

WinCrypt CONTENTS

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Encrypt Box - Encrypted Phrase

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File Formats - Format information on files used by WinCrypt

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Menu Items

File - Select a new phrase file or perform button function

Fonts - Select new font style/size/color

Times - View or Clear Best times

Tools - Tools to Assist in Solving Puzzles

Help - Instructions for Menu Items and Help Solving Puzzles

Buttons

CLEAR - Clear Current Entries in the Decode Table__

RESTART - Give up on this puzzle and start another

EXIT - Quit Game

PEEK - Look at decoded Phrase

How to Play WinCrypt

This game encrypts a common phrase selected randomly from the WINCRYPT.DAT file or whatever other ASCII file you specify. It uses a substitution code. FOOD FOR THOUGHT, for example, might become VYYE VYH ISYWPSI, if V is substituted for F, Y for O, E for D, H for R, I for T, S for H, W for U and P for G. You must determine the original character that corresponds to the substituted character in the phrase and place it in the corresponding box at the top. When you have all of the characters decoded, a window will be displayed indicating this and allowing you to try again. No phrase should be repeated until all other phrases have been used. Each encryption is unique.

File Menu Selection

This option allows you to select a file containing phrases to be encoded. This file is a standard ASCII file with each phrase terminated with a CR/LF. The Clear, Restart, Exit, and Peek options are the same as the button selections.

Font Menu Selection

This option allows you to select any of the standard fonts available under Windows. You may also select the size and color of the font. Other options include bold, italic and italic bold if available with the selected font. Underline and Strikethru are also available.

Times Menu Selection

This menu provides options to view or clear the best times for the phrases in the currently selected phrase file. See [File Formats](#)

Help Menu Selection

This menu provides selections for help in playing the game and in solving puzzles.

Contents - Help System Contents

Search for Help On ... - a specific topic.

How to Use Help - pretty much says it all.

About WinCrypt - Please read and respond.

Tools Menu Selection

This menu provides tools to assist in solving puzzles.

Frequency Table - How often each character is used in this cryptogram.

Also see Hints.

Contact Table - How often each character contacts each other character.

Also see Hints.

Frequency Table

This table shows the frequency of the characters that appear in the current cryptogram, the frequency of plain text characters in the file providing the current group of phrases, and the frequency of characters in the English language. This could be useful in solving the cryptogram. For example, in the English language, "e" is by far the most frequently used letter. The smaller the phrase, the less likely frequency will be an accurate indication of a letter's identity. The relationship between letters, as in the Contact Table, is a better indication, but also works better with larger cryptograms. For more detail, see Hints.

Contact Table

This table shows the frequency that each character is adjacent to every other character. The table is sorted in order of descending frequency (the most frequent at the top). The first number is how many times the character appears in the cryptogram. That is followed by the character. Each character that is adjacent to this character is then listed, again in descending order of frequency in the cryptogram. Above each is the number of times that character preceded the character at the beginning of the line. Below is the number of times that character followed the character at the beginning of the line. This information could be useful solving difficult cryptograms. See [Hints](#) for more details.

File Formats

Two types of files are used by this program. Phrases to be encoded are in an ASCII file. Each phrase is stored on a line terminated with a carriage return/line feed. Any carriage return/line feed pair is interpreted as the end of a phrase. The default phrase file is WINCRYPT.DAT located in the default directory. Any ASCII file may be selected as the source of phrases, but, remember, any CR/LF's will be interpreted as the end of phrase.

The second file is used to store the best time for each phrase in a phrase source file along with the name of the person who made the time. This is also an ASCII file. There is no error checking on this file. It is automatically created if it doesn't exist with the name of the phrase source file and an extension of .TIM, and is assumed to be the correct file if it exists.

WARNING - If two files are used as sources, each with the same name, but a different extension, they will both use the same TIME file.

CLEAR Button

This button clears all of your guesses as to what the characters are supposed to be, allowing you to start over. Time is not reset.

RESTART Button

This button allows you to abandon the current phrase and start a new one. Time is reset with the new puzzle, and a CLEAR is performed.

EXIT Button

Exit WinCrypt. Exiting updates the .TIM file. Prior to exiting, this information is stored only in memory.

PEEK Button

Displays the current phrase unencrypted. **Using this option adds 20 minutes to your time!**

Encrypt Box

This box shows the encrypted phrase in upper case letters. It does not change until the phrase changes. See [Decrypt Box](#).

Decrypt Box

This box initially shows the encrypted phrase in upper case letters. As you select the letters to be substituted for the encrypted letters, the instances of the encrypted letter in this box gets changed to the substituted letter in upper case. See [Encrypt Box](#).

Hints

This game selects a random phrase from the WINCRYPT.DAT file (or whatever other ASCII file you select, see [File Formats](#) for details), and encrypts it using a simple substitution code. FOOD FOR THOUGHT, for example, might become VYYE VYH ISYWPSI, if V is substituted for F, Y for O, E for D, H for R, I for T, S for H, W for U and P for G. To solve the puzzle, you must determine what the original letters were. One way to break the code is to look for repeated letters. E, T, A, O, N, R, I, S and H are the most often used letters. A single letter is usually A or I; OF, IS, and IT are common 2 letter words; try THE or AND for the 3 letter group. Recurring patterns in common words are another good way to determine letters. For example the 2 E's in THERE is a pretty good clue, as well as the 2 P's and 2 E's in PEOPLE. After working with the puzzle for a while, you will develop your own favorite patterns.

There are 2 tools available to assist in solving puzzles. The [Frequency Table](#) tells how many times each letter is used in the cryptogram. [The Contact Table](#) tells what characters are adjacent to each other. These tools are particularly useful with large phrases. The assumptions these tools are based on break down on smaller phrases.

Brute force substitution based on frequency will rarely work. The top 7 or 8 characters will usually come out in the top 7 or 8, but not usually in the correct order. A better bet at distinguishing what character is what is contact. Each letter has a group of preferred associations. E is the most distinctive. It is usually the letter with the highest frequency, and it will contact more letters than any other, including a goodly number of the less frequent letters.

The next most distinctive group are the high frequency vowels A, I, and O. These letters avoid each other as much as possible. The plaintext digraph IO is fairly often, while the other five combinations (OI, IA, AI, AO) are fairly rare. The most common digraph is EA, and the rarest is AE.

The consonant that is the easiest to recognize is N, because four fifths of the letters that precede it are vowels. Another distinctive character is H. It is exactly the opposite of N, in that it precedes vowels about 10 times as frequently as it follows them. The digraph HE is one of the most common, where EH is one of the most rare.

Hopefully, this has been of some help. GOOD LUCK!!

