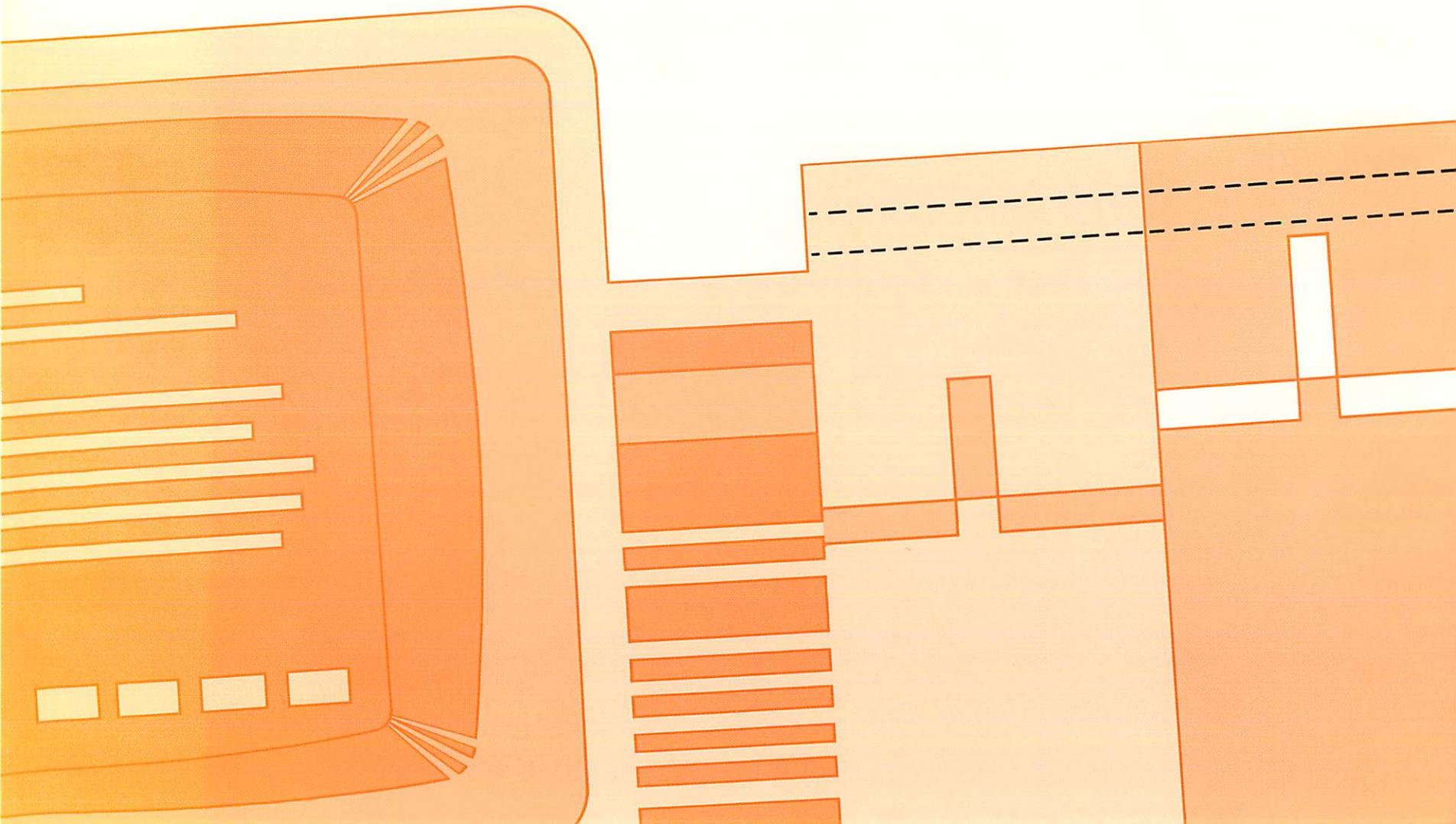


# IDSFORM Reference Guide



IDSFORM GRAPHICS MODE COMMANDS								IDSFORM GRAPHICS MODE COMMANDS																							
Window/Subform commands				Line Drawing commands				Window/Subform commands				Line Drawing commands																			
BW - Begin Window EW - End Window MW - Modify Window DW - Delete Window				CL - Create Line (start or finish line) DL - Delete Line CB - Create Box (start or finish box) DB - Delete Box MP - Move Pen RL - Redefine Line				BW - Begin Window EW - End Window MW - Modify Window DW - Delete Window				CL - Create Line (start or finish line) DL - Delete Line CB - Create Box (start or finish box) DB - Delete Box MP - Move Pen RL - Redefine Line																			
RF - Return to Form		HS - Hold Subform		EX - Expand		FR - Full Recover		RS - Recall Subform		RX - Remove expand		RF - Return to Form		HS - Hold Subform		EX - Expand		FR - Full Recover		RS - Recall Subform		RX - Remove expand									
***** Function Keys *****																															
f1	f2	f3	f4	f5	f6	f7	f8	f1	f2	f3	f4	f5	f6	f7	f8	f1	f2	f3	f4	f5	f6	f7	f8	f1	f2	f3	f4	f5	f6	f7	f8
Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel



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Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel



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Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel	Form Def menu	Grid	Display	Recover	Graphics Menu	Grid Menu	Main Menu	Cancel





**HP 3000 Computer Systems**

# **IDSFORM**

**Reference Guide**



11311 CHINDEN BOULEVARD, BOISE, IDAHO 83707

Part No. 36581-90002

Product No. E0285

Printed in U.S.A. 2/85

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The software code printed alongside the date indicates the version level of the software product at the time the manual or update was issued. Many product updates and fixes do not require manual changes and, conversely, manual corrections may be done without accompanying product changes. Therefore, do not expect a one to one correspondence between product updates and manual updates.

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Effective Pages	Date
all . . . . .	Feb 1985

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# PREFACE

Hello, and welcome.

Please take a moment to read this information.

This publication is the reference manual for IDIFORM, a subsystem of the Interactive Design System, IDS/3000. IDIFORM enables you to design forms interactively using a graphics terminal with the HP 3000 computer system.

IDIFORM provides you with the following capabilities:

- Forms creation and maintenance including modification and deletion of forms
- Copying forms and portions of forms
- Browsing all the forms in a forms file

The primary users of IDIFORM are forms designers (with or without programming experience) and application programmers. The primary focus of IDIFORM is to design computer forms which can be filled in by application programs. You can also use IDIFORM to create forms which are completed manually.

**Section 1** presents an overview of IDIFORM and its relationship to other Hewlett-Packard systems. **Section 2** describes how to use the HP 262X terminals (and HP 150) to run IDIFORM. **Section 3** describes how to use the HP 264X terminals to run IDIFORM. **Section 4** documents the IDIFORM menus and their use and the graphics functions of IDIFORM. In **Appendix A** are definitions of the terms you need to know to use this manual. **Appendix B** contains information on the maintenance of IDIFORM. **Appendix C** contains a typical application, showing the step-by-step approach in creating a form and **Appendix D** contains a list of the messages unique to IDIFORM.

To use IDIFORM effectively, you should know how to operate the Hewlett-Packard terminals used at your facility. Since IDIFORM is designed to be device-independent, you may also need information on the device used to print your forms. Using IFS/3000 you can format your forms for printing on the target device you select.

# PREFACE (continued)

## How To Use This Manual

If you are just starting to learn IDSF<sup>FORM</sup>, we realize that you probably are not going to sit down and read this manual from cover to cover. We also realize that, if you did do that, you would not be able to fully absorb what you had read. Knowing that the best way to learn is by doing, we have found that the best way to approach IDSF<sup>FORM</sup> is to first read the section concerning the terminal you will be using (section 2 or 3). As you read this section, look at your keyboard and notice where each group of keys is. Each keyboard differs slightly, but the same general way of using IDSF<sup>FORM</sup> can be applied to any of the supported terminals. After you have read either of these short sections and have learned a little about where the function keys are located, how you move the cursor, and what two-character commands are, skip to Appendix C for a typical IDSF<sup>FORM</sup> application. As you read through the application, perform the steps along with the example. Notice which menus you access, what keys you press to do certain things, and how the IDSF<sup>FORM</sup> program interacts with you. Performing the application in Appendix C will give you a good feeling about how IDSF<sup>FORM</sup> is used. It will familiarize you with what steps are required to create a form.

While you step through the process, you are likely to run across questions regarding terminology, such as "What is a window?" or "What does MOVE PEN mean?". When this happens, refer to the glossary and/or the index and look up the words and concepts that you do not understand. In this way, you will take an active part in the learning process and will learn IDSF<sup>FORM</sup> much faster.

When you have finished stepping through the example, try designing a form that will be useful to you. The manual fully explains all of the processes and menus that are required to create forms. If you get stuck or do not understand something, refer to the index for the best place to learn that concept. After you have created one or two simple forms, you will be well on your way to becoming an IDSF<sup>FORM</sup> expert. You will find that, as you learn, you will be referring to the manual less and less until you become proficient. We hope you enjoy learning about the forms designing process and hope you take advantage of the flexibility IDSF<sup>FORM</sup> offers you.

# PREFACE (continued)

## Related Manuals

IDS/3000 Character and Logo Design Reference Manual (36581-90001)  
IFS/3000 Interactive Formatting System Manual (36580-90001)  
HP 2647A Graphics Terminal User's Manual (02647-90001)  
HP 2647F User's Manual (02647-90036)  
HP 2647F User's Supplement (02647-90052)  
HP 2648A Graphics Terminal User's Manual (02648-90001)  
HP 2680A Operator's PM Handbook (02682-90912)  
HP 2688A Operator's Manual (26088-90901)  
HP 2647A/F Keyboard Overlay (36581-60001)  
HP 2648A Keyboard Overlay (36581-60002)  
HP 2623A Graphics Terminal User's Manual (02623-90001)  
HP 2627A Graphics Terminal User's Manual (02627-90001)  
Using Your HP 150 Touchscreen Personal Computer (45626-90004)  
HP 2625A/2628A User's Manual (02625-90001)  
HP 2625A/2628A Reference Manual (02625-90002)  
Using the HP 3000 (03000-90121)  
Using Files (30000-90102)

## Ordering Information

Consumable supplies and accessories may be ordered directly from the Hewlett-Packard Computer Supplies Operation (CSO). Direct phone service is available to HP customers within the continental U.S. Orders may be taken from 9 a.m. to 5 p.m. in all time zones. If it is more convenient, orders may be placed with the local HP Sales and Service Office. In Europe, orders may also be placed with the local HP Sales and Service Office.

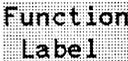
**800-538-8787 Toll Free**  
**California (408) 738-4133 Collect**

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# CONVENTIONS USED IN THIS MANUAL

NOTATION	DESCRIPTION
	May be used to illustrate specific keys on the terminal keyboard corresponding to the label within the symbol, such as the <b>ENTER</b> key. On some terminal keyboards, abbreviated key labels may differ.
	May be used to illustrate specific function labels currently assigned to the special function keys labeled f1 through f8 on the terminal keyboard.
OR,	
	
nonitalics	Words in syntax or format statements which are not in italics must be entered exactly as shown. Punctuation characters other than brackets, braces and ellipses must also be entered exactly as shown. For example:  EXIT;
<i>italics</i>	Words in syntax in lowercase italics denote a parameter which must be replaced by a user-supplied variable. For example:  CLOSE <i>filename</i>
[ ]	Within syntax, an element inside brackets is optional. Several elements stacked inside brackets means the user may select any one or none of these elements. For example:   User <i>may</i> select A or B or neither.
{ }	Within syntax, when elements are stacked within braces the user must select one of those elements. For example:   User <i>must</i> select A or B.

# CONVENTIONS (continued)

( ) Elements *within* parentheses *within* a word or a parameter in syntax or format statements are not entered by the user and appear for identification purposes only. For example:

C(O MMAND)	User enters C <i>only</i> .
Y(es)	User enters Y <i>only</i> .

... Within syntax, a horizontal ellipsis indicates that a previous element may be repeated. For example:

[, *itemname*]...;

underlining When necessary for clarity in an example, user input may be underlined. For example:

NEW NAME? ALPHA

In addition, brackets, braces or ellipses appearing in syntax or format statements which must be entered as shown will be underlined. For example:

LET *var*[[subscript]] = *value*

Δ When necessary for clarity, the symbol Δ may be used to indicate a required blank or an exact number of blanks. For example:

SET[(*modifier*)]Δ(*variable*);

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## Overview

IDSFORM is the Forms Design subsystem of the Interactive Design System, IDS/3000. With IDSFORM you can design your own business forms using a supported graphics terminal on the HP 3000 computer system. The supported graphics terminals are the HP 2623A, 2625A (Opt. #523), 2627A, 2628A (Opt. #523), 2647A, 2647F, and 2648A. The HP 150 is also supported.

## Interactive Design System, IDS/3000

IDS/3000 provides a forms design capability, IDSFORM. In IDSFORM you can specify that text and headings in a form are to be printed using a character font. You can also include previously designed logos and artwork (PCELLs) as part of your form.

If you wish to design forms using logos and other artwork, Hewlett-Packard's Output Design Service (ODS) will create PCELL files to include in your forms. Ask your Hewlett-Packard Sales Representative for more information about ODS.

## IFS/3000

IDSFORM is used with the Interactive Formatting System (IFS/3000) and is designed to be device-independent when used with the default character set (COUR8088). (If a form is designed using a character font other than the default, some changes may be necessary to be able to print the form on both the HP 2680A and HP 2688A printers [see "Converting a Form to Print on an Alternate Target Device" in section IV].) IFS/3000 features allow you to print documents on your selected target device. You can specify that previously designed forms and character fonts be used in printing your documents. IFS/3000 also allows you to simulate multi-part forms (see the IFS/3000 Reference Guide [36580-90001]).

## *INTRODUCTION*

### **Typical Laser Printing System**

Figure 1-1 shows you an example of a laser printing system which uses IDIFORM. Cell files are distributed with IFS/3000 and the Hewlett-Packard Output Design Service also supplies cell files (also called PCELL files).

Correspondingly, IDIFORM puts your specifications for forms into the system and stores them in files called forms files.

You then use IFS/3000 to combine selected cell files and forms files together with the layout details of the print job. These specifications are stored in a file called an environment file. The environment file is compiled for a specific target device.

At run time, the HP 3000 combines the environment file specifications with the appropriate user supplied data.

The HP 3000 downloads all this information to the target device at print time.

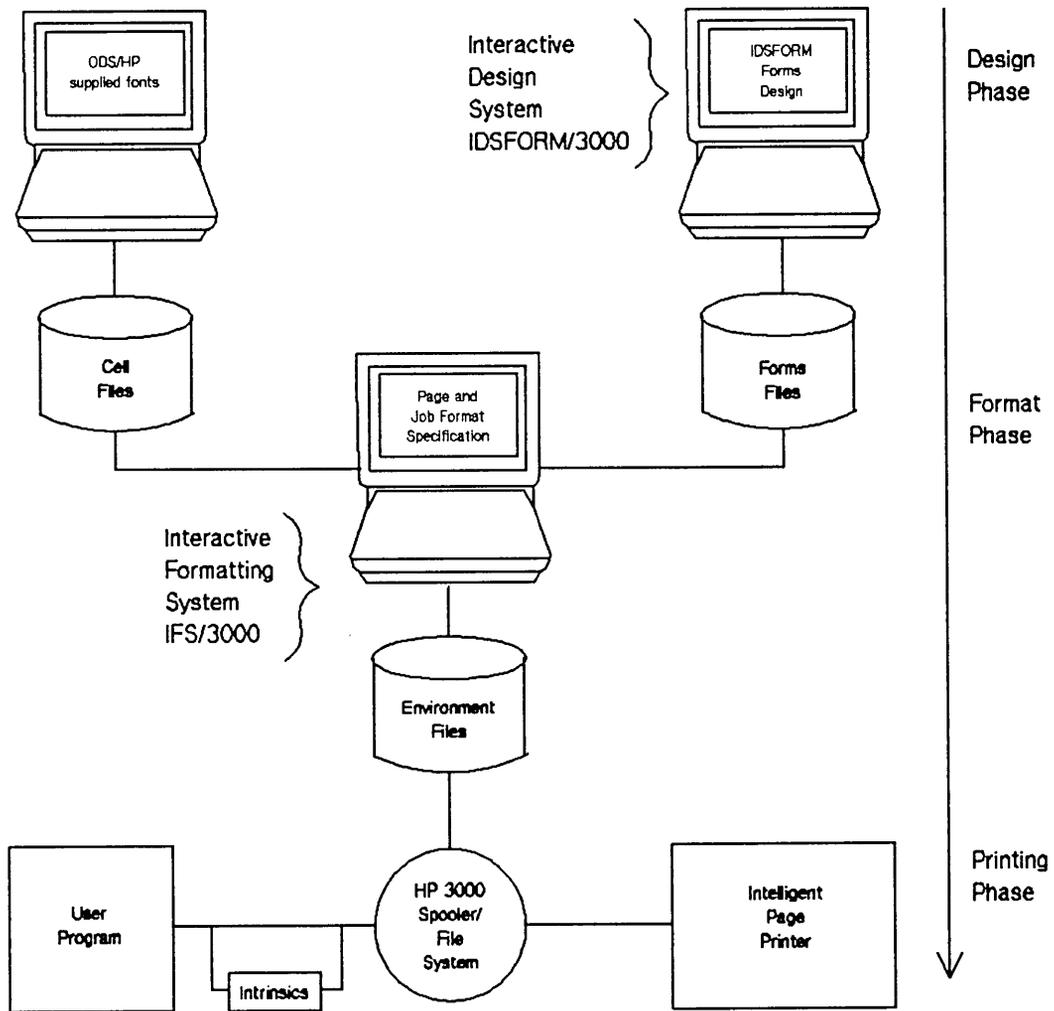


Figure 1-1. IDSF/FORM in the Laser Printing System

## INTRODUCTION

# Forms Design Subsystem

IDSFORM is an interactive, menu-driven program enabling you to design and modify forms. A form consists of the fixed, static, non-data portions of a document such as lines, boxes, and shaded areas and fixed, non-changing data portions of a document such as headings and special textual information. In addition to traditional character fonts, forms can contain special characters, symbols, logos or artwork obtained from ODS. Figure 1-2 shows an example of a form that might be created using IDSFORM.

FIXED TEXTUAL

LOGO



HEWLETT  
PACKARD  
General Systems Division  
Travel Department

TICKETS AND ADVANCE MAY BE PICKED-UP  
AT TRAVEL DESK AFTER 200 PM ON TICKET  
PICK-UP DATE BELOW

TRAVELER

HEADINGS

SHADING

TRAVELER		TICKET PICK-UP DATE	LOCATION CODE	REVISION NO.	ITINERARY DATE	
DAY	DATE	CITY-AIRPORT	TIME	CARRIER	FLIGHT-CLASS STATUS	SERVICE-EQUIP

CODE: A - Air H - Hotel C - Car  
T - Tour S - Surface  
V - Other Travel Services

CLASS: FA - First  
YBHT - Coach  
S - Standard  
K - Economy

STATUS: CR - Confirmed  
WL - Wait List  
RQ - Request

Figure 1-2. Sample Form

## Features

### IDSFORM

- Consists of a single, easy to use, interactive program for forms design and modification using a graphics terminal.
- Supplies defaults making the most commonly used options available with minimal effort or expertise required on the part of the user.
- Requires no special command language. Uses menus and function keys for entering form specifications.
- Provides an optional graphics grid as an aid in the relative positioning of the different parts of the form.
- Uses the graphics capabilities of the terminal to provide immediate visual feedback for the graphics portions of forms such as boxes and lines.
- Provides graphics specifications such as line and box types and weights, and box shading.
- Permits naming of data fields on the form. In this way application programs can be written to print data into various portions of the form by simply accessing these "named" data fields.
- Supports print-and-space design. This enables users to create a form with exact spacing requirements to replace existing forms using existing print application programs.

Refer to section 4 for detailed information on menus and their uses, and use of IDSFORM graphics functions.

## Functions

The function of IDSFORM is to enable you to design and maintain forms. The maintenance functions include modifying the form by adding or deleting lines and boxes or changing the types of lines and boxes drawn on the form. You can also change the character fonts used to print the headings and text in the form. For more flexibility in maintaining a form, you can divide the form into smaller logical units called subforms, and then divide the subforms into fields. You can work with an individual subform or field instead of the entire form. You can add, delete or modify subforms and fields.

IDSFORM stores forms in a file called a forms file. Usually you store all the forms for any given application in the same forms file. You may review a list of all the forms in a forms file using the browse function. The functions you may perform on a forms file are to add, delete, or modify forms. You may make a copy of a form or subform within the same forms file, or you may copy a form or subform from one forms file to another.

## *INTRODUCTION*

### **Modes of Operation**

IDSFORM provides you with two tools for entering the specifications for your form.

1. Menu Mode
2. Graphics Mode

The menu mode of operation will be approached at the various levels of forms creation; main menu level, form level, subform level, and field level. The graphics mode will be discussed as a separate level.

### **MENU MODE**

IDSFORM displays a series of formatted screens called menus. You use these menus when you want to enter information applicable to a form, subform, or field as a whole. You use the terminal keyboard to type the specifications for your form into the menus in a "fill-in-the-blanks" manner. When you are using menus, you are operating in menu mode. During the forms design process, you move from menu to graphics mode and back again depending on what aspect of the form you want to define.

### **GRAPHICS MODE**

Graphics mode is the mode of operation you use to input the graphics specifications for your form. When you are in graphics mode, you use the two-character commands and terminal graphics keys to create and modify your form. During the design process, you move from graphics mode to menu mode and back again depending on which aspects of the form you are defining. In graphics mode, IDSFORM displays a representation of your form on the terminal screen. You specify the graphics aspects of your form such as lines and boxes by actually drawing them on the terminal screen using the keyboard.

### **Defining Windows**

You also can define "windows" in graphics mode. A window is a portion of the form or subform you designate when you want to work with a smaller area within the form or subform. These "windows" are used to position subforms within the form and to position textual information within the subform (refer to "Defining a Subform" and "Defining a Field" in section 4).

Figure 1-3 illustrates the basic flow of IDSFORM.

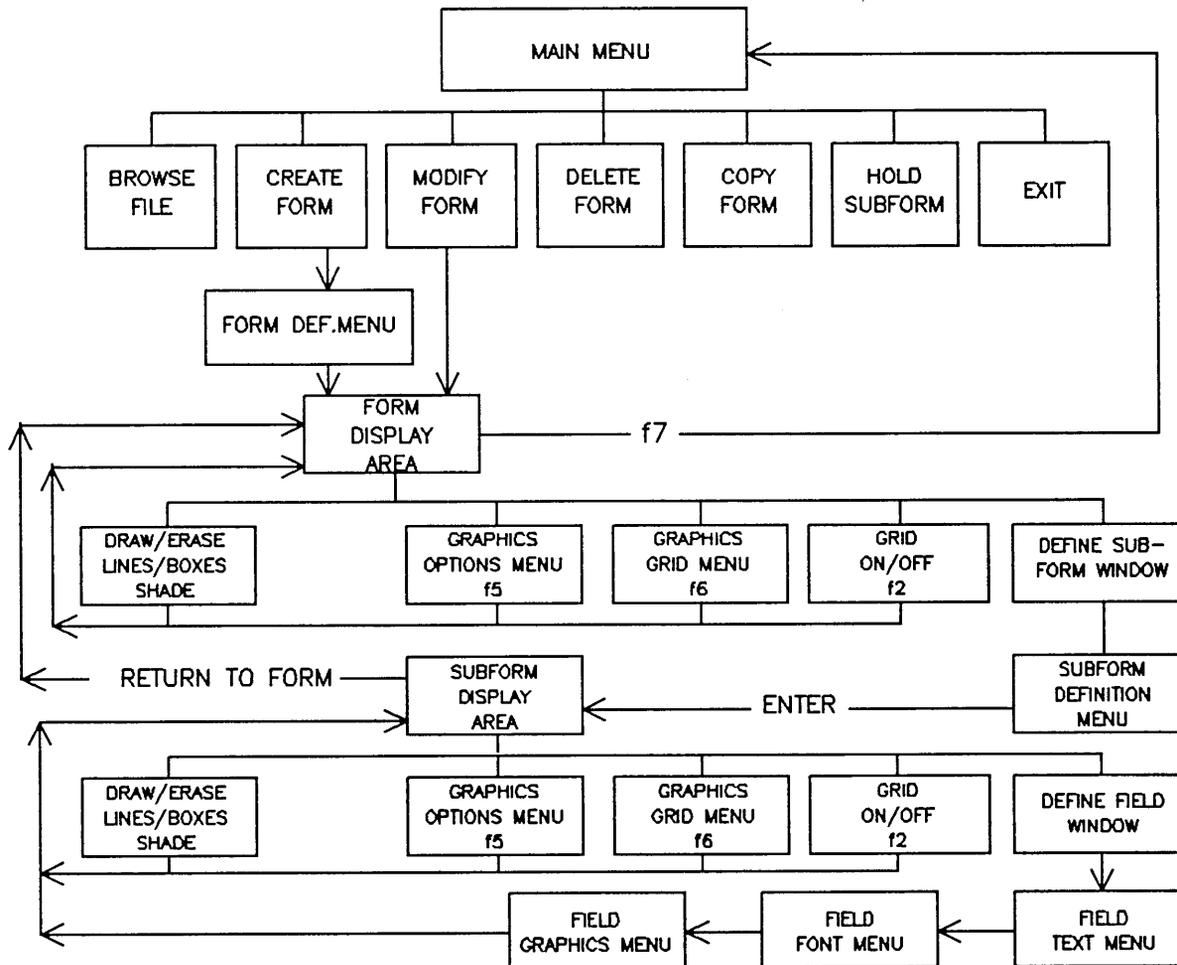


Figure 1-3. Basic Flow of IDSFARM

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### Overview

The purpose of this section is to describe how to use the HP 262X terminals to run IDSF<sup>TM</sup>FORM.

IDSFORM has two modes of operation: menu mode and graphics mode. In designing a form, you move back and forth between these two modes as needed. The terminal soft keys (f1 through f8) are used to perform functions such as changing menus and refreshing the display. Two-character commands (pressing two characters in succession) are used in graphics mode to perform functions such as creating lines and boxes.

In menu mode you use the terminal keyboard to type specifications for your form into formatted screens called menus.

In graphics mode you create the graphics portion of your form which includes creating lines and boxes, subforms, and fields.

### Equipment Requirements

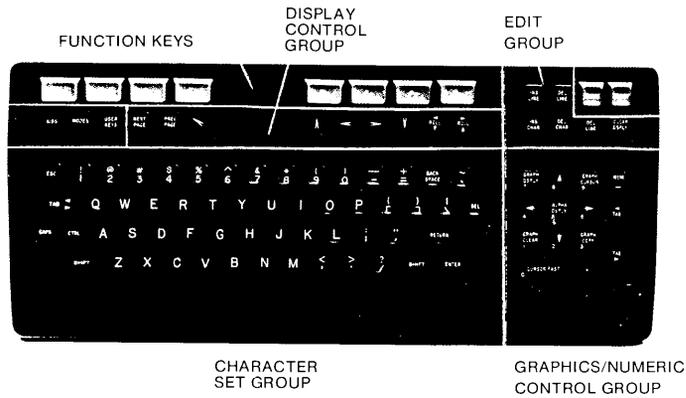
#### HP 262X Input Devices

You can use the following HP 262X terminals to REVIEW the menu screens for IDSF<sup>TM</sup>FORM: HP 2392A, 2622A, 2623A, 2624A, 2625A, 2626A/W, 2627A, 2628A, and the HP 150.

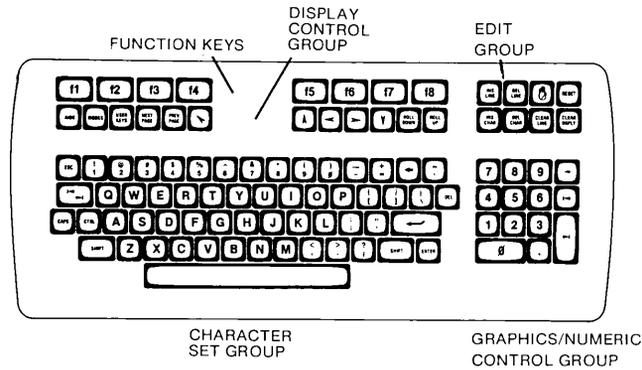
You CANNOT, however, use any of the graphics features of IDSF<sup>TM</sup>FORM unless you use a terminal with graphics supported (HP 2623A, 2625A [option #523], 2627A, 2628A [option #523], or the HP 150).

Figure 2-1 illustrates keyboards used with IDSF<sup>TM</sup>FORM and points out important areas on each keyboard. Consult the appropriate device's reference manual for information such as maintenance, device parameters, operating instructions, and configuration.

USING THE HP 262X TERMINALS



HP 2623A/2627A Keyboards



HP 2625A/2628A Keyboards

Figure 2-1a. HP 262X Terminal Keyboard Layouts

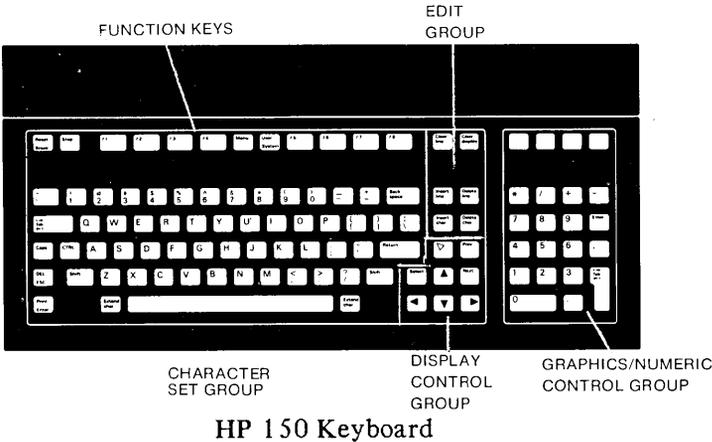


Figure 2-1b. HP 150 Terminal Keyboard Layout

## Output Devices

IDSFORM is designed to be used independently of the output device used to print your forms. This is true only when you use the default character set (COUR8088). If you wish to design a form for both the HP 2680A and 2688A, you must either use the default character set or design the form for one printer, copy the form, and modify the form for the other printer.

To print your forms you first run the IFS/3000 program to construct the environment file. The environment file is then compiled for the specific target device desired. This environment file is used by the HP 3000 when printing forms on the target device selected.

## Using a Remote Computer

Using a modem to access a remote computer, you must specify the terminal type to be 10.

```
:HELLO user.account;TERM=10
```

You must also enter the following statement before you run IDSFORM on another computer system through a DS line.

```
:DSL dsdevice;LINEBUF=1023
```

Your system manager can give you additional information about the DS feature, for example the *dsdevice*.

<b>NOTE</b>
-------------

You cannot use IDSFORM with MTS/3000, Multiple Terminal Software/3000.

## The HP 262X Graphics Terminal

The HP 2623A, 2625A (option #523), 2627A and 2628A (option #523) graphics terminals and the HP 150 computer are supported for designing forms. This section presents those features of the terminal necessary for you to use IDSF<sub>FORM</sub>.

Figure 2-1 shows the keyboards for the HP 262X graphics terminals. The keys that you need to use are illustrated and explained in the following pages.

### Terminal Key Groups

The keys on the terminal keyboard are grouped according to their functions. The location of some keys differs depending on the keyboard, but the groups and their functions are the same. The groups are:

- Character Set Group
- Graphics/Numeric Control Group
- Display Control Group
- Edit Group
- Function Keys Group

#### Character Set Group

Most of the Character Set Group keys (see figure 2-1) work like those on a typewriter. For example, pressing the BACK SPACE key moves the cursor (the blinking dash on the terminal screen) back one space. If you continue to hold a key down, the cursor moves until you release the key. Pressing the SPACE BAR moves the cursor to the right one space and erases any characters as the cursor passes them. You should be aware of some of the unique keys in this group. They are:

**RETURN** - You do not use the **RETURN** key when communicating with menus in IDSF<sub>FORM</sub>.

**TAB** - This key moves the cursor to the next field (white box) on the menus. If the cursor is at the last field on the menu, the **TAB** key returns the cursor to the first field on the menu. This key is not defined in graphics mode.

## USING THE HP 262X TERMINALS

**SHIFT** **TAB** - By holding down the **SHIFT** key and pressing **TAB**, you return to the previous field on a menu. Not defined in graphics mode.

The graphics functions such as those that create lines, boxes, and windows are performed using two-character commands. These commands are executed by pressing two characters in sequence, such as pressing "B" and then "W" for the BEGIN WINDOW command. The two-character commands are listed by typing "HE" (for HELP) from the graphics mode (see figure 2-3). NOTE: The two characters may be any combination of upper and lower case letters.

### Graphics/Numeric Control Group

These keys have dual functions; they can be used as graphics control keys or as a numeric pad. (The graphics control keys are automatically activated by IDIFORM.) When used as graphics control keys, the keys move the graphics cursor to any position on the screen. The effect of the cursor control keys labeled with arrows is described in "Moving the Cursor -- Continuous Movement" in Section 4.

### Display Control Group

By pressing the arrow keys in the Display Control Group (figure 2-1) while in menu mode, you can move the cursor to any position on the menu. Pressing **TAB** returns you to the next field nearest the cursor position. Pressing the HOME CURSOR key (key with slanted arrow) causes the cursor to go to the field nearest the top left corner of the menu. The other keys in the Display Control Group are not used with IDIFORM.

### Edit Group

The HP 262X Edit Group keys are only used in menu mode, not in graphics mode. When in menu mode, the INSERT CHAR and DELETE CHAR keys are used to insert or delete characters in a line as follows:

**INSERT CHAR** - This key allows you to insert characters or words in a line. Position the cursor where you want to insert text. Press the INSERT CHAR key. Type in the character or words you want to insert. Press the INSERT CHAR key a second time and you are no longer in insert mode. This key is not used in graphics mode.

**DELETE CHAR** - This key allows you to delete characters or words in a line. Position the cursor under the first character you want to delete. Press the DELETE CHAR key. Each time you press this key, a character is deleted (a space is considered to be a character). This key is not used in graphics mode.

## Function Keys Group

The function keys (f1 through f8), also called "soft" keys, are used in IDIFORM to go from one menu to the next and to perform specific display functions. The use of these keys with the menus and functions is described in Section 4.

The terminal will respond with a "beep" and/or a message displayed at the top of the screen if you press a function key that is not defined at the time you press it.

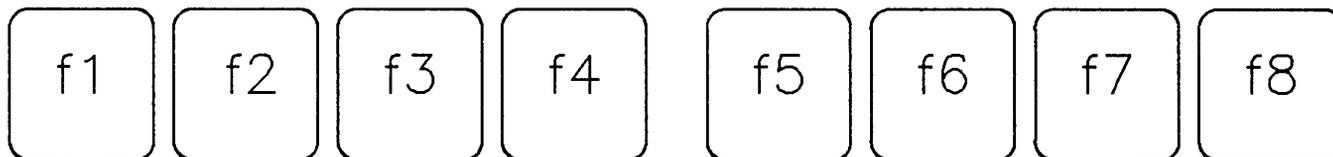


Figure 2-2. Function Keys

This group contains the following keys:

**f1** (Form Def Menu) - This key displays the FORM DEFINITION DISPLAY menu when you are in the Graphics mode.

**f2** (Grid) - This key turns the graphics grid on and off when in graphics mode. Not defined in menu mode.

**f3** (Display)- This key returns you to the DISPLAY at the level you are working in menu mode. This is useful when you want to return to the display without going through all the menus in a sequence. Not defined in graphics mode.

**NOTE**

If you press DISPLAY after you have entered the EXPAND command, only the EXPAND BOX area will be displayed so that it fills the entire terminal screen.

