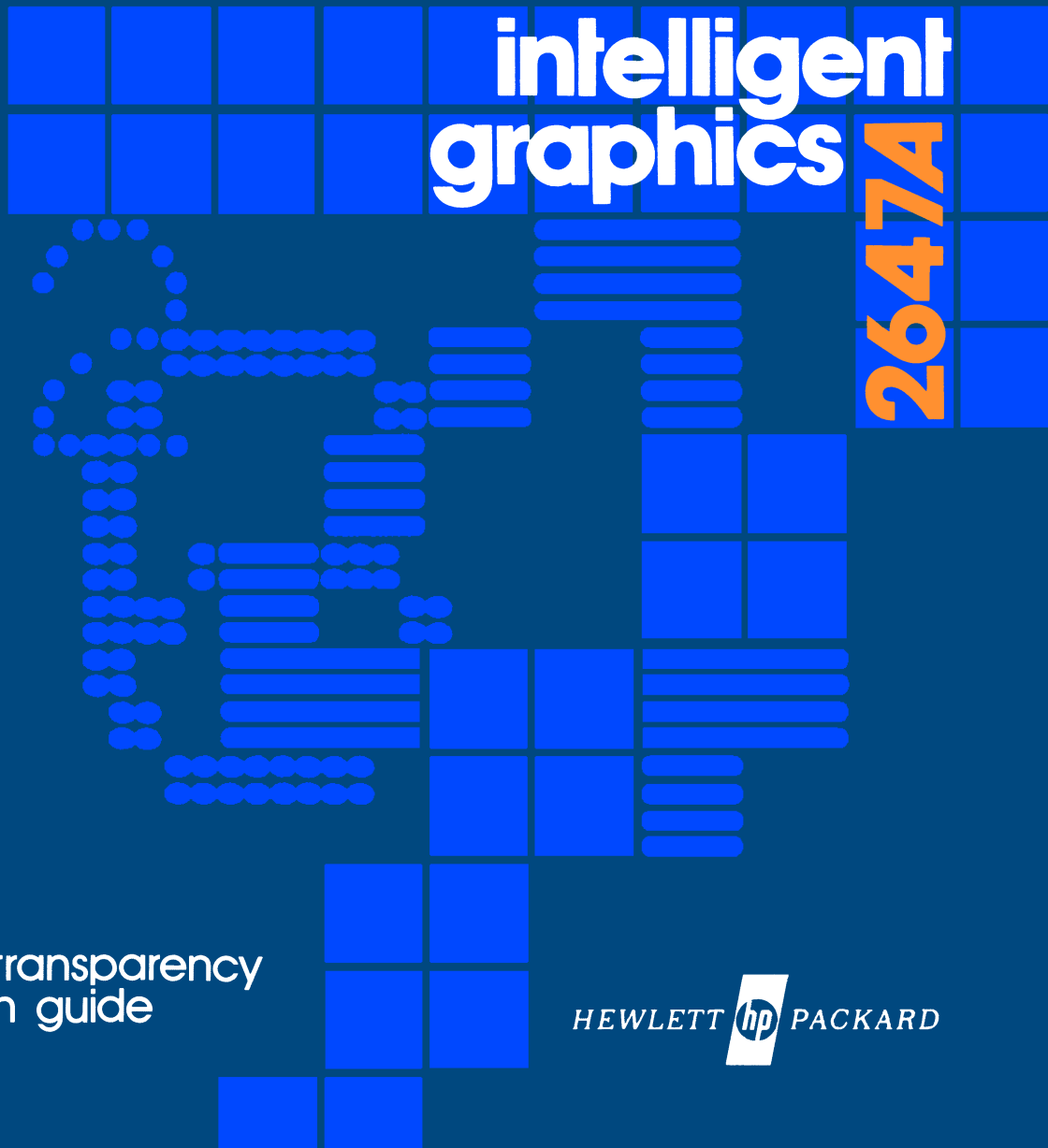
intelligent graphics 2647A



SLIDE: overhead transparency preparation guide

HEWLETT hp PACKARD

Operational Note

If you are going to run a Terminal BASIC program of your own after using HP SLIDE, you must first issue a "REMOVE USER" BASIC command to recover 5000 bytes of workspace used by a special HP SLIDE extension. A "hard reset" will recover display memory space but **not** BASIC workspace.

Preface

This document describes how to make overhead transparencies using the HP 2647A Intelligent Graphics Terminal, an HP 9872A Plotter, and the HP SLIDE program. It is divided into three general parts. The first part (pages 2-19) tells you how to use HP SLIDE in a very straightforward manner to produce slides that merely contain text. It shows you how to present that text in varying character fonts, sizes, colors, and positions on the slide (left-justified, centered, right-justified). The second part (pages 20-29) tells how to add graphics to a slide and the third part (pages 30-35) tells how to do more elaborate text formatting, such as combining different character fonts, sizes, and colors on a single text line.

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HP SLIDE is a program that makes it easy for you to prepare transparent overhead projection slides using a plotter connected to an HP 2647A Intelligent Graphics Terminal. With SLIDE you merely enter your text and a few simple specifications into a menu displayed on the terminal's screen. The specifications describe how you want your text drawn by the plotter (what type font and type size you want used, whether or not you want the text centered, what color pen you want used, and so forth). You can have one set of specifications apply to the entire slide or you can change any of the specifications from one text line to another.

The Terminal's Keyboard

If you are already familiar with the keyboard of the HP 2647A, then you may skip this topic and move on the the next.

The keyboard of the HP 2647A Intelligent Graphics Terminal is divided into several groups of keys. The most prominent one closely resembles the keyboard of a standard office typewriter and each key performs generally the same function as the corresponding one on a typewriter. When you press one of the alphabetic, numeric, or symbolic keys the character depicted on the key appears on the terminal's screen. The SHIFT keys have the same effect as those of a typewriter. The blinking line on the screen (referred to as the cursor) shows you where the next character will appear. The RETURN key moves the cursor all the way to the left on the screen. The TAB key moves the cursor to the next tab position or (if no tabs have been set) to the leftmost position of the next line. You may simply ignore the ESC, CNTL, and DEL keys.

To the right of the alphanumeric keys is a group of eleven graphics control keys. Of these, you will typically only use three: the MULTI PLOT key in the upper left corner, the STOP key in the middle, and the MULTIPLOT MENU key in the lower left corner. Pressing a graphics control key by itself performs the function labeled on the top of the key. Pressing both the SHIFT key and a graphics control key performs the function labeled on the front side of the key. The use of these keys will be described later in this document.

At the far right of the keyboard is a group of twelve display control keys. The ↑, ↓, ←, and → keys move the cursor up, down, to the left, or to the right on the screen as indicated by the direction of the arrow on the key. The ↖ key moves the cursor to the leftmost character position of the first line of display memory. The terminal can remember more lines of text than can be displayed on the screen at any one time. The ROLL UP and ROLL DOWN keys allow you to scan forward or backward through the text lines that are being remembered by the terminal. The SET TAB key sets a tab at the current cursor position. The CLEAR TAB key clears a tab (if there is one) at the current cursor position. The CLEAR DSPLY key erases all characters entered by you that currently appear between the cursor and the end of display memory. You may ignore the NEXT PAGE and PREV PAGE keys.

At the top of the keyboard are 26 smaller rectangular keys. The ones you may be using are as follows:

REMOTE — Each time you push this key it alternates between the "up" and "down" positions. When using SLIDE you will want this key to be up.

CAPS LOCK — This key also alternates between the "up" and "down" positions. When it is down, the alphabetic keys always generate uppercase characters. This key is not entirely like a "shift lock" on a typewriter in that it only applies to the 26 alphabetic keys.

AUTO LF — This key also alternates between the "up" and "down" positions. When it is down, the RETURN key moves the cursor to the leftmost position of the next lower line. When it is up, the RETURN key moves the cursor to the leftmost position of the current line.

READ — The exact effect of this key can change from one set of conditions to another. When you are using SLIDE, however, the READ key will copy data from the left tape unit to the screen.

RECORD — Like the READ key, the exact effect of this key can change from one set of conditions to another. When you are using SLIDE, however, the RECORD key will copy data from the screen to the right tape unit.

f7 and f8 — The keys labeled f1 through f8 can be programmed to do many different things. In the context of SLIDE, however, the f7 key is used for starting up SLIDE and the f8 key is used for starting up another program called the BASIC Interpreter. More about these keys under "Loading HP SLIDE" later.

INSERT LINE — This key inserts a blank line immediately above the line containing the cursor.

DELETE LINE — This key deletes the line containing the cursor.

