Title: Why R10Cipher ?
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Introduction

This document discusses why you should use R10Cipher to ensure your communications are kept private and confidential.

In this document there is very little discussion of the technology. There is a very good reason for this.

Technology is the easy part of security, the real issue that needs addressing is how to make the technology easy and simple enough so that it is used.

Security and encryption are as much about people and processes as technology. What good is security technology if people cannot or will not use it.

R10Cipher was designed from the ground up to be useable by ordinary people. The design for versions 2 and 3 was based almost totally on feedback from existing and potential future customers.

Overview

R10Cipher is a simple and easy way to safely encrypt your email, text and document files. It is like your documents and email are escorted by a SWAT Team rather than written on a postcard.

R10Cipher offers secure, peer to peer end to end encryption using up to 384 Bit Blowfish encryption.

The encryption technology used by R10Cipher was developed in the UK. Blowfish is a keyed symmetric block cipher which was invented by 'Security Guru' and renowned author, Bruce Schneier, Chief Security Technical Officer at British Telecom, in 1993. It provides excellent encryption and 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.

Blowfish was chosen over AES for R10Cipher due to the fact that rightly or wrongly there is some suspicion in certain circles, specifically in the USA, that AES is compromised and that their government may have a back-door into AES. The reality of that point of view is irrelevant as it's the beliefs of the potential customer that matters.

Note: Screenshots in this document are taken from the latest versions of the operating systems for Mac OSX (Snow Leopard) and Windows (7).

Text and Document Security

It seems that despite the publicity given to security, encryption and identity theft, very few people actually take these threats seriously. Our own government and Civil Service have time and time again been caught out and been exposed as not taking security, our security, even *national security*, seriously.

This is, I sincerely hope, down to individuals being confused about or choosing to ignore security policies and not down to the fact that these organisations don't have any security policies in place.

The reason, I believe, that security is often ignored is because it is perceived as too complicated for the average person. In a lot of cases it is. Security and Encryption are, and need to be, Complex - but Not Complicated.

If an encryption product could be copied onto your computer, whether it be running Windows, Mac or Linux, if this product could be run from a USB drive or a CD-ROM, if this product was only 32Mb in size and was fast and easy to use requiring no installation, or runtimes, would people be more comfortable using it ?

If you could communicate using this encryption product and the recipient if not already possessing the product, could download it in seconds and use it to decrypt the message without any payment or registration, would people use it ?

If you could encrypt a bunch of files just by dragging and dropping them into R10Cipher, could it be any easier ?

If an individual receiving an encrypted document could double click the encrypted document, enter their Shared Secret and have the encrypted document be decrypted and automatically saved to their Desktop under it's original file name, isn't that easy and straightforward enough ?

An American school teacher recently purchased R10Cipher and now uses it to send messages to the parents of her students. As the 'decrypt only' version of R10Cipher is free of charge, this was done at no cost to the parents and only $15 to the teacher. Price along with flexible and fair licensing are additional ways in which R10Cipher triumphs over it's competitors.

R10Cipher can do all the above, and more.

Email Security

Some encryption solutions available are in my opinion potentially dangerous, as they give the illusion of security while in the real world being subject to being compromised all too easily. There are a number of common ‘server based’ or ‘black box’ type email encryption systems. These systems encrypt the email whilst in transit.

This is fine as far as it goes, however what about if the email gets sent to the wrong person accidentally ? or if it then gets forwarded accidentally by the recipient ? What about if the recipient’s computer is insecure and her email inbox is reviewed by someone when she is out of the office ?

In my opinion for an email to be considered secure it should be encrypted in such a way that the only people who can view the contents are the sender and the *intended* recipient(s).

R10Cipher is the obvious choice.

Communicating Securely In Public

Another area in which R10Cipher can be used successfully is when communication needs to be made between individuals using technologies that are publicly readable. An example would be a blog being written by a world traveller in which he updates his audience daily as to his location and his adventures.

Tagged on the end of a blog post could be an encrypted message that can be decoded only by his wife in which he tells her how much he misses her and can she send him some toilet roll as this item appears to be in short supply in Outer Mongolia.

R10Cipher is ideal for this purpose.

Protect Client Data Initiative

The reason I created the Protect Client Data Initiative (www.protectclientdata.co.uk) was because I believe that we can get more people to use encryption by starting with the organisations that deal with the consumers in a professional capacity, Independent Financial Advisors, Accountants, Realtors and other professionals.

If we can convince these organisations to use R10Cipher to encrypt their communication between themselves and their clients then the benefits are felt far and wide.

The PCD Initiative works by selling a personalised copy of R10Cipher to a professional organisation. They then have the right to give this software to all of their clients free of charge, or if they wish they can charge a fee. Communication between this organisation and their clients is then done using R10Cipher to ensure the privacy of the communication.