- F 4** (Recover)- Pressing this key re-displays the contents of the screen. In subform level only the subform currently being worked on is fully displayed. All other subforms show only the outline of the subform.
- F 5** (Graphics Option Menu) - Pressing this key displays the GRAPHICS OPTION menu from the FORM DEFINITION DISPLAY menu or the GRAPHICS GRID menu, or from GRAPHICS MODE.
- F 6** (Grid Menu) - This key displays the GRAPHICS GRID menu used to specify which of the graphics grid lines and tick marks you want displayed. This key can be used from the FORM DEFINITION DISPLAY menu or the GRAPHICS OPTION menu or from GRAPHICS MODE.
- F 7** (Main Menu) - This key returns you to the MAIN menu of IDSFORM from menu mode and graphics mode.
- F 8** (Cancel) - This key is used to exit a menu without sending the information in the menu to IDSFORM. Pressing CANCEL causes whatever was displayed just prior to the current display to be displayed again on the screen. CANCEL is not defined when you are in the MAIN menu or in graphics mode.

## Using the Two-Character Commands

Many of the IDSFORM graphics functions are performed using two-character commands. These two-character commands are only used when in the graphics mode. In the graphics mode, a list of all the two-character commands can be displayed on your terminal screen by typing the letters "HE" (for HELP).

```

IDSFORM                Two Character Definitions
***** Two Character Commands *****
Window/Subform commands                Line Drawing commands

  BW - Begin Window                    CL - Create Line (start or finish line)
  EW - End Window                      DL - Delete Line
  MW - Modify Window                  CB - Create Box (start or finish box)
  DW - Delete Window                  DB - Delete Box
                                       MP - Move Pen
                                       RL - Redefine Line

RF - Return to Form                    HS - Hold Subform                    EX - Expand
FR - Full Recover                      RS - Recall Subform                  RX - Remove expand

***** Function Keys *****
   f1      f2      f3      f4      f5      f6      f7      f8
  Form Def  Grid    Display  Recover  Graphics  Grid    Main    Cancel
  menu      menu    menu    menu    menu    menu    menu    menu

                (hit 'enter key' to return to graphics screen)

```

Figure 2-3. Two-Character Definitions Menu

## *USING THE HP 262X TERMINALS*

To execute any of the two-character commands, simply type the two characters in succession (from the graphics mode only). For example, if you wish to enter the DELETE WINDOW command, move the cursor to the appropriate window, type "D" and then type "W". Note that these characters may be typed in either upper or lower case letters (or any combination of upper- and lower-case). The characters will be briefly displayed in the upper left corner of the display before the command is executed.

If an incorrect sequence of commands is entered, the terminal will respond with a double beep signal. If this happens, retype the two-character command. If you are having trouble, be sure to check the Two-Character Command Help menu for a list of the correct commands. For your convenience, several printed copies of the menu are supplied at the front of the manual. Cut out one of the cards and set it within easy reach when you are using IDSF0RM.

Following is a brief description of each two-character command:

**BEGIN WINDOW (BW)** -- Typing "BW" marks the cursor position as the beginning point of a window. This command is used in combination with the **END WINDOW (EW)** command.

**END WINDOW (EW)** -- Typing "EW" completes the window creation process. This command is used in combination with the **BEGIN WINDOW (BW)** command. When the **END WINDOW** command is entered, a rectangular window is created with one corner being the position of the cursor when the **END WINDOW** command was entered, and the opposite diagonal corner of the window being the cursor position when the **BEGIN WINDOW** command was entered.

**MODIFY WINDOW (MW)** -- Positioning the cursor and typing "MW" selects the subform or field window you want to modify.

**DELETE WINDOW (DW)** -- Placing the cursor within a window and typing "DW" deletes the window. If the form is displayed on the screen, you can delete subform windows (this also deletes all fields contained within that subform). If the subform is displayed on the screen, you can delete field windows.

**CREATE LINE (CL)** -- You use this command to draw a line on your form. When the form is on the screen, you may draw lines at the form level; likewise, when the subform is on the screen, you may draw lines at the subform level (refer to "Form vs. Subform Graphics" in Section 4).

**DELETE LINE (DL)** -- You enter this command to delete a line or a portion of a line in your form. Lines drawn at form level can only be deleted at form level; likewise, lines drawn at subform level can only be deleted at subform level.

## USING THE HP 262X TERMINALS

**CREATE BOX (CB)** -- You use this command to draw a box on your form. When the form is on the screen, you may draw boxes at the form level; likewise, when a subform is on the screen, you may draw boxes at the subform level.

**DELETE BOX (DB)** -- You enter this command to delete a box in your form. Boxes drawn at form level can only be deleted at form level; likewise, boxes drawn at subform level can only be deleted at subform level.

**MOVE PEN (MP)** -- Typing "MP" marks the current position of the graphics cursor but does not draw a line from the previous cursor position to the current cursor position.

**REDEFINE LINE (RL)** -- This command changes the line type or weight of all or part of an existing line based on the graphics options in effect when you press this key.

**RETURN TO FORM (RF)** -- You use this command only when you are working at subform level. This command causes the entire form to be displayed on the screen.

**FULL RECOVER (FR)** -- Using this command draws the contents of each subform on the form (without their outlines).

**HOLD SUBFORM (HS)** -- Positioning the cursor and typing "HS" places the indicated subform in a hold area. Using **RECALL SUBFORM** causes a copy of the subform to be drawn at another specified location in your form.

**RECALL SUBFORM (RS)** -- This command causes a copy of the subform placed in the hold area to be drawn at the same relative position indicated by the graphics cursor when the form was held with the **HOLD SUBFORM** command.

**EXPAND (EX)** -- Entering this command defines an area of a fixed size called an **EXPAND BOX** centered around the location of the cursor in the form. You can display the **EXPAND BOX** so that it fills the entire terminal screen. By repeatedly typing "EX", you can expand a portion of the form until you get the best possible resolution within the limits of the terminal screen. Press  (DISPLAY) to see the expanded area on the screen.

**REMOVE EXPAND (RX)** -- Entering this command returns the display to the previous resolution of the **EXPAND BOX**. If the **EXPAND BOX** has been displayed on the screen, you can return to a display of the entire form by typing "RX".

## **Printing Forms With Your Terminal's Internal Printer**

If your HP 262X terminal contains an internal printer (or an appropriately configured external printer), you may use the printer to dump the graphics display screen during the forms design process. See your terminal user's manual for the method of printing the display screen with your terminal.

### Overview

The purpose of this section is to describe how to use the HP 264X terminals to run IDSFORM.

IDSFORM has two modes of operation: menu mode and graphics mode. In designing a form, you move back and forth between these two modes as needed. Certain terminal keys perform different functions depending on whether you are in menu or graphics mode. Some keys are defined only when you are in graphics mode.

In menu mode you use the terminal keyboard to type specifications for your form into formatted screens called menus.

In graphics mode you do the actual design of your form, such as positioning lines and boxes.

### Equipment Requirements

#### HP 264X Input Devices

You can use the following HP 264X terminals to REVIEW the menu screens for IDSFORM:

2640B, 2641A, 2642A, 2645A, 2647A, 2647F, 2648A

You CANNOT, however, use any of the graphics features of IDSFORM unless you use a terminal with graphics supported (i.e., HP 2647A/F or HP 2648A).

Consult the appropriate device's reference manual for information such as maintenance, device parameters, operating instructions, and configuration.

## USING THE HP 264X TERMINALS

With the HP 264X graphics terminals, you have the option of using the special graphics keys (instead of the two-character commands which may be used with any supported terminal). If you wish to use the special graphics keys, you may want the IDS keyboard overlays for your terminal. The part numbers for these overlays can be found in the preface of this manual. Figure 3-1a/b shows the keyboards, overlays and display control key chart for the 2647A/F and 2648A graphics terminals.

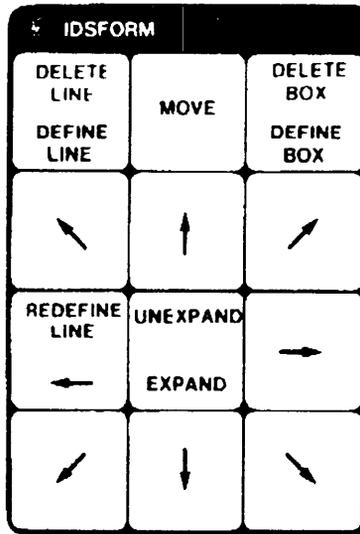
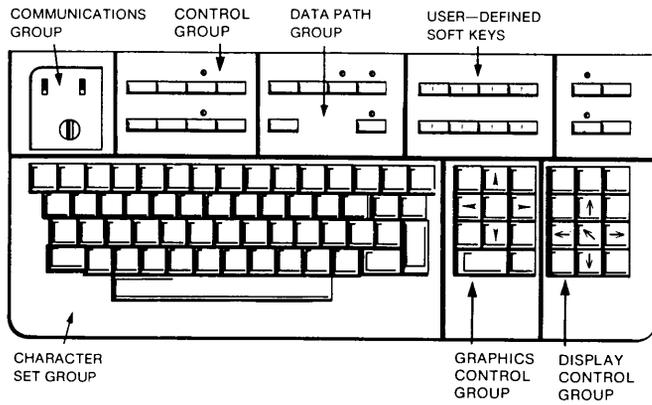
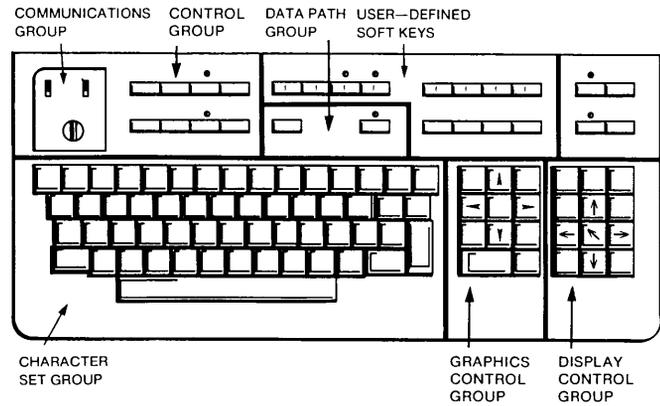


Figure 3-1a. Display Control Key Chart

USING THE HP 264X TERMINALS

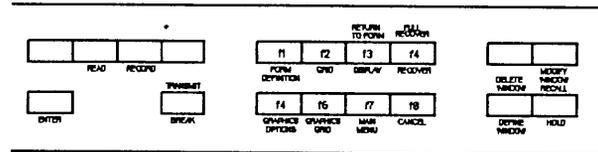


HP 2648A



HP 2647A

2648A OVERLAY



2647A/F OVERLAY

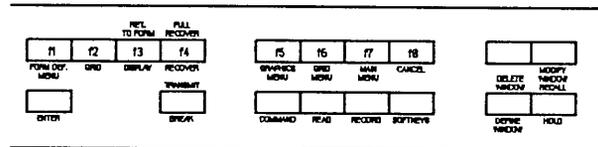


Figure 3-1b. HP 2647/2648 Keyboards, Overlays and Control Key Chart

## Output Devices

IDSFORM is designed to be used independently of the output device used to print your forms. This is true only if you use the default character set (COUR8088). If you design a form with a non-default character set and wish to print the form on both the HP 2680A and 2688A, you must first design the form for one printer, copy the form, and then modify the copy of the form so that it uses character sets for the other printer.

To print your forms you first run the IFS/3000 program to construct the environment file. The environment file is then compiled for the specific target device desired. This environment file is used by the HP 3000 when printing forms on the target device selected.

## Using a Remote Computer

Using a modem to access a remote computer, you must specify the terminal type to be 10.

```
:HELLO user.account;TERM=10
```

You must also enter the following statement before you run IDSFORM on another computer system through a DS line.

```
:DSLIN dsdevice;LINEBUF=1023
```

Your system manager can give you additional information about the DS feature, for example the dsdevice.

<b>NOTE</b>
-------------

You cannot use IDSFORM with MTS/3000, Multiple Terminal Software/3000.

## The HP 264X Graphics Terminal

An HP 2647A/F or HP 2648A graphics terminal is supported for designing forms. This section presents those features of the terminal necessary for you to use IDSF<sub>FORM</sub>.

Figure 3-1b shows the keyboards for the HP 264X graphics terminals. The keys that you need to use are illustrated and explained in the following pages.

### Terminal Key Groups

The keys on the terminal keyboard are grouped according to their functions. The location of some keys on the HP 2647A/F and HP 2648A differ (refer to figure 3-1b), but the groups and their functions are the same.

The groups are:

- Character Set Group
- Communications Group
- Terminal Control Group
- Data Path Group
- User-Defined Soft-Key Group
- Edit Group
- Display Control Group
- Graphics Control Group

### Character Set Group

Most of the Character Set Group keys (see figure 3-1b) work like those on a typewriter. For example, pressing the BACK SPACE key moves the cursor (the blinking dash on the terminal screen) back one space. If you continue to hold a key down, the cursor moves until you release the key. Pressing the SPACE BAR moves the cursor to the right one space and erases any characters as the cursor passes them. You should be aware of some of the unique keys in this group. They are:

**RETURN** - You do not use the **RETURN** key when communicating with menus in IDSF<sub>FORM</sub>.

**TAB** - This key moves the cursor to the next field (white box) on the menus. If the cursor is at the last field on the menu, the **TAB** key returns the cursor to the first field on the menu. Not defined in graphics mode.

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**CONTROL** - This key is used in conjunction with certain function keys. When you hold down the **CONTROL** key while pressing one of the designated keys, you perform a given function. Pressing the same function key without holding down the **CONTROL** key will cause a different function to be performed. For example, see **DEFINE LINE** and **DELETE LINE** in "Display Control Group" keys.

**SHIFT** **TAB** - By holding down the **CONTROL** key and pressing **TAB**, you return to the previous field on a menu. Not defined in graphics mode.

The graphics functions such as those that create lines, boxes, and windows are performed using two-character commands or special graphics keys (only the HP 2647/48 terminals use these keys for IDSFORM). The two-character commands are executed by pressing two characters in sequence, such as pressing "B" and then "W" for the **BEGIN WINDOW** command. The two-character commands are listed by typing "HE" (for **HELP**) from the graphics mode. (The **HELP** menu is shown at the end of this section.) See the discussions on the **Edit Group** and the **Display Control Group** for more information concerning the graphics functions.

### Communications Group

The Communications Group keys (figure 3-2) must be set before you run IDSFORM. Normally the switches are already set to the proper positions which are:

**DUPLEX - FULL**

**PARITY - NONE**

**BAUD RATE - 9600 (2400 for the HP 3000 Series III)**

If you have questions about the settings, contact your system manager.

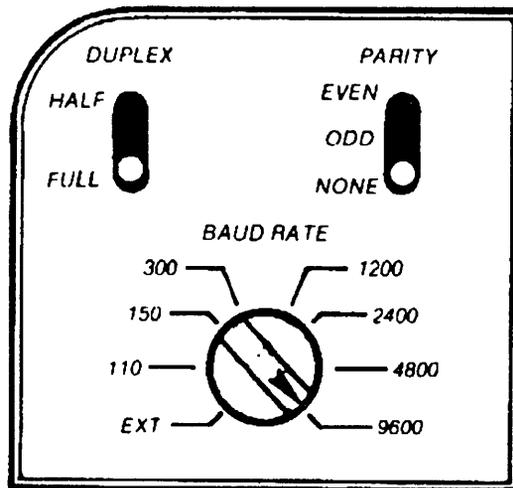


Figure 3-2. Communication Group Keys

### Control Group

The Control Group keys (figure 3-3) must be set before you run IDIFORM. Normally they should already be set to the proper positions. But before you begin, check to make sure that the settings are correct.

REMOTE (DOWN) - Pressing this key so that it remains in the down position puts your terminal in contact with the computer.

CAPS LOCK - UP (upper and lower case) or DOWN (all caps)

AUTO LINE FEED - UP or DOWN

RESET - This key is used in conjunction with the **BREAK** key. (Refer to appendix B).

ALL OTHERS - UP (unless otherwise notified)

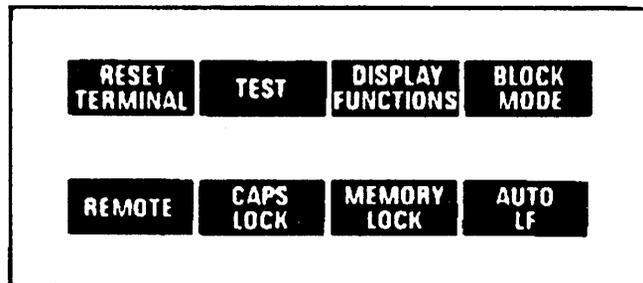


Figure 3-3. Control Group Keys

### **Data Path Group**

The Data Path Group keys (figure 3-4) contain the **ENTER** key and the **BREAK** key.

**ENTER** key - By pressing this key, you transmit information entered on the menu to IDIFORM. If you leave a menu without pressing **ENTER**, IDIFORM has no knowledge of any changes you may have typed into the menu.

**BREAK** key - This key is used in conjunction with the RESET key (refer to appendix B).

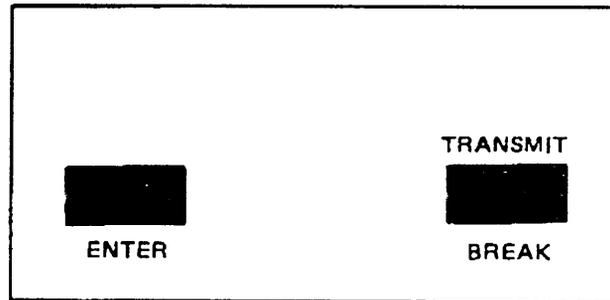


Figure 3-4. Data Path Group Keys

**User-Defined  
Soft-Key Group**

The User-Defined Soft-Key Group keys (figure 3-5) are called function keys. You use these keys in IDSFORM to go from one menu to the next and to perform specific display functions. The use of these keys with the menus and functions is described in Section 4. For some functions you use a combination of the function key and the **CONTROL** key. These keys are located in different positions on the HP 2647A/F and HP 2648A terminals, however, they perform the same functions. The terminal will respond with a "beep" and/or a message displayed at the top of the screen if you press a function key that is not defined at the time you press it.

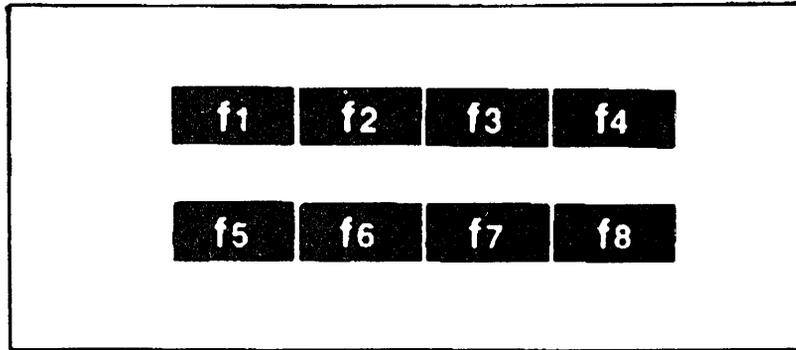


Figure 3-5. User-Defined Softkeys (Function Keys)

This group contains the following keys:

- f1** - This key displays the FORM DEFINITION DISPLAY menu when you are in the Graphics mode. Not defined in menu mode.
- f2** (Grid) - This key turns the graphics grid on and off when in graphics mode. Not defined in menu mode.
- f3** (Display)- This key returns you to the DISPLAY at the level you are working in menu mode. This is useful when you want to return to the display without going through all the menus in a sequence. Not defined in graphics mode.

**NOTE**

If you press DISPLAY after you have pressed the EXPAND key, only the EXPAND BOX area will be displayed so that it fills the entire terminal screen.

- CONTROL** **f 3** (Return to Form) - You use this combination only when you are working at the subform level. Pressing f3 while holding down the **CONTROL** key causes the entire form to be displayed on the screen. Not defined in menu mode. (This function may also be performed by typing "RF".)
- f 4** (Recover)- Pressing this key re-displays the contents of the screen. In subform level only the subform currently being worked on with its contents is displayed. At form level, all other subforms show only the outline of the subform.
- CONTROL** **f 4** (Full Recover) - Pressing this key combination in graphics mode draws the contents of each subform on the form without their outlines. (This function may also be performed by typing "FR".) Not defined in menu mode.
- f 5** (Graphics Option Menu) - Pressing this key displays the GRAPHICS OPTION menu from the FORM DEFINITION DISPLAY menu or the GRAPHICS GRID menu or from GRAPHICS MODE.
- f 6** (Grid Menu) - This key displays the GRAPHICS GRID menu used to specify which of the graphics grid lines and tick marks you want displayed. This key can be used from the FORM DEFINITION DISPLAY menu or the GRAPHICS OPTION menu or from GRAPHICS MODE.
- f 7** (Main Menu) - This key returns you to the MAIN menu of IDSFORM from menu mode and graphics mode.
- f 8** - This key is used to exit a menu without sending the information in the menu to IDSFORM. Pressing CANCEL causes whatever was displayed just prior to the current display to be displayed again on the screen. CANCEL is not defined when you are in the MAIN menu or in graphics mode.

## Edit Group

### Graphics Mode

The Edit Group of keys (figure 3-6) perform specific functions when used in graphics mode. The use of these keys is explained with the corresponding graphics functions in Section 4. These functions may also be performed by pressing a two-character sequence on your terminal keyboard. For example, the MODIFY WINDOW function may be performed by pressing the MODIFY WINDOW function key (DELETE LINE), or by typing "MW" on your keyboard. Each of the graphics functions described below lists the two-character command that may be used instead of the function key.

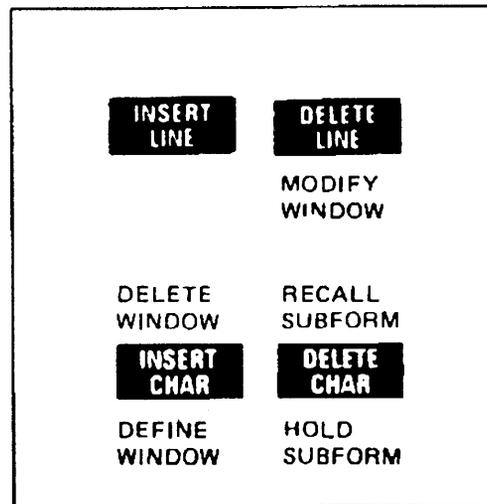


Figure 3-6. Edit Group Keys

**MODIFY WINDOW (MW)** - Positioning the cursor and pressing this key selects the subform or field window you want to modify. Not defined in menu mode. (Typing "MW" also performs this function.)

**DEFINE WINDOW (BW/EW)** - This key is used to define windows. When the form is displayed on the screen, you may define subform windows. When the subform is displayed on the screen, you may define field windows. Redefined in menu mode (see INSERT CHAR). (Typing "BW" [for BEGIN WINDOW] and "EW" [for END WINDOW] also performs this function.)

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**DELETE WINDOW (DW)** - Placing the cursor within a window and pressing this key while holding down the **CONTROL** key will delete the window. If the form is displayed on the screen, you can delete subform windows (this also deletes all fields contained within that subform). If the subform is displayed on the screen, you can delete field windows. Not defined in menu mode. (Typing "DW" also performs this function.)

**HOLD SUBFORM (HS)** - Positioning the cursor and pressing this key places the indicated subform in a hold area. Using **RECALL SUBFORM** causes a copy of the subform to be drawn at another specified location in your form. Redefined in menu mode (see **DELETE CHAR**). (Typing "HS" also performs this function.)

**RECALL SUBFORM (RS)** - Pressing this key while holding down the **CONTROL** key causes a copy of the subform placed in the hold area to be drawn at the same relative position indicated by the graphics cursor. (Typing "RS" also performs this function.)

### **NOTE**

In menu mode, you can use only two of the keys in the **EDIT GROUP**. These are the **INSERT CHAR** and **DELETE CHAR** keys.

#### **Menu Mode**

**INSERT CHAR** - This key allows you to insert characters or words in a line. Position the cursor to where you want to insert the material. Press the **INSERT CHAR** key (red light illuminates). Type in the character or words you want to insert. Press the **INSERT CHAR** key a second time (red light turns off) and you are no longer in insert mode. Redefined in graphics mode (see **DEFINE WINDOW**).

**DELETE CHAR** - This key allows you to delete characters or words in a line. Position the cursor under the first character you want to delete. Press the **DELETE CHAR** key. Each time you press this key, a character is deleted (a space is considered to be a character). Redefined in graphics mode (see **HOLD SUBFORM**).

### Graphics Control Group

The Graphics Control keys (figure 3-7) move the graphics cursor to any position on the screen. The effect of the cursor control keys labeled with arrows is described in Moving the Cursor - Continuous Movement in Section 4.

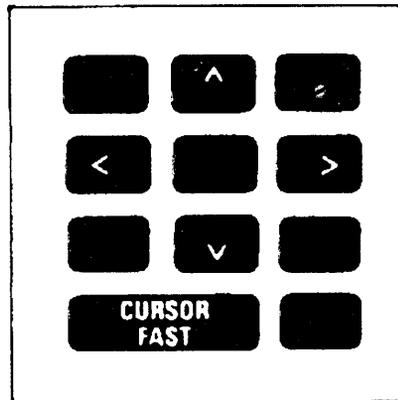


Figure 3-7. Graphics Control Keys

### Display Control Group

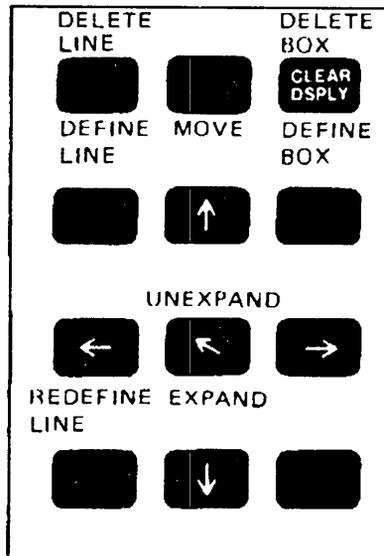


Figure 3-8. Display Control Group

By pressing the arrow keys in the Display Control Group (figure 3-8) while in menu mode, you can move to any position on the menu. Pressing **TAB** returns you to the next field nearest the cursor position.

The following keys perform specific functions when used in graphics mode. These functions may also be performed by pressing a two-character sequence on your terminal keyboard. For example, the DELETE LINE function may be performed by pressing the DELETE LINE function key or by typing "DL" on your keyboard. Refer to the description of each key (or two-character command) in this section.

**DEFINE LINE (CL)** - You use this key to draw a line on your form. When the form is on the screen, you may draw lines at the form level; likewise when the subform is on the screen, you may draw lines at the subform level (refer to "Form vs Subform Graphics" in Section 4). (Typing "CL" [for CREATE LINE] also performs this function.) Not defined in menu mode.

- DELETE LINE (DL)** - You press this key while holding down the **CONTROL** key to delete a line or a portion of a line in your form. Lines drawn at form level can only be deleted at form level; likewise lines drawn at subform level can only be deleted at subform level. (Typing "DL" also performs this function.) Not defined in menu mode.
- MOVE (MP)** - Pressing this key marks the current position of the graphics cursor but does not draw a line from the previous cursor position to the current cursor position. (Typing "MP" [for MOVE PEN] also performs this function.) Not defined in menu mode.
- DEFINE BOX (CB)** - You use this key to draw a box on your form. When the form is on the screen, you may draw boxes at the form level; likewise when the subform is on the screen, you may draw boxes at the subform level. (Typing "CB" [for CREATE BOX] also performs this function.)
- DELETE BOX (DB)** - You press this key while holding down the **CONTROL** key to delete a box in your form. Boxes drawn at form level can only be deleted at form level; likewise boxes drawn at subform level can only be deleted at subform level. (Typing "DB" also performs this function.) Redefined in menu mode (see **CONTROL** CLEAR DISPLAY).
- CONTROL** CLEAR DISPLAY - This combination clears all characters below the cursor in a field (white area) on a menu. Redefined in graphics mode (see DELETE BOX).
- REDEFINE LINE (RL)** - This key changes the line type or weight of all or part of an existing line based on the graphics options in effect when you press this key. (Typing "RL" also performs this function.) Not defined in menu mode.
- EXPAND (EX)** - Pressing this key defines an area of a fixed size called an EXPAND BOX centered around the location of the cursor in the form. You can display the EXPAND BOX so that it fills the entire terminal screen. By repeatedly pressing the EXPAND key, you can expand a portion of the form until you get the best possible resolution within the limits of the terminal screen. (Typing "EX" performs the same function as pressing the EXPAND key.) Press DISPLAY **3** to see the expanded area on the screen. Redefined in menu mode (see HOME CURSOR).
- UNEXPAND (RX)** - Holding down the **CONTROL** key while pressing the EXPAND key returns to the previous resolution of the EXPAND BOX. If the EXPAND BOX has been displayed on the screen, you can return to a display of the entire form by pressing the EXPAND key while holding down the **CONTROL** key. (Typing "RX" [for REMOVE EXPAND] performs the same function as the UNEXPAND key.) Redefined in menu mode (see **CONTROL** HOME CURSOR).

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**HOME CURSOR** - Pressing this key moves the cursor to the first field on the menu in menu mode. Redefined in graphics mode (see EXPAND).

**CONTROL HOME CURSOR** - Pressing this combination while you are at a menu moves the cursor to the bottom of the screen in menu mode. Redefined in graphics mode (see UNEXPAND).

## Using the Two-Character Commands

```
IDSFORM                Two Character Definitions
***** Two Character Commands *****
Window/Subform commands                Line Drawing commands

  BW - Begin Window                    CL - Create Line (start or finish line)
  EW - End Window                      DL - Delete Line
  MW - Modify Window                  CB - Create Box (start or finish box)
  DW - Delete Window                  DB - Delete Box
                                      MP - Move Pen
                                      RL - Redefine Line

RF - Return to Form                    HS - Hold Subform                    EX - Expand
FR - Full Recover                      RS - Recall Subform                  RX - Remove expand

***** Function Keys *****
  f1      f2      f3      f4      f5      f6      f7      f8
Form Def  Grid    Display  Recover Graphics  Grid    Main    Cancel
 menu     menu    menu    menu    Menu    Menu    Menu

                (hit 'enter key' to return to graphics screen)
```

Figure 3-9. Two-Character Command Help Menu

Many of the IDSF`ORM` graphics functions are performed using either two-character commands or special keys on the HP 264X keyboard. These two-character commands are only used when in the graphics mode. In the graphics mode, a list of all the two-character commands can be displayed on your terminal screen by typing the letters "HE" (for HELP).

To execute any of the two-character commands, simply type the two characters in succession (from the graphics mode only). For example, if you wish to enter the DELETE WINDOW command, simply type "D" and then "W".

If an incorrect sequence of commands is entered, the terminal will respond with a double beep signal. If this happens, retype the two-character command. If you are having trouble, be sure to check the Two-Character Command Help menu for a list of the correct commands. For your convenience, several printed copies of the menu are supplied at the front of the manual. Cut out one of the cards and set it within easy reach when you are using IDIFORM.

## **Overview**

This section describes the functions you can perform when designing or modifying a form with IDSF. The functions may be grouped into main menu, form, subform, field, and graphics functions. Figure 4-1 illustrates the form, the subform, and the field.

### **MAIN MENU**

The **MAIN** menu is the main control menu for all IDSF functions. The functions to browse, create, modify, copy form, hold subform and exit are selected at this level.

### **FORM LEVEL**

Once the **FORM DEFINITION** menu is accessed you are working at Form Level. When the entire form is displayed on the screen, you are working at the form level.

### **SUBFORM LEVEL**

Once the **SUBFORM DEFINITION** menu is accessed you are working at Subform level. When a given subform, but not the entire form, is displayed on the screen, you are working at the subform level.

### **FIELD LEVEL**

Once the **FIELD TEXT** menu is accessed you are working at Field Level. You must first have the subform displayed on the screen to begin using the field functions.

## GRAPHICS FUNCTIONS

The graphics functions of IDSF<sub>FORM</sub> are those that permit the drawing of lines and boxes and the shading of various portions of a form. Graphics functions may be performed at two levels: form and subform. Subforms are windows within the form and fields are windows within a subform.

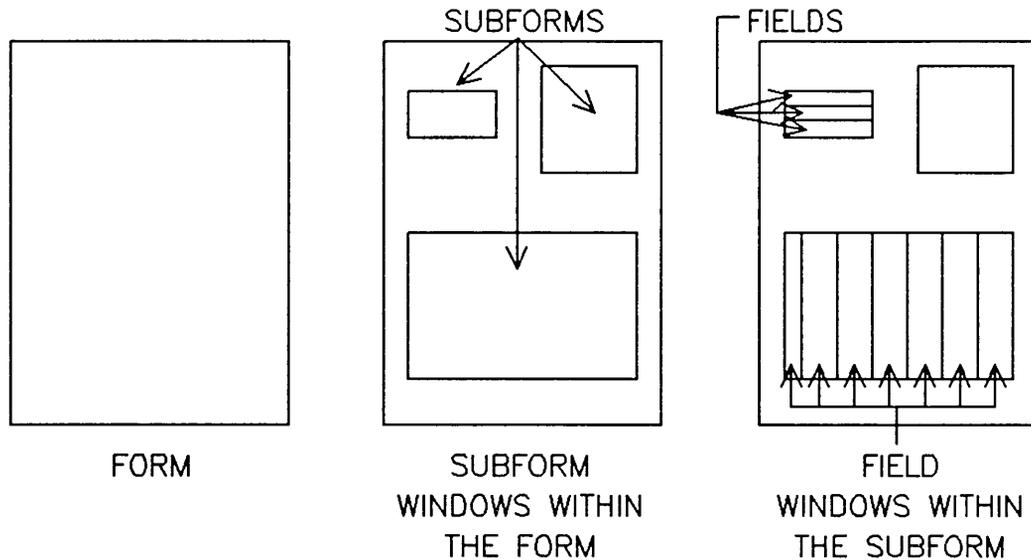


Figure 4-1. Form Level, Subform Level, and Field Level

## Menu Format

IDSF<sub>FORM</sub> uses menus to communicate with you. Some menus are displayed on the screen in response to a specific request from you, while other menus follow a predefined path.

Information located on menus is either variable or fixed (refer to figure 4-2). Menus in IDSF<sub>FORM</sub> have the following format:

- Textual information which asks you questions or describes what is on the menu. For any given menu, this information does not change.



## *USING IDIFORM*

To use the menus, you type into the fields as many characters, letters or numbers as you need, as long as they fit within the brackets delimiting each field. You do not have to completely fill the field. You can type the letters of the alphabet using upper or lower-case letters. IDIFORM will change all entries to upper-case. One exception to this is that IDIFORM does not change the heading text you enter in the FIELD TEXT menu. For certain fields requiring numeric inputs, you can enter decimal fractions as well as integers.

You may use either the **TAB** key or the cursor control keys to position the cursor at the beginning of a field. To communicate with IDIFORM, you press the **ENTER** key; otherwise IDIFORM has no knowledge of what you typed on the screen.

### **Menu Edits**

IDIFORM performs edits including checks for negative numbers and inconsistencies. When IDIFORM detects errors, it displays a message at the top of the terminal screen. IDIFORM highlights all fields in error by displaying them brighter than the other fields on the screen (if your terminal is equipped with the required display enhancements).

If there are no errors, IDIFORM does one of three things; 1) it displays the next menu if you are in a menu path, 2) it displays the form or subform depending on what level you are working at or, 3) it redisplayes the current menu if there is more information for you to supply or for you to read.

## **Menus in IDIFORM**

The following menus are used when you want to enter information applicable to a form, subform or field as a whole. Using these menus you enter form name, form dimensions, and graphics options such as types of lines and boxes and shading for areas in the form, subform, or field.

The IDIFORM menus and their purposes are listed below.