INSERT CHAR — This key alternately turns the red light above it "on" and "off". When the light is on, everything you type is inserted at the current cursor position.

DELETE CHAR — This key deletes the character at the current cursor position.

The HP 9872A Plotter

If you are already familiar with the HP 9872A Plotter, then you may skip this topic and move on to the next.

The HP 9872A Plotter is a device that draws on sheets of paper or transparent acetate using up to four different colored ink pens. The pens are contained in one-inch-high cartridges that snap into slots along the bottom right of the plotting surface. The slots are numbered 1-4, from left to right. You can tell what colored pen is currently loaded in each slot by looking in the small display hole at the top of each slot.

To load a sheet of paper or acetate into the plotter, do as follows:

1. Press the "CHART LOAD" switch.

2. Lay the sheet in the lower left corner of the plotting surface.

3. Press the "CHART HOLD" switch and gently smooth out the paper (it is held to the plotting surface by static electricity). To avoid unwanted ink blemishes, there should be no wrinkles or air pockets on the writing surface.

To remove a sheet of paper or acetate from the plotter, merely press the "CHART LOAD" switch and then peel off the sheet.

Note that other plotters can be used with the HP 2647A terminal and the HP SLIDE program. It is expected, however, that the HP 9872A will be the most widely used. If you have a different plotter, then you may have to ask someone for instructions.

The HP 17055A Overhead Transparency Kit, which can be ordered through your local HP Sales and Service office, contains acetate sheets, colored pens, and a bottle of solvent (for cleaning the plotting surface of the plotter).

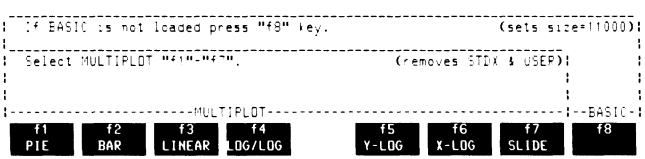
Loading HP SLIDE

HP SLIDE resides on a tape cartridge (HP part no. 02647-13301) along with the HP 2647A BASIC Interpreter and the HP 2647A MULTIPLOT programs. To use SLIDE, you must first load it from the tape as follows:

1. Place the tape cartridge in the left tape slot.

2. With the REMOTE key in the up position, press the READ key.

3. The following display appears on the terminal's screen:



The labels displayed across the bottom of the screen are associated from left to right with the keys labeled f1 through f8, respectively, across the top of the terminal's keyboard.

4. After the green light next to the tape slot stops blinking, press the f7 key. This should load HP SLIDE from the tape and start it running. While SLIDE is being loaded the green light next to the tape slot will blink and various characters and phrases will appear on the screen. Don't worry about that. When SLIDE is loaded, it erases all those characters and then displays the slide preparation menu on the screen.

If nothing happens, press the f8 key. HP SLIDE is written in a programming language called BASIC which requires that another program, called the BASIC Interpreter, be running simultaneously. The f8 key loads the BASIC Interpreter from the tape into the terminal. When the BASIC Interpreter is loaded it displays the following on the screen and rewinds the tape:

```
HP TERMINAL BASIC
 6943 BYTES DISPLAY MEMORY
10822 BYTES WORK SPACE
```

Go back to step #2, above.

Filling in the Menu

The first thing SLIDE does is to display the slide preparation menu on the screen. The entire menu is too large to fit on the screen all at one time. The upper portion of the menu is illustrated on page 8 and the lower portion is illustrated on page 9. To get from the upper portion of the menu to the lower, press and hold the ROLL UP key for about two seconds. To get back to the upper portion press either the ↖ key or press and hold the ROLL DOWN key. You will notice that the upper four lines of the menu remain intact on the screen when you use the ROLL UP or ROLL DOWN keys. That is because the SLIDE program uses a feature of the terminal called "memory lock" (note that the MEMORY LOCK light on the upper left of the keyboard is lit). Because of the use of this feature the four column labels (Size, Just, Pen#, and Font) always remain visible even when you progress down into the lower portion of the menu.

The large unshaded area beneath the dotted line is where you enter the lines of text that are to appear on your slide. To the right of the text area is a shaded column containing four single-character fields. These fields specify the character size, type of justification, pen number, and character font to be used when plotting the adjacent line of text. If one or more of these fields is left blank, then the corresponding value for the previous text line is used.

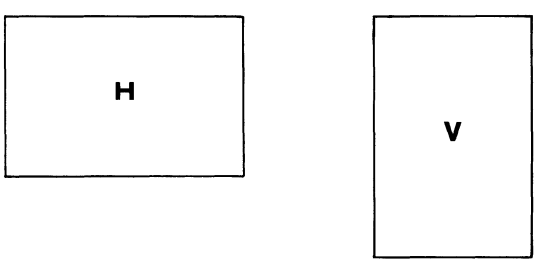
You can use the TAB key to skip forward from one field to another and the CNTL TAB keys to skip backwards.

Whenever the blinking cursor is in the text area or in the adjacent shaded column, pressing the ↖ key moves the cursor to the leftmost character position of the first line in the text area. If the cursor is already in that position, pressing the ↖ key moves the cursor to the Horizontal/Vertical (H/V) field at the top of the menu.

The meanings of the various specification fields are as follows:

Horizontal/Vertical (H/V)

This field specifies which way the sheet of acetate will be placed in the plotter, as follows:



Margin: Left, Right

These two fields specify the location of a pair of non-printing margins in relation to the left and right edges of the transparency. Left-justified text starts at the left margin, right-justified

text ends at the right margin, and centered text is centered between the two margins. In most cases you will not find it necessary to change the content of these two fields.

Frame Pen#?

This field specifies whether or not you want a solid line frame (or border) drawn on the transparency. A value of "0" specifies that you don't want a frame. The values 1 through 4 specify which pen you want used for drawing the frame.

Plotter?

This field specifies the device address of the plotter. A value of "0" or no entry at all indicates that you want the slide plotted on the terminal's screen. Typically you will want to do that to verify the overall layout of the slide before actually drawing it on an acetate sheet with the plotter. When you are ready to draw the slide using the plotter, enter the address of the plotter followed by a "T" in this field. The "T" causes SLIDE to operate the plotter at a somewhat slower speed to ensure that the ink holds as cleanly as possible to the surface of the acetate sheet.

> If you do not know the address of the plotter and it is not posted on the plotter, then you will have to ask someone for that information.

Size

This field specifies what type size you want used, as follows:

S = small M = medium L = large

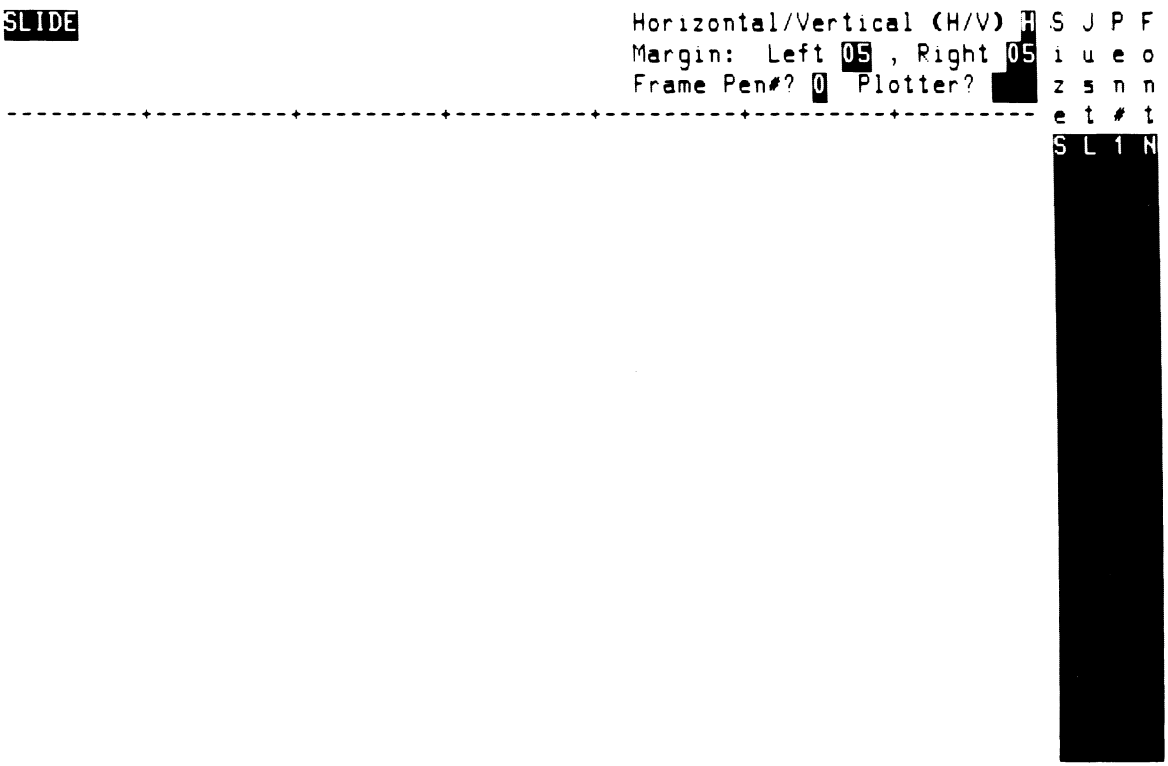
> You may also use this menu field for signalling the end of your slide text. An asterisk (*) in the "Size" field indicates the end-of-text. Only text appearing in the text area above the asterisk will be drawn on the slide. You aren't required to signify the end-of-text, but if you do you will somewhat reduce the amount of time it takes to draw the slide. If there is no end-of-text marker, SLIDE must examine all 40 lines in the text area of the menu.

