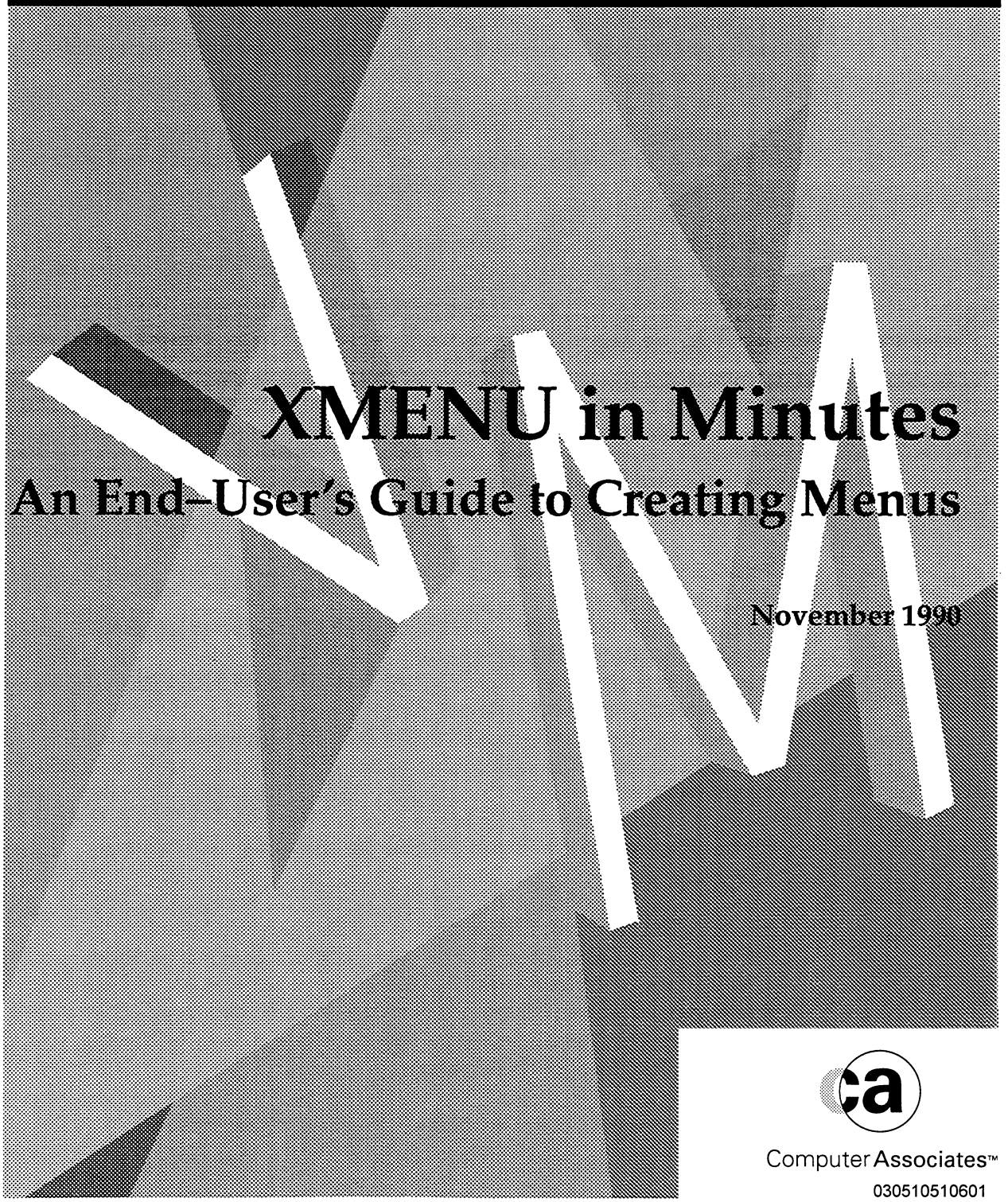
XMENU



XMENU in Minutes

An End-User's Guide to Creating Menus

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Computer Associates™
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Preface

Do you occasionally need to create a screen display but don't have the time to learn the intricacies of a complex command-oriented screen generation program?

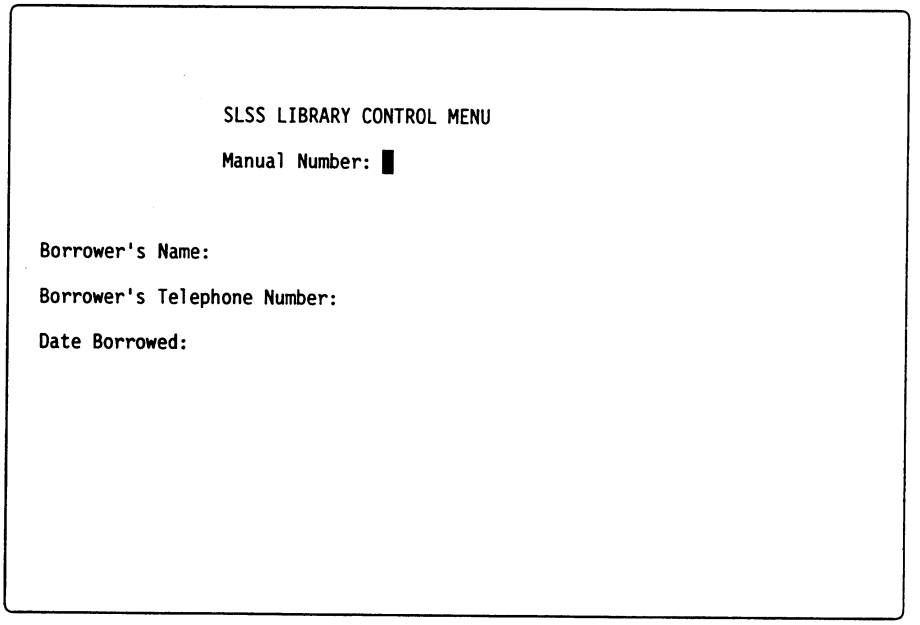
If so, then this book is for you. By the time you have worked your way through the exercises, you will be able to design and create simple screen displays like the ones in this book.

XMENU in Minutes does not attempt to explain all of the things XMENU can do. Instead, it takes you step-by-step through the creation of a simple menu. We have tried to keep this book as uncomplicated as possible; although there may be several ways to perform a specific task, we only show one way.