**FORM DEFINITION MENU** - To define the size of the form and the character and line spacing, and to indicate whether the form is to be used as a print-and-space application. Once you enter the values in the **FORM DEFINITION** menu for any given form, the only value you can change is whether the form is a print-and-space form. IDIFORM displays the **FORM DEFINITION** menu when you create a new form.

```

Fill in two of the following three groups:

Physical Dimension
Width
Height
Characters per unit
Lines per unit
Number of Character positions horizontally
Number of Lines vertically

-----

Unit of measurement
I - Inches
M - Millimeters

Print and Space form? Y/N
    
```

**FORM DEFINITION DISPLAY MENU** - To review the size of the form and the character and line spacing, and to indicate whether the form is to be used as a print and space application. You can get to the **FORM DEFINITION DISPLAY** menu by pressing  from Graphics Grid or Graphics Option menus or in graphics mode.

```

Physical Dimension
Width
Height
Characters per unit
Lines per unit
Number of Character positions horizontally
Number of Lines vertically

Unit of measurement
I - Inches
M - Millimeters

Print and space form? Y/N
    
```

## USING IDIFORM

**GRAPHICS OPTIONS MENU** - To define and modify the values for the various graphics options. This menu applies to both the form and subform level graphics. To display this menu, press function key **f5**.

<b>S</b>	Line Type	S - Solid
<b>S</b>	Box Line Type	D - Dot
		DA - Dash
		DD - Dot Dash
		I - Invisible (Box Lines)
<b>N</b>	Line Weight	T - Thin
<b>N</b>	Box Line Weight	N - Normal
		W - Wide
<b>S</b>	Line Repetition	S - Single
<b>S</b>	Box Line Repetition	D - Double
<b>■</b>	Box Shading	L - Light
		M - Medium
		D - Dark
		B - Black

**GRAPHICS GRID** - To specify a graphics grid for use as a graphics aid in positioning lines, boxes, subforms, and fields within a form. The **GRAPHICS GRID** menu may be reached by pressing the **f6** function key. To actually display the selected grid, press **f2**. This displays the grid on the screen but not on the actual form.

Line Numbers	Character Positions	
		GRID LINES placed at these positions
-----		
		TICK MARKS repeated at these intervals
		GRID LINES repeated at these intervals

**SUBFORM DEFINITION MENU -**

To enter the subform name if desired and to define the values for the high-level graphics options (those graphics options which are applicable to the subform as a whole, such as outlines around the subform) IDSFORM displays the SUBFORM DEFINITION menu when you define or modify a subform using the keys located in the Edit Group Keys.

Subform name (optional)	
■ Subform Shading	L - Light M - Medium D - Dark B - Black
■ Subform Outline Line Type	S - Solid D - Dot DA - Dash DD - Dot Dash
■ Subform Outline Line Weight	T - Thin N - Normal W - Wide

**SUBFORM DELETION MENU -**

To delete a subform. IDSFORM displays the SUBFORM DELETION menu when you indicate that you want to delete a subform using the DELETE WINDOW command at the Form Level.

To display subform, press DISPLAY key. To return to this menu from the subform display, press any graphic command key.	
■ Delete this subform? Y/N	
_____ Subform name (optional)	
_____	
_ Subform Box Shading	L - Light      M - Medium D - Dark      B - Black
_ Subform Outline Line Type	S - Solid      DA - Dash D - Dot        DD - Dot Dash
_ Subform Outline Line Weight	T - Thin        N - Normal W - Wide

## USING IDIFORM

**FIELD DELETION MENU** - To delete a field. IDIFORM displays this menu when you indicate that you want to delete a field using the **DELETE WINDOW** command at subform level.

A screenshot of the 'FIELD DELETION MENU' in IDIFORM. The menu is displayed in a window with a black header bar. The main content area is white and contains the following text: 'Delete this field? Y/N' with a cursor on the 'Y'. Below this is a line for 'Field Name (optional)' and another line for 'Heading Text'. There are several horizontal lines representing input fields. At the bottom, there is a list of options: '- Horizontal Heading Position', '- Vertical Heading Position', '- Text Direction', and '- Padding around heading?'.

**FIELD TEXT MENU** - To give a field a name if desired and to enter the field's text, if any. IDIFORM displays the **FIELD TEXT** Menu when you define or modify a field using the window function key. This is the first menu displayed in the Field Level menu path.

A screenshot of the 'FIELD TEXT MENU' in IDIFORM. The menu is displayed in a window with a black header bar. The main content area is white and contains the following text: 'Field Name (optional)' with a cursor on the 'F'. To the right, there is a question 'Go to next menu? Y/N' with a cursor on the 'Y' and a sub-note '(to change font, logo or field graphics)'. Below this is a line for 'Heading Text'. A large black rectangular area represents the input field for the field's text. At the bottom, there is a list of options: 'Horizontal Heading Position' (L - Left, R - Right, C - Center, J - Justify), 'Vertical Heading Position' (T - Top, B - Bottom, C - Center, J - Justify), 'Text Direction' (H - Horizontal, RH - Reverse Horizontal, V - Vertical, RV - Reverse Vertical), and 'Padding around heading? Y/N'.

**FIELD FONT AND SUBFIELD DESCRIPTION MENU** - To indicate the cell file containing the characters needed to print the field's text or logo. Also you can use this menu to define the number and direction of the subfields in a field. The **FIELD FONT AND SUBFIELD DESCRIPTION** menu is the second menu displayed in the Field Level menu path.

Cell File _____	Point Size _____ _____ _____	Uppercase Height _____ _____ _____	Actual size Next smaller Next larger
<input checked="" type="checkbox"/> Logo file? Y/N	Point size -OR- Uppercase or logo height <input type="checkbox"/> I - inches M - mm	<input checked="" type="checkbox"/> If no perfect match use: N - Nearest size S - Next smaller size L - Next larger size	
<input type="checkbox"/> Orientation: 0,90,180,270 (degrees clockwise)	<input type="checkbox"/> Number of Subfields <input checked="" type="checkbox"/> Direction of Subfields Repeated: H - Horizontally V - Vertically	<input type="checkbox"/> Lines needed Character spaces needed Lines available Character spaces available	

**FIELD GRAPHICS MENU** - To specify the graphics which apply to the entire field, the heading area, the data area, and each subfield. The **FIELD GRAPHICS** menu is the third menu displayed in the Field Level menu path.

6			
	Box Lines	Shade	Underlines
Entire Field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Heading Field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Data Field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Every <input checked="" type="checkbox"/> Subfields	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Every <input checked="" type="checkbox"/> Subfields		<input checked="" type="checkbox"/>	
Every <input checked="" type="checkbox"/> Subfields			<input checked="" type="checkbox"/>
Box Line / Underline Selections		Shade Selections	
S - Solid		L - Light	
D - Dot		M - Medium	
DA - Dash		D - Dark	
DD - Dot Dash		B - Black	



## MAIN Menu Level

The MAIN menu is the main control menu for all IDIFORM functions (figure 4-3). You select the function you want to perform from the MAIN menu. The MAIN menu is the first IDIFORM menu. It automatically appears on the terminal screen after you type :RUN IDIFORM.PUB.SYS. You can also get to the MAIN menu at any time by pressing the  function key.

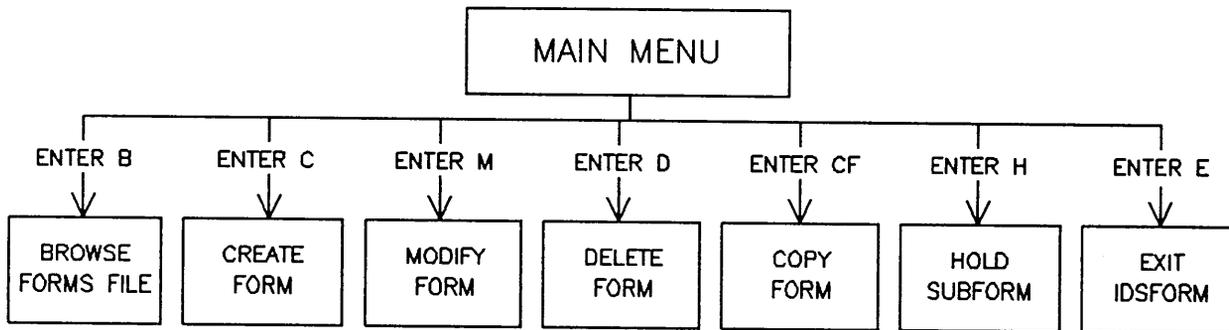


Figure 4-3. Main Menu Level Functions

## Main Menu Selections

IDSFORM		Main	
Selection	Form	Forms File	
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form			
CF - Copy Form			
	New Form		
	From Form		
	Forms File		
H - Hold a Subform			
	Subform		
	From Form		
	Forms File		
E - Exit			

Figure 4-4. Main Menu

The first field you fill in is the Selection field. The letters or pairs of letters listed on the left side of the menu (figure 4-4) are the valid selections.

With some selections on the MAIN menu, you remain in the MAIN menu. Other selections on the MAIN menu result in other menus being displayed where you can describe in more detail what you want to do. For example, if you want to create a new form, you first select Create (C) on the MAIN menu. The next menu to appear is the FORM DEFINITION menu, where you can then designate such things as the dimensions of the new form.

You can make the following choices from the MAIN menu:

**BROWSE (B)** - This displays the **BROWSE FORMS FILE** menu which lists the forms in the forms file and the number of subforms in each form.

**CREATE (C)** - Enables you to create a new form in a forms file (new or existing). This will display the **FORMS DEFINITION** menu.

**MODIFY (M)** - Enables you to modify an existing form in a forms file. This will display the **Form**.

**DELETE FORM (D)** - Deletes an existing form. Stays in **MAIN** menu.

**COPY FORM (CF)** - Enables you to copy a form within a forms file or to copy a form from one forms file to another. Stays in **MAIN** menu.

**HOLD SUBFORM (H)** - Enables you to store a subform in a hold area from which you can copy for later use. Stays in **MAIN** menu.

**EXIT (E)** - Ends **IDSFORM** and returns you to the **MPE Operating System**.

## Create a Form in a Forms File

IDSFORM		Main	
Selection	Form	Forms File	
C	FORMNAME	FILENAME	
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form			
CF - Copy Form			
	New Form		
	From Form		
	Forms File		
H - Hold a Subform			
	Subform		
	From Form		
	Forms File		
E - Exit			

Figure 4-5. Selection to Create a Form

### Making Your Selections

To create a form, you must enter the selection to create a file (C) in the Selection field along with the form name in the Form field and the forms file name in the Forms File field on the MAIN menu as shown in figure 4-5. Once these are entered, press **ENTER**.

## Selecting a Form Name

The form name can be from 1 to 16 characters, either letters of the alphabet (A-Z) or digits (0-9) or underlines. The first character in the form name must be a letter. The name can be typed using upper- or lower-case letters, but all lower-case letters are shifted to upper-case by IDIFORM.

## Selecting a Forms File Name

The format of the forms file name must conform to the MPE naming conventions, namely the forms file name can be from 1 to 8 characters, either letters of the alphabet (A-Z) or digits (0-9). The first character must be alphabetic. You can type the forms file name using upper- or lower-case letters, but IDIFORM shifts all lower-case letters to uppercase.

## IDIFORM Name Check

After you press **ENTER**, IDIFORM checks the names of the form and the forms file. If there is an error, IDIFORM prints an error message at the top of the screen indicating the error. To proceed, correct the error and reenter valid names for the form and forms file. You may repeat the process of entering form and forms file names until you enter a valid combination.

After you enter valid names for both the form and forms file, IDIFORM searches for the Forms File name. If the forms file name does not exist, IDIFORM displays a message at the top of the screen asking if you want to create a new forms file. If the forms file does exist, IDIFORM searches the forms file for the form. If the form name does not exist in the forms file, IDIFORM displays a message at the top of the screen asking if you want to create a new form. If the new form is created successfully, IDIFORM then displays the FORM DEFINITION menu. This moves you into the Form Level. (refer to "Form Level Functions" in this section).

You can return to the MAIN menu at any time in IDIFORM by pressing the **F7** function key. This causes IDIFORM to display the MAIN menu including the names of the form and forms file you are currently working with.

## Modifying an Existing Form

IDIFORM		Main	
Selection	Form	Forms File	
M	FORMNAME	FILEFILE	
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form			
CF - Copy Form			
	New Form		
	From Form		
	Forms File		
H - Hold a Subform			
	Subform		
	From Form		
	Forms File		
E - Exit			

Figure 4-6. Selection to Modify a Form

If you type M in the MAIN menu Selection field (figure 4-6), MPE checks whether a forms file with the name you typed in the Forms File field exists. If such a file exists, then IDIFORM checks whether a form with the name you typed in the Form field exists in the forms file. If it exists, then IDIFORM assumes you want to modify it.

IDIFORM clears the screen and then displays the form you named in the Form field. IDIFORM then displays the Form Level Display where you can modify the form or subforms using the terminal graphics keys or two-character commands.

IDSFORM may respond with a message at the top of the screen asking if you want to create a new form (or new forms file) as the case might be. This situation could result from several different cases such as:

1. The form exists, but it is not in the forms file you named in the Forms File field. To correct this, determine the correct forms file and enter its name in the Forms File field.
2. The form does not exist. IDSFORM asks if you want to create the form in the forms file you named in the Forms File field. If you want to create a new form, press **ENTER**. If you do not want to create a new form, then determine the name of the form which does exist in the forms file and enter this form name in the Form field. Or you can type another selection in the MAIN menu Selection field. You may want to use the BROWSE menu to review a list of the forms in any forms file.
3. The forms file you named does not exist. IDSFORM asks if you want to create a new forms file. If you want to create a new forms file, press **ENTER**. If you do not want to create a new forms file, then determine the name of the existing forms file and enter this name in the Forms File field.

You may need to qualify the forms file name according to MPE requirements for valid account and group name and lockword, if any. Refer to Using Files (part number 30000-90102).

## Browsing a Forms File

IDSFORM		Browse Forms File	
(Press f7 to return to the Main Menu)			
Forms File	<u>formfile</u>	Page <u>1</u>	
Forms		Number of Subforms	
<u>formname</u>		<u>1</u>	
<u>newform</u>		<u>3</u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	
<u>          </u>		<u>      </u>	

Figure 4-7. Browse Forms File Menu

Type a B in the Selection field of the MAIN menu to list the forms in an existing forms file. To browse additional pages (if any) of this menu, press **(ENTER)** again. Type the name of the forms file in the Forms Name field. You may need to qualify the forms file name according to the MPE requirements for account and group name and lockword, if any. Refer to Using Files (part number 30000-90102).

After you press **(ENTER)**, IDSFORM displays a list of the forms in the forms file and the number of subforms in each form (figure 4-7). It is not possible to browse a forms file until a form has been created and defined in the FORM DEFINITION menu.

## Deleting a Form

IDSFORM		Main	
Selection	Form	Forms File	
D		FILENAME	
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form	FORMNAME		
CF - Copy Form			
	New Form		
	From Form		
	Forms File		
H - Hold a Subform			
	Subform		
	From Form		
	Forms File		
E - Exit			

Figure 4-8. Selection to Delete a Form

The selection in figure 4-8 lets you delete a form from an existing forms file. Type a D in the Selection field and the name of the forms file containing the form you want to delete in the Forms File field. Then type the name of the form to be deleted in the field following Delete Form. When you press **(ENTER)**, IDSFORM deletes the form from the forms file. When IDSFORM has deleted the form, it clears the form name from the Delete Form field.

**CAUTION**

Use care when selecting the Delete Form option. IDIFORM performs the deletion immediately after you enter a valid forms file and form name; it does not display the form prior to deleting it.

## Copying a Form

IDSFORM		Main	
Selection	Form	Forms File	
CF		FILENAME	
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form			
CF - Copy Form			
	New Form	NEWNAME	
	From Form	FORMNAME	
	Forms File	FILENAME	
H - Hold a Subform			
	Subform		
	From Form		
	Forms File		
E - Exit			

Figure 4-9. Selection to Copy a Form

The selection in figure 4-9 lets you copy a form into the forms file you named in the Forms File field. The form to be copied may be in that forms file or in any other existing forms file.

You must give the copied form a name that does not already exist in the forms file you named in the Forms File field. You may need to qualify the forms file name according to the MPE requirements for account and group name and lockword, if any. Refer to Using Files (part number 30000-90102).

Type CF in the Selection field, the name of the new form in the New Form field, the name of the form to be copied in the From Form field, and the name of the forms file containing the form to be copied in the Forms File field. The From Form name is optional if it is the same as the name you typed into the Form field at the

top of the MAIN menu. Likewise, the Forms File name is optional if it is the same as the name you typed into the Forms File field at the top of the menu.

## Holding a Subform at Main Menu

IDIFORM		Main	
Selection	Form	Forms File	
H	FORMNAME	FILENAME	
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form			
CF - Copy Form			
	New Form		
	From Form		
	Forms File		
H - Hold a Subform			
	Subform	SUB1	
	From Form	OLDNAME	
	Forms File	FILENAME	
E - Exit			

Figure 4-10. Selection to Hold a Subform

The selection in figure 4-10 lets you transfer a subform from a form to a hold file for later use during the execution of IDIFORM--this feature is similar to a copy function in that it allows you to duplicate a subform without having to reenter the information.

Type H in the Selection field and type the name of the subform (which you named on the SUBFORM DEFINITION menu when you first created the form) in the Subform field. Then type the form name in the From Form field and type the name of the forms file containing the subform in the Forms File field. The From Form name is optional if the subform you want to hold is part of the form you are currently working on. Likewise, the Forms File name is optional if the subform is in the forms file you are currently working in.

You can use the Hold a Subform selection along with the **RECALL SUBFORM** command to move a subform from a form in one forms file to another form in a different forms file.

You can use this selection to move a subform within a form. Another way to move a subform within a form is to use the **HOLD SUBFORM** and **RECALL SUBFORM** commands at **FORM LEVEL** (refer to "Form Level Functions" in this section).

## Exiting IDSFORM

IDSFORM		Main	
Selection	Form	Forms File	
E			
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form			
CF - Copy Form			
	New Form		
	From Form		
	Forms File		
H - Hold a Subform			
	Subform		
	From Form		
	Forms File		
E - Exit			

Figure 4-11. Selection to Exit IDSFORM

The selection in figure 4-11 causes IDSFORM to end. Type an E in the Selection field and press **ENTER** and you will be returned to the MPE Operating System.

IDSFORM automatically saves the form specifications including any changes you made to them and stores them in the forms file you named in the Forms File field. After you press **ENTER**, IDSFORM clears the screen and displays END OF PROGRAM on the screen.

# Form Level Functions

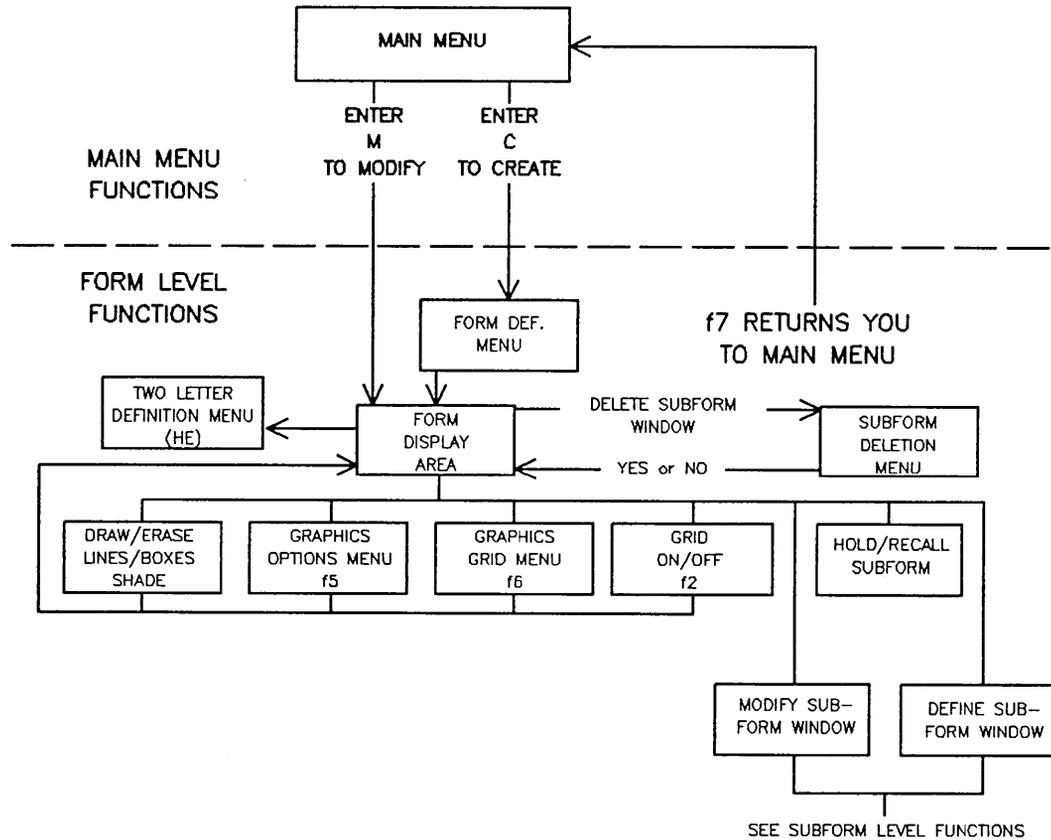


Figure 4-12. Form Level Functions

The menus and graphics used at form level are shown in figure 4-12. They are as follows:

#### MENU MODE

- FORM DEFINITION Menu
- FORM DEFINITION DISPLAY menu
- GRAPHICS OPTIONS Menu\*
- GRAPHICS GRID Menu\*
- SUBFORM DELETION Menu

#### GRAPHICS MODE

- Define/Delete a Line\*
- Define/Delete a Box\*
- Shade Portions of Form\*
- Define a Subform Window
- Modify a Subform Window
- Delete a Subform Window
- Hold a Subform
- Recall a Subform

\*Refer to Graphics Functions in this section for detailed information.

To design and modify forms you use a combination of menu and graphics modes. The first menu that will appear at form level is the FORM DEFINITION menu. Typical form design and modification steps are shown below:

1. Complete the Form Definition Menu and press **ENTER**.
2. IDSFORM will display the form on the terminal screen.
3. Perform graphics functions as described in Graphics Functions.
4. Define subforms within the form using the BEGIN WINDOW and END WINDOW commands (or the DEFINE WINDOW key--HP 264X only) or;
5. Modify subforms within the form using the MODIFY WINDOW command or;
6. Delete subforms within the form using the DELETE WINDOW command.

## Form Definition Menu

The FORM DEFINITION menu is automatically displayed after you enter a C to create on the MAIN menu. You use the FORM DEFINITION menu (figure 4-13) to define the physical dimensions of the form (i.e., width and height, line and character spacing, and character and line requirements), the unit of measurement of the form, and whether the form requires print-and-space protocol. After you complete the FORM DEFINITION menu, IDSFORM automatically displays the form on the terminal screen and puts you in graphics mode.

IDSFORM		Form Definition	
Fill in two of the following three groups:			
Physical Dimension			
7.0	Width		
10.5	Height		
10	Characters per unit		
6	Lines per unit		
	Number of Character positions horizontally		
	Number of Lines vertically		
-----			
I	Unit of measurement		
	I - Inches		
	M - Millimeters		
N	Print and Space form? Y/N		

Figure 4-13. Form Definition Menu

## Defining the Physical Dimension for the Form

The physical dimension refers to the overall size of the form you are creating and the spacing you wish to use on the form. There are three groups of two fields each in the Physical Dimension portion of the menu. IDIFORM provides you with a set of defaults (i.e., 7.0 inches wide, 10.5 inches in height with 10 characters per inch and 6 lines per inch). If these defaults are acceptable, press **ENTER** and the form will be displayed.

### NOTE

Once you enter the physical dimensions on the FORM DEFINITION menu and press **ENTER**, the values CANNOT be changed (unless you delete the form and re-create it). The only field that can be altered is the print-and-space selection.

If you have worked with another form before working with the current one and did not exit IDIFORM, then the default values will be those of the previous form and not those provided by IDIFORM. If you do not wish to use the defaults, you can change any or all of the fields supplied. Two of the three groups must be completed in order to create a form. Likewise, IDIFORM does not allow you to fill in more than two of the three groups. If you fill in one field in a group you must fill in the other field as well. After you fill in the required field and press **ENTER**, IDIFORM displays a representation of the form on the terminal screen. If you wish to see the values entered, you may access the FORM DEFINITION DISPLAY menu by pressing **F1**. This shows you the values entered, including those automatically calculated for the third group on the FORMS DEFINITION menu. To return to the form display press **ENTER**, **F3**, or **F8**. You may access another menu at this point by pressing the appropriate function key if desired.

The maximum physical dimensions for your form depends on the target output device (printer) that will be used to print your form. Some target devices have a portion of the physical page that cannot be printed on, but you can design your form so that the physical dimension of the form extends into this margin area. Refer to the reference manual for the specific target device for print restrictions.

## Specifying the Width and Height

You specify the width and height based on the requirements of the form you are designing. You can enter the width and height in inches or millimeters as desired. (The selection must fall between .5 and 34 inches or 13 and 863 millimeters). The default unit of measurement of IDIFORM is in inches (refer to "Unit of Measurement" in this section).

If you do not know the width and height of the form, enter the remaining two groups. IDIFORM will calculate the Width and Height for you. IDIFORM calculates the width by dividing the number of character positions entered by the characters per unit entered and the height by dividing the number of lines vertically by the lines per unit entered.

### **Specifying the Characters and Lines Per Unit**

The Characters Per Unit (inch or millimeter) is the number of characters measured along the direction of print. The Lines Per Unit (inch or millimeter) is the number of lines printed in the direction of the height of the form.

To determine the characters per unit and lines per unit, you must first determine what character font you plan to use to write data to the form. Fixed pitch character fonts are designed such that a certain number of characters will print in any given inch of space. Likewise each character font is designed such that a certain number of lines will print in any given inch of space. By determining the font you want to use you can determine the correct entries for the fields labeled Characters Per Unit and Lines Per Unit on the FIELD DEFINITION menu. (For information on character fonts supplied with the IFS/3000, see Appendix D of the IFS/3000 Interactive Formatting System Reference Guide [36580-90001]. This manual contains the Characters/Unit and Lines/Unit information you will need to fill in this menu.)

If you intend to use a proportionally spaced character font to write data to your form you would generally not use characters per unit as an entry since the character width varies from one character to the next. If you choose to use characters per unit as an entry when using a proportional font use the width of the widest character for the font width. If you are creating a print-and-space form, it is essential that you enter values that correspond to the font you are going to use to write data to the form. This ensures that the data will align properly in the form. For example, if you were going to make a print-and-space form using an elite, 8-point font, you would enter 18 in the Characters Per Unit field because the 8-point elite font prints 18 characters per inch.

In addition to this group of fields you must also enter one of the remaining two groups. If you fill in the Width and Height, IDIFORM calculates the number of character positions horizontally by multiplying the width of the form by the characters per unit and the number of lines vertically by multiplying the height of the form by the lines per unit.

If you fill in the character positions horizontally, IDIFORM calculates the width by dividing the character positions horizontally by the characters per unit and the height by dividing the number of lines vertically by the lines per unit.

## **Specifying Number of Character Positions and Number of Lines**

The Number of Character Positions Horizontally is the maximum number of characters possible in one line of print on the form when viewed with respect to the direction of print. The number of Lines Vertically is the maximum number of lines possible on the form when viewed with respect to the direction of print.

To determine the number of character positions horizontally and number of lines vertically, you must determine the requirements of the specific form. If you require 80 characters across the form and 66 lines of print down the form, then you would enter these values.

In addition to this group of fields you must also enter one of the remaining two groups. If you fill in the Characters Per Unit and the Lines Per Unit, IDSF<sub>FORM</sub> calculates the width by dividing the number of character positions entered by the characters per unit entered and the height by dividing the number of lines vertically by the lines per unit entered.

If you fill in the width and height, IDSF<sub>FORM</sub> calculates the characters per unit by dividing the number of character positions by the width and the lines per unit by dividing the number of lines vertically by the height.

## **Unit of Measurement**

You indicate the unit of measurement for defining the dimensions of the form, the vertical line spacing, and the horizontal character spacing. The default of IDSF<sub>FORM</sub> is inches (I). If you wish to use millimeters instead, enter an M in the field labeled Unit of Measurement.

When you are creating a form, IDSF<sub>FORM</sub> accepts the value in the Unit of Measurement field as soon as you press **ENTER**. Once entered, you cannot change the value (unless you delete the form and create it again). You cannot change the value in the Unit of Measurement field when modifying a form.

## **Specifying Print-and-Space Forms**

A Print-and-Space Form is one that is designed to accept data via an application program in which the data is placed on the form in a location-dependent manner. This means that the application program must keep track of which line it is printing as well as the print position of each line.

If you are designing a form to replace an existing print-and-space form, the exact placement of any lines, boxes, shaded area, field, and so forth is critical. In the FORM DEFINITION menu you determine the character font which will print data to the form. This character font determines both the character and the

line spacing. With a print-and-space form, you normally print data at the character and line intervals defined by this character font. You must make sure that the dimensions entered on the FORM DEFINITION menu match those of the character font to be used as well as having the placement of the various parts of your form correspond exactly with the existing form. It is critical that you use a character font that matches exactly the font values entered on the FORMS DEFINITION menu. **If you use a font that is different from the one used as the basis for the print-and-space form, you will encounter difficulty aligning data on the form at print time.**

If you place a Y in the bracket before the field labeled Print-and-Space Form, the program assumes that data can only be printed in alignment with the grid as determined by your entry in the FORM DEFINITION menu. When you create a field in a subform, IDIFORM calculates the amount of data the subfield will hold. The information appears in the FIELD FONT AND SUBFIELD DESCRIPTION menu (see "Field Level Functions" in this section). The data capacity is calculated with the assumption that the printed data is aligned with the grid (see figure 4-14).

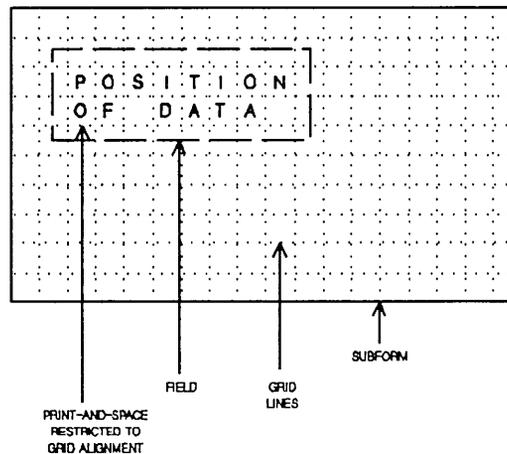


Figure 4-14. Print-and-Space Data Placement

When using a Print-and-Space Form, the data is restricted to the grid alignment as determined by your entry in the FORM DEFINITION menu fields. This grid is based on the number of characters per unit and lines per unit or the number of character positions horizontally and number of lines vertically.

For an alternate method of writing data to a field refer to "Field Level Functions - Using Named Data Fields" in this section.

## **Form Definition Display Menu**

You enter the values in the FORM DEFINITION menu only once for each form you create. But you may cause the FORM DEFINITION DISPLAY menu (figure 4-15) to be displayed on the screen for your review by pressing . You may change the designation for a print-and-space form on the FORM DEFINITION DISPLAY menu, but you can make no other changes to the original values entered on the FORM DEFINITION menu when you created the form.

The FORM DEFINITION menu is displayed automatically by IDIFORM only when you are creating a form. When modifying a form you must access the FORM DEFINITION DISPLAY menu to review the values entered.

IDSFORM	Form Definition Display
	Physical Dimension
<u>7.0</u>	Width
<u>10.5</u>	Height
<u>10</u>	Characters per unit
<u>6</u>	Lines per unit
<u>70</u>	Number of Character positions horizontally
<u>63</u>	Number of Lines vertically
<u>I</u>	Unit of measurement
	I - Inches
	M - Millimeters
<u>N</u>	Print and space form? Y/N

Figure 4-15. Form Definition Display Menu

## Form Level Graphics

At this point you may want to begin using the graphics functions available to you. Since the graphics functions relate to both the form level and subform level, they have been addressed separately at the back of this section. Reading the "Graphics Functions" portion of this guide will be helpful to you at this time.

## Creating a Subform

Subforms are created by defining a window. This function is used to divide a form into smaller pieces which serves three purposes:

1. You can use them as a graphical aid to enable you to get the best possible resolution using the terminal screen.
2. You can use them to define separate logical units within a form.
3. You can save design time on forms with similar sections by designing one section and then using the HOLD SUBFORM/RECALL SUBFORM commands to duplicate sections of the form.
4. If you are creating a complex form, creating subforms enables you to fit more information on the form without running out of space.

At both the form and subform level, you use the same terminal keys to define, modify, and delete windows. At the form level the window function keys refer to subform windows, while at subform level, the window function keys refer to field windows. Subforms are displayed on your form with double dotted lines, but fields are not displayed at all.

## Defining a Subform

You define a subform window using the DEFINE WINDOW key or the BEGIN WINDOW and END WINDOW two-character commands. (The DEFINE WINDOW key [HP 264X terminals only] is located in the Edit Group keys--see Section 3.)

To work with a subform you need to first have the form displayed on the terminal screen. If you are defining a new form, IDSFORM displays the form after you complete the FORM DEFINITION menu. If you are modifying an existing form, IDSFORM displays the form after you complete the MAIN menu.

While at the subform level you may cause IDSFORM to display the form by typing the two-character command "RF". If you are using an HP 264X terminal you may perform the same function by pressing the RETURN TO FORM key () while holding down the **CONTROL** key.

If you want to use the graphics grid as a guideline in positioning the subform, press the GRID function key, (). This causes the default graphics grid to be overlaid on the form. To redefine the grid, refer to "Graphics Functions - Graphics Option menu" in this section.

To define a subform, position the center of the graphics cursor at any corner of the subform. To do this you can use either the continuous movement or the grid movement keypad or both (refer to Graphics Functions in this section). If you use the grid movement keypad, the cursor is positioned exactly on a grid line. If you use the continuous movement keypad, you can position the cursor as exactly as possible within the resolution of the terminal.

After you have positioned the cursor at one corner of the subform, type "BW" (for BEGIN WINDOW). Then move the cursor to the corner of the subform which is diagonally opposite the first corner (using the continuous movement or grid movement keys or both). Type "EW" (for END WINDOW). (If you have an HP 264X terminal, you may use the DEFINE WINDOW key instead of the "BW" and "EW" commands.)

As soon as you have marked the corners of the subform, IDSFORM immediately displays the SUBFORM DEFINITION menu. When this menu is displayed you are in the SUBFORM LEVEL (refer to "Subform Level Functions" in this section).

## Subform Capabilities

You may define subforms that overlap each other and subforms that are completely contained within other subforms. You can also define a subform that is the same size as the entire form. However, since you select subforms by using the cursor, try to select subforms so that you can uniquely select each one. In other words,

if you create a subform that is the same size and on top of another subform, you will only be allowed to modify the last subform created. To avoid this problem, make overlaying subforms slightly smaller or larger than the subform underneath so that you can easily modify them.

### Subform Limitations

If you define a subform smaller than the system allows (approximately .3 x .3 inches [7 mm x 7 mm]), you will receive a double beep signal.

If you have a great deal of information to place in a subform, you may run out of room. If this occurs, IDSF<sub>FORM</sub> will issue a message informing you of this condition. To continue adding information to your form, you may return to the form level and create another subform over the original subform. It is also possible to run out of room at the form level. If this occurs, IDSF<sub>FORM</sub> issues a message informing you of the condition and no further changes or additions may be made. To avoid running out of room, use many subforms and do not add a large amount of graphics at the form level (this applies only to complex forms).

#### NOTE

You may want to make the second subform slightly larger or slightly smaller than the first for easier access at modification time.

To view the contents of the original subform for placement of information in the second subform, enter the FULL RECOVER command (type "FR" or press **CONTROL** and **F 4**)--HP 264X only).

### Modifying a Subform

To modify a subform you first display the form on the terminal screen. IDSF<sub>FORM</sub> immediately displays the form after the MAIN menu when modifying. Once the form is displayed on the screen, you position the graphics cursor at any point within or on the boundary of the subform to be modified. Then enter the MODIFY WINDOW command. IDSF<sub>FORM</sub> displays the SUBFORM DEFINITION menu.