Just

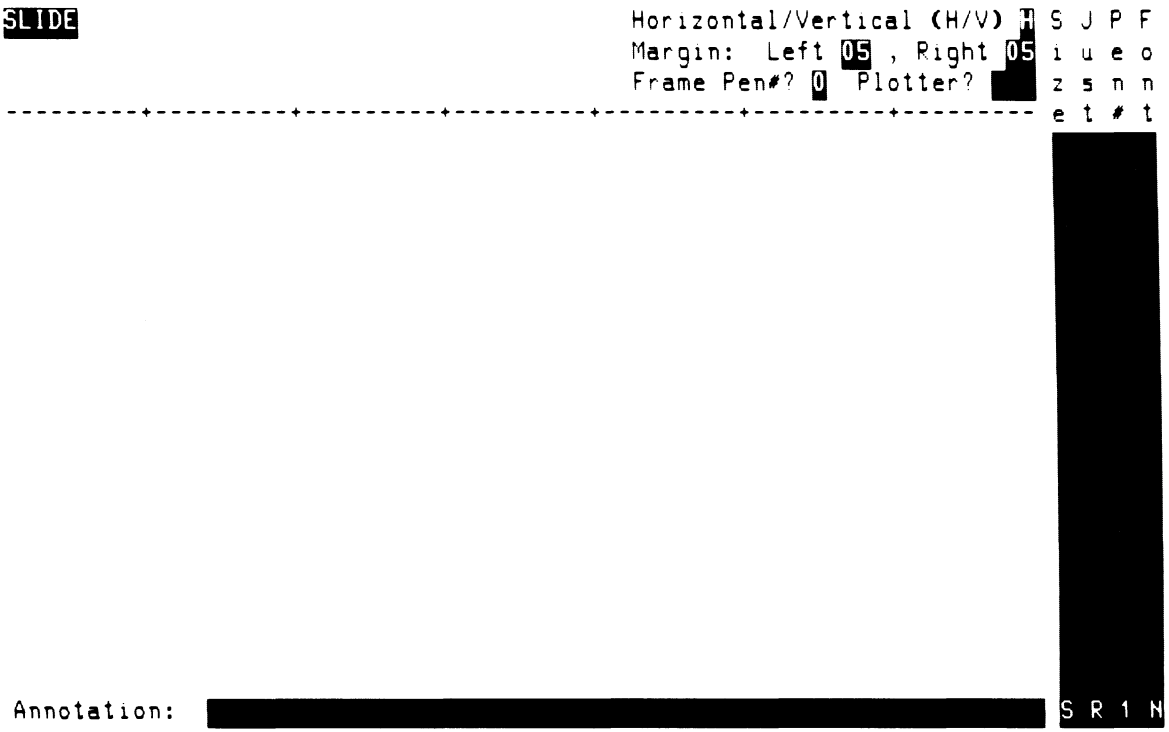
This field specifies how you want the text drawn in relation to the left and right margins, as follows:

L = left-justified
C = centered
R = right-justified

Upper Portion of Menu



Lower Portion of Menu



Pen#

This field specifies which pen is to be used for drawing the text characters.

Font

This field specifies which type font is to be used for representing the text characters, as follows:

N = normal characters
S = slanted characters
R = Roman characters
I = italics

Annotation

At the bottom of the menu is a shaded field labeled "Annotation". Whatever you enter in this field will appear in the bottommost line of the frame area on the transparency according to the format designated by the associated specification fields. When the menu first appears on the screen, the default specifications for the "Annotation" field are as follows:

Small character size
Right-justified
Pen #1
Normal characters

Note that whatever justification is specified is in relation to the left and right edges of the framed area (NOT the left and right margins).

You may change these specifications at any time. Whatever appears in the adjacent specification fields when you have the SLIDE program actually draw the transparency is what designates the format of the "Annotation" text line. As with other text lines, if any or all of the specification fields is blank the corresponding value for the previous text line is used.

Drawing the Slide on the Screen

Before proceeding with this topic, enter the sample data illustrated on page 12 into the menu.

After you have filled in the menu, you can draw the transparency on the terminal's screen as follows:

1. Make sure that the field labeled "Plotter?" is either blank or contains a zero.

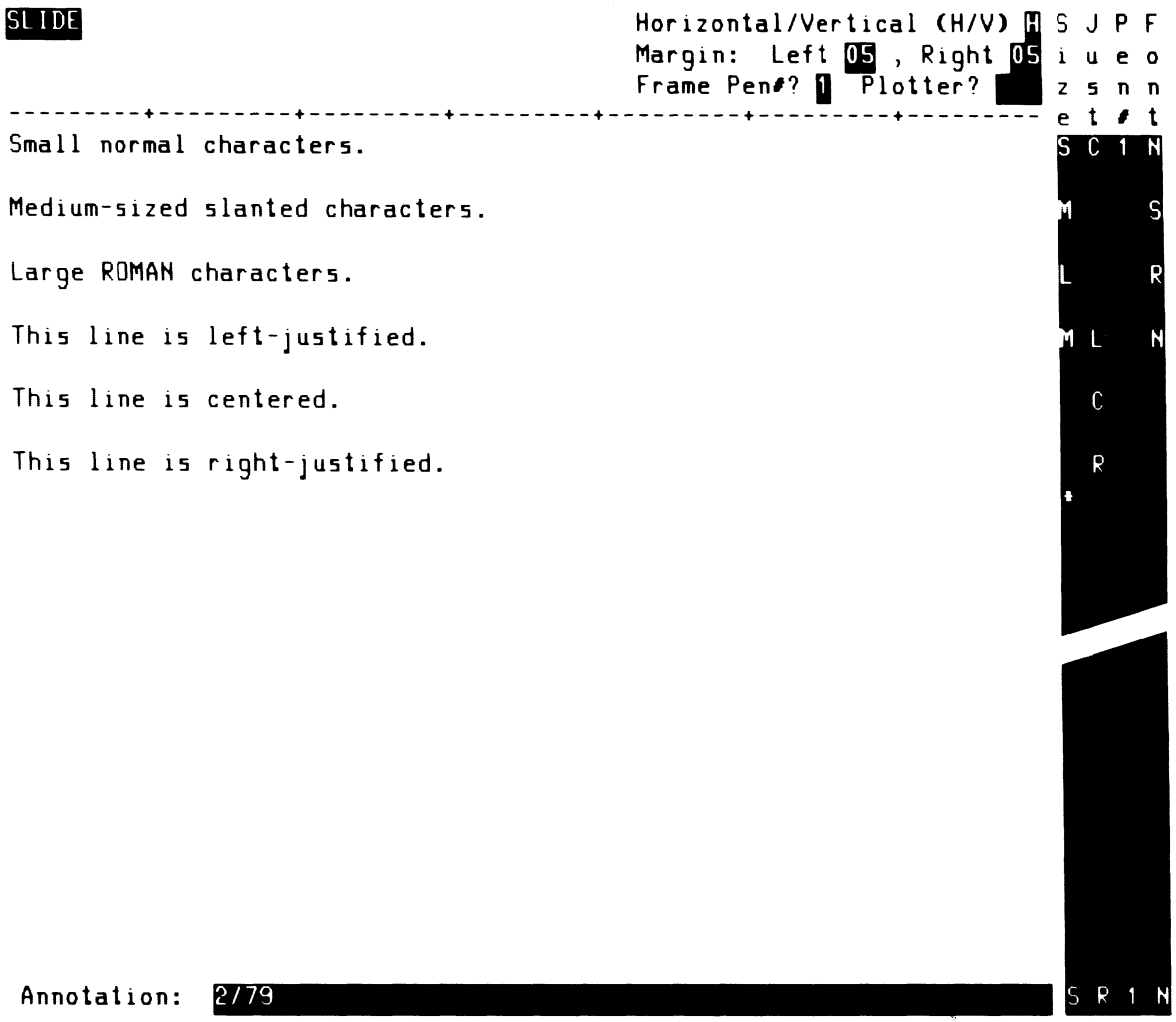
2. Press the MULTI PLOT key.