You will learn how to place menu titles, field captions, and their associated data fields on a menu, as well as how to assign field attributes and field names. By following the instructions in this tutorial, you can create a simple menu in just a few minutes.

When you feel you have mastered the basic XMENU concepts and are ready to use the more advanced features of XMENU, go to the *XMENU Editor User's Guide and Reference*, the *XMENU Utilities Reference*, and/or other manuals in your XMENU library, including *XMENU in Minutes: A guide to using menus with EXECs*, the next tutorial in this series.

And now—let's create the practice menu shown below. To get started, turn to "Introducing XMENU and its editor" on page 1.



Contents

Introducing XMENU and its editor

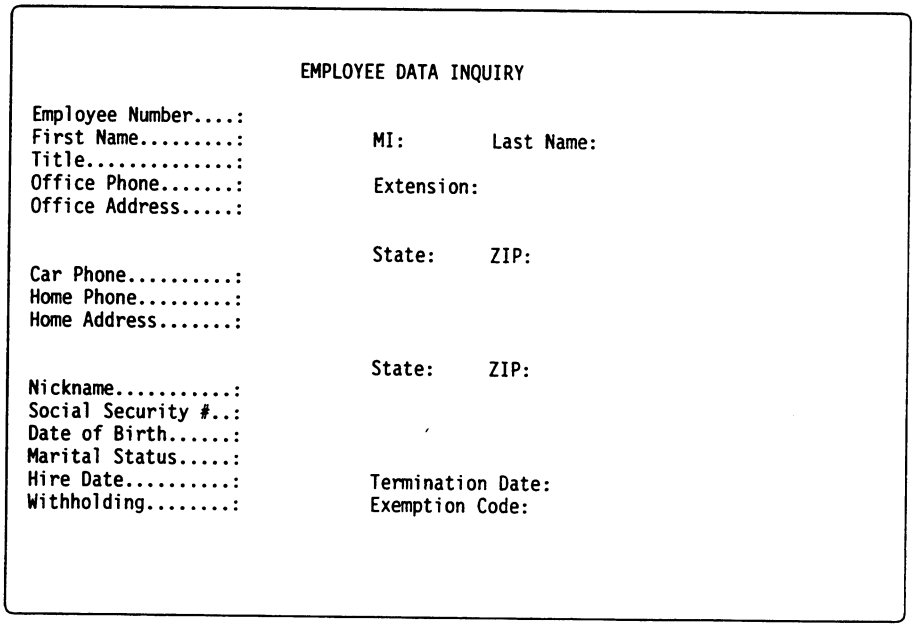
XMENU is a product for creating and using formatted screen displays called *menus*, *panels*, or *screens*. You can use these menus to enter or display data in your own 3270-based applications.

Not only is it easier to enter data directly into a well-formatted menu than to enter long, position-dependent commands or data lines, it is also easier to read and understand the data when it is displayed.

XMENU is very easy to use. When creating a menu with the menu editor, it is not necessary to locate fields by specifying field coordinates. Just place the text where you want it on a blank screen and use PF keys to fix the location of display or input fields and specify the way they will be displayed on the terminal.

XMEDIT for WYSIWYG screen displays

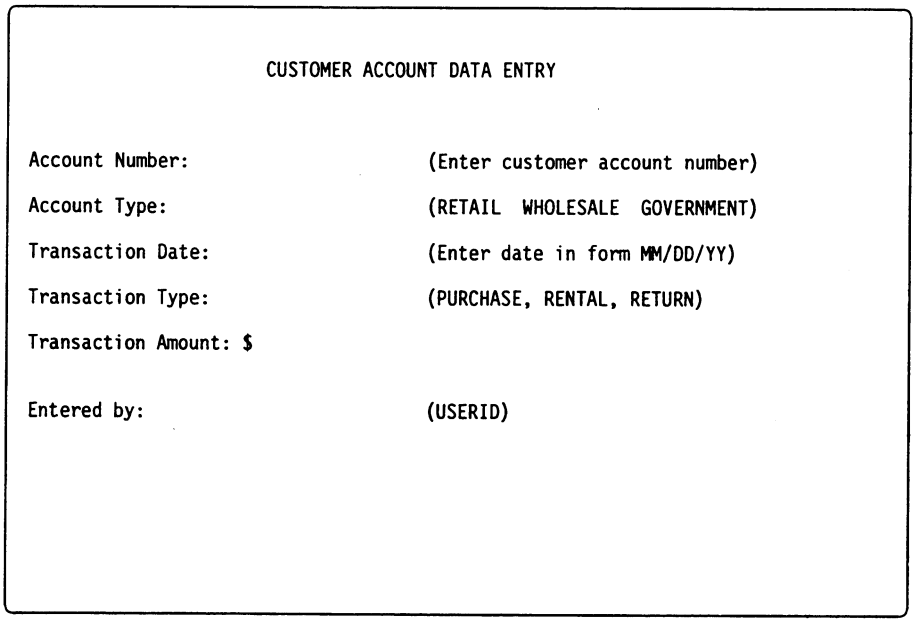
Using XMEDIT, the XMENU menu editor, is much like using a PC-based word processor. These products—often referred to as *WYSIWYG* or What You See (on the screen) is What You Get (on the printed copy) word processors—start with a blank screen on which you enter text in a way that looks pretty much like what you will see when you print a hard copy. In XMEDIT, too, you begin with a blank screen on which you enter the menu title, text for field captions, and other information you want to display. When the text is in position, you use PF keys to define the display or input fields and to assign display attributes.



You can use the completed menu in applications written in any programming language or application generator.

That's really all you need to know to create your own menus.

Note: The menu you will create in this tutorial was designed to keep our library of IBM manuals organized online—we call it our Systems Library Subscription Service (SLSS) Library Control System. Other menus, for example, the one below, are included to give you an idea of the varieties of menus you can create with XMENU. When you have completed this tutorial, you can practice the skills you learned by creating other types of menus:



If you get stuck—

Sometimes when you try a new program, you decide—for one reason or another—that you don't want to continue editing the current menu, you simply want to erase the menu and start over.

When you get in this situation while learning XMEDIT, there are two ways to escape:

To save the menu and come back

1. Press PF3/PF15 until you get back to your original CMS screen

   Note: The number of times you will have to press PF3/PF15 depends on just where you are when you want to stop.

