

GRAPH/NET Computer Integrated Design System  
Editor User's Guide

This manual describes the GRAPH/NET text editor. The manual includes a small amount of overview and philosophy behind the Editor and contains a description of the available commands. The reader is expected to have a general grasp of computers and computerized editors. Some experience or familiarity with a similar editor is helpful.

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## GRAPH/NET Editor User's Guide

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# GRAPH/NET Editor User's Guide

## Introduction

It is a good idea to try out the Editor at a GRAPH/NET workstation while reading. Use the system "Copy" command to copy one of the Editor's help files to a scratch file and eliminate the possibility of accidental changes. For example:

```
Copy >HelpDir>EditorHelp>Introduction.Help Scratch.File
```

You can read the file while editing. Now edit the scratch file:

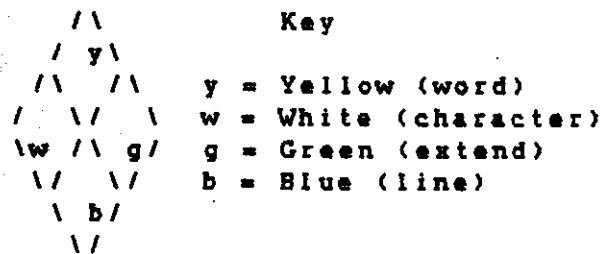
```
Edit Scratch.File
```

The GRAPH/NET text Editor is a "point, act" Editor. To perform an editing action, you first "point" to a piece of text in the file and then perform some action on it. Pointing is done with the bitpad and puck. When you move the puck on the tablet, the pointer on the screen moves to follow it. The pointer changes shape depending on where it is on the screen. It is usually an up-and-left pointing arrow, but changes in certain areas to an up-pointing arrow, a down-pointing arrow, or a circle. These shapes indicate that different things happen when you press the buttons on the puck.

To select a specific piece of text, move the puck so the pointer is at the text and press the white button. A single press selects a character. A second press, without moving the pointer, selects the word of adjacent letters and digits. A third press selects the entire line. Another way to select an entire line is to press when the pointer is at the left margin line. The other buttons on the puck can also make selections: the yellow button selects a word, the green button extends or contracts the selection to the pointer position, and the blue button selects a line.

The following diagram details the button functions:

### Four-button puck



To extend or contract the selection, move the pointer to the desired piece of text and type "E". The selection extends to a character, word, or line boundary, depending on the type of your last selection. Commands that change the selection (other than Extend, W, and L) set the type to character.

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After selecting text, you can insert before or after it, delete it, search for a character string that follows it, or perform any of the other Editor actions. The top line of the screen usually shows editor version, file name, and time. It also displays repeat counts and flags for More, Verify, and direction. The top line is also used for error messages and prompts within commands.

When the first line of text is showing on the screen, it is indicated by a ">" in the left margin--this is the beginning-of-text marker. When the last character of the file is showing on the screen, it is followed by a "<"--this is the end-of-text marker. You may select this character, but it is not affected by text modification commands.

The following sections describe the available commands. Each command description begins with the letter of the key used to perform the command.

### First Things First

#### HELP - Get explanations

Type the HELP key to get explanations of the Editor commands. (If you are "in" a command, you may need to type DEL before typing HELP.) The Editor displays a list of commands and keywords. Type the name of an entry (the word or letter before the dash) and the Editor displays an explanation. To exit, press the RETURN key.

#### Q - Quit from the Editor

To exit the Editor, type the "Q" key. (If you are "in" a command, you may need to type DEL before typing "Q".) When you type "Q", the Editor erases the screen and informs you whether or not the file has changed. It then displays a list of options:

- U to update (your file name) (omitted if file is unchanged)
- W to write to another file
- E to exit without updating
- R to return to the Editor

Type one of these letters followed by RETURN.

If you update or write to a file that already exists, the Editor saves the old version of the file by adding a "\$" to the end of its name. This allows you to get the old version back if you decide you made a mistake. You can safely edit the backup file since it has a different name than the new version of the file.