As illustrated on page 13, SLIDE draws the transparency on the terminal's screen using shaded blocks to represent each individual word. The actual text appears to the left of the slide representation. The shaded blocks show you where each word will appear on the transparency and how much room it occupies relative to the other text.

When the entire transparency has been represented on the screen, SLIDE displays the phrase "SLIDE COMPLETE" at the lower left of the screen.

After seeing the transparency represented on the screen, you may wish to change some of the specifications on the menu or move some of the text around in the text area of the menu. To do so, you get the menu back on the screen by pressing the SHIFT and MULTIPLOT MENU keys. Make the desired changes to the menu and then press MULTI PLOT to draw the changed slide on the screen. Repeat this process until you are satisfied with the overall layout of the transparency.

For example, with the slide representation shown on page 13 displayed on the screen, get back to the menu and then press the INSERT LINE key four times. Then press MULTI PLOT and see the effect.


SLIDE
Horizontal/Vertical (H/V) H
Margin: Left 05 , Right 05
Frame Pen#? 1 Plotter?
S J P F
i u e o
z s n n
e t # t
Small normal characters.
Medium-sized slanted characters.
Large ROMAN characters.
This line is left-justified.
This line is centered.
This line is right-justified.
S C 1 N
M S
L R
M L N
C
R
Annotation: 2/79
S R 1 N

Small normal characters.

Medium-sized slanted characters.

Large ROMAN characters.

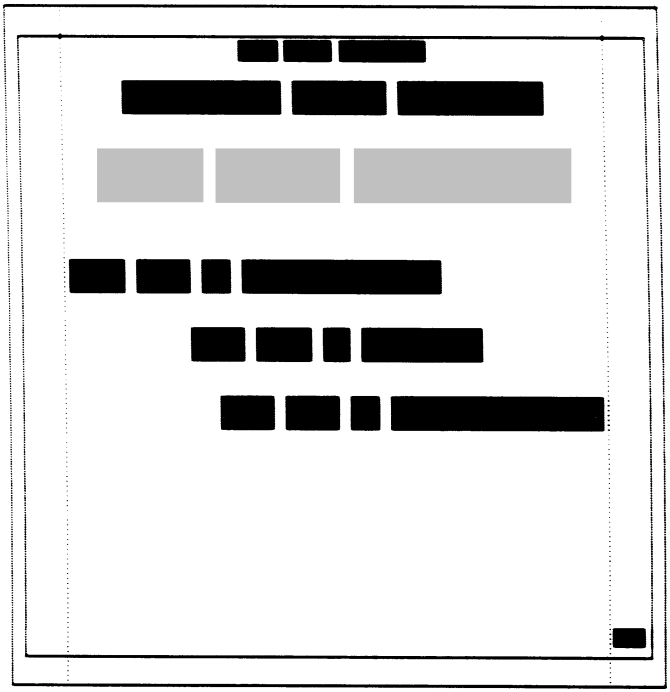
This line is left-justified.

This line is centered.

This line is right-justified.

2/79

SLIDE COMPLETE



Drawing the Slide on a Plotter

When you are satisfied with the layout of the transparency, you can then draw it using the plotter as follows:

1. Press the "CHART LOAD" key in the lower left corner of the plotter.
2. Put a blank sheet of paper or acetate in the lower left corner of the plotting surface.

   Make sure that the sheet is turned in the proper direction (horizontally or vertically) according to what you have specified at the top of the menu.

3. Press the "CHART HOLD" key in the lower left corner of the plotter.
4. Make sure that the desired colored pens are installed in the proper numbered pen holders along the lower right edge of the plotting surface.
5. If the menu is not currently displayed on the terminal's screen, press the SHIFT and MULTIPLOT MENU keys on the terminal's keyboard.
6. Enter the device address of the plotter followed by a "T" in the "Plotter?" field.
7. Press the MULTI PLOT key.

The STOP Key

Once you have pressed MULTI PLOT and the slide is being drawn either on the screen or by an external plotter, you can prematurely terminate the plotting process by pressing the STOP key. If you press the STOP key while the menu is displayed on the screen, it terminates HP SLIDE and returns you to normal terminal operation.

Saving Menu Data on Cartridge Tape

After you have filled in the menu so as to produce the desired result, you may save the menu data on a cartridge tape as follows:

1. Place a blank tape in the right cartridge tape unit.
2. Press the ↖ key twice (to position the cursor in the Horizontal/Vertical field at the top of the menu).
3. Press the RECORD key.

This copies all data from the menu to the tape. After the menu data has been recorded to the tape, the menu is cleared. At this point you must explicitly rewind the tape (don't remove it from the tape slot) as follows:

1. Press the COMMAND key.
2. Press the f5 key.
3. Press the f6 key.
4. Press the RETURN key.

When the tape is finished rewinding, remove it from the slot by pressing the pushbutton next to the slot.

Examples

On the following pages are some sample slides. For each example the left page shows the completed menu and the right page shows the resulting plotted slide. Try the examples yourself. At first plot them on the terminal's screen (change the "Plotter?" field at the top of the menu from "5T" to a blank). After each plot, go back to the menu and change some of the parameters; then plot it again and see the effect of each change. Substitute text of your own for some of the text lines. Finally, try drawing a slide on the external plotter (you will have to find out what numeric address to put in the "Plotter?" field; if it's not posted on the plotter itself, ask someone who is familiar with the configuration).

SLIDE

Horizontal/Vertical (H/V) V
Margin: Left 05 , Right 05
Frame Pen#? 1 Plotter? ST

S J P F
i u e o
z s n n
e t # t

The HP 2647A
Intelligent Graphics
Terminal

* User Programmable (BASIC)
* High Level Graphics Commands
* Graphics Memory Input/Output
* Simple User Interface
* Shared Peripherals
* Dual Tape Cartridges
* Multiple Automatic Plotting
* High Resolution
  Alphanumeric Display
* Independent Graphics and
  Alphanumeric Display
* Zoom and Pan
* Rubber Band Line
* Graphics Text Composition

