

MINDSET
GLYPH
USER'S GUIDE

FOR USE WITH THE
MINDSET II

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INTRODUCTION

This manual describes how to use your MINDSET GLYPH Program. It explains what you will need to get started, the steps in operating the program, and how it fits with PC PAINTBRUSH II and VIDEO TITLER II.

The main reason for GLYPH is to allow VIDEO TITLER II to display PC PAINTBRUSH II pictures. Since using PC PAINTBRUSH II you can draw anything you wish, this same diversity is now available with VIDEO TITLER II. The variety of objects that can be titled is primarily limited to your imagination. Some of the picture possibilities are: logos, charts, products, people, and any special symbols.

Using GLYPH is a simple process. The program displays text instructions at each step. The object of GLYPH is to outline one or more sections of a picture. Then assign them to the keyboard characters which will invoke the pictures in VIDEO TITLER II.

Read the section GETTING STARTED describing how to begin the GLYPH process. It also shows how to install GLYPH on a hard disk and what to do if you damage your Program Diskette.

SYSTEM REQUIREMENTS

To use GLYPH, you must have the following MINDSET II configuration:

1. Minimum of 512K bytes of RAM
2. 2 disk drives
3. Mouse or Graphics Tablet with RS232 module
(see Appendix for supported tablets)

In general, you would also need the program packages for:

1. PC PAINTBRUSH II
2. VIDEO TITLER II

GETTING STARTED

The GLYPH package contains three diskettes. They are labeled "Program Diskette", "Data Diskette", and "Install Diskette". The use of each of these is described below. With them you can run GLYPH, make copies of data diskettes, or prepare new diskettes for use with your MINDSET II. If you purchase a hard disk, you will be able to put GLYPH on the hard disk.

THE PROGRAM DISKETTE

The Program Diskette is ready to use and can be used to start all of these operations. To begin, place the Program Diskette in the left diskette drive (drive A). If the power to your MINDSET II is off, turn it on using the switch at the rear of the keyboard. If power is already on, press the ALT key and hold it down while you press the RESET key. In either case, the computer will load programs from the Program Diskette and begin to operate.

When the startup programs are loaded, the screen will show a menu of choices. These are:

1. Execute GLYPH
2. Execute PC PAINTBRUSH II
3. Execute VIDEO TITLER II
4. Create a New Data Diskette
5. Copy a Diskette
6. Show Picture Files
7. Show Sequence Files
8. Show Font Files
9. Change PC PAINTBRUSH II Defaults
10. Exit to DOS
11. Display Document Updates

To choose, just enter the number of your choice and press RETURN. Then just follow the instructions printed on the screen.

When you are through with the operation you requested, the menu will be displayed so you can make your next choice.

NOTE: You can not copy this Program Diskette to make a backup. The Install Diskette provides the backup and can be used EITHER to make another program diskette OR to install GLYPH on your hard disk.

THE DATA DISKETTE

The Data Diskette contains sample data files. It also has space for data files you will create. If you want to create additional disks for data files use the Program Diskette menu item number 4.

THE INSTALL DISKETTE

Included in your GLYPH package is an Install Disk. This disk allows you to make another copy of the GLYPH Program Diskette or to install GLYPH on a hard disk. You can choose either option but remember that you can do EITHER a diskette backup OR an installation on a hard disk...not both. It is recommended that you do not use the diskette unless your "Program Diskette" is damaged or you purchase a hard disk.

INSTALLING GLYPH ON A FLOPPY DISKETTE

1. Place the Install Diskette in the left diskette drive (drive A) and turn the latch down.
2. Place a blank diskette in the right diskette drive (drive B) and turn the latch down.
3. Turn the power ON by pressing the switch on the rear of the keyboard. If the MINDSET II is already ON, then press the ALT key and hold it down while you press the RESET key.
4. The computer will load programs from the diskette and begin to operate.
5. The program will ask you to enter a letter to signify which type of device you want to install GLYPH onto. Press the letter F and then press RETURN.

-
6. The system will then ask you to insert a new diskette in the right diskette drive (drive B) and to strike any key when you have done so. If you have already placed the blank diskette in the right drive as explained in step 2, just strike any key. If not, place the blank diskette in drive B, turn the latch down, and strike a key.
 7. The system will tell you that it has completed formatting and asks you if you wish to format another. Just enter the letter N (for No).
 8. The system will write some data to drive B and then ask you to verify that the Product Diskette is in Drive A. Just press the RETURN key.
 9. The program will operate for a while and then tell you that 000 installs will be available after this one. Press RETURN.
 10. The program will operate for 2 or 3 minutes and then tell you that GLYPH has been successfully installed.
 11. You should remove the Install Diskette from drive A.
 12. To load GLYPH from a diskette, just follow the instructions given above for using your Program Diskette.