Once the SUBFORM DEFINITION menu is displayed you begin working at the SUBFORM LEVEL.

You may redisplay the form by pressing DISPLAY (**F 3**) if you are still at the form level. If you are at the subform or field level, you can return to form by typing "RF" (for RETURN TO FORM) or by holding down the **CONTROL** key while pressing the **F 3** function key (HP 264X only).

## Deleting a Subform

You delete a subform using the **DELETE WINDOW** command.

First you must display the form. After you Enter **M** (Modify) in the **MAIN** menu, **IDSFORM** displays the form on the screen. Position the graphics cursor at any point within or on the boundary of the subform to be deleted. Then enter the **DELETE WINDOW** command. **IDSFORM** displays the **SUBFORM DELETION** menu (figure 4-16). If this is the subform you wish to delete enter **Y** (yes) in the field labeled **Delete This Subform?** and press **ENTER**. The subform is deleted.

<b>NOTE</b>
-------------

Since the optional subform name is displayed on the subform deletion menu, it is recommended that you give each subform a name so that you can verify that you are deleting the correct subform.

IDIFORM		Subform Deletion	
To display subform, press DISPLAY key. To return to this menu from the subform display, press any graphic command key.			
N Delete this subform? Y/N			
_____ Subform name (optional)			
_____			
<u>_</u> Subform Box Shading	L - Light D - Dark	M - Medium B - Black	
<u>_</u> Subform Outline Line Type	S - Solid D - Dot	DA - Dash DD - Dot Dash	
<u>N</u> Subform Outline Line Weight	T - Thin W - Wide	N - Normal	

Figure 4-16. Subform Deletion Menu

If you want to verify that the subform you are about to delete is the one you intended, press DISPLAY (F3). This causes the subform you are about to delete to be displayed. Press any function key to return to the SUBFORM DELETION menu.

If you do not want to delete the subform, press CANCEL (F8) or type N in the field labeled Delete This Subform? Y/N. Once the subform is deleted it cannot be retrieved, so be sure you are deleting the correct subform. Once the subform is deleted IDIFORM returns you to the form display.

Deleting a subform does not delete any lines or boxes drawn at the form level, even though they appear in the subform area. Deleting a subform does delete all fields and graphics contained within the deleted subform that were created at the subform level.

During the process you may display the form on the screen by pressing DISPLAY (**^3**) if you are at the form level or by entering the RETURN TO FORM command from the subform level.

### **Hold a Subform**

To move a subform it must first be placed in Hold and then Recalled at its new position. The same function is used to perform both the move and the copy procedure. You must delete the original subform if you want it to appear only once in the new location. If you do not delete the original subform your form will contain duplicate subforms.

We will refer to the function as a "move" function in the following paragraphs but it applies to copying the subform as well.

### **Moving a Subform**

At the form level you can move a subform within the form you are working with. To do this you use the HOLD SUBFORM and RECALL SUBFORM commands. You can also move a subform from one form to another and from one forms file to another forms file, but the latter is done from the MAIN menu (refer to "Main Menu Level - Holding a Subform" in this section).

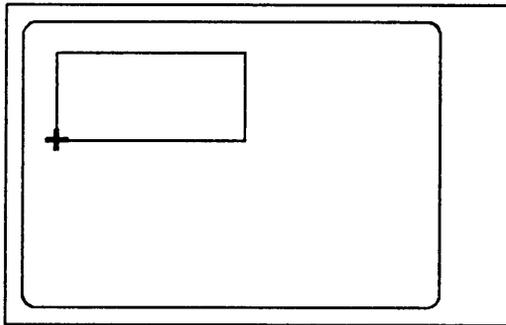
To move a subform at form level you must first have the entire form displayed on the screen. To hold a subform place the graphics cursor within or on the boundary of the subform and enter the HOLD SUBFORM command. IDIFORM then tries to put the indicated subform in a hold file. IDIFORM shades the subform with diagonal lines as a graphic aid to indicate which subform is in the hold file; IDIFORM does not display them after you press RECOVER (**^4**). These diagonal lines do not print on the actual form.

IDIFORM stores the selected subform in the hold file. IDIFORM also stores the location of the graphics cursor relative to the subform at the time you entered the HOLD SUBFORM command. You use this relative position of the cursor later to place the subform in its new position.

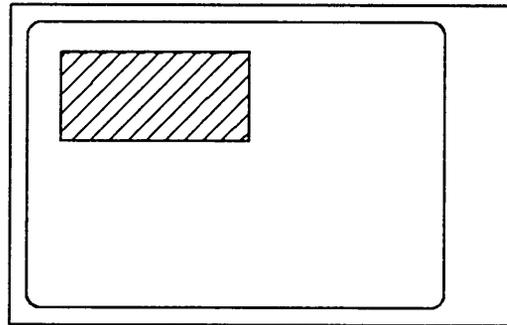
## Recall a Subform

To place the subform in a new location on the form, position the graphics cursor at the desired location and enter the **RECALL SUBFORM** command. **IDSFORM** copies the subform from the hold area to the location indicated by the cursor. The subform is displayed in its new position relative to the position of the cursor when placed in hold. The **RECALL SUBFORM** function does not remove the subform from the hold area. The subform remains in the hold area until you hold another subform or until you exit **IDSFORM**. You may therefore recall that same subform as many times as you wish at different locations on your form. Note that the subform "copies" the original subform to the other positions within the form so if you do not wish the original subform any longer once it is moved you must delete it.

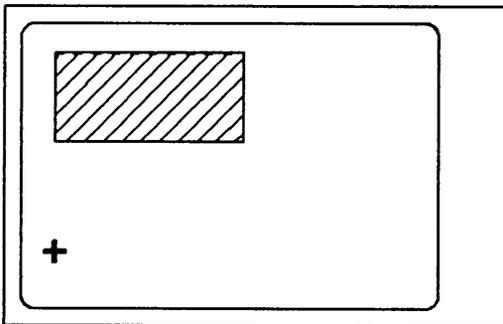
If **IDSFORM** cannot place the subform in the new location, it warns you by sounding a double beep and the subform is not moved to the new location. **IDSFORM** may not be able to place the subform if the hold file is empty or the subform extends outside the form boundary when moved. Figure 4-17 shows the procedure for moving a subform at the form level.



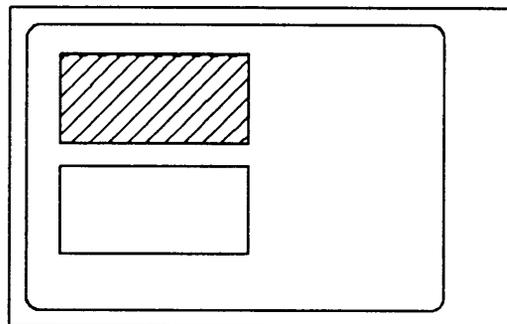
1. Position cursor in the subform or on the subform boundary.
2. Enter the `HOLD SUBFORM` command.



3. `IDSFORM` shades the subform with diagonal lines and puts the subform in a hold area.



4. Position the cursor where you want to move the Subform. Be sure the cursor is at the same relative position to the subform you desire as it was to the existing subform in step 1.



5. Enter the `RECALL SUBFORM` command.
6. `IDSFORM` copies the subform from the hold area to the location indicated by the cursor.

Figure 4-17. Moving a Subform at Form Level

# Subform Level Functions

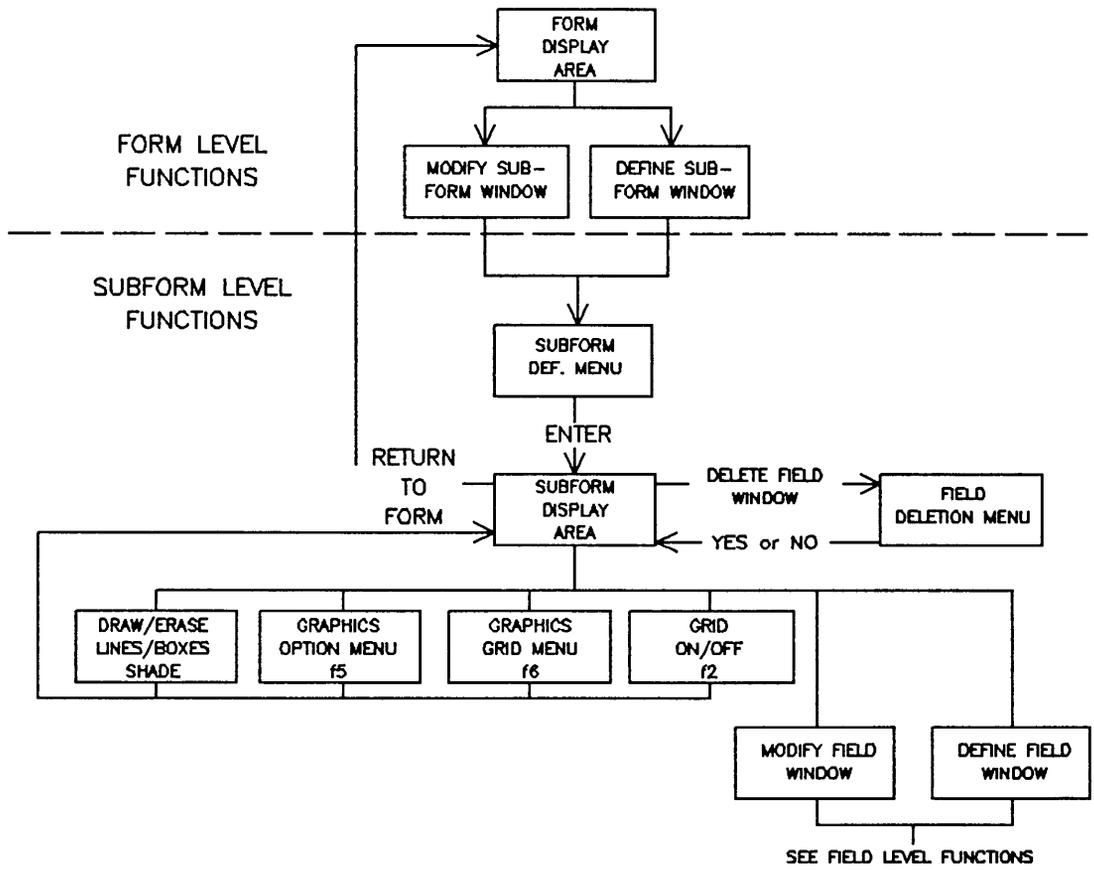


Figure 4-18. Subform Level Functions

The menus and functions available at subform level are shown in figure 4-18. They are as follows:

#### MENU MODE

- Subform Definition Menu
- Graphic Options Menu\*
- Graphics Grid Menu\*
- Field Deletion Menu

#### GRAPHICS MODE

- Draw/Erase a Line\*
- Draw/Erase a Box\*
- Shade Portions of Subform\*
- Define a Field Window
- Modify a Field Window
- Delete a Field Window

\*Refer to Graphics Functions in this section for detailed information.

To design and maintain subforms you use a combination of graphics and menu mode. The first menu that will appear at subform level is the SUBFORM DEFINITION menu. Typical subform design and maintenance steps are shown in the following steps.

1. Complete the Subform Definition Menu and press **ENTER**.
2. IDIFORM will display the subform on the terminal screen.
3. Perform graphics functions as described in Graphics Functions.
4. Define fields within the subform using the DEFINE WINDOW command or;
5. Modify fields within the subform using the MODIFY WINDOW command or;
6. Delete field windows using the DELETE WINDOW command.

## **Subform Definition Menu**

You use the SUBFORM DEFINITION menu (figure 4-19) to specify the name and graphics options for each subform.

If you are defining a new subform, IDSFORM displays the SUBFORM DEFINITION menu immediately after you mark two diagonal corners of a subform using the BEGIN WINDOW and END WINDOW commands (or DEFINE WINDOW key--HP 264X only) at form level. If you are modifying an existing subform, IDSFORM displays the SUBFORM DEFINITION menu immediately after you point to the subform using the MODIFY WINDOW command at form level. Once you define a new subform, you can return to the SUBFORM DEFINITION menu for the new subform using the same procedures as for modifying an existing subform.

You may return to the SUBFORM DEFINITION menu several times during the forms design process to modify the subform name or graphics options or simply to review them.

IDSF0RM		Subform Definition	
<b>Subform1</b>	Subform name (optional)		
<b>Subform Shading</b>	L - Light		
	M - Medium		
	D - Dark		
	B - Black		
<b>Subform Outline Line Type</b>	S - Solid		
	D - Dot		
	DA - Dash		
	DD - Dot Dash		
<b>Subform Outline Line Weight</b>	T - Thin		
	N - Normal		
	W - Wide		

Figure 4-19. Subform Definition Menu

### Subform Name

The subform name may consist of from 1 to 16 characters including letters (A-Z), numbers (0-9), and underlines. You assign a unique name to each new subform you define in the form; you cannot duplicate subform names within a form.

The subform name is optional, but a subform name is necessary in order to move a subform from one form to another using the Hold option in the MAIN menu. If you use a subform name which is meaningful in the context of the form, the subform name can be helpful in keeping track of the subforms as you are working

with them. If you use the PWRITEFIELD intrinsic to write data into the fields and there are duplicate field names in a form, you need a subform name.

### **Subform Graphics**

You use the SUBFORM DEFINITION menu to define or modify the graphic aspects of the subform outline line types and weights and the subform shading.

To change the subform graphics, you do not have to mark the corners of the subform again--simply use the MODIFY WINDOW command at the form level to point to the subform for which you want to change the graphics options.

The only default on this menu is for the Subform Outline Line Weight (the default is normal (N). You may select whatever options you desire on this menu and press **ENTER**. The Subform Display will reflect the selections you made. You may want to black out a subform. For example, the customer copy of an invoice might show the price paid, but on the shipping copy of the form, the price column could be completely blacked-out by using a subform with black shading. To do this, type B in the Subform Shading field and press **ENTER**. IDSFORM then displays the subform on the screen. The entire subform area is displayed in shading using the brightest contrast possible on the terminal. This prints black on the form, so any data printed in this subform does not show.

After you press **ENTER** in the SUBFORM DEFINITION menu, IDSFORM fills the screen with the subform; nothing outside the subform is displayed. If the GRID is on (press f2 to turn GRID on/off), IDSFORM overlays on top of the subform the section of the graphics grid which corresponds to the subform area. You are now in graphics mode and may define field windows within the subform. You may return to the form level or to any of the menus by using the function keys.

### **Subform Level Graphics**

At this point you may want to begin using the graphics functions available to you. The same graphics functions can be performed at the subform level as at the form level. These are described in Graphics Functions in this section. If you did not read this portion of the guide at the Form Level, you may wish to do so at this time.

## Defining a Field

At the subform level, you can break a subform down further by defining field windows within the subform. You define a field in graphics mode using the **BEGIN WINDOW** and **END WINDOW** commands (or the **DEFINE WINDOW** key--HP 264X only).

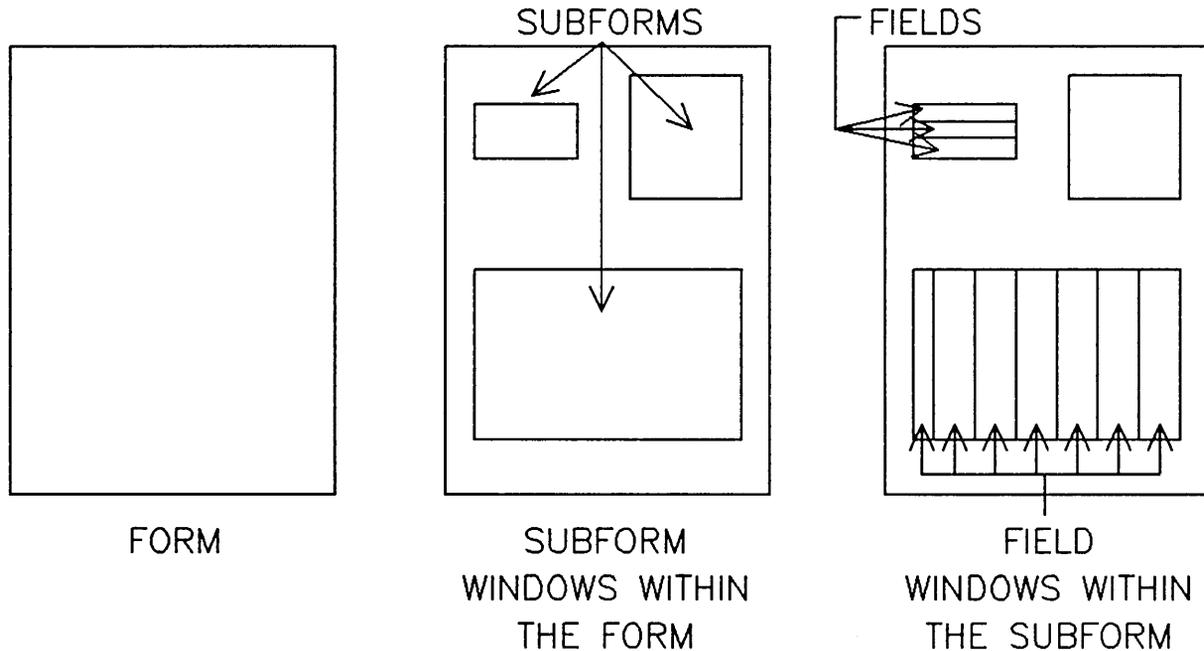


Figure 4-20. Field Windows Within the Subforms

To define a field, position the center of the graphics cursor at any corner of the field. You can use either the continuous movement or the grid movement keypad or both. If you use the grid movement keypad, the cursor is positioned exactly on a grid point. If you use the continuous movement keypad, you can position the cursor as exactly as possible within the resolution of the terminal.

After you have positioned the cursor at one corner of the field, type "BW" (for **BEGIN WINDOW**) or press the **DEFINE WINDOW** key (HP 264X only). Then move the cursor to the corner of the field which is diagonally opposite the first corner. To move the cursor, you can use the continuous movement or grid movement keys or both. Type "EW" (for **END WINDOW**) or press **DEFINE WINDOW** again (HP 264X only).

As soon as you have marked the corners of the field, IDSF`FORM` immediately displays the `FIELD TEXT` menu (refer to "Field Level Functions" in this section).

### **Field Definition Capabilities**

You may define fields that overlap each other and fields that are completely contained in other fields. Also, you may define a field that is the same size as the subform containing it.

### **Field Definition Limitations**

You can define a field of any dimension as long as it is completely within the subform boundaries. You cannot mark any corner of the field outside the subform. The smallest field possible has to be of a size large enough to contain one character of the size specified in the `FORM DEFINITION` menu.

You must define two corners of the field which are diagonally opposite each other. This means that you cannot mark both corners of the field on the same horizontal or vertical line.

If IDSF`FORM` cannot create the field for any reason, it warns you by sounding a double beep. IDSF`FORM` then remains in graphics mode with the subform displayed on the screen.

Unlike subforms, fields are not outlined on the terminal screen. For this reason they are sometimes difficult to find unless they contain heading text or are bordered or shaded. It is a good practice to use the field naming option on the `FIELD TEXT` menu and record the names for reference as needed.

### **Modifying a Field**

To modify a field you first display the subform on the terminal. Then position the graphics cursor at any position within the boundaries of the field. Then enter the `MODIFY WINDOW` command. IDSF`FORM` displays the `FIELD TEXT` menu. You may then change the field name, heading text, or access the `FIELD FONT AND SUBFIELD DESCRIPTION` menu.

### **Deleting a Field**

To delete a field, you first display the subform containing the field on the screen. Then position the graphics cursor at any position within the boundaries of the field. Enter the `DELETE WINDOW` command.

This causes IDSF<sup>OR</sup>M to display the FIELD DELETION menu (figure 4-21). Using the information in this menu verify that this is the field you want to delete. Press ENTER. IDSF<sup>OR</sup>M deletes the field and then displays the subform.

## Field Deletion Menu

IDSFORM	Field Deletion
N Delete this field? Y/N	
_____	Field Name (optional)
	Heading Text
_____	
_____	
_____	
_____	
_____	
_____	
_____	
L	Horizontal Heading Position
T	Vertical Heading Position
H	Text Direction
Y	Padding around heading?

Figure 4-21. Field Deletion Menu

The only field you can type into is the field labeled Delete this field? Y/N. IDIFORM displays other information about the field such as its name, heading text, and the position and direction of the heading text.

If the information displayed in the menu confirms that this is the field you want to delete, type Y into the field. Otherwise, leave the default which is N (no), or press f8 (CANCEL). In either case, after you press ENTER, IDIFORM displays the subform on the screen, and you are in graphics mode.

# Field Level Functions

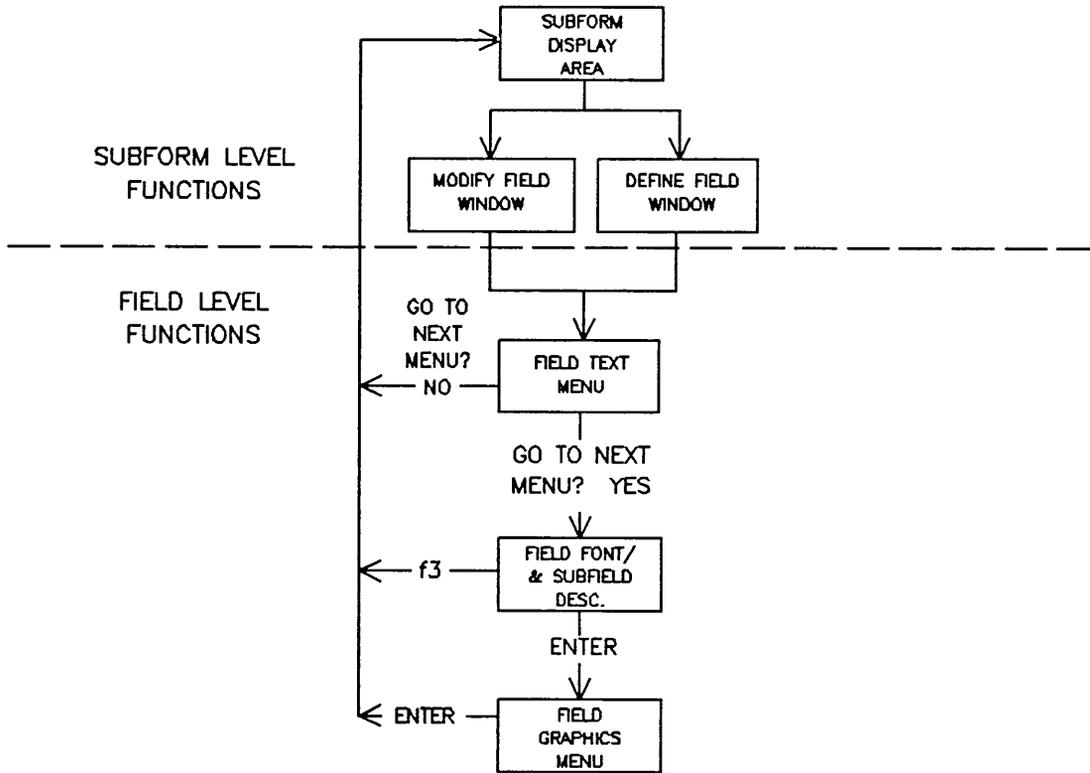


Figure 4-22. Field Level Functions

The menus available at field level are shown in figure 4-22. They are as follows:

#### MENU MODE

- Field Text Menu
- Field Font and Subfield Description Menu
- Field Graphics Menu

To design and modify fields you use a menu path of three menus. The first menu to appear at Field Level is the FIELD TEXT menu. Typical field design and maintenance steps are shown in the following steps.

1. Complete the FIELD TEXT menu and press **ENTER**.
2. IDSFORM will display the FIELD FONT AND SUBFIELD DESCRIPTION menu.
3. Complete the FIELD FONT AND SUBFIELD DESCRIPTION menu and press **ENTER**.
4. IDSFORM will display the FIELD GRAPHICS menu.
5. Complete the FIELD GRAPHICS menu as desired and press **ENTER**.
6. IDSFORM will display the Subform Display.

#### Field Text Menu

The first menu that appears at Field Level is the FIELD TEXT menu. You use the FIELD TEXT menu (figure 4-23) to specify the name of the field, the location, and direction of the heading text as well as the actual text itself.

If you are defining a new field, IDSFORM displays the FIELD TEXT menu immediately after you mark two diagonal corners of the field using the BEGIN WINDOW and END WINDOW commands (or DEFINE WINDOW key--HP 264X only) at subform level. If you are modifying an existing field, IDSFORM displays the FIELD TEXT menu immediately after you point to the field using the MODIFY WINDOW command.

Once you define a new field, you may return to the FIELD TEXT menu for the new field by using the same procedures used for modifying an existing field.

You may return to the FIELD TEXT menu as often as you need to during the design process to modify the field name or heading text or simply to review them.

IDSF0RM		Field Text	
<input type="text"/>	Field Name (optional)	<input type="checkbox"/> N	Go to next menu? Y/N (to change font, logo or field graphics)
<input type="text"/> Heading Text			
<input type="checkbox"/> L	Horizontal Heading Position	L - Left	R - Right C - Center J - Justify
<input type="checkbox"/> T	Vertical Heading Position	T - Top	B - Bottom C - Center J - Justify
<input type="checkbox"/> H	Text Direction	H - Horizontal	RH - Reverse Horizontal
		V - Vertical	RV - Reverse Vertical
<input type="checkbox"/> Y	Padding around heading? Y/N		

Figure 4-23. Field Text Menu

## Field Name

The field name may consist of from 1 to 16 characters including (A-Z), numbers (0-9), and underlines. You assign a unique name to each new field in the subform; you cannot duplicate field names within a subform.

## Using Named Data Fields

Data can be written into the form by accessing the name of the data field. This means that to fill in a form that is not print-and-space, you must name the data fields so that an application program can write data into the correct area on the form using the PWRITEFIELD intrinsic.

Using named data fields provides you with more flexibility than using print-and-space protocol to write data into a form. With named data fields, you can move or rearrange the fields on the form without requiring any changes to the application program. (You must not change the names of the data fields, however.)

When you create a field in a subform, the data is "directed" to the field by using the name you entered on the FIELD TEXT menu in the field labeled Field Text. The data capacity is calculated assuming that data can be placed anywhere in the field, and is not restricted to grid alignment. It follows that subfield underlines will not necessarily correspond with the grid.

Figure 4-24 shows a comparison of a print-and-space form to a form using named data fields. Notice that in the print-and-space form, the characters are placed within the grid lines; in the non-print-and-space form, the characters are placed without respect to the grid lines.

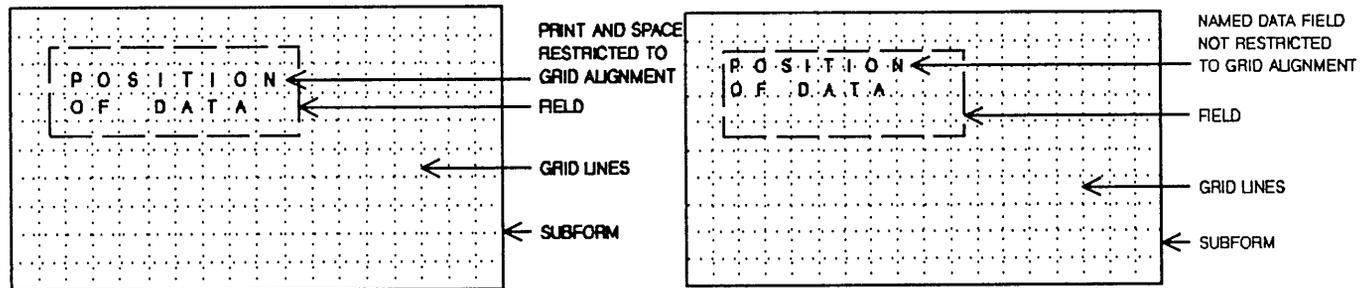


Figure 4-24. Print and Space vs. Named Data Fields

The field name is optional but the field must have a name to access the field symbolically using programmatic intrinsics. You can give a field a name or change the name of a field at any time during the design process.

### **Heading Text**

This area consists of the actual heading text to be printed on the form. You must type the heading in the format you want to appear on the form, including any spaces in the heading text. Each line in the menu corresponds to a line of heading text on the form. You may have up to 9 lines of heading text in any given field. Each of the 9 menu lines will accommodate up to 78 characters.

Heading text is not required, so you may leave this part of the menu blank. You may define fields that contain data only and no heading text, fields that contain heading text only and no data, and fields that contain both data and heading text. In the case of a field containing a logo, you usually do not include heading text. If you define a field containing both heading and data text, refer to the section titled "Effects of Heading Text Position on the Data Area in a Field".

### **Heading Text Position**

If you define heading text, you can instruct **IDSFORM** to position the text in any of nine general positions in the field. To do this you choose a horizontal heading position along with a vertical heading position. For example, you can require that the heading be placed in the center of the field by typing a C in the Horizontal Heading Position field and a C in the Vertical Heading Position field. The default heading text position is the left top corner of the field.

### **Effect of Heading Position on Data Area in a Field**

The heading position plays an important role if you are using a field for both heading and data. **IDSFORM** first calculates the amount of space required for the heading and then the space remaining in the field is left for data. The calculations performed by **IDSFORM** is based on the device-dependent character font entered in the Cell File Name. If the device changes, the calculations will change as well. Figures 4-25 and 4-26 show the placement of heading text and the resulting data area for the possible combination of horizontal and vertical heading positions. Note that the justify option evenly distributes the spacing between characters so that the text extends uniformly from the left edge of the field to the right edge of the field. Without padding around the heading, the left-most character will touch the left edge of the field and the right-most character will touch the right edge of the field. Padding adds a little space between the outermost characters and the edges of the field.

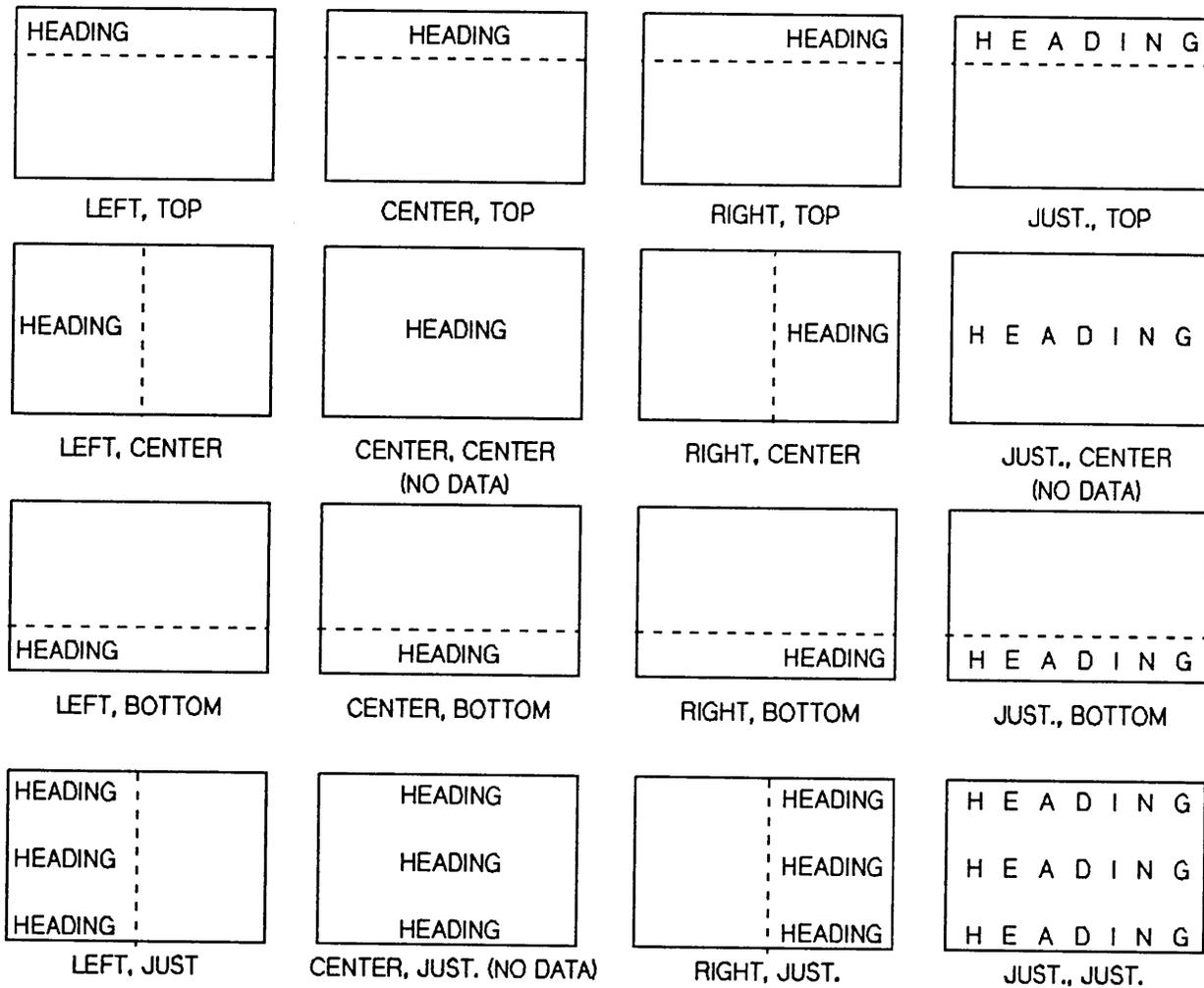


Figure 4-25. Effect of Heading Position on Data Area in a Field with Horizontal Text

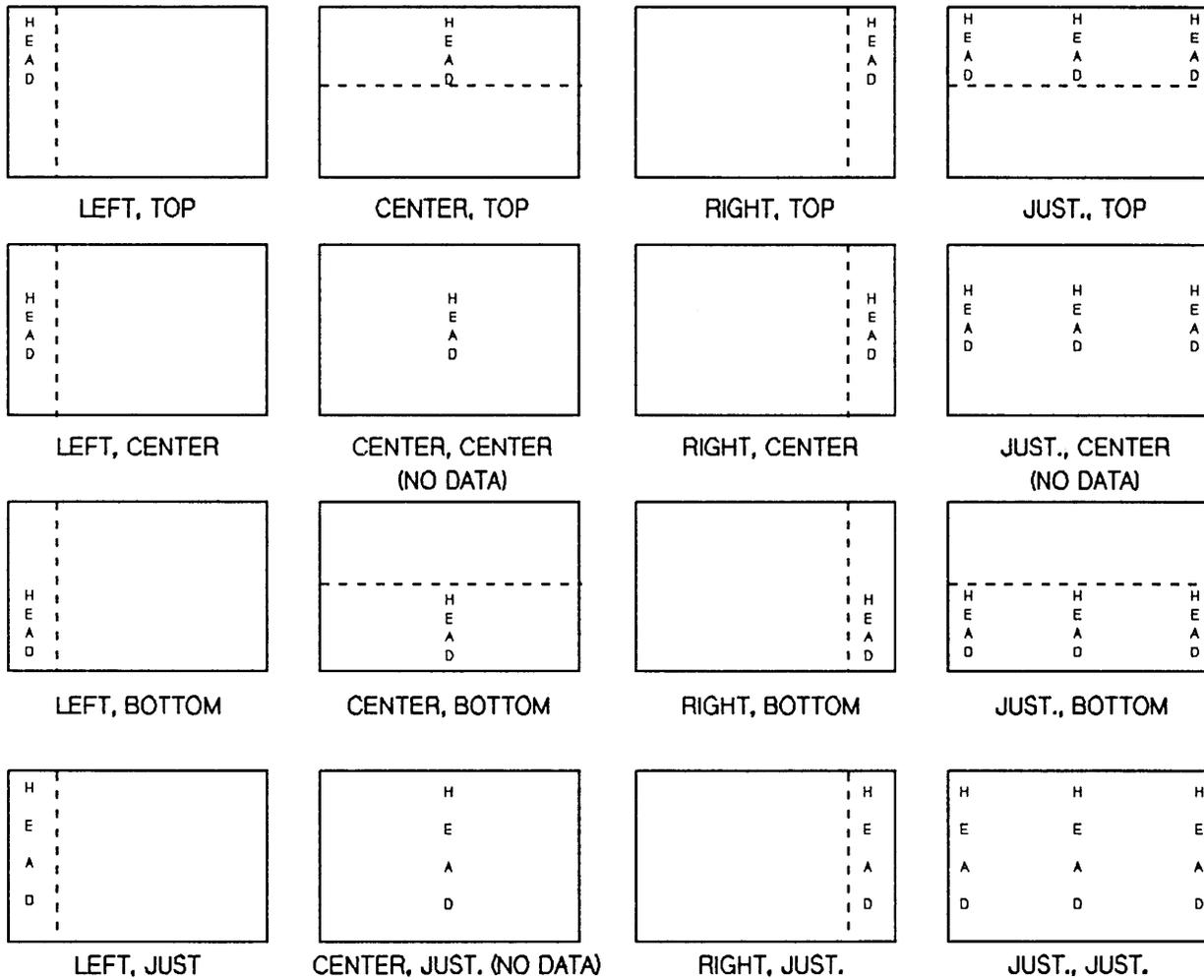


Figure 4-26. Effect of Heading Position on Data Area in a Field with Vertical Text

## **Representing Heading Text Area on the Terminal Screen**

Since it is not possible to display the actual text to scale on the terminal screen, **IDSFORM** indicates the area taken up by the heading by rectangular areas displayed in inverse video.