L C 1 R

M L N

Annotation: 2/79

S R 1 N

The HP 2647A Intelligent Graphics Terminal

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  Alphanumeric Display
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  Alphanumeric Display
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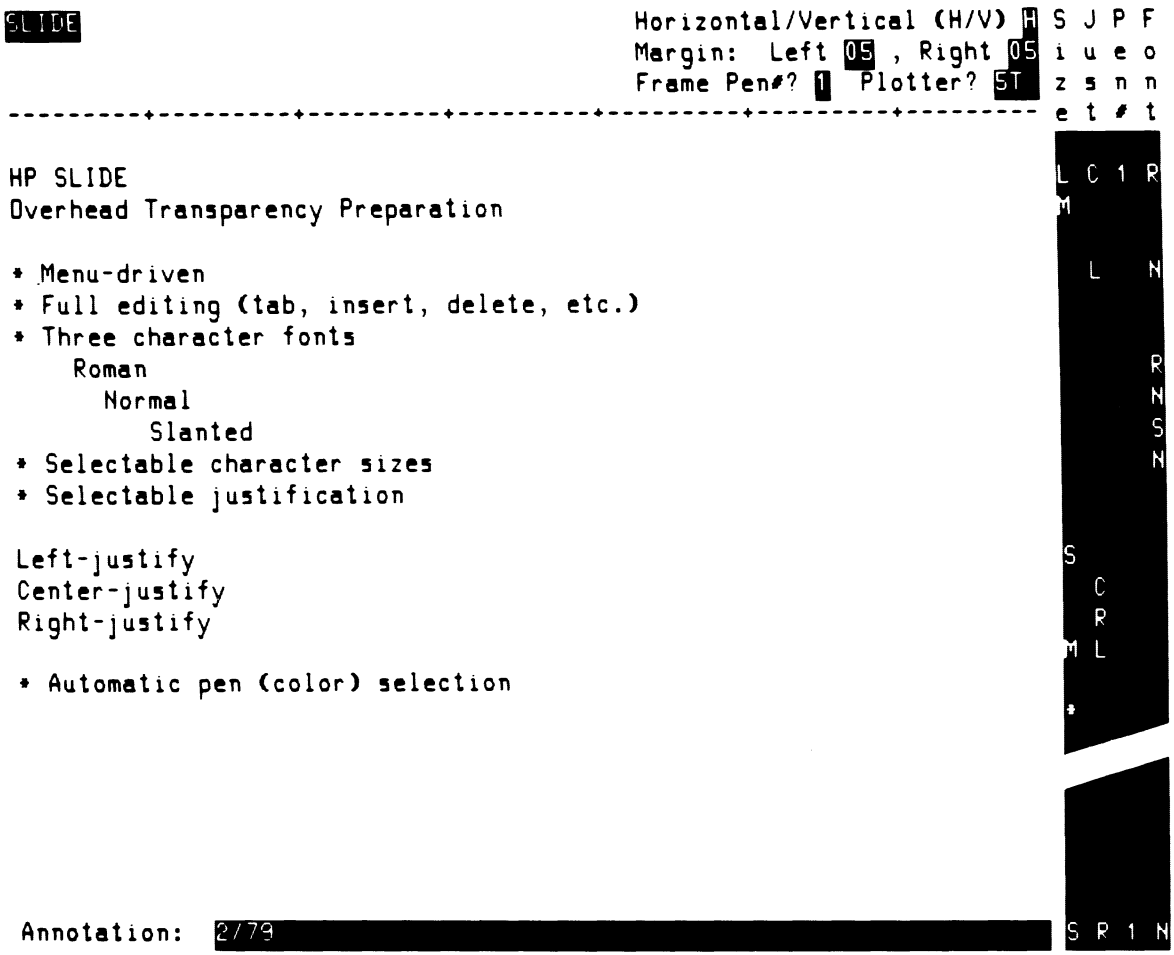
* Graphics Text Composition

2/79


SLIDE
Horizontal/Vertical (H/V) H
Margin: Left 05 , Right 05
Frame Pen#? 1 Plotter? ST
S J P F
i u e o
z s n n
e t # t
HP SLIDE
Overhead Transparency Preparation
* Menu-driven
* Full editing (tab, insert, delete, etc.)
* Three character fonts
Roman
Normal
Slanted
* Selectable character sizes
* Selectable justification
Left-justify
Center-justify
Right-justify
* Automatic pen (color) selection
Annotation:
2/79
L C 1 R
M
L N
R
N
S
N
S
C
R
M L
*
S R 1 N

HP SLIDE

Overhead Transparency Preparation

* Menu-driven
* Full editing (tab, insert, delete, etc.)
* Three character fonts
  Roman
  Normal
  Slanted
* Selectable character sizes
* Selectable justification

Left-justify

Center-justify

Right-justify

* Automatic pen (color) selection

2/79

Adding Graphics to Your Slides

Once you have the text of your slide properly formatted on the menu, you can add graphics to it in any of the following forms:

1. "Rubber band line" vectors drawn under the control of SLIDE.

2. Pie, Bar, Linear, or Logarithmic charts drawn on the same sheet of acetate under the control of the HP 2647A Multiplot programs.

3. Special plots drawn on the same sheet of acetate under the control of a Terminal BASIC program which contains AGL commands.

Adding Vectors to a Slide

After you have arrived at the proper parameters and arranged the text words properly on the menu, you can add "rubber band line" vectors to the slide using the graphics control keys of the terminal. With the menu displayed on the screen, do as follows:

1. Make sure that the field labeled "Plotter?" is either blank or contains a zero.

2. Press the MULTI PLOT key.

3. After the slide has been plotted on the terminal's screen, press SHIFT RB LN.

The graphics cursor appears in the center of the slide. Using the ▲, ▼, ►, and ◄ graphics control keys in conjunction with the SHIFT MOVE and SHIFT DRAW keys, add any vectors you desire to the slide. You can add up to 50 vectors to any one slide. Each time you press SHIFT DRAW, SLIDE appends a sequence of coordinates to the bottom of the menu (beneath the Annotation line).

Before drawing a vector, you can specify the line type and pen number to be used in plotting the vector by pressing the f1 and f2 keys. Each time you press one of those keys, the associated parameter (shown in the softkey display) changes. If you press the key enough times you can cycle through the set of values and back to the original one.

The f3 key (EDIT) allows you to go back and change the line type and pen number parameters for previously drawn vectors. The vector currently being edited blinks on and off. To change the pen number, press the f1 key until the desired pen number appears in the f1 position of the softkey display. To change the line type, press the f2 key until you achieve the desired result. The editing process begins with the most recently drawn vector. To step backwards through the sequence of vectors, press the f3 key (EDIT BKW); to step forwards through the sequence, press

the f4 key (EDIT FWD). The f5 key (DEL LINE) deletes the current vector. When you are finished editing the vectors, press the f8 key (END EDIT). This puts you back in the original "rubber band line" mode.

When you are finished drawing vectors, you get out of the "rubber band line" mode by switching back to the menu (SHIFT MULTIPLOT MENU).

Adding Multiplot Charts

To add Pie, Bar, Linear, or Logarithmic charts drawn by the HP 2647A Multiplot program to an overhead transparency, do as follows:

1. Design the text portion (and any "rubber band line" vectors) using HP SLIDE. Be sure to leave adequate blank space on the slide to accommodate the desired Multiplot chart.

2. Draw the transparency on a sheet of acetate using HP SLIDE and an external plotter.

3. Leave the partially drawn transparency on the plotter and manually reset the P1 and P2 coordinates to enclose just the area to be occupied by the chart.

4. Run the Multiplot program specifying the plotter as the output device.

Adding AGL-Generated Output

To add graphics plots generated by a Terminal BASIC program containing AGL commands to an overhead transparency, do as follows:

1. Design the text portion (and any "rubber band line" vectors) using HP SLIDE. Be sure to leave adequate blank space on the slide to accommodate the graphics output.

2. Draw the transparency on a sheet of acetate using HP SLIDE and an external plotter.

3. Leave the partially drawn transparency on the plotter and manually reset the P1 and P2 coordinates to enclose just the area to be occupied by the graphics output. (Be sure that your program does not set P1 and P2.)

4. Run your program specifying the plotter as the output device (in a PLOTR statement).

SLIDE

Horizontal/Vertical (H/V) H
Margin: Left 05 , Right 05
Frame Pen#? 0 Plotter? ST

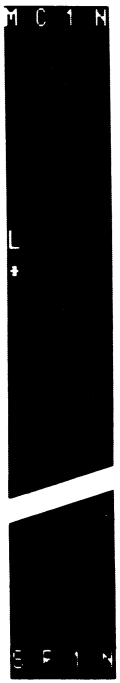
S J P F
i u e o
z s n n
e t # t

All of the vectors on this slide

were generated using the "rubber

band line" mode under control of

HP SLIDE.

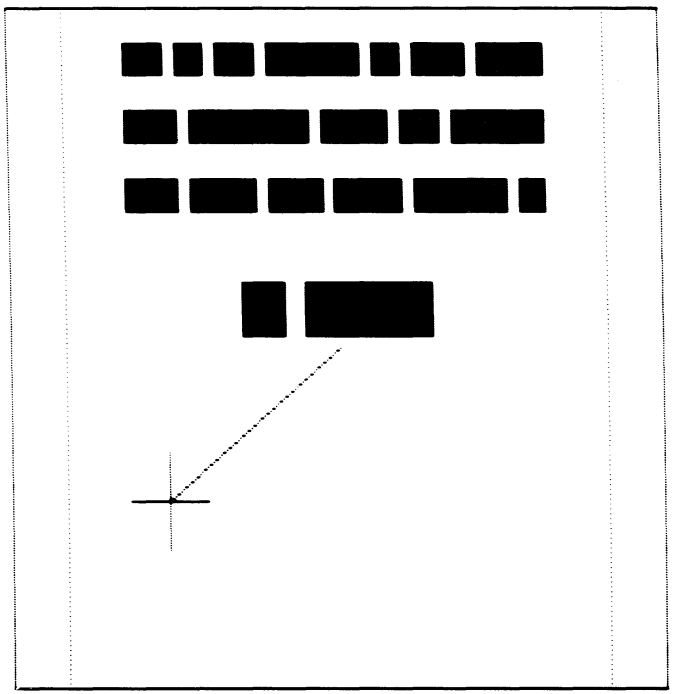


Annotation:

10644463307463 10644568644463 10307568644568 10307463307568 10229772167772
10515772376772 10376763515763 16176343176162 10137273176343 10215273176343
10805134437134 12543276805134 10437134543276 12543134543276 10766273638401
10747354766273 10680293766273 10301348515348 10373387301348 10373309373387
10301348373309

All of the vectors on this slide were generated using the "rubber band line" mode under control of

HP SLIDE.

