# CrypEdit™ Electronic Manual/Help File Copyright 1991... 1995 All Rights Reserved by Paul E. Sorvik



#### **Main Index**

Overview
Customer Support
Operating Requirements
Installation
Online Registration
Order Form

License Transfer Form
Warranty
License Agreement

File Menu Index
Edit Menu Index
Secure Menu Index
UU Encoding Menu Index
Compression Menu Index
Erase Menu Index
Window Menu Index
Help Menu Index

**About File Security and Encryption Application Notes** 

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#### File Menu Index

<u>New</u>

Open Close

Save As Print

Printer Setup Analyze a File

Exit

**Drag and Drop Operations** 

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#### **Return to Main Index**

#### Secure Menu Index

New

Open Encrypted Text

Open Encrypted Text that is UU Encoded

Close

Save Encrypted Text

Save Encrypted Text and then UU (Text Mode) Encode it

Save As Encrypted Text

Decrypt a File

Decrypt an Encrypted File that is UU Encoded

Encrypt a File

Encrypt a File and then UU (Text Mode) Encode it

Analyze an Encrypted File

**Drag and Drop Operations** 

- \* Encrypting any File, the Encrypt a File dialog box \* Decrypting any File, the Decrypt a File dialog box
- \* Passwords
- \* The Riddle or Note
- \* Encryption \* Decryption
- \* DOS and Windows Compatible files



#### Edit Menu Index

Selecting text & Moving about a document

Undo

Cut (Moving Text)

Copy

Paste (Inserting "Moved" Text)

Delete

Select All

Word WrapFind (Search and Replace)

Next (Search and Replace)

Previous (Search and Replace)



## **UU Encoding Menu Index**

\* UU EnCoding and DeCoding a File
UU TEXT MODE EnCode a File
UU DeCode a File
UU BINARY MODE EnCode a File
Split Up UU EnCoded File
Rebuild Split Up UU EnCoded File



## Compression Menu Index

\* File Compression
Maximum Compression
Expand a File
Fast Compression



## Erase Menu Index

Wipe Out a File



## Window Menu Index

Tile Vertically
Tile Horizontally
Cascade Windows
Arrange Icons
Close All
Word Wrap

# CrypEdit™ by Paul E. Sorvik

#### **Return to Main Index**

## Help Menu Index

Contents
Search
Register/Order
Customer Support
Keyboard/Selection/Cursor
Passwords
Using Help
About CrypEdit



## **About File Security and Encryption**

Passwords
The Riddle or Note
Encryption
Decryption
DOS and Windows Compatible files
Networks
Public Data Services and Common Carriers
The Windows Clipboard
About Viruses and Encrypted Files



## **Application Notes:**

#### Windows 95?

- \* Text Editor Limitations, file sizes, and file Input/Output
- \* Filesize and Free Media Space Check
- \* Read Only File Attribute Avoidance
- \* OK and Cancel buttons in dialog boxes

E-Mail systems that won't transfer files

- \* Listing of CrypEdit Versions \* Renaming CrypEdit Executable and Help Files

Possible Problems and Troubleshooting

\* Error/Problem Reports

#### **Overview**

CrypEdit is a menu driven Windows program that provides users with a secure environment to edit, view, and print multiple encrypted or <u>plain text</u> files while also enabling users to <u>UU encode</u> or decode, <u>compress</u> or expand, secure <u>delete</u>, and <u>encrypt</u> or <u>decrypt DOS or Windows compatible</u> files of any size. CrypEdit utilizes pseudo one time pad encryption which requires two different <u>passwords</u> 7 to 20 characters/bytes in length. On-line documentation is provided through a Windows 3.1 compatible help file which is almost an exact copy of the printed manual. Optimized versions of CrypEdit are available for Windows 3.1, and Windows NT.

**ENCRYPTION IS A VERY IMPORTANT SAFETY AND SECURITY TOOL.** You should encrypt any information that you want to remain private, information that has any value, and any information that could be harmful to you or your company if it ended up in the wrong computer. Presume that your computer or data diskette and the software and data within or on it will get stolen or lost someday. What can other people do with the information within the computer or on the diskette? Your phone book, financial information, investment portfolios, the businesse's plan(s), e-mail, modem logon scripts and passwords, source code, your latest novel,... awesome digitized pictures of your significant other(s) would now be in the hands of someone else! In just a matter of minutes that information would be out of your control. It could be copied, sold, and used to drain your financial accounts, charge your credit cards, trade your portfolios, use your business plan(s), read or send your e-mail, log onto the network at work with your access signature and permissions. log onto some OnLine service(s) to use all the really expensive services and charge items from electronic malls to your account, compile your source code, copy your latest novel,... and view the awesome digitized pictures of your significant other(s)! By the time you got home, or back to the hotel room or car, to discover that your computer was stolen your life could be changed significantly. The information age has brought us communications and convenience at light speed, your life can also be changed at light speed, so be smart and encrypt your valuable and sensitive information so that it can't be used or viewed without your control. Encrypting your information with CrypEdit is the security equivalent of locking it in a safe that could survive a direct thermonuclear blast!

The ability to load, edit, view, print, and save any normal or encrypted text editor file ensures that all of the encrypted text files the user wants to be private remain private except to those people who know the two passwords the user used to encrypt those files. Maximum privacy and security is ensured by creating a text editor file with CrypEdit and then always saving it as an encrypted text editor file. This ensures that the text editor file never resided on any storage media unprotected, (not encrypted). Allowing the user to send DOS or Windows compatible text files through "public networks" such as the Internet or "common carriers" and be assured a maximum level of security. Encrypted text editor files can be saved normal, compressed, compressed and UU encoded, or UU encoded by one simple menu command. The secure delete command is included so the user can be sure the file they delete is deleted.

Built in UU encoding utilities will UU encode and decode any file, split up a UU encoded file into as many as 100 parts, and reconstruct a split up UU encoded file so that 8 bit data files can be transferred over systems limited to 7 data bit format as a single file or split-up UU encoded files. Speed and size optimized file compression are provided so the user can compress files to save storage media space or to minimize data transfer time from computer to computer.

The multiple document/window text editor enables users to delete, cut, copy, paste, search for, search and replace (when search is used in combination with paste), and move text (when cut is used in combination with paste); it also supports "word wrap" so that users don't have to type a carriage return at the end of each line, which makes the conversion of text files to, or from, most word processor file formats much easier.

YOUR PRIVACY IN COMMUNICATIONS IS ANOTHER ISSUE. DON'T BE FOOLISH, PROTECT YOUR PRIVACY NOW! The Supreme Court and the government of the United States to this date have made no ruling or legislation to ensure that electronic data, E-Mail, or electronic documents are guaranteed privacy. In fact in France, and many other foreign countries, it is illegal for any private citizen to encrypt their electronic data, the privacy privilege is reserved for someone else! To insure the privacy of your text documents, E-Mail, or data files... Use CrypEdit.

NOTE: some file encryption and decryption programs use only one, or more, password(s) of any non-zero length and return an error value to the calling program or the operating system when the improper password(s) is(are) used. This implies that there must be some whole, part, or derivative of the password within their encrypted file which might allow people to use password generation programs to test, or use every possible password, until the file decrypts; or even worse "secret backdoor options" (secret options within the program that allow those people who know about them to use them) to decrypt a file without even knowing or entering the passwords! I know, I have written and used password generation programs to defeat password protection. The CrypEdit encryption scheme uses two case sensitive passwords of at least seven characters that must be different. It also DOES NOT return any specific value for failing or successful use of passwords or program. There is absolutely no information within the encrypted file that is any whole, part, or derivative of either password (except the encrypted data of course), and there are no "backdoors" or methods to decrypt the file without the original passwords. Additionally, you can save up to 1024 characters of notes, or riddles, with each encrypted file to remind you, or help whomever determine, what the passwords are.