While it is never a good idea to type control-C while you're in the Editor, you should not type it while the Editor is writing the new copy of your file. You will lose the new version of your file, and the old version will be in the backup file. If

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you type control-C before writing the new file or type "E" to exit without updating, your file will remain unchanged regardless of any changes you made with the Editor.

### Special Keys

The Text Modification commands are terminated by "Accept" or "Reject". The first of these indicates that the change is desired, the Editor makes the change. The second foregoes the change, the Editor leaves the text as it was before the command. Press the INS key to signal acceptance or the DEL key to signal rejection.

When inserting text with the Editor, BACK SPACE deletes the most recently typed character, control-BACK SPACE deletes the most recently typed word, and control-OOPS deletes the most recently typed line up to and including the carriage return. The RETURN key (carriage return) marks the end of each line in your file. The Editor does automatic indenting for you by supplying leading blanks on the new line to match those on the previous line. You may BACK SPACE over them or type additional spaces.

The special keys have alternates as shown by this table:

| <u>Action</u>   | <u>Character</u>   | <u>Alternate</u>                           |
|-----------------|--------------------|--|
| End-of-line     | RETURN             | control-M, control-J<br>-or- control-M, LF |
| Erase character | BACK SPACE         | control-H                                  |
| Erase word      | control-BACK SPACE | control-W                                  |
| Erase line      | control-OOPS       | control-U                                  |
| Accept          | INS                | control-Y                                  |
| Reject          | DEL                | control-N                                  |
| Quote           | control-"          | -none-                                     |

Since these special keys have special meanings, they must be "quoted" to insert them in your file. Type control-" (the Editor quote character) followed by the special key. When you type control-", the insert cursor changes from "\_" to " " to indicate you typed the quote character.

INS - Repeat the last command

Typing the INS key at command level repeats the last command. Only certain commands may be repeated this way, since it does not make sense to repeat some commands like \* and Extend. Commands that may be repeated are A, I, R, S, and those which move the selection.

### Repeat Count

Typing a 1- to 4-digit number enters a repeat count; it is displayed in the prompt line after the letter "R". This number specifies how many times to execute the next command, but it only applies if the command is Find, Repeat, Goto character, LF(Scroll), Line, Word, or one of the Character Selection commands. The number of repetitions actually performed is displayed in the prompt line after the letter "C".

### Reverse Direction

Many commands move through the file. They can do this either forward toward the end of the file or in reverse toward the beginning of the file. The current direction is displayed by a "<" or ">" in the upper left corner of the screen. It effects the commands Find, Replace, Word, Line, and Goto character. The flag is turned forward by all other commands except More, Extend, Verify, and Note. It is also turned forward by Find, but the old direction is remembered if the Find is repeated with INS.

#### > - Forward Direction

Typing a ">" sets the forward direction (toward the end of the file). "+" and "." (unshifted ">") are synonyms for this command.

#### < - Reverse Direction

Typing a "<" sets the reverse direction (toward the beginning of the file). "-" and "," (unshifted "<") are synonyms for this command.

### View Selection

#### The Scroll Bar

The area to the left of the left-margin line is the "scroll bar". If you move the pointer into this bar, it changes into an up-pointing arrow at the left side and a down-pointing arrow at the right side. If you press the white button when the arrow is pointing up, the line at the pointer position scrolls to the top of the screen. If you press when the arrow is pointing down, the top line of the screen scrolls down to the line at the pointer position. Thus if you put the pointer near the top of the screen and

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press repeatedly, you can scroll slowly through the file. If you put the pointer near the bottom of the screen, you move through the file in large jumps of pages. If you put the pointer near the middle of the screen, you move through the file in half-page jumps.

When the pointer is in the Scroll Bar area, the puck buttons have special meanings: the yellow button always scrolls the text up and the green button always scrolls it down.

### LF, Control-LF - Scroll

LF repositions the screen window so it displays text starting with the 37th line of the previous display. Control-LF scrolls in the other direction so the previous top of the screen is at the new bottom.