Using the example of an IFA, the benefits for them are threefold:

1. They are seen to be taking their clients privacy seriously, their competitors may not be
2. Any incidents of identity theft cannot be levelled at the IFA
3. They fulfil the requirements of their governing body for 'treating customers fairly'

In the UK The Data Protection Act 1998 regulates how organisations should handle personal data that relates to a living individual who can be identified.

Organisations processing personal data must do so in accordance with eight core principles.

Principle 7: Technical and organisational measures should be taken to prevent unauthorised and unlawful processing, loss or damage to personal data.

Encryption is not specifically mentioned, but is one of the best ways of complying with Principle 7.

With R10Cipher compliance is easy, simple and inexpensive.

Key Management

One of the problems that I discovered while testing the PCD Initiative was the problem of Key Management. In other words, for security purposes, I as an IFA for example, should use a different Shared Secret for each client but how do I remember each of those and who they belong to ? The answer came with version 3 of R10Cipher and the inbuilt Key Management capability.

R10Cipher Version 3 features an encrypted database of contact names and their email addresses. Stored against each of these individual records is also their Shared Secret. All of this information can be recalled and used by entering a single master password. I need only my master password to communicate securely with any of my contacts, using their own individual Shared Secrets.

There is also the option of setting a secondary password called a 'Usage Password'. This password allows an individual, maybe a member of staff, to send and receive encrypted communications with the client without ever seeing or having the ability to change that clients Shared Secret.

I believe this method of communicating between large groups of people securely has simplicity and security advantages to the Public Key methods available, whether centralised using a Certificate Authority or decentralised 'Web of Trust' PGP type methods.

Another advantage of R10Cipher in this scenario is that you have the control, you are not relying on a third party, or a web service to handle the encryption.

With R10Cipher it is all done locally.

Summary

Data Security and Privacy are an ideal, a holy grail that we as citizens in the 21st century are striving for. What was once considered a right, is now considered difficult and virtually unattainable.

Convenience and Security are generally seen as being divided by a large gap. Veer to the left of that gap and we have greater Convenience, at the expense of Security. Veer to the right and we have greater Security, at the expense of Convenience.

I don't think it has to be that way. R10Cipher is designed to make security of email, text and documents convenient and easy to use without compromising on security.

Additionally I am using the R10Cipher engine in a number of my products to give inbuilt encryption by default, there is no reason that the data stored within your CRM System or your Todo Manager should be stored as clear text, built in encryption in all kinds of products is the way forward.

I am also working with other companies who are using the R10Cipher encryption libraries to build encryption into their own products from the start.

Choosing R10Cipher should not stop you using other complimentary encryption systems. Full disk encryption products such as TrueCrypt add to your overall security and as such work well with R10Cipher. Security is better viewed as a layered approach, there is no silver bullet or one stop shop.

I believe that generally speaking security is looked upon by the man in the street as too complicated and too expensive and as such often gets ignored.

With R10Cipher I hope to change peoples minds and therefore help protect their privacy.

Testimonials

R10Cipher is a fantastic cross platform tool which has given us the peace of mind that our patient sensitive research data can be transmitted electronically in a secure manner on site or with collaborators around the world. The ability to encrypt and attach files to emails or simply encrypt the email text between Apple Macs and Windows PCs without the need for complicated software installations means that our users are happy to use this great bit of software. The developer's proactive approach to their software development requesting and rapidly incorporating users feedback has turned a good encryption tool into and excellent one.
Paul McGrath, Computer Manager, Cancer Research UK Clinical Centre

My Sony USB Microvault is so much easier than lugging my laptop through airport security, yet again. The nightmare of the lost or stolen USB stick is only too real, with the Staff Salary Reviews and the Acquisition Financials modeled in embarrassing detail. I use R10Cipher for Mac as a simple and reliable way of exchanging financial models and private placement memorandums across platforms as well as for secure storage on my USB sticks and portable hard drives. Simple, reliable and easy to use.
Karl Mattingly, Partner, slowCapital