2. Type **xmedit** ***filename*** and press **Enter** to re-display the menu for editing when you're ready to finish it

To discard changes to the menu and start over

Press PF2/PF14 twice to discard changes to the menu

Note: When you press PF2/PF14 the first time you will get the following warning message telling you that you are about to leave the program without saving changes to the menu:

```
-- Confirm --------------------------------
|  *** Press PF02 or PF14 to really quit,  |
|  any other key to return to XMEDIT ***   |
-----------------------------------------
```

Just press PF2/PF14 again to exit.

To try again—

When you are ready to try again:

To start over

1. Type **xmedit** ***filename*** on the CMS command line
2. Press **Enter**

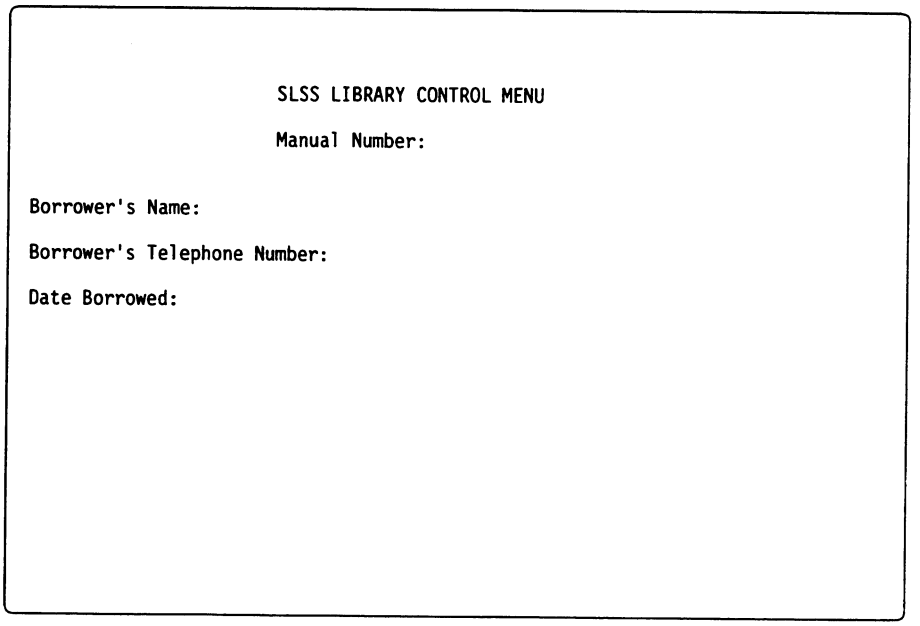
Here is another example of a menu you can develop with XMEDIT:

```
                        PERSONNEL DATA MENU

                         Transaction Type


                   1.  View/Update Personnel Record
                   2.  Add New Hire
                   3.  File Disability Claim
                   4.  Track Resume
                   5.  View Job Description
                   6.  View Organization Chart


                   9.  Exit to CMS

Enter the number of the transaction you want to perform.

Selection===>


COMMAND==>
```

Setting the scene

Let's assume that—like most data processing organizations—you have a large collection of IBM technical manuals to organize into a technical library. You want to keep all information about the manuals in an online database that you can access when you need information about a specific manual. You have also installed a terminal in the library area so that anyone who wants to borrow a manual can enter the circulation information directly into the SLSS database.

This exercise shows how to create the menu shown below for entering the manual number, the borrower's name and telephone number, and the date the manual was checked out.

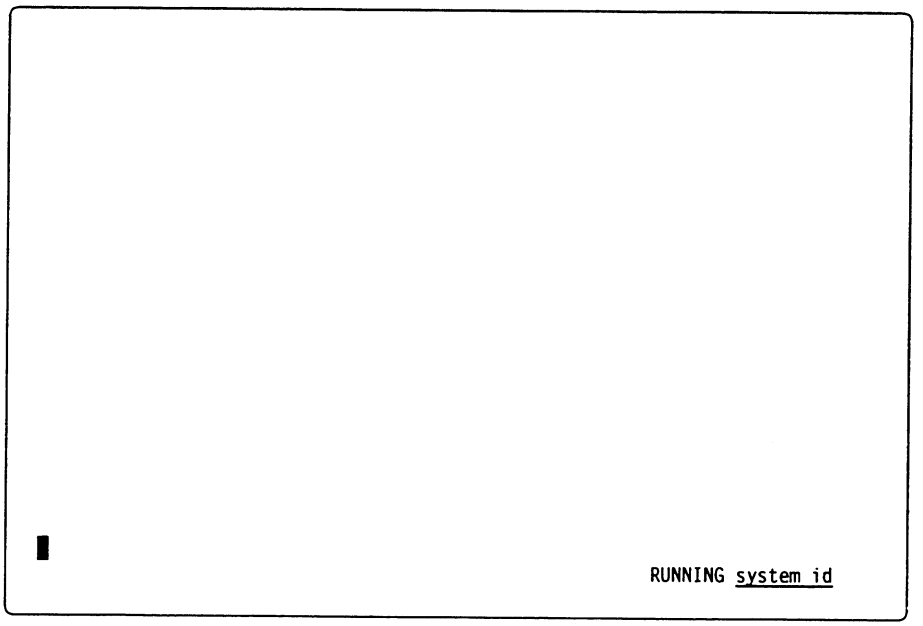


On your mark—

Before you go any further, be sure that you are logged on to your terminal, working in CMS with the necessary links established to allow you to work with XMENU.

In CMS you see the word *RUNNING* and a *system_id* in the CP status position at the bottom right corner of your screen.

The contents of *system_id* depend on what your system administrator has set up for your system.



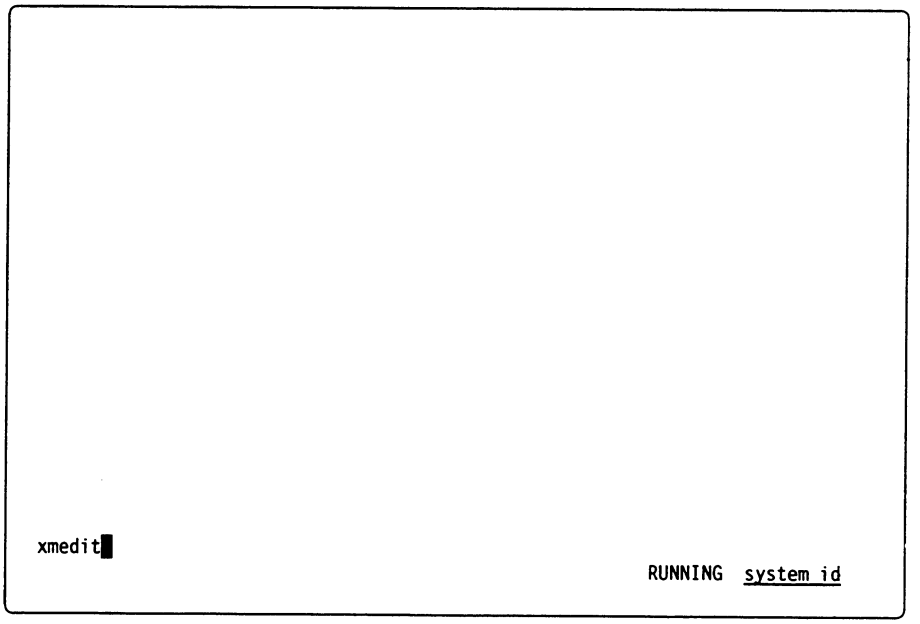
To begin creating the practice menu, continue with "Get set—" on page 8.