#### **Customer Support**

Customer support is available for each registered user of *CrypEdit* over the telephone, through postal mail, or through E-Mail communications; in any case the communications costs are the customers obligation. Additional consultation services, or customer support above or beyond a reasonable amount, are available at a fee. We reserve the right to terminate any customer support correspondence, any correspondence, conversation, or customer support conversation at any time for any reason. We also reserve the rights to add additional requirements, or charge fees, for customer support at any time, or both. *Please note:* that WE ONLY SUPPORT OUR PRODUCTS and WE DO NOT provide support for DOS, Windows<sup>TM</sup>, any operating systems, user interfaces or shells, or hardware or software products other than our own. We have made every effort to ensure that *CrypEdit* is easy, strait forward to use, and that the paper and on-line documentation will provide the answers to almost any reasonable question.

<u>To receive any customer support</u> using written or electronic correspondence you must include your *CrypEdit* serial number, or if you are calling by telephone you must have your *CrypEdit* serial number available. In either case you must be the registered user for the *CrypEdit* serial number that you provide. Any written or telephone correspondence lacking the above will be ignored and terminated. *Please understand that there are many people out there using an illegal copy of a licensed version.* We do not want our legitimate customers waiting a single second for any correspondence or support because we are *handling* an illegitimate customer.

For telephone support call: (206) 831-5591 within the United States, Pacific Time Zone.

For Electronic Mail, E-Mail, support send to: Genio USA

InterNet: 76675.630@compuserve.com Online: Compuserve: 76675, 630

By *US Mail* write to: Genio USA

Attention: CrypEdit, Customer Support

PO Box 251

North Bend, WA. 98045 USA

Please see, Error and Problem Reports

#### **Operating Requirements**

CrypEdit requires Windows™ 3.1, or Windows™ NT™ depending on the version you are using, or an operating system that offers Windows™ 3.1 running in standard or enhanced mode or 32 bit Windows™ compatible shells. The Windows™ NT™ version will not run under Win32s for Windows 3.1. You will need at least 250,000 bytes, about 300kb, of free media space to install and operate CrypEdit with its on-line help file. During operation CrypEdit needs no more than 3kb, about 2,000 bytes, of free space to do its operations on any pre-existing plain text files. New files created with CrypEdit require at least enough space to store the file and about 3kb more if the file is to be encrypted. Any file encryption or compression operation requires enough free media space to create a backup file plus about 3kb. UU file operations require enough free media space to create a backup file up to 3 times the size of the original file.

All file operations except plain text load and save will check that there is enough free media space to perform the operation, will disable the Read Only attribute of the file to write it, and if not a text editor plain or encrypted text file that is being saved will restore the original time, date, and attributes of the file on completion. When there is not enough free media space to complete an operation the user will be warned. If there is any recoverable error in an operation the program will attempt to restore the original file from the backup file. The user is also warned whenever another file is going to be overwritten. CrypEdit uses/reserves two pre-set file name extensions for backing up files, \*.TCF for temporary compressed files, and \*.BED for encrypted backup files.

**NOTE When using the Windows 3.1 version:** some operating systems that provide Windows 3.1 shells or emulators may save memory contents to disk, (virtual memory or swap file), and may write temporary files during some file operations. **These operations would be totally unknown to the CrypEdit program and would pose a potential security problem.** 

#### Installation

CrypEdit can be operated from either a removable or fixed media storage device, but make sure that you do not use the original program distribution diskette to removable disk using either the DOS copy command or the Windows File Manager. It is suggested to copy all of the files on the program distribution diskette to directory that Windows is installed in.

#### Examples:

To use the DOS copy command to copy the program distribution diskette files on a diskette in the A: drive to the "C:\Windows" directory use the command line argument, c:\..\>copy a:\\*.\* c:\windows\\*.\*

To use the Windows File Manager drag and drop operation: open one file manager window for the disk that your Windows directory is on and another file manager window for the disk that your program distribution files are on. Now hold down the Control key while clicking the mouse button on the CrypEdit.Exe file within the distribution diskette's window; this should highlight/select all of the files in that window. Now hold the Control key down while clicking on and dragging the highlighted distribution files to the Windows directory window and release the mouse button when you have positioned the files in or on the windows directory. This should copy the distribution files to the Windows directory.

Now you can either use the file manager to display the CrypEdit.Exe program file within one of its windows and then double click on the CrypEdit.Exe program file to execute the program, or add *CrypEdit* to one of your Program Manager Groups. To add *CrypEdit* to one of your Program Manager Groups: first select and enable the Program Manager Group that you want to add *CrypEdit* to. Now use the Program Manager's file menu "New" option, and specify "New Program Item". The *Program Item Properties* dialog box comes up and you can input a description, command line, working directory, and a short cut key. The easiest way to complete this action, assuming you have copied all of the distribution files to the Windows directory, is to click on the BROWSE button, double click on the CrypEdit.Exe file and then click on the OK button. The *CrypEdit* icon should now appear in the enabled Program Manager Group and all you have to do from now on to use the program is double click on that icon!

Similar operations can be performed with either the DOS copy command or the Windows File Manager to copy the program's distribution files to and execute the program from any fixed or removable media. If you are not familiar with the DOS copy command(s) and/or how to operate Windows File or Program Manager consult their operation manuals.

## CrypEdit™ for Windows № 3.1 or Windows NT™ Order Form

You can print this form from the Help Facility, use Alt. F Alt. P Quantity and site licensing discounts are available, please call us!

PO Box 251 North Bend, WA.  Customer Name:	98045 USA		
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Thank you very much for your order.

notice.

## Registering Online via CompuServe

You can order a registered version of CrypEdit online on CompuServe. To register online on CompuServe: sign-on, type GO SWREG, select REGISTER, and then search for CrypEdit as a keyword, (or enter the Registration ID=4332 of CrypEdit version 4.0 for Windows 3.1), enter your name and shipping address... you will be billed directly by CompuServe. You should recieve your registered copy within 10 business days after ordering it on CompuServe. NOTE: we send all of our orders <u>US Postal Service priority mail insured</u>, make sure to give us an address where someone can sign for the package when it arrives, or you will have to pick it up at the post office.

## **CrypEdit** for Windows ™ License Transfer Form

You can print this form from the Help Facility, use Alt. F Alt. P

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By signing, dating, and submitting this form both parties in this license transfer certify that they have met and

agree to all of the terms and provisions of the license, customer support, and warranty agreement.

We thank you for submitting this form.

Mail this completed form to:

Attention: CrypEdit, License Transfer

Genio USA

PO Box 251

#### Warranty

Genio USA's Program(s) License Agreement and Limited Warranty for Program(s)

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Should you have any questions concerning this Agreement, you may contact Genio USA by writing to Genio USA, Licensing & Warranties, P.O. Box 251, North Bend WA. 98045

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## New: Alt. F or Alt. C, Alt. N

Use the *New* option to create a new text editor document window. Remember that you must specify a path and filename with the File Menu's *Save As* or *Save As Encrypted Text* option in order to save this new file. When you create a "New" file it is marked for security reasons as an encrypted text file so when you try to save it as a normal text file or print it you will get security warning messages until it is saved as a normal text file.

## Open: Alt. F, Alt. O

Use the *Open* option to open a <u>plain text</u> file for editing, viewing, or printing. After bringing up the *Open File* dialog box use the cursor to select the path of and the filename to open. After the file has been successfully opened a text editor document window will be created for that file, and the editor will be active in that window.

## Close: Alt. F or Alt. C, Alt. C

Use the *Close* option to close the active text editor document window. If the text editor document is "New" and has not been saved, or it has been changed since you opened it or last saved it, you will be asked if you want to save the file before closing it.

## Save: Alt. F, Alt. S

Use the *Save* option to save a <u>plain text</u> file. This option saves the file to either the original path and filename that the file was opened with or to the most recent path and filename that the file was saved with. If the text editor document was created with the Secure or File Menu's *New* option or the filename and/or path is no longer valid the *Save As* dialog will appear. If the file is new or an encrypted type a security warning message will appear to warn you about saving the file as <u>plain text</u>.

## Save As: Alt. F, Alt. A

Use the *Save As* option to save a "New" or existing <u>plain text</u> file to a new or different path and filename. After choosing this option the *Save As* dialog box will appear. Use the cursor to select the path of the file that you enter into the filename field. If the file is new or an encrypted type a security warning message will appear to warn you about saving the file as <u>plain text</u>.