INSTALLING GLYPH ON A HARD DISK

1. MS-DOS should already be installed on the hard disk. The hard disk should be powered on and attached to the computer. No diskette should be in the computer.
2. Turn the power ON by pressing the switch on the rear of the keyboard. If the MINDSET II is already ON, then press the ALT key and hold it down while you press the RESET key.
3. The computer will load MS-DOS from the hard disk and begin to operate.
4. After the C> prompt, type in MKDIR C:\PBRUSH followed by pressing the RETURN key. If the PBRUSH directory already exists the message "Unable to create directory" is displayed, ignore it.
5. Place the Install Diskette in the left diskette drive (drive A) and turn the latch down.

6. Type in A:GLINSTAL followed by pressing the RETURN key. This will load the install program from drive A.
7. The program will ask you to enter a letter to signify which type of device you want to install GLYPH onto. Press the letter H and then press RETURN.
8. The system will write some data to drive C and then ask you to verify that the Product Diskette is in Drive A. Just press the RETURN key.
9. The program will operate for a while and then tell you that 000 installs will be available after this one. Press RETURN to continue.
10. The program will operate for 2 or 3 minutes and then tell you that GLYPH has been successfully installed.
11. You should remove the Install Diskette from drive A.

LOADING GLYPH FROM HARD DISK

1. If you are not at a C> prompt, type C: and then press RETURN.
2. At the C> prompt, type CD C:\PBRUSH and then press RETURN.
3. To load GLYPH from your hard disk, type GLYPH and then press RETURN.

PURPOSE

GLYPH is used to define graphic symbols which can be used with the VIDEO TITLER II. With GLYPH, you can create a VIDEO TITLER II font file using images drawn with PC PAINTBRUSH II.

In order to use GLYPH, you must have VIDEO TITLER II and PC PAINTBRUSH II. It is assumed that you have a basic knowledge of the use of these two products.

THEORY OF OPERATION

The VIDEO TITLER II uses fonts in the creation of titles and sequences. The VIDEO TITLER II program will use any file as a font that is in the proper format for its use. GLYPH can transform picture files created with PC PAINTBRUSH II into a file which the VIDEO TITLER II can use as a font, thereby allowing the intermixing of graphics and text into the VIDEO TITLER II. We call these custom made font files glyphs.

There are three major steps required to create glyphs for use with the VIDEO TITLER II:

1. Create an image with PC PAINTBRUSH II
2. Transform the image into a font file using GLYPH
3. Create titles with TITLER II using a font file created by GLYPH

CREATING THE IMAGE

All images to be used with GLYPH must be created using PC PAINTBRUSH II in the 640 x 400 x 4 color mode. The images should be created in the drawing area bounded by the menus in PC PAINTBRUSH II. If additional space is required, use only the areas directly to the left and right of the drawing area. This is the only area usable in GLYPH.

The palette boxes in PC PAINTBRUSH II can be changed to any color available from 512 colors available. The colors that are used to create the image are those that will be used by GLYPH to display the image.

The relationships between colors, color palette locations and color palette information can be difficult to understand and is beyond the scope of this manual to explain. Some information is necessary, however, to effectively use glyphs with the VIDEO TITLER II.

Glyph and font files do not contain any COLOR information. Therefore, it is necessary to adjust the colors in the VIDEO TITLER II after you have loaded your glyph. The actual color that you use in creating your image in PC PAINTBRUSH II does not matter since this color information will not be a part of your font file. The important thing to remember is to use the correct palette LOCATION as described below for the design of your image.

The background in VIDEO TITLER II is always Color 1 which corresponds to the upper left color box of the PC PAINTBRUSH II palette display. The PC PAINTBRUSH II background should always be this color. If it is different, clear the picture area to this color.

Color 4 in the VIDEO TITLER II corresponds to the lower left color box of the PC PAINTBRUSH II palette display. Color 4 is the initial foreground or character color used by VIDEO TITLER II.

Color 3 in the VIDEO TITLER II corresponds to the second color box in the upper row of the PC PAINTBRUSH II palette.

Color 2 in the VIDEO TITLER II corresponds to the second color box in the lower row of the PC PAINTBRUSH II palette.

