Mouse
- KeyBoard where Software KeyBoard isn't required

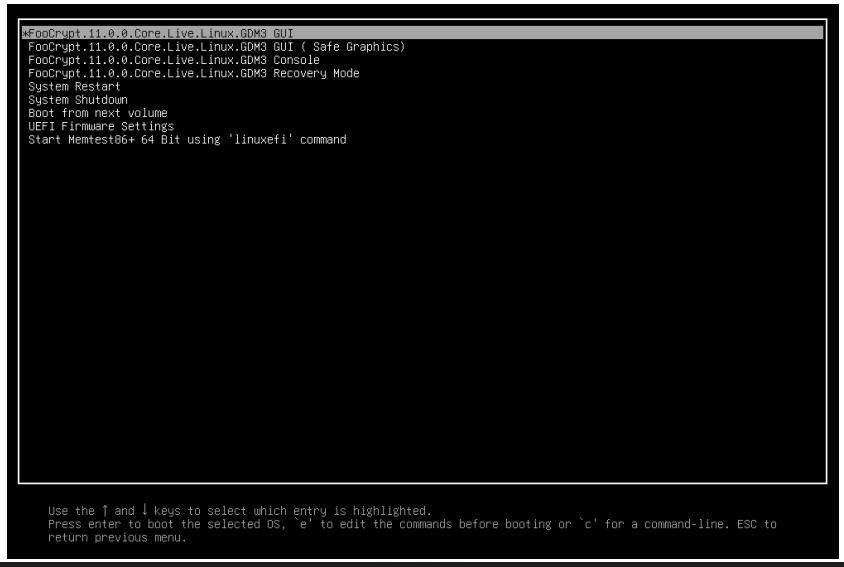
4. ISO Specifications

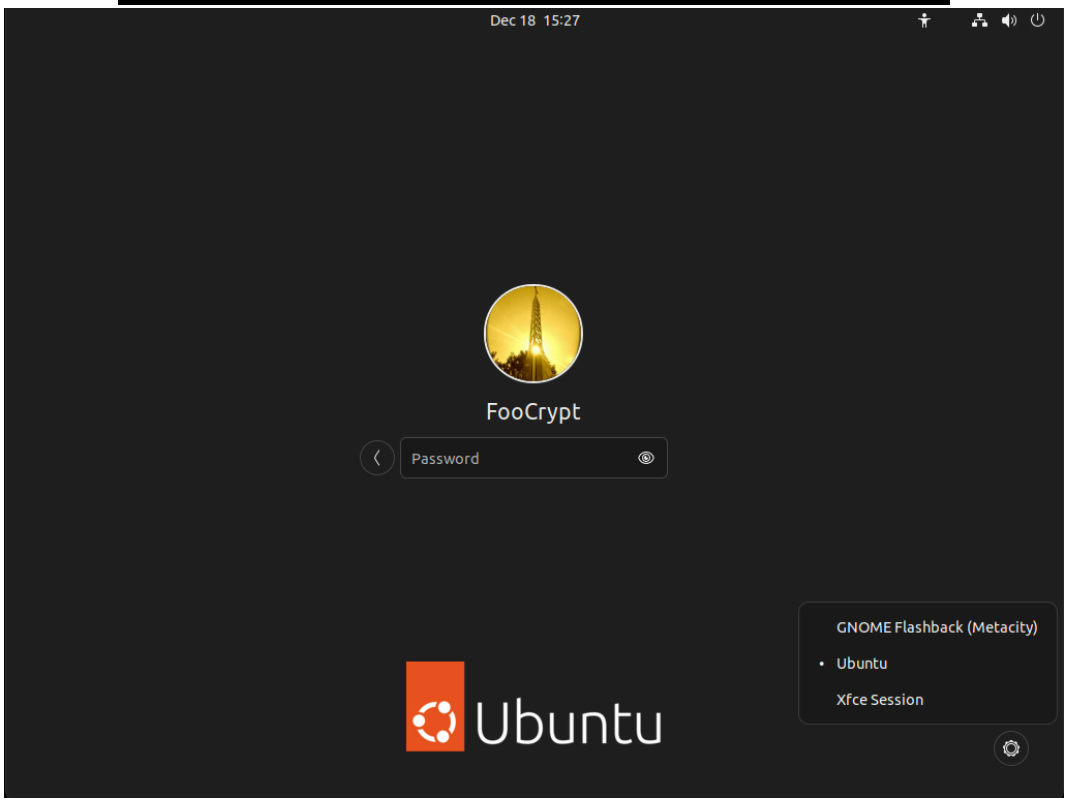
- Legacy (BIOS) boot / installation support
- UEFI (EFI) boot / installation support
- Hybrid ISO 9660

- **GRUB Boot Options**
  - **Legacy BIOS Boot**
  - **UEFI Boot and Secure Boot**

Graphic : UEFI_22.04.3_LTS.FooCrypt.X.Y.Z.Core.Live.Linux.GDM3.iso

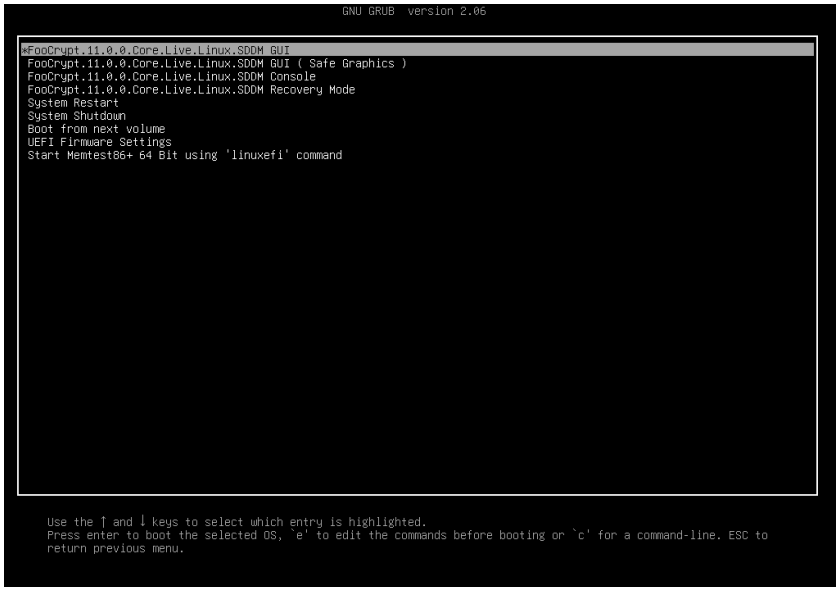
- GDM3 Window Manager
  - GNOME2 Desktop
  - GNOME3 Desktop
  - XFCE4 Desktop
- Containing :
  - FooCrypt.X.Y.Z.Core.Linux
  - FooCrypt.X.Y.Z.OpenSSL.Linux





Graphic : UEFI_22.04.3_LTS.FooCrypt.X.Y.Z.Core.Live.Linux.SDDM.iso

- SDDM Window Manager
  - XFCE4 Desktop
- Containing :
  - FooCrypt.X.Y.Z.Core.Linux
  - FooCrypt.X.Y.Z.OpenSSL.Linux

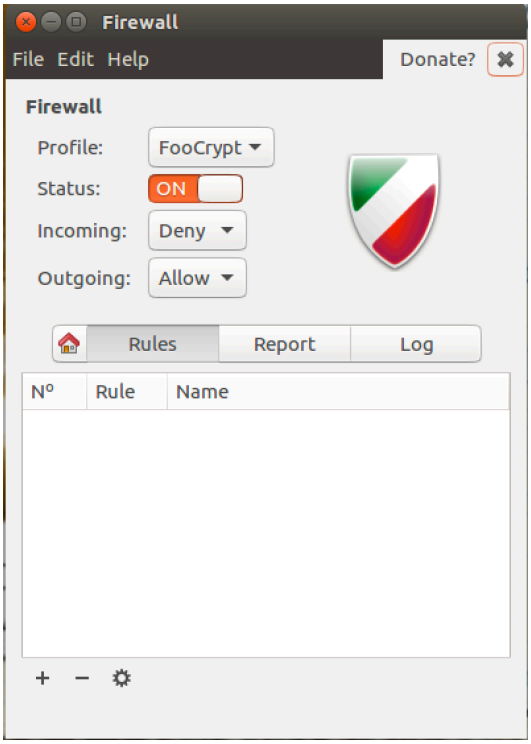


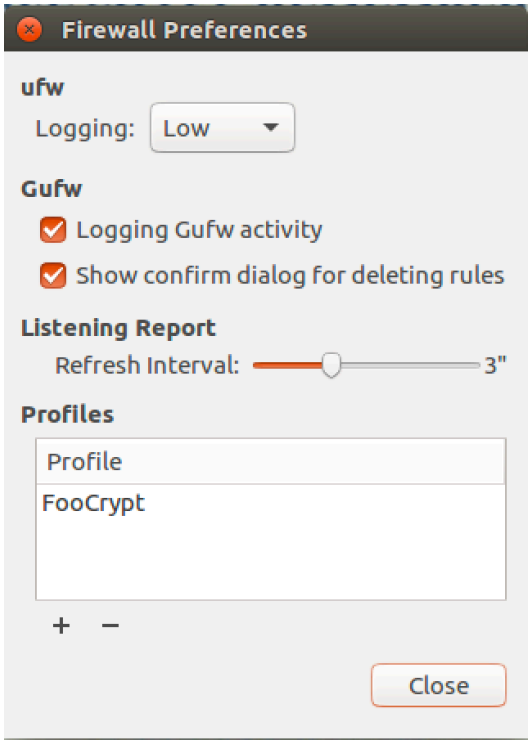
5. GUFW (FireWall)

- (See Graphic 3 Below)
- Graphical User Interface For UFW
  - [UFW Is A Program For Managing A netfilter Firewall]

- All Linux Live versions utilise the GUFW 'FooCrypt' profile which denies inbound traffic upon boot, enabling you to utilise a DHCP address.
- To Allow Incoming Traffic, toggle the inbound DDB to allow
- To Allow Outgoing Traffic, toggle the outbound DDB to allow
- By Default, Logging is set to FULL, You can modify the log verbosity via
  - 'Menu Select -> Edit -> Preferences'

- **Graphic 3 : GUFW Firewall**





6. Desktop 22.04.3 LTS

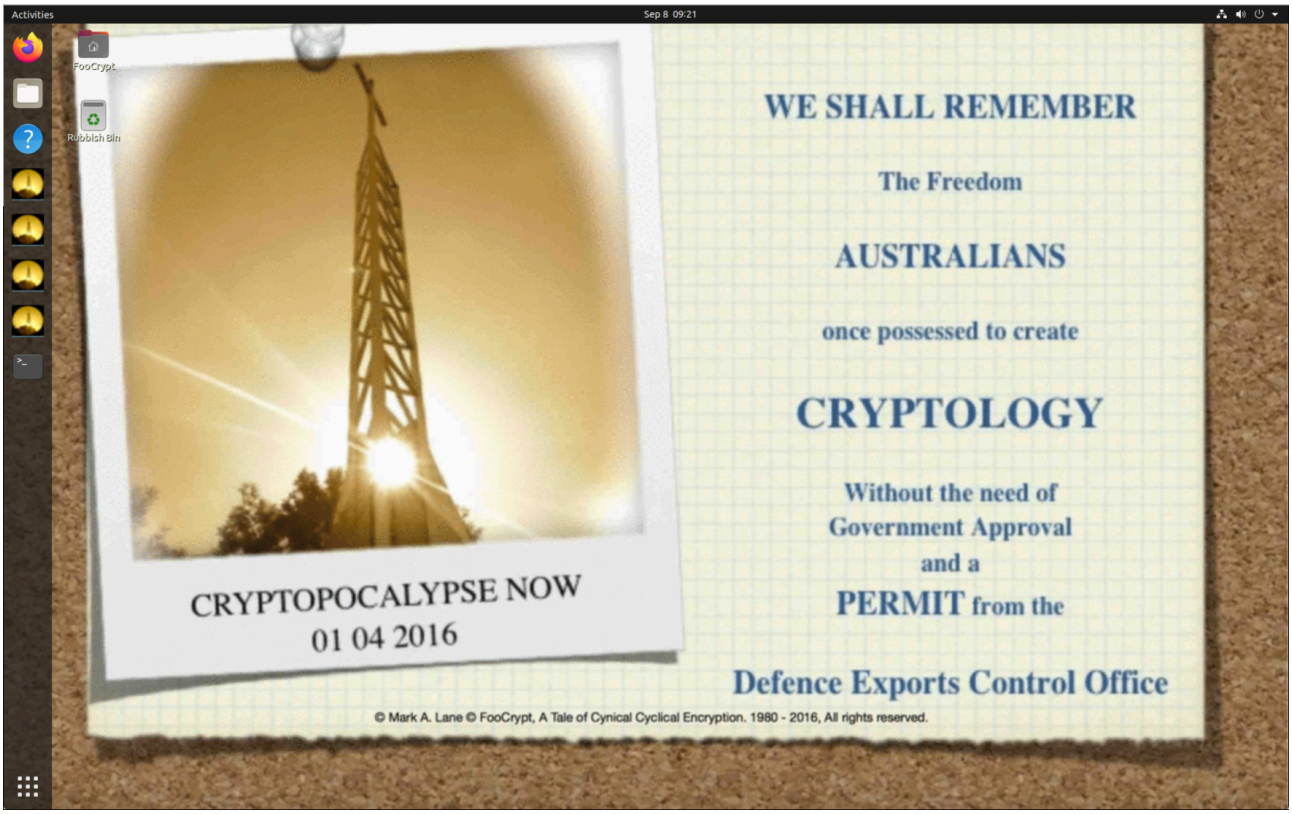
- UEFI_22.04.3_LTS.FooCrypt.X.Y.Z.Core.Live.Linux.GDM3.iso
  - GDM3 Window Manager
    - GNOME2 Desktop
    - GNOME3 Desktop
    - XFCE4 Desktop

- UEFI_22.04.3_LTS.FooCrypt.X.Y.Z.Core.Live.Linux.SDDM.iso
  - SDDM Window Manager
    - XFCE4 Desktop

7. Desktop 22.04.3 LTS Standard (GNOME3)

- The Desktop Starts Up In 800x600 Resolution But It Can Be Easily Modified via 'Menu Select -> Settings -> Desktop'

Desktop 22.04.3 LTS Standard (GNOME3)



The FooCrypt Flyers highlight the changes in Government policy in Australia, whereby on the 1st of April, 2016, all encryption technologies where brought under the Australian Department of Defence, Defence Export Controls Office, due to changes in the Defence Trade Control Act (D.T.C.A.) and the Defence Strategic Goods Listing (D.S.G.L.)

8. Contents : `/etc/FooCrypt`

- The files in `/etc/FooCrypt` prefixed by YYYYMMDDHHMMSS_ are produced by the fingerprint_live script run during the building of the ISO to ensure the security of the booted image.

ls -la `/etc/FooCrypt`

```
root@foocrypt.11.0.0.core.live.linux:/etc/FooCrypt -> ls -la
total 286972
drwxr-xr-x 1 root root      280 Dec 31 09:39 .
drwxr-xr-x 1 root root      620 Dec 31 08:46 ..
-rw-r--r-- 1 root root 65457913 Jan  1  2024 20231231085027.Live_FooCrypt.dpkg.files
-rw-r--r-- 1 root root  3375308 Jan  1  2024 20231231085027.Live_FooCrypt.dpkg.status
-rw-r--r-- 1 root root   314750 Jan  1  2024 20231231085027.Live_FooCrypt.dpkgs
-rw-r--r-- 1 root root   133080 Jan  1  2024 20231231085027.Live_FooCrypt.lunar
-rw-r--r-- 1 root root 77324979 Jan  1  2024 20231231085027.Live_README.sha256.txt
-rwx------ 1 root root     1666 Jan  1  2024 fingerprint_live
-rw-r--r-- 1 root root 65386768 Jan  1  2024 foocrypt-11-0-0-core-linux_x86_64.deb
-rw-r--r-- 1 root root 81848676 Jan  1  2024 foocrypt-11-0-0-openssl-linux_x86_64.deb
root@foocrypt.11.0.0.core.live.linux:/etc/FooCrypt ->
```

- You can run the fingerprint_live script at any stage as the root user, to create an updated fingerprint listing of your current system, so that you can perform a comparison of its current state, to the fingerprint files created at build time.

/etc/FooCrypt/fingerprint_live

```
root@foocrypt.10.0.0.core.live.linux.gdm3:/etc/FooCrypt -> cat fingerprint_live
#!/bin/ksh
#
# Live
# produces a dpkg listing of installed packages
# produces a dpkg files listing containing current sha256
# produces a recursive sha256 lisint from / of all files in the live build prior to iso image creation

Date=$( date +%Y%m%d%H%M%S )

osha256(){

echo "STATUS  : Openssl sha256 Files"
ls | egrep -iv "proc|sys|tmp" | while read A
do
        find "${A}" -type f | while read File
        do
                openssl sha256 "${File}"
        done
done 2>&1 > ./etc/FooCrypt/${Date}.Live_README.sha256.txt 2>/dev/null

}

export HDir=/etc/FooCrypt

[ ! -d "${HDir}" ] && mkdir -p "${HDir}"

echo "STATUS  : lunar audit of packages, configs, filesystem"
/opt/lunar/lunar.sh -A -v 2>&1 | sed s"/^/LUNAR : /g" > ${HDir}/${Date}.Live_FooCrypt-lunar.audit.log 2>&1

echo "STATUS  : root gsettings list-recursively"
gsettings list-recursively 2>&1 | sed s"/^/GSettings : /g" > ${HDir}/${Date}.Live_FooCrypt-root.gsettings 2>&1

echo "STATUS  : FooCrypt gsettings list-recursively"
su - FooCrypt -c "gsettings list-recursively" 2>&1 | sed s"/^/GSettings : /g" > ${HDir}/${Date}.Live_FooCrypt-FooCrypt.gsettings 2>&1

echo "STATUS  : dpkg -l"
dpkg -l 2>&1 | sed s"/^/Package : /g" > ${HDir}/${Date}.Live_FooCrypt.dpkgs 2>&1

echo "STATUS  : dpkg -s"
dpkg -l 2>&1 | awk '{print $2}' | sed 1,5d | while read A
do
        dpkg -s "${A}" 2>&1 | sed s"/^/STATUS : ${A} : /g"
done 2>&1 > ${HDir}/${Date}.Live_FooCrypt.dpkg.status 2>&1


echo "STATUS  : dpkg -L"
dpkg -l 2>&1 | awk '{print $2}' | sed 1,5d | while read A
do
        dpkg -L "${A}" 2>&1 | while read B
        do
                if [ ! -d "${B}" ]; then
                        if [ ! -L "${B}" ]; then
                                SHA256=$( openssl sha256 "${B}" 2>&1 | tr '[ ]' '[\n]' | tail -1 )
                                print "${B} : SHA256:${SHA256}" | sed s"/^/Files : ${A} : /g"
                        else
                                LS1=$( ls -la "${B}" 2>&1 )
                                LS2=$( ls -laL "${B}" 2>&1 )
                                print "${B} : LS1:${LS1} : LS2:${LS2}" | sed s"/^/Files : ${A} : /g"
                        fi
                else
                        print "${B}" | sed s"/^/Files : ${A} : /g"
                fi
        done
done 2>&1 > ${HDir}/${Date}.Live_FooCrypt.dpkg.files 2>&1

cd ${HDir}/../..

osha256
root@foocrypt.10.0.0.core.live.linux.gdm3:/etc/FooCrypt ->
```

- You can run the fingerprint_live script at any stage as the root user, to create an updated fingerprint listing of your current system, so that you can perform a comparison of its current state, to the fingerprint files created at build time.

9. Work Arounds :

- **GDM3 PostSession**

The bellow work around has been put in place due to a intermittent issue, which may occur when an end user logs off from their desktop, and the GDM3 Window Manager fails to display the GDM3 Window Manager logon splash screen.

```
FooCrypt@FooCrypt.10.0.0.Live.Linux:/etc/gdm3/PostSession -> cat Default
#!/bin/sh
/usr/bin/gnome-session-quit
/usr/bin/sleep 1
/usr/bin/systemctl restart gdm3.service
exit 0
FooCrypt@FooCrypt.10.0.0.Live.Linux:/etc/gdm3/PostSession ->
```

- **NetworkManager**

A startup script is in place in /etc/init.d/nmcli-ipv6 which is symbolically link from /etc/rc[2-5]|[S].d/S99nmcli-ipv6. The nmcli-ipv6 startup script is also called from the /etc/profile.d/FooCrypt-Desktop.sh script when an end-user logs into their selected GUI. The nmcli-ipv6 script, disables the NetworkManagers ipv6 setting for all configured connections, if ipv6 is disabled in the running kernel. Which is the default /etc/default/grub configured boot option.

nmcli-ipv6 locations | options

```
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt -> find /etc -ls 2>/dev/null | grep nmcli 2>/dev/null
     3771      4 -rwxr-xr-x   1 root     root         3456 Dec 28 13:13 /etc/init.d/nmcli-ipv6
     4230      0 lrwxrwxrwx   1 root     root           22 Dec 28 11:03 /etc/rc2.d/S99nmcli-ipv6 -> /etc/init.d/nmcli-ipv6
     4265      0 lrwxrwxrwx   1 root     root           22 Dec 28 11:03 /etc/rc3.d/S99nmcli-ipv6 -> /etc/init.d/nmcli-ipv6
     4300      0 lrwxrwxrwx   1 root     root           22 Dec 28 11:03 /etc/rc4.d/S99nmcli-ipv6 -> /etc/init.d/nmcli-ipv6
     4335      0 lrwxrwxrwx   1 root     root           22 Dec 28 11:03 /etc/rc5.d/S99nmcli-ipv6 -> /etc/init.d/nmcli-ipv6
     4380      0 lrwxrwxrwx   1 root     root           22 Dec 28 11:03 /etc/rcS.d/S99nmcli-ipv6 -> /etc/init.d/nmcli-ipv6
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt -> /etc/init.d/nmcli-ipv6
/etc/init.d/nmcli-ipv6:Usage: /etc/init.d/nmcli-ipv6 { start | startforce | stop | stopforce | status | statuskernel }
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt ->
```

/etc/profile.d/FooCrypt-Desktop.sh

```
#:#
#:# we disable NetworkManager ipv6 if ipv6 has been disabled in the kernel
#:#
                [ -f /etc/init.d/nmcli-ipv6 ] && ( sleep 15 ; /etc/init.d/nmcli-ipv6 start > /dev/null 2>&1 ) &
```

/etc/default/grub

```
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt -> grep -v \# /etc/default/grub

GRUB_DEFAULT=0
GRUB_TIMEOUT_STYLE=menu
GRUB_TIMEOUT=30
GRUB_GFXPAYLOAD_LINUX=keep
GRUB_DISTRIBUTOR=`lsb_release -i -s 2> /dev/null || echo Debian`
GRUB_CMDLINE_LINUX_DEFAULT="ipv6.disable=1 memtest=4"
GRUB_CMDLINE_LINUX=""
```

- **Keyboard Input**
  - A new /opt/FooCrypt/Scripts/FooCrypt-Desktop option :

[-k | Force keyboard input to us, Remove all other inputs, /usr/bin/ibus exit]
Also runs from the /etc/profile.d/FooCrypt-Desktop.sh login script, after a delay of 15 seconds when the end-user logs into their selected GUI or via ssh / login shell.

-> /opt/FooCrypt/Scripts/FooCrypt-Desktop -h

```
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt -> /opt/FooCrypt/Scripts/FooCrypt-Desktop -h

        Usage : FooCrypt-Desktop

                [ -a | Append FooCrypt Favorites To The Favorites Bar ]

                [ -i | Add FooCrypt Desktop Icons To The Desktop ]

                [ -f | Replace All Favorites With The FooCrypt Favorites Bar ]

                [ -k | Force Keyboard Input To us, Remove All Other Inputs, /usr/bin/ibus exit ]

                [ -l | Set All Gnome Desktop Lockdowns to False ]

                [ -r | Remove All FooCrypt Desktop Modifications ]

                [ -s | FooCrypt Desktop Modification Status  ]

                [ -w | Replace Wallpaper With FooCrypt Desktop Wallpaper ]

                [ -h | Help ]

        LogFile : /home/FooCrypt/FooCrypt/.FooCrypt-Desktop.log
```

/etc/profile.d/FooCrypt-Desktop
All /opt/FooCrypt/Scripts/FooCrypt-Desktop changes are all logged in :

```
#:#
#:# If we have booted into the Live.Linux filesystem.squashfs, we force Keyboard Inputs to us, if ${DISTRIB_RELEASE} ge 20
#:#
                        /usr/bin/mount | /usr/bin/grep "/cow" | /usr/bin/grep "filesystem.squashfs" > /dev/null 2>&1
                        if [ $? -eq 0 ]; then
#:#
#:# we fork and sleep for 15 seconds to allow gnome to login / build desktop / spawn ibus / before running -k
#:#
                                ( sleep 15 ; /opt/FooCrypt/Scripts/FooCrypt-Desktop -k ) &
                        fi
                fi
```

${HOME}/FooCrypt/.FooCrypt-Desktop.log

```
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt -> cat FooCrypt/.FooCrypt-Desktop.log
STATUS : Setting /backdrop/screen0/monitorVirtual1/workspace0/last-image : /opt/FooCrypt/Scripts/Data/Images/CryptopocalypseNow-Flyer-Frount.gif
STATUS : Setting /backdrop/screen0/monitorVirtual1/workspace1/last-image : /opt/FooCrypt/Scripts/Data/Images/CryptopocalypseNow-Flyer-Frount.gif
STATUS : Setting /backdrop/screen0/monitorVirtual1/workspace2/last-image : /opt/FooCrypt/Scripts/Data/Images/CryptopocalypseNow-Flyer-Frount.gif
STATUS : Setting /backdrop/screen0/monitorVirtual1/workspace3/last-image : /opt/FooCrypt/Scripts/Data/Images/CryptopocalypseNow-Flyer-Frount.gif
STATUS : Running /usr/bin/ibus exit
STATUS : org.gnome.desktop.input-sources sources currntly set to : [('ibus', 'mozc-jp'), ('xkb', 'us')]
STATUS : org.gnome.desktop.input-sources sources reset to : [ ('xkb', 'us') ]
STATUS : org.gnome.desktop.input-sources sources currntly set to : [('xkb', 'us')]
STATUS : org.gnome.desktop.input-sources mru-sources currntly set to : @a(ss) []
STATUS : org.gnome.desktop.input-sources mru-sources reset to : [ ('xkb', 'us') ]
STATUS : org.gnome.desktop.input-sources mru-sources currntly set to : [('xkb', 'us')]
STATUS : Running /usr/bin/ibus exit
STATUS : Running /usr/bin/ibus exit
STATUS : org.gnome.desktop.input-sources sources currntly set to : [('xkb', 'us')]
STATUS : org.gnome.desktop.input-sources sources reset to : [ ('xkb', 'us') ]
STATUS : org.gnome.desktop.input-sources sources currntly set to : [('xkb', 'us')]
STATUS : org.gnome.desktop.input-sources mru-sources currntly set to : [('xkb', 'us')]
STATUS : org.gnome.desktop.input-sources mru-sources reset to : [ ('xkb', 'us') ]
STATUS : org.gnome.desktop.input-sources mru-sources currntly set to : [('xkb', 'us')]
STATUS : Running /usr/bin/ibus exit
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt ->
```

- **Ubiquity**
  The run_Install.FooCrypt.11.0.0.Core.Live.Linux script has been updated with some basic help to assist the end-user with requirements, and to also force Keyboard Input to us. Ubiquity is also run in debug mode to assist with installation errors.

```
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt -> cat run_Install_FooCrypt.11.0.0.Core.Live.Linux
#!/bin/ksh
#set -xv

export PreseedFile=/cdrom/preseed/ubuntu.seed
export Type=UEFI
/usr/bin/efibootmgr > /dev/null 2>&1

if [ ! $? -eq 0 ]; then
        export Type=LEGACY
fi

if [ -f ${PreseedFile} ]; then
        print "STATUS : Forcing Keyboard Input To \"[ ('xkb', 'us') ]\" : /opt/FooCrypt/Scripts/FooCrypt-Desktop -k"
        /opt/FooCrypt/Scripts/FooCrypt-Desktop -k
        print "STATUS : Starting ubiquity for a ${Type} Install with preseed file=${PreseedFile}"
        print "HELP   :"
        print "HELP   : The preseed file=${PreseedFile}"
        print "HELP   :"
        print "HELP   : Autofills details on the laast Ubiquity panel 'Who are you ?'"
        print "HELP   :"
        print "HELP   : But requires the following fields to be completed by the installer, even though the details arre ignored"
        print "HELP   :"
        print "HELP   : Your name               : The FooCrypt Full Username details are copied from the Live iso, requires an entry but the details are ignored"
        print "HELP   :"
        print "HELP   : Your computer's name    : Please entered a valid hostname, details are NOT ignored"
        print "HELP   :"
        print "HELP   : Pick a username         : The FooCrypt Username details are copied from the Live iso, requires an entry but the details are ignored"
        print "HELP   : Choose a password       : The FooCrypt Password details are copied from the Live iso, requires an entry but the details are ignored"
        print "HELP   : Confirm your password   : The FooCrypt Password details are copied from the Live iso, requires an entry but the details are ignored"
        print "HELP   :"
        print "HELP   : The login Username / Password for the installation of the Live iso are :"
        print "HELP   :"
        print "HELP   : Username                : FooCrypt"
        print "HELP   : Password                : FooCrypt"
        print "HELP   :"
        sudo --preserve-env=DBUS_SESSION_BUS_ADDRESS,XDG_RUNTIME_DIR,${Type} sh -c "ubiquity --debug gtk_ui file=${PreseedFile}"
else
        print "ERROR : Unable to locate Ubiquity Preseed File : ${PreseedFile}"
fi
FooCrypt@foocrypt.11.0.0.core.live.linux:/home/FooCrypt ->
```

The /cdrom/preseed/ubuntu.seed file, also calls /cdrom/scripts/update-grub at the completion of a successful installation, which updates the /etc/default/grub options, and calls update-grub to regenerate the boot files.

The UEFI_22.04.3_LTS.FooCrypt.12.0.0.Core.Live.Linux.GDM3.iso and UEFI_22.04.3_LTS.FooCrypt.12.0.0.Core.Live.Linux.SDDM.iso images are capable of both EFI & BIOS, boot and install modes, with the grub boot configurations created accordingly.

10. Storage locations

- FooCrypt, A Tale Of Cynical Cyclical Encryption utilises temporary filesystem storage for it usage.

- By DEFAULT, the ABSOLUTE PATH NAME of the storage location is :

[USER HOME DIRECTORY]/FooCrypt

Which Contains :

- **.FooKey**
  - [DEFAULT FooKey Location Containing DEMONSTRATION FooKey's]

- **.FooCrypt**
  - Contains
  - [FooCrypt Startup Preferences]

  - OpenSSL:[FULL PATH To Default OpenSSL Binary]
    Note:
    The OpenSSL Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-q | Absolute PATH to OpenSSL]

  - Expect:[FULL PATH To Default Expect Binary]
    Note:
    The Expect Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-E | Full PATH Of Expect Version To Use]

  - Wish:[Wish-Type]:[Full PATH To Default Wish Binary]
    - [Wish-Type]
      - FooCrypt-StarKit
      - FooCrypt-User
        - FooCrypt-User Is Only Available For X11 Windowing Systems
    Note:
    The Wish Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt MacOS Binary] \
      [-W | Full PATH Of Wish Version To Use]
      - Only Available For X11 Windowing Systems

  - ExcludedCyphers:[FULL PATH To Tested OpenSSL Binary]:[Excluded Cyphers List]
    Note:
    Each Tested OpenSSL Binary Will Have An Entry

- **.FooCrypt_Preferences**
  - [FooCrypt User Preferences]
  - All Configuration Settings From The Preferences Window
  - Created With Default Settings If The File Does Not Exist
  - Encrypted With The 'FooKey_Password' Defined In The Preferences Window Using The 'Default Cypher' Defined In The Preferences Window And Stored As A 'base64 encoded' File
  - Total File Size Is Constrained By ARG_MAX
  - Can Contain Multiple Groups Of Preferences Settings

  - Updated Via
    - Menu Select -> FooCrypt -> Preferences -> Save

  - Loaded Via
    - Menu Select -> FooCrypt -> Preferences -> Load

  - Imported From Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Import

  - Exported To Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Export

- **.FooCrypt.Key**
  - [FooCrypt Licensing File]

- **.FooCrypt.Lic**
  - [FooCrypt Licensing File]

- **.FooCrypt.Usb**
  - [FooCrypt Licensing USB Dongle Location]

- **[YYYYMMDDHHMMSS]_[HOSTNAME]_FooCrypt**
  - [Temporary and Log File Directory created upon each invocation of FooCrypt.]

- **/etc/sudoers**
  - /etc/sudoers has been customised to included the required NOPASSWORD settings to enable FooCrypt to run : /usr/bin/lsusb -v -s ??????? where ??????? is sourced from the .FooCrypt.Usb contents.

- For an Advanced Installation, it is recommended that the **[FooHome]** Directory be encrypted via your preferred method of FULL DISK Encryption.

- The **[FooHome]** Temporary and Log File Directory, can be modified upon starting FooCrypt via the Preferences window to any location you desire to meet your own personal security standards.

- Please ensure the 'FROM ANYWHERE BUT' is adhered to.

- It is also recommended that the **[FooHome]** directory, be backed up to ensure a suitable recovery of FooCrypt, that meets your requirements.

- The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

  [-n | New FooHome Directory]

11. FooCrypt Images

- Lots of images located in `/opt/FooCrypt/Scripts/Data/Images` which you can utilise as desktop wallpapers.
  - (See FooCrypt Packaged Images)

12. /etc/sudoers

```
root@FooCrypt:/etc -> cat sudoers
#
# This file MUST be edited with the 'visudo' command as root.
#
# Please consider adding local content in /etc/sudoers.d/ instead of
# directly modifying this file.
#
# See the man page for details on how to write a sudoers file.
#
Defaults        env_reset
Defaults        mail_badpass
Defaults        secure_path="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin"

# Host alias specification

# User alias specification

# Cmnd alias specification

# User privilege specification
root    ALL=(ALL:ALL) ALL

# Members of the admin group may gain root privileges
%admin ALL=(ALL) ALL

# Allow members of group sudo to execute any command
%sudo   ALL=(ALL:ALL) ALL

# Allow FooCrypt to perform lsusb licensing dongle commands
FooCrypt ALL=(ALL) NOPASSWD: /usr/bin/lsusb -v -s ???????

# See sudoers(5) for more information on "#include" directives:
#includedir /etc/sudoers.d
root@FooCrypt:/etc ->
```

- **SunOS**
  - FooCrypt for Solaris SPARC is currently scheduled for release 4th quarter, 2023.
    - (See Graphic 1 & 2 Below)

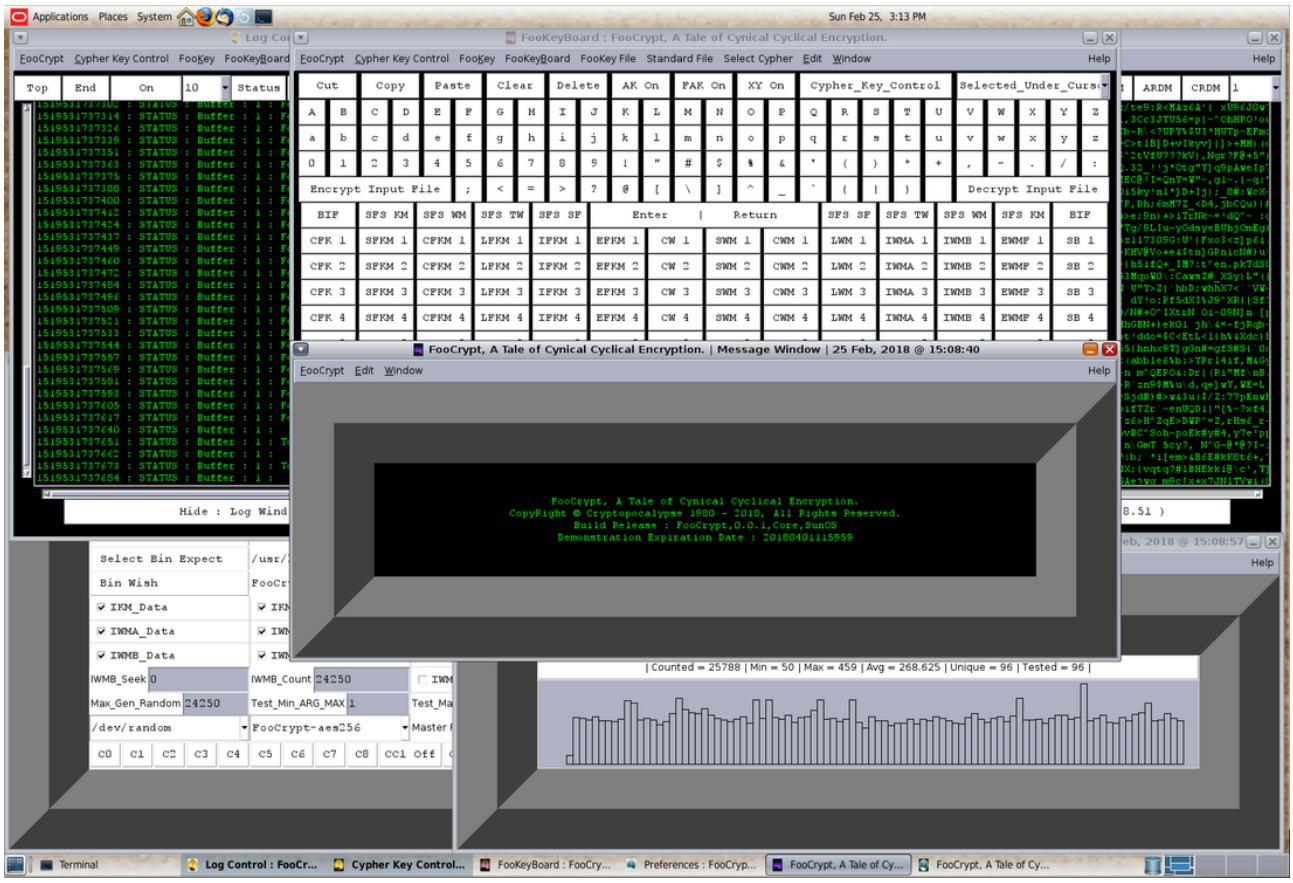
1. Solaris 10u11+ x86

- Hardware, Zone, Hypervisor, Cloud, Cluster

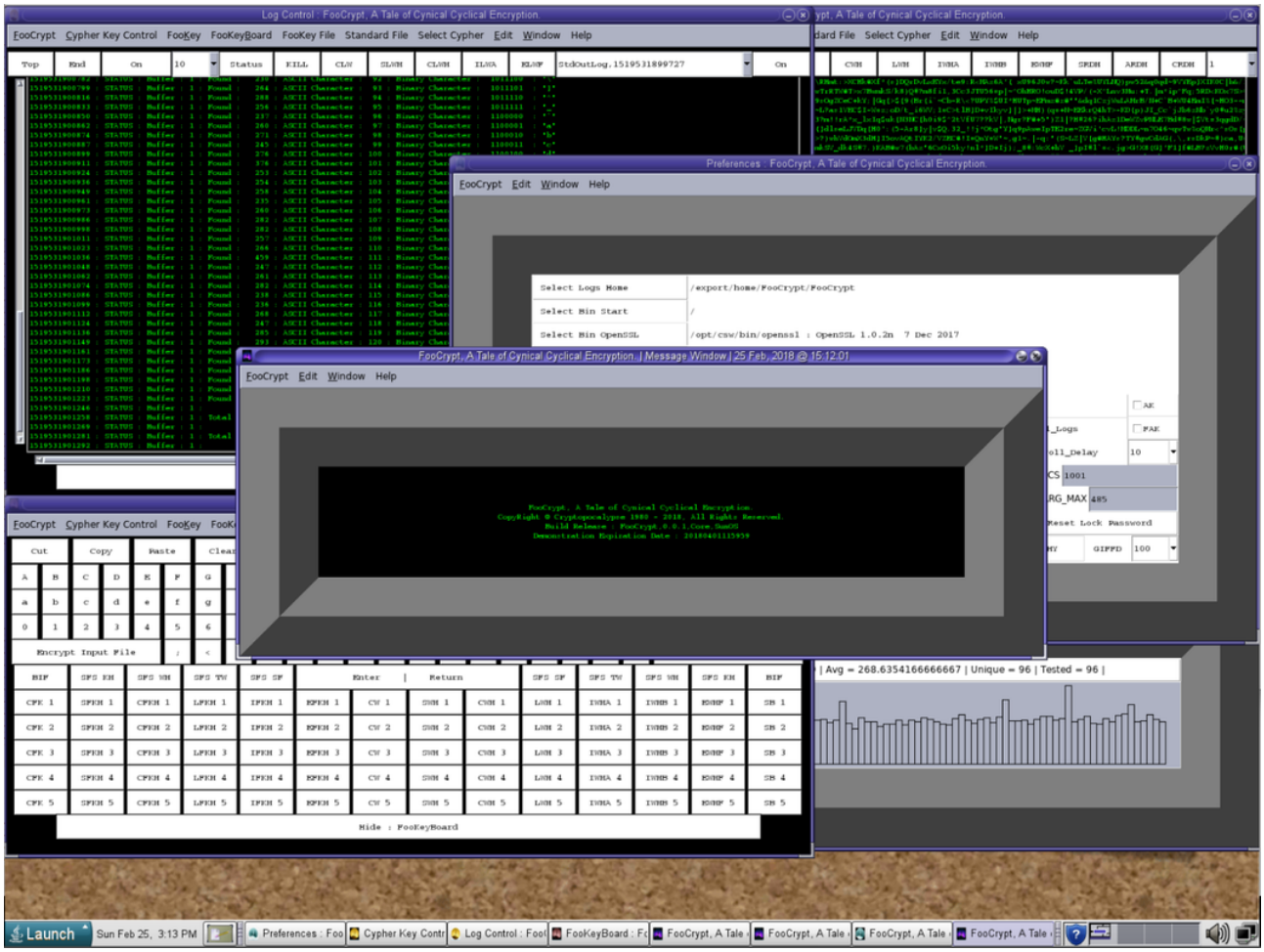
2. Solaris 10u11+ SPARC

- Hardware, Zone, Cloud, Cluster, LDom

- **Graphic 1 : Solaris 11.3 FooCrypt,0,0,1,Core,SunOS**



- **Graphic 2 : Solaris 10u11 FooCrypt,0,0,1,Core,SunOS**



3. FooCrypt Images

- Lots of images located in `/opt/FooCrypt/Scripts/Data/Images` which you can utilise as desktop wallpapers.
  - (See FooCrypt Packaged Images)

4. Storage locations

- FooCrypt, A Tale Of Cynical Cyclical Encryption utilises temporary filesystem storage for it usage.

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Which Contains :

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- **.FooCrypt**
  - Contains
  - [FooCrypt Startup Preferences]

  - OpenSSL:[FULL PATH To Default OpenSSL Binary]
    Note:
    The OpenSSL Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-q | Absolute PATH to OpenSSL]

  - Expect:[FULL PATH To Default Expect Binary]
    Note:
    The Expect Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-E | Full PATH Of Expect Version To Use]

  - Wish:[Wish-Type]:[Full PATH To Default Wish Binary]
    - [Wish-Type]
      - FooCrypt-StarKit
      - FooCrypt-User
        - FooCrypt-User Is Only Available For X11 Windowing Systems
    Note:
    The Wish Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt MacOS Binary] \
      [-W | Full PATH Of Wish Version To Use]
      - Only Available For X11 Windowing Systems

  - ExcludedCyphers:[FULL PATH To Tested OpenSSL Binary]:[Excluded Cyphers List]
    Note:
    Each Tested OpenSSL Binary Will Have An Entry

- **.FooCrypt_Preferences**
  - [FooCrypt User Preferences]
  - All Configuration Settings From The Preferences Window
  - Created With Default Settings If The File Does Not Exist
  - Encrypted With The 'FooKey_Password' Defined In The Preferences Window Using The 'Default Cypher' Defined In The Preferences Window And Stored As A 'base64 encoded' File
  - Total File Size Is Constrained By ARG_MAX
  - Can Contain Multiple Groups Of Preferences Settings

  - Updated Via
    - Menu Select -> FooCrypt -> Preferences -> Save

  - Loaded Via
    - Menu Select -> FooCrypt -> Preferences -> Load

  - Imported From Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Import

  - Exported To Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Export

- **.FooCrypt.Key**
  - [FooCrypt Licensing File]

- **.FooCrypt.Lic**
  - [FooCrypt Licensing File]

- **.FooCrypt.Usb**
  - [FooCrypt Licensing USB Dongle Location]

- **[YYYYMMDDHHMMSS]_[HOSTNAME]_FooCrypt**
  - [Temporary and Log File Directory created upon each invocation of FooCrypt.]

- For an Advanced Installation, it is recommended that the **[FooHome]** Directory be encrypted via your preferred method of FULL DISK Encryption.

- The **[FooHome]** Temporary and Log File Directory, can be modified upon starting FooCrypt via the Preferences window to any location you desire to meet your own personal security standards.

- Please ensure the 'FROM ANYWHERE BUT' is adhered to.

- It is also recommended that the **[FooHome]** directory, be backed up to ensure a suitable recovery of FooCrypt, that meets your requirements.

- The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

  [-n | New FooHome Directory]

- **Windows**

1. Installing Windows Subsystem For Linux

WSL2 should be installed where possible.

- You can install a Linux Run Time Environment on Windows 10 via
- Windows Subsystem for Linux Installation Guide for Windows 10
- WSL : https://docs.microsoft.com/en-us/windows/wsl/install-win10
- WSL2 : https://devblogs.microsoft.com/commandline/wsl-2-is-now-available-in-windows-insiders/

2. Ubuntu LTS Environment

- Once you have installed the Ubuntu Environment

1. Update the package database

- sudo apt update
  - { enter your password when prompted }

2. Upgrade the WSL run time environment

- sudo apt upgrade
  - { enter your password when prompted }

- **Note**
  - You may be prompted to restart your PC if required by the upgrading of the Ubuntu packages

3. Install the Ubuntu packages required by FooCrypt

- sudo apt install ksh expect tcl tk binutils gzip unzip
  - { enter your password when prompted }

- sudo apt install firefox evince
  - { enter your password when prompted }
  - *firefox is required for viewing HTML [Online] & PDF Documentation From The FooCrypt Help Menu.
  - *evince is the standard Ubuntu PDF viewer for viewing the PDF Documentation From The Filesystem.
  - [/opt/FooCrypt/Scripts/Data/pdf/FooCrypt.X.Y.Z.Core.Linux.pdf]

4. Create a symbolic link for powershell.exe in /usr/bin

- `sudo ln -s [ FULL PATH TO YOUR powershell.exe ] /usr/bin/powershell.exe`
  - ie:
    - `sudo ln -s /mnt/c/Windows/System32/WindowsPowerShell/v1.0/powershell.exe /usr/bin/powershell.exe`

5. Update your .profile

- echo export PATH=\${PATH}:/opt/FooCrypt >> ${HOME}/.profile
  - *Note : Pre FooCrypt.2.1.1 required you to set the DISPLAY variable manually, this is now set internally by FooCrypt.2.1.1+
  - echo export DISPLAY=:0.0 >> ${HOME}/.profile

6. Restart your Ubuntu run time environment

- By closing the shell window and re opening it.

3. Install the FooCrypt Debian Package

- As per Linux Standard Install

- As per https://FooCrypt.XYZ/linux-install

- sudo dpkg -i foocrypt-X.Y.Z-core-linux_x86_64.deb

- sudo apt-get install -f
  - (To Install Missing Packages)

- You are now able to run FooCrypt via the command line.

- Command Line Interface
  - /opt/FooCrypt/FooCrypt

4. Install Your X Server Of Choice

- In order to utilise FooCrypt via the Graphical User Interface, you will need to install an X Server such as the Ming X Server which is available via

- Ming X Server : https://sourceforge.net/projects/xming/files/Xming/6.9.0.31/Xming-6-9-0-31-setup.exe/download

- You will need to run FooCrypt from the command line once you have opened up the WSL run time environment shell.

5. Command Line Interface

- /opt/FooCrypt/FooCrypt
  - (See Graphic 1 Below)

6. GUI

- /opt/FooCrypt/FooCrypt-GUI
  - (See Graphic 2 Below)

7. Storage locations

- FooCrypt, A Tale Of Cynical Cyclical Encryption utilises temporary filesystem storage for it usage.

- By DEFAULT, the ABSOLUTE PATH NAME of the storage location is :

[USER HOME DIRECTORY]/FooCrypt

Which Contains :

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  - OpenSSL:[FULL PATH To Default OpenSSL Binary]
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    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-q | Absolute PATH to OpenSSL]

  - Expect:[FULL PATH To Default Expect Binary]
    Note:
    The Expect Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt-GUI] \
      [-E | Full PATH Of Expect Version To Use]

  - Wish:[Wish-Type]:[Full PATH To Default Wish Binary]
    - [Wish-Type]
      - FooCrypt-StarKit
      - FooCrypt-User
        - FooCrypt-User Is Only Available For X11 Windowing Systems

    Note:
    The Wish Entry Is Only Updated Via The GUI
    Menu Select -> FooCrypt -> Preferences -> Save
    Can Be Over Ridded By
    - [*Quoted FULL PATH To FooCrypt MacOS Binary] \
      [-W | Full PATH Of Wish Version To Use]
      - Only Available For X11 Windowing Systems

  - ExcludedCyphers:[FULL PATH To Tested OpenSSL Binary]:[Excluded Cyphers List]
    Note:
    Each Tested OpenSSL Binary Will Have An Entry

- **.FooCrypt_Preferences**
  - [FooCrypt User Preferences]
  - All Configuration Settings From The Preferences Window
  - Created With Default Settings If The File Does Not Exist
  - Encrypted With The 'FooKey_Password' Defined In The Preferences Window Using The 'Default Cypher' Defined In The Preferences Window And Stored As A 'base64 encoded' File
  - Total File Size Is Constrained By ARG_MAX
  - Can Contain Multiple Groups Of Preferences Settings

  - Updated Via
    - Menu Select -> FooCrypt -> Preferences -> Save

  - Loaded Via
    - Menu Select -> FooCrypt -> Preferences -> Load

  - Imported From Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Import

  - Exported To Another Filename Via
    - Menu Select -> FooCrypt -> Preferences -> Export

- **.FooCrypt.Key**
  - [FooCrypt Licensing File]

- **.FooCrypt.Lic**
  - [FooCrypt Licensing File]

- **.FooCrypt.Usb**
  - [FooCrypt Licensing USB Dongle Location]

- **[YYYYMMDDHHMMSS]_[HOSTNAME]_FooCrypt**
  - [Temporary and Log File Directory created upon each invocation of FooCrypt.]

- For an Advanced Installation, it is recommended that the **[FooHome]** Directory be encrypted via your preferred method of FULL DISK Encryption.

- The **[FooHome]** Temporary and Log File Directory, can be modified upon starting FooCrypt via the Preferences window to any location you desire to meet your own personal security standards.

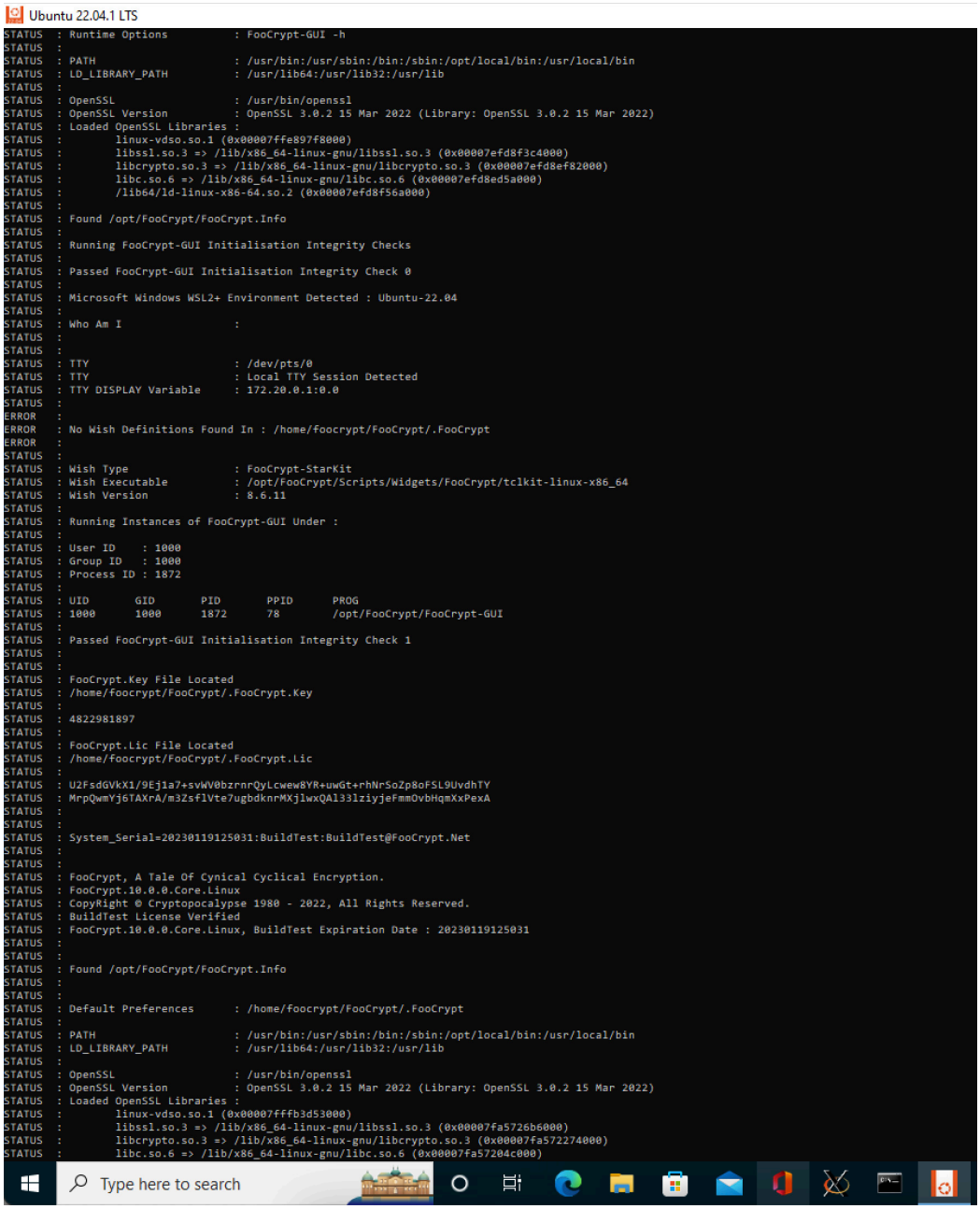
- Please ensure the 'FROM ANYWHERE BUT' is adhered to.

- It is also recommended that the **[FooHome]** directory, be backed up to ensure a suitable recovery of FooCrypt, that meets your requirements.

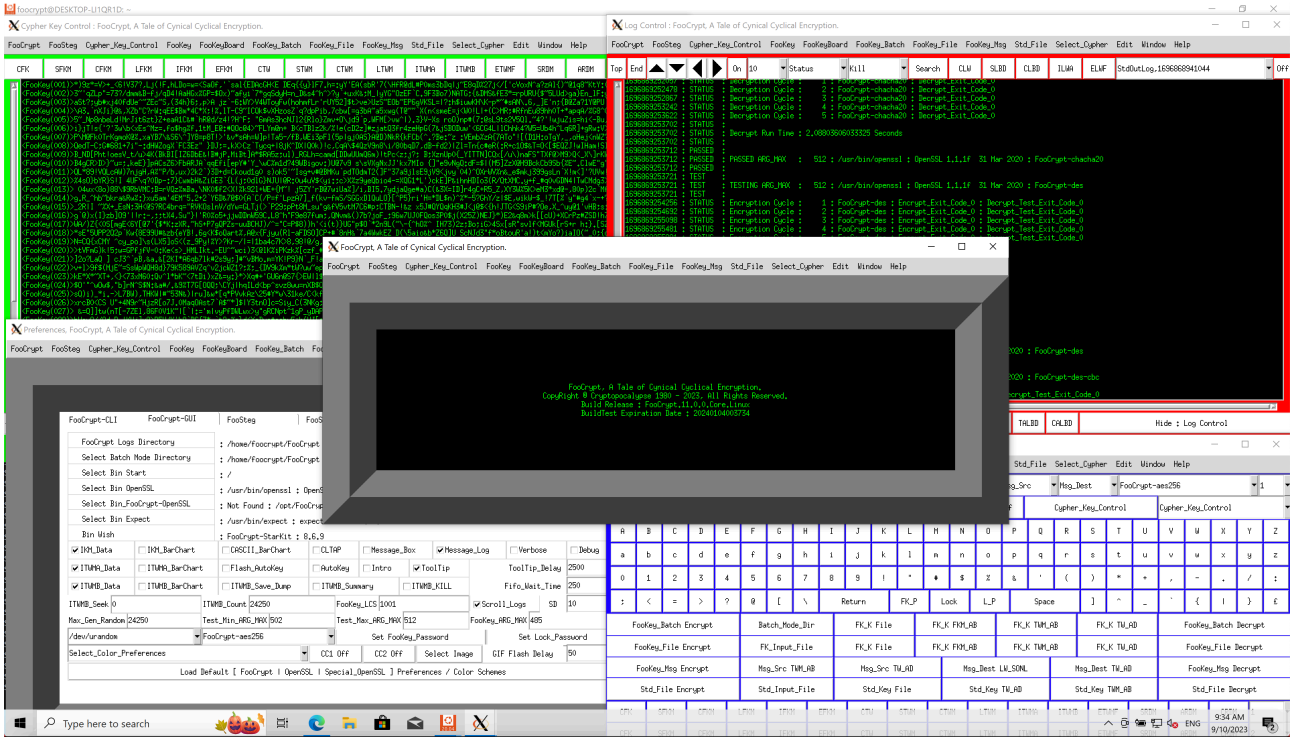
- The Default **[FooHome]** directory can be modified by running all the CLI's via the switch :

  [-n | New FooHome Directory]

- **FooCrypt Images**
  - Lots of images located in /opt/FooCrypt/Scripts/Data/Images which you can utilise as desktop wallpapers.
    - (See FooCrypt Packaged Images)
    - **Graphic 1 : FooCrypt CLI**



- **Graphic 2 : FooCrypt-GUI**



- **<u>Standard UnInstall</u>**

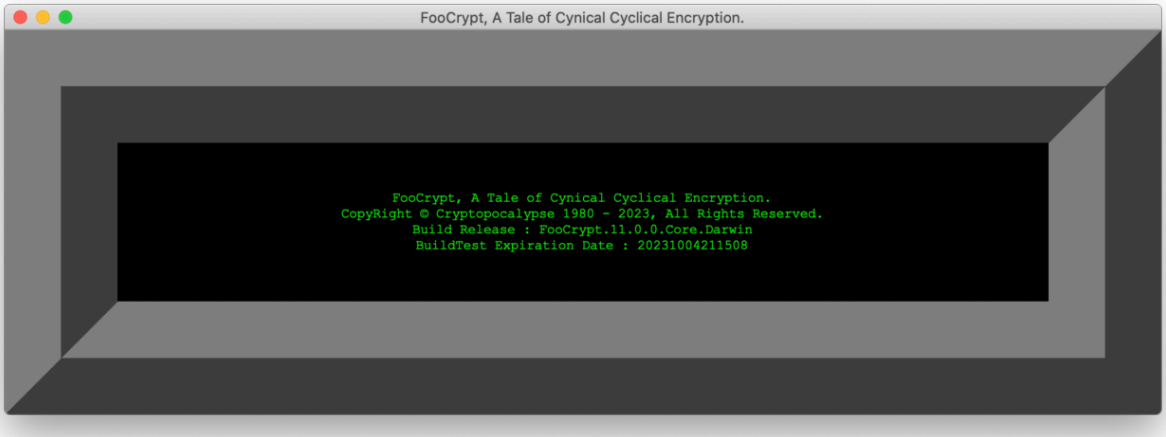
1. To check that FooCrypt is installed :

   - `dpkg -l | egrep -i foocrypt`

2. To Remove FooCrypt.X.Y.Z.Core.Linux

   - `sudo dpkg -r foocrypt`
   - `sudo dpkg –purge foocrypt`
     - *You may need to manually remove any local customisations including the Desktop items created by
       - `/opt/FooCrypt/Scripts/FooCrypt-Desktop`

FooControl



- **Functionality Break Down**

- **FooControl Contains**
  - FooCrypt, A Tale Of Cynical Cyclical Encryption
  - Copyright Information
  - Build Release
  - FooCrypt.X.Y.Z.Core.Darwin
  - FooCrypt.X.Y.Z.Core.Linux
  - FooCrypt.X.Y.Z.Core.SunOS

  Where :

  X = Major Release Number [UPGRADE]
  Y = Minor Release Number [UPDATE]
  Z = Patch Release Number [FIX]

Licensing Options

- Licensing Information [‘Demonstration Expiration Date : YYYYMMDDHHMMSS’]
  - Valid for 14 days from the date / time of issue

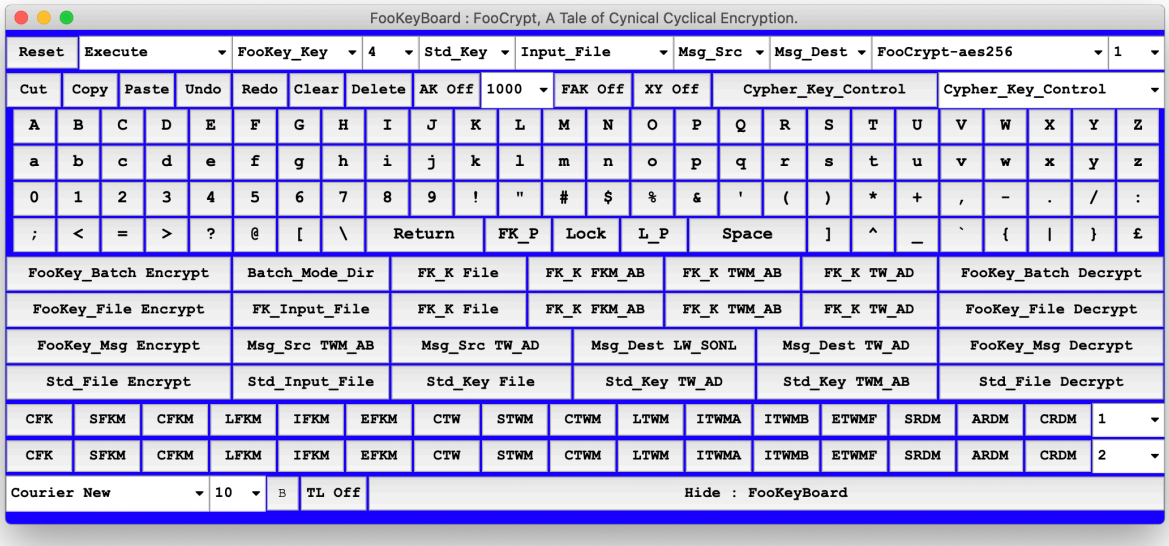
- Licensing Information [‘Monthly Expiration Date : YYYYMMDDHHMMSS’]
  - Valid for 35 days from the date / time of issue

- Licensing Information [‘Yearly Expiration Date : YYYYMMDDHHMMSS’]
  - Valid for 372 days from the date / time of issue

- Licensing Information [‘Big_Thought Expiration Date : YYYYMMDDHHMMSS’]
  - Valid for 294 days from the date / time of issue

- Licensing Information [‘Licensed : FooCrypt Key : { FooCrypt Key Number }’]
  - A Perpetual (Life Time) License

FooKeyBoard



- FooKeyBoard (FKB) takes away from the ‘Common Flaws‘ their ability to intercept and record any interaction with the FooKey creation / modification / use process.

- FKB enables you the end user, to feel comfortable, that the key strokes from your keyboard and mouse clicks from your mouse / pointer device, are NOT being intercepted and the data you have chosen to encrypt / decrypt, is safe in its encrypted state.

- FKB contains standard ASCII characters 13 & 32 – 126 & 163 inclusive along with :
  - Note : ASCII character 163 [English Pound Symbol ‘£’] should not be utilised inside the contents of a FooKey and is only being Made available for use within a FooKey_Msg as text content.
  - (See Table 1 Below)

- **Functionality Break Down**
  - **1st (Top) Line**

- **Reset**
  - Resets all DDBs on the top row to defaults.

- **Execute DDB**
  - Reset [Resets all DDBs on the top row to defaults]
  - FooKey_Batch_Enc
  - FooKey_Batch_Dec
  - FooKey_File_Enc
  - FooKey_File_Dec
  - FooKey_Msg_Enc
  - FooKey_Msg_Dec
  - Std_File_Enc
  - Std_File_Dec

- **FooKey_Key DDB**
  - Reset [Resets all FooKey_Key settings to default]
  - File
  - FKM_AB
  - TWM_AB
  - TW_AD
  - TW_AD_ASCII

- **FooKey_Mode DDB**
  - Numerical values 1 -4
  - DEFAULT : 4

- **Std_Key DDB**
  - Reset [Resets all Std_Key settings to default]
  - File
  - TWM_AB
  - TW_AD

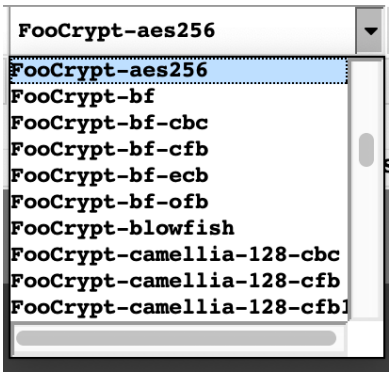
- **Input_File DDB**
  - Reset [Resets all Input_File settings to default]
  - Batch_Mode_Dir
  - FK_Input_File
  - Std_Input_File

- **Msg_Src DDB**
  - Reset [Resets all Msg_Src settings to default]
  - TWM_AB
  - TW_AD

- **Msg_Dest DDB**
  - Reset [Resets all Msg_Dest settings to default]
  - LW_SOL
  - TW_AD

- **OpenSSL_Cypher DDB**
  - Complete list of validated cyphers for FooCrypt to utilise to Encrypt / Decrypt Data
    - (See Graphic Below)
  - DEFAULT : FooCrypt-aes256

  - **Graphic : Select The OpenSSL_Cypher To Use**



- **Active Buffer DDB**
  - Current Active Buffer [1 - 10]
  - Switch to Active Buffer [1 - 10]

- **2nd Line**

- **Cut**
  - Cuts Selected Text From Destination Window

- **Copy**
  - Copies Selected Text From Destination Window

- **Paste**
  - Pastes Text starting at cursor position From Destination Window
  - Pastes Text into selected text when you have highlighted a range of text From Destination Window

- **Undo**
  - Undos' previous FooKeyBoard Destination change

- **Redo**
  - Redos' previous FooKeyBoard Destination change

- **Clear**
  - Clears selected text From Destination Window

- **Delete**
  - Deletes 1 character to the left of current cursor position From Destination Window

- **AK**
  - Toggle Auto Key On / Off
  - Auto Key Press FooKeyBoard ASCII Character Key Under Mouse Cursor After About (2 – 3) Seconds
  - AK enables you the user, to by pass 'Common Flaws' by not having to perform a mouse / pointer device 'CLICK'

- **AK Delay**
  - Numerical values 250 - 10000, in increments of 250
  - AK Delay in milliseconds between Auto_Key Test

- **FAK**
  - Toggle FAK On / Off
  - Flash FooKeyBoard Active Destination Button and AutoKey Key

- **XY**
  - Toggle XY On / Off
  - Display The Cursor X.Y Coordinates For The Active Destination Window

- **DDB**
  - Select Destination Window for FooKeyBoard ASCII Character Keys
    - (See Graphic 1 Below)

  - Selected_Under_Cursor [Auto Selected Based On The Position Of The Cursor]
  - Cypher_Key_Control [*Default]
  - CKC_Replace
  - CKC_Search
  - Log_Control
  - LC_Search
  - IWMB_Count
  - IWMB_Seek
  - FooKey_ARG_MAX
  - FooKey_LCS
  - Lock_Password
  - FooKey_Password
  - Max_Gen_Random
  - Test_Max_ARG_MAX
  - Test_Min_ARG_MAX
  - FS_Random_Width
  - FS_Random_Height
  - FS_RGB_Min
  - FS_RGB_Max
  - FS_Start_Pixel_Width
  - FS_Start_Pixel_Height
  - FSC_Password
  - FSC_Token
  - Special_OpenSSL [*Advanced Mode]

  - QRCS_Username [*Requires the QRCS (With eAES®) Quantum Resistant Cipher Engine : https://QRCrypto.ch]
    - Note : QRCS_Username is only required in the QRCS Binary with Username / Password Credentials

  - QRCS_Password [*Requires the QRCS (With eAES®) Quantum Resistant Cipher Engine : https://QRCrypto.ch]
    - Note : QRCS_Password is only required in the QRCS Binary with Username / Password Credentials

- **6th Line**

;	<	=	>	?	@	[	\	Return	FK_P	Lock	L_P	Space	]	^	_	`	{	|	}	£

- **FK_P**
  - Set FooKey Password
- **Lock**
  - Lock FooCrypt
- **L_P**
  - Set Lock Password

- **7th Line**

FooKey_Batch Encrypt	Batch_Mode_Dir	FK_K File	FK_K FKM_AB	FK_K TWM_AB	FK_K TW_AD	FooKey_Batch Decrypt

- **FooKey_Batch Encrypt**
  - Initiates the Batch Mode encryption polling the Batch_Mode_Dir structure with the selected FooKey_Key Source
- **Batch_Mode_Dir**
  - Browse and select the Batch_Mode_Dir
- **FK_K File**
  - Browse and select a FooKey_Key File
- **FK_K FKM_AB**
  - Select FooKey_Key from the FooKey Memory Active Buffer
- **FK_K TWM_AB**
  - Select FooKey_Key from the Text Window Memory Active Buffer
- **FK_K TW_AD**
  - Select FooKey_Key from the Text Window Active Data
- **FooKey_Batch Decrypt**
  - Initiates the Batch Mode decryption polling the Batch_Mode_Dir structure with the selected FooKey_Key Source

- **8th Line**

FooKey_File Encrypt	FK_Input_File	FK_K File	FK_K FKM_AB	FK_K TWM_AB	FK_K TW_AD_E	FooKey_File Decrypt

- **FooKey_File Encrypt**
  - Initiates the encryption of the selected FK_Input_File with the selected FooKey_Key Source
- **FK_Input_File**
  - Browse and select a FK_Input_File
- **FK_K FKM_AB**
  - Select FooKey_Key from the FooKey Memory Active Buffer
- **FK_K TWM_AB**
  - Select FooKey_Key from the Text Window Memory Active Buffer
- **FK_K TW_AD**
  - Select FooKey_Key from the Text Window Active Data
- **FK_K File**
  - Browse and select a FooKey_Key File
- **FooKey_File Decrypt**
  - Initiates the decryption of the selected FK_Input_File with the selected FooKey_Key Source

- **9th Line**

FooKey_Msg Encrypt	Msg_Src TWM_AB	Msg_Src TW_AD	Msg_Dest LW_SOL	Msg_Dest TW_AD	FooKey_Msg Decrypt

- **FooKey_Msg Encrypt**
  - Initiates the encryption of the selected FooKey_Msg Source with the selected FooKey_Key Source
- **Msg_Src TWM_AB**
  - Select the Text Window Memory Active Buffer as the Msg_Src
- **Msg_Src TW_AD**
  - Select the Text Window Active Data as the Msg_Src
- **Msg_Dest LW_SOL**
  - Select the Log Window Standard Out Log as the Msg_Dest
- **Msg_Dest TW_AD**
  - Select the Text Window Active Data as the Msg_Dest
- **FooKey_Msg Decrypt**
  - Initiates the decryption of the selected FooKey_Msg Source with the selected FooKey_Key Source

- **10th Line**

Std_File Encrypt	Std_Input_File	Std_Key File	Std_Key TW_AD	Std_Key TWM_AB	Std_File Decrypt

- **Std_File Encrypt**
  - Initiates the encryption of the selected Std_Input_File with the selected Std_Key Source
- **Std_Input_File**
  - Browse and select a Std_Input_File
- **Std_Key File**
  - Browse and select Std_Key a File
- **Std_Key TW_AD**
  - Select FooKey_Key from the Text Window Active Data
- **Std_Key TWM_AB**
  - Select Std_Key from the Text Window Memory Active Buffer
- **Std_File Decrypt**
  - Initiates the decryption of the selected Std_Input_File with the selected Std_Key Source

- **11th & 12th Lines**

CFK	SFKM	CFKM	LFKM	IFKM	EFKM	CTW	STWM	CTWM	LTWM	ITWMA	ITWMB	ETWMF	SRDM	ARDM	CRDM	1
CFK	SFKM	CFKM	LFKM	IFKM	EFKM	CTW	STWM	CTWM	LTWM	ITWMA	ITWMB	ETWMF	SRDM	ARDM	CRDM	2

The bottom 2 rows have similar functionality to the buttons on the top row of the CypherKeyControl window. Except that. The DDB [1 - 10] values don't switch to the Active Buffer, until the buttons are clicked.

- **CFC**
  - Create FooKey Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **SFKM**
  - Show FooKey Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **CFKM**
  - Clear FooKey Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **LFKM**
  - Load FooKey Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **IFKM**
  - Import FooKey Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **EFKM**
  - Export FooKey Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **CTW**
  - Clear Text Window
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **STWM**
  - Show Text Window Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **CTWM**
  - Clear Text Window Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **LTWM**
  - Load Text Window Memory Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **ITWMA**
  - Import Text Window Memory ASCII Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **ITWMB**
  - Import Text Window Memory Binary Active Buffer [1 – 10]
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **ETWMF**
  - Save Text Window To Window Memory [1 - 10]
  - Export Text Window Memory [1 - 10] To A File
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **SRDM**
  - Show Random Data Memory
  - Switch Active Buffer To DDB Buffer [1 – 10]

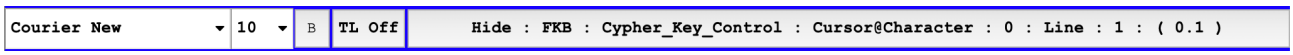
- **ARDM**
  - Append Random Data Memory
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **CRDM**
  - Clear Random Data Memory
  - Switch Active Buffer To DDB Buffer [1 – 10]

- **DDB [1 – 10]**
  - Select Buffer [1 – 10]

- **13th Line**

- **Font DDB**
  - Detected Fonts
- **Font Size DDB**
  - Numerical values 1 - 30
- **Bold**
  - Set Selected Font to Bold (If Available)
- **TL**
  - Top Level setting to force FooKeyBoard to always be on top



- **Hide : FooKeyBoard**
  - Also displays the FooKeyBoard Destination and Cursor Location
    - ([Character].[Line Number])

- **Table 1 : FooKeyBoard ASCII KeyBoard Characters**

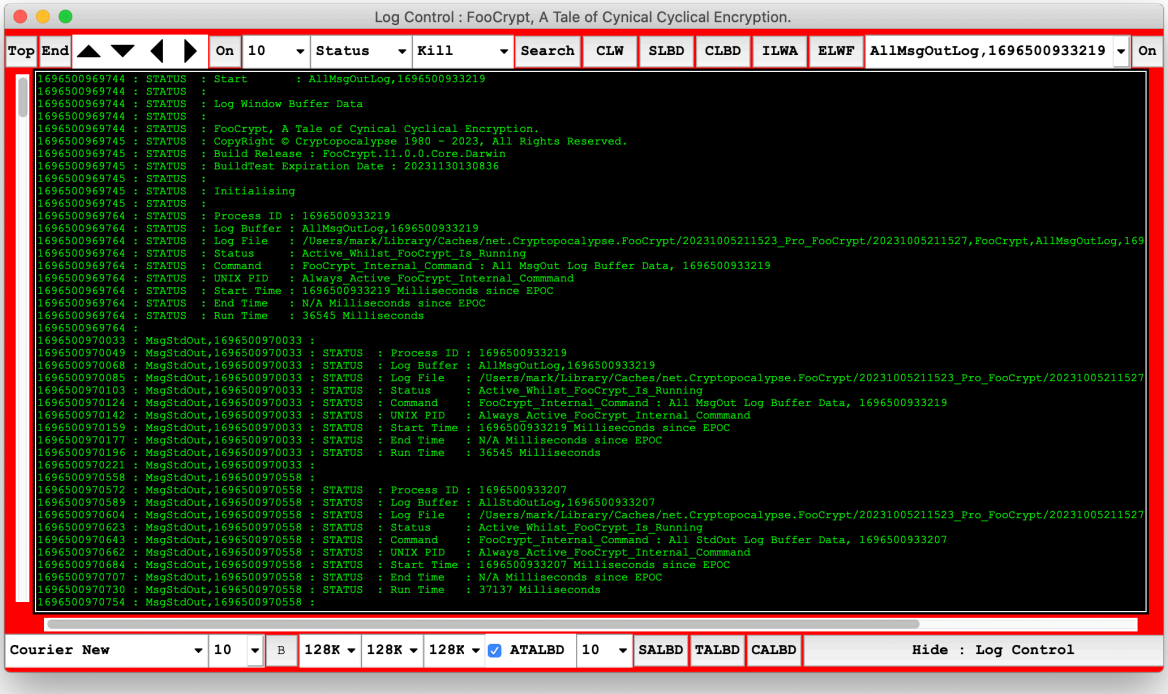
ASCII	Character	13	=	Return	=	1101 in Binary
ASCII	Character	32	=	‘ ‘	=	100000 in Binary
ASCII	Character	33	=	‘!’	=	100001 in Binary
ASCII	Character	34	=	‘”‘	=	100010 in Binary
ASCII	Character	35	=	‘#’	=	100011 in Binary
ASCII	Character	36	=	‘$’	=	100100 in Binary
ASCII	Character	37	=	‘%’	=	100101 in Binary
ASCII	Character	38	=	‘&’	=	100110 in Binary
ASCII	Character	39	=	‘’’	=	100111 in Binary
ASCII	Character	40	=	‘(‘	=	101000 in Binary
ASCII	Character	41	=	‘)’	=	101001 in Binary
ASCII	Character	42	=	‘*’	=	101010 in Binary
ASCII	Character	43	=	‘+’	=	101011 in Binary
ASCII	Character	44	=	‘,’	=	101100 in Binary
ASCII	Character	45	=	‘-‘	=	101101 in Binary
ASCII	Character	46	=	‘.’	=	101110 in Binary
ASCII	Character	47	=	‘/’	=	101111 in Binary
ASCII	Character	48	=	‘0’	=	110000 in Binary
ASCII	Character	49	=	‘1’	=	110001 in Binary
ASCII	Character	50	=	‘2’	=	110010 in Binary
ASCII	Character	51	=	‘3’	=	110011 in Binary
ASCII	Character	52	=	‘4’	=	110100 in Binary
ASCII	Character	53	=	‘5’	=	110101 in Binary
ASCII	Character	54	=	‘6’	=	110110 in Binary

ASCII Character	55	=	‘7’	=	110111 in Binary
ASCII Character	56	=	‘8’	=	111000 in Binary
ASCII Character	57	=	‘9’	=	111001 in Binary
ASCII Character	58	=	‘:’	=	111010 in Binary
ASCII Character	59	=	‘;’	=	111011 in Binary
ASCII Character	60	=	‘<‘	=	111100 in Binary
ASCII Character	61	=	‘=’	=	111101 in Binary
ASCII Character	62	=	‘>’	=	111110 in Binary
ASCII Character	63	=	‘?’	=	111111 in Binary
ASCII Character	64	=	‘@’	=	1000000 in Binary
ASCII Character	65	=	‘A’	=	1000001 in Binary
ASCII Character	66	=	‘B’	=	1000010 in Binary
ASCII Character	67	=	‘C’	=	1000011 in Binary
ASCII Character	68	=	‘D’	=	1000100 in Binary
ASCII Character	69	=	‘E’	=	1000101 in Binary
ASCII Character	70	=	‘F’	=	1000110 in Binary
ASCII Character	71	=	‘G’	=	1000111 in Binary
ASCII Character	72	=	‘H’	=	1001000 in Binary
ASCII Character	73	=	‘I’	=	1001001 in Binary
ASCII Character	74	=	‘J’	=	1001010 in Binary
ASCII Character	75	=	‘K’	=	1001011 in Binary
ASCII Character	76	=	‘L’	=	1001100 in Binary
ASCII Character	77	=	‘M’	=	1001101 in Binary
ASCII Character	78	=	‘N’	=	1001110 in Binary
ASCII Character	79	=	‘O’	=	1001111 in Binary
ASCII Character	80	=	‘P’	=	1010000 in Binary

ASCII Character	81	=	‘Q’	=	1010001 in Binary
ASCII Character	82	=	‘R’	=	1010010 in Binary
ASCII Character	83	=	‘S’	=	1010011 in Binary
ASCII Character	84	=	‘T’	=	1010100 in Binary
ASCII Character	85	=	‘U’	=	1010101 in Binary
ASCII Character	86	=	‘V’	=	1010110 in Binary
ASCII Character	87	=	‘W’	=	1010111 in Binary
ASCII Character	88	=	‘X’	=	1011000 in Binary
ASCII Character	89	=	‘Y’	=	1011001 in Binary
ASCII Character	90	=	‘Z’	=	1011010 in Binary
ASCII Character	91	=	‘[‘	=	1011011 in Binary
ASCII Character	92	=	‘\’	=	1011100 in Binary
ASCII Character	93	=	‘]’	=	1011101 in Binary
ASCII Character	94	=	‘^’	=	1011110 in Binary
ASCII Character	95	=	‘_’	=	1011111 in Binary
ASCII Character	96	=	‘`’	=	1100000 in Binary
ASCII Character	97	=	‘a’	=	1100001 in Binary
ASCII Character	98	=	‘b’	=	1100010 in Binary
ASCII Character	99	=	‘c’	=	1100011 in Binary
ASCII Character	100	=	‘d’	=	1100100 in Binary
ASCII Character	101	=	‘e’	=	1100101 in Binary
ASCII Character	102	=	‘f’	=	1100110 in Binary
ASCII Character	103	=	‘g’	=	1100111 in Binary
ASCII Character	104	=	‘h’	=	1101000 in Binary
ASCII Character	105	=	‘i’	=	1101001 in Binary
ASCII Character	106	=	‘j’	=	1101010 in Binary

ASCII Character 107 = ‘k’ = 1101011 in Binary
ASCII Character 108 = ‘l’ = 1101100 in Binary
ASCII Character 109 = ‘m’ = 1101101 in Binary
ASCII Character 110 = ‘n’ = 1101110 in Binary
ASCII Character 111 = ‘o’ = 1101111 in Binary
ASCII Character 112 = ‘p’ = 1110000 in Binary
ASCII Character 113 = ‘q’ = 1110001 in Binary
ASCII Character 114 = ‘r’ = 1110010 in Binary
ASCII Character 115 = ‘s’ = 1110011 in Binary
ASCII Character 116 = ‘t’ = 1110100 in Binary
ASCII Character 117 = ‘u’ = 1110101 in Binary
ASCII Character 118 = ‘v’ = 1110110 in Binary
ASCII Character 119 = ‘w’ = 1110111 in Binary
ASCII Character 120 = ‘x’ = 1111000 in Binary
ASCII Character 121 = ‘y’ = 1111001 in Binary
ASCII Character 122 = ‘z’ = 1111010 in Binary
ASCII Character 123 = ‘{‘ = 1111011 in Binary
ASCII Character 124 = ‘|’ = 1111100 in Binary
ASCII Character 125 = ‘}’ = 1111101 in Binary
ASCII Character 126 = ‘~’ = 1111110 in Binary
ASCII Character 163 = ‘£’ = 1111110 in Binary

Log Control



- Log Control (LC) handles all of the logging / process status / process killing for all the FooCrypt, A Tale Of Cynical Cyclical Encryption tasks.

- LC is also a mini text editor in its own right, just like CKC it has access to the FooKeyBoard security features taking away the ‘Common Flaws‘ ability to intercept what you are doing.

- **Functionality Break Down**
- **Top Line**
- **Top**
  - Show The Top Of The File In The Log Window

- **End**
  - Show The End Of The File In The Log Window

- **Up Arrow Head**
  - Page Up The File In The Log Window

- **Down Arrow Head**
  - Page Down The File In The Log Window

- **Left Arrow Head**
  - Page Left The File In The Log Window

- **Right Arrow Head**
  - Page Right The File In The Log Window

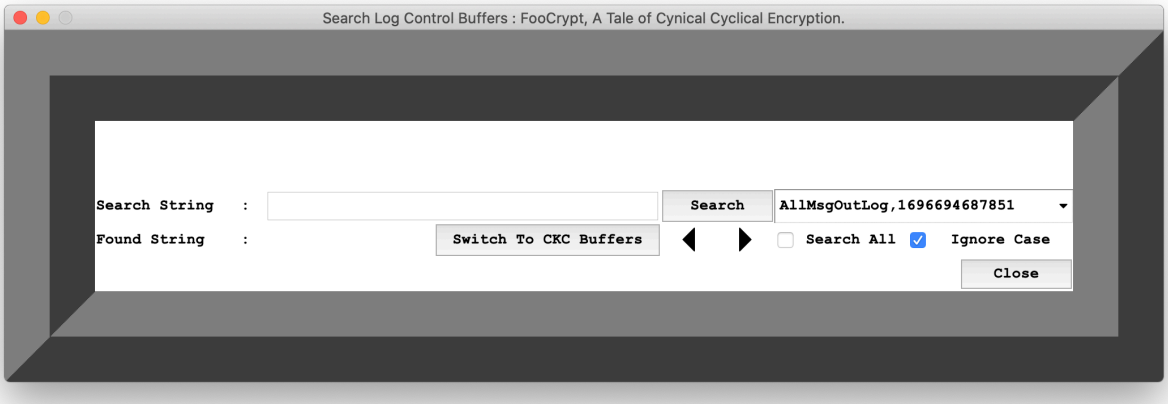
- **Scroll Logs**
  - Toggle On / Off
  - Scroll Log Window Output

- **Scroll Delay DDB**
  - Log Window Scroll_Delay
    - (Listing Is In Milliseconds)
    - (See Graphic 1 Below)

- **Status DDB**
  - Command Status Dependant On LogFile Selection
    - Status
      - Selected Log Buffer Command Status
    - Active
      - Active Commands Status
    - All
      - All Commands Status
    - Completed
      - Completed Commands Status
    - Died
      - Died Commands Status
    - Killed
      - Killed Commands Status
    - Lost
      - Lost Commands Status
    - StdOutLog
      - StdOutLog Commands Status
    - StdOutNoLog
      - StdOutNoLog Commands Status

- **KILL DDB**
  - KILL The Running Command Dependant On LogFile Selection
    - Kill
      - Selected Log Buffer Command
    - Active
      - Active Commands
    - StdOutLog
      - StdOutLog Commands
    - StdOutNoLog
      - StdOutNoLog Commands

- **Search**
  - Search The Log Control Window / Buffers
    Note :
    - Searching should be performed when no active processes are displaying logs in Log_Control and/or Scroll Logs is set to Off.