#### Print: Alt. F, Alt. P

Use the *Print* option to print the currently active text editor document. After you select this option a dialog box will appear so that you can enter the page header for the print job. Then the Print dialog box will appear. If you select the Setup button you can change the selected printer and some of its printing setup. Select the OK button to print the file. If the file is an encrypted type a security warning message will appear to warn you about printing the file and the fact that if you are printing an encrypted text file this will be a security risk.

*NOTE:* printed output is automatically formatted. Each page is printed with the header that you entered and numbered. It is "word wrapped" so the output will print one line, or continue on the next line(s) if that line is longer than a printer line, until a carriage return is encountered. It will then stop printing on that line and continue on the next. All tabs are expanded to every five character spaces. The borders of the printed page will be about 8 lines on the top and bottom as well as 8 blank characters on the left and right margins.

## Printer Setup: Alt. F, Alt. U

Use the *Printer Setup* option to change the currently selected printer and some of its setup options. Select the OK to button finish the procedure.

## Analyze a File: Alt. F, Alt. Z

Use the Analyze a File option to analyze the byte value distribution of any file. This opens the file selected in the File Open dialog box and counts the number of occurrences for each and every 8 bit byte value (which can range from 0 to 255). After this distribution analysis is finished a graph which represents the number of occurrences of each byte value is displayed in the File Analysis dialog box. The tick marks at the bottom of the byte value distribution graph represent the places where byte values of 0, 64, 128, 192, and 255 occur. A text file normally lumps its distribution around the decimal byte values of: 10 (linefeed), 13 (carriage return), 32 (space character), 48 to 57 (numbers 0 through 9), and 65 to 122 (alpha characters A to x). Data files have different distribution patterns which depend on their origin and use. The most common character and how many occurrences of it, as well as the file's data length and calculated average byte value occurrence, (data\_length/256), are also displayed after the analysis is completed. Select the OK button to exit.

## Exit: Alt. F, Alt. X

Use the *Exit* option to Exit *CrypEdit*. If the contents of any of the text editor windows was created or modified since they were last saved *CrypEdit* will ask if you want to save the contents of that text editor window before exiting the program.

## Selecting text and moving about a document

To move through an editor document use either the mouse controls or the keyboard actions listed below:

To move:	Press
One character to the right	$\rightarrow$
One character to the left	$\leftarrow$
To end of a word	CTRL + $\rightarrow$
To start of a word	CTRL + ←
To end of a line	END
To start of a line	HOME
One line down	$\downarrow$
One line up	
One screen down	PAGE DOWN
One screen up	PAGE UP

To select text in an editor document use either the mouse to highlight the text or use the keyboard actions listed below:

To select:	Press
One character to the right	SHIFT + $\rightarrow$
One character to the left	SHIFT + ←
To end of a word	SHIFT + CTRL + $\rightarrow$
To start of a word	SHIFT + CTRL + ←
To end of a line	SHIFT + END
To start of a line	SHIFT + HOME
One line down	SHIFT + ↓
One line up	SHIFT +
One screen down	SHIFT + PAGE DOWN
One screen up	SHIFT + PAGE UP

## Undo: Alt. E, Alt. U

Use the *Undo* option to undo the previous editor action, assuming it was undo-able. Using the Undo option a second time immediately after the first undo operation will undo the undo operation.

## Cut (Moving Text): Alt. E, Alt. T

Use the *Cut* option to copy the highlighted text to the clipboard and delete it. This can be followed by moving the "cut" text to another position by positioning the cursor at the desired point of insertion and using the *Paste* option.

## Copy: Alt. E, Alt. C

Use the *Copy* option to copy the highlighted text to the clipboard.

# Paste (Inserting Moved Text): Alt. E, Alt. P

Use the *Paste* option to copy the current contents of the clipboard, (assuming its current contents are compatible text), to the current cursor position.

Delete: Alt. E, Alt. D

Use the *Delete* option to delete the highlighted text.

# Select All: Alt. E, Alt. S

Use the  $Select\ All\$ option to select all of the text in the current text editor document window.

### Word Wrap: Alt. E or Alt. W, Alt. W

Use the *Word Wrap* option to word wrap all of the text in the current text editor window. Word Wrap will automatically wrap the text at the horizontal ends of the window. This allows you to only type carriage returns, (the Enter key), at the end of each paragraph. Most word processing files are word wrapped by default so this option enables you to import converted files directly from, or export text files directly to, most word processors which automatically wrap the words.

#### Find (Search and Replace): Alt. E, Alt. F

Use the *find* option to search for an occurrence of a word or character string within the current text editor document window. Enter the word or character string to search for in the search field of the *Find* dialog box that appears after you execute this option. Check the case sensitive option if you want the search to be case sensitive, and execute the OK button. Either the next occurrence of the search phrase will be highlighted or a message box will appear telling you that the search phrase was not found. Combined with the Shift+Insert (Paste), or the Edit menu's Paste option, this option functions as a search and replace by pasting over the highlighted word or character string (of course you must copy something to the clipboard before you can paste).

# Next (Search and Replace): Alt. E, Alt. N; or F3

Use the *Next* option to search forward for the next occurrence of the search word or string within the current text editor document window. Combined with the Shift+Insert (Paste), or the Edit menu's Paste option, this option functions as a search and replace.

### Previous (Search and Replace): Alt. E, Alt. V; or F4

Use the *Previous* option to search backwards for the previous occurrence of the search word or string within the current text editor document window. Combined with the Shift+Insert (Paste), or the Edit menu's Paste option, this option functions as a search and replace.

#### Encrypting any File, the Encrypt a File dialog box

#### **Steps in Encrypting a File:**

Select the appropriate menu command, eg. Encrypt a File

The File Open dialog box will then appear, select the file to encrypt

The Encrypt a File dialog box will appear (move around the box with the TAB key) Enter the two passwords along with their confirmation, & the OK button will be enabled

If you want the file to be compressed before encryption select what type Select whether you want the encrypted file to be made Read Only Enter any Notes or Riddles associated with the passwords you entered Click on the OK button

The file will then be encrypted by CrypEdit

All DOS or Windows compatible files and files currently open in the editor can be encrypted. There are several operations that are common whenever you encrypt a text editor or DOS or Windows compatible file. First, you must either have the file open for editing or specify the file to encrypt. Then the *Encrypt a File* dialog box appears. You must enter two <u>passwords</u> of equal length that are not the same, (at least 7 characters long but not longer than 20 characters), and confirm your entry of the two passwords in the boxes immediately below them. Make sure your fingers are where they are supposed to be on the keyboard and that the Caps Lock key is in the right state before you type in the passwords! Then specify whether you want to compress the file by checking the appropriate file compression optimization checkbox (you do not have to check either compression checkbox). You can also specify that the file be made Read Only by checking the "Read Only" checkbox (you do not have to check this checkbox). In the lower part of the dialog box is a small edit box for entering a note or riddle up to 1024 (1kb) characters in length to help whomever remember or figure out the two passwords you entered. Note: to save typing time and reduce redundant operations the note or riddle from the most recent encryption or decryption operation, if any, will be displayed in the riddle edit box; otherwise the riddle or note field will be empty. If one of your passwords does not confirm by dual entry that password's confirmation box will be cleared and the OK button will not be enabled. Also note, that the OK button will not be enabled until all of the conditions for the passwords have been met and the confirmation of both the passwords matches. Select the OK button to finish this procedure. The file will then be encrypted part by part and written to the storage media.