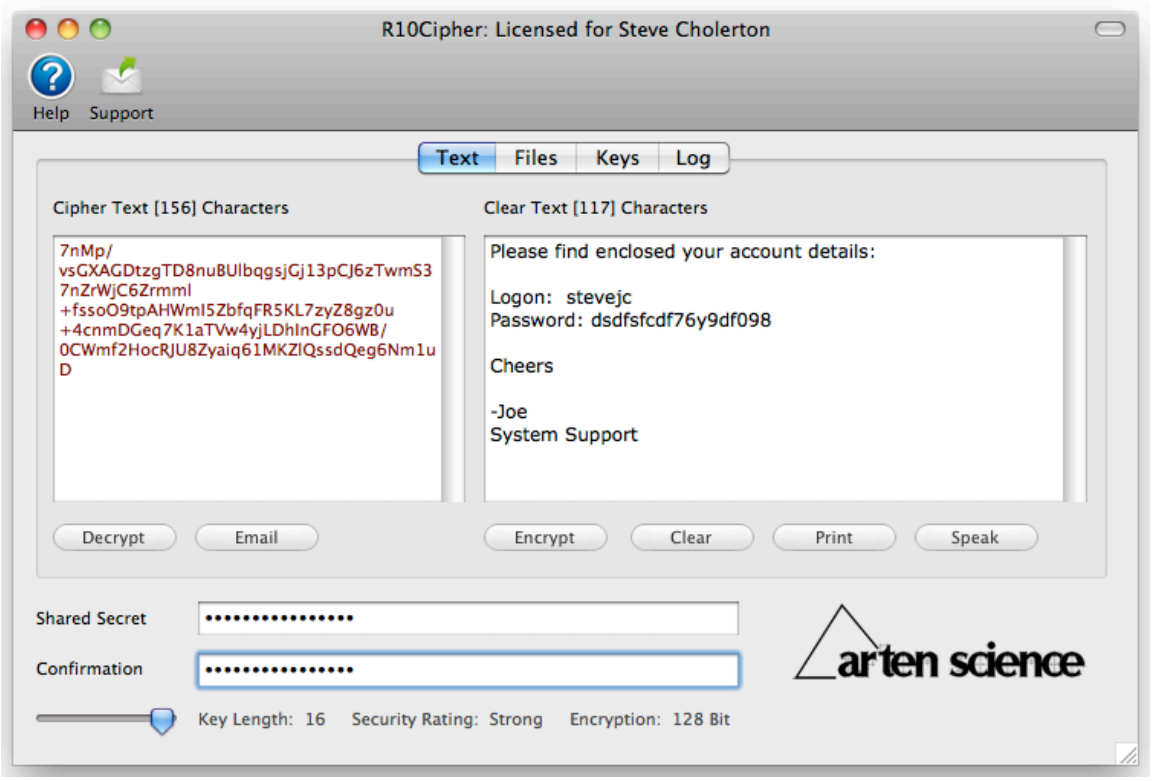
R10Cipher is simple, easy to use and powerful. It is the best encryption program for the Mac we have found.
Paul, OnTravel.Com

R10Cipher has been an excellent product for ensuring the safe and secure transmission of files in a cross platform environment. As an independent Strategy Consultant using Apple Mac, but with a client base using mostly PC platforms, I need to find a way to easily send sensitive market and financial data to clients with no hassle for my clients. R10Cipher does the job simply, easily, and with no problems at all, and causes no difficulties with clients firewalls. Enough said!... great product.
Peter M. Scott

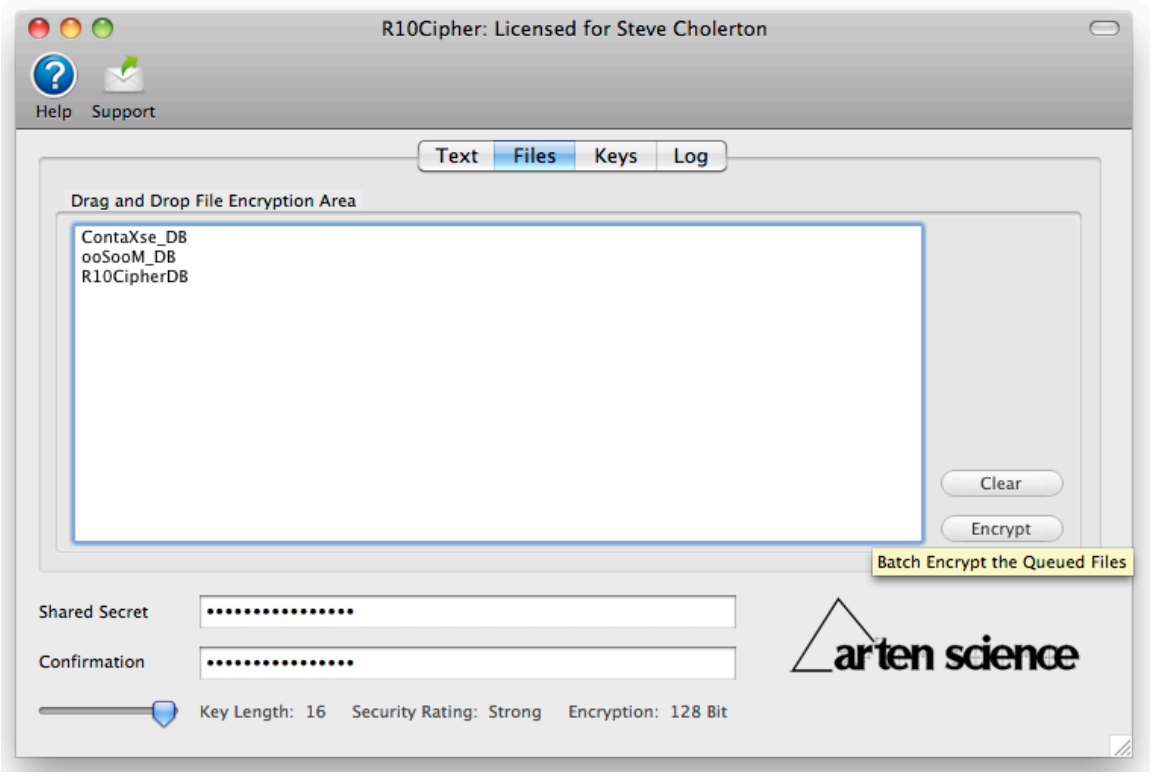
For NetFoos I am lucky enough to travel around the USA and parts of Europe to bring live streaming foosball tournaments to the foosball community. For the live streaming there is a lot of information needed to keep the server running and secure. Now, while on the road with R10Cipher, receiving this information from the home office is much easier as we can simply encrypt and email it while feeling confident that our data remains private. Although we are constantly finding new uses for the software, this one capability has made R10Cipher a great investment for us.
Mark Winker, NetFoos.com