As an example, suppose that you are creating a custom character and use the lower left box of the PC PAINTBRUSH II palette to create the main part of the character. When you load your glyph into the VIDEO TITLER II and adjust COLOR 4, the color in the main part of your character will be changed. Remember that its the palette LOCATION that is used that is important, not the color, since the color will have to be adjusted in the VIDEO TITLER II anyway.

For convenience sake, the palette color locations chosen for the creation of the image in PC PAINTBRUSH II should match those used by the VIDEO TITLER II.

After you have created an image, save it using the "PAGE" "SAVE AS" function of PC PAINTBRUSH II, using a file name that is 7 characters or less.

TRANSFORMING THE IMAGE

All images created with PC PAINTBRUSH II which are to be used with the VIDEO TITLER II must be turned into a font using GLYPH.

Most selections in GLYPH are made using either the Mindset mouse or a graphics tablet. Filenames are entered through the keyboard.

GLYPH leads the user step by step through the program with text prompts at the bottom of the screen.

There are 8 basic steps in creating a font using GLYPH:

1. Loading a picture file.
2. Choosing create or edit.
3. Loading a font file.
4. Setting the height.
5. Verifying the height.
6. Setting the width.
7. Identifying the glyphs.
8. Saving the glyphs.

LOADING A PICTURE FILE

At the prompt at the bottom of the screen, type in the name of a picture file to be loaded. The file name can be preceded with A:, B:, or C: to denote a particular drive to use. For example, A:CLIPART would load a file called CLIPART from disk drive A. If you don't type a disk drive designator, Glyph will look on drive B for picture files. When you have entered the name of the picture file to load, press the RETURN key. The file will load and in a few seconds the picture will appear on the screen.

CHOOSING CREATE OR EDIT

If you want to use GLYPH to add to or change an existing font file, select EDIT. If the glyphs are to form a new font file, select CREATE. The next step, load a font file, is skipped if EDIT is not selected.

LOADING A FONT FILE

This option is reached if EDIT an existing font is selected. At the prompt at the bottom of the screen, type in the name of a font file to be loaded. The height is obtained from the font file, bypassing the SET and VERIFY HEIGHT steps.

SETTING THE HEIGHT

All glyphs must be of a uniform height in order to be used by the VIDEO TITLER II. This step allows you to set the height of the glyphs to be used. You would normally use the tallest image on your picture screen as the height of your glyphs. Move the horizontal line on the screen by moving your mouse and align the line with the bottom of your tallest piece of the picture that you want to define. When the line is aligned correctly, press the mouse button and then select OK.

Now, align the second horizontal line at the top of the tallest image. When it is aligned correctly, press the mouse button and then select OK.

VERIFYING THE HEIGHT

Now, verify that the two horizontal lines are spaced far enough apart to encompass all of the images that you wish to define. Glide the mouse around to move the lines. When you are satisfied that the lines are the right height, select OK.

SETTING THE WIDTH

The width of individual glyphs must now be marked and identified by selecting a right and left edge. By moving the mouse, align the bottom horizontal line beneath an image and press the mouse button and then select OK.

Now, set the left side of the glyph image by moving the vertical line and pressing the mouse button. When the left edge is where you want it, press OK.

Next, set the right edge of the glyph in the same manner.

IDENTIFYING THE GLYPH

When you have outlined the glyph you must choose a keyboard key with which to associate the glyph. It is this key which will be used in VIDEO TITLER II to show this particular glyph. In other words, by selecting the letter A as the keyboard identifier, then when you load this glyph file into VIDEO TITLER II and select this glyph file as your font, whenever you type A this glyph image will be shown on your screen.

Move the cursor to a letter or symbol on the left side of the screen and press the mouse button. The letter chosen will change color. If you want to change your mind, select another letter or symbol. If you have defined a space character select SPACE from the menu on top, instead of a letter.

If the glyph height and width is correct and the keyboard identifier is correct, then press OK. The glyph is now sized and identified. This glyph is now a permanent part of the font file and cannot be removed without restarting the program.

At this point additional glyphs can be outlined and identified by repeating steps 6 and 7. A maximum of up to 90 glyphs can be identified in this manner.

SAVING THE GLYPHS

After you have identified all the glyphs that you want to use, you will save them on a disk as a font file that the VIDEO TITLER II can use. To do this, select DONE.

A new menu of choices is now shown on the screen. They are QUIT, RESUME, RESTART and SAVE.

At this point, the normal procedure is to SAVE the glyphs to disk. When you select SAVE, you are prompted to enter a file name for the font file you have just created. If you simply press the RETURN key at this point, the font file will be saved with the same name as the PC PAINTBRUSH II picture file that you loaded at the start of the GLYPH program. Doing this will not destroy the picture file. If you want to use another name, type it in with the keyboard.