  - Search String
  - Search Button
  - Log Buffer List DDB
  - Switch To CKC Buffers
  - Left Arrow Button
  - Right Arrow Button
  - Search All Check Box
  - Ignore Case Check Box
  - Close Button

- **CLW**
  - Clear The Log Window

- **SLWM**
  - Show The Data In The Log Window Memory
- **ILWA**
  - Import an ASCII File Into the Log Control Window And Load The Data Into a new The Log Control Buffer

- **ELWF**
  - Export The Data From The Log Window And Save It In A File

- **DDB**
  - Select The Log Buffer To Be Displayed In The Log Window
    - AllStdOut [All logs Combined Together]
    - StdOutLog [Single Log File For The FooCrypt Task]
    - StdOutNoLog [Internal FooCrypt Process Logging, No LogFile Created]

Note :
- Not All FooCrypt Tasks Generate LogFiles For LC
- Not ALL Log Files listed In LC are automatically Saved To Disk

- **Active Process**
  - Toggle On / Off
  - Change Log Window To Active Process Upon The New Process Starting

- **Bottom Line**
- **Font DDB**
  - Detected Fonts

- **Font Size DDB**
  - Numerical values 1 - 30

- **Bold**
  - Set Selected Font to Bold (If Available)

- **LWD Maximum Data Size DDB**
  - Log Control Window Maximum Data Size
  - Factored values from 32K - 32MB

- **CLB Maximum Data Size DDB**
  - Current Log Buffer Maximum Data Size
  - Factored values from 32K - 32MB

- **ALB Maximum Data Size DDB**
  - All Log Buffers Maximum Data Size
  - Factored values from 32K - 32MB

- **ATALBD**
  - Auto Trim All Log Buffers Data
  - Check Box (On / Off)
  - Automatically trims all log buffers to their maximum data size every N seconds

- **ATALBD Values DDB**
  - Numerical Values 1 - 300 (seconds)
  - Sleep interval for ATALBD
  - Automatically trims all log buffers to their maximum data size every N seconds

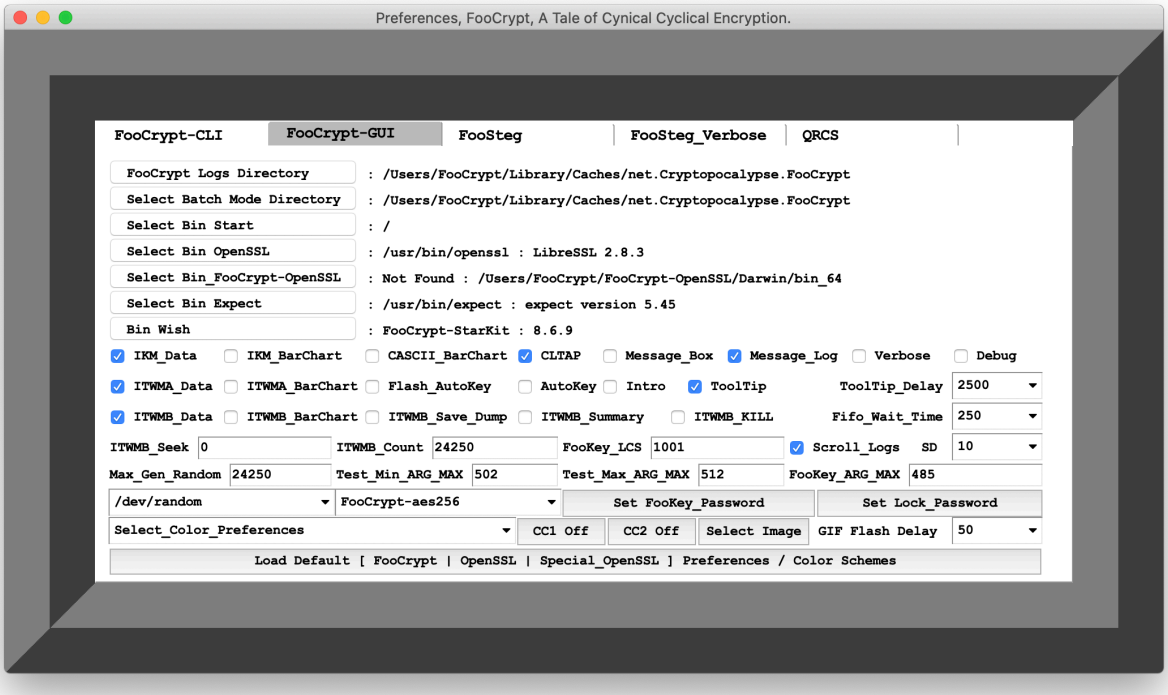
- **SALBD**
  - Status of all Log Buffers Maximum Data Size

- **TALBD**
  - Trim All Log Buffers to their Maximum Data Size

- **CALBD**
  - Clear all Log Buffers

- **Hide**
  - Hide FooKeyBoard

Preferences : FooCrypt-GUI



- 'FooCrypt Preferences : FooCrypt, A Tale Of Cynical Cyclical Encryption' is FooCrypt's configuration and master control area.

- Giving you the user, options and variations that takes FooCrypt into the direction you need to go.

- **Functionality Break Down**

- **Select Logs Home [FooHome]**
  - Select FooCrypt **FooHome** Directory
    - DEFAULT LOCATION Darwin :
      - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt
    - DEFAULT LOCATION Linux :
      - [Users Home Directory]/FooCrypt
    - DEFAULT LOCATION Solaris :
      - [Users Home Directory]/FooCrypt

- **Select Batch Mode Directory**
  - Select FooCrypt **Batch Mode Directory**
    - DEFAULT LOCATION Darwin :
      - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt
    - DEFAULT LOCATION Linux :
      - [Users Home Directory]/FooCrypt
    - DEFAULT LOCATION Solaris :
      - [Users Home Directory]/FooCrypt
- **Select Bin Start**
  - Select Bin Search Start Location
  - DEFAULT LOCATION : /

- **Select Bin OpenSSL**
  - Select OpenSSL Version
    - DEFAULT VERSION Darwin : [whence openssl searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Linux : [whence openssl searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Solaris : [whence openssl searching]
      - [PATH=/usr/xpg4/bin:/usr/bin:/usr/sbin:/bin:/sbin:/opt/csw/bin]
  - openssl version displayed

- **Select Bin_FooCrypt_OpenSSL**
  - Select Bin_FooCrypt_OpenSSL Directory
    - DEFAULT LOCATION Darwin : [${HOME}/FooCrypt-OpenSSL/Darwin/bin_64]
    - DEFAULT LOCATION Linux : [/opt/FooCrypt-OpenSSL/Linux/bin_64]
    - DEFAULT LOCATION Solaris : [${HOME}/FooCrypt-OpenSSL/SunOS/bin_64]

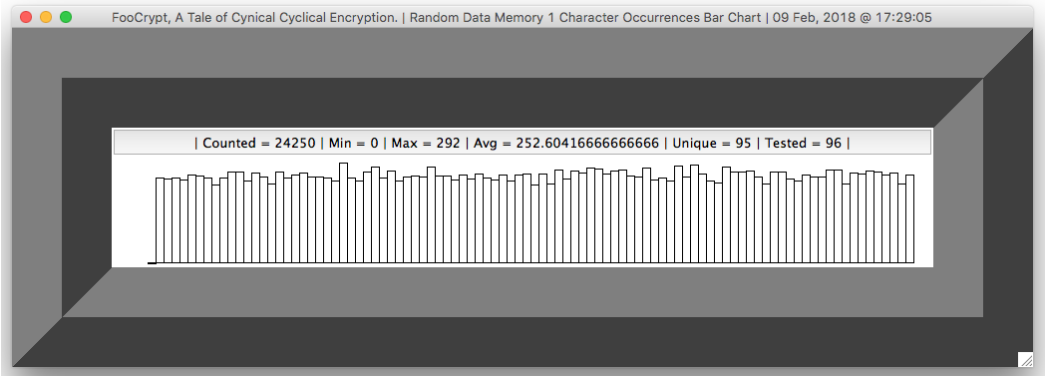
- **Select Bin Expect**
  - Select Expect Version
    - DEFAULT VERSION Darwin : [whence expect searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Linux : [whence expect searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Solaris : [whence expect searching]
      - [PATH=/usr/xpg4/bin:/usr/bin:/usr/sbin:/bin:/sbin:/opt/csw/bin]
  - expect version displayed

- **Bin Wish**
  - Wish [Tcl / Tk] is embedded into the FooCrypt, A Tale Of Cynical Cyclical Encryption Application Bundle by using StarKit packaging technology
  - Wish is a configurable startup item selectable via the FooCrypt CLI.
  - Note
    - Wish Version Is Only Able To Be Changed On X11 Windowing Systems

- **IKM_Data**
  - Show IKM Data In The Text Window After The Data Is Imported

- **IKM_BarChart**
  - Show IKM Bar Chart After The Data Is Imported
    - (See Graphic 1 Below)

- **Graphic 1 : Bar Chart Example**
  - Bar Charts are a quick and easy way for you to determine the randomness of the data
  - Click the : '|Counted = ' Text Line to close



- **CASCII_BarChart**
  - Show Count ASCII Occurrences Bar Charts

- **CLTAP**
  - Change Log Window To Active Process

- **Intro**
  - Show All Cryptopocalypse Images On Start

- **ToolTip**
  - Show ToolTip Help Popup Messages

- **ToolTip_Delay**
  - ToolTip Popup Delay

- **ITWMA_Data**
  - Show ITWMA Data In The Text Window After The Data Is Imported

- **ITWMA_BarChart**
  - Show ITWMA Bar Chart After The Data Is Imported (See Graphic 1 Above)

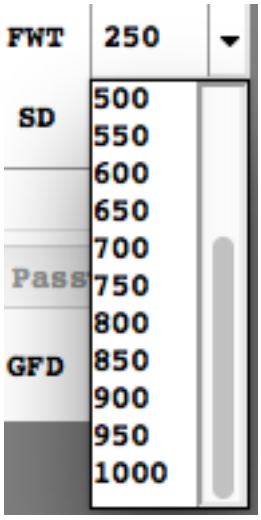
- **Flash_AutoKey**
  - Flash FooKeyBoard Active Destination Button and AutoKey Key

- **AutoKey**
  - Auto Key Press FooKeyBoard ASCII Character Key Under Mouse Cursor After About (2 – 3) Seconds

- **MSG_Box**
  - Show Message Box Dialog Windows

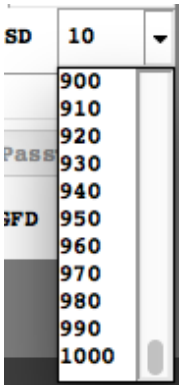
- **MSG_Log**
  - Log Message Box Dialogs To AllStdOutLog, Prefixed With MsgStdOut
- **ITWMB_Data**
  - Show ITWMB Data In The Text Window After The Data Is Imported
- **ITWMB_BarChart**
  - Show ITWMB Bar Chart After The Data Is Imported (See Graphic 1 Above)
- **IWMB_Save_Dump**
  - Save IWMB Data In The Log Directory After The Data Has Been Imported
- **ITWMB_Summary**
  - Show Binary Import Summary
- **ITWMB_KILL**
  - Automatically KILL ITWMB Once (ITWMB_Seek + ITWMB_Count) Characters Have Been Read From The Binary File
- **Verbose**
  - Displays All GUI Executed External Commands In FooCrypt-GUI Log File **[FooHome]**/[YYYYMMDDHHMMSS]_[HOSTNAME]_FooCrypt/ [YYYYMMDDHHMMSS]_[HOSTNAME]_FooCrypt_[PROCESS ID].log
- **Debug**
  - Applies [-D | Display Debug Expect Output] Switch To All FooCrypt Spawned Process From The GUI
- **Fifo_Wait_Time**
  - FIFO Wait Time In Milliseconds
    - (See Graphic 3 Below)
    - Range
      - 200 To 1000 In Increments of 50
    - *Default
      - 250
  - Depending On Your System Configuration And Performance, The Default Setting of Fifo_Wait_Time May Need To Be Increased When TCL/TK Errors Highlighting FIFO Not Found Occur.

- **Graphic 3 : Fifo_Wait_Time**



- **ITWMB_Seek**
  - ITWMB_Seek : Press Enter After Updating
- **ITWMB_Count**
  - ITWMB_Count : Press Enter After Updating
- **FooKey_LCS**
  - FooKey Line Count Start : Press Enter After Updating
- **Scroll_Logs**
  - Scroll Logs On OutPut
- **SD**
  - (See Graphic 3 Below)
  - Log Window Scroll_Delay (Listing Is In Milliseconds)
  - Range
    - 0 - 10 in increments of 1
    - 10 - 1000 in increments of 10

- **Graphic 3 : SD**



- **Max_Gen_Random**
  - Maximum Number of Random Numbers To Generate Into The Random Data Memory Buffer : Press Enter After Updating

- **Test_Min_ARG-MAX**
  - ARG_MAX Test Start Number : Press Enter After Updating

- **Text_Max_ARG_MAX**
  - ARG_MAX Test End Number : Press Enter After Updating

- **FooKey_ARG_MAX**
  - ARG_MAX Setting For FooKey Generation : Press Enter After Updating
  - ARG_MAX Setting For Standard File Encryption : Press Enter After Updating

- **Source Of Random Data DDB**
  - Select The Source Of Random Data
    - (See Graphic 4 Below)
    - /dev/random
      - Uses /dev/random from the operating system as the source of random data
    - /dev/urandom
      - Uses /dev/urandom from the operating system as the source of random data
    - /FooCrypt/Internal
      - Uses FooCrypt's internal random data generator as the source of random data
    - /FooCrypt/Piper-Any-Rand
      - Use's ANY possible random data generator as the source of random data
    - /FooCrypt/Piper-OpenSSL-Rand
      - Use's ANY possible random data generator as the source of random data

  - **Note : /dev/random is not available for use on the Linux version.**

  - Example /FooCrypt/Piper-Any-Rand Config :

    - Using OpenSSL's random number engine [openssl rand 99999999] with the output redirected to the /FooCrypt/Piper-Any-Rand input source

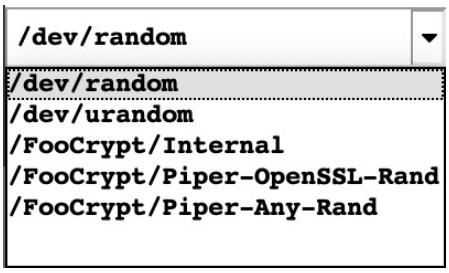
    - Using the UNIX Command yes as the source of random data [yes] with the output redirected to the /FooCrypt/Piper-Any-Rand input source

  - The possibilities are unlimited.

    - /FooCrypt/Piper-Any-Rand can accept any random number generator that can conform to a standard POSIX named pipe [fifo] as an output destination which can be easily obtained via a simple standard out redirection to the fifo.

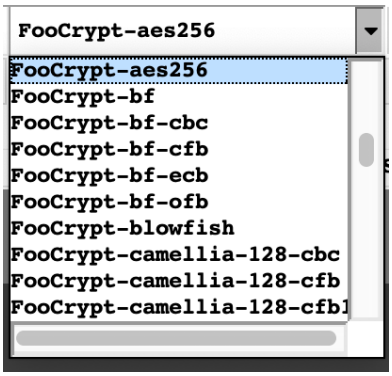
    - `openssl rand 99999 > [ PATH TO FIFO ]`

- **Graphic 4 : Select The Source Of Random Data**



- **FooKey_Cypher DDB**
  - Select The FooKey_Cypher To Use
    - (See Graphic 5 Below)
  - DEFAULT : FooCrypt-aes256

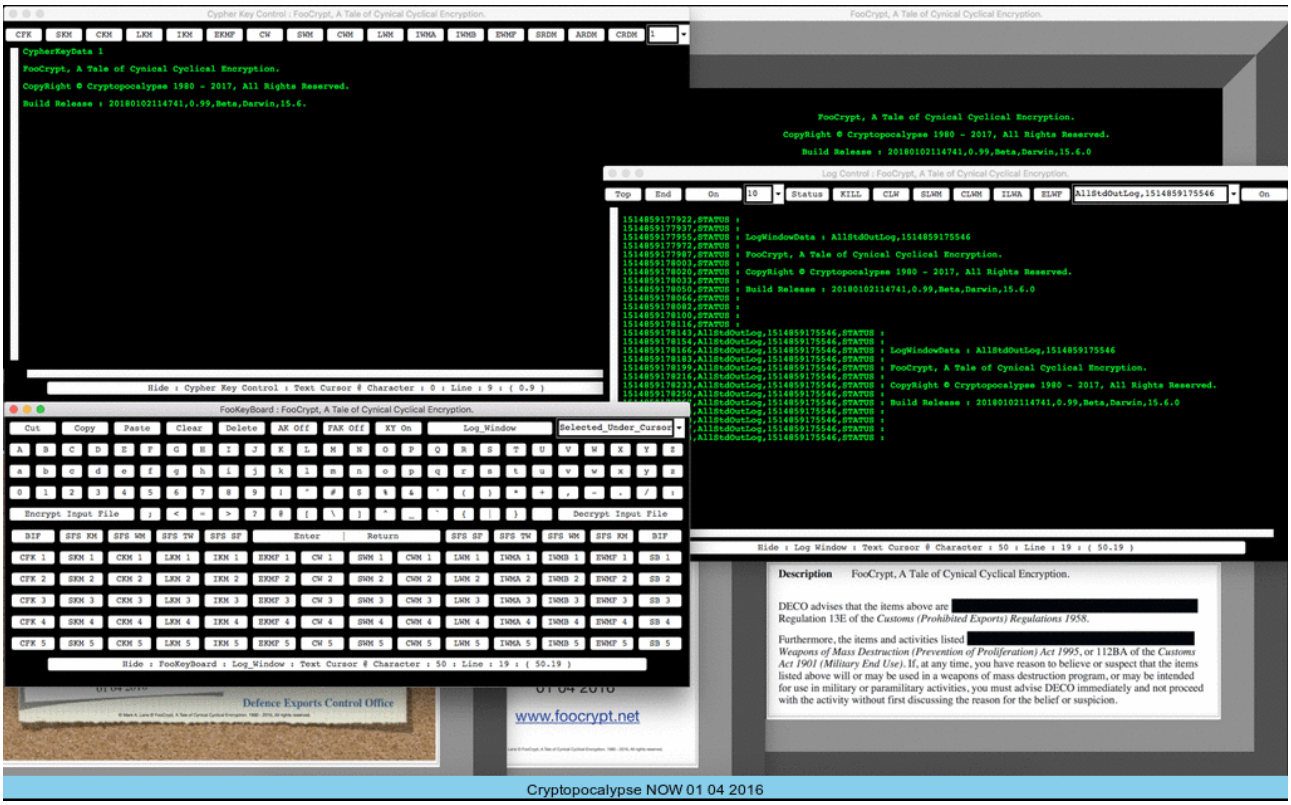
- **Graphic 5 : Select The FooKey_Cypher To Use**



- **Set FooKey_Password**
  - FooKey_Password : Press Enter After Updating
  - DEFAULT : FooCrypt (For all the Demo FooKey's)
  - FooKey_Password is initialised upon each invocation of FooCrypt.
  - FooKey_Password is utilised as the base encryption / decryption password for FooCrypt to save / load FooKey's
  - FooKey_Password is utilised as the base encryption / decryption password for FooCrypt to save / load preference settings
  - Maximum length of ARG_MAX

- **Set Lock_Password**
  - Set Lock_Password
  - Local_Password is used on each invocation of FooCrypt to LOCK FooCrypt so no one else can access FooCrypt whilst your away from your computer

- **Sample color sequences are display in Graphic 6**
  - **Graphic 6 : Sample color ranges**
    - (Full RGB color spectrum is available)
    - https://media.FooCrypt.XYZ/Images/RGB.gif



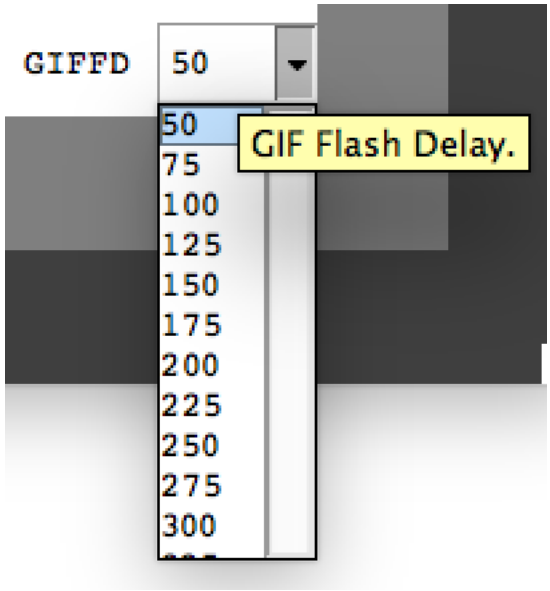
- **Select_Color_Preferences DDB**
  - Default_Color_Preferences
    - Color_Scheme_RGB
  - All_Windows_Ridge_BackGround
  - FooKeyBoard_CypherKeyControl_LogControl_BackGround
  - FooKeyBoard_CypherKeyControl_LogControl_Buttons_BackGround
  - FooKeyBoard_BackGround
  - FooKeyBoard_Buttons_BackGround
  - Msg_Box_Text
  - Msg_Box_BackGround
  - CypherKeyControl_Text
  - CypherKeyControl_Text_BackGround
  - CypherKeyControl_BackGround
  - CypherKeyControl_Buttons_BackGround
  - CypherKeyControl_Find_HighLight_BackGround
  - CypherKeyControl_Find_HighLight_ForeGround
  - CypherKeyControl_Select_HighLight_BackGround
  - CypherKeyControl_Select_HighLight_ForeGround
  - LogControl_Text
  - LogControl_Text_BackGround
  - LogControl_BackGround
  - LogControl_Buttons_BackGround
  - LogControl_Find_HighLight_BackGround
  - LogControl_Find_HighLight_ForeGround
  - LogControl_Select_HighLight_BackGround
  - LogControl_Select_HighLight_ForeGround
  - Color_Scheme_Black
  - Color_Scheme_Blue
  - Color_Scheme_Brown
  - Color_Scheme_Cyan
  - Color_Scheme_Green
  - Color_Scheme_Magenta
  - Color_Scheme_Orange
  - Color_Scheme_Purple
  - Color_Scheme_Red
  - Color_Scheme_White
  - Color_Scheme_Yellow
  - Color_Scheme_TopSecretCypherKeyControlText
  - Color_Scheme_WhiteHat
  - Color_Scheme_BlackHat
  - Color_Scheme_Mainframe
  - Color_Scheme_RGB
    - Default Color Scheme

- **CC1 [On / Off]**
  - Cycle Through Color_Schemes
    - Color_Scheme_Black
    - Color_Scheme_Blue
    - Color_Scheme_Brown
    - Color_Scheme_Cyan
    - Color_Scheme_Green
    - Color_Scheme_Magenta
    - Color_Scheme_Orange
    - Color_Scheme_Purple
    - Color_Scheme_Red
    - Color_Scheme_White
    - Color_Scheme_Yellow

- **CC2 [On / Off]**
  - Cycle Through Colors via RGB increments, starting at Black (#000000)

- **Select Image**
  - Select Image
  - Supported File Types [BMP, JPG, JPEG, GIF, PCX, PNG, TGA , TIFF]
  - The selected single frame image is loaded into FooCrypt and Displayed
  - The selected multi frame GIF image is loaded into FooCrypt, Displayed and Animated as per 'GIF Flash Delay' timings

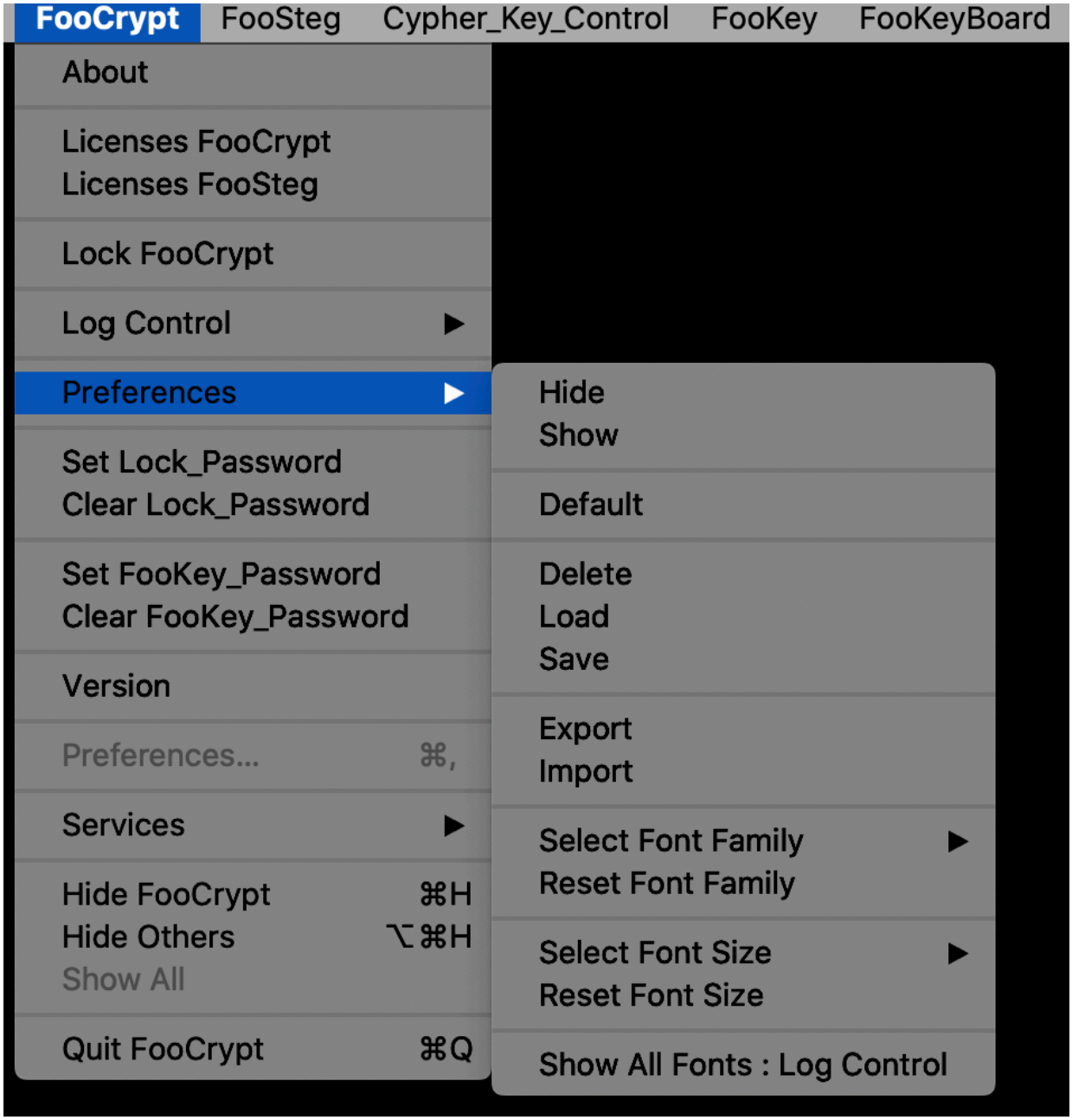
- **GIF Flash Delay**
  - GIF Flash Delay
    - (See Graphic 7)
  - Delay between the displaying of each frame of the GIF Image
  - Listing is in milliseconds
  - Range 25 - 10000 in increments of 25
  - **Graphic 7 : GIF Flash Delay**



- **Load Default [FooCrypt | OpenSSL | Special_OpenSSL] Preferences / Color Schemes**
  - Resets FooCrypt Preferences To Default via Popup Box To Select Default Preferences Settings / Color Scheme.

- **Hide : Preferences Window**
  - To hide the preferences window, select the window manager ‘x’ symbol

- **Menu Options**
  - **Graphic 8 : Menu Options**



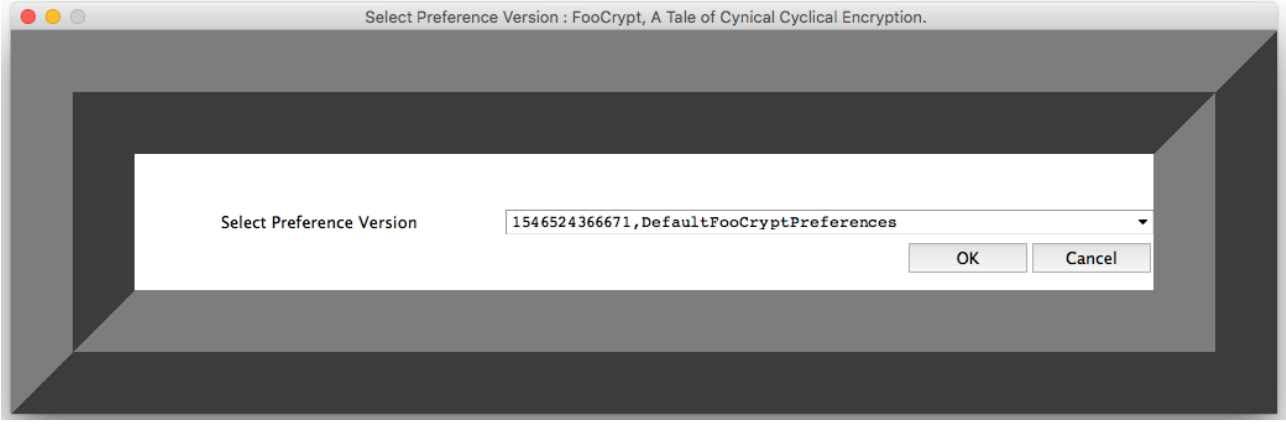
- **Hide**
  - Hide the Preferences Window
- **Show**
  - Show the Preferences Window

- **Default**
  - Resets FooCrypt Preferences To Default via Popup Box To Select Default Preferences Settings / Color Scheme.

- **Delete**
  - Delete the Saved Preferences Config File
  - **[FooHome]/.FooCrypt_Preferences**

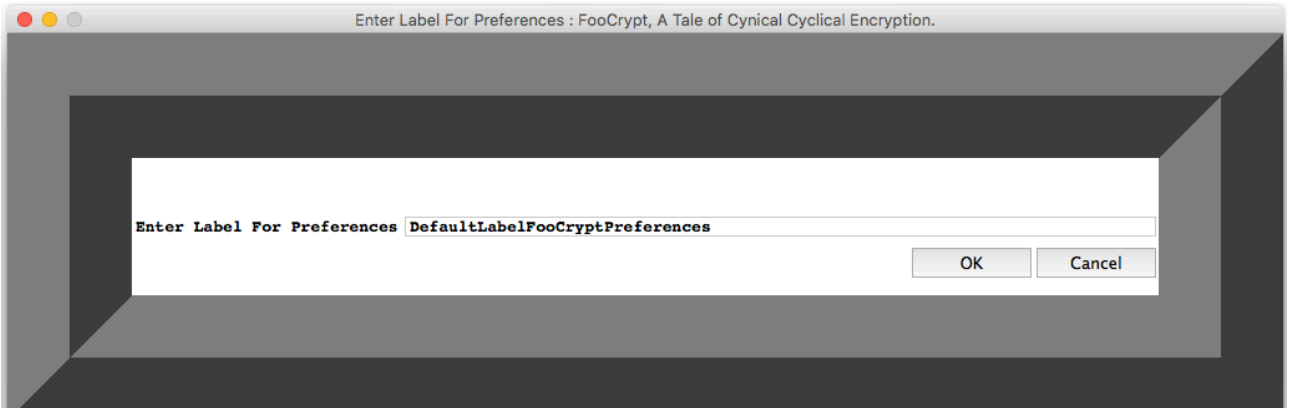
- **Load**
  - (See Graphic 10 Below)
  - Load A Saved Preferences Config from the Config File
  - **[FooHome]/.FooCrypt_Preferences**
  - Select the unix time stamped and description to load

- **Graphic 10 : Load**



- **Save**
  - (See Graphic 11 Below)
  - Save The Current Preferences Settings to the Config File
  - **[FooHome]/.FooCrypt_Preferences**
  - Enter a description to label the Preferences Config Settings

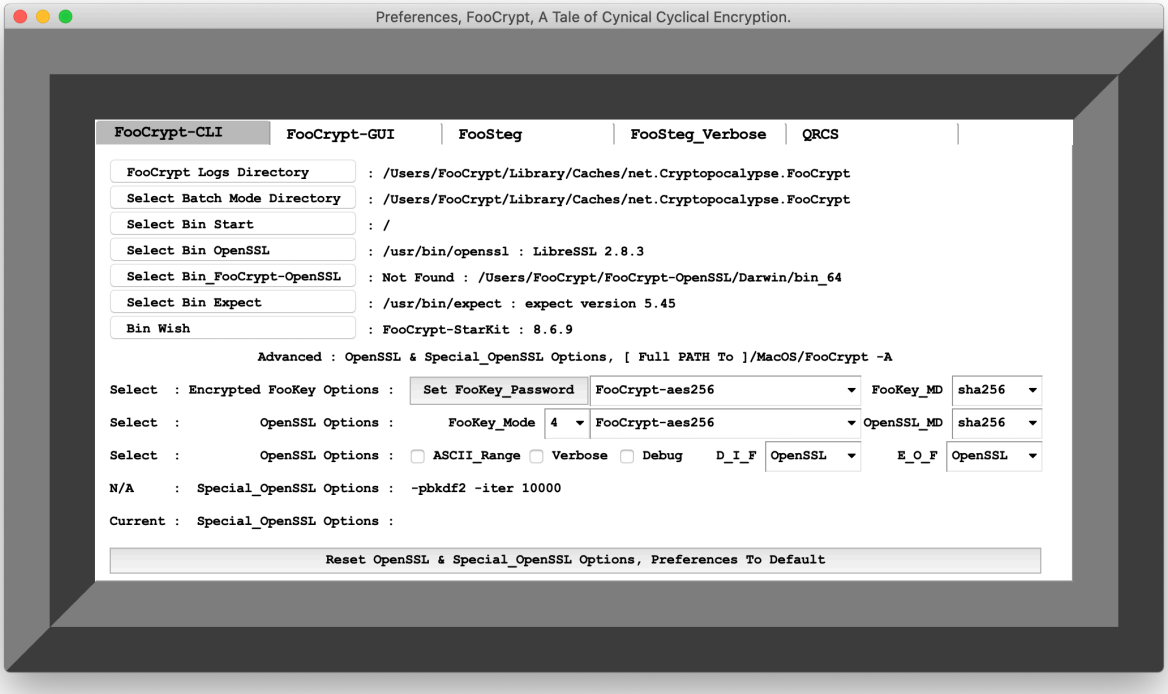
- **Graphic 11 : Save**



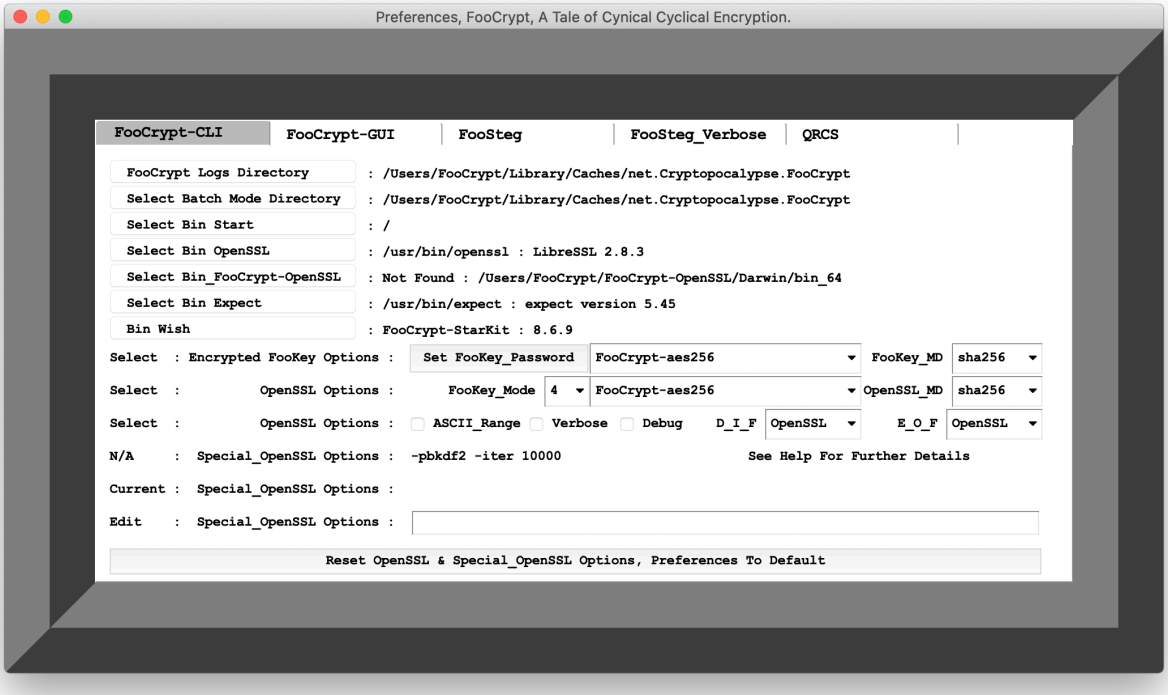
- **Export**
  - Export The Current Preferences Settings to a file
- **Import**
  - Import Preferences Settings from a file
- **Select Font Family**
  - Font families
    - Based on Operating System version of FooCrypt
- **Reset Font Family**
  - Sets font family to default
- **Select Font Size**
  - Font point sizes 1 - 30
- **Reset Font Size**
  - Sets font point size to default
- **Show All Fonts : Log Control**
  - Displays all Fonts / Font Sizes (1 - 30) via a Log Control Buffer
    - Based on Operating System version of FooCrypt

Preferences : FooCrypt-CLI

Basic : OpenSSL & Special_OpenSSL Options



Advanced : OpenSSL & Special_OpenSSL Options



- ‘OpenSSL & Special_OpenSSL Options, Preferences : FooCrypt, A Tale Of Cynical Cyclical Encryption’ enables the end user to utilise OpenSSL in the way they desire.

- Giving you the user, options and variations that takes FooCrypt into the direction you need to go.

- **Functionality Break Down**

- **Select Logs Home [FooHome]**
  - Select FooCrypt **FooHome** Directory
    - DEFAULT LOCATION Darwin :
      - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt
    - DEFAULT LOCATION Linux :
      - [Users Home Directory]/FooCrypt
    - DEFAULT LOCATION Solaris :
      - [Users Home Directory]/FooCrypt

- **Select Batch Mode Directory**
  - Select FooCrypt **Batch Mode Directory**
    - DEFAULT LOCATION Darwin :
      - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt
    - DEFAULT LOCATION Linux :
      - [Users Home Directory]/FooCrypt
    - DEFAULT LOCATION Solaris :
      - [Users Home Directory]/FooCrypt
- **Select Bin Start**
  - Select Bin Search Start Location
  - DEFAULT LOCATION : /

- **Select Bin OpenSSL**
  - Select OpenSSL Version
    - DEFAULT VERSION Darwin : [whence openssl searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Linux : [whence openssl searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Solaris : [whence openssl searching]
      - [PATH=/usr/xpg4/bin:/usr/bin:/usr/sbin:/bin:/sbin:/opt/csw/bin]
  - openssl version displayed

- **Select Bin_FooCrypt_OpenSSL**
  - Select Bin_FooCrypt_OpenSSL Directory
    - DEFAULT LOCATION Darwin : [${HOME}/FooCrypt-OpenSSL/Darwin/bin_64]
    - DEFAULT LOCATION Linux : [/opt/FooCrypt-OpenSSL/Linux/bin_64]
    - DEFAULT LOCATION Solaris : [${HOME}/FooCrypt-OpenSSL/SunOS/bin_64]

- **Select Bin Expect**
  - Select Expect Version
    - DEFAULT VERSION Darwin : [whence expect searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Linux : [whence expect searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Solaris : [whence expect searching]
      - [PATH=/usr/xpg4/bin:/usr/bin:/usr/sbin:/bin:/sbin:/opt/csw/bin]
  - expect version displayed

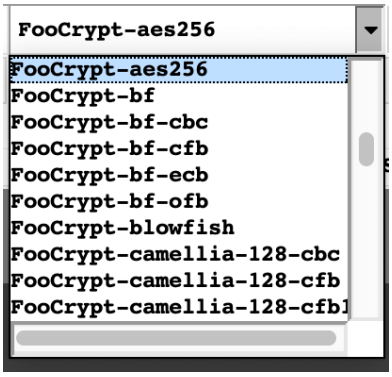
- **Bin Wish**
  - Wish [Tcl / Tk] is embedded into the FooCrypt, A Tale Of Cynical Cyclical Encryption Application Bundle by using StarKit packaging technology
  - Wish is a configurable startup item selectable via the FooCrypt CLI.
  - Note
    - Wish Version Is Only Able To Be Changed On X11 Windowing Systems

Encrypted FooKey Options

- **Set FooKey_Password**
  - FooKey_Password : Press Enter After Updating
  - DEFAULT : FooCrypt (For all the Demo FooKey's)
  - FooKey_Password is initialised upon each invocation of FooCrypt.
  - FooKey_Password is utilised as the base encryption / decryption password for FooCrypt to save / load FooKey's
  - FooKey_Password is utilised as the base encryption / decryption password for FooCrypt to save / load preference settings
  - Maximum length of ARG_MAX

- **FooKey_Cypher DDB**
  - Select The FooKey_Cypher To Use
    - (See Graphic Below)
  - DEFAULT : FooCrypt-aes256

  - **Graphic : Select The FooKey_Cypher To Use**



- **FooKey_MD**
  - FooKey_MD (Message Digest) DDB Containing The Available Message Digests For The Version Of OpenSSL
  - The FooKey_MD setting is passed via the command line to openssl via the -md switch.

  - **Note**
    - **SHA256 is set as default**
      - For compatibility across openssl versions, utilise **MD5** as the MSG_Digest.

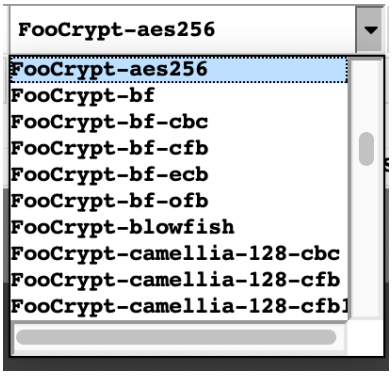
    - **OpenSSL 1.0.2 and lower**
      - You should use **MD5** as the default message digest.

    - **OpenSSL 1.1.0 and higher**
      - You should use **SHA256** as the default message digest.

OpenSSL Options

- **FooKey_Mode DDB**
  - 1 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
  - 2 : 11.0.0+ Treats The Backslash '\' Character, As An Escape Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
  - 3 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
  - 4 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
    - Default : 4
    - Where N = Numerical Characters 0 - 9
- **OpenSSL_Cypher DDB**
  - Complete list of validated cyphers for FooCrypt to utilise to Encrypt / Decrypt Data
    - (See Graphic Below)
  - DEFAULT : FooCrypt-aes256

  - **Graphic : Select The OpenSSL_Cypher To Use**



- ## OpenSSL_MD
  - OpenSSL_MD (Message Digest) DDB Containing The Available Message Digests For The Version Of OpenSSL
  - The OpenSSL_MD setting is passed via the command line to openssl via the -md switch.

  - **Note**
    - ### SHA256 is set as default
      - For compatibility across openssl versions, utilise **MD5** as the MSG_Digest.

    - ### OpenSSL 1.0.2 and lower
      - You should use **MD5** as the default message digest.

    - ### OpenSSL 1.1.0 and higher
      - You should use **SHA256** as the default message digest.

- ## ASCII_Range
  - Use ASCII_Range 32-127 For Test Functions]
    - Default : ASCII_Range 48-58 | Numerical Characters 0123456789
  - ASCII_Range 32-127 : " !"#$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~"

- ## Verbose
  - Set Verbose

- ## Debug
  - Set Debug

- ## D_I_F [Dropdown Box]
  - Decryption Input Format Options
    - OpenSSL
      - Default
    - BASE64

- ## E_O_F [Dropdown Box]
  - Encryption Output Format Options
    - OpenSSL
      - Default
    - BASE64

Special OpenSSL Options

- **-pbkdf2**
  - Adds -pbkdf2 to the Special OpenSSL Options

- **-iter**
  - Adds -iter to the Special OpenSSL Options
- **Iteration Rounds [Dropdown Box]**
  - Values 10000 - 100000
    - Default 10000

- **Current : Special OpenSSL Options**
  - Text display of the Current Special OpenSSL Options
  - -Z CLI Options Are Appended

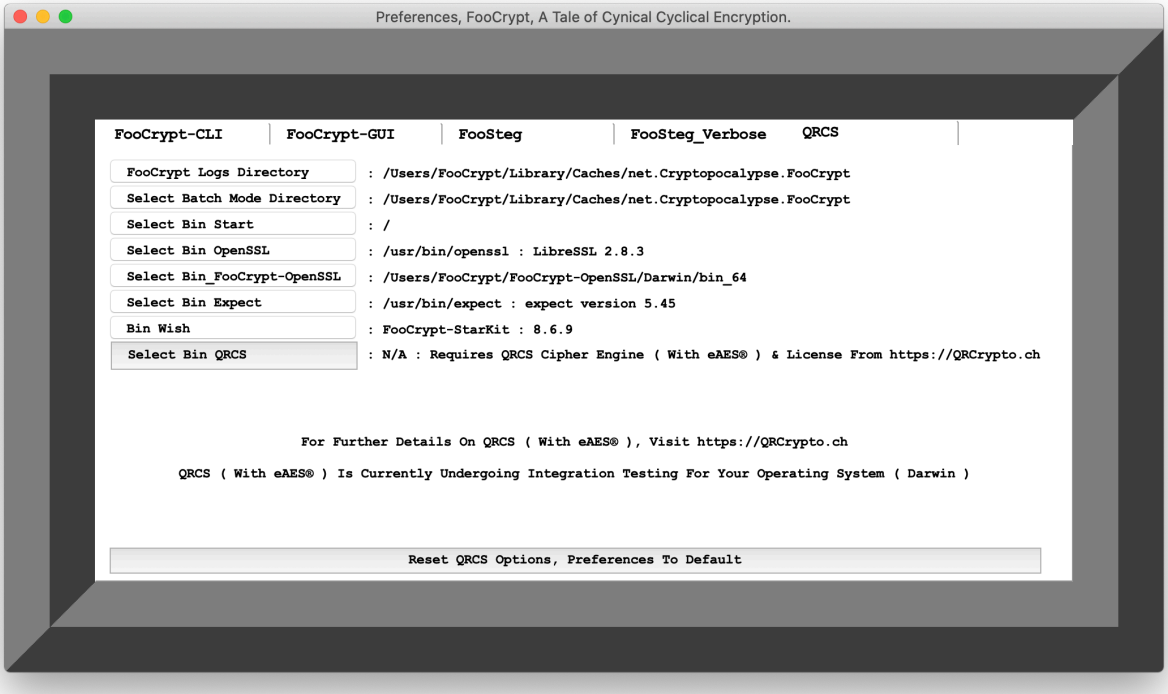
- **Editable : Special OpenSSL Options**
  - Note
    - Only Available via Advanced Mode
    - -Z CLI Options Are Appended

- **Editable Free Form Field of Special OpenSSL Options**
  - Not parsed so take care with entered options
  - -Z CLI Options Are Appended And Editable

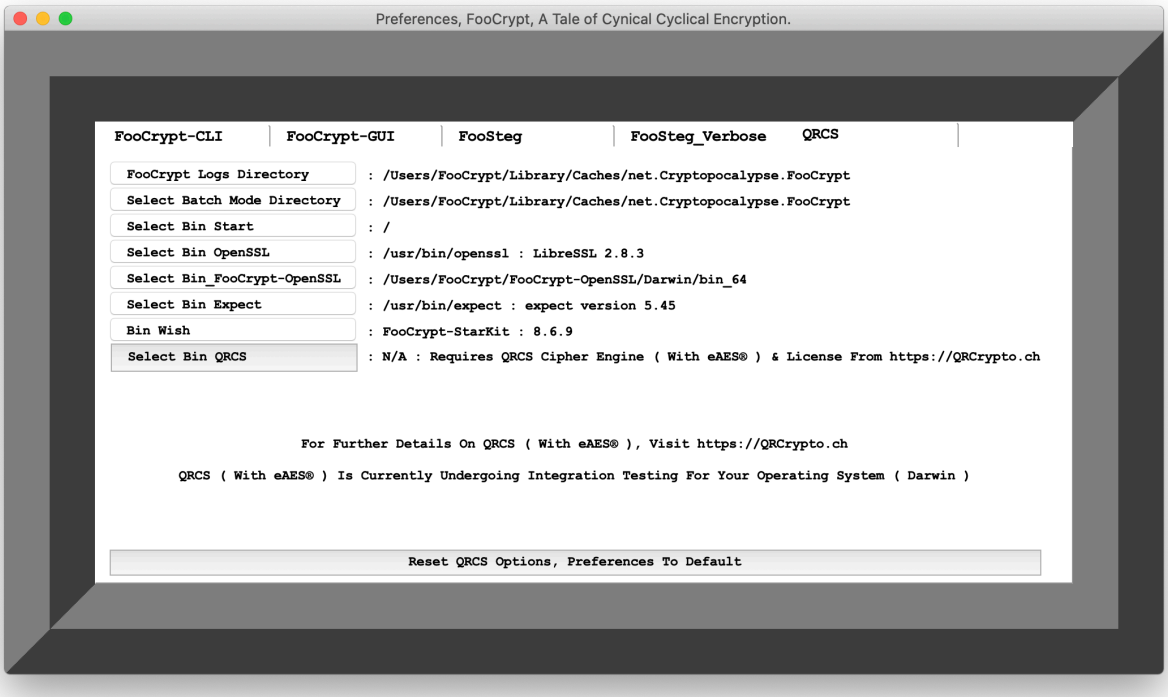
Preferences : QRCS (With eAES®) Options

Note : QRCrypto's eAES® Quantum Resistant Cipher Engine is integrated in FooCrypt.11.0.0.Core, onwards.

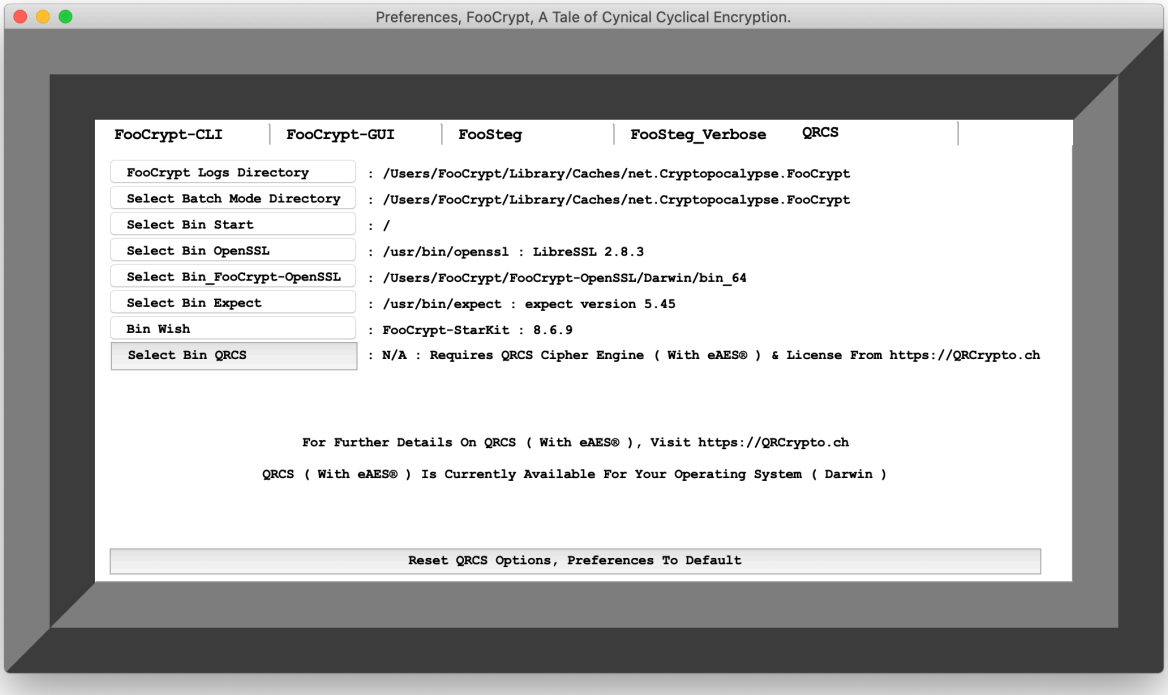
N/A : Basic QRCS (With eAES®) Options, Integration Testing



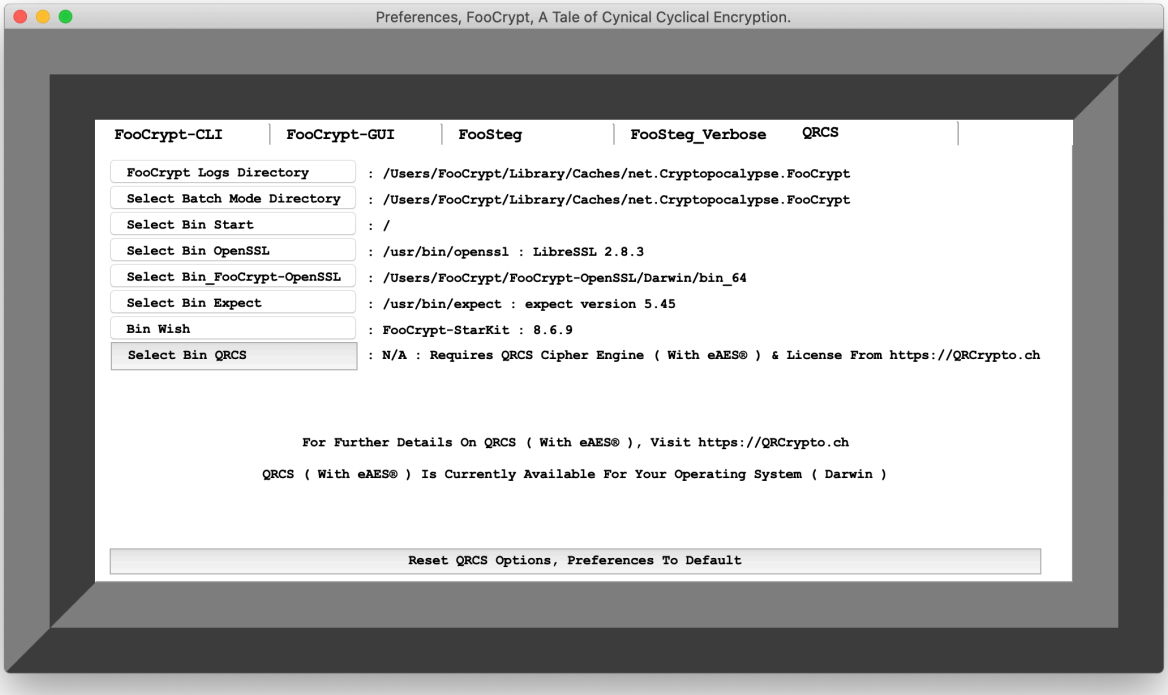
N/A : Advanced QRCS (With eAES®) Options, Integration Testing



Basic QRCS (With eAES®) Options, No -Q [Path To QRCS]

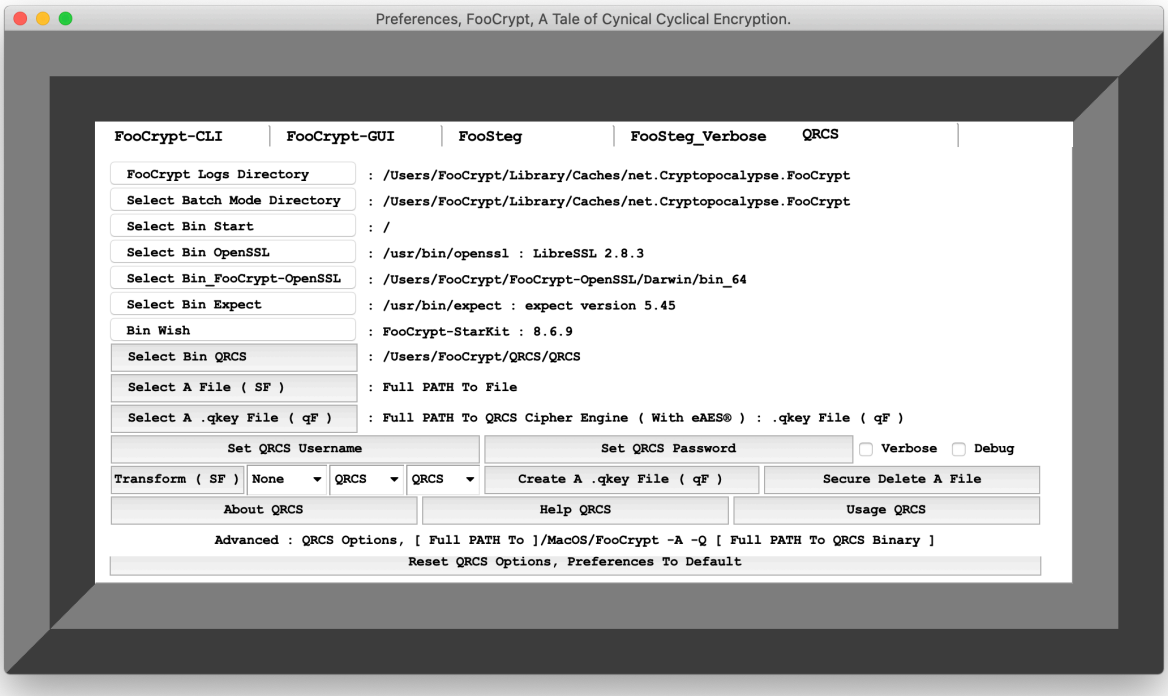


Advanced QRCS (With eAES®) Options, No -Q [Path To QRCS]

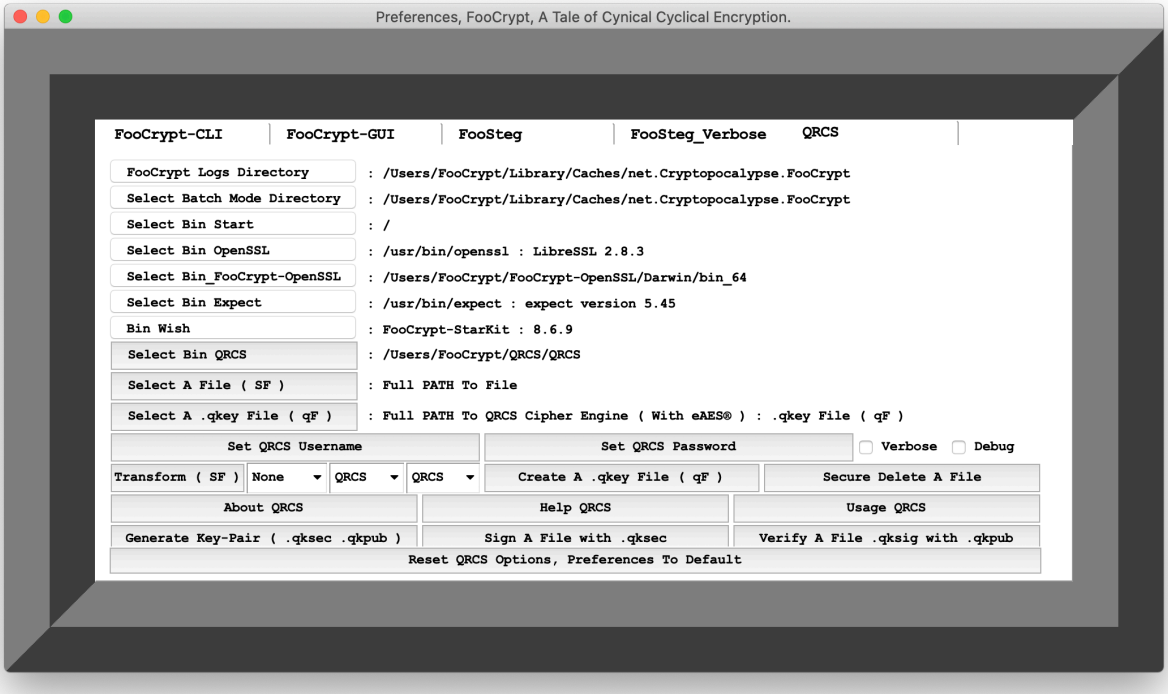


QRCS (With eAES®) https://QRCrypto.ch

Basic : QRCS (With eAES®) Options, -Q [Path To QRCS] Credentials Version

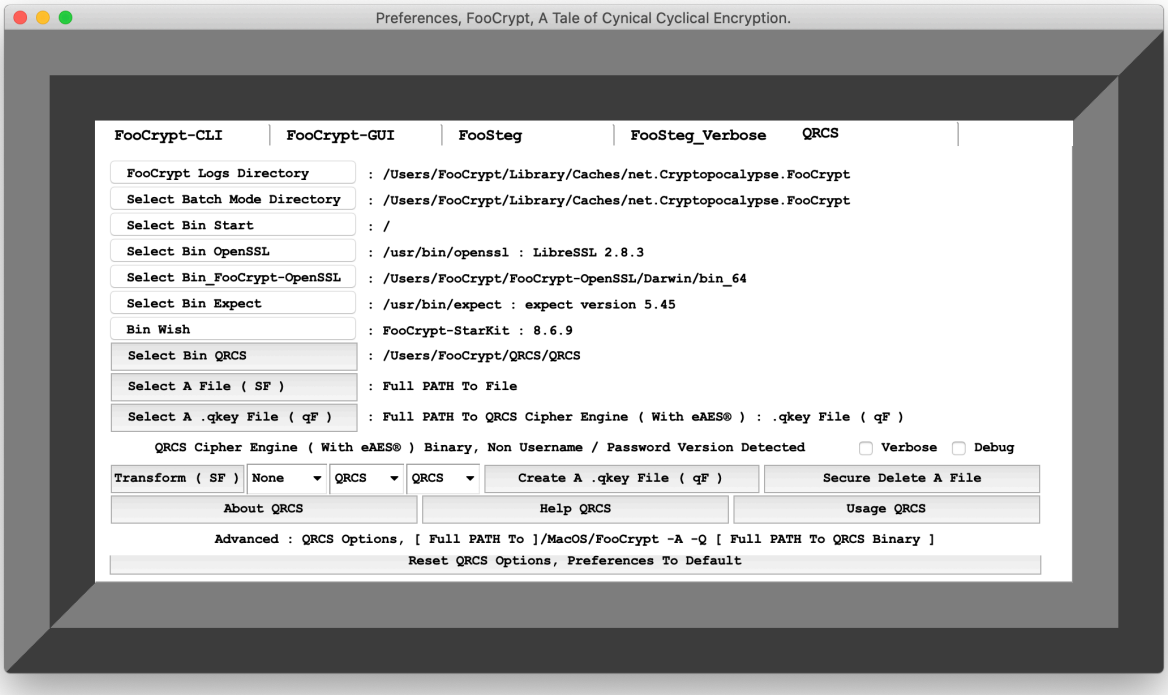


Advanced : QRCS (With eAES®) Options, -Q [Path To QRCS] Credentials Version

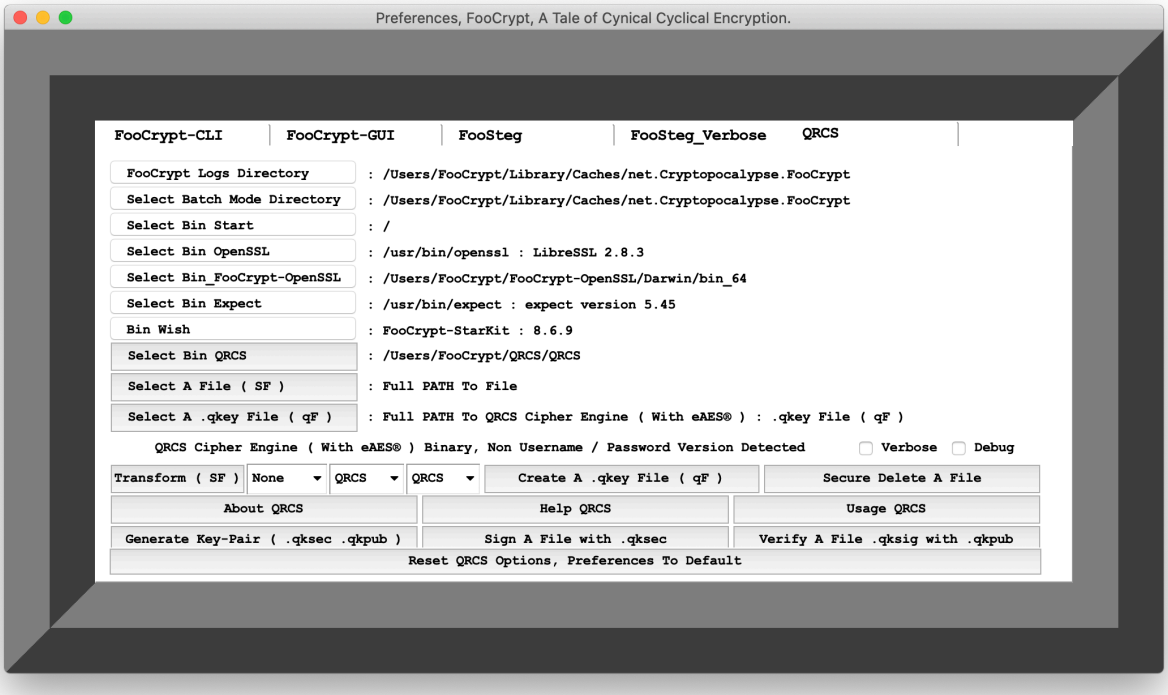


QRCS (With eAES®) https://QRCrypto.ch

Basic : QRCS (With eAES®) Options, -Q [Path To QRCS]
No Credentials Version



Advanced : QRCS (With eAES®) Options, -Q [Path To QRCS]
No Credentials Version



QRCS (With eAES®) https://QRCrypto.ch

Giving you the user, options and variations that takes FooCrypt into the direction you need to go.

- **Functionality Break Down**

- **Select Logs Home [FooHome]**
  - Select FooCrypt **FooHome** Directory
    - DEFAULT LOCATION Darwin :
      - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt
    - DEFAULT LOCATION Linux :
      - [Users Home Directory]/FooCrypt
    - DEFAULT LOCATION Solaris :
      - [Users Home Directory]/FooCrypt

- **Select Batch Mode Directory**
  - Select FooCrypt **Batch Mode Directory**
    - DEFAULT LOCATION Darwin :
      - [Users Home Directory]/Library/Caches/net.Cryptopocalypse.FooCrypt
    - DEFAULT LOCATION Linux :
      - [Users Home Directory]/FooCrypt
    - DEFAULT LOCATION Solaris :
      - [Users Home Directory]/FooCrypt
- **Select Bin Start**
  - Select Bin Search Start Location
  - DEFAULT LOCATION : /

- **Select Bin OpenSSL**
  - Select OpenSSL Version
    - DEFAULT VERSION Darwin : [whence openssl searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Linux : [whence openssl searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Solaris : [whence openssl searching]
      - [PATH=/usr/xpg4/bin:/usr/bin:/usr/sbin:/bin:/sbin:/opt/csw/bin]
  - openssl version displayed

- **Select Bin_FooCrypt_OpenSSL**
  - Select Bin_FooCrypt_OpenSSL Directory
    - DEFAULT LOCATION Darwin : [${HOME}/FooCrypt-OpenSSL/Darwin/bin_64]
    - DEFAULT LOCATION Linux : [/opt/FooCrypt-OpenSSL/Linux/bin_64]
    - DEFAULT LOCATION Solaris : [${HOME}/FooCrypt-OpenSSL/SunOS/bin_64]

- **Select Bin Expect**
  - Select Expect Version
    - DEFAULT VERSION Darwin : [whence expect searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Linux : [whence expect searching]
      - [PATH=/usr/bin:/usr/sbin:/bin:/sbin]
    - DEFAULT VERSION Solaris : [whence expect searching]
      - [PATH=/usr/xpg4/bin:/usr/bin:/usr/sbin:/bin:/sbin:/opt/csw/bin]
  - expect version displayed

- **Bin Wish**
  - Wish [Tcl / Tk] is embedded into the FooCrypt, A Tale Of Cynical Cyclical Encryption Application Bundle by using StarKit packaging technology
  - Wish is a configurable startup item selectable via the FooCrypt CLI.
  - Note
    - Wish Version Is Only Able To Be Changed On X11 Windowing Systems

- **Select Bin QRCS (With eAES®)**
  - Select Binary QRCS (With eAES®) Quantum Resistant Cipher Engine
  - [Full Path To FooCrypt-GUI] -Q is the supported option for selecting Bin QRCS

- **Select A File (SF)**
  - Full PATH To File

- **Select A .qkey File (qF)**
  - Full PATH To QRCS Quantum Resistant Cipher Engine (With eAES®) : .qkey File (qF)

- **Set QRCS (With eAES®) Username**
  - Set QRCS (With eAES®) Quantum Resistant Cipher Engine Username

- **Set QRCS (With eAES®) Password**
  - Set QRCS (With eAES®) Quantum Resistant Cipher Engine Password

- **Verbose**
  - Set Verbose

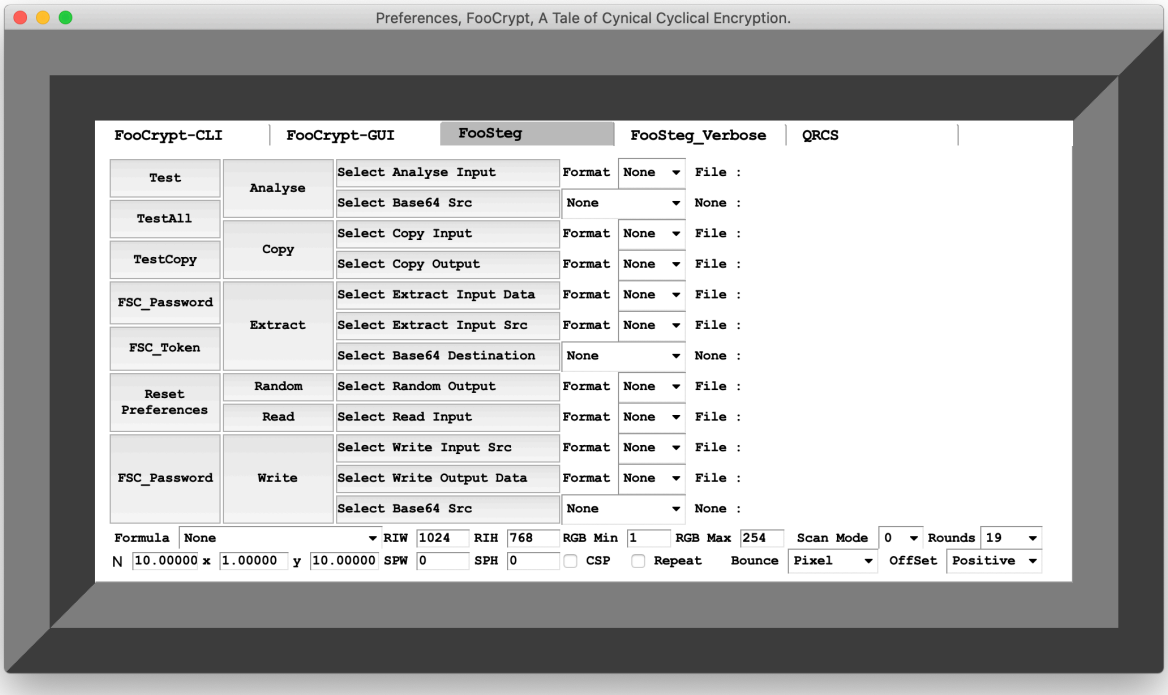
- **Debug**
  - Set Debug

- **Transform (SF)**
  - Transform [Encrypt / Decrypt] Selected File (SF) With Selected .qkey File (qF)

- **Transform Encrypt / Decrypt DDB**
  - Set Transform Selected Input File To [Encrypt | Decrypt]

- **Transform Decryption Input Format DDB**
  - Set Transform Input Format [QRCS | BASE64]
- **Transform Encryption Output Format Droop Down Box**
  - Set Transform Output Format [QRCS | BASE64]
- **Create A .qkey File (qF)**
  - Create A .qkey File (qF) [Generate a named key-store file, takes the name of the new key as an argument]
- **Secure Delete A File**
  - Secure File Deletion Of A File
- **About QRCS (With eAES®)**
  - About QRCS (With eAES®)
- **Help QRCS (With eAES®)**
  - Help QRCS (With eAES®)
- **Usage QRCS (With eAES®)**
  - Usage QRCS (With eAES®)
- **Generate Key-Pair (.qksec .qkpub)**
  - Generate An Asymmetric Signature Key-Pair (.qksec .qkpub) Files
- **Sign A File with .qksec**
  - Sign A File With Selected (.qksec) File
- **Verify A File .qksig with .qkpub**
  - Verify A Signature (.qksig) File With Selected Public Key (.qkpub) File
- **Reset QRCS (With eAES®) Options, Preferences To Default**
  - Reset QRCS (With eAES®), Preferences To Default

Preferences : FooSteg



- 'FooSteg Preferences : FooCrypt, A Tale Of Cynical Cyclical Encryption' is FooSteg's configuration and master control area.

- Giving you the user, options and variations that takes FooSteg into the direction you need to go.

- ## Functionality Break Down

  - ### Test Button
    - Runs FooSteg -a Test -A [0 - 7] -C [Change Formula] -c [Change Numeric] -O [Random Output Format | None : Performs All Formats | BMP | JPEG | PCX | PNG | PPM | SGI | SUN | TGA | TIFF]

    - TestVerbose is available via the Menu [FooSteg -> Test -> TestVerbose]

  - ### TestAll Change Formulas Button
    - Runs FooSteg -a Test -A [0 - 7] -c [Change Numeric] -O [Random Output Format | None : Performs All Formats | BMP | JPEG | PCX | PNG | PPM | SGI | SUN | TGA | TIFF]

  - ### TestCopy Button
    - Runs FooSteg -a TestCopy -f [Copy Input Image] -F [Copy Input Image Format] -O [Copy Output Format | None : Performs All Formats | BMP | JPEG | PCX | PNG | PPM | SGI | SUN | TGA | TIFF]

    - TestCopyVerbose is available via the Menu [FooSteg -> Test -> TestCopyVerbose]

- **FSC_Password Button**
  - Apply The FooStegKey To The FooStegCypher To Reorganise [FooStegScanMap -> FooStegCypher -> FooStegWriteMap | FooStegExtractMap]

- **FSC_Token Button**
  - Apply The FooStegToken With The FooStegKey To The FooStegCypher To Reorganise [FooStegScanMap -> FooStegCypher -> FooStegExtractMap]

- **Reset Button**
  - Resets The FooSteg Preferences To Default And Clears All Settings

- **Analyse Button**
  - Runs FooSteg -a Analyse [with configured settings]

- **Copy Button**
  - Runs FooSteg -a Copy [with configured settings]

- **Extract Button**
  - Runs FooSteg -a Extract [with configured settings]

- **Random Button**
  - Runs FooSteg -a Random [with configured settings]

- **Read Button**
  - Runs FooSteg -a Read [with configured settings]

- **Write Button**
  - Runs FooSteg -a Write [with configured settings]

- **Select Analyse Input Button**
  - Opens up a window dialog for the user to select an image file
  - Attempts to identify the image format and sets the Format DDB
  - FileName : is updated with the selected filename

- **Select Base64 Source Button**
  - Opens up a window dialog for the user to select a base64 ASCII file
  - FileName : is updated with the selected filename
  - Is linked with the ‘Select Base64 Source’ next to the Write button.

- **Select Base64 Source DDB**
  - Is linked with the 'Select Base64 DDB' next to the Write button.
  - **None**
  - **File** [Opens up a window dialog for the user to select a base64 ASCII file]
    [FileName : is updated with the selected filename]
  - **Text_Window** [Selects Text Window Active Data]
    [FileName : is updated with 'Text Window']
  - **Window_Memory** [Selects Text Window Memory Active Buffer]
    [FileName : is updated with 'Text Window Memory']

- **Select Base64 Destination Button**
  - Opens up a window dialog for the user to save a base64 ASCII file
  - FileName : is updated with the selected filename

- **Select Base64 Destination DDB**

  - **None**
  - **File** [Opens up a window dialog for the user to select a base64 ASCII file]
    [FileName : is updated with the selected filename]
  - **Text_Window** [Selects Text Window Active Data]
    [FileName : is updated with 'Text Window']
  - **Window_Memory** [Selects Text Window Memory Active Buffer]
    [FileName : is updated with 'Text Window Memory']

- **Select Analyse Input Button**
  - Opens up a window dialog for the user to select an image file
  - Attempts to identify the image format and sets the Format DDB
  - FileName : is updated with the selected filename

- **Select Copy Input Button**
  - Opens up a window dialog for the user to select an image file
  - Attempts to identify the image format and sets the Format DDB
  - FileName : is updated with the selected filename

- **Select Copy Output Button**
  - Opens up a window dialog for the user to save an image file
  - FileName : is updated with the selected filename

- **Select Extract Input Data Button**
  - Opens up a window dialog for the user to select an image file
  - Attempts to identify the image format and sets the Format DDB
  - FileName : is updated with the selected filename

- **Select Extract Input Source Button**
  - Opens up a window dialog for the user to select an image file
  - Attempts to identify the image format and sets the Format DDB
  - FileName : is updated with the selected filename

- **Select Random Output Button**
  - Opens up a window dialog for the user to save an image file
  - FileName : is updated with the selected filename

- **Select Write Input Button**
  - Opens up a window dialog for the user to select an image file
  - Attempts to identify the image format and sets the Format DDB
  - FileName : is updated with the selected filename

- **Select Write Output Button**
  - Opens up a window dialog for the user to save an image file
  - FileName : is updated with the selected filename

- **Format DDB's**
  - Provides a list of allowed Image Formats for each selected Image File For Input and Output as per the table below

```
ID = Input Data Image    [ See -d & -D ]
IF = Input File Image    [ See -f & -F ]
IS = Input Source Image  [ See -s & -S ]

OC = Output Copy Image    [ See -o & -O ]
OD = Output Data Image    [ See -o & -O ]
OR = Output Random Image  [ See -o & -O ]

NO = Image Format Not Supported
```

Format	Copy	Extract		Random	Read	Write	
BMP	IF OC	IS	ID	OR	IF	IF	OD
GIF	IF	IS		NO	IF	IF	
JPEG	IF OC	IS		OR	IF	IF	
PCX	IF OC	IS	ID	OR	IF	IF	OD
PNG	IF OC	IS	ID	OR	IF	IF	OD
PPM	IF OC	IS	ID	OR	IF	IF	OD
SGI	IF OC	IS	ID	OR	IF	IF	OD
SUN	IF OC	IS	ID	OR	IF	IF	OD
TGA	IF OC	IS	ID	OR	IF	IF	OD
TIFF	IF OC	IS	ID	OR	IF	IF	OD

- **Formula (Change Formula) DDB**
  - Change Formula for use with Write, Extract & Copy modes
  - Modes
    - Write
    - Extract
      - [N | None , A | Algebraic , EA | Ecliptic_Area , EC | Ecliptic_Circumference , L | Linear , S1,x,y | Sequence1,x,y , S2,x,y | Sequence2,x,y , SW | Sign-Wave]
      - [Continually Change From Positive To Negative To Positive ..... Binary Writes / Extracts, Every [Change Formula Numeric Value], Till EndRGB / EndBASE64]
      - [Continually Change From Negative To Positive To Negative ..... Binary Writes / Extracts, Every [Change Formula Numeric Value], Till EndRGB / EndBASE64]

  - N | None

  - A | Algebraic
    - [Change Formula Numeric Value] = ((r * Prime Number) / π)
      - where r = 100.0
      - where Prime Number = Lowest Prime Number Between : rπ and (rπ+100, rπ+600, rπ+1100, ...)
      - where π = 3.14159
      - where [Change Formula Numeric Value], per Scanned, -B [Bounce Change Oscillations : Pixel | RGB] Value

  - EA | Ecliptic_Area
    - [Change Formula Numeric Value] = (πr2 (Pi R Squared)
      - where r = [Change Numeric Value])
      - where π = 3.14159
      - where [Change Formula Numeric Value], per Scanned, -B [Bounce Change Oscillations : Pixel | RGB] Value

  - EC | Ecliptic_Circumference
  - [Change Formula Numeric Value] = (2πr (2 Pi R)
      - where r = [Change Numeric Value])
      - where π = 3.14159
      - where [Change Formula Numeric Value], per Scanned, -B [Bounce Change Oscillations : Pixel | RGB] Value

  - L | Linear
    - [Change Formula Numeric Value] = (N)
      - where N = [Change Numeric Value], per + - or - +
      - where [Change Formula Numeric Value], per Scanned, -B [Bounce Change Oscillations : Pixel | RGB] Value

  - S1,x,y | Sequence1,x,y
    - [Change Formula Numeric Value] = (N,N+(1x),N+(2x),...,N+(yx), ... Repeating)
      - Rounded To 5 Decimal Places : 0.12345
      - where N = [Change Numeric Value])

    - where x = (Stepped Sequence Value)
      - Minimum 0.1
    - where y = (Maximum Sequence Value)
      - Minimum 1.0
    - where [Change Formula Numeric Value], per Scanned, -B [Bounce Change Oscillations : Pixel | RGB] Value

- S2,x,y | Sequence2,x,y
  - [Change Formula Numeric Value] = (N,N+(1x),N+(2x),...,N+(yx),N+(yx)...,N+(2x),N+(1x),N, ... Repeating)
    - Rounded To 5 Decimal Places : 0.12345
    - where N = [Change Numeric Value])
    - where x = (Stepped Sequence Value)
      - Minimum 0.1
    - where y = (Maximum Sequence Value)
      - Minimum 1.0
    - where [Change Formula Numeric Value], per Scanned, -B [Bounce Change Oscillations : Pixel | RGB] Value

- SW | Sign-Wave
  - [Change Formula Numeric Value] = (λ = v / f (Wave Length = Velocity / Frequency)
    - where λ = [Change Numeric Value], per + - + or - + -
    - where [Change Formula Numeric Value], per Scanned, -B [Bounce Change Oscillations : Pixel | RGB] Value

- Modes
  - Copy
    - [N | None , G | Grayscale , Neg | Negative , S,x,y | Sepia,x,y]

- N | None
  - [Change Formula Numeric Value] = (Percentage Variance Of RGB Values Of The Input Image Intensity)

- G | Grayscale
  - [Change Formula Numeric Value] = (Percentage Variance Of RGB Values Of The Input Image Intensity)
    - where N = ([Change Numeric Value] / 100)

- Neg | Negative
  - [Change Formula Numeric Value] = (Percentage Variance Of RGB Values Of The Input Image Intensity)
    - where N = ([Change Numeric Value] / 100)

- S,x,y | Sepia,x,y
  - [Change Formula Numeric Value] = (Percentage Variance Of RGB Values Of The Input Image Intensity)
    - where N = ([Change Numeric Value] / 100)
    - where x = (Sepia Depth Value)
      - Default 20
    - where y = (Sepia Intensity Value)
      - Default 30

- **RIW (Random Image Width) Input Box**
  - Image Width Used For Creating A Random Image
  - Default : 1024
  - Min : 1
  - Max : 10000

- **RIH (Random Image Height) Input Box**
  - Image Height Used For Creating A Random Image
  - Default : 768
  - Min : 1
  - Max : 10000

- **RGB Minimum Input Box**
  - RGB Minimum Setting
  - Default : 1
  - Min : 1
  - Max : 253
  - Must be less than RGB Maximum value

- **RGB Maximum Input Box**
  - RGB Maximum Setting
  - Default : 254
  - Min : 2
  - Max : 254
  - Must be greater than RGB Minimum value

- **Scan Mode DDB**
  - Enables FooSteg -A [0 - 7] Command Line Option

- **Rounds DDB**
  - Enables Rounds -R [19 - 512] Command Line Option

- **N (Change Numeric) Input Box**
  - Write & Extract Change Formulas
  - Default : 10.0
  - Min : 1.0
  - Copy Change Formulas
  - Default : 100.0
  - Min : 1.0
- **x (Sequence [1 | 2] x value, SepiaX value) Input Box**
  - Write & Extract Change Formulas
  - Default : 1.0
  - Min : 1.0
  - Copy Change Formulas
  - Default : 20.0
  - Min : 1.0

- **y (Sequence [1 | 2] y value, SepiaY value) Input Box**
  - Write & Extract Change Formulas
  - Default : 10.0
  - Min : 1.0
  - Copy Change Formulas
  - Default : 30.0
  - Min : 1.0

- **SPW (Start Pixel Width) Input Box**
  - Image Pixel Width Starting Location For Command Line Option -p
  - Default : 0
  - Min : 0
  - Max : Image Pixel Width

- **SPH (Start Pixel Height) Input Box**
  - Image Pixel Height Starting Location For Command Line Option -p
  - Default : 0
  - Min : 0
  - Max : Image Pixel Height

- **CSP (Custom Start Pixel) Check Box**
  - Enables Command Line Option -p

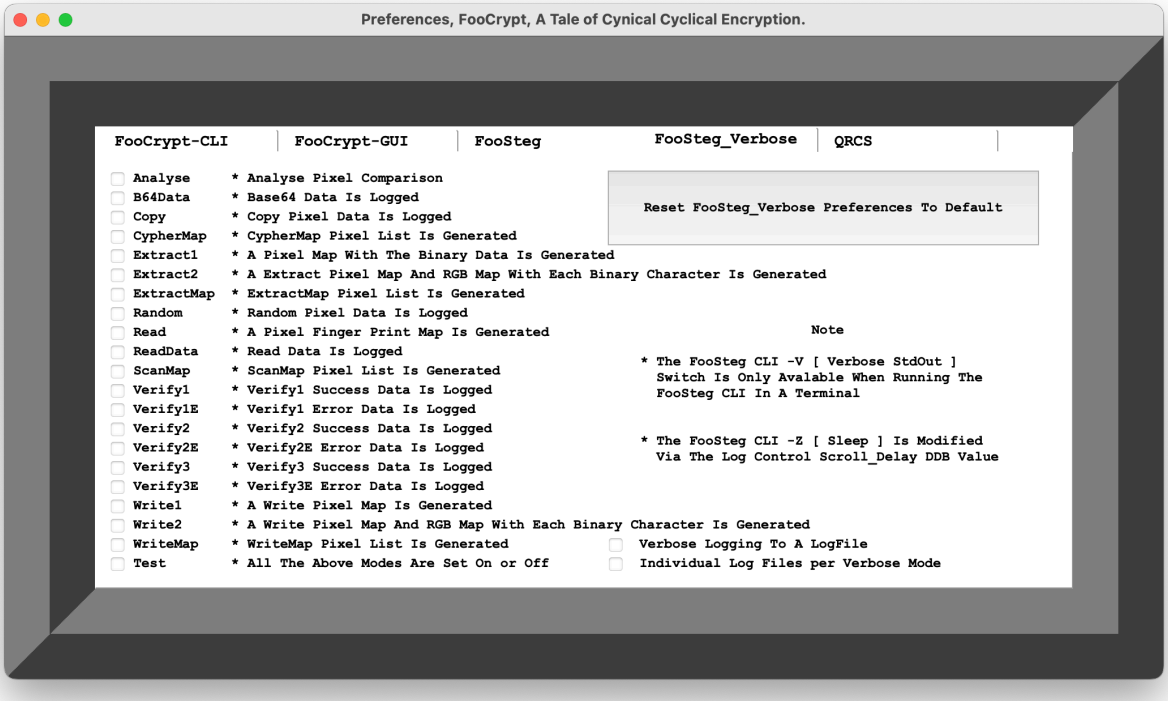
- **Repeat Write Check Box**
  - Enables Command Line Option -r
    - [EndRGB : Repeat Write Of BASE64 Data To End Of RGB WriteMap]
      * Default EndBASE64 : Write BASE64 Data Till End Of BASE64 Data
        * Write
        * Test

- **Bounce Change Oscillations DDB**
  - [Pixel | RGB]
  - Default : Pixel

- **OffSet (Binary OffSet Mode) DDB**
  - [Positive | Negative]
  - Default : Positive

- **Reset FooSteg Preferences To Default Button**
  - Resets FooSteg Preferences To Default

Preferences : FooSteg Verbose



- ‘FooSteg Verbose Preferences : FooCrypt, A Tale Of Cynical Cyclical Encryption’ is FooSteg’s configuration and master control area.

- Giving you the user, options and variations that takes FooSteg into the direction you need to go.

Note :

- The FooSteg CLI -V [Verbose StdOut] Switch Is Only Available When Running The FooSteg CLI In A Terminal

- The FooSteg CLI -Z [Sleep] Is Modified Via The Log Control Scroll_Delay DDB Value

- **Functionality Break Down**

  - **Reset FooSteg Verbose Preferences To Default**
    - Resets FooSteg Verbose Preferences To Default

  - **Verbose Logging To A LogFile CheckBox**
    - A LogFile located in the working directory of the FooSteg Process.