Get set—

The first step in creating a menu is to enter the menu editing program from the CMS command line:

To enter the menu editor from the CMS command line

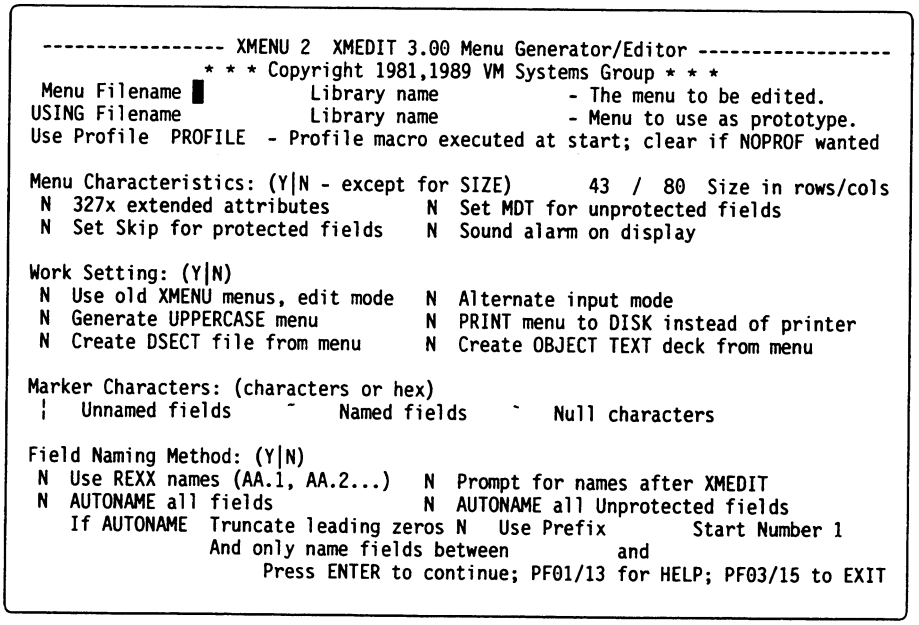
1. Type **xmedit** on the command line
2. Press **Enter**



Go!

You are now in the XMEDIT menu editor, ready to create a menu.

The menu you see on your terminal is the XMEDIT Options Screen, shown below:



You can use the **Return** key, the **Tab** key, and the **Back Tab** key to jump from field to field on menus such as this.

The Options Screen is where you set the overall conditions for both the menu editing environment and for the menu you will create. You will change some of the options so that what you see on your terminal will match the screen illustrations in this tutorial.

The *Size* option is set automatically according to the kind of terminal you have.

If the size shown on your screen is not **24 / 80**, change it as explained below. Enable *Skip for protected areas*, and check to see that *327x extended attributes* is also enabled.

To set the SIZE, SKIP, and EXTENDED ATTRIBUTES options

Enter the following, typing over the information already displayed on the Options Screen:

24 / 80	Size in rows/cols
y	Set Skip for protected fields
y	327x extended attributes

To give the practice menu a name before we leave the Options Screen, turn to "Name that menu—the XMENU fileid" on page 11.

Name that menu—the XMENU fileid

You also use the Options Screen to give the practice menu a *filename*.

XMENU saves each menu in a separate CMS file. The Options Screen has a place for you to enter a CMS filename for the practice menu. If you don't enter a filename for the menu, a message appears telling you to enter the name.

Give the practice menu the filename SLSSCTRL:

To assign the filename SLSSCTRL to the practice menu

1. Enter **slssctrl** in the space following the words *Menu Filename* on the Options Screen
2. Press **Enter**

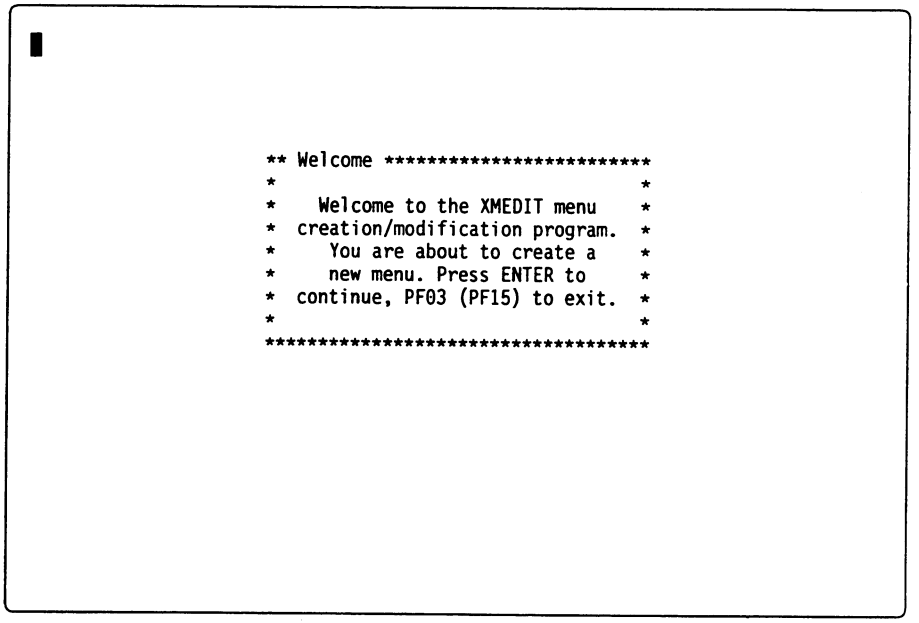
A menu file has a *filetype* of MENU. Together, the filename, filetype, and filemode constitute the *fileid* for the file. Thus, the fileid for this menu is SLSSCTRL MENU A.

```
---------------- XMENU 2  XMEDIT 3.00 Menu Generator/Editor -----------------
              * * * Copyright 1981,1989 VM Systems Group * * *
 Menu Filename slssctrl   Library name                - The menu to be edited.
USING Filename            Library name                - Menu to use as prototype.
Use Profile  PROFILE  - Profile macro executed at start; clear if NOPROF wanted

Menu Characteristics: (Y|N - except for SIZE)       24  /  80  Size in  rows/cols

 y  327x extended attributes          N  Set MDT for unprotected fields
 y  Set Skip for protected fields     N  Sound alarm on display

Work Setting: (Y|N)
 N  Use old XMENU menus, edit mode    N  Alternate input mode
 N  Generate UPPERCASE menu           N  PRINT menu to DISK instead of printer
 N  Create DSECT file from menu       N  Create OBJECT TEXT deck from menu

Marker Characters: (characters or hex)
 ¦   Unnamed fields      ¯     Named fields      `    Null characters

Field Naming Method: (Y|N)
 N  Use REXX names (AA.1, AA.2...)    N  Prompt for names after XMEDIT
 N  AUTONAME all fields               N  AUTONAME all Unprotected fields
    If AUTONAME  Truncate leading zeros N   Use Prefix        Start Number 1
                 And only name fields between          and
                      Press ENTER to continue; PF01/13 for HELP; PF03/15 to EXIT
```