### T - Top

The line containing the end of the current selection is moved to the screen. If on-screen, it is moved to the bottom.

### B - Bottom

The line containing the current selection is moved to the bottom of the screen. (If off-screen, it is moved to the middle.)

## The Thumb Bar

The top-margin line is called the "thumb bar". When you move the pointer to this line, it changes into a circle. Think of the thumb bar as a linear representation of your file. The left end of the bar represents the beginning of your file. Special characters are used to represent other interesting parts of your file:

- < - Represents the end of the file.
- S - Represents the position of the beginning of the selection.
- ( - Represents the position of the beginning of the displayed text.
- ) - Represents the position of the end of the displayed text.
- N - Represents the position of the Noted display.
- O - Represents the position of the display at the last thumbing.

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The thumb bar is used to rapidly move around in your file, but it is not very precise. When you put the pointer on the thumb bar and press, the portion of the file represented by that portion of the bar is displayed on the screen. For example, when you press at "S", the Editor displays the beginning of the selection. Similar control can be achieved with the X command described below.

The thumb bar can also be used to extend the selection. When you type "E" while in the thumb bar, the selection is extended to the position in the file which is represented by that particular portion of the thumb bar. This is usually only useful for extending to the beginning or end of the file.

### N - Note

The current screen display is noted and an N is placed in the Thumb Bar. The thumb bar may be used to return to this current display by selecting the N.

### Text Selection

#### E - Extend the selection

This command extends or contracts the current selection from where it is to the text currently indicated by the pointer. See the M command for an alternative way to extend the selection.

#### \* - Select the entire file

The entire file is selected. This is useful for Find, which otherwise begins its search from the current selection. It is also useful for doing replacements throughout the text.

#### F - Find a character string

(N. B.: The search starts at the beginning of the selected text.) When you type "F", the top line shows the prompt

Find: enter target string

Type the string you want to search for and then Accept or Reject. Rejection aborts the Find command; Acceptance starts the search. If you Accept immediately after typing "F", the previous target string is used. Lower case letters in the target string will match both upper and lower case letters in the text, but UPPER case target letters will match only upper case text letters.

While searching for the target, the top line displays the cue "Finding". At this time, the search can be interrupted by typing control-c. The selection will be unchanged.



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If the target string is found, it becomes the selected text. Note that the target string is shown at the top of the screen inside of

F( ... )

A Find command can be done in the reverse direction (toward the beginning of the file). See the section "Reverse Direction". You can ask the Editor to search for a certain number of occurrences of the target string by preceding the command with a number. See the section "Repeat Count".

### Text Modification

The commands Insert, Append, Substitute, Replace, and Delete perform text modification. Insert and Append operate before and after the current selection. The others operate on the current selection itself. After execution of all but the Delete command, the function can be re-executed by pressing the INS key. This is useful for inserting the same text in a number of places. If you press the INS key after a Delete command, the deleted selection is reinserted.

A - Append text after the selection. Type text until you are done, then either Accept or Reject the insertion. If you Accept immediately after typing "A", the most recently inserted or deleted text is inserted. If you Accept, the text you have just typed is displayed at the top of the screen inside of

I( ... )

D - Delete the selected text. If you delete text, it is displayed at the top of the screen inside of

D( ... )

The character which immediately follows the deleted text is selected. If you press the INS key after typing "D", the deleted text is inserted. This is useful when you wish to copy text to another location in the file; simply select the text you wish to move, press "D," select the new area, and press INS.

I - Insert text before the selection. Type the text and then either Accept or Reject the insertion. If you Accept immediately after typing "I", the most recently inserted or deleted text is inserted. If you Accept, the text you have just typed is displayed at the top of the screen inside of

I( ... )

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### R - Replace

This command finds all occurrences of a given string within the currently selected text. As each is found, it is replaced by a second given string. Typing "R" causes the prompt

Replace: enter target string

at the top of the screen. Type in a string and then Accept or Reject. Note that the target string is displayed inside of

```
F(      )
```

just as though you were using the the Find command. Lower case letters in the target string match both upper and lower case letters in the text, but UPPER case target letters match only upper case text letters. If you Accept, the prompt

Replace: enter replacement string

appears at the top of the screen. Type the new string to replace occurrences of the target string. If you Accept before typing any characters of the replacement string, the previous replacement string is used. Thus, to replace with nothing, first type a character and then delete it with the BACK SPACE key.