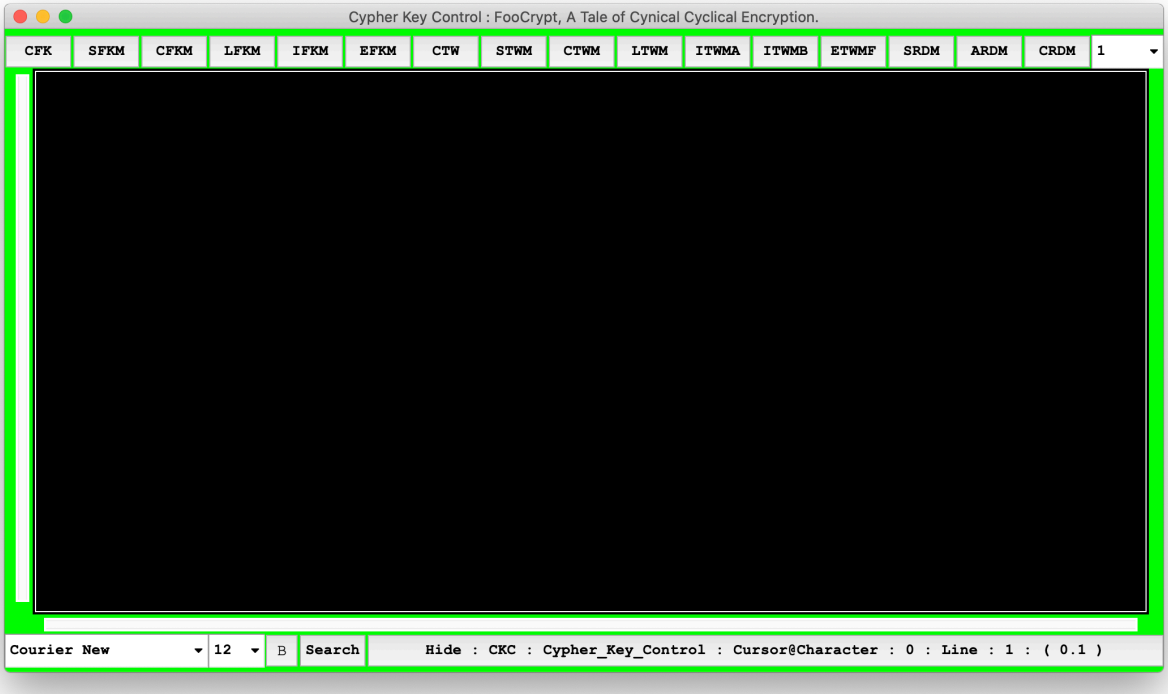
  - **Individual Log Files per Verbose Mode CheckBox**
    - Individual Log Files per Verbose Mode are created in the working directory of the FooSteg Process.

  - **Analyse CheckBox**
    - Analyse Pixel Comparison

- **B64Data CheckBox**
  - Base64 Data Is Logged
- **Copy CheckBox**
  - Copy Pixel Data Is Logged
- **CypherMap CheckBox**
  - CypherMap Pixel List Is Generated
- **Extract1 CheckBox**
  - A Pixel Map With The Binary Data Is Generated
- **Extract2 CheckBox**
  - An Extracted Binary Data Map Is Generated
- **ExtractMap CheckBox**
  - ExtractMap Pixel List Is Logged
- **Random CheckBox**
  - Random Pixel Data Is Logged
- **Read CheckBox**
  - A Pixel Finger Print Map Is Generated
- **ReadData CheckBox**
  - Read Data Is Logged
- **ScanMap CheckBox**
  - ScanMap Pixel List Is Generated
- **Verify1 CheckBox**
  - Verify1 Success Data Is Logged
- **Verify1E CheckBox**
  - Verify1 Error Data Is Logged
- **Verify2 CheckBox**
  - Verify2 Success Data Is Logged
- **Verify2E CheckBox**
  - Verify2 Error Data Is Logged
- **Verify3 CheckBox**
  - Verify3 Success Data Is Logged

- **Verify3E CheckBox**
  - Verify3E Error Data Is Logged
- **Write1 CheckBox**
  - A Write Pixel Map Is Generated
- **Write2 CheckBox**
  - A Write Pixel Map And RGB Map With Each Binary Character Is Generated
- **WriteMap CheckBox**
  - WriteMap Pixel List Is Generated
- **Test CheckBox**
  - All The Above Are Generated

Cypher Key Control



- Cypher Key Control (CKC) is at the core of the engine for FooCrypt, A Tale Of Cynical Cyclical Encryption.
- CKC handles all functionalities of surrounding a ‘FooKey’.
- CKC is able to handle with ease (depending on the hardware that it is running on : CPU / Memory constraints affect all programs) a ‘FooKey‘ up to 1 million characters contained within both the vertical and horizontal panes.
- It is recommended and imposed by the DEFAULT settings, that a ‘FooKey‘ be made up of 24250 characters which in turn provides 50 cycles of ENCRYPTION with a ‘KEY / PASSWORD‘ length of 512 characters per cycle.
- CKC comes with ‘10 ACTIVE BUFFERS‘ which act as isolated landscapes across all functions of CKC.
- The number of ‘Active Buffers‘ can be customised via customised builds of FooCrypt, based on Enterprise or Government Licensing Agreements and Support Contracts.

- **Functionality Break Down**

- **CFC**
  - Create FooKey

- **SFKM**
  - Show FooKey Memory

- **CFKM**
  - Clear FooKey Memory

- **LFKM**
  - Load FooKey Memory

- **IFKM**
  - Import FooKey Memory

- **EFKM**
  - Export FooKey Memory

- **CTW**
  - Clear Text Window

- **STWM**
  - Show Text Window Memory

- **CTWM**
  - Clear Text Window Memory

- **LTWM**
  - Load Text Window Memory

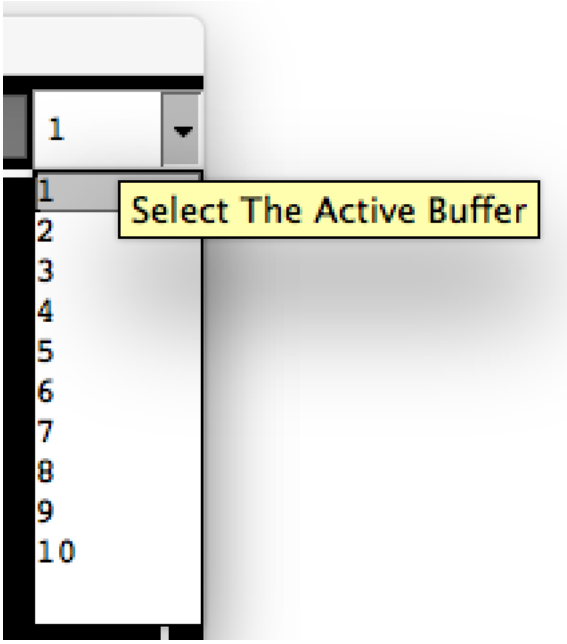
- **ITWMA**
  - Import Text Window Memory ASCII

- **ITWMB**
  - Import Text Window Memory Binary

- **ETWMF**
  - Save Text Window To Window Memory [Active Buffer]
  - Export Window Memory [Active Buffer] To A File

- **SRDM**
  - Show Random Data Memory

- **ARDM**
  - Append Random Data Memory
- **CRDM**
  - Clear Random Data Memory
- **DDB**
  - Select Active Buffer
  - All the above functions operate on the isolated landscape ‘ACTIVE BUFFER’ that is selected via the DDB
  - The Text Window is shared across all isolated landscapes and does not modify upon ‘ACTIVE BUFFER’ selection.
  - **Graphic 1 : Select The Active Buffer**



- **CKC Cursor Position Identification**
  - Toggled via the FooKeyBoard ‘XY On/Off’ Button
  - Details displayed in real time on the ‘Hide : Cypher Key Control’ Button

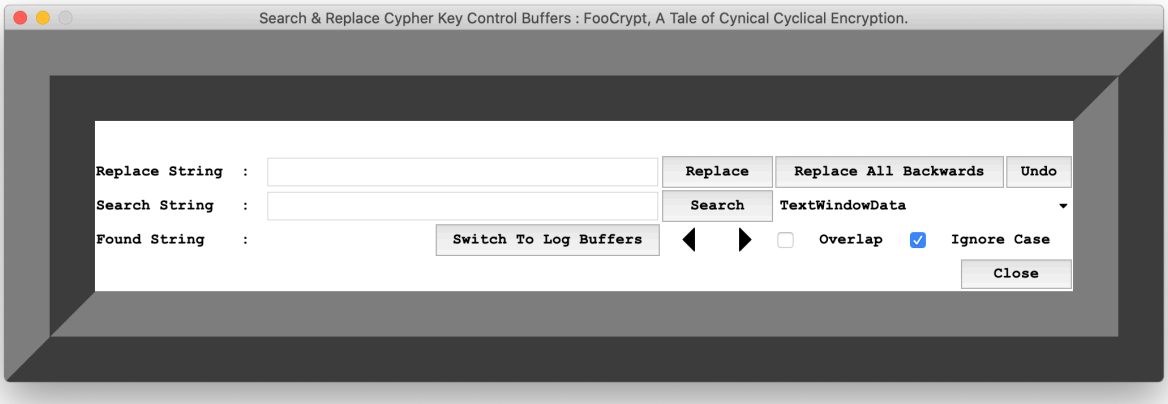
- **Graphic 2 : Cypher Key Control XY Positioning Active**

- **Font DDB**
  - Detected Fonts

- **Font Size DDB**
  - Numerical values 1 - 30

- **Bold**
  - Set Selected Font to Bold (If Available)

- **Search**
  - Search / Replace Text In The Cypher Key Control Text Window
    Note :
    - Searching / Replacing should be performed when no active processes are displaying logs in Log_Control and/or Scroll Logs is set to Off.



  - Replace String
  - Replace Button
  - Replace All Backwards Button
  - Undo Button
  - Search String
  - Search Button
  - Buffer List DDB
  - Switch To Log Buffers
  - Left Arrow Button
  - Right Arrow Button
  - Overlap Check Box
  - Ignore Case Check Box
  - Close Button

- **Hide : Cypher Key Control**
  - Also displays the Cypher Key Control Destination and Cursor Location
    - ([Character].[Line Number])

Creating A FooKey

- Creating a FooKey is fun, exciting, and has endless possibilities for you to think about

- The Key to a FooKey, is best described in the following steps

1. Decide on the source for your FooKey

- Random data via the menu option 'Create :: Random Data Memory' which will read the selected random data source as defined in the Preferences, for the selected number of characters defined in preferences. 24250 is the DEFAULT number of characters which will in turn, allow you to create a FooKey, which contains 50 cycles of encryption, with a ARG_MAX length of 512 characters.

  2. /dev/random
  3. /dev/urandom
  4. /FooCrypt/Internal
  5. /FooCrypt/Piper-Any-Rand
  6. /FooCrypt/Piper-OpenSSL-Rand
     [/FooCrypt/Piper-Any-Rand] Opens a UNIX named pipe which will accept input from any random data generator.

  - All RANDOM data is filtered for ASCII occurrences based on the ASCII table characters, 32 through 126.

- Import Window Memory Binary, will allow you to source sequential characters into the Window Memory for use in creating a FooKey. The options for selecting a binary source for input are endless and can something as simple as a Photo or Music or Document

- Import Window Memory ASCII, will allow you to read into FooCrypt, a pre existing string of ASCII characters which can be utilised as a FooKey. Sources of ASCII for import are also endless, and can be something as simple as the UNIX man command piped to a text file, which is then imported into FooCrypt.

- For Example [man openssl > openssl.txt]

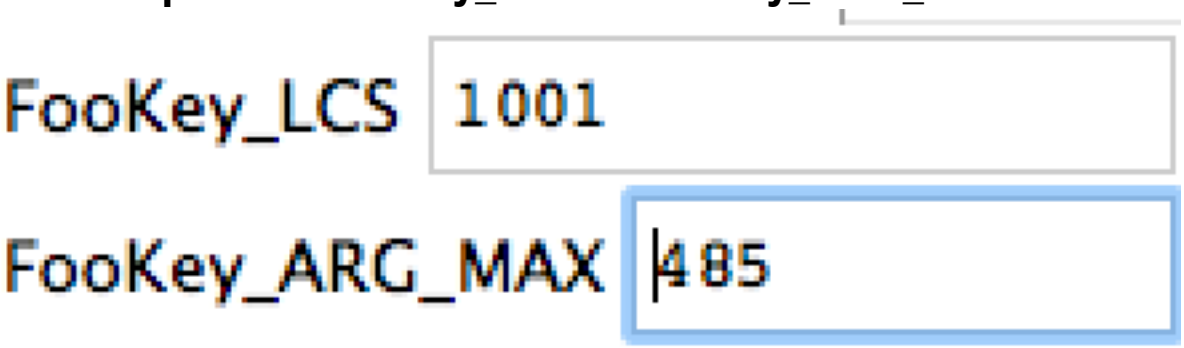
2. Define FooKey_LCS & FooKey_ARG_MAX

- Once you have primed either the Random Data Memory or Window Memory with the source for your FooKey, creating a FooKey is as simple as hitting the 'CFK' button, or hitting the 'CFK [1 – 5]s'

- FooCrypt will automatically create the FooKey based on the configuration options defend in Preferences.

  - FooKey_LCS
  - FooKey_ARG_MAX

- **Graphic 1 : FooKey_LCS & FooKey_ARG_MAX**



3. Create FooKey via 'CFK'

- FooCrypt will automatically load the FooKey into the current Active Buffer FooKey Memory or the 'CFK [1 – 10]' FooKey Memory Active Buffer

- **Graphic 2 : FooKey Containing 24250 characters**

4. Export FooKey to a '.FooKey' File

- You can save the FooKey into a file which will be protected automatically in the single layer of encryption defined via Preferences, utilising the 'FooKey_Password' as the password source

- It is recommended that you store your FooKey's on an encrypted media device.

- **Command Line Example**

  - **Creating A FooKey**

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -F FooKey_ARG_MAX,FooKey_Seek,FooKey_Count \
    -a FooCrypt-aes256 \
    -C \
    -f [* Full PATH of File To Create FooKey From]

    - Encrypted & ASCII FooKey will be saved as
      - ${KeyHome}/${Date}_$(basename "${CreateFooKeyFile}").FooKey
      - ${KeyHome}/${Date}_$(basename "${CreateFooKeyFile}")-ASCII.FooKey

      *Quoted Full Paths are only required when special characters are contained within the PATH
        - ie :
          - ' ' SPACE
          - '&' AMPERSAND

    - You will be prompted to enter the password for the FooKey

      STATUS :
      enter aes-256-cbc encryption password:
      Verifying - enter aes-256-cbc encryption password:
      STATUS :

    - The Following Environment Variable will bypass the password prompt
      - FooKeyPassword
        - ie: export FooKeyPassword="FooCrypt"
        - Minimum of 8 Characters
        - Maximum of 522 Characters
        - Equivalent to setting the FooKey_Password via Preferences in the GUI

- ## Create A FooKey via CLI StdOut

A FooKey Source File of 5MB can easily be created from random data via :

- dd if=/dev/random of=${HOME}/FooKey.SourceFile count=5124 bs=1k
- openssl rand 5124000 > ${HOME}/FooKey.SourceFile

- **DARWIN Example :**

**-> /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt **
**-f ${HOME}/FooKey.SourceFile **
**-F 485,100,24250 **
-C

```
STATUS  : Runtime Options          : FooCrypt -f /Users/foocrypt/FooKey.SourceFile -F 485,100,24250 -C
STATUS  :
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 2.8.3
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.46.dylib (compatibility version 47.0.0, current version 47.1.0)
STATUS  :        /usr/lib/libcrypto.44.dylib (compatibility version 45.0.0, current version 45.1.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 33.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1281.100.1)
STATUS  :
STATUS  : Found /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist
STATUS  :
STATUS  : Running FooCrypt Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 0
STATUS  :
STATUS  :
STATUS  : Running Instances of FooCrypt Under :
STATUS  :
STATUS  : User ID    : 501
STATUS  : Group ID   : 20
STATUS  : Process ID : 72995
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 501       20        72995     26975     /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 5757382113
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1+wKOLofhxindQKMhfutMoDZ1oMv2REjFXH9Dv2Sexw35mX/1O2TKRd
STATUS  : 1Tkd9yuMN4T3qhaXGC+InRO1idflnP12hM+s1H1tXcbOrxcHR0vd127FQJaOBfW2
STATUS  :
STATUS  :
STATUS  : System_Serial=20230406032916:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin, BuildTest Expiration Date : 20230406032916
STATUS  :
STATUS  :
STATUS  : Default Preferences      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt
STATUS  :
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 2.8.3
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.46.dylib (compatibility version 47.0.0, current version 47.1.0)
STATUS  :        /usr/lib/libcrypto.44.dylib (compatibility version 45.0.0, current version 45.1.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 33.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1281.100.1)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers         : aes-128-cbc-hmac-sha1$|aes-128-gcm$|aes-192-gcm$|aes-256-cbc-hmac-sha1$|aes-256-gcm$|des-ede3-cfb1$|id-aes128-GCM$|id-aes192-GCM$|id-aes256-GCM$
STATUS  :
STATUS  :
STATUS  : Expect                   : /usr/bin/expect
STATUS  : Expect Version           : expect version 5.45
STATUS  :
FOOKEY  :
FOOKEY  : FooKey_ARG_MAX           : 485
FOOKEY  : FooKey_Seek              : 100
FOOKEY  : FooKey_Count             : 24250
FOOKEY  : Source File Name         : /Users/foocrypt/FooKey.SourceFile
FOOKEY  :
FOOKEY  : Source ASCII Characters  : 1921520
FOOKEY  :
FOOKEY  : Seek ASCII Characters    : 100
FOOKEY  : Found ASCII Characters   : 24250
FOOKEY  :
FOOKEY  : <FooKey(051)>:###:FooKey_CREATED:20230318141038:###:FooKey_Length:25650:###:FooKey_SHA256:7317CD497AF6EFF71C0FA6107BBAF326AA88DA835BF410A2957FAE803E28B2E0:###:</FooKey(051)>
FOOKEY  :
FOOKEY  : Creating FooKey File     : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile-ASCII.FooKey
FOOKEY  :
OUTPUT  :
OUTPUT  : FileName      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile-ASCII.FooKey
OUTPUT  : ls -la        : -rw-------  1 foocrypt  staff  25824 Mar 18 14:10 /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile-ASCII.FooKey
OUTPUT  : file          : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile-ASCII.FooKey: ASCII text, with very long lines
OUTPUT  : file --mime   : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile-ASCII.FooKey: text/plain; charset=us-ascii
OUTPUT  : sha256        : E099B5C8695E548AF747AFD548FC9C41357FFA10D2E97334F57063A552B461E
OUTPUT  : sha3-512      : N/A
OUTPUT  :
FOOKEY  :
FOOKEY  : Creating FooKey File     : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile.FooKey
FOOKEY  :
PASSWORD:
PASSWORD: Create a password for    : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile.FooKey
PASSWORD:
OUTPUT  :
OUTPUT  : FileName      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile.FooKey
OUTPUT  : ls -la        : -rw-------  1 foocrypt  staff  47385 Mar 18 14:10 /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile.FooKey
OUTPUT  : file          : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile.FooKey: openssl enc'd data with salted password, base64 encoded
OUTPUT  : file --mime   : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey/20230318141038_FooKey.SourceFile.FooKey: text/plain; charset=us-ascii
OUTPUT  : sha256        : 573C818D1A159FC8621118E24732305EFBEB57CE1F54840B77C015194156CEA4
OUTPUT  : sha3-512      : N/A
OUTPUT  :
STATUS  :
STATUS  : Completed
STATUS  :
STATUS  :
```

```
STATUS  : Removing Temporary Directory : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230318141037_FooCryptDev_FooCrypt
STATUS  :
STATUS  :
STATUS  :
STATUS  : FooCrypt_RunTime       : 14 Seconds
STATUS  : FooCrypt_RunTime       : 0 Days, 0 Hours, 0 Minutes, 14 Seconds
STATUS  :
STATUS  : FooCrypt_Exit_Code_0
STATUS  :
```

- ## Create_FooKey : /dev/random

  - **Darwin Example :**

**-> /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt **
-C

- ## Create_FooKey : /dev/urandom

  - **Darwin Example :**

**-> /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt **
**-f /dev/urandom **
**-F 485,100,24250 **
-C

- ## Create_FooKey : Fifo or Named Pipe

- mkfifo ${HOME}/FooKeySource.Fifo
- openssl rand 5124000 > ${HOME}/FooKeySource.Fifo

  - **Darwin Example :**

**-> /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt **
**-f ${HOME}/FooKeySource.Fifo **
**-F 485,100,24250 **
-C

- ## Create_FooKey : FooKey.SourceFile Script

- Not included in the FooCrypt Package
- Will create 100 FooKeys from 5MB Random Data Files

```
#!/bin/ksh
export FooKeyPassword=FooCrypt
export Size=24250
export Seek=100
export FooKey_ARG_Max=485
export Algorithm= FooCrypt-aes256
export MsgDgst=sha256
export FooCrypt=[ Full Path To FooCrypt ]
export X=0
[ ! -d ${HOME}/Tmp.$$ ] && mkdir -p ${HOME}/Tmp.$$
until [ ${X} -gt 100 ]
do
        openssl rand 5124000 > ${HOME}/Tmp.$$/FooKey.SourceFile
        ${FooCrypt} -C -F ${FooKey_ARG_Max},${Seek},${Size} -a ${Algorithm} -m ${MsgDgst} -f ${HOME}/Tmp.$$/FooKey.SourceFile
        export X=$(( ${X} + 1 ))
done
[ -d ${HOME}/Tmp.$$ ] && rm -fr ${HOME}/Tmp.$$
```

- **mFooKey Script**
  - (Package Root)/Scripts/mFooKey
  - Simple example script to create FooKey's from all GIF images in the FooCrypt package

- Modify the following to suit your needs
  - FooKeyPassword
  - Size
  - X=$((${Y} - 50000))
    - where :
      - X is the number of characters to SEEK
      - Y is the total number of characters contained in the file that you are sourcing the FooKey from
  - The FooKey Source File Directory
  - The FooKey Source File Type ie :
  - You can Create Random Data Source File(s) via :
    - dd if=/dev/random of=${HOME}/FooKey.SourceFile count=5124 bs=1k
    - openssl rand 5124000 > ${HOME}/FooKey.SourceFile

```
#!/bin/ksh
#:#
#:#
<——- Comments Deleted -——>
#:#
#:#
export PATH=/sbin:/usr/sbin:/bin:/usr/bin
export FooKeyPassword=FooCrypt
export Size=24250
export OS=$( uname -s )
case ${OS} in
          Darwin)
                    export FooCrypt=/Volumes/FooCrypt.12.0.0.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt
                    export Images=/Volumes/FooCrypt.12.0.0.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Data/Images
                    export FooKey=${HOME}/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooKey
          ;;
          *)
                    export FooCrypt=/opt/FooCrypt/FooCrypt
                    export Images=/opt/FooCrypt/Scripts/Data/Images
                    export FooKey=${HOME}/FooCrypt/.FooKey
          ;;
esac

find "${Images}" -type f -name "*gif" | while read File
do
          Y=$(( $( strings -n 1 ${File} | wc -c | awk '{print $1}' ) - $( strings -n 1 ${File} | wc -l | awk '{print $1}' ) ))
          X=$(( ${Y} - 50000 ))
          print "${Y} : ${File}"
          until [ ${X} -gt $(( ${Y} - ${Size} )) ]
          do
                    time ${FooCrypt} -C -F 485,${X},${Size} -a FooCrypt-aes256 -m sha256 -f ${File}
                    B=$( echo ${RANDOM} |cut -c1-4 )
                    X=$(( ${X} + ${B} ))
          done
done
```

Encrypting a file with a FooKey

- Is as simple as

1. Select Your FooCrypt-Cypher
- [FooCrypt-aes256 is DEFAULT]

2. Select Your File

3. Select Your FooKey Source
- Browse Saved FooKey
- FooKey Memory Active Buffer : Encrypted Transfer
- Window Memory Active Buffer : Encrypted Transfer
- Text Window Active Data : Encrypted Transfer
- Text Window Active Data : ASCII Transfer

4. FooKey Encrypt Input File
- FooCrypt will then encrypt the input file for the number of cycles contained in the FooKey

- **Command Line Example**
  - **Encrypted FooKey | Batch_Mode : None**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-aes256:Ask:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-e
```

  - **Encrypted FooKey | Batch_Mode : Sequential**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-aes256:Ask:None \
-b Sequential \
-e
```

  - **ASCII FooKey**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ *Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-None:None:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-e
```

*Quoted Full Paths are only required when special characters are contained within the PATH
- ie :
  - ‘ ‘ SPACE
  - ‘&’ AMPERSAN

Decrypting a file with a FooKey

- Is as simple as

1. Select Your FooCrypt-Cypher
- [FooCrypt-aes256 is DEFAULT]

2. Select Your File

3. Select Your FooKey Source
- Browse Saved FooKey
- FooKey Memory Active Buffer : Encrypted Transfer
- Window Memory Active Buffer : Encrypted Transfer
- Text Window Active Data : Encrypted Transfer
- Text Window Active Data : ASCII Transfer

4. FooKey Decrypt Input File
- FooCrypt will then decrypt the input file for the number of cycles contained in the FooKey

- **Command Line Example**
  - **Encrypted FooKey | Batch_Mode : None**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ *Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-aes256:Ask:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-d
```

  - **Encrypted FooKey | Batch_Mode : Sequential**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-aes256:Ask:None \
-b Sequential \
-d
```

  - **ASCII FooKey**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ *Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-None:None:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-d
```

*Quoted Full Paths are only required when special characters are contained within the PATH
- ie :
  - ‘ ‘ SPACE
  - ‘&’ AMPERSAND

Encrypting a Message with a FooKey

- Is as simple as
  - Writing your message in Cypher Key Control
  - Loading an ASCII message via ITWMA
  - Menu Select -> Edit -> Paste
    *[Ensuring that the destination window on FooKeyBoard is set to Cypher_Key_Control]

1. Select Your FooCrypt-Cypher

- Menu Select -> Select_Cypher -> FooCrypt-a Through FooCrypt-z
- [FooCrypt-aes256 is DEFAULT]

2. Select Your FooKey Source

- Menu Select -> FooKey_Msg -> FooKey Source
  - None
  - Browse Saved FooKey : Encrypted Transfer
  - FooKey Memory Active Buffer : Encrypted Transfer
  - Window Memory Active Buffer : Encrypted Transfer
  - Text Window Active Data : Encrypted Transfer
  - Text Window Active Data : ASCII Transfer

3. Select Your Message Source

- Menu Select -> FooKey_Msg -> Message Source
  - None
  - Message : Text Window Memory Active Buffer
  - Message : Text Window Active Data

4. Select Your Message Destination

- Menu Select -> FooKey_Msg -> Message Destination
  - None
  - Message : Log Window StdOutLog
  - Message : Text Window Active Data

5. FooKey_Msg Encrypt

- Menu Select -> FooKey_Msg -> Encrypt Message
  - FooCrypt will then encrypt the Message Source for the number of cycles contained in the FooKey and display the encrypted message in either the Log Control as a StdOutLog and in AllStdOutLog or in the CKC Text Window.

5. Sending Your FooKey_Message via :

- Simply select either the StdOutLog or the CKC Text Window for the message you have encrypted.
- Copy or cut the message
- Paste the message into the method you choose to transport it to the intended recipient
  - ie:

Transport Method	Known Character Limits
Secure File Transport Protocol (SFTP)	Filesystem Max File Size
Secure Copy Protocol (SCP)	Filesystem Max File Size
Client URL (CURL)	Filesystem Max File Size
Electronic Message (eMail)	varies depending MTA constraints, usually 10MB total email size
Short Messaging Service (SMS)	144 Characters per SMS
Apple iMessage Application	8000 Characters Per Message
Microsoft Skype	25000 Characters Per Message
Google Hangouts Messenger	2000 Characters Per Message
Whatsapp Messaging Application	Not Tested
IMO Messaging Application	Not Tested
Signal Messaging Application	Not Tested
Telegram Messaging Application	Not Tested
Facebook	8000 Characters Per Message
Facebook Messenger	2000 Characters Per Message
Facsimile Automatic Xerox (FAX)	Not Tested
Hard Copy via Your Postal Service	Not Tested
Etc	Not Tested

6. Technical Specifications of FooKey_Message

- The message text source is converted to base64 data and then encrypted with the ‘Default Cypher’ using the ‘FooKey_Password’ as defined in the Preferences Window.
- The ‘Default Cypher’ and ‘FooKey_Password’ must be the same cypher / password used for the FooKey.
- The message is then encrypted with the FooKey and saved in BASE64 format and loaded into ‘Log Control’ with each line prefixed with :

- Example FooKey_Message
  - FooCryptMsg_1_153 where :
    - FooCryptMsg [FooKey_Message Identification Prefix]
    - Line Number
    - Total Number Of Lines

- The last line of a FooKey_Message contains an SHA256 checksum of the entire message which is used during decryption validation

FooCryptMsg_1_154_U2FsdGVkX1+b3Tvesugi5ZCarp/aWMcMEXovOSxSmohn7NV9kLQ9OeKwbAFwRSXz
FooCryptMsg_2_154_or5qplPB7CfohZn/Yc8mRc39aTAfylimrWv9QF9IEcHFBCYSW2ndjJx0+QSAYsgs
FooCryptMsg_3_154_lnCj4x/gBJFZy4Xb0Ic61BOi7ozmZ6fLc3f3bF0rhc6NasqGhxak+spS3hiuM4uH
FooCryptMsg_4_154_1CXSLkcO7+tECEThtg/xktjISMRNJoqjjCDtw8fsKVcTu5mpdDkaXe7Cm4Jd0QW6

<—— DELETED LINES ——>

FooCryptMsg_150_154_8uS951QdJBONL98n4Duku0yUylIfQbgOs4O6FxLh/iPmvx24G+EFLoux1BF2uc1W
FooCryptMsg_151_154_DIdUFxhCH3QnYsDLNmKwzPtC0vBC8QzrzLfK5GLCQFkrvFU7G9AAyJPY9rHSaVnR
FooCryptMsg_152_154_FpVsxDky9G1aT5tQc//BhYqugefy49g03vvr962wIifcNFHaxP9wPkd2wM0E0ybJ
FooCryptMsg_153_154_lH1IMTkiqcC18yGjzn4/3kbU0de374pBJ88YQXoV0nIVNvgMsvYmjPEedYM8eKYU
FooCryptMsg_154_154_AA7352F097CB005D5CF5C87795014F98B2B1BC651E6E3B47BF78E6D37CBAC11B

Dencrypting a Message with a FooKey

- Is as simple as
  - Loading your FooKey_Message into Cypher Key Control
    - ITWMA and selecting the saved FooKey_Message
    - FooKey -> Edit -> Paste

1. Select Your FooCrypt-Cypher

- Menu Select -> Select_Cypher -> FooCrypt-a Through FooCrypt-z
- [FooCrypt-aes256 is DEFAULT]

2. Select Your FooKey Source

- Menu Select -> FooKey_Msg -> FooKey Source
  - None
  - Browse Saved FooKey : Encrypted Transfer
  - FooKey Memory Active Buffer : Encrypted Transfer
  - Window Memory Active Buffer : Encrypted Transfer
  - Text Window Active Data : Encrypted Transfer
  - Text Window Active Data : ASCII Transfer

3. Select Your Message Source

- Menu Select -> FooKey_Msg -> Message Source
  - None
  - Message : Text Window Memory Active Buffer
  - Message : Text Window Active Data

4. Select Your Message Destination

- Menu Select -> FooKey_Msg -> Message Destination
  - None
  - Message : Log Window StdOutLog
  - Message : Text Window Active Data

5. FooKey Message Decrypt

- Menu Select -> FooKey_Msg -> Decrypt Message
  - FooCrypt will then encrypt the Message Source for the number of cycles contained in the FooKey and display the encrypted message in either the Log Control as a StdOutLog and in AllStdOutLog or in the CKC Text Window.

5. Technical Specifications Of FooKey_Message

- The message text source is converted to base64 data and then encrypted with the ‘Default Cypher’ using the ‘FooKey_Password’ as defined in the Preferences Window.
- The ‘Default Cypher’ and ‘FooKey_Password’ must be the same cypher / password used for the FooKey.
- The message is then encrypted with the FooKey and saved in BASE64 format and loaded into ‘Log Control’ with each line prefixed with :

- Example FooKey_Message
  - FooCryptMsg_1_153 where :
    - FooCryptMsg [FooKey_Message Identification Prefix]
    - Line Number
    - Total Number Of Lines

- The last line of a FooKey_Message contains an SHA256 checksum of the entire message which is used during decryption validation

FooCryptMsg_1_154_U2FsdGVkX1+b3Tvesugi5ZCarp/aWMcMEXovOSxSmohn7NV9kLQ9OeKwbAFwRSXz
FooCryptMsg_2_154_or5qpIPB7CfohZn/Yc8mRc39aTAfyIimrWv9QF9IEcHFBCYSW2ndjJx0+QSAYsgs
FooCryptMsg_3_154_lnCj4x/gBJFZy4Xb0Ic61BOi7ozmZ6fLc3f3bF0rhc6NasqGhxak+spS3hiuM4uH
FooCryptMsg_4_154_1CXSLkcO7+tECEThtg/xktjISMRNJoqjjCDtw8fsKVcTu5mpdDkaXe7Cm4Jd0QW6

<—— DELETED LINES ——>

FooCryptMsg_150_154_8uS951QdJBONL98n4Duku0yUyIIfQbgOs4O6FxLh/iPmvx24G+EFLoux1BF2uc1W
FooCryptMsg_151_154_DIdUFxhCH3QnYsDLNmKwzPtC0vBC8QzrzLfK5GLCQFkrvFU7G9AAyJPY9rHSaVnR
FooCryptMsg_152_154_FpVsxDky9G1aT5tQc//BhYqugefy49g03vvr962wIifcNFHaxP9wPkd2wM0E0ybJ
FooCryptMsg_153_154_lH1IMTkiqcC18yGjzn4/3kbU0de374pBJ88YQXoV0nIVNvgMsvYmjPEedYM8eKYU
FooCryptMsg_154_154_AA7352F097CB005D5CF5C87795014F98B2B1BC651E6E3B47BF78E6D37CBAC11B

Encrypting a file with a Standard Key

- Standard Key Encryption will help you migrate your existing encrypted data into the superior FooKey

- Is as simple as

1. Select Your FooCrypt-Cypher
- [FooCrypt-aes256 is DEFAULT]

2. Select Your File

3. Select Your Standard Source
- Window Memory Active Buffer
- Text Window Active Data
- Browse Saved Standard Source ASCII Format

4. Standard Encrypt Input File

- FooCrypt will then encrypt the input file

- **Command Line Example**

  - **Std OpenSSL**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-s \
-a FooCrypt-aes256 \
-P FooCrypt-None:Ask:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-e
```

*Quoted Full Paths are only required when special characters are contained within the PATH
- ie :
  - ‘ ‘ SPACE
  - ‘&’ AMPERSAND

Decrypting a file with a Standard Key

- Standard Key Encryption will help you migrate your existing encrypted data into the superior FooKey

- Is as simple as

1. Select Your FooCrypt-Cypher
- [FooCrypt-aes256 is DEFAULT]

2. Select Your File

3. Select Your Standard Source
- Window Memory Active Buffer
- Text Window Active Data
- Browse Saved Standard Source ASCII Format

4. Standard Decrypt Input File

- FooCrypt will then decrypt the input file

  - **Command Line Example**

    - **Std OpenSSL**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-s \
-a FooCrypt-aes256 \
-P FooCrypt-None:Ask:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-d
```

*Quoted Full Paths are only required when special characters are contained within the PATH
- ie :
  - ‘ ‘ SPACE
  - ‘&’ AMPERSAND

Command Line

From The Disk Image or any where else FooCrypt has been installed to :

1. Run FooCrypt -h

- (Help) Available command line syntax and options.

- **FooCrypt**
- **Darwin Example Command Line Interface StdOut**

-> /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/MacOS/FooCrypt -h

```
STATUS  : Runtime Options          : FooCrypt -h
STATUS  :
HELP    : Available ARG_MAX        : 1042014
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 3.3.6
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.48.dylib (compatibility version 49.0.0, current version 49.2.0)
STATUS  :        /usr/lib/libcrypto.46.dylib (compatibility version 47.0.0, current version 47.2.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 38.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1319.100.3)
STATUS  :
STATUS  : Found                    : /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist
STATUS  :
STATUS  : Running FooCrypt Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 0
STATUS  :
HELP    : QRCS ( With eAES® )      : Darwin Environment Detected
HELP    : QRCS ( With eAES® )      : Is Currently Available For Your Operating System ( Darwin )
HELP    : QRCS ( With eAES® )      : For Further Details On QRCS ( With eAES® ), Visit https://QRCrypto.ch
STATUS  :
STATUS  : Running Instances Of     : FooCrypt
STATUS  :
STATUS  : User ID                  : 501
STATUS  : Group ID                 : 20
STATUS  : Process ID               : 94907
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 501       20        94907     85355     /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/MacOS/FooCrypt
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 1
STATUS  :
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 5572827226
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX19LDgk3dEfIF8+s3CHF2hDh5N5dUjS4gsknco9aJukMM3SNStdCkfeM
STATUS  : QNt/zDIMdl2eSOCPJAiltc5bflfF4v7Zx1SCcUdH3yCY7tQUCd7rWVZaziXNUn85
STATUS  :
STATUS  :
STATUS  : System_Serial=20250120065910:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin, BuildTest Expiration Date : 20250120065910
STATUS  :
STATUS  :
STATUS  : Found /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist
STATUS  :
STATUS  :
STATUS  : Default Preferences      : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 3.3.6
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.48.dylib (compatibility version 49.0.0, current version 49.2.0)
STATUS  :        /usr/lib/libcrypto.46.dylib (compatibility version 47.0.0, current version 47.2.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 38.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1319.100.3)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers         : aes-128-ccm$|aes-128-gcm$|aes-192-ccm$|aes-192-gcm$|aes-256-ccm$|aes-256-gcm$|id-aes128-CCM$|id-aes128-GCM$|id-aes128-wrap$|id-aes192-CCM$|id-aes192-GCM$|id-
aes192-wrap$|id-aes256-CCM$|id-aes256-GCM$|id-aes256-wrap$
STATUS  :
STATUS  :
STATUS  : Expect                   : /usr/bin/expect
STATUS  : Expect Version           : expect version 5.45
STATUS  :
STATUS  :
STATUS  : Help : Runtime Options   : FooCrypt -h
STATUS  : Help :
STATUS  : Help :  FooCrypt:
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :            FooCrypt
STATUS  : Help :
STATUS  : Help :            A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
```

```
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -A | Advanced GUI Settings ]
STATUS  : Help :          * Enables : FooCrypt-GUI Editable Special Openssl Options
STATUS  : Help :
STATUS  : Help :   [ -B | Set Bin_FooCrypt-OpenSSL Versions & Algorithms Located In Absolute PATH to FooCrypt-OpenSSL Directory ]
STATUS  : Help :          * Required : Place full PATH In Double Quotes, Including Any Wild Options "*"
STATUS  : Help :          * Default  : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64
STATUS  : Help :
STATUS  : Help :   [ -E | Full PATH Of Expect Version To Use ]
STATUS  : Help :          [ /usr/bin/expect ]
STATUS  : Help :
STATUS  : Help :   [ -f | Set FooKey_Password During Initialisation ]
STATUS  : Help :          * Default : Not Set
STATUS  : Help :
STATUS  : Help :   [ -F | Do Not Set FooKey_Password During Initialisation ]
STATUS  : Help :          * Default : Set
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :          * Do not Remove /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145020_FooTest_FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -l | Set Lock_Password During Initialisation ]
STATUS  : Help :          * Default : Set
STATUS  : Help :
STATUS  : Help :   [ -L | Do Not Set Lock_Password During Initialisation ]
STATUS  : Help :          * Default : Not Set
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :           * Default : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt
STATUS  : Help :           * Must Contain The FooCrypt License Files
STATUS  : Help :           * FooCrypt Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -Q | Full PATH Of QRCS Cipher Engine ]
STATUS  : Help :          * Enables : FooCrypt-GUI QRCS ( With eAES® ) Options
STATUS  : Help :          [ N/A : Requires QRCS Cipher Engine ( With eAES® ), Visit https://QRCrypto.ch ]
STATUS  : Help :             * Requires : QRCS Cipher Engine
STATUS  : Help :
STATUS  : Help :   [ -V | Display FooCrypt Version ]
STATUS  : Help :
STATUS  : Help :   [ -W | Full PATH Of Wish Version To Use ]
STATUS  : Help :          * Requires An X11 Window Manager
STATUS  : Help :
STATUS  : Help :   [ -z | Absolute PATH to OpenSSL ]
STATUS  : Help :          * Default : /usr/bin/openssl
STATUS  : Help :
STATUS  : Help :   [ -Z | Special Openssl Options ]
STATUS  : Help :           * OPENSSL Only
STATUS  : Help :           * Varies Depending On The Version Of OpenSSL You Are Using
STATUS  : Help :           * Place Options Inside Double Quotes "
STATUS  : Help :           * See [ Absolute PATH to OpenSSL ] enc -help
STATUS  : Help :           * See man -s 1 enc
STATUS  : Help :
STATUS  : Help :   Exclude :
STATUS  : Help :           -A                 Process base64 data on one line (requires -a)
STATUS  : Help :           -K key             Key to use, specified as a hexadecimal string
STATUS  : Help :           -a                 Perform base64 encoding/decoding (alias -base64)
STATUS  : Help :           -d                 Decrypt the input data
STATUS  : Help :           -e                 Encrypt the input data (default)
STATUS  : Help :           -in file           Input file to read from (default stdin)
STATUS  : Help :           -md digest         Digest to use to create a key from the passphrase
STATUS  : Help :           -out file          Output file to write to (default stdout)
STATUS  : Help :           -pass source       Password source
STATUS  : Help :
STATUS  : Help :   Include :
STATUS  : Help :           -P                 Print out the salt, key and IV used, then exit
STATUS  : Help :           -S salt            Salt to use, specified as a hexadecimal string
STATUS  : Help :           -bufsize size      Specify the buffer size to use for I/O
STATUS  : Help :           -debug             Print debugging information
STATUS  : Help :           -iter iterations   Specify iteration count and force use of PBKDF2
STATUS  : Help :           -iv IV             IV to use, specified as a hexadecimal string
STATUS  : Help :           -none              Use NULL cipher (no encryption or decryption)
STATUS  : Help :           -nopad             Disable standard block padding
STATUS  : Help :           -p                 Print out the salt, key and IV used
STATUS  : Help :           -pbkdf2            Use the pbkdf2 key derivation function
STATUS  : Help :           -salt              Use a salt in the key derivation routines (default)
STATUS  :
STATUS  :
STATUS  : CleanUP
STATUS  :
STATUS  : Logs                     : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145020_FooTest_FooCrypt
STATUS  : Logs                     : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145020_FooTest_FooCrypt/20231107145020_FooTest_FooCrypt_22889.log
STATUS  : Logs                     :
STATUS  : Logs                     :  12K    /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145020_FooTest_FooCrypt
STATUS  : Logs                     :
STATUS  : FooHome                  :
STATUS  : FooHome                  :   0B    /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt
STATUS  : FooHome                  :
STATUS  : FooCrypt_RunTime         : 6 Seconds
STATUS  : FooCrypt_RunTime         : 0 Days, 0 Hours, 0 Minutes, 6 Seconds
STATUS  :
STATUS  : FooCrypt_Exit_Code_0
STATUS  :
```

- **FooCrypt**
- **Darwin Example Command Line Interface StdOut**

-> /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt -h

```
STATUS  : Runtime Options          : FooCrypt -h
STATUS  :
HELP    : Available ARG_MAX        : 1041069
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 3.3.6
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.48.dylib (compatibility version 49.0.0, current version 49.2.0)
STATUS  :        /usr/lib/libcrypto.46.dylib (compatibility version 47.0.0, current version 47.2.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 38.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1319.100.3)
STATUS  :
STATUS  : Found                    : /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist
STATUS  :
STATUS  : Running FooCrypt Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 0
STATUS  :
HELP    : QRCS ( With eAES® )      : Darwin Environment Detected
HELP    : QRCS ( With eAES® )      : Is Currently Available For Your Operating System ( Darwin )
HELP    : QRCS ( With eAES® )      : For Further Details On QRCS ( With eAES® ), Visit https://QRCrypto.ch
STATUS  :
STATUS  :
STATUS  : Running Instances Of     : FooCrypt
STATUS  :
STATUS  : User ID                  : 501
STATUS  : Group ID                 : 20
STATUS  : Process ID               : 95287
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 501       20        95287     85355     /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Resources/FooCrypt
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 5572827226
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX19LDqk3dEfIF8+s3CHF2hDh5N5dUjS4gsknco9aJukMM3SNStdCkfeM
STATUS  : QNt/zDIMdl2eSOCPJAiltc5bf1fF4v7ZxlSCcUdH3yCY7tQUCd7rWVZaziXNUn85
STATUS  :
STATUS  :
STATUS  : System_Serial=20250120065910:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin, BuildTest Expiration Date : 20250120065910
STATUS  :
STATUS  :
STATUS  : Default Preferences      : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 3.3.6
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.48.dylib (compatibility version 49.0.0, current version 49.2.0)
STATUS  :        /usr/lib/libcrypto.46.dylib (compatibility version 47.0.0, current version 47.2.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 38.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1319.100.3)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers         : aes-128-ccm$|aes-128-gcm$|aes-192-ccm$|aes-192-gcm$|aes-256-ccm$|aes-256-gcm$|id-aes128-CCM$|id-aes128-GCM$|id-aes128-wrap$|id-aes192-CCM$|id-aes192-GCM$|id-
aes192-wrap$|id-aes256-CCM$|id-aes256-GCM$|id-aes256-wrap$
STATUS  :
STATUS  :
STATUS  : Expect                   : /usr/bin/expect
STATUS  : Expect Version           : expect version 5.45
STATUS  :
STATUS  :
STATUS  : Help : RunTime Options   : FooCrypt -h
STATUS  : Help :
STATUS  : Help :  FooCrypt:
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :             FooCrypt
STATUS  : Help :
STATUS  : Help :            A.K.A.        FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -a | Algorithm To Use OpenSSL_Cypher ]
STATUS  : Help :           [ See : FooCrypt -H Available | Help Display Available Algorithms ]
STATUS  : Help :           * Default : FooCrypt-aes256
STATUS  : Help :
STATUS  : Help :   [ -A | Test All Bin_OpenSSL Versions & Algorithms Located In Absolute PATH to FooCrypt-OpenSSL Directory ]
STATUS  : Help :           * Required : Place full PATH In Double Quotes, Including Any Wild Options "*"
STATUS  : Help :           * Default  : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64
STATUS  : Help :
STATUS  : Help :   [ -b | Batch Mode To Use ]
STATUS  : Help :           [ None ]
STATUS  : Help :            * Default : None
STATUS  : Help :           [ Sequential | Sequentially Process All Files In [Batch Mode Directory ]/YYMMDDHHMMSS_In ]
STATUS  : Help :                 * 1. Poll [ Batch Mode Directory ]/YYMMDDHHMMSS_In Every 60 Seconds For Files,
```

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STATUS  : Help :                * 2. Sequentially Process The Files, Sleeping For 5 Seconds Between Files,
STATUS  : Help :                * 3. Repeat 1 & 2 Till FooCrypt Is Killed
STATUS  : Help :
STATUS  : Help :           * Default : Place A Prefix On All Batch Mode Files Via Command "date +%Y%m%d%H%M%S" [ 20231107145459 ]
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -y | Default | None | User Defined String ]
STATUS  : Help :                  [ -Y | None | Date | User Defined String ]
STATUS  : Help :
STATUS  : Help :           * Note : Only Available With An Encrypted FooKey
STATUS  : Help :
STATUS  : Help :   [ -B | Full PATH Of The Batch Mode Directory ]
STATUS  : Help :           * Will Be Created If It Does Not Exist, And The User Has Permissions To Create It
STATUS  : Help :           * Default : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145457_FooTest_FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -c | Check Requirements ]
STATUS  : Help :
STATUS  : Help :   [ -C | Create FooKey ]
STATUS  : Help :           * Default : Will Create A FooKey Of 50 Cycles With A Password Length Of 512 Characters
STATUS  : Help :           * Default : FooCrypt-aes256
STATUS  : Help :           * Default : /dev/random
STATUS  : Help :           * Default : 485,100,24250
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -a | Algorithm To Use ]
STATUS  : Help :                  [ -f | Full PATH of File To Create FooKey From ]
STATUS  : Help :                  [ -F | FooKey Create Settings ]
STATUS  : Help :                  [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :                     Set FooKey Password via :
STATUS  : Help :                       * export FooKeyPassword=[ Password For FooKey ]
STATUS  : Help :
STATUS  : Help :   [ -d | To Decrypt ]
STATUS  : Help :
STATUS  : Help :   [ -D | Display Debug Expect Output ]
STATUS  : Help :
STATUS  : Help :   [ -e | To Encrypt ]
STATUS  : Help :
STATUS  : Help :   [ -E | Full PATH Of Expect Version To Use ]
STATUS  : Help :           [ /usr/bin/expect ]
STATUS  : Help :
STATUS  : Help :   [ -f | Full PATH of File To Create FooKey From ]
STATUS  : Help :           * Default : /dev/random
STATUS  : Help :           * File Type [ Ordinary File | Fifo Special File or a Pipe | Character Special File ]
STATUS  : Help :           * Must be Readable by Current Process
STATUS  : Help :
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -C | Create FooKey ]
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -a | Algorithm To Use ]
STATUS  : Help :                  [ -F | FooKey Create Settings ]
STATUS  : Help :                  [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :
STATUS  : Help :   [ -F | FooKey Create Settings ]
STATUS  : Help :           [ FooKey_ARG_MAX ],[ FooKey_Seek ],[ FooKey_Count ]
STATUS  : Help :           * Default : 485,100,24250
STATUS  : Help :                  * FooKey_ARG_MAX Valid Characters [0-9]
STATUS  : Help :                  * FooKey_Seek Valid Characters [0-9]
STATUS  : Help :                  * FooKey_Count Valid Characters [0-9]
STATUS  : Help :
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -C | Create FooKey ]
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -a | Algorithm To Use ]
STATUS  : Help :                  [ -f | Full PATH of File To Create FooKey From ]
STATUS  : Help :                  [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
STATUS  : Help :   [ -H | Help Display Algorithms ]
STATUS  : Help :           [ All ]
STATUS  : Help :           [ Available ]
STATUS  : Help :           [ Excluded ]
STATUS  : Help :
STATUS  : Help :   [ -i | Full PATH Of Input Filename ]
STATUS  : Help :
STATUS  : Help :   [ -I | Input Filename, Decryption Input Format ( Decrypt_IF ) ]
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -d | To Decrypt ]
STATUS  : Help :             * [ BASE64 ]
STATUS  : Help :                 * Convert BASE64 Input Filename Encrypted File Format To OpenSSL
STATUS  : Help :                 * Convert BASE64 Input Filename Encrypted File Format To QRCS
STATUS  : Help :             * [ OpenSSL ]
STATUS  : Help :                 * Default : OpenSSL is the Default Input Filename Encrypted File Format When Using OpenSSL
STATUS  : Help :             * [ QRCS ]
STATUS  : Help :                 * Default : QRCS is the Default Input Filename Encrypted File Format When Using QRCS
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :           * Do not Remove /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145457_FooTest_FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -K | FooKey_Mode ]
STATUS  : Help :           * Default : 4
STATUS  : Help :             * 1 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 2 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 3 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 4 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :                   * Where N = Numerical Characters 0 - 9
STATUS  : Help :
STATUS  : Help :   [ -L | Display LICENSE AGREEMENTS ]
STATUS  : Help :
STATUS  : Help :   [ -m | Message Digest To Use OpenSSL_MD ]
STATUS  : Help :           * sha256 is Default
STATUS  : Help :             * Available For : LibreSSL 3.3.6 : /usr/bin/openssl
STATUS  : Help :                gost-mac md4 md5 md_gost94 ripemd160 sha1 sha224 sha256 sha384 sha512 sm3 sm3WithRSAEncryption streebog256 streebog512 whirlpool
STATUS  : Help :
STATUS  : Help :             OpenSSL 1.1.1w  11 Sep 2023 : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1w/bin/openssl : blake2b512 blake2s256 gost md4 md5 mdc2 rmd160 sha1 sha224 sha256
sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023) : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.12/bin/openssl : blake2b512 blake2s256 md5
rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023) : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.4/bin/openssl : blake2b512 blake2s256 md5
rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             LibreSSL 3.3.6 : /usr/bin/openssl : gost-mac md4 md5 md_gost94 ripemd160 sha1 sha224 sha256 sha384 sha512 sm3 sm3WithRSAEncryption streebog256 streebog512 whirlpool
STATUS  : Help :
STATUS  : Help :   [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :           * sha256 is Default
STATUS  : Help :             * Available For : LibreSSL 3.3.6 : /usr/bin/openssl
STATUS  : Help :                gost-mac md4 md5 md_gost94 ripemd160 sha1 sha224 sha256 sha384 sha512 sm3 sm3WithRSAEncryption streebog256 streebog512 whirlpool
STATUS  : Help :
STATUS  : Help :             OpenSSL 1.1.1w  11 Sep 2023 : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1w/bin/openssl : blake2b512 blake2s256 gost md4 md5 mdc2 rmd160 sha1 sha224 sha256
sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023) : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.12/bin/openssl : blake2b512 blake2s256 md5
rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023) : /Users/FooCrypt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.1.4/bin/openssl : blake2b512 blake2s256 md5
rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             LibreSSL 3.3.6 : /usr/bin/openssl : gost-mac md4 md5 md_gost94 ripemd160 sha1 sha224 sha256 sha384 sha512 sm3 sm3WithRSAEncryption streebog256 streebog512 whirlpool
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :           * Default : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt
STATUS  : Help :           * Must Contain The FooCrypt License Files
STATUS  : Help :           * FooCrypt Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -o | Full PATH Of Output filename ]
STATUS  : Help :
STATUS  : Help :   [ -O | Output Filename, Encryption Output Format ( Encrypt_OF ) ]
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -e | To Encrypt ]
STATUS  : Help :             * [ BASE64 ]
STATUS  : Help :                 * Convert FooCrypt Encrypted Output To BASE64
STATUS  : Help :                 * Convert QRCS Encrypted Output To BASE64
STATUS  : Help :             * [ OpenSSL ]
STATUS  : Help :                 * Default : OpenSSL is the Default Encrypted Output Format When Using OpenSSL
STATUS  : Help :             * [ QRCS ]
STATUS  : Help :                 * Default : QRCS is the Default Encrypted Output Format When Using QRCS
STATUS  : Help :
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STATUS  : Help :   [ -p | Full PATH of Input Password List Filename ]
STATUS  : Help :
STATUS  : Help :   [ -P | Input Password List Filename Password Source ]
STATUS  : Help :          * [ Algorithm:Type:PATH ]
STATUS  : Help :               * Algorithm
STATUS  : Help :                  [ FooCrypt-None ]
STATUS  : Help :                  [ See FooCrypt -H Available | Display Available Algorithms ]
STATUS  : Help :                  [ FooCrypt-QRCS ]
STATUS  : Help :                * Type
STATUS  : Help :                  [ Ask ]         | Encrypted FooKey
STATUS  : Help :                    Set FooKey Password via :
STATUS  : Help :                      * export FooKeyPassword=[ Password For FooKey ]
STATUS  : Help :                  [ Ask ]         | FooCrypt-QRCS Prompts for QRCS Username & Password
STATUS  : Help :                    Set QRCS User Name via :
STATUS  : Help :                      * export eAESrUser=[ User Name For QRCS ]
STATUS  : Help :                    Set QRCS Password via :
STATUS  : Help :                      * export eAESrPasswd=[ Password For QRCS ]
STATUS  : Help :                  [ Fifo ]        | GUI Only
STATUS  : Help :                  [ None ]        | ASCII FooKey
STATUS  : Help :                * PATH
STATUS  : Help :                  [ Full PATH to Fifo ]
STATUS  : Help :                  [ None ]
STATUS  : Help :
STATUS  : Help :   [ -q | Full PATH Of QRCS ( .qkey .qksec .qkpub ) File ]
STATUS  : Help :          [ Not Activated : Requires License From https://QRCrypto.ch ]
STATUS  : Help :             * Requires : QRCS ( With eAES® ) Cipher Engine
STATUS  : Help :
STATUS  : Help :   [ -Q | Full PATH Of QRCS Cipher Engine ]
STATUS  : Help :          [ Not Activated : Requires License From https://QRCrypto.ch ]
STATUS  : Help :             * Requires : QRCS ( With eAES® ) Cipher Engine
STATUS  : Help :
STATUS  : Help :   [ -r | QRCS Option ]
STATUS  : Help :          [ Not Activated : Requires License From https://QRCrypto.ch ]
STATUS  : Help :             * Requires : QRCS ( With eAES® ) Cipher Engine
STATUS  : Help :                * [ about ]     :
STATUS  : Help :                * [ usage ]     :
STATUS  : Help :                * [ help ]      :
STATUS  : Help :                * [ transform ] :
STATUS  : Help :                * [ create ]    :
STATUS  : Help :                * [ delete ]    :
STATUS  : Help :                * [ sign ]      :
STATUS  : Help :                * [ sgen ]      :
STATUS  : Help :                * [ verify ]    :
STATUS  : Help :             * Default : None
STATUS  : Help :
STATUS  : Help :   [ -s | Use A Standard OpenSSL Password ]
STATUS  : Help :          * Limited To
STATUS  : Help :             CLI :
STATUS  : Help :              Minimum Characters 0
STATUS  : Help :              Maximum Characters 522
STATUS  : Help :             GUI :
STATUS  : Help :              Minimum Characters 8
STATUS  : Help :              Maximum Characters 522
STATUS  : Help :               * Note : Password Character Count > FooKey_ARG_MAX Preferences Setting
STATUS  : Help :
STATUS  : Help :   [ -S | send_slow Preset Expect Settings ]
STATUS  : Help :             * See : man -s 1 expect
STATUS  : Help :             * Requires : QRCS ( With eAES® ) Cipher Engine
STATUS  : Help :             * Default  : -S 10 [  1024   0.1 ]
STATUS  : Help :
STATUS  : Help :                           * 0 [      1   0.1 ]
STATUS  : Help :                           * 1 [      2   0.1 ]
STATUS  : Help :                           * 2 [      4   0.1 ]
STATUS  : Help :                           * 3 [      8   0.1 ]
STATUS  : Help :                           * 4 [     16   0.1 ]
STATUS  : Help :                           * 5 [     32   0.1 ]
STATUS  : Help :                           * 6 [     64   0.1 ]
STATUS  : Help :                           * 7 [    128   0.1 ]
STATUS  : Help :                           * 8 [    256   0.1 ]
STATUS  : Help :                           * 9 [    512   0.1 ]
STATUS  : Help :                           * 10 [  1024   0.1 ]
STATUS  : Help :                           * 11 [  2048   0.1 ]
STATUS  : Help :                           * 12 [  4096   0.1 ]
STATUS  : Help :                           * 13 [  8192   0.1 ]
STATUS  : Help :                           * 14 [ 32768   0.1 ]
STATUS  : Help :                           * 15 [ 65536   0.1 ]
STATUS  : Help :
STATUS  : Help :   [ -t | Test All OpenSSL Ciphers For 1 Cycle To Determine ARG_MAX Length ]
STATUS  : Help :          [ Start_ARG_MAX ],[End_ARG_MAX ]
STATUS  : Help :
STATUS  : Help :           * Start_ARG_MAX Valid Characters [0-9]
STATUS  : Help :           * Start_ARG_MAX = NULL Are Reset To 512
STATUS  : Help :           * Start_ARG_MAX < 28 Are Reset To 28
STATUS  : Help :           * Start_ARG_MAX > 550 Are Reset To 550
STATUS  : Help :           * Start_ARG_MAX >= End_ARG_MAX Are Rest To End_ARG_MAX - 1
STATUS  : Help :
STATUS  : Help :           * End_ARG_MAX Valid Characters [0-9]
STATUS  : Help :           * End_ARG_MAX = NULL Are Reset To 550
STATUS  : Help :           * End_ARG_MAX > 550 Are Reset To 550
STATUS  : Help :           * End_ARG_MAX > 550 Have Been Previously Tested And Are Known To Fail
STATUS  : Help :           * End_ARG_MAX <= Start_ARG_MAX Are Rest To Start_ARG_MAX + 1
STATUS  : Help :
STATUS  : Help :          * Optional :
STATUS  : Help :                 [ -A | Test All Bin_OpenSSL Versions ]
STATUS  : Help :                 [ -D | Display Debug Expect Output ]
STATUS  : Help :                 [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :                 [ -v | Display Verbose Output ]
STATUS  : Help :
STATUS  : Help :   [ -T | Validate All Cyphers For Cycles ]
STATUS  : Help :          [ Cycles ],[ ARG_MAX ]
STATUS  : Help :
STATUS  : Help :           * Cycles Valid Characters [0-9]
STATUS  : Help :           * Cycles = NULL Are Reset To 5
STATUS  : Help :           * Cycles > 200 Are Reset To 200
STATUS  : Help :
STATUS  : Help :           * ARG_MAX Valid Characters [0-9]
STATUS  : Help :           * ARG_MAX = NULL Are Reset To 512
STATUS  : Help :           * ARG_MAX < 28 Are Reset To 28
STATUS  : Help :           * ARG_MAX > 550 Are Reset To 550
STATUS  : Help :
STATUS  : Help :          * Optional :
STATUS  : Help :                 [ -A | Test All Bin_OpenSSL Versions ]
STATUS  : Help :                 [ -D | Display Debug Expect Output ]
STATUS  : Help :                 [ -p | Full PATH of Input Password List Filename ]
STATUS  : Help :                 [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :                 [ -v | Display Verbose Output ]
STATUS  : Help :                 * Required :
STATUS  : Help :                            : [ Cycles ],[ ARG_MAX ]
STATUS  : Help :                               * Cycles = 0
STATUS  : Help :                               * ARG_MAX = 0
STATUS  : Help :
STATUS  : Help :   [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :          * Default : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : Help :          * ASCII_Range 32-127 : " !"#$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : Help :                 * Required :
STATUS  : Help :                   [ -t | Test All OpenSSL Ciphers For 1 Cycle To Determine ARG_MAX Length ]
STATUS  : Help :                     or
STATUS  : Help :                   [ -T | Validate All Cyphers For Cycles ]
STATUS  : Help :
STATUS  : Help :   [ -U | UpDate Url ]
STATUS  : Help :          * Default : https://downloads.foocrypt.xyz/
STATUS  : Help :
STATUS  : Help :   [ -v | Display Verbose Output ]
STATUS  : Help :
STATUS  : Help :   [ -V | Display FooCrypt Version ]
STATUS  : Help :
STATUS  : Help :   [ -x | Display Available ARG_MAX ]
STATUS  : Help :           * Available ARG_MAX=1036473
STATUS  : Help :
STATUS  : Help :   [ -X | UpDate | Validate ]
STATUS  : Help :          UpDate
STATUS  : Help :           * Check For Updates
STATUS  : Help :             * Requires Internet Access
STATUS  : Help :             * Requires curl
STATUS  : Help :
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STATUS  : Help :          Validate
STATUS  : Help :           * Validate SHA256 Signatures of all files located in /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app
STATUS  : Help :
STATUS  : Help :   [ -y | Batch Mode Prefix ]
STATUS  : Help :              [ None | Overrides The Default Setting To Prefix All Files With The Processing Date & Time ]
STATUS  : Help :              [ User Defined String | Anything The End User Requires As A Prefix String, Overrides The Default Setting To Prefix All Files With The Processing Date & Time ]
STATUS  : Help :              * Default : Prepends The Processing Date & Time As A Prefix : 20231107145501
STATUS  : Help :
STATUS  : Help :   [ -Y | Batch Mode Suffix ]
STATUS  : Help :              [ Date | Appends The Processing Date & Time As A Suffix : 20231107145501 ]
STATUS  : Help :              [ User Defined String | Anything The End User Requires As A Suffix String ]
STATUS  : Help :              * Default : None
STATUS  : Help :
STATUS  : Help :   [ -z | Full PATH Of OpenSSL Binary To Use ]
STATUS  : Help :           * Default : /usr/bin/openssl
STATUS  : Help :              * Default : OpenSSL is the Default Encrypted Output Format When Using OpenSSL
STATUS  : Help :
STATUS  : Help :   [ -Z | Special Openssl Options ]
STATUS  : Help :           * OPENSSL Only
STATUS  : Help :           * Varies Depending On The Version Of OpenSSL You Are Using
STATUS  : Help :           * Place Options Inside Double Quotes "
STATUS  : Help :           * See [ Absolute PATH to OpenSSL ] enc -help
STATUS  : Help :           * See man -s 1 enc
STATUS  : Help :
STATUS  : Help :   Exclude :
STATUS  : Help :           -A                  Process base64 data on one line (requires -a)
STATUS  : Help :           -K key              Key to use, specified as a hexadecimal string
STATUS  : Help :           -a                  Perform base64 encoding/decoding (alias -base64)
STATUS  : Help :           -d                  Decrypt the input data
STATUS  : Help :           -e                  Encrypt the input data (default)
STATUS  : Help :           -in file            Input file to read from (default stdin)
STATUS  : Help :           -md digest          Digest to use to create a key from the passphrase
STATUS  : Help :           -out file           Output file to write to (default stdout)
STATUS  : Help :           -pass source        Password source
STATUS  : Help :
STATUS  : Help :   Include :
STATUS  : Help :           -P                  Print out the salt, key and IV used, then exit
STATUS  : Help :           -S salt             Salt to use, specified as a hexadecimal string
STATUS  : Help :           -bufsize size       Specify the buffer size to use for I/O
STATUS  : Help :           -debug              Print debugging information
STATUS  : Help :           -iter iterations    Specify iteration count and force use of PBKDF2
STATUS  : Help :           -iv IV              IV to use, specified as a hexadecimal string
STATUS  : Help :           -none               Use NULL cipher (no encryption or decryption)
STATUS  : Help :           -nopad              Disable standard block padding
STATUS  : Help :           -p                  Print out the salt, key and IV used
STATUS  : Help :           -pbkdf2             Use the pbkdf2 key derivation function
STATUS  : Help :           -salt               Use a salt in the key derivation routines (default)
STATUS  : Help :
STATUS  : Help :   Compile Time CIPHERS On This System Include :
STATUS  : Help :
STATUS  : Help :                               SUPPORTED CIPHERS
STATUS  : Help :                                          Note that some of these ciphers can be disabled at compile
STATUS  : Help :                                          time and some are available only if an appropriate engine is
STATUS  : Help :                                          configured in the configuration file. The output of the enc
STATUS  : Help :                                          command run with unsupported options (for example openssl
STATUS  : Help :                                          enc -help) includes a list of ciphers, supported by your
STATUS  : Help :                                          version of OpenSSL, including ones provided by configured
STATUS  : Help :                                          engines.
STATUS  : Help :
STATUS  : Help :                                          The enc program does not support authenticated encryption
STATUS  : Help :                                          modes like CCM and GCM. The utility does not store or
STATUS  : Help :                                          retrieve the authentication tag.
STATUS  : Help :
STATUS  : Help :          All : FooCrypt-aes-128-cbc
STATUS  : Help :          All : FooCrypt-aes-128-cbc-hmac-sha1
STATUS  : Help :          All : FooCrypt-aes-128-ccm
STATUS  : Help :          All : FooCrypt-aes-128-cfb
STATUS  : Help :          All : FooCrypt-aes-128-cfb1
STATUS  : Help :          All : FooCrypt-aes-128-cfb8
STATUS  : Help :          All : FooCrypt-aes-128-ctr
STATUS  : Help :          All : FooCrypt-aes-128-ecb
STATUS  : Help :          All : FooCrypt-aes-128-gcm
STATUS  : Help :          All : FooCrypt-aes-128-ofb
STATUS  : Help :          All : FooCrypt-aes-128-xts
STATUS  : Help :          All : FooCrypt-aes-192-cbc
STATUS  : Help :          All : FooCrypt-aes-192-ccm
STATUS  : Help :          All : FooCrypt-aes-192-cfb
STATUS  : Help :          All : FooCrypt-aes-192-cfb1
STATUS  : Help :          All : FooCrypt-aes-192-cfb8
STATUS  : Help :          All : FooCrypt-aes-192-ctr
STATUS  : Help :          All : FooCrypt-aes-192-ecb
STATUS  : Help :          All : FooCrypt-aes-192-gcm
STATUS  : Help :          All : FooCrypt-aes-192-ofb
STATUS  : Help :          All : FooCrypt-aes-256-cbc
STATUS  : Help :          All : FooCrypt-aes-256-cbc-hmac-sha1
STATUS  : Help :          All : FooCrypt-aes-256-ccm
STATUS  : Help :          All : FooCrypt-aes-256-cfb
STATUS  : Help :          All : FooCrypt-aes-256-cfb1
STATUS  : Help :          All : FooCrypt-aes-256-cfb8
STATUS  : Help :          All : FooCrypt-aes-256-ctr
STATUS  : Help :          All : FooCrypt-aes-256-ecb
STATUS  : Help :          All : FooCrypt-aes-256-gcm
STATUS  : Help :          All : FooCrypt-aes-256-ofb
STATUS  : Help :          All : FooCrypt-aes-256-xts
STATUS  : Help :          All : FooCrypt-aes128
STATUS  : Help :          All : FooCrypt-aes192
STATUS  : Help :          All : FooCrypt-aes256
STATUS  : Help :          All : FooCrypt-bf
STATUS  : Help :          All : FooCrypt-bf-cbc
STATUS  : Help :          All : FooCrypt-bf-cfb
STATUS  : Help :          All : FooCrypt-bf-ecb
STATUS  : Help :          All : FooCrypt-bf-ofb
STATUS  : Help :          All : FooCrypt-blowfish
STATUS  : Help :          All : FooCrypt-camellia-128-cbc
STATUS  : Help :          All : FooCrypt-camellia-128-cfb
STATUS  : Help :          All : FooCrypt-camellia-128-cfb1
STATUS  : Help :          All : FooCrypt-camellia-128-cfb8
STATUS  : Help :          All : FooCrypt-camellia-128-ecb
STATUS  : Help :          All : FooCrypt-camellia-128-ofb
STATUS  : Help :          All : FooCrypt-camellia-192-cbc
STATUS  : Help :          All : FooCrypt-camellia-192-cfb
STATUS  : Help :          All : FooCrypt-camellia-192-cfb1
STATUS  : Help :          All : FooCrypt-camellia-192-cfb8
STATUS  : Help :          All : FooCrypt-camellia-192-ecb
STATUS  : Help :          All : FooCrypt-camellia-192-ofb
STATUS  : Help :          All : FooCrypt-camellia-256-cbc
STATUS  : Help :          All : FooCrypt-camellia-256-cfb
STATUS  : Help :          All : FooCrypt-camellia-256-cfb1
STATUS  : Help :          All : FooCrypt-camellia-256-cfb8
STATUS  : Help :          All : FooCrypt-camellia-256-ecb
STATUS  : Help :          All : FooCrypt-camellia-256-ofb
STATUS  : Help :          All : FooCrypt-camellia128
STATUS  : Help :          All : FooCrypt-camellia192
STATUS  : Help :          All : FooCrypt-camellia256
STATUS  : Help :          All : FooCrypt-cast
STATUS  : Help :          All : FooCrypt-cast-cbc
STATUS  : Help :          All : FooCrypt-cast5-cbc
STATUS  : Help :          All : FooCrypt-cast5-cfb
STATUS  : Help :          All : FooCrypt-cast5-ecb
STATUS  : Help :          All : FooCrypt-cast5-ofb
STATUS  : Help :          All : FooCrypt-chacha
STATUS  : Help :          All : FooCrypt-des
STATUS  : Help :          All : FooCrypt-des-cbc
STATUS  : Help :          All : FooCrypt-des-cfb
STATUS  : Help :          All : FooCrypt-des-cfb1
STATUS  : Help :          All : FooCrypt-des-cfb8
STATUS  : Help :          All : FooCrypt-des-ecb
STATUS  : Help :          All : FooCrypt-des-ede
STATUS  : Help :          All : FooCrypt-des-ede-cbc
STATUS  : Help :          All : FooCrypt-des-ede-cfb
STATUS  : Help :          All : FooCrypt-des-ede-ofb
STATUS  : Help :          All : FooCrypt-des-ede3
STATUS  : Help :          All : FooCrypt-des-ede3-cbc
STATUS  : Help :          All : FooCrypt-des-ede3-cfb
STATUS  : Help :          All : FooCrypt-des-ede3-cfb1
```

```
STATUS  : Help :           All : FooCrypt-des-ede3-cfb8
STATUS  : Help :           All : FooCrypt-des-ede3-ofb
STATUS  : Help :           All : FooCrypt-des-ofb
STATUS  : Help :           All : FooCrypt-des3
STATUS  : Help :           All : FooCrypt-desx
STATUS  : Help :           All : FooCrypt-desx-cbc
STATUS  : Help :           All : FooCrypt-gost89
STATUS  : Help :           All : FooCrypt-gost89-cnt
STATUS  : Help :           All : FooCrypt-gost89-ecb
STATUS  : Help :           All : FooCrypt-id-aes128-CCM
STATUS  : Help :           All : FooCrypt-id-aes128-GCM
STATUS  : Help :           All : FooCrypt-id-aes128-wrap
STATUS  : Help :           All : FooCrypt-id-aes192-CCM
STATUS  : Help :           All : FooCrypt-id-aes192-GCM
STATUS  : Help :           All : FooCrypt-id-aes192-wrap
STATUS  : Help :           All : FooCrypt-id-aes256-CCM
STATUS  : Help :           All : FooCrypt-id-aes256-GCM
STATUS  : Help :           All : FooCrypt-id-aes256-wrap
STATUS  : Help :           All : FooCrypt-rc2
STATUS  : Help :           All : FooCrypt-rc2-40-cbc
STATUS  : Help :           All : FooCrypt-rc2-64-cbc
STATUS  : Help :           All : FooCrypt-rc2-cbc
STATUS  : Help :           All : FooCrypt-rc2-cfb
STATUS  : Help :           All : FooCrypt-rc2-ecb
STATUS  : Help :           All : FooCrypt-rc2-ofb
STATUS  : Help :           All : FooCrypt-rc4
STATUS  : Help :           All : FooCrypt-rc4-40
STATUS  : Help :           All : FooCrypt-rc4-hmac-md5
STATUS  : Help :           All : FooCrypt-sm4
STATUS  : Help :           All : FooCrypt-sm4-cbc
STATUS  : Help :           All : FooCrypt-sm4-cfb
STATUS  : Help :           All : FooCrypt-sm4-ctr
STATUS  : Help :           All : FooCrypt-sm4-ecb
STATUS  : Help :           All : FooCrypt-sm4-ofb
STATUS  : Help :
STATUS  : Help :   REQUIREMENTS
STATUS  : Help :   ALL OS's :
STATUS  : Help :      ${PATH} = /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin is searched for :
STATUS  : Help :              ${Openssl} = /usr/bin/openssl
STATUS  : Help :              ${Expect}  = /usr/bin/expect
STATUS  : Help :              ${Wish}    =
STATUS  : Help :              ${Pager}   = /usr/bin/more [ more | pg | less | cat ]
STATUS  : Help :              ksh - inbuilt : pwd, print, printf, sleep, time, whence
STATUS  : Help :              date | gdate
STATUS  : Help :              sed | gsed
STATUS  : Help :              file | gfile
STATUS  : Help :              otool | ldd
STATUS  : Help :              awk
STATUS  : Help :              basename
STATUS  : Help :              cat
STATUS  : Help :              chmod
STATUS  : Help :              cp
STATUS  : Help :              curl
STATUS  : Help :              cut
STATUS  : Help :              diff
STATUS  : Help :              dirname
STATUS  : Help :              egrep
STATUS  : Help :              find
STATUS  : Help :              grep
STATUS  : Help :              gzip
STATUS  : Help :              head
STATUS  : Help :              ls
STATUS  : Help :              mkdir
STATUS  : Help :              mkfifo
STATUS  : Help :              print
STATUS  : Help :              printf
STATUS  : Help :              pwd
STATUS  : Help :              rm
STATUS  : Help :              sleep
STATUS  : Help :              strings
STATUS  : Help :              time
STATUS  : Help :              touch
STATUS  : Help :              tr
STATUS  : Help :              tty
STATUS  : Help :              uname
STATUS  : Help :              wget
STATUS  : Help :              whence
STATUS  : Help :              who
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145457_FooTest_FooCrypt
STATUS  :
STATUS  : FooCrypt_RunTime         : 6 Seconds
STATUS  : FooCrypt_RunTime         : 0 Days, 0 Hours, 0 Minutes, 6 Seconds
STATUS  :
STATUS  : FooCrypt_Exit_Code_0
STATUS  :
```

- **FooCrypt-GUI**
- **Linux Example Command Line Interface StdOut**

-> /opt/FooCrypt/FooCrypt-GUI -h

```
STATUS  : Runtime Options         : FooCrypt-GUI -h
STATUS  :
HELP    : Available ARG_MAX       : 2092144
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffcf44f1000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f5be2568000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f5be2292000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f5be226f000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f5be207d000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f5be2077000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f5be26cb000)
STATUS  :
STATUS  : Found                   : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running FooCrypt-GUI Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCrypt-GUI Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of    : FooCrypt-GUI
STATUS  :
STATUS  : User ID                 : 10101
STATUS  : Group ID                : 10101
STATUS  : Process ID              : 3270559
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 10101     10101     3270559   3268792   /opt/FooCrypt/FooCrypt-GUI
STATUS  :
STATUS  : Passed FooCrypt-GUI Initialisation Integrity Check 1
STATUS  :
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 9402263807
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1++tmnmgJApEM4OltjzyYDnxDLp3xyjoqc9mjqmcOQLVI2g0n4EMAlL
STATUS  : nkjcwT4WUX0dYt1lfqha6XVRg5YXN+OXTMxDMwKFtdIVXN1+1lZavFkPRosjbRXI
STATUS  :
STATUS  :
STATUS  : System_Serial=20250104003734:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20250104003734
STATUS  :
STATUS  :
STATUS  : Found /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  :
STATUS  : Default Preferences     : /home/FooCrypt/FooCrypt/.FooCrypt
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffc19534000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f9419c9d000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f94199c7000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f94199a4000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f94197b2000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f94197ac000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f9419e00000)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers        : aes128-wrap$|aes192-wrap$|aes256-wrap$|des3-wrap$|id-aes128-wrap$|id-aes128-wrap-pad$|id-aes192-wrap$|id-aes192-wrap-pad$|id-aes256-wrap$|id-aes256-wrap-pad$|id-
smime-alg-CMS3DESwrap$
STATUS  :
STATUS  :
STATUS  : Expect                  : /usr/bin/expect
STATUS  : Expect Version          : expect version 5.45.4
STATUS  :
STATUS  :
STATUS  : Help : Runtime Options  : FooCrypt-GUI -h
STATUS  : Help :
STATUS  : Help :  FooCrypt-GUI:
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :            FooCrypt-GUI
STATUS  : Help :
STATUS  : Help :            A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            FooCrypt-GUI
STATUS  : Help :
STATUS  : Help :   [ -A | Advanced GUI Settings ]
STATUS  : Help :           * Enables : FooCrypt-GUI Editable Special Openssl Options
STATUS  : Help :
STATUS  : Help :   [ -B | Set Bin_FooCrypt-OpenSSL Versions & Algorithms Located In Absolute PATH to FooCrypt-OpenSSL Directory ]
STATUS  : Help :           * Required : Place full PATH In Double Quotes, Including Any Wild Options "*"
STATUS  : Help :           * Default  : /opt/FooCrypt-OpenSSL/Linux/bin_64
STATUS  : Help :
```

```
STATUS  : Help :   [ -E | Full PATH Of Expect Version To Use ]
STATUS  : Help :           [ /usr/bin/expect ]
STATUS  : Help :
STATUS  : Help :   [ -f | Set FooKey_Password During Initialisation ]
STATUS  : Help :           * Default : Not Set
STATUS  : Help :
STATUS  : Help :   [ -F | Do Not Set FooKey_Password During Initialisation ]
STATUS  : Help :           * Default : Set
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :           * Do not Remove /home/FooCrypt/FooCrypt/20231107150547_FooTest-11_FooCrypt-GUI
STATUS  : Help :
STATUS  : Help :   [ -l | Set Lock_Password During Initialisation ]
STATUS  : Help :           * Default : Set
STATUS  : Help :
STATUS  : Help :   [ -L | Do Not Set Lock_Password During Initialisation ]
STATUS  : Help :           * Default : Not Set
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :           * Default : /home/FooCrypt/FooCrypt
STATUS  : Help :           * Must Contain The FooCrypt License Files
STATUS  : Help :           * FooCrypt-GUI Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -V | Display FooCrypt-GUI Version ]
STATUS  : Help :
STATUS  : Help :   [ -W | Full PATH Of Wish Version To Use ]
STATUS  : Help :           * Requires An X11 Window Manager
STATUS  : Help :
STATUS  : Help :   [ -z | Absolute PATH to OpenSSL ]
STATUS  : Help :           * Default : /usr/bin/openssl
STATUS  : Help :
STATUS  : Help :   [ -Z | Special Openssl Options ]
STATUS  : Help :           * OPENSSL Only
STATUS  : Help :           * Varies Depending On The Version Of OpenSSL You Are Using
STATUS  : Help :           * Place Options Inside Double Quotes "
STATUS  : Help :           * See [ Absolute PATH to OpenSSL ] enc -help
STATUS  : Help :           * See man -s 1 enc
STATUS  : Help :
STATUS  : Help :   Exclude :
STATUS  : Help :           -a                  Base64 encode/decode, depending on encryption flag
STATUS  : Help :           -A                  Used with -[base64|a] to specify base64 buffer as a single line
STATUS  : Help :           -ciphers            Alias for -list
STATUS  : Help :           -d                  Decrypt
STATUS  : Help :           -e                  Encrypt
STATUS  : Help :           -in infile          Input file
STATUS  : Help :           -kfile infile       Read passphrase from file
STATUS  : Help :           -k val              Passphrase
STATUS  : Help :           -K val              Raw key, in hex
STATUS  : Help :           -md val             Use specified digest to create a key from the passphrase
STATUS  : Help :           -out outfile        Output file
STATUS  : Help :           -pass val           Passphrase source
STATUS  : Help :
STATUS  : Help :   Include :
STATUS  : Help :           -bufsize val        Buffer size
STATUS  : Help :           -debug              Print debug info
STATUS  : Help :           -engine val         Use engine, possibly a hardware device
STATUS  : Help :           -iter +int          Specify the iteration count and force use of PBKDF2
STATUS  : Help :           -iv val             IV in hex
STATUS  : Help :           -none               Don't encrypt
STATUS  : Help :           -nopad              Disable standard block padding
STATUS  : Help :           -nosalt             Do not use salt in the KDF
STATUS  : Help :           -pbkdf2             Use password-based key derivation function 2
STATUS  : Help :           -p                  Print the iv/key
STATUS  : Help :           -P                  Print the iv/key and exit
STATUS  : Help :           -rand val           Load the file(s) into the random number generator
STATUS  : Help :           -salt               Use salt in the KDF (default)
STATUS  : Help :           -S val              Salt, in hex
STATUS  : Help :           -writerand outfile  Write random data to the specified file
STATUS  :
STATUS  :
STATUS  : CleanUP
STATUS  :
STATUS  : Logs                    : /home/FooCrypt/FooCrypt/20231107150547_FooTest-11_FooCrypt-GUI
STATUS  : Logs                    : /home/FooCrypt/FooCrypt/20231107150547_FooTest-11_FooCrypt-GUI/20231107150547_FooTest-11_FooCrypt-GUI_5757.log
STATUS  : Logs                    :
STATUS  : Logs                    : 2.0K    /home/FooCrypt/FooCrypt/20231107150547_FooTest-11_FooCrypt-GUI
STATUS  : Logs                    :
STATUS  : FooHome                 :
STATUS  : FooHome                 : 1.2G    /home/FooCrypt/FooCrypt
STATUS  : FooHome                 :
STATUS  : FooCrypt-GUI_RunTime    : 3 Seconds
STATUS  : FooCrypt-GUI_RunTime    : 0 Days, 0 Hours, 0 Minutes, 3 Seconds
STATUS  :
STATUS  : FooCrypt-GUI_Exit_Code_0
STATUS  :
```

- **FooCrypt**
- **Linux Example Command Line Interface StdOut**

-> /opt/FooCrypt/FooCrypt -h

```
STATUS  : Runtime Options          : FooCrypt -h
STATUS  :
HELP    : Available ARG_MAX        : 2087718
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffca6316000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007fa0f0945000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007fa0f066f000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007fa0f064c000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007fa0f045a000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007fa0f0454000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007fa0f0aa8000)
STATUS  :
STATUS  : Found                    : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running FooCrypt Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 0
STATUS  :
STATUS  :
STATUS  : Running Instances Of     : FooCrypt
STATUS  :
STATUS  : User ID                  : 10101
STATUS  : Group ID                 : 10101
STATUS  : Process ID               : 3271176
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 10101     10101     3271176   3268792   /opt/FooCrypt/FooCrypt
STATUS  :
STATUS  : Passed FooCrypt Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 9402263807
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1++tmnmgJApEM4OltjzyYDnxDLp3xyjoqc9mjqmcOQLVI2g0n4EMA1L
STATUS  : nkjcwT4WUX0dYt11fqha6XVRg5YXN+OXTMxDMwKFtdIVXN1+1lZavFkPRosjbRXI
STATUS  :
STATUS  :
STATUS  : System_Serial=20250104003734:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20250104003734
STATUS  :
STATUS  :
STATUS  : Default Preferences      : /home/FooCrypt/FooCrypt/.FooCrypt
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffe221f9000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f6febd8b000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f6febab5000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f6feba92000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f6feb8a0000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f6feb89a000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f6febeee000)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers         : aes128-wrap$|aes192-wrap$|aes256-wrap$|des3-wrap$|id-aes128-wrap$|id-aes128-wrap-pad$|id-aes192-wrap$|id-aes192-wrap-pad$|id-aes256-wrap$|id-aes256-wrap-pad$|id-
smime-alg-CMS3DESwrap$
STATUS  :
STATUS  :
STATUS  : Expect                   : /usr/bin/expect
STATUS  : Expect Version           : expect version 5.45.4
STATUS  :
STATUS  :
STATUS  : Help : RunTime Options   : FooCrypt -h
STATUS  : Help :
STATUS  : Help :  FooCrypt:
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :             FooCrypt
STATUS  : Help :
STATUS  : Help :            A.K.A.        FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -a | Algorithm To Use OpenSSL_Cypher ]
STATUS  : Help :           [ See : FooCrypt -H Available | Help Display Available Algorithms ]
STATUS  : Help :           * Default : FooCrypt-aes256
STATUS  : Help :
STATUS  : Help :   [ -A | Test All Bin_OpenSSL Versions & Algorithms Located In Absolute PATH to FooCrypt-OpenSSL Directory ]
STATUS  : Help :           * Required : Place full PATH In Double Quotes, Including Any Wild Options "*"
STATUS  : Help :           * Default  : /opt/FooCrypt-OpenSSL/Linux/bin_64
STATUS  : Help :
STATUS  : Help :   [ -b | Batch Mode To Use ]
STATUS  : Help :           [ None ]
STATUS  : Help :            * Default : None
STATUS  : Help :           [ Sequential | Sequentially Process All Files In [Batch Mode Directory ]/YYMMDDHHMMSS_In ]
```

