# R10Cipher

**User Guide and Reference**

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Cross Platform Text and File Encryption / Cipher Tool

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# Registering R10Cipher

After downloading R10Cipher and deciding that you would like a full working copy, you can purchase this directly at the following web address:

http://www.r10cipher.com

Once you have done this we are automatically notified of your purchase and a User Name and Serial Number are sent out to you via email.  The Serial Number is tied to your Name and the two must be used in conjunction.

Note: R10Cipher Version 3.x needs a different serial number to Versions 1.x. and 2.x   Existing users can upgrade at reduced cost.  Please contact upgrade@artenscience.co.uk for further details.

When you receive the serial number email you should launch R10Cipher and access the Preferences menu item.  The Preferences window that opens will look slightly different depending on the Operating System that you are using, they are all however very similar and contain identical information.  The Preferences window for Windows Vista looks like this:
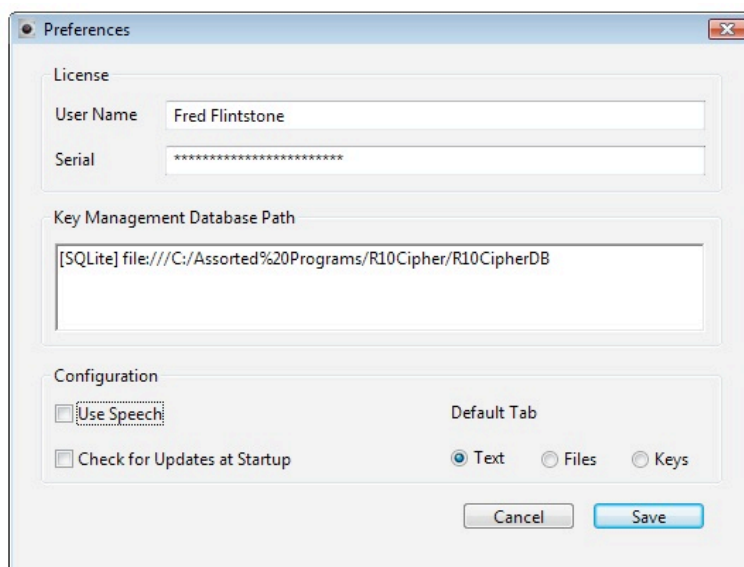


The User Name and Serial Number that you received in your email from Arten Science should be entered into the appropriate fields on the Preferences window.  To avoid typing errors we suggest you Copy / Paste the information.  Please be sure to Paste the full Serial Number including the == at the end.

If the information is correct the Trial Version Overlay / Window will disappear and the product is then fully licensed.  Keep the email from Arten Science safe as you will need it should you need to reinstall in future on a new computer.

Our licensing allows one purchase to be installed on two computers that you own, for example your desktop and also your laptop.  Please respect our efforts and purchase additional licenses if you need to install on multiple computers.  We also offer site licenses for corporations.

Any problems with registration, please email us at: support@artenscience.co.uk

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# Introduction

R10Cipher is a simple but extremely powerful Cross Platform Encryption / Decryption tool.

R10Cipher takes text or files and encrypts them using up to 384 bit Blowfish encryption.

**These files can be Word files, Excel files, MP3 files - almost any kind of file.**

These encrypted files can be copied elsewhere, even to a different operating system and unencrypted by anyone in possession of the Shared Secret that was used for the encryption.

If encrypting text, the Cipher Text can then be copied into an email, saved as a file and attached to an email or just copied elsewhere.

The recipient can use R10Cipher to open the file and view the encrypted contents, assuming they are in possession of the Shared Secret that was used to encrypt the document in the first place.

**If encrypting a file the encrypted file can be stored or sent in the full knowledge that it's contents are not visible to anyone without access to R10Cipher and the Shared Secret.**

Decryption can be carried out just by double clicking the encrypted file and entering the Shared Secret.

R10Cipher supports batch encryption by 'drag and drop' to make encryption fast and painless, even when dealing with dozens of files.

As R10Cipher does not require installation you can for example copy the Mac, Windows and Linux versions of R10Cipher to a USB drive along with your encrypted documents and files. Your documents and files are secure ,but available whenever and wherever you require them.

**R10Cipher does not make any alterations to your computer and stores it's configuration files within it's own folder.**

Many people do not realise that sending an email is the equivalent of sending a postcard, it's contents are easily visible. For many companies, individuals and markets this is totally unacceptable and with the potential complexity and setup issues with the Public Key Encryption systems it makes sense to encrypt using R10Cipher.

R10Cipher, like all software, is a work in progress. We need your feedback to make R10Cipher the best Cross Platform Encryption Tool available. Contact us with your suggestions and comments.

R10Cipher Version 3 is a major rewrite with additional functionality, including sophisticated Key Management, that was asked for by our customers. Version 3 is also slicker, faster and easier to use than ever before. Encryption has never been so painless.



INTRODUCTION

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# Arten Science PCD (Protect Client Data) Initiative

If this software was supplied by your financial, accountancy or other professional as part of the PCD Initiative there are two small differences you may notice.

When launched the software will display the following dialog:
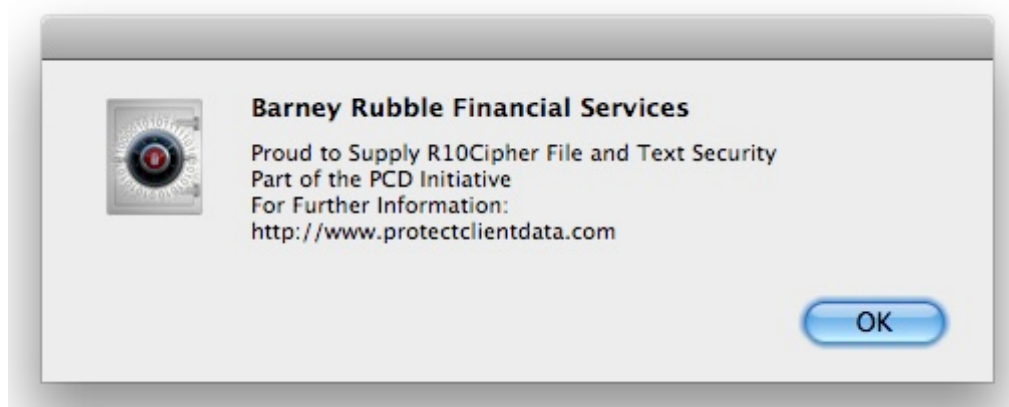


In addition the main screen, under the Log Tab will show similar information:



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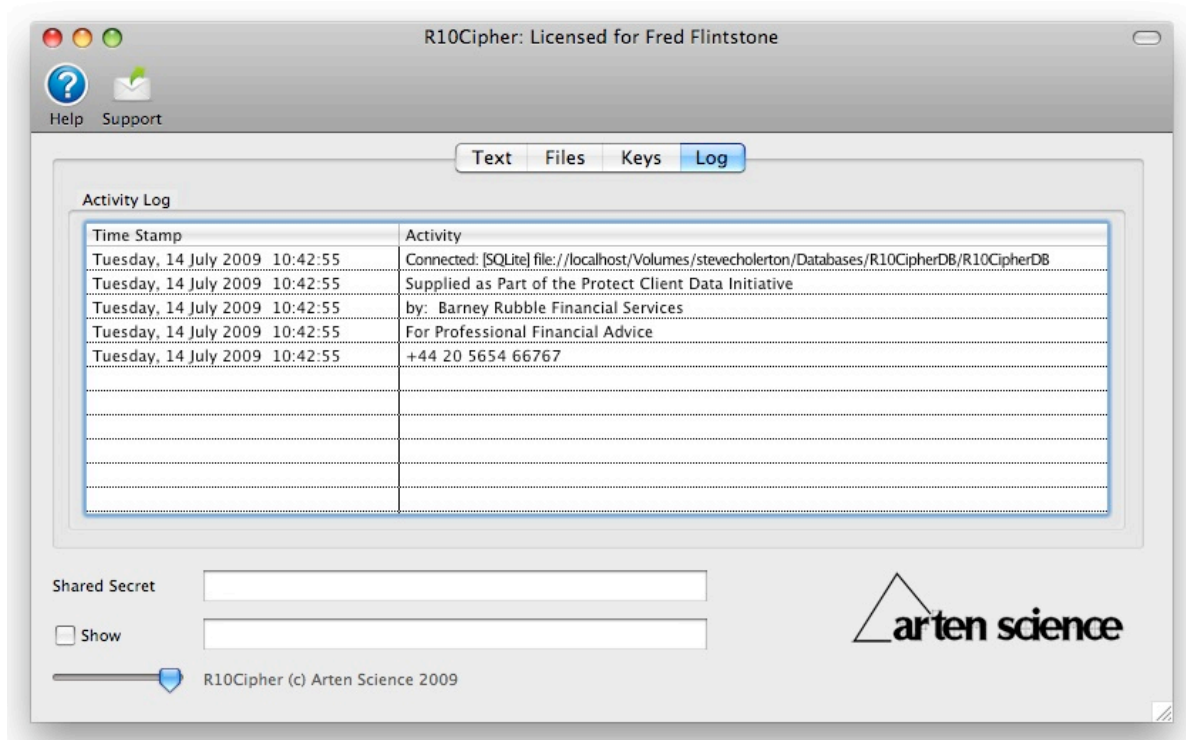
# Quick Start: Text Encryption

After downloading, unzip the file.  Depending on your browser settings your operating system may do this automatically for you.  Drag the folder to a convenient location on your hard disk.  Double click the R10Cipher file to launch the program.

*Note:  Users of Linux may have to view the file permissions and set the 'execute' flag.*

You will see the R10Cipher main screen.  The OSX version is shown below:
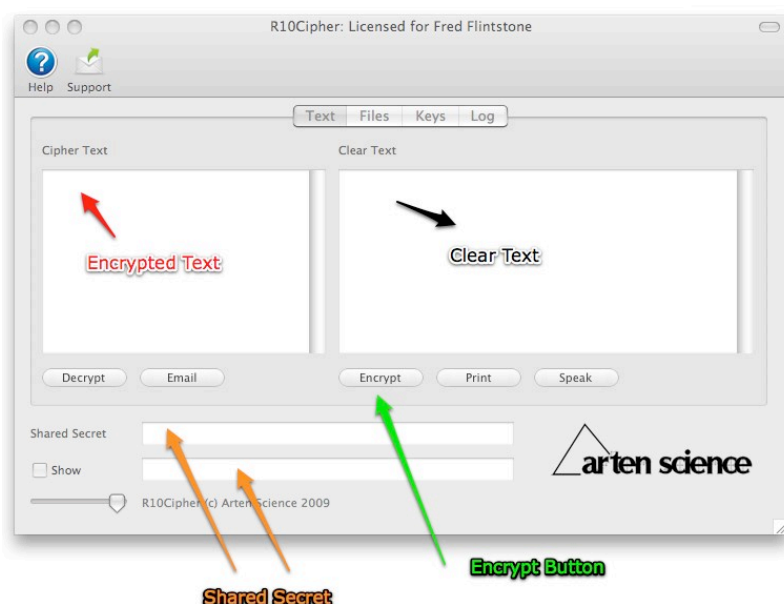


Enter your Shared Secret (this is your encryption key) into the area at the bottom left of the screen.  This can be between 4 and 56 characters.  For example:  yuetrtytpl*565r0.  Enter your Shared Secret again in the area directly below to confirm that you did not make any typing errors.