You can interrupt the "Replacing" by typing control-c. The Count field at the top of the screen shows how many replacements have been made.

In the absence of a Repeat Count, the Editor replaces all occurrences within the selection. If a Repeat Count is typed immediately before the "R", the specified number of occurrences are replaced, starting at the beginning of the selection. See the section "Repeat Count". The direction can be changed as described in the section "Reverse Direction".

### V - Toggle Verify mode

When you type "V", Verify mode is turned on or off, depending on whether it was off or on before. When Verify mode is on, a "V" is displayed in the prompt line. Most commands revert the verify flag to non-verify mode. Those that do not cause reversion are Word, Line, \*, Goto character, More, Extend, Note, and the Character Selection commands.

In Verify mode the Replace command gives you the option of replacing, not replacing, or aborting at each occurrence of the target string. The prompt

Replace: INS replaces, <space> doesn't, DEL aborts

is displayed for each occurrence of the target string. The

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target string is indicated by a double underline and by the pointer arrow (if you keep the puck or pen away from the tablet). This double underline is difficult to see, but it's there. You may now Accept the replacement with INS, you may skip over this occurrence by typing the space-bar, or abort the replace command with DEL.

### S - Substitute

New text is substituted for the selected text. This command is similar to the sequence "Delete, Insert". After typing "I", type text until you are done, then either Accept or Reject the insertion. If you Accept immediately after typing "S", the most recently inserted or deleted text is inserted. If you Accept, the text you have just typed is displayed at the top of the screen as the most recently inserted text inside of

I( ... )

and the text you have just deleted is displayed at the top of the screen inside of

D( ... )

After substituting, the character immediately following the deleted text is selected.

Be careful. It is easy to confuse Substitute and Replace. There is no way to "undo" a Substitute command because you cannot re-insert the deleted text. Attempting to re-insert the most recently inserted or deleted text will merely re-insert the text you just typed in. The deleted text is gone forever. This means that if you type "S" when you meant to type "R", you may accidentally delete a large portion of your file and have no way of getting it back. (Should disaster strike, see the section below on "Transcript/Replay".)

### Character Selection

The Character Selection commands move the selection as though it were a cursor for insert. The new selection is a single character close to the former selection. None of these commands is affected by the Reverse Direction flag, but all are performed as many times as specified by the Repeat Count. They reset the Reverse Direction flag unless the More flag is set. When the More flag is set, these commands still move in their usual direction; thus they can be used to reduce the selection.

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**SPACE** - Move to the character following the previous selection.

**BACKSPACE** - Go to the character preceding the previous selection.  
Control-H is synonymous with this command.

**TAB** - Advance five characters from end of previous selection.

**Control-TAB** - Go back five characters from beginning of previous selection.

**Control BACKSPACE** - Go to the beginning of the word preceding the current selection. Control-w and Control-W are synonymous with this command, but shift-control-W treats a word as any consecutive string of printable characters.

**RETURN** - Move to first character of line following the previous selection. Control-U is synonymous with this command.

**Control-RETURN** - Go back to first preceding non-blank that follows a CRLF. Control-OOPS is synonymous to this command.

**X** - Thumb bar (X-Coordinate selection)

An "X" is placed on the thumb bar at the top of the screen.  
The following keys are active:

**INS** - Display the part of file corresponding to current position of the "X".

**DEL** - Aborts. Display and current selection are unaffected.

**TAB** - Move "X" five positions to the right.

**control-TAB** - Move "X" five positions to the left.

**SPACE** - Move "X" one position to the right.

**BACKSPACE** - Move "X" one position to the left.

**RETURN** - Move "X" to end of file position.

**Control-RETURN** - Move "X" to beginning of file position.

**Digits** - Set repeat count for TAB's and SPACE's.

**O** - Move to O marker on line. This marker indicates what text was displayed prior to the last thumb bar selection.

**N** - Move to the N marker on the line. This marker is set by the N command.

The current selection is unchanged by X. However, if a keyboard command (C, W, L, G, space, ...) is given when the

## GRAPH/NET Editor User's Guide

selection is off screen, the operation is treated as though the first character of the screen had been previously selected.