Don't worry about any of the other information on the Options Screen just now. The remaining entries control settings for other XMEDIT options; this exercise uses preset defaults for those options.

Welcome to XMENU screen design

The *Welcome Screen*—shown below—serves a dual purpose. It reassures you that you are still using the XMEDIT menu editor program of XMENU, and it prepares you for the next screen—the text entry screen.



Continue with the practice menu.

To begin text entry

Press **Enter**

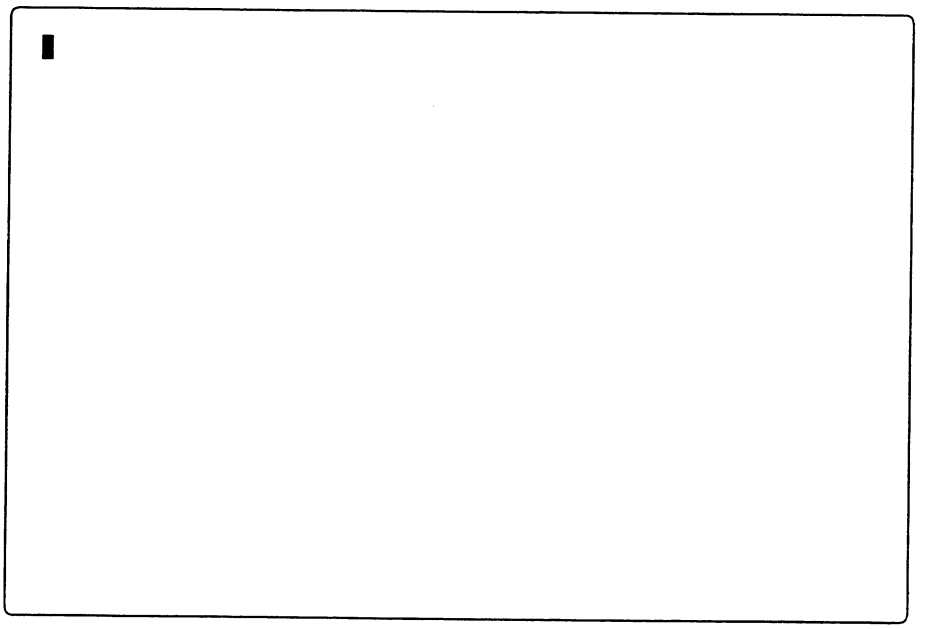
What do I do with this blank screen?

What's wrong?

The screen is completely blank!

That is exactly as it should be—remember WYSIWYG?

This blank screen is where you will design your menu.



Note: If your terminal has more than 24 lines and you changed the *Size in row/cols* field on the Options Screen, you will notice a horizontal line marking the end of the 24-line menu size.

What shall we call this menu—a title for the menu

You are now in *Input* mode and ready to put a title on the menu, as well as to enter field captions.

There are basically only two types of menu fields: display fields and input fields. Titles, field captions, prompts, PF key definitions—text or characters that you position on a menu and that are not to be changed by users—are called *display fields*. Areas where users can enter data are called *input fields*.

First the title

1. Move the cursor down two lines from the top of the screen, and type the words:

   SLSS LIBRARY CONTROL MENU

2. Press **Return**

Did you make a mistake and press **Enter**? Pressing **Enter** takes you into *Edit* mode, where you will see line numbers positioned along the left side of your screen.

To return to Input mode

Press PF3/PF15 from the *Edit* mode screen to return to the *Input* mode screen, where you can finish entering the field captions

After you have entered the title, your menu should look like this:

```
SLSS LIBRARY CONTROL MENU
```

To enter field captions, go to "Creating field captions" on page 15.

Creating field captions

When your menu is displayed, users must be able to identify not only the general purpose of the menu, but what action, if any, they need to perform.

For this menu, enter field captions that will prompt for a manual number, the borrower's name and telephone number, as well as for the date the manual was borrowed.

To create field captions

Move the cursor down five more lines and type the following lines, more or less as they appear here; press **Return** at the end of each line.

Manual Number:

Borrower's Name:

Borrower's Telephone Number:

Date Borrowed:

Note: *If you forget, and press **Enter**—just press PF3/PF15 to return to the input screen where you can continue entering the field captions.*

Your completed screen should look something like this:

```
SLSS LIBRARY CONTROL MENU



Manual Number:
Borrower's Name:
Borrower's Telephone Number:
Date Borrowed:
```

If the captions are not exactly where you want them on the finished menu, you can adjust them when you edit the menu in Edit mode.

Making it pretty

Now you have given the menu a title and entered field captions, but the menu really isn't very pleasing to the eye. Would it look better if the title were centered?