```
STATUS  : Help :                * 1. Poll [ Batch Mode Directory ]/YYMMDDHHMMSS_In Every 60 Seconds For Files,
STATUS  : Help :                * 2. Sequentially Process The Files, Sleeping For 5 Seconds Between Files,
STATUS  : Help :                * 3. Repeat 1 & 2 Till FooCrypt Is Killed
STATUS  : Help :
STATUS  : Help :           * Default : Place A Prefix On All Batch Mode Files Via Command "date +%Y%m%d%H%M%S" [ 20231107150729 ]
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -y | Default | None | User Defined String ]
STATUS  : Help :                  [ -Y | None | Date | User Defined String ]
STATUS  : Help :
STATUS  : Help :           * Note : Only Available With An Encrypted FooKey
STATUS  : Help :
STATUS  : Help :   [ -B | Full PATH Of The Batch Mode Directory ]
STATUS  : Help :           * Will Be Created If It Does Not Exist, And The User Has Permissions To Create It
STATUS  : Help :           * Default : /home/FooCrypt/FooCrypt/20231107150727_FooTest-11_FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -c | Check Requirements ]
STATUS  : Help :
STATUS  : Help :   [ -C | Create FooKey ]
STATUS  : Help :           * Default : Will Create A FooKey Of 50 Cycles With A Password Length Of 512 Characters
STATUS  : Help :           * Default : FooCrypt-aes256
STATUS  : Help :           * Default : /dev/urandom
STATUS  : Help :           * Default : 485,100,24250
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -a | Algorithm To Use ]
STATUS  : Help :                  [ -f | Full PATH of File To Create FooKey From ]
STATUS  : Help :                  [ -F | FooKey Create Settings ]
STATUS  : Help :                  [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :                     Set FooKey Password via :
STATUS  : Help :                       * export FooKeyPassword=[ Password For FooKey ]
STATUS  : Help :
STATUS  : Help :   [ -d | To Decrypt ]
STATUS  : Help :
STATUS  : Help :   [ -D | Display Debug Expect Output ]
STATUS  : Help :
STATUS  : Help :   [ -e | To Encrypt ]
STATUS  : Help :
STATUS  : Help :   [ -E | Full PATH Of Expect Version To Use ]
STATUS  : Help :           [ /usr/bin/expect ]
STATUS  : Help :
STATUS  : Help :   [ -f | Full PATH of File To Create FooKey From ]
STATUS  : Help :           * Default : /dev/urandom
STATUS  : Help :           * File Type [ Ordinary File | Fifo Special File or a Pipe | Character Special File ]
STATUS  : Help :           * Must be Readable by Current Process
STATUS  : Help :
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -C | Create FooKey ]
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -a | Algorithm To Use ]
STATUS  : Help :                  [ -F | FooKey Create Settings ]
STATUS  : Help :                  [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :
STATUS  : Help :   [ -F | FooKey Create Settings ]
STATUS  : Help :           [ FooKey_ARG_MAX ],[ FooKey_Seek ],[ FooKey_Count ]
STATUS  : Help :           * Default : 485,100,24250
STATUS  : Help :                  * FooKey_ARG_MAX Valid Characters [0-9]
STATUS  : Help :                  * FooKey_Seek Valid Characters [0-9]
STATUS  : Help :                  * FooKey_Count Valid Characters [0-9]
STATUS  : Help :
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -C | Create FooKey ]
STATUS  : Help :
STATUS  : Help :           * Optional :
STATUS  : Help :                  [ -a | Algorithm To Use ]
STATUS  : Help :                  [ -f | Full PATH of File To Create FooKey From ]
STATUS  : Help :                  [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
STATUS  : Help :   [ -H | Help Display Algorithms ]
STATUS  : Help :           [ All ]
STATUS  : Help :           [ Available ]
STATUS  : Help :           [ Excluded ]
STATUS  : Help :
STATUS  : Help :   [ -i | Full PATH Of Input Filename ]
STATUS  : Help :
STATUS  : Help :   [ -I | Input Filename, Decryption Input Format ( Decrypt_IF ) ]
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -d | To Decrypt ]
STATUS  : Help :             * [ BASE64 ]
STATUS  : Help :                 * Convert BASE64 Input Filename Encrypted File Format To OpenSSL
STATUS  : Help :             * [ OpenSSL ]
STATUS  : Help :                 * Default : OpenSSL is the Default Input Filename Encrypted File Format When Using OpenSSL
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :           * Do not Remove /home/FooCrypt/FooCrypt/20231107150727_FooTest-11_FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -K | FooKey_Mode ]
STATUS  : Help :           * Default : 4
STATUS  : Help :             * 1 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 2 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 3 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :             * 4 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :                   * Where N = Numerical Characters 0 - 9
STATUS  : Help :
STATUS  : Help :   [ -L | Display LICENSE AGREEMENTS ]
STATUS  : Help :
STATUS  : Help :   [ -m | Message Digest To Use OpenSSL_MD ]
STATUS  : Help :           * sha256 is Default
STATUS  : Help :              * Available For : OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl
STATUS  : Help :                 blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :             OpenSSL 1.1.1w  11 Sep 2023 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1w/bin/openssl : blake2b512 blake2s256 gost md4 md5 mdc2 rmd160 sha1 sha224 sha256 sha3-224
sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.12/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.4/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl : blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224
sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :   [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :           * sha256 is Default
STATUS  : Help :              * Available For : OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl
STATUS  : Help :                 blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :             OpenSSL 1.1.1w  11 Sep 2023 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1w/bin/openssl : blake2b512 blake2s256 gost md4 md5 mdc2 rmd160 sha1 sha224 sha256 sha3-224
sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.12/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.4/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :             OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl : blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224
sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :           * Default : /home/FooCrypt/FooCrypt
STATUS  : Help :           * Must Contain The FooCrypt License Files
STATUS  : Help :           * FooCrypt Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -o | Full PATH Of Output filename ]
STATUS  : Help :
STATUS  : Help :   [ -O | Output Filename, Encryption Output Format ( Encrypt_OF ) ]
STATUS  : Help :           * Requires :
STATUS  : Help :                  [ -e | To Encrypt ]
STATUS  : Help :             * [ BASE64 ]
STATUS  : Help :                 * Convert FooCrypt Encrypted Output To BASE64
STATUS  : Help :             * [ OpenSSL ]
STATUS  : Help :                 * Default : OpenSSL is the Default Encrypted Output Format When Using OpenSSL
STATUS  : Help :
STATUS  : Help :   [ -p | Full PATH of Input Password List Filename ]
STATUS  : Help :
STATUS  : Help :   [ -P | Input Password List Filename Password Source ]
```

```
STATUS  : Help :          * [ Algorithm:Type:PATH ]
STATUS  : Help :               * Algorithm
STATUS  : Help :                  [ FooCrypt-None ]
STATUS  : Help :                  [ See FooCrypt -H Available | Display Available Algorithms ]
STATUS  : Help :                  [ FooCrypt-QRCS ]
STATUS  : Help :                * Type
STATUS  : Help :                   [ Ask ]         | Encrypted FooKey
STATUS  : Help :                     Set FooKey Password via :
STATUS  : Help :                       * export FooKeyPassword=[ Password For FooKey ]
STATUS  : Help :                   [ Fifo ]        | GUI Only
STATUS  : Help :                   [ None ]        | ASCII FooKey
STATUS  : Help :                * PATH
STATUS  : Help :                   [ Full PATH to Fifo ]
STATUS  : Help :                   [ None ]
STATUS  : Help :
STATUS  : Help :   [ -s | Use A Standard OpenSSL Password ]
STATUS  : Help :          * Limited To
STATUS  : Help :             CLI :
STATUS  : Help :              Minimum Characters 0
STATUS  : Help :              Maximum Characters 522
STATUS  : Help :             GUI :
STATUS  : Help :              Minimum Characters 8
STATUS  : Help :              Maximum Characters 522
STATUS  : Help :               * Note : Password Character Count > FooKey_ARG_MAX Preferences Setting
STATUS  : Help :
STATUS  : Help :   [ -t | Test All OpenSSL Ciphers For 1 Cycle To Determine ARG_MAX Length ]
STATUS  : Help :          [ Start_ARG_MAX ],[End_ARG_MAX ]
STATUS  : Help :
STATUS  : Help :           * Start_ARG_MAX Valid Characters [0-9]
STATUS  : Help :           * Start_ARG_MAX = NULL Are Reset To 512
STATUS  : Help :           * Start_ARG_MAX < 28 Are Reset To 28
STATUS  : Help :           * Start_ARG_MAX > 550 Are Reset To 550
STATUS  : Help :           * Start_ARG_MAX >= End_ARG_MAX Are Rest To End_ARG_MAX - 1
STATUS  : Help :
STATUS  : Help :           * End_ARG_MAX Valid Characters [0-9]
STATUS  : Help :           * End_ARG_MAX = NULL Are Reset To 550
STATUS  : Help :           * End_ARG_MAX > 550 Are Reset To 550
STATUS  : Help :           * End_ARG_MAX > 550 Have Been Previously Tested And Are Known To Fail
STATUS  : Help :           * End_ARG_MAX <= Start_ARG_MAX Are Rest To Start_ARG_MAX + 1
STATUS  : Help :
STATUS  : Help :          * Optional :
STATUS  : Help :                  [ -A | Test All Bin_OpenSSL Versions ]
STATUS  : Help :                  [ -D | Display Debug Expect Output ]
STATUS  : Help :                  [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :                  [ -v | Display Verbose Output ]
STATUS  : Help :
STATUS  : Help :   [ -T | Validate All Cyphers For Cycles ]
STATUS  : Help :          [ Cycles ],[ ARG_MAX ]
STATUS  : Help :
STATUS  : Help :           * Cycles Valid Characters [0-9]
STATUS  : Help :           * Cycles = NULL Are Reset To 5
STATUS  : Help :           * Cycles > 200 Are Reset To 200
STATUS  : Help :
STATUS  : Help :           * ARG_MAX Valid Characters [0-9]
STATUS  : Help :           * ARG_MAX = NULL Are Reset To 512
STATUS  : Help :           * ARG_MAX < 28 Are Reset To 28
STATUS  : Help :           * ARG_MAX > 550 Are Reset To 550
STATUS  : Help :
STATUS  : Help :          * Optional :
STATUS  : Help :                  [ -A | Test All Bin_OpenSSL Versions ]
STATUS  : Help :                  [ -D | Display Debug Expect Output ]
STATUS  : Help :                  [ -p | Full PATH of Input Password List Filename ]
STATUS  : Help :                  [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :                  [ -v | Display Verbose Output ]
STATUS  : Help :                  * Required :
STATUS  : Help :                            : [ Cycles ],[ ARG_MAX ]
STATUS  : Help :                               * Cycles = 0
STATUS  : Help :                               * ARG_MAX = 0
STATUS  : Help :
STATUS  : Help :   [ -u | Use ASCII_Range 32-127 For Test Functions ]
STATUS  : Help :          * Default : ASCII_Range 48-58 | Numerical Characters 0123456789
STATUS  : Help :          * ASCII_Range 32-127 : " !"#$%&\'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~"
STATUS  : Help :                  * Required :
STATUS  : Help :                    [ -t | Test All OpenSSL Ciphers For 1 Cycle To Determine ARG_MAX Length ]
STATUS  : Help :                      or
STATUS  : Help :                    [ -T | Validate All Cyphers For Cycles ]
STATUS  : Help :
STATUS  : Help :   [ -U | UpDate Url ]
STATUS  : Help :           * Default : https://downloads.foocrypt.xyz/
STATUS  : Help :
STATUS  : Help :   [ -v | Display Verbose Output ]
STATUS  : Help :
STATUS  : Help :   [ -V | Display FooCrypt Version ]
STATUS  : Help :
STATUS  : Help :   [ -x | Display Available ARG_MAX ]
STATUS  : Help :           * Available ARG_MAX=2084215
STATUS  : Help :
STATUS  : Help :   [ -X | UpDate | Validate ]
STATUS  : Help :          UpDate
STATUS  : Help :           * Check For Updates
STATUS  : Help :             * Requires Internet Access
STATUS  : Help :             * Requires curl
STATUS  : Help :
STATUS  : Help :          Validate
STATUS  : Help :           * Validate SHA256 Signatures of all files located in /opt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -y | Batch Mode Prefix ]
STATUS  : Help :               [ None | Overrides The Default Setting To Prefix All Files With The Processing Date & Time ]
STATUS  : Help :               [ User Defined String | Anything The End User Requires As A Prefix String, Overrides The Default Setting To Prefix All Files With The Processing Date & Time ]
STATUS  : Help :               * Default : Prepends The Processing Date & Time As A Prefix : 20231107150729
STATUS  : Help :
STATUS  : Help :   [ -Y | Batch Mode Suffix ]
STATUS  : Help :               [ Date | Appends The Processing Date & Time As A Suffix : 20231107150729 ]
STATUS  : Help :               [ User Defined String | Anything The End User Requires As A Suffix String ]
STATUS  : Help :               * Default : None
STATUS  : Help :
STATUS  : Help :   [ -z | Full PATH Of OpenSSL Binary To Use ]
STATUS  : Help :           * Default : /usr/bin/openssl
STATUS  : Help :              * Default : OpenSSL is the Default Encrypted Output Format When Using OpenSSL
STATUS  : Help :
STATUS  : Help :   [ -Z | Special Openssl Options ]
STATUS  : Help :           * OPENSSL Only
STATUS  : Help :           * Varies Depending On The Version Of OpenSSL You Are Using
STATUS  : Help :           * Place Options Inside Double Quotes "
STATUS  : Help :           * See [ Absolute PATH to OpenSSL ] enc -help
STATUS  : Help :           * See man -s 1 enc
STATUS  : Help :
STATUS  : Help :   Exclude :
STATUS  : Help :            -a                  Base64 encode/decode, depending on encryption flag
STATUS  : Help :            -A                  Used with -[base64|a] to specify base64 buffer as a single line
STATUS  : Help :            -ciphers            Alias for -list
STATUS  : Help :            -d                  Decrypt
STATUS  : Help :            -e                  Encrypt
STATUS  : Help :            -in infile          Input file
STATUS  : Help :            -kfile infile       Read passphrase from file
STATUS  : Help :            -k val              Passphrase
STATUS  : Help :            -K val              Raw key, in hex
STATUS  : Help :            -md val             Use specified digest to create a key from the passphrase
STATUS  : Help :            -out outfile        Output file
STATUS  : Help :            -pass val           Passphrase source
STATUS  : Help :
STATUS  : Help :   Include :
STATUS  : Help :            -bufsize val        Buffer size
STATUS  : Help :            -debug              Print debug info
STATUS  : Help :            -engine val         Use engine, possibly a hardware device
STATUS  : Help :            -iter +int          Specify the iteration count and force use of PBKDF2
STATUS  : Help :            -iv val             IV in hex
STATUS  : Help :            -none               Don't encrypt
STATUS  : Help :            -nopad              Disable standard block padding
STATUS  : Help :            -nosalt             Do not use salt in the KDF
STATUS  : Help :            -pbkdf2             Use password-based key derivation function 2
STATUS  : Help :            -p                  Print the iv/key
STATUS  : Help :            -P                  Print the iv/key and exit
STATUS  : Help :            -rand val           Load the file(s) into the random number generator
STATUS  : Help :            -salt               Use salt in the KDF (default)
```

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STATUS  : Help :            -S val              Salt, in hex
STATUS  : Help :            -writerand outfile  Write random data to the specified file
STATUS  : Help :
STATUS  : Help :   Compile Time CIPHERS On This System Include :
STATUS  : Help :
STATUS  : Help :                                SUPPORTED CIPHERS
STATUS  : Help :                                                  Note that some of these ciphers can be disabled at compile
STATUS  : Help :                                                  time and some are available only if an appropriate engine is
STATUS  : Help :                                                  configured in the configuration file. The output of the enc
STATUS  : Help :                                                  command run with unsupported options (for example openssl
STATUS  : Help :                                                  enc -help) includes a list of ciphers, supported by your
STATUS  : Help :                                                  version of OpenSSL, including ones provided by configured
STATUS  : Help :                                                  engines.
STATUS  : Help :
STATUS  : Help :                                                  The enc program does not support authenticated encryption
STATUS  : Help :                                                  modes like CCM and GCM. The utility does not store or
STATUS  : Help :                                                  retrieve the authentication tag.
STATUS  : Help :
STATUS  : Help :           All : FooCrypt-aes-128-cbc
STATUS  : Help :           All : FooCrypt-aes-128-cfb
STATUS  : Help :           All : FooCrypt-aes-128-cfb1
STATUS  : Help :           All : FooCrypt-aes-128-cfb8
STATUS  : Help :           All : FooCrypt-aes-128-ctr
STATUS  : Help :           All : FooCrypt-aes-128-ecb
STATUS  : Help :           All : FooCrypt-aes-128-ofb
STATUS  : Help :           All : FooCrypt-aes-192-cbc
STATUS  : Help :           All : FooCrypt-aes-192-cfb
STATUS  : Help :           All : FooCrypt-aes-192-cfb1
STATUS  : Help :           All : FooCrypt-aes-192-cfb8
STATUS  : Help :           All : FooCrypt-aes-192-ctr
STATUS  : Help :           All : FooCrypt-aes-192-ecb
STATUS  : Help :           All : FooCrypt-aes-192-ofb
STATUS  : Help :           All : FooCrypt-aes-256-cbc
STATUS  : Help :           All : FooCrypt-aes-256-cfb
STATUS  : Help :           All : FooCrypt-aes-256-cfb1
STATUS  : Help :           All : FooCrypt-aes-256-cfb8
STATUS  : Help :           All : FooCrypt-aes-256-ctr
STATUS  : Help :           All : FooCrypt-aes-256-ecb
STATUS  : Help :           All : FooCrypt-aes-256-ofb
STATUS  : Help :           All : FooCrypt-aes128
STATUS  : Help :           All : FooCrypt-aes128-wrap
STATUS  : Help :           All : FooCrypt-aes192
STATUS  : Help :           All : FooCrypt-aes192-wrap
STATUS  : Help :           All : FooCrypt-aes256
STATUS  : Help :           All : FooCrypt-aes256-wrap
STATUS  : Help :           All : FooCrypt-aria-128-cbc
STATUS  : Help :           All : FooCrypt-aria-128-cfb
STATUS  : Help :           All : FooCrypt-aria-128-cfb1
STATUS  : Help :           All : FooCrypt-aria-128-cfb8
STATUS  : Help :           All : FooCrypt-aria-128-ctr
STATUS  : Help :           All : FooCrypt-aria-128-ecb
STATUS  : Help :           All : FooCrypt-aria-128-ofb
STATUS  : Help :           All : FooCrypt-aria-192-cbc
STATUS  : Help :           All : FooCrypt-aria-192-cfb
STATUS  : Help :           All : FooCrypt-aria-192-cfb1
STATUS  : Help :           All : FooCrypt-aria-192-cfb8
STATUS  : Help :           All : FooCrypt-aria-192-ctr
STATUS  : Help :           All : FooCrypt-aria-192-ecb
STATUS  : Help :           All : FooCrypt-aria-192-ofb
STATUS  : Help :           All : FooCrypt-aria-256-cbc
STATUS  : Help :           All : FooCrypt-aria-256-cfb
STATUS  : Help :           All : FooCrypt-aria-256-cfb1
STATUS  : Help :           All : FooCrypt-aria-256-cfb8
STATUS  : Help :           All : FooCrypt-aria-256-ctr
STATUS  : Help :           All : FooCrypt-aria-256-ecb
STATUS  : Help :           All : FooCrypt-aria-256-ofb
STATUS  : Help :           All : FooCrypt-aria128
STATUS  : Help :           All : FooCrypt-aria192
STATUS  : Help :           All : FooCrypt-aria256
STATUS  : Help :           All : FooCrypt-bf
STATUS  : Help :           All : FooCrypt-bf-cbc
STATUS  : Help :           All : FooCrypt-bf-cfb
STATUS  : Help :           All : FooCrypt-bf-ecb
STATUS  : Help :           All : FooCrypt-bf-ofb
STATUS  : Help :           All : FooCrypt-blowfish
STATUS  : Help :           All : FooCrypt-camellia-128-cbc
STATUS  : Help :           All : FooCrypt-camellia-128-cfb
STATUS  : Help :           All : FooCrypt-camellia-128-cfb1
STATUS  : Help :           All : FooCrypt-camellia-128-cfb8
STATUS  : Help :           All : FooCrypt-camellia-128-ctr
STATUS  : Help :           All : FooCrypt-camellia-128-ecb
STATUS  : Help :           All : FooCrypt-camellia-128-ofb
STATUS  : Help :           All : FooCrypt-camellia-192-cbc
STATUS  : Help :           All : FooCrypt-camellia-192-cfb
STATUS  : Help :           All : FooCrypt-camellia-192-cfb1
STATUS  : Help :           All : FooCrypt-camellia-192-cfb8
STATUS  : Help :           All : FooCrypt-camellia-192-ctr
STATUS  : Help :           All : FooCrypt-camellia-192-ecb
STATUS  : Help :           All : FooCrypt-camellia-192-ofb
STATUS  : Help :           All : FooCrypt-camellia-256-cbc
STATUS  : Help :           All : FooCrypt-camellia-256-cfb
STATUS  : Help :           All : FooCrypt-camellia-256-cfb1
STATUS  : Help :           All : FooCrypt-camellia-256-cfb8
STATUS  : Help :           All : FooCrypt-camellia-256-ctr
STATUS  : Help :           All : FooCrypt-camellia-256-ecb
STATUS  : Help :           All : FooCrypt-camellia-256-ofb
STATUS  : Help :           All : FooCrypt-camellia128
STATUS  : Help :           All : FooCrypt-camellia192
STATUS  : Help :           All : FooCrypt-camellia256
STATUS  : Help :           All : FooCrypt-cast
STATUS  : Help :           All : FooCrypt-cast-cbc
STATUS  : Help :           All : FooCrypt-cast5-cbc
STATUS  : Help :           All : FooCrypt-cast5-cfb
STATUS  : Help :           All : FooCrypt-cast5-ecb
STATUS  : Help :           All : FooCrypt-cast5-ofb
STATUS  : Help :           All : FooCrypt-chacha20
STATUS  : Help :           All : FooCrypt-des
STATUS  : Help :           All : FooCrypt-des-cbc
STATUS  : Help :           All : FooCrypt-des-cfb
STATUS  : Help :           All : FooCrypt-des-cfb1
STATUS  : Help :           All : FooCrypt-des-cfb8
STATUS  : Help :           All : FooCrypt-des-ecb
STATUS  : Help :           All : FooCrypt-des-ede
STATUS  : Help :           All : FooCrypt-des-ede-cbc
STATUS  : Help :           All : FooCrypt-des-ede-cfb
STATUS  : Help :           All : FooCrypt-des-ede-ecb
STATUS  : Help :           All : FooCrypt-des-ede-ofb
STATUS  : Help :           All : FooCrypt-des-ede3
STATUS  : Help :           All : FooCrypt-des-ede3-cbc
STATUS  : Help :           All : FooCrypt-des-ede3-cfb
STATUS  : Help :           All : FooCrypt-des-ede3-cfb1
STATUS  : Help :           All : FooCrypt-des-ede3-cfb8
STATUS  : Help :           All : FooCrypt-des-ede3-ecb
STATUS  : Help :           All : FooCrypt-des-ede3-ofb
STATUS  : Help :           All : FooCrypt-des-ofb
STATUS  : Help :           All : FooCrypt-des3
STATUS  : Help :           All : FooCrypt-des3-wrap
STATUS  : Help :           All : FooCrypt-desx
STATUS  : Help :           All : FooCrypt-desx-cbc
STATUS  : Help :           All : FooCrypt-id-aes128-wrap
STATUS  : Help :           All : FooCrypt-id-aes128-wrap-pad
STATUS  : Help :           All : FooCrypt-id-aes192-wrap
STATUS  : Help :           All : FooCrypt-id-aes192-wrap-pad
STATUS  : Help :           All : FooCrypt-id-aes256-wrap
STATUS  : Help :           All : FooCrypt-id-aes256-wrap-pad
STATUS  : Help :           All : FooCrypt-id-smime-alg-CMS3DESwrap
STATUS  : Help :           All : FooCrypt-rc2
STATUS  : Help :           All : FooCrypt-rc2-128
STATUS  : Help :           All : FooCrypt-rc2-40
STATUS  : Help :           All : FooCrypt-rc2-40-cbc
STATUS  : Help :           All : FooCrypt-rc2-64
STATUS  : Help :           All : FooCrypt-rc2-64-cbc
STATUS  : Help :           All : FooCrypt-rc2-cbc
STATUS  : Help :           All : FooCrypt-rc2-cfb
STATUS  : Help :           All : FooCrypt-rc2-ecb
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STATUS  : Help :           All : FooCrypt-rc2-ofb
STATUS  : Help :           All : FooCrypt-rc4
STATUS  : Help :           All : FooCrypt-rc4-40
STATUS  : Help :           All : FooCrypt-seed
STATUS  : Help :           All : FooCrypt-seed-cbc
STATUS  : Help :           All : FooCrypt-seed-cfb
STATUS  : Help :           All : FooCrypt-seed-ecb
STATUS  : Help :           All : FooCrypt-seed-ofb
STATUS  : Help :           All : FooCrypt-sm4
STATUS  : Help :           All : FooCrypt-sm4-cbc
STATUS  : Help :           All : FooCrypt-sm4-cfb
STATUS  : Help :           All : FooCrypt-sm4-ctr
STATUS  : Help :           All : FooCrypt-sm4-ecb
STATUS  : Help :           All : FooCrypt-sm4-ofb
STATUS  : Help :
STATUS  : Help :   REQUIREMENTS
STATUS  : Help :   ALL OS's :
STATUS  : Help :      ${PATH} = /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin is searched for :
STATUS  : Help :              ${Openssl} = /usr/bin/openssl
STATUS  : Help :              ${Expect}  = /usr/bin/expect
STATUS  : Help :              ${Wish}    =
STATUS  : Help :              ${Pager}   = /usr/bin/more [ more | pg | less | cat ]
STATUS  : Help :              ksh - inbuilt : pwd, print, printf, sleep, time, whence
STATUS  : Help :              date | gdate
STATUS  : Help :              sed | gsed
STATUS  : Help :              file | gfile
STATUS  : Help :              otool | ldd
STATUS  : Help :              awk
STATUS  : Help :              basename
STATUS  : Help :              cat
STATUS  : Help :              chmod
STATUS  : Help :              cp
STATUS  : Help :              curl
STATUS  : Help :              cut
STATUS  : Help :              diff
STATUS  : Help :              dirname
STATUS  : Help :              egrep
STATUS  : Help :              find
STATUS  : Help :              grep
STATUS  : Help :              gzip
STATUS  : Help :              head
STATUS  : Help :              ls
STATUS  : Help :              mkdir
STATUS  : Help :              mkfifo
STATUS  : Help :              print
STATUS  : Help :              printf
STATUS  : Help :              pwd
STATUS  : Help :              rm
STATUS  : Help :              sleep
STATUS  : Help :              strings
STATUS  : Help :              time
STATUS  : Help :              touch
STATUS  : Help :              tr
STATUS  : Help :              tty
STATUS  : Help :              uname
STATUS  : Help :              wget
STATUS  : Help :              whence
STATUS  : Help :              who
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20231107150727_FooTest-11_FooCrypt
STATUS  :
STATUS  : FooCrypt_RunTime         : 2 Seconds
STATUS  : FooCrypt_RunTime         : 0 Days, 0 Hours, 0 Minutes, 2 Seconds
STATUS  :
STATUS  : FooCrypt_Exit_Code_0
STATUS  :
```

2. Select and build the option functionality you require.

- **Command Line Examples**
  - **To Encrypt A File with an existing FooKey**
    - **Encrypted FooKey**

```
[ Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ Full Path To FooKey ]/1.FooKey \
-P FooCrypt-aes256:Ask:None \
-i [ Full Path To File Name ] \
-o [Full Path To File Name ] \
-e
```

    - **ASCII FooKey**

```
[ Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ Full Path To FooKey ]/1.FooKey \
-P FooCrypt-None:None:None \
-i [ Full Path To File Name ] \
-o [ Full Path To File Name ] \
-e
```

    - **Std OpenSSL**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-s \
-a FooCrypt-aes256 \
-P FooCrypt-None:Ask:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-e
```

- **To Decrypt A File with an existing FooKey**

  - **Encrypted FooKey**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ *Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-aes256:Ask:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-d
```

  - **ASCII FooKey**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-a FooCrypt-aes256 \
-p [ *Quoted Full Path To FooKey ]/1.FooKey \
-P FooCrypt-None:None:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-d
```

  - **Std OpenSSL**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-s \
-a FooCrypt-aes256 \
-P FooCrypt-None:Ask:None \
-i [ *Quoted Full Path To File Name ] \
-o [ *Quoted Full Path To File Name ] \
-d
```

- **To Validate All Cyphers for use with FooCrypt**

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-T 50,520
```

  - 50 cycles of encryption with each cycle having a FooKey length of 520 characters
    - A MAXIMUM Of 250 Cycles
    - A MAXIMUM FooKey Length Of 523 Characters

- **To Validate Maximum ARG_MAX**
  - (The Maximum length of a FooKey)

```
[ *Quoted Full Path To FooCrypt ]/FooCrypt \
-t 500,525
```

  - Test all cyphers with a password containing 500 characters through to 525 characters

- **To Check FooCrypt's Requirements**
  - (See if you operating system is missing anything FooCrypt needs)

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -c

- **To Check what Algorithms FooCrypt can utilise**

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -A All

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -A Excluded

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -A Available

- **Use a different version of openssl**

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -q [Full Path To openssl]

- **Use a different version of expect**

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -E [Full Path To expect]

- **Use a different version of wish :**
  - *Requires An X11 Window Manager

    [*Quoted Full Path To FooCrypt]/FooCrypt \
    -W [Full Path To wish]

    *Quoted Full Paths are only required when special characters are contained within the PATH
    - ie :
      - ' ' SPACE
      - '&' AMPERSAND

Matrix Testing Results

- **Testing Methodology**

  1. **OpenSSL Version Cypher encrypts input file using FooKey**
  2. **OpenSSL Version Cypher decrypts encrypted input file using FooKey**
  3. **unix diff command compares original input file and decrypted file**
  4. **All Other OpenSSL Versions decrypt the file using the same Cypher and FooKey**
  5. **unix diff command compares original input file and decrypted file**

    - Steps 1 – 5 are repeated for each Cypher and for each OpenSSL Version.
    - Below is an extract of the standard out of FooCrypt's, Matrix Validation Testing using an ASCII FooKey of 50 Cycles of 512 characters.
    - OpenSSL releases : 1.1.1t - 1.1.1u, 3.0.8 - 3.0.9 and 3.1.0 - 3.1.1
      - Note, OpenSSL versions 1.1.1r & 3.0.6 have been withdrawn
    - LibreSSL 2.6.5+
    - Linux Matrix Test Standard Out

Matrix Testing Results Online

Default Operating System OpenSSL Port / Release

- Darwin (macOS 10.13+) LibreSSL 2.6.5+
- Ubuntu 22.04.3 LTS : OpenSSL 1.1.1f 31 Mar 2020

Foocrypt.X.Y.Z.Core.Live.Linux includes the foocrypt-X-Y-Z-openssl-linux_x86_64.deb Linux Package containing the following OpenSSL releases :

- **mOpenSSL**
- **Linux Example Command Line Interface StdOut**

-> /opt/FooCrypt/mOpenSSL -B /opt/FooCrypt-OpenSSL -c

```
STATUS  : Runtime Options          : mOpenSSL -B /opt/FooCrypt-OpenSSL -c
STATUS  :
HELP    : Available ARG_MAX        : 2080797
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1809) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007ffc5f2fe000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f42621e4000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f4261f0d000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f4261eea000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f4261cf8000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f4261cf2000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f4262346000)
STATUS  :
STATUS  : Found                    : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running mOpenSSL Initialisation Integrity Checks
STATUS  :
STATUS  : Passed mOpenSSL Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of     : mOpenSSL
STATUS  :
STATUS  : User ID                  : 1000
STATUS  : Group ID                 : 1000
STATUS  : Process ID               : 810242
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 1000      1000      810242    3241      /opt/FooCrypt/mOpenSSL
STATUS  :
STATUS  : Passed mOpenSSL Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/foocrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 2487184982
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/foocrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX18a/aVTdyB5EIkEvcs8RdyAQj3Y6D6yVcxF0zZWlq/55cnLWoUjdwkF
STATUS  : 57iyclZmjNIKfYr8xDHWrqCpeR3/NteFLCph+9k+VMI=
STATUS  :
STATUS  :
STATUS  : System_Serial=20250508203852:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.X.Y.Z.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.X.Y.Z.Core.Linux, BuildTest Expiration Date : 20250508203852
STATUS  :
STATUS  :
STATUS  : Set Bin_FooCrypt-OpenSSL : /opt/FooCrypt-OpenSSL
STATUS  :
STATUS  :
STATUS  : Checking      : /opt/FooCrypt-OpenSSL/src
STATUS  :
STATUS  : FOUND         : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.16/bin/openssl : OpenSSL 3.0.16 11 Feb 2025 (Library: OpenSSL 3.0.16 11 Feb 2025)
STATUS  : FOUND         : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.2.4/bin/openssl : OpenSSL 3.2.4 11 Feb 2025 (Library: OpenSSL 3.2.4 11 Feb 2025)
STATUS  : FOUND         : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.3.3/bin/openssl : OpenSSL 3.3.3 11 Feb 2025 (Library: OpenSSL 3.3.3 11 Feb 2025)
STATUS  : FOUND         : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.4.1/bin/openssl : OpenSSL 3.4.1 11 Feb 2025 (Library: OpenSSL 3.4.1 11 Feb 2025)
STATUS  : FOUND         : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.5.0/bin/openssl : OpenSSL 3.5.0 8 Apr 2025 (Library: OpenSSL 3.5.0 8 Apr 2025)
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/foocrypt/FooCrypt/20250424231757_FooCryptDev_mOpenSSL
STATUS  :
STATUS  : mOpenSSL_RunTime         : 2 Seconds
STATUS  : mOpenSSL_RunTime         : 0 Days, 0 Hours, 0 Minutes, 2 Seconds
STATUS  :
STATUS  : mOpenSSL_Exit_Code_0
STATUS  :
```

Menus

- **Defined FooCrypt Menu's are available online**
- **https://FooCrypt.XYZ/menus**

Security Profile

- **Standard Security Profile**
  - Operating System instance security model constraints (https://en.wikipedia.org/wiki/POSIX Applicable security models)
  - Programming languages security constraints (Tcl/Tk, KSH, C, Expect)
  - POSIX compliance constraints (https://en.wikipedia.org/wiki/POSIX)
  - We trust that your OS Instance Is Secure and Compliant
  - FooCrypt runs from ANYWHERE, except ANYWHERE BUT
  - Software keyboard & software mouse clicks which are all internal to the programming language
  - View able text controlled by colour schemes
  - Identifiable cursor positioning
  -
  - Binary key sources are unlimited
  - Random data key sources are unlimited
  - Key length per encryption cycle of the cypher is maxed by DEFAULT
  - Cypher selection is limited to any available cypher engine you have access to (OpenSSL by DEFAULT)
  - Number of total cycles are only constrained by time and hardware constraints
  - 50 cycles (layers) of encryption is the DEFAULT configuration which contains 25650 total characters, 24250 random / binary sourced characters @ 512 characters per cycle, protected by SHA256 Checksums, which is encrypted in a single cycle (layer) of encryption by DEFAULT.
  - By DEFAULT, FooCrypt establishes a password strength with 4.18640577277337772e+1016 Possible Combinations using any data as a source to create a FooKey, including your least favourite tune, or extremely fuzzy ID Photo.

The FooKey Method

The ‘Common Flaws’ in ALL Encryption technologies to date are :

1. Typing on a KeyBoard to enter the password
2. Clicking on the Mouse / Pointer device that controls the location of the cursor
3. Some person or device looking / recording your screen as you type the password
4. The human developing a password that is easily guessed, or can be brute forced due to its length
5. Sharing the password with a third party to decrypt the data
6. Storing the encrypted data in a secure location so no unauthorised access can be made to either the key(s) to decrypt the data or the encrypted data itself

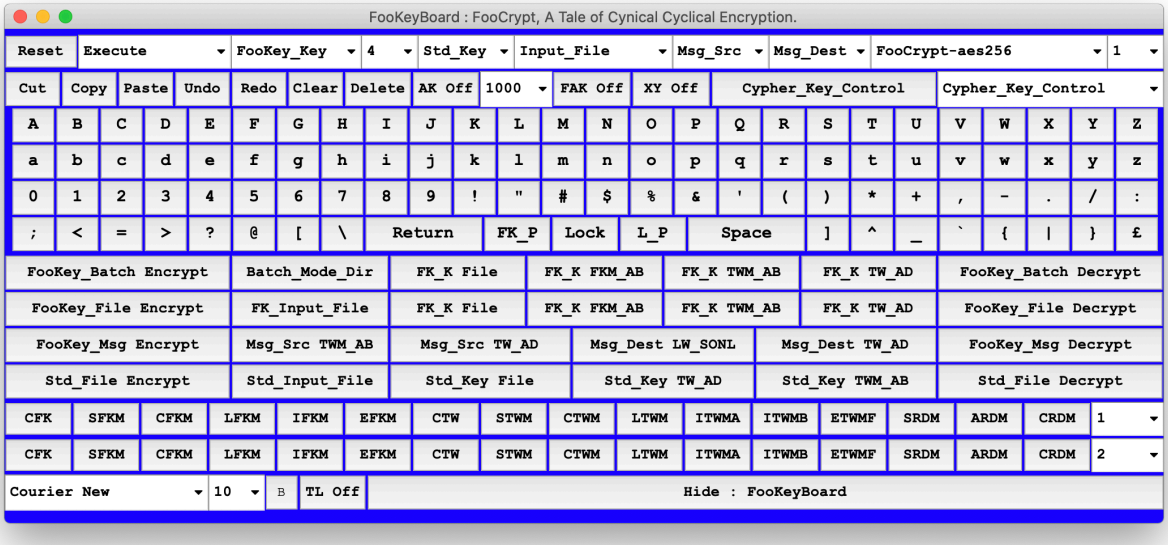
FooCrypt, A Tale Of Cynical Cyclical Encryption, takes away the above ‘Common Flaws’ by providing you with software engineered to alleviate them.

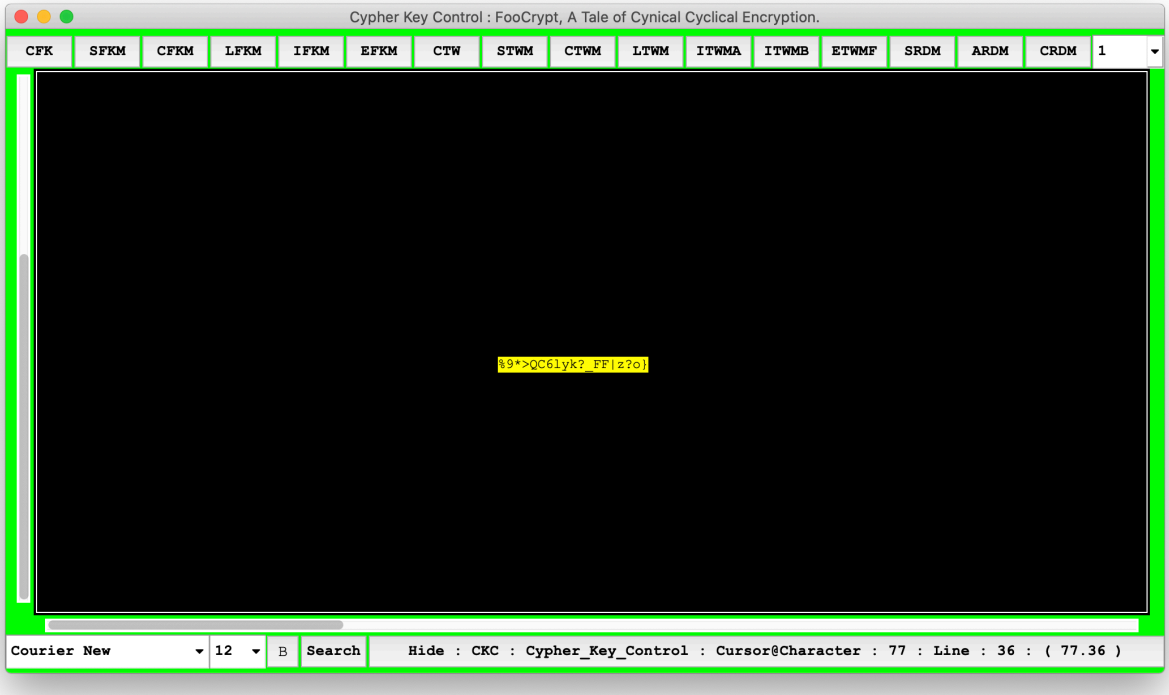
1,2,3 are mitigated by the FooKeyBoard, Auto Key Press (AK / FAK) and a simple combination of colors modifying the Cypher Key Control Text Window.

The TopeSecretCypherKeyControlText Preference Setting enables you to have a such a configuration.

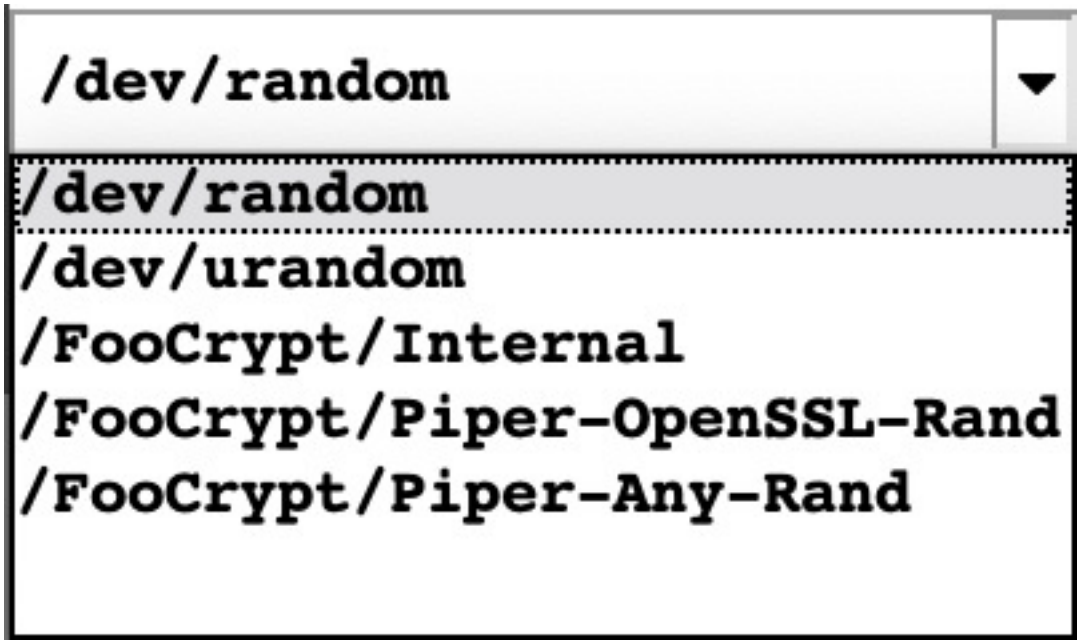
All the Text is hidden until you click and drag the cursor over a text area revealing only the portion of the text window you choose.

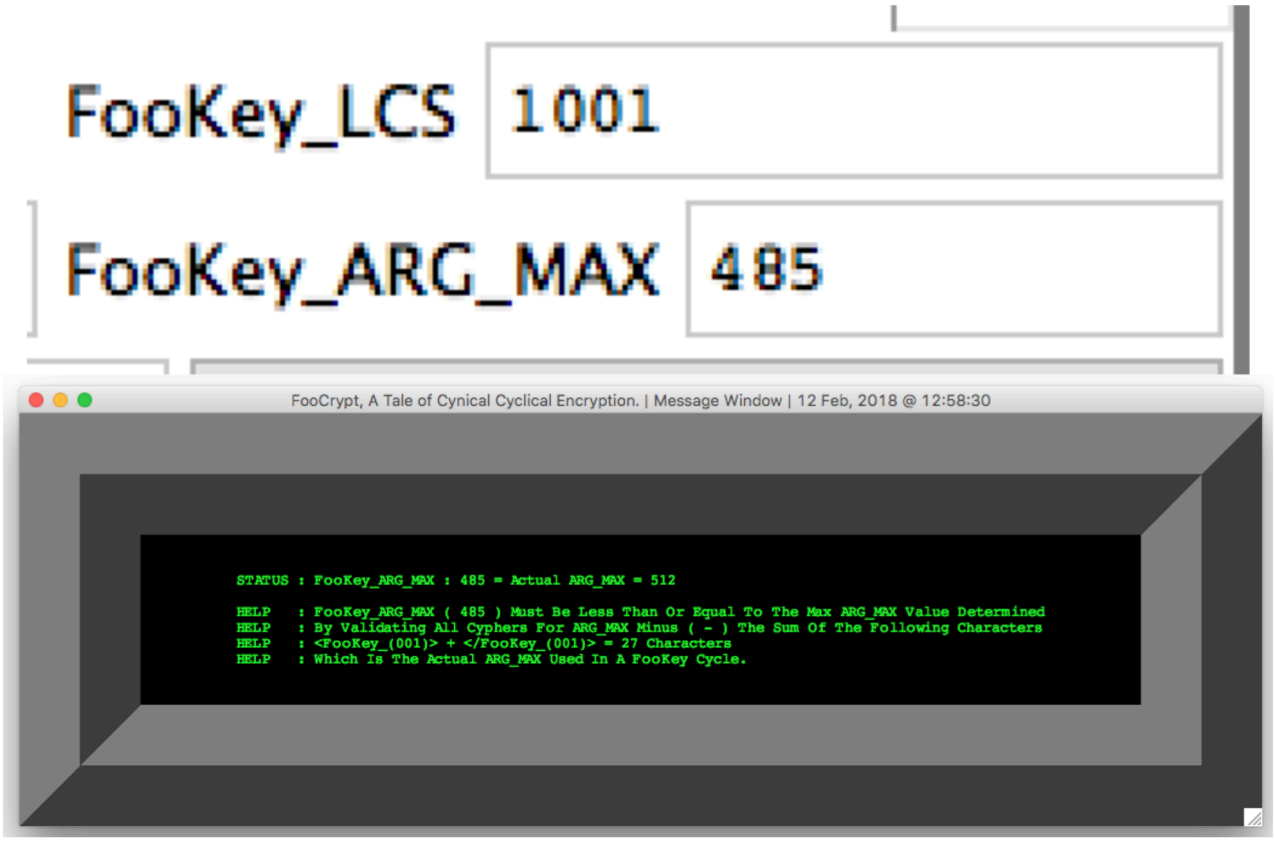
You can even create a FooKey, without knowing the original characters that you are replacing by using the XY features (XY), or by revealing any of the characters contained within the FooKey.





4. Is mitigated by the simple configurability of FooCrypt, to accept random data from an unlimited number of sources and following FooCrypt's DEFAULT settings of utilising a length up to the maximum.



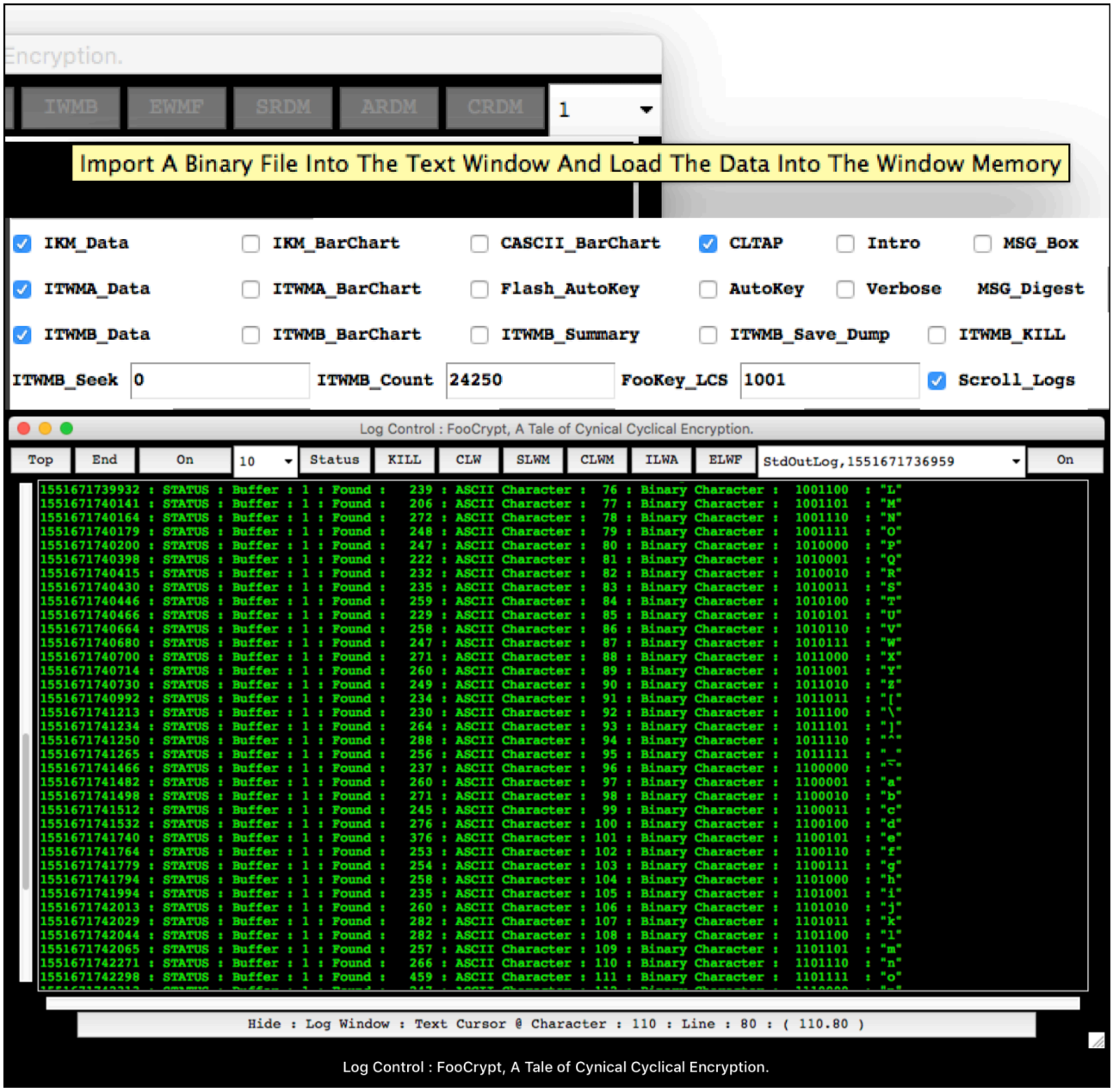


5. Is mitigated by FooCrypt's ability to import any binary data as a source for creating a FooKey, hence sharing the FooKey, can be obfuscated by an act as simple as sending the third party :

- A Photo
- A Music file
- A Document
- A URL to a data source on the Internet / Intranet
- The possibilities are endless

- Then, all the third party has to do, is utilise FooCrypt's Import Window Memory Binary Features, to recreate the FooKey.

- Modifications to the imported binary import can be made with ease with FooCrypt's XY features, enabling identical cursor positioning for character modifications to the binary import



5. and 6. can also be mitigated by using FooSteg to obfuscate the sharing / storing of a FooKey, by embedding the FooKey, inside an image.

6. Can be mitigated by always storing your encrypted data on an encrypted media device, thus even if your media device is physically stolen, the thief needs to break the disk encryption, and then try to break FooCrypt's Cyclical Encryption.

- FooKey's are always stored on physical media, encrypted in a single layer of encryption. FooKey's can easily be encrypted by the User with a FooKey, hence, layering the FooKey in multiple layers of encryption or embedded inside an image via FooSteg.

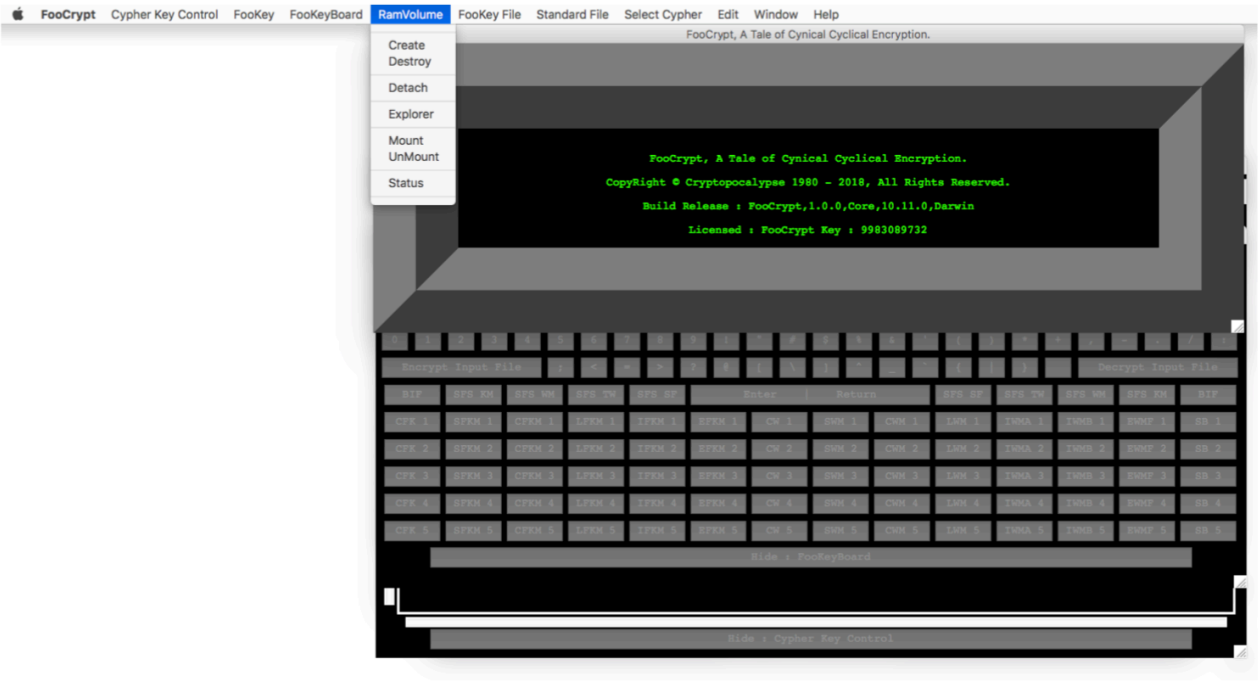
```
toor@FooCrypt:/Users/toor -> df -h
Filesystem      Size   Used  Avail Capacity   iused   ifree %iused  Mounted on
/dev/disk1     465Gi  441Gi   23Gi    96% 115773788 6066878   95%   /
devfs          194Ki  194Ki    0Bi   100%       676       0  100%   /dev
map -hosts       0Bi    0Bi    0Bi   100%         0       0  100%   /net
map auto_home    0Bi    0Bi    0Bi   100%         0       0  100%   /home
/dev/disk4s2    39Mi   32Mi  6.6Mi    84%      8282    1692   83%   /Volumes/FooCrypt,0.0.1,Core,10.11.0,Darwin
/dev/disk5     1.7Gi   20Mi  1.7Gi     2%      5136  434958    1%   /Volumes/FooCryptMemory
toor@FooCrypt:/Users/toor -> diskutil list
/dev/disk0 (internal, physical):
   #:                       TYPE NAME                    SIZE       IDENTIFIER
   0:      GUID_partition_scheme                        *500.3 GB   disk0
   1:                        EFI EFI                     209.7 MB   disk0s1
   2:          Apple_CoreStorage macOS                   499.4 GB   disk0s2
   3:                   Apple_Boot Recovery HD           650.0 MB   disk0s3
/dev/disk1 (internal, virtual):
   #:                       TYPE NAME                    SIZE       IDENTIFIER
   0:                 Apple_HFSX macOS                  +499.1 GB   disk1
                                  Logical Volume on disk0s2
                                  B14A39D0-3B68-4EEE-8A80-755177182161
                                  Unlocked Encrypted
/dev/disk3 (disk image):
   #:                       TYPE NAME                    SIZE       IDENTIFIER
   0:      GUID_partition_scheme                         +2.5 GB    disk3
   1:                        EFI EFI                     209.7 MB   disk3s1
   2:          Apple_CoreStorage FooCryptMemory          2.2 GB     disk3s2
   3:                   Apple_Boot Boot OS X             134.2 MB   disk3s3
/dev/disk4 (disk image):
   #:                       TYPE NAME                    SIZE       IDENTIFIER
   0:     Apple_partition_scheme                         +40.9 MB   disk4
   1:        Apple_partition_map                          32.3 KB    disk4s1
   2:                 Apple_HFSX FooCrypt,0.0.1,Core,... 40.9 MB    disk4s2
/dev/disk5 (disk image):
   #:                       TYPE NAME                    SIZE       IDENTIFIER
   0:                 Apple_HFSX FooCryptMemory         +1.8 GB     disk5
                                  Logical Volume on disk3s2
                                  18E171A8-97CD-45FE-828D-7BD714D9252D
                                  Unlocked Encrypted
toor@FooCrypt:/Users/toor -> hdiutil info
framework       : 417.4
driver          : 10.11v417.4
images          : 2
================================================
```

```
================================================
image-path      : /Users/toor/Desktop/FooCrypt,0.0.1.Core,10.11.0,Darwin.dmg
image-alias     : /Users/toor/Desktop/FooCrypt,0.0.1.Core,10.11.0,Darwin.dmg
shadow-path     : <none>
icon-path       : /System/Library/PrivateFrameworks/DiskImages.framework/Resources/CDiskImage.icns
image-type      : UDIF read-only compressed (zlib)
system-image    : false
blockcount      : 79872
blocksize       : 512
writeable       : false
autodiskmount   : TRUE
removable       : TRUE
image-encrypted : TRUE
mounting user   : toor
mounting mode   : -rwx------
process ID      : 65227
/dev/disk4      Apple_partition_scheme
/dev/disk4s1    Apple_partition_map
/dev/disk4s2    Apple_HFSX      /Volumes/FooCrypt,0.0.1,Core,10.11.0,Darwin
================================================
image-path      : ram://4917600
shadow-path     : <none>
icon-path       : /System/Library/PrivateFrameworks/DiskImages.framework/Resources/CDiskImage.icns
image-type      : read/write
system-image    : false
blockcount      : 4917600
blocksize       : 512
writeable       : TRUE
autodiskmount   : false
removable       : TRUE
image-encrypted : false
mounting user   : toor
mounting mode   : <unknown>
process ID      : 3250
/dev/disk3      GUID_partition_scheme
/dev/disk3s1    C12A7328-F81F-11D2-BA4B-00A0C93EC93B
/dev/disk3s2    53746F72-6167-11AA-AA11-00306543ECAC
/dev/disk5      Apple_HFSX      /Volumes/FooCryptMemory
/dev/disk3s3    426F6F74-0000-11AA-AA11-00306543ECAC
toor@FooCrypt:/Users/toor ->
```

- In the above images, FooCrypt is running from the Disk Image and has been configured to utilise an external media device /Volumes/FooCrypt as well as /Volumes/FooCryptMemory which is an encrypted volume, created out of a portion of the available memory.

- Encrypted RAM Volumes are currently under going extensive testing for integration into FooCrypt, A Tale Of Cynical Cyclical Encryption and scheduled for the DARWIN release at FooCrypt.XX.YY.ZZ.Core.Darwin

Graphic : FooCrypt.XX.YY.ZZ.Core.Darwin

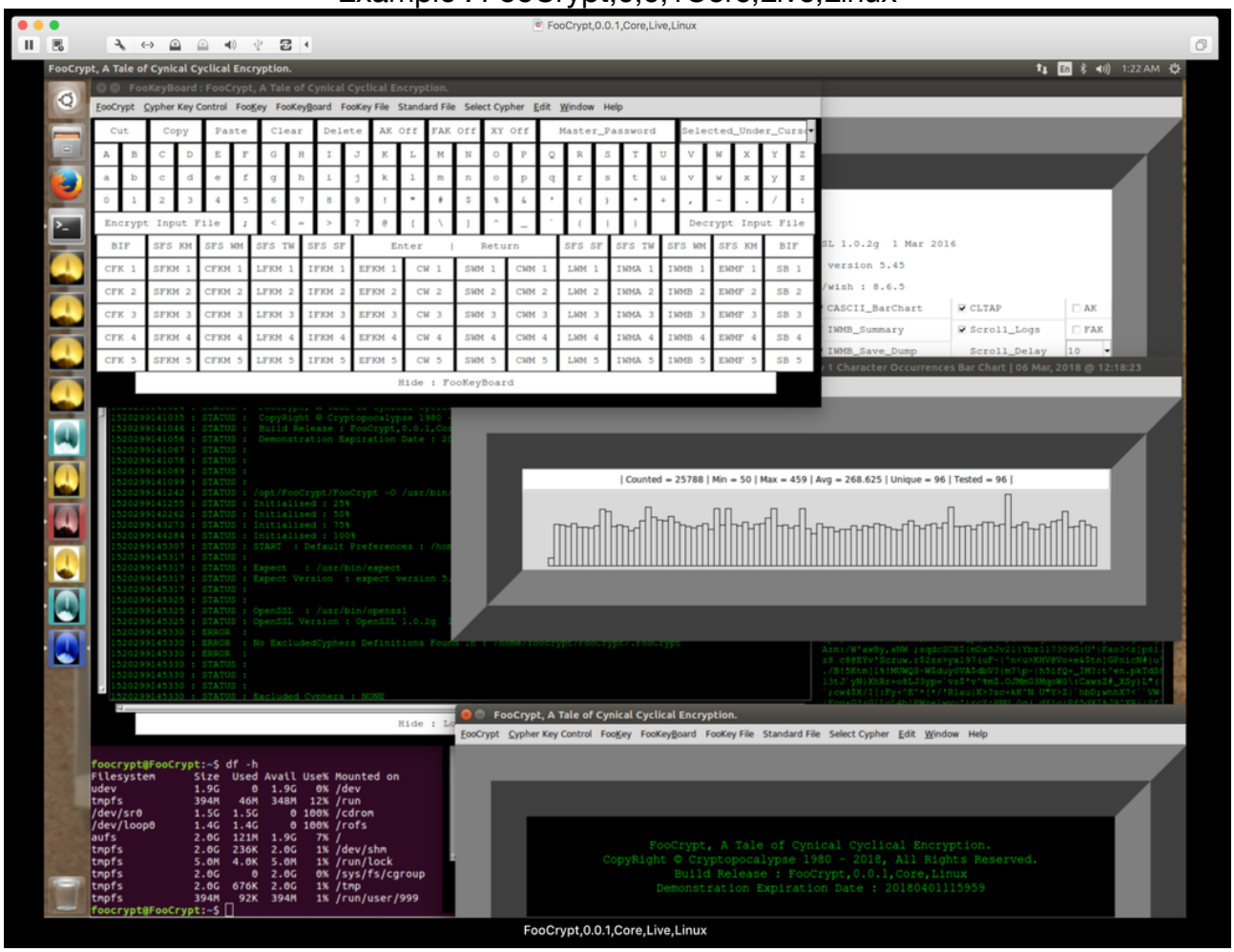


<u>No One To Date Has Been Able To By Pass Or Break Into A File Encrypted With The FooKey Method.</u>

Ubuntu 22.04.3 LTS, Hardware, VM, Cloud, Live ISO or USB
Binary Compatible Linux, Hardware, VM, Cloud
(If FooCrypt isn't compiled for it, ask and it will be)
All Linux Options Are Licensed to a Licensing Dongle

Graphic : FooCrypt.X.Y.Z.Core.Live Linux ISO in a VMware Virtual Machine

Example : FooCrypt,0,0,1Core,Live,Linux



Check Out The Other Installation Types

Brute Strength

- **4.18640577277337772e+1016 Possible Combinations**
  - (See Table 1 Below)

- By DEFAULT, FooCrypt establishes a password strength with 4.18640577277337772e+1016 Possible Combinations

- Using any data as a source to create a FooKey, including your least favourite tune, or extremely fuzzy ID Photo.

- This is calculated by simply multiplying each character position by the number of possibilities each character can be, factored out by each cycle of encryption.

- An average Human only selects between 8 – 12 characters to use as a password for a symmetrically encrypted file, by DEFAULT, FooCrypt utilises 50 layers of encryption, containing a total of 25600 characters which is easily extendable up to 200 layers on the average Desktop Computer using 102400 characters and a Brute Strength of
- 1.67456230910935062e+1017 Possible Combinations.

- Of course, this is only for the single process execution of FooCrypt to encrypt 1 file.

- FooCrypt, can encrypt a file using multiple FooKey's, thereby increasing the Brute Strength to potentially an infinite possibility, constrained only but time and hardware resources.

- # Table 1 : Brute Strength Possible Combinations

Layer 1 : Password Characters : 1 = 96 Possible Combinations
Layer 1 : Password Characters : 2 = 9216 Possible Combinations
Layer 1 : Password Characters : 3 = 884736 Possible Combinations
Layer 1 : Password Characters : 4 = 84934656 Possible Combinations
Layer 1 : Password Characters : 5 = 8153726976 Possible Combinations
Layer 1 : Password Characters : 6 = 782757789696 Possible Combinations
Layer 1 : Password Characters : 7 = 75144747810816 Possible Combinations
Layer 1 : Password Characters : 8 = 7213895789838336 Possible Combinations <- Average HUMAN Brute Strength
Layer 1 : Password Characters : 9 = 692533995824480256 Possible Combinations <- Average HUMAN Brute Strength
Layer 1 : Password Characters : 10 = 6.64832635991501046e+19 Possible Combinations <- Average HUMAN Brute Strength
Layer 1 : Password Characters : 11 = 6.38239330551841004e+21 Possible Combinations <- Average HUMAN Brute Strength
Layer 1 : Password Characters : 12 = 6.12709757329767364e+23 Possible Combinations <- Average HUMAN Brute Strength
Layer 1 : Password Characters : 13 = 5.88201367036576669e+25 Possible Combinations
Layer 1 : Password Characters : 14 = 5.64673312355113602e+27 Possible Combinations
Layer 1 : Password Characters : 15 = 5.42086379860909058e+29 Possible Combinations
Layer 1 : Password Characters : 16 = 5.20402924666472696e+31 Possible Combinations
Layer 1 : Password Characters : 17 = 4.99586807679813788e+33 Possible Combinations
Layer 1 : Password Characters : 18 = 4.79603335372621236e+35 Possible Combinations
Layer 1 : Password Characters : 19 = 4.60419201957716387e+37 Possible Combinations
Layer 1 : Password Characters : 20 = 4.42002433879407732e+39 Possible Combinations
Layer 1 : Password Characters : 21 = 4.24322336524231423e+41 Possible Combinations
Layer 1 : Password Characters : 22 = 4.07349443063262166e+43 Possible Combinations
Layer 1 : Password Characters : 23 = 3.91055465340731679e+45 Possible Combinations
Layer 1 : Password Characters : 24 = 3.75413246727102412e+47 Possible Combinations
Layer 1 : Password Characters : 25 = 3.60396716858018316e+49 Possible Combinations
Layer 1 : Password Characters : 26 = 3.45980848183697583e+51 Possible Combinations
Layer 1 : Password Characters : 27 = 3.3214161425634968e+53 Possible Combinations
Layer 1 : Password Characters : 28 = 3.18855949686095693e+55 Possible Combinations
Layer 1 : Password Characters : 29 = 3.06101711698651865e+57 Possible Combinations
Layer 1 : Password Characters : 30 = 2.9385764323070579e+59 Possible Combinations
Layer 1 : Password Characters : 31 = 2.82103337501477558e+61 Possible Combinations
Layer 1 : Password Characters : 32 = 2.70819204001418456e+63 Possible Combinations
Layer 1 : Password Characters : 33 = 2.59986435841361718e+65 Possible Combinations
Layer 1 : Password Characters : 34 = 2.49586978407707249e+67 Possible Combinations
Layer 1 : Password Characters : 35 = 2.39603499271398959e+69 Possible Combinations
Layer 1 : Password Characters : 36 = 2.30019359300543001e+71 Possible Combinations
Layer 1 : Password Characters : 37 = 2.20818584928521281e+73 Possible Combinations
Layer 1 : Password Characters : 38 = 2.1198584153138043e+75 Possible Combinations
Layer 1 : Password Characters : 39 = 2.03506407870125213e+77 Possible Combinations
Layer 1 : Password Characters : 40 = 1.95366151555320204e+79 Possible Combinations
Layer 1 : Password Characters : 41 = 1.87551505493107396e+81 Possible Combinations
Layer 1 : Password Characters : 42 = 1.800494452733831e+83 Possible Combinations
Layer 1 : Password Characters : 43 = 1.72847467462447776e+85 Possible Combinations
Layer 1 : Password Characters : 44 = 1.65933568763949865e+87 Possible Combinations
Layer 1 : Password Characters : 45 = 1.5929622601339187e+89 Possible Combinations
Layer 1 : Password Characters : 46 = 1.52924376972856195e+91 Possible Combinations
Layer 1 : Password Characters : 47 = 1.46807401893941947e+93 Possible Combinations
Layer 1 : Password Characters : 48 = 1.40935105818184269e+95 Possible Combinations
Layer 1 : Password Characters : 49 = 1.35297701585456898e+97 Possible Combinations
Layer 1 : Password Characters : 50 = 1.29885793522038622e+99 Possible Combinations
Layer 1 : Password Characters : 51 = 1.24690361781157077e+101 Possible Combinations
Layer 1 : Password Characters : 52 = 1.19702747309910794e+103 Possible Combinations
Layer 1 : Password Characters : 53 = 1.14914637417514362e+105 Possible Combinations
Layer 1 : Password Characters : 54 = 1.10318051920813788e+107 Possible Combinations
Layer 1 : Password Characters : 55 = 1.05905329843981236e+109 Possible Combinations
Layer 1 : Password Characters : 56 = 1.01669116650221987e+111 Possible Combinations
Layer 1 : Password Characters : 57 = 9.76023519842131075e+112 Possible Combinations
Layer 1 : Password Characters : 58 = 9.36982579048445832e+114 Possible Combinations
Layer 1 : Password Characters : 59 = 8.99503275886507999e+116 Possible Combinations
Layer 1 : Password Characters : 60 = 8.63523144851047679e+118 Possible Combinations
Layer 1 : Password Characters : 61 = 8.28982219057005772e+120 Possible Combinations
Layer 1 : Password Characters : 62 = 7.95822930294725541e+122 Possible Combinations
Layer 1 : Password Characters : 63 = 7.63990013082936519e+124 Possible Combinations
Layer 1 : Password Characters : 64 = 7.33430412559619058e+126 Possible Combinations
Layer 1 : Password Characters : 65 = 7.04093196057234296e+128 Possible Combinations
Layer 1 : Password Characters : 66 = 6.75929468214944924e+130 Possible Combinations
Layer 1 : Password Characters : 67 = 6.48892289486347127e+132 Possible Combinations
Layer 1 : Password Characters : 68 = 6.22936597906893242e+134 Possible Combinations
Layer 1 : Password Characters : 69 = 5.98019133990617512e+136 Possible Combinations
Layer 1 : Password Characters : 70 = 5.74098368630992811e+138 Possible Combinations
Layer 1 : Password Characters : 71 = 5.51134433885753099e+140 Possible Combinations

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Layer 1 : Password Characters : 75 = 4.68104135518411828e+148 Possible Combinations
Layer 1 : Password Characters : 76 = 4.49379970097675355e+150 Possible Combinations
Layer 1 : Password Characters : 77 = 4.31404771293768341e+152 Possible Combinations
Layer 1 : Password Characters : 78 = 4.14148580442017607e+154 Possible Combinations
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Layer 1 : Password Characters : 319 = 2.21066705759658093e+632 Possible Combinations
Layer 1 : Password Characters : 320 = 2.12224037529271769e+634 Possible Combinations
Layer 1 : Password Characters : 321 = 2.03735076028100898e+636 Possible Combinations
Layer 1 : Password Characters : 322 = 1.95585672986976862e+638 Possible Combinations
Layer 1 : Password Characters : 323 = 1.87762246067497787e+640 Possible Combinations
Layer 1 : Password Characters : 324 = 1.80251756224797875e+642 Possible Combinations
Layer 1 : Password Characters : 325 = 1.7304168597580596e+644 Possible Combinations
Layer 1 : Password Characters : 326 = 1.66120018536773722e+646 Possible Combinations
Layer 1 : Password Characters : 327 = 1.59475217795302773e+648 Possible Combinations
Layer 1 : Password Characters : 328 = 1.53096209083490662e+650 Possible Combinations
Layer 1 : Password Characters : 329 = 1.46972360720151035e+652 Possible Combinations
Layer 1 : Password Characters : 330 = 1.41093466291344994e+654 Possible Combinations
Layer 1 : Password Characters : 331 = 1.35449727639691194e+656 Possible Combinations
Layer 1 : Password Characters : 332 = 1.30031738534103546e+658 Possible Combinations
Layer 1 : Password Characters : 333 = 1.24830468992739404e+660 Possible Combinations
Layer 1 : Password Characters : 334 = 1.19837250233029828e+662 Possible Combinations
Layer 1 : Password Characters : 335 = 1.15043760223708635e+664 Possible Combinations
Layer 1 : Password Characters : 336 = 1.1044200981476029e+666 Possible Combinations
Layer 1 : Password Characters : 337 = 1.06024329422169878e+668 Possible Combinations
Layer 1 : Password Characters : 338 = 1.01783356245283083e+670 Possible Combinations
Layer 1 : Password Characters : 339 = 9.77120219954717596e+671 Possible Combinations
Layer 1 : Password Characters : 340 = 9.38035411156528892e+673 Possible Combinations
Layer 1 : Password Characters : 341 = 9.00513994710267736e+675 Possible Combinations
Layer 1 : Password Characters : 342 = 8.64493434921857026e+677 Possible Combinations
Layer 1 : Password Characters : 343 = 8.29913697524982745e+679 Possible Combinations
Layer 1 : Password Characters : 344 = 7.96717149623983435e+681 Possible Combinations
Layer 1 : Password Characters : 345 = 7.64848463639024097e+683 Possible Combinations
Layer 1 : Password Characters : 346 = 7.34254525093463133e+685 Possible Combinations
Layer 1 : Password Characters : 347 = 7.04884344089724607e+687 Possible Combinations
Layer 1 : Password Characters : 348 = 6.76688970326135622e+689 Possible Combinations
Layer 1 : Password Characters : 349 = 6.49621411513090197e+691 Possible Combinations
Layer 1 : Password Characters : 350 = 6.23636555052566589e+693 Possible Combinations
Layer 1 : Password Characters : 351 = 5.98691092850463925e+695 Possible Combinations
Layer 1 : Password Characters : 352 = 5.74743449136445368e+697 Possible Combinations
Layer 1 : Password Characters : 353 = 5.51753711170987553e+699 Possible Combinations
Layer 1 : Password Characters : 354 = 5.29683562724148051e+701 Possible Combinations
Layer 1 : Password Characters : 355 = 5.08496220215182129e+703 Possible Combinations
Layer 1 : Password Characters : 356 = 4.88156371406574844e+705 Possible Combinations
Layer 1 : Password Characters : 357 = 4.6863011655031185e+707 Possible Combinations
Layer 1 : Password Characters : 358 = 4.49884911888299376e+709 Possible Combinations
Layer 1 : Password Characters : 359 = 4.31889515412767401e+711 Possible Combinations

Layer 1 : Password Characters : 360 = 4.14613934796256705e+713 Possible Combinations
Layer 1 : Password Characters : 361 = 3.98029377404406437e+715 Possible Combinations
Layer 1 : Password Characters : 362 = 3.82108202308230179e+717 Possible Combinations
Layer 1 : Password Characters : 363 = 3.66823874215900972e+719 Possible Combinations
Layer 1 : Password Characters : 364 = 3.52150919247264933e+721 Possible Combinations
Layer 1 : Password Characters : 365 = 3.38064882477374335e+723 Possible Combinations
Layer 1 : Password Characters : 366 = 3.24542287178279361e+725 Possible Combinations
Layer 1 : Password Characters : 367 = 3.11560595691148186e+727 Possible Combinations
Layer 1 : Password Characters : 368 = 2.99098171863502258e+729 Possible Combinations
Layer 1 : Password Characters : 369 = 2.87134244988962168e+731 Possible Combinations
Layer 1 : Password Characters : 370 = 2.75648875189403681e+733 Possible Combinations
Layer 1 : Password Characters : 371 = 2.64622920181827534e+735 Possible Combinations
Layer 1 : Password Characters : 372 = 2.54038003374554432e+737 Possible Combinations
Layer 1 : Password Characters : 373 = 2.43876483239572255e+739 Possible Combinations
Layer 1 : Password Characters : 374 = 2.34121423909989365e+741 Possible Combinations
Layer 1 : Password Characters : 375 = 2.2475656695358979e+743 Possible Combinations
Layer 1 : Password Characters : 376 = 2.15766304275446198e+745 Possible Combinations
Layer 1 : Password Characters : 377 = 2.0713565210442835e+747 Possible Combinations
Layer 1 : Password Characters : 378 = 1.98850226020251216e+749 Possible Combinations
Layer 1 : Password Characters : 379 = 1.90896216979441167e+751 Possible Combinations
Layer 1 : Password Characters : 380 = 1.8326036830026352e+753 Possible Combinations
Layer 1 : Password Characters : 381 = 1.75929953568252979e+755 Possible Combinations
Layer 1 : Password Characters : 382 = 1.6889275542552286e+757 Possible Combinations
Layer 1 : Password Characters : 383 = 1.62137045208501945e+759 Possible Combinations
Layer 1 : Password Characters : 384 = 1.55651563400161867e+761 Possible Combinations
Layer 1 : Password Characters : 385 = 1.49425500864155392e+763 Possible Combinations
Layer 1 : Password Characters : 386 = 1.43448480829589176e+765 Possible Combinations
Layer 1 : Password Characters : 387 = 1.37710541596405609e+767 Possible Combinations
Layer 1 : Password Characters : 388 = 1.32202119932549385e+769 Possible Combinations
Layer 1 : Password Characters : 389 = 1.2691403513524741e+771 Possible Combinations
Layer 1 : Password Characters : 390 = 1.21837473729837514e+773 Possible Combinations
Layer 1 : Password Characters : 391 = 1.16963974780644013e+775 Possible Combinations
Layer 1 : Password Characters : 392 = 1.12285415789418252e+777 Possible Combinations
Layer 1 : Password Characters : 393 = 1.07793999157841522e+779 Possible Combinations
Layer 1 : Password Characters : 394 = 1.03482239191527861e+781 Possible Combinations
Layer 1 : Password Characters : 395 = 9.93429496238667465e+782 Possible Combinations
Layer 1 : Password Characters : 396 = 9.53692316389120766e+784 Possible Combinations
Layer 1 : Password Characters : 397 = 9.15544623733555935e+786 Possible Combinations
Layer 1 : Password Characters : 398 = 8.78922838784213697e+788 Possible Combinations
Layer 1 : Password Characters : 399 = 8.43765925232845148e+790 Possible Combinations
Layer 1 : Password Characters : 400 = 8.10015288223531341e+792 Possible Combinations
Layer 1 : Password Characters : 401 = 7.77614676694590087e+794 Possible Combinations
Layer 1 : Password Characters : 402 = 7.46510089626806483e+796 Possible Combinations
Layer 1 : Password Characters : 403 = 7.16649686041734223e+798 Possible Combinations
Layer 1 : Password Characters : 404 = 6.87983698600064854e+800 Possible Combinations
Layer 1 : Password Characters : 405 = 6.60464350656062259e+802 Possible Combinations
Layer 1 : Password Characters : 406 = 6.34045776629819768e+804 Possible Combinations
Layer 1 : Password Characters : 407 = 6.08683945564626977e+806 Possible Combinations
Layer 1 : Password Characters : 408 = 5.84336587742041897e+808 Possible Combinations
Layer 1 : Password Characters : 409 = 5.60963124232360221e+810 Possible Combinations
Layer 1 : Password Characters : 410 = 5.38524599263065812e+812 Possible Combinations
Layer 1 : Password Characters : 411 = 5.16983615292543179e+814 Possible Combinations
Layer 1 : Password Characters : 412 = 4.96304270680841451e+816 Possible Combinations
Layer 1 : Password Characters : 413 = 4.76452099853607793e+818 Possible Combinations
Layer 1 : Password Characters : 414 = 4.57394015859463481e+820 Possible Combinations
Layer 1 : Password Characters : 415 = 4.39098255225084941e+822 Possible Combinations
Layer 1 : Password Characters : 416 = 4.21534325016081543e+824 Possible Combinations
Layer 1 : Password Characters : 417 = 4.04672952015438281e+826 Possible Combinations
Layer 1 : Password Characters : 418 = 3.8848603393482075e+828 Possible Combinations
Layer 1 : Password Characters : 419 = 3.7294659257742792e+830 Possible Combinations
Layer 1 : Password Characters : 420 = 3.58028728874330803e+832 Possible Combinations
Layer 1 : Password Characters : 421 = 3.43707579719357571e+834 Possible Combinations
Layer 1 : Password Characters : 422 = 3.29959276530583268e+836 Possible Combinations
Layer 1 : Password Characters : 423 = 3.16760905469359937e+838 Possible Combinations
Layer 1 : Password Characters : 424 = 3.04090469250585539e+840 Possible Combinations
Layer 1 : Password Characters : 425 = 2.91926850480562117e+842 Possible Combinations
Layer 1 : Password Characters : 426 = 2.80249776461339632e+844 Possible Combinations
Layer 1 : Password Characters : 427 = 2.69039785402886046e+846 Possible Combinations
Layer 1 : Password Characters : 428 = 2.58278193986770604e+848 Possible Combinations
Layer 1 : Password Characters : 429 = 2.4794706622729978e+850 Possible Combinations
Layer 1 : Password Characters : 430 = 2.38029183578207789e+852 Possible Combinations
Layer 1 : Password Characters : 431 = 2.28508016235079477e+854 Possible Combinations

Layer 1 : Password Characters : 432 = 2.19367695585676298e+856 Possible Combinations
Layer 1 : Password Characters : 433 = 2.10592987762249246e+858 Possible Combinations
Layer 1 : Password Characters : 434 = 2.02169268251759276e+860 Possible Combinations
Layer 1 : Password Characters : 435 = 1.94082497521688905e+862 Possible Combinations
Layer 1 : Password Characters : 436 = 1.86319197620821349e+864 Possible Combinations
Layer 1 : Password Characters : 437 = 1.78866429715988495e+866 Possible Combinations
Layer 1 : Password Characters : 438 = 1.71711772527348955e+868 Possible Combinations
Layer 1 : Password Characters : 439 = 1.64843301626254997e+870 Possible Combinations
Layer 1 : Password Characters : 440 = 1.58249569561204797e+872 Possible Combinations
Layer 1 : Password Characters : 441 = 1.51919586778756605e+874 Possible Combinations
Layer 1 : Password Characters : 442 = 1.45842803307606341e+876 Possible Combinations
Layer 1 : Password Characters : 443 = 1.40009091175302087e+878 Possible Combinations
Layer 1 : Password Characters : 444 = 1.34408727528290003e+880 Possible Combinations
Layer 1 : Password Characters : 445 = 1.29032378427158403e+882 Possible Combinations
Layer 1 : Password Characters : 446 = 1.23871083290072067e+884 Possible Combinations
Layer 1 : Password Characters : 447 = 1.18916239958469184e+886 Possible Combinations
Layer 1 : Password Characters : 448 = 1.14159590360130417e+888 Possible Combinations
Layer 1 : Password Characters : 449 = 1.095932067457252e+890 Possible Combinations
Layer 1 : Password Characters : 450 = 1.05209478475896192e+892 Possible Combinations
Layer 1 : Password Characters : 451 = 1.01001099336860344e+894 Possible Combinations
Layer 1 : Password Characters : 452 = 9.69610553633859301e+895 Possible Combinations
Layer 1 : Password Characters : 453 = 9.30826131488504928e+897 Possible Combinations
Layer 1 : Password Characters : 454 = 8.9359308622896473e+899 Possible Combinations
Layer 1 : Password Characters : 455 = 8.5784936277980614e+901 Possible Combinations
Layer 1 : Password Characters : 456 = 8.23535388268613894e+903 Possible Combinations
Layer 1 : Password Characters : 457 = 7.90593972737869338e+905 Possible Combinations
Layer 1 : Password Characters : 458 = 7.58970213828354564e+907 Possible Combinations
Layer 1 : Password Characters : 459 = 7.28611405275220381e+909 Possible Combinations
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Layer 1 : Password Characters : 461 = 6.71488271101643102e+913 Possible Combinations
Layer 1 : Password Characters : 462 = 6.44628740257577378e+915 Possible Combinations
Layer 1 : Password Characters : 463 = 6.18843590647274282e+917 Possible Combinations
Layer 1 : Password Characters : 464 = 5.9408984702138331e+919 Possible Combinations
Layer 1 : Password Characters : 465 = 5.70326253140527977e+921 Possible Combinations
Layer 1 : Password Characters : 466 = 5.47513203014906857e+923 Possible Combinations
Layer 1 : Password Characters : 467 = 5.25612674894310582e+925 Possible Combinations
Layer 1 : Password Characters : 468 = 5.04588167898538158e+927 Possible Combinations
Layer 1 : Password Characters : 469 = 4.84404641182596631e+929 Possible Combinations
Layer 1 : Password Characters : 470 = 4.65028455535292765e+931 Possible Combinations
Layer 1 : Password Characters : 471 = 4.46427317313881054e+933 Possible Combinations
Layer 1 : Password Characters : 472 = 4.28570224621325811e+935 Possible Combinations
Layer 1 : Password Characters : 473 = 4.11427415636472778e+937 Possible Combinations
Layer 1 : Password Characters : 474 = 3.94970319011013867e+939 Possible Combinations
Layer 1 : Password Characters : 475 = 3.79171506250573312e+941 Possible Combinations
Layer 1 : Password Characters : 476 = 3.64004646000550379e+943 Possible Combinations
Layer 1 : Password Characters : 477 = 3.49444460160528364e+945 Possible Combinations
Layer 1 : Password Characters : 478 = 3.35466681754107229e+947 Possible Combinations
Layer 1 : Password Characters : 479 = 3.2204801448394294e+949 Possible Combinations
Layer 1 : Password Characters : 480 = 3.09166093904585222e+951 Possible Combinations
Layer 1 : Password Characters : 481 = 2.96799450148401813e+953 Possible Combinations
Layer 1 : Password Characters : 482 = 2.8492747214246574e+955 Possible Combinations
Layer 1 : Password Characters : 483 = 2.7353037325676711e+957 Possible Combinations
Layer 1 : Password Characters : 484 = 2.62589158326496425e+959 Possible Combinations
Layer 1 : Password Characters : 485 = 2.52085591993436568e+961 Possible Combinations
Layer 1 : Password Characters : 486 = 2.42002168313699105e+963 Possible Combinations
Layer 1 : Password Characters : 487 = 2.32322081581151141e+965 Possible Combinations
Layer 1 : Password Characters : 488 = 2.23029198317905095e+967 Possible Combinations
Layer 1 : Password Characters : 489 = 2.14108030385188891e+969 Possible Combinations
Layer 1 : Password Characters : 490 = 2.05543709169781335e+971 Possible Combinations
Layer 1 : Password Characters : 491 = 1.97321960802990081e+973 Possible Combinations
Layer 1 : Password Characters : 492 = 1.89429082370870478e+975 Possible Combinations
Layer 1 : Password Characters : 493 = 1.81851919076035659e+977 Possible Combinations
Layer 1 : Password Characters : 494 = 1.74577842312994232e+979 Possible Combinations
Layer 1 : Password Characters : 495 = 1.67594728620474463e+981 Possible Combinations
Layer 1 : Password Characters : 496 = 1.60890939475655484e+983 Possible Combinations
Layer 1 : Password Characters : 497 = 1.54455301896629265e+985 Possible Combinations
Layer 1 : Password Characters : 498 = 1.48277089820764094e+987 Possible Combinations
Layer 1 : Password Characters : 499 = 1.4234600622793353e+989 Possible Combinations
Layer 1 : Password Characters : 500 = 1.36652165978816189e+991 Possible Combinations
Layer 1 : Password Characters : 501 = 1.31186079339663541e+993 Possible Combinations
Layer 1 : Password Characters : 502 = 1.25938636166076999e+995 Possible Combinations
Layer 1 : Password Characters : 503 = 1.20901090719433919e+997 Possible Combinations

Layer 1 : Password Characters : 504 = 1.16065047090656562e+999 Possible Combinations
Layer 1 : Password Characters : 505 = 1.11422445207030299e+1001 Possible Combinations
Layer 1 : Password Characters : 506 = 1.06965547398749087e+1003 Possible Combinations
Layer 1 : Password Characters : 507 = 1.02686925502799123e+1005 Possible Combinations
Layer 1 : Password Characters : 508 = 9.857944848268715 8e+1006 Possible Combinations
Layer 1 : Password Characters : 509 = 9.46362705433796716e+1008 Possible Combinations
Layer 1 : Password Characters : 510 = 9.08508197216444847e+1010 Possible Combinations
Layer 1 : Password Characters : 511 = 8.72167869327787052e+1012 Possible Combinations
Layer 1 : Password Characters : 512 = 8.37281154554675569e+1014 Possible Combinations
Layer 1 : Total Password Characters : 512 = 8.37281154554675569e+1014 Possible Combinations
Layer 2 : Total Password Characters : 1024 = 1.67456230910935114e+1015 Possible Combinations
Layer 3 : Total Password Characters : 1536 = 2.51184346366402671e+1015 Possible Combinations
Layer 4 : Total Password Characters : 2048 = 3.34912461821870228e+1015 Possible Combinations
Layer 5 : Total Password Characters : 2560 = 4.18640577277337785e+1015 Possible Combinations
Layer 6 : Total Password Characters : 3072 = 5.02368692732805341e+1015 Possible Combinations
Layer 7 : Total Password Characters : 3584 = 5.86096808188272897e+1015 Possible Combinations
Layer 8 : Total Password Characters : 4096 = 6.69824923643740453e+1015 Possible Combinations
Layer 9 : Total Password Characters : 4608 = 7.53553039099208009e+1015 Possible Combinations
Layer 10 : Total Password Characters : 5120 = 8.37281154554675565e+1015 Possible Combinations
Layer 11 : Total Password Characters : 5632 = 9.21009270010143121e+1015 Possible Combinations
Layer 12 : Total Password Characters : 6144 = 1.00473738546561068e+1016 Possible Combinations
Layer 13 : Total Password Characters : 6656 = 1.08846550092107824e+1016 Possible Combinations
Layer 14 : Total Password Characters : 7168 = 1.1721936163765458e+1016 Possible Combinations
Layer 15 : Total Password Characters : 7680 = 1.25592173183201336e+1016 Possible Combinations
Layer 16 : Total Password Characters : 8192 = 1.33964984728748092e+1016 Possible Combinations
Layer 17 : Total Password Characters : 8704 = 1.42337796274294848e+1016 Possible Combinations
Layer 18 : Total Password Characters : 9216 = 1.50710607819841604e+1016 Possible Combinations
Layer 19 : Total Password Characters : 9728 = 1.5908341936538836e+1016 Possible Combinations
Layer 20 : Total Password Characters : 10240 = 1.67456230910935116e+1016 Possible Combinations
Layer 21 : Total Password Characters : 10752 = 1.75829042456481872e+1016 Possible Combinations
Layer 22 : Total Password Characters : 11264 = 1.84201854002028628e+1016 Possible Combinations
Layer 23 : Total Password Characters : 11776 = 1.92574665547575384e+1016 Possible Combinations
Layer 24 : Total Password Characters : 12288 = 2.0094747709312214e+1016 Possible Combinations
Layer 25 : Total Password Characters : 12800 = 2.09320288638668895e+1016 Possible Combinations
Layer 26 : Total Password Characters : 13312 = 2.17693100184215651e+1016 Possible Combinations
Layer 27 : Total Password Characters : 13824 = 2.26065911729762406e+1016 Possible Combinations
Layer 28 : Total Password Characters : 14336 = 2.34438723275309162e+1016 Possible Combinations
Layer 29 : Total Password Characters : 14848 = 2.42811534820855917e+1016 Possible Combinations
Layer 30 : Total Password Characters : 15360 = 2.51184346366402672e+1016 Possible Combinations
Layer 31 : Total Password Characters : 15872 = 2.59557157911949427e+1016 Possible Combinations
Layer 32 : Total Password Characters : 16384 = 2.67929969457496182e+1016 Possible Combinations
Layer 33 : Total Password Characters : 16896 = 2.76302781003042937e+1016 Possible Combinations
Layer 34 : Total Password Characters : 17408 = 2.84675592548589692e+1016 Possible Combinations
Layer 35 : Total Password Characters : 17920 = 2.93048404094136447e+1016 Possible Combinations
Layer 36 : Total Password Characters : 18432 = 3.01421215639683202e+1016 Possible Combinations
Layer 37 : Total Password Characters : 18944 = 3.09794027185229957e+1016 Possible Combinations
Layer 38 : Total Password Characters : 19456 = 3.18166838730776712e+1016 Possible Combinations
Layer 39 : Total Password Characters : 19968 = 3.26539650276323467e+1016 Possible Combinations
Layer 40 : Total Password Characters : 20480 = 3.34912461821870222e+1016 Possible Combinations
Layer 41 : Total Password Characters : 20992 = 3.43285273367416977e+1016 Possible Combinations
Layer 42 : Total Password Characters : 21504 = 3.51658084912963732e+1016 Possible Combinations
Layer 43 : Total Password Characters : 22016 = 3.60030896458510487e+1016 Possible Combinations
Layer 44 : Total Password Characters : 22528 = 3.68403708004057242e+1016 Possible Combinations
Layer 45 : Total Password Characters : 23040 = 3.76776519549603997e+1016 Possible Combinations
Layer 46 : Total Password Characters : 23552 = 3.85149331095150752e+1016 Possible Combinations
Layer 47 : Total Password Characters : 24064 = 3.93522142640697507e+1016 Possible Combinations
Layer 48 : Total Password Characters : 24576 = 4.01894954186244262e+1016 Possible Combinations
Layer 49 : Total Password Characters : 25088 = 4.10267765731791017e+1016 Possible Combinations
Layer 50 : Total Password Characters : 25600 = 4.18640577277337772e+1016 Possible Combinations <- DEFAULT FooCrypt Brute Strength
Layer 51 : Total Password Characters : 26112 = 4.27013388822884527e+1016 Possible Combinations
Layer 52 : Total Password Characters : 26624 = 4.35386200368431282e+1016 Possible Combinations
Layer 53 : Total Password Characters : 27136 = 4.43759011913978037e+1016 Possible Combinations
Layer 54 : Total Password Characters : 27648 = 4.52131823459524792e+1016 Possible Combinations
Layer 55 : Total Password Characters : 28160 = 4.60504635005071547e+1016 Possible Combinations
Layer 56 : Total Password Characters : 28672 = 4.68877446550618302e+1016 Possible Combinations
Layer 57 : Total Password Characters : 29184 = 4.77250258096165057e+1016 Possible Combinations
Layer 58 : Total Password Characters : 29696 = 4.85623069641711812e+1016 Possible Combinations
Layer 59 : Total Password Characters : 30208 = 4.93995881187258567e+1016 Possible Combinations
Layer 60 : Total Password Characters : 30720 = 5.02368692732805322e+1016 Possible Combinations
Layer 61 : Total Password Characters : 31232 = 5.10741504278352077e+1016 Possible Combinations
Layer 62 : Total Password Characters : 31744 = 5.19114315823898832e+1016 Possible Combinations
Layer 63 : Total Password Characters : 32256 = 5.27487127369445587e+1016 Possible Combinations

Layer 64 : Total Password Characters : 32768 = 5.35859938914992342e+1016 Possible Combinations
Layer 65 : Total Password Characters : 33280 = 5.44232750460539097e+1016 Possible Combinations
Layer 66 : Total Password Characters : 33792 = 5.52605562006085852e+1016 Possible Combinations
Layer 67 : Total Password Characters : 34304 = 5.60978373551632607e+1016 Possible Combinations
Layer 68 : Total Password Characters : 34816 = 5.69351185097179362e+1016 Possible Combinations
Layer 69 : Total Password Characters : 35328 = 5.77723996642726117e+1016 Possible Combinations
Layer 70 : Total Password Characters : 35840 = 5.86096808188272872e+1016 Possible Combinations
Layer 71 : Total Password Characters : 36352 = 5.94469619733819627e+1016 Possible Combinations
Layer 72 : Total Password Characters : 36864 = 6.02842431279366382e+1016 Possible Combinations
Layer 73 : Total Password Characters : 37376 = 6.11215242824913137e+1016 Possible Combinations
Layer 74 : Total Password Characters : 37888 = 6.19588054370459892e+1016 Possible Combinations
Layer 75 : Total Password Characters : 38400 = 6.27960865916006647e+1016 Possible Combinations
Layer 76 : Total Password Characters : 38912 = 6.36333677461553402e+1016 Possible Combinations
Layer 77 : Total Password Characters : 39424 = 6.44706489007100157e+1016 Possible Combinations
Layer 78 : Total Password Characters : 39936 = 6.53079300552646912e+1016 Possible Combinations
Layer 79 : Total Password Characters : 40448 = 6.61452112098193667e+1016 Possible Combinations
Layer 80 : Total Password Characters : 40960 = 6.69824923643740422e+1016 Possible Combinations
Layer 81 : Total Password Characters : 41472 = 6.78197735189287177e+1016 Possible Combinations
Layer 82 : Total Password Characters : 41984 = 6.86570546734833932e+1016 Possible Combinations
Layer 83 : Total Password Characters : 42496 = 6.94943358280380687e+1016 Possible Combinations
Layer 84 : Total Password Characters : 43008 = 7.03316169825927442e+1016 Possible Combinations
Layer 85 : Total Password Characters : 43520 = 7.11688981371474197e+1016 Possible Combinations
Layer 86 : Total Password Characters : 44032 = 7.20061792917020952e+1016 Possible Combinations
Layer 87 : Total Password Characters : 44544 = 7.28434604462567707e+1016 Possible Combinations
Layer 88 : Total Password Characters : 45056 = 7.36807416008114462e+1016 Possible Combinations
Layer 89 : Total Password Characters : 45568 = 7.45180227553661217e+1016 Possible Combinations
Layer 90 : Total Password Characters : 46080 = 7.53553039099207972e+1016 Possible Combinations
Layer 91 : Total Password Characters : 46592 = 7.61925850644754727e+1016 Possible Combinations
Layer 92 : Total Password Characters : 47104 = 7.70298662190301482e+1016 Possible Combinations
Layer 93 : Total Password Characters : 47616 = 7.78671473735848237e+1016 Possible Combinations
Layer 94 : Total Password Characters : 48128 = 7.87044285281394992e+1016 Possible Combinations
Layer 95 : Total Password Characters : 48640 = 7.95417096826941747e+1016 Possible Combinations
Layer 96 : Total Password Characters : 49152 = 8.03789908372488502e+1016 Possible Combinations
Layer 97 : Total Password Characters : 49664 = 8.12162719918035257e+1016 Possible Combinations
Layer 98 : Total Password Characters : 50176 = 8.20535531463582012e+1016 Possible Combinations
Layer 99 : Total Password Characters : 50688 = 8.28908343009128767e+1016 Possible Combinations
Layer 100 : Total Password Characters : 51200 = 8.37281154554675522e+1016 Possible Combinations
Layer 101 : Total Password Characters : 51712 = 8.45653966100222277e+1016 Possible Combinations
Layer 102 : Total Password Characters : 52224 = 8.54026777645769032e+1016 Possible Combinations
Layer 103 : Total Password Characters : 52736 = 8.62399589191315787e+1016 Possible Combinations
Layer 104 : Total Password Characters : 53248 = 8.70772400736862542e+1016 Possible Combinations
Layer 105 : Total Password Characters : 53760 = 8.79145212282409297e+1016 Possible Combinations
Layer 106 : Total Password Characters : 54272 = 8.87518023827956052e+1016 Possible Combinations
Layer 107 : Total Password Characters : 54784 = 8.95890835373502807e+1016 Possible Combinations
Layer 108 : Total Password Characters : 55296 = 9.04263646919049562e+1016 Possible Combinations
Layer 109 : Total Password Characters : 55808 = 9.12636458464596317e+1016 Possible Combinations
Layer 110 : Total Password Characters : 56320 = 9.21009270010143072e+1016 Possible Combinations
Layer 111 : Total Password Characters : 56832 = 9.29382081555689827e+1016 Possible Combinations
Layer 112 : Total Password Characters : 57344 = 9.37754893101236582e+1016 Possible Combinations
Layer 113 : Total Password Characters : 57856 = 9.46127704646783337e+1016 Possible Combinations
Layer 114 : Total Password Characters : 58368 = 9.54500516192330092e+1016 Possible Combinations
Layer 115 : Total Password Characters : 58880 = 9.62873327737876847e+1016 Possible Combinations
Layer 116 : Total Password Characters : 59392 = 9.71246139283423602e+1016 Possible Combinations
Layer 117 : Total Password Characters : 59904 = 9.79618950828970357e+1016 Possible Combinations
Layer 118 : Total Password Characters : 60416 = 9.87991762374517112e+1016 Possible Combinations
Layer 119 : Total Password Characters : 60928 = 9.96364573920063867e+1016 Possible Combinations
Layer 120 : Total Password Characters : 61440 = 1.00473738546561062e+1017 Possible Combinations
Layer 121 : Total Password Characters : 61952 = 1.01311019701115737e+1017 Possible Combinations
Layer 122 : Total Password Characters : 62464 = 1.02148300855670412e+1017 Possible Combinations
Layer 123 : Total Password Characters : 62976 = 1.02985582010225087e+1017 Possible Combinations
Layer 124 : Total Password Characters : 63488 = 1.03822863164779762e+1017 Possible Combinations
Layer 125 : Total Password Characters : 64000 = 1.04660144319334437e+1017 Possible Combinations
Layer 126 : Total Password Characters : 64512 = 1.05497425473889112e+1017 Possible Combinations
Layer 127 : Total Password Characters : 65024 = 1.06334706628443787e+1017 Possible Combinations
Layer 128 : Total Password Characters : 65536 = 1.07171987782998462e+1017 Possible Combinations
Layer 129 : Total Password Characters : 66048 = 1.08009268937553137e+1017 Possible Combinations
Layer 130 : Total Password Characters : 66560 = 1.08846550092107812e+1017 Possible Combinations
Layer 131 : Total Password Characters : 67072 = 1.09683831246662487e+1017 Possible Combinations
Layer 132 : Total Password Characters : 67584 = 1.10521112401217162e+1017 Possible Combinations
Layer 133 : Total Password Characters : 68096 = 1.11358393555771837e+1017 Possible Combinations
Layer 134 : Total Password Characters : 68608 = 1.12195674710326512e+1017 Possible Combinations
Layer 135 : Total Password Characters : 69120 = 1.13032955864881187e+1017 Possible Combinations

Layer 136 : Total Password Characters : 69632 = 1.13870237019435862e+1017 Possible Combinations
Layer 137 : Total Password Characters : 70144 = 1.14707518173990537e+1017 Possible Combinations
Layer 138 : Total Password Characters : 70656 = 1.15544799328545212e+1017 Possible Combinations
Layer 139 : Total Password Characters : 71168 = 1.16382080483099887e+1017 Possible Combinations
Layer 140 : Total Password Characters : 71680 = 1.17219361637654562e+1017 Possible Combinations
Layer 141 : Total Password Characters : 72192 = 1.18056642792209237e+1017 Possible Combinations
Layer 142 : Total Password Characters : 72704 = 1.18893923946763912e+1017 Possible Combinations
Layer 143 : Total Password Characters : 73216 = 1.19731205101318587e+1017 Possible Combinations
Layer 144 : Total Password Characters : 73728 = 1.20568486255873262e+1017 Possible Combinations
Layer 145 : Total Password Characters : 74240 = 1.21405767410427937e+1017 Possible Combinations
Layer 146 : Total Password Characters : 74752 = 1.22243048564982612e+1017 Possible Combinations
Layer 147 : Total Password Characters : 75264 = 1.23080329719537287e+1017 Possible Combinations
Layer 148 : Total Password Characters : 75776 = 1.23917610874091962e+1017 Possible Combinations
Layer 149 : Total Password Characters : 76288 = 1.24754892028646637e+1017 Possible Combinations
Layer 150 : Total Password Characters : 76800 = 1.25592173183201312e+1017 Possible Combinations
Layer 151 : Total Password Characters : 77312 = 1.26429454337755987e+1017 Possible Combinations
Layer 152 : Total Password Characters : 77824 = 1.27266735492310662e+1017 Possible Combinations
Layer 153 : Total Password Characters : 78336 = 1.28104016646865337e+1017 Possible Combinations
Layer 154 : Total Password Characters : 78848 = 1.28941297801420012e+1017 Possible Combinations
Layer 155 : Total Password Characters : 79360 = 1.29778578955974687e+1017 Possible Combinations
Layer 156 : Total Password Characters : 79872 = 1.30615860110529362e+1017 Possible Combinations
Layer 157 : Total Password Characters : 80384 = 1.31453141265084037e+1017 Possible Combinations
Layer 158 : Total Password Characters : 80896 = 1.32290422419638712e+1017 Possible Combinations
Layer 159 : Total Password Characters : 81408 = 1.33127703574193387e+1017 Possible Combinations
Layer 160 : Total Password Characters : 81920 = 1.33964984728748062e+1017 Possible Combinations
Layer 161 : Total Password Characters : 82432 = 1.34802265883302737e+1017 Possible Combinations
Layer 162 : Total Password Characters : 82944 = 1.35639547037857412e+1017 Possible Combinations
Layer 163 : Total Password Characters : 83456 = 1.36476828192412087e+1017 Possible Combinations
Layer 164 : Total Password Characters : 83968 = 1.37314109346966762e+1017 Possible Combinations
Layer 165 : Total Password Characters : 84480 = 1.38151390501521437e+1017 Possible Combinations
Layer 166 : Total Password Characters : 84992 = 1.38988671656076112e+1017 Possible Combinations
Layer 167 : Total Password Characters : 85504 = 1.39825952810630787e+1017 Possible Combinations
Layer 168 : Total Password Characters : 86016 = 1.40663233965185462e+1017 Possible Combinations
Layer 169 : Total Password Characters : 86528 = 1.41500515119740137e+1017 Possible Combinations
Layer 170 : Total Password Characters : 87040 = 1.42337796274294812e+1017 Possible Combinations
Layer 171 : Total Password Characters : 87552 = 1.43175077428849487e+1017 Possible Combinations
Layer 172 : Total Password Characters : 88064 = 1.44012358583404162e+1017 Possible Combinations
Layer 173 : Total Password Characters : 88576 = 1.44849639737958837e+1017 Possible Combinations
Layer 174 : Total Password Characters : 89088 = 1.45686920892513512e+1017 Possible Combinations
Layer 175 : Total Password Characters : 89600 = 1.46524202047068187e+1017 Possible Combinations
Layer 176 : Total Password Characters : 90112 = 1.47361483201622862e+1017 Possible Combinations
Layer 177 : Total Password Characters : 90624 = 1.48198764356177537e+1017 Possible Combinations
Layer 178 : Total Password Characters : 91136 = 1.49036045510732212e+1017 Possible Combinations
Layer 179 : Total Password Characters : 91648 = 1.49873326665286887e+1017 Possible Combinations
Layer 180 : Total Password Characters : 92160 = 1.50710607819841562e+1017 Possible Combinations
Layer 181 : Total Password Characters : 92672 = 1.51547888974396237e+1017 Possible Combinations
Layer 182 : Total Password Characters : 93184 = 1.52385170128950912e+1017 Possible Combinations
Layer 183 : Total Password Characters : 93696 = 1.53222451283505587e+1017 Possible Combinations
Layer 184 : Total Password Characters : 94208 = 1.54059732438060262e+1017 Possible Combinations
Layer 185 : Total Password Characters : 94720 = 1.54897013592614937e+1017 Possible Combinations
Layer 186 : Total Password Characters : 95232 = 1.55734294747169612e+1017 Possible Combinations
Layer 187 : Total Password Characters : 95744 = 1.56571575901724287e+1017 Possible Combinations
Layer 188 : Total Password Characters : 96256 = 1.57408857056278962e+1017 Possible Combinations
Layer 189 : Total Password Characters : 96768 = 1.58246138210833637e+1017 Possible Combinations
Layer 190 : Total Password Characters : 97280 = 1.59083419365388312e+1017 Possible Combinations
Layer 191 : Total Password Characters : 97792 = 1.59920700519942987e+1017 Possible Combinations
Layer 192 : Total Password Characters : 98304 = 1.60757981674497662e+1017 Possible Combinations
Layer 193 : Total Password Characters : 98816 = 1.61595262829052337e+1017 Possible Combinations
Layer 194 : Total Password Characters : 99328 = 1.62432543983607012e+1017 Possible Combinations
Layer 195 : Total Password Characters : 99840 = 1.63269825138161687e+1017 Possible Combinations
Layer 196 : Total Password Characters : 100352 = 1.64107106292716362e+1017 Possible Combinations
Layer 197 : Total Password Characters : 100864 = 1.64944387447271037e+1017 Possible Combinations
Layer 198 : Total Password Characters : 101376 = 1.65781668601825712e+1017 Possible Combinations
Layer 199 : Total Password Characters : 101888 = 1.66618949756380387e+1017 Possible Combinations
Layer 200 : Total Password Characters : 102400 = 1.67456230910935062e+1017 Possible Combinations <- AVERAGE PC FooCrypt Brute Strength

Tested OpenSSL / LibreSSL Versions

- Matrix Testing of FooCrypt has been performed against the following OpenSSL / LibreSSL Versions via Matrix_Test after FooCrypt -O [OpenSSL Version] -T 50,512 was performed to validate the OpenSSL version cyphers for use by the FooKey Method.
    - See mOpenSSL -h | FooCrypt -h | Matrix_Test -h for your own validation testing and matrix testing requirements.

Version	Darwin 10.11+	Linux (uBuntu)	Linux (RHEL)	Linux (Fedora)	SunOS (Solaris x86 10+ / OpenSolaris)
openssl-0.9.8zg	X	X	X	X	X
openssl-0.9.8zh	X	X	X	X	X
openssl-1.0.0 (a-t)	X	X	X	X	X
openssl-1.0.1 (a-u)	X	X	X	X	X
openssl-1.0.2 (a-u)	X	X	X	X	X
openssl-1.1.0. (a-l)	X	X	X	X	X
No Longer Supported by OpenSSL.Org					
LibreSSL 2+	X	X	X	X	X
LibreSSL 3+	X	X	X	X	X
openssl-1.1.1+	X	X	X	X	X
openssl-3+	X	X	X	X	X

- Refer to the Online Testing Results For Latest Matrix Validations
    - https://FooCrypt.XYZ/matrix-testing-results

- FooCrypt has been validated against the following OpenSSL / LibreSSL Versions

Version	Releases	Platform
openssl-0.9.8	All	Darwin 10.11+, Linux (uBuntu 16.04+ LTS)
openssl-1.0.0	All	Darwin 10.11+, Linux (uBuntu 16.04+ LTS)
openssl-1.0.1	All	Darwin 10.11+, Linux (uBuntu 16.04+ LTS)
openssl-1.0.2	All	Darwin 10.11+, Linux (uBuntu 16.04+ LTS)
openssl-1.1.0	All	Darwin 10.11+, Linux (uBuntu 16.04+ LTS)
No Longer Supported by OpenSSL.Org		
LibreSSL-2+	All	Darwin 10.11+, Linux (uBuntu 16.04 LTS+ / Fedora 31+ / RHEL 7+) SunOS (Solaris 10+ / OpenSolaris)
LibreSSL-3+	All	Darwin 10.11+, Linux (uBuntu 16.04 LTS+ / Fedora 31+ / RHEL 7+) SunOS (Solaris 10+ / OpenSolaris)
openssl-1.1.1+	All	Darwin 10.11+, Linux (uBuntu 16.04 LTS+ / Fedora 31+ / RHEL 7+) SunOS (Solaris 10+ / OpenSolaris)
openssl-3+	All	Darwin 10.11+, Linux (uBuntu 16.04 LTS+ / Fedora 31+ / RHEL 7+) SunOS (Solaris 10+ / OpenSolaris)

- Refer to the Online Testing Results For Latest Validations
  - https://FooCrypt.XYZ/validation

Online Resources @ FooCrypt.XYZ

- **Road Map**
- **Report A Bug**
- **FAQ FooCrypt**
- **FAQ FooKey**
- **Wiki**
- **Licensing Models**
- **Licensing Software**
- **Licensing EULA**
- **Licensing Dongle**
- **Licensing Keys**
- **Licensing Keys Request**
- **Supported OpenSSL / LibreSSL Versions**
- **Store**

FooCrypt Packaged Images

- Several images have been package within the FooCrypt distribution within the Images directory.

• Darwin

- Images/Blue_Moon/Blue_Moon_100.gif
- Images/Blue_Moon/Blue_Moon_101.gif
- Images/Blue_Moon/Blue_Moon_102.gif
- Images/Blue_Moon/Blue_Moon_103.gif
- Images/Blue_Moon/Blue_Moon_104.gif
- Images/Blue_Moon/Blue_Moon_105.gif
- Images/Blue_Moon/Blue_Moon_106.gif
- Images/CryptopocalypseNow-Flyer-Back.gif
- Images/CryptopocalypseNow-Flyer-Frount.gif
- Images/FooCrypt.gif
- Images/SmurfIT.gif
- Images/WMD.gif

• Linux | Live Linux | SunOS | Windows

- Images//Blue_Moon
- Images//Blue_Moon/Blue_Moon_101.gif
- Images//Blue_Moon/Blue_Moon_100.gif
- Images//Blue_Moon/Blue_Moon_102.gif
- Images//Blue_Moon/Blue_Moon_103.gif
- Images//Blue_Moon/Blue_Moon_106.gif
- Images//Blue_Moon/Blue_Moon_104.gif
- Images//Blue_Moon/Blue_Moon_105.gif
- Images//SmurfIT.gif
- Images//WMD.gif
- Images//FooCrypt_Icon.gif
- Images//CryptopocalypseNow-Flyer-Back.gif
- Images//CryptopocalypseNow-Flyer-Frount.gif
- Images//Cryptopocalypse_NOW_01_04_2016
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.4.Cryptopocalypse_NOW_01_04_2016-1.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.2.Cryptopocalypse_NOW_01_04_2016-3.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-2.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-12.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.2.Cryptopocalypse_NOW_01_04_2016-1.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.4.Cryptopocalypse_NOW_01_04_2016-3.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.3.Cryptopocalypse_NOW_01_04_2016.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-8.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-10.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.1.Cryptopocalypse_NOW_01_04_2016.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-0.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-6.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.3.Cryptopocalypse_NOW_01_04_2016-3.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.1.Cryptopocalypse_NOW_01_04_2016-2.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.3.Cryptopocalypse_NOW_01_04_2016-1.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-14.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-4.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.1.Cryptopocalypse_NOW_01_04_2016-0.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-3.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-13.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.4.Cryptopocalypse_NOW_01_04_2016-0.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.2.Cryptopocalypse_NOW_01_04_2016-2.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-11.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-1.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.2.Cryptopocalypse_NOW_01_04_2016-0.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.4.Cryptopocalypse_NOW_01_04_2016-2.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-9.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.4.Cryptopocalypse_NOW_01_04_2016.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.1.Cryptopocalypse_NOW_01_04_2016-3.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-7.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.3.Cryptopocalypse_NOW_01_04_2016-2.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.1.Cryptopocalypse_NOW_01_04_2016-1.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-15.FooCrypt_1024x768.gif

- Images//Cryptopocalypse_NOW_01_04_2016/3.0.3.Cryptopocalypse_NOW_01_04_2016-0.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.0.Cryptopocalypse_NOW_01_04_2016-5.FooCrypt_1024x768.gif
- Images//Cryptopocalypse_NOW_01_04_2016/3.0.2.Cryptopocalypse_NOW_01_04_2016.FooCrypt_1024x768.gif
- Images//FooCrypt.gif

mOpenSSL

- mOpenSSL provides the end user with greater flexibility in their available choices of which version of OpenSSL they can utilise.

- **mOpenSSL**
- **Linux Example Command Line Interface StdOut**

