

The new encryption password which you wish to use from now on.

Your existing encryption password.

Select this option if you want the password to be scrubbed from memory immediately after the selected files have been encrypted or decrypted.

Select this option if you want the password to be retained in memory until the PC is shutdown. This option is not available on Windows 95.

Select this option if you want the password to be retained in memory for a specific length of time.

The number of minutes the password will be retained in memory.

Use this button to change the encryption password. Make sure you decrypt all encrypted files before changing the password, as you will not be able to successfully decrypt a file which has been encrypted with the previous password.

Dummy topic.

```
{button More detail...,JI(^NWCOPY.HLP>main','IDH_DUMMY_NOTES')}
```



## Notes

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### DISCLAIMER OF WARRANTY

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Cryptext is a freeware Windows 95 / NT4 shell extension that performs strong file encryption. It uses a combination of SHA and RC4 to encrypt files using a 160-bit key. The current version of Cryptext can be found at [www.pcug.org.au/~njpayne](http://www.pcug.org.au/~njpayne)

Cryptext may be used in any way, for any purpose, at no cost. It may be distributed by any means, provided that the original files as supplied by the author remain intact and that no charge is made other than for reasonable distribution costs. Note that Cryptext contains strong cryptographic routines upon which some countries place distribution and/or use restrictions. Verify that you are allowed to use/distribute Cryptext before doing so.

### To install Cryptext

1. Unzip the contents of CRYPTEXT.ZIP into a directory
2. In Explorer, right-click on CRYPTEXT.INF and select Install from the popup context menu

To install this shell extension on Windows NT you must be logged in as administrator or a user who is a member of the Administrators group. This is because installing a shell extension on NT requires update rights to a part of the registry to which a normal user cannot write.

### To uninstall Cryptext

1. From the Start menu, select Settings, then Control Panel, then Add/Remove Programs
2. If you are running on Windows 95, select the "Cryptext (Windows 95) (Remove only)" entry. If you are running on Windows NT, select the "Cryptext (Windows NT) (Remove only)" entry.
3. Click on the Add/Remove button

To install this shell extension on Windows NT you must be logged in as administrator or a user who is a member of the Administrators group. This is because installing a shell extension on NT requires update rights to a part of the registry to which a normal user cannot write.

### How does it work

1. When you install Cryptext it adds "Encrypt" and "Decrypt" items to the context menu you get when right-clicking on a file or directory in Explorer.
2. When you encrypt or decrypt files, Cryptext takes your password and uses the SHA one-way hash function to generate a 160-bit key from the password. It uses this 160-bit key to encrypt or decrypt the files with the RC4 algorithm.
3. In order to verify your password on second and subsequent executions, Cryptext takes the 160-bit key generated in step 2, adds it to the end of your password, and applies the SHA function to the concatenation of the password and key. The resultant hash is saved so that subsequent passwords can be checked for validity by being put through the same two-step hash and compared with the stored value.

### Running Cryptext

1. In Explorer, select the files and directories to encrypt. Click the right mouse button and select "Encrypt".
2. If you are running on Windows NT 4 then you have the option to retain the encryption password in memory for the duration of your NT session. If you are running on Windows 95 you must enter the password for each encryption or decryption.
3. After the initial execution of Cryptext, you cannot change your encryption password unless you know the existing password. If you forget the password, you have to uninstall and reinstall Cryptext. If you have files you have encrypted and you have forgotten the password then those files are not recoverable.
4. Cryptext allows a password to be up to 255 characters long. As a file encryption password is generally in use for much longer than a login password, you should use more care selecting it. For more information on good password selection, use one of the www search engines to search on the words "password", "selection", and "good".
5. Cryptext assumes that the file system on which it is running supports long filenames. When it encrypts a file it adds the extension ".\$#!" to the filename. This name change will fail if the existing filename already exceeds 252 characters or if the file system does not support long filenames (such as a NetWare server volume which does not have long namespace support loaded). The resulting file is still encrypted but it does not have the extension which Cryptext recognises, and when you decrypt

it you will be queried whether the file is actually encrypted.

6. Password selection. Cryptext allows a password to be up to 255 characters long. As a file encryption password is generally in use for much longer than a login password, you should use more care selecting it. For more information on good password selection, use one of the www search engines to search for web documents containing "password", "selection", and "good".

#### **Information on cryptography**

If you are interested in finding out more about encryption and cryptography:

1. RSA's web site at [www.rsa.com](http://www.rsa.com) has a good cryptography FAQ available both online and as a downloadable PDF file.
2. You can find cryptographic source code at [idea.sec.dsi.unimi.it/pub/security/crypt/code](http://idea.sec.dsi.unimi.it/pub/security/crypt/code) which is where I found the source for both "RC4" and SHA.
3. Bruce Schneider's book "Applied Cryptography" is what got me interested in all this in the first place.

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