The part of the field remaining after the space has been allocated for the heading is the area available for data. The data area is the part of the field that is not in inverse video. If there is no heading in the field, then the entire field is available for data.

The space available for data is also given in terms of the lines and character spaces available in the **FIELD FONT AND SUBFIELD DESCRIPTION** menu. **IDSFORM** uses the values entered in the **FORM DEFINITION** menu, not the character font used for the field heading, to calculate the number of lines and character spaces that could be printed in the data area.

## **Field Text Menu Path**

If you want to define or change the character font, logo or field graphics, type **Y** in the field labeled **Go to next menu?** Otherwise, **IDSFORM** defaults to **N (no)** and returns you to graphics mode with the subform displayed on the screen.



You use the FIELD FONT AND SUBFIELD DESCRIPTION menu (figure 4-27) to specify the character font used to print heading text, the size and orientations of the character font, and whether it is a logo file.

IDSFORM displays this menu only if you enter Y in the field labeled Go to next menu? Y/N in the FIELD TEXT menu. You cannot get to this menu directly from the subform graphics display.

Once you have completed this menu press **ENTER** to enter this data into IDSFORM. If there are errors, IDSFORM displays an appropriate message at the top of the menu. You may repeatedly correct the errors and reenter the data until there are no more errors. When there are no errors and you are satisfied with the font and size being used, press **ENTER** again and IDSFORM will display the FIELD GRAPHICS menu. IDSFORM will also display the FIELD GRAPHICS menu if you press **ENTER** without making any changes in the FIELD FONT AND SUBFIELD DESCRIPTION menu. If you do not want to access the FIELD GRAPHICS menu you can press DISPLAY (**F3**) and go directly to the subform display.

### **Cell File Name**

This is the name of the cell file to be used to print the heading text. Character fonts are stored in character font files; logos are stored in logo files. HP-supplied character sets and old character font files and logo files that were created using IDSCHAR (or that were created by Hewlett-Packard's Output Design Service [ODS]) may be included in forms. Since IDSFORM is designed to be device-independent, it will accept any valid cell file name, regardless of the device for which it was designed. If you select a cell file that has been designed for one device and try to compile the form into an environment for another device, you will receive an error message. This message will indicate an error in accessing the cell file while compiling the form. If this happens, you will need to modify the form, changing all cell file names to ones designed for the target device you intend to use. (See "Converting a Form to Print on an Alternate Target Device" in this section). For a list of cell files available, refer to the IFS/3000 Reference Guide.

### **Specifying a Logo File**

If the cell file you named in the Cell File Name field is a logo file, type Y in this field. IDSFORM defaults to N (no) in this field.

### **Heading Text Character Size**

You may enter the size of the character font used to print the heading text using either point size or the uppercase height, or in the case of a logo, the height of the logo. The uppercase height can be measured in either inches or millimeters; the default is inches.

IDSFORM first searches through the cell file, size by size and device by device, looking for the perfect match. If a perfect match (that is, a match within half a dot) of the user's requested size is found, regardless of the target device, that size will be used for calculating the size of the heading field.

If a perfect match isn't found, then the user may request that the nearest size, the next smaller size, or the next larger size be used instead. IDSFORM defaults to nearest size (N).

If the specified point sizes are not available for both printing devices, then although IDSFORM will indicate that the size requested is found at the time the form is being designed, the size might not be available when the form is compiled. This is because the actual printing device is not known until compilation time (refer to Appendix D of the IFS/3000 Reference Guide). This problem can be avoided if the default character set (COUR8088) is used or if a character set is used that is compatible with both printers. To set up a character set for use with both printers, see Appendix H of the IFS/3000 Reference Guide under "Merging PCELL Files".

The default character set (COUR8088) is 12-point Courier and is available for both the HP 2680A and the HP 2688A.

<b>NOTE</b>
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If the cell files you are using were created using the previous version of IDSCHAR (prior to A.01.00), they should be converted to the new format before using in IDSFORM. Otherwise, you will get an error message stating that the file is not a valid IDSCHAR file (refer to IDSCHAR Reference Guide for procedure to Convert Cell Files).

## Heading Text Character Font Orientation

You may instruct IDSF<sub>FORM</sub> to print a character font in any one of four orientations: 0, 90, 180, or 270 degrees in a clockwise direction. The character orientation is relative to the form and the individual characters rotate relative to the direction selected in the FIELD TEXT menu (figure 4-28).

	ORIENTATION			
	0 DEGREE	90 DEGREE	180 DEGREE	270 DEGREE
HORIZONTAL TEXT (H)	TEXT	┌EX┐	└XET┘	┌EX┐
VERTICAL TEXT (V)	T E X T	TEXT	┌EX┐	TXET
REVERSE HORIZONTAL TEXT (RH)	TXET	┌EX┐	TEXT	┌EX┐
REVERSE VERTICAL TEXT (RV)	T X E T	TXET	┌EX┐	TEXT

Figure 4-28. Orientation of Characters Relative to Text Direction

## **Subfields**

Fields may be divided into smaller areas called subfields. Subfields are used to programmatically write data to a form and to graphically divide fields with lines, boxes, and shading (figure 4-29).

### **Number of Subfields**

You may divide a field into subfields by entering the number of subfields desired in the field titled Number of Subfields. This is useful when writing data to a form and for using the Field Graphics options for boxing, shading and underlining.

### **Direction of Subfields**

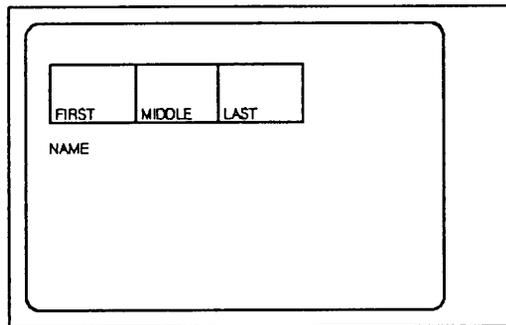
Subfields may be defined either vertically or horizontally. IDSF`FORM` will divide the overall field by the number of subfields requested in the direction requested.

### **Number of Lines and Character Spaces Needed**

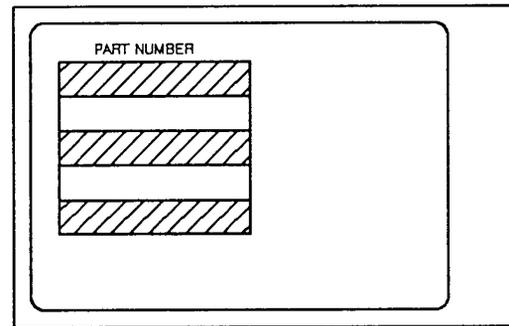
You can enter the number of lines and character spaces needed for your data by entering the desired numbers in these fields on the `FIELD FONT AND SUBFIELD DESCRIPTION` menu.

### **Lines and Character Spaces Available**

The total number of lines available for data is displayed in the Lines Available field; the total number of character spaces available per available line is displayed in the Total Characters Available field. Figure 4-25 illustrates characters within a field.



Horizontal Subfields



Vertical Subfields

Figure 4-29. Direction of Subfields

#### Information Supplied by IDSFORM

IDSFORM supplies you with information about the field heading and the actual character font to be used. This data includes:

- point size and uppercase height for the actual character font to be used
- point size and uppercase height for the next smaller size character font, if available
- point size and uppercase height for the next larger size, if available
- number of lines available for data (as calculated by the values entered on the FORM DEFINITION menu)
- the number of character spaces available for data (as calculated by the values entered on the FORM DEFINITION menu)

## Field Graphics Menu

IDSFORM		Field Graphics		
		Box Lines	Shade	Underlines
Entire Field				
Heading Field				
Data Field				
Every	 Subfields			
Every	 Subfields			
Every	 Subfields			
Box Line / Underline Selections		Shade Selections		
S	- Solid	L - Light		
D	- Dot	M - Medium		
DA	- Dash	D - Dark		
DD	- Dot Dash	B - Black		

Figure 4-30. Field Graphics Menu

You use the FIELD GRAPHICS menu (figure 4-30) to define the high-level graphics options that apply to the field only.

You can select from various types of box lines for outlining the field, or various types of lines to be used in the field, or various types of shading to be used in the field.

A field may consist of heading or data or both. A field may also contain multiple subfields. This menu enables you to specify any of the field graphics for the entire field, the heading part of the field, the data part of the field, or indicated subfields.

For example, if you select to divide your field into 10 subfields vertically on the FIELD FONT AND SUBFIELD DESCRIPTION menu and indicate that you want to shade every 2 subfields on the FIELD GRAPHICS menu, every other subfield will appear shaded on the form. You indicate subfield enhancements by placing a number in the fields marked Every  Subfield directly across from the enhancement desired. Then enter the type of graphic enhancement desired in the field  directly below the Box Lines, Shade and/or Underline headings in the FIELD GRAPHICS menu. For example, the shaded vertical fields in figure 4-29 were created by specifying 5 vertical subfields (on the FIELD FONT AND SUBFIELD DESCRIPTION menu) and by specifying medium shading for every 2 subfields.

## Converting a Form to Print on an Alternate Target Device

In the event it becomes necessary to print a form designed for one target device on another target device you should be aware of the process required to accomplish this.

The graphic features of IDSF`FORM` convert readily to alternate devices known to IDSF`FORM`. The character font(s) used to enter textual information on the form however, must either be a common font (one that is designed for use by both devices) or, be changed to a character font that is designed for the target device you want to print to.

If the character font is designed for use on both target devices, the form will convert automatically when recompiled for the alternate target device.

If the character font used on the form has been designed for one target device with no commonality, you must replace all the permanent textual information on your form. This is done by modifying each field on the form and entering a character font and size designed for the target device desired. This can be a time-consuming process if you are modifying a complex form.

If you anticipate the need to print a form on more than one target device, it is advised that you select a character font common to both devices (see the IFS/3000 Reference Guide [36580-90001] for information on creating character sets common to both devices). If this is not possible, you should create the form as needed and then use the Copy Form feature of the MAIN menu to copy the form. You can then modify the copied form, changing the character fonts as needed for the alternate target device.

### NOTE

Fields are not identified by outlines on the terminal screen, so they can be difficult to locate if they do not contain heading text. If you have defined fields that do not contain heading text, note them for future reference. Even though there is no heading text entered there is still a default character font resident on the FIELD FONT AND SUBFIELD DESCRIPTION menu. This character font will be looked at when you compile your form in IFS/3000. If it is not defined for the target device you are compiling for, you will receive an error at the time of compilation.

## Graphics Functions

Graphics functions are performed using two-character commands on all supported terminals. If you are using an HP 264X terminal and you wish to use function keys for graphics functions instead of two-character commands, you will need the IDSF<sub>FORM</sub> Keyboard Overlays for your terminal. The overlays contain a chart showing the HP 264X keys you use to perform the graphics functions (refer to figure 4-31).

When using the two-character commands with any supported terminal, a **HELP** menu is easily accessed by typing the two-character command "HE" when in the graphics mode. This menu lists all of the two-character commands for easy reference.

With the terminal keys, you use the graphics cursor to define and erase lines and boxes on the terminal screen. To aid you in positioning lines and boxes in your form or subform, IDSF<sub>FORM</sub> provides you with an optional **GRAPHIC GRID** menu.

In addition, there is a **GRAPHICS OPTIONS** menu which allows you to select the kinds of graphics you want to use at any given time. You may choose from various line types such as solid, dotted, or dash lines to draw the lines or boxes in the form. The use of graphics in the design process is described under the **GRAPHICS OPTIONS** menu later in this section.

At the subform level, there are similar graphic options that apply to the outline of the subform itself. You define these graphics in the **SUBFORM DEFINITION** menu. Also at the field level, you may use the **FIELD GRAPHICS** menu to define field graphics that apply to the fields and subfields.

### Using Graphics Mode

IDSF<sub>FORM</sub> automatically puts you in graphics mode after you successfully enter the data in a menu. An exception to this is when you are creating a new form in the **MAIN** menu, IDSF<sub>FORM</sub> puts you in the **FORM DEFINITION** menu prior to putting you in graphics mode. Also you have the option of going through all the menus used to create a form before returning to graphics mode if desired.

You can get to the graphic display from menus used in graphics mode by pressing **DISPLAY** (). This causes the level (form or subform) to be displayed on the screen. If you are at the subform level and want to return to the form level display, enter the **RETURN TO FORM** command.

Graphics refer to the lines, boxes, and shading that you define using the graphics functions. Form level graphics apply only to the lines, boxes, and shading you do at form level. You can also define graphics at the subform level. You should read the following paragraph ("Form Versus Subform Graphics") before deciding whether to draw at form level or subform level.

## **Form Versus Subform Graphics**

There are several factors to be considered in deciding whether to define a line or box at the form or subform level.

First, graphics defined at the form level cannot be modified at the subform level, and likewise, graphics defined at the subform level cannot be modified at the form level.

Secondly, lines and boxes drawn in a subform may be moved by moving the subform as a whole, rather than individually as required at the form level. To move lines and boxes at the form level, you first delete the existing line or box and then draw the line or box in the new position.

Thirdly, subforms including their lines and boxes may be copied from one form to another.

Fourthly, if you want to use program intrinsics for non-print-and-space forms or for heading text, you must be at field level (which requires subform level).

## **Graphics Grid**

IDSFORM provides you with an optional graphics grid to aid you in positioning the lines and boxes on your form or subform.

Figure 4-31 shows a sample graphics grid, a row and column grid consisting of tick marks. A graphics grid may also contain grid lines, which are lines drawn in the grid connecting two opposite tick marks.

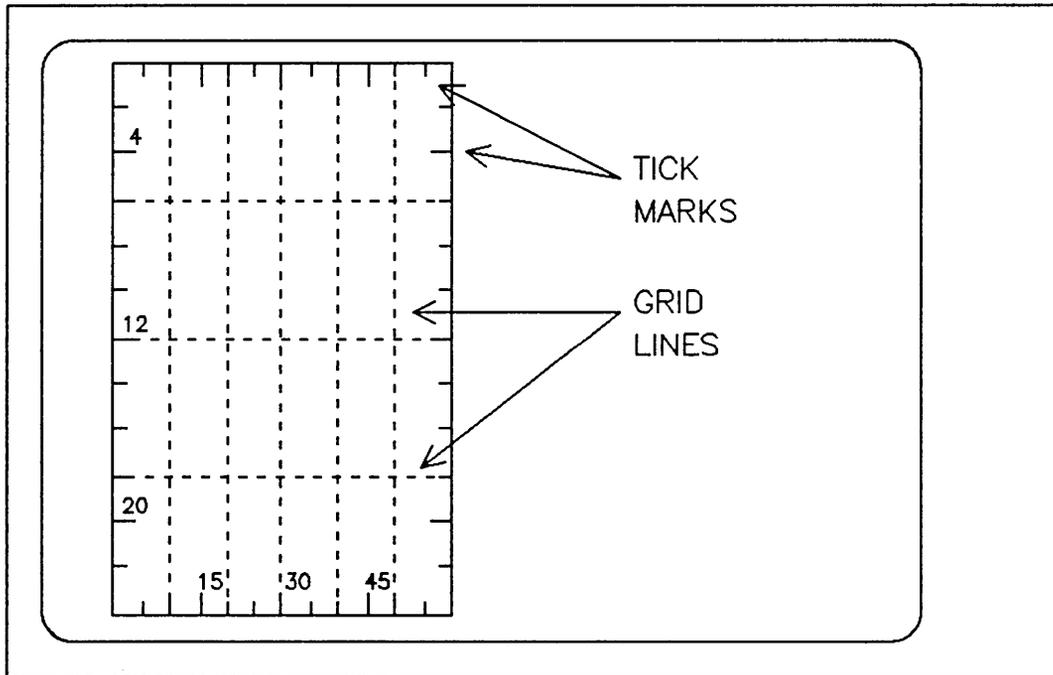


Figure 4-31. Graphics Grid

The graphics grid is a character spacing tool representing the character and line spacing you defined in the FORMS DEFINITION menu. You may want each possible grid position on your form to be indicated, or you may want only certain major positions on the grid to be indicated. You use the GRAPHICS GRID menu to indicate which characters and line positions you want marked on the terminal screen with tick marks and/or grid lines. The tick marks and grid lines are not printed on the actual form.

You may use the GRAPHICS GRID menu to change which tick marks are displayed, but you cannot change to actual spacing between tick marks. The actual spacing between tick marks is determined by the values you entered into the FORM DEFINITION menu; these values cannot be changed once a form is created.

If you have defined the graphics grid using the GRAPHICS GRID menu, you can cause the graphics grid to be displayed on the terminal screen by pressing the  $\boxed{f^2}$  function key. If the graphics grid is already displayed, pressing the  $\boxed{f^2}$  function key turns the grid off. You can turn the graphics grid on and off at any time in graphics mode by pressing  $\boxed{f^2}$ .

### Using the Graphics Grid

The use of the graphics grid varies with the individual preferences of the person who is designing the form. In fact, the graphics grid is optional, so you do not even have to define a graphics grid.

You may define the graphics grid once at the beginning of the forms design process and never change it. Or you may return to the GRAPHICS GRID menu at any time during the forms design process to modify the graphics grid. You may define additional tick marks or grid lines or you may remove any or all of the existing tick marks or grid lines.

Usually you want some tick marks or grid lines or both to provide a frame of reference for placing the lines, boxes, and subforms in your form. In some cases, only the relative (not the exact) positions of the parts of the form are important. This is the case with a form where the program writes data into the form using named data fields. With print-and-space forms, however, you need more exact row and column positioning of lines, boxes, and subforms. So, with print-and-space forms, you typically need tick marks and grid lines at smaller intervals than for a form using named data fields.

## Graphics Grid Menu

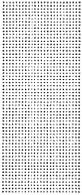
IDSFORM		Graphics Grid	
Line Numbers	Character Positions		
		GRID LINES placed at these positions	
-----			
		TICK MARKS repeated at these intervals	
		GRID LINES repeated at these intervals	

Figure 4-32. Graphics Grid Menu

You use the Graphics Grid menu (figure 4-32) to define the graphics grid. You can define tick marks or grid lines or both on the graphics grid.

You can cause IDSFORM to display the GRAPHICS GRID menu by pressing the  function key from the FORM DEFINITION DISPLAY or GRAPHICS GRID menus or from graphics mode.

## Defining Tick Marks

With the GRAPHICS GRID menu, you can define tick marks along the top and bottom of the form at designated intervals corresponding to the character positions. For example, to define a tick mark at every fifth character, type 5 in the column titled Character Positions on the line: TICK MARKS repeated at these intervals as shown in figure 4-33.

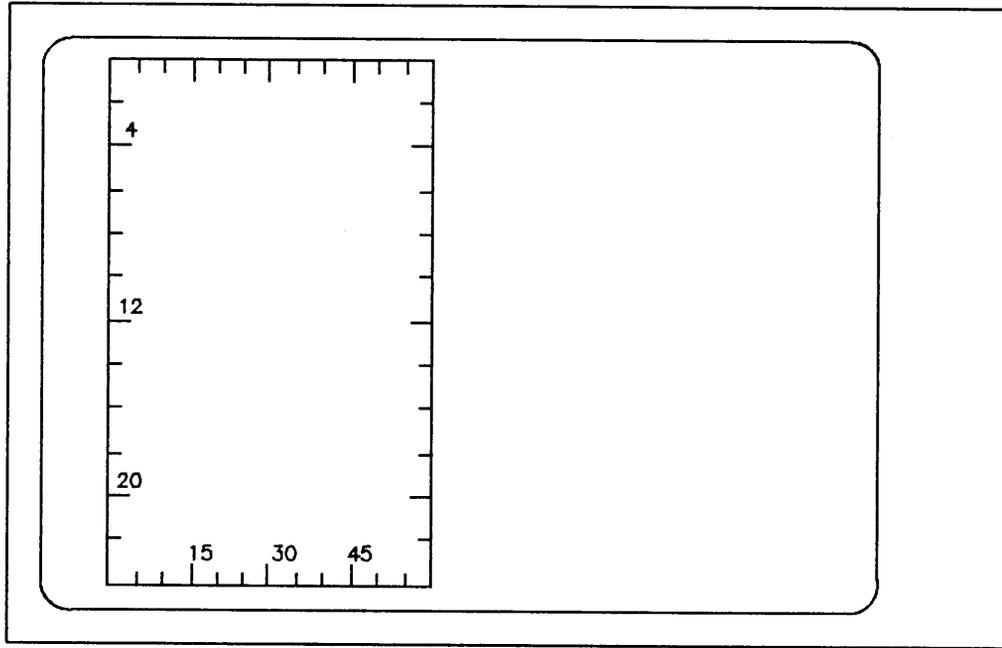


Figure 4-33. Sample Graphics Grid Showing Tick Marks

You can also define tick marks along the sides of the forms corresponding to the line spacing. To define a tick mark at every other line, type 2 in the column titled Line Numbers on the line: TICK MARKS repeated at these intervals.

If you define tick marks, IDSF<sub>FORM</sub> also displays numbers at calculated intervals on the grid.

If you define tick marks as they have been explained here, and your form has 60 characters per line across the form and 24 lines per form, then the resulting grid is as shown in figure 4-33.

## Defining Grid Lines

You can define grid lines in a method similar to defining tick marks. In this case you type the numbers indicating the intervals on the line: `LINES` repeated at these intervals.

To define grid lines that are drawn from the top to the bottom of the form at every tenth character position, type 10 in the column titled Character Positions on the line: `GRID LINES` repeated at these intervals.

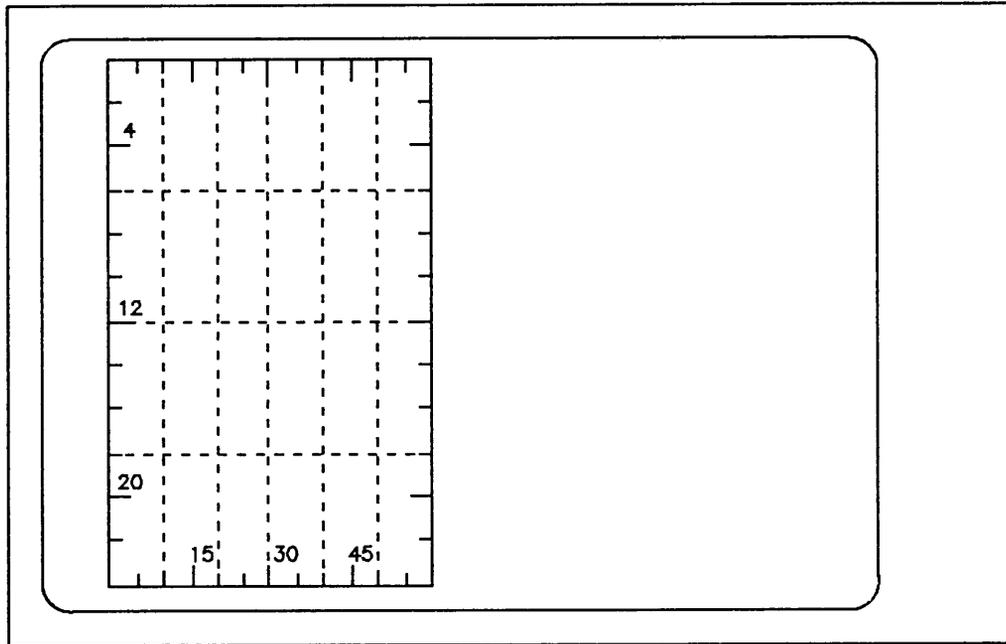


Figure 4-34. Sample Graphics Grid Showing Grid Lines

To define grid lines that are drawn from one side of the form to the other at every sixth line, type 6 in the column titled Line Numbers on the line: `LINES` repeated at these intervals.

For example, if your form has 60 characters per line across the form and 24 lines per form and you define the grid lines as described here, then the resulting graphics grid is as shown in figure 4-34.

## Defining Additional Grid Lines

In addition to the grid lines repeated at specified intervals, you may need a grid line to identify a certain character position in the print line or a certain print line in the form. Or you may want grid lines on the form without any other tick marks or grid lines.

For example, you want all subforms to start in the seventh position in the print line, leaving a margin of 6 spaces on the left side of the form. Then you may want to draw a grid line at the seventh character position from the top to the bottom of the form. To do this type 7 in the column titled Character Positions opposite GRID LINES placed at these positions.

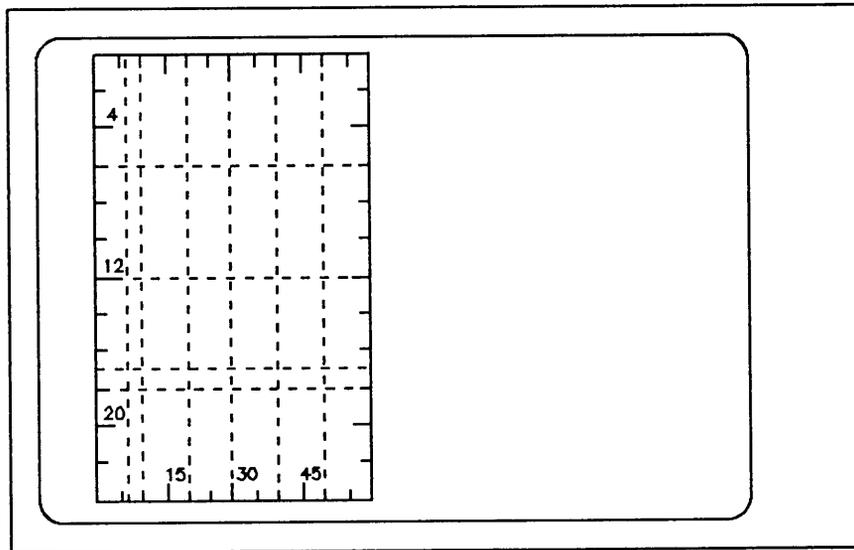


Figure 4-35. Sample Graphics Grid Showing Additional Lines

Likewise, if you want a grid line at line 17 on the form, type 17 into the column titled Line Numbers opposite the line: GRID LINES placed at these positions.

If you define additional lines as described in the paragraphs above then the resulting grid is as shown in figure 4-35.

## Graphics Options Menu

IDSF0RM		Graphics Options	
S	Line Type	S	Solid
S	Box Line Type	D	Dot
		DA	Dash
		DD	Dot Dash
		I	Invisible (Box Lines)
N	Line Weight	T	Thin
N	Box Line Weight	N	Normal
		W	Wide
S	Line Repitition	S	Single
S	Box Line Repitition	D	Double
	Box Shading	L	Light
		M	Medium
		D	Dark
		B	Black

Figure 4-36. Graphics Options Menu

You use the GRAPHICS OPTIONS menu to define the graphic aspects of the lines and boxes at both the subform and form level. Figure 4-36 shows the IDSFORD defaults for the GRAPHICS OPTIONS menu. These aspects include the type, weight, and repetition of lines and box lines and the shading to be used in boxes. Refer to figure 4-37 for a sample form showing the result of using various graphics options in different parts of the form.

You can get to the GRAPHICS OPTIONS menu by pressing the  function key from FORM DEFINITION DISPLAY or GRAPHICS GRID menu or from graphics mode.

FIXED TEXTUAL

LOGO

HEWLETT  
PACKARD  
General Systems Division  
Travel Department

TICKETS AND ADVANCE MAY BE PICKED-UP  
AT TRAVEL DESK AFTER 200 p.m. ON TICKET  
PICK-UP DATE BELOW

HEADINGS

TRAVELER

SHADING

AGENT		TICKET PICK-UP DATE	LOCATION CODE	REVISION NO.	ITINERARY DATE	
DAY	DATE	CITY-AIRPORT	TIME	CARRIER	FLIGHT-CLASS STATUS	SERVICE-EQUIPMENT

CODE: A - Air H - Hotel C - Car  
T - Tour S - Surface  
V - Other Travel Services

CLASS: FA - First  
YBHT - Coach  
S - Standard  
K - Economy

STATUS: OK - Confirmed  
WL - Wait List  
RQ - Request

Figure 4-37. Sample Form Showing Graphic Options

You can cause IDSF<sub>ORM</sub> to display the GRAPHICS OPTIONS menu by pressing the  function key. You may return to the GRAPHIC OPTIONS menu to change the graphics options several times during the forms design process. A typical design process using various graphic options is shown in figure 4-38.

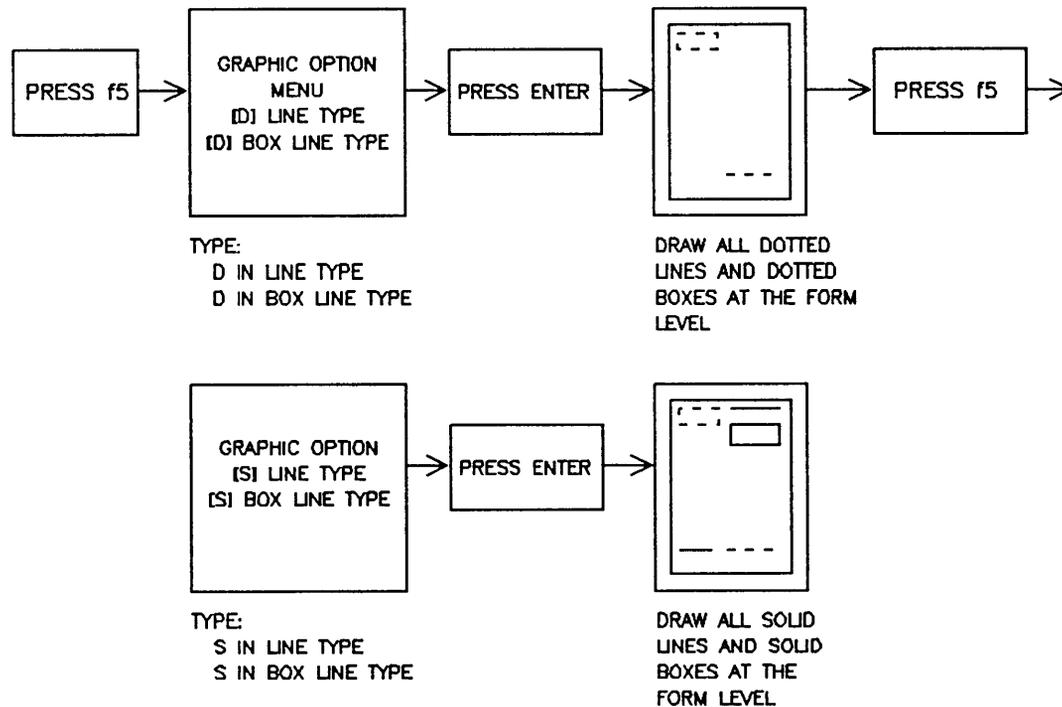


Figure 4-38. Graphics Options Design Process

### Line and Box Line Type

You can choose the options for lines independent of the options for box lines. For example, you can choose DA for dash line type and at the same time choose S for solid box line type.

The invisible option applies only to box line type. Choose I for invisible box lines where a box area exists on a form and you may want to identify it by shading, but you do not want a box line drawn around the box.

## Line and Box Repetition

You can save time in drawing your forms graphics by using the line and box repetition options. For example, if several areas on your form require double lines, go to the GRAPHICS OPTIONS menu, type D in the field for line repetition, and press **ENTER**. Now, instead of having to draw two lines, you can draw only one line. This results in double lines being drawn when the form is printed, but the double line is not displayed on the terminal screen. The double line repetition remains until you change the line repetition field in the GRAPHICS OPTIONS menu.

## Box Shading

You may want to black out certain areas in a subform. For example, the customer copy of an invoice might show the price paid, but on the shipping copy of the form the price column could be completely blacked out using black shading.

To do this, type B in the Box Shading field, press **ENTER**, and then draw the box on your form. Remember to change the box shading field using the GRAPHIC OPTIONS menu before continuing to draw the other boxes at the form level.

## Moving the Graphics Cursor

The graphics cursor appears on the terminal screen when you are in graphics mode. The graphics cursor is represented by a cross-hair '+'. You use the graphics cursor to perform the graphics functions such as defining a line or box. You also use the graphics cursor with the window functions to define subform and field windows.

You can control the graphics cursor using two cursor-control keypads:

- the continuous movement cursor control keypad (located in the Graphics Control Group keys)
- the grid movement cursor control keypad (located in the Display Control Group keys)

The continuous movement cursor control enables you to quickly position the graphics cursor and the grid movement cursor control positions you at the closest grid (the position where the line and character points intersect). This is useful in aligning parts of your form on grid lines.

## **Continuous Movement Cursor Control Keypad**

The continuous movement cursor control keypad is located in the Graphics Control Group section of your keyboard (mentioned earlier in this guide).

You can use only five of the keys in the continuous movement keypad. These keys are the four keys labeled with arrows and the CURSOR FAST key.

The ZOOM keys, if available on your terminal, are not used with IDSFORM.

By pressing these keys you can move the graphics cursor to any position on the screen. You cannot draw lines or boxes or define windows outside the form. You may position the cursor exactly on the boundary lines of the form. This keypad enables you to move the cursor to the exact position on the form based on the resolution possible on the terminal screen. To increase the resolution for the part of the form you are working with, use the EXPAND function explained later in this section.

The four arrow keys move the cursor in each of the four directions: up, down, right, and left. You can move the cursor in the diagonal direction by simultaneously holding down adjacent arrow keys. The cursor continues to move in the direction indicated by the keys as long as you continue to hold the keys down.

## **Grid Movement Cursor Control Keypad**

The grid movement cursor control keypad is located in the Display Control Group on your terminal keyboard.

These keys are used for typing information into the menus in menu mode. When you are in graphics mode, IDSF<sub>FORM</sub> redefines them for controlling the graphics cursor.

The grid movement keys move the graphics cursor up, down, left, and right as indicated by the arrow on the key. Each time you press a grid movement key, the graphics cursor moves to the closest grid point. But, unlike the continuous movement keys, the cursor movement is not continuous. Instead, holding down a grid movement key causes the cursor to move only as far as the closest grid. Then the cursor remains there until you press the key again or press another key to move it.

Using the grid movement keys, you cannot position the cursor outside the grid. The grid is the same size as the form. If you position the graphics cursor outside the form using the continuous movement keys, then pressing a grid movement key causes the cursor to move to the nearest grid.

## **Lines**

You can define, delete, or redefine lines using the terminal keys in graphics mode. You can draw horizontal or vertical lines. You use the same procedures to work with lines at either the form or the subform level. Several factors you should consider before deciding whether to draw a line at the form or subform level are described in Form Versus Subform Graphics earlier in this section.