```
-> /opt/FooCrypt/mOpenSSL -B /opt/FooCrypt-OpenSSL -h
STATUS  : Runtime Options         : mOpenSSL -B /opt/FooCrypt-OpenSSL -h
STATUS  :
HELP    : Available ARG_MAX       : 2082458
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :       /bin/bash: warning: shell level (1480) too high, resetting to 1
STATUS  :       linux-vdso.so.1 (0x00007fff9bf86000)
STATUS  :       libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f3767f13000)
STATUS  :       libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f3767c3c000)
STATUS  :       libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f3767c19000)
STATUS  :       libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f3767a27000)
STATUS  :       libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f3767a21000)
STATUS  :       /lib64/ld-linux-x86-64.so.2 (0x00007f3768075000)
STATUS  :
STATUS  : Found                   : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running mOpenSSL Initialisation Integrity Checks
STATUS  :
STATUS  : Passed mOpenSSL Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of    : mOpenSSL
STATUS  :
STATUS  : User ID                 : 1000
STATUS  : Group ID                : 1000
STATUS  : Process ID              : 810438
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 1000      1000      810438    3241      /opt/FooCrypt/mOpenSSL
STATUS  :
STATUS  : Passed mOpenSSL Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/foocrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 2487184982
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/foocrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX18a/aVTdyB5EIkEvcs8RdyAQj3Y6D6yVcxF0zZW1q/55cnLWoUjdwkF
STATUS  : 57iyc1ZmjNIKfYr8xDHWrqCpeR3/NteFLCph+9k+VMI=
STATUS  :
STATUS  :
STATUS  : System_Serial=20250508203852:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.X.Y.Z.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.X.Y.Z.Core.Linux, BuildTest Expiration Date : 20250508203852
STATUS  :
STATUS  :
STATUS  : Set Bin_FooCrypt-OpenSSL : /opt/FooCrypt-OpenSSL
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :       /bin/bash: warning: shell level (1480) too high, resetting to 1
STATUS  :       linux-vdso.so.1 (0x00007ffe7dcbc000)
STATUS  :       libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007fac93007000)
STATUS  :       libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007fac92d30000)
STATUS  :       libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007fac92d0d000)
STATUS  :       libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007fac92b1b000)
STATUS  :       libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007fac92b15000)
STATUS  :       /lib64/ld-linux-x86-64.so.2 (0x00007fac93169000)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers        : aes128-wrap$|aes192-wrap$|aes256-wrap$|des3-wrap$|id-aes128-wrap$|id-aes128-wrap-pad$|id-aes192-wrap$|id-aes192-wrap-pad$|id-aes256-wrap$|id-aes256-wrap-pad$|id-
smime-alg-CMS3DESwrap$
STATUS  :
STATUS  :
STATUS  : Expect                  : /usr/bin/expect
STATUS  : Expect Version          : expect version 5.45.4
STATUS  :
STATUS  :
STATUS  : Help : RunTime Options  : mOpenSSL -B /opt/FooCrypt-OpenSSL -h
STATUS  : Help :
STATUS  : Help : mOpenSSL
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :            mOpenSSL
STATUS  : Help :
STATUS  : Help :            A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.X.Y.Z.Core.Linux
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
```

```
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            mOpenSSL
STATUS  : Help :
STATUS  : Help :   [ -a : All Users ]
STATUS  : Help :         * Build OpenSSL For All Users
STATUS  : Help :           * Sets umask 0022 prior to build
STATUS  : Help :           * Default : umask 0077
STATUS  : Help :
STATUS  : Help :
STATUS  : Help :   [ -b : Bits | 32 | 64 ]
STATUS  : Help :          mOpenSSL -b 32
STATUS  : Help :            ConfigBuild=darwin64-x86_32-cc
STATUS  : Help :            ConfigBuild=solaris-x86-gcc
STATUS  : Help :            ConfigBuild=linux-x32
STATUS  : Help :             * Linux : uBuntu
STATUS  : Help :
STATUS  : Help :          mOpenSSL -b 64
STATUS  : Help :            ConfigBuild=darwin64-x86_64-cc
STATUS  : Help :            ConfigBuild=solaris64-x86_64-gcc
STATUS  : Help :            ConfigBuild=linux-x86_64
STATUS  : Help :             * Linux : uBuntu, CentOS, Fedora, RHEL
STATUS  : Help :
STATUS  : Help :   [ -B : BaseDir | Bin_FooCrypt-OpenSSL Directory ]
STATUS  : Help :         * Will Create Bin_FooCrypt-OpenSSL If It Does Not Exist
STATUS  : Help :         * Default : /opt/FooCrypt-OpenSSL
STATUS  : Help :
STATUS  : Help :   [ -c : Check ]
STATUS  : Help :
STATUS  : Help :   [ -C : Bits | 32 | 64 ]
STATUS  : Help :         * Build Compile Environment
STATUS  : Help :
STATUS  : Help :           * macOS
STATUS  : Help :             You have to manually install XCode & XCode Command Line Tools
STATUS  : Help :
STATUS  : Help :           * Linux : uBuntu
STATUS  : Help :              * 64 bit
STATUS  : Help :                sudo apt install gcc build-essential -y
STATUS  : Help :                sudo apt install libtimedate-perl libfindbin-libs-perl libipc-system-simple-perl  -y
STATUS  : Help :
STATUS  : Help :              * 32 bit
STATUS  : Help :                sudo apt install gcc build-essential libc6-dev-i386 gcc-multilib xutils-dev -y
STATUS  : Help :                sudo apt install libtimedate-perl libfindbin-libs-perl libipc-system-simple-perl  -y
STATUS  : Help :
STATUS  : Help :           * Linux : CentOS, Fedora, RHEL
STATUS  : Help :              * 64 bit
STATUS  : Help :                sudo yum groupinstall "Development Tools" -y
STATUS  : Help :                sudo yum install perl-TimeDate.noarch perl-FindBin.noarch perl-IPC-Cmd.noarch -y
STATUS  : Help :
STATUS  : Help :   [ -d : Download Latest OpenSSL Source Versions from https://openssl-library.org/source/ ]
STATUS  : Help :         * Note    : mOpenSSL will scrape the string "openssl/releases/download" from the URL
STATUS  : Help :         * Note    : mOpenSSL will run wget -c against all the https prefix's with a gz, gz.sha1, gz.sha256, gz.asc suffix
STATUS  : Help :
STATUS  : Help :   [ -D : Download OpenSSL Source Version From GitHub
STATUS  : Help :         * Note    : Requires OpenSSL Source Version ie : -D 3.0.0
STATUS  : Help :         * Note    : OpenSSL Source Version URL https://github.com/openssl/openssl/releases/download/openssl-3.0.0/openssl-3.0.0.tar.gz
STATUS  : Help :         * Note    : OpenSSL Source Version URL is hard coded and only the version can be changed
STATUS  : Help :         * Note    : Can be utilised to download any OpenSSL Source Version from github, rather than scraping the latest via -d
STATUS  : Help :         * Note    : mOpenSSL will run wget -c against gz, gz.sha1, gz.sha256, gz.asc suffix
STATUS  : Help :
STATUS  : Help :   [ -E : Config Build Exclude List ]
STATUS  : Help :         * Default : no-ssl no-tls no-dtls no-ssl3-method no-tls1-method no-tls1_1-method no-tls1_2-method no-dtls1-method no-dtls1_2-method no-nextprotoneg no-comp
STATUS  : Help :
STATUS  : Help :            From : openssl.1.1.1/INSTALL
STATUS  : Help :
STATUS  : Help :            no-<prot>
STATUS  : Help :                                Don't build support for negotiating the specified SSL/TLS
STATUS  : Help :                                protocol (one of ssl, ssl3, tls, tls1, tls1_1, tls1_2,
STATUS  : Help :                                tls1_3, dtls, dtls1 or dtls1_2). If no-tls is selected then
STATUS  : Help :                                all of tls1, tls1_1, tls1_2 and tls1_3 are disabled.
STATUS  : Help :                                Similarly no-dtls will disable dtls1 and dtls1_2. The
STATUS  : Help :                                no-ssl option is synonymous with no-ssl3. Note this only
STATUS  : Help :                                affects version negotiation. OpenSSL will still provide the
STATUS  : Help :                                methods for applications to explicitly select the individual
STATUS  : Help :                                protocol versions.
STATUS  : Help :            no-<prot>-method
STATUS  : Help :                                As for no-<prot> but in addition do not build the methods for
STATUS  : Help :                                applications to explicitly select individual protocol
STATUS  : Help :                                versions. Note that there is no no-tls1_3-method option
STATUS  : Help :                                because there is no application method for TLSv1.3. Using
STATUS  : Help :                                individual protocol methods directly is deprecated.
STATUS  : Help :                                Applications should use TLS_method() instead.
STATUS  : Help :            no-comp
STATUS  : Help :                                Don't build support for SSL/TLS compression. If this option
STATUS  : Help :                                is left enabled (the default), then compression will only
STATUS  : Help :                                work if the zlib or zlib-dynamic options are also chosen.
STATUS  : Help :            no-nextprotoneg
STATUS  : Help :                                Don't build support for the NPN TLS extension.
STATUS  : Help :
STATUS  : Help :         * Note
STATUS  : Help :           Please consult the INSTALL file for the version you wish to compile for an up to date listing
STATUS  : Help :           To exclude SSL TLS & DTLS functionality from the FooCrypt-OpenSSL version you wish to build.
STATUS  : Help :
STATUS  : Help :           SSL / TLS / DTLS functionality is not required for FooCrypt-OpenSSL
STATUS  : Help :           SSL / TLS / DTLS functionality is DISABLED by Default.
STATUS  : Help :
STATUS  : Help :           Please verify DISABLED functionality via
STATUS  : Help :            * perl configdata.pm --dump
STATUS  : Help :
STATUS  : Help :   [ -h : Help ]
STATUS  : Help :
STATUS  : Help :   [ -I : Config Build Include List ]
STATUS  : Help :         * Default :
STATUS  : Help :
STATUS  : Help :            From : openssl.3.0.0/INSTALL.md
STATUS  : Help :
STATUS  : Help :            enable-fips
STATUS  : Help :                                Build (and install) the FIPS provider
STATUS  : Help :
STATUS  : Help :            Post-installation Notes
STATUS  : Help :            -----------------------
STATUS  : Help :
STATUS  : Help :            With the default OpenSSL installation comes a FIPS provider module, which
STATUS  : Help :            needs some post-installation attention, without which it will not be usable.
STATUS  : Help :            This involves using the following command:
STATUS  : Help :
STATUS  : Help :                Run : openssl fipsinstall
STATUS  : Help :
STATUS  : Help :            See the openssl-fipsinstall(1) manual for details and examples.
STATUS  : Help :
STATUS  : Help :            See INSTALL.md and README-FIPS.md for further information.
STATUS  : Help :
STATUS  : Help :            See the FooWiki https://doco.foocrypt.xyz/wiki for further details.
STATUS  : Help :
STATUS  : Help :                * See OpenSSL-FIPS https://doco.foocrypt.xyz/openssl-fips for detailed instructions.
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :         * Do not Remove /home/foocrypt/FooCrypt/20250424231906_FooCryptDev_mOpenSSL
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :          * Default : /home/foocrypt/FooCrypt
STATUS  : Help :          * Must Contain The FooCrypt License Files
STATUS  : Help :          * mOpenSSL Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -r : Remove source build directory after compiling source ]
STATUS  : Help :
STATUS  : Help :   [ -s : Specify the URL to Download the Latest OpenSSL Source Versions from ]
STATUS  : Help :         * Note    : mOpenSSL will scrape the string "openssl/releases/download" from the URL
STATUS  : Help :         * Note    : mOpenSSL will run wget -c against all the https prefix's with a gz, gz.sha1, gz.sha256, gz.asc suffix
STATUS  : Help :         * Default : https://openssl-library.org/source/
STATUS  : Help :
STATUS  : Help :   [ -u :  Update /opt/FooCrypt-OpenSSL/src with -v 3.5.0 ]
STATUS  : Help :          * Default : snap|withdrawn files / directories excluded from search
STATUS  : Help :
STATUS  : Help :          * Note    : Requires manual checking of files in /opt/FooCrypt-OpenSSL/src before running
```

```
STATUS  : Help :
STATUS  : Help :              mOpenSSL -b 32
STATUS  : Help :              mOpenSSL -b 64
STATUS  : Help :
STATUS  : Help :   [ -U | UpDate Url ]
STATUS  : Help :           * Default : https://downloads.foocrypt.xyz/
STATUS  : Help :
STATUS  : Help :   [ -v : Version | 3.5.0 ]
STATUS  : Help :           * Version of OpenSSL To Compile
STATUS  : Help :
STATUS  : Help :   [ -X | UpDate | Validate ]
STATUS  : Help :         UpDate
STATUS  : Help :           * Check For Updates
STATUS  : Help :             * Requires Internet Access
STATUS  : Help :             * Requires curl
STATUS  : Help :
STATUS  : Help :         Validate
STATUS  : Help :           * Validate SHA256 Signatures of all files located in /opt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -z | Absolute PATH to OpenSSL ]
STATUS  : Help :           * Default : /usr/bin/openssl
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/foocrypt/FooCrypt/20250424231906_FooCryptDev_mOpenSSL
STATUS  :
STATUS  : mOpenSSL_RunTime         : 1 Seconds
STATUS  : mOpenSSL_RunTime         : 0 Days, 0 Hours, 0 Minutes, 1 Second
STATUS  :
STATUS  : mOpenSSL_Exit_Code_0
STATUS  :
```

mOpenSSL : Usage

- Build a 64 bit compile environment [Linux]
  - mOpenSSL -C 64

- Download the OpenSSL source
  - mOpenSSL -d

- Copy the OpenSSL version(s) to the src directory
  - mOpenSSL -u -v 3.5.0
    - Copy openssl-3.5.0.tar.gz release into the default 'src' directory
  - mOpenSSL -u -v 3.5
    - Copy openssl-3.5*.tar.gz releases into the default 'src' directory

- Compile your required version(s) of 64 bit OpenSSL with SSL/DTLS Disabled
  * Default : no-ssl no-tls no-dtls no-ssl3-method no-tls1-method no-tls1_1-method no-tls1_2-method no-dtls1-method no-dtls1_2-method no-nextprotoneg no-comp
  - mOpenSSL -v 3.5 -b 64
    - Build openssl-3.5.0.tar.gz release located in the default 'src' directory
  - mOpenSSL -v 3.5 -b 64
    - Build All openssl-3.1*.tar.gz releases located in the default 'src' directory

- Compile your required version(s) of 64 bit OpenSSL with SSL/DTLS Enabled
  - mOpenSSL -v 3 -b 64 -E " "
    - Build openssl-3.1.0.tar.gz release located in the default 'src' directory
  - mOpenSSL -v 3 -b 64 -E " "
    - Build All openssl-3*.tar.gz releases located in the default 'src' directory

- Check which versions of OpenSSL are compiled and available
  - mOpenSSL -c

- Utilise a non default base directory
  - mOpenSSL -B /usr/local/FooCrypt-OpenSSL -c

FooCheck

- FooCheck performs the following Command Line Interface checks

  - **FooCheck**
  - **Linux Example Command Line Interface StdOut**

```
-> /opt/FooCrypt/FooCheck -h
STATUS  : Runtime Options         : FooCheck -h
STATUS  :
HELP    : Available ARG_MAX       : 2085187
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1314) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007ffef35e4000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f7045c22000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f704594c000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f7045929000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f7045737000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f7045731000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f7045d85000)
STATUS  :
STATUS  : Found                   : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running FooCheck Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of    : FooCheck
STATUS  :
STATUS  : User ID                 : 10101
STATUS  : Group ID                : 10101
STATUS  : Process ID              : 3273558
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 10101     10101     3273558   3268792   /opt/FooCrypt/FooCheck
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 9402263807
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1++tmnmgJApEM4OltjzyYDnxDLp3xyjoqc9mjqmcOQLVI2g0n4EMA1L
STATUS  : nkjcwT4WUX0dYt11fqha6XVRg5YXN+OXTMxDMwKFtdIVXN1+1lZavFkPRosjbRXI
STATUS  :
STATUS  :
STATUS  : System_Serial=20250104003734:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20250104003734
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1314) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007ffe8183e000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f1ce67cf000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f1ce64f9000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f1ce64d6000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f1ce62e4000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f1ce62de000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f1ce6932000)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers        : aes128-wrap$|aes192-wrap$|aes256-wrap$|des3-wrap$|id-aes128-wrap$|id-aes128-wrap-pad$|id-aes192-wrap$|id-aes192-wrap-pad$|id-aes256-wrap$|id-aes256-wrap-pad$|id-
smime-alg-CMS3DESwrap$
STATUS  :
STATUS  :
STATUS  : Expect                  : /usr/bin/expect
STATUS  : Expect Version          : expect version 5.45.4
STATUS  :
STATUS  :
STATUS  : Help : RunTime Options  : FooCheck -h
STATUS  : Help :
STATUS  : Help : FooCheck
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :            FooCheck
STATUS  : Help :
STATUS  : Help :            A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            FooCheck
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
```

```
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :           * Do not Remove /home/FooCrypt/FooCrypt/20231107151143_FooTest-11_FooCheck
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :            * Default : /home/FooCrypt/FooCrypt
STATUS  : Help :            * Must Contain The FooCrypt License Files
STATUS  : Help :            * FooCheck Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -U | UpDate Url ]
STATUS  : Help :           * Default : https://downloads.foocrypt.xyz/
STATUS  : Help :
STATUS  : Help :   [ -X | UpDate | Validate ]
STATUS  : Help :          UpDate
STATUS  : Help :           * Check For Updates
STATUS  : Help :             * Requires Internet Access
STATUS  : Help :             * Requires curl
STATUS  : Help :
STATUS  : Help :          Validate
STATUS  : Help :           * Validate SHA256 Signatures of all files located in /opt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -z | Absolute PATH to OpenSSL ]
STATUS  : Help :           * Default : /usr/bin/openssl
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20231107151143_FooTest-11_FooCheck
STATUS  :
STATUS  : FooCheck_RunTime         : 1 Seconds
STATUS  : FooCheck_RunTime         : 0 Days, 0 Hours, 0 Minutes, 1 Second
STATUS  :
STATUS  : FooCheck_Exit_Code_0
STATUS  :
```

FooCheck : Usage

• Linux Example Command Line Interface StdOut

- FooCheck requires either a -X Validate switch or a -X UpDate switch, which by default it will perform the -X UpDate check against https://downloads.FooCrypt.XYZ/

- FooCheck requires internet access to https://downloads.FooCrypt.XYZ/FooCrypt_Change_Log.txt

- FooCheck can be modified to perform the -X UpDate check against any other top level domain URL, ie: To perform the UpDate check against a local / internal / intranet web server, simply duplicate the complete URL path and download the current FooCrypt_Change_Log.txt file, onto a local / internal / intranet web server.

```
-> /opt/FooCrypt/FooCheck -X UpDate
STATUS  : Runtime Options          : FooCheck -X UpDate
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffc63cd4000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f6518ed4000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f6518bfd000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f6518bda000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f65189e8000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f65189e2000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f6519039000)
STATUS  :
STATUS  : Found                    : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running FooCheck Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of     : FooCheck
STATUS  :
STATUS  : User ID                  : 1000
STATUS  : Group ID                 : 1000
STATUS  : Process ID               : 2066946
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 1000      1000      2066946   911433    /opt/FooCrypt/FooCheck
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 3604931225
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1/FwCAH5fZWYOxLIbQa0TP7Igvf0vRmUpWugZhZzn0dFzXDQKHyiMMj
STATUS  : mXuHr6hLtXS7RbF+MLLCee36SxWjlRIyPngMLRiisqqfEntlxbhB69w215a8Paqa
STATUS  :
STATUS  :
STATUS  : System_Serial=20230709204651:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20230709204651
STATUS  :
STATUS  :
STATUS  : Running : 'curl --insecure https://downloads.foocrypt.xyz//FooCrypt_Latest.txt'
STATUS  :
STATUS  :
STATUS  : UP DATE :
STATUS  : UP DATE : Update Check Url         : https://downloads.foocrypt.xyz//FooCrypt_Latest.txt
STATUS  : UP DATE :
STATUS  : UP DATE : Latest FooCrypt Version  : FooCrypt.11.0.1.Core
STATUS  : UP DATE :
STATUS  : UP DATE : Current FooCrypt Version : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : UP DATE :
STATUS  : UP DATE : New FooCrypt Version     : Available
STATUS  : UP DATE :
STATUS  :
STATUS  :
STATUS  : Running : 'curl --insecure https://downloads.foocrypt.xyz//FooCrypt_Change_Log.txt'
STATUS  :
STATUS  : CHANGE LOG :
STATUS  : CHANGE LOG :.FooCrypt.XX.YY.ZZ.Core To Be Released 4th Quarter, 2023
STATUS  : CHANGE LOG :
STATUS  : CHANGE LOG :.FooCrypt.XX.YY.ZZ.Core
STATUS  : CHANGE LOG :...Current Development : FooCrypt.11.0.1.Core
STATUS  : CHANGE LOG :.....FooCrypt-GUI
STATUS  : CHANGE LOG :.....FooCrypt
STATUS  : CHANGE LOG :.....FooSteg
STATUS  : CHANGE LOG :.....Live.Linux
STATUS  : CHANGE LOG :
STATUS  : CHANGE LOG :.Note : QRCS eAES Undergoing Integration Testing : https://QRCrypto.ch
```

-> /opt/FooCrypt/FooCheck X UpDate -U https://127.0.0.1

```
STATUS  : Runtime Options          : FooCheck -X UpDate -U https://127.0.0.1
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffc63cd4000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f6518ed4000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f6518bfd000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f6518bda000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f65189e8000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f65189e2000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f6519039000)
STATUS  :
STATUS  : Found                    : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running FooCheck Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of     : FooCheck
STATUS  :
STATUS  : User ID                  : 1000
STATUS  : Group ID                 : 1000
STATUS  : Process ID               : 2066946
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 1000      1000      2066946   911433    /opt/FooCrypt/FooCheck
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 3604931225
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1/FwCAH5fZWYOxLIbQa0TP7Igvf0vRmUpWugZhZzn0dFzXDQKHyiMMj
STATUS  : mXuHr6hLtXS7RbF+MLLCee36SxWjlRIyPngMLRiisqqfEntlxbhB69w215a8Paqa
STATUS  :
STATUS  :
STATUS  : System_Serial=20230709204651:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20230709204651
STATUS  :
STATUS  :
STATUS  : Running : 'curl --insecure https://127.0.0.1//FooCrypt_Latest.txt'
STATUS  :
STATUS  :
STATUS  : UP DATE :
STATUS  : UP DATE : Update Check Url         : https://127.0.0.1//FooCrypt_Latest.txt
STATUS  : UP DATE :
STATUS  : UP DATE : Latest FooCrypt Version  : FooCrypt.11.0.1.Core
STATUS  : UP DATE :
STATUS  : UP DATE : Current FooCrypt Version : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : UP DATE :
STATUS  : UP DATE : New FooCrypt Version     : Available
STATUS  : UP DATE :
STATUS  :
STATUS  :
STATUS  : Running : 'curl --insecure https://127.0.0.1//FooCrypt_Change_Log.txt'
STATUS  :
STATUS  : CHANGE LOG :
STATUS  : CHANGE LOG :.FooCrypt.XX.YY.ZZ.Core To Be Released 4th Quarter, 2023
STATUS  : CHANGE LOG :
STATUS  : CHANGE LOG :.FooCrypt.XX.YY.ZZ.Core
STATUS  : CHANGE LOG :...Current Development : FooCrypt.11.0.1.Core
STATUS  : CHANGE LOG :.....FooCrypt-GUI
STATUS  : CHANGE LOG :.....FooCrypt
STATUS  : CHANGE LOG :.....FooSteg
STATUS  : CHANGE LOG :.....Live.Linux
STATUS  : CHANGE LOG :
STATUS  : CHANGE LOG :.Note : QRCS eAES Undergoing Integration Testing : https://QRCrypto.ch
STATUS  : CHANGE LOG :
STATUS  : CHANGE LOG :
```

-> /opt/FooCrypt/FooCheck -X Validate

```
STATUS  : Runtime Options          : FooCheck -X Validate
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffd3f7f1000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f2ba69ef000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f2ba6718000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f2ba66f5000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f2ba6503000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f2ba64fd000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f2ba6b54000)
STATUS  :
STATUS  : Found                    : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running FooCheck Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of     : FooCheck
STATUS  :
STATUS  : User ID                  : 1000
STATUS  : Group ID                 : 1000
STATUS  : Process ID               : 2755753
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 1000      1000      2755753   911433    /opt/FooCrypt/FooCheck
STATUS  :
STATUS  : Passed FooCheck Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 3604931225
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1/FwCAH5fZWYOxLIbQa0TP7Igvf0vRmUpWugZhZzn0dFzXDQKHyiMMj
STATUS  : mXuHr6hLtXS7RbF+MLLCee36SxWjlRIyPngMLRiisqqfEntlxbhB69w215a8Paqa
STATUS  :
STATUS  :
STATUS  : System_Serial=20230709204651:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20230709204651
STATUS  :
STATUS  : VALIDATE :
STATUS  : VALIDATE : PWD=/opt
STATUS  : VALIDATE :
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/FooCheck
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/mOpenSSL
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/FooSteg
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/FooCrypt.Info
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Decrypt_FooKey
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/FooCrypt-GUI-Data-1
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/CLI_Test
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/usr/share/applications/FooCrypt_Your_Expect.desktop
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/usr/share/applications/FooCrypt_Your_OpenSSL.desktop
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/usr/share/applications/FooCrypt_StarKit_Wish.desktop
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/usr/share/applications/FooCrypt_Your_Wish.desktop
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/FooCrypt-GUI
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/License/FooCrypt_EULA.txt
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/License/FooCrypt_Software_License.txt
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/License/Cryptopocalypse_Software_License.txt
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/License/Cryptopocalypse_EULA.txt
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/License/FooCrypt,_A_Tale_Of_Cynical_Cyclical_Encryption_Software_License.txt
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/License/FooCrypt,_A_Tale_Of_Cynical_Cyclical_Encryption_EULA.txt
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/FooCrypt-Desktop
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/mFooKey
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Scripts/Data/Icons/3.0.2.Cryptopocalypse_NOW_01_04_2016-2.FooCrypt_Icon_128x128.gif
```

<-- CUT -->

```
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/Matrix_Test
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/FooCrypt
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/FooCrypt-GUI-Data-2
STATUS  : VALIDATE : SHA256 OK     : FooCrypt/etc/profile.d/FooCrypt-Desktop.sh
STATUS  : VALIDATE :
STATUS  : VALIDATE : Searching For Extra Files In /opt/FooCrypt
STATUS  : VALIDATE :
ERROR   : VALIDATE : EXTRA FILE    : FooCrypt/Scripts/Data/Files/FooCrypt.XX.YY.ZZ.Core.Linux.sha256.txt
STATUS  : VALIDATE :
STATUS  : VALIDATE : PWD=/opt
STATUS  : VALIDATE : SHA256_File_OK        : 1779
STATUS  : VALIDATE : SHA256_File_Not_Found : 0
STATUS  : VALIDATE : SHA256_File_Extra     : 1
ERROR   : VALIDATE : Extra_File_Found      :
ERROR   : VALIDATE : Extra_File_Found      : SHA256(FooCrypt/Scripts/Data/Files/FooCrypt.XX.YY.ZZ.Core.Linux.sha256.txt)= 48aff1850bcbaaedef266718d685b20268036f2a85bc3547cc1b94111af86b30
ERROR   : VALIDATE : Extra_File_Found      :
ERROR   : VALIDATE :
ERROR   : VALIDATE : Please Verify The SHA256 Hash Of /opt/FooCrypt/Scripts/Data/Files/FooCrypt.XX.YY.ZZ.Core.Linux.sha256.txt
ERROR   : VALIDATE : Online @ https://FooCrypt.XYZ/sha256
ERROR   : VALIDATE :
STATUS  : VALIDATE : SHA256_File_Failed    : 0
STATUS  : VALIDATE : SHA256_File_Tested    : 1780
STATUS  : VALIDATE : 1780 Files Located In /opt/FooCrypt
STATUS  : VALIDATE :
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20230707223211_FooTest_FooCheck
STATUS  :
STATUS  : FooCheck_RunTime         : 23 Seconds
STATUS  : FooCheck_RunTime         : 0 Days, 0 Hours, 0 Minutes, 23 Seconds
STATUS  :
ERROR   :
ERROR   : FooCheck_Exit_Code_2000
```

- Note :

  You should always verify the SHA256 HASH of :
  /opt/FooCrypt/Scripts/Data/Files/FooCrypt.X.Y.Z.Core.Linux.sha256.txt
  online @ https://FooCrypt.XYZ/sha256

CLI_Test

- CLI_Test performs the following Command Line Interface tests against any OpenSSL version.
  - PATH and LD_LIBRARY_PATH are now set automatically
  - CLI_Test is now integrated into the FooCrypt-GUI as a Validation Menu Item

  - **CLI_Test**
  - **Linux Example Command Line Interface StdOut**

```
-> /opt/FooCrypt/CLI_Test -h
STATUS  : Runtime Options         : CLI_Test -h
STATUS  :
HELP    : Available ARG_MAX       : 2089290
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffce11e4000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f4299655000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f429937f000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f429935c000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f429916a000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f4299164000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f42997b8000)
STATUS  :
STATUS  : Found                   : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running CLI_Test Initialisation Integrity Checks
STATUS  :
STATUS  : Passed CLI_Test Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of    : CLI_Test
STATUS  :
STATUS  : User ID                 : 10101
STATUS  : Group ID                : 10101
STATUS  : Process ID              : 3274299
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 10101     10101     3274299   3268792   /opt/FooCrypt/CLI_Test
STATUS  :
STATUS  : Passed CLI_Test Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 9402263807
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1++tmnmgJApEM4OltjzyYDnxDLp3xyjoqc9mjqmcOQLVI2g0n4EMA1L
STATUS  : nkjcwT4WUX0dYt11fqha6XVRg5YXN+OXTMxDMwKFtdIVXN1+1lZavFkPRosjbRXI
STATUS  :
STATUS  :
STATUS  : System_Serial=20250104003734:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20250104003734
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007fff345bc000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007ff9f33a6000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007ff9f30d0000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007ff9f30ad000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007ff9f2ebb000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007ff9f2eb5000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007ff9f3509000)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers        : aes128-wrap$|aes192-wrap$|aes256-wrap$|des3-wrap$|id-aes128-wrap$|id-aes128-wrap-pad$|id-aes192-wrap$|id-aes192-wrap-pad$|id-aes256-wrap$|id-aes256-wrap-pad$|id-
smime-alg-CMS3DESwrap$
STATUS  :
STATUS  :
STATUS  : Expect                  : /usr/bin/expect
STATUS  : Expect Version          : expect version 5.45.4
STATUS  :
STATUS  :
STATUS  : Help : RunTime Options  : CLI_Test -h
STATUS  : Help :
STATUS  : Help : CLI_Test
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :            CLI_Test
STATUS  : Help :
STATUS  : Help :            A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
```

```
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            CLI_Test
STATUS  : Help :
STATUS  : Help :            * CLI_Test All Validated OpenSSL Versions / Ciphers in : /home/FooCrypt/FooCrypt/.FooCrypt
STATUS  : Help :            * Test Single OpenSSL Version Defined via -z | Absolute PATH to OpenSSL To CLI_Test
STATUS  : Help :            * Tests OpenSSL Validated Ciphers which are defined in : /home/FooCrypt/FooCrypt/.FooCrypt
STATUS  : Help :            * via /opt/FooCrypt/FooCrypt -T, see FooCrypt -h
STATUS  : Help :
STATUS  : Help :   [ -a | Algorithm To Use ]
STATUS  : Help :          [ See : FooCrypt -H Available | Display Available Algorithms ]
STATUS  : Help :            * Default : FooCrypt-aes256
STATUS  : Help :              All Validated Ciphers "FooCrypt"
STATUS  : Help :
STATUS  : Help :   [ -A | AutoMode ]
STATUS  : Help :            * Set FooKeyPassword Variable To FooCrypt
STATUS  : Help :            * Set STDPassword Variable To FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -D | Debug ]
STATUS  : Help :            * Enables FooCrypt -v -D
STATUS  : Help :
STATUS  : Help :   [ -F | Full Path To FooCrypt ]
STATUS  : Help :            * Default : /opt/FooCrypt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -g | GUI StdOut Messaging Mode ]
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
STATUS  : Help :   [ -i | Individual Log Files ]
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :            * Do not Remove /home/FooCrypt/FooCrypt/20231107151352_FooTest-11_CLI_Test
STATUS  : Help :
STATUS  : Help :   [ -m | Message Digest To Use OpenSSL_MD ]
STATUS  : Help :             * sha256 is Default
STATUS  : Help :                * Available For : OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl
STATUS  : Help :                   blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :              OpenSSL 1.1.1w  11 Sep 2023 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1w/bin/openssl : blake2b512 blake2s256 gost md4 md5 mdc2 rmd160 sha1 sha224 sha256 sha3-224
sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.12/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.4/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl : blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224
sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :            * Default : /home/FooCrypt/FooCrypt
STATUS  : Help :            * Must Contain The FooCrypt License Files
STATUS  : Help :            * CLI_Test Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -s | Sleep ]
STATUS  : Help :            * Default : 2 Seconds Between Tests
STATUS  : Help :
STATUS  : Help :   [ -t | MyTmpDir ]
STATUS  : Help :            * Default : /home/FooCrypt/FooCrypt/20231107151352_FooTest-11_CLI_Test/Tmp_30973
STATUS  : Help :
STATUS  : Help :   [ -U | UpDate Url ]
STATUS  : Help :            * Default : https://downloads.foocrypt.xyz/
STATUS  : Help :
STATUS  : Help :   [ -v | Verbose ]
STATUS  : Help :            * Enables CLI_Test Verbose
STATUS  : Help :
STATUS  : Help :   [ -X | UpDate | Validate ]
STATUS  : Help :          UpDate
STATUS  : Help :            * Check For Updates
STATUS  : Help :              * Requires Internet Access
STATUS  : Help :              * Requires curl
STATUS  : Help :
STATUS  : Help :          Validate
STATUS  : Help :            * Validate SHA256 Signatures of all files located in /opt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -z | Absolute PATH to OpenSSL To CLI_Test ]
STATUS  : Help :            * Default : CLI_Test All Validated OpenSSL Ciphers in /home/FooCrypt/FooCrypt/.FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -Z | Special Openssl Options ]
STATUS  : Help :             * OPENSSL Only
STATUS  : Help :             * Varies Depending On The Version Of OpenSSL You Are Using
STATUS  : Help :             * Place Options Inside Double Quotes "
STATUS  : Help :             * See [ Absolute PATH to OpenSSL ] enc -help
STATUS  : Help :             * See man -s 1 enc
STATUS  : Help :
STATUS  : Help :   Exclude :
STATUS  : Help :            -a                  Base64 encode/decode, depending on encryption flag
STATUS  : Help :            -A                  Used with -[base64|a] to specify base64 buffer as a single line
STATUS  : Help :            -ciphers            Alias for -list
STATUS  : Help :            -d                  Decrypt
STATUS  : Help :            -e                  Encrypt
STATUS  : Help :            -in infile          Input file
STATUS  : Help :            -kfile infile       Read passphrase from file
STATUS  : Help :            -k val              Passphrase
STATUS  : Help :            -K val              Raw key, in hex
STATUS  : Help :            -md val             Use specified digest to create a key from the passphrase
STATUS  : Help :            -out outfile        Output file
STATUS  : Help :            -pass val           Passphrase source
STATUS  : Help :
STATUS  : Help :   Include :
STATUS  : Help :            -bufsize val        Buffer size
STATUS  : Help :            -debug              Print debug info
STATUS  : Help :            -engine val         Use engine, possibly a hardware device
STATUS  : Help :            -iter +int          Specify the iteration count and force use of PBKDF2
STATUS  : Help :            -iv val             IV in hex
STATUS  : Help :            -none               Don't encrypt
STATUS  : Help :            -nopad              Disable standard block padding
STATUS  : Help :            -nosalt             Do not use salt in the KDF
STATUS  : Help :            -pbkdf2             Use password-based key derivation function 2
STATUS  : Help :            -p                  Print the iv/key
STATUS  : Help :            -P                  Print the iv/key and exit
STATUS  : Help :            -rand val           Load the file(s) into the random number generator
STATUS  : Help :            -salt               Use salt in the KDF (default)
STATUS  : Help :            -S val              Salt, in hex
STATUS  : Help :            -writerand outfile  Write random data to the specified file
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20231107151352_FooTest-11_CLI_Test
STATUS  :
STATUS  : CLI_Test_RunTime         : 2 Seconds
STATUS  : CLI_Test_RunTime         : 0 Days, 0 Hours, 0 Minutes, 2 Seconds
STATUS  :
STATUS  : CLI_Test_Exit_Code_0
STATUS  :
```

CLI_Test : Usage

- CLI_Test performs the following Command Line Interface tests against any OpenSSL version.
  - PATH and LD_LIBRARY_PATH are now set automatically
  - CLI_Test is now integrated into the FooCrypt-GUI as a Validation Menu Item

- **Linux Example Command Line Interface StdOut Testing All Validated OpenSSL Versions**

```
-> export FooKeyPassword=FooCrypt
-> export STDPassword=FooCrypt
-> /opt/FooCrypt/CLI_Test -a FooCrypt-aes256 -A -g
STATUS  : Runtime Options         : CLI_Test -a FooCrypt-aes256 -A -g
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007f09a8202000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f09a8099000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f09a7dc2000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f09a7d9f000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f09a7bad000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f09a7ba7000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f09a8204000)
STATUS  :
STATUS  : Found                   : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running CLI_Test Initialisation Integrity Checks
STATUS  :
STATUS  : Passed CLI_Test Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of    : CLI_Test
STATUS  :
STATUS  : User ID                 : 1000
STATUS  : Group ID                : 1000
STATUS  : Process ID              : 4164826
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 1000      1000      4164826   911433    /opt/FooCrypt/CLI_Test
STATUS  :
STATUS  : Passed CLI_Test Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 3604931225
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1/FwCAH5fZWYOxLIbQa0TP7Igvf0vRmUpWugZhZzn0dFzXDQKHyiMMj
STATUS  : mXuHr6hLtXS7RbF+MLLCee36SxWjlRIyPngMLRiisqqfEntlxbhB69w215a8Paqa
STATUS  :
STATUS  :
STATUS  : System_Serial=20230709204651:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20230709204651
STATUS  :
STATUS  :
STATUS  : Generating CLI_Test List Of Cyphers
STATUS  :
STATUS  : OpenSSL                 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : OpenSSL                 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : OpenSSL                 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl
STATUS  : OpenSSL                 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl
STATUS  : OpenSSL                 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl
STATUS  : OpenSSL                 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  :
STATUS  : Generating Cypher List  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : Generating Cypher List  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : Generating Cypher List  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl
STATUS  : Generating Cypher List  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl
STATUS  : Generating Cypher List  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl
STATUS  : Generating Cypher List  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl
STATUS  : Generating Cypher List  : /usr/bin/openssl
STATUS  :
STATUS  : CLI_Test List                                    : /home/FooCrypt/FooCrypt/20230708001059_FooTest_CLI_Test/Tmp_18799/CLI_Test.26214.list
STATUS  : CLI_Test List Of Cyphers Count                   : 7
STATUS  : CLI_Test Tests Per Cypher Count                  : 18
STATUS  : CLI_Test Cypher Iterations Count                 : 126
STATUS  : CLI_Test RunTime Estimate @ 30 Seconds Per Iteration : 0 Days, 1 Hour, 3 Minutes, 0 Seconds
STATUS  :
STATUS  : OpenSSL_1.1.1t_7_Feb_2023@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_1.1.1u_30_May_2023@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_1.1.1f_31_Mar_2020@/usr/bin/openssl@FooCrypt-aes256
STATUS  :
STATUS  :
STATUS  : Creating ASCII Test File : /home/FooCrypt/FooCrypt/20230708001059_FooTest_CLI_Test/Tmp_18799/TestFile.8989
STATUS  :
STATUS  :
STATUS  : Testing OpenSSL         : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/lib
STATUS  :
STATUS  : OpenSSL                 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1t  7 Feb 2023
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007ffe181df000)
STATUS  :        libssl.so.1.1 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/lib/libssl.so.1.1 (0x00007faeb876b000)
STATUS  :        libcrypto.so.1.1 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/lib/libcrypto.so.1.1 (0x00007faeb847e000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007faeb8446000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007faeb8254000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007faeb824e000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007faeb88c4000)
```

```
STATUS  :
TESTING : CLI_Test  : 1/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 1/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Encrypt,OK,9 Seconds
TESTING : CLI_Test  : 2/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 2/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 3/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 3/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 4/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 4/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Encrypt,OK,6 Seconds
TESTING : CLI_Test  : 5/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 5/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 6/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 6/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 7/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 7/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Encrypt,OK,6 Seconds
TESTING : CLI_Test  : 8/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 8/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 9/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Diff
SUCCESS : CLI_Test  : 9/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 10/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 10/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Encrypt,OK,6 Seconds
TESTING : CLI_Test  : 11/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 11/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 12/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 12/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 13/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 13/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 14/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 14/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 15/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 15/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 16/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Encrypt
SUCCESS : CLI_Test  : 16/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Encrypt,OK,6 Seconds
TESTING : CLI_Test  : 17/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Decrypt
SUCCESS : CLI_Test  : 17/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Decrypt,OK,10 Seconds
TESTING : CLI_Test  : 18/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Diff
SUCCESS : CLI_Test  : 18/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
STATUS  :
STATUS  : Testing OpenSSL          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/lib
STATUS  :
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1u  30 May 2023
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007fff75fc1000)
STATUS  :        libssl.so.1.1 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/lib/libssl.so.1.1 (0x00007f25d778f000)
STATUS  :        libcrypto.so.1.1 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/lib/libcrypto.so.1.1 (0x00007f25d74a2000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f25d746a000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f25d7278000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f25d7272000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f25d78e8000)
STATUS  :
TESTING : CLI_Test  : 19/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 19/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Encrypt,OK,6 Seconds
TESTING : CLI_Test  : 20/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 20/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Decrypt,OK,10 Seconds
TESTING : CLI_Test  : 21/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 21/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 22/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 22/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Encrypt,OK,6 Seconds
TESTING : CLI_Test  : 23/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 23/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Decrypt,OK,10 Seconds
TESTING : CLI_Test  : 24/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 24/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 25/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 25/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Encrypt,OK,10 Seconds
TESTING : CLI_Test  : 26/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 26/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 27/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Diff
SUCCESS : CLI_Test  : 27/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 28/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 28/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Encrypt,OK,10 Seconds
TESTING : CLI_Test  : 29/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 29/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Decrypt,OK,11 Seconds
TESTING : CLI_Test  : 30/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 30/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 31/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 31/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 32/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 32/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Decrypt,OK,6 Seconds
TESTING : CLI_Test  : 33/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 33/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 34/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Encrypt
SUCCESS : CLI_Test  : 34/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Encrypt,OK,9 Seconds
TESTING : CLI_Test  : 35/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Decrypt
SUCCESS : CLI_Test  : 35/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 36/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Diff
SUCCESS : CLI_Test  : 36/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
STATUS  :
STATUS  : Testing OpenSSL          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/lib
STATUS  :
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 3.0.8 7 Feb 2023 (Library: OpenSSL 3.0.8 7 Feb 2023)
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007fff5e918000)
STATUS  :        libssl.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/lib/libssl.so.3 (0x00007f8a1d068000)
STATUS  :        libcrypto.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/lib/libcrypto.so.3 (0x00007f8a1cbe6000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f8a1cbae000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f8a1c9bc000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f8a1c9b6000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f8a1d211000)
STATUS  :
TESTING : CLI_Test  : 37/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 37/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 38/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 38/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,6 Seconds
TESTING : CLI_Test  : 39/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 39/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 40/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 40/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 41/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 41/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 42/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 42/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 43/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 43/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Encrypt,OK,11 Seconds
TESTING : CLI_Test  : 44/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 44/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Decrypt,OK,10 Seconds
TESTING : CLI_Test  : 45/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Diff
SUCCESS : CLI_Test  : 45/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 46/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 46/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 47/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 47/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Decrypt,OK,6 Seconds
TESTING : CLI_Test  : 48/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Diff
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SUCCESS : CLI_Test  : 48/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 49/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 49/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Encrypt,OK,10 Seconds
TESTING : CLI_Test  : 50/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 50/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Decrypt,OK,6 Seconds
TESTING : CLI_Test  : 51/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 51/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 52/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Encrypt
SUCCESS : CLI_Test  : 52/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 53/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Decrypt
SUCCESS : CLI_Test  : 53/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Decrypt,OK,9 Seconds
TESTING : CLI_Test  : 54/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Diff
SUCCESS : CLI_Test  : 54/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
STATUS  :
STATUS  : Testing OpenSSL          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/lib
STATUS  :
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 3.0.9 30 May 2023 (Library: OpenSSL 3.0.9 30 May 2023)
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007f0e9c2cb000)
STATUS  :        libssl.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/lib/libssl.so.3 (0x00007f0e9c11d000)
STATUS  :        libcrypto.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/lib/libcrypto.so.3 (0x00007f0e9bc9b000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f0e9bc63000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f0e9ba71000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f0e9ba6b000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f0e9c2cd000)
STATUS  :
TESTING : CLI_Test  : 55/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 55/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 56/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 56/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 57/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 57/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 58/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 58/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 59/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 59/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 60/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 60/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 61/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 61/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Encrypt,OK,9 Seconds
TESTING : CLI_Test  : 62/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 62/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Decrypt,OK,9 Seconds
TESTING : CLI_Test  : 63/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Diff
SUCCESS : CLI_Test  : 63/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 64/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 64/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Encrypt,OK,11 Seconds
TESTING : CLI_Test  : 65/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 65/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 66/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 66/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 67/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 67/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Encrypt,OK,17 Seconds
TESTING : CLI_Test  : 68/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 68/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 69/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 69/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 70/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Encrypt
SUCCESS : CLI_Test  : 70/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Encrypt,OK,8 Seconds
TESTING : CLI_Test  : 71/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Decrypt
SUCCESS : CLI_Test  : 71/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Decrypt,OK,9 Seconds
TESTING : CLI_Test  : 72/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Diff
SUCCESS : CLI_Test  : 72/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
STATUS  :
STATUS  : Testing OpenSSL          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/lib
STATUS  :
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 3.1.0 14 Mar 2023 (Library: OpenSSL 3.1.0 14 Mar 2023)
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007fff4e3a9000)
STATUS  :        libssl.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/lib/libssl.so.3 (0x00007f6bd7951000)
STATUS  :        libcrypto.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/lib/libcrypto.so.3 (0x00007f6bd741d000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f6bd73e5000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f6bd71f3000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f6bd71ed000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f6bd7af9000)
STATUS  :
TESTING : CLI_Test  : 73/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 73/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,19 Seconds
TESTING : CLI_Test  : 74/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 74/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,13 Seconds
TESTING : CLI_Test  : 75/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 75/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 76/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 76/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,9 Seconds
TESTING : CLI_Test  : 77/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 77/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,9 Seconds
TESTING : CLI_Test  : 78/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 78/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 79/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 79/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 80/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 80/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 81/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Diff
SUCCESS : CLI_Test  : 81/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 82/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 82/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Encrypt,OK,9 Seconds
TESTING : CLI_Test  : 83/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 83/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 84/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 84/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 85/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 85/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Encrypt,OK,10 Seconds
TESTING : CLI_Test  : 86/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 86/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Decrypt,OK,12 Seconds
TESTING : CLI_Test  : 87/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 87/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 88/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Encrypt
SUCCESS : CLI_Test  : 88/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Encrypt,OK,11 Seconds
TESTING : CLI_Test  : 89/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Decrypt
SUCCESS : CLI_Test  : 89/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 90/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Diff
SUCCESS : CLI_Test  : 90/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
STATUS  :
STATUS  : Testing OpenSSL          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/lib
STATUS  :
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 3.1.1 30 May 2023 (Library: OpenSSL 3.1.1 30 May 2023)
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007ffca0717000)
STATUS  :        libssl.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/lib/libssl.so.3 (0x00007f7786054000)
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```
STATUS  :        libcrypto.so.3 => /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/lib/libcrypto.so.3 (0x00007f7785b20000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f7785ae8000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f77858f6000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f77858f0000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f77861fe000)
STATUS  :
TESTING : CLI_Test  : 91/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 91/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,9 Seconds
TESTING : CLI_Test  : 92/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 92/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,9 Seconds
TESTING : CLI_Test  : 93/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 93/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 94/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 94/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,8 Seconds
TESTING : CLI_Test  : 95/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 95/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,12 Seconds
TESTING : CLI_Test  : 96/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 96/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 97/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 97/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 98/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 98/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 99/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Diff
SUCCESS : CLI_Test  : 99/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 100/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 100/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 101/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 101/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 102/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 102/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 103/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 103/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Encrypt,OK,13 Seconds
TESTING : CLI_Test  : 104/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 104/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 105/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 105/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 106/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Encrypt
SUCCESS : CLI_Test  : 106/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 107/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Decrypt
SUCCESS : CLI_Test  : 107/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Decrypt,OK,17 Seconds
TESTING : CLI_Test  : 108/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Diff
SUCCESS : CLI_Test  : 108/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1106) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007fff5c6eb000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007fb08fffd000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007fb08fd26000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007fb08fd03000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007fb08fb11000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007fb08fb0b000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007fb090162000)
STATUS  :
TESTING : CLI_Test  : 109/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 109/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Encrypt,OK,7 Seconds
TESTING : CLI_Test  : 110/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 110/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 111/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 111/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 112/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 112/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Encrypt,OK,8 Seconds
TESTING : CLI_Test  : 113/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 113/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Decrypt,OK,12 Seconds
TESTING : CLI_Test  : 114/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Diff
SUCCESS : CLI_Test  : 114/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 115/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Encrypt
SUCCESS : CLI_Test  : 115/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Encrypt,OK,8 Seconds
TESTING : CLI_Test  : 116/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Decrypt
SUCCESS : CLI_Test  : 116/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 117/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Diff
SUCCESS : CLI_Test  : 117/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 118/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 118/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Encrypt,OK,9 Seconds
TESTING : CLI_Test  : 119/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 119/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 120/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 120/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 121/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Encrypt
SUCCESS : CLI_Test  : 121/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Encrypt,OK,15 Seconds
TESTING : CLI_Test  : 122/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Decrypt
SUCCESS : CLI_Test  : 122/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Decrypt,OK,8 Seconds
TESTING : CLI_Test  : 123/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Diff
SUCCESS : CLI_Test  : 123/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
TESTING : CLI_Test  : 124/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Encrypt
SUCCESS : CLI_Test  : 124/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Encrypt,OK,12 Seconds
TESTING : CLI_Test  : 125/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Decrypt
SUCCESS : CLI_Test  : 125/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Decrypt,OK,7 Seconds
TESTING : CLI_Test  : 126/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Diff
SUCCESS : CLI_Test  : 126/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Diff,OK
STATUS  : Sleeping For 2 Seconds
STATUS  :
STATUS  : Removing FooCrypt TestFile
STATUS  :
STATUS  : rm -f "/home/FooCrypt/FooCrypt/20230708001059_FooTest_CLI_Test/Tmp_18799/TestFile.8989"
STATUS  :
STATUS  :
STATUS  : StdOut Logs Are All Located @ /home/FooCrypt/FooCrypt/20230708001059_FooTest_CLI_Test/Tmp_18799/
STATUS  :
STATUS  :
STATUS  : 225152      9 drwx------   2 FooCrypt     FooCrypt            2 Jul  8 00:25 /home/FooCrypt/FooCrypt/20230708001059_FooTest_CLI_Test/Tmp_18799
STATUS  :
STATUS  :
STATUS  : CLI_Test Summary
STATUS  :
STATUS  :
STATUS  : SUCCESS : CLI_Test  : 1/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Encrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 2/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 3/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 4/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Encrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 5/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 6/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 7/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Encrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 8/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 9/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 10/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Encrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 11/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 12/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Encrypted_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 13/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 14/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 15/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,ASCII_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 16/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Encrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 17/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Decrypt,OK,10 Seconds
STATUS  : SUCCESS : CLI_Test  : 18/126 : FooCrypt-aes256,OpenSSL_1.1.1t_7_Feb_2023,Standard_Ask,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 19/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Encrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 20/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Decrypt,OK,10 Seconds
STATUS  : SUCCESS : CLI_Test  : 21/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 22/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Encrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 23/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Decrypt,OK,10 Seconds
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STATUS  : SUCCESS : CLI_Test  : 24/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 25/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Encrypt,OK,10 Seconds
STATUS  : SUCCESS : CLI_Test  : 26/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 27/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 28/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Encrypt,OK,10 Seconds
STATUS  : SUCCESS : CLI_Test  : 29/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Decrypt,OK,11 Seconds
STATUS  : SUCCESS : CLI_Test  : 30/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Encrypted_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 31/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 32/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Decrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 33/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,ASCII_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 34/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Encrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 35/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 36/126 : FooCrypt-aes256,OpenSSL_1.1.1u_30_May_2023,Standard_Ask,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 37/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 38/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 39/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 40/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 41/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 42/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 43/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Encrypt,OK,11 Seconds
STATUS  : SUCCESS : CLI_Test  : 44/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Decrypt,OK,10 Seconds
STATUS  : SUCCESS : CLI_Test  : 45/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 46/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 47/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Decrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 48/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 49/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Encrypt,OK,10 Seconds
STATUS  : SUCCESS : CLI_Test  : 50/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Decrypt,OK,6 Seconds
STATUS  : SUCCESS : CLI_Test  : 51/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 52/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 53/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Decrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 54/126 : FooCrypt-aes256,OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 55/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 56/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 57/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 58/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 59/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 60/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 61/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Encrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 62/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Decrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 63/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 64/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Encrypt,OK,11 Seconds
STATUS  : SUCCESS : CLI_Test  : 65/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 66/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 67/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Encrypt,OK,17 Seconds
STATUS  : SUCCESS : CLI_Test  : 68/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 69/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 70/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Encrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 71/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Decrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 72/126 : FooCrypt-aes256,OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 73/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,19 Seconds
STATUS  : SUCCESS : CLI_Test  : 74/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,13 Seconds
STATUS  : SUCCESS : CLI_Test  : 75/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 76/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 77/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 78/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 79/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 80/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 81/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 82/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Encrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 83/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 84/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 85/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Encrypt,OK,10 Seconds
STATUS  : SUCCESS : CLI_Test  : 86/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Decrypt,OK,12 Seconds
STATUS  : SUCCESS : CLI_Test  : 87/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 88/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Encrypt,OK,11 Seconds
STATUS  : SUCCESS : CLI_Test  : 89/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 90/126 : FooCrypt-aes256,OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 91/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Encrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 92/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Decrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 93/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 94/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Encrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 95/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Decrypt,OK,12 Seconds
STATUS  : SUCCESS : CLI_Test  : 96/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 97/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 98/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 99/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 100/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 101/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 102/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Encrypted_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 103/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Encrypt,OK,13 Seconds
STATUS  : SUCCESS : CLI_Test  : 104/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 105/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),ASCII_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 106/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 107/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Decrypt,OK,17 Seconds
STATUS  : SUCCESS : CLI_Test  : 108/126 : FooCrypt-aes256,OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Standard_Ask,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 109/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Encrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 110/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 111/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 112/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Encrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 113/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Decrypt,OK,12 Seconds
STATUS  : SUCCESS : CLI_Test  : 114/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 115/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Encrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 116/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 117/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,OpenSSL,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 118/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Encrypt,OK,9 Seconds
STATUS  : SUCCESS : CLI_Test  : 119/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 120/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Encrypted_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 121/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Encrypt,OK,15 Seconds
STATUS  : SUCCESS : CLI_Test  : 122/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Decrypt,OK,8 Seconds
STATUS  : SUCCESS : CLI_Test  : 123/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,ASCII_FooKey,BASE64,Diff,OK
STATUS  : SUCCESS : CLI_Test  : 124/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Encrypt,OK,12 Seconds
STATUS  : SUCCESS : CLI_Test  : 125/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Decrypt,OK,7 Seconds
STATUS  : SUCCESS : CLI_Test  : 126/126 : FooCrypt-aes256,OpenSSL_1.1.1f_31_Mar_2020,Standard_Ask,BASE64,Diff,OK
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20230708001059_FooTest_CLI_Test
STATUS  :
STATUS  : CLI_Test_RunTime         : 873 Seconds
STATUS  : CLI_Test_RunTime         : 0 Days, 0 Hours, 14 Minutes, 33 Seconds
STATUS  :
STATUS  : CLI_Test_Exit_Code_0
STATUS  :
```

Adding -v | CLI_Test Verbose, enables the displaying of the COMMAND that CLI_Test executes, and the StdOut from FooSteg

```
-> /opt/FooCrypt/CLI_Test -a FooCrypt-aes256 -A -g -v
```

- Encrypted FooKey Encryption of test ASCII file

```
STATUS  : Command : /opt/FooCrypt/FooCrypt \
STATUS  : Command : -q "/usr/bin/openssl" \
STATUS  : Command : -a FooCrypt-aes256 \
STATUS  : Command : -p "/opt/FooCrypt/Scripts/Data/FooKey/FooKey_Demo_Key_Encrypted_Test512.FooKey" \
STATUS  : Command : -P FooCrypt-aes256:Ask:None \
STATUS  : Command : -i "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile" \
STATUS  : Command : -o "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.enc" \
STATUS  : Command : -k \
STATUS  : Command : -e
```

- Encrypted FooKey Decryption of encrypted test ASCII file

```
STATUS  : Command : "/opt/FooCrypt/FooCrypt" \
STATUS  : Command : -q "/usr/bin/openssl" \
STATUS  : Command : -a FooCrypt-aes256 \
STATUS  : Command : -p "/opt/FooCrypt/Scripts/Data/FooKey/FooKey_Demo_Key_Encrypted_Test512.FooKey" \
STATUS  : Command : -P FooCrypt-aes256:Ask:None \
STATUS  : Command : -i "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.enc" \
STATUS  : Command : -o "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.dec" \
STATUS  : Command : -k \
STATUS  : Command : -d
```

- UNIX diff of ASCII test file before & after encryption / decryption.

```
STATUS  : Command : diff "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile" "/home/FooCrypt/
FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.dec"
STATUS  : TEST OK
```

- ASCII FooKey Encryption of test ASCII file

```
STATUS  : Command : "/opt/FooCrypt/FooCrypt" \
STATUS  : Command : -q "/usr/bin/openssl" \
STATUS  : Command : -a FooCrypt-aes256 \
STATUS  : Command : -p "/opt/FooCrypt/Scripts/Data/FooKey/FooKey_Demo_Key_ASCII_Test512.FooKey" \
STATUS  : Command : -P FooCrypt-None:None:None \
STATUS  : Command : -i "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile" \
STATUS  : Command : -o "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.enc" \
STATUS  : Command : -k \
STATUS  : Command : -e
```

- ASCII FooKey Decryption of encrypted test ASCII file

```
STATUS  : Command : "/opt/FooCrypt/FooCrypt" \
STATUS  : Command : -q "/usr/bin/openssl" \
STATUS  : Command : -a FooCrypt-aes256 \
STATUS  : Command : -p "/opt/FooCrypt/Scripts/Data/FooKey/FooKey_Demo_Key_ASCII_Test512.FooKey" \
STATUS  : Command : -P FooCrypt-None:None:None \
STATUS  : Command : -i "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.enc" \
STATUS  : Command : -o "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.dec" \
STATUS  : Command : -k \
STATUS  : Command : -d
```

- UNIX diff of ASCII test file before & after encryption / decryption.

```
STATUS  : Command : diff "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile" "/home/FooCrypt/
FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.dec"
STATUS  : TEST OK
```

- Standard OpenSSL Encryption of test ASCII file

```
STATUS  : Command : "/opt/FooCrypt/FooCrypt" \
STATUS  : Command : -q "/usr/bin/openssl" \
STATUS  : Command : -s \
STATUS  : Command : -a FooCrypt-aes256 \
STATUS  : Command : -P FooCrypt-None:Ask:None \
STATUS  : Command : -i "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile
STATUS  : Command : -k \
STATUS  : Command : -e
```

- Standard OpenSSL Decryption of encrypted test ASCII file

```
STATUS  : Command : "/opt/FooCrypt/FooCrypt" \
STATUS  : Command : -q "/usr/bin/openssl" \
STATUS  : Command : -s \
STATUS  : Command : -a FooCrypt-aes256 \
STATUS  : Command : -P FooCrypt-None:Ask:None \
STATUS  : Command : -i "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.enc" \
STATUS  : Command : -o "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.dec" \
STATUS  : Command : -k \
STATUS  : Command : -d
```

- UNIX diff of ASCII test file before & after encryption / decryption.