### G - Go to character

After typing "G", one more character is typed. The editor searches the rest of the screen for the character. If found, it becomes the current selection. If the Reverse Direction flag is set, G searches from the current selection toward the top of the screen otherwise it searches only from the selection downward. INS will repeat a G command if it was the last command executed. A repeat count may also be given to select a character a known number of instances away. If the More Flag is set, the selection is extended to the found character.

### w, W - Select Word

This command selects the word that follows, extends, or begins the current selection. If the current selection is a word or is outside a word, the following word is selected; if currently inside a word, the entire word is selected. When the current selection overlaps more than one word, the one overlapping the beginning of the selection is chosen. Unshift-w chooses words that are consecutive letters and digits; Shift-W defines a word as any sequence of printable characters.

A Repeat Count of (say) n will cause the selection of the n'th subsequent word. If the Reverse Direction flag is set, the search will be toward the beginning of the file. If the More flag is set, the selection is extended to the end of the word that would otherwise be selected by this command.

### L - Select Line

If a line is currently selected, this command selects the next; otherwise it extends or contracts the current selection to be the line that included its start.

A Repeat Count of (say) n will cause the selection of the n'th subsequent line. If the Reverse Direction flag is set, the search will be toward the beginning of the file. If the More flag is set, the selection is extended to the end of the line that would otherwise be selected by this command.

### M - More in selection

Turns on the More flag, indicated by an M in the prompt line. When this flag is on, selection commands extend the current selection rather than change it. The selection grows only at the end indicated by the Reverse Direction flag. The Character Selection commands (SPACE, BACKSPACE, RETURN, etc.) can cause the selection to shrink at that end. In More mode, these commands do not select a single character, nor do they change the direction flag. More mode is extinguished by More again or by executing \*, Extend, Quit, or one of the Text Modification commands.

### Transcript/Replay

The Editor writes a transcript file during every edit session. The transcript is a file which contains a description of every keystroke and puck or pen press performed during an edit session. This transcript is written to the file ">Editor.Transcript". The transcript may be replayed later. This feature is intended for use when the Editor or the PERQ crashes during an edit session or if you make some disastrous error with the Editor.

The Editor saves keystrokes and presses and writes them to the transcript file whenever:

- 1) A carriage-return is typed in Insert mode.
- 2) A command which changes the text is successfully completed.
- 3) The transcript buffer is filled.

If an old transcript file exists, it is destroyed the first time the buffer is flushed. This means that you can re-enter the Editor without destroying the old transcript file as long as you do not do something that causes the buffer to be flushed. Keep in mind that presses count against the 256-word buffer. If you do not want to destroy the old transcript file, do not type any commands, do not press more than a few times, and exit the Editor by typing control-shift-C.

To replay a transcript, type "Editor/Replay". The Editor replays the previous edit session and stops just before the first command. You can control the replay by typing one of the following keys:

|       |  |
|-------|--|
| SPACE | stop replaying after the next character or puck press.   |
| CR    | stop replaying after a carriage return in I command or after next command if not in I command. |
| LF    | stop replaying after next command.   |
| INS   | begin replaying and stop when one of the above keys is typed.                                  |
| DEL   | exit replay mode.  |

If no DEL key is typed, the Editor automatically exits from replay mode when the end of the transcript is reached. Once you have exited replay mode you can begin editing normally, but we suggest that you Quit-Update as soon as possible.

Note that replay may start with the backup or \$ version of the file and thus, when you quit the Editor, the default file name is file\$ not file.