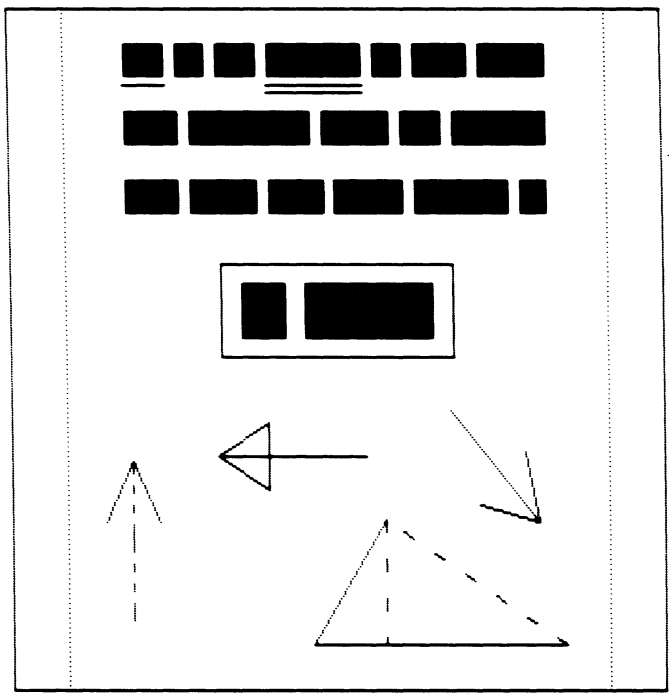


SLIDE COMPLETE

PEN# 1 | LN TYP 0 | EDIT | 3 | 1

All of the vectors on this slide were generated using the "rubber band line" mode under control of

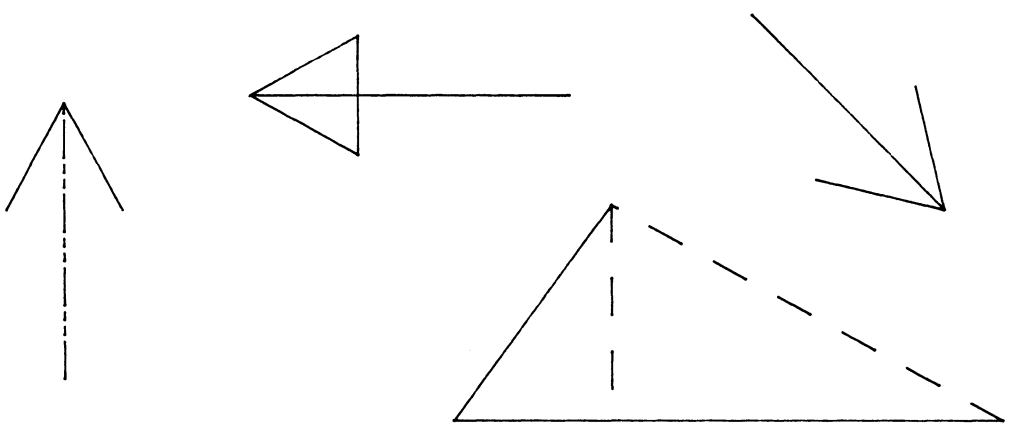
HP SLIDE.

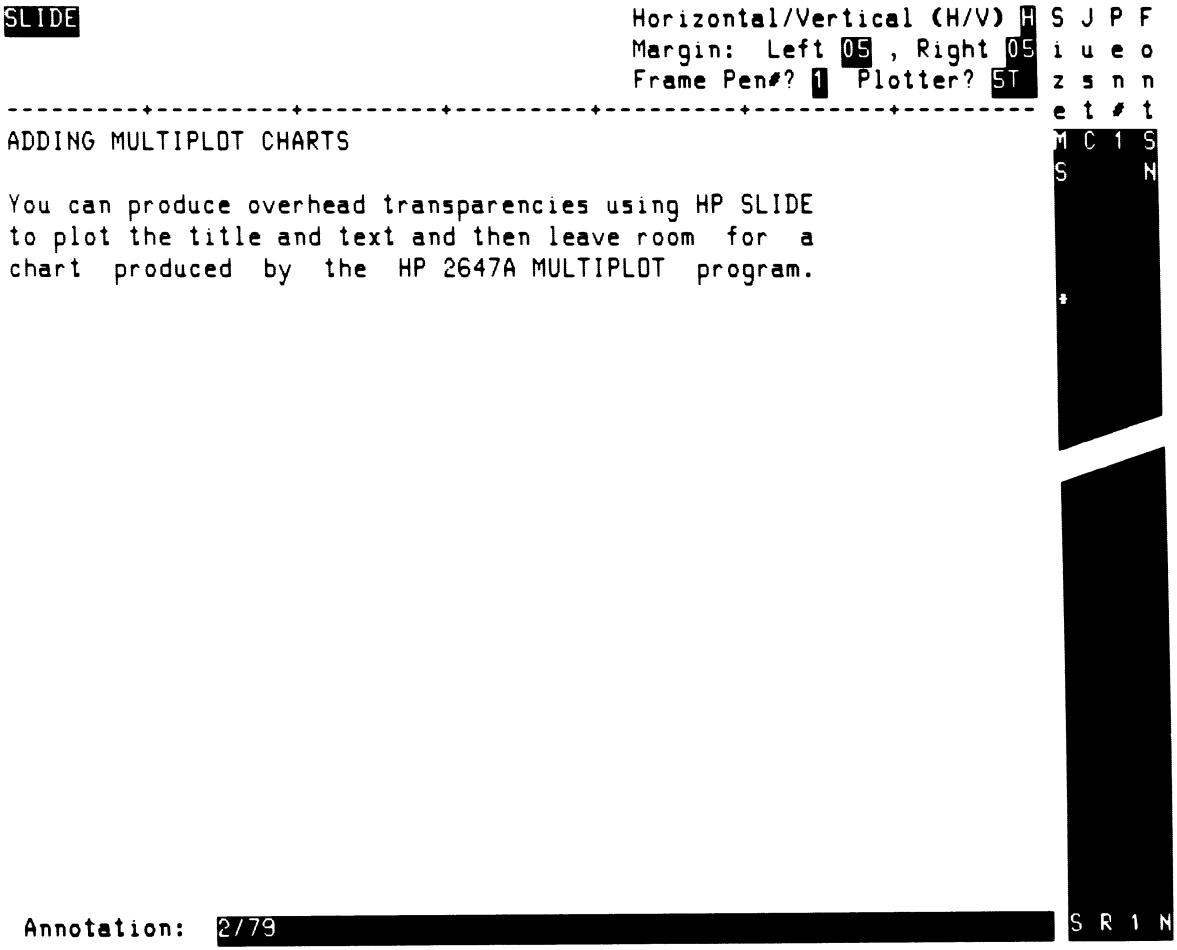


SLIDE COMPLETE

All of the vectors on this slide were generated using the "rubber band line" mode under control of