Let's try it:

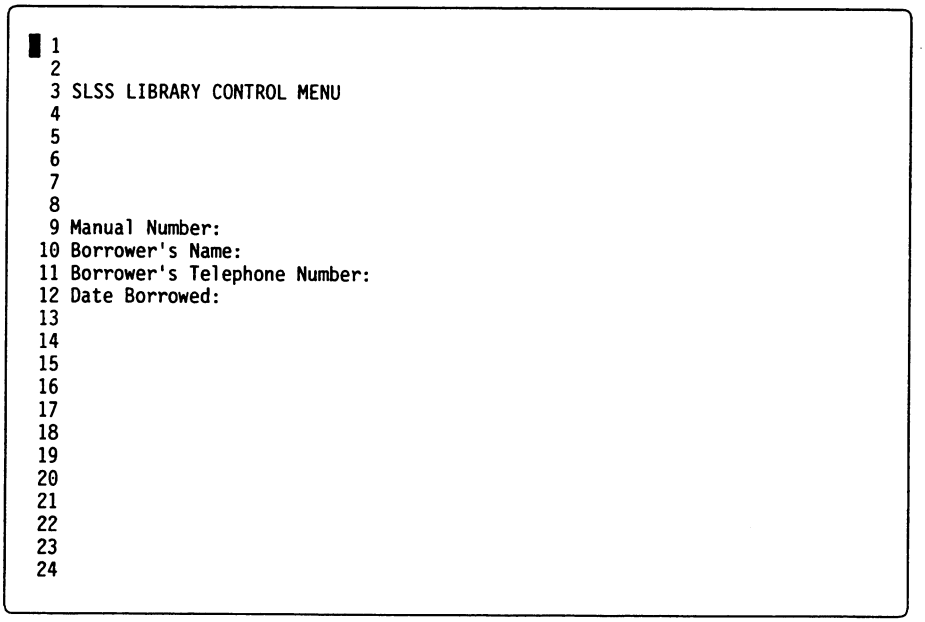
To rearrange elements of the menu

Press **Enter** to enter Edit mode

Continue with "The Edit mode screen" on page 17.

The Edit mode screen

This is the Edit mode screen. You use this screen to rearrange the title and other display fields to create a more attractive and effective menu. It is easier for users to read and enter data on a menu where the fields are arranged in a neat, uncluttered display.



The area on the left side of the screen containing the line numbers is called the *prefix* area. You use this area just as you use the prefix area in XEDIT, that is, you enter editing commands in the prefix area next to the line you want to edit.

But what are the commands you can use in XMEDIT to edit a menu? Continue with "The edit HELP screen" on page 18.

The edit HELP screen

To display the editing commands

Press PF1/PF13

This is the Edit mode HELP screen. It lists all of the editing commands you can use in Edit mode to arrange text, and explains what each command does.

```
-------------------- XMEDIT  Prefix Area Editing Commands --------------------
CE        Center the current line.
LE        Left justify the current line.
RI        Right justify the current line.
nL or n<  Shift the current line left n spaces.
nR or n>  Shift the current line right n spaces.
nE        Expand (insert) n blanks into the line at the cursor position.
nS        Shrink (remove) n characters from the line at the cursor position.
A or I    Add a blank line or lines after this line.
D or DD   Delete one or more lines including the current line.
C or CC   Move a copy of the current line(s) to another position.
M or MM   Move the current line(s) to another position.
" or ""   Duplicate the current line(s).
G or GG   Incorporate line(s) from a CMS file.
F or T    Move or copy line(s) to the line following the current line.
P or B    Move or copy line(s) to the line preceeding the current line.

  PF10 shows input data left justified, PF11 shows input data right justified.
  Make required changes then press ENTER. Press PF03 to return to input mode.
    Press PA2 to enter CMS SUBSET; CLEAR to clear current entered requests.
```

Now turn to "How to arrange titles and captions" on page 19 to find out how to rearrange the title and captions.

How to arrange titles and captions

You will now rearrange the text on the practice menu as follows (don't try to do this now—we'll give you step-by-step directions later):

- Move the title down a couple of lines, and center it.
- Move the Manual Number caption up a couple of lines, and center it.
- Insert one line after the Borrower's Name and the Borrower's Telephone Number captions, and position these captions on the left side of the screen.

To return to edit the practice menu

Press PF3/PF15 to leave the HELP screen

Moving the title

The first edit operation moves the menu title down 2 lines:

To move the title down 2 lines

1. Position the cursor to the left of or on the prefix number of the *SLSS LIBRARY CONTROL MENU* title line
2. Type **m**
3. Move the cursor down 2 lines
4. Type **f**
5. Press **Enter**

The title has moved down 2 lines on the screen.

```
 1
 2
 3
 4
 5 SLSS LIBRARY CONTROL MENU
 6
 7
 8
 9 Manual Number:
10 Borrower's Name:
11 Borrower's Telephone Number:
12 Date Borrowed:
13
14
15
16
17
18
19
20
21
22
23
24
```

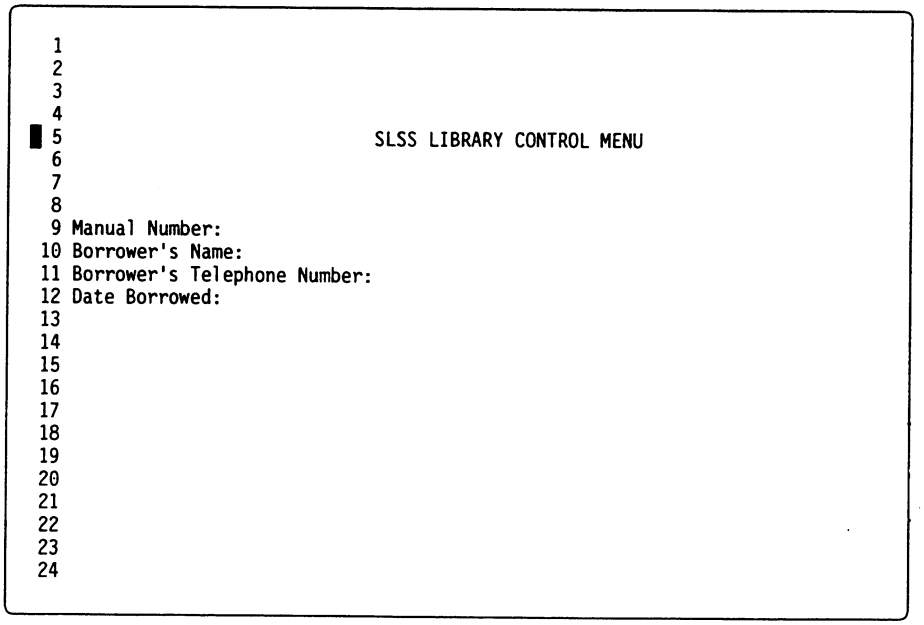
Centering the title

Next, center the title on the screen:

To center the title

1. The cursor is positioned next to line number of the title
2. Type **ce**
3. Press **Enter**

The title should now appear centered on the screen.