*Note:  The strength of the encryption is directly related to the length of your encryption key.*

Enter the message or text you wish to encrypt into the Clear Text area.  You can right click and Paste the text, or use Drag and Drop if you wish.

Select the Encrypt button.  You will see the encrypted text shown in the Cipher Text area of the screen.

You now have a number of options:

*1. Click the Email button and an email will be opened for you with the encrypted text as the message.*

*2. Copy the Encrypted text from the Cipher Text area and Paste it into an email or document.*

*3. Use the Save button on the toolbar and save the Encrypted text as a document.*

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# Quick Start: Text Decryption
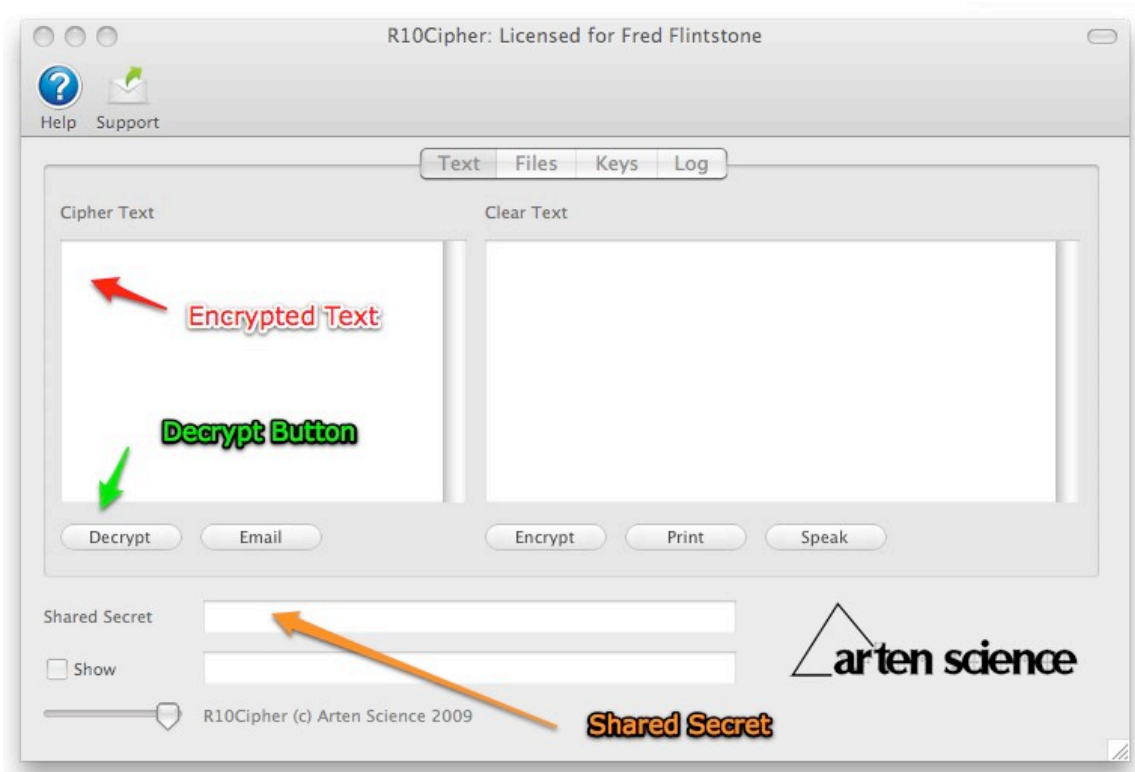


To Decrypt a message or text use any of the following options:

*1. Open an Encrypted document using the Open button on the toolbar*

*2. Paste the Encrypted text into the Cipher Text area.*

*3. Drag the Encrypted text into the Cipher Text area.*

Enter the Shared Secret and Select the Decrypt button to view the Decrypted contents.

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# Quick Start: File Encryption

After downloading, unzip the file. Depending on your browser settings your operating system may do this automatically for you. Drag the file / folder to a convenient location on your hard disk. Double click the R10Cipher file to launch the program.

*Note: Users of Linux may have to view the file permissions and set the 'execute' flag.*

You will see the R10Cipher main screen. Click the Files Tab. The Windows 7 version is shown below:
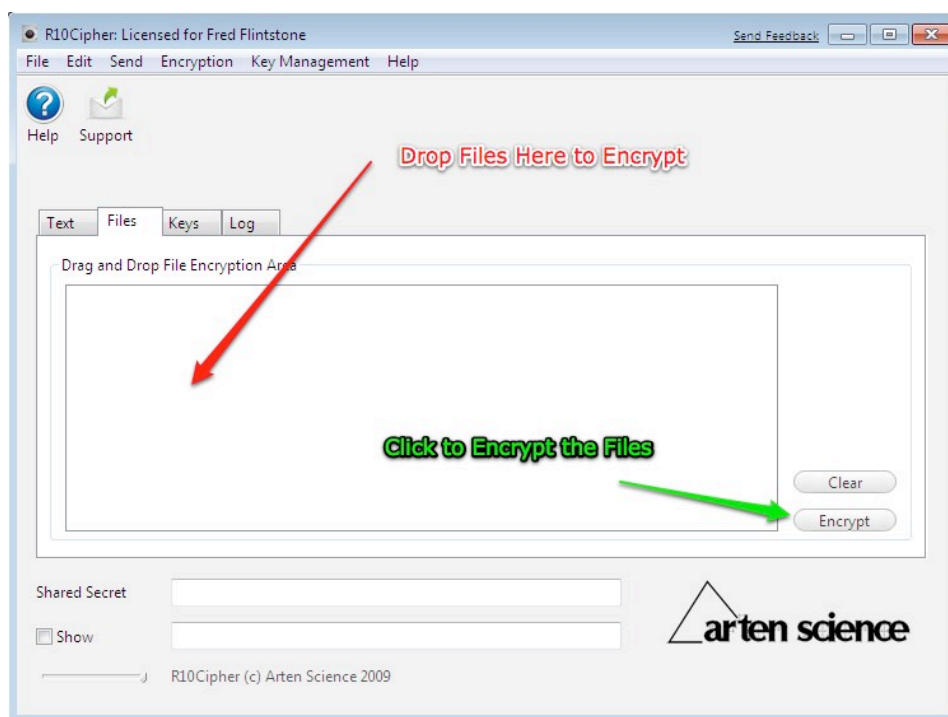


Enter your Shared Secret (this is your encryption key) into the area at the bottom left of the screen. This can be between 4 and 56 characters. For example: yuetrtytpl*565r0.

Drag and Drop your files into the Encryption Area.

*Note: You can clear the files list using the Clear button, or to remove an individual file, double click it.*

Click the Encrypt button.

The filename for the Encrypted files remains the same but the file extension is changed to .r10Enc.

The Log tab will be automatically activated following the encryption, this will show you details of the encryption process. For average size documents and files the encryption will be virtually instantaneous.



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# Quick Start: File Decryption

There are two ways to Decrypt files with R10Cipher.

## Decrypt a File from Within R10Cipher

The first way is to open R10Cipher and choose the Menu  'Encryption' and then the Menu choice 'Decrypt a File'.  R10Cipher will then ask you to select the file that you wish to Decrypt.

Once selected R10Cipher will ask you for the name you would like to call the decrypted file, the original name is used as the default.  The decrypted file will be saved with the name, and at the location, you chose.

## Double Click a File to Decrypt

R10Cipher Version 3 attempts to make working with encrypted files as simple as possible.  Therefore any encrypted file can be decrypted just by double clicking the encrypted file.

Following the double click you see this window:



Enter the Shared Secret that was used to encrypt the file and press the Continue button.  R10Cipher will save the decrypted file to your desktop with the original file name.

*NOTE:  Before you use this feature for the first time you may need to associate the R10Enc files with the R10Cipher Software.  How you do this depends on your Operating System.  We have instructions in the Addendum for Mac OSX and Windows XP.*

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# Zero Effort Corporate Licensing

R10Cipher features the ability to license the program for the user just by deploying a file to them, maybe via email, which they they drag into their R10Cipher folder.  If R10Cipher is currently running as a Trial Version the file will be read next time the program is started and the program automatically licensed.

The file must be named as follows:

R10Cipher_License.ini

and the contents must be in plain text format and read as follows:

&lt;pUserName&gt;*Name Goes Here*&lt;/pUserName&gt;
&lt;pSerial&gt;*Serial Number Goes Here*&lt;/pSerial&gt;

In a multi desktop environment Zero Effort Licensing saves time and effort and provides a painless way to license your Arten Science product.

If purchasing a corporate version of R10Cipher you can request that we send you the license file you need, instead of just the serial number and user name that we usually provide.

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# Key Management

## Introduction

Key Management is an extremely useful and important part of encryption, yet is often sadly neglected by the developers of encryption software.

In this document the term 'Key' relates to the database record for an individual which contains the following information:

Name
Email Address
Shared Secret
Master Password
Usage Password

If you have several contacts who you communicate with using encryption, how do you keep track of, remember and retrieve the individual Shared Secrets ?   The Key Management database makes this possible.

*Note:  Storing information of this nature in a database would under normal circumstances be a security risk in itself, R10Cipher however stores this information in an Encrypted format using 384 Bit encryption and a 56 Character Secret.*

By inputting (or importing - see next section) your contacts into the Key Management Database you can retrieve their Shared Secrets and Email Addresses when you need them, quickly and easily.

There are two password fields in the Key Management Database Record.  If there is only one person using your Key Management Database then you need only bother with the Master Password, if someone else is allowed to use your Key Management database then they will be given the 'Usage Password' which will allow them to Encode and Decode communications from the contact, but not change any details, including the Shared Secret.

| Key Management Record - Passwords | | | |
|---|---|---|---|
| *(Each Key Record is Individually Protected)* | | | |
| | | Master Password | Usage Password |
| Decrypt Text and Files | | * | * |
| Encrypt Text and Files | | * | * |
| Decode (View) the Key Management Record | | * | |
| Edit Key Management Record | | * | |
| Delete Key Management Record | | * | |

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## Recommended Use of Shared Secrets and Passwords

Shared Secret

This is the code or phrase that is used to secure a communication between yourself and a particular third party, ie: your client or contact.

Master Password

This is the password that only you should know. It safe guards your Key Management Database records. You could use a different Master Password for each record if you preferred or use a different one for each type of contact, or use the same one for each record.  It's entirely up to you, but bear in mind that you have to remember this one ...

Usage Password

Only needed if another individual may be using your R10Cipher to communicate with your contacts.  They can retrieve the Shared Secrets for use but cannot see them or change them.

It is recommended that for each client/contact you assign a different Shared Secret.   Make it at least 8 characters, 16 or more is ideal, it doesn't have to be particularly memorable as the Key Management makes it easy for this to be retrieved when needed.

