

HEXpert for Windows Contents

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Descriptions of the menu bar and menu items.

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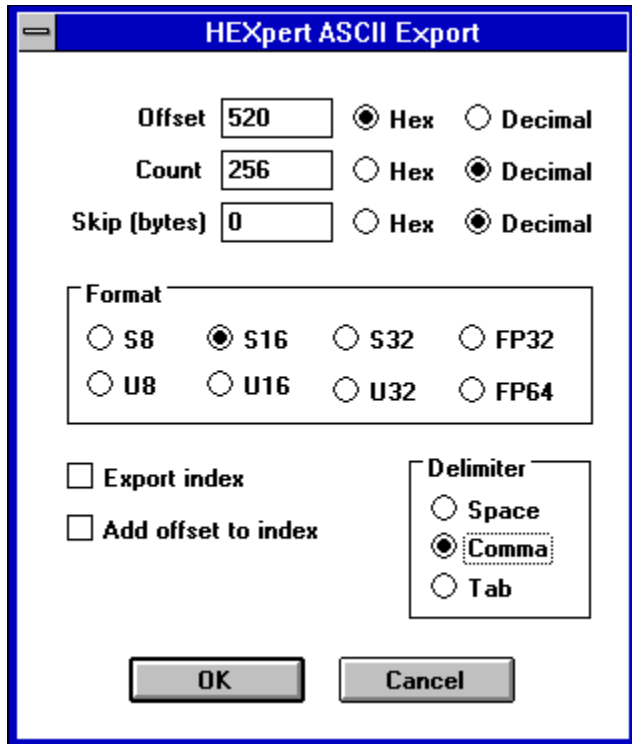
Description of the numeric format windows.

Status line

Description of items on the status line.

Export ASCII Dialog Box

The Export ASCII dialog box allows the user to specify the criteria for exporting a data array as an ASCII file, with the data values arranged in columns.



Export ASCII Dialog Box

The **offset** is the offset into the file of the start of the data array. Use the radio buttons to the right to specify the format of the offset, either in hex or decimal. Note that the offset will be filled in by default with the current cursor offset in the file.

The **count** is the number of data elements (not bytes) to be exported. Use the radio buttons to the right to specify the format of the count, either in hex or decimal.

The **skip** is the number of bytes between each data element. This is useful if the data is interleaved with other information. If the array elements are consecutive, the skip value would be zero. Use the radio buttons to the right to specify the format of the skip, either in hex or decimal.

The **format** options specify the data type of the data elements.

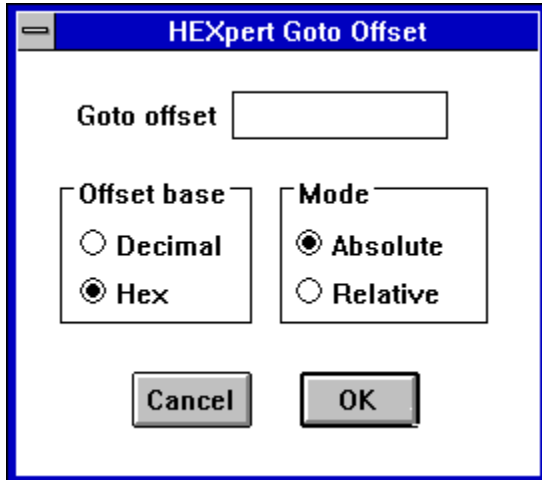
The **Export index** check box, if selected, will preclude each data item in the ASCII file with its index number, starting with zero. If the **Add offset** check box is selected, the indices will be the offset of each data element.

The **Delimiter** options adds the selected delimiter between columns. For a single column export, this is not used. Multiple column exports are possible by specifying a previous export file when the file name is requested. The [Export File dialog box](#) will be displayed, allowing several options to be chosen.

Choosing Append Side-by-Side will create an ASCII file with the new data column appended to the right of the previous column(s).

Goto Dialog Box

The goto dialog box allows the user to enter an offset into the file in either hexadecimal or decimal format.



Offset Base - Select the radio button next to the appropriate format for the offset which was entered.

Mode - Select the mode for the Goto. Absolute means that the offset is from the beginning of the file. Relative means that the offset is from the current cursor position.

Search Dialog Box

The search dialog box allows the user to enter text or numbers to be searched for within the file.