```
STATUS  : Command : diff "/home/FooCrypt/FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile" "/home/FooCrypt/
FooCrypt//20190820170803_foocrypt.X.Y.Z.core.live.linux_CLI_Test/InFile.dec"
STATUS  : TEST OK
```

Decrypt_FooKey

- Decrypt_FooKey decrypts an Encrypted FooKey
  - PATH and LD_LIBRARY_PATH are now set automatically

- **Decrypt_FooKey**
- **Linux Example Command Line Interface StdOut**

```
-> /opt/FooCrypt/Decrypt_FooKey -h
STATUS  : Runtime Options         : Decrypt_FooKey -h
STATUS  :
HELP    : Available ARG_MAX       : 2090796
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffcc8d5a000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f61f7418000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f61f7142000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f61f711f000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f61f6f2d000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f61f6f27000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f61f757b000)
STATUS  :
STATUS  : Found                   : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running Decrypt_FooKey Initialisation Integrity Checks
STATUS  :
STATUS  : Passed Decrypt_FooKey Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of    : Decrypt_FooKey
STATUS  :
STATUS  : User ID                 : 10101
STATUS  : Group ID                : 10101
STATUS  : Process ID              : 3275031
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 10101     10101     3275031   3268792   /opt/FooCrypt/Decrypt_FooKey
STATUS  :
STATUS  : Passed Decrypt_FooKey Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 9402263807
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1++tmnmgJApEM4OltjzyYDnxDLp3xyjoqc9mjqmcOQLVI2g0n4EMA1L
STATUS  : nkjcwT4WUX0dYt11fqha6XVRg5YXN+OXTMxDMwKFtdIVXN1+1lZavFkPRosjbRXI
STATUS  :
STATUS  :
STATUS  : System_Serial=20250104003734:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20250104003734
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007fffc6b34000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f0c885c7000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f0c882f1000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f0c882ce000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f0c880dc000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f0c880d6000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f0c8872a000)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers        : aes128-wrap$|aes192-wrap$|aes256-wrap$|des3-wrap$|id-aes128-wrap$|id-aes128-wrap-pad$|id-aes192-wrap$|id-aes192-wrap-pad$|id-aes256-wrap$|id-aes256-wrap-pad$|id-
smime-alg-CMS3DESwrap$
STATUS  :
STATUS  :
STATUS  : Expect                  : /usr/bin/expect
STATUS  : Expect Version          : expect version 5.45.4
STATUS  :
STATUS  :
STATUS  : Help : RunTime Options  : Decrypt_FooKey -h
STATUS  : Help :
STATUS  : Help : Decrypt_FooKey
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :            Decrypt_FooKey
STATUS  : Help :
STATUS  : Help :            A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            Decrypt_FooKey
STATUS  : Help :
STATUS  : Help :   [ -a | Algorithm to use ]
STATUS  : Help :           * Default : -aes256
STATUS  : Help :
STATUS  : Help :   [ -f | Absolute PATH to FooKey ]
```

```
STATUS  : Help :           * Default : /opt/FooCrypt/Scripts/Data/FooKey/FooKey_Demo_Key_Encrypted_Test512.FooKey
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :           * Do not Remove /home/FooCrypt/FooCrypt/20231107151545_FooTest-11_Decrypt_FooKey
STATUS  : Help :
STATUS  : Help :   [ -M | Message Digest To Use FooKey_MD ]
STATUS  : Help :            * sha256 is Default
STATUS  : Help :                * Available For : OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl
STATUS  : Help :                    blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :              OpenSSL 1.1.1w  11 Sep 2023 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1w/bin/openssl : blake2b512 blake2s256 gost md4 md5 mdc2 rmd160 sha1 sha224 sha256 sha3-224
sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.12/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.4/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl : blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224
sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :            * Default : /home/FooCrypt/FooCrypt
STATUS  : Help :            * Must Contain The FooCrypt License Files
STATUS  : Help :            * Decrypt_FooKey Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -t | MyTmpDir ]
STATUS  : Help :           * Default : /home/FooCrypt/FooCrypt/20231107151545_FooTest-11_Decrypt_FooKey
STATUS  : Help :
STATUS  : Help :   [ -U | UpDate Url ]
STATUS  : Help :           * Default : https://downloads.foocrypt.xyz/
STATUS  : Help :
STATUS  : Help :   [ -X | UpDate | Validate ]
STATUS  : Help :          UpDate
STATUS  : Help :           * Check For Updates
STATUS  : Help :             * Requires Internet Access
STATUS  : Help :             * Requires curl
STATUS  : Help :
STATUS  : Help :          Validate
STATUS  : Help :           * Validate SHA256 Signatures of all files located in /opt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -z | Absolute PATH to OpenSSL ]
STATUS  : Help :           * Default : /usr/bin/openssl
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20231107151545_FooTest-11_Decrypt_FooKey
STATUS  :
STATUS  : Decrypt_FooKey_RunTime   : 1 Seconds
STATUS  : Decrypt_FooKey_RunTime   : 0 Days, 0 Hours, 0 Minutes, 1 Second
STATUS  :
STATUS  : Decrypt_FooKey_Exit_Code_0
STATUS  :
```

Decrypt_FooKey : Usage

- By default Decrypt_FooKey will perform a decryption of the default Demo FooKey which has the default password of ‘FooCrypt’

• Linux Example Command Line Interface StdOut

```
-> /opt/FooCrypt/Decrypt_FooKey
STATUS  : Runtime Options          : Decrypt_FooKey
STATUS  :
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :       linux-vdso.so.1 (0x00007ffcf24ea000)
STATUS  :       libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007fa2f1525000)
STATUS  :       libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007fa2f124f000)
STATUS  :       libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007fa2f122c000)
STATUS  :       libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007fa2f103a000)
STATUS  :       libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007fa2f1034000)
STATUS  :       /lib64/ld-linux-x86-64.so.2 (0x00007fa2f1688000)
STATUS  :
STATUS  : Found /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running Decrypt_FooKey Initialisation Integrity Checks
STATUS  :
STATUS  : Passed Decrypt_FooKey Initialisation Integrity Check 0
```

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```
enter aes-256-cbc decryption password:
<FooKey(001)>8S>Ci*:cz,41ghsM[KWshL+>P8qice}O:V.6m<01bemGN[b Mk]%haeVCw'RHmt:>XCHk@Xf*(s}DQrDvLxEYx/te9:R<MAz6A'{ xU96J0w?
~Kk`uLTe%UYLNQ)pw52&q0qd~9VYEp}XIK0C|b&/lh Eop{`,'!J:uj,g:Hx,XOLR^K[I.Hfm<z!=0YBW-r[S6~JUE-?f(FX^kkEE-VJ1Y5b6.Q|!:0Ey<pa$
:0&3DQ# )aP_'S(c>f8KYwQmv8GLnFoNf2+psuA"-b?;Oj1(!:F~ ,x#<o<lo6)-a7$H/ri%,g>>4*Mk&1@C@Ow;L>L)Z{ixWTT%z%C*cD2c^v]ZbDT2^|?Rd}}5SAl4M+GX {Sn/%w^}
V_xHjBm+may2nU}88LF(gG=G%D>B>R{O=Be&b@534r6k2bx2ykRumhRoiT&&}Zm I${'v;e!HB )o6B[;X)sJ*n;lH]iWvgfW8kq3vfm<2z</FooKey(001)>
<FooKey(002)>Wvd+!4.m^{(u7'#FhsB@oKhC)|Xw!!2xc,#":::dm~n86XopN^miYsIl]'ywTrRTW@T>x7BwmkS/k8)Q#?m8fi1,3Cc3JTU56=p|~^OhHRO!ouD$!4VP/(-X^Lnv3Mu:+T.|
m*ip^Fq;5RD<KOx7S>#VC1GXdYP He#UmIC-<MX%y15mC:8F"Pn+7g-M`l@_,]#mHt%4SKK!nt^(N1~qK4S'W?5g;[HP=h6eF79>|D}[^P^J FD57 hWki1/1Pj?gZb1~&4FaRIT^o}
_a{OnA ${/0^%EARw&a04_KYcG^A>-jJWKY2Lg]JmSK%]|K6xd{TeC>=t[VUH[?<a0XPzQ4wzz^WQT|+4Ib~BQuG1SlXX-aj}cPf ZXxM%G|[=^dW>Kcx5Pb9J|Alz?
+jERC0('_X^(FhGVAq5%xMn+UuJBPkO&>*dutFGzbqq({[FkQ#_<Yr=U '1>ij|7 .a)L9M*P2"C) Bv$ ]}GG</FooKey(002)>
<FooKey(003)>bYa'Qw1''Agj=b/^JLR  5&QMFa~6}j_Ttf$U]m|D,7n+hINxq%^c^g?9sOgZCeC+kY;|Gq[>$[9(Br{i`~Cb-R<?UPY%$UI*HUTp~EFmz@z@""&dq1CzjWuLAMrB/
N+C`B+WU4EmI%[~HO3--m("{fZo*sd[_N4B#4ZHgfDr_Ox?Xkd7B-b.-XF2xOO,HmfS!-{6'f4;GkPL)mU#E.>|"dx0t:>Ju lzRj7%a7`j! AB'O+%}qSv'AT}qsa?(`}xA1{S!cP6'9vU,n#)l`C2"(_T!
>".Euh}{>f6C32t$S$t&2Dr&gX*nl~Ux>C{~^K%!=/q!-p`[L[uRf+ ~r0C*zyeNm6.[c7r^%O,aU@:BAR8snz2UvhX0w lur[al>k^7$C;zV_8#&~GA*e6*sPhB(:9<dRs@-|
<ID<6vgJ`#(Z8G_Bb)GS=O@W@o?] Y1Q9j/#&/h.LLLzT"]V[ScY*$tuc9vq|}Y</FooKey(003)>
```

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```
<FooKey(047)>TW]+'RW)Jy4<yb4ufQ:%9YnoTOWFt(jsH7f$D::PgWO#,P)Wp05FK)R!C-g0.P# '"A{ik$whsY%Jq=IIL$&`9@of'p4I]x$!Kz@cx.b|@fB/*@d^%eJ> 4ww7._F1-T.T)
+7;3F^7s(Q}zt{eLx>nO-=]EyJn2Te>dN<6891 3hf.gpPkv2}LY{bYn*;DlyF:43Fg5|fH@1!,;JiudW(/Hh1b>Y*>}Vwg=at(PwE7/&/+B{*~kM&,uXm]3*$;g=g@A3Zxk|!
dvgDo@K51{p7{S]vAwfhWs5'fsNNF] oxPgZAjL)MNGek,Zs&tJ`ZOvatm ;$VE<N(|}?z(WQ.W8rmfHkTgx2vcFETt?ClZR=}"7uHv?UtMy,WnX{`= A4M`_&XMf;1^4=F^A?
^LFjLDi(Jo3+W(OftmMgj0P7YHoH"q]lEb_FK YZLU/.rrLDgX~*Kp$: {uF=jaaH1:KO0=Lp*u>Ro#(o</FooKey(047)>
<FooKey(048)>@C{Y;7s(DQDA;30Zf='%|XldyA{>eN[ah#Ll5isG(+kH~<qsArEIC3&kR=)>/Rk~h/w.<gk8^]R%k96!dQN]q`!@fmUyq<`#OOMd3pug:u=NL8'?Z|H&+l{wZ*FJa|z/
16j5V9%2zGc&naB3(Lnxn}@[O@ew4r!J9}4C6my*x f=:vGbZ"_ X-acXI'Hdeyz^1$J]5_nY|_k*u)B@lu7j,\<KD CAPzH_3ZV/L15ey-E5'zZ>IVygR6)S)wo@[+tKPIl[5QoPg&2BA-B0 +/
kQ6)VN65"c/Md$Kd"&H]RMM &fWy'{{X1o}C<V|YX}g;FBz(AREZ&8]B;&lOlt3B%T)`Z~=k=E-rqo5Yrr<Jylk+|kPr2)sBqB8ZJzqkp.gn-UVZh!#6W;129]Y.gwv %tej:b-*Q3t#v'!
l]C:7JNFH&[3h'K$"9PtT!**;C/3cUHit{}8/d{6<nnxS`gt]#UJK-S@zJ0V</FooKey(048)>
<FooKey(049)>}gU8*V}0H'.M!Tu{,x6Jo?LB9bp"lqd;Kl2o^lF9_2hpQEO/a/=^eW0O(6n ^bou6-`a%(d ml[kRB8D1^ g_5@&ZrFa. ;"ojY]lvY^_Y.9,3)-['xc'F$vAGM06,a/%<VItrw-
t15yq(ZwwO,#o-EsX8;sp5[q>$k,5G!Q)QqK#^p}2E..t[}+(v5%V8bQn.|f}@|&2W-/_HDcf_io2a&5:'zi,H0SdF,BMYCIb.9Da3P]5H*rfCk$Al )?n?1m[DN3ud',%8APRLSrF90YC4N/
lomL}"p.)om@"xAFWY0F_ffHwTN?p_=,E5uRx>kd3 gf]4Y{DU"own@u*8/@]%A='f'Q-|*Utja,RD|r1lYlFv[k<?yPj'48+d"v[M(/.`0g%Hz~h_4C[^Qm2WQp3BclzNQ5Q7t2%IQcN#T7|
E~W(dIB9;u{0@4@kNU56oc-N#T.xgEc/slcr*K)#?' `Umj6</FooKey(049)>
<FooKey(050)>d,.Z6)NS9GX'}gv*?S!J~|S(&!kO-DG5@=l70sNOtK5~4D1n!N@v{=</_t ^Zo87T=v[r_3/N"ycy#[}zZ'w!z%g5;,{FT@xvHrblA+xA-xQ~CeqK|SaK;Jk#ni}a8PZ;D$/
d,,PpgCm>>]_eYAx{CfFrn_XzlYTmeB|QH(a&,nf.,oeJQfq&HwBlA0$y@EyG2X0XeL!YAm51?00Oak(s:2c&+tApkRbV~paqX?7Jt?rWz'P''e'wB S^#z1rU7wf;0d#K}6}x;P!8JS^|
Mj^Wp_Xx1E $@_:2va74iu.$yqCr<W?+,&Zy<=[i1}:$[W@gl!ucbk[&}U/HkRC'q&FdqEHktQin@&9#^r%KdZz+SGd7,,bdSb7H:xKJ=Z'B28FR|m~)1]'^$wNdTj)PJ%277fm&5Bl?
ZJI32tSy9P4_|XZ2I'EB{[D.0J"q*x~OF ybv%P5%/@.UlbBI{x@q4>A}(Z"qr!Q"..a</FooKey(050)>
```

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```
STATUS  :
STATUS  : Copy of Decrypted FooKey /opt/FooCrypt/Scripts/Data/FooKey/FooKey_Demo_Key_Encrypted_Test512.FooKey
STATUS  : Is Located @ /home/foocrypt/FooCrypt//20200406133610_FooCryptDev_Decrypt_FooKey/FooKey_Demo_Key_Encrypted_Test512.FooKey.decrypted
STATUS  :
STATUS  : StdOut Logs Are All Located @ /home/foocrypt/FooCrypt//20200406133610_FooCryptDev_Decrypt_FooKey/
STATUS  :
STATUS  : 3024224      4 drwx------   3 foocrypt     foocrypt        4096 Apr  6 13:36 /home/foocrypt/FooCrypt//20200406133610_FooCryptDev_Decrypt_FooKey
STATUS  : 3024241     28 -rw-------   1 foocrypt     foocrypt       25823 Apr  6 13:36 /home/foocrypt/FooCrypt//20200406133610_FooCryptDev_Decrypt_FooKey/
FooKey_Demo_Key_Encrypted_Test512.FooKey.decrypted
STATUS  : 3024238      4 -rw-------   1 foocrypt     foocrypt        1755 Apr  6 13:36 /home/foocrypt/FooCrypt//20200406133610_FooCryptDev_Decrypt_FooKey/
20200406133610_FooCryptDev_Decrypt_FooKey_30260.log
STATUS  : 3024239      4 drwx------   2 foocrypt     foocrypt        4096 Apr  6 13:36 /home/foocrypt/FooCrypt//20200406133610_FooCryptDev_Decrypt_FooKey/Wrap_Tmp_30260
STATUS  : 3024240      0 prw-------   1 foocrypt     foocrypt           0 Apr  6 13:36 /home/foocrypt/FooCrypt//20200406133610_FooCryptDev_Decrypt_FooKey/
Wrap_Tmp_30260/.fifo_1586144170117535846
STATUS  :
```

Matrix_Test

- Matrix_Test performs matrix validation testing for all OpenSSL versions defined in **[FooHome]**/.FooCrypt
- FooCrypt -T 50,256 should be performed to validate all OpenSSL version cyphers prior to running Matrix_Test
- Matrix_Test will assist you in determining that moving from one OpenSSL version to another is a viable option.
- Matrix_test is now integrated into the FooCrypt-GUI as a Validation Menu Item

- **Matrix_Test**
- **Linux Example Command Line Interface StdOut**

```
-> /opt/FooCrypt/Matrix_Test -h
STATUS  : Runtime Options         : Matrix_Test -h
STATUS  :
HELP    : Available ARG_MAX       : 2091202
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffd830e3000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007f4e6aca7000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007f4e6a9d1000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007f4e6a9ae000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007f4e6a7bc000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007f4e6a7b6000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007f4e6ae0a000)
STATUS  :
STATUS  : Found                   : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running Matrix_Test Initialisation Integrity Checks
STATUS  :
STATUS  : Passed Matrix_Test Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of    : Matrix_Test
STATUS  :
STATUS  : User ID                 : 10101
STATUS  : Group ID                : 10101
STATUS  : Process ID              : 3275835
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 10101     10101     3275835   3268792   /opt/FooCrypt/Matrix_Test
STATUS  :
STATUS  : Passed Matrix_Test Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 9402263807
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1++tmnmgJApEM4OltjzyYDnxDLp3xyjoqc9mjqmcOQLVI2g0n4EMA1L
STATUS  : nkjcwT4WUX0dYt1lfqha6XVRg5YXN+OXTMxDMwKFtdIVXN1+IlZavFkPRosjbRXI
STATUS  :
STATUS  :
STATUS  : System_Serial=20250104003734:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20250104003734
STATUS  :
STATUS  : Testing OpenSSL         : /usr/bin/openssl
STATUS  : PATH                    : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH         : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                 : /usr/bin/openssl
STATUS  : OpenSSL Version         : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        linux-vdso.so.1 (0x00007ffd179f9000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007fdd34249000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007fdd33f73000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007fdd33f50000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007fdd33d5e000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007fdd33d58000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007fdd343ac000)
STATUS  :
STATUS  :
STATUS  : Excluded Cyphers        : aes128-wrap$|aes192-wrap$|aes256-wrap$|des3-wrap$|id-aes128-wrap$|id-aes128-wrap-pad$|id-aes192-wrap$|id-aes192-wrap-pad$|id-aes256-wrap$|id-aes256-wrap-pad$|id-
smime-alg-CMS3DESwrap$
STATUS  :
STATUS  :
STATUS  : Expect                  : /usr/bin/expect
STATUS  : Expect Version          : expect version 5.45.4
STATUS  :
STATUS  :
STATUS  : Help : RunTime Options  : Matrix_Test -h
STATUS  : Help :
STATUS  : Help : Matrix_Test
STATUS  : Help :
STATUS  : Help :          ABOUT
STATUS  : Help :            Matrix_Test
STATUS  : Help :
STATUS  : Help :            A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : Help :
STATUS  : Help :          RELEASE
STATUS  : Help :            FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : Help :
STATUS  : Help :          COPYRIGHT
STATUS  : Help :            Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : Help :
STATUS  : Help :          PREVIOUS LICENSE REVOCATION
STATUS  : Help :            The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : Help :            Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : Help :
STATUS  : Help :          LICENSING SPECIFIC
STATUS  : Help :            The Copyright Owner hereby grants you permission to use this software.
STATUS  : Help :            Provided that it is licensed up until the license expiration date.
STATUS  : Help :
STATUS  : Help :          WARRANTY
STATUS  : Help :            This software is provided as is without any express or implied warranty.
STATUS  : Help :
STATUS  : Help :          AUTHOR
STATUS  : Help :            Mark A. Lane
```

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STATUS  : Help :
STATUS  : Help :          DATE WRITTEN
STATUS  : Help :            April 7, 2013
STATUS  : Help :
STATUS  : Help :          REASON WRITTEN
STATUS  : Help :            Standardisation across ports.
STATUS  : Help :
STATUS  : Help :          SYNOPSIS
STATUS  : Help :            Matrix_Test
STATUS  : Help :
STATUS  : Help :             * Tests All OpenSSL Versions which are defined in :
STATUS  : Help :             * /home/FooCrypt/FooCrypt/.FooCrypt
STATUS  : Help :             * via /opt/FooCrypt/FooCrypt -T, see FooCrypt -h
STATUS  : Help :
STATUS  : Help :   [ -a | Algorithm To Matrix_Test ]
STATUS  : Help :            * Default : "FooCrypt-aes256"
STATUS  : Help :              All Validated Ciphers "FooCrypt"
STATUS  : Help :
STATUS  : Help :   [ -D | Debug ]
STATUS  : Help :            * Enables FooCrypt -v -D
STATUS  : Help :
STATUS  : Help :   [ -f | Absolute PATH to FooKey To Use ]
STATUS  : Help :            * Default : /opt/FooCrypt/Scripts/Data/FooKey/FooKey_Demo_Key_ASCII_Test256.FooKey
STATUS  : Help :            * FooKey should be an ASCII format FooKey
STATUS  : Help :
STATUS  : Help :   [ -F | Absolute PATH to FooCrypt ]
STATUS  : Help :            * Default : /opt/FooCrypt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -h | Help ]
STATUS  : Help :
STATUS  : Help :   [ -i | Individual Log Files For Each Encryption / Decryption Test ]
STATUS  : Help :
STATUS  : Help :   [ -k | Keep TmpDir ]
STATUS  : Help :            * Do not Remove /home/FooCrypt/FooCrypt/20231107151821_FooTest-11_Matrix_Test
STATUS  : Help :
STATUS  : Help :   [ -K | FooKey_Mode ]
STATUS  : Help :            * Default : 4
STATUS  : Help :              * 1 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :              * 2 : 11.0.0- Treats The Backslash '\' Character, As An Escape Character, Password Does Not Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :              * 3 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Password Includes FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :              * 4 : 11.0.0+ Treats The Backslash '\' Character, As A Raw Character, Does Not Password Include FooKey Meta Delimiters : <FooKey(NNN)> </FooKey(NNN)>
STATUS  : Help :                    * Where N = Numerical Characters 0 - 9
STATUS  : Help :
STATUS  : Help :   [ -m | Message Digest To Use OpenSSL_MD ]
STATUS  : Help :            * sha256 is Default
STATUS  : Help :               * Available For : OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl
STATUS  : Help :                  blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :              OpenSSL 1.1.1w  11 Sep 2023 : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1w/bin/openssl : blake2b512 blake2s256 gost md4 md5 mdc2 rmd160 sha1 sha224 sha256 sha3-224
sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.12/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023) : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.4/bin/openssl : blake2b512 blake2s256 md5 rmd160 sha1
sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224 sha512-256 shake128 shake256 sm3
STATUS  : Help :              OpenSSL 1.1.1f  31 Mar 2020 : /usr/bin/openssl : blake2b512 blake2s256 gost md4 md5 rmd160 sha1 sha224 sha256 sha3-224 sha3-256 sha3-384 sha3-512 sha384 sha512 sha512-224
sha512-256 shake128 shake256 sm3
STATUS  : Help :
STATUS  : Help :   [ -n | New FooHome Directory ]
STATUS  : Help :            * Default : /home/FooCrypt/FooCrypt
STATUS  : Help :            * Must Contain The FooCrypt License Files
STATUS  : Help :            * Matrix_Test Must Have Write Access
STATUS  : Help :
STATUS  : Help :   [ -t | Temp Directory ]
STATUS  : Help :            * Default : /home/FooCrypt/FooCrypt/20231107151821_FooTest-11_Matrix_Test/Tmp_22293
STATUS  : Help :
STATUS  : Help :   [ -U | UpDate Url ]
STATUS  : Help :            * Default : https://downloads.foocrypt.xyz/
STATUS  : Help :
STATUS  : Help :   [ -v | Verbose ]
STATUS  : Help :            * Enables Matrix_Test Verbose
STATUS  : Help :
STATUS  : Help :   [ -X | UpDate | Validate ]
STATUS  : Help :          UpDate
STATUS  : Help :            * Check For Updates
STATUS  : Help :              * Requires Internet Access
STATUS  : Help :              * Requires curl
STATUS  : Help :
STATUS  : Help :          Validate
STATUS  : Help :            * Validate SHA256 Signatures of all files located in /opt/FooCrypt
STATUS  : Help :
STATUS  : Help :   [ -z | Absolute PATH to OpenSSL ]
STATUS  : Help :            * Default : /usr/bin/openssl
STATUS  : Help :
STATUS  : Help :   [ -Z | Special Openssl Options ]
STATUS  : Help :            * OPENSSL Only
STATUS  : Help :            * Varies Depending On The Version Of OpenSSL You Are Using
STATUS  : Help :            * Place Options Inside Double Quotes "
STATUS  : Help :            * See [ Absolute PATH to OpenSSL ] enc -help
STATUS  : Help :            * See man -s 1 enc
STATUS  : Help :
STATUS  : Help :   Exclude :
STATUS  : Help :            -a                  Base64 encode/decode, depending on encryption flag
STATUS  : Help :            -A                  Used with -[base64|a] to specify base64 buffer as a single line
STATUS  : Help :            -ciphers            Alias for -list
STATUS  : Help :            -d                  Decrypt
STATUS  : Help :            -e                  Encrypt
STATUS  : Help :            -in infile          Input file
STATUS  : Help :            -kfile infile       Read passphrase from file
STATUS  : Help :            -k val              Passphrase
STATUS  : Help :            -K val              Raw key, in hex
STATUS  : Help :            -md val             Use specified digest to create a key from the passphrase
STATUS  : Help :            -out outfile        Output file
STATUS  : Help :            -pass val           Passphrase source
STATUS  : Help :
STATUS  : Help :   Include :
STATUS  : Help :            -bufsize val        Buffer size
STATUS  : Help :            -debug              Print debug info
STATUS  : Help :            -engine val         Use engine, possibly a hardware device
STATUS  : Help :            -iter +int          Specify the iteration count and force use of PBKDF2
STATUS  : Help :            -iv val             IV in hex
STATUS  : Help :            -none               Don't encrypt
STATUS  : Help :            -nopad              Disable standard block padding
STATUS  : Help :            -nosalt             Do not use salt in the KDF
STATUS  : Help :            -pbkdf2             Use password-based key derivation function 2
STATUS  : Help :            -p                  Print the iv/key
STATUS  : Help :            -P                  Print the iv/key and exit
STATUS  : Help :            -rand val           Load the file(s) into the random number generator
STATUS  : Help :            -salt               Use salt in the KDF (default)
STATUS  : Help :            -S val              Salt, in hex
STATUS  : Help :            -writerand outfile  Write random data to the specified file
STATUS  :
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20231107151821_FooTest-11_Matrix_Test
STATUS  :
STATUS  : Matrix_Test_RunTime      : 1 Seconds
STATUS  : Matrix_Test_RunTime      : 0 Days, 0 Hours, 0 Minutes, 1 Second
STATUS  :
STATUS  : Matrix_Test_Exit_Code_0
STATUS  :
```

- Matrix_Test log file showing FooCrypt-aes256 matrix validation StdOut

-> /opt/FooCrypt/Matrix_Test -a FooCrypt-aes256

```
STATUS  : Runtime Options          : Matrix_Test -a FooCrypt-aes256
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib64:/usr/lib32:/usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : OpenSSL 1.1.1f  31 Mar 2020
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /bin/bash: warning: shell level (1958) too high, resetting to 1
STATUS  :        linux-vdso.so.1 (0x00007fff769d7000)
STATUS  :        libssl.so.1.1 => /lib/x86_64-linux-gnu/libssl.so.1.1 (0x00007fd108b81000)
STATUS  :        libcrypto.so.1.1 => /lib/x86_64-linux-gnu/libcrypto.so.1.1 (0x00007fd1088aa000)
STATUS  :        libpthread.so.0 => /lib/x86_64-linux-gnu/libpthread.so.0 (0x00007fd108887000)
STATUS  :        libc.so.6 => /lib/x86_64-linux-gnu/libc.so.6 (0x00007fd108695000)
STATUS  :        libdl.so.2 => /lib/x86_64-linux-gnu/libdl.so.2 (0x00007fd10868f000)
STATUS  :        /lib64/ld-linux-x86-64.so.2 (0x00007fd108ce6000)
STATUS  :
STATUS  : Found                    : /opt/FooCrypt/FooCrypt.Info
STATUS  :
STATUS  : Running Matrix_Test Initialisation Integrity Checks
STATUS  :
STATUS  : Passed Matrix_Test Initialisation Integrity Check 0
STATUS  :
STATUS  : Running Instances Of     : Matrix_Test
STATUS  :
STATUS  : User ID                  : 1000
STATUS  : Group ID                 : 1000
STATUS  : Process ID               : 4167418
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 1000      1000      4167418   134869    /opt/FooCrypt/Matrix_Test
STATUS  :
STATUS  : Passed Matrix_Test Initialisation Integrity Check 1
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 3604931225
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /home/FooCrypt/FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1/FwCAH5fZWYOxLIbQa0TP7Igvf0vRmUpWugZhZzn0dFzXDQKHyiMMj
STATUS  : mXuHr6hLtXS7RbF+MLLCee36SxWjlRIyPngMLRiisqqfEntlxbhB69w215a8Paqa
STATUS  :
STATUS  :
STATUS  : System_Serial=20230709204651:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Linux, BuildTest Expiration Date : 20230709204651
STATUS  :
STATUS  :
STATUS  : Generating Matrix Test List Of Cyphers
STATUS  :
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl
STATUS  : OpenSSL                  : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  :
STATUS  : Generating Cypher List   : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl
STATUS  : Generating Cypher List   : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl
STATUS  : Generating Cypher List   : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl
STATUS  : Generating Cypher List   : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl
STATUS  : Generating Cypher List   : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl
STATUS  : Generating Cypher List   : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl
STATUS  : Generating Cypher List   : /usr/bin/openssl
STATUS  :
STATUS  : Calculating RunTime      :
STATUS  :
STATUS  : Matrix Test List                                  : /home/FooCrypt/FooCrypt/20230708001117_FooTest_Matrix_Test/Tmp_27157/matrix_test.628.list
STATUS  : Matrix Test List Of Cyphers Count                 : 7
STATUS  : Matrix Test Cypher Iterations Count               : 56
STATUS  : Matrix Test RunTime Estimate Per Iteration        : 11 Seconds
STATUS  : Matrix Test RunTime Estimate Total                : 0 Days, 0 Hours, 10 Minutes, 16 Seconds
STATUS  :
STATUS  : OpenSSL_1.1.1t_7_Feb_2023@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1t/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_1.1.1u_30_May_2023@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1u/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.8/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.9/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.0/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)@/opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.1/bin/openssl@FooCrypt-aes256
STATUS  : OpenSSL_1.1.1f_31_Mar_2020@/usr/bin/openssl@FooCrypt-aes256
STATUS  :
STATUS  :
TESTING : MATRIX  : 1/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,NONE
SUCCESS : MATRIX  : 1/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,NONE,OK,9 Seconds
TESTING : MATRIX  : 2/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_1.1.1f_31_Mar_2020
SUCCESS : MATRIX  : 2/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_1.1.1f_31_Mar_2020,OK,7 Seconds
TESTING : MATRIX  : 3/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_1.1.1t_7_Feb_2023
SUCCESS : MATRIX  : 3/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_1.1.1t_7_Feb_2023,OK,9 Seconds
TESTING : MATRIX  : 4/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_1.1.1u_30_May_2023
SUCCESS : MATRIX  : 4/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_1.1.1u_30_May_2023,OK,9 Seconds
TESTING : MATRIX  : 5/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)
SUCCESS : MATRIX  : 5/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),OK,9 Seconds
TESTING : MATRIX  : 6/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)
SUCCESS : MATRIX  : 6/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),OK,9 Seconds
TESTING : MATRIX  : 7/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)
SUCCESS : MATRIX  : 7/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),OK,7 Seconds
TESTING : MATRIX  : 8/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)
SUCCESS : MATRIX  : 8/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1f_31_Mar_2020,Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),OK,7 Seconds
TESTING : MATRIX  : 9/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,NONE
SUCCESS : MATRIX  : 9/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,NONE,OK,7 Seconds
TESTING : MATRIX  : 10/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_1.1.1f_31_Mar_2020
SUCCESS : MATRIX  : 10/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_1.1.1f_31_Mar_2020,OK,8 Seconds
TESTING : MATRIX  : 11/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_1.1.1t_7_Feb_2023
SUCCESS : MATRIX  : 11/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_1.1.1t_7_Feb_2023,OK,9 Seconds
TESTING : MATRIX  : 12/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_1.1.1u_30_May_2023
SUCCESS : MATRIX  : 12/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_1.1.1u_30_May_2023,OK,8 Seconds
TESTING : MATRIX  : 13/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)
SUCCESS : MATRIX  : 13/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),OK,11 Seconds
TESTING : MATRIX  : 14/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)
SUCCESS : MATRIX  : 14/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),OK,6 Seconds
TESTING : MATRIX  : 15/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)
SUCCESS : MATRIX  : 15/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),OK,7 Seconds
TESTING : MATRIX  : 16/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)
SUCCESS : MATRIX  : 16/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1t_7_Feb_2023,Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),OK,8 Seconds
TESTING : MATRIX  : 17/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,NONE
SUCCESS : MATRIX  : 17/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,NONE,OK,17 Seconds
TESTING : MATRIX  : 18/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_1.1.1f_31_Mar_2020
SUCCESS : MATRIX  : 18/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_1.1.1f_31_Mar_2020,OK,7 Seconds
TESTING : MATRIX  : 19/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_1.1.1t_7_Feb_2023
SUCCESS : MATRIX  : 19/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_1.1.1t_7_Feb_2023,OK,7 Seconds
TESTING : MATRIX  : 20/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_1.1.1u_30_May_2023
SUCCESS : MATRIX  : 20/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_1.1.1u_30_May_2023,OK,10 Seconds
TESTING : MATRIX  : 21/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)
SUCCESS : MATRIX  : 21/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),OK,7 Seconds
TESTING : MATRIX  : 22/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)
SUCCESS : MATRIX  : 22/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),OK,10 Seconds
TESTING : MATRIX  : 23/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)
SUCCESS : MATRIX  : 23/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),OK,12 Seconds
TESTING : MATRIX  : 24/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)
SUCCESS : MATRIX  : 24/56 : FooCrypt-aes256,Enc:OpenSSL_1.1.1u_30_May_2023,Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),OK,7 Seconds
TESTING : MATRIX  : 25/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),NONE
SUCCESS : MATRIX  : 25/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),NONE,OK,8 Seconds
TESTING : MATRIX  : 26/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020
```

```
SUCCESS : MATRIX  : 26/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020,OK,8 Seconds
TESTING : MATRIX  : 27/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023
SUCCESS : MATRIX  : 27/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023,OK,7 Seconds
TESTING : MATRIX  : 28/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_1.1.1u_30_May_2023
SUCCESS : MATRIX  : 28/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_1.1.1u_30_May_2023,OK,8 Seconds
TESTING : MATRIX  : 29/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)
SUCCESS : MATRIX  : 29/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),OK,7 Seconds
TESTING : MATRIX  : 30/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)
SUCCESS : MATRIX  : 30/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),OK,8 Seconds
TESTING : MATRIX  : 31/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)
SUCCESS : MATRIX  : 31/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),OK,9 Seconds
TESTING : MATRIX  : 32/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)
SUCCESS : MATRIX  : 32/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),OK,11 Seconds
TESTING : MATRIX  : 33/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),NONE
SUCCESS : MATRIX  : 33/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),NONE,OK,7 Seconds
TESTING : MATRIX  : 34/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020
SUCCESS : MATRIX  : 34/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020,OK,14 Seconds
TESTING : MATRIX  : 35/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023
SUCCESS : MATRIX  : 35/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023,OK,10 Seconds
TESTING : MATRIX  : 36/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_1.1.1u_30_May_2023
SUCCESS : MATRIX  : 36/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_1.1.1u_30_May_2023,OK,18 Seconds
TESTING : MATRIX  : 37/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)
SUCCESS : MATRIX  : 37/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),OK,8 Seconds
TESTING : MATRIX  : 38/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)
SUCCESS : MATRIX  : 38/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),OK,14 Seconds
TESTING : MATRIX  : 39/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)
SUCCESS : MATRIX  : 39/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),OK,13 Seconds
TESTING : MATRIX  : 40/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)
SUCCESS : MATRIX  : 40/56 : FooCrypt-aes256,Enc:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),OK,7 Seconds
TESTING : MATRIX  : 41/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),NONE
SUCCESS : MATRIX  : 41/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),NONE,OK,11 Seconds
TESTING : MATRIX  : 42/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020
SUCCESS : MATRIX  : 42/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020,OK,8 Seconds
TESTING : MATRIX  : 43/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023
SUCCESS : MATRIX  : 43/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023,OK,8 Seconds
TESTING : MATRIX  : 44/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_1.1.1u_30_May_2023
SUCCESS : MATRIX  : 44/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_1.1.1u_30_May_2023,OK,6 Seconds
TESTING : MATRIX  : 45/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)
SUCCESS : MATRIX  : 45/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),OK,17 Seconds
TESTING : MATRIX  : 46/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)
SUCCESS : MATRIX  : 46/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),OK,7 Seconds
TESTING : MATRIX  : 47/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)
SUCCESS : MATRIX  : 47/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),OK,8 Seconds
TESTING : MATRIX  : 48/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)
SUCCESS : MATRIX  : 48/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),OK,8 Seconds
TESTING : MATRIX  : 49/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),NONE
SUCCESS : MATRIX  : 49/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),NONE,OK,8 Seconds
TESTING : MATRIX  : 50/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020
SUCCESS : MATRIX  : 50/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_1.1.1f_31_Mar_2020,OK,7 Seconds
TESTING : MATRIX  : 51/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023
SUCCESS : MATRIX  : 51/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_1.1.1t_7_Feb_2023,OK,11 Seconds
TESTING : MATRIX  : 52/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_1.1.1u_30_May_2023
SUCCESS : MATRIX  : 52/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_1.1.1u_30_May_2023,OK,9 Seconds
TESTING : MATRIX  : 53/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023)
SUCCESS : MATRIX  : 53/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.0.8_7_Feb_2023_(Library:_OpenSSL_3.0.8_7_Feb_2023),OK,8 Seconds
TESTING : MATRIX  : 54/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023)
SUCCESS : MATRIX  : 54/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.0.9_30_May_2023_(Library:_OpenSSL_3.0.9_30_May_2023),OK,11 Seconds
TESTING : MATRIX  : 55/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023)
SUCCESS : MATRIX  : 55/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.1.0_14_Mar_2023_(Library:_OpenSSL_3.1.0_14_Mar_2023),OK,8 Seconds
TESTING : MATRIX  : 56/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023)
SUCCESS : MATRIX  : 56/56 : FooCrypt-aes256,Enc:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),Dec:OpenSSL_3.1.1_30_May_2023_(Library:_OpenSSL_3.1.1_30_May_2023),OK,7 Seconds
STATUS  :
STATUS  : Removing Temp Directory  : /home/FooCrypt/FooCrypt/20230708001117_FooTest_Matrix_Test
STATUS  :
STATUS  : Matrix_Test_RunTime      : 575 Seconds
STATUS  : Matrix_Test_RunTime      : 0 Days, 0 Hours, 9 Minutes, 35 Seconds
STATUS  :
STATUS  : Matrix_Test_Exit_Code_0
STATUS  :
```

FooSteg

- FooSteg performs Steganography via Binary RGB Encoding & Decoding Of A Base64 File Into & From An Image.

  - FooSteg Supports The Following Image Formats / Functionality.

    - GIF & JPEG Formats Utilise A Compression Algorithm Which Prevents The Format From Being The Data Carrier For The Binary RGB Encoding / Decoding

```
ID = Input Data Image    [ See -d & -D ]
IF = Input File Image    [ See -f & -F ]
IS = Input Source Image  [ See -s & -S ]

OC = Output Copy Image    [ See -o & -O ]
OD = Output Data Image    [ See -o & -O ]
OR = Output Random Image  [ See -o & -O ]

NO = Image Format Not Supported
```

Format	Copy	Extract	Random	Read	Write
BMP	IF OC	IS ID	OR	IF	IF OD
GIF	IF	IS	NO	IF	IF
JPEG	IF OC	IS	OR	IF	IF
PCX	IF OC	IS ID	OR	IF	IF OD
PNG	IF OC	IS ID	OR	IF	IF OD
PPM	IF OC	IS ID	OR	IF	IF OD
SGI	IF OC	IS ID	OR	IF	IF OD
SUN	IF OC	IS ID	OR	IF	IF OD
TGA	IF OC	IS ID	OR	IF	IF OD
TIFF	IF OC	IS ID	OR	IF	IF OD

Successful BASE64 Steganography Image Encode / Decode Table	
Input Source Image Format	Data Source Image Format
BMP	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
GIF	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
JPEG	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
PCX	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
PNG	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
PPM	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
SGI	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
SUN	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
TGA	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF
TIFF	BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF

- **Binary RGB Pixel Read and Write Routines**
  - FooSteg currently performs a pixel by pixel read / write of an image as per the ScanMap created via the -A [0 - 7] switch in association with the -p switch to select a non default starting pixel location by suppling a [Pixel Width]x[Pixel Height]

```
-A [ Scan Mode ]
        * Sequence That FooSteg Scans Pixel RGB Values and Writes / Extracts Binary Data To / From The Images
                * Requires
                  -a [ Analyse | Copy | Extract | Random | Read | Test | Write ]

          * 0 [ Start Scan at top left corner,     Create Scan Map from Top to Bottom, Left to Right  ]
                * Default

          * 1 [ Start Scan at bottom left corner,  Create Scan Map from Bottom to Top, Left to Right ]
          * 2 [ Start Scan at top right corner,    Create Scan Map from Top to Bottom, Right to Left ]
          * 3 [ Start Scan at bottom right corner, Create Scan Map from Bottom to Top, Right to Left ]
          * 4 [ Start Scan at top left corner,     Create Scan Map from Left to Right, Top to Bottom ]
          * 5 [ Start Scan at bottom left corner,  Create Scan Map from Left to Right, Bottom to Top ]
          * 6 [ Start Scan at top right corner,    Create Scan Map from Right to Left, Top to Bottom ]
          * 7 [ Start Scan at bottom right corner, Create Scan Map from Right to Left, Bottom to Top ]


                        0x0 _____________________________________    [ Image Width - 1 ]x0
                           |                                     |
                           |                                     |
                           |                                     |
                           |                                     |
                           |   Any Pixel @ [ Width ]x[ Height ]  |
                           |                                     |
                           |                                     |
                           |                                     |
                           |                                     |
                            _____________________________________
        0x[ Image Height - 1 ]                                    [ Image Width - 1 ]x[ Image Height - 1 ]


-p [ Starting Pixel [ Width ]x[ Height ] ]
        * Starting Pixel Located @ [Width Pixel]x[Height Pixel] To Be Used By Scan Mode -A [ 0 - 7 ]
                * Default 0x0 [ Top Left Corner Of Image ] For Default Scan Mode -A 0
                * Requires
                  -a [ Analyse | Copy | Extract | Random | Read | Test | Write ]
                * Optional
                  -A [ 0 - 7 ]
          * 0 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Top to Bottom, Left to Right  ]
                * Default

          * 1 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Bottom to Top, Left to Right ]
          * 2 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Top to Bottom, Right to Left ]
          * 3 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Bottom to Top, Right to Left ]
          * 4 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Left to Right, Top to Bottom ]
          * 5 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Left to Right, Bottom to Top ]
          * 6 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Right to Left, Top to Bottom ]
          * 7 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Right to Left, Bottom to Top ]

                        0x0 _____________________________________ [ Image Width - 1 ]x0
                           |                                     |
                           |                                     |
                           |                                     |
                           |                                     |
                           |   Any Pixel @ [ Width ]x[ Height ]  |
                           |                                     |
                           |                                     |
                           |                                     |
                           |                                     |
                            _____________________________________
        0x[ Image Height - 1 ]                                    [ Image Width - 1 ]x[ Image Height - 1 ]
```

- The RGB values for each pixel are tested against the RGB Minimum and RGB Maximum values specified in the FooSteg Preferences.
- If an RGB value is equal to or greater than the RGB Minimum and equal to or less than the RGB Maximum, the RGB value is increased by the binary value of the ASCII character, spread across a set of 9 RGB values.
  - ie for -a Write :
    - ASCII Character 65 = 'A' = 1000001 in Binary. The binary value 1000001 is then padded so that it contains 9 characters by adding leading zeros which produces ‘001000001’. FooSteg writes the values as an offset from the current RGB value of a pixel. So if the pixels located at 0.0 through 0.2 contains RGB values of 10 100 10, and the RGB Min / Max settings are 1 254 respectively, FooSteg will write the pixels located at 0.0 through 0.2 with their new RGB values of 10 100 11, 10 100 10, 10 100 11. This is repeated until all characters are written to the Data Image.

- **Example Verbose : Write : FooSteg -a Write -v Write1 -V**

```
VERBOSE : Write1     : Pixel @ 20 x 3                    : Source RGB = 192    59   193 : Binary = '0' '0' '1' : Data RGB = 192    59   194
VERBOSE : Write1     : Pixel @ 20 x 6                    : Source RGB =  46     0   103 : Binary = '1' 'X' '0' : Data RGB =  47     0   103
VERBOSE : Write1     : Pixel @ 20 x 15                   : Source RGB = 146   114   207 : Binary = '1' '0' '0' : Data RGB = 147   114   207
VERBOSE : Write1     : Pixel @ 20 x 16                   : Source RGB = 108   153   162 : Binary = '1' '0' '0' : Data RGB = 109   153   162
VERBOSE : Write1     : Pixel @ 20 x 33                   : Source RGB = 186    99    15 : Binary = '1' '0' '1' : Data RGB = 187    99    16
VERBOSE : Write1     : Pixel @ 20 x 36                   : Source RGB = 235   229   129 : Binary = '0' '1' '1' : Data RGB = 235   230   130
VERBOSE : Write1     : Pixel @ 2 x 4                     : Source RGB =  26   239   155 : Binary = '0' '0' '0' : Data RGB =  26   239   155
VERBOSE : Write1     : Pixel @ 21 x 2                    : Source RGB = 195   141   173 : Binary = '1' '0' '0' : Data RGB = 196   141   173
VERBOSE : Write1     : Pixel @ 21 x 5                    : Source RGB =  15   244    93 : Binary = '0' '0' '1' : Data RGB =  15   244    92
VERBOSE : Write1     : Pixel @ 2 x 6                     : Source RGB = 142    48   255 : Binary = '0' '0' 'X' : Data RGB = 142    48   255
VERBOSE : Write1     : Pixel @ 2 x 7                     : Source RGB =  74   129    12 : Binary = '0' '1' '0' : Data RGB =  74   128    12
VERBOSE : Write1     : Pixel @ 21 x 21                   : Source RGB = 108    83   171 : Binary = '0' '1' '1' : Data RGB = 108    82   170
VERBOSE : Write1     : Pixel @ 21 x 25                   : Source RGB = 133    50   223 : Binary = '1' '1' '0' : Data RGB = 132    49   223
VERBOSE : Write1     : Pixel @ 2 x 8                     : Source RGB =  61   188    93 : Binary = '0' '1' '0' : Data RGB =  61   187    93
VERBOSE : Write1     : Pixel @ 21 x 30                   : Source RGB =  37    72    15 : Binary = '1' '0' '0' : Data RGB =  36    72    15
VERBOSE : Write1     : Pixel @ 21 x 40                   : Source RGB =  63    44     7 : Binary = '1' '0' '0' : Data RGB =  62    44     7
VERBOSE : Write1     : Pixel @ 21 x 46                   : Source RGB = 116   127   209 : Binary = '0' '1' '1' : Data RGB = 116   126   210
```

- **Example Verbose : Write : FooSteg -a Write -v Write2 -V**

```
VERBOSE : Write2     : Binary Character = 1              : Positive Write Binary Character '0' To Pixel @ 20 x 3 : 192  ->  192 : Red
VERBOSE : Write2     : Binary Character = 2              : Positive Write Binary Character '0' To Pixel @ 20 x 3 :  59  ->   59 : Green
VERBOSE : Write2     : Binary Character = 3              : Write Binary Character '1' To Pixel @ 20 x 3 : 193  ->  194 : Blue
VERBOSE : Write2     : Binary Character = 4              : Positive Write Binary Character '1' To Pixel @ 20 x 6 :  46  ->   47 : Red
VERBOSE : Write2     : Binary Character = 5              : Write Binary Character '0' To Pixel @ 20 x 6 : 103  ->  103 : Blue
VERBOSE : Write2     : Binary Character = 6              : Positive Write Binary Character '1' To Pixel @ 20 x 15 : 146  ->  147 : Red
VERBOSE : Write2     : Binary Character = 7              : Positive Write Binary Character '0' To Pixel @ 20 x 15 : 114  ->  114 : Green
VERBOSE : Write2     : Binary Character = 8              : Write Binary Character '0' To Pixel @ 20 x 15 : 207  ->  207 : Blue
VERBOSE : Write2     : Binary Character = 9              : Positive Write Binary Character '1' To Pixel @ 20 x 16 : 108  ->  109 : Red
VERBOSE : Write2     : Binary Character = 10             : Positive Write Binary Character '0' To Pixel @ 20 x 16 : 153  ->  153 : Green
VERBOSE : Write2     : Binary Character = 11             : Write Binary Character '0' To Pixel @ 20 x 16 : 162  ->  162 : Blue
VERBOSE : Write2     : Binary Character = 12             : Positive Write Binary Character '1' To Pixel @ 20 x 33 : 186  ->  187 : Red
VERBOSE : Write2     : Binary Character = 13             : Positive Write Binary Character '0' To Pixel @ 20 x 33 :  99  ->   99 : Green
VERBOSE : Write2     : Binary Character = 14             : Write Binary Character '1' To Pixel @ 20 x 33 :  15  ->   16 : Blue
VERBOSE : Write2     : Binary Character = 15             : Positive Write Binary Character '0' To Pixel @ 20 x 36 : 235  ->  235 : Red
VERBOSE : Write2     : Binary Character = 16             : Positive Write Binary Character '1' To Pixel @ 20 x 36 : 229  ->  230 : Green
VERBOSE : Write2     : Binary Character = 17             : Write Binary Character '1' To Pixel @ 20 x 36 : 129  ->  130 : Blue
VERBOSE : Write2     : Binary Character = 18             : Positive Write Binary Character '0' To Pixel @ 2 x 4 :  26  ->   26 : Red
VERBOSE : Write2     : Binary Character = 19             : Positive Write Binary Character '0' To Pixel @ 2 x 4 : 239  ->  239 : Green
VERBOSE : Write2     : Binary Character = 20             : Write Binary Character '0' To Pixel @ 2 x 4 : 155  ->  155 : Blue
VERBOSE : Write2     : Binary Character = 21             : Positive Write Binary Character '1' To Pixel @ 21 x 2 : 195  ->  196 : Red
VERBOSE : Write2     : Binary Character = 22             : Positive Write Binary Character '0' To Pixel @ 21 x 2 : 141  ->  141 : Green
VERBOSE : Write2     : Binary Character = 23             : Write Binary Character '0' To Pixel @ 21 x 2 : 173  ->  173 : Blue
VERBOSE : Write2     : Binary Character = 24             : Positive Write Binary Character '0' To Pixel @ 21 x 5 :  15  ->   15 : Red
VERBOSE : Write2     : Binary Character = 25             : Negative Write Binary Character '0' To Pixel @ 21 x 5 : 244  ->  244 : Green
VERBOSE : Write2     : Binary Character = 26             : Write Binary Character '1' To Pixel @ 21 x 5 :  93  ->   92 : Blue
VERBOSE : Write2     : Binary Character = 27             : Negative Write Binary Character '0' To Pixel @ 2 x 6 : 142  ->  142 : Red
VERBOSE : Write2     : Binary Character = 28             : Negative Write Binary Character '0' To Pixel @ 2 x 6 :  48  ->   48 : Green
VERBOSE : Write2     : Binary Character = 29             : Negative Write Binary Character '0' To Pixel @ 2 x 7 :  74  ->   74 : Red
VERBOSE : Write2     : Binary Character = 30             : Negative Write Binary Character '1' To Pixel @ 2 x 7 : 129  ->  128 : Green
VERBOSE : Write2     : Binary Character = 31             : Write Binary Character '0' To Pixel @ 2 x 7 :  12  ->   12 : Blue
```

- The base64 data is then extracted from the Data Image, using the Source Image, to recreate the base64 file for comparison with the input base64 file.

- **Example Verbose StdOut : Extract Test : FooSteg -a Write -v Extract1 -V**

```
VERBOSE : Extract1   : Pixel @ 20 x 3                    : Source RGB = 192    59   193 : Data RGB = 192    59   194 : Binary = '0'   '0'   '1'
VERBOSE : Extract1   : Pixel @ 20 x 6                    : Source RGB =  46     0   103 : Data RGB =  47     0   103 : Binary = '1'   'X'   '0'
VERBOSE : Extract1   : Pixel @ 20 x 15                   : Source RGB = 146   114   207 : Data RGB = 147   114   207 : Binary = '1'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 20 x 16                   : Source RGB = 108   153   162 : Data RGB = 109   153   162 : Binary = '1'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 20 x 33                   : Source RGB = 186    99    15 : Data RGB = 187    99    16 : Binary = '1'   '0'   '1'
VERBOSE : Extract1   : Pixel @ 20 x 36                   : Source RGB = 235   229   129 : Data RGB = 235   230   130 : Binary = '0'   '1'   '1'
VERBOSE : Extract1   : Pixel @ 2 x 4                     : Source RGB =  26   239   155 : Data RGB =  26   239   155 : Binary = '0'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 21 x 2                    : Source RGB = 195   141   173 : Data RGB = 196   141   173 : Binary = '1'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 21 x 5                    : Source RGB =  15   244    93 : Data RGB =  15   244    92 : Binary = '0'   '0'   '1'
VERBOSE : Extract1   : Pixel @ 2 x 6                     : Source RGB = 142    48   255 : Data RGB = 142    48   255 : Binary = '0'   '0'   'X'
VERBOSE : Extract1   : Pixel @ 2 x 7                     : Source RGB =  74   129    12 : Data RGB =  74   128    12 : Binary = '0'   '1'   '0'
VERBOSE : Extract1   : Pixel @ 21 x 21                   : Source RGB = 108    83   171 : Data RGB = 108    82   170 : Binary = '0'   '1'   '1'
VERBOSE : Extract1   : Pixel @ 21 x 25                   : Source RGB = 133    50   223 : Data RGB = 132    49   223 : Binary = '1'   '1'   '0'
VERBOSE : Extract1   : Pixel @ 2 x 8                     : Source RGB =  61   188    93 : Data RGB =  61   187    93 : Binary = '0'   '1'   '0'
VERBOSE : Extract1   : Pixel @ 21 x 30                   : Source RGB =  37    72    15 : Data RGB =  36    72    15 : Binary = '1'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 21 x 40                   : Source RGB =  63    44     7 : Data RGB =  62    44     7 : Binary = '1'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 21 x 46                   : Source RGB = 116   127   209 : Data RGB = 116   126   210 : Binary = '0'   '1'   '1'
VERBOSE : Extract1   : Pixel @ 22 x 6                    : Source RGB =  27   152   170 : Data RGB =  28   152   171 : Binary = '1'   '0'   '1'
VERBOSE : Extract1   : Pixel @ 22 x 15                   : Source RGB =  72   171    40 : Data RGB =  73   172    40 : Binary = '1'   '1'   '0'
VERBOSE : Extract1   : Pixel @ 22 x 20                   : Source RGB = 161    53    15 : Data RGB = 161    53    16 : Binary = '0'   '0'   '1'
VERBOSE : Extract1   : Pixel @ 2 x 13                    : Source RGB =  14    20   222 : Data RGB =  15    20   222 : Binary = '1'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 22 x 36                   : Source RGB = 116   143   214 : Data RGB = 116   143   214 : Binary = '0'   '0'   '0'
VERBOSE : Extract1   : Pixel @ 22 x 37                   : Source RGB = 172   108   159 : Data RGB = 172   109   159 : Binary = '0'   '1'   '0'
```

- **Example Verbose StdOut : Extract Test : FooSteg -a Write -v Extract2 -V**

```
VERBOSE : Extract2   : Pixel @ 0 x 0                     : Source Red = 147 : Data Red = 147 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 0                     : Source Blue = 124 : Data Blue = 124 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 1                     : Source Green = 165 : Data Green = 165 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 2                     : Source Red = 150 : Data Red = 151 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 2                     : Source Green = 230 : Data Green = 231 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 2                     : Source Blue = 184 : Data Blue = 185 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 3                     : Source Green = 218 : Data Green = 218 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                     : Source Red = 227 : Data Red = 227 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                     : Source Green = 224 : Data Green = 224 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                     : Source Blue = 160 : Data Blue = 160 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 5                     : Source Red = 224 : Data Red = 224 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 5                     : Source Green = 224 : Data Green = 225 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 5                     : Source Blue = 186 : Data Blue = 187 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 7                     : Source Blue = 138 : Data Blue = 139 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 8                     : Source Red = 197 : Data Red = 198 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 10                    : Source Green = 140 : Data Green = 140 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 10                    : Source Blue = 147 : Data Blue = 147 : Positive Binary = ‘0'
VERBOSE : Extract2   : Extracted Binary Data             : 001101001
VERBOSE : Extract2   : Extracted Binary Data             : 001010110
VERBOSE : Extract2   : Extracted Binary Data             : 001000010
VERBOSE : Extract2   : Extracted Binary Data             : 001001111
VERBOSE : Extract2   : Extracted Binary Data             : 001010010
VERBOSE : Extract2   : Extracted Binary Data             : 001110111
VERBOSE : Extract2   : Extracted Binary Data             : 000110000
VERBOSE : Extract2   : Extracted Binary Data             : 001001011
VERBOSE : Extract2   : Extracted Binary Data             : 001000111
VERBOSE : Extract2   : Extracted Binary Data             : 001100111
VERBOSE : Extract2   : Extracted Binary Data             : 001101111
VERBOSE : Extract2   : Extracted Binary Data             : 001000001
VERBOSE : Extract2   : Extracted Binary Data             : 001000001
VERBOSE : Extract2   : Extracted Binary Data             : 001000001
VERBOSE : Extract2   : Extracted Binary Data             : 001000001
VERBOSE : Extract2   : Extracted Binary Data             : 001001110
VERBOSE : Extract2   : Extracted Binary Data             : 001010011
```

- ie for -a Extract :
  - ASCII Character 65 = 'A' = 1000001 in Binary. The binary value 1000001 is then padded so that it contains 9 characters by adding leading zeros which produces ‘001000001’. FooSteg reads the RGB values of the Source Image and the Data Image comparing each RGB value for each pixel location based on the RGB Minimum and RGB Maximum settings.

  - So if the pixels in the Source Image located at 0.0 through 0.2 contains RGB values of 10 100 10, and the RGB Min / Max settings are 1 254 respectively and the pixels in the Data Image located at 0.0 through 0.2 contains RGB values of 10 100 11, 10 100 10, 10 100 11, the comparison of the binary values produces the binary number ‘001000001’ which is then converted to its ASCII Character value ‘A’. This process is continued by reading and comparing each pixels RGB values until FooSteg identifies the EOF marker by extracting 9 zeros during comparison of the RGB pixel values. The base64 formatted file is then created.

- **Example Verbose StdOut : Extract : FooSteg -a Extract -v ExtractMap,Extract1,Extract2 -V**

```
STATUS  : Extract    : Extracting Binary Data                    :
STATUS  : Extract    : Data Image File Name                      : /Users/foocrypt/Data.TIFF
STATUS  : Extract    : Data Image Width                          : 50
STATUS  : Extract    : Data Image Height                         : 50
STATUS  : Extract    : Data Image Frames                         : 1
STATUS  : Extract    : Data Image Total Pixels                   : 2500
STATUS  : Extract    :
STATUS  : Extract    : Src Image File Name                       : /Users/foocrypt/Source.TIFF
STATUS  : Extract    : Src Image Width                           : 50
STATUS  : Extract    : Src Image Height                          : 50
STATUS  : Extract    : Src Image Frames                          : 1
STATUS  : Extract    : Src Image Total Pixels                    : 2500
STATUS  : Extract    :
STATUS  : Extract    : Min RGB                                   : 123
STATUS  : Extract    : Max RGB                                   : 231
STATUS  : Extract    :
VERBOSE :
VERBOSE : ExtractMap :                                           :
VERBOSE : ExtractMap : Generating ExtractMap Logs                : /Users/foocrypt/Extract.log
VERBOSE : ExtractMap :                                           :
VERBOSE :
VERBOSE : ExtractMap :                                           : Pixel 0 @ 0x0
VERBOSE : ExtractMap :                                           : Pixel 1 @ 0x1
VERBOSE : ExtractMap :                                           : Pixel 2 @ 0x2
VERBOSE : ExtractMap :                                           : Pixel 3 @ 0x3
VERBOSE : ExtractMap :                                           : Pixel 4 @ 0x4
VERBOSE : ExtractMap :                                           : Pixel 5 @ 0x5
VERBOSE : ExtractMap :                                           : Pixel 6 @ 0x6
VERBOSE : ExtractMap :                                           : Pixel 7 @ 0x7
VERBOSE : ExtractMap :                                           : Pixel 8 @ 0x8
VERBOSE : ExtractMap :                                           : Pixel 9 @ 0x9
VERBOSE : ExtractMap :                                           : Pixel 10 @ 0x10
```

<— —- Cut — —->

```
VERBOSE : Extract1   :                                           :
VERBOSE : Extract1   : Generating Extract1 Logs                  : /Users/foocrypt/Extract.log
VERBOSE : Extract1   :                                           :
VERBOSE :
STATUS  : Extract    : Processed Percent                         : 0%
STATUS  : Extract    : Processed Pixels                          : 0
STATUS  : Extract    : Elapsed Time                              : 596 Milliseconds
STATUS  : Extract    :
VERBOSE : Extract2   : Pixel @ 0 x 0                             : Source Red = 147 : Data Red = 147 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 0                             : Source Blue = 124 : Data Blue = 124 : Positive Binary = '0'
VERBOSE : Extract1   : Pixel @ 0 x 0                             : Source RGB = 147    73   124 : Data RGB = 147    73   124 : Positive Binary = '0'   'X'   '0'
VERBOSE : Extract2   : Pixel @ 0 x 1                             : Source Green = 165 : Data Green = 165 : Positive Binary = '0'
VERBOSE : Extract1   : Pixel @ 0 x 1                             : Source RGB =  49   165    68 : Data RGB =  49   165    68 : Positive Binary = 'X'   '0'   'X'
VERBOSE : Extract2   : Pixel @ 0 x 2                             : Source Red = 150 : Data Red = 151 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 2                             : Source Green = 230 : Data Green = 231 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 2                             : Source Blue = 184 : Data Blue = 185 : Positive Binary = '1'
VERBOSE : Extract1   : Pixel @ 0 x 2                             : Source RGB = 150   230   184 : Data RGB = 151   231   185 : Positive Binary = '1'   '1'   '1'
VERBOSE : Extract2   : Pixel @ 0 x 3                             : Source Green = 218 : Data Green = 218 : Positive Binary = '0'
VERBOSE : Extract1   : Pixel @ 0 x 3                             : Source RGB =   7   218    24 : Data RGB =   7   218    24 : Positive Binary = 'X'   '0'   'X'
VERBOSE : Extract2   : Pixel @ 0 x 4                             : Source Red = 227 : Data Red = 227 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                             : Source Green = 224 : Data Green = 224 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                             : Source Blue = 160 : Data Blue = 160 : Positive Binary = '0'
VERBOSE : Extract1   : Pixel @ 0 x 4                             : Source RGB = 227   224   160 : Data RGB = 227   224   160 : Positive Binary = '0'   '0'   '0'
VERBOSE : Extract2   : Pixel @ 0 x 5                             : Source Red = 224 : Data Red = 224 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 5                             : Source Green = 224 : Data Green = 225 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 5                             : Source Blue = 186 : Data Blue = 187 : Positive Binary = '1'
VERBOSE : Extract1   : Pixel @ 0 x 5                             : Source RGB = 224   224   186 : Data RGB = 224   225   187 : Positive Binary = '0'   '1'   '1'
VERBOSE : Extract1   : Pixel @ 0 x 6                             : Source RGB = 234   121   242 : Data RGB = 234   121   242 : Positive Binary = 'X'   'X'   'X'
VERBOSE : Extract2   : Pixel @ 0 x 7                             : Source Blue = 138 : Data Blue = 139 : Positive Binary = '1'
VERBOSE : Extract1   : Pixel @ 0 x 7                             : Source RGB =  37   238   138 : Data RGB =  37   238   139 : Positive Binary = 'X'   'X'   '1'
VERBOSE : Extract2   : Pixel @ 0 x 8                             : Source Red = 197 : Data Red = 198 : Positive Binary = '1'
VERBOSE : Extract1   : Pixel @ 0 x 8                             : Source RGB = 197    86   120 : Data RGB = 198    86   120 : Positive Binary = '1'   'X'   'X'
VERBOSE : Extract1   : Pixel @ 0 x 9                             : Source RGB = 243     4    75 : Data RGB = 243     4    75 : Positive Binary = 'X'   'X'   'X'
VERBOSE : Extract2   : Pixel @ 0 x 10                            : Source Green = 140 : Data Green = 140 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 10                            : Source Blue = 147 : Data Blue = 147 : Positive Binary = '0'
VERBOSE : Extract1   : Pixel @ 0 x 10                            : Source RGB = 106   140   147 : Data RGB = 106   140   147 : Positive Binary = 'X'   '0'   '0'
```

<— —- Cut — —->

```
STATUS  : Extract    : Processed Percent                         : 99.99999999999999%
STATUS  : Extract    : Processed Pixels                          : 2500
STATUS  : Extract    : Elapsed Time                              : 1587 Milliseconds
STATUS  : Extract    :
STATUS  : Extract    : Total Binary Characters Found             : 3191
VERBOSE : Extract2   :                                           :
VERBOSE : Extract2   : Generating Extract2 Logs                  : /Users/foocrypt/Extract.log
VERBOSE : Extract2   :                                           :
VERBOSE : Extract2   : Extracted Binary Data                     : 000111000
VERBOSE : Extract2   : Extracted Binary Data                     : 001111001
VERBOSE : Extract2   : Extracted Binary Data                     : 000111001
VERBOSE : Extract2   : Extracted Binary Data                     : 001101101
VERBOSE : Extract2   : Extracted Binary Data                     : 000111000
```

- **FooStegCypher**
  FooStegCypher adds an extra layer of security by enhancing the Brute Strength of the data images when they are stored / transmitted via the implementation of Cypher based routines by reordering the ScanMap into a repeatable CypherMap based on a user supplied KEY that is factored in **ROUNDS** via a FooSteg generated TOKEN.

FooStegCypher performs the following routines :

- **FooSteg -a [Write | Test | TestVerbose] -k**
  - User is prompted to enter [FooStegKey]
  - FooSteg Generates [FooStegToken]
  - FooSteg Accepts User Supplied [FooStegToken] -a [Write] -t | -T [FooStegToken]
  - ScanMap -> CypherMap -> [WriteMap | ExtractMap]

- **FooSteg -a Extract -k -t**
  - User is prompted to enter [FooStegKey]
  - User is prompted to enter [FooStegToken]
  - ScanMap -> CypherMap -> [ExtractMap]

- **FooSteg Verbose Switches**
  - FooSteg -v [Analyse | B64Data | Copy | CypherMap | Extract1 | Extract2 | ExtractMap | Random | Read | ReadData | ScanMap | Verify1 | Verify1E | Verify2 | Verify2E | Verify3 | Verify3E | Write1 | Write2 | WriteMap | Test]
    - `Requires -l To Save Verbose Processing Logs To LogFile`
    - `Requires -V To Send Verbose Processing Logs To StdOut`
    - `Optional -i To Save Each Verbose Switch To A Seperate LogFile`

    FooSteg Verbose settings can be aggregated by separating each verbose setting by a comma.

    ie: -v Analyse,Extract1,Verify,Extract2

    Or by using the '-v Test' option to select all verbose settings.

    ie: -v Test

- **Example Verbose StdOut / LogFile Contents**
  - **Analyse**

```
VERBOSE : Analyse  :                              :
VERBOSE : Analyse  : Generating Analyse Logs      : /Users/foocrypt/Analyse.log
VERBOSE : Analyse  :                              :
VERBOSE : Analyse  :
VERBOSE : Analyse  : Pixels Counted Red           : 492161
VERBOSE : Analyse  : Pixels Counted Green         : 492212
VERBOSE : Analyse  : Pixels Counted Blue          : 492161
VERBOSE : Analyse  :
VERBOSE : Analyse  :
VERBOSE : Analyse  : Pixels Counted Red           : 984430
VERBOSE : Analyse  : Pixels Counted Green         : 984348
VERBOSE : Analyse  : Pixels Counted Blue          : 984371
VERBOSE : Analyse  :
```

  - **B64Data**

```
VERBOSE : B64Data  : Generating B64Data Logs      : /Users/foocrypt/Test.log
VERBOSE : B64Data  :
VERBOSE : B64Data  : Output File Name Data Start :
VERBOSE : B64Data  : Line 1                      : iVBORw0KGgoAAAANSUhEUgAAAAoAAAAKCAYAAAH6Nf8rAAABqElEQVQYlQXBW0hT
VERBOSE : B64Data  : Line 2                      : AQAG4P+MoROWIeEepGjMy5rgrYyg6dhAXVGksOmD4ZOKY04YmQV7StEKGcNLUQli
VERBOSE : B64Data  : Line 3                      : JjFEKq8MQbRMYYoXmNKGMJiCisrcmkM5Xfz9PjQVfGJubSrR4syl6/cR4ZscJTRG
VERBOSE : B64Data  : Line 4                      : ExHdNrDlXgK17o8UqpsOaFcNQaIvE+HbAaSrtj/YUnoA1eocx6s6WeF9ycvUMLHP
VERBOSE : B64Data  : Line 5                      : SamnNAJLfBYZ3cmI6OToXUkDzNla/njRzfTbMVY9URC2n5TgURemt17BP/cG18S3
VERBOSE : B64Data  : Line 6                      : yFQPQyp7L8GHMQMiD01YF4x4ra+D0GB4zlsy4l0wDKNiD98KyiHJW4pDnRyDtWcR
VERBOSE : B64Data  : Line 7                      : gYQgNmquQFgTLWz3+XH8qwi478Hdwkpc9c4j/U4ZjNctaFsW0ePvBQ4CtXymvkT3
VERBOSE : B64Data  : Line 8                      : jT4m7Uf4eeUfZ1L+csZewS+NUwzMD/F/2ED07+Qwbj1mlzeTC06RmolinpebOXoS
VERBOSE : B64Data  : Line 9                      : ZfUDGRXupxwsdlDYF2/y9HAattavKMnOR8PJJPYGZHAM6hD1haDbPkMsKwwo9Wq6
VERBOSE : B64Data  : Line 10                     : RnapDW1Sbm5lc5KcHcpzqlxxmurtTFNmUfj+mBeKLM03vZyXoQAAAABJRU5ErkJg
VERBOSE : B64Data  : Line 11                     : gg==
VERBOSE : B64Data  : Output File Name Data End   :
```

  - **Copy**

```
VERBOSE : Copy     :                              :
VERBOSE : Copy     : Generating Copy Logs         : /Users/foocrypt/Copy.log
VERBOSE : Copy     :                              :
VERBOSE : Copy     : Pixel @ 4999 x 999           : RGB =  72   171    87 : ADD = 'X' 'X' 'X' : Write =  72   171    87
VERBOSE : Copy     : Pixel @ 4998 x 999           : RGB = 207   196   175 : ADD = 'X' 'X' 'X' : Write = 207   196   175
VERBOSE : Copy     : Pixel @ 4997 x 999           : RGB =  44    33   252 : ADD = 'X' 'X' 'X' : Write =  44    33   252
VERBOSE : Copy     : Pixel @ 4996 x 999           : RGB =  89   252   158 : ADD = 'X' 'X' 'X' : Write =  89   252   158
VERBOSE : Copy     : Pixel @ 4995 x 999           : RGB = 162    51   218 : ADD = 'X' 'X' 'X' : Write = 162    51   218
VERBOSE : Copy     : Pixel @ 4994 x 999           : RGB = 239   211    79 : ADD = 'X' 'X' 'X' : Write = 239   211    79
VERBOSE : Copy     : Pixel @ 4993 x 999           : RGB = 146    17    86 : ADD = 'X' 'X' 'X' : Write = 146    17    86
VERBOSE : Copy     : Pixel @ 4992 x 999           : RGB = 192   163   251 : ADD = 'X' 'X' 'X' : Write = 192   163   251
VERBOSE : Copy     : Pixel @ 4991 x 999           : RGB =   5   173    67 : ADD = 'X' 'X' 'X' : Write =   5   173    67
VERBOSE : Copy     : Pixel @ 4990 x 999           : RGB = 108   244   227 : ADD = 'X' 'X' 'X' : Write = 108   244   227
VERBOSE : Copy     : Pixel @ 4989 x 999           : RGB =  72   109   191 : ADD = 'X' 'X' 'X' : Write =  72   109   191
VERBOSE : Copy     : Pixel @ 4988 x 999           : RGB =  50   131   141 : ADD = 'X' 'X' 'X' : Write =  50   131   141
VERBOSE : Copy     : Pixel @ 4987 x 999           : RGB =  49   128   226 : ADD = 'X' 'X' 'X' : Write =  49   128   226
VERBOSE : Copy     : Pixel @ 4986 x 999           : RGB = 104    54    33 : ADD = 'X' 'X' 'X' : Write = 104    54    33
VERBOSE : Copy     : Pixel @ 4985 x 999           : RGB =  65   165    62 : ADD = 'X' 'X' 'X' : Write =  65   165    62
VERBOSE : Copy     : Pixel @ 4984 x 999           : RGB =  42    30   221 : ADD = 'X' 'X' 'X' : Write =  42    30   221
VERBOSE : Copy     : Pixel @ 4983 x 999           : RGB = 196    19    85 : ADD = 'X' 'X' 'X' : Write = 196    19    85
VERBOSE : Copy     : Pixel @ 4982 x 999           : RGB =  13   247    55 : ADD = 'X' 'X' 'X' : Write =  13   247    55
VERBOSE : Copy     : Pixel @ 4981 x 999           : RGB = 127   194   233 : ADD = 'X' 'X' 'X' : Write = 127   194   233
VERBOSE : Copy     : Pixel @ 4980 x 999           : RGB =  53    58    10 : ADD = 'X' 'X' 'X' : Write =  53    58    10
```

• CypherMap

```
VERBOSE : CypherMap  :
VERBOSE : CypherMap  : Generating CypherMap Logs                  : /Users/foocrypt/Write.log
VERBOSE : CypherMap  :
VERBOSE : CypherMap  :
VERBOSE : CypherMap  : Creating Verbose Cypher Map                :
VERBOSE : CypherMap  : Image Width                                : 1000
VERBOSE : CypherMap  : Image Height                               : 1000
VERBOSE : CypherMap  : Total Pixels                               : 1000000
VERBOSE : CypherMap  :
VERBOSE : CypherMap  : Processed Percent                          : 0%
VERBOSE : CypherMap  : Processed Pixels                           : 0
VERBOSE : CypherMap  : Elapsed Time                               : 3559 Milliseconds
VERBOSE : CypherMap  :                                            : Pixel 0 @ 10x0
VERBOSE : CypherMap  :                                            : Pixel 1 @ 100x35
VERBOSE : CypherMap  :                                            : Pixel 2 @ 100x59
VERBOSE : CypherMap  :                                            : Pixel 3 @ 100x81
VERBOSE : CypherMap  :                                            : Pixel 4 @ 100x85
VERBOSE : CypherMap  :                                            : Pixel 5 @ 100x95
VERBOSE : CypherMap  :                                            : Pixel 6 @ 100x96
VERBOSE : CypherMap  :                                            : Pixel 7 @ 100x109
VERBOSE : CypherMap  :                                            : Pixel 8 @ 100x131
VERBOSE : CypherMap  :                                            : Pixel 9 @ 100x138
VERBOSE : CypherMap  :                                            : Pixel 10 @ 100x209
VERBOSE : CypherMap  :                                            : Pixel 11 @ 100x210
VERBOSE : CypherMap  :                                            : Pixel 12 @ 100x215
```

• Extract1

```
VERBOSE : Extract1 :                          :
VERBOSE : Extract1 : Generating Extract1 Logs : /Users/foocrypt/Extract.log
VERBOSE : Extract1 :                          :
VERBOSE : Extract1 : Pixel @ 4999 x 999       : Read RGB =  72   171    87 : Write RGB =  72   171    88 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4998 x 999       : Read RGB = 207   196   175 : Write RGB = 207   196   176 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4997 x 999       : Read RGB =  44    33   252 : Write RGB =  44    33   252 : Binary = '0'   '0'   '0'
VERBOSE : Extract1 : Pixel @ 4996 x 999       : Read RGB =  89   252   158 : Write RGB =  89   252   158 : Binary = '0'   '0'   '0'
VERBOSE : Extract1 : Pixel @ 4995 x 999       : Read RGB = 162    51   218 : Write RGB = 163    52   218 : Binary = '1'   '1'   '0'
VERBOSE : Extract1 : Pixel @ 4994 x 999       : Read RGB = 239   211    79 : Write RGB = 240   211    79 : Binary = '1'   '0'   '0'
VERBOSE : Extract1 : Pixel @ 4993 x 999       : Read RGB = 146    17    86 : Write RGB = 146    17    87 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4992 x 999       : Read RGB = 192   163   251 : Write RGB = 193   164   251 : Binary = '1'   '1'   '0'
VERBOSE : Extract1 : Pixel @ 4991 x 999       : Read RGB =   5   173    67 : Write RGB =   5   174    68 : Binary = '0'   '1'   '1'
VERBOSE : Extract1 : Pixel @ 4990 x 999       : Read RGB = 108   244   227 : Write RGB = 108   244   228 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4989 x 999       : Read RGB =  72   109   191 : Write RGB =  72   109   192 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4988 x 999       : Read RGB =  50   131   141 : Write RGB =  50   131   142 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4987 x 999       : Read RGB =  49   128   226 : Write RGB =  49   128   227 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4986 x 999       : Read RGB = 104    54    33 : Write RGB = 104    54    33 : Binary = '0'   '0'   '0'
VERBOSE : Extract1 : Pixel @ 4985 x 999       : Read RGB =  65   165    62 : Write RGB =  65   165    63 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4984 x 999       : Read RGB =  42    30   221 : Write RGB =  42    30   222 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4983 x 999       : Read RGB = 196    19    85 : Write RGB = 196    19    86 : Binary = '0'   '0'   '1'
VERBOSE : Extract1 : Pixel @ 4982 x 999       : Read RGB =  13   247    55 : Write RGB =  13   247    55 : Binary = '0'   '0'   '0'
VERBOSE : Extract1 : Pixel @ 4981 x 999       : Read RGB = 127   194   233 : Write RGB = 127   194   233 : Binary = '0'   '0'   '0'
VERBOSE : Extract1 : Pixel @ 4980 x 999       : Read RGB =  53    58    10 : Write RGB =  54    59    10 : Binary = '1'   '1'   '0'
```

• Extract2

```
VERBOSE : Extract2 :                          :
VERBOSE : Extract2 : Generating Extract2 Logs : /Users/foocrypt/Extract.log
VERBOSE : Extract2 :                          :
VERBOSE : Extract2   : Pixel @ 0 x 0                              : Source Red = 147 : Data Red = 147 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 0                              : Source Blue = 124 : Data Blue = 124 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 1                              : Source Green = 165 : Data Green = 165 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 2                              : Source Red = 150 : Data Red = 151 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 2                              : Source Green = 230 : Data Green = 231 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 2                              : Source Blue = 184 : Data Blue = 185 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 3                              : Source Green = 218 : Data Green = 218 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                              : Source Red = 227 : Data Red = 227 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                              : Source Green = 224 : Data Green = 224 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 4                              : Source Blue = 160 : Data Blue = 160 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 5                              : Source Red = 224 : Data Red = 224 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 5                              : Source Green = 224 : Data Green = 225 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 5                              : Source Blue = 186 : Data Blue = 187 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 7                              : Source Blue = 138 : Data Blue = 139 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 8                              : Source Red = 197 : Data Red = 198 : Positive Binary = '1'
VERBOSE : Extract2   : Pixel @ 0 x 10                             : Source Green = 140 : Data Green = 140 : Positive Binary = '0'
VERBOSE : Extract2   : Pixel @ 0 x 10                             : Source Blue = 147 : Data Blue = 147 : Positive Binary = ‘0'
```

<— CUT —>

```
VERBOSE : Extract2   : Extracted Binary Data                      : 000111000
VERBOSE : Extract2   : Extracted Binary Data                      : 001111001
VERBOSE : Extract2   : Extracted Binary Data                      : 000111001
VERBOSE : Extract2   : Extracted Binary Data                      : 001101101
VERBOSE : Extract2   : Extracted Binary Data                      : 000111000
VERBOSE : Extract2   : Extracted Binary Data                      : 001010010
VERBOSE : Extract2   : Extracted Binary Data                      : 001101100
VERBOSE : Extract2   : Extracted Binary Data                      : 001111010
VERBOSE : Extract2   : Extracted Binary Data                      : 001011010
```

- **ExtractMap**

```
VERBOSE : ExtractMap :                                    :
VERBOSE : ExtractMap : Generating ExtractMap Logs         : /Users/foocrypt/Extract.log
VERBOSE : ExtractMap :                                    :
VERBOSE : ExtractMap :                                    : Pixel 0 @ 10x0
VERBOSE : ExtractMap :                                    : Pixel 1 @ 100x35
VERBOSE : ExtractMap :                                    : Pixel 2 @ 100x59
VERBOSE : ExtractMap :                                    : Pixel 3 @ 100x81
VERBOSE : ExtractMap :                                    : Pixel 4 @ 100x85
VERBOSE : ExtractMap :                                    : Pixel 5 @ 100x95
VERBOSE : ExtractMap :                                    : Pixel 6 @ 100x96
VERBOSE : ExtractMap :                                    : Pixel 7 @ 100x109
VERBOSE : ExtractMap :                                    : Pixel 8 @ 100x131
VERBOSE : ExtractMap :                                    : Pixel 9 @ 100x138
VERBOSE : ExtractMap :                                    : Pixel 10 @ 100x209
VERBOSE : ExtractMap :                                    : Pixel 11 @ 100x210
VERBOSE : ExtractMap :                                    : Pixel 12 @ 100x215
VERBOSE : ExtractMap :                                    : Pixel 13 @ 100x222
VERBOSE : ExtractMap :                                    : Pixel 14 @ 100x230
VERBOSE : ExtractMap :                                    : Pixel 15 @ 100x242
```

- **Random**

```
VERBOSE :
VERBOSE : Random     :                                    :
VERBOSE : Random     : Generating Random Logs             : /Users/foocrypt/Random.log
VERBOSE : Random     :                                    :
VERBOSE :
VERBOSE : Random     : Pixel @ 0 x 0                      : RGB =  64   243   183
VERBOSE : Random     : Pixel @ 0 x 1                      : RGB = 179    70   225
VERBOSE : Random     : Pixel @ 0 x 2                      : RGB =  90    78     6
VERBOSE : Random     : Pixel @ 0 x 3                      : RGB = 163   232    16
VERBOSE : Random     : Pixel @ 0 x 4                      : RGB =  15   239     2
VERBOSE : Random     : Pixel @ 0 x 5                      : RGB = 108    14   139
VERBOSE : Random     : Pixel @ 0 x 6                      : RGB =  23    37    50
VERBOSE : Random     : Pixel @ 0 x 7                      : RGB = 234   145    27
VERBOSE : Random     : Pixel @ 0 x 8                      : RGB =  64   180    79
VERBOSE : Random     : Pixel @ 0 x 9                      : RGB =  92   182   148
VERBOSE : Random     : Pixel @ 0 x 10                     : RGB = 104    64   104
```

- **Read**

```
VERBOSE :
VERBOSE : Read       :
VERBOSE : Read       : Pixel Finger Print                 : Starting
VERBOSE : Read       :
VERBOSE : Read       : Generating Read Logs               : /Users/foocrypt/Read.log
VERBOSE : Read       :
VERBOSE :
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 0 : RGB =  64   243   183
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 1 : RGB = 179    70   225
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 2 : RGB =  90    78     6
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 3 : RGB = 163   232    16
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 4 : RGB =  15   239     2
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 5 : RGB = 108    14   139
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 6 : RGB =  23    37    50
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 7 : RGB = 234   145    27
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 8 : RGB =  64   180    79
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 9 : RGB =  92   182   148
VERBOSE : Read       : Finger Print                       : Pixel @ 0 x 10 : RGB = 104    64   104
```

• ReadData

```
VERBOSE : ReadData :                                :
VERBOSE : ReadData : Generating ReadData Logs       : /Users/foocrypt/Extract.log
VERBOSE : ReadData :                                :
VERBOSE : ReadData :                                :
0010010000001101000011100110010010010010000010010010000001101000001101010010010110001100010001110000010
0011001000001000110101001111001000111001000110011001011010001001001001100010001010010000111001001001001
0110110000110010100100001100011100000111101000111011000101000100100111000110101100110010100001100110010
1010001001001001100010001010010000111001001001001001101100001100101001000011000111000
```

• ScanMap

```
VERBOSE : ScanMap    :
VERBOSE : ScanMap    : Generating ScanMap Logs                    : /Users/foocrypt/Extract.log
VERBOSE : ScanMap    :
VERBOSE : ScanMap    :                                            :
VERBOSE : ScanMap    : Processing                                 : Start
VERBOSE : ScanMap    :                                            :
VERBOSE : ScanMap    :                                            : Pixel 0 @ 0x0
VERBOSE : ScanMap    :                                            : Pixel 1 @ 0x1
VERBOSE : ScanMap    :                                            : Pixel 2 @ 0x2
VERBOSE : ScanMap    :                                            : Pixel 3 @ 0x3
VERBOSE : ScanMap    :                                            : Pixel 4 @ 0x4
VERBOSE : ScanMap    :                                            : Pixel 5 @ 0x5
VERBOSE : ScanMap    :                                            : Pixel 6 @ 0x6
VERBOSE : ScanMap    :                                            : Pixel 7 @ 0x7
VERBOSE : ScanMap    :                                            : Pixel 8 @ 0x8
VERBOSE : ScanMap    :                                            : Pixel 9 @ 0x9
VERBOSE : ScanMap    :                                            : Pixel 10 @ 0x10
VERBOSE : ScanMap    :                                            : Pixel 11 @ 0x11
VERBOSE : ScanMap    :                                            : Pixel 12 @ 0x12
VERBOSE : ScanMap    :                                            : Pixel 13 @ 0x13
VERBOSE : ScanMap    :                                            : Pixel 14 @ 0x14
VERBOSE : ScanMap    :                                            : Pixel 15 @ 0x15
```

• Verify1

```
VERBOSE : Verify1  :                                :
VERBOSE : Verify1  : Generating Verify1  Logs       : /Users/foocrypt/Extract.log
VERBOSE : Verify1  :                                :
VERBOSE : Verify1  : Found Numeric                  : '001001000'
VERBOSE : Verify1  : Found Numeric                  : '72'
VERBOSE : Verify1  : Found Numeric                  : '000110100'
VERBOSE : Verify1  : Found Numeric                  : '52'
VERBOSE : Verify1  : Found Numeric                  : '001110011'
VERBOSE : Verify1  : Found Numeric                  : '115'
VERBOSE : Verify1  : Found Numeric                  : '001001001'
VERBOSE : Verify1  : Found Numeric                  : '73'
VERBOSE : Verify1  : Found Numeric                  : '001000001'
VERBOSE : Verify1  : Found Numeric                  : '65'
VERBOSE : Verify1  : Found Numeric                  : '001001000'
VERBOSE : Verify1  : Found Numeric                  : '72'
VERBOSE : Verify1  : Found Numeric                  : '000110100'
VERBOSE : Verify1  : Found Numeric                  : '52'
VERBOSE : Verify1  : Found Numeric                  : '000110101'
VERBOSE : Verify1  : Found Numeric                  : '53'
VERBOSE : Verify1  : Found Numeric                  : '001001011'
```

• Verify1E

```
VERBOSE : Verify1E :                                :
VERBOSE : Verify1E : Generating Verify1E Logs       : /Users/foocrypt/Extract.log
VERBOSE : Verify1E :                                :
VERBOSE : Verify1E : NON Numeric Characters Found   : ‘A'
VERBOSE : Verify1E : NON Numeric Characters Found   : 'z'
VERBOSE : Verify1E : NON Numeric Characters Found   : ‘#'
VERBOSE : Verify1E : NON Numeric Characters Found   : 'w'
VERBOSE : Verify1E : NON Numeric Characters Found   : 'A'
VERBOSE : Verify1E : NON Numeric Characters Found   : 'q'
VERBOSE : Verify1E : NON Numeric Characters Found   : 'g'
VERBOSE : Verify1E : NON Numeric Characters Found   : ‘*'
VERBOSE : Verify1E : NON Numeric Characters Found   : ‘)'
VERBOSE : Verify1E : NON Numeric Characters Found   : ‘@'
VERBOSE : Verify1E : NON Numeric Characters Found   : 'o'
```

- **Verify2**

```
VERBOSE : Verify2  :                          :
VERBOSE : Verify2  : Generating Verify2 Logs  : /Users/foocrypt/Copy.log
VERBOSE : Verify2  :                          :
VERBOSE : Verify2  : Verified                 : Pixel 0 @ 4999x999 : Write =  72 171  87 : Read =  72 171  87
VERBOSE : Verify2  : Verified                 : Pixel 1 @ 4998x999 : Write = 207 196 175 : Read = 207 196 175
VERBOSE : Verify2  : Verified                 : Pixel 2 @ 4997x999 : Write =  44  33 252 : Read =  44  33 252
VERBOSE : Verify2  : Verified                 : Pixel 3 @ 4996x999 : Write =  89 252 158 : Read =  89 252 158
VERBOSE : Verify2  : Verified                 : Pixel 4 @ 4995x999 : Write = 162  51 218 : Read = 162  51 218
VERBOSE : Verify2  : Verified                 : Pixel 5 @ 4994x999 : Write = 239 211  79 : Read = 239 211  79
VERBOSE : Verify2  : Verified                 : Pixel 6 @ 4993x999 : Write = 146  17  86 : Read = 146  17  86
VERBOSE : Verify2  : Verified                 : Pixel 7 @ 4992x999 : Write = 192 163 251 : Read = 192 163 251
VERBOSE : Verify2  : Verified                 : Pixel 8 @ 4991x999 : Write =   5 173  67 : Read =   5 173  67
VERBOSE : Verify2  : Verified                 : Pixel 9 @ 4990x999 : Write = 108 244 227 : Read = 108 244 227
VERBOSE : Verify2  : Verified                 : Pixel 10 @ 4989x999 : Write =  72 109 191 : Read =  72 109 191
VERBOSE : Verify2  : Verified                 : Pixel 11 @ 4988x999 : Write =  50 131 141 : Read =  50 131 141
VERBOSE : Verify2  : Verified                 : Pixel 12 @ 4987x999 : Write =  49 128 226 : Read =  49 128 226
```

- **Verify2**