RESTART starts the GLYPH program over from the beginning, requiring you to load a picture file.

RESUME puts you back to the point you were at when you selected DONE. This allows you to periodically save the work that you have in progress, in other words, backup your glyphs and resume working.

QUIT exits the program.

It is important to remember that RESTART, RESUME and QUIT do not automatically save the glyphs to disk. This must be done by selecting SAVE.

IMPORTANT NOTES

- Font files created using GLYPH do not contain any kerning information.
- Any key not assigned to an identifier in GLYPH will display a space 8 pixels wide when typed in VIDEO TITLER II. Another size space can be created with GLYPH, and assigned to the space bar. A glyph containing foreground pixels should not be assigned to the space bar.
- GLYPH creates images for the VIDEO TITLER II small edit screen by using every fourth pixel of every fourth scan line of the original image. Because of this, VIDEO TITLER II edit screen images can lose detail. The absolute worst case would be a glyph where nothing would show on the small edit screen. However, it would show up on the VIDEO TITLER II display screen.
- DO NOT rename GLYPH created font files using MS-DOS. To be safe, do not rename any files that have a file extension of .FNT or .FON.
- Use the VIDEO TITLER II COLOR menu to set the palette the same as the original PC PAINTBRUSH II picture.
- VIDEO TITLER II can crawl images up to 55 scan lines high. If your glyph is higher than this, then it will be clipped when crawled.

- Glyphs larger than 55 scan lines should only be rolled on the first two pages of a rolled sequence.

- To use GLYPH-created fonts in the VIDEO TITLER II, treat them as any other font. Use the LOAD FONT function on the VIDEO TITLER II system menu. Each new font loaded must replace one of the existing fonts in VIDEO TITLER II. A font that is loaded must be smaller in size than the font area into which it will be loaded. The five font areas in VIDEO TITLER II from first to last are of the following sizes: 65500, 32700, 20400, 53200 and 65500. When VIDEO TITLER II is first loaded and LOAD FONT is chosen, the following fonts are shown: SWISS03, SWISS02, SWISS01, GLYPH1, GLYPH2, corresponding to the five font areas. If, for example, you choose to replace SWISS01 with your GLYPH created font and this new font is too large for this area, then the VIDEO TITLER II will not allow this font to be loaded. Another area must be chosen as the font to be replaced. In no case will it be possible to create a font that is too large for the largest of the font areas.

This section shows the text prompts and messages that are displayed by GLYPH and explains the functions of the three menus. It provides the user an overview of the GLYPH process.

"GLYPH V1.1"

CREATE MENU

" CREATE " The glyphs outlined later will be collected to form
 a new font file.

" EDIT " The glyphs outlined later will be added to or replace
 entries in an existing font file.

CREATE AND EDIT

prompt 1

```
" CREATE / EDIT                               "  
" Select CREATE to start a new font file."  
" Select EDIT to modify an existing font "  
" file.                                       "
```

prompt 2

```
" LOAD A FONT FILE                           "  
" Type the Titler II font file name and "  
" press RETURN, or press ESC to quit.      "  
" File name >                               "
```

In response to prompt 2:

message 1

```
" ** ERROR **                               "  
" > CANNOT FIND                             "  
"                                             "  
" PRESS ANY KEY TO CONTINUE.                "
```

OK MENU

- " OK " The current step is complete and correct; proceed to the next step. The keyboard space bar can be used instead of OK.
- " Cancel " Return to the start of the current series of steps, either set height or outline.
- " Palette " Switch the display colors between those set by the user in PC PAINTBRUSH II and a fixed high contrast set of colors.
- " DONE " Switch to the " QUIT " menu.

Either the "OK" menu or the "QUIT" menu appear at the top of the screen at all times.

LOAD PICTURE FILE

prompt 3

```
" LOAD A FILE                               "  
" Type PC PAINTBRUSH II picture file name"  
" and press RETURN, or press ESC to quit."  
" File name >                               "
```

In response to prompt 3:

message 2

```
" ** ERROR **                               "  
" > CANNOT FIND                             "  
"                                             "  
" PRESS ANY KEY TO CONTINUE.               "
```

message 3

```
" ** ERROR ** Wrong picture type. Load    "  
" 640 x 400 4 color mode pictures only !  "  
"                                             "  
" Press the space bar to continue.         "
```

SET HEIGHT

Set height for entire set of glyphs in one font file.