The image shows a 'Search' dialog box with the following elements:

- Text to Find:** An empty text input field.
- Scope:** Radio buttons for 'Global' (selected) and 'Selected'.
- Direction:** Radio buttons for 'Forward' (selected) and 'Backward'.
- Origin:** Radio buttons for 'From Cursor' and 'Entire Scope' (selected).
- Format:** Radio buttons for 'S8', 'S16', 'S32', 'FP32', 'Hex', 'U8', 'U16', 'U32', 'FP64', and 'ASCII' (selected).
- ASCII Case Sensitive:** A checkbox that is currently unchecked.
- Buttons:** 'Cancel' and 'OK' buttons.

There are several groups of radio buttons which affect the type of search to be performed. These are:

Scope - Currently only a global search is allowed. Selection of text is planned for a future version.

Direction - This selects which direction to perform the search from the cursor (or from the beginning or end of the file if Origin is set to Entire Scope).

Origin - This selects where to start the search, either from the cursor, or over the entire scope of the search.

Format - Select the format, which the text you entered represents.

ASCII Case Sensitive - The box, when checked will do a case-sensitive search, when searching with an ASCII format.

Replace Dialog Box

The replace dialog box allows the user to enter text or numbers to be searched for within the file, and replaced with new text or numbers.

The image shows a 'Replace' dialog box with the following elements:

- Text to Replace:** An empty text input field.
- New Text:** An empty text input field.
- Scope:** Radio buttons for **Global** (selected) and **Selected**.
- Direction:** Radio buttons for **Forward** (selected) and **Backward**.
- Origin:** Radio buttons for **From Cursor** and **Entire Scope** (selected).
- Format:** Radio buttons for **S8**, **S16**, **S32**, **FP32**, **Hex**, **U8**, **U16**, **U32**, **FP64**, and **ASCII** (selected).
- ASCII Case Sensitive:** An unchecked checkbox.
- Prompt to Replace:** A checked checkbox.
- Buttons:** **Cancel** and **OK** buttons.

There are several groups of radio buttons which affect the type of search & replace to be performed. These are:

Scope - Currently only a global search is allowed. Selection of text is planned for a future version.

Direction - This selects which direction to perform the search from the cursor (or from the beginning or end of the file if Origin is set to Entire Scope).

Origin - This selects where to start the search, either from the cursor, or over the entire scope of the search.

Format - Select the format, which the text you entered represents.

ASCII Case Sensitive - The box, when checked will do a case-sensitive search, when searching with an ASCII format.

Prompt to Replace - When this box is checked, the program will ask the user to verify replacing each instance found.

Format Windows

S8	-4	S16	-5636	S32	-65869316	FP32	-3.05128e+36
U8	252	U16	59900	U32	4229097980	FP64	5.17328e-309

Sample format windows

The format window displays the data at the current cursor location in eight different numeric formats. The numeric value at the current cursor location can also be modified by selecting the desired format window and editing the current value or entering a new value.

The eight formats are:

S8

U8

S16

U16

S32

U32

FP32

FP64

Signed 8-bit integer

Unsigned 8-bit integer

Signed 16-bit integer

Unsigned 16-bit integer

Signed 32-bit integer

Unsigned 32-bit integer

32-bit floating point

64-bit floating point

Selects the OEM font, which consists of the line draw characters, boxes, Greek letters, etc.

Toggle display of offsets in decimal format.

Options Menu

Hexadecimal - This selects hexadecimal as the number base for the main window display. This is the default setting.

Octal - This selects octal as the number base for the main window display. All offsets, searching and editing will utilize octal in place of hex.

Binary - This selects binary as the number base for the main window display. All offsets will still be displayed in hex.

Decimal Offset Display - Displays the cursor position and offsets in the first column as Decimal values rather than Hexadecimal, Octal, or Binary.

Fixed Length - Selecting the option toggles between FIXED length file mode and variable length file mode. A check mark next to this option indicates that FIXED length mode is selected.

Byte Swapping - Selecting this option toggles between byte swapping (Little Endian) and non-byte swapping (Big Endian) modes. In byte swapping mode (PC mode), numbers are stored in memory with the bytes in reverse order. For example, the number 4669 (1234 hex) is stored in memory as 34 12 hex. In a non-byte swapping mode, numbers are stored with their bytes in normal order. For the above example, the number would be stored as 12 34 hex.

OEM Font - Selects the machine dependent font (IBM-PC character set). The extended characters consist of the line draw characters, boxes, Greek letters, etc.

ANSI Font - Selects the ANSI standard character set. The extended characters include the special characters used in many non-English languages.