If you need to make company or private info available on a need to know basis, them R10Cipher is the tool for you. There are other encryption packages but I haven't found an easier to use cross platform software than this one.
Paulo Pires

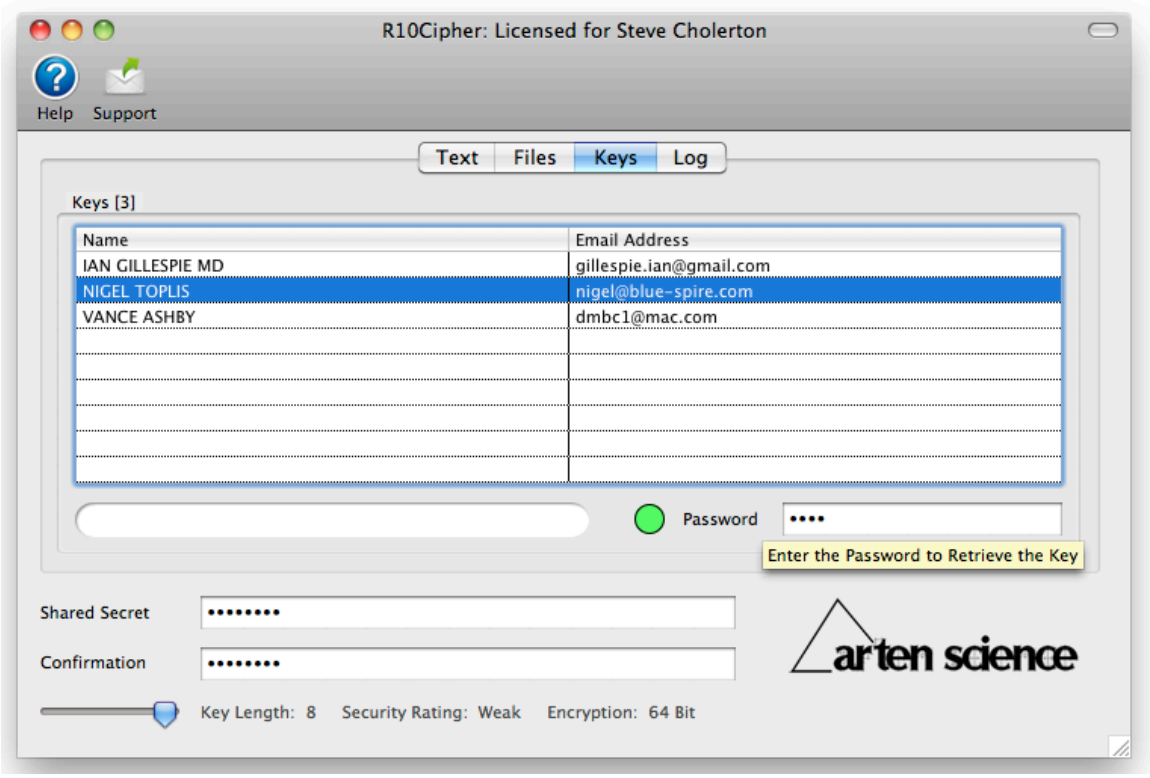
Screenshots



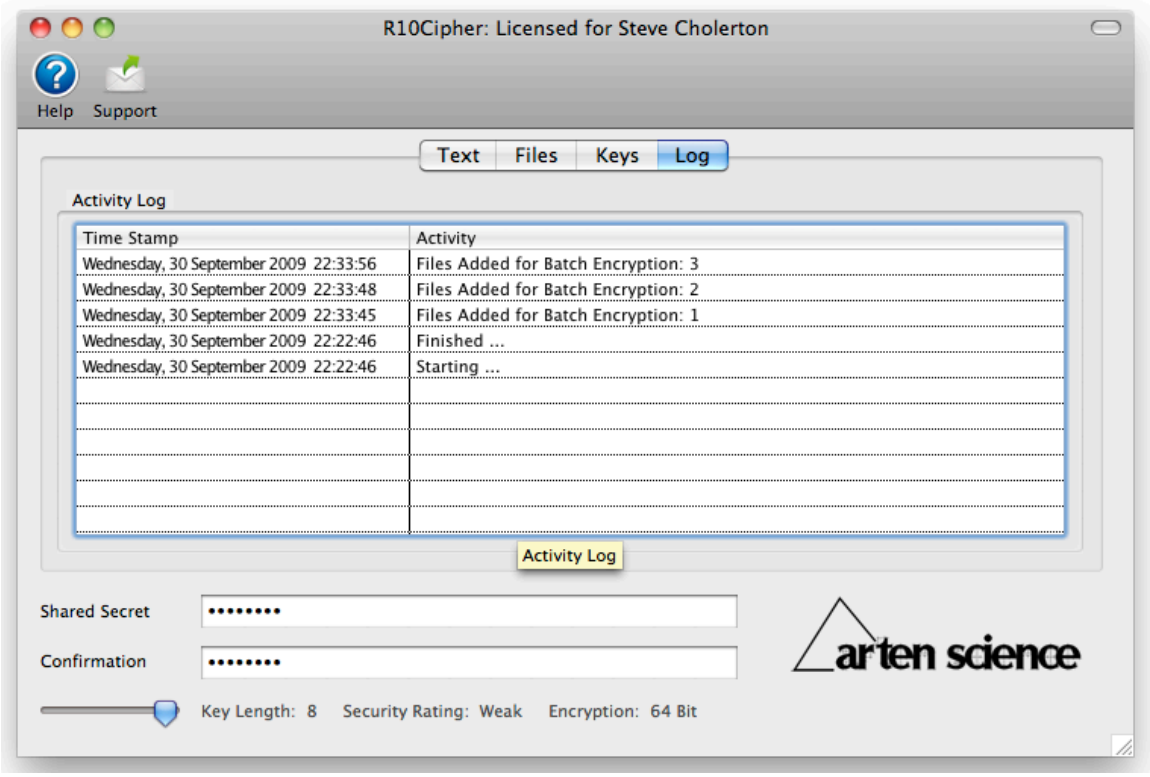
R10Cipher, Mac OSX, Main Window, Text/Email Encryption Tab



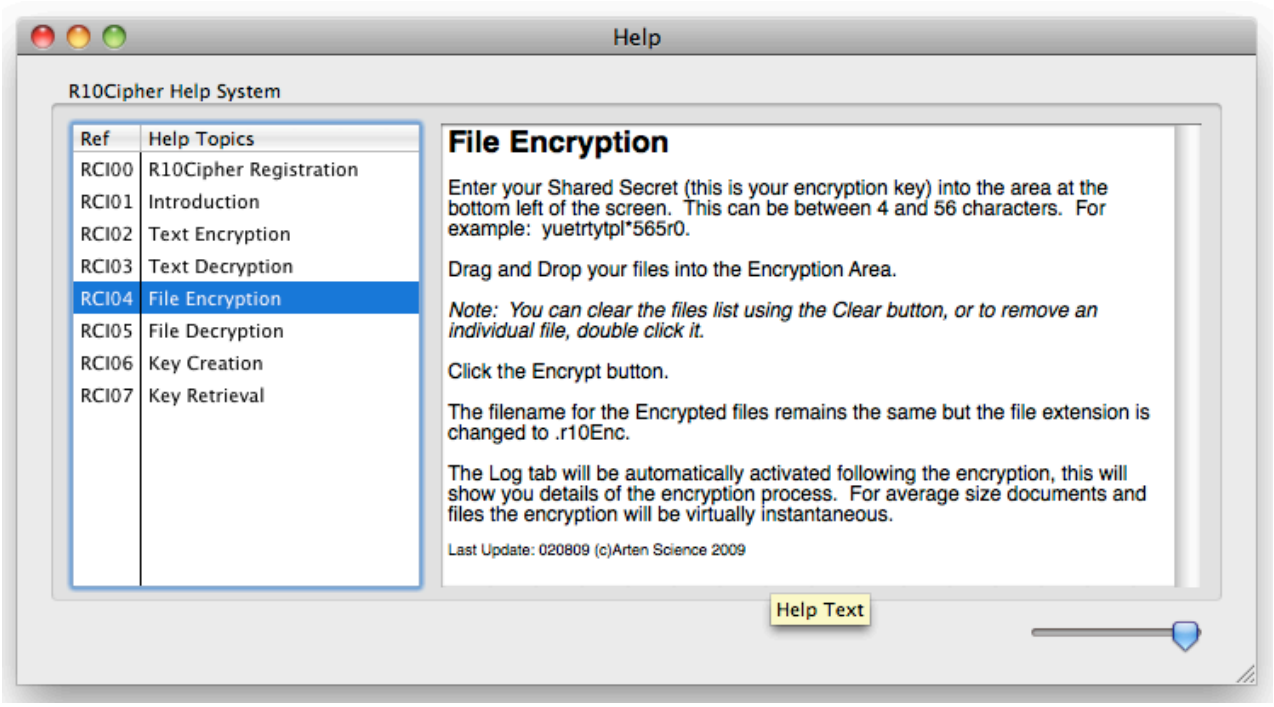
R10Cipher, Mac OSX, Main Window, Batch Files Encryption Tab