You should secure your Key Management Database and the Shared Secrets using a Master Password.  This Master Password should be more memorable as this is the what you will have to enter in order to edit, delete or retrieve the Shared Secrets.  I recommend you base this password on a something familiar, for example the first letter of the words of the first two lines of your favourite song.  Mix this using upper and lowercase and substitute numbers where possible.

*Note: The reason for having a password secure the Shared Secrets is that the Shared Secret is used to encrypt the communication, this communication will be 'in the wild' when transferred over the internet between email or web servers, hence it needs to be unique and strong.  Your Key Management Database however is not exposed to the outside world so a small amount of passwords or a single password should be sufficient to encrypt and control access to the records in the Key Management Database.*

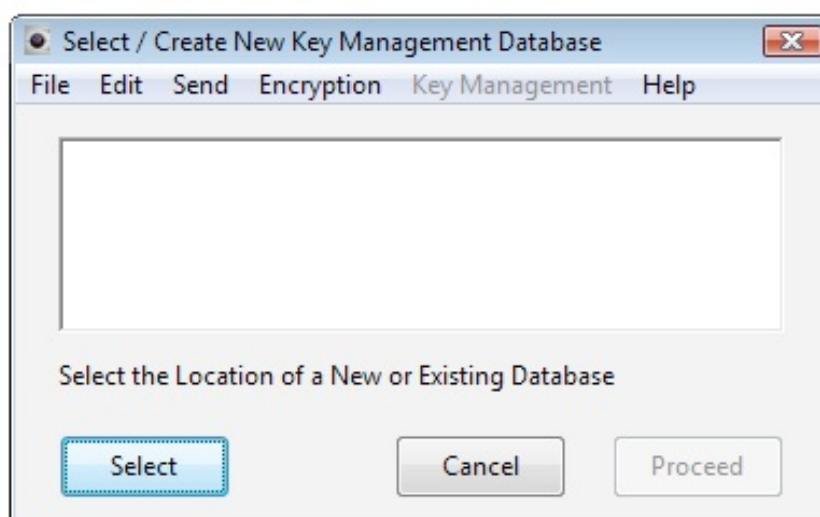*Arten Science, providing Quality and Innovative Software Solutions*

## Creating the Key Management Database

Before you can use the Key Management facilities of R10Cipher you need to create the Key Management Database.

This is done by using the Menu Option:

> **Key Management**
> > **Open or Create Key Database**

You will see the following screen (Windows Vista Version Shown):



Use the Select button to choose a location to store the Key Management Database.  Once selected the path will be shown.  Click Proceed to Save this information.

In future this Key Management Database will be opened automatically, unless you re-visit this screen and choose a different Key Management Database.

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# Key Creation and Administration

The creation of keys is done by selecting the following Menu Option:

>   **Key Management**
>           **Key Creation and Administration**

You will see the following screen (Mac OSX version shown):
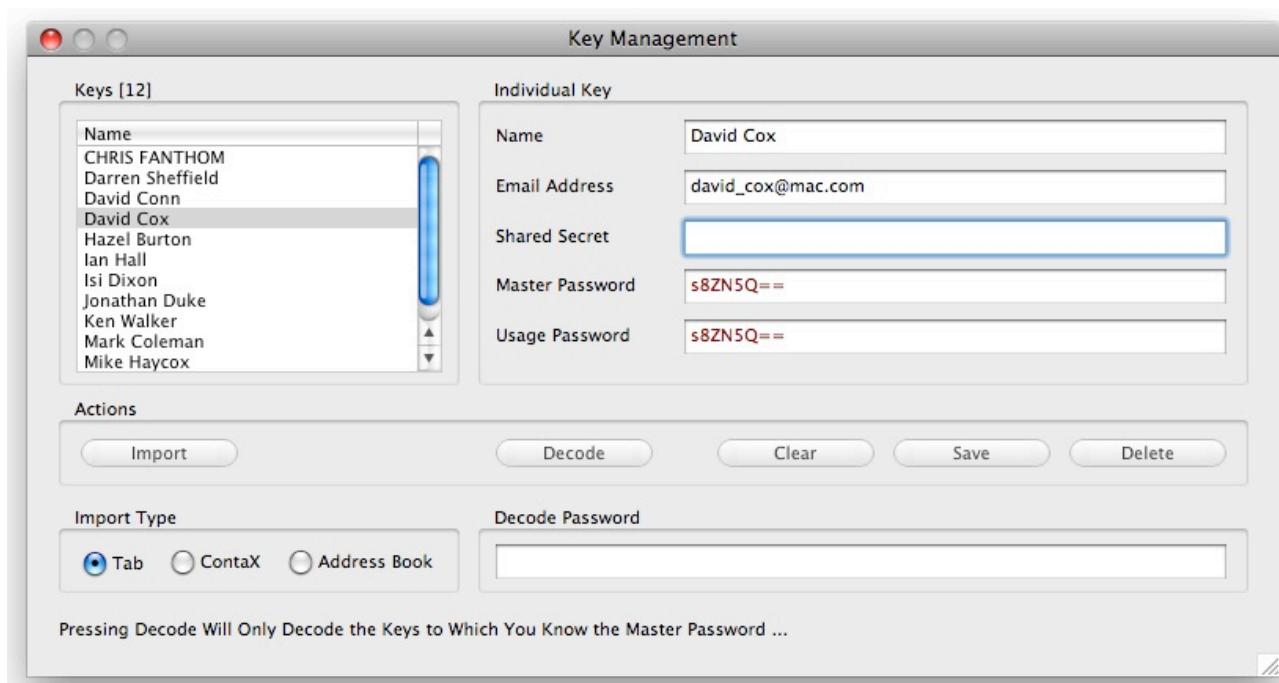


This is where you setup your clients/contacts and your/their Shared Secrets.  In addition, for each client you setup you can assign two passwords, a Master password and a Usage Password.  *For an explanation of the two passwords see the Key Management Introduction section.*

To **Insert** a contact, just start typing and fill in the five information fields, from Name to Usage Password. When complete press Save, and Save again to confirm.

To **Edit** a contact, select the contact from the list on the left hand side of the screen.  You will see the Name and Email Address but the Shared Secret and the Passwords are encrypted and not readable.  To view this data and edit it you need to input the Master Password **for this contact** into the Decode Password area of the screen and press the Decode button.  You can then edit the information and save it using the Save button.

To **Delete** a contact, select the contact from the list on the left hand side of the screen.  You will need to input the Master Password **for this contact** into the Decode Password area of the screen and press the Decode button.  You can then press the Delete button to erase the record.

*Note:  Deleted records are gone and cannot be retrieved.*

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If you intend entering a number of clients or contacts you may already have them stored in a database or spreadsheet somewhere. If that is the case then you should Import the records which will save you time and increase information accuracy.

*Note: You will need to edit each record later to apply the Shared Secret and Password(s).*

To Import records you have three choices which can be selected using the 'radio' buttons on the bottom left of the window. When you have selected the type of import you require press the Import button. The three choices are:

Tab - Tab Delimited

This is the Tab Import Window. The fields required are Name and Email Address. Select the import file using the Select File button. Select the records you would like to import, and save them to the Key Management database using the Save Selected button.
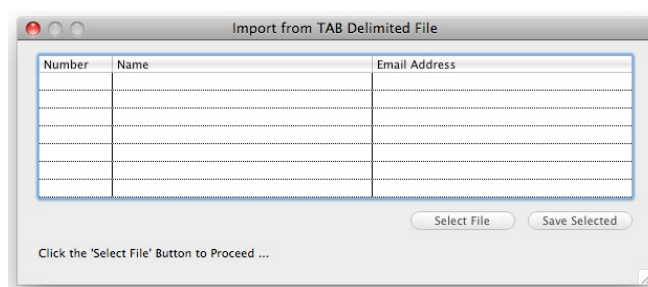


ContaX - ContaX CRM Import

This is the ContaX (http://www.r10contax.com) Import Window. You point R10Cipher at your ContaX database, using the Select DB button, and this pulls data into the import window, allows you to sort by Type and then import the selected records using the Save Selected button.
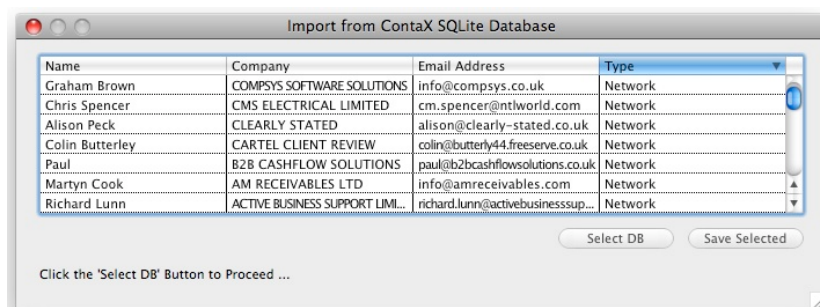


Address Book - Apple Only

This is the Apple Address Book Import Window. Select the records to import and save them to R10Cipher using the Save Selected button.



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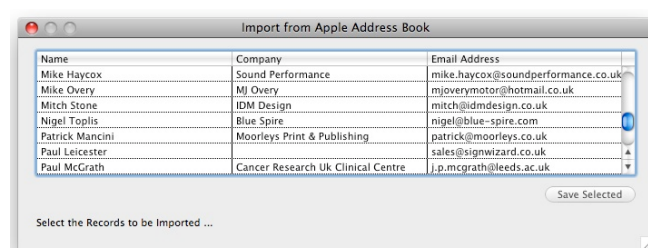
## Key Retrieval

### Scenario 1: Encrypting or Decrypting Text or a File from within R10Cipher

In these circumstances instead of having to remember and enter the Shared Secret for the contact you can instead select the Keys Tab and input the Master or Usage Password for the appropriate contact.  Then choose the contact from the list.  You can search for the contact and filter the list using the search box on the bottom left of the screen.

Select the contact in the list.  If you have entered the correct Password the indicator will change from red to Green and the Shared Secret fields will be populated.
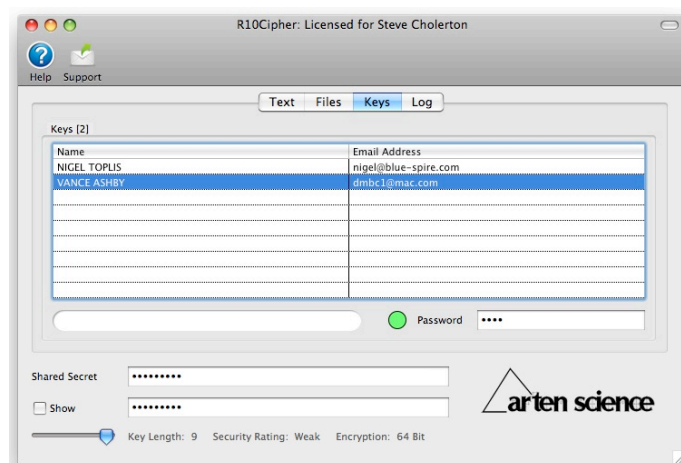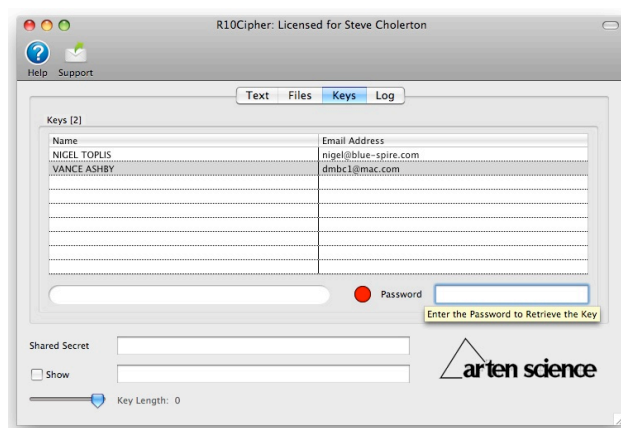




**You can now encrypt text or files without having to enter the Shared Secret.**

Another Advantage of retrieving the Shared Secret from the Key Management Database is that if you are sending an encrypted email, R10Cipher will know the email address and fill in the email header appropriately.