Toggles between Byte Swapping (Little Endian) and non-Byte Swapping (Big Endian) modes.

Main Edit Window

00000480	c8068a9d7c012a9d	7d018b8571018b8d	Uæ¥!@×¥ >0iàq0iì
00000490	7301fec380fb0172	7a742c0bc07503e9	s0i ç√0r zt,δ lu#0
000004a0	9c0080f90f90747c	b300e854068b8430	E·ç·*æt! ·0T#iä0
000004b0	00898573018a9d7c	01e85d0626f78428	·èàs0è¥! 00 l#8sá<
000004c0	0040007579ebf20b	c97508c7857101ff	·0·uyδ2δ rau läq0·
000004d0	ffeb403c4274193c	447505e823fceb10	·δ0<Bt↓< Du42#nδ>
000004e0	80fc51742e80fc10	74290ae47536eb4e	ç"Qt·ç"> t)0Eu6δN
000004f0	b300881e2801e808	06c7842b000000c7	·é▲<000 0 ä+···
00000500	846f010000c78471	010000c785050000	ä00·· läq 0·· ä0··
00000510	0deb2be839072ea1	39080ae47403e91a	F0+09·.i 9000t#0→
00000520	fc912fc50b80300	cd1058ba9b06803e	0t"Pj♥ ⇒X çç>
00000530	2801017403ba6d06	b409cd21ebd58d36	<00t♥ m# 0=?δ F16
00000540	e70303360c0156c6	0477b300e8b20583	rv♥6♀0U ♠w ·000sâ
00000550	bd71010075088b84	2b0089857301f784	uq0·u0iä +·èàs0sâ
00000560	280000205e7503c6	0464e9b3fb466174	<···^u♥ ♠d0 √Fat
00000570	616c206578697421	2057696e646f7773	al·exit! ·Windows
00000580	2063616e6e6f7420	6265207377617070	·cannot· be·swapp
00000590	6564206261636b20	0d0a244972726563	ed·back· F0\$ Irrec
000005a0	6f76657261626c65	206572726f722e20	overable ·error·
000005b0	43616e6e6f742073	746172742057696e	Cannot·s tart·Win
000005c0	646f77732e0d0a24	0000000000000000	dows·F0\$ ······
000005d0	0000000000000000	0000000000000000	·····
000005e0	0000000000000000	0000000000000000	·····
000005f0	0000000000000000	0000000000000000	·····
00000600	0000000000000000	0000000000000000	·····
00000610	0000000000000000	0000000000000000	·····
00000620	0000000000000000	0000000000000000	·····
00000630	0000000000000000	0000000000000000	·····
00000640	0000000000000000	0000000000000000	·····
00000650	0000000000000000	0000000000000000	·····

Sample Main Edit Window

The main edit window has three columns of information. The leftmost column shows the offset for each line of data. The center column displays the data in hexadecimal format. Alternatively, octal or binary formats can be displayed. The right column displays the ASCII equivalent of the data in the IBM-PC character set. In HEX mode, typing the characters 0-9,A-F will enter new hex values, overwriting the data at the current cursor location. For octal, enter characters 0-7. For binary, enter characters 0 & 1. The corresponding ASCII character will also be updated. Each hex character must be entered as pairs of digits. In ASCII mode, any character typed overwrites the ASCII character at the current cursor location. The corresponding hex value will also be updated.

Open a new file.

Save the current file, using the current file name.

Save the current file, prompting for a file name.

Exit the program.

Insert a byte at the current cursor location.

Delete a byte at the current cursor location.

Toggle between hex and ASCII input mode.

Toggle between fixed length and variable length file mode.

Go to a given offset in the file.

Search for data.

Search for data and replace with new data.

Find/Replace next item.

Move cursor right one byte.

Move cursor left one byte.

Move cursor up one line.

Move cursor down one line.

Move to first edit window.

Move cursor left one byte.

Move up one page in the file.

Move down one page in the file.

Move to beginning of file.

Move to end of file.

Move cursor right one character.

Move cursor left one character.

Move to next edit field.

Delete character to left.

Replace hex data with modified numeric value from edit field.

Return to main window.

Menus

File

Commands pertaining to loading or saving files.

Edit

Commands for editing the file.

Options

Selections which affect the operation of the program.

Search

Commands for searching or searching and replacing data.

Help

Commands for further information about the program.

File Menu

Open - Opens a file for editing. A dialog box will be displayed, allowing the user to select the drive, path, and file name. Upon startup, this dialog box will be displayed automatically, if no file is specified on the command line.