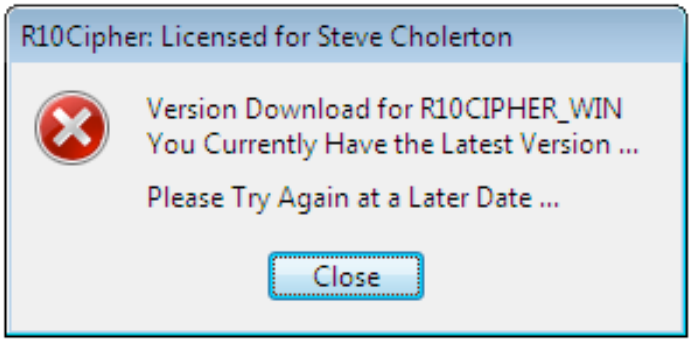
R10Cipher, Mac OSX, Main Window, Key Retrieval Tab



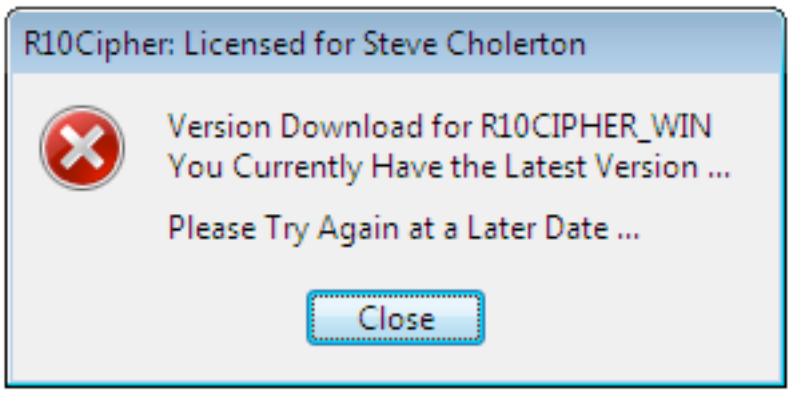
R10Cipher, Mac OSX, Main Window, Activity Tab