So instead of having to remember lots of Shared Secrets and Email Addresses, you only, using the Key Management Database, have to remember a minimum of one Password.

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## Scenario 2: Double Clicking an Encrypted File to Decrypt It

When double clicking an encrypted file you now see the following screen:



In these circumstances instead of having to remember and enter the Shared Secret for the contact you can instead input the Master or Usage Password for the appropriate contact.

You can search for the contact and filter the list using the search box on the bottom left of the screen.

Select the contact in the list.  If you have entered the correct Password the indicator will change from red to Green and the Shared Secret fields will be populated.

Click Continue to decrypt your file.



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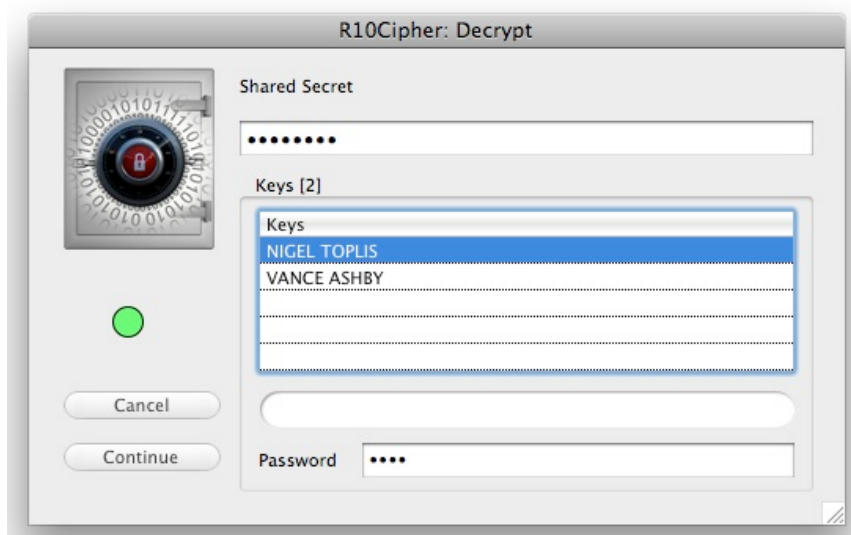
# Windows

## The Main Window - Text Tab Displayed

This window is where the majority of interaction with R10Cipher is carried out. With the Text tab opened you can work with encrypted text and email.  Each object on the window has a tooltip which is visible when you hover your mouse cursor over the button for a second.

Note  the 'slider' in the bottom left of the window.  This slider controls the transparency settings for the window.  Transparency settings as well as window size and position are saved when you quit R10Cipher. The Main Window running on Mac OSX is shown below:
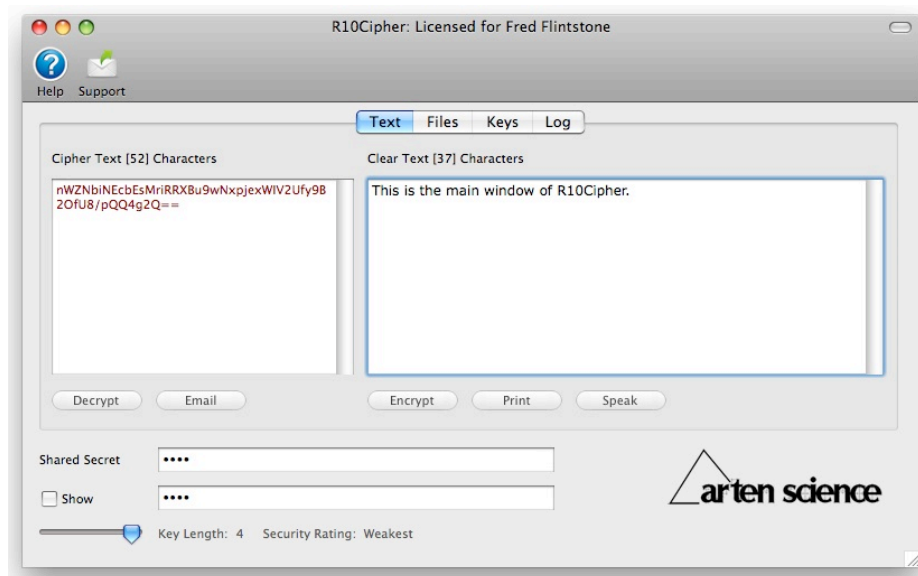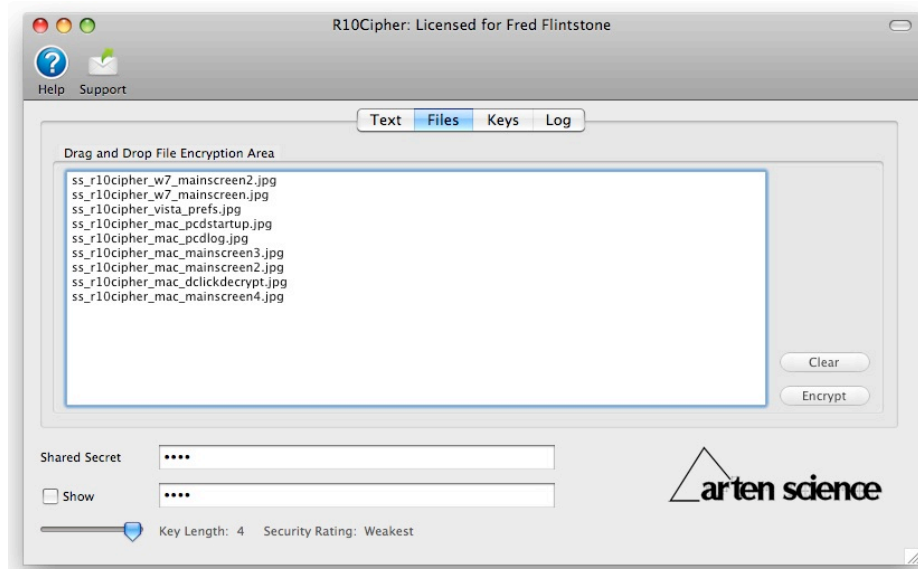
## The Main Window - Files Tab Displayed

This window is where the majority of interaction with R10Cipher is carried out. With the Files tab opened you can work with encrypted files.

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## The Main Window - Keys Tab Displayed

This window is where the majority of interaction with R10Cipher is carried out. With the Keys tab opened you can retrieve the Shared Secrets of your contacts.
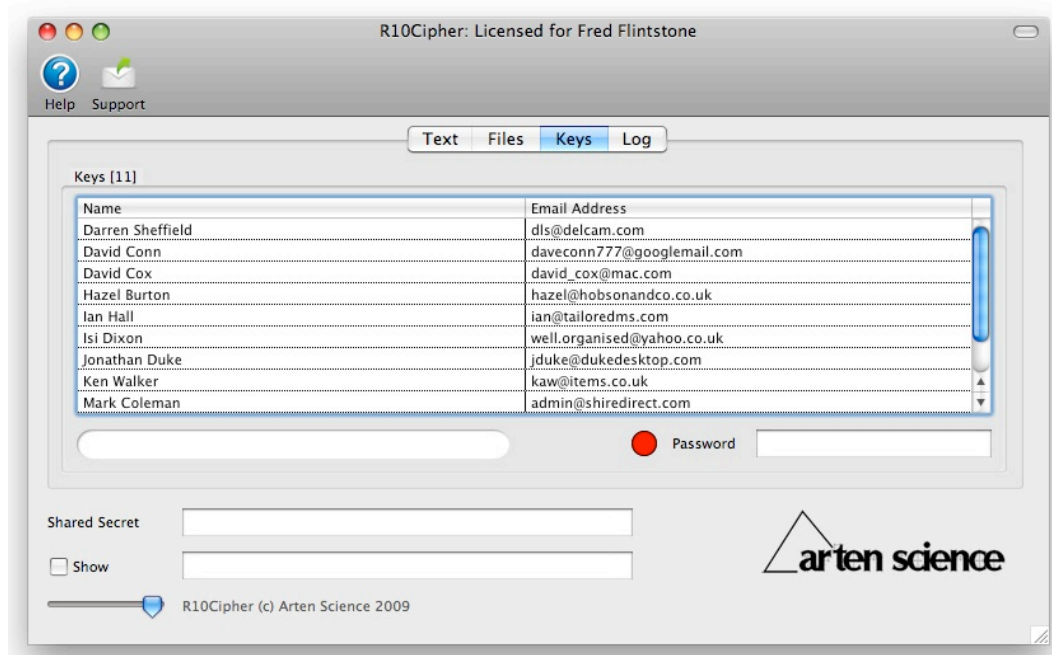


## The Main Window - Log Tab Displayed

This window is where the majority of interaction with R10Cipher is carried out. With the Log tab opened you can view feedback on R10Cipher activity and events.