Save - Saves the current file using the current drive, path, and file name. If the user attempts to exit the program without saving a modified file, a dialog box will be displayed, giving the user a chance to save the file.

Save As - This will display a dialog box allowing the user to select a new drive, path, or file name, and saves the current file using the new designation. The current drive, path, and file name is changed.

Export binary to ASCII - Allows the user to export data from the binary file to an ASCII file. The export function will convert the data from one of the numeric formats to ASCII. The Export ASCII Export ASCII dialog box dialog box will be displayed allowing the user to specify how the data will be exported. This is handy for exporting arrays of numbers.

Exit - Exits the program. If the current file is modified, a dialog box will be displayed, giving the user a chance to save the file.

Edit Menu

Insert - Selecting this option or pressing the Insert key will insert a single byte with value 00 hex at the cursor location. Variable length file mode must be selected.

Delete - Selecting this option or pressing the Delete key will delete a single byte at the cursor location. Variable length file mode must be selected.

Toggle Edit Mode - This toggles the edit mode between HEX and ASCII. With the focus set on the main edit window, characters typed on the keyboard will replace text at the current cursor location.

Export File Dialog Box

The export file dialog box is displayed when the selected file for ASCII export already exists. It presents options to allow appending or replacing the data.



Append side-by-side will add the exported data column to the right of the previous data column(s).

Append below will add the data at the end of the file, extending the existing column(s) in the file.

Replace will delete the old data and replace it with the new data column.

Cancel will stop the export operation.

Search Menu

Search - This will display a search dialog box, which allows the user to enter text to be found within the file.

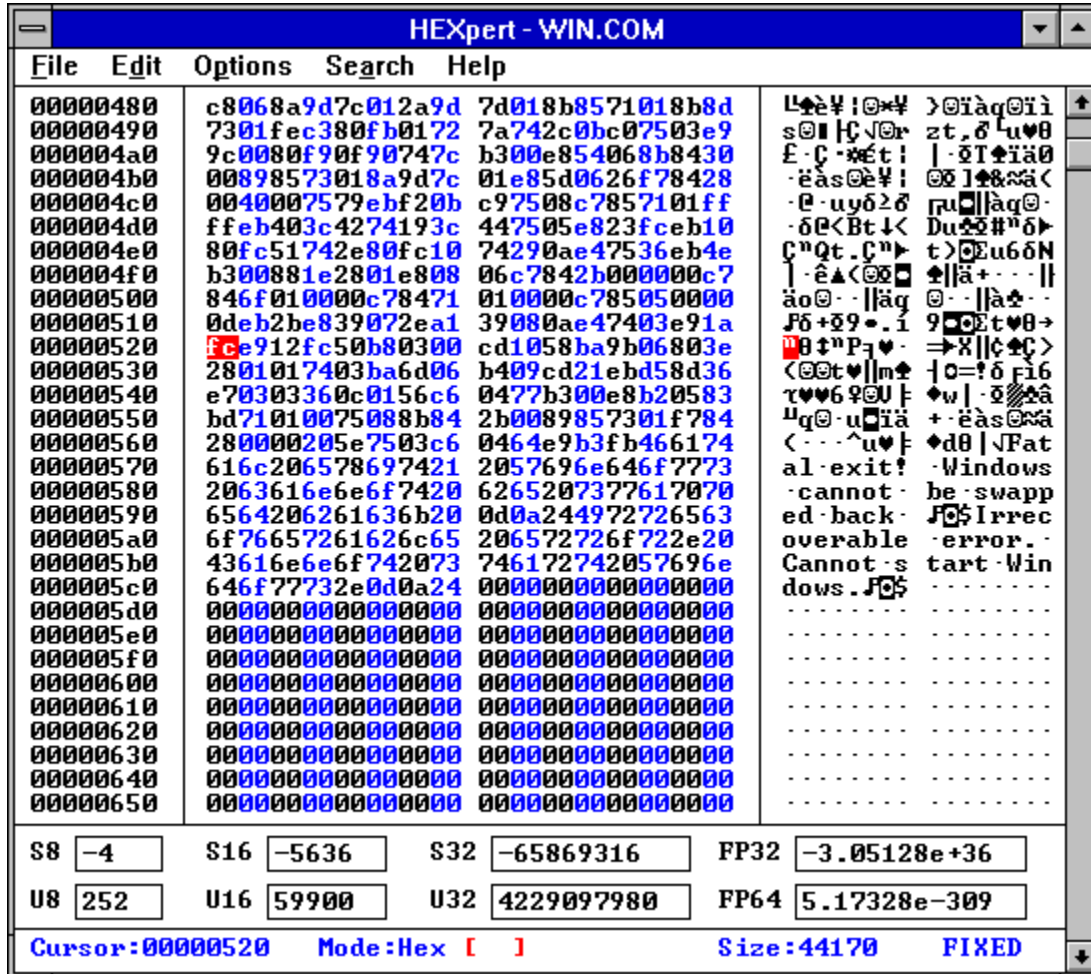
Search & Replace - This will display a search & replace dialog box, which allows the user to enter text to be found, and new text to replace the found text within the file.