```
VERBOSE : Verify2  :                          :
VERBOSE : Verify2  : Generating Verify2 Logs  : /Users/foocrypt/Write.log
VERBOSE : Verify2  :
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '1'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '1'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '7'
VERBOSE : Verify2  : Numeric Character Found  : '2'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '1'
VERBOSE : Verify2  : Numeric Character Found  : '1'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : '1'
VERBOSE : Verify2  : Numeric Character Found  : '0'
VERBOSE : Verify2  : Numeric Character Found  : ‘0'
```

- **Verify2E**

```
VERBOSE : Verify2E :
VERBOSE : Verify2E : Generating Verify2E Logs  : /Users/foocrypt/Test.log
VERBOSE : Verify2E :                           :
VERBOSE : Verify2E : FAILED                    : Pixel 0 @ 99x99 : Write =  81 208 150 : Read =  81 208 150
VERBOSE : Verify2E : FAILED                    : Pixel 1 @ 98x99 : Write =   8  72 164 : Read =   8  72 164
VERBOSE : Verify2E : FAILED                    : Pixel 2 @ 97x99 : Write =  79 184  33 : Read =  79 184  33
VERBOSE : Verify2E : FAILED                    : Pixel 3 @ 96x99 : Write =  71 116 117 : Read =  71 116 117
VERBOSE : Verify2E : FAILED                    : Pixel 4 @ 95x99 : Write = 162 254  67 : Read = 162 254  67
VERBOSE : Verify2E : FAILED                    : Pixel 5 @ 94x99 : Write = 176   7  90 : Read = 176   7  90
VERBOSE : Verify2E : FAILED                    : Pixel 6 @ 93x99 : Write =  43 138  76 : Read =  43 138  76
VERBOSE : Verify2E : FAILED                    : Pixel 7 @ 92x99 : Write =  54  65 221 : Read =  54  65 221
VERBOSE : Verify2E : FAILED                    : Pixel 8 @ 91x99 : Write = 244  82 255 : Read = 244  82 255
VERBOSE : Verify2E : FAILED                    : Pixel 9 @ 90x99 : Write = 178 194 180 : Read = 178 194 180
VERBOSE : Verify2E : FAILED                    : Pixel 10 @ 89x99 : Write = 229  86 228 : Read = 229  86 228
VERBOSE : Verify2E : FAILED                    : Pixel 11 @ 88x99 : Write = 212  85  68 : Read = 212  85  68
VERBOSE : Verify2E : FAILED                    : Pixel 12 @ 87x99 : Write =  31  93  32 : Read =  31  93  32
VERBOSE : Verify2E : FAILED                    : Pixel 13 @ 86x99 : Write =  31 239  65 : Read =  31 239  65
```

- **Verify3**

```
VERBOSE : Verify3    :
VERBOSE : Verify3    : Generating Verify3 Logs                  : /Users/foocrypt/Write.log
VERBOSE : Verify3    :
VERBOSE : Verify3    : Verified                                 : Pixel 0 @ 10x0 : Write = 202  97 241 : Read = 202  97 241
VERBOSE : Verify3    : Verified                                 : Pixel 1 @ 100x35 : Write = 150 124  89 : Read = 150 124  89
VERBOSE : Verify3    : Verified                                 : Pixel 2 @ 100x59 : Write = 234 127 184 : Read = 234 127 184
VERBOSE : Verify3    : Verified                                 : Pixel 3 @ 100x81 : Write = 109 237 202 : Read = 109 237 202
VERBOSE : Verify3    : Verified                                 : Pixel 4 @ 100x85 : Write =  84  55   1 : Read =  84  55   1
VERBOSE : Verify3    : Verified                                 : Pixel 5 @ 100x95 : Write =  57 114  58 : Read =  57 114  58
VERBOSE : Verify3    : Verified                                 : Pixel 6 @ 100x96 : Write = 147 183 168 : Read = 147 183 168
VERBOSE : Verify3    : Verified                                 : Pixel 7 @ 100x109 : Write = 251   2 170 : Read = 251   2 170
VERBOSE : Verify3    : Verified                                 : Pixel 8 @ 100x131 : Write =  53  54 169 : Read =  53  54 169
VERBOSE : Verify3    : Verified                                 : Pixel 9 @ 100x138 : Write =  64 232 155 : Read =  64 232 155
VERBOSE : Verify3    : Verified                                 : Pixel 10 @ 100x209 : Write =   3 242  37 : Read =   3 242  37
VERBOSE : Verify3    : Verified                                 : Pixel 11 @ 100x210 : Write = 208  55 255 : Read = 208  55 255
VERBOSE : Verify3    : Verified                                 : Pixel 12 @ 100x215 : Write = 182  29  75 : Read = 182  29  75
VERBOSE : Verify3    : Verified                                 : Pixel 13 @ 100x222 : Write = 102 231  35 : Read = 102 231  35
VERBOSE : Verify3    : Verified                                 : Pixel 14 @ 100x230 : Write =  16  87  59 : Read =  16  87  59
VERBOSE : Verify3    : Verified                                 : Pixel 15 @ 100x242 : Write = 220  35 252 : Read = 220  35 252
```

- **Verify3E**

```
VERBOSE : Verify3E   :
VERBOSE : Verify3E   : Generating Verify3E Logs                    : /Users/foocrypt/Write.log
VERBOSE : Verify3E   :
VERBOSE : Verify3E   : FAILED                                    : Pixel 0 @ 10x0 : Write = 202  97 241 : Read = 202  97 240
VERBOSE : Verify3E   : FAILED                                    : Pixel 1 @ 100x35 : Write = 150 124  89 : Read = 150 124  88
VERBOSE : Verify3E   : FAILED                                    : Pixel 2 @ 100x59 : Write = 234 127 184 : Read = 234 127 183
VERBOSE : Verify3E   : FAILED                                    : Pixel 3 @ 100x81 : Write = 109 237 202 : Read = 109 237 201
VERBOSE : Verify3E   : FAILED                                    : Pixel 4 @ 100x85 : Write =  84  55   1 : Read =  84  55   0
VERBOSE : Verify3E   : FAILED                                    : Pixel 5 @ 100x95 : Write =  57 114  58 : Read =  57 114  57
VERBOSE : Verify3E   : FAILED                                    : Pixel 6 @ 100x96 : Write = 147 183 168 : Read = 147 183 167
VERBOSE : Verify3E   : FAILED                                    : Pixel 7 @ 100x109 : Write = 251   2 170 : Read = 251   2 171
VERBOSE : Verify3E   : FAILED                                    : Pixel 8 @ 100x131 : Write =  53  54 169 : Read =  53  54 160
VERBOSE : Verify3E   : FAILED                                    : Pixel 9 @ 100x138 : Write =  64 232 155 : Read =  64 232 155
VERBOSE : Verify3E   : FAILED                                    : Pixel 10 @ 100x209 : Write =   3 242  37 : Read =   3 242  39
VERBOSE : Verify3E   : FAILED                                    : Pixel 11 @ 100x210 : Write = 208  55 255 : Read = 208  55 250
VERBOSE : Verify3E   : FAILED                                    : Pixel 12 @ 100x215 : Write = 182  29  75 : Read = 182  29 770
VERBOSE : Verify3E   : FAILED                                    : Pixel 13 @ 100x222 : Write = 102 231  35 : Read = 102 231  30
VERBOSE : Verify3E   : FAILED                                    : Pixel 14 @ 100x230 : Write =  16  87  59 : Read =  16  87  51
VERBOSE : Verify3E   : FAILED                                    : Pixel 15 @ 100x242 : Write = 220  35 252 : Read = 220  35 250
```

- **Write1**

```
VERBOSE : Write1     : Pixel @ 0 x 0                    : Source RGB = 194    87    74 : Positive Binary = '0' 'X' 'X' : Data RGB = 194    87    74
VERBOSE : Write1     : Pixel @ 0 x 1                    : Source RGB =  24     7    22 : Positive Binary = 'X' 'X' 'X' : Data RGB =  24     7    22
VERBOSE : Write1     : Pixel @ 0 x 2                    : Source RGB =  30    93   245 : Positive Binary = 'X' 'X' 'X' : Data RGB =  30    93   245
VERBOSE : Write1     : Pixel @ 0 x 3                    : Source RGB = 185   241   229 : Positive Binary = '0' 'X' '1' : Data RGB = 185   241   230
VERBOSE : Write1     : Pixel @ 0 x 4                    : Source RGB = 253   180    69 : Positive Binary = 'X' '1' 'X' : Data RGB = 253   181    69
VERBOSE : Write1     : Pixel @ 0 x 5                    : Source RGB =  80     7   202 : Positive Binary = 'X' 'X' '1' : Data RGB =  80     7   203
VERBOSE : Write1     : Pixel @ 0 x 6                    : Source RGB = 127    27    77 : Positive Binary = '1' 'X' 'X' : Data RGB = 128    27    77
VERBOSE : Write1     : Pixel @ 0 x 7                    : Source RGB =  21    83   161 : Positive Binary = 'X' 'X' '0' : Data RGB =  21    83   161
VERBOSE : Write1     : Pixel @ 0 x 8                    : Source RGB = 239   138   174 : Positive Binary = 'X' '1' '0' : Data RGB = 239   139   174
VERBOSE : Write1     : Pixel @ 0 x 9                    : Source RGB = 112   217   234 : Positive Binary = 'X' '0' 'X' : Data RGB = 112   217   234
VERBOSE : Write1     : Pixel @ 0 x 10                   : Source RGB = 182    32    58 : Positive Binary = '0' 'X' 'X' : Data RGB = 182    32    58
```

- **Write2**

```
VERBOSE : Write2     : Binary Character = 1             : Positive Write Binary Character '0' To Pixel @ 0 x 0 : 194  ->  194 : Red
VERBOSE : Write2     : Binary Character = 2             : Positive Write Binary Character '0' To Pixel @ 0 x 3 : 185  ->  185 : Red
VERBOSE : Write2     : Binary Character = 3             : Write Binary Character '1' To Pixel @ 0 x 3 : 229  ->  230 : Blue
VERBOSE : Write2     : Binary Character = 4             : Positive Write Binary Character '1' To Pixel @ 0 x 4 : 180  ->  181 : Green
VERBOSE : Write2     : Binary Character = 5             : Write Binary Character '1' To Pixel @ 0 x 5 : 202  ->  203 : Blue
VERBOSE : Write2     : Binary Character = 6             : Positive Write Binary Character '1' To Pixel @ 0 x 6 : 127  ->  128 : Red
VERBOSE : Write2     : Binary Character = 7             : Write Binary Character '0' To Pixel @ 0 x 7 : 161  ->  161 : Blue
VERBOSE : Write2     : Binary Character = 8             : Positive Write Binary Character '1' To Pixel @ 0 x 8 : 138  ->  139 : Green
VERBOSE : Write2     : Binary Character = 9             : Write Binary Character '0' To Pixel @ 0 x 8 : 174  ->  174 : Blue
VERBOSE : Write2     : Binary Character = 10            : Positive Write Binary Character '0' To Pixel @ 0 x 9 : 217  ->  217 : Green
VERBOSE : Write2     : Binary Character = 11            : Positive Write Binary Character '0' To Pixel @ 0 x 10 : 182  ->  182 : Red
VERBOSE : Write2     : Binary Character = 12            : Positive Write Binary Character '1' To Pixel @ 0 x 12 : 144  ->  145 : Red
VERBOSE : Write2     : Binary Character = 13            : Write Binary Character '1' To Pixel @ 0 x 12 : 161  ->  162 : Blue
VERBOSE : Write2     : Binary Character = 14            : Positive Write Binary Character '1' To Pixel @ 0 x 14 : 218  ->  219 : Red
VERBOSE : Write2     : Binary Character = 15            : Positive Write Binary Character '1' To Pixel @ 0 x 14 : 216  ->  217 : Green
VERBOSE : Write2     : Binary Character = 16            : Write Binary Character '0' To Pixel @ 0 x 14 : 213  ->  213 : Blue
```

- **WriteMap**

```
VERBOSE : WriteMap   :                                          :
VERBOSE : WriteMap   : Generating WriteMap Logs                 : /Users/foocrypt/Write.log
VERBOSE : WriteMap   :                                          :
VERBOSE : WriteMap   :                                          : Pixel 0 @ 10x0
VERBOSE : WriteMap   :                                          : Pixel 1 @ 100x35
VERBOSE : WriteMap   :                                          : Pixel 2 @ 100x59
VERBOSE : WriteMap   :                                          : Pixel 3 @ 100x81
VERBOSE : WriteMap   :                                          : Pixel 4 @ 100x85
VERBOSE : WriteMap   :                                          : Pixel 5 @ 100x95
VERBOSE : WriteMap   :                                          : Pixel 6 @ 100x96
VERBOSE : WriteMap   :                                          : Pixel 7 @ 100x109
VERBOSE : WriteMap   :                                          : Pixel 8 @ 100x131
VERBOSE : WriteMap   :                                          : Pixel 9 @ 100x138
VERBOSE : WriteMap   :                                          : Pixel 10 @ 100x209
VERBOSE : WriteMap   :                                          : Pixel 11 @ 100x210
VERBOSE : WriteMap   :                                          : Pixel 12 @ 100x215
VERBOSE : WriteMap   :                                          : Pixel 13 @ 100x222
VERBOSE : WriteMap   :                                          : Pixel 14 @ 100x230
VERBOSE : WriteMap   :                                          : Pixel 15 @ 100x242
VERBOSE : WriteMap   :                                          : Pixel 16 @ 100x245
VERBOSE : WriteMap   :                                          : Pixel 17 @ 100x246
VERBOSE : WriteMap   :                                          : Pixel 18 @ 100x249
VERBOSE : WriteMap   :                                          : Pixel 19 @ 100x256
VERBOSE : WriteMap   :                                          : Pixel 20 @ 100x261
```

- **Test**
  - **Generates ALL the Above Verbose Logging Switches.**

Command Line Interface Breakdown

- ### Darwin Example Command Line Interface Location

  ```
  /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooSteg
  ```

- ### Linux Example Command Line Interface Location

  ```
  /opt/FooCrypt/FooSteg
  ```

- # Command Line Interface StdOut : FooSteg -h

  [*Quoted FULL PATH To FooSteg Binary]/FooSteg -h

  - # FooSteg
  - # Darwin Example Command Line Interface StdOut

–> /Volumes/FooCrypt.X.Y.Z.Core.Darwin/FooCrypt.app/Contents/Resources/FooSteg –h

```
STATUS  : Runtime Options          : FooSteg -h
STATUS  :
HELP    : Available ARG_MAX        : 1041733
STATUS  :
STATUS  : Testing OpenSSL          : /usr/bin/openssl
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 3.3.6
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.48.dylib (compatibility version 49.0.0, current version 49.2.0)
STATUS  :        /usr/lib/libcrypto.46.dylib (compatibility version 47.0.0, current version 47.2.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 38.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1319.100.3)
STATUS  :
STATUS  : Found                    : /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist
STATUS  :
STATUS  : Running FooSteg Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooSteg Initialisation Integrity Check 0
STATUS  :
HELP    : QRCS ( With eAES® )      : Darwin Environment Detected
HELP    : QRCS ( With eAES® )      : Is Currently Available For Your Operating System ( Darwin )
HELP    : QRCS ( With eAES® )      : For Further Details On QRCS ( With eAES® ), Visit https://QRCrypto.ch
STATUS  :
STATUS  : Running Instances Of     : FooSteg
STATUS  :
STATUS  : User ID                  : 501
STATUS  : Group ID                 : 20
STATUS  : Process ID               : 95961
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 501       20        95961     85355     /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Resources/FooSteg
STATUS  :
STATUS  : Passed FooSteg Initialisation Integrity Check 1
STATUS  :
STATUS  : /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist, Found
STATUS  :
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 5572827226
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX19LDgk3dEfIF8+s3CHF2hDh5N5dUjS4gsknco9aJukMM3SNStdCkfeM
STATUS  : QNt/zDIMdl2eSOCPJAi1tc5bf1fF4v7ZxlSCcUdH3yCY7tQUCd7rWVZaziXNUn85
STATUS  :
STATUS  :
STATUS  : System_Serial=20250120065910:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin, BuildTest Expiration Date : 20250120065910
STATUS  :
STATUS  :
STATUS  : Who Am I                 : FooCrypt             ttys004      Nov  7 12:54
STATUS  :
STATUS  :
STATUS  : TTY                      : /dev/ttys004
STATUS  : TTY                      : Local TTY Session Detected
ERROR   : TTY                      : DISPLAY Variable Not Set
STATUS  : TTY                      : Forcing DISPLAY to :0
HELP    : TTY                      : Set The DISPLAY Variable As Per Your Shell Requirements
STATUS  :
STATUS  :
STATUS  : Wish Type                : FooSteg-StarKit
STATUS  : Wish Executable          : /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/FooSteg.app/Contents/MacOS/FooSteg
STATUS  : Wish Version             : 8.6.9
STATUS  :
STATUS  :
STATUS  : Completed Initialisation Integrity Checks
STATUS  :
STATUS  : Initialised
STATUS  :
STATUS  : FooSteg    : Start Time Since EPOC                      : 1699329533417
RUNNING :
RUNNING : FooSteg -h
RUNNING :
STATUS  : GetOpts    :
STATUS  : GetOpts    : Current Working Directory                  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145849_FooTest_FooSteg/Tmp_21992
STATUS  : GetOpts    :
STATUS  : GetOpts    : RunTime Options                            :
STATUS  : GetOpts    : -h Set                                     : Showing Usage After Validating RunTime Options
STATUS  : GetOpts    :
STATUS  : GetOpts    : Validating RunTime Options                 :
ERROR   : GetOpts    :
ERROR   : GetOpts    : Mode                                       : -a Not Set
ERROR   : GetOpts    : Mode                                       : -a Not Set
ERROR   : GetOpts    : Mode                                       : -a Not Set
ERROR   : GetOpts    :
STATUS  : GetOpts    :
STATUS  : GetOpts    : Scan Mode Set To                           : 0 [ Start Scan at top left corner, Create Scan Map from Top to Bottom, Left to Right ]
STATUS  : GetOpts    :
STATUS  : GetOpts    : Setting StdOut Verbose Sleep               : 10
ERROR   : GetOpts    : Mode Not Known                             :
STATUS  :
STATUS  : HELP    :
STATUS  : HELP    :         ABOUT
STATUS  : HELP    :           FooSteg
STATUS  : HELP    :
STATUS  : HELP    :           A.K.A.       FooCrypt, A Tale of Cynical Cyclical Encryption.
STATUS  : HELP    :
STATUS  : HELP    :         RELEASE
STATUS  : HELP    :           FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : HELP    :
STATUS  : HELP    :         COPYRIGHT
STATUS  : HELP    :           Copyright: CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : HELP    :
STATUS  : HELP    :         PREVIOUS LICENSE REVOCATION
STATUS  : HELP    :           The Copyright Owner hereby revokes your right, to any previous versions, distributions, releases.
STATUS  : HELP    :           Whether they be in part or complete versions, released under any license or by any other corporation, or entity.
STATUS  : HELP    :
STATUS  : HELP    :         LICENSING SPECIFIC
STATUS  : HELP    :           The Copyright Owner hereby grants you permission to use this software.
STATUS  : HELP    :           Provided that it is licensed up until the license expiration date.
```

```
STATUS  : HELP    :
STATUS  : HELP    :         WARRANTY
STATUS  : HELP    :           This software is provided as is without any express or implied warranty.
STATUS  : HELP    :
STATUS  : HELP    :         AUTHOR
STATUS  : HELP    :           Mark A. Lane
STATUS  : HELP    :
STATUS  : HELP    :         DATE WRITTEN
STATUS  : HELP    :           April 7, 2017
STATUS  : HELP    :
STATUS  : HELP    :         REASON WRITTEN
STATUS  : HELP    :           Steganography : Binary RGB Encode / Decode A Base64 File Into / From An Image
STATUS  : HELP    :
STATUS  : HELP    :         SYNOPSIS
STATUS  : HELP    :           FooSteg
STATUS  : HELP    :
STATUS  : HELP    :         * See CLI Examples Below
STATUS  : HELP    :
STATUS  : HELP    :         -a [ Mode ]
STATUS  : HELP    :              * Modes
STATUS  : HELP    :                * Analyse
STATUS  : HELP    :                  1. Reads The FileName Image [ Read From File ] Pixel By Pixel
STATUS  : HELP    :                  2. Analyses The FileName Image [ Read From File ] Pixel By Pixel Against Min RGB & Max RGB Settings To Identify The Number Of Available Bits
STATUS  : HELP    :                  3. Optionally Compares The Available Space Determined by The Min RGB & Max RGB Values Against The Size Of A Base64 File
STATUS  : HELP    :
STATUS  : HELP    :                * Copy
STATUS  : HELP    :                  1. Copies FileName Image File Type to Output Image File Type Pixel By Pixel
STATUS  : HELP    :                  2. Reads Output Image Pixel By Pixel
STATUS  : HELP    :                  3. Verifies FileName Image Against The Output Image Pixel By Pixel
STATUS  : HELP    :
STATUS  : HELP    :                * Extract
STATUS  : HELP    :                  1. Extracts Base64 Data From Data Image Using The Source Image As The Key
STATUS  : HELP    :                  2. Saves The Base64 Data As The Output File Name
STATUS  : HELP    :
STATUS  : HELP    :                * Random
STATUS  : HELP    :                  1. Creates A Random Image Pixel By Pixel
STATUS  : HELP    :                  2. Writes The Random To OutputFileName As OutputFileType
STATUS  : HELP    :                  3. Reads The OutputFileName Image Pixel By Pixel
STATUS  : HELP    :                  4. Verifies The Written Random Image [ Memory Before Write ] Against The Read Random Image [ Read From File After Write ] Pixel By Pixel
STATUS  : HELP    :
STATUS  : HELP    :                * Read
STATUS  : HELP    :                  1. Reads The FileName Image [ Read From File ] Pixel By Pixel
STATUS  : HELP    :
STATUS  : HELP    :                * Test [ 74062 Tests Performed With Only Summary Logging To StdOut, LogFile ]
STATUS  : HELP    :                  * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
STATUS  : HELP    :                  * Default
STATUS  : HELP    :                    * Min RGB Set To 1
STATUS  : HELP    :                    * Max RGB Set To 254
STATUS  : HELP    :                    * Image Width Set To  : 50
STATUS  : HELP    :                    * Image Height Set To : 50
STATUS  : HELP    :                  * Optional
STATUS  : HELP    :                    * -Z [ Sleep ]
STATUS  : HELP    :                      * Sleep For N Milliseconds After Each Test Run Time Is Displayed
STATUS  : HELP    :                        * Default 10
STATUS  : HELP    :                        * Minimum 1
STATUS  : HELP    :                        * Maximum 1000
STATUS  : HELP    :
STATUS  : HELP    :                    1. Creates Random Images 50x50 For All Output File Types
STATUS  : HELP    :                       * [ See Random Steps Above ]
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Output Format ]
STATUS  : HELP    :                         * Number of Tests Reduced via -O [ BMP | JPEG | PCX | PNG | PPM | SGI | SUN | TGA | TIFF ]
STATUS  : HELP    :
STATUS  : HELP    :                    2. Copies Each Random Image To All Output File Type, Modified via All Copy Changes With A Change Numeric Of 100
STATUS  : HELP    :                       * [ See Copy Above ]
STATUS  : HELP    :                       * [ Applies -C Changes For Mode Copy ]
STATUS  : HELP    :                         * None
STATUS  : HELP    :                         * Grayscale
STATUS  : HELP    :                         * Negative
STATUS  : HELP    :                         * Sepia,20,30
STATUS  : HELP    :                       * [ Applies -c Change Numeric ]
STATUS  : HELP    :                         * 100
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]
STATUS  : HELP    :
STATUS  : HELP    :                    3. Creates Base64 File From A Random Image 10% of Step 1, Image Width x Image Height, Output File Type PNG
STATUS  : HELP    :                       * [ See Random Steps Above ]
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png.Test_Random.base64
STATUS  : HELP    :
STATUS  : HELP    :                    Performs Steps 4 and 5 Using Changes [ None | Algebraic | Ecliptic_Area | Ecliptic_Circumference | Linear | Sequence1,x,y | Sequence2,x,y | Sign-Wave ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P -r ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N -r ]
STATUS  : HELP    :                         * Number of Tests Reduced via -A
STATUS  : HELP    :                         * Number of Tests Reduced via -C
STATUS  : HELP    :                         * Number of Tests Reduced via -O
STATUS  : HELP    :                         * x = [ Random Number Between 1.10000 - 9.99999 ]
STATUS  : HELP    :                         * y = [ Random Number Between 9 - 99 ]
STATUS  : HELP    :
STATUS  : HELP    :                    4. Writes The Base64 Test_Random File From Step 3 Into Each Random Image Format For All Output File Types
STATUS  : HELP    :                       * [ See Write Steps Above ]
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ].Test_Write_Extract.base64
STATUS  : HELP    :
STATUS  : HELP    :                    5. Extracts The Embedded Base64 Test_Random File From All Output File Types
STATUS  : HELP    :                       * [ See Extract Steps Above ]
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Source Format ].[ Image Data Format ].Test_Extract.base64
STATUS  : HELP    :
STATUS  : HELP    :                * TestVerbose [ 74062 Tests Performed With Standard Logging To StdOut, LogFile ]
STATUS  : HELP    :                  * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
STATUS  : HELP    :                  * Default
STATUS  : HELP    :                    * Min RGB Set To 1
STATUS  : HELP    :                    * Max RGB Set To 254
STATUS  : HELP    :                    * Image Width Set To  : 50
STATUS  : HELP    :                    * Image Height Set To : 50
STATUS  : HELP    :                  * Optional
STATUS  : HELP    :                    * -Z [ Sleep ]
STATUS  : HELP    :                      * Sleep For N Milliseconds After Each Test Run Time Is Displayed
STATUS  : HELP    :                        * Default 10
STATUS  : HELP    :                        * Minimum 1
STATUS  : HELP    :                        * Maximum 1000
STATUS  : HELP    :
STATUS  : HELP    :                    1. Creates Random Images 50x50 For All Output File Types
STATUS  : HELP    :                       * [ See Random Steps Above ]
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Output Format ]
STATUS  : HELP    :                         * Number of Tests Reduced via -O [ BMP | JPEG | PCX | PNG | PPM | SGI | SUN | TGA | TIFF ]
STATUS  : HELP    :
STATUS  : HELP    :                    2. Copies Each Random Image To All Output File Types, Modified via All Copy Changes With A Change Numeric Of 100
STATUS  : HELP    :                       * [ See Copy Above ]
STATUS  : HELP    :                       * [ Applies -C Changes For Mode Copy ]
STATUS  : HELP    :                         * None
STATUS  : HELP    :                         * Grayscale
STATUS  : HELP    :                         * Negative
STATUS  : HELP    :                         * Sepia,20,30
STATUS  : HELP    :                       * [ Applies -c Change Numeric ]
STATUS  : HELP    :                         * 100
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]
STATUS  : HELP    :
STATUS  : HELP    :                    3. Creates Base64 File From A Random Image 10% of Step 1, Image Width x Image Height, Output File Type PNG
STATUS  : HELP    :                       * [ See Random Steps Above ]
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png
STATUS  : HELP    :                       * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png.Test_Random.base64
STATUS  : HELP    :
STATUS  : HELP    :                    Performs Steps 4 and 5 Using Changes [ None | Algebraic | Ecliptic_Area | Ecliptic_Circumference | Linear | Sequence1,x,y | Sequence2,x,y | Sign-Wave ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P -r ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N ]
STATUS  : HELP    :                       * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N -r ]
STATUS  : HELP    :                         * Number of Tests Reduced via -A
STATUS  : HELP    :                         * Number of Tests Reduced via -C
STATUS  : HELP    :                         * Number of Tests Reduced via -O
STATUS  : HELP    :                         * x = [ Random Number Between 1.10000 - 9.99999 ]
STATUS  : HELP    :                         * y = [ Random Number Between 9 - 99 ]
STATUS  : HELP    :
STATUS  : HELP    :                    4. Writes The Base64 Test_Random File From Step 3 Into Each Random Image Format For All Output File Types
```

```
STATUS  : HELP    :                        * [ See Write Steps Above ]
STATUS  : HELP    :                        * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]
STATUS  : HELP    :                        * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ].Test_Write_Extract.base64
STATUS  : HELP    :
STATUS  : HELP    :                     5. Extracts The Embedded Base64 Test_Random File From All Output File Types
STATUS  : HELP    :                        * [ See Extract Steps Above ]
STATUS  : HELP    :                        * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Source Format ].[ Image Data Format ].Test_Extract.base64
STATUS  : HELP    :
STATUS  : HELP    :                 * TestCopy [ 45 Tests Performed With Standard Logging To StdOut, LogFile ]
STATUS  : HELP    :                   * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
STATUS  : HELP    :                   * Requires
STATUS  : HELP    :                     * -f [ FileName ]
STATUS  : HELP    :                     * -F [ FileType ]
STATUS  : HELP    :                   * Optional
STATUS  : HELP    :                     * -c [ Change Numeric Value ]
STATUS  : HELP    :                     * -O [ OutFileType ]
STATUS  : HELP    :                     * -y [ PercentMin,PercentMax,PercentCount,SepiaXMin,SepiaXMax,SepiaXCount,SepiaYMin,SepiaYMax,SepiaYCount ]
STATUS  : HELP    :                          * Performs Multiple Loops Of Step 1. Based On Min,Max,Count Values, Increasing The Number Of Tests
STATUS  : HELP    :                            * Input Image Intensity Percentage Min   : 100
STATUS  : HELP    :                            * Input Image Intensity Percentage Max   : 100
STATUS  : HELP    :                            * Input Image Intensity Percentage Count : 1
STATUS  : HELP    :                            * Sepia Depth Value x Min                : 20
STATUS  : HELP    :                            * Sepia Depth Value x Max                : 20
STATUS  : HELP    :                            * Sepia Depth Value x Count              : 1
STATUS  : HELP    :                            * Sepia Intensity Value y Min            : 30
STATUS  : HELP    :                            * Sepia Intensity Value y Max            : 30
STATUS  : HELP    :                            * Sepia Intensity Value y Count          : 1
STATUS  : HELP    :                     * -Z [ Sleep ]
STATUS  : HELP    :                       * Sleep For N Milliseconds After Each Test Run Time Is Displayed
STATUS  : HELP    :                         * Default 10
STATUS  : HELP    :                         * Minimum 1
STATUS  : HELP    :                         * Maximum 1000
STATUS  : HELP    :
STATUS  : HELP    :                     1. Copies Input Image To All Output File Types
STATUS  : HELP    :                        * [ Applies -C Changes For Mode Copy ]
STATUS  : HELP    :                           * None
STATUS  : HELP    :                           * Grayscale
STATUS  : HELP    :                           * Negative
STATUS  : HELP    :                           * Sepia,x,y
STATUS  : HELP    :                           * Negative of Sepia,x,y
STATUS  : HELP    :
STATUS  : HELP    :                 * TestCopyVerbose [ 45 Tests Performed With Standard Logging To StdOut, LogFile ]
STATUS  : HELP    :                   * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
STATUS  : HELP    :                   * Requires
STATUS  : HELP    :                     * -f [ FileName ]
STATUS  : HELP    :                     * -F [ FileType ]
STATUS  : HELP    :                   * Optional
STATUS  : HELP    :                     * -c [ Change Numeric Value ]
STATUS  : HELP    :                     * -O [ OutFileType ]
STATUS  : HELP    :                     * -y [ PercentMin,PercentMax,PercentCount,SepiaXMin,SepiaXMax,SepiaXCount,SepiaYMin,SepiaYMax,SepiaYCount ]
STATUS  : HELP    :                          * Performs Multiple Loops Of Step 1. Based On Min,Max,Count Values, Increasing The Number Of Tests
STATUS  : HELP    :                            * Input Image Intensity Percentage Min   : 100
STATUS  : HELP    :                            * Input Image Intensity Percentage Max   : 100
STATUS  : HELP    :                            * Input Image Intensity Percentage Count : 1
STATUS  : HELP    :                            * Sepia Depth Value x Min                : 20
STATUS  : HELP    :                            * Sepia Depth Value x Max                : 20
STATUS  : HELP    :                            * Sepia Depth Value x Count              : 1
STATUS  : HELP    :                            * Sepia Intensity Value y Min            : 30
STATUS  : HELP    :                            * Sepia Intensity Value y Max            : 30
STATUS  : HELP    :                            * Sepia Intensity Value y Count          : 1
STATUS  : HELP    :                     * -Z [ Sleep ]
STATUS  : HELP    :                       * Sleep For N Milliseconds After Each Test Run Time Is Displayed
STATUS  : HELP    :                         * Default 10
STATUS  : HELP    :                         * Minimum 1
STATUS  : HELP    :                         * Maximum 1000
STATUS  : HELP    :
STATUS  : HELP    :                     1. Copies Input Image To All Output File Types
STATUS  : HELP    :                        * [ Applies -C Changes For Mode Copy ]
STATUS  : HELP    :                           * None
STATUS  : HELP    :                           * Grayscale
STATUS  : HELP    :                           * Negative
STATUS  : HELP    :                           * Sepia,x,y
STATUS  : HELP    :                           * Negative of Sepia,x,y
STATUS  : HELP    :
STATUS  : HELP    :         -A [ Scan Mode ]
STATUS  : HELP    :              * Sequence That FooSteg Scans Pixel RGB Values and Writes / Extracts Binary Data To / From The Images
STATUS  : HELP    :                * Requires
STATUS  : HELP    :                  -a [ Analyse | Copy | Extract | Random | Read | Test | TestVerbose | Write ]
STATUS  : HELP    :
STATUS  : HELP    :              * 0 [ Start Scan at top left corner,     Create Scan Map from Top to Bottom, Left to Right ]
STATUS  : HELP    :                * Default
STATUS  : HELP    :
STATUS  : HELP    :              * 1 [ Start Scan at bottom left corner,  Create Scan Map from Bottom to Top, Left to Right ]
STATUS  : HELP    :              * 2 [ Start Scan at top right corner,    Create Scan Map from Top to Bottom, Right to Left ]
STATUS  : HELP    :              * 3 [ Start Scan at bottom right corner, Create Scan Map from Bottom to Top, Right to Left ]
STATUS  : HELP    :              * 4 [ Start Scan at top left corner,     Create Scan Map from Left to Right, Top to Bottom ]
STATUS  : HELP    :              * 5 [ Start Scan at bottom left corner,  Create Scan Map from Left to Right, Bottom to Top ]
STATUS  : HELP    :              * 6 [ Start Scan at top right corner,    Create Scan Map from Right to Left, Top to Bottom ]
STATUS  : HELP    :              * 7 [ Start Scan at bottom right corner, Create Scan Map from Right to Left, Bottom to Top ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :                                 0x0 ____________________________________  [ Image Width - 1 ]x0
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                    |   Any Pixel @ [ Width ]x[ Height ] |
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                    |                                    |
STATUS  : HELP    :                                     ------------------------------------
STATUS  : HELP    :                0x[ Image Height - 1 ]                                    [ Image Width - 1 ]x[ Image Height - 1 ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :         -b [ Base64File ] Base64 Encoded ASCII File To Be Used
STATUS  : HELP    :              * Modes
STATUS  : HELP    :                * Write
STATUS  : HELP    :
STATUS  : HELP    :         -B [ Bounce Change Oscillations : Pixel | RGB ]
STATUS  : HELP    :              * Default : Pixel
STATUS  : HELP    :              * Pixel [ Change Oscillations Are Performed On A Per Scanned Pixel Value ]
STATUS  : HELP    :              * RGB   [ Change Oscillations Are Performed On A Per Scanned Pixel RGB Value ]
STATUS  : HELP    :              * Modes
STATUS  : HELP    :                * Write
STATUS  : HELP    :                * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -c [ Change Numeric Value ]
STATUS  : HELP    :              * Default : 100.0
STATUS  : HELP    :              * Optional -B [ Bounce Change Oscillations : Pixel | RGB ]
STATUS  : HELP    :              * Requires -C [ Change Formula ]
STATUS  : HELP    :              * Minimum 1.0
STATUS  : HELP    :              * Maximum [ Image Width * Image Height ]
STATUS  : HELP    :              * Rounded To 5 Decimal Places : 0.12345
STATUS  : HELP    :              * Modes
STATUS  : HELP    :                * Copy
STATUS  : HELP    :                  * [ Change Formula Numeric Value ] = ( Percentage Variance Of RGB Values Of The Input Image Intensity )
STATUS  : HELP    :                * Write
STATUS  : HELP    :                  * [ Change Formula Numeric Value ] = ( Varies Depending On Change Formula )
STATUS  : HELP    :                * Extract
STATUS  : HELP    :                  * [ Change Formula Numeric Value ] = ( Varies Depending On Change Formula )
STATUS  : HELP    :                * Test
STATUS  : HELP    :                  * Default : [ Random Number Between 1 - 99 ]
STATUS  : HELP    :                  * [ Change Formula Numeric Value ] = ( Varies Depending On Change Formula )
STATUS  : HELP    :                * TestVerbose
STATUS  : HELP    :                  * Default : [ Random Number Between 1 - 99 ]
STATUS  : HELP    :                  * [ Change Formula Numeric Value ] = ( Varies Depending On Change Formula )
STATUS  : HELP    :                * TestCopy
STATUS  : HELP    :                  * Default : [ Random Number Between 1 - 99 ]
STATUS  : HELP    :                  * [ Change Formula Numeric Value ] = ( Varies Depending On Change Formula )
STATUS  : HELP    :                * TestCopyVerbose
STATUS  : HELP    :                  * Default : [ Random Number Between 1 - 99 ]
STATUS  : HELP    :                  * [ Change Formula Numeric Value ] = ( Varies Depending On Change Formula )
STATUS  : HELP    :
```

```
STATUS  : HELP    :         -C [ Change Formula : N | None , A | Algebraic , EA | Ecliptic_Area , EC | Ecliptic_Circumference , L | Linear , S1,x,y | Sequence1,x,y , S2,x,y | Sequence2,x,y , SW |
Sign-Wave , G | Grayscale , Neg | Negative , S,x,y | Sepia,x,y ]
STATUS  : HELP    :             * Default : None
STATUS  : HELP    :             * Optional -B [ Bounce Change Oscillations : Pixel | RGB ]
STATUS  : HELP    :             * Requires -c [ Change Numeric Value ]
STATUS  : HELP    :
STATUS  : HELP    :             * Available
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Write
STATUS  : HELP    :               * Extract
STATUS  : HELP    :               * [ N | None , A | Algebraic , EA | Ecliptic_Area , EC | Ecliptic_Circumference , L | Linear , S1,x,y | Sequence1,x,y , S2,x,y | Sequence2,x,y , SW | Sign-Wave ]
STATUS  : HELP    :               * [ Continually Change From Positive To Negative To Positive ..... Binary Writes / Extracts, Every [ Change Formula Numeric Value ], Till EndRGB / EndBASE64 ]
STATUS  : HELP    :               * [ Continually Change From Negative To Positive To Negative ..... Binary Writes / Extracts, Every [ Change Formula Numeric Value ], Till EndRGB / EndBASE64 ]
STATUS  : HELP    :
STATUS  : HELP    :               * N | None
STATUS  : HELP    :
STATUS  : HELP    :               * A | Algebraic
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( ( r * Prime Number ) / π )
STATUS  : HELP    :                                                    * where r = 100.0
STATUS  : HELP    :                                                    * where Prime Number = Lowest Prime Number Between : rπ and ( rπ+100, rπ+600, rπ+1100, ... )
STATUS  : HELP    :                                                    * where π = 3.14159
STATUS  : HELP    :                                                    * where [ Change Formula Numeric Value ], per Scanned, -B [ Bounce Change Oscillations : Pixel | RGB ] Value
STATUS  : HELP    :
STATUS  : HELP    :               * EA | Ecliptic_Area
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( πr2 (Pi R Squared)
STATUS  : HELP    :                                                    * where r = [ Change Numeric Value ] )
STATUS  : HELP    :                                                    * where π = 3.14159
STATUS  : HELP    :                                                    * where [ Change Formula Numeric Value ], per Scanned, -B [ Bounce Change Oscillations : Pixel | RGB ] Value
STATUS  : HELP    :
STATUS  : HELP    :               * EC | Ecliptic_Circumference
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( 2πr ( 2 Pi R )
STATUS  : HELP    :                                                    * where r = [ Change Numeric Value ] )
STATUS  : HELP    :                                                    * where π = 3.14159
STATUS  : HELP    :                                                    * where [ Change Formula Numeric Value ], per Scanned, -B [ Bounce Change Oscillations : Pixel | RGB ] Value
STATUS  : HELP    :
STATUS  : HELP    :               * L | Linear
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( N )
STATUS  : HELP    :                                                    * where N = [ Change Numeric Value ], per + - or - +
STATUS  : HELP    :                                                    * where [ Change Formula Numeric Value ], per Scanned, -B [ Bounce Change Oscillations : Pixel | RGB ] Value
STATUS  : HELP    :
STATUS  : HELP    :               * S1,x,y | Sequence1,x,y
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( N,N+(1x),N+(2x),...,N+(yx), .... Repeating )
STATUS  : HELP    :                                                    * Rounded To 5 Decimal Places : 0.12345
STATUS  : HELP    :                                                    * where N = [ Change Numeric Value ] )
STATUS  : HELP    :                                                    * where x = ( Stepped Sequence Value )
STATUS  : HELP    :                                                      * Minimum 0.1
STATUS  : HELP    :                                                    * where y = ( Maximum Sequence Value )
STATUS  : HELP    :                                                      * Minimum 1.0
STATUS  : HELP    :                                                    * where [ Change Formula Numeric Value ], per Scanned, -B [ Bounce Change Oscillations : Pixel | RGB ] Value
STATUS  : HELP    :
STATUS  : HELP    :               * S2,x,y | Sequence2,x,y
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( N,N+(1x),N+(2x),...,N+(yx),N+(yx)...,N+(2x),N+(1x),N, .... Repeating )
STATUS  : HELP    :                                                    * Rounded To 5 Decimal Places : 0.12345
STATUS  : HELP    :                                                    * where N = [ Change Numeric Value ] )
STATUS  : HELP    :                                                    * where x = ( Stepped Sequence Value )
STATUS  : HELP    :                                                      * Minimum 0.1
STATUS  : HELP    :                                                    * where y = ( Maximum Sequence Value )
STATUS  : HELP    :                                                      * Minimum 1.0
STATUS  : HELP    :                                                    * where [ Change Formula Numeric Value ], per Scanned, -B [ Bounce Change Oscillations : Pixel | RGB ] Value
STATUS  : HELP    :
STATUS  : HELP    :               * SW | Sign-Wave
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( λ = v / f ( Wave Length = Velocity / Frequency )
STATUS  : HELP    :                                                    * where λ = [ Change Numeric Value ], per + - + or - + -
STATUS  : HELP    :                                                    * where [ Change Formula Numeric Value ], per Scanned, -B [ Bounce Change Oscillations : Pixel | RGB ] Value
STATUS  : HELP    :
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Copy
STATUS  : HELP    :               * [ N | None , G | Grayscale , Neg | Negative , S,x,y | Sepia,x,y ]
STATUS  : HELP    :
STATUS  : HELP    :               * N | None
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( Percentage Variance Of RGB Values Of The Input Image Intensity )
STATUS  : HELP    :
STATUS  : HELP    :               * G | Grayscale
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( Percentage Variance Of RGB Values Of The Input Image Intensity )
STATUS  : HELP    :                                                    * where N = ( [ Change Numeric Value ] / 100 )
STATUS  : HELP    :
STATUS  : HELP    :               * Neg | Negative
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( Percentage Variance Of RGB Values Of The Input Image Intensity )
STATUS  : HELP    :                                                    * where N = ( [ Change Numeric Value ] / 100 )
STATUS  : HELP    :
STATUS  : HELP    :               * S,x,y | Sepia,x,y
STATUS  : HELP    :                 * [ Change Formula Numeric Value ] = ( Percentage Variance Of RGB Values Of The Input Image Intensity )
STATUS  : HELP    :                                                    * where N = ( [ Change Numeric Value ] / 100 )
STATUS  : HELP    :                                                    * where x = ( Sepia Depth Value )
STATUS  : HELP    :                                                      * Default 20
STATUS  : HELP    :                                                    * where y = ( Sepia Intensity Value )
STATUS  : HELP    :                                                      * Default 30
STATUS  : HELP    :
STATUS  : HELP    :         -d [ DataFileName ]
STATUS  : HELP    :             * Image Containing Data To Be Extracted For Mode
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -D [ DataFileType ]
STATUS  : HELP    :             * Image Format Containing The Data To Be Extracted
STATUS  : HELP    :             * See Tables Below
STATUS  : HELP    :
STATUS  : HELP    :         -e [ Examples ]
STATUS  : HELP    :             * Help Display of FooSteg CLI Examples
STATUS  : HELP    :
STATUS  : HELP    :         -f [ FileName ]
STATUS  : HELP    :             * Image To Be Used As Input For Modes
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Copy
STATUS  : HELP    :               * Read
STATUS  : HELP    :               * TestCopy
STATUS  : HELP    :               * TestCopyVerbose
STATUS  : HELP    :               * Write
STATUS  : HELP    :
STATUS  : HELP    :         -F [ FileType ]
STATUS  : HELP    :             * Image Format
STATUS  : HELP    :             * See Tables Below
STATUS  : HELP    :
STATUS  : HELP    :         -h [ Help ]
STATUS  : HELP    :             * Help
STATUS  : HELP    :
STATUS  : HELP    :         -H [ Height ]
STATUS  : HELP    :             * Height In Pixels
STATUS  : HELP    :             * Default 768
STATUS  : HELP    :               * Minimum               10
STATUS  : HELP    :               * Maximum               10000
STATUS  : HELP    :               * Maximum Image Pixels   100000000 <= ( Width * Height )
STATUS  : HELP    :
STATUS  : HELP    :         -i [ Individual Log Files ]
STATUS  : HELP    :             * Individual Log Files per Test, Suffixed With The Test Mode [ Copy | Extract | Random |  Write ].log
STATUS  : HELP    :             * Requires -l
STATUS  : HELP    :             * Optional -v [ Analyse | B64Data | Copy | CypherMap | Extract1 | Extract2 | ExtractMap | Random | Read | ReadData | ScanMap | Verify1 | Verify1E | Verify2 | Verify2E
| Verify3 | Verify3E | Write1 | Write2 | WriteMap | Test ]
STATUS  : HELP    :               * WARNING
STATUS  : HELP    :                 * The Processing Times For All Modes With Verbose Logging Could Increase By 100+ Fold
STATUS  : HELP    :                 * The Verbose Settings WILL Generate Extremely Large Log Files
STATUS  : HELP    :                 * The Verbose Settings Are Accumulative Delimited By A Comma ie: -v Copy,Extract1,Write2,Read
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Analyse
STATUS  : HELP    :               * Extract
STATUS  : HELP    :               * Copy
STATUS  : HELP    :               * Random
STATUS  : HELP    :               * Extract
STATUS  : HELP    :               * Test
STATUS  : HELP    :               * TestVerbose
STATUS  : HELP    :
STATUS  : HELP    :         -k [ FooStegKey Is Asked For Via A Prompt ]
STATUS  : HELP    :             * Increase The Brute Force Strength Via The FooStegCypher
STATUS  : HELP    :             * Apply The FooStegKey To The FooStegCypher To Reorganise [ FooStegScanMap -> FooStegCypher -> FooStegWriteMap | FooStegExtractMap ]
STATUS  : HELP    :             * Minimum Characters 8
```

```
STATUS  : HELP    :             * Maximum Characters 10240
STATUS  : HELP    :             * Creates FooStegToken
STATUS  : HELP    :               * 6 Random Numerical Characters
STATUS  : HELP    :                 * Minimum 100000
STATUS  : HELP    :                 * Maximum 999999
STATUS  : HELP    :               * Optional If Using FooStegKey With Mode
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Write
STATUS  : HELP    :               * Extract
STATUS  : HELP    :               * Test
STATUS  : HELP    :               * TestVerbose
STATUS  : HELP    :
STATUS  : HELP    :         -K "[ FooStegKey Via A Command Line Option ]" [ Enclosed in Double Quotes ]
STATUS  : HELP    :              * Increase The Brute Force Strength Via The FooStegCypher
STATUS  : HELP    :              * Apply The FooStegKey To The FooStegCypher To Reorganise [ FooStegScanMap -> FooStegCypher -> FooStegWriteMap | FooStegExtractMap ]
STATUS  : HELP    :              * Must Be Enclosed In Double Quotes "[ FooStegKey ]"
STATUS  : HELP    :              * Minimum Characters 8
STATUS  : HELP    :              * Maximum Characters 10240
STATUS  : HELP    :              * Creates FooStegToken
STATUS  : HELP    :                * 6 Random Numerical Characters
STATUS  : HELP    :                  * Minimum 100000
STATUS  : HELP    :                  * Maximum 999999
STATUS  : HELP    :                * Optional If Using FooStegKey With Mode
STATUS  : HELP    :              * Modes
STATUS  : HELP    :                * Write
STATUS  : HELP    :                * Extract
STATUS  : HELP    :                * Test
STATUS  : HELP    :                * TestVerbose
STATUS  : HELP    :
STATUS  : HELP    :         -l [ LogToFile ]
STATUS  : HELP    :             * Save Processing Logs
STATUS  : HELP    :               * Requires -v [ Analyse | B64Data | Copy | CypherMap | Extract1 | Extract2 | ExtractMap | Random | Read | ReadData | ScanMap | Verify1 | Verify1E | Verify2 |
Verify2E | Verify3 | Verify3E | Write1 | Write2 | WriteMap | Test ]
STATUS  : HELP    :
STATUS  : HELP    :         -L [ Log File Name ]
STATUS  : HELP    :             * Log File Name To Save Processing Logs To
STATUS  : HELP    :               * [ Unix Time Stamp Since EPOC ]_FooSteg.log
STATUS  : HELP    :                  ie:  1555927310368_FooSteg.log
STATUS  : HELP    :
STATUS  : HELP    :         -m [ Min RGB ]
STATUS  : HELP    :             * Default 1
STATUS  : HELP    :               * Minimum 1
STATUS  : HELP    :                 * < [ Max RGB ]
STATUS  : HELP    :               * Maximum 253
STATUS  : HELP    :                 * < [ Max RGB ]
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Analyse
STATUS  : HELP    :               * Write
STATUS  : HELP    :               * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -M [ Max RGB ]
STATUS  : HELP    :             * Default 254
STATUS  : HELP    :               * Minimum 2
STATUS  : HELP    :                 * > [ Min RGB ]
STATUS  : HELP    :               * Maximum 254
STATUS  : HELP    :                 * > [ Min RGB ]
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Analyse
STATUS  : HELP    :               * Write
STATUS  : HELP    :               * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -n [ New FooHome Directory ]
STATUS  : HELP    :             * Default : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt
STATUS  : HELP    :             * Must Contain The FooCrypt License Files
STATUS  : HELP    :             * FooSteg Must Have Write Access
STATUS  : HELP    :
STATUS  : HELP    :         -N [ Negative : Negative Binary Offset ]
STATUS  : HELP    :             * Default : Positive Binary Offset
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Write
STATUS  : HELP    :               * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -o [ OutFileName ]
STATUS  : HELP    :             * Image Out File Name For Modes
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Extract
STATUS  : HELP    :                 * Default Out Put Filename Format
STATUS  : HELP    :                   * [ Unix Time Stamp Since EPOC ]_[ -d Data File Name ].base64
STATUS  : HELP    :                      ie:  1555927310368_DataImage.png.base64
STATUS  : HELP    :
STATUS  : HELP    :               * Copy
STATUS  : HELP    :                 * Default Out Put Filename Format
STATUS  : HELP    :                   * [ Unix Time Stamp Since EPOC ]_[ -f File Name ].[ Output Format ]
STATUS  : HELP    :                      ie:  1555927310368_FileImage.jpg.png
STATUS  : HELP    :
STATUS  : HELP    :               * Write
STATUS  : HELP    :                 * Default Out Put Filename Format
STATUS  : HELP    :                   * [ Unix Time Stamp Since EPOC ]_[ -f File Name ].[ Output Format ]
STATUS  : HELP    :                      ie:  1555927310368_FileImage.jpg.png
STATUS  : HELP    :
STATUS  : HELP    :               * Random
STATUS  : HELP    :                 * Default Out Put Filename Format
STATUS  : HELP    :                   * [ Unix Time Stamp Since EPOC ]_FooSteg_Random_Image_[ Width ]x[ Height ].[ Output Format ]
STATUS  : HELP    :                      ie:  1555927310368_FooStegRandom_1024x768.png
STATUS  : HELP    :
STATUS  : HELP    :         -O [ OutFileType ]
STATUS  : HELP    :             * Image Format For Out File Name For Modes
STATUS  : HELP    :               * Default
STATUS  : HELP    :                 * PNG Is The Default Format
STATUS  : HELP    :               * See Tables Below
STATUS  : HELP    :
STATUS  : HELP    :         -p [ Starting Pixel [ Width ]x[ Height ] ]
STATUS  : HELP    :             * Starting Pixel Located @ [Width Pixel]x[Height Pixel] To Be Used By Scan Mode -A [ 0 - 7 ]
STATUS  : HELP    :               * Default 0x0 [ Top Left Corner Of Image ] For Default Scan Mode -A 0
STATUS  : HELP    :                 * Requires
STATUS  : HELP    :                   -a [ Analyse | Copy | Extract | Random | Read | Test | TestVerbose | Write ]
STATUS  : HELP    :                 * Optional
STATUS  : HELP    :                   -A [ 0 - 7 ]
STATUS  : HELP    :                       * 0 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Top to Bottom, Left to Right ]
STATUS  : HELP    :                         * Default
STATUS  : HELP    :
STATUS  : HELP    :                       * 1 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Bottom to Top, Left to Right ]
STATUS  : HELP    :                       * 2 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Top to Bottom, Right to Left ]
STATUS  : HELP    :                       * 3 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Bottom to Top, Right to Left ]
STATUS  : HELP    :                       * 4 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Left to Right, Top to Bottom ]
STATUS  : HELP    :                       * 5 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Left to Right, Bottom to Top ]
STATUS  : HELP    :                       * 6 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Right to Left, Top to Bottom ]
STATUS  : HELP    :                       * 7 [ Start Scan at Pixel [ Width ]x[ Height ], Create Scan Map from Right to Left, Bottom to Top ]
STATUS  : HELP    :
STATUS  : HELP    :                                 0x0 ____________________________________ [ Image Width - 1 ]x0
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                     |   Any Pixel @ [ Width ]x[ Height ] |
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                     |                                    |
STATUS  : HELP    :                                      ------------------------------------
STATUS  : HELP    :                0x[ Image Height - 1 ]                                    [ Image Width - 1 ]x[ Image Height - 1 ]
STATUS  : HELP    :
STATUS  : HELP    :         -P [ Positive : Positive Binary Offset ]
STATUS  : HELP    :             * Default : Positive Binary Offset
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Write
STATUS  : HELP    :               * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -q [ Quite : Do Not Display Tcl/Tk Initialisation Splash Messages ]
STATUS  : HELP    :
STATUS  : HELP    :         -r [ EndRGB : Repeat Write Of BASE64 Data To End Of RGB WriteMap ]
STATUS  : HELP    :             * Default EndBASE64 : Write BASE64 Data Till End Of BASE64 Data
STATUS  : HELP    :             * Modes
STATUS  : HELP    :               * Write
STATUS  : HELP    :               * Test
```

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STATUS  : HELP    :                * TestVerbose
STATUS  : HELP    :
STATUS  : HELP    :         -R [ Rounds Performed To Create The FooStegCypher ]
STATUS  : HELP    :              * Default Rounds 19
STATUS  : HELP    :              * Minimum Rounds 19
STATUS  : HELP    :              * Maximum Rounds 512
STATUS  : HELP    :
STATUS  : HELP    :         -s [ SrcFileName ]
STATUS  : HELP    :              * Image To Be Used As Source Image Key To Extract Data From The Data Image For Mode
STATUS  : HELP    :              * Modes
STATUS  : HELP    :                * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -S [ SrcFileType ]
STATUS  : HELP    :              * Image Format For Source Image Key
STATUS  : HELP    :                * See Tables Below
STATUS  : HELP    :
STATUS  : HELP    :         -t [ FooStegToken Is Asked For Via A Prompt ]
STATUS  : HELP    :              * Increase The Brute Force Strength Via The FooStegCypher
STATUS  : HELP    :               * Apply The FooStegToken With The FooStegKey To The FooStegCypher To Reorganise [ FooStegScanMap -> FooStegCypher -> FooStegExtractMap ]
STATUS  : HELP    :                 * FooStegToken
STATUS  : HELP    :                   * 6 Random Numerical Characters
STATUS  : HELP    :                     * Minimum 100000
STATUS  : HELP    :                     * Maximum 999999
STATUS  : HELP    :                   * Created If Not Provided By End User For Mode
STATUS  : HELP    :                     * Write
STATUS  : HELP    :               * Modes
STATUS  : HELP    :                 * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -T [ FooStegToken Via A Command Line Option ]
STATUS  : HELP    :              * Increase The Brute Force Strength Via The FooStegCypher
STATUS  : HELP    :               * Apply The FooStegToken With The FooStegKey To The FooStegCypher To Reorganise [ FooStegScanMap -> FooStegCypher -> FooStegExtractMap ]
STATUS  : HELP    :                 * FooStegToken
STATUS  : HELP    :                   * 6 Random Numerical Characters
STATUS  : HELP    :                     * Minimum 100000
STATUS  : HELP    :                     * Maximum 999999
STATUS  : HELP    :                   * Created If Not Provided By End User For Mode
STATUS  : HELP    :                     * Write
STATUS  : HELP    :               * Modes
STATUS  : HELP    :                 * Extract
STATUS  : HELP    :
STATUS  : HELP    :         -u [ Usage License Terms Short ]
STATUS  : HELP    :              * Usage License Terms Short
STATUS  : HELP    :
STATUS  : HELP    :         -U [ Usage License Terms Full ]
STATUS  : HELP    :              * Usage License Terms Full
STATUS  : HELP    :
STATUS  : HELP    :         -v [ Analyse | B64Data | Copy | CypherMap | Extract1 | Extract2 | ExtractMap | Random | Read | ReadData | ScanMap | Verify1 | Verify1E | Verify2 | Verify2E | Verify3 |
Verify3E | Write1 | Write2 | WriteMap | Test ]
STATUS  : HELP    :              * WARNING
STATUS  : HELP    :                * The Processing Times For All Modes With Verbose Logging Could Increase By 100+ Fold
STATUS  : HELP    :                * The Verbose Settings WILL Generate Extremely Large Log Files
STATUS  : HELP    :                * The Verbose Settings Are Accumulative Delimited By A Comma ie: -v Copy,Extract1,Write2,Read
STATUS  : HELP    :              * Verbose Logging
STATUS  : HELP    :                * Requires -l To Save Verbose Processing Logs To LogFile
STATUS  : HELP    :                * Requires -V To Send Verbose Processing Logs To StdOut
STATUS  : HELP    :              * Verbose Logging Modes
STATUS  : HELP    :                * Analyse
STATUS  : HELP    :                  * Analyse Pixel Comparison
STATUS  : HELP    :
STATUS  : HELP    :                * B64Data
STATUS  : HELP    :                  * Base64 Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Copy
STATUS  : HELP    :                  * Copy Pixel Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * CypherMap
STATUS  : HELP    :                  * CypherMap Pixel List Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * Extract1
STATUS  : HELP    :                  * A Pixel Map With The Binary Data Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * Extract2
STATUS  : HELP    :                  * A Extract Pixel Map And RGB Map With Each Binary Character Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * ExtractMap
STATUS  : HELP    :                  * ExtractMap Pixel List Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * Random
STATUS  : HELP    :                  * Random Pixel Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Read
STATUS  : HELP    :                  * A Pixel Finger Print Map Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * ReadData
STATUS  : HELP    :                  * Read Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * ScanMap
STATUS  : HELP    :                  * ScanMap Pixel List Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * Verify1
STATUS  : HELP    :                  * Verify1 Success Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Verify1E
STATUS  : HELP    :                  * Verify1 Error Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Verify2
STATUS  : HELP    :                  * Verify2 Success Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Verify2E
STATUS  : HELP    :                  * Verify2E Error Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Verify3
STATUS  : HELP    :                  * Verify3 Success Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Verify3E
STATUS  : HELP    :                  * Verify3E Error Data Is Logged
STATUS  : HELP    :
STATUS  : HELP    :                * Write1
STATUS  : HELP    :                  * A Write Pixel Map Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * Write2
STATUS  : HELP    :                  * A Write Pixel Map And RGB Map With Each Binary Character Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * WriteMap
STATUS  : HELP    :                  * WriteMap Pixel List Is Generated
STATUS  : HELP    :
STATUS  : HELP    :                * Test
STATUS  : HELP    :                  * All The Above Are Generated
STATUS  : HELP    :
STATUS  : HELP    :              * Verbose Logging Modes By -a Mode
STATUS  : HELP    :                * WARNING
STATUS  : HELP    :                  * The Processing Times For All Modes With Verbose Logging Could Increase By 100+ Fold
STATUS  : HELP    :                  * The Verbose Settings WILL Generate Extremely Large Log Files
STATUS  : HELP    :                  * The Verbose Settings Are Accumulative Delimited By A Comma ie: -v Copy,Extract1,Write2,Read
STATUS  : HELP    :                * Modes
STATUS  : HELP    :                  * Analyse
STATUS  : HELP    :                    * [ Analyse | ScanMap ]
STATUS  : HELP    :
STATUS  : HELP    :                  * Copy
STATUS  : HELP    :                    * [ Copy | ScanMap | Verify2 | Verify2E ]
STATUS  : HELP    :
STATUS  : HELP    :                  * Extract
STATUS  : HELP    :                    * [ B64Data | CypherMap | Extract1 | Extract2 | ExtractMap | ReadData | ScanMap | Verify1 | Verify1E | Verify2 | Verify2E ]
STATUS  : HELP    :
STATUS  : HELP    :                  * Random
STATUS  : HELP    :                    * [ Random | ScanMap | Verify2 | Verify2E ]
STATUS  : HELP    :
STATUS  : HELP    :                  * Read
STATUS  : HELP    :                    * [ Read | ScanMap ]
STATUS  : HELP    :
STATUS  : HELP    :                  * Test
STATUS  : HELP    :                    * [ B64Data | Copy | CypherMap | Extract1 | Extract2 | ExtractMap | Random | Read | ReadData | ScanMap | Verify1 | Verify1E | Verify2 | Verify2E | Write1 |
Write2 | WriteMap ]
STATUS  : HELP    :                    * A Read [ Finger Print ] Map Is Produced For The Source And Data Images When Performing Mode Write Tests
STATUS  : HELP    :                    * Optional -i : Individual Log Files per Test, Suffixed With The Test Mode [ Copy | Extract | Random |  Write ].log
```

```
STATUS  : HELP    :
STATUS  : HELP    :                   * TestVerbose
STATUS  : HELP    :                     * [ B64Data | Copy | CypherMap | Extract1 | Extract2 | ExtractMap | Random | Read | ReadData | ScanMap | Verify1 | Verify1E | Verify2 | Verify2E | Write1 |
Write2 | WriteMap ]
STATUS  : HELP    :                     * A Read [ Finger Print ] Map Is Produced For The Source And Data Images When Performing Mode Write Tests
STATUS  : HELP    :                     * Optional -i : Individual Log Files per Test, Suffixed With The Test Mode [ Copy | Extract | Random |  Write ].log
STATUS  : HELP    :
STATUS  : HELP    :                   * Write
STATUS  : HELP    :                     * [ B64Data | CypherMap | Extract1 | Extract2 | ExtractMap | ReadData | ScanMap | Verify1 | Verify1E | Verify2 | Verify2E | Write1 | Write2 | WriteMap ]
STATUS  : HELP    :
STATUS  : HELP    :          -V [ Verbose StdOut ]
STATUS  : HELP    :             * Verbose StdOut Logging
STATUS  : HELP    :               * Requires -v [ Analyse | B64Data | Copy | CypherMap | Extract1 | Extract2 | ExtractMap | Random | Read | ReadData | ScanMap | Verify1 | Verify1E | Verify2 |
Verify2E | Verify3 | Verify3E | Write1 | Write2 | WriteMap | Test ]
STATUS  : HELP    :
STATUS  : HELP    :          -W [ Width ]
STATUS  : HELP    :             * Width In Pixels
STATUS  : HELP    :             * Default 1024
STATUS  : HELP    :               * Minimum                10
STATUS  : HELP    :               * Maximum                10000
STATUS  : HELP    :               * Maximum Image Pixels   100000000 <= ( Width * Height )
STATUS  : HELP    :
STATUS  : HELP    :          -x [ FooStegKey Is Passed To FooSteg Via FIFO Encrypted Communications ]
STATUS  : HELP    :             * FooCrypt-GUI Only Option
STATUS  : HELP    :
STATUS  : HELP    :          -X [ FooStegKey And FooStegToken Are Passed To FooSteg Via FIFO Encrypted Communications ]
STATUS  : HELP    :             * FooCrypt-GUI Only Option
STATUS  : HELP    :
STATUS  : HELP    :          -y [ PercentMin,PercentMax,PercentCount,SepiaXMin,SepiaXMax,SepiaXCount,SepiaYMin,SepiaYMax,SepiaYCount ]
STATUS  : HELP    :             * Default
STATUS  : HELP    :             * Input Image Intensity Percentage Min   : 100
STATUS  : HELP    :             * Input Image Intensity Percentage Max   : 100
STATUS  : HELP    :             * Input Image Intensity Percentage Count : 1
STATUS  : HELP    :             * Sepia Depth Value x Min                : 20
STATUS  : HELP    :             * Sepia Depth Value x Max                : 20
STATUS  : HELP    :             * Sepia Depth Value x Count              : 1
STATUS  : HELP    :             * Sepia Intensity Value y Min            : 30
STATUS  : HELP    :             * Sepia Intensity Value y Max            : 30
STATUS  : HELP    :             * Sepia Intensity Value y Count          : 1
STATUS  : HELP    :              * Modes
STATUS  : HELP    :                * Copy
STATUS  : HELP    :                * TestCopy
STATUS  : HELP    :                * TestCopyVerbose
STATUS  : HELP    :
STATUS  : HELP    :          -z [ Absolute PATH to OpenSSL ]
STATUS  : HELP    :             * Default [ /usr/bin/openssl ]
STATUS  : HELP    :
STATUS  : HELP    :          -Z [ Sleep ]
STATUS  : HELP    :             * Sleep For N Milliseconds After Each Verbose StdOut Line Is Displayed
STATUS  : HELP    :               * Default 10
STATUS  : HELP    :               * Minimum 1
STATUS  : HELP    :               * Maximum 1000
STATUS  : HELP    :               * Modes
STATUS  : HELP    :                 * Analyse
STATUS  : HELP    :                 * Copy
STATUS  : HELP    :                 * Extract
STATUS  : HELP    :                 * Write
STATUS  : HELP    :                 * Random
STATUS  : HELP    :             * Sleep For N Milliseconds After Each Test Run Time Is Displayed
STATUS  : HELP    :               * Default 10
STATUS  : HELP    :               * Minimum 1
STATUS  : HELP    :               * Maximum 1000
STATUS  : HELP    :               * Modes
STATUS  : HELP    :                 * Test
STATUS  : HELP    :                 * TestVerbose
STATUS  : HELP    :                 * TestCopy
STATUS  : HELP    :                 * TestCopyVerbose
STATUS  : HELP    :
STATUS  : HELP    :          * Supported Image Formats
STATUS  : HELP    :             GIF & JPEG Formats Utilise A Compression Algorithm Which Prevents The Format From Being The Data Carrier For The Binary RGB Encoding / Decoding
STATUS  : HELP    :
STATUS  : HELP    :                 ID = Input Data Image    [ See -d & -D ]
STATUS  : HELP    :                 IF = Input File Image    [ See -f & -F ]
STATUS  : HELP    :                 IS = Input Source Image  [ See -s & -S ]
STATUS  : HELP    :
STATUS  : HELP    :                 OC = Output Copy Image    [ See -o & -O ]
STATUS  : HELP    :                 OD = Output Data Image    [ See -o & -O ]
STATUS  : HELP    :                 OR = Output Random Image  [ See -o & -O ]
STATUS  : HELP    :
STATUS  : HELP    :                 NO = Image Format Not Supported
STATUS  : HELP    :
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | Format |  Copy  |    Extract    | Random | Read |    Write   |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | BMP    | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | GIF    | IF     |    IS         |   NO   |  IF  | IF         |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | JPEG   | IF OC  |    IS         |   OR   |  IF  | IF         |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | PCX    | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | PNG    | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | PPM    | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | SGI    | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | SUN    | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | TGA    | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :                 | TIFF   | IF OC  |    IS   ID    |   OR   |  IF  | IF     OD  |
STATUS  : HELP    :                 ==============================================================
STATUS  : HELP    :
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |           Successful BASE64 Steganography Image Encode / Decode Table        |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 | Input Source  |                     Data Source                            |
STATUS  : HELP    :                 | Image Format  |                     Image Format                           |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     BMP       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     GIF       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     JPEG      |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     PCX       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     PNG       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     PPM       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     SGI       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     SUN       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     TGA       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :                 |     TIFF      |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
STATUS  : HELP    :                 ==============================================================================
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    : * FooSteg CLI Examples
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Analyse an image to see if a base64 file will fit inside
STATUS  : HELP    :
STATUS  : HELP    :          [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Analyse \
STATUS  : HELP    :                 -A 0 \
STATUS  : HELP    :                 -b [ *Quoted Full Path To The BASE64 File ] \
STATUS  : HELP    :                 -f [ *Quoted Full Path To The Image File ] \
STATUS  : HELP    :                 -F [ Image File Format ] \
```

```
STATUS  : HELP    :                 -m [ RGB Minimum ] \
STATUS  : HELP    :                 -M [ RGB Maximum ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Copy an image | format to another image | format
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Copy \
STATUS  : HELP    :                 -A 0 \
STATUS  : HELP    :                 -f [ *Quoted Full Path To The Image File ] \
STATUS  : HELP    :                 -F [ Image File Format ] \
STATUS  : HELP    :                 -o [ *Quoted Full Path To The Output Image File ] \
STATUS  : HELP    :                 -O [ Output Image File Format ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Extract a BASE64 File from a Data Image
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Extract \
STATUS  : HELP    :                 -A 0 \
STATUS  : HELP    :                 -d [ *Quoted Full Path To The Data Image File ] \
STATUS  : HELP    :                 -D [ Data Image File Format ] \
STATUS  : HELP    :                 -s [ *Quoted Full Path To The Source Image File ] \
STATUS  : HELP    :                 -S [ Source Image File Format ] \
STATUS  : HELP    :                 -m [ RGB Minimum ] \
STATUS  : HELP    :                 -M [ RGB Maximum ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Random, create an image with random RGB values
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Random \
STATUS  : HELP    :                 -A 0 \
STATUS  : HELP    :                 -o [ *Quoted Full Path To The Output Image File ] \
STATUS  : HELP    :                 -O [ Output Image File Format ] \
STATUS  : HELP    :                 -W [ Output Image Width ] \
STATUS  : HELP    :                 -H [ Output Image Height ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Read an image RGB values
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Read \
STATUS  : HELP    :                 -A 0 \
STATUS  : HELP    :                 -f [ *Quoted Full Path To The Image File ] \
STATUS  : HELP    :                 -F [ Image File Format ] \
STATUS  : HELP    :                 -m [ RGB Minimum ] \
STATUS  : HELP    :                 -M [ RGB Maximum ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Read an image RGB values and SAVE the details to a log file
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Read \
STATUS  : HELP    :                 -A 0 \
STATUS  : HELP    :                 -v Read \
STATUS  : HELP    :                 -l \
STATUS  : HELP    :                 -f [ *Quoted Full Path To The Image File ] \
STATUS  : HELP    :                 -F [ Image File Format ] \
STATUS  : HELP    :                 -m [ RGB Minimum ] \
STATUS  : HELP    :                 -M [ RGB Maximum ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Read an image RGB values via ScanMode 3, Starting @ Pixel 1234×3456 and SAVE the details to a log file called FingerPrint.log in the current working directory
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Read \
STATUS  : HELP    :                 -A 3 \
STATUS  : HELP    :                 -p 1234×3456 \
STATUS  : HELP    :                 -v Read \
STATUS  : HELP    :                 -l \
STATUS  : HELP    :                 -L [ *Quoted Full Path To The Log Directory ]/FingerPrint.log \
STATUS  : HELP    :                 -f [ *Quoted Full Path To The Image File ] \
STATUS  : HELP    :                 -F [ Image File Format ] \
STATUS  : HELP    :                 -m [ RGB Minimum ] \
STATUS  : HELP    :                 -M [ RGB Maximum ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Test FooSteg Validation
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Test
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Test FooSteg Validation with all logging
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Test \
STATUS  : HELP    :                 -v Test \
STATUS  : HELP    :                 -l
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * TestVerbose FooSteg Validation
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a TestVerbose
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * TestVerbose FooSteg Validation with all logging
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a TestVerbose \
STATUS  : HELP    :                 -v Test \
STATUS  : HELP    :                 -l
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Write a base64 file into an image
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Write \
STATUS  : HELP    :                 -A 0 \
STATUS  : HELP    :                 -b [ *Quoted Full Path To The BASE64 File ] \
STATUS  : HELP    :                 -f [ *Quoted Full Path To The Image File ] \
STATUS  : HELP    :                 -F [ Image File Format ] \
STATUS  : HELP    :                 -m [ RGB Minimum ] \
STATUS  : HELP    :                 -M [ RGB Maximum ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Write a base64 file into an image starting @ pixel 100×1234 using ScanMode 5
STATUS  : HELP    :
STATUS  : HELP    :         [ *Quoted Full Path To FooSteg ]/FooSteg \
STATUS  : HELP    :                 -a Write \
STATUS  : HELP    :                 -A 5 \
STATUS  : HELP    :                 -p 100×1234 \
STATUS  : HELP    :                 -b [ *Quoted Full Path To The BASE64 File ] \
STATUS  : HELP    :                 -f [ *Quoted Full Path To The Image File ] \
STATUS  : HELP    :                 -F [ Image File Format ] \
STATUS  : HELP    :                 -m [ RGB Minimum ] \
STATUS  : HELP    :                 -M [ RGB Maximum ]
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : HELP    :   * Online Examples
STATUS  : HELP    :
STATUS  : HELP    :         https://doco.foocrypt.xyz/foosteg-c-l-i-examples
STATUS  : HELP    :
STATUS  : HELP    :
STATUS  : LICENSE :
STATUS  : LICENSE : © Mark A. Lane 1980 - 2025, All Rights Reserved.
STATUS  : LICENSE : © FooCrypt 1980 - 2025, All Rights Reserved.
STATUS  : LICENSE : © FooCrypt, A Tale of Cynical Cyclical Encryption. 1980 - 2025, All Rights Reserved.
STATUS  : LICENSE : © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : LICENSE :
STATUS  : LICENSE : Software License - License for `FooCrypt, A Tale Of Cynical Cyclical Encryption.`
STATUS  : LICENSE :
STATUS  : LICENSE : License Summary
```

```
STATUS  : LICENSE :
STATUS  : LICENSE :          Cannot modify source-code for any purpose (cannot create derivative works)
STATUS  : LICENSE :          Support provided
STATUS  : LICENSE :          License does not expire.
STATUS  : LICENSE :          Commercial use allowed
STATUS  : LICENSE :
STATUS  : LICENSE : `FooCrypt, A Tale Of Cynical Cyclical Encryption.` - Terms and conditions
STATUS  : LICENSE :
STATUS  : LICENSE :  For Full License Terms and Conditions See :
STATUS  : LICENSE :
STATUS  : LICENSE :                  * FooSteg -U
STATUS  : LICENSE :
STATUS  : FooSteg    :
STATUS  : FooSteg    : Total Run Time                            : 9822 Milliseconds
STATUS  : FooSteg    : Total Run Time Human                      : 0 Days, 0 Hours, 0 Minutes, 9 Seconds, 822 MilliSeconds
STATUS  : FooSteg    :
STATUS  : FooSteg    : End Time Since EPOC                       : 1699329543239
ERROR   : FooSteg    :
ERROR   : FooSteg    : ExitCode                                  : 1
ERROR   : FooSteg    :
STATUS  :
STATUS  : Log File                  : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145849_FooTest_FooSteg/20231107145849_FooTest_FooSteg_23619.log
STATUS  :
STATUS  :
STATUS  : Log Directory Contents    : /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145849_FooTest_FooSteg
STATUS  : .log Files                : 1
STATUS  :
STATUS  : Log Directory Size        : 132K    /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20231107145849_FooTest_FooSteg
STATUS  :
STATUS  : FooHome Directory Size    :   0B    /Users/FooCrypt/Library/Caches/net.Cryptopocalypse.FooCrypt
STATUS  :
STATUS  : CleanUP
STATUS  :
STATUS  : FooSteg_RunTime           : 22 Seconds
STATUS  : FooSteg_RunTime           : 0 Days, 0 Hours, 0 Minutes, 22 Seconds
STATUS  :
ERROR   :
ERROR   : FooSteg_Exit_Code_1
ERROR   :
```

- # Command Line Interface StdOut : FooSteg -a [MODE]

  [*Quoted FULL PATH To FooSteg Binary]/FooSteg -a [MODE]

  Available Modes for FooSteg Include :

```
-a [ Mode ]
     * Modes
       * Analyse
         1. Reads The FileName Image [ Read From File ] Pixel By Pixel
         2. Analyses The FileName Image [ Read From File ] Pixel By Pixel Against Min RGB & Max RGB Settings To Identify The Number Of Available Bits
         3. Optionally Compares The Available Space Determined by The Min RGB & Max RGB Values Against The Size Of A Base64 File

       * Copy
         1. Copies FileName Image File Type to Output Image File Type Pixel By Pixel
         2. Reads Output Image Pixel By Pixel
         3. Verifies FileName Image Against The Output Image Pixel By Pixel

       * Extract
         1. Extracts Base64 Data From Data Image Using The Source Image As The Key
         2. Saves The Base64 Data As The Output File Name

       * Random
         1. Creates A Random Image Pixel By Pixel
         2. Writes The Random To OutputFileName As OutputFileType
         3. Reads The OutputFileName Image Pixel By Pixel
         4. Verifies The Written Random Image [ Memory Before Write ] Against The Read Random Image [ Read From File After Write ] Pixel By Pixel

       * Read
         1. Reads The FileName Image [ Read From File ] Pixel By Pixel

       * Test [ 74062 Tests Performed With Only Summary Logging To StdOut, LogFile ]
         * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
         * Default
           * Min RGB Set To 1
           * Max RGB Set To 254
           * Image Width Set To  : 50
           * Image Height Set To : 50
         * Optional
           * -Z [ Sleep ]
             * Sleep For N Milliseconds After Each Test Run Time Is Displayed
               * Default 250
               * Minimum 10
               * Maximum 1000

           1. Creates Random Images 50x50 For All Output File Types
              * [ See Random Steps Above ]
              * [ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Output Format ]
                * Number of Tests Reduced via -O [ BMP | JPEG | PCX | PNG | PPM | SGI | SUN | TGA | TIFF ]

           2. Copies Each Random Image To All Output File Type, Modified via All Copy Changes With A Change Numeric Of 100
              * [ See Copy Above ]
              * [ Applies -C Changes For Mode Copy ]
                * None
                * Grayscale
                * Negative
                * Sepia,20,30
              * [ Applies -c Change Numeric ]
                * 100
              * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]

           3. Creates Base64 File From A Random Image 10% of Step 1, Image Width x Image Height, Output File Type PNG
              * [ See Random Steps Above ]
              * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png
              * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png.Test_Random.base64

           Performs Steps 4 and 5 Using Changes [ None | Algebraic | Ecliptic_Area | Ecliptic_Circumference | Linear | Sequence1,x,y | Sequence2,x,y | Sign-Wave
]
              * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P ]
              * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P -r ]
              * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N ]
              * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N -r ]
                * Number of Tests Reduced via -A
                * Number of Tests Reduced via -C
                * Number of Tests Reduced via -O
                * x = [ Random Number Between 1.10000 - 9.99999 ]
                * y = [ Random Number Between 9 - 99 ]

           4. Writes The Base64 Test_Random File From Step 3 Into Each Random Image Format For All Output File Types
              * [ See Write Steps Above ]
              * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]
              * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output
Format ].Test_Write_Extract.base64

           5. Extracts The Embedded Base64 Test_Random File From All Output File Types
              * [ See Extract Steps Above ]
              * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Source Format ].[ Image Data
Format ].Test_Extract.base64

       * TestVerbose [ 74062 Tests Performed With Standard Logging To StdOut, LogFile ]
         * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
         * Default
           * Min RGB Set To 1
           * Max RGB Set To 254
           * Image Width Set To  : 50
           * Image Height Set To : 50
         * Optional
           * -Z [ Sleep ]
             * Sleep For N Milliseconds After Each Test Run Time Is Displayed
               * Default 250
               * Minimum 10
               * Maximum 1000

           1. Creates Random Images 50x50 For All Output File Types
              * [ See Random Steps Above ]
              * [ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Output Format ]
                * Number of Tests Reduced via -O [ BMP | JPEG | PCX | PNG | PPM | SGI | SUN | TGA | TIFF ]

           2. Copies Each Random Image To All Output File Types, Modified via All Copy Changes With A Change Numeric Of 100
              * [ See Copy Above ]
              * [ Applies -C Changes For Mode Copy ]
                * None
                * Grayscale
                * Negative
                * Sepia,20,30
              * [ Applies -c Change Numeric ]
                * 100
```

```
            * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]

         3. Creates Base64 File From A Random Image 10% of Step 1, Image Width x Image Height, Output File Type PNG
            * [ See Random Steps Above ]
            * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png
            * [ File Create Time Since EPOC ]_FooStegRandom_10x10.png.Test_Random.base64

         Performs Steps 4 and 5 Using Changes [ None | Algebraic | Ecliptic_Area | Ecliptic_Circumference | Linear | Sequence1,x,y | Sequence2,x,y | Sign-Wave
]
            * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P ]
            * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -P -r ]
            * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N ]
            * [ -A [0-7] -B [ Pixel | RGB ] -C [ Change ] -N -r ]
              * Number of Tests Reduced via -A
              * Number of Tests Reduced via -C
              * Number of Tests Reduced via -O
              * x = [ Random Number Between 1.10000 - 9.99999 ]
              * y = [ Random Number Between 9 - 99 ]

         4. Writes The Base64 Test_Random File From Step 3 Into Each Random Image Format For All Output File Types
            * [ See Write Steps Above ]
            * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output Format ]
            * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image File Format ].[ Image Output
Format ].Test_Write_Extract.base64

         5. Extracts The Embedded Base64 Test_Random File From All Output File Types
            * [ See Extract Steps Above ]
            * [ File Create Time Since EPOC ]_[ File Create Time Since EPOC ]_FooStegRandom_50x50.[ Image Source Format ].[ Image Data
Format ].Test_Extract.base64

      * TestCopy [ 45 Tests Performed With Standard Logging To StdOut, LogFile ]
        * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
        * Requires
          * -f [ FileName ]
          * -F [ FileType ]
        * Optional
          * -c [ Change Numeric Value ]
          * -O [ OutFileType ]
          * -y [ PercentMin,PercentMax,PercentCount,SepiaXMin,SepiaXMax,SepiaXCount,SepiaYMin,SepiaYMax,SepiaYCount ]
                * Performs Multiple Loops Of Step 1. Based On Min,Max,Count Values, Increasing The Number Of Tests
                  * Input Image Intensity Percentage Min   : 100
                  * Input Image Intensity Percentage Max   : 100
                  * Input Image Intensity Percentage Count : 1
                  * Sepia Depth Value x Min                : 20
                  * Sepia Depth Value x Max                : 20
                  * Sepia Depth Value x Count              : 1
                  * Sepia Intensity Value y Min            : 30
                  * Sepia Intensity Value y Max            : 30
                  * Sepia Intensity Value y Count          : 1
          * -Z [ Sleep ]
            * Sleep For N Milliseconds After Each Test Run Time Is Displayed
              * Default 250
              * Minimum 10
              * Maximum 1000

         1. Copies Input Image To All Output File Types
            * [ Applies -C Changes For Mode Copy ]
                * None
                * Grayscale
                * Negative
                * Sepia,x,y
                * Negative of Sepia,x,y

      * TestCopyVerbose [ 45 Tests Performed With Standard Logging To StdOut, LogFile ]
        * All Output File Types : BMP|JPEG|PCX|PNG|PPM|SGI|SUN|TGA|TIFF
        * Requires
          * -f [ FileName ]
          * -F [ FileType ]
        * Optional
          * -c [ Change Numeric Value ]
          * -O [ OutFileType ]
          * -y [ PercentMin,PercentMax,PercentCount,SepiaXMin,SepiaXMax,SepiaXCount,SepiaYMin,SepiaYMax,SepiaYCount ]
                * Performs Multiple Loops Of Step 1. Based On Min,Max,Count Values, Increasing The Number Of Tests
                  * Input Image Intensity Percentage Min   : 100
                  * Input Image Intensity Percentage Max   : 100
                  * Input Image Intensity Percentage Count : 1
                  * Sepia Depth Value x Min                : 20
                  * Sepia Depth Value x Max                : 20
                  * Sepia Depth Value x Count              : 1
                  * Sepia Intensity Value y Min            : 30
                  * Sepia Intensity Value y Max            : 30
                  * Sepia Intensity Value y Count          : 1
          * -Z [ Sleep ]
            * Sleep For N Milliseconds After Each Test Run Time Is Displayed
              * Default 250
              * Minimum 10
              * Maximum 1000

         1. Copies Input Image To All Output File Types
            * [ Applies -C Changes For Mode Copy ]
                * None
                * Grayscale
                * Negative
                * Sepia,x,y
                * Negative of Sepia,x,y
```

- ## FooSteg Validation via : FooSteg -a Test

  [*Quoted FULL PATH To FooSteg Binary]/FooSteg -a Test

  Validation of your operating system environment to ensure the correct functionality of FooSteg is best performed by executing :

  'FooSteg -a Test -l 2>&1 | tee ~/FooSteg-a_Test.log 2>&1'
  Which will capture all StdOut to the file located in the [User Home Directory]/FooSteg-a_Test.log as well as create the FooSteg Log File in : **[FooHome]**/[YYYYMMDDHHMMSS]_[HOSTNAME]_[FooSteg]/[Unix Time Stamp Since EPOC]_FooSteg.log

  Validation via 'FooSteg -a Test' will take around 10 hours to complete depending on the processor you are using and will consume about 450MB of Disk Space, leaving all the created files in the [**FooHome**] sub directory.

  Verify failures of the jpeg image format are normal as jpeg utilises a compression algorithm which prevents exact comparison of every pixel RGB values.