#### Decrypting any File, the Decrypt a File dialog box

#### **Steps in Decrypting a File:**

Select the appropriate menu command, eg. Decrypt a File

The File Open dialog box will then appear, select the file to decrypt

The Decrypt a File dialog box will appear (move around the box with the TAB key)
Enter the two passwords, and the OK button will be enabled
If you want the encrypted file to backed up click on that checkbox
Click on the OK button

The file will then be decrypted by CrypEdit

There are several operations that are common whenever you <u>decrypt</u> a text editor or DOS or Windows compatible file. First, you must specify the file to decrypt, and perhaps edit. Then the **Decrypt a File dialog box** will appear. Enter the two <u>passwords</u> to decrypt the file. You may be able to specify whether or not you want to keep a backup copy of the encrypted file by checking the "Make Backup" checkbox if it is enabled (this checkbox is not enabled when you are decrypting the file into computer memory to edit it). There are three other disabled checkboxes that show you whether or not the file is compressed and how or if the file was made Read Only. A note or riddle will appear in the lower part of this dialog box to help you remember or figure out the passwords if the person who saved the file entered a note or riddle. Below the riddle or note is the status and version information of the encrypted file. If the status is OK don't worry about it; otherwise it will tell you why the status is not OK. The version information is recorded and displayed to insure that CrypEdit can decrypt files that were encrypted with prior versions and to let the user know such information. Select the OK button to finish this procedure. The file will then be decrypted part by part into the computers memory if you are opening the file to edit or onto the storage media if you are not opening the file to edit.

### Open Encrypted Text: Alt. S, Alt. O

Use the *Open Encrypted Text* option to open an <u>encrypted</u> text file for editing, viewing, or printing. After bringing up the *Open File* dialog box use the cursor to select the path of and the filename to open. Then select the OK button. The <u>Decrypt a File dialog box</u> then appears. You must now enter the two <u>passwords</u> to decrypt the file. If the person who saved the file entered a <u>note or riddle</u> it will appear in the lower part of this dialog box to help you remember or figure out the passwords.

### Open Encrypted Text that is UU Encoded: Alt. S, Alt. U

Use the *Open Encrypted Text that is UU Encoded* option to open an <u>encrypted</u> text file that was <u>UU Encoded</u> for editing, viewing, or printing. After bringing up the *Open File* dialog box use the cursor to select the path of and the filename to open. Then select the OK button. This option will then automatically UU decode the file. The <u>Decrypt a File dialog box</u> then appears. You must now enter the two <u>passwords</u> to decrypt the file. If the person who saved the file entered a <u>note or riddle</u> it will appear in the lower part of this dialog box to help you remember or figure out the passwords. *Note: the file that results from the UU decoding is automatically deleted when this option is completed.* 

#### Save Encrypted Text: Alt. S, Alt. S

Use the Save Encrypted Text option to save a text editor document to a <u>DOS or Windows compatible</u> file using <u>encryption</u>. This option saves the file to either the original path and filename that the file was opened with, or to the most recent path and filename that the file was saved with. If the text editor document was created with the File Menu's New option or the filename and/or path is no longer valid the Save As dialog will appear. In either case the <u>Encrypt a File dialog box</u> will appear next. Enter the passwords, confirm the passwords, select the appropriate compression option if you want to compress the file, select Read Only if you want the file to be made read only, enter a riddle or note if you want.

# Save Encrypted Text and then UU (Text Mode) Encode it: *Alt. S, Alt. V*

Use the Save Encrypted Text and then UU (Text Mode) Encode it option to save a text editor document to a DOS or Windows compatiblefile using encryption and then UU Encode (Text Mode) the resulting encrypted file. This option saves the file to either the original path and filename that the file was opened with, or to the most recent path and filename that the file was saved with (except the extension is changed to ".Uet"). If the text editor document was created with the Secure or File Menu's New option or the filename and/or path is no longer valid the Save As dialog will appear. In either case the Encrypt a File dialog box will appear next. Enter the passwords, confirm the passwords, select the appropriate compression option if you want to compress the file, select Read Only if you want the file to be made read only, enter a riddle or note if you want. Following successful encryption of the file it will be UU (Text Mode) encoded. Note: the intermediate file that results from the encryption is automatically deleted when this option is completed and only the UU encoded encrypted file remains.

#### Save As Encrypted Text: Alt. S, Alt. A

Use the Save As Encrypted Text option to save a "New" or existing text editor document to a new or different DOS or Windows compatible file using encryption. After choosing this option the Save As dialog box will appear. Use the cursor to select the path of the filename that you enter into the filename field. If you do not enter a filename extension for the filename ".Ent" will be appended as the extension of the filename. In either case the Encrypt a File dialog box will appear next. Enter the passwords, confirm the passwords, select the appropriate compression option if you want to compress the file, select Read Only if you want the file to be made read only, enter a riddle or note if you want.

#### Decrypt a File: Alt. S, Alt. D

Use the *Decrypt a File* option to <u>decrypt</u>, but not to edit, view, or print any <u>DOS or Windows compatible</u> file of any size to a file of the same path and filename. This menu option operates exactly as the *Open Encrypted Text* menu option but DOES NOT open a text editor document window. After bringing up the *Open File* dialog box use the cursor to select the path of and the filename to decrypt. Then select the OK button. The <u>Decrypt a File dialog box</u> then appears. You must now enter the passwords to decrypt the file, and select whether or not you want to keep a backup copy of the encrypted file. If the person who saved the file entered a <u>note or riddle</u> it will appear in the lower part of this dialog box to help you remember or figure out the passwords.

#### Decrypt an Encrypted File that is UU Encoded: Alt. S, Alt. Y

Use the *Decrypt a File that is UU Encoded* option to <u>UU Decode</u> and <u>decrypt</u>, but not to edit, view, or print any <u>DOS or Windows compatible</u> file of any size to a file of the same path and filename. This menu option operates almost exactly the same as the *Open Encrypted Text that is UU Encoded* menu option but DOES NOT open a text editor document window. After bringing up the *Open File* dialog box use the cursor to select the path of and the filename to open. Then select the OK button. This option will then automatically UU decode the file. The <u>Decrypt a File dialog box</u> then appears. You must now enter the passwords to decrypt the file, and select whether or not you want to keep a backup copy of the encrypted file. If the person who saved the file entered a <u>note or riddle</u> it will appear in the lower part of this dialog box to help you remember or figure out the passwords. *Note: the original UU encoded encrypted file is automatically deleted when this option is completed.* 

### Encrypt a File: Alt. S, Alt. E

Use the *Encrypt a File* menu option to <u>encrypt</u>, but not to edit, view, or print any <u>DOS</u> <u>or Windows compatible</u> file of any size to a file of the same path and filename. This menu option operates exactly as the *Open Encrypted Text* menu option but DOES NOT open a text editor document window. After bringing up the *Open File* dialog box use the cursor to select the path of and the filename to open. Then select the OK button. The <u>Encrypt a File dialog box</u> will appear next. Enter the passwords, confirm the passwords, select the appropriate <u>compression</u> option if you want to compress the file, select Read Only if you want the file to be made read only, enter a riddle or note if you want.

#### Encrypt a File and then UU (Text Mode) Encode it: Alt. S, Alt. T

Use the Encrypt a File and then UU (Text Mode) Encode it menu option to encrypt and UU Encode, but not to edit, view, or print any DOS or Windows compatible file of any size to a file of the same path and filename (except the extension is changed to ".Ued"). This menu option operates exactly as the Open Encrypted Text menu option but DOES NOT open a text editor document window. After bringing up the Open File dialog box use the cursor to select the path of and the filename to open. Then select the OK button. The Encrypt a File dialog box will appear next. Enter the passwords, confirm the passwords, select the appropriate compression option if you want to compress the file, select Read Only if you want the file to be made read only, enter a riddle or note if you want. Following successful encryption of the file it will be UU (Text Mode) encoded. Note: the intermediate file that results from the encryption is automatically deleted when this option is completed and only the UU encoded encrypted file remains.

### Analyze an Encrypted File: Alt. S, Alt. Z

The Analyze an Encrypted File option does everything the Analyze a File (see File Menu) option does except it does not read the data that CrypEdit attaches to the end of a file (the riddle and some other things). A file that has been encrypted well has a fairly uniform byte value distribution and the most common byte occurrence should not be more than 10 times the calculated average occurrence unless the file is very small. The tick marks at the bottom of the byte value distribution graph represent the places where byte values of 0, 64, 128, 192, and 255 occur. If the distribution or occurrence is not good then you or whomever should use more dissimilar passwords to encrypt the file. Select the OK button to exit.