Search Next - Selecting this will repeat the last search or search & replace action.

Goto Offset - This option opens the goto dialog box, which allows the user to go to a given offset in either hexadecimal or decimal.

Overview

HEXpert is a powerful tool that allows the user to view and edit binary data in both hex (or octal or binary) and ASCII formats, as well as eight different numeric formats, including signed and unsigned integers and floating point. Instead of looking for the hex equivalent of a floating point number, the user can simply view the data in all formats simultaneously. HEXpert allows editing, searching, or replacing of the data in any of these formats. Additionally, HEXpert can insert and delete data. Files can be as large as 16 MBytes. HEXpert runs under Microsoft Windows 3.1.



The main window consists of three regions. The top area of the window is split into three columns. The first column is the offset in hex of each line of data. The second column is the hexadecimal representation of the data, 16 bytes per line. The third column displays the ASCII equivalent of the data. The middle region of the window contains the format windows. The format windows display the data, currently pointed to by the cursor, in various integer and floating point formats. The user can also change the data at the current location by editing one of the format windows, in integer or floating point. The bottom region of the window shows the current file status. The status consists of the current cursor location, the current key entry mode (HEX or ASCII), whether the file has been modified or not, the file size, and whether the file is FIXED length or not. Alternately, HEXpert can operate in Octal or Binary modes, rather than in Hex.

Help Menu

Contents - Displays the help contents.

About - Displays a dialog box showing the program name, program version, author, and copyright.

Status Line

Cursor:00000520	Mode:Hex []	Size:44170	FIXED
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Sample status line

The status line consists of the current cursor location (hex), the current key entry mode (HEX or ASCII), whether the file has been modified or not, the file size, and whether the file is FIXED length or not.

Export binary array data to an ASCII file.

Formats

S8	Signed 8-bit integer.
U8	Unsigned 8-bit integer.
S16	Signed 16-bit integer.
U16	Unsigned 16-bit integer.
S32	Signed 32-bit integer.
U32	Unsigned 32-bit integer.
FP32	32-bit floating point.
FP64	64-bit floating point.

Keyboard Reference

File

<u>Open</u>	F3
<u>Save</u>	F2
<u>SaveAs</u>	
<u>Export Binary to ASCII</u>	Alt+E
<u>Exit</u>	Alt+X

Edit

<u>Insert</u>	INS
<u>Delete</u>	DEL
<u>Toggle Edit Mode</u>	Alt+M

Options

<u>Hexadecimal</u>	Alt+H
<u>Octal</u>	Alt+O
<u>Binary</u>	Alt+B
<u>Decimal Offset Display</u>	Alt+0
<u>Fixed Length</u>	Alt+L
<u>Byte Swapping</u>	Alt+W
<u>OEM Font</u>	Alt+1
<u>ANSI Font</u>	Alt+2

Search

<u>Search</u>	Alt+S
<u>Search Replace</u>	Alt+R
<u>Search Next</u>	Alt+N
<u>Goto Offset</u>	Alt+G

Main Edit Window

<u>Right</u>	→
<u>Left</u>	←
<u>Up</u>	
<u>Down</u>	↓
<u>Tab</u>	Tab
<u>Backspace</u>	←
<u>Page Up</u>	PgUp
<u>Page Down</u>	PgDn
<u>Begin File</u>	Ctrl+PgUp or Ctrl+Home
<u>End File</u>	Ctrl+PgDn or Ctrl+End

Format Windows

<u>Right</u>	→
<u>Left</u>	←
<u>Tab</u>	Tab
<u>Backspace</u>	←
<u>Enter</u>	↵
<u>Escape</u>	ESC

Use hexadecimal for Main Window data display.

Use Octal for Main Window data display

Use Binary for Main Window data display.

Selects the ANSI font, which includes special characters used in many non-English languages.