prompt 4

```
" SET BOTTOM EDGE                                     "  
" Position horizontal line on bottom edge"          "  
" of tallest glyph and press pen. Select"          "  
" OK when correct.                                   "
```

prompt 5

```
" SET TOP EDGE                                       "  
" Position horizontal line on top edge of"          "  
" the same glyph and press pen. Select"           "  
" OK when correct.   Glyph Height is              "
```

prompt 6

```
" CHECK HEIGHT AGAINST OTHER GLYPHS                "  
" Select OK if correct, or select CANCEL"          "  
" if incorrect.                                    "  
"                                                   "   Glyph Height is   "
```

The set height series of steps is repeated until " OK " selected at prompt 6. This height can not be changed after this point in the process. The constant height for a single font file is a requirement of VIDEO TITLER II.

OUTLINE GLYPH

Outline the individual glyphs and assign keys to each.

prompt 7

```
" OUTLINE THE CURRENT GLYPH          "
" Position the two horizontal lines    "
" around the current glyph and press pen."
" Select OK when correct.             "
```

prompt 8

```
" SET LEFT EDGE                        "
" Position vertical line over left edge "
" of glyph and press pen. Select OK when"
" correct.                              "
```

prompt 9

```
" SET RIGHT EDGE                       "
" Position vertical line over right edge "
" of glyph and press pen. Select OK when"
" correct.                               "
"                                     Glyph Width is "
```

prompt 10

```
" ASSIGN KEYBOARD CHARACTER NAME       "
" Position the cursor over a character in"
" the list at the left and press pen.   "
" Select OK when correct. Name is ' ' "
```

prompt 11

```
" VERIFY CURRENT GLYPH                 "
" Glyph name is ' '. Glyph width is    "
" Glyph file size will be 00. Select   "
" OK if correct or CANCEL if incorrect. "
```

This series of steps will continue until " DONE " is selected on the menu. " CANCEL " selected anywhere within the series will start over at prompt 7 for the current glyph being defined. GLYPH will not allow a file larger than 65500. If this GLYPH font is to be loaded into one of the smaller VIDEO TITLER II font areas check here to see it does not exceed.

In response to prompt 11:

message 4

```
" WARNING !! The glyph font file does not"
" have enough room for this glyph.      "
" Select 'DONE' then 'Save' your existing"
" glyphs. Press a key to continue.     "
```

message 8

" ** ERROR ** Could not save the file "
" under the name you specified. You will "
" have to press Save again and enter a "
" new file name. Press a key to contune. "

In response to prompt 12 (QUIT):

message 9

" CAREFUL! You have not SAVED your file."
" Press the space bar and then press SAVE"
" if you wish to save your file. To exit "
" glyph without saving, press the Y key. "

The GLYPH program supports the following drawing devices:

- MINDSET Mouse
- MINDSET Graphics Tablet
- Kurta Series One Graphics Tablet
- GTCO Digipad 5 Graphics Tablet
- Summagraphics Bit Pad One Graphics Tablet
- Hitachi Puma Graphics Tablet
- Hitachi Data Tablet Digitizer
- other tablets fully compatible with the list above

CONNECTING MOUSE TO COMPUTER

The mouse cable is plugged directly into either side of the keyboard.

CONNECTING TABLET TO COMPUTER

The following equipment is necessary to connect a tablet to the computer:

1. MINDSET RS232 module (serial input port)
2. RS-232-C cable (KURTA/MINDSET tablets have a different special cable included)

Both the digitizing tablet and the serial interface should be set for 9600 baud, binary (not ASCII) data. If your computer has more than one serial port, plug the tablet into the left most serial port (as you face the back of the computer).

As a minimum, the following connections must be present in your RS-232-C cable:

COMPUTER	DIGITIZING TABLET
DB-25 connector	DB-25 connector
pin #	pin #
2	3
3	2
6	20
20	6
7	7

TABLET SWITCH SETTINGS

KURTA TABLET/MINDSET TABLET

Switches are at the back of the tablet. The appropriate settings are these:

Upper Set:	1	2	3	4	5	6	7	8
on						x	x	x
off	x	x	x	x	x			
Lower Set:	1	2	3	4				
on				x				
off	x	x	x					

GTCO DIGI-PAD 5

Switches are on the underside of the digitizing tablet. The appropriate settings are these:

S1	1	2	3	4	5	6	7	8
on			x	x			x	x
off	x	x			x	x		
S2	1	2	3	4	5	6	7	8
on						x		
off	x	x	x	x	x		x	x
S3	1	2	3	4	5	6	7	8
on	x		x	x	x		x	
off		x				x		x