### **Defining a Line**

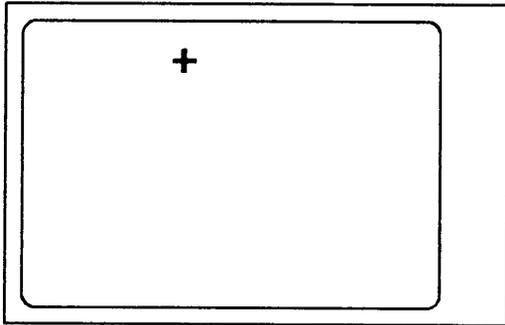
In graphics mode, a graphical representation of the form or subform you are working with is displayed on the terminal screen. The graphics cursor, a bright cross, also appears on the terminal screen as shown in the following illustrations.

If you want to use the graphics grid as a guideline in positioning the line, then press the  function key. This causes the graphics grid (either the default or the one you define) to be overlaid on the form on the screen.

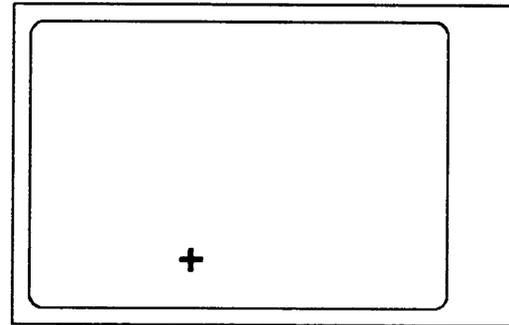
To define a line, first position the center of the cursor at the beginning point of the line. To do this, you can use either the continuous movement or the grid movement keypad. If you use the grid movement keypad, the cursor is positioned exactly on a grid line. If you use the continuous movement keypad, you can position the cursor as exactly as possible within the resolution of the terminal.

After you have positioned the cursor at the beginning point of the line, type "CL" (for CREATE LINE) or press the DEFINE LINE key (HP 264X only). Then move the cursor to the end point of the line using either cursor movement keypad and type "CL" again (or press DEFINE LINE again). A line should appear on your screen between the beginning and ending points you marked. If you wish to draw another line or box that is not connected to the line just drawn, you must move the cursor to the starting position of the new line and type "MP" (or press the MOVE key--HP 264X only). Otherwise, each time you enter the CREATE LINE command (or press the DEFINE LINE key--HP 264X only), a line will be drawn between the previous cursor position and the cursor position at the time the CREATE LINE command was entered (or DEFINE LINE key pressed). See the following discussion on "Moving the Cursor Without Drawing a Box or Line".

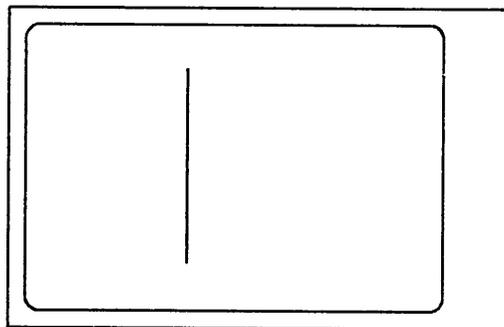
IDSFORM cannot draw diagonal lines. If you choose an end point for a line that is at a diagonal from the previously marked cursor position, IDSFORM draws either a horizontal or vertical line from the beginning point in the direction of the cursor. The following steps show how to draw a line in IDSFORM.



1. Position cursor. Type "CL" or press  
DEFINE LINE key.



2. Move cursor to end of line. Type  
"CL" or press DEFINE LINE key.



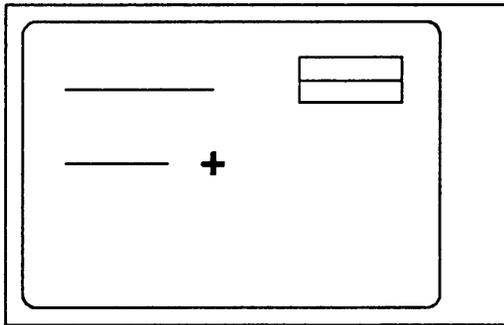
3. IDSFORD draws the line.

## Drawing Disconnected Lines

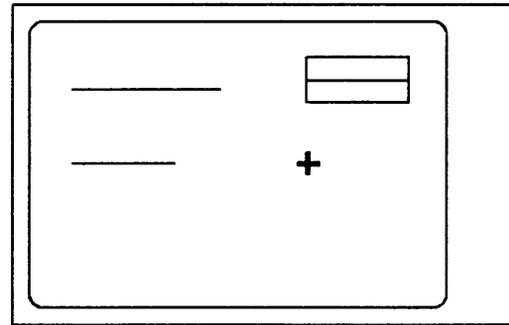
While defining lines, you may want to move the cursor from one point on the screen to another without defining a line between them. To do this, you use the MOVE PEN command (type "MP") or press the MOVE key (HP 264X only--located in the Display Control Group).

For example, if you have defined a line on the screen and want to define another line that is not connected to the prior line, move the cursor to the new starting point and type "MP" or press the MOVE key (HP 264X only) before drawing the next line. Otherwise IDSFORM draws the next line between the previous cursor position and the current position. In drawing lines, IDSFORM marks the position of the cursor at the time you type "CL" (CREATE LINE) or press the DEFINE LINE key. The next time you type "CL" or press the DEFINE LINE key, IDSFORM begins at the previously marked cursor position and draws a line to the present position of the cursor.

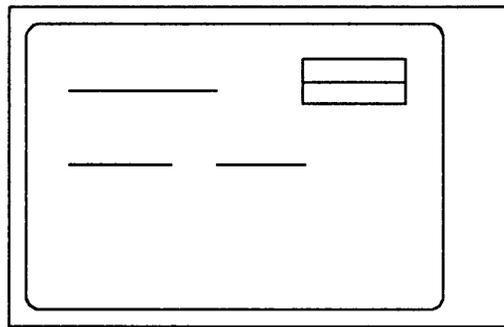
To define two lines which are not connected, define the first line as described under Defining a Line, then define the next line as described in the following steps.



1. Position cursor at beginning of line.  
Type "MP" or press MOVE key.



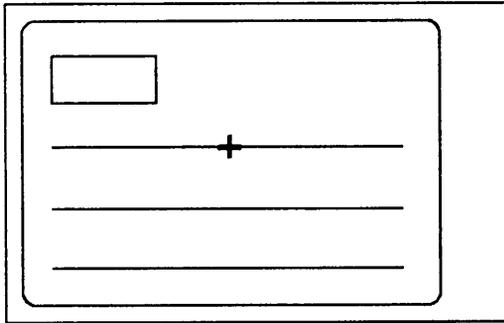
2. Move cursor to end of line. Type  
"CL" or press DEFINE LINE key.



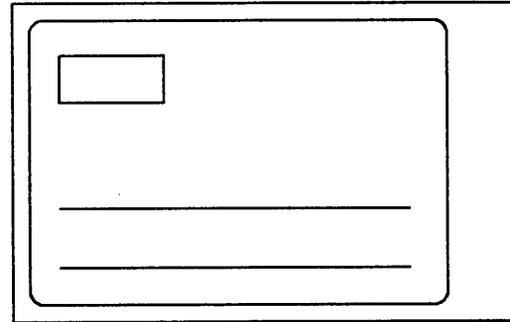
3. IDSF<sub>FORM</sub> draws the line.

## Delete a Line

To delete a line, follow the steps below. First, position the center of the graphics cursor anywhere on the line and enter the DELETE LINE command twice (type "DL" twice or press the DELETE LINE key twice while holding down the **CONTROL** key [HP 264X only]). IDIFORM deletes the line from the form or subform.



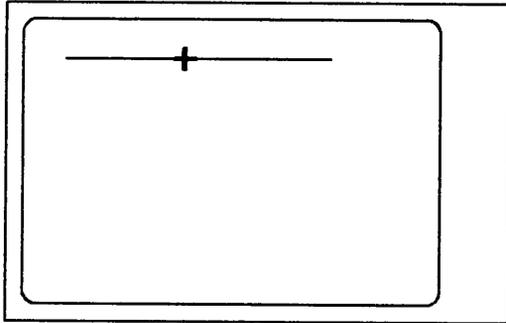
1. Position cursor. Enter DELETE LINE twice.



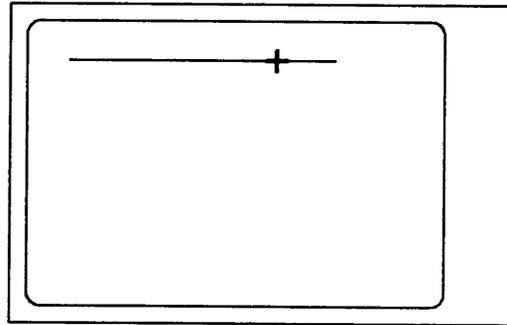
2. Line is erased.

### Delete Only a Part of a Line

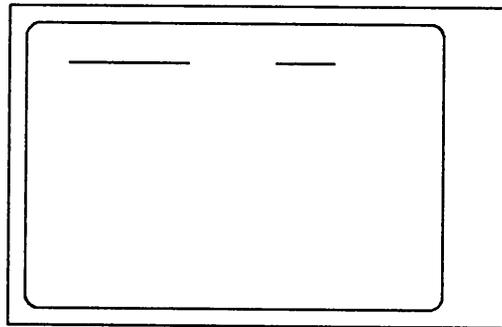
The steps below describe the procedure used to delete part of a line. Position the center of the graphics cursor on the line at one end of the line segment to be deleted and enter the DELETE LINE command. Then move the cursor to the other end of the line segment to be deleted and enter the DELETE LINE command again.



1. Position cursor at one end of the part of the line. Enter DELETE LINE command.



2. Position cursor at other end of the line segment to be deleted. Enter DELETE LINE command.

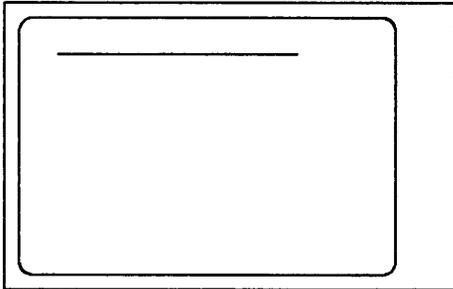


3. IDSF0RM erases the part of the line indicated.

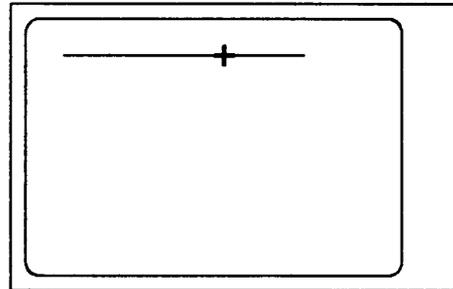
## Redefine a Line

IDSFORM draws the lines based on the options in the GRAPHICS OPTIONS menu at the time you define the line. These options include various line types, weights, and repetitions. Once you have defined a line, to change the line to a different kind of line, you use the REDEFINE LINE command (type "RL" or press the REDEFINE LINE key [HP 264X only]).

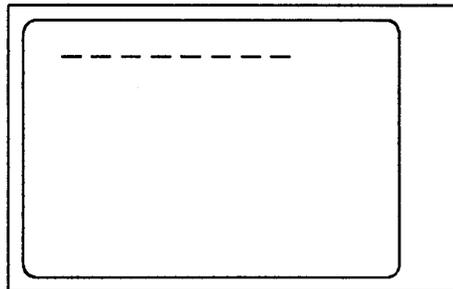
For example, if you define a line as a solid line of wide weight and want to change it to a dotted line of normal weight press the  function key to access the GRAPHICS OPTIONS menu and indicate the kind of line you want to draw. Once you have selected the graphic options, follow the steps below.



1. Press ENTER. This displays the form or subform.



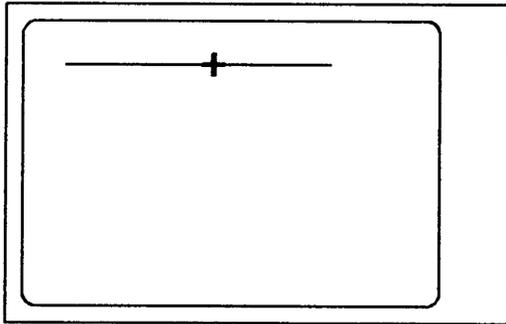
2. Position center of cursor anywhere on the line.



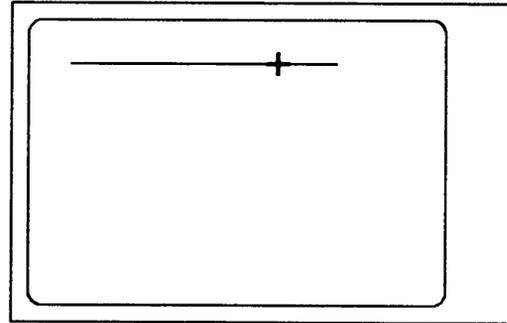
3. Enter REDEFINE LINE command twice. IDSFORM redraws the line.

## Redefining Part of a Line

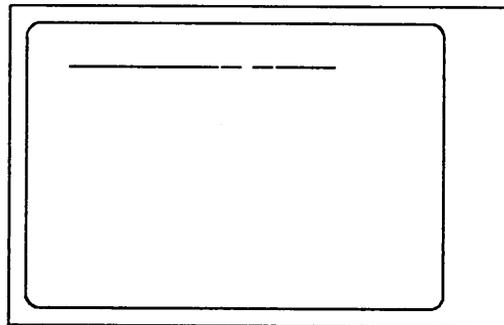
To redefine only part of a line, access the GRAPHICS OPTIONS menu and indicate the kind of line you want to draw, then perform the following steps.



1. Position the center of the graphics cursor at one end of the part to be redefined. Enter REDEFINE LINE command.



2. Move cursor to the other end of the line segment to be redefined. Enter REDEFINE LINE command.



3. IDSFORM redraws the line using the options in the GRAPHICS OPTIONS menu.

## Boxes

You can create or delete boxes using the terminal keys in graphics mode. You use the same procedures to work with boxes at either the form or subform level. Several factors you should consider before deciding whether to draw a box at the form or subform level are described in this section under "Form Versus Subform Graphics".

### Creating a Box

In graphics mode, a graphical representation of the form or subform you are working with is displayed on the terminal screen. The graphics cursor, a bright cross, also appears on the terminal screen.

If you want to use the graphics grid as a guideline in positioning the box, then press the  function key. This causes the graphics grid to be overlaid on the form or subform.

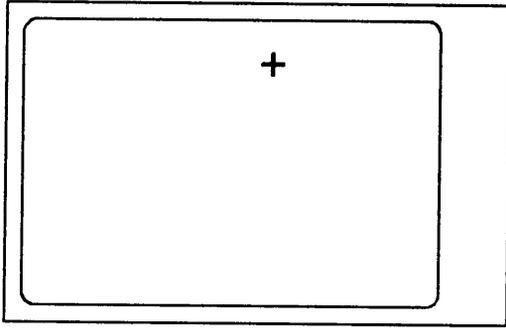
To draw a box, first position the center of the cursor at one corner of the box and type "CB" (for CREATE BOX) or press the DEFINE BOX key (HP 264X only). Then move the cursor to the opposite corner of the desired box and type "CB" again (or press the DEFINE BOX key again--HP 264X only).

#### NOTE

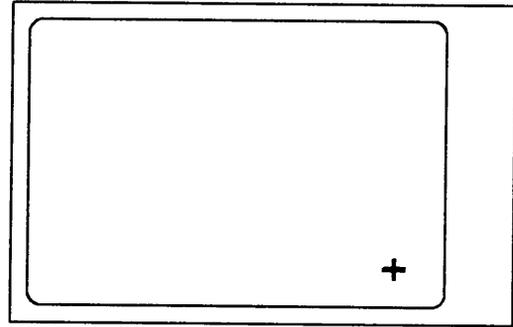
To move the cursor, you can use the grid movement keypad, the continuous movement keypad, or both. If you use the grid movement keypad, the cursor is positioned exactly on a grid line. If you use the continuous movement keypad, you can position the cursor as exactly as possible within the resolution of the terminal.

When defining boxes, you may want to move the cursor from one point on the screen to another without defining a line between them. To do this, you use the MOVE PEN command (type "MP") or press the MOVE key (HP 264X only--located in the Display Control Group). See the following discussion on "Moving the Cursor Without Drawing a Box or Line".

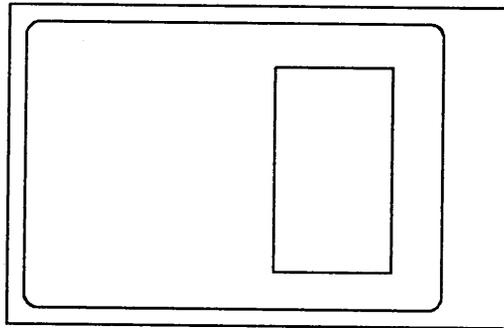
The kind of box drawn depends on the values you entered in the GRAPHICS OPTIONS menu. For example, you may draw a box that has dash box lines which are thin in width. The box lines may also be double, and the box may have medium shading. Perform the following steps.



1. Position cursor at one corner where the box is to be drawn. Type "CB" or press DEFINE BOX key (HP264X only).



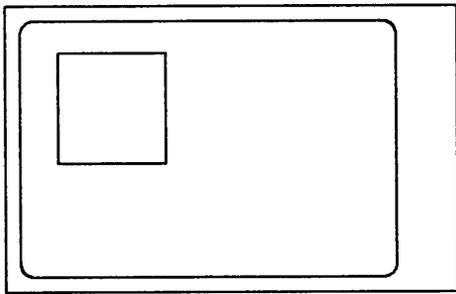
2. Move cursor to the corner that is diagonally opposite corner just marked. Type "CB" or press DEFINE BOX again.



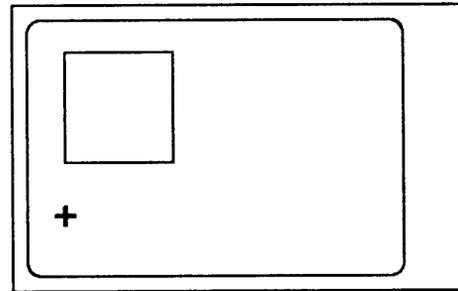
3. IDSF0RM draws the Box.

## Moving the Cursor Without Drawing a Box or Line

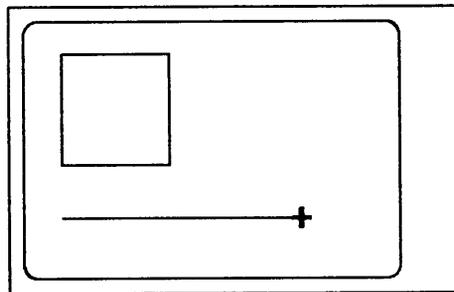
To reposition the cursor to draw a new line or box, follow the steps below. When you have drawn a box and want to move the cursor to another area on the form or subform, type "MP" (for MOVE PEN) or press the MOVE key (HP 264X only) before drawing any other boxes or lines. The MOVE PEN command allows you to position the graphics cursor without drawing a line or box from the last position marked by either the CREATE BOX or CREATE LINE commands (or DEFINE BOX and DEFINE LINE keys--HP 264X only). Once you have performed a MOVE PEN command, the current cursor position becomes the starting point of the next line or box. To create the next line or box, simply move the cursor to the opposite end of the line or box and type "CL" or "CB" (depending on whether you desire a line or a box). The MOVE PEN command does not move the cursor; it marks the current position of the cursor.



1. Create a Box.



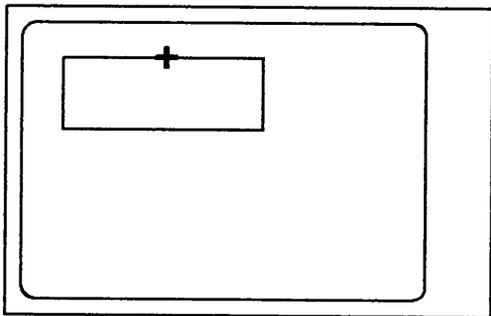
2. Move cursor to next position. Type "MP" or press MOVE key.



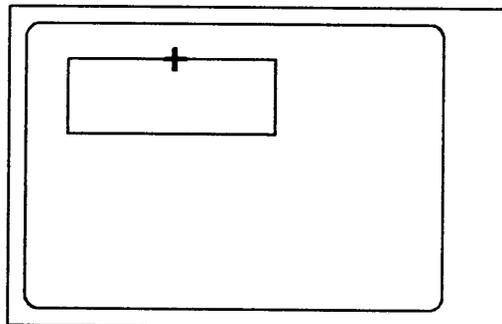
3. Define the next box or line.

## Delete a Box

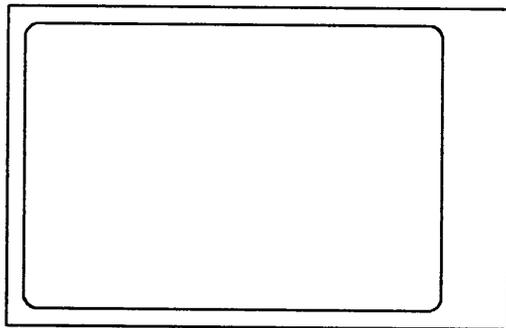
In designing or maintaining forms, you can delete a box as described in the following steps. To move a box from one location in the form to another, you must redraw the box in the second location and then delete the box from the first location.



1. Position the center of the graphics cursor at any point on the boundary of the box.



2. Enter DELETE BOX command.



3. IDSF<sub>FORM</sub> erases the box.

## **Delete Part of a Box**

You can delete a part of a box using the **DELETE LINE** function on each of the sides of the box that you want to delete. You can also delete only a portion of a side of the box in the same way that you delete only a portion of a line.

## **Expand**

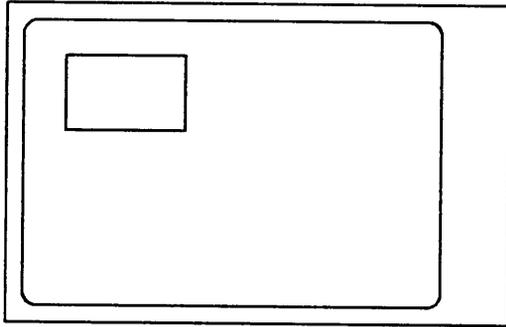
You use the expand function in graphics mode when the form or subform is displayed on the terminal screen. Using the expand function, you can identify an area of the form or subform that you want to enlarge. Entering the **EXPAND** command defines an area of a fixed size called an expand box. You can then cause the expand box to be displayed so that it fills the screen. When the expand box is displayed at this higher magnification, you can position the parts of your form more exactly than is possible at the lower magnification.

The resolution of the terminal screen is 720 dots by 360 dots for HP 264X terminals and 512 dots by 390 dots for non-264X terminals. The resolution of the target output device also varies. If the resolution of the target device falls within the resolution of the terminal screen, each dot on the screen represents a dot on the target output device.

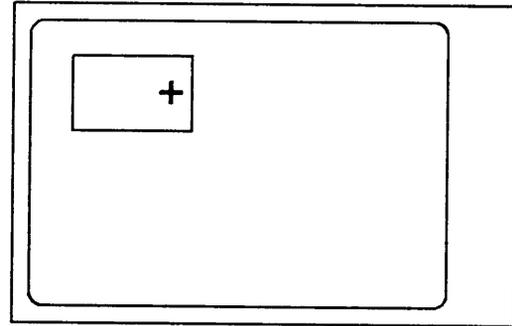
But, if you design a form or subform that requires more printed dots than dots on the terminal, then each dot on the terminal screen represents more than one dot on the target device. The larger the form you design, the closer the spacing between the parts of the form appears on the screen. You use the expand function to display a part of the form so that the spacing between the parts of the form appears larger on the screen.

## Using the Expand Function

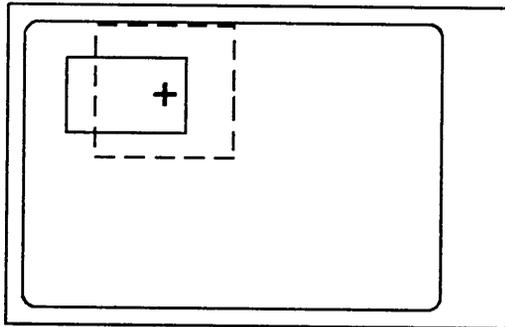
To use the expand function perform the following steps:



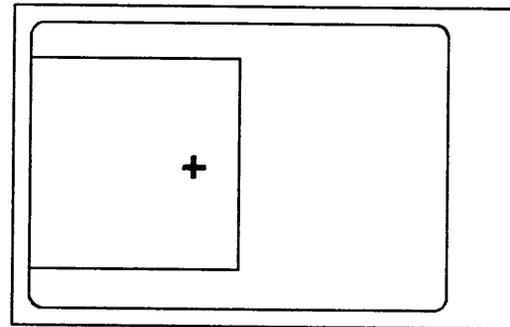
1. Display the form or subform.



2. Position the cursor in the center of the area you want to enlarge. Enter the EXPAND command.



3. IDSFORM draws an Expand box on the screen centered on the cursor.



4. Press Display (f3) to cause the Expand box to be displayed so that it fills the entire terminal screen.

To increase the magnification of a given area, repeat the steps above or press f3 multiple times after step 4. After you enter the EXPAND command, IDSFORM again draws an expand box on the screen, but the expand box is smaller. By using DISPLAY (f3) to display this smaller expand box so that it fills the entire screen, you are increasing the magnification of the given area. You may repeat this process until you reach the limit of magnification. At that point the terminal will beep twice.

## Unexpand

### Using the Unexpand Function

After you have used the expand function to increase magnification, you can use the REMOVE EXPAND function to reduce the magnification again. To perform the REMOVE EXPAND function, you type "RE" or hold down the CONTROL key and press the EXPAND key (HP 264X only). This causes a larger expand box to be displayed on the screen. As with expand, you can cause the expand box to be displayed so that it fills the entire screen, by pressing DISPLAY (f3). If you use the unexpand function after pressing DISPLAY, the form or subform will be redrawn at the original resolution.

You can repeat the unexpand function until you have returned the magnification back to the magnification level that existed prior to using the expand function.

## Using Recover Keys

When you are in graphics mode at the form level, you are working with a display of the entire form on the screen. If you defined subforms within the form, you can cause IDSFORM to display them in two different ways. You control the way a form is redisplayed by using the RECOVER or FULL RECOVER commands.

### Using Recover

You can cause IDSFORM to display the graphics in the subform you were last working with by pressing the RECOVER (f4) key. Subform graphics for other subforms do not show on the screen but the form and graphics are displayed. IDSFORM represents all subforms by dotted double boxes. The box representing the current subform also shows the contents in the subform.

## Using Full Recover

You can cause IDSFORM to display the contents contained in all the subforms in the form using the FULL RECOVER command. This is accomplished by typing "FR" or by holding down the **CONTROL** key while pressing the RECOVER (**F4**) key (HP 264X only). In this way, IDSFORM does not represent the subform outline with double dotted lines as in the display described above. IDSFORM draws the subform outline according to the options you choose in the Subform Definition menu. It takes longer to generate the display on the screen than the previous method which draws only the graphics in the current subform.

## **Overview**

IDSFORM provides you with a high degree of flexibility in designing your form. To use the features of IDSFORM effectively, you need to understand the terms defined in this section.

You should already be familiar with basic forms design terms and concepts to use this reference manual; however, the more important terms you need to know are briefly defined in this section.

Certain concepts are unique to IDSFORM. The purpose of this appendix is to describe IDSFORM's implementation of these concepts and their related terminology.

## **Cell**

A cell is the basic unit in which a character or logo is designed. You specify cell size in point size in the FIELD FONT AND SUBFIELD DESCRIPTION menu. Figure A-1 illustrates a sample character cell.

## **Cell File**

Cell files (also called PCELL files) are provided with IFS/3000 (HP part number 36580) or purchased from Hewlett-Packard's Output Design Service (ODS). After cells are designed, they are saved in a cell file for later use by a printing device. There are two kinds of cell files: character font files and logo files.

## **Character**

A character is a series of dots within a cell as shown in figure A-1. A character designer (at ODS) defines the contents and size of a cell. Typical contents of a cell could be a letter such as "E". There could be several different cells in a cell file containing different characters. Or, different cells can be in different cell files, each a different type font and size.

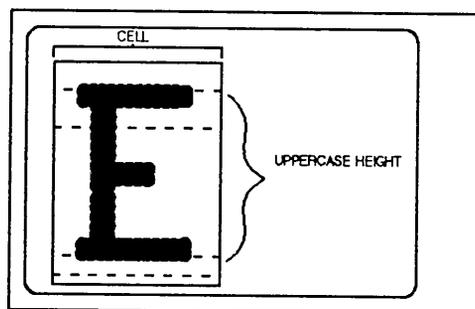


Figure A-1. Sample Character Cell

## **Character Font File**

A character font file contains multiple sizes of a given character font. Thus for a character font file containing a character font such as the Times Roman alphabet, the letter "A" chosen from one size should appear nearly identical to any other "A" in this same character font file (except for its size). You enter the name of the character font file containing the character font you want to use for text within your form in the Field Font and Subfield Description menu.

## **Character Font**

A character font is a collection of character cells, each the same size. All the characters in a character font are usually of the same typeface. A character font usually contains 95 characters including the upper and lower case letters, the numbers 0 through 9, punctuation marks, and the most commonly used special characters.

## **Computerized Form**

A computerized form is a form in which the data used to complete the form is filled in by a program. Standard line printers provide only print-and-space (position-dependent) placement of data. This means that to fill in a form the program counts the lines and the position in each line to determine where to print the data. In addition to print-and-space forms, the Laser Printing system supports symbolic position-dependent access to a form through named data fields. Since the data is printed on the form based on the name of the field and not its location in the form, you can move the field from one place to another in the form without requiring any changes to the program which fills in the data.

## **Defaults**

IDSFORM fills in the menus for you where possible with the most commonly used values; these values are called defaults. You may change the default values in any menu by simply typing over the default value with the value you want.

## **Expand**

You use the expand feature in graphics mode. The expand feature allows you to indicate a portion of the form to be expanded and to display it in such a way that it fills the terminal display screen for added precision. This gives you the best possible resolution to aid you in graphically designing that portion of your form.

## Family

Family is a term used to refer to the name of the typeface. For example, Helvetica Light and Helvetica Regular are two typefaces in the Helvetica family. Usually there is also an italic version of each typeface.

Helvetica Light  
*Helvetica Light Italic*

**Helvetica Medium**  
***Helvetica Medium Italic***

**Helvetica Bold**  
***Helvetica Bold Italic***

Figure A-2. Sample Font Family

## Field Window

A field is a type of window (refer to figure A-8). A field is a second level window since fields are always defined within a subform (the first level window). Field windows may contain heading text or data or both. Named fields can be symbolically accessed by applications programs to place data in the form. You use a series of menus to define fields in your form: the Field Text, Field Font and Subfield Description, and Field Graphics menus.

Form

A form is the fixed, static, non-data portion of a document. Forms can contain the normal forms graphics such as lines and boxes in varying sizes, types, and weights. In addition, forms can contain static text, titles, and headings consisting of such items as traditional character fonts, special symbols, logos or artwork. Refer to figure A-3.

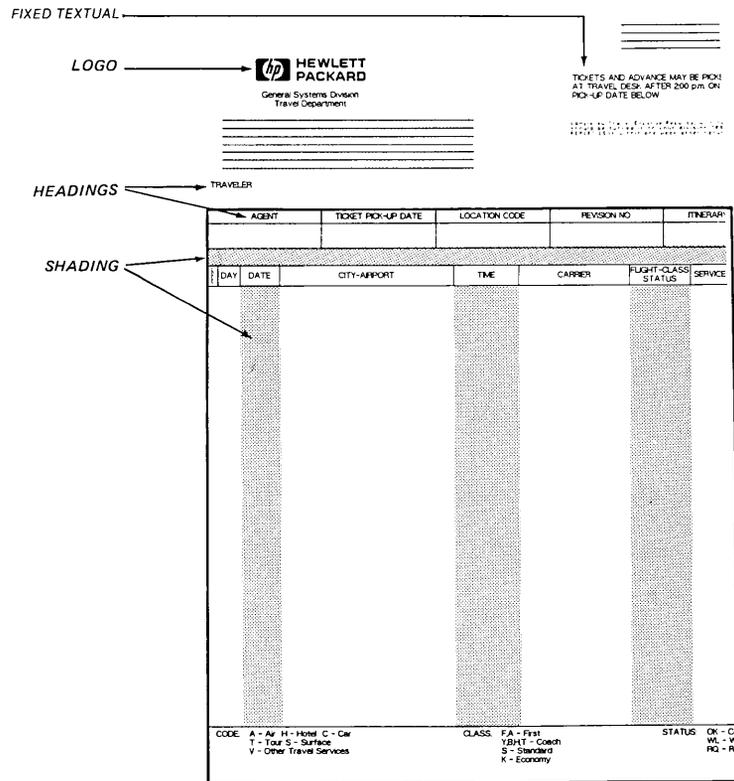


Figure A-3. Sample Form

## IDSFORM TERMINOLOGY

### Forms File

IDSFORM stores forms in a file called a forms file. In the Main menu you enter the name of the forms file you want to use. You may work with an existing forms file or you may create a new forms file. You may add, modify, or delete forms within a forms file. You may copy forms or subforms from one forms file to another or create a copy of a form or subform within the same forms file.

### Graphics Grid

The graphics grid consists of tick marks and grid lines representing the print lines on a page and the character positions within the print lines. You can define or modify the graphics grid at any time during the forms design process by using the GRAPHICS GRID menu. When you are working in graphics mode you can turn the graphics grid display on or off by pressing function key, **F2** (Grid). Refer to figure A-4.

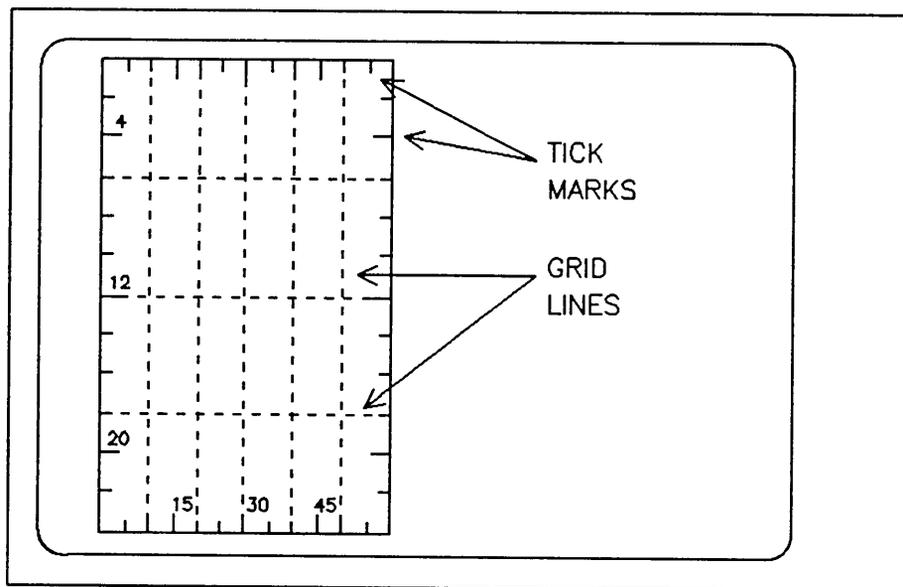


Figure A-4. Graphics Grid

## **Graphics Mode**

Graphics mode is one of the modes in which IDSFORM operates. In graphics mode, IDSFORM displays a representation of your form on the terminal screen. You specify the graphics aspects of your form such as lines and boxes by actually drawing them on the terminal's graphics display using the terminal keys. You can also graphically indicate the location of subforms and fields containing headings or data or both.