Finish editing the menu by centering the Manual Number caption and adding blank lines between the other field captions as described in "Centering the Manual Number" on page 22.

Centering the Manual Number

The primary identifying field on the practice menu is the Manual Number. This field should be easy for the user to find, so let's move it up and center it under the title:

To move the Manual Number

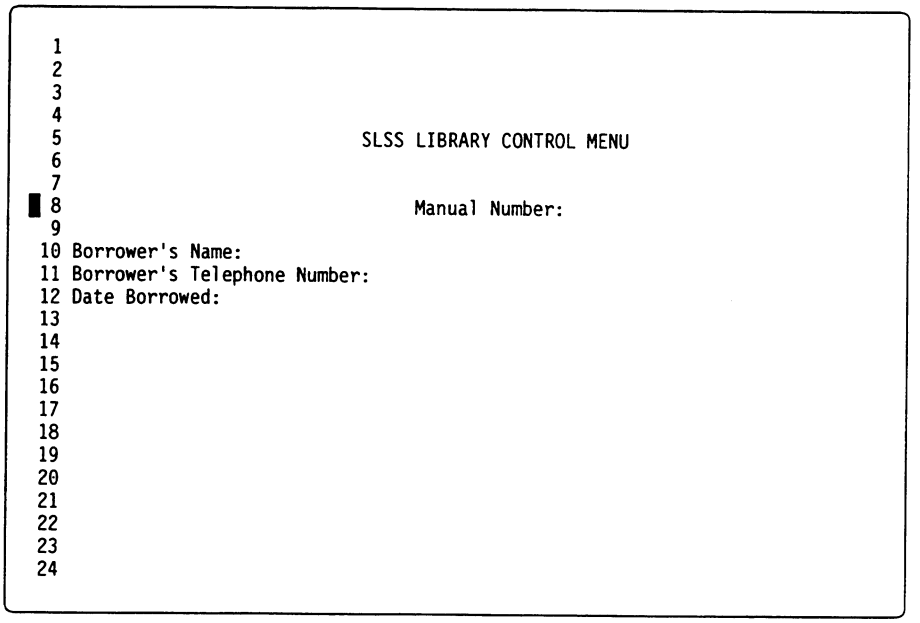
1. Move the cursor down in the prefix area to the line with the Manual Number caption
2. Type **m**
3. Move the cursor up two lines
4. Type **f**
5. Press **Enter**

The Manual Number caption is now positioned comfortably below the title.

To center the Manual Number under the title

1. The cursor is positioned in the prefix area next to Manual Number caption line
2. Type **ce**
3. Press **Enter**

The Manual Number caption should be centered under the title SLSS LIBRARY CONTROL MENU as shown on the next screen:



To add a blank line after the Borrower's Name

1. Move the cursor to the prefix area next to the Borrower's Name caption
2. Type **a**
3. Press **Enter**

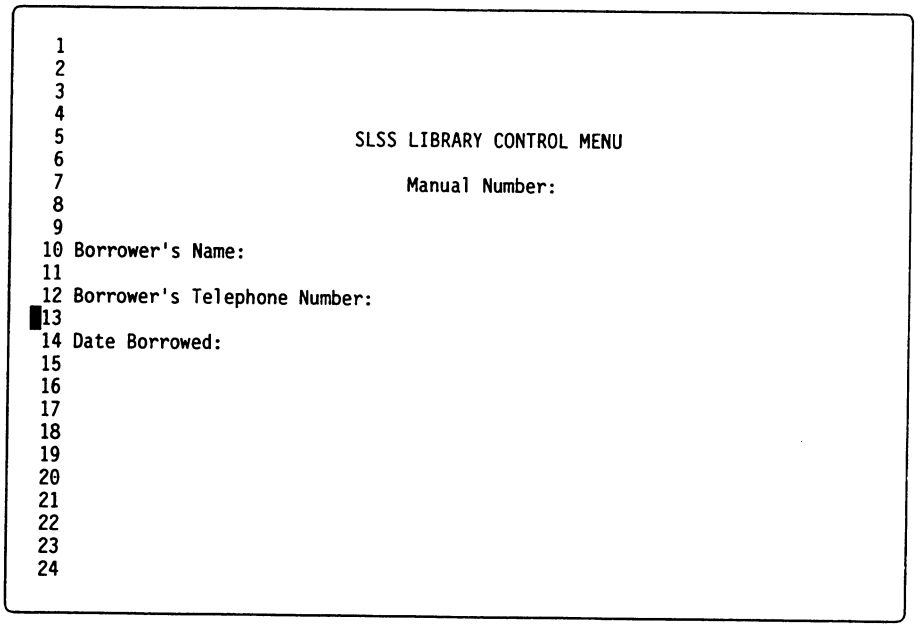
Note: *Be careful when you insert lines into a menu. If the last text line is the bottom line of the menu, it will be lost if you insert lines above it.*

There should be a blank line after the Borrower's Name caption:

To add more blank lines

Repeat the preceding step to add a blank line after the Borrower's Telephone Number caption

Does your menu look like this?



To learn learn about display attributes and how to assign them, return to the input screen and follow the instructions in "Attributes—what are they and why do you need them?" on page 25.

To return to the input screen

Press PF3/PF15 to go back to Input mode

Attributes—what are they and why do you need them?

Everything so far has involved display fields—that is, text that is fixed in location on the menu and that is not to be changed by the user.

You must now define the characteristics of all fields—both display and input—on the menu. The term for referring to field characteristics is *attribute*.

When you assign an attribute—or set of attributes—to a field, you specify how that field is to appear on the screen, and whether the user is to be allowed to enter data in the field.

For the practice menu, you will assign attributes to fields that define:

- *Intensity*: whether the field's contents will be displayed with normal or high intensity, or not be displayed at all
- *Protection*: whether the user can enter data in the field or whether the field is protected against data entry
- *Skip control*: whether or not the cursor will automatically skip over protected fields

Depending on the type of terminal you are using or if you specified that extended attributes were to be supported for your menu, you may be able to set other field attributes, such as color— pink, yellow, or turquoise, for example— or highlighting—normal, blinking, underscore, or reverse video.