#### \* UU EnCoding and DeCoding a File:

**CrypEdit** includes utilities to <u>UU encode</u> and <u>decode DOS or Windows compatible</u> files, and to <u>split-up UU</u> files into a maximum of 100 parts and <u>combine split up UU</u> files back into one UU file. UU encoding a file will change a file in 8 bit data format to a file in 7 bit data format. UU encoding a file is usually done to send an 8 bit format file over a network or E-Mail system, Internet E-Mail for example, which will only accept 7 bit format for transmission or reception. Sometimes there is a file size limit for transmission or reception of 5kb to 50kb so the user must split up their "large" 8 bit format files into smaller parts before UU encoding, transmit the UU encoded parts; UU decode the parts after reception, and combine the parts into the original 8 bit data file.

If you <u>encrypt</u> any file it will be encrypted into an 8 bit data format file. We included the UU encoding and decoding utilities so that you could UU encode an encrypted file (or any 8 bit format file), transmit it over systems that only accept 7 bit format files, UU decode it after reception, and then <u>decrypt</u> it.

There are two modes of UU encoding provided, text and binary, because some systems will only work with text or binary mode 7 bit format files. The UU encoding functions create a new file, or overwrite any file, in the same directory with the same filename but a different extension, \*.UUT for text mode or \*.UUB for binary mode UU encoding, and leave the original file untouched. The UU decoding function will automatically sense which mode, binary or text, was used for UU encoding as long as the file was UU encoded with *CrypEdit*; and then UU decode the file to a file within the same directory with the same name and extension as the original file that was UU encoded. *WARNING: UU decoding will overwrite any file within the same directory with the same name as the original file that was UU encoded*.

### \* UU TEXT MODE EnCode a File: Alt. U, Alt. T

Use the *UU TEXT MODE EnCode a File* option to <u>UU Encode</u> any <u>DOS or Windows</u> <u>compatible</u> file and write the results to the resulting "\*.UUT" file using text mode. *This option will leave the original file intact but creates a new file, or overwrites any file, in the same directory with the same filename as the original file and an extension of UUT.* 

### \* UU DeCode a File: Alt. U, Alt. D

Use the *UU DeCode* a *File* option to <u>UU Decode</u> any file previously UU encoded with *CrypEdit*. The UU decoding function will automatically sense which mode, binary or text, was used for UU encoding; and then UU decodes the file to a file within the same directory with the same name and extension as the original file that was UU encoded. *WARNING: UU decoding will overwrite any file within the same directory with the same name as the original file that was UU encoded.* 

### \* UU BINARY MODE EnCode a File: Alt. U, Alt. B

Use the *UU BINARY MODE EnCode a File* option to <u>UU Encode</u> any <u>DOS or Windows</u> <u>compatible</u> file and write the results to the resulting "\*.UUB" file using binary mode. *This option will leave the original file intact and creates a new file, or overwrites any file, in the same directory with the same filename as the original file but an extension of UUB.* 

#### \* Split Up UU EnCoded File: Alt. U, Alt. S

The Split Up UU Encoded File option will split a CrypEdit UU Encoded file into as many as 100 parts which can be reconstructed with the Rebuild Split Up UU Encoded File option. First, you must select the UU Encoded file to split up. Second, you must specify the maximum size of the "Splitup" files. CrypEdit will then proceed to split up the UU encoded file into as many as 100 parts; all the resulting files will have the same filename as the original UU encoded file but the extension \*.Uxx where xx denotes the files sequence in the split-up of the original UU encoded file. There is a minimum UU "Part/Splitup" file size which is the greater of either a UU file's maximum text line length or the UU Encoded files size divided by a number in the range of 80 to 100 (this is a worst case file size calculation). This option will leave the original UU file intact and creates as many new \*.Uxx files are needed to split up the UU Encoded file.

### \* Rebuild Split Up UU EnCoded File: Alt. U, Alt. R

The Rebuild Split Up UU Encoded File option rebuilds a splitup <u>UU Encoded</u> file from its parts created with the <u>Split Up UU Encoded File</u> option. You must select the first file in the UU Encoded file's splitup, \*.U00. CrypEdit will then proceed to check available disk space and rebuild the UU encoded from its parts; the resulting file will have the same filename as the original UU encoded file and so will overwrite any file with the original UU file's name.

#### \* File Compression

CrypEdit has built in utilities to compress and decompress any <u>DOS or Windows</u> compatible file. There are two file compression optimization methods available, <u>speed</u> or <u>size</u>. There is only one <u>decompression</u> option because it can tell which optimization method was used to compress the file.

Most people compress files to either save storage media space or to minimize the data transfer time from computer to computer.

Since one of the objectives of <u>encryption</u> is for the results to have a very well distributed data byte value range encrypted files will not compress very well, if at all. *CrypEdit* allows you to specify that you want to compress the file before encrypting it from within the <u>Encrypt a File dialog box</u>.

# Maximum Compression: Alt. C, Alt. M

This menu option will <u>compress</u> the file you specify in the *Open File* dialog box into the smallest file possible in this version. *Space optimized compression is not very fast and so it may take some time on very large files.* 

### Expand a File: Alt. C, Alt. E

This menu option will <u>decompress</u> the file you specify in the *Open File* dialog box. *CrypEdit* marks files it compressed with what optimization method it used so there is no need to know or specify which method was used.

### Fast Compression: Alt. C, Alt. F

This menu option will <u>compress</u> the file you specify in the *Open File* dialog box as fast as possible in this version. *Time optimized compression is not as space efficient as Space optimized compression but it is much faster.* 

### Wipe Out a File: Alt. R, Alt. W

This menu option will erase a file permanently. First, you must specify which file erase in the *Open File* dialog box. If you exit that dialog box using the OK button then the file will be overwritten with Zeros, ...0000000000000..., truncated to zero length, renamed to one character, and finally erased

# Tile Vertically: Alt. W, Alt. V

Use the  $\it Tile$  option to tile the currently visible text editor document windows vertically within the main window.

# Tile Horizontally: Alt. W, Alt. H

Use the *Tile Horizontally* option to tile the currently visible text editor document windows horizontally within the main window.

# Cascade Windows: Alt. W, Alt. C

Use the *Cascade Windows* option to cascade the currently visible text editor document windows within the main window.

# Arrange Icons: Alt. W, Alt. I

Use the  $\ensuremath{\textit{Arrange Icons}}$  option to arrange the icons of the currently iconized text editor document windows.

### Close All: Alt. W, Alt. A

Use the *Close All* option to close all of the text editor document windows. If the contents of any of the text editor document windows was created or modified since it was last saved *CrypEdit* will ask if you want to save the contents of that text editor document window before closing it.

# Contents: Alt. H, Alt. C

The Contents option will bring up the contents page of the on-line help file.

## Search: Alt. H, Alt. S

The Search option will bring up a topic search dialog box for the on-line help file.

## Register/Order: Alt. H, Alt. R

The Register/Order option will bring up the CrypEdit order form in the on-line help file so the user can print it, fill it out, and mail it in! **Please Register...** 

## Customer Support: Alt. H, Alt. U

The *Customer Support* option will bring up the Customer Support topic in the on-line help file.

# Keyboard/Selection/Cursor: Alt. H, Alt. K

The Keyboard/Selection/Cursor option will bring up the keyboard page of the on-line help file.

## Passwords: Alt. H, Alt. P

The Passwords option will bring up the Passwords topic in the on-line help file.

## Using Help: Alt. H, Alt. H

The *Using Help* option will open the *Windows Help* help file for you. This file explains how to use the Windows Help program with any compatible help file.

# About CrypEdit: Alt. H, Alt. A

The *About CrypEdit* option displays a dialog box that contains the title, copyright notice, author, and version of *CrypEdit*.