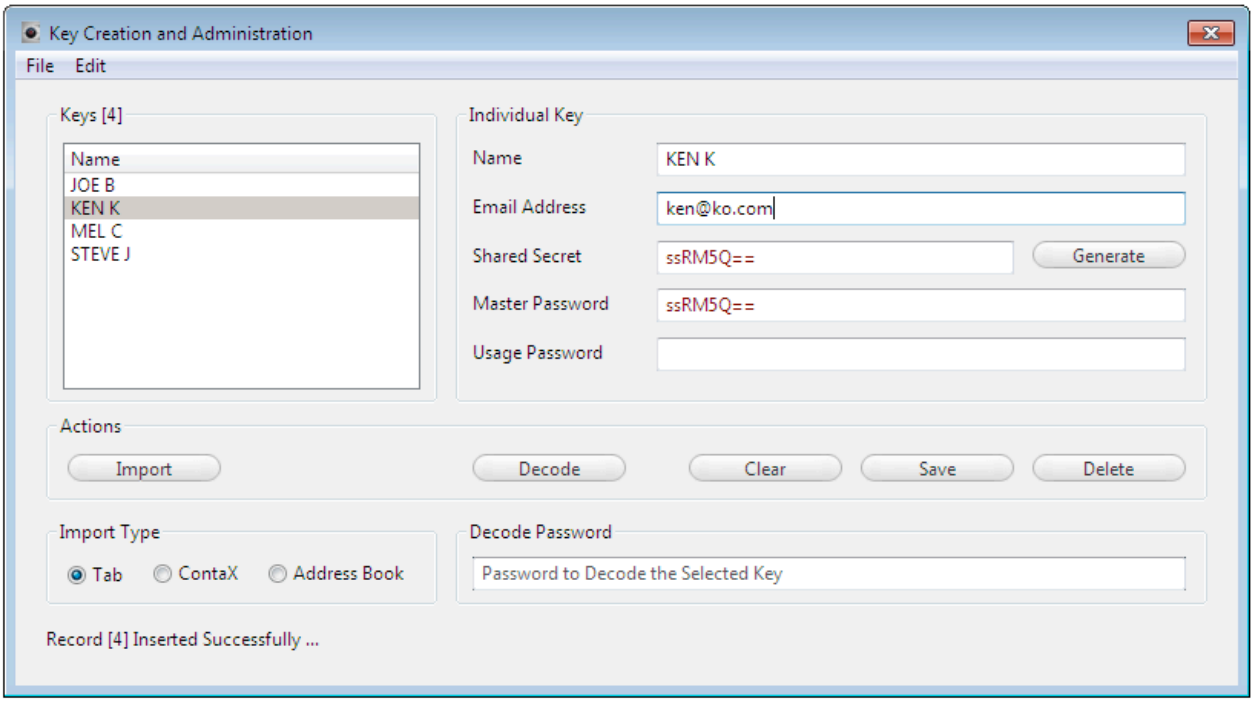
R10Cipher, Mac OSX, Help Window



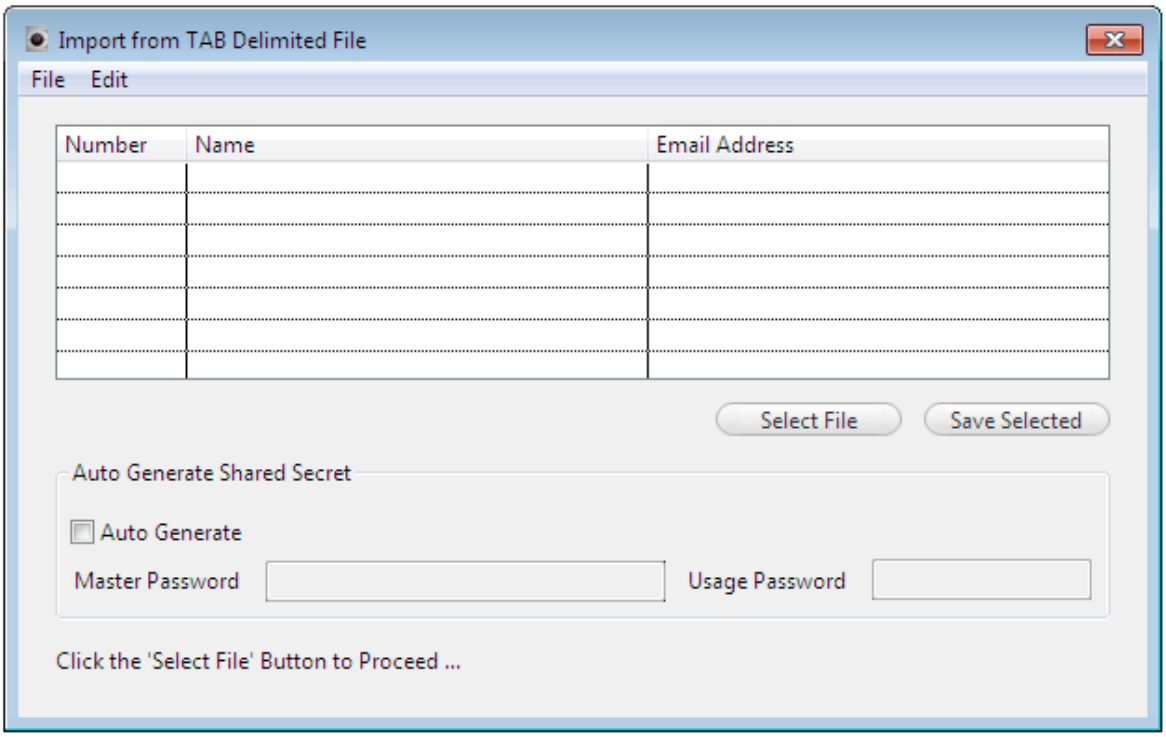
R10Cipher, Mac OSX, About Window



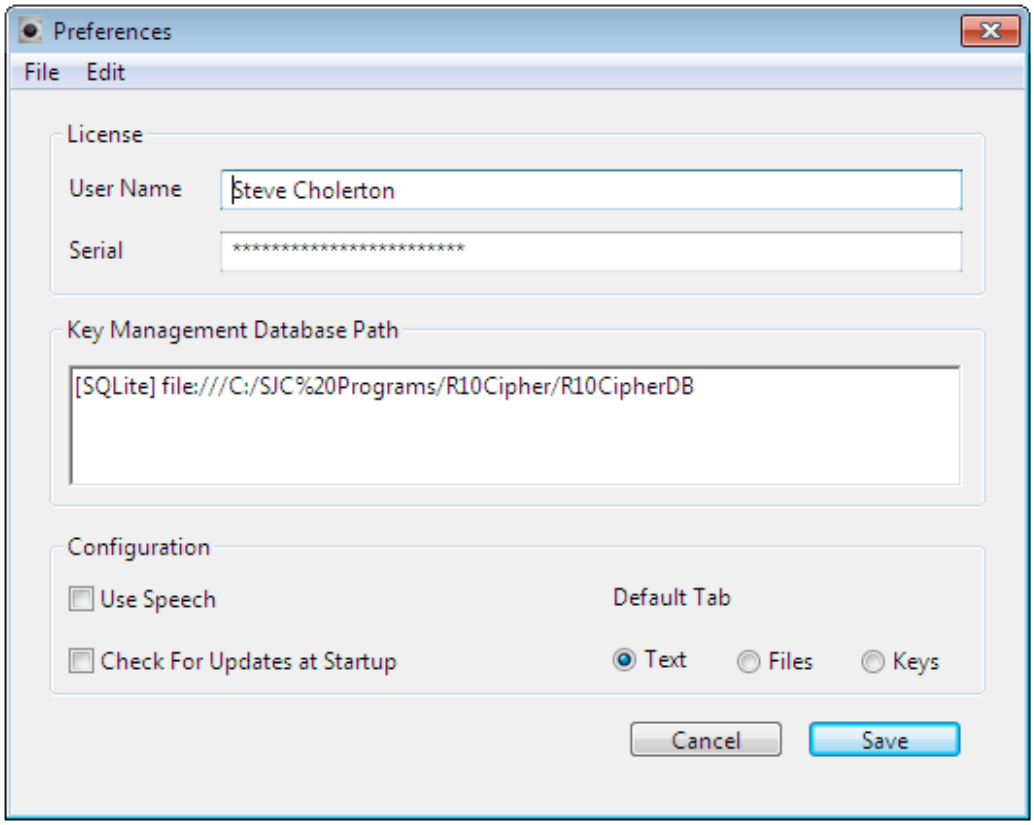
R10Cipher, Windows, Check For Updates Window