When you entered XMEDIT at the beginning of this exercise you did specify that extended attributes were to be supported (remember when you set the SIZE, SKIP, and EXTENDED ATTRIBUTES options on the Options Screen in "Go!" on page 9?), but we'll skip the fancy stuff for this tutorial, and let you experiment with extended attributes some other time.

We will go through the following procedures to assign attributes to the fields on the practice menu. They are the same steps you will use no matter what attributes you are assigning (don't try to do this now—we'll give you step-by-step directions later):

1. Display the menu on the *Input* mode screen
2. Position the cursor at the beginning of the field
3. Press PF6/PF18 to display a pop-up action bar that presents the available attribute types
4. Select an attribute type and display the pull-down menu of possible settings for that attribute type
5. Assign an attribute setting
6. Optionally set other attributes for that field
7. Quit the action bar
8. Position the cursor to mark the end of the field (and the beginning of the next field), and assign attributes as described above

The field protection attribute

In this exercise, you will assign the *field protection* attribute to the title field on the practice menu, *SLSS LIBRARY CONTROL MENU.*

Field protection refers to whether a user is allowed to enter data in the field. You don't want a user to change the title, so make it a *protected* field.

To display the attribute pop-up action bar

1. Position the cursor in the space just before *SLSS*
2. Press PF6/PF18

The action bar shown below is displayed over the top lines of your Input mode screen. It presents the list of available attribute types:

```
Protect  Intensity  Skip  Mdt  Color  Highlight  Logical-symbol-set  Quit
```

The cursor is already positioned to accept your choice of attribute types. Simply type the capitalized letter associated with the attribute type you want to set:

To view the field protection options

1. Type the letter **p** for Protect
2. Press **Enter**

A pull-down menu of possible protection settings is presented:

```
p     Protect  Intensity  Skip  MDT  Quit
  U   Protected
      Unprotected
      Numeric
      Quit
```

Notice that the default field protection attribute, Unprotected, is pre-selected. This is indicated by the highlighted letter U. Change this setting to Protected:

Set Protected as the field attribute

1. Type over the **U** with the letter **p**
2. Press **Enter**

The field is now protected and the pull-down menu disappears. Let's assign another attribute to the title field. Go on to "The field intensity attribute" on page 27.

The field intensity attribute

Field intensity refers to how bright the characters in a field appear on the screen.

The only purpose of the title is to identify the menu, so it does not need to be emphasized in the display. Give it the *dim*, or normal, field intensity attribute. From the attribute selection action bar follow these steps:

Set Dim field intensity

1. Type the letter **I** to choose the field Intensity attribute

   Notice that the default field intensity attribute is Dim, as indicated by the highlighted letter **D** in the pull-down menu that apppears.
2. Simply press **Enter** (or type **Q** and press **Enter**) to accept Dim as your choice and leave the pull-down menu.
3. Now quit the action bar by pressing PF3/15 (or type **Q** and press **Enter**)

You have assigned the **Protected** and **Dim** attributes to the start of the title field *SLSS LIBRARY CONTROL MENU.*

Note: A split vertical bar has appeared at the cursor position. This split vertical bar is called an *attribute character*; it indicates the starting point of a specified attribute or attribute combination.

Now we will mark the end of the title field (and the beginning of the next field) by assigning Protect and Dim attributes here as well.

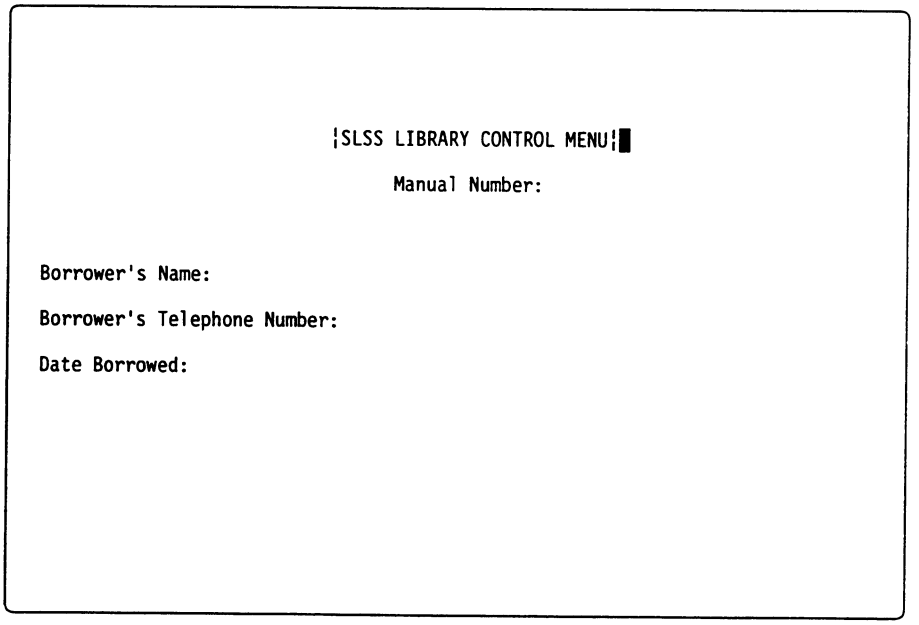
To complete the field

1. Position the cursor after the word *MENU*
2. Press PF6/PF18 to begin assigning field attributes
3. Type **p** for Protect
4. Press **Enter** to display the pull-down menu
5. Type **p** for Protected (type on top of the default setting)
6. Press **Enter** to leave the pull-down menu
7. Press PF3/PF15 to leave the action bar

Another split vertical bar appears, marking the end of the title.

Note: Do not *type* a split vertical bar when you are defining attributes. The XMEDIT menu editor does not recognize a typed split vertical bar as an attribute character and treats it just like any other typed character.

The practice menu should look like this:



Checking attributes

Do you want to check that the attributes have really been created for the title? Are you curious to see what the other default values are?

You can review or change a field's settings by positioning your cursor on an attribute, or field marker, character—a split vertical bar—and pressing PF6/PF18 to re-enter the attribute selection bar.

We need to check on one other attribute setting for this field before we move on to the others, so bring the attribute action bar back to your screen:

To re-enter the attribute selection action bar

1. Position the cursor over the split vertical bar at the beginning of the menu title field
2. Press PF6/PF18

Now go ahead to "Skipping over a protected field" on