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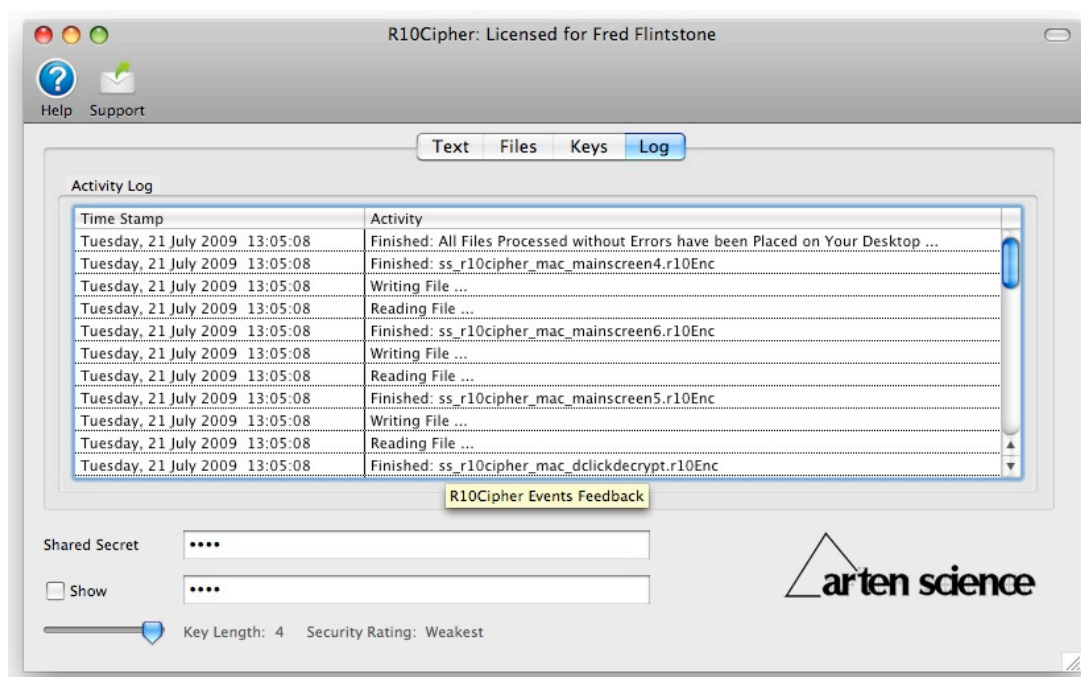
## The Help Window

The Help Window is accessed from either the Help option on the Menu or via the Help button on the Toolbar. You can choose a number of help topics from the drop down menu.  The Help window from Mac OSX is shown below:
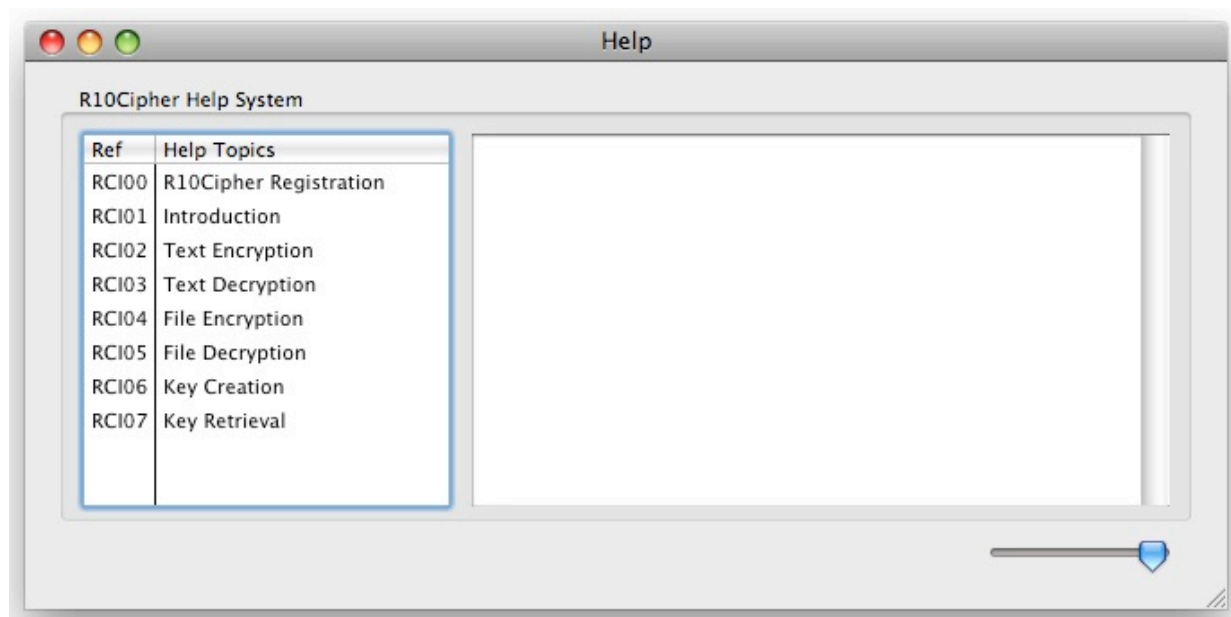


## The About Window

The About Window is accessed from the Menu and displays information relating to R10Cipher, Copyright, Version and other information.  The About Window from Mac OSX is shown below:



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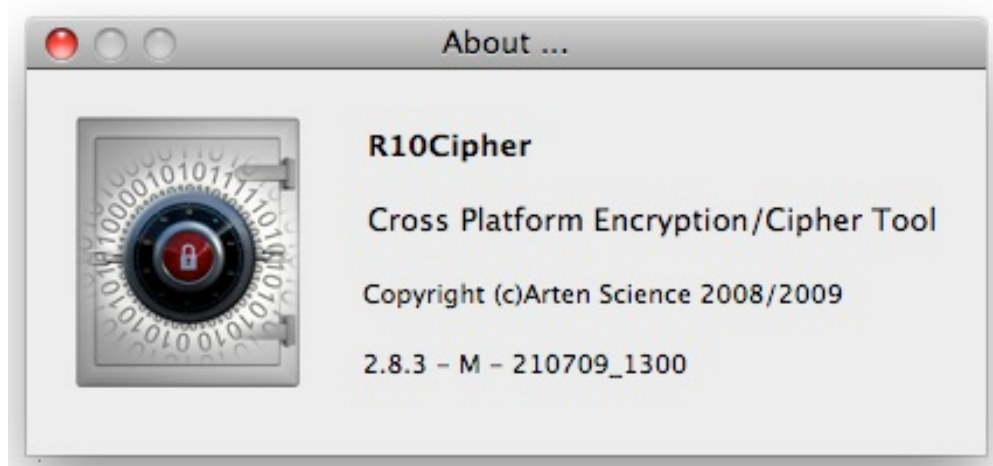
## The Preferences Window

The Preferences Window is where you input your user name and serial number and where you can set the preferences for R10Cipher.  The Preferences Window from Windows XP is shown below.
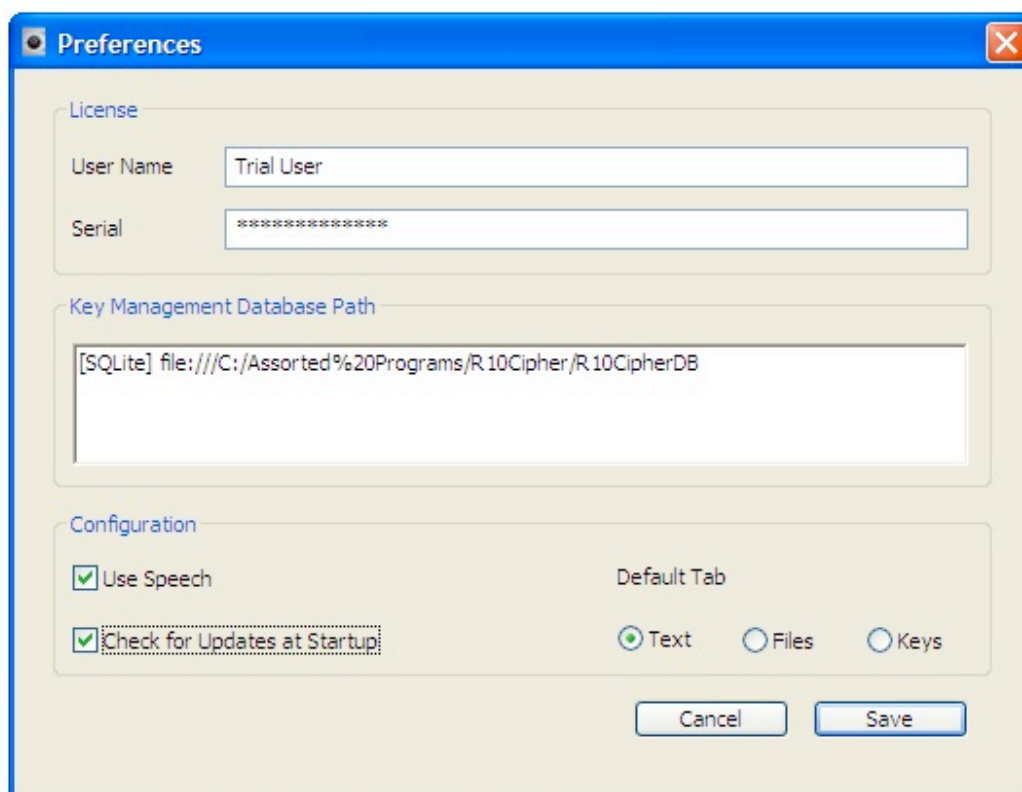


## Open or Create Key Database Window

This Window will Open or Select the Key Database.  This Window from Windows XP is shown below:



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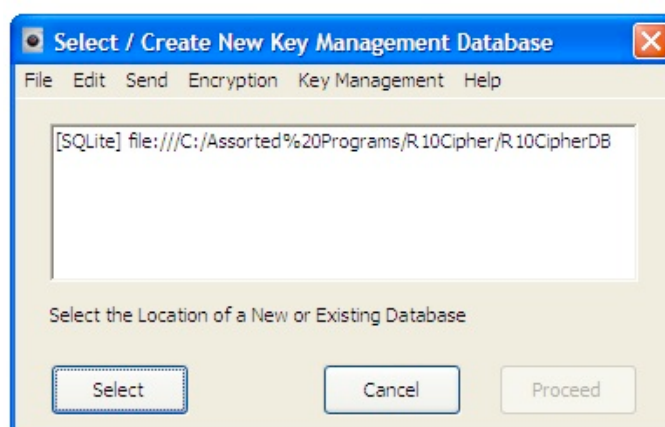
## The Key Creation and Administration Window

The Key Management Window is designed to import, setup and administer access to your contacts Shared Secrets. This Window from Mac OSX is shown below:
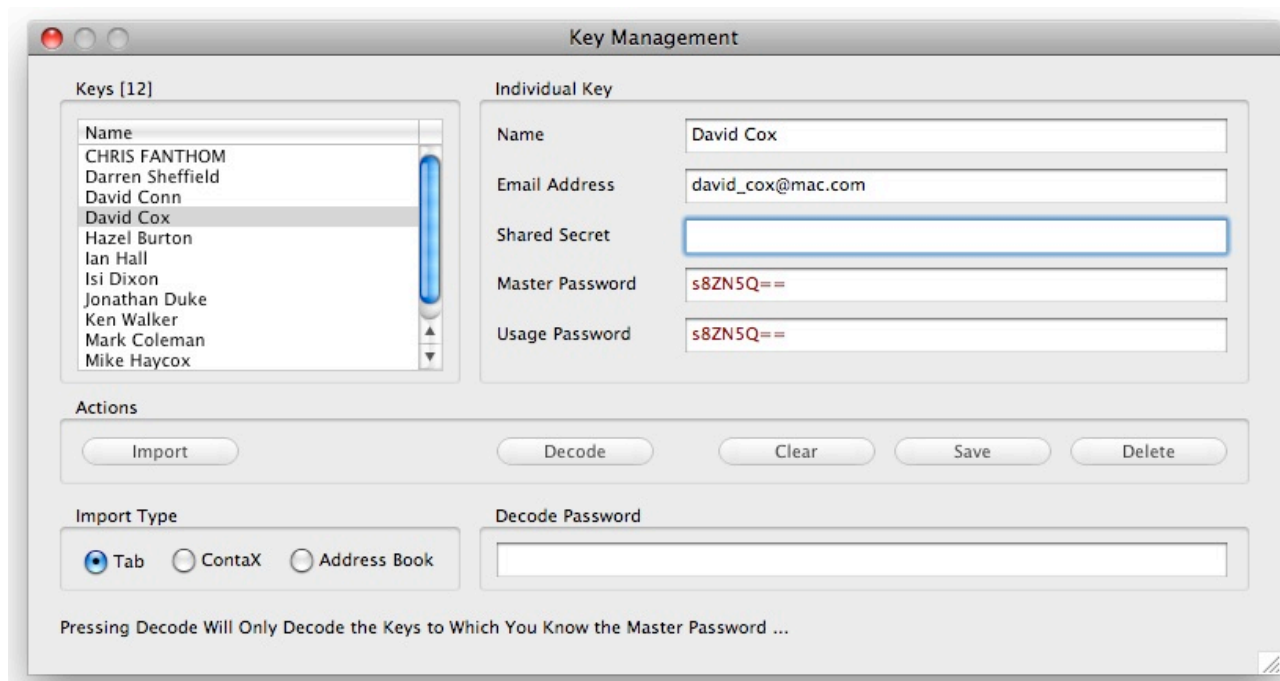


## Import from TAB Delimited Window

This window allows you to populate your Key Management Database from a Tab Delimited file. A Tab Delimited file can be easily produced from most software, including spreadsheets.