## **High-Level Graphics**

High-level graphics are graphics which apply to a form, subform, or field as a whole. Some high-level graphics such as line types, box shadings, and box outline type apply to both forms and subforms and are defined in the Graphics Options menu. The high-level graphics for any given subform, such as subform shading and subform outline are defined with the subform in the Subform Definition menu; likewise high-level graphics for any given field such as field shading and field underline are defined in the Field Graphics menu. The lines and boxes, themselves, are not high-level graphics, but are identified as form or subform graphics depending on which level you draw them.

## **Hold**

You can move and copy subforms using the Hold feature. You can move and copy subforms within a form or forms file as well as from one form or forms file to another. You can use the Hold feature from the Main menu, or you can use the HOLD SUBFORM command along with the RECALL SUBFORM command in graphics mode at the form level.

## **Hold File**

A special file used to hold a subform when you are working with the Hold option in the Main menu or with the HOLD SUBFORM and RECALL SUBFORM commands in graphics mode at the form level.

## **IDSCHAR**

IDSCHAR was a subsystem of IDS/3000 that enabled users to create and modify character fonts, logos, and other artwork. IDSCHAR has been obsoleted. Hewlett-Packard offers a service, entitled the Output Design Service (ODS), that creates special logos and artwork for customers to include in formatting documents with IFS/3000 and in designing forms with IDSFORM. Old IDSCHAR files may still be used in creating forms.

## *IDSFORM TERMINOLOGY*

### **IDSFORM**

IDSFORM is a subsystem of IDS/3000 that enables users to create and modify forms. In IDSFORM, you can specify that text or data in a form is to be printed using a character font or logo previously designed with IDSCHAR or by the Output Design Service. You can use forms in formatting documents with IFS/3000.

### **IDS/3000**

IDS/3000 (Interactive Design System/3000) is also called IDSFORM.

### **IFS/3000**

IFS/3000 is a subsystem that operates on the HP 3000 to electronically configure intelligent output devices. IFS/3000 combines character fonts and forms defined with IDSFORM with additional device-specific printing specifications to configure an environment. IFS/3000 contains a program which you use to print documents on the target device. IFS/3000 also contains a programmatic interface enabling applications programs to control printed output.

### **Interactive**

An interactive system is a computer system in which you control the computer through your responses to a predefined series of questions or fill-in-the-blanks formats for you to answer. The computer system analyzes your responses and then replies back to you. If the computer system detects errors, it displays messages to you indicating the errors. The computer system proceeds in a predefined manner depending on your responses.

### **Line Type**

IDSFORM provides for several types of lines to be used in drawing the lines and boxes in your form or subforms. These types are solid, dot, dash, dot-dash, and invisible. You can specify line type in the Graphics Options, Subform Definition, and Field Graphics menus.

### **Logo File**

A logo file is a cell file which contains one or more sizes of a single logo or other artwork. For an example of a logo, refer to figure A-3. If you want to use a logo in your form, you enter the name of the cell file containing the logo in the FIELD FONT AND SUBFIELD DESCRIPTION menu. You also indicate whether this cell file is a logo file.

**Logo Height**

You specify the size at which you want a logo printed by entering the height of the logo in either inches, millimeters, or point size in the FIELD FONT AND SUBFIELD DESCRIPTION menu. You can easily determine the height of a logo simply by printing it and then measuring it.

**Manual Form**

A manual form is a form in which the data to complete the form is filled in by hand, in contrast to a computer form in which the data is filled in automatically by a computer program.

## IDSFORM TERMINOLOGY

### Menu Mode

Menu mode is one of the modes in which IDSFORM operates. In menu mode, IDSFORM displays formatted screens called menus on your terminal. Then, using the terminal keyboard, you type specifications for your form into the menus in a fill-in-the-blank manner. Refer to figure A-5 for a sample menu.

IDSFORM		Main	
Selection	Form	Forms File	
B	Browse File		
C	Create Form		
M	Modify Form		
D	Delete Form		
CF	Copy Form		
	New Form		
	From Form		
	Forms File		
H	Hold a Subform		
	Subform		
	From Form		
	Forms File		
E	Exit		

Figure A-5. Sample Menu

## **Output Design Service (ODS)**

The Output Design Service (ODS) is a service offered by Hewlett-Packard for creating IDSCHAR files (logos and other artwork) for including in customer's forms. ODS also designs forms for customers that do not have forms-designing capabilities. If you wish to have your logo or other artwork included on a form you are designing, ask your Hewlett-Packard Sales Representative about ODS.

## **Orientation**

Within any given cell file, you can select character fonts from any of four possible orientations: 0, 90, 180, and 270 degrees. The default orientation of characters with respect to the form is a rotation of zero degrees. For each of the other orientations, the character is rotated in a clockwise direction in 90-degree intervals. You choose the character font orientation for your form text in the Field Font and Subfield Description menu.

	ORIENTATION			
	0 DEGREE	90 DEGREE	180 DEGREE	270 DEGREE
HORIZONTAL TEXT (H)	TEXT	┌×┐	└X┘	┌×┐
VERTICAL TEXT (V)	T E X T	TEXT	└X┘	└X┘
REVERSE HORIZONTAL TEXT (RH)	TXET	┌×┐	TEXT	┌×┐
REVERSE VERTICAL TEXT (RV)	T X E T	TXET	└X┘	TEXT

Figure A-6. Character Font Orientations

## Point Size

Point size is a unit of measurement used by typesetters to measure type. There are 72 points in an inch making 1 point equal to .01389 inch. It is often difficult to determine the point size of a character by physically measuring it because the point size may include some spacing between lines, in addition to the character. You may specify the size of cells you want to use to print the text, titles or headings, or logos in your form. To do this, you enter the point size in the Field Font and Subfield Description menu. You may also specify cell size using uppercase height. Some sample point sizes are shown in figure A-7.

10 ABCDEFGHIJKLMNOPQRSTUVWXYZ  
12 ABCDEFGHIJKLMNOPQRSTUVWXYZ  
14 ABCDEFGHIJKLMNOPQRSTUVWXYZ  
20 ABCDEFGHIJKLMNOPQRSTUVWXYZ  
24 ABCDEFGHIJKLMNOPQRSTUVWXYZ

Figure A-7. Sample Point Sizes

## *IDSFORM TERMINOLOGY*

### **Print-and-Space**

A print-and-space form is a form in which the data is written into the form with a program that uses print-and-space protocol. With print-and-space protocol, data is placed in the form in a location-dependent manner. This means that the program must keep track of which line it is printing as well as the print position in each line.

A non-print-and-space form is a form in which the data is written into the form with a program that uses IFS/3000's programmatic interface (see Section 5 of the IFS/3000 Reference Guide) instead of print-and-space protocol.

### **Recall**

The recall subform feature is used when moving or copying subforms within a form or from one form to another. The RECALL SUBFORM command recalls a subform that was placed in the hold file using the HOLD SUBFORM command or the HOLD option in the Main menu.

### **Repetition**

IDSFORM provides two choices for repetition of lines and box lines: single or double repetition. Repetition applies to graphics drawn at both the form and subform levels. You specify your choice for repetition in the Graphics Options menu.

### **Shading**

You may choose shading for boxes, subforms, fields and subfields from the following selections: none, light, medium, dark, or black. It is not necessary to use the same shading for all parts of a form. You can specify shading in the Graphics Options, Subform Definition, and Field Graphics menus.

### **Subfield**

The data portion of a field may be divided into multiple subfields. Subfields may be individually addressed by application programs using the programmatic interface supplied with IFS/3000. You define the number and direction of subfields in the Field Font and Subfield Descriptions menu. You can define graphics such as box outlines, underlines, and shading for subfields using the Field Graphics menu.

### **Subform Window**

A subform is an aid for dividing a form into pieces where each piece can be thought of as a logical unit. You divide a form into multiple subforms using the Edit Group keys and the Subform Definition menu. If necessary, you can expand each subform independently during design to provide the best possible resolution between the terminal screen and the printed page. A subform is the first level of window. Within a subform, you can define a second level of window called a field. You may add, change, delete, move, or copy subforms within a form. You can also move or copy subforms from one form or forms file to another using the Hold and Recall subform features.

### **Target Device**

The device that is intended to be used for printing the forms (for example, the HP 2680A or HP 2688A printers).

### **Tick Marks**

Tick marks are displayed on the graphics grid to indicate the character and line positions in a form. This is useful in determining the location of the parts of a form. Since you do not have to display a tick mark at every character or line position, you select the character and line positions that you want with tick marks using the Graphics Grid menu. Specifying tick marks on the graphics grid does not define or change the character and line spacing in a form; the character and line spacing are defined only once for any given form using the Form Definition menu.

### **Typeface**

Typeface is a term used to refer to characters which are all of the same design. For example, Helvetica Bold and Helvetica Regular are in the same family but are different typefaces.

### **Uppercase Height**

This is the height of an uppercase (capital) letter in any given character set. Normally all uppercase letters in any given character set have the same height. Although the height of uppercase letters is a non-standard unit of measurement, you can determine the height of uppercase letters directly by simply printing any uppercase letter and measuring it. Uppercase height generally excludes the extra height of accents in Roman Extension characters. You can choose the character size for the text in your form by entering uppercase height size in the FIELD FONT AND SUBFIELD DESCRIPTION menu. You can also specify character size using point size.

**Weight**

You can specify lines and boxes in one of three weights: thin, normal, or wide. You can specify line and box weight in the Graphics Options, Subform Definition, and Field Graphics menus.

**Window**

You can divide a form into smaller pieces called windows. Windows serve two purposes: a graphics aid to enable you to get the best possible resolution using the terminal screen and a means of identifying separate logical units within a form. There are two levels of windows: subform and field. Refer to figure A-8.

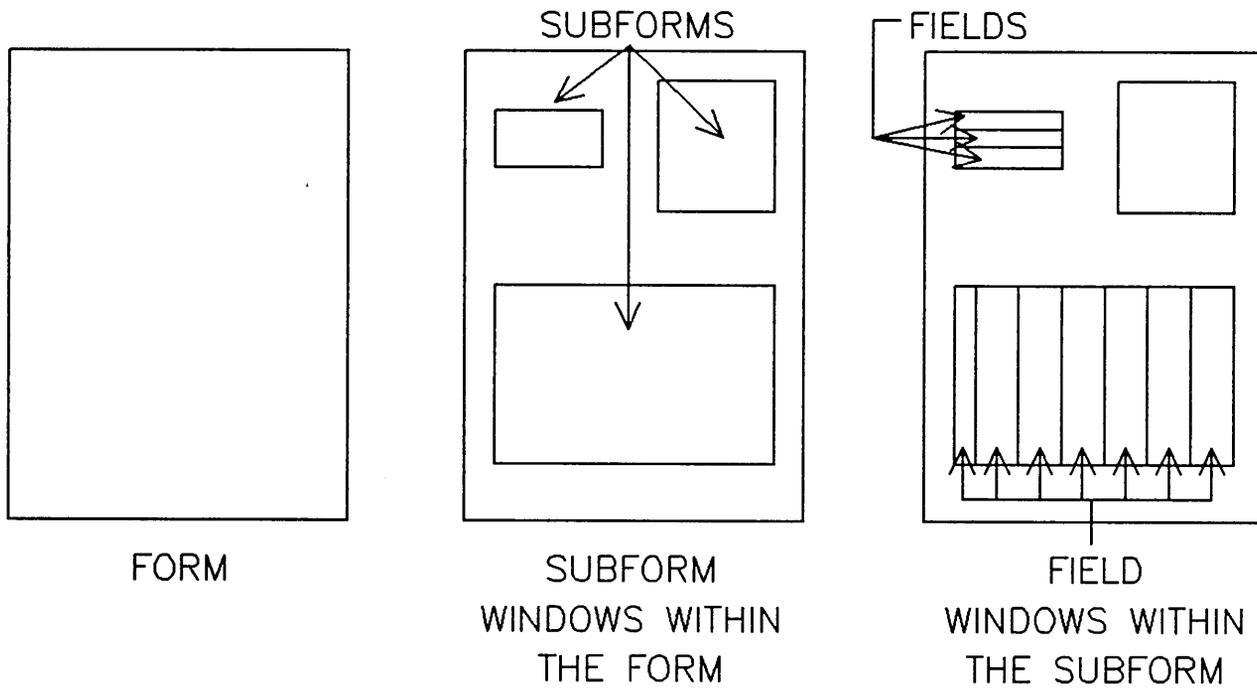


Figure A-8. Windows

## Accidental/Intentional Break

If you accidentally or intentionally press the BREAK key while you are using IDSFORM, perform the following procedure:

1. Simultaneously press the **SHIFT**, **CONTROL**, and RESET keys (HP 262X) or press the RESET TERMINAL key twice (HP 264X). The screen clears and the message TERMINAL READY appears in the left hand corner of the screen.
2. Press the RETURN key until you receive a colon prompt.
3. Press the ESC key, then the colon key.
4. If you pressed the BREAK key intentionally to perform a function of the computer operating system, go ahead and perform the operation.

### NOTE

When you try to run another product while you are in BREAK mode, the ABORT? message is displayed. If you answer YES, IDSFORM is aborted and you may lose any work done just prior the the abort. It is better to exit IDSFORM and perform your operation.

Go to step 5 to resume working in IDSFORM.

5. Type RESUME, then press RETURN. The message READ PENDING appears on your terminal.
6. Press the RECOVER key (**F4**). You are now at the point in in IDSFORM where you were before pressing the BREAK key.

## IDSFORM MAINTENANCE

### Break and Abort

Sometimes problems occur with the computer that affect IDSFORM. If you are working with IDSFORM and you do not receive a response when you press a function key or a design key, then you should first try the recovery procedure outlined on the previous page. If this is not successful, then you will have to **BREAK** and **ABORT**.

#### NOTE

This is an **EMERGENCY** situation only. When you do this you may lose the last part of the form entered prior to the break and abort.

The speed with which the computer responds to your requests depends on a number of factors. Before you **BREAK** and **ABORT**, wait at least a minute for the computer to respond to your request.

If you still do not receive a response after a reasonable period of time (a few minutes), do the following:

1. Simultaneously press the **SHIFT**, **CONTROL**, and **RESET** keys (HP 262X) or press the **RESET TERMINAL** key twice (HP 264X). The screen clears and the message **TERMINAL READY** appears in the left hand corner of the screen.
2. Press the **BREAK** key. A colon prompt appears. Press the **ESC** key then press the colon (:) key. Type **ABORT** and press the **RETURN** key.

: ABORT

Your program is aborted.

3. When the colon prompt appears again, you can give the command to run IDSFORM.

:RUN IDSFORM.PUB.SYS

If the problem continues to happen, notify your system manager.

## How to Create a Form

This example demonstrates the creation of a form for planning your work day. A reduced version of the form is shown below.

DAY PLANNER	
DATE: _____	
<b>TIMEKEEPER</b>	
8:00 _____	1:00 _____
9:00 _____	2:00 _____
10:00 _____	3:00 _____
11:00 _____	4:00 _____
12:00 _____	5:00 _____
<b>THINGS TO DO!</b>	<b>NOTES</b>

## *TYPICAL APPLICATION*

To create this form, read through the steps involved and do them yourself as you read along. If you have questions at any point in the procedure, use the manual to help you understand the point in question. The index will help you find specific topics.

Some of the steps in the example discuss moving the cursor to a specific spot on the graphics screen. These steps have corresponding illustrations which show the appearance of the display at that point. The numbers on the illustration correspond to the step number you are performing. For example, step number 10 (page C-11) instructs you to move to the upper left corner of the form. The illustration above step number 10 has a number 10 indicating the correct cursor position for that step. The same illustration also points out the cursor locations for steps 11, 12, and 13. Be aware of these points on the illustrations because they help you follow the example more easily.

This is the process required to create the form above:

1. Log on to the HP3000:

```
.HELLO USER.ACCOUNT [RETURN]
```

2. Run the IDIFORM program:

```
.RUN IDIFORM.PUB.SYS [RETURN]
```

<b>NOTE</b>
-------------

The font references in this example are HP 2688A fonts. If you wish to print this example on the HP 2680A, you must use HP 2680A fonts.

IDIFORM		Main	
Selection	Form	Forms File	
C	DAYPLANNER	DAYPFORM	
B - Browse File			
C - Create Form			
M - Modify Form			
D - Delete Form			
CF - Copy Form			
	New Form		
	From Form		
	Forms File		
H - Hold a Subform			
	Subform		
	From Form		
	Forms File		
E - Exit			

The IDIFORM MAIN menu is the first menu that will appear.

- Enter a "C" in the Selection field. Use the TAB key to skip to the next field.  
Enter "DAYPLANNER" in the Form field.  
Enter "DAYPFORM" in the Forms File field and press ENTER.

Note: if you are creating a new form, the system will ask you if it is okay to create a new form and ask you to press ENTER again. Press ENTER again. Also notice that you can have multiple forms in each forms file.

## TYPICAL APPLICATION

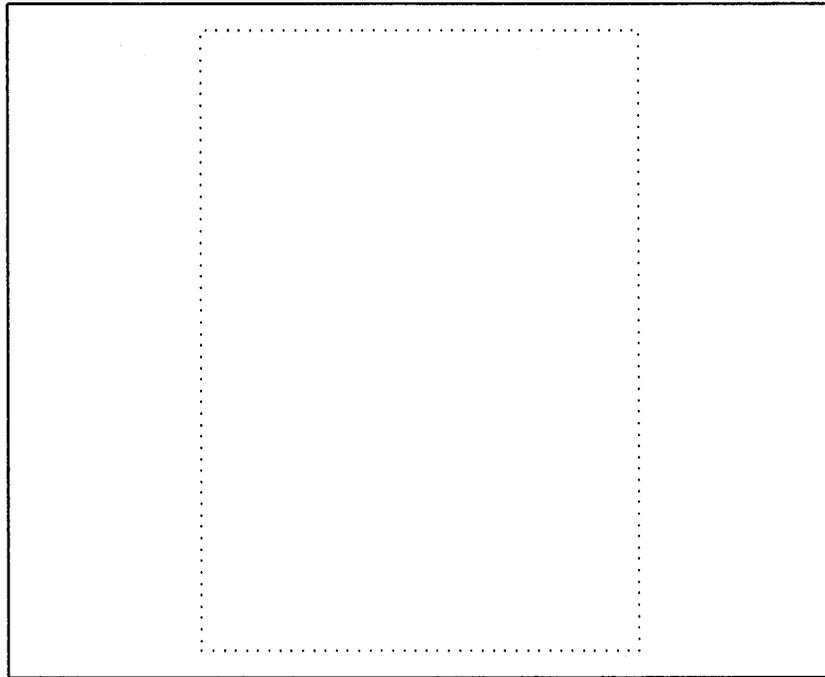
IDSFORM		Form Definition	
Fill in two of the following three groups:			
Physical Dimension			
7.25	:	Width	
10.00	:	Height	
10	:	Characters per unit	
6	:	Lines per unit	
:	:	Number of Character positions horizontally	
:	:	Number of Lines vertically	
-----			
I	:	Unit of measurement	
	:	I - Inches	
	:	M - Millimeters	
N	:	Print and Space form? Y/N	

The FORM DEFINITION menu will now be displayed. Here is specified the size of the form to be created, the character spacing across the page and line spacing down the page. The character and line spacing are important as the graphics aids we establish later will be based on their values.

4. Enter "7.25" in the Width field.  
Enter "10" in the Height field.  
Enter "10" in the Characters per unit field.  
Enter "6" in the Lines per unit field and press ENTER.

Note: It is critical that the correct physical dimensions are entered. After you press ENTER and leave this menu, they are set and cannot be modified without deleting the form and starting over again. Also, it is only necessary to fill in two of the three groups of information (the third will be automatically calculated).

*TYPICAL APPLICATION*



Displayed will be a representation of the form outline that has been defined. To help in positioning the lines, boxes, subforms, and fields within the new form, we will set up a graphics grid.

5. Press the **GRID MENU** key--f6.

TYPICAL APPLICATION

IDSFORM		Graphics Grid	
Line Numbers	Character Positions		
6	5	GRID LINES placed at these positions	
9	35		
24	40		
27	70		
57			
-----			
1		TICK MARKS repeated at these intervals	
		GRID LINES repeated at these intervals	

Displayed will be the GRAPHICS GRID menu. The graphics grid that is defined here is a tool representing the character and line spacing defined in the FORM DEFINITION menu. You indicate on this menu the character and line positions that are to be marked on the terminal screen. The grid lines and tick marks displayed will not actually be printed on the form, but aid in correctly positioning lines and boxes during forms creation.

For example, we indicated 10 characters per inch horizontally and 6 lines per inch vertically on the FORM DEFINITION menu. We can then display up to 10 grid lines or tick marks per inch in the horizontal direction and up to 6 grid lines or tick marks per inch in the vertical direction as graphics aids.

Based on our measurements of the existing form, we can now calculate the position of our grid lines.

FEB 85

C-6

Vertically:

number of inches x lines per inch = number of grid points

1.0	x	6	=	6
1.5	x	6	=	9
4.0	x	6	=	24
4.5	x	6	=	27
9.5	x	6	=	57

Horizontally:

number of inches x lines per inch = number of grid points

0.5	x	10	=	5
3.5	x	10	=	35
4.0	x	10	=	40
7.0	x	10	=	70

6. Enter the following numbers under the Line Number column:

6  
9  
24  
27  
57

Enter the following numbers under the Character Positions column:

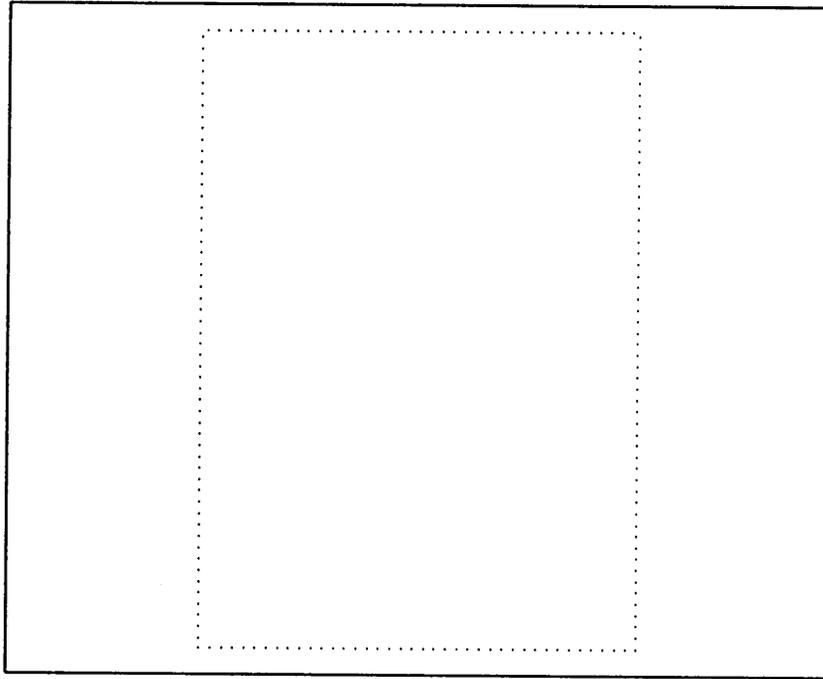
5  
35  
40  
70

Enter a "1" in the TICK MARKS field under Line Numbers.

Enter a **space** in the TICK MARKS field under Character Positions and press **ENTER**.

Note: Unless changed, tick marks will be displayed for each unit both horizontally and vertically by default.

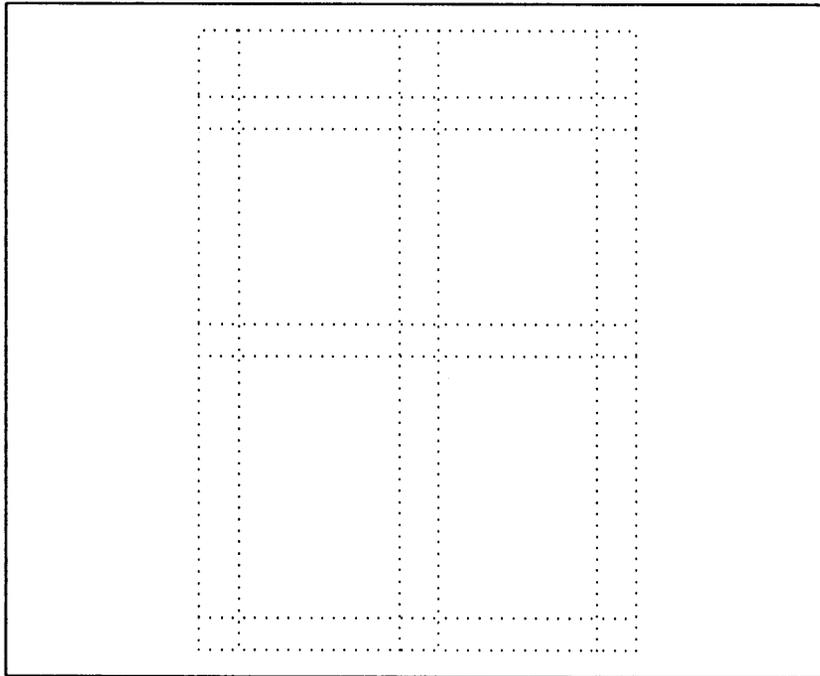
*TYPICAL APPLICATION*



Displayed again will be a representation of the form outline defined.

7. Press the **GRID** key--f2 to display the graphics aids just defined.

Note: At any time in the design process you can either turn on or off the graphics grid display by pressing the **GRID** key--f2, and you can modify the values entered by pressing the **GRID MENU** key--f6.



Displayed now is the form outline with dotted lines drawn at the locations specified for our grid lines. Before we begin to draw the lines and boxes, we will want to change their weight since the outside border of the form is heavier than the interior lines. To do this we need to access the **GRAPHICS** menu.

8. Press the **GRAPHICS MENU** key--f5.

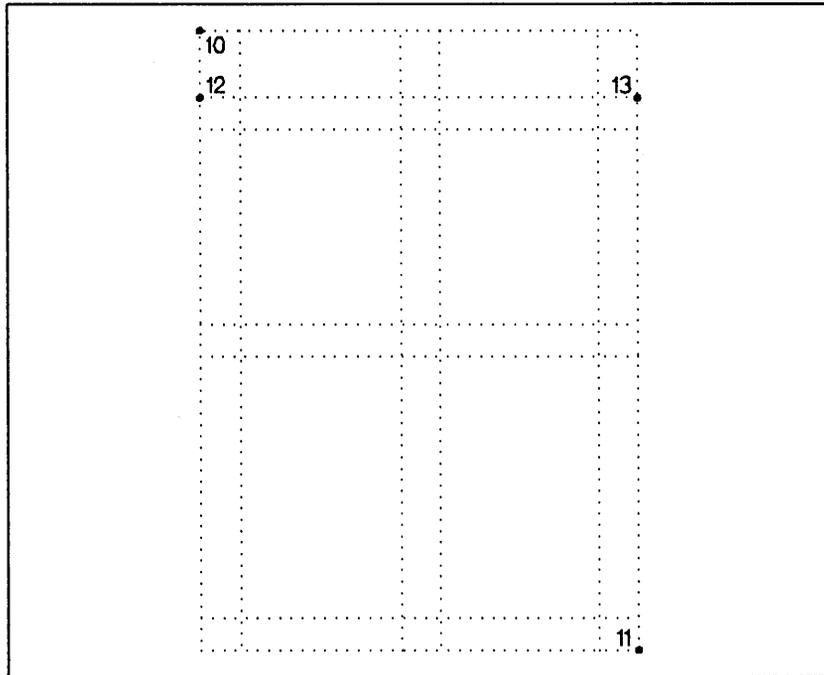
*TYPICAL APPLICATION*

IDSFORM	Graphics Options
S Line Type	S - Solid
S Box Line Type	D - Dot
	DA - Dash
	DD - Dot Dash
	I - Invisible (Box Lines)
W Line Weight	T - Thin
W Box Line Weight	N - Normal
	W - Wide
00 Line Repetition	S - Single
00 Box Line Repetition	D - Double
Box Shading	L - Light
	M - Medium
	D - Dark
	B - Black

Displayed is the GRAPHICS OPTIONS menu. To change the line and box weight to wide:

9. TAB to the Line Weight field and type "W".  
Type a "W" in the Box Line Weight field and press ENTER.

Note: Both wide and thin lines look the same on the display screen, but when printed, appear as indicated in the option selected in this menu.



Displayed again is the form outline with the graphics grid. We are now ready to draw the outside border and the horizontal line below the major heading.

10. Move the cursor to the upper left corner of the form outline (see number 10 above) and type "CB" (for CREATE BOX) (or press the **DEFINE BOX** key--HP 264X terminals only).
11. Move the cursor to the opposite corner of the form outline (see number 11 above) and type "CB" again (or press the **DEFINE BOX** key again).

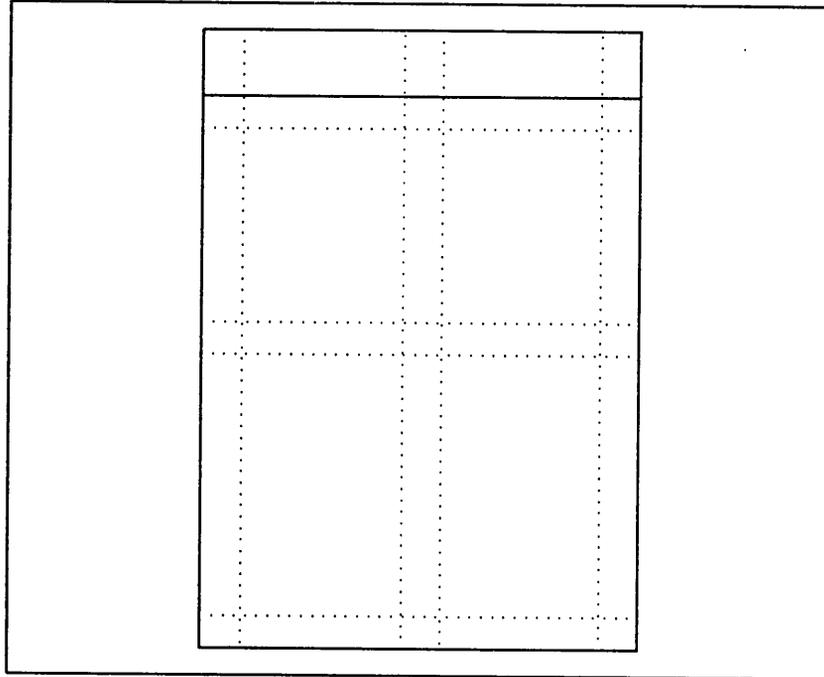
Notice that the form border is now represented by a solid line on the terminal screen.

12. Move the cursor to the left end of the horizontal line to be drawn (this line is represented by the first horizontal grid line) and type "MP" (for MOVE PEN). If you have an HP 264X terminal, you have the option of pressing the **MOVE** key instead of typing "MP".

*TYPICAL APPLICATION*

13. Move the cursor to the right end of the line and type "CL" (for CREATE LINE) (or press the **DEFINE LINE** key--HP 264X only).

Notice that the line drawn is now represented by a solid line on the terminal screen.



Displayed now is the form outline with the border and top horizontal line represented by solid lines. Before drawing the remainder of the boxes and lines, we need to access the graphics menu again to change the line weight and box line weight from wide back to normal.

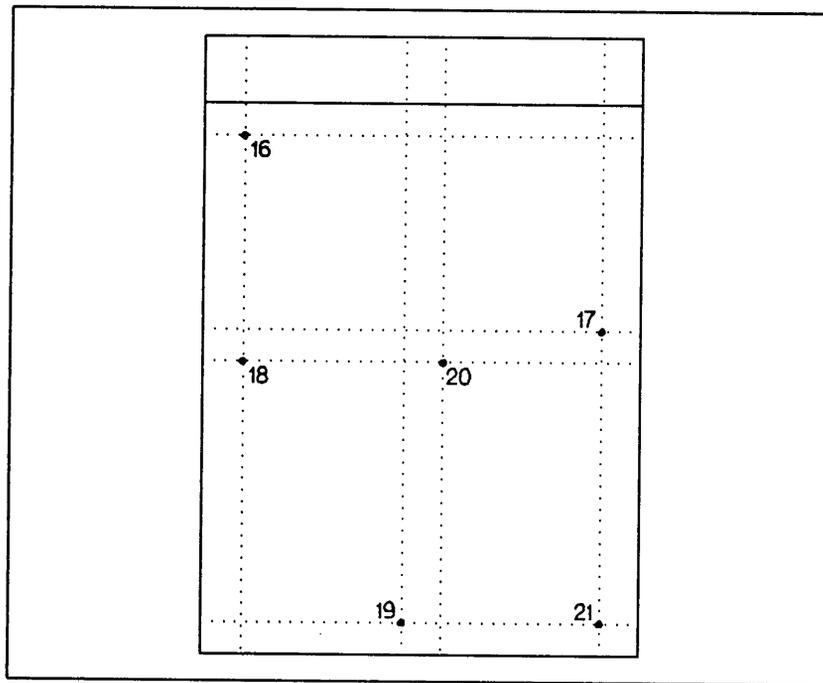
14. Press the **GRAPHICS MENU** key--f5.

IDSFORM	Graphics Options
S Line Type	S - Solid
S Box Line Type	D - Dot
	DA - Dash
	DD - Dot Dash
	I - Invisible (Box Lines)
N Line Weight	T - Thin
N Box Line Weight	N - Normal
	W - Wide
S Line Repetition	S - Single
S Box Line Repetition	D - Double
Box Shading	L - Light
	M - Medium
	D - Dark
	B - Black

Displayed again is the GRAPHICS OPTIONS menu. To change the line and box weight back to normal:

15. TAB to the Line Weight field and type "N".  
Type "N" in the Box Line Weight field and press ENTER.

*TYPICAL APPLICATION*



Displayed again is the form outline with the border and top horizontal line. To draw the remaining three boxes:

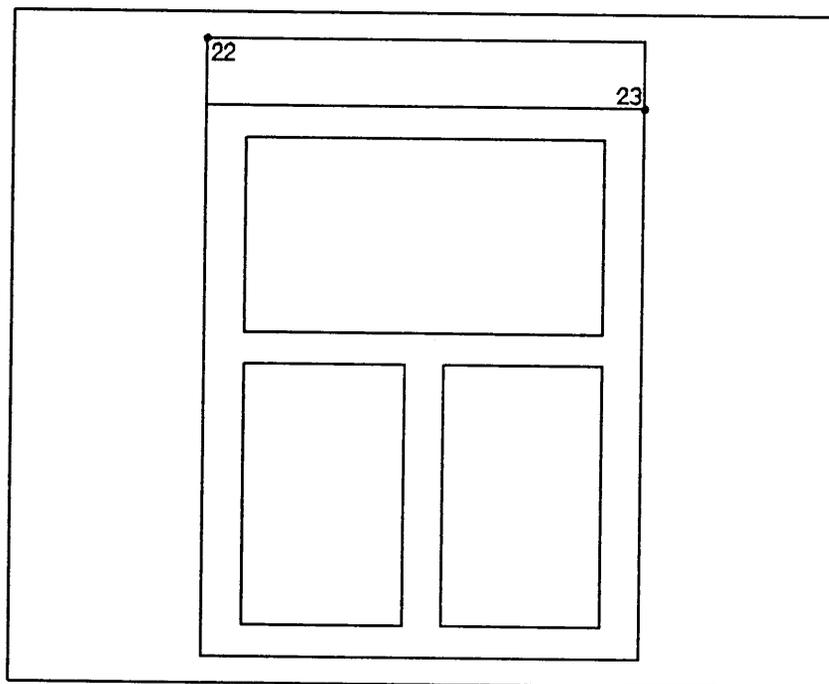
16. Move the cursor to the upper left corner of the "TIMEKEEPER" section and type "CB" (or press the **DEFINE BOX** key--HP 264X only).
17. Move the cursor to the opposite corner of the section and type "CB" again (or press the **DEFINE BOX** key again).
18. Move the cursor to the upper left corner of the "THINGS TO DO!" section and type "MP".
19. Move the cursor to the opposite corner of the section and type "CB" again (or press the **DEFINE BOX** key).
20. Move the cursor to the upper left corner of the "NOTES" section and type "MP".