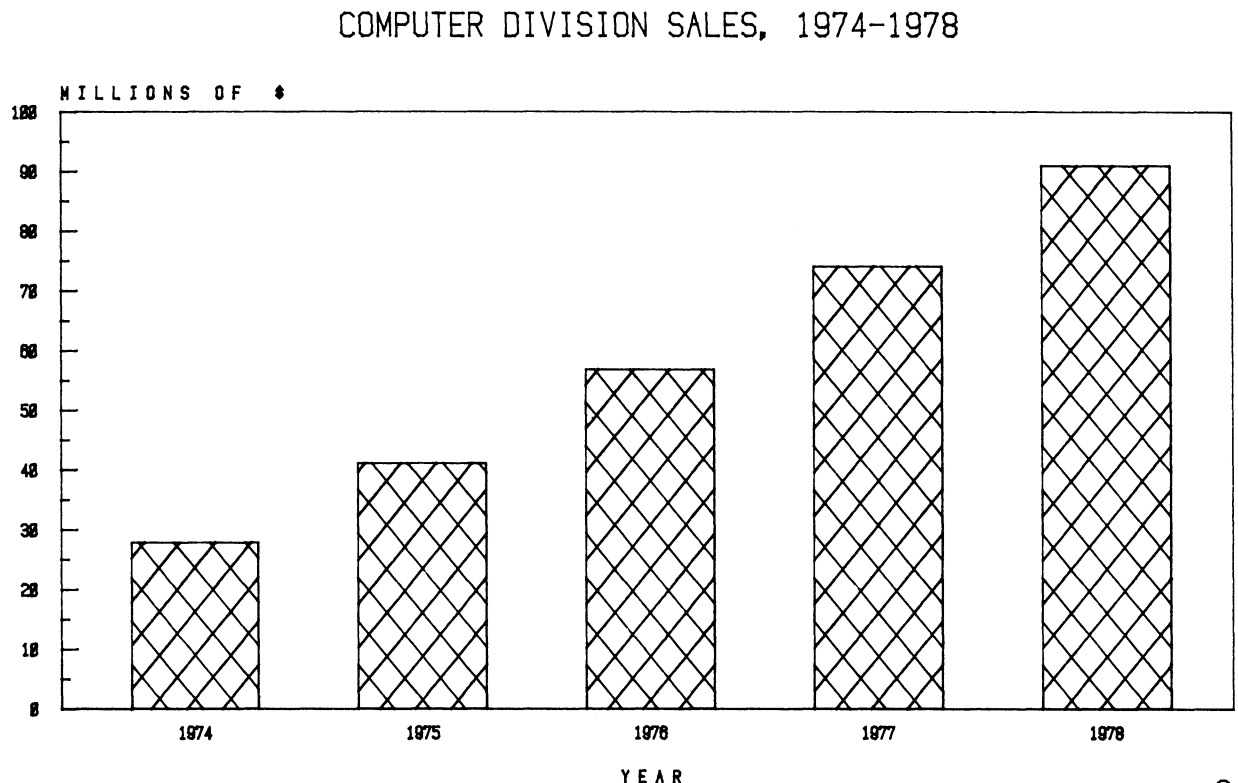
HP SLIDE.




SLIDE
Horizontal/Vertical (H/V) H
Margin: Left 05 , Right 05
Frame Pen#? 1 Plotter? 5T
S J P F
i u e o
z s n n
e t # t
ADDING MULTIPLOT CHARTS
You can produce overhead transparencies using HP SLIDE to plot the title and text and then leave room for a chart produced by the HP 2647A MULTIPLOT program.
M C 1 S
S N
Annotation: 2/79
S R 1 N

ADDING MULTIPLOT CHARTS

You can produce overhead transparencies using HP SLIDE to plot the title and text and then leave room for a chart produced by the HP 2647A MULTIPLOT program.



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SLIDE

Horizontal/Vertical (H/V) V
Margin: Left 05 , Right 05
Frame Pen#? 1 Plotter? ST

S J P F
i u e o
z s n n
e t # t

ADDING AGL OUTPUT

You can produce overhead transparencies using HP SLIDE to plot the title and text and then leave room for graphics output produced by a Terminal BASIC program using AGL commands.

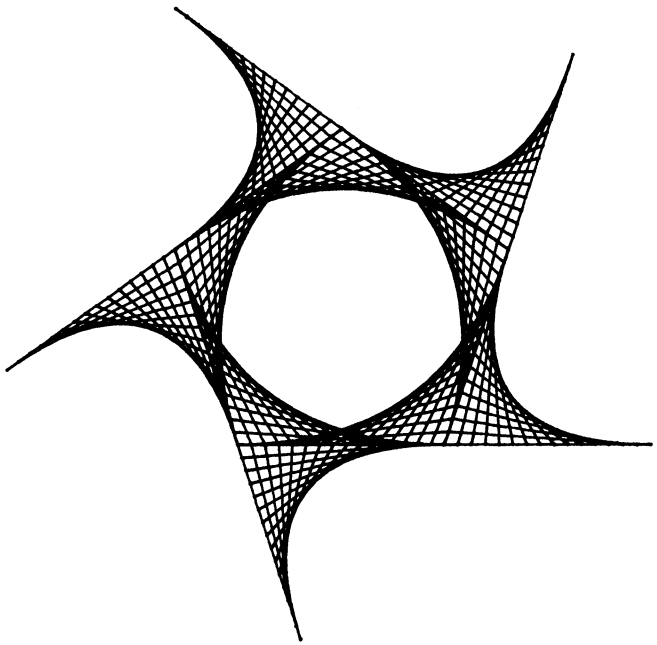
L C 1 S
M N

Annotation: 2/79

S R 1 N

ADDING AGL OUTPUT

You can produce overhead transparencies using HP SLIDE to plot the title and text and then leave room for graphics output produced by a Terminal BASIC program using AGL commands.



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Some Advanced Features

The following three topics present information for somewhat more advanced usage of the SLIDE program.

Specifying Character Size

Besides using an "S", "M", or "L" to specify the desired character size, you may use a single-digit numeric designation within the range 1-9, where "1" specifies the smallest size and "9" the largest. The "S", "M", and "L" designations are the equivalent of specifying a type size of "1", "3", and "6", respectively. Note that blank lines within a slide vary in height depending upon what type size is currently in effect. You may find that useful in making subtle changes to the line spacing on a slide (for instance, you may want to separate a pair of 9-sized text lines with a 1- or 2-sized blank line).

Using a Pen Number of Zero

A pen number of "0" reserves space on the slide for all associated text (up to the next non-zero pen number) but suppresses the plotting of that text. This capability is useful for adding one or more text lines to a slide that you have already plotted. For example, assume that you have just finished drawing a slide using an external plotter and you realize that you forgot to include the last item in the list of features. You can add that text line by changing the pen numbers in the menu to zeros and adding the text line at the appropriate place in the menu (remember to assign the new line a non-zero pen number and to move the end-of-text asterisk in the "Size" field so that it follows the new text line). Then press the MULTI PLOT key. The plotter will draw only the newly added text line and that line will appear in the proper place on the slide in relation to the existing text.

You can also use this feature to add vectors to a completed slide. You would do so as follows:

1. Press SHIFT MULTIPLOT MENU to get back to the menu.
2. Change the "Plotter?" field to a blank and then press MULTI PLOT to plot the slide on the terminal's screen.
3. Add the desired vectors.
4. Press SHIFT MULTIPLOT MENU to get back to the menu.
5. Change all pen numbers to zeros and put the plotter's address (followed by a "T") in the "Plotter?" field.
6. Press MULTI PLOT .

The plotter will draw only the newly added vectors and they will appear in the proper place on the slide in relation to the existing text.

Changing Formats Within a Text Line

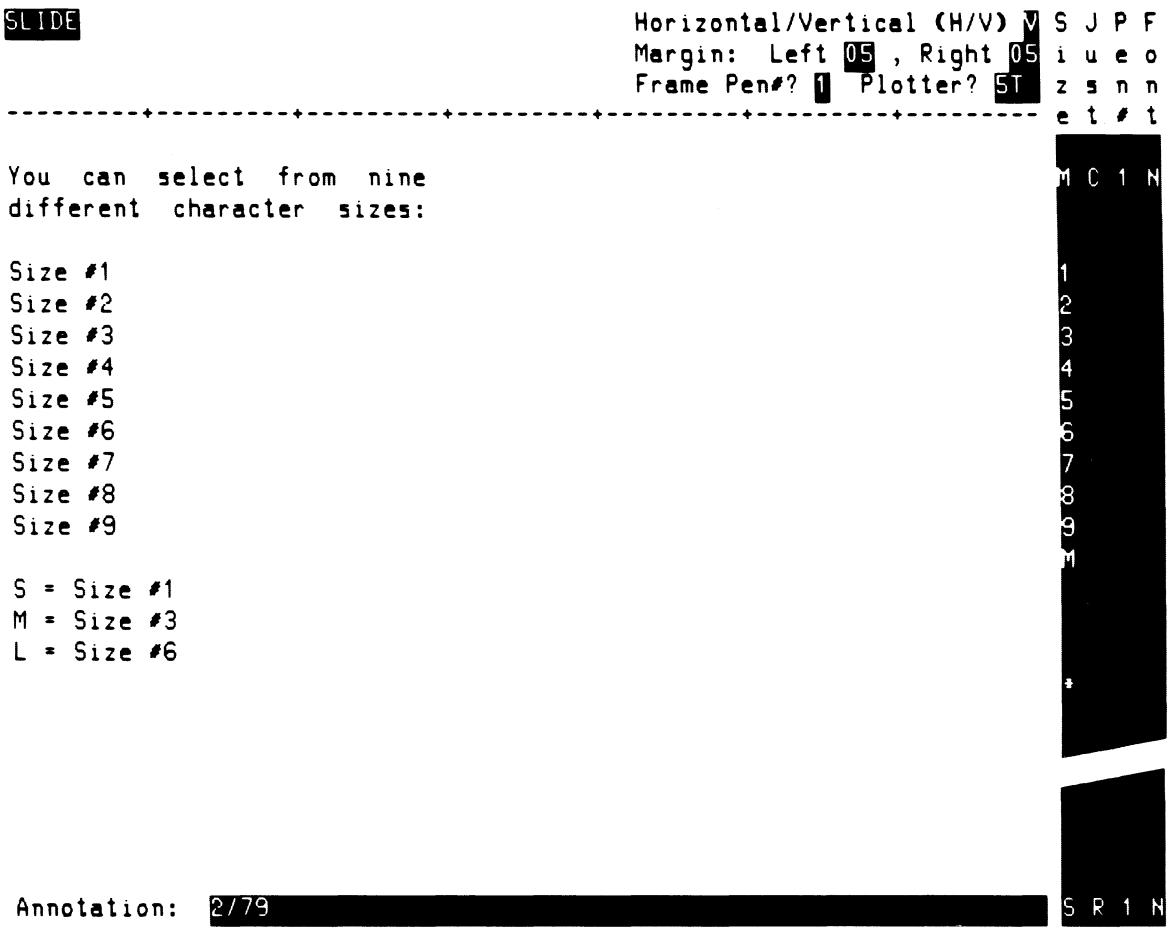
SLIDE allows you to change the character size, pen number (i.e., ink color), and type font within a single line of text. An ampersand (&) in the "Just" field signifies that the adjacent line of text on the menu is to occupy the same physical line on the plotted transparency as the previous text line in the menu. In each such continuation line on the menu, you may change the "Size", "Pen#", or "Font" specifications, in any combination, to whatever new values you desire.