#### **Passwords**

CrypEdit encryption requires that you use two different passwords at least 7 but not more than 20 characters in length, both passwords must be the same length, and they must be different (passwords are case sensitive). You can enter any character/byte value between 32 and 255 as a password character. The characters/byte values 32 to 126 are entered directly from the keyboard. Character/byte values greater that 126 are entered as part of a password by turning on the Num Locks key, holding down the Alt key, and entering 0 and then the character/byte value in the numeric keypad, but it is easier to select and copy characters to the clipboard with the Character Map application installed in the Accessories Group by Windows. When you enter the passwords into the password fields of the Encrypt or Decrypt dialog boxes the OK button is only enabled when both passwords are valid. Likewise, after you have typed in both passwords the program will compare both of the passwords to their confirmation; if the confirmation box contents do not match the appropriate password the confirmation box contents will be cleared and the OK button will not be enabled. It is suggested that you use passwords that are not obvious to people who are familiar with you, your organization, or your environments. DO NOT USE TELEPHONE NUMBERS, SOCIAL SECURITY NUMBERS, OR ANYTHING ON PUBLIC RECORD. You could use dates that you and only the people you want to open the file are familiar with, dates like when you met someone or something in common happened. Nicknames, names, places, verbs, and objects (especially in foreign languages) are pretty good as long as they are not commonly known or on record somewhere. THE BEST PASSWORDS ARE RANDOM ONES, THE MORE RANDOM A PASSWORD IS THE BETTER IT IS. For maximum security and effective pseudo one time pad encryption use a set of passwords only once and make them as different as possible.

**REMEMBER YOUR PASSWORDS** AND MAKE SURE THEY VERIFY BEFORE ENCRYPTING ANY FILE; THERE IS NO WAY THAT WE OR ANYONE WE KNOW OF CAN DIRECTLY DECRYPT ANY ENCRYPTED FILE WITHOUT THE ORIGINAL PASSWORDS.

#### Examples of valid and invalid password sets are:

```
21dec61 24jan59 Valid, because both are 7 characters and different.

NewYork London InValid, not the same length.

password password InValid, passwords are the same.

Clinton Johnson Valid, because both are 7 characters and different.

password Password Valid, because of case sensitivity.

123456789012345678901 234567890123456789012 Invalid, both are too long (21 characters).
```

#### The Riddle or Note

In the lower part of the <u>Encrypt</u> and <u>Decrypt</u> dialog boxes is a small text edit window for entering, editing, or viewing a note or riddle up to 1024 (1kb) characters in length to help whomever remember or determine the two passwords for the file. Note: to save typing time and redundant operations the note or riddle from the most recently encryption or decryption operation, if any, will be displayed in the riddle edit box; otherwise the riddle or note field will be empty. It is suggested that you use a riddle or notes that will not make the passwords obvious to people who are familiar with you or your organization, or are in public or private records.

### **Encryption**

Encryption is the action of using a method to encode the data bytes that make up any file. For example, a plain text file, (text is a type of data), which you can read and edit with almost any editor before encryption will not be readable or editable with almost any text editor after encryption, (CrypEdit is a special text editor that decrypts its encrypted text files as they are read into the editor). Another example, a spreadsheet file, (a type of data file), before encryption is readable and editable by any program that is compatible with and can read its file format, after encryption the same spreadsheet file will not be readable by any spreadsheet program. In general encryption is used to keep your text, data, or any DOS or Windows compatible file private and readable only to whomever knows or can determine the passwords. Decryption of an encrypted file using the proper passwords will return it to its original readable state.

CrypEdit generates a pseudo one time pad, derived from the two passwords you enter, to perform encryption. After you enter two qualifying passwords CrypEdit derives passwords from them and the encoding of the data starts... But CrypEdit will only use a set of passwords once, (on the average each byte/character of any password is used to encode one byte of data), and then CrypEdit will derive a new set of passwords to be used. The methods used to generate new password sets is what makes CrypEdit so powerful because it almost insures that no two sets of derived passwords used to encrypt the data will be the same in the first Megabyte of data when using passwords of length 7. Second, CrypEdit uses four different methods to encode the data. Third, CrypEdit is NOT a block encryption method; the passwords used in CrypEdit can be 7 to 20 characters in length, they are not a fixed length, so that adds more variables into breaking the encrypted text or data. Fourth, CrypEdit uses Private Keys/Passwords, it does NOT use Public Keys/Passwords which are exactly that PUBLIC (as opposed to PRIVATE). Finally, CrypEdit encryption is a TRADE SECRET and the source code only resides on permanent storage media encrypted by a previous version; when new versions of CrypEdit are created they are built on RAM disks which can be erased by simply turning off the power to the computer via the power switch or pulling the power cord. We are extremely concerned about our trade secret. CrypEdit is NOT any stronger, or weaker, due to being an unpublished method; it is our TRADE SECRET.

**How secure is CrypEdit? VERY SECURE**. If you used random passwords of length 7 it could take up to  $7.1 \times 10$  to the 32nd power

(710,000,000,000,000,000,000,000,000,000) tries before your data was decrypted. At current super-computer speeds this would take much much longer than the estimated age of the universe (10 to 30 Billion years) to decrypt a CrypEdit encrypted file through password generation and testing. For example, lets say you could do 1 million password generation tests a second, that is 3.6 billion tests an hour, 86 billion a day, 31 trillion password tests a year,... at that rate it could take up to 2.2 x 10 to the 19th years (22,000,000,000,000,000,000 years) with one super computer. Even doubling the calculation speed of computers every 3 years will not bring the password solution within a hundred years with a single super computer. If you used random passwords of length 20 it could take up to 7.1 x 10 to the 93rd power (71 with 92 zeroes behind it) tries before your data was decrypted. These numbers are so big that the amount of time needed to generate and test the all the possible passwords is so prohibitive that people would have to try to find a backdoor or a reversing method via the encrypted data. All we can say is GOOD LUCK, there is no backdoors; and once they discover the password generation methods used, that the data is encrypted in any of four ways, and the effects of the uncertainty of what length the original passwords were they will realize that there is not a even a very extremely complicated reversing method via the encrypted text/data values. We made CrypEdit for our privacy, our security, and yours.

### **Plain Text**

Plain text refers to any text or data that has not been encoded or encrypted in any way or manner.

### **Decryption**

Decryption is used to decode your previously encrypted text, data, or any <u>DOS or Windows compatible</u> file. It is the action of using a method to decode the encoded 8 bit data bytes that make up any DOS or Windows compatible file that was encrypted with CrypEdit.

### **DOS and Windows Compatible Files**

DOS and Windows Compatible Files are any files that reside on any DOS or Windows compatible storage media or in any DOS or Windows compatible system. CRYPEDIT encryption and DECRYPTION ONLY WORKS WITH 8 BIT DATA FILES. Some files originating from, used with, or converted from or for another type of computer or operating system might only be 7 bit data files and so may not be compatible. In general any file in a DOS or Windows Compatible System is an 8 bit data file, so don't worry about the "8 or 7 bit data bit" stuff if this is unanswerable by you and you are working only on a DOS or Windows Compatible Systems.

#### **Networks**

CrypEdit should be able to work on any <u>DOS or Windows compatible</u> files that are on any networked read and write storage media operating in Windows™. <u>Encrypted</u> files are just as secure on a network storage device as they are on a local storage device; this is because the files are always encrypted and <u>decrypted</u> in your computers memory. **Be aware that networks ARE NOT totally secure environments** because someone may be operating some sort of network monitor program that may be able to monitor or mirror everything that is happening on your computer including screen output, keyboard input, printer output, or anything else that happens on your computer. Also be aware that printing an encrypted text editor document to a networked printer will result in the decrypted text being sent across the network where it can be captured, monitored, and/or duplicated; besides the fact that printing it creates a decrypted hard copy.

**NOTE:** some operating systems that provide Windows 3.1 shells or emulators may save memory contents to disk, (virtual memory or swap file), and may write temporary files during some file operations. **These operations would be totally unknown to the CrypEdit program and would pose a potential security problem.** 

#### **Public Data Services and Common Carriers**

BE AWARE THAT THE PRIVACY OF YOUR COMMUNICATIONS and files transferred over or stored on public data services, Common Communication Carriers, telephone, and other communication services, ARE NOT CURRENTLY PROTECTED BY FEDERAL LAW OR REGULATIONS AND TO THIS DATE THE SUPREME COURT HAS NOT MADE ANY SPECIFIC RULING ON THE PRIVACY OF SUCH COMMUNICATIONS, STORAGE, OR DATA TRANSFERS. *Your only option at this time is to encrypt it yourself.* Then you do have a reasonable expectation for the privacy of such data which might provide enough of a common law legal basis for your right to privacy regarding the data if it is ever violated.