*TYPICAL APPLICATION*

21. Move the cursor to the opposite corner of the section and type "CB" (or press the **DEFINE BOX** key again--HP 264X only).

Notice that all of the lines and boxes are now represented by solid lines on the terminal screen. To see what the form looks like without the graphics grid, press the **GRID** key--f2.

## TYPICAL APPLICATION



Displayed is the form with all of the lines and boxes drawn. The next level in the process to be defined is the subform window. Our approach will be to define a subform window then work within that window to further define any fields and headings desired before moving onto the next subform window.

This form can be easily broken down into four subform windows to work in. The first subform to define is the top block that will contain the "DAY PLANNER" and "DATE: \_\_\_\_\_" text. To define this area as a subform window:

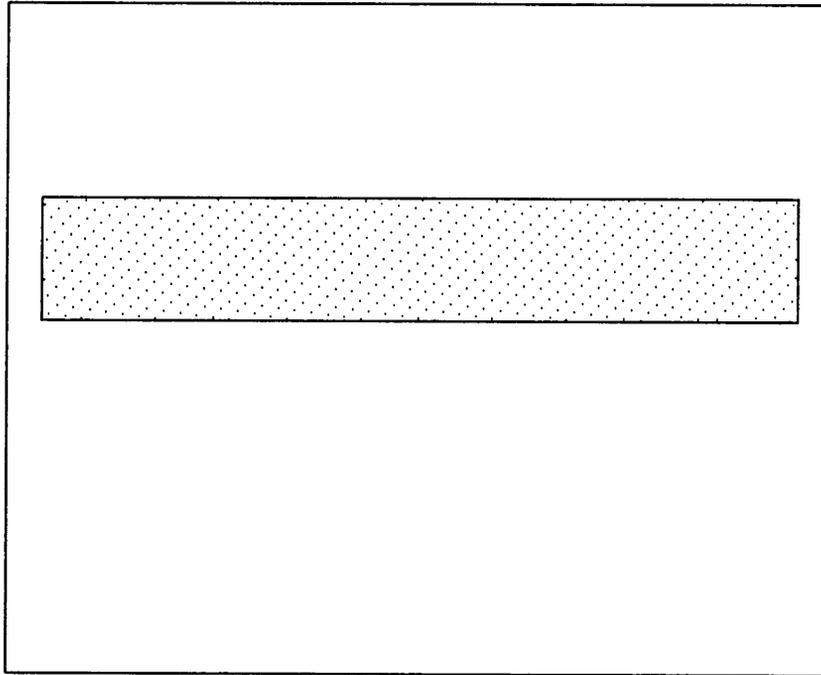
22. Move the cursor to the upper left corner of the "DAY PLANNER" section and type "BW" (for BEGIN WINDOW) (or press the **DEFINE WINDOW** key--HP 264X only).
23. Move the cursor to the opposite corner of the section and type "EW" (for END WINDOW) (or press the **DEFINE WINDOW** key again--HP 264X only).

IDSFORM	Subform Definition	
	Subform name (optional)	
<b>M</b> Subform Shading		L - Light M - Medium D - Dark B - Black
<b>█</b> Subform Outline Line Type		S - Solid D - Dot DA - Dash DD - Dot Dash
<b>N</b> Subform Outline Line Weight		T - Thin N - Normal W - Wide

Displayed will be the SUBFORM DEFINITION menu. Here is defined any shading for the subform and any outline to be drawn around the subform. In this example, a line has already been drawn around the subform, so it won't be necessary to define another; however, we do wish to have the entire subform shaded.

24. Enter an "M" in the Subform Shading field and press ENTER.

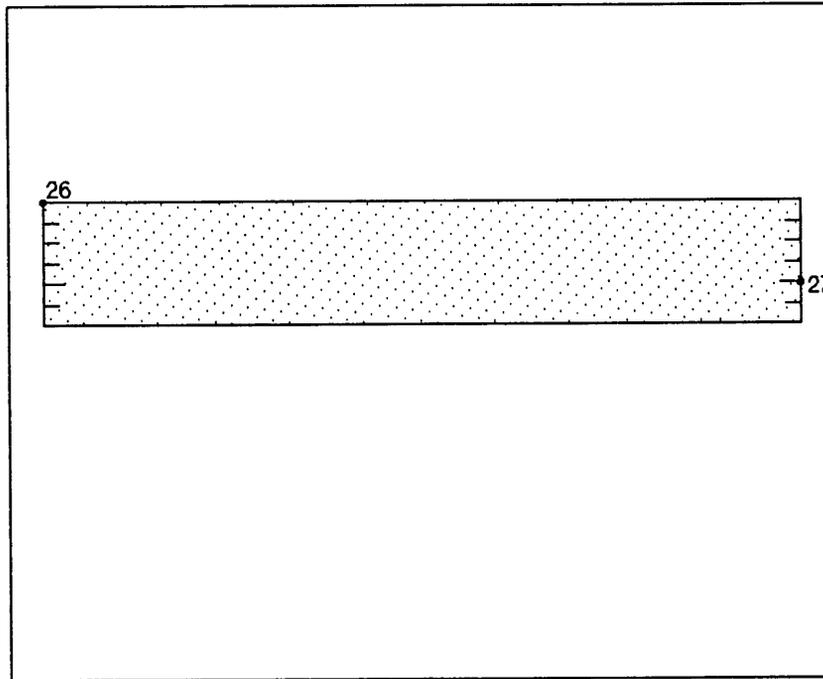
*TYPICAL APPLICATION*



Displayed will be a representation of the subform defined. Notice that the shading is also displayed. Now that the subform has been defined, we are ready to add the text. To add text, a field window must first be defined. It will be easiest to define two field windows--one to contain the "DAY PLANNER" text and the other to contain the "DATE: \_\_\_\_\_" text. Measuring the form, it appears that the "DAY PLANNER" text takes up approximately two thirds of the subform area. We can again use the graphics grid that was established to correctly define the size of the field to contain this text. To display the graphics grid:

25. Press the **GRID** key--f2.

*TYPICAL APPLICATION*



Displayed will be the representation of the subform along with tick marks along both edges. We can now easily see where to define the field windows. To define the first field window:

26. Move the cursor to the upper left corner of the subform window and type "BW" (or press the **DEFINE WINDOW** key--HP 264X only).
  
27. Move the cursor to the right side of the subform window and four tick marks down and type "EW" (or press the **DEFINE WINDOW** key again).

TYPICAL APPLICATION

IDSFORM	Field Text
Field Name (optional)	<input checked="" type="checkbox"/> Go to next menu? Y/N (to change font, logo or field graphics)
Heading Text	
<b>DAY PLANNER</b>	
<input checked="" type="checkbox"/> Horizontal Heading Position	L - Left   R - Right   C - Center   J - Justify
<input checked="" type="checkbox"/> Vertical Heading Position	T - Top   B - Bottom   C - Center   J - Justify
<input checked="" type="checkbox"/> Text Direction	H - Horizontal                  RH - Reverse Horizontal V - Vertical                      RV - Reverse Vertical
<input checked="" type="checkbox"/> Padding around heading? Y/N	

Displayed will be the FIELD TEXT menu. Here is specified the text that is to be displayed and the positioning of that text within the field window.

28. Enter a "Y" in the "Go to next menu?" field.  
 Enter "DAY PLANNER" in the Heading Text field.  
 Enter a "C" (for CENTER) in the Horizontal Heading Position field.  
 Enter a "C" (for CENTER) in the Vertical Heading Position field and press ENTER.

IDSFORM		Field Font and Subfield Description	
Cell File		Point Size	Uppercase Height
TIMER88S.CHARSETS.SYS		_____	_____
<input type="checkbox"/> Logo file? Y/N		_____	_____
<input checked="" type="checkbox"/> 36.0 Point size		_____	_____
-OR-			
<input type="checkbox"/> Uppercase or logo height		<input type="checkbox"/> If no perfect match use:	
<input checked="" type="checkbox"/> I - inches M - mm		N - Nearest size	
		S - Next smaller size	
<input type="checkbox"/> Orientation: 0,90,180,270 (degrees clockwise)		L - Next larger size	
<hr/>			
<input checked="" type="checkbox"/> Number of Subfields		<input type="checkbox"/> Lines needed	
<input checked="" type="checkbox"/> Direction of Subfields Repeated:		<input type="checkbox"/> Character spaces needed	
H - Horizontally		_____ Lines available	
V - Vertically		_____ Character spaces available	

Displayed will be the FIELD FONT AND SUBFIELD DESCRIPTION menu. Here is specified the character font for the text to be displayed and the point size of the font that is to be used.

Note: In this menu, we can define subfield windows within our field to further divide the area for graphics--shading, boxes, and lines. Because we've already defined the entire subform window as being shaded, it won't be necessary to define the field as shaded.

29. Enter "TIMER88S.CHARSETS.SYS" in the Cell File field. Enter "36.0" in the Point size field and press ENTER. (TIMER88S is an optional HP 2688A font. If you wish to print this example on the HP 2680A, you must substitute an HP 2680A font.)

The system will respond back with the actual size of the characters to be used--press ENTER again.

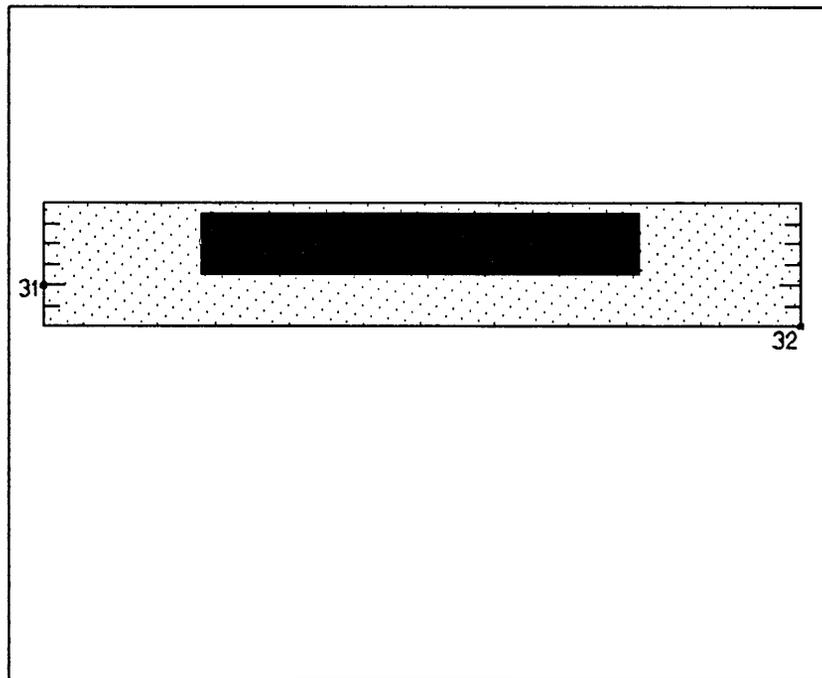
TYPICAL APPLICATION

IDSF0RM		Field Graphics		
		Box Lines	Shade	Underlines
Entire Field		■	■	
Heading Field		■	■	
Data Field		■	■	■
Every ■ Subfields		■		
Every ■ Subfields			■	
Every ■ Subfields				■
Box Line / Underline Selections		Shade Selections		
S - Solid			L - Light	
D - Dot			M - Medium	
DA - Dash			D - Dark	
DD - Dot Dash			B - Black	

Displayed will be the FIELD GRAPHICS menu. Here we can specify additional graphics for any subfield windows defined.

30. In this case, we do not want to change anything--press ENTER.

*TYPICAL APPLICATION*



Displayed will be the representation of the subform window with an additional shaded area indicating the position and size of the text that has been added.

Note: At any time we can now modify this text by moving the cursor into the shaded area representing the text and typing "MW" (or pressing the **MODIFY WINDOW** key--HP 264X only).

To define the second window which will contain the "DATE: \_\_\_\_\_" text:

31. Move the cursor to the left side of the subform window and four tick marks down. Then type "BW" (or press the **DEFINE WINDOW** key--HP 264X only).
32. Move the cursor to the right bottom corner of the subform window and type "EW" (or press the **DEFINE WINDOW** key again--HP 264X only).



IDSF0RM		Field Font and Subfield Description	
Cell File		Point Size	Uppercase Height
TIMER88S.CHARSETS.SYS		_____	_____
	<input type="checkbox"/> Logo file? Y/N	_____	_____
		_____	_____
		_____	_____
	<input type="checkbox"/> 18.0 Point size		Actual size
	-OR-		Next smaller
	<input type="checkbox"/> Uppercase or logo height		Next larger
	<input type="checkbox"/> I - inches M - mm	<input type="checkbox"/> If no perfect match use:	
		N - Nearest size	
		S - Next smaller size	
		L - Next larger size	
	<input type="checkbox"/> Orientation: 0,90,180,270 (degrees clockwise)		
<hr/>			
	<input type="checkbox"/> Number of Subfields	<input type="checkbox"/> Lines needed	
	<input type="checkbox"/> Direction of Subfields	<input type="checkbox"/> Character spaces needed	
	Repeated:	_____ Lines available	
	H - Horizontally	_____ Character spaces available	
	V - Vertically		

Displayed again will be the FIELD FONT AND SUBFIELD DESCRIPTION menu.

34. Enter "18.0" in the Point size field and press ENTER.

The system will respond back with the actual size of the characters to be used--press ENTER again.

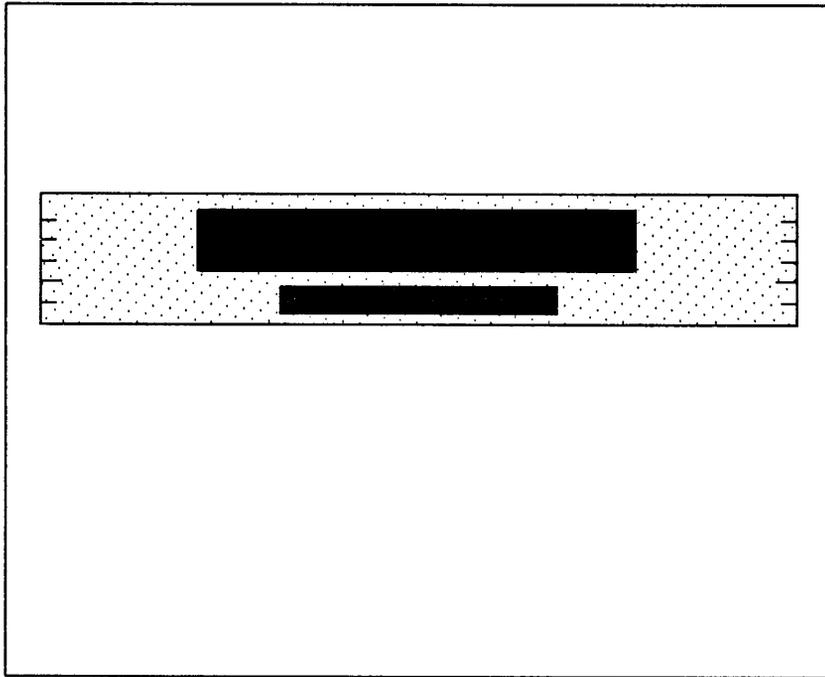
*TYPICAL APPLICATION*

IDSF0RM		Field Graphics		
		Box Lines	Shade	Underlines
Entire Field				
Heading Field				
Data Field				
Every  Subfields				
Every  Subfields				
Every  Subfields				
Box Line / Underline Selections		Shade Selections		
S - Solid			L - Light	
D - Dot			M - Medium	
DA - Dash			D - Dark	
DD - Dot Dash			B - Black	

Displayed again will be the FIELD GRAPHICS menu.

35. We do not wish to change anything on this menu--press ENTER.

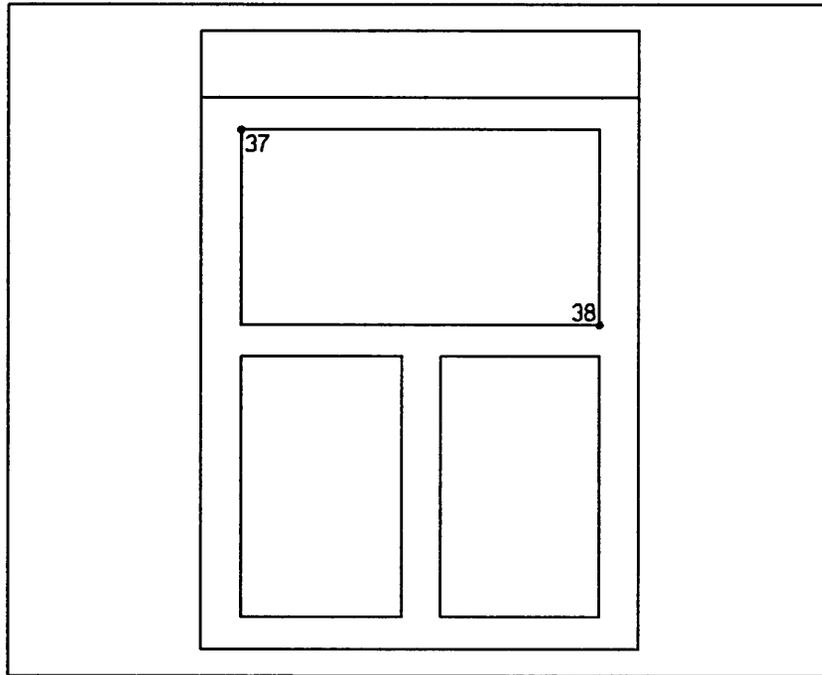
*TYPICAL APPLICATION*



Displayed will be the representation of the subform window with shaded areas indicating all of the text entered. We are now completely done with this subform and can return to the representation of the form.

36. Type "RF" (for RETURN TO FORM) (or press the CNTL key and the RET. TO FORM function key (f3)--HP 264X only).

*TYPICAL APPLICATION*



Displayed again is the form with all of the lines and boxes drawn. The next area to be defined is the "TIMEKEEPER" section. Again a subform window must first be defined.

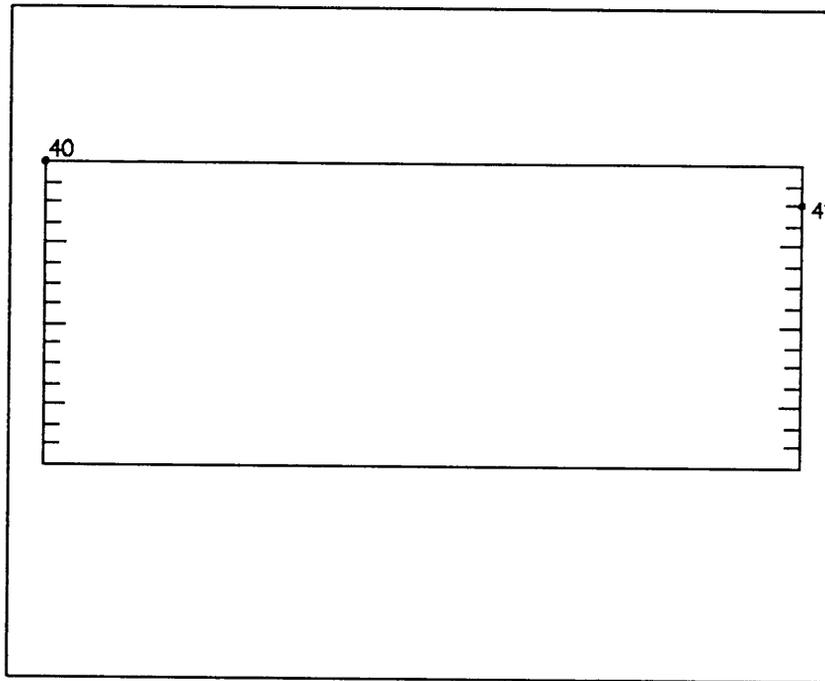
37. Move the cursor to the upper left corner of the "TIMEKEEPER" section and type "BW"  
(or press the **DEFINE WINDOW** key--HP 264X only).
38. Move the cursor to the opposite corner of the section and type "EW" again (or  
press the **DEFINE WINDOW** key again).

IDSFORM	Subform Definition
	Subform name (optional)
Subform Shading	L - Light M - Medium D - Dark B - Black
Subform Outline Line Type	S - Solid D - Dot DA - Dash DD - Dot Dash
Subform Outline Line Weight	T - Thin N - Normal W - Wide

Displayed again is the SUBFORM DEFINITION menu. Notice that the value for the subform shading continues to hold the last value entered. Because we don't wish to have the entire subform window shaded:

39. Enter a **space** in the Subform Shading field and press **ENTER**.

*TYPICAL APPLICATION*



Displayed will be a representation of the subform defined. First it is necessary to define the field window in which the "TIMEKEEPER" text will be placed. Again, use the graphics grid to help define the correct area.

40. Move the cursor to the upper left corner of the subform window and type "BW" (or press the **DEFINE WINDOW** key--HP 264X only).
41. Move the cursor to the right side of the subform window and two tick marks down. Then type "EW" (or press the **DEFINE WINDOW** key again).



TYPICAL APPLICATION

IDSF0RM		Field Font and Subfield Description	
Cell File		Point	Uppercase
TIMER88S.CHARSETS.SYS		Size	Height
	<input type="checkbox"/> Logo file? Y/N	_____	_____ Actual size
		_____	_____ Next smaller
		_____	_____ Next larger
<input type="checkbox"/> 16.0	Point size		
	-OR-		
<input type="checkbox"/>	Uppercase or logo height	<input type="checkbox"/>	If no perfect match use:
<input type="checkbox"/> I	I - inches M - mm	<input type="checkbox"/> N	N - Nearest size
		<input type="checkbox"/> S	S - Next smaller size
<input type="checkbox"/>	Orientation: 0,90,180,270 (degrees clockwise)	<input type="checkbox"/> L	L - Next larger size
<input type="checkbox"/> 1	Number of Subfields	<input type="checkbox"/>	Lines needed
<input checked="" type="checkbox"/> V	Direction of Subfields	<input type="checkbox"/>	Character spaces needed
	Repeated:	_____	Lines available
	H - Horizontally	_____	Character spaces available
	V - Vertically		

Displayed again will be the FIELD FONT AND SUBFIELD DESCRIPTION menu.

43. Enter "16.0" in the Point size field and press ENTER.

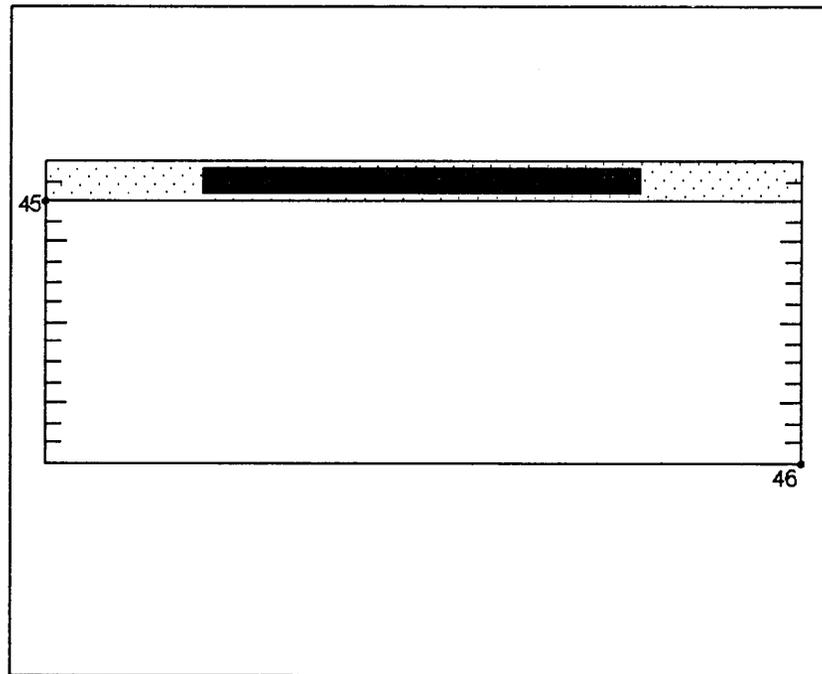
The system will respond back with the actual size of the characters to be used--press ENTER again.

IDSF0RM		Field Graphics		
		Box Lines	Shade	Underlines
Entire Field			<b>M</b>	
Heading Field				
Data Field				
Every  Subfields				
Every  Subfields				
Every  Subfields				
Box Line / Underline Selections		Shade Selections		
S - Solid			L - Light	
D - Dot			M - Medium	
DA - Dash			D - Dark	
DD - Dot Dash			B - Black	

Displayed again will be the FIELD GRAPHICS menu. It is on this menu that we can specify additional graphics at the field level. To define the entire field window as shaded:

44. Enter an "M" in the Shade option for the Entire Field and press ENTER.

*TYPICAL APPLICATION*



Displayed again is the representation of the subform window with the shaded area indicating the position and size of the text that has been added. Notice also the shading indicating that the entire field is now shaded.

To define the second field which will contain the "time slots" text:

45. Move the cursor to the left side of the subform window and two tick marks down from the top. Then type "BW" (or press the **DEFINE WINDOW** key--HP 264X only).
46. Move the cursor to the right bottom corner of the subform window and type "EW" (or press the **DEFINE WINDOW** key again).

IDSFORM		Field Text	
Field Name (optional)		Y Go to next menu? Y/N (to change font, logo or field graphics)	
		Heading Text	
8:00 _____	1:00 _____		
9:00 _____	2:00 _____		
10:00 _____	3:00 _____		
11:00 _____	4:00 _____		
12:00 _____	5:00 _____		
<input type="checkbox"/> Horizontal Heading Position	L - Left	R - Right	C - Center J - Justify
<input type="checkbox"/> Vertical Heading Position	T - Top	B - Bottom	C - Center J - Justify
<input type="checkbox"/> Text Direction	H - Horizontal	RH - Reverse Horizontal	
	V - Vertical	RV - Reverse Vertical	
<input type="checkbox"/> Padding around heading? Y/N			

Displayed again will be the FIELD TEXT menu. To enter the "time slots" into the field window.

47. Enter a "Y" into the "Go to next field menu?" field.

Enter the following into the Heading Text field (leave blanks between each line).

8:00 _____	1:00 _____
9:00 _____	2:00 _____
10:00 _____	3:00 _____
11:00 _____	4:00 _____
12:00 _____	5:00 _____

Press ENTER.

TYPICAL APPLICATION

IDSF0RM		Field Font and Subfield Description	
Cell File		Point	Uppercase
TIMER88S.CHARSETS.SYS		Size	Height
	<input type="checkbox"/> Logo file? Y/N	_____	_____ Actual size
		_____	_____ Next smaller
		_____	_____ Next larger
<input type="checkbox"/> 12.0	Point size		
	-OR-		
<input type="checkbox"/>	Uppercase or logo height	<input type="checkbox"/>	If no perfect match use:
<input type="checkbox"/> I	I - inches M - mm	<input type="checkbox"/> N	N - Nearest size
		<input type="checkbox"/> S	S - Next smaller size
<input type="checkbox"/>	Orientation: 0,90,180,270 (degrees clockwise)	<input type="checkbox"/> L	L - Next larger size
<input type="checkbox"/> 1	Number of Subfields	<input type="checkbox"/>	Lines needed
<input type="checkbox"/> V	Direction of Subfields	<input type="checkbox"/>	Character spaces needed
	Repeated:	_____	Lines available
	H - Horizontally	_____	Character spaces available
	V - Vertically		

Displayed again will be the FIELD FONT AND SUBFIELD DESCRIPTION menu.

48. Enter "12.0" in the Point size field and press ENTER.

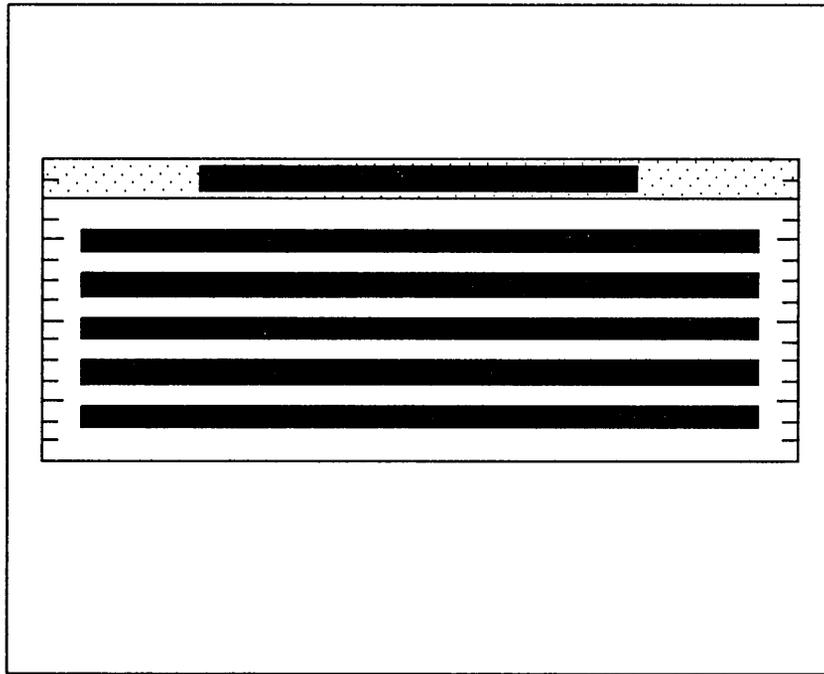
The system will respond back with the actual size of the characters to be used--press ENTER again.

IDSFORM		Field Graphics		
		Box Lines	Shade	Underlines
Entire Field				
Heading Field				
Data Field				
Every  Subfields				
Every  Subfields				
Every  Subfields				
Box Line / Underline Selections		Shade Selections		
S - Solid		L - Light		
D - Dot		M - Medium		
DA - Dash		D - Dark		
DD - Dot Dash		B - Black		

Displayed again will be the FIELD GRAPHICS menu.

49. Enter a **space** into the Shade option for the Entire Field and press **ENTER**.

*TYPICAL APPLICATION*



Displayed will be the representation of the subform window with shaded areas indicating all of the text entered. We are completely done with this subform and can now return to the MAIN menu.

50. Press the **MAIN MENU** key--f7.

IDIFORM		Main	
Selection	Form	Forms File	
E	DAYPLANNER	DAYPFORM	
B	- Browse File		
C	- Create Form		
M	- Modify Form		
D	- Delete Form		
CF	- Copy Form		
	New Form		
	From Form		
	Forms File		
H	- Hold a Subform		
	Subform		
	From Form		
	Forms File		
E	- Exit		

Displayed again will be the MAIN menu. To save time we will not go through the remaining steps to create the "THINGS TO DO" and "NOTES" sections since they are defined exactly in the same manner as were the first two sections. We can now exit the IDIFORM program.

51. Enter an "E" in the Selection field and press ENTER. This will return you to MPE and you should see:

IDIFORM (A.02.00) HP36581 (c) COPYRIGHT Hewlett-Packard Co. 1982

END OF PROGRAM

:

**THIS PAGE SHOULD BE BLANK**

# IDSFORM Messages

# APPENDIX D

The following is a list of messages that appears on your terminal when you make an error or perform an incorrect function. The list includes the message and a brief explanation where necessary. The first group of messages is arranged by the message number. The second group of messages is in alphabetical order.

(PSPERR 513) Could not allocate program memory for form. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 514) Error encountered by V/3000 while opening terminal. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 515) Error encountered while opening menu file. *(File VIDSFORM.PUB.SYS does not exist. Contact system manager.)*

(PSPERR 516) Error encountered while closing menu file. *(File VIDSFORM.PUB.SYS does not exist. Contact system manager.)*

(PSPERR 517) Error encountered by V/3000 while closing terminal. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 528) An error occurred while attempting to delete subform. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 530) (Location nnn) Internal error nnn when retrieving subform. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 538) Internal error nnn while reading "From" form. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 539) MPE error when retrieving "From" form. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 549) No character fonts in file.

(PSPERR 550) This file is not a cell file.

IDSFORM MESSAGES

(PSPERR 558) (Location nnn) Bad forms file. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 559) (Location nnn) Internal error nnn encountered. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 560) (Location nnn) Internal graphics error nnn. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 561) No more room in form. Form cannot be changed.

(PSPERR 562) No more room in subform. Subform cannot be changed. You may be able to modify or add another subform.

(PSPERR 568) MPE error when retrieving the subform. (FSERR nnn) *(Fill system error. Refer to the file system error number for more information.)*

(PSPERR 571) (Location nnn) Couldn't get the current subform. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 572) Warning: Forms file was opened for read access only.

(PSPERR 573) (Location nnn) Internal err nnn when accessing hold file. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 574) (Location nnn) Bad read length from hold file. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 575) (Location nnn) Form buffer not large enough for form. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 579) The requested subform does not exist.

(PSPERR 581) Internal error nnn when retrieving subform. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 582) Internal error nnn. Subform in HOLD was too big. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

IDSFORM MESSAGES

(PSPERR 709) MPE File System error nnn. *(File system error. Refer to the file system error number for more information.)*

(PSPERR 710) Internal error nnn when adding file global record. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 712) (Location nnn) Internal error nnn when adding record. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 713) (Location nnn) Internal error nnn when updating record. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 715) Internal error nnn when retrieving form. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 717) Internal error nnn when closing forms file. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 718) Internal error nnn when reading file global record. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 720) Internal error nnn when finding form record. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 725) The hold form doesn't exist.

(PSPERR 726) The forms file is out of space.

(PSPERR 727) Error encountered while posting IO for form. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 728) Error encountered while posting IO for subform. *(Internal error. Contact your Hewlett-Packard Support Engineer.)*

(PSPERR 729) Requested form wasn't found.

(PSPERR 730) MPE error when retrieving the form. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

## IDSFORM MESSAGES

(PSPERR 731) MPE error when closing the forms file. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 732) MPE error when reading the forms file. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 733) MPE error when writing to the forms file. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 734) MPE error when adding to the forms file. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 735) MPE error when updating the forms file. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 736) MPE error when accessing the hold file. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 737) MPE error when finding the form. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 738) MPE error when reading the command. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

(PSPERR 739) MPE error when deleting the subform. (FSERR nnn) *(File system error. Refer to the file system error number for more information.)*

**The following messages are in alphabetical order and are explained where needed.**

"From" form not found.

"To" form already exists. Copy will not overwrite existing form.

Character font file is logo file. Press ENTER to continue.

Character font file is not logo file. Press ENTER to continue.

Character font file not found. Press ENTER to continue.

FEB 85

D-4

Character font size not found. Press ENTER to continue.

Characters won't fit into subfield. Press ENTER to continue.

Form nnn does not exist.

Heading does not fit into heading field. Press ENTER to continue.

Heading size doesn't permit subfields. Press ENTER to continue.

If it is okay to create a new form, press ENTER again.

If it is okay to create a new forms file, press ENTER again.

Invalid menu selection.

Lines won't fit into subfield. Press ENTER to continue.

Make a selection.

No char font size satisfies search. Press ENTER to continue.

On a non-graphics terminal, use only "D", "B", "CF" and "E".

Specify HOLD form because there is no current form.

Specify the form to be deleted.

Subform successfully placed into HOLD.

Supply a character font or logo for the text in this field.

The Display Form Definition Menu is currently being displayed.

The Graphic Options Menu is currently being displayed.

The Graphics Grid Menu is currently being displayed.

The Main Menu is currently being displayed.

*IDSFORM MESSAGES*

The forms file doesn't exist.

There are no forms in this file.

This field name already exists in this subform.

This form does not exist.

This is more than the character width of this form.

This is more than the line height of this form.

This is not a valid IDSCHAR file.

This subform already exists.

Warning: changes here will be ignored because no write access.

Warning: heading problem. For details go to next menu & hit ENTER.

Warning: heading problem. See next menu for details, or repeat.

Warning: heading problem. Hit ENTER to see the problem, or repeat.

Warning: problem with heading. Hit ENTER in next menu to see it.

Write access is required to copy to a file.

Write access is required to delete from a file.

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