For each physical line on the plotted transparency, there is no restriction as to how many continuation lines you may use on the menu (if you want to change the pen for every word in the line, for example, you may do so).

When using continuation lines, however, you must be careful about the word spacing on each line of the menu. In the first text line of a group you must leave enough blank space (at the appropriate places in the line) to accomodate the words in associated continuation lines. Also, the words in the continuation lines must be located within their text lines of the menu so as to fit into the proper blank spaces.

While the word spacing for changes in pen number are straightforward, changes in character size or type font will require a bit of experimenting. In such cases, plot the slide on the terminal's screen to see how the various continuation lines mesh together on the slide. Then go back to the menu and make whatever spacing adjustments seem necessary and repeat this process until the desired effect is achieved.

If you are changing format specifications within text that is to be centered or right-justified, the leftmost non-blank character through the rightmost non-blank character in each text line normally constitutes the unit to be centered or right-justified. To simplify the word spacing problem in such cases, SLIDE allows you to use a backward apostrophe (`), which appears above the ~ symbol on the HP 2647A keyboard, to indicate the left and right boundaries of the text to be centered or right-justified. The use of the backward apostrophe will be demonstrated in some of the examples that conclude this document.


SLIDE
Horizontal/Vertical (H/V) V
Margin: Left 05 , Right 05
Frame Pen#? 1 Plotter? ST
S J P F
i u e o
z s n n
e t # t
You can select from nine
different character sizes:
Size #1
Size #2
Size #3
Size #4
Size #5
Size #6
Size #7
Size #8
Size #9
S = Size #1
M = Size #3
L = Size #6
M C 1 N
1
2
3
4
5
6
7
8
9
M
*
Annotation: 2/79
S R 1 N

You can select from nine different character sizes:

Size #1

Size #2

Size #3

Size #4

Size #5

Size #6

Size #7

Size #8

Size #9

S = Size #1
M = Size #3
L = Size #6

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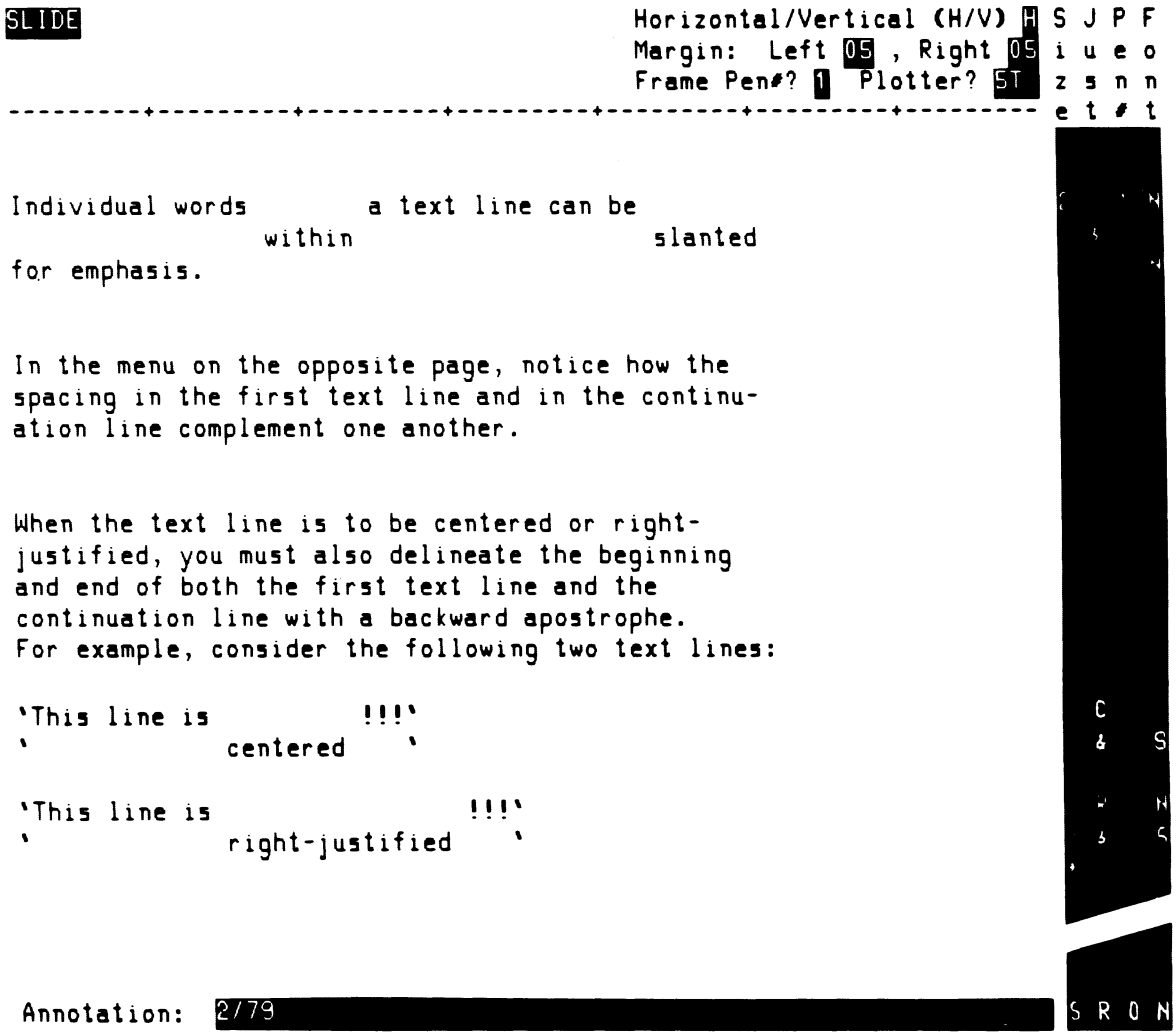
SLIDE
Horizontal/Vertical (H/V) H
Margin: Left 05 , Right 05
Frame Pen#? 1 Plotter? ST
S i z e
J u s t
P e n #
F o n t
Individual words a text line can be within slanted for emphasis.
In the menu on the opposite page, notice how the spacing in the first text line and in the continuation line complement one another.
When the text line is to be centered or right-justified, you must also delineate the beginning and end of both the first text line and the continuation line with a backward apostrophe. For example, consider the following two text lines:
`This line is !!!`
` centered `
`This line is !!!`
` right-justified `
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S R O N
1023774192 741 19329741259741 10326741256741

Individual words *within* a text line can be *slanted* for emphasis.

In the menu on the opposite page, notice how the spacing in the first text line and in the continuation line complement one another.

When the text line is to be centered or right-justified, you must also delineate the beginning and end of both the first text line and the continuation line with a backward apostrophe. For example, consider the following two text lines:

This line is *centered*!!!

This line is *right-justified*!!!

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