### **The Windows™ Clipboard**

**Please Note:** anything that you cut or copy is pasted to the Windows clipboard where it can be read, even after you exit *CrypEdit*.

**NOTE:** some operating systems that provide Windows 3.1 shells or emulators may save memory contents to disk, (virtual memory or swap file), and may write temporary files during some file operations. **These operations would be totally unknown to the CrypEdit program and would pose a potential security problem.** 

### **About Viruses and Encrypted Files**

NOTE: I have never seen this subject addressed in any manual or documentation. This is probably due to the emotional response of most computer users when the word "VIRUS" is mentioned. Viruses are now a fact of computer life. But almost all software publishers will never address this situation in regards to their own or any one's' data file(s) or program(s) because they are afraid the "common user" will panic and be too scared to use their program(s). I on the other hand feel it is your right and my obligation, and a sign of respect for your intelligence, that I inform you that any data file or program at any time may contain a sequence of byte values that could be "detected" as or be a virus, a strain of a virus, or a totally new or undiscovered virus that was not detected as a "virus".

**Any program** has the probability and therefore a chance of creating a sequence of byte values identifiable as a computer virus in the computer systems memory in the creation, processing, or storage of a data file, or the creation or modification of a program. Understand that *CrypEdit* cannot reasonably predict from the passwords used to encrypt a file and the contents of the file to be encrypted whether or not the encryption will result in a known computer virus or a completely unknown computer virus anywhere in the file. Encryption of data can result in any possible combination of data byte values, and so encrypted data files have a probability of sooner or later containing data byte combinations that may be related to or a real computer virus, or even some entity that hasn't yet been created or discovered!

Virus detection and protection programs might at any time "detect" a virus or a strain of a known virus within any encrypted or normal data file, or program for that matter. Look to see what the virus detection or protection program has to say about the virus it detected before doing anything else. Remember if you delete, modify, or alter a file containing a suspected virus you might lose all the data in that file. If you possibly can, decrypt the file, and then encrypt it with some different passwords. Whatever you do; if a virus is detected or created in an encrypted or normal data file it is solely up to the user what should be done, what actually gets done (if anything), and so the results of any action or lack of action to remedy any real or potential "virus" situation are the sole responsibility of the user.

#### Text Editor limitations, file sizes, & file Input/Output

The Windows 3.1 version of CrypEdit has a text editor file size limit of about 60kb, because the Windows 3.1 version uses a memory buffer about 60kb in size, about 61,400 bytes, to load and edit all of the text editor documents/files in. You may reach this text editor buffer limit while editing a file, beeps after or while typing and no addition of the typed text into the current editor file is an indication that you have reached the size limit of the text editor's buffer. The Windows NT version of CrypEdit has a theoretical limit of 2Gb for the text editor, (2,147,483,647 bytes), but the practical limit is the combination of available real and virtual memory.

Also, since *CrypEdit* is optimized to be a small program it uses a small 64kb buffer to read and <u>decrypt</u> or <u>encrypt</u> any file; so the disk drive light will turn on and off several times before complete decryption or encrypt of a large file. This may also happen before you get the "Decrypt a File" dialog box when decrypting a file since the program checks the data length and checksum of the file you want to decrypt before that dialog box appears.

### File size and Free Media Space Check

Except when saving plain text files from the text editor, CrypEdit checks that there is enough free storage media space available to complete any file operation. If there is not enough free storage media space to complete the file operation the program will either warn the user and ask them if they want to continue or display an error message and terminate the file operation.

### **Read Only File Attribute Avoidance**

When the Read Only attribute of a file is set it cannot be written to or renamed and in some cases erased.

Except when saving plain text files from the text editor, CrypEdit will check if a file is read only before attempting to alter it. If the file is read only CrypEdit will turn off its read attribute and write to it. When all writing to the file is finished CrypEdit will change the file's attributes back to what they were before.

NOTE: when <u>encrypting</u> a file you can specify that it will be made Read Only. The original attributes of the file as well as its time and date will be restored when the file is <u>decrypted</u>.

### **Listing of CrypEdit Versions**

#### ALWAYS DECRYPT AN ENCRYPTED FILE WITH THE SAME VERSION OF CRYPEDIT.

Versions after 2.5 check if a different version of CrypEdit is being used to decrypt the file than it was encrypted with. When this will result in any mutation of the original file/data CrypEdit either warns the user and prompts the user for permission to continue or an error message is displayed and the user is not allowed to continue.

In general, if the version codes of the CrypEdit encrypted file is different than that of the program and the file is longer than 32,000 bytes the user will not be allowed to decrypt the file, or they will be warned about the consequences of decrypting the file with a different version and promted if this is OK before decrypting the file. \*

It is strongly suggested that the user utilize the same version of CrypEdit to decrypt a file as was used to encrypt it; thus insuring the integrity of the original file!

In general the tested compatibility of versions are:

v1.0a to v1.0f for DOS/OS2, text mode version (limited release)

v2.0a for Windows 3.1 (Last version to use encryption mode 1)

v2.5b to v2.5i for Windows 3.1 (encryption mode 2)

There were no public releases v3.Xy of CrypEdit

v4.0a to v4.0f for Windows 3.1 and Windows NT (encryption mode 2)

v4.0g to ... for Windows 3.1 and Windows NT (encryption mode 3)

\* NOTE: In almost all cases using a newer encryption mode's decryption method on data encrypted with an older encryption mode will result in a data loss, (inaccurate decryption), of 1 in 32,000 or 1 in 65,500 bytes. This data loss will only occur if the file is longer than 32,000 or 65,500 bytes respectively.

#### **NEW Version!**

Please see, Renaming CrypEdit Executable and Help Files

### Renaming CrypEdit Executable and Help Files

The CrypEdit executable and help files with a version code greater than 4.0a may be renamed to reflect their version code so that when you get a new version in the future you can have them in the same directory as the other versions. The help system will look for a help file with the same filename as the executable file it is being called from, for example I test ALL the versions of CrypEdit for compatibility so the version 4.0a executable file is named CEDW40ae.Exe and its corresponding help file is named CEDW40ae.Hlp and version 4.0b files are named CEDW40be.Exe and CEDW40be.Hlp respectively. (NOTE: the filename is the same but the extensions are different, the executable must have the extension Exe and the help file must have the extension Hlp)

Please see, <u>Listing of CrypEdit Versions</u>

### **Error/Problem Reports**

Although we test and test *CrypEdit* until were satisfied that we can't find any errors in a version before we release it someday a user will come across a problem or error (up to version 4.0h not one user has reported any problem with or error in CrypEdit).

If you have a problem or find any error please contact us as soon as possible! Our customers are the best testers of our software and to us ALL DATA IS SACRED so please contact us.

If possible send correspondence to our customer service department as soon as possible by Electronic Mail, call us at our customer support telephone number, or write a letter to our Customer Support department.

Please specif	The version of the program.  What hardware/computer you are running the program on.  What operating system or shell you are running the program in.  If the problem or error is repeatable.  Where the problem or error occurs.  How the problem or error occurs.  Any messages the program displays during the occurrence.  Your E-Mail or physical address.  Your telephone number.  Any other pertinent information.
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Please see, <u>Customer Support</u> and <u>Possible Problems & Troubleshooting</u>.

## OK and Cancel buttons in dialog boxes

Select the *OK button* in any dialog box to continue or finalize the operation. Select the *Cancel button* at any time to cancel the operation.

### E-Mail systems that won't transfer files

Some E-Mail systems will not allow the transfer of files, or allow "attaching" files to E-Mail to be transferred, over the system. The way to get around either of these problems when sending either an encrypted data or text file, (which are both 8 bit format data files), is to first <u>UU encode</u> the file. Then either open the UU encoded file with *CrypEdit* and copy the UU encoded file to the Windows™ clipboard, and then paste the UU encoded file into your E-Mail system's text editor; or just load the UU encoded file into your E-Mail system's text editor and send the UU encoded file from there. Reverse operations would have to be made on the receiving end.

### **Possible Problems and Troubleshooting**

NOTE: before going any further remember one simple thing. Your computer will only do what you tell it to do, (unless there is something electronically or mechanically wrong with it). It has no intelligence at all. It is only a worker that does what it is told to do. If you cannot do something that you think the program and/or computer should do perhaps you should read the manuals some more and/or re-think your plan of action.