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GRAPH/NET Computer Integrated Design System

FONTED Font Editor Program

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# FONTED Font Editor Program

## Introduction

The FONTED program is intended to allow the user to modify the fonts included in the DRAFT/NET package. It should be loaded from the floppy into the BOOT area of the hard disk, since that is the area where the fonts should be kept.

The following is a quick reference guide to the Font Editor Program, FONTED, which is still in the developmental stage. It will serve until such time as the Program is released and the official user's guide becomes available. The commands and functions available in FONTED will each be briefly described.

This document refers to FONTED version 3.4.

The following terms will be used throughout this document:

POINTING refers to the action of positioning the puck at some location and depressing one of the puck buttons. FONTED does not distinguish between the different buttons on the cursor; they all have the same effect.

Typing to a window is generally accomplished by first pointing to the desired window, and then typing at the keyboard.

Drawing is accomplished by depressing the puck in the character grid where the user wishes to draw.

The CURRENT CHARACTER refers to the character within the font which will be the target for the various commands. The current character may be selected by typing as the ASC or ORD windows (described below), or by pointing at the characters displayed at the bottom of the screen. The current character is displayed in reverse video at the bottom of the display.

The MODE window is used to describe the action which will be performed when drawing free hand, boxes and lines. If the MODE is BLACK or WHITE, all areas drawn will become black or white, respectively. When in TOGGLE MODE, all areas drawn will be inverted (black changes to white, white changes to black).

## FONTED Font Editor Program

The entire character pattern may be shifted within the working grid by depressing the appropriate arrows, located to the right of the FONT FILE NAME window. Each hit of the arrow will shift the entire character one grid position. Note: if the pattern is shifted out of the grid or to the right of the width marker, the data is shifted out of bounds and will be lost.

The COMMENT window is used to allow the user to type random text and examine the appearance of the characters. This mode is terminated by pointing outside the COMMENT window.

The FIXED WIDTH window is used to indicate whether all characters in the character set are to have the same width, or whether each width is permitted to vary. When working with a fixed width character set, the width marker may not be moved.

A true scale image of the character described in the character grid is always displayed to the left of the FONT HT window.

For your information, the "random design" which is located above the font at the bottom of the display is bookkeeping information which describes the character set.

## Using a New Font

After you have created a new font, or modified an old one and stored it under a new name, you may use that font in the DRAFT program. Simply call it up using the NEW FONT option in the f Font Menu command.

## FONTED Font Editor Program

**JOIN** - Overlays the current character over whatever is currently in the working grid.

**LINE** - Draw a line between two end points. After pointing to the **LINE** command, the user must point to the two end points for the line in the working grid.

**PUT FONT FILE** - Save the character set as the file named in the **FONT FILE NAME** window. Note: the character in the working grid must be written (**CHAR WRITE**) into the character set before the **PUT FONT FILE** command is given, or this pattern will not be saved.

**REFRESH** - Redraws the entire screen display.

Any command which may cause work to be lost will usually require confirmation. A confirmation request is indicated by the flashing of the **CONFIRM** window. The reply is given by pointing to either **YES** or **NO**.

The width of a character may be set by either dragging the ball at the bottom of the width marker or by typing to the **WIDTH** window. Drawing is never permitted to the right of the width marker, and if the width marker is moved so that part of the pre-existing pattern now falls on the right of the marker, that portion of the pattern will be immediately lost (after confirmation).

The **FUNCTION** window is used to set the function for the screen and cursor displays. The default **FUNCTION** value is 6, which provides a black on white screen with a complimenting cursor. Valid values are 0 through 7, although **FONTED** will not permit the use of 0 or 1.

The **ASC** window is used to select the current character, by typing the character which is desired after pointing to the window.

The **ORD** window is used to select the current character, by typing the decimal value of the desired character. **BUG:** currently you must type this value in decimal, however it is displayed in ordinal.

The font file to read or written (via the **GET/PUT FONT FILE** commands) is selected by typing to the **FONT FILE NAME** window **PRIOR** to the execution of the **GET/PUT FONT FILE** commands.