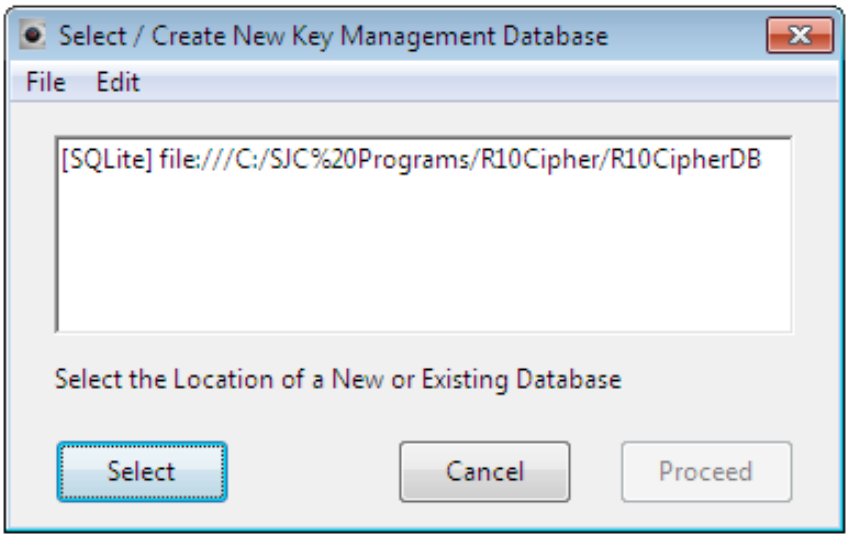
R10Cipher, Windows, Key Administration Window



R10Cipher, Windows, One of Three Import Windows



R10Cipher, Windows, Preferences Window



R10Cipher, Windows, Select / Create Key Database Window