**You used the wrong passwords to decrypt a file:** to undo this action encrypt the file that you used the wrong passwords to <u>decrypt</u> with the passwords you used to decrypt it incorrectly (use the "wrong" passwords); then use the correct passwords to decrypt it.

**You forgot the passwords or cannot determine them:** There is no remedy to this problem. You must use the original passwords.

You are really "sure" that you are using the correct passwords but the file does not decrypt correctly: possibilities are that you either have the CAPS LOCK key on or that it was on when you encrypted the file and it is not on now. Even worse, your fingers could have been in some non-standard position when you typed in and confirmed one or both of the passwords; thus try different non-standard positions for your fingers and typing in the passwords by touch.

**The program fails to write a file:** the media's write protect may be set on (set the write protect off), the file may be read-only (change the attributes of the file to not be read-only), the media may not have enough free space to write the file (save the file on another media unit),... the storage device may have a problem (try a different storage device).

**The program will not open a second editor window for a file:** the program will not open a second text editor window for a file that already has a text editor window open.

**The program will not encrypt or decrypt a file:** the program will not encrypt or decrypt a file that has a text editor window open.

**NOTE:** some operating systems that provide Windows 3.1 shells or emulators may save memory contents to disk, (virtual memory or swap file), and may write temporary files during some file operations. **These operations would be totally unknown to the CrypEdit program and would pose a potential security problem.** 

#### **Status indications within the** *Encrypt a File* **dialog box:**

<u>BAD CHECKSUM</u>: the checksum of the encrypted data did not match the checksum of the encrypted data when the file was last saved. Some or all of the data bytes have changed or been altered since the file was last saved. *Try to find an unaltered copy of the file and use it.* 

BAD FILELENGTH: the length of the encrypted data file has changed or been altered since the file was last saved. Some or all of the data bytes are missing or the length of the file has been altered since the file was last saved. Try to find an unaltered copy of the file and use it.

<u>Combination of BAD CHECKSUM and BAD FILELENGTH</u>: is a combination of both as listed above.

Other ERROR messages or USER WARNING may appear while operating the program, read them carefully and take your best course of action. We have tried to be as accurate and verbose as possible in these messages and warning so the meaning should be as clear as possible within their one to three line length limits.

Please see, <u>Customer Support</u>, <u>Error and Problem Reports</u>

### **Drag and Drop Operations**

CrypEdit supports "Drag and Drop" of encrypted or plain text files from programs such as File Manager. To drag and drop single or multiple encrypted or plain text editor files CrypEdit must already be started, so if it is not already running double click on its icon in your Program Manager to start it. Next, select the encrypted or plain text file(s), (you can select more than one file), in your File Manager that you want to edit in CrypEdit. Now drag the selected file(s) from your File Manager onto the CrypEdit icon or its Title Bar. If the file is encrypted you will be prompted for the appropriate passwords before it is opened as an encrypted text editor document. If the file is not encrypted, (plain text), it will be opened as a plain text editor document.

# New Version to be released!

New version 5.0 of CrypEdit  $^{\rm m}$  for Windows 3.1 or Windows NT 3.5 to be released in June 1995

CrypEdit is a Windows 3.1 or Windows NT 3.5 program that enables users to encrypt and edit sensitive text documents and files such as business plans, personal finance, E-Mail, engineering papers, financial plans and reports, and legal papers on private and shared media securely with the ultimate level of security. CrypEdit encryption also lets users send files via modem through common carriers, US Mail, courier, or through its Microsoft Mail and Microsoft Exchange enabled E-Mail interface to others via public or private networks and the internet assuring a maximum level of privacy and security. CrypEdit provides users with a secure environment to edit, view, print, and store multiple encrypted or plain text documents that can also be embedded in OLE, (Object Linking & Embedding), client enabled software such as Microsoft Word or Excel, or in place edited within OLE container programs. Users can also create, edit, and load Private Key/Password Table files that contain sets of passwords and their associated riddles/notes arranged according to their source and destination which are used to make encryption and decryption of files a three mouse click or drag and drop operation no longer requiring redundant keyboard entry of the passwords. Private Key/Password files can also be stored on file servers and made read-only so that groups of users can utilize them for encrypting and decrypting shared and private e-mail and data according to the source and destination. CrypEdit also UU encodes and decodes files, splits up and rebuilds UU encoded files, compresses and expands files, secure deletes files, and encrypts or decrypts individual files or directories of files including their directory trees. CrypEdit encryption is extremely strong and requires two different passwords 7 to 20 characters/bytes in length. On-line documentation is provided through a Windows compatible help file which is almost an exact copy of the printed manual.

New in version 5.0 is Microsoft Mail and Microsoft Exchange functionality, OLE document server and in place editing capabilities, Private Key/Password Table files, print preview, selection of editor display and printing fonts per document, a status bar at the bottom of the main window, drag and drop, (right-mouse-button menus, docking toolbar, and tooltips will only be in the Windows NT version), and the ability to encrypt and decrypt directories of files and their directory trees.

The ability to load, edit, view, print preview, print, and save encrypted text editor files ensures that all of the files the user wants to be secure remain secure except to those people who know the two passwords to decrypt them. Maximum privacy and security is ensured by creating a text editor file with CrypEdit and then always saving it as an encrypted text editor file. This ensures that the text editor file never resided on any storage media unprotected, (not encrypted). Version 5.0 encrypted text editor files are secure on private storage and shared file servers even when they are being edited on a client machine because the encrypted text file is opened exclusive, read directly into a memory buffer within the program, then the contents of the memory buffer are decrypted and transferred directly into the editor and edited as plain text. When encrypted text editor files are saved they are copied to a memory buffer within the program, encrypted, written to the storage media, and closed. Encrypted text editor files can be saved normal, compressed, compressed and UU encoded, or UU encoded by one simple menu command or toolbar button. The secure delete command is included so the user can be sure the

files they delete are deleted.

Built in UU encoding utilities will UU encode and decode any file, split up a UU encoded file into as many as 100 parts, and reconstruct a split up UU encoded file so that 8 bit data files can be transferred over systems limited to 7 data bit format as a single file or split-up UU encoded files. The UU split up utilities are included so users can send and receive large UU encoded files in pieces through data transfer systems that have filesize limitations. Speed and size optimized file compression are provided so the user can compress files to save storage media space and to minimize data transfer time.

The multiple document/window text editor enables users to delete, cut, copy, paste, search for, search and replace (when search is used in combination with paste), and move text (when cut is used in combination with paste). The Windows 3.1 version has a text editor document size limit of 60kb. The Windows NT version has a text editor document size limit of 1Mb and supports long filenames. CrypEdit also supports "word wrap" so that users don't have to type a carriage return at the end of each line, which makes the conversion of text files to, or from, most word processor file formats much easier.

**System Requirements:** IBM compatible 386 or better, Windows 3.1 or Windows NT 3.5, 1 Mb of disk space.

CrypEdit version 5.0 for Windows 3.1 or Windows NT 3.5 costs 55.00 on 3.5" or 5.25" diskettes plus 5.00 shipping, site licenses and volume orders are discounted accordingly. *CrypEdit is for sale and use only in the USA*. Training classes and instructional VHS video tapes are available. Free customer support is provided by the distributor: **Genio USA**, P.O. Box 251, North Bend, WA 98045. **Telephone (206) 831-5591**. **E-Mail 76675.630@compuserve.com** 

#### Windows 95?

The latest version of Windows 95, "Chicago", released in May of 1995 was not able to run the 32 bit Windows NT version of CrypEdit satisfactorily. Windows 95 failed on the rename commands within CrypEdit. Curiously the Windows 3.1 version runs just fine in the same version of Windows 95 and executes the same rename commands except in Windows 3.1 mode. Files are renamed by CrypEdit before any file operation, except saving plain text, to insure that if the computer fails or there is a power failure in the middle of a file operation the original file still exists (except it has a different extension on the filename). When the file operation is complete the backup/original file is secure erased/wiped. We suggest for the time being that our customers use the Windows 3.1 version on Windows 95.