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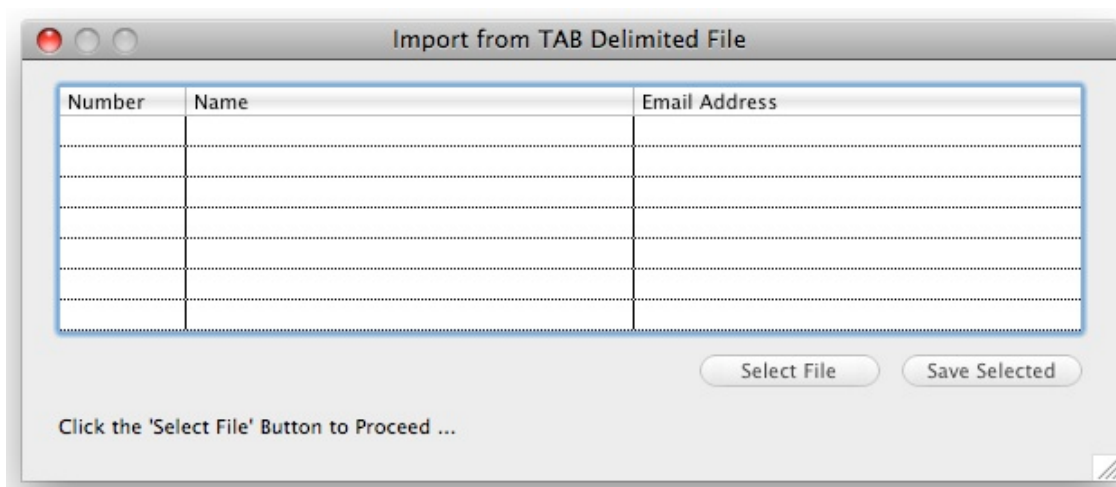
## Import from ContaX Window

This window allows you to populate your Key Management Database from a ContaX Database.  ContaX is the Next Generation CRM Software from Arten Science. http://www.r10contax.com
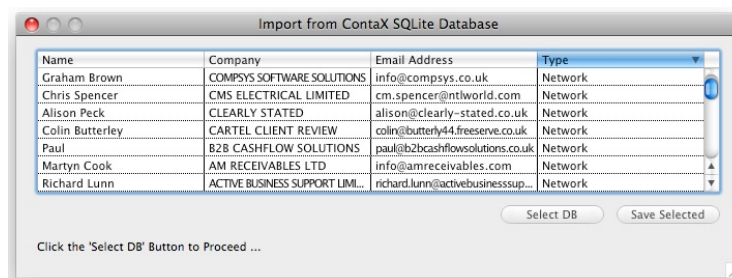


## Import from Apple Address Book Window

This Macintosh Only window allows you to populate your Key Management Database from your Apple Address Book.
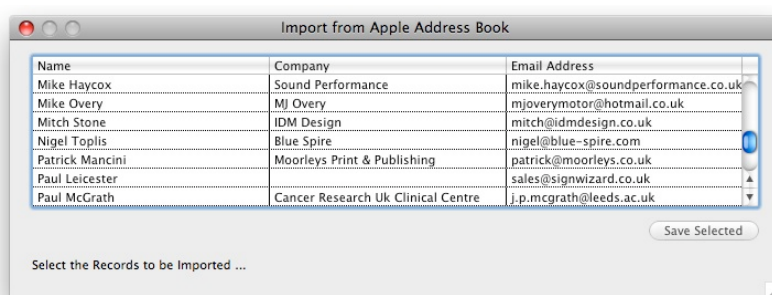


## File Decryption Window

This window is shown when you double click an encrypted file.



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# Auto Generate Shared Secrets

R10Cipher from version 3.1.0 will if you require, automatically generate the Shared Secrets.  You of course still need to tell R10Cipher the Master and Usage passwords or else you cannot see the automatically generated passwords in order to inform your clients/contacts of them.

Auto generation can happen during import ...



... or can be done on an individual Key by clicking the 'Generate' button.



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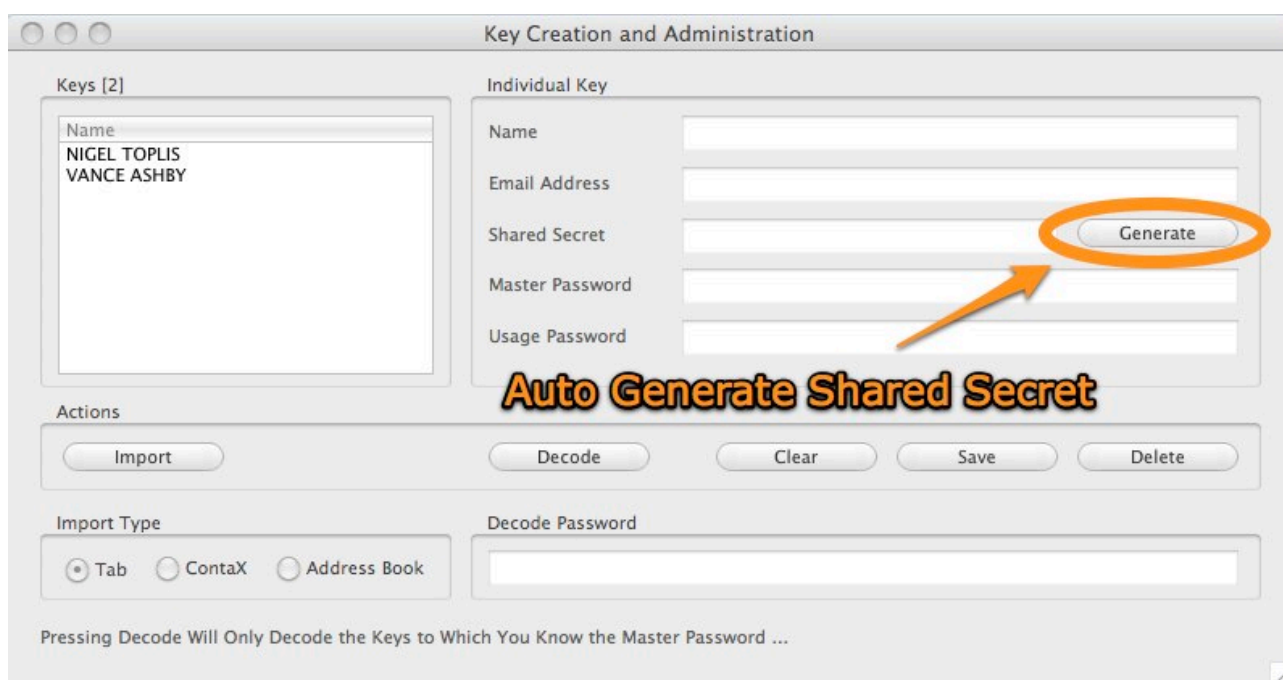
# Menus

The menu options for certain actions such as About and Preferences display in different places on the menu bar according to the interface guidelines defined by each operating system.

Therefore the order of these menu option descriptions may differ depending on your operating system platform.  The order I have used is left to right, top to bottom for Mac OSX.

### Check for Updates

This option manually checks for updates to R10Cipher.  If an update exists you will be given the option to download it.  If it doesn't you will see a screen similar to this:
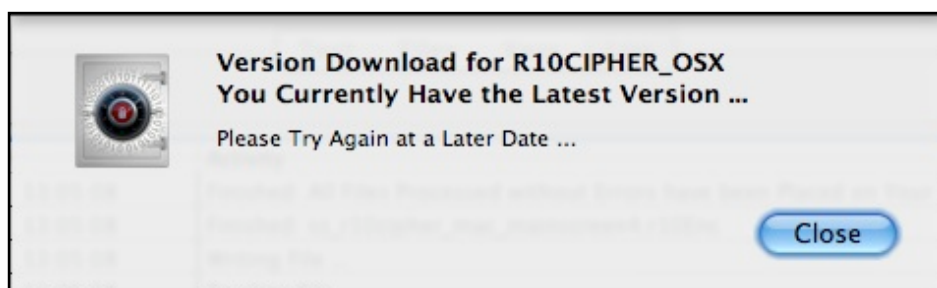


### About R10Cipher

This option displays the About window as detailed previously.

### Preferences

This option displays the Preferences window as detailed previously.

### File - Open Encrypted Text File

This option prompts you for the location of an Encrypted Text File to Open.

### File - Save Encrypted Text File

This option prompts you for the location to Save an Encrypted Text File.

### File - Speak Clear Text

This option Speaks the Clear Text.

### File - Print Clear Text

This option Prints the Clear Text.

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## Send - Send Cipher Text to Email

This option opens an email for you which contains the current Cipher Text.

## Send - Send Cipher Text to Clipboard

This option copies the current Cipher Text to the Clipboard.

## Encryption - Decrypt the Cipher Text

This option Decrypts the current Cipher Text.

## Encryption - Decrypt a File

This option prompts you for an Encrypted File which it then Decrypts and saves.

## Key Management - Open or Create a Key Database

This option allows you to open or create a new Key Database.  Once created this key database is used automatically unless you use this option to select (or create) a different Key Database.

## Key Management - Key Creation and Administration

This option allows you to import, edit and maintain your Key Database.

## Key Management - Refresh Key Management Tab

This option refreshes the Key Management Tab to reflect changes made within the Key Creation and Administration window.

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# Toolbar Buttons
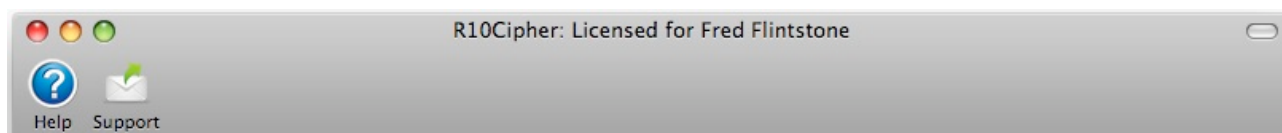


## Help

This button opens the Help window, discussed previously.