* Note
  * -a Test & -a TestVerbose can be reduced from the 74062 Tests to 166 Tests, or variations of, by
  * -A [0 - 7]
  * -C [Change Formula]
  * -O [Output Format]

- ## Example : FooSteg Validation StdOut : FooSteg -a Test -A 0 -C Sequence1,1,10 -c 1 -O TIFF

  - ### Extract of 'FooSteg -a Test -A 0 -C Sequence1,1,10 -c 1 -O TIFF' StdOut Results :

```
STATUS  : Runtime Options          : FooSteg -a Test -A 0 -C Sequence1,1,10 -c 1 -O TIFF
STATUS  :
STATUS  : PATH                     : /usr/bin:/usr/sbin:/bin:/sbin:/opt/local/bin:/usr/local/bin
STATUS  : LD_LIBRARY_PATH          : /usr/lib
STATUS  :
STATUS  : OpenSSL                  : /usr/bin/openssl
STATUS  : OpenSSL Version          : LibreSSL 2.8.3
STATUS  : Loaded OpenSSL Libraries :
STATUS  :        /usr/lib/libssl.46.dylib (compatibility version 47.0.0, current version 47.1.0)
STATUS  :        /usr/lib/libcrypto.44.dylib (compatibility version 45.0.0, current version 45.1.0)
STATUS  :        /System/Library/PrivateFrameworks/TrustEvaluationAgent.framework/Versions/A/TrustEvaluationAgent (compatibility version 1.0.0, current version 33.0.0)
STATUS  :        /usr/lib/libSystem.B.dylib (compatibility version 1.0.0, current version 1281.100.1)
STATUS  :
STATUS  : Found /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist
STATUS  :
STATUS  : Running FooSteg Initialisation Integrity Checks
STATUS  :
STATUS  : Passed FooSteg Initialisation Integrity Check 0
STATUS  :
HELP    : QRCS ( With eAES® )      : Darwin Environment Detected
HELP    : QRCS ( With eAES® )      : Is Currently Undergoing Integration Testing For Your Operating System
STATUS  :
STATUS  : Running Instances Of     : FooSteg
STATUS  :
STATUS  : User ID                  : 501
STATUS  : Group ID                 : 20
STATUS  : Process ID               : 99508
STATUS  :
STATUS  : UID       GID       PID       PPID      PROG
STATUS  : 501       20        99508     34480     /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Resources/FooSteg
STATUS  :
STATUS  : Passed FooSteg Initialisation Integrity Check 1
STATUS  :
STATUS  : /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Info.plist, Found
STATUS  :
STATUS  :
STATUS  : FooCrypt.Key File Located
STATUS  : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Key
STATUS  :
STATUS  : 4873653075
STATUS  :
STATUS  : FooCrypt.Lic File Located
STATUS  : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/.FooCrypt.Lic
STATUS  :
STATUS  : U2FsdGVkX1/ENG9AwoL2UQnCHo0NPD5kLDDQjs3lPDJX8JskXwWqHx0VC7bIMFCU
STATUS  : 6OjEPHR6GAqbONdC2eAnsqhiyQhY7rRz4bK5vLSG6kxRByZm96wlNhe3odi5Ii2U
STATUS  :
STATUS  :
STATUS  : System_Serial=20230711221806:BuildTest:BuildTest@FooCrypt.Net
STATUS  :
STATUS  :
STATUS  : FooCrypt, A Tale Of Cynical Cyclical Encryption.
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin
STATUS  : CopyRight © Cryptopocalypse 1980 - 2025, All Rights Reserved.
STATUS  : BuildTest License Verified
STATUS  : FooCrypt.XX.YY.ZZ.Core.Darwin, BuildTest Expiration Date : 20230711221806
STATUS  :
STATUS  :
STATUS  : Who Am I                 : foocrypt     ttys003  Jun 11 23:15
STATUS  :
STATUS  :
```

```
STATUS  : TTY                       : /dev/ttys003
STATUS  : TTY                       : Local TTY Session Detected
ERROR   : TTY                       : DISPLAY Variable Not Set
STATUS  : TTY                       : Forcing DISPLAY to :0
HELP    : TTY                       : Set The DISPLAY Variable As Per Your Shell Requirements
STATUS  :
STATUS  :
STATUS  : Wish Type                 : FooSteg-StarKit
STATUS  : Wish Executable           : /Volumes/FooCrypt.XX.YY.ZZ.Core.Darwin/FooCrypt.app/Contents/Resources/Scripts/Widgets/FooSteg.app/Contents/MacOS/FooSteg
STATUS  : Wish Version              : 8.6.9
STATUS  :
STATUS  :
STATUS  : Completed Initialisation Integrity Checks
STATUS  :
STATUS  : Initialised
STATUS  :
STATUS  : FooSteg    : Start Time Since EPOC                      : 1686633295820
RUNNING :
RUNNING : FooSteg -a Test -A 0 -C Sequence1,1,10 -c 1 -O TIFF
RUNNING :
STATUS  : GetOpts    :
STATUS  : GetOpts    : Current Working Directory                  : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg/Tmp_5203
STATUS  : GetOpts    :
STATUS  : GetOpts    : RunTime Options                            :
STATUS  : GetOpts    : -a Set To                                  : Test
STATUS  : GetOpts    : -A Set To                                  : 0
STATUS  : GetOpts    : -c Set To                                  : 1.00000
STATUS  : GetOpts    : -C Set To                                  : Sequence1,1.00000,10.00000 : ( N,N+(1x),N+(2x),...,N+(yx), .... Repeating ), per Scanned Pixel Value
STATUS  : GetOpts    : Change Sequence Set To                     : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000, .... Repeating
STATUS  : GetOpts    : -O Set To                                  : tiff
STATUS  : GetOpts    : -r Set To                                  : EndBASE64
STATUS  : GetOpts    :
STATUS  : GetOpts    : Validating RunTime Options                 :
STATUS  : GetOpts    :
STATUS  : GetOpts    : Scan Mode Set To                           : 0 [ Start Scan at top left corner, Create Scan Map from Top to Bottom, Left to Right ]
STATUS  : GetOpts    :
WARNING : GetOpts    : Min RGB Value Not Set                      :
WARNING : GetOpts    : -m Set To                                  : 1
ERROR   : GetOpts    : Min RGB                                    : 1
STATUS  : GetOpts    :
WARNING : GetOpts    : Max RGB Value Not Set                      :
WARNING : GetOpts    : -M Set To 254                              : 254
ERROR   : GetOpts    : Max RGB                                    : 254
STATUS  : GetOpts    :
STATUS  :
Test    : Running FooSteg -a Test -A 0 -C Sequence1,1,10 -c 1 -O TIFF
Test    :
Test    : Start All Tests                                         :
Test    :
Test    : Tests Scheduled                                         : 166
Test    :
Test    : Run Time Estimate @0.25s per Test                       : 0 Days, 0 Hours, 0 Minutes, 41 Seconds, 500 MilliSeconds
Test    :
Test    : Image Width                                             : 50
Test    : Image Height                                            : 50
Test    : Total Pixels                                            : 2500
Test    :
Test    : Number    : Mode    : Options         : File : Src  : Data : Base64 : Output : RunTime : Result
Test    :
Test    : 1/166     : Random  : 50x50           : N/A  : N/A  : N/A  : N/A    : tiff   : 149     : OK
Test    :
Test    : 2/166     : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : bmp    : 105     : OK
Test    : 3/166     : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : bmp    : 110     : OK
Test    : 4/166     : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : bmp    : 112     : OK
Test    : 5/166     : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : bmp    : 126     : OK
Test    : 6/166     : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : jpeg   : 109     : Verify,FAILED
Test    : 7/166     : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : jpeg   : 113     : Verify,FAILED
Test    : 8/166     : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : jpeg   : 115     : Verify,FAILED
Test    : 9/166     : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : jpeg   : 129     : Verify,FAILED
Test    : 10/166    : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : pcx    : 105     : OK
Test    : 11/166    : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : pcx    : 113     : OK
Test    : 12/166    : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : pcx    : 115     : OK
Test    : 13/166    : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : pcx    : 127     : OK
Test    : 14/166    : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : png    : 104     : OK
Test    : 15/166    : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : png    : 114     : OK
Test    : 16/166    : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : png    : 118     : OK
Test    : 17/166    : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : png    : 132     : OK
Test    : 18/166    : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : ppm    : 104     : OK
Test    : 19/166    : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : ppm    : 109     : OK
Test    : 20/166    : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : ppm    : 113     : OK
Test    : 21/166    : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : ppm    : 127     : OK
Test    : 22/166    : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : sgi    : 102     : OK
Test    : 23/166    : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : sgi    : 112     : OK
Test    : 24/166    : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : sgi    : 116     : OK
Test    : 25/166    : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : sgi    : 127     : OK
Test    : 26/166    : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : sun    : 106     : OK
Test    : 27/166    : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : sun    : 110     : OK
Test    : 28/166    : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : sun    : 115     : OK
Test    : 29/166    : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : sun    : 127     : OK
Test    : 30/166    : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : tga    : 104     : OK
Test    : 31/166    : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : tga    : 113     : OK
Test    : 32/166    : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : tga    : 112     : OK
Test    : 33/166    : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : tga    : 131     : OK
Test    : 34/166    : Copy    : None,100        : tiff : N/A  : N/A  : N/A    : tiff   : 105     : OK
Test    : 35/166    : Copy    : Grayscale,100   : tiff : N/A  : N/A  : N/A    : tiff   : 117     : OK
Test    : 36/166    : Copy    : Negative,100    : tiff : N/A  : N/A  : N/A    : tiff   : 112     : OK
Test    : 37/166    : Copy    : Sepia,20,30,100 : tiff : N/A  : N/A  : N/A    : tiff   : 128     : OK
Test    :
WARNING : Width Set To                                            : 10, ( 10% of 50 < 10 )
WARNING : Height Set To                                           : 10, ( 10% of 50 < 10 )
Test    :
Test    : Image Width                                             : 10
Test    : Image Height                                            : 10
Test    : Total Pixels                                            : 100
Test    :
Test    : 38/166    : Random  : 10x10           : N/A  : N/A  : N/A  : N/A    : png    : 24      : OK
Test    :
Test    :
Test    : Testing Scan Modes                                      : 0
Test    : Testing Change Formulas                                 : Sequence1,1.00000,10.00000
Test    : Testing Modes                                           : Write|Extract
Test    : Testing Binary OffSet Modes                             : Postive|Negative
Test    : Testing Bounce Modes                                    : Pixel|RGB
Test    : Testing Repeat Modes                                    : EndBASE64|EndRGB
Test    :
Test    : Testing Image                                           : 50x50, 2500 Pixels
Test    : Testing Scan Mode                                       : 0
Test    : Testing RGB Min                                         : 1
Test    : Testing RGB Max                                         : 254
Test    : Testing Write Binary Mode                               : Positive
Test    : Testing Bounce Mode                                     : Pixel
Test    : Testing Repeat Mode                                     : EndBASE64
Test    : Testing Change Formula                                  : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                          : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 39/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : bmp    : 206     : OK
Test    : 40/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : pcx    : 198     : OK
Test    : 41/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : png    : 195     : OK
Test    : 42/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : ppm    : 206     : OK
Test    : 43/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sgi    : 195     : OK
Test    : 44/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sun    : 195     : OK
Test    : 45/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tga    : 195     : OK
Test    : 46/166    : Write   : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tiff   : 196     : OK
Test    :
Test    : 47/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : bmp  : Extract : Base64 : 61      : OK
Test    : 48/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : pcx  : Extract : Base64 : 70      : OK
Test    : 49/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : png  : Extract : Base64 : 66      : OK
Test    : 50/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : ppm  : Extract : Base64 : 64      : OK
Test    : 51/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sgi  : Extract : Base64 : 59      : OK
Test    : 52/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sun  : Extract : Base64 : 69      : OK
Test    : 53/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tga  : Extract : Base64 : 64      : OK
Test    : 54/166    : Extract : 0,1,254,Positive,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tiff : Extract : Base64 : 60      : OK
Test    :
Test    :
Test    : Testing Image                                           : 50x50, 2500 Pixels
```

```
Test    : Testing Scan Mode                                     : 0
Test    : Testing RGB Min                                       : 1
Test    : Testing RGB Max                                       : 254
Test    : Testing Write Binary Mode                             : Negative
Test    : Testing Bounce Mode                                   : Pixel
Test    : Testing Repeat Mode                                   : EndBASE64
Test    : Testing Change Formula                                : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                        : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 55/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : bmp    : 203     : OK
Test    : 56/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : pcx    : 195     : OK
Test    : 57/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : png    : 200     : OK
Test    : 58/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : ppm    : 195     : OK
Test    : 59/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sgi    : 196     : OK
Test    : 60/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sun    : 197     : OK
Test    : 61/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tga    : 195     : OK
Test    : 62/166    : Write   : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tiff   : 197     : OK
Test    :
Test    : 63/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : bmp  : Extract : Base64 : 59      : OK
Test    : 64/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : pcx  : Extract : Base64 : 59      : OK
Test    : 65/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : png  : Extract : Base64 : 61      : OK
Test    : 66/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : ppm  : Extract : Base64 : 61      : OK
Test    : 67/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sgi  : Extract : Base64 : 61      : OK
Test    : 68/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sun  : Extract : Base64 : 68      : OK
Test    : 69/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tga  : Extract : Base64 : 69      : OK
Test    : 70/166    : Extract : 0,1,254,Negative,Pixel,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tiff : Extract : Base64 : 60      : OK
Test    :
Test    :
Test    : Testing Image                                         : 50x50, 2500 Pixels
Test    : Testing Scan Mode                                     : 0
Test    : Testing RGB Min                                       : 1
Test    : Testing RGB Max                                       : 254
Test    : Testing Write Binary Mode                             : Positive
Test    : Testing Bounce Mode                                   : Pixel
Test    : Testing Repeat Mode                                   : EndRGB
Test    : Testing Change Formula                                : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                        : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 71/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : bmp    : 210     : OK
Test    : 72/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : pcx    : 200     : OK
Test    : 73/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : png    : 205     : OK
Test    : 74/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : ppm    : 197     : OK
Test    : 75/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sgi    : 198     : OK
Test    : 76/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sun    : 197     : OK
Test    : 77/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tga    : 199     : OK
Test    : 78/166    : Write   : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tiff   : 203     : OK
Test    :
Test    : 79/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : bmp  : Extract : Base64 : 60      : OK
Test    : 80/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : pcx  : Extract : Base64 : 61      : OK
Test    : 81/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : png  : Extract : Base64 : 64      : OK
Test    : 82/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : ppm  : Extract : Base64 : 69      : OK
Test    : 83/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sgi  : Extract : Base64 : 69      : OK
Test    : 84/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sun  : Extract : Base64 : 64      : OK
Test    : 85/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tga  : Extract : Base64 : 67      : OK
Test    : 86/166    : Extract : 0,1,254,Positive,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tiff : Extract : Base64 : 112     : OK
Test    :
Test    :
Test    : Testing Image                                         : 50x50, 2500 Pixels
Test    : Testing Scan Mode                                     : 0
Test    : Testing RGB Min                                       : 1
Test    : Testing RGB Max                                       : 254
Test    : Testing Write Binary Mode                             : Negative
Test    : Testing Bounce Mode                                   : Pixel
Test    : Testing Repeat Mode                                   : EndRGB
Test    : Testing Change Formula                                : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                        : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 87/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : bmp    : 241     : OK
Test    : 88/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : pcx    : 206     : OK
Test    : 89/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : png    : 203     : OK
Test    : 90/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : ppm    : 198     : OK
Test    : 91/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sgi    : 212     : OK
Test    : 92/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : sun    : 232     : OK
Test    : 93/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tga    : 208     : OK
Test    : 94/166    : Write   : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,417,417,834 : tiff : N/A  : N/A  : Embed   : tiff   : 199     : OK
Test    :
Test    : 95/166    : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : bmp  : Extract : Base64 : 88      : OK
Test    : 96/166    : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : pcx  : Extract : Base64 : 101     : OK
Test    : 97/166    : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : png  : Extract : Base64 : 108     : OK
Test    : 98/166    : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : ppm  : Extract : Base64 : 69      : OK
Test    : 99/166    : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sgi  : Extract : Base64 : 65      : OK
Test    : 100/166   : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : sun  : Extract : Base64 : 60      : OK
Test    : 101/166   : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tga  : Extract : Base64 : 63      : OK
Test    : 102/166   : Extract : 0,1,254,Negative,Pixel,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,417,417 : N/A  : tiff : tiff : Extract : Base64 : 67      : OK
Test    :
Test    :
Test    : Testing Image                                         : 50x50, 2500 Pixels
Test    : Testing Scan Mode                                     : 0
Test    : Testing RGB Min                                       : 1
Test    : Testing RGB Max                                       : 254
Test    : Testing Write Binary Mode                             : Positive
Test    : Testing Bounce Mode                                   : RGB
Test    : Testing Repeat Mode                                   : EndBASE64
Test    : Testing Change Formula                                : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                        : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 103/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : bmp    : 230     : OK
Test    : 104/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : pcx    : 225     : OK
Test    : 105/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : png    : 251     : OK
Test    : 106/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : ppm    : 246     : OK
Test    : 107/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sgi    : 257     : OK
Test    : 108/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sun    : 233     : OK
Test    : 109/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tga    : 231     : OK
Test    : 110/166   : Write   : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tiff   : 247     : OK
Test    :
Test    : 111/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : bmp  : Extract : Base64 : 82      : OK
Test    : 112/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : pcx  : Extract : Base64 : 78      : OK
Test    : 113/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : png  : Extract : Base64 : 81      : OK
Test    : 114/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : ppm  : Extract : Base64 : 78      : OK
Test    : 115/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sgi  : Extract : Base64 : 82      : OK
Test    : 116/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sun  : Extract : Base64 : 85      : OK
Test    : 117/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tga  : Extract : Base64 : 82      : OK
Test    : 118/166   : Extract : 0,1,254,Positive,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tiff : Extract : Base64 : 78      : OK
Test    :
Test    :
Test    : Testing Image                                         : 50x50, 2500 Pixels
Test    : Testing Scan Mode                                     : 0
Test    : Testing RGB Min                                       : 1
Test    : Testing RGB Max                                       : 254
Test    : Testing Write Binary Mode                             : Negative
Test    : Testing Bounce Mode                                   : RGB
Test    : Testing Repeat Mode                                   : EndBASE64
Test    : Testing Change Formula                                : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                        : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 119/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : bmp    : 246     : OK
Test    : 120/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : pcx    : 250     : OK
Test    : 121/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : png    : 250     : OK
Test    : 122/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : ppm    : 251     : OK
Test    : 123/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sgi    : 244     : OK
Test    : 124/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sun    : 232     : OK
Test    : 125/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tga    : 238     : OK
Test    : 126/166   : Write   : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tiff   : 243     : OK
Test    :
Test    : 127/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : bmp  : Extract : Base64 : 76      : OK
Test    : 128/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : pcx  : Extract : Base64 : 75      : OK
Test    : 129/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : png  : Extract : Base64 : 80      : OK
Test    : 130/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : ppm  : Extract : Base64 : 82      : OK
Test    : 131/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sgi  : Extract : Base64 : 76      : OK
Test    : 132/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sun  : Extract : Base64 : 88      : OK
Test    : 133/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tga  : Extract : Base64 : 94      : OK
Test    : 134/166   : Extract : 0,1,254,Negative,RGB,EndBASE64,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tiff : Extract : Base64 : 77      : OK
Test    :
Test    :
Test    : Testing Image                                         : 50x50, 2500 Pixels
```

```
Test    : Testing Scan Mode                                     : 0
Test    : Testing RGB Min                                       : 1
Test    : Testing RGB Max                                       : 254
Test    : Testing Write Binary Mode                             : Positive
Test    : Testing Bounce Mode                                   : RGB
Test    : Testing Repeat Mode                                   : EndRGB
Test    : Testing Change Formula                                : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                        : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 135/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : bmp    : 239     : OK
Test    : 136/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : pcx    : 227     : OK
Test    : 137/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : png    : 227     : OK
Test    : 138/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : ppm    : 246     : OK
Test    : 139/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sgi    : 226     : OK
Test    : 140/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sun    : 227     : OK
Test    : 141/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tga    : 291     : OK
Test    : 142/166   : Write   : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tiff   : 328     : OK
Test    :
Test    : 143/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : bmp  : Extract : Base64 : 80      : OK
Test    : 144/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : pcx  : Extract : Base64 : 86      : OK
Test    : 145/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : png  : Extract : Base64 : 99      : OK
Test    : 146/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : ppm  : Extract : Base64 : 84      : OK
Test    : 147/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sgi  : Extract : Base64 : 76      : OK
Test    : 148/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sun  : Extract : Base64 : 76      : OK
Test    : 149/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tga  : Extract : Base64 : 97      : OK
Test    : 150/166   : Extract : 0,1,254,Positive,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tiff : Extract : Base64 : 105     : OK
Test    :
Test    :
Test    : Testing Image                                         : 50x50, 2500 Pixels
Test    : Testing Scan Mode                                     : 0
Test    : Testing RGB Min                                       : 1
Test    : Testing RGB Max                                       : 254
Test    : Testing Write Binary Mode                             : Negative
Test    : Testing Bounce Mode                                   : RGB
Test    : Testing Repeat Mode                                   : EndRGB
Test    : Testing Change Formula                                : Sequence1,1.00000,10.00000
Test    : Testing Change Sequence Set To                        : 1.00000,2.00000,3.00000,4.00000,5.00000,6.00000,7.00000,8.00000,9.00000,10.00000,11.00000,.... Repeating
Test    :
Test    : 151/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : bmp    : 305     : OK
Test    : 152/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : pcx    : 259     : OK
Test    : 153/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : png    : 289     : OK
Test    : 154/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : ppm    : 291     : OK
Test    : 155/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sgi    : 267     : OK
Test    : 156/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : sun    : 279     : OK
Test    : 157/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tga    : 301     : OK
Test    : 158/166   : Write   : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,1251,1251,2502 : tiff : N/A  : N/A  : Embed   : tiff   : 251     : OK
Test    :
Test    : 159/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : bmp  : Extract : Base64 : 104     : OK
Test    : 160/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : pcx  : Extract : Base64 : 94      : OK
Test    : 161/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : png  : Extract : Base64 : 78      : OK
Test    : 162/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : ppm  : Extract : Base64 : 79      : OK
Test    : 163/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sgi  : Extract : Base64 : 75      : OK
Test    : 164/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : sun  : Extract : Base64 : 74      : OK
Test    : 165/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tga  : Extract : Base64 : 73      : OK
Test    : 166/166   : Extract : 0,1,254,Negative,RGB,EndRGB,Sequence1,1.00000,10.00000,1.00000,0,1251,1251 : N/A  : tiff : tiff : Extract : Base64 : 76      : OK
Test    :
Test    :
Test    : Tests Scheduled                                       : 166
Test    : Tests Run                                             : 166
Test    : Tests Passed                                          : 162
Test    : Tests Failed                                          : 4
Test    :
Test    :
Test    : All Tests Run Time                                    : 23818 Milliseconds
Test    : All Tests Run Time Human                              : 0 Days, 0 Hours, 0 Minutes, 23 Seconds, 818 MilliSeconds
Test    : End All Tests                                         :
Test    :
Test    : Test Summary Log File                                 : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg/
Tmp_5203/1686633325050_FooSteg.Test_Summary.log
Test    :
STATUS  : FooSteg    :
STATUS  : FooSteg    : Total Run Time                           : 29233 Milliseconds
STATUS  : FooSteg    : Total Run Time Human                     : 0 Days, 0 Hours, 0 Minutes, 29 Seconds, 233 MilliSeconds
STATUS  : FooSteg    :
STATUS  : FooSteg    : End Time Since EPOC                      : 1686633325053
ERROR   : FooSteg    :
ERROR   : FooSteg    : ExitCode                                 : 4
ERROR   : FooSteg    :
STATUS  :
STATUS  : CleanUP
STATUS  :
STATUS  : Logs                      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg
STATUS  : Logs                      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg/20230613151452_FooCryptDev_FooSteg_9974.log
STATUS  : Logs                      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg/Tmp_5203
STATUS  : Logs                      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg/Tmp_5203/1686633301233_FooSteg_Random_Image_50x50.tiff
```

<— CUT —->

```
STATUS  : Logs                      : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg/Tmp_5203/1686633325050_FooSteg.Test_Summary.log
STATUS  : Logs                      :
STATUS  : Logs                      : 2.4M    /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg
STATUS  : Logs                      :
STATUS  : FooHome                   :
STATUS  : FooHome                   :   0B    /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt
STATUS  : FooHome                   :
STATUS  :
STATUS  : Logs                      : Log Directory : /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg
STATUS  : Logs                      : Containing 233 Log / Image / Base64 Files
STATUS  : Logs                      : 2.4M    /Users/foocrypt/Library/Caches/net.Cryptopocalypse.FooCrypt/20230613151452_FooCryptDev_FooSteg
STATUS  :
STATUS  : FooSteg_RunTime           : 33 Seconds
STATUS  : FooSteg_RunTime           : 0 Days, 0 Hours, 0 Minutes, 33 Seconds
STATUS  :
ERROR   :
ERROR   : FooSteg_Exit_Code_4
ERROR   :
```

- Note
  Copy verification where the output image format is a JPEG is expected to fail, due to JPEG compression.

- **Select and build the option functionality you require.**

  - **Command Line Examples**

    - **Analyse an image to see if a base64 file will fit inside**

```
[ *Quoted Full Path To FooSteg ]/FooSteg \
-a Analyse \
-A 0 \
-b  [ *Quoted Full Path To The BASE64 File ] \
-f   [ *Quoted Full Path To The Image File ] \
-F  [ Image File Format ] \
-m [ RGB Minimum ] \
-M [ RGB Maximum ]
```

    - **Copy an image | format to another image | format**

```
[ *Quoted Full Path To FooSteg ]/FooSteg \
-a Copy \
-A 0 \
-f  [ *Quoted Full Path To The Image File ] \
-F [ Image File Format ] \
-o [ *Quoted Full Path To The Output Image File ] \
-O [ Output Image File Format ]
```

    - **Extract a BASE64 File from a Data Image**

```
[ *Quoted Full Path To FooSteg ]/FooSteg \
-a Extract \
-A 0 \
-d [ *Quoted Full Path To The Data Image File ]  \
-D [ Data Image File Format ] \
-s  [ *Quoted Full Path To The Source Image File ] \
-S  [ Source Image File Format ] \
-m [ RGB Minimum ] \
-M [ RGB Maximum ]
```

- **Random, create an image with random RGB values**

```
[ *Quoted Full Path To FooSteg ]/FooSteg \
-a Random \
-A 0 \
-o  [ *Quoted Full Path To The Output Image File ] \
-O  [ Output Image File Format ] \
-W [ Output Image Width ] \
-H  [ Output Image Height ]
```

- **Read an image RGB values**

```
[ *Quoted Full Path To FooSteg ]/FooSteg \
-a Read \
-A 0 \
-f   [ *Quoted Full Path To The Image File] \
-F  [ Image File Format ] \
-m [ RGB Minimum ] \
-M [ RGB Maximum ]
```

- **Test your operating system for FooSteg functionality**

```
[ *Quoted Full Path To FooSteg ]/FooSteg \
-a Test
```

- **Write a base64 file into an image**

```
[ *Quoted Full Path To FooSteg ]/FooSteg \
-a Write \
-A 0 \
-b  [ *Quoted Full Path To The BASE64 File ] \
-f   [ *Quoted Full Path To The Image File] \
-F  [ Image File Format ] \
-m [ RGB Minimum ] \
-M [ RGB Maximum ]
```

FooCrypt Clipboard Functions

- **Overview**
  - You should always be AWARE that any data stored in the Operating System Clipboard CAN be compromised.

- FooCrypt utilises the Operating System Clipboard to move data within FooCrypt and also so that the data is available for the end user to be utilised in other applications, etc via :

  - Cut
  - Copy
  - Paste

- FooCrypt restricts the Operating System Clipboard source and destinations via :
  - FooKeyBoard Destination Window Selection
  - [Menu Option -> FooKeyBoard -> Destination Window -> ….]

- FooCrypt provides the [Menu Option -> Edit -> Clear OS Clipboard], so that you the end user, can safely remove any data that the Operating System is storing in its clipboard.

  - Clear OS Clipboard
    - FooCrypt Automatically Clears The OS Clipboard upon startup prior to asking for the FooKey_Password.

- Note :
  - Storing data in the Operating System Clipboard can be a security risk if the system you are using has been compromised with Malware, etc that probes the Operating System Clipboard.

Acronyms and Abbreviations

TBD	To Be Disclosed
	If you discover a term you are unable to find the answer for within this documentation or online at FooCrypt.XYZ, send a request via the webform at the bottom of FooCrypt.XYZ selecting one of the “Question” options for further information.
Calculations	We utilise WolFramAlpha as a trusted source for all of our calculations.
DDB	Drop Down Box

Addendum

- **Package name modifications.**
  - **The comma ‘,’ has been replaced with a full stop ‘.’**

Change Log

- **FooCrypt.12.0.0.Core**
  - **Bug Fix's.**
    - None
  - **Update Functionality Enhancements.**
    - **NEW, Updated & Removed C.L.I. Functionality :**
      - **All CLI's**
        - Enhanced StdOut Messaging and Logging
      - **CLI_Test**
        - **Options**
          - Updated -a : Algorithm To Use | Excluded Ciphers : FooCrypt-QRCS
      - **Decrypt_FooKey**
        - **Options**
      - **FooCheck**
        - **Options**
      - **FooCrypt**
        - **Options**
      - **FooCrypt-GUI**
        - **Options**
      - **FooCrypt-GUI-Data-1**
        - **Options**
          - None
      - **FooCrypt-GUI-Data-2**
        - **Options**
          - None
      - **FooSteg**
        - **Options**
      - **Matrix_Test**
        - **Options**
      - **mOpenSSL**
        - **Options**
          - Updated -a : Algorithm To Use | Excluded Ciphers : FooCrypt-QRCS
          - Updated -b : To support CentOS, Fedora, RHEL
          - Updated -c : To support CentOS, Fedora, RHEL
          - Updated -C : To support CentOS, Fedora, RHEL
          - Updated -d : Download Latest OpenSSL Source Versions from https://openssl-library.org/source/
          - Updated -s : Specify the URL to Download the Latest OpenSSL Source Versions from
          - Added -D : Download OpenSSL Source Version From GitHub
      - **runall_FooCrypt**
        - **Options**
          - Functionality moved to FooCrypt -A
          - Depreciated and no longer available
      - **runall_FooSteg**
        - **Options**
          - Functionality moved to FooSteg -a Test & FooSteg -a TestVerbose & FooSteg -a TestCopy
          - Depreciated and no longer available
      - **FooCrypt-Desktop.sh**
        - **Options**
      - **FooCrypt-Desktop**
        - **Options**
    - **NEW & Updated GUI Functionality :**
      - **FooCrypt-GUI**
        - **Internal Capability**
        - **Menu Options :**
        - **Preferences**
          - **FooCrypt-GUI**
          - **FooCrypt-CLI**
          - **QRCS**
          - **FooSteg**
          - **FooSteg_Verbose**
        - **Cypher Key Control**
        - **FooKeyBoard**
        - **Log_Control**

- **Live Linux**
  - mOpenSSL Compiled OpenSSL versions via : foocrypt-12-0-0-openssl-linux_x86_64.deb
  - Located in : /opt/FooCrypt-OpenSSL//Linux/bin_64/
    - openssl-3.0.16/bin/openssl : OpenSSL 3.0.16 11 Feb 2025 (Library: OpenSSL 3.0.16 11 Feb 2025)
    - openssl-3.2.4/bin/openssl : OpenSSL 3.2.4 11 Feb 2025 (Library: OpenSSL 3.2.4 11 Feb 2025)
    - openssl-3.3.3/bin/openssl : OpenSSL 3.3.3 11 Feb 2025 (Library: OpenSSL 3.3.3 11 Feb 2025)
    - openssl-3.4.1/bin/openssl : OpenSSL 3.4.1 11 Feb 2025 (Library: OpenSSL 3.4.1 11 Feb 2025)
    - openssl-3.5.0/bin/openssl : OpenSSL 3.5.0 8 Apr 2025 (Library: OpenSSL 3.5.0 8 Apr 2025)
  -
- **Tcl/Tk StarKits**
  - **Darwin**
    - **Upgraded Wish.app using**
      - Tcl_8.6.16
      - Tk_8.6.16
      - Tcllib_2.0
      - Tcllib::AES_1.2.2
      - Tcllib::SHA256_1.0.6
      - Tcllib::BASE64_2.6.1
      - Tcllibc_2.0
      - Tklib_0.9
      - Expect_5.45.4
      - BWidget_1.10.1
      - Img_2.0.1
  - **Linux**
    - **Upgraded Tclkit using**
      - Tcl_8.6.16
      - Tk_8.6.16
      - Tcllib_2.0
      - Tcllib::AES_1.2.2
      - Tcllib::SHA256_1.0.6
      - Tcllib::BASE64_2.6.1
      - Tcllibc_2.0
      - Tklib_0.9
      - Expect_5.45.4
      - BWidget_1.10.1
      - Img_2.0.1
  - **SunOS**
    - **Upgraded Tclkit using**
      - Tcl_8.6.16
      - Tk_8.6.16
      - Tcllib_2.0
      - Tcllib::AES_1.2.2
      - Tcllib::SHA256_1.0.6
      - Tcllib::BASE64_2.6.1
      - Tcllibc_2.0
      - Tklib_0.9
      - Expect_5.45.4
      - BWidget_1.10.1
      - Img_2.0.1
  -
- **Upgrade Functionality Enhancements.**
  - None

- QRCS (With eAES®) https://QRCrypto.ch

- # FooCrypt.11.0.0.Core
  - **Bug Fix's.**
    - None
  - **Update Functionality Enhancements.**
    - **NEW, Updated & Removed C.L.I. Functionality :**
      - **All CLI's**
        - Enhanced StdOut Messaging and Logging
        - Added -n | New FooHome Directory
      - **CLI_Test**
        - **Options**
          - Added -a | Algorithm To Use
          - Added -A | AutoMode
          - Added -D | Debug
          - Added -g | GUI StdOut Messaging Mode
          - Added -i | Individual Log Files
          - Added -k | Keep TmpDir
          - Added -m | Message Digest To Use OpenSSL_MD
          - Added -s | Sleep
          - Added -v | Verbose
          - Moved -f | Full Path To FooCrypt to -F | Full Path To FooCrypt
          - Added to the FooCrypt-GUI as a Validation Menu Option
      - **Decrypt_FooKey**
        - **Options**
          - Added -k | Keep TmpDir
          - Added -M | Message Digest To Use FooKey_MD
          - Removed -m | OpenSSL Digest
      - **FooCheck**
        - **Options**
          - Added -k | Keep TmpDir
      - **FooCrypt**
        - **Options**
          - Added -K | FooKey_Mode Selection 1 - 4
          - Added -m | Message Digest To Use OpenSSL_MD
          - Added -M | Message Digest To Use FooKey_MD
          - Added -u | Utilise ASCIII Range | 38-48 | 32-127
          - Moved -A | Display Algorithms to -H Help Display Algorithms
          - Added -A | Test All Bin_OpenSSL Versions & Algorithms Located In Absolute PATH to FooCrypt-OpenSSL Directory
          - Added support for QRCS Binary Non Username / Password Authentication
      - **FooCrypt-GUI**
        - **Options**
          - Added -f | Option to set FooKey_Password during initialisation
          - Added -F | Option to not set FooKey_Password during initialisation
          - Added -k | Keep TmpDir
          - Added -l | Option to set Lock_Password during initialisation
          - Added -L | Option to not set Lock_Password during initialisation
      - **FooCrypt-GUI-Data-1**
        - **Options**
          - None
      - **FooCrypt-GUI-Data-2**
        - **Options**
          - None
      - **FooSteg**
        - **Options**
          - Added mode -a | TestCopy
          - Added mode -a | TestCopyVerbose
          - Added mode -a | TestVerbose
          - Added -B | Bounce Change Oscillations
          - Added -c | Change Numeric
          - Added -C | Change Formula
          - Added -I | Individual Log Files
          - Added -N | Negative Binary Offset
          - Added -P | Positive Binary Offset
          - Added -q | Quite, Do not display Tcl/Tk Splash Message

        - Added -y | Input Image Intensity Percentage, Sepia Depth Value, Sepia Intensity Value range options
        - Enhanced mode -a | Test with -B -c -C functionality
        - Enhanced mode -a | TestVerbose with -B -c -C functionality
        - Enhanced mode -a | TestCopy with -c -C functionality
        - Enhanced mode -a | TestCopyVerbose with -c -C functionality
        - Enhanced mode -a | Copy with -c -C functionality
        - Enhanced mode -a | Write with -B -c -C functionality
        - Enhanced mode -a | Extract with -B -c -C functionality
        - Enhanced mode -a | Write to allow a user supplied FooStegToken via -t | -T
        - Enhanced All Test Modes, -Z [Sleep] Sleep For N Milliseconds After Each Test Run Time Is Displayed
        - General cleanup of StdOut and Logging Messaging
        - Enhanced the obfuscation brute strength for when the source and data images are both available via -B -c -C -N -P -y Options
    - **Matrix_Test**
        - **Options**
        - Added -D | Debug
        - Added -m | Message Digest To Use OpenSSL_MD
        - Moved -f | Absolute PATH to FooCrypt to -F | Absolute PATH to FooCrypt
        - Moved -k | Absolute PATH to FooKey To Use to -f | Absolute PATH to FooKey To Use
        - Added -k | Keep TmpDir
        - Added -K | FooKey_Mode Selection 1 - 4
        - Added to the FooCrypt-GUI as a Validation Menu Option
    - **mOpenSSL**
        - **Options**
        - Added -a | All Users [set umask to 0022]
        - Added -k | Keep TmpDir
    - **runall_FooCrypt**
        - **Options**
        - Functionality moved to FooCrypt -A
        - Depreciated and no longer available
    - **runall_FooSteg**
        - **Options**
        - Functionality moved to FooSteg -a Test & FooSteg -a TestVerbose & FooSteg -a TestCopy
        - Depreciated and no longer available
    - **FooCrypt-Desktop.sh**
        - **Options**
        - Added code for calling nmcli-ipv6 startup script
        - Added code for calling FooCrypt-Desktop -k
    - **FooCrypt-Desktop**
        - **Options**
        - Added -k | Force Keyboard Input to us, Remove all other Inputs, /usr/bin/ibus exit
- **NEW & Updated GUI Functionality :**
    - **FooCrypt-GUI**
        - **Internal Capability**
        - Added support for Preferences : FooSteg : FooSteg CLI Options
        - Added support for Preferences : FooCrypt-GUI : Select Bin_FooCrypt-OpenSSL Option
        - Added support for Preferences : FooCrypt-GUI : Select Color Preferences Options
        - Added support for Preferences : FooCrypt-CLI : Select Bin_FooCrypt-OpenSSL Option
        - Added support for Preferences : FooCrypt-CLI : ASCII_Range Option
        - Added support for Preferences : FooCrypt-CLI : FooKey_Mode 1-4 Selection
        - Added support for Preferences : QRCS : Select Bin_FooCrypt-OpenSSL Option
        - Added support for Log Control Memory Management functions
        - Added support for Log Control log window and log buffers search capabilities
        - Added support for Log Control Status options
        - Added support for Log Control Kill options
        - Added support for Log Control Page Down / Up / Right / Left options
        - Added support for Log Control Font Bold capability
        - Added support for Log Control to display all Fonts / Font sizes via a buffer
        - Added support for Cypher Key Control text window search / replace capabilities
        - Added support for Cypher Key Control Font Bold capability
        - Added support for FooKeyBoard FooKey_Mode 1-4 Selection
        - Added support for FooKeyBoard top level capability
        - Added support for FooKeyBoard Undo / Redo capability
        - Added support for FooKeyBoard AK (Auto Key) timings

    - Added support for FooKeyBoard FK_P (FooKey Password)
    - Added support for FooKeyBoard L_P (Lock Password)
    - Added support for FooKeyBoard Lock (Lock)
    - Added support for FooKeyBoard Font Bold capability
    - Added support for Preferences to be contained within a single tabulated window panel
- **Menu Options :**
    - Renamed Master_Password to FooKey_Password
    - Added CLI_Test To The Select_Cypher -> FooCrypt Validation, Menu
    - Added Matrix_Test To The Select_Cypher -> FooCrypt Validation, Menu
    - Added TestVerbose To The FooSteg -> Test, Menu
    - Added TestAll Change Formulas To The FooSteg -> Test, Menu
    - Added TestCopy To The FooSteg -> Test, Menu
    - Added TestCopyVerbose To The FooSteg -> Test, Menu
    - Added Show All Fonts : Log Control To The FooCrypt -> Preferences, Menu
    - Added LC_Search To The FooKeyBoard -> Destinations, Menu
    - Added CKC_Replace To The FooKeyBoard -> Destinations, Menu
    - Added CKC_Search To The FooKeyBoard -> Destinations, Menu
- **Preferences**
    - **FooCrypt-GUI**
        - Added Select Bin_FooCrypt-OpenSSL Button
        - Added Select Color Preferences DDB
    - **FooCrypt-CLI**
        - Added Select Bin_FooCrypt-OpenSSL Button
        - Added FooKey_Mode Selection 1 - 4 DDB
        - Added ASCII_Range 38-48 | 32-127 Check Button
        - Added Message Digest To Use OpenSSL_MD
        - Added Message Digest To Use FooKey_MD
        - Added OpenSSL Cypher To Use To Encrypt / Decrypt Data
        - Added FooKey Cypher To Use To Encrypt / Decrypt FooKey
        - Added Set FooKey_Password button
    - **QRCS**
        - Added Select Bin_FooCrypt-OpenSSL Button
        - Removed SHA3-512 Hash A File
        - Added support for QRCS Binary Non Username / Password Authentication
    - **FooSteg**
        - Enhanced FooSteg Preferences to meet FooSteg CLI Options
        - Added TestAll Button
        - Added TestCopy Button
        - Added Change Formula DDB
        - Added Numeric Box
        - Added x Box
        - Added y Box
        - Added Bounce DDB
            - Added OffSet DDB
    - **FooSteg_Verbose**
        - Added Individual log files functionality
        - Removed FooSteg -V, Verbose StdOut functionality
- **Cypher Key Control**
    - Added Search / Replace Button
    - Added Bold Button
- **FooKeyBoard**
    - Added Redo Button
    - Added Undo Button
    - Added FK_P Button
    - Added L_P Button
    - Added Lock Button
    - Added Bold Button
    - Added TL Button
- **Log_Control**
    - Added Bold Button
    - Added Search Button
    - Added Page Up Button
    - Added Page Down Button
    - Added Page Left Button
    - Added Page Right Button
    - Added Status DDB

        - Added Kill DDB
        - Added Memory Management : Log Window Data DDB
        - Added Memory Management : Log Buffer Data DDB
        - Added Memory Management : All Log Buffer Data DDB
        - Added ATALBD (Auto Trim All Log Buffer Data) Check Box
        - Added ATALBD Seconds selection DDB
        - Added SALBD (Status All Log Buffer Data) Button
        - Added TALBD (Trim All Log Buffer Data) Button
        - Added CALBD (Clear All Log Buffer Data) Button
- **Live Linux**
    - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-openssl-linux_x86_64 deb with OpenSSL :
- /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1w/bin/openssl : OpenSSL 1.1.1w 11 Sep 2023
- /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.12/bin/openssl : OpenSSL 3.0.12 24 Oct 2023 (Library: OpenSSL 3.0.12 24 Oct 2023)
- /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.1.4/bin/openssl : OpenSSL 3.1.4 24 Oct 2023 (Library: OpenSSL 3.1.4 24 Oct 2023)
- /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.2.0/bin/openssl : OpenSSL 3.2.0 23 Nov 2023 (Library: OpenSSL 3.2.0 23 Nov 2023)
- **Tcl/Tk StarKits**
    - **Darwin**
        - Moved Img_1 4 15 into the Tcl/Tk 8 6 9 Wish app Framework
        - Moved bwidget_1 9 16 into the Tcl/Tk 8 6 9 Wish app Framework
        - Moved expect_5 45 4 into the Tcl/Tk 8 6 9 Wish app Framework
        - Moved tcllib_1 21 into the Tcl/Tk 8 6 9 Wish app Framework
        - Moved tklib_0 7 into the Tcl/Tk 8 6 9 Wish app Framework
    - **Linux**
        - Moved Img_1 4 15 into the Tcl/Tk 8 6 9 StarKit
        - Moved bwidget_1 9 16 into the Tcl/Tk 8 6 9 StarKit
        - Moved expect_5 45 4 into the Tcl/Tk 8 6 9 StarKit
        - Moved tcllib_1 21 into the Tcl/Tk 8 6 9 StarKit
        - Moved tklib_0 7 into the Tcl/Tk 8 6 9 StarKit
    - **SunOS**
        - Moved Img_1 4 15 into the Tcl/Tk 8 6 9 StarKit
        - Moved bwidget_1 9 16 into the Tcl/Tk 8 6 9 StarKit
        - Moved expect_5 45 4 into the Tcl/Tk 8 6 9 StarKit
        - Moved tcllib_1 21 into the Tcl/Tk 8 6 9 StarKit
        - Moved tklib_0 7 into the Tcl/Tk 8 6 9 StarKit
- **Upgrade Functionality Enhancements.**
    - None

- QRCS (With eAES®) https://QRCrypto.ch

- # FooCrypt.10.0.0.Core
  - **Bug Fix's.**
    - None
  - **Update Functionality Enhancements.**
    - **NEW, Updated & Removed C.L.I. Functionality :**
      - **All CLI's**
        - Added support for the QRCS (With eAES®) Quantum Resistant Cipher Engine & Advanced QRCS | OpenSSL Options
        - Enhanced support for Microsoft Windows WSL2+
      - **FooCrypt-GUI**
        - **Options**
          - Enhanced : [-a | Algorithm To Use]
          - Added : [-A | Advanced GUI Settings]
          - Enhanced : [-P | Input Password List Filename Password Source]
          - Added : [-Q | Full PATH Of QRCS Quantum Resistant Cipher Engine]
          - Moved -q to : [-z | Absolute PATH to OpenSSL]
          - Moved -Q to : [-Z | Special Openssl Options]
          - Enhanced : -Q Exclude Output
          - Enhanced : -Q Include Output
      - **FooCrypt-GUI-Data-1**
        - **Options**
          - None
      - **FooCrypt-GUI-Data-2**
        - **Options**
          - None
      - **FooCrypt**
        - **Options**
          - Added : [-I | Input Filename, Decryption Input Format (Decrypt_IF)]
          - Enhanced : [-O | Output Filename, Encryption Output Format (Encrypt_OF)]
          - Added : [-q | Full PATH Of QRCS (.qkey .qksec .qkpub) File]
          - Added : [-r | QRCS Option]
          - Added : [-w | Full UNIX PATH Of Writeable Microsoft Windows Drive From WSL2+ For QRCS TmpDir]
          - Moved -q to : [-z | Full PATH Of OpenSSL Binary To Use]
          - Moved -Q To : [-Z | Special Openssl Options]
          - Enhanced : -Q Exclude Output
          - Enhanced : -Q Include Output
      - **Matrix_Test**
        - **Options**
          - Moved -q to : [-z | Full PATH Of OpenSSL Binary To Use]
          - Moved -Q To : [-Z | Special Openssl Options]
          - Enhanced : -Q Exclude Output
          - Enhanced : -Q Include Output
      - **CLI_Test**
        - **Options**
          - Moved -q to : [-z | Full PATH Of OpenSSL Binary To Use]
          - Moved -Q To : [-Z | Special Openssl Options]
          - Enhanced : -Q Exclude Output
          - Enhanced : -Q Include Output
      - **runall_FooCrypt**
        - **Options**
          - Moved -q to : [-z | Full PATH Of OpenSSL Binary To Use]
          - Moved -Q To : [-Z | Special Openssl Options]
          - Enhanced : -Q Exclude Output
          - Enhanced : -Q Include Output
      - **Decrypt_FooKey**
        - **Options**
          - Moved -q to : [-z | Full PATH Of OpenSSL Binary To Use]
      - **FooSteg**
        - **Options**
          - Moved -q to : [-z | Full PATH Of OpenSSL Binary To Use]
      - **runall_FooSteg**
        - **Options**
          - Moved -q to : [-z | Full PATH Of OpenSSL Binary To Use]

- **NEW & Updated GUI Functionality :**
  - **FooCrypt-GUI**
    - **Internal Capability**
      - Added support for the QRCS (With eAES®) Quantum Resistant Cipher Engine & Advanced QRCS | OpenSSL Options
    - **Menu Options** :
      - Added : Select_Cypher -> [Advanced | Basic] : OpenSSL & Special_OpenSSL Options
      - Added : Select_Cypher -> [Advanced | Basic] : QRCS (With eAES®) Options
    - **FooCrypt_Preferences**
      - Moved : Message_Digest DDB To OpenSSL_&_Special_OpenSSL_Preferences
      - Moved : Rearranged Options For Styling / Fit
    - **OpenSSL_&_Special_OpenSSL_Preferences *New**
      - Added : FooCrypt Standard Options
      - Added : -pbkdf2
      - Added : -iter
      - Added : -iter Rounds 10000 - 100000
      - Moved : Message_Digest DDB From FooCrypt_Preferences
      - Added : D_I_F [OpenSSL | BASE64]
      - Added : E_O_F [OpenSSL | BASE64]
      - Added : Advanced Mode, Free Form Field To Add Special_OpenSSL Options
    - **QRCS_Preferences *New**
      - Added : FooCrypt Standard Options
      - Added : Select Bin QRCS (With eAES®)
      - Added : Select A File (SF)
      - Added : Select A .qkey File (qF)
      - Added : Set QRCS (With eAES®) Username
      - Added : Set QRCS (With eAES®) Password
      - Added : Transform (SF)
      - Added : Transform Encrypt | Decrypt DDB
      - Added : Transform InputFile Format [QRCS | BASE64]
      - Added : Transform OutputFile Format [QRCS | BASE64]
      - Added : Create A .qkey File (qF)
      - Added : Secure Delete A File
      - Added : SHA3-512 Hash A File
      - Added : About QRCS (With eAES®)
      - Added : Help QRCS (With eAES®)
      - Added : Usage QRCS (With eAES®)
      - Added : Generate Key-Pair (.qksec .qkpub)
      - Added : Sign A File with .qksec
      - Added : Verify A File .qksig with .qkpub
      - Added : Command Verbose : linked to FooCrypt_Preferences Command Verbose
      - Added : Command Debug : linked to FooCrypt_Preferences Command Debug
      - Added : Reset QRCS (With eAES®) Options, Preferences To Default
    - **FooSteg_Preferences**
      - None
    - **FooSteg_Verbose_Preferences**
      - None
    - **Cypher Key Control**
      - None
    - **FooKeyBoard**
      - Added : Special_OpenSSL FooKeyBoard Destination
      - Added : QRCS_Username FooKeyBoard Destination
      - Added : QRCS_Password FooKeyBoard Destination
    - **Log_Control**
      - None

- **Live Linux**
  - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-10.0.0-openssl-linux_x86_64.deb with OpenSSL :

```
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1k/bin/openssl : OpenSSL 1.1.1k  25 Mar 2021
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1l/bin/openssl : OpenSSL 1.1.1l  24 Aug 2021
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1m/bin/openssl : OpenSSL 1.1.1m  14 Dec 2021
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1n/bin/openssl : OpenSSL 1.1.1n  15 Mar 2022
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1o/bin/openssl : OpenSSL 1.1.1o  3 May 2022
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1p/bin/openssl : OpenSSL 1.1.1p  21 Jun 2022
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1q/bin/openssl : OpenSSL 1.1.1q  5 Jul 2022
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1s/bin/openssl : OpenSSL 1.1.1s  1 Nov 2022
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.0/bin/openssl : OpenSSL 3.0.0 7 sep 2021 (Library: OpenSSL 3.0.0 7 sep 2021)
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.1/bin/openssl : OpenSSL 3.0.1 14 Dec 2021 (Library: OpenSSL 3.0.1 14 Dec 2021)
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.2/bin/openssl : OpenSSL 3.0.2 15 Mar 2022 (Library: OpenSSL 3.0.2 15 Mar 2022)
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.3/bin/openssl : OpenSSL 3.0.3 3 May 2022 (Library: OpenSSL 3.0.3 3 May 2022)
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.4/bin/openssl : OpenSSL 3.0.4 21 Jun 2022 (Library: OpenSSL 3.0.4 21 Jun 2022)
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.5/bin/openssl : OpenSSL 3.0.5 5 Jul 2022 (Library: OpenSSL 3.0.5 5 Jul 2022)
STATUS  : FOUND : /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.7/bin/openssl : OpenSSL 3.0.7 1 Nov 2022 (Library: OpenSSL 3.0.7 1 Nov 2022)
```

- **Tcl/Tk StarKits**
  - Darwin
    - None
  - Linux / SunOS
    - None

- **Upgrade Functionality Enhancements.**
  - None

- Note : QRCS (With eAES®) integration is under going final testing before being released as part of FooCrypt.XX.YY.ZZ.Core, 1st Quarter, 2023.

- # FooCrypt.9.0.0.Core
  - **Bug Fix's.**
    - None

  - **Update Functionality Enhancements.**
    - **NEW, Updated & Removed C.L.I. Functionality :**
      - **All CLI's**
        - Modified overall message stdout for styling
        - Added Initialisation Integrity Checks 0,1
      - **FooCrypt-GUI**
        - **Options**
          - None
      - **New Binary FooCrypt-GUI-Data-1**
        - **Options**
          - None
      - **New Binary FooCrypt-GUI-Data-2**
        - **Options**
          - None
      - **FooCrypt**
        - **Options**
          - None
      - **Matrix_Test**
        - **Options**
          - None
      - **CLI_Test**
        - **Options**
          - None
      - **runall_FooCrypt**
        - **Options**
          - None
      - **Decrypt_FooKey**
        - **Options**
          - None
      - **FooSteg**
        - **Options**
          - Added -r Repeat Write Of BASE64 Data To End Of RGB WriteMap
          - Added GUI popup message for Initialisation Integrity Checks 0,1
      - **runall_FooSteg**
        - **Options**
          - None

    - **NEW & Updated GUI Functionality :**
      - **FooCrypt-GUI**
        - **Internal Capability**
          - Added FooCrypt-GUI-Data-1 Initialisation Integrity Checks 0,1,2,3,4,5,6,7,8,9,10,11,12,13
          - Added FooCrypt-GUI-Data-2 Initialisation Integrity Checks 0,1,2,3,4,5,6,7,8,9,10,11,12,13
          - Added Initialisation Integrity Checks 0,1,2,3,4,5,6,7,8,9,10,11,12,13
          - Added code for FooSteg Repeat Write Of BASE64 Data To End Of RGB WriteMap
        - **Menu Options** :
          - Removed macOS Command+Comma shortcut key
        - **FooCrypt_Preferences**
          - Removed macOS Command+Comma shortcut key
        - **FooSteg_Preferences**
          - Added Repeat Write Of BASE64 Data To End Of RGB WriteMap
        - **FooSteg_Verbose_Preferences**
          - None
        - **Cypher Key Control**
          - None
        - **FooKeyBoard**
          - None
        - **Log_Control**
          - None

    - **Live Linux**

- Added precompiled mOpenSSL OpenSSL versions via : foocrypt-9.0.0-openssl-linux_x86_64.deb with OpenSSL :

- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1l/bin/openssl : OpenSSL 1.1.1l 24 Aug 2021
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1m/bin/openssl : OpenSSL 1.1.1m 14 Dec 2021
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1n/bin/openssl : OpenSSL 1.1.1n 15 Mar 2022
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1o/bin/openssl : OpenSSL 1.1.1o 3 May 2022
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1p/bin/openssl : OpenSSL 1.1.1p 21 Jun 2022
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1q/bin/openssl : OpenSSL 1.1.1q 5 Jul 2022
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.0/bin/openssl : OpenSSL 3.0.0 7 sep 2021 (Library: OpenSSL 3.0.0 7 sep 2021)
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.1/bin/openssl : OpenSSL 3.0.1 14 Dec 2021 (Library: OpenSSL 3.0.1 14 Dec 2021)
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.2/bin/openssl : OpenSSL 3.0.2 15 Mar 2022 (Library: OpenSSL 3.0.2 15 Mar 2022)
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.3/bin/openssl : OpenSSL 3.0.3 3 May 2022 (Library: OpenSSL 3.0.3 3 May 2022)
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.4/bin/openssl : OpenSSL 3.0.4 21 Jun 2022 (Library: OpenSSL 3.0.4 21 Jun 2022)
- FOUND : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.5/bin/openssl : OpenSSL 3.0.5 5 Jul 2022 (Library: OpenSSL 3.0.5 5 Jul 2022)

- **Tcl/Tk StarKits**
  - Darwin
    - None
  - Linux / SunOS
    - None

- **Upgrade Functionality Enhancements.**
  - None

- # FooCrypt.8.0.0.Core
  - **Bug Fix's.**
    - None

  - **Update Functionality Enhancements.**
    - **NEW, Updated & Removed C.L.I. Functionality :**
      - **All CLI's**
        - Modified overall message stdout for styling
      - **FooCrypt-GUI**
        - **Options**
          - None
      - **FooCrypt**
        - **Options**
          - None
      - **Matrix_Test**
        - **Options**
          - Added -i [Individual Log Files For Each Encryption / Decryption Test]
      - **CLI_Test**
        - **Options**
          - None
      - **runall_FooCrypt**
        - **Options**
          - None
      - **Decrypt_FooKey**
        - **Options**
          - None
      - **FooSteg**
        - **Options**
          - Added -R [Rounds] option [19 - 512]
          - Enhanced FooStegKey length from 32 - 10240 characters
          - Enhanced Rounds length from [19 - 512]
          - Enhanced -a Test Mode for FooStegKey length
          - Enhanced -a Test Mode for Rounds -R option
          - Enabled -a Test Mode for Width -W option
          - Enabled -a Test Mode for Height -H option
          - Enhanced -a Test Mode messaging
      - **runall_FooSteg**
        - **Options**
          - None

    - **NEW & Updated GUI Functionality :**
      - **FooCrypt-GUI**
        - **Internal Capability**
          - Added code for FooSteg Rounds [19 - 512]
          - Enhanced code for FooStegKey length
        - **NEW** Menu Options :
          - None
        - **FooCrypt_Preferences**
          - None
        - **FooSteg_Preferences**
          - Added Rounds DDB [19 - 512]
        - **FooSteg_Verbose_Preferences**
          - None
        - **Cypher Key Control**
          - None
        - **FooKeyBoard**
          - None
        - **Log_Control**
          - None

- **Live Linux**
  - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-8.0.0-openssl-linux_x86_64.deb with OpenSSL :
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1a/bin/openssl : OpenSSL 1.1.1a 20 Nov 2018
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1b/bin/openssl : OpenSSL 1.1.1b 26 Feb 2019
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1c/bin/openssl : OpenSSL 1.1.1c 28 May 2019
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1d/bin/openssl : OpenSSL 1.1.1d 10 Sep 2019
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1e/bin/openssl : OpenSSL 1.1.1e 17 Mar 2020
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1f/bin/openssl : OpenSSL 1.1.1f 31 Mar 2020
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1g/bin/openssl : OpenSSL 1.1.1g 21 Apr 2020
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1h/bin/openssl : OpenSSL 1.1.1h 22 Sep 2020
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1i/bin/openssl : OpenSSL 1.1.1i 8 Dec 2020
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1j/bin/openssl : OpenSSL 1.1.1j 16 Feb 2021
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1k/bin/openssl : OpenSSL 1.1.1k 25 Mar 2021
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1l/bin/openssl : OpenSSL 1.1.1l 24 Aug 2021
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1m/bin/openssl : OpenSSL 1.1.1m 14 Dec 2021
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-1.1.1/bin/openssl : OpenSSL 1.1.1 11 Sep 2018
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.0/bin/openssl : OpenSSL 3.0.0 7 sep 2021 (Library: OpenSSL 3.0.0 7 sep 2021)
    - STATUS : /opt/FooCrypt-OpenSSL//Linux/bin_64/openssl-3.0.1/bin/openssl : OpenSSL 3.0.1 14 Dec 2021 (Library: OpenSSL 3.0.1 14 Dec 2021)

- **Tcl/Tk StarKits**
  - Darwin
    - None
  - Linux / SunOS
    - None

- **Upgrade Functionality Enhancements.**
  - None

- # FooCrypt.7.0.0.Core
  - **Bug Fix's.**
    - **None**

  - **Update Functionality Enhancements.**
    - **NEW, Updated & Removed C.L.I. Functionality :**
      - **All CLI's**
        - **Updated StdOut Formatting and Messaging, Added To StdOut :**
          - PATH, LD_LIBRARY_PATH, Loaded Openssl Libraries
        - **LD_LIBRARY_PATH Automatically Set To If The PATH Exists :**
          - [Directory Name For The Openssl Binary PATH]/../lib
          - [Directory Name For The Openssl Binary PATH]/../lib32
          - [Directory Name For The Openssl Binary PATH]/../lib64
      - **FooCrypt-GUI**
        - **Options**
          - Changed -O Openssl Path to -q Openssl Path
      - **FooCrypt**
        - **Options**
          - Added Batch_Mode functionality for FooKey_File Encrypt / Decrypt
            - -b Batch_Mode To Use
            - -B Full Path Of Batch_Mode Directory
            - -y Batch_Mode Prefix
            - -Y Batch_Mode Suffix
          - Changed -M Output Format to -O Output Format
          - Changed -O Openssl Path to -q Openssl Path
          - Changed -S Special Openssl Options to -Q Special Openssl Options
          - Moved -F to -f
          - Modified -f to accept general files or named pipe or fifo or character files for Create FooKey Data Sources
          - Modified -f to utilise /dev/random as Default
          - Moved -C Options to -F
          - Added Default settings for -C
      - **Matrix_Test**
        - **Options**
          - Changed -O Openssl Path to -q Openssl Path
      - **CLI_Test**
        - **Options**
          - Changed -O Openssl Path to -q Openssl Path
      - **runall_FooCrypt**
        - **Options**
          - Changed -O Openssl Path to -q Openssl Path
      - **Decrypt_FooKey**
        - **Options**
          - Changed -O Openssl Path to -q Openssl Path
      - **FooSteg**
        - **Options**
          - Changed -O Openssl Path to -q Openssl Path
      - **runall_FooSteg**
        - **Options**
          - Changed -O Openssl Path to -q Openssl Path

    - **NEW & Updated GUI Functionality :**
      - **FooCrypt-GUI**
        - **Internal Capability**
          - Added 5 second count down to Quit when fully initialised
          - Added automatic KILL of all active process when fully initialised before Quit
          - Added functionality for KillStdOutLog
          - Added functionality for StdOutNoLog
          - Enhanced functionality for StdOutLog
          - Enhanced internal job control and reporting for external and internal process
          - Enhance external KILL command reporting
          - Enhanced MsgStdOut reporting
          - General cleanup of code base
        - **NEW** Menu Options :
          - [Menu Select -> FooCrypt -> Clear Lock Password]

        - [Menu Select -> FooCrypt -> Clear Master Password]
        - [Menu Select -> FooKey_Batch -> FooKey_Key]
        - [Menu Select -> FooKey_Batch -> Batch_Mode_Dir]
        - [Menu Select -> FooKey_Batch -> Encrypt]
        - [Menu Select -> FooKey_Batch -> Decrypt]
    - **FooCrypt_Preferences**
        - Added Button Select Batch Mode Directory
        - Added CheckBox Tool_Tip
        - Added DropDownBox Tool_Tip_Delay, 1000-10000 Milliseconds in 500 Milliseconds increments.
        - Adjusted layout
    - **FooSteg_Preferences**
        - **None**
    - **FooSteg_Verbose_Preferences**
        - **None**
    - **Cypher Key Control**
        - **None**
    - **FooKeyBoard**
        - Added Buttons To Integrate FooKey_Batch Functionality
        - Enhanced The Top Level DDB's To Integrate FooKey_Batch Functionality
    - **Log_Control**
        - Updated GUI Internal Job Control Functionality For Reporting via "**Status**" and "**KILL**" Buttons
        - Added GUI Internal Log **StdOutNoLog**

- **Live Linux**
    - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-7.0.0-openssl-linux_x86_64.deb with OpenSSL :
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1/bin/openssl : OpenSSL 1.1.1 11 Sep 2018
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1a/bin/openssl : OpenSSL 1.1.1a 20 Nov 2018
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1b/bin/openssl : OpenSSL 1.1.1b 26 Feb 2019
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1c/bin/openssl : OpenSSL 1.1.1c 28 May 2019
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1d/bin/openssl : OpenSSL 1.1.1d 10 Sep 2019
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1e/bin/openssl : OpenSSL 1.1.1e 17 Mar 2020
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1f/bin/openssl : OpenSSL 1.1.1f 31 Mar 2020
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1g/bin/openssl : OpenSSL 1.1.1g 21 Apr 2020
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1h/bin/openssl : OpenSSL 1.1.1h 22 Sep 2020
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1i/bin/openssl : OpenSSL 1.1.1i 8 Dec 2020
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1j/bin/openssl : OpenSSL 1.1.1j 16 Feb 2021
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1k/bin/openssl : OpenSSL 1.1.1k 25 Mar 2021
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-1.1.1l/bin/openssl : OpenSSL 1.1.1l 24 Aug 2021
        - /opt/FooCrypt-OpenSSL/Darwin/bin_64/openssl-3.0.0/bin/openssl : OpenSSL 3.0.0 7 sep 2021 (Library: OpenSSL 3.0.0 7 sep 2021)

- **Tcl/Tk StarKits**
    - Darwin
        - None
    - Linux / SunOS
        - None

- **Upgrade Functionality Enhancements.**
    - None

- # FooCrypt.6.0.0.Core
  - **Bug Fix's.**
    - FooCrypt-GUI
      - Fixed FooCrypt_Preferences Save New Line Issue Effecting FooCrypt_Preferences Load Parsing And Setting Of MSG_Digest.
      - Fixed mapping of Selected_Cypher being out by 1 for [Menu -> Select_Cypher] on Linux / SunOS during startup.

  - **Update Functionality Enhancements.**
    - **NEW, Updated & Removed C.L.I. Functionality :**
      - **FooSteg**
        - Updated Secure FIFO Communications Between FooCrypt-GUI -> FooSteg
        - **New Switches For FooStegCypher To Reorganise [FooStegScanMap -> FooStegCypher -> FooStegWriteMap | FooStegExtractMap]**
          - -k [FooStegKey Is Asked For Via A Prompt]
          - -K "[FooStegKey Via A Command Line Option]" [Enclosed in Double Quotes]
          - -t [FooStegToken Is Asked For Via A Prompt]
          - -T "[FooStegToken Via A Command Line Option]" [Enclosed in Double Quotes]
          - **FooCrypt-GUI Only C.L.I. Options For Encrypted FIFO Communications.**
            - -x FooStegKey Is Passed To FooSteg Via FIFO Encrypted Communications
            - -X FooStegKey And FooStegToken Are Passed To FooSteg Via FIFO Encrypted Communications
          - -v [**New Verbose Options**]
            - CypherMap [CypherMap Pixel List Is Generated]
            - ExtractMap [ExtractMap Pixel List Is Generated]
            - ScanMap [ScanMap Pixel List Is Generated]
            - Verify3 [Verify3 Success Data Is Logged]
            - Verify3E [Verify3E Error Data Is Logged]
            - WriteMap [WriteMap Pixel List Is Generated]
      - **FooCrypt-GUI**
        - Removed -X and -U Switches.
      - **FooCrypt**
        - Updated Secure FIFO Communications Between FooCrypt-GUI -> FooCrypt

    - **NEW & Updated GUI Functionality :**
      - **FooCrypt-GUI**
        - Updated Secure FIFO Communications Between FooCrypt-GUI -> FooCrypt
        - Updated Secure FIFO Communications Between FooCrypt-GUI -> FooSteg
        - Added TCL Expect Control of spawned OpenSSL Commands
      - **NEW** Menu Options :
        - [Menu Select -> FooCrypt -> Clear Lock Password]
        - [Menu Select -> FooCrypt -> Clear Master Password]
        - [Menu Select -> FooSteg -> Clear FSC_Password]
        - [Menu Select -> FooSteg -> Clear FSC_Token]
        - [Menu Select -> FooSteg -> Extract -> Set FSC_Password]
        - [Menu Select -> FooSteg -> Extract -> Set FSC_Token]
        - [Menu Select -> FooSteg -> Test -> Set FSC_Password]
        - [Menu Select -> FooSteg -> Write -> Set FSC_Password]
      - **FooSteg_Verbose_Preferences**
        - Added New VERBOSE Switches
          - -v [CypherMap | ExtractMap | ScanMap | Verify3 | Verify3E | WriteMap]
        - Adjusted Spacing and Size of Buttons, Check Box's, Dropdown Box's, Text.
      - **FooSteg_Preferences**
        - Added FSC_Password and FSC_Token Buttons for FooSteg -a [Extract | Test | Write] Integration
        - Adjusted Spacing and Size of Buttons, Check Box's, Dropdown Box's, Text.

- **FooKeyBoard**
  - Added FSC_Password Destination
  - Added FSC_Token Destination
  - Renamed Destination FooSteg_Random_Width to FS_Random_Width
  - Renamed Destination FooSteg_Random_Height to FS_Random_Height
  - Renamed Destination FooSteg_RGB_Min to FS_RGB_Min
  - Renamed Destination FooSteg_RGB_Max to FS_RGB_Max
  - Renamed Destination FooSteg_Width_Pixel to FS_Start_Pixel_Width
  - Renamed Destination FooSteg_Height_Pixel to FS_Start_Pixel_Height

- **Live Linux**
  - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-6.0.0-openssl-linux_x86_64.deb with OpenSSL :
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1a/bin/openssl : OpenSSL 1.1.1a 20 Nov 2018
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1b/bin/openssl : OpenSSL 1.1.1b 26 Feb 2019
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1c/bin/openssl : OpenSSL 1.1.1c 28 May 2019
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1d/bin/openssl : OpenSSL 1.1.1d 10 Sep 2019
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1e/bin/openssl : OpenSSL 1.1.1e 17 Mar 2020
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1f/bin/openssl : OpenSSL 1.1.1f 31 Mar 2020
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1g/bin/openssl : OpenSSL 1.1.1g 21 Apr 2020
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1h/bin/openssl : OpenSSL 1.1.1h 22 Sep 2020
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1i/bin/openssl : OpenSSL 1.1.1i 8 Dec 2020
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1j/bin/openssl : OpenSSL 1.1.1j 16 Feb 2021
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1/bin/openssl : OpenSSL 1.1.1 11 Sep 2018
    - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-3.0.0-alpha13/bin/openssl : OpenSSL 3.0.0-alpha13 11 Mar 2021 (Library: OpenSSL 3.0.0-alpha13 11 Mar 2021)

- **Tcl/Tk StarKits**
  - Darwin
    - Added Expect 5.45.4 libraries into the FooCrypt.app & FooSteg.app and Wish.app bundles
  - Linux / SunOS
    - Update Tcl/Tk to 8.6.11
    - Added Expect 5.45.4 libraries into the StarKit bundles.

- **Upgrade Functionality Enhancements.**
  - None

- # FooCrypt.5.0.5.Core
  - **Bug Fix's.**
    - FooCrypt-GUI
      - Fixed PID & PPID & CHILD issue with Log Control KILL function when FooCrypt-GUI was running FooSteg.

  - **Update Functionality Enhancements.**
    - **NEW & Updated C.L.I. Functionality :**
      - **ALL**
        - **Updated and Modified Licensing Functions.**
        - **NEW KEYS will need to be requested for all end users to run 5.0.5+.**
      - **FooSteg**
        - -a Test [Reduced Test Image to 100x100]
        - -A [0 - 7] ScanMap Read / Write Mode
        - -p [Width Pixel]x[Height Pixel] [ScanMap Pixel Start Location]
        - -v [Verbose Logging] [Analyse | B64Data | Copy | Extract1 | Extract2 | Random | Read | ReadData | Verify1 | Verify1E | Verify2 | Verify2E | Write1 | Write2 | Test]
        - -V [Verbose StdOut Logging]
        - -L [Verbose LogFile Logging]
        - -Z [Sleep For N Milliseconds After Each Verbose StdOut Line Is Displayed]

    - **NEW & Updated GUI Functionality :**
      - **FooCrypt-GUI**
        - **NEW** Menu Options :
          - [Menu Select -> FooCrypt -> Set Lock Password]
          - [Menu Select -> FooCrypt -> Set Master Password]
          - [Menu Select -> FooSteg -> Verbose Settings -> { Hide | Show | Reset }]
        - **FooCrypt_Preferences**
          - Modified Reset_Master_Password Button Text To 'Set Master Password'
          - Modified Reset_Lock_Password Button Text To 'Set Lock Password'
          - **NEW** Button 'Reset FooCrypt Settings To Default'
          - Adjusted Spacing and Size of Buttons, Check Box's, Dropdown Box's, Text.
        - **FooSteg_Preferences**
          - **NEW** ScanMode
          - **NEW** Start Pixel Width
          - **NEW** Start Pixel Height
          - **NEW** Custom Start Pixel Check Box
          - Resized 'Reset FooSteg Preferences To Default' Button
          - Adjusted Spacing and Size of Buttons, Check Box's, Dropdown Box's, Text.
        - **NEW FooSteg_Verbose_Preferences**
          - **NEW** CheckBox's To Cover The Verbose Functionality For FooSteg
            - -v [Analyse | B64Data | Copy | Extract1 | Extract2 | Random | Read | ReadData | Verify1 | Verify1E | Verify2 | Verify2E | Write1 | Write2 | Test]
            - -V [Verbose StdOut Logging]
            - -L [Verbose LogFile Logging]

    - **Live Linux**
      - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-5.0.5-openssl-linux_x86_64.deb with OpenSSL SSL / TLS / DTLS functionality being DISABLED
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.0.2u/bin/openssl : OpenSSL 1.0.2u 20 Dec 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.0l/bin/openssl : OpenSSL 1.1.0l 10 Sep 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1a/bin/openssl : OpenSSL 1.1.1a 20 Nov 2018
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1b/bin/openssl : OpenSSL 1.1.1b 26 Feb 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1c/bin/openssl : OpenSSL 1.1.1c 28 May 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1d/bin/openssl : OpenSSL 1.1.1d 10 Sep 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1e/bin/openssl : OpenSSL 1.1.1e 17 Mar 2020
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1f/bin/openssl : OpenSSL 1.1.1f 31 Mar 2020
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1g/bin/openssl : OpenSSL 1.1.1g 21 Apr 2020
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1h/bin/openssl : OpenSSL 1.1.1h 22 Sep 2020
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1/bin/openssl : OpenSSL 1.1.1 11 Sep 2018

  - **Upgrade Functionality Enhancements.**
    - None

- # FooCrypt.5.0.0.Core
  - **Bug Fix's.**
    - None

  - **Update Functionality Enhancements.**
    - **New C.L.I. :**
      - FooCheck
        - -X UpDate [Version Check To Identify A New Release Of FooCrypt]
        - -X Validate [Performs A SHA256 HASH Analysis. Of The Application Tree]
        - -U UpDate URL [URL To Utilise For UpDate Version Checking]

    - **Updated C.L.I. Functionality :**
      - FooCrypt-GUI, FooCrypt, CLI_Test, Decrypt_FooKey, Matrix_Test, mOpenSSL, runall_FooCrypt, runall_FooSteg
        - -X UpDate [Version Check To Identify A New Release Of FooCrypt]
        - -X Validate [Performs A SHA256 HASH Analysis. Of The Application Tree]
        - -U UpDate URL [URL To Utilise For UpDate Version Checking]

      - FooCrypt, Decrypt_FooKey
        - FooKey's : Modified the MD5 HASH to a SHA256 HASH
        - Msg_Digest : Modified the MD5 HASH to a SHA256 HASH

      - mOpenSSL
        - OpenSSL SSL / TLS / DTLS functionality is DISABLED by Default via Config Build Exclude List : no-ssl no-tls no-dtls no-ssl3-method no-tls1-method no-tls1_1-method no-tls1_2-method no-dtls1-method no-dtls1_2-method no-nextprotoneg no-comp

    - **Updated GUI Functionality :**
      - FooCrypt-GUI
        - Added Menu Option :
          - [Menu Select -> Select_Cypher -> FooCrypt Validation -> Validate All FooCrypt Application SHA256 Hashs]
          - [Menu Select -> Edit -> Clear OS Clipboard]
          - [Menu Select -> Help -> Check For FooCrypt UpDates]
        - FooCrypt_Preferences
          - Modified Master Password Password Entry Box to Reset_Master_Password Button.
          - Modified the Default Msg_Digest to a SHA256 HASH
        - Master_Password
          - Modified the setting of the Master_Password for FooKey's / FooCrypt Preferences File to be set by the end user upon start up via 2 new dialog box's.
        - FooKey
          - Modified the MD5 HASH to a SHA256 HASH
        - FooKey_Msg
          - Modified the MD5 HASH to a SHA256 HASH

    - **Live Linux**
      - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-5.0.0-openssl-linux_x86_64.deb with OpenSSL SSL / TLS / DTLS functionality being DISABLED
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.0.2u/bin/openssl : OpenSSL 1.0.2u 20 Dec 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.0l/bin/openssl : OpenSSL 1.1.0l 10 Sep 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1a/bin/openssl : OpenSSL 1.1.1a 20 Nov 2018
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1b/bin/openssl : OpenSSL 1.1.1b 26 Feb 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1c/bin/openssl : OpenSSL 1.1.1c 28 May 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1d/bin/openssl : OpenSSL 1.1.1d 10 Sep 2019
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1e/bin/openssl : OpenSSL 1.1.1e 17 Mar 2020
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1f/bin/openssl : OpenSSL 1.1.1f 31 Mar 2020
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1g/bin/openssl : OpenSSL 1.1.1g 21 Apr 2020
        - /opt/FooCrypt-OpenSSL/Linux/bin_64/openssl-1.1.1/bin/openssl : OpenSSL 1.1.1 11 Sep 2018

  - **Upgrade Functionality Enhancements.**
    - None

- # FooCrypt.4.2.1.Core
  - **Bug Fix's.**
    - FooCrypt-GUI
    - Decrypt_FooKey
    - runall_FooSteg

  - **Update Functionality Enhancements.**
    - FooCrypt-GUI
      - New FooKeyBoard layout and workflow functionality improvements
        - See the FooKeyBoard documentation for further details.

    - **Live Linux**
      - Added precompiled mOpenSSL OpenSSL versions via :
        foocrypt-4-2-1-openssl-linux_x86_64.deb
        - OpenSSL 1.0.2s 28 May 2019
        - OpenSSL 1.1.0k 28 May 2019
        - OpenSSL 1.1.1c 28 May 2019
          - OpenSSL versions 1.1.1d, 1.1.0l and 1.0.2t will be packaged as part of the
          - foocrypt-x-y-z-openssl-linux_x86_64.deb package from early October, 2019.

  - **Upgrade Functionality Enhancements.**
    - None

- # FooCrypt.4.0.0.Core
  - **Bug Fix's.**
    - None

  - **Update Functionality Enhancements.**
    - None

  - **Upgrade Functionality Enhancements.**
    - **Added the following binary tools**
      - CLI_Test
      - Decrypt_FooKey
      - Matrix_Test
      - mOpenSSL
      - runall_FooCrypt
      - runall_FooSteg
    - **Live Linux**
      - Added precompiled mOpenSSL OpenSSL versions via : foocrypt-4-0-0-openssl-linux_x86_64.deb
        - OpenSSL 1.0.2s 28 May 2019
        - OpenSSL 1.1.0k 28 May 2019
        - OpenSSL 1.1.1c 28 May 2019
      - Migrated Live Image build system from Distro Share to Cubic

- # FooCrypt.3.0.3.Core
  - **Bug Fix's.**
    - Renamed FooKeyBoard Buttons SWM to STWM, to match functionality.
      - STWM [1 – 5] (was SWM [1- 5])
        - Show Text Window Memory In The Text Window [1 - 5]
        - Switch To Active Buffer [1 – 5]
    - Renamed FooKeyBoard Buttons CWM to CTWM, to match functionality.
      - CTWM [1 – 5] (was CWM [1- 5])
        - Clear Text Window Memory [1 - 5]
        - Switch To Active Buffer [1 – 5]
    - Renamed FooKeyBoard Buttons LWM to LTWM, to match functionality.
      - LTWM [1 – 5] (was LWM [1- 5])
        - Load Text Window Into Window Memory [1 - 5]
        - Switch To Active Buffer [1 – 5]
    - Renamed FooKeyBoard Buttons IWMA to ITWMA, to match functionality.
      - ITWMA [1 – 5] (was IWMA [1- 5])
        - Import an ASCII File Into The Text Window Memory [1 - 5]
        - Switch To Active Buffer [1 – 5]
    - Renamed FooKeyBoard Buttons IWMB to ITWMB, to match functionality.
      - ITWMB [1 – 5] (was IWMB [1- 5])
        - Import an Binary File Into The Text Window Memory [1 - 5]
        - Switch To Active Buffer [1 – 5]
    - Renamed FooKeyBoard Buttons TWMF to ETWMF, to match functionality.
      - ETWMF [1 – 5] (was TWMF [1- 5])
        - Save Text Window To Text Window Memory [1 - 5]
        - Export Text Window Memory [1 - 5] To A File
        - Switch To Active Buffer [1 – 5]
    - Renamed CypherKeyControl Button SWM to STWM, to match functionality.
      - Show Text Window Memory
    - Renamed CypherKeyControl Button CWM to CTWM, to match functionality.
      - Clear Text Window Memory
    - Renamed CypherKeyControl Button LWM to LTWM, to match functionality.
      - Load Text Window Memory
    - Renamed CypherKeyControl Button IWMA to ITWMA, to match functionality.
      - Import Text Window Memory ASCII
    - Renamed CypherKeyControl Button IWMB to ITWMB, to match functionality.
      - Import Text Window Memory Binary
    - Renamed FooCrypt Preferences Check Button IWMA_Data to ITWMA_Data, to match functionality.
    - Renamed FooCrypt Preferences Check Button IWMB_Data to ITWMB_Data, to match functionality.
    - Renamed FooCrypt Preferences Check Button IWMA_BarChart to ITWMA_BarChart, to match functionality.
    - Renamed FooCrypt Preferences Check Button IWMB_BarChart to ITWMB_BarChart, to match functionality.
    - Renamed FooCrypt Preferences Check Button IWMB_Summary to ITWMB_Summary, to match functionality.
    - Renamed FooCrypt Preferences Check Button IWMB_Save_Dump to ITWMB_Save_Dump, to match functionality.
    - Renamed FooCrypt Preferences Check Button ITWM_KILL to ITWMB_KILL, to match functionality.
    - Renamed FooCrypt Preferences Button SI to Select Image, to match functionality.
    - Renamed FooCrypt Preferences Label GFD to Gif Flash Delay, to match functionality.
    - Renamed FooCrypt Preferences Label MD to MSG_Digest, to match functionality.
    - Removed FooCrypt Preferences Check Button STEGANOGRAPHY, as FooCrypt GUI Steganography Demo functionality has been removed.

  - **Update Functionality Enhancements.**
    - Added FooCrypt Preferences Check Button Intro to control FooIntro Image Display Before Validation Has Been Completed.
    - Redesign of the FooCrypt Reporting Layout
    - Logs are now logged by utilising file descriptor redirection.
    - Added -c [Check Requirements] switch to FooCrypt GUI CLI
    - Added -O [Full PATH Of OpenSSL Binary To Use] switch to FooCrypt GUI CLI
    - Added -E [Full PATH Of Expect Version To Use] switch to FooCrypt GUI CLI
    - Removed -W [Full PATH Of Wish Version To Use] switch from FooCrypt CLI
    - Added FooKey_Message Menu Options For Message Destinations, StdOutLog and Text Window Active Data

- **Upgrade Functionality Enhancements.**
  - Integration of FooSteg into the FooCrypt GUI
    - Added FooSteg Menu Functionality To Drive FooSteg
    - Added FooSteg Preferences Window To Drive FooSteg
    - Added FooSteg CLI Help Menu Item To The Help Menu
    - Added FooSteg Licenses Menu Item To The FooCrypt Menu
    - Added FooSteg Internal Processing To Drive FooSteg

- # FooCrypt.2.2.0.Core
  - **Bug Fix's.**
    - Renamed FooKeyBoard Buttons EWMF to TWMF, to match functionality.
      - TWMF [1 – 5] (was EWMF [1- 5])
        - Save Text Window To Window Memory [1 - 5]
        - Export Window Memory [1 - 5] To A File
        - Switch To Active Buffer [1 – 5]

    - Renamed FooKeyBoard Buttons CW to CTW, to match functionality.
      - Clear Text Window [1- 5]

    - Renamed CypherKeyControl Buttons EWMF to TWMF, to match functionality.
      - TWMF (was EWMF)
        - Save Text Window To Window Memory [Active Buffer]
        - Export Window Memory [Active Buffer] To A File

    - Renamed CypherKeyControl Button CW to CTW, to match functionality.
      - Clear Text Window

    - Renamed [Menu Select -> Cypher_Key_Control -> Export : Text Window] To match functionality with TWMF buttons.
      [Menu Select -> Cypher_Key_Control -> Export : Text Window To Window Memory, File]

  - **Update Functionality Enhancements.**
    - FooSteg released with a C.L.I. interface.
      - FooSteg performs Steganography via Binary RGB Encoding & Decoding Of A Base64 File Into & From An Image.
      - FooSteg Supports The Following Image Formats / Functionality.

        - GIF & JPEG Formats Utilise A Compression Algorithm Which Prevents The Format From Being The Data Carrier For The Binary RGB Encoding / Decoding

          ID = Input Data Image [See -d & -D]
          IF = Input File Image [See -f & -F]
          IS = Input Source Image [See -s & -S]

          OC = Output Copy Image [See -o & -O]
          OD = Output Data Image [See -o & -O]
          OR = Output Random Image [See -o & -O]

          NO = Image Format Not Supported

Format	Copy	Extract	Random	Read	Write
BMP	IF OC	IS ID	OR	IF	IF OD
GIF	IF	IS	NO	IF	IF
JPEG	IF OC	IS	OR	IF	IF
PCX	IF OC	IS ID	OR	IF	IF OD
PNG	IF OC	IS ID	OR	IF	IF OD
PPM	IF OC	IS ID	OR	IF	IF OD
SGI	IF OC	IS ID	OR	IF	IF OD
SUN	IF OC	IS ID	OR	IF	IF OD
TGA	IF OC	IS ID	OR	IF	IF OD
TIFF	IF OC	IS ID	OR	IF	IF OD

```
==============================================================================
|           Successful BASE64 Steganography Image Encode / Decode Table        |
==============================================================================
| Input Source  |                     Data Source                             |
| Image Format  |                     Image Format                            |
==============================================================================
|     BMP       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     GIF       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     JPEG      |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     PCX       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     PNG       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     PPM       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     SGI       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     SUN       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     TGA       |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
|     TIFF      |          BMP, PCX, PNG, PPM, SGI, SUN, TGA, TIFF             |
==============================================================================
```

- Added Disk Usage Reporting via ‘du -hs’ as part of the FooCrypt CleanUP process for the Temporary and Log File Directory created upon each invocation of FooCrypt / FooCrypt-GUI / FooSteg & the entire **[FooHome]** directory.
  - **[FooHome]**/[YYYYMMDDHHMMSS]_[HOSTNAME]_[FooCrypt | FooCrypt-GUI | FooSteg] & **[FooHome]**

- Added the FooSteg StarKit based on Tcl/Tk 8.6.9 for FooSteg to utilise.

- Added mOpenSSL to enable the end user greater OpenSSL flexibility and simplify the download / compile of openssl versions.

- **Upgrade Functionality Enhancements.**
  - None

- # FooCrypt.2.1.2.Core
  - **Bug Fix's.**
    - Minor cosmetic fix to correct the incorrect menu update of 'Create Random Data Memory' under the Cypher_Key_Control menu after modifying the Max_Gen_Random value via Preferences.
    - Rewrite of the inbuilt KORN Arithmetic and Test functions for the Windows 10 Windows Subsystem For Linux port which sporadically effected the FooCrypt Verification and Licensing Modules.
      - https://bugs.launchpad.net/ubuntu/+source/ksh/+bug/1818596
      - https://community.ubuntu.com/t/inbuilt-korn-arithmetic-test-functions-broken-under-windows-subsystem-for-linux/10089

  - **Update Functionality Enhancements.**
    - None

  - **Upgrade Functionality Enhancements.**
    - None

  - **Recommendations**
    - **FooCrypt recommends utilising the FooCrypt.X.Y.Z.Core.Live.Linux distribution, running inside a hypervisor on any Windows instance, to mitigate the unknown deficiencies in the Windows 10 WSL, along with protecting your data from MALWare, Virus's, etc..**

- # FooCrypt.2.1.1.Core
  - **Bug Fix's.**
    - None

  - **Update Functionality Enhancements.**
    - Enhanced mFooKey script to automate the creating of FooKey's from a directory containing GIF images.

  - **Upgrade Functionality Enhancements.**
    - Integrated FooKey_Message To Enable the encryption / decryption of simple messages sourced from the Cypher_Key_Control Text Window.
    - Added Base64 Encode / Decode Cypher_Key_Control Text Window

- # FooCrypt.1.0.1.Core
  - **Bug Fix's.**
    - None

  - **Update Functionality Enhancements.**
    - None

  - **Upgrade Functionality Enhancements.**
    - Added preference selections for :
      - MSG_Box [Show Message Dialog Windows]
      - MSG_Log [Log Message Dialogs To AllStdOutLogs]
      - Verbose [Command Verbosity]
      - FWT [Fifo Wait Time]
      - MD [Message Digest To Use via OpenSSL -md]
    - CLI Enhancements
      - Integrated Create_FooKey script as -C [Create FooKey]
      - Integrated Create_FooKey script as -F [File To Create FooKey From]
      - Added -M [Save Encrypted Output File Format : OpenSSL | Base64]
      - Added -m [Message Digest To Use]
      - Added -D [Display Debug Expect Output]
    - Added mFooKey script to automate the creating of FooKey's from a directory containing GIF images.

- **FooCrypt.0.0.1.Core**
    - Initial Release