## Support

This button opens an email message addressed to Arten Science that contains version information regarding R10Cipher.  You can fill in your Support request in the Email body.

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# Usage Scenarios and Examples

### Example 1: One to One Private Communications

Bill and Ted want to discuss plans for their next Excellent Adventure.  Knowing that their email can be easily read they decide on a Shared Secret 'Bill+Ted=Wyld".  They type their discussions into R10Cipher and save the encrypted text as a file which they attach to their emails.  They are now secure in the knowledge that no-one can foil their plans.

### Example 2: One to Many Private Communications

Bill and Ted decide they want to involve the Historical Babes in some of their plans, but not all.  The four of them agree a Shared Secret and now Bill and Ted can communicate between themselves using their own Shared Secret and if they wish to include the Historical Babes they use the second Shared Secret agreed between the four of them.

### Example 3: One to Many Private Communications over a Public Medium

Frodo is setting off on his next adventure and as is the fashion nowadays he wants to update the world with his travels via an online blog.  With his new Macbook Air this will work great but there is some information he wishes only to be read by Merry and Pippin who are holding the fort for him back in Hobbiton.

Before he sets off the three of them agree on a Shared Secret and as Frodo updates the world via his blog he uses R10Cipher to append an encrypted entry on the end, knowing that the world can see but not read or understand his instructions, which are only for the eyes of Merry and Pippin.

### Example 4: The benefits of Cross Platform

Unfortunately, small and sexy though it is, the Macbook Air is just a little bit too big (and lets face it - expensive - to take across Middle Earth, what with the Orcs and all.  At the last minute Frodo switches to a Dell Mini 9 running Linux which came free with his mobile broadband card.  Luckily R10Cipher works as well on Linux as it does on the Mac or Windows, so Frodo has no need to change his plans, or his software.

### Example 5: R10Cipher Not Just for Men

While Frodo is off on his travels his wife, feeling lonely, takes a lover.  Knowing that the local Hobbiton ISP takes quite an interest in the emails to and from the villagers, they both use R10Cipher to arrange their rendezvous.  Even hobbits need loving, besides it was rather selfish of Frodo to disappear like that for months at a time - and who knows what he got up to with Sam on that first journey ?

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# Trial Version Limitations

The Trial Version of R10Cipher is limited to encrypting text not exceeding 140 characters. The decryption routine is not restricted at all.

In addition, on the Mac, a semi-transparent overlay is displayed in the centre of the monitor stating 'R10Cipher Trial Version'.
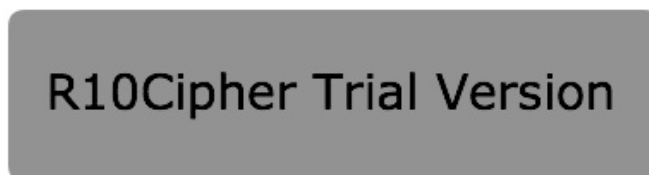


On Windows and Linux a window is displayed with the same information shown.

At program startup you will also see the following window, which can be dismissed either by pressing the Purchase or Not Yet buttons.
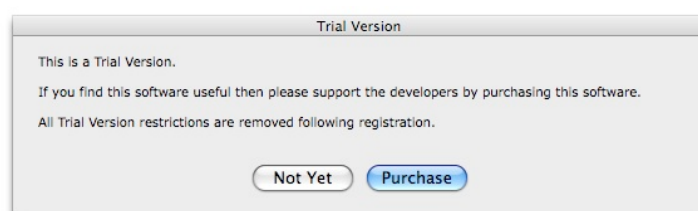


When batch encrypting files you will see the following message before each encryption:
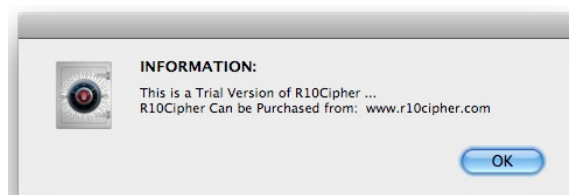


When files are decrypted you see a window that reminds you that the Trial Version was used to encrypt them:
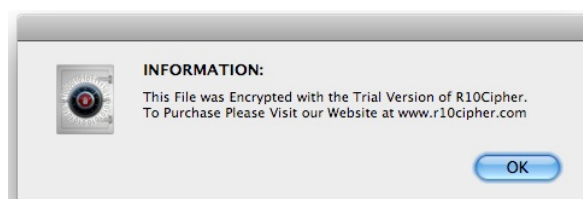


If you have any questions or need any support please do not hesitate to contact us at r10cipher@artenscience.co.uk

*Note: A full, not restricted, Trial Version which works for 30 Days only is available on request from Arten Science.*

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# Using the Trial Version for Decrypt Only

R10Decrypt is no longer available as a free 'Decrypt Only' tool for R10Cipher.    Instead we have the following, easily maintainable solution:

The Trial version of R10Cipher can be used for Decryption Only purposes without the annoying Nag Screen and Screen Overlay / Trial Version Window.

To enable this mode of operation open the Preferences Window and enter the User Name as:

**Decrypt Only**

Leave the Serial blank.


Alternatively, when you first startup R10Cipher you get the following window:



If you select the 'Decrypt Only' button then the software is licensed for Decrypt Only and the Trial Version and Nag windows will not appear.


***For one way encrypted communications this means that the recipient does not have to purchase a copy of R10Cipher.***

# Version History

| | | |
|---|---|---|
| **1.0.0** | **11/2008** | **Version 1 - Text Encryption** |
| 1.0.1 | | Copy to Email button |
| 1.0.1 | | Copy to Clipboard Button |
| 1.0.1 | | Show 'Shared Secret' Checkbox |
| 1.0.1 | | Revised Icons |
| 1.0.1 | | Interface tweaks for Linux |
| **2.0.0** | **01/2009** | **Version 2 -  File Encryption** |
| 2.0.0 | | Feedback List to show progress |
| 2.0.0 | | Encryption / Decryption of Binary Files |
| 2.0.0 | | Double Click to Decrypt |
| 2.0.0 | | Zero Effort Corporate Licensing |
| 2.0.0 | | Drag and Drop File Encryption |
| 2.0.0 | | Tweaks for Windows 7 Compatibility |
| 2.0.1 | | Support for the PCD Initiative |
| 2.0.3 | | Menu Option 'Visit Our Website' > New Site |
| 2.0.3 | | Removed Toolbar Separators |
| 2.0.3 | | Support Button Added |
| 2.1.1 | | Button added to clear Batch List |
| 2.2.1 | | Support for Swedish Character Set |
| 2.3.0 | | Supports up to 384 Bit Character Set |
| 2.3.0 | | Shows Key Strength / Security Rating |
| 2.3.0 | | Tooltips for All Controls |
| 2.3.2 | | New Icon |
| 2.4.0 | | Trial Version - Free Decrypt Only License |
| **3.0.0** | **08/2009** | **Version 3 - Key Management** |
| 3.0.0 | | Secure / Encrypted Key Management |
| 3.0.0 | | Faster / Slicker Interface |
| 3.0.0 | | New Manual and Help System |
| 3.0.0 | | Tooltips |
| **3.0.1** | **08/2009** | Shortcut Key +E to Open Encrypted Text File |
| 3.0.2 | 08/2009 | Clear button added to Main Window |
| 3.0.2 | | Show button removed |
| **3.1.0** | **09/2009** | Maintenance Updates |
| 3.1.3 | 10/2009 | Update to Auto-Update Functionality |
| **3.2.0** | **10/2009** | Easy Decrypt Only Licensing |
| **3.2.6** | **11/2009** | Maintenance Release |
| 3.2.8 | | Maintenance Release |
| **3.4.0** | **01/2010** | R10Office Integration |

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# Addendum 1: Associating r10Enc on Macintosh OSX

To open a particular program on OSX when a particular file type is clicked it is sometimes necessary to first associate that file with the program you would like to automatically open.  This is done as follow:

Right Click the Encrypted File.  It will be named *Name.*r10Enc.

From the Menu select 'Open With' and from the cascading menu select 'Other...'.

You will see this dialog:
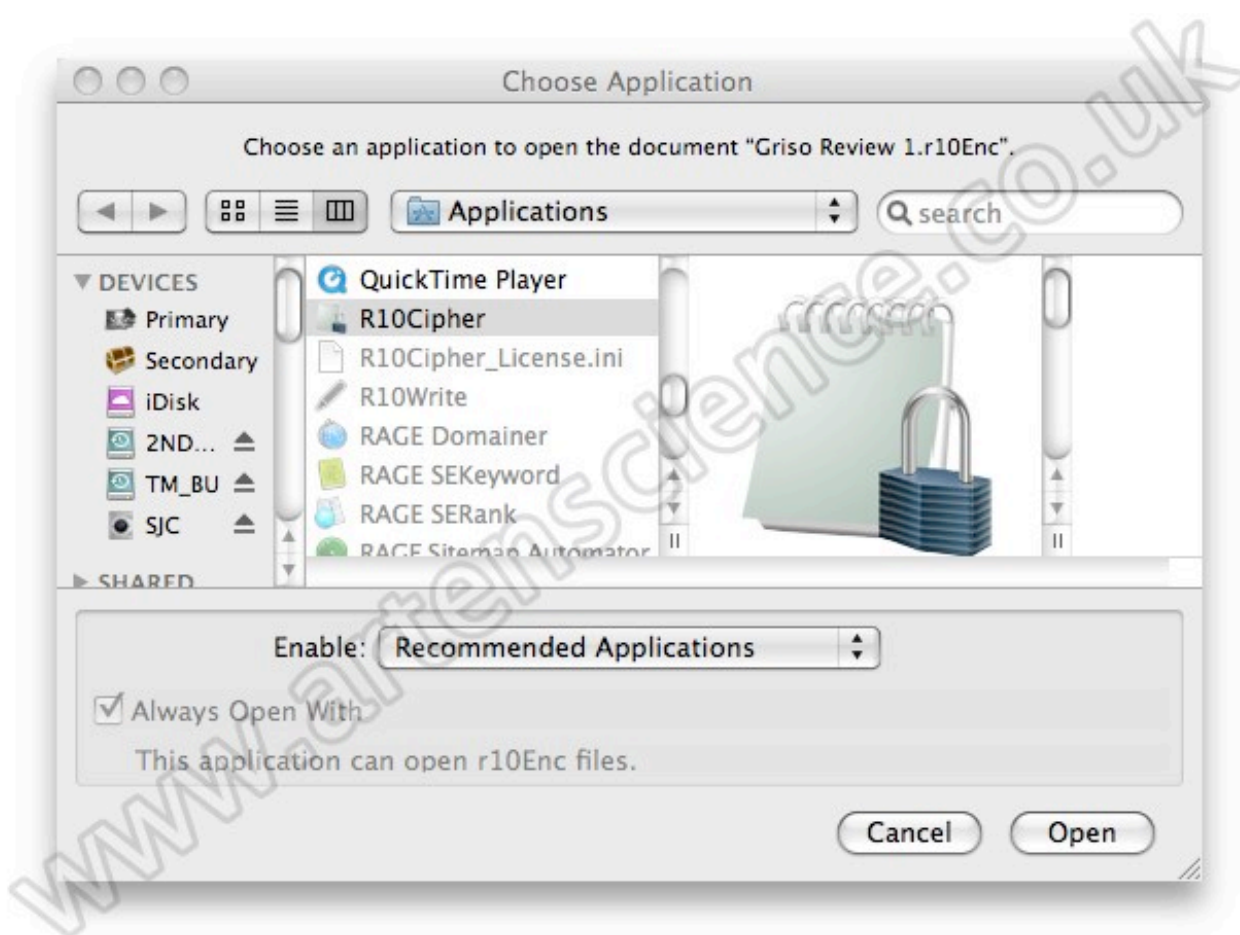


Select the R10Cipher application by finding it in the list, highlight it and tick the checkbox 'Always Open With'.  Then press the Open button.

From now on a Double Click on an r10Enc file will open R10Cipher automatically.

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# Addendum 2: Associating r10Enc on Windows XP

To open a particular program on Windows XP when a particular file type is clicked it is sometimes necessary to first associate that file with the program you would like to automatically open.  This is done as follow:

Right Click the Encrypted File.  It will be named *Name*.r10Enc.

From the Menu select 'Open With ...' and from the window that opens tick the following checkbox and press the Browse button:
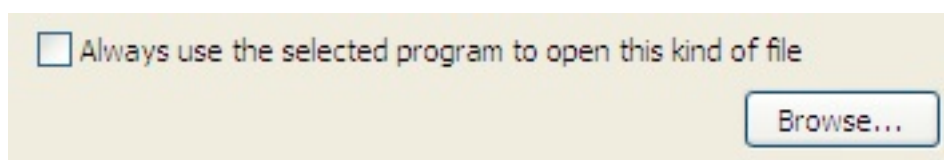


You will see this dialog:



Navigate to the location of R10Cipher, highlight it and press the Open button.

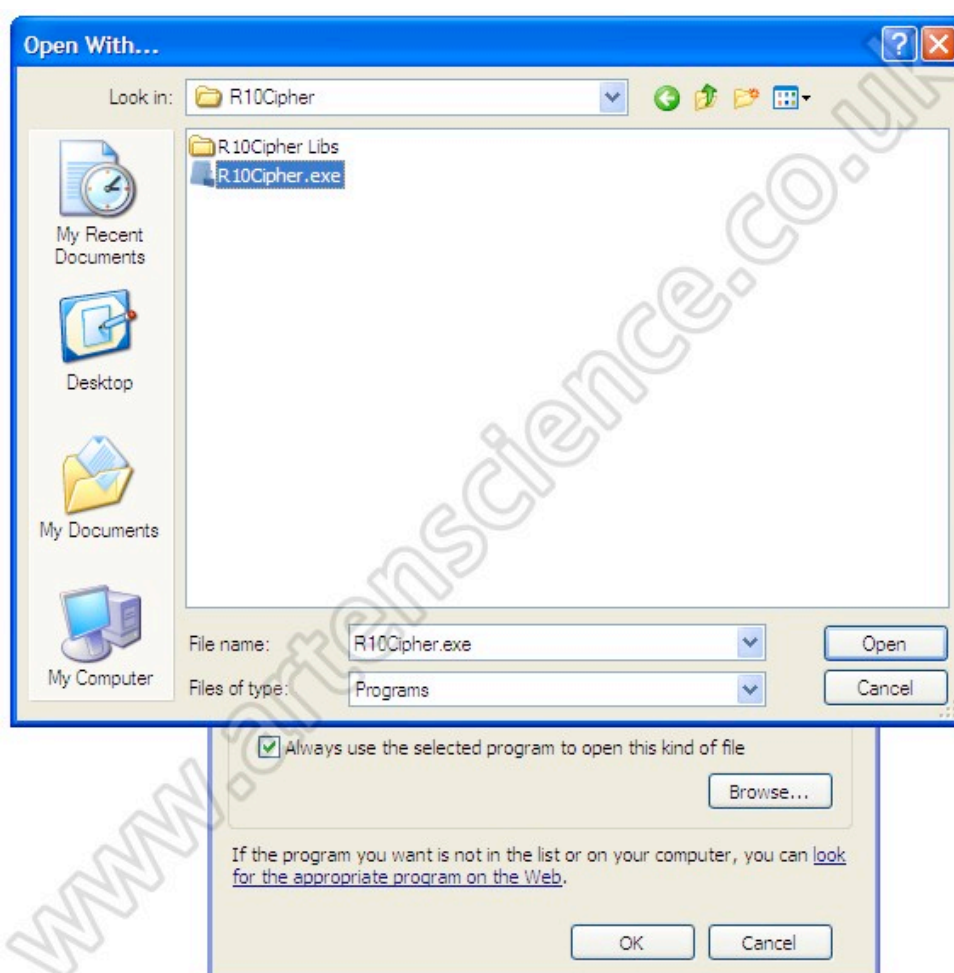From now on a Double Click on an r10Enc file will open R10Cipher automatically.

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# Addendum 3: General Guide to Encryption

Encryption is the process of taking readable text and turning it into unreadable text.  This is done using an algorithm called a Cipher.  To perform the reverse, ie: turn the unreadable text back into readable text it is necessary to know the 'key' or 'shared secret' that was used to perform the encryption.

The secret to successfully protecting your information is down to how well the key is kept secret and also the complexity of the key.  A key made up of a word or name or similar is easier to find through the process of a 'brute force attack' which basically involves the attempt to find your key using software to automatically try every word in various dictionaries, at a speed of potentially thousands of words per minute.

Encryption allows you to communicate 'in the open' without fear of your information being made available to a third party.


The Enigma Machine.
An encryption device used by the Germans from 1920 until the end of World War II.

Cracking this Cipher, largely due to the work of the men and women, all of them heroes, at Bletchley Park, helped the allies win World War II.



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# Addendum 4: Blowfish Encryption

Blowfish is a keyed symmetric block cipher which was invented by Bruce Schneier in 1993. It provides excellent encryption and is will continue to do so for the foreseeable future. Blowfish is free of patents, and back doors, and Bruce has placed Blowfish in the public domain.

The strength of Blowfish, as with all keyed ciphers, is down to the length of the key, or shared secret, a key length of 16 characters provides 128 bit encryption.

Blowfish was originally designed as a replacement for DES or IDEA, two aging encryption standards. It's success has been due to the fact that it has been proven strong and the algorithm is available for use without restriction.

More information on Blowfish:

http://www.schneier.com/paper-blowfish-fse.html

More Information on Bruce Schneier

http://www.schneier.com/

General Computer Security Information

http://www.grc.com/securitynow.htm

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# Addendum 5: Frequently Asked Questions

Q:      How do I get support ?
A:      Please email support@artenscience.co.uk

Q:      Do you do corporate or site licensing ?
A:      Yes, a site license is available.

Q:      Do you do educational licensing ?
A:      Yes, please contact licensing@artenscience.co.uk

Q:      How do I purchase ?
A:      Via Paypal, at this address:  http://www.r10cipher.com

Q:      Do you do other products ?
A:      Yes, http://www.artenscience.co.uk

Q:      Are trial versions available ?
A:      All our products can be downloaded and used before purchase

Q:      Do you offer a money back guarantee ?
A:      Yes, 30 days.

Q:      Do you offer telephone support ?
A:      No, not currently.  This may change in the future however.

Q:      How do I register ?
A:      Open the program preferences and input your name and serial number.

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# Addendum 6: Arten Science and R10Cipher

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Arten Science was setup in the UK in 2007 to design, develop and market quality commercial software for the Apple Mac OSX (Universal Binary), Windows XP / Vista and Linux with GTK+ 2.x.

**We also provide Bespoke Software Development and Technology, Database and Security Consultancy services.**

In addition to creating new solutions for our customers, all of our commercial products can be tailored, modified and enhanced to suit your specific requirements.

Arten Science can help you to use software to solve business problems and create business opportunities.

R10Cipher was written using REALbasic 2008.

http://www.realsoftware.com/

The author is Steven Cholerton.

http://www.lonelyhacker.net

Additional functionality was added by the use of plugins from MonkeyBread Software.

http://www.monkeybreadsoftware.de/

The icons were supplied by DryIcons.

http://dryicons.com/

Coffee supplied by Caffitaly.

http://www.caffitaly.com/en/offerta-aromi-caffe.asp

This manual was written on a 8 Core MacPro using Pages.

http://www.apple.com/iwork/

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# Addendum 7: End User License Agreement

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# Addendum 8: For PCD Associates

<u>PCD Program</u>

Information on the PCD Program can be viewed here:

http://www.protectclientdata.com

<u>Your License Key</u>

As a PCD Associate you will have already completed the online registration and paid your fee to Arten Science.

In return you will have been sent your R10Cipher License Key File.   This is a simple text file and when opened the contents look something like this:

<pUserName>Bilbo Associates and Clients</pUserName>
<pSerial>YTGFGuiu78JHF8==</pSerial>
<pPCDAssociate>Bilbo Associates LLP</pPCDAssociate>

<u>Software Download and Installation</u>

You now need to download the R10Cipher software.  R10Cipher can be downloaded from here:

Windows
http://www.artenscience.com/autoupdate/latestversions/r10cipher_win.zip

MacOSX
http://www.artenscience.com/autoupdate/latestversions/r10cipher_osx.zip

Linux
http://www.artenscience.com/autoupdate/latestversions/r10cipher_lin.zip

To install R10Cipher, download the required file for your Operating System, double click to extract the file (this may be done automatically depending on your Operating System) and copy the file to somewhere convenient on your hard disk.

**Installation is now complete.**

To license R10Cipher, copy your License Key File (R10Cipher_License.ini) into the same folder as the R10Cipher program.

**Licensing is now complete.**

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# Addendum 9: For Clients of PCD Associates

PCD Program

Information on the PCD Program can be viewed here:

http://www.protectclientdata.com

If you have not already done so you need to register as a PCD Client at the website shown above.  Navigate to the 'PCD Client' tab from the menu.

Your License Key

Your PCD Associate will send you your license key for R10Cipher.

Software Download and Installation

You now need to download the R10Cipher software.  R10Cipher can be downloaded from here:

Windows
http://www.artenscience.com/autoupdate/latestversions/r10cipher_win.zip

MacOSX
http://www.artenscience.com/autoupdate/latestversions/r10cipher_osx.zip

Linux
http://www.artenscience.com/autoupdate/latestversions/r10cipher_lin.zip

To install R10Cipher, download the required file for your Operating System, double click to extract the file (this may be done automatically depending on your Operating System) and copy the file to somewhere convenient on your hard disk.

**Installation is now complete.**

To license R10Cipher, copy your License Key File (R10Cipher_License.ini) into the same folder as the R10Cipher program.

**Licensing is now complete.**

*You and your PCD Associate have now taken the first steps towards keeping your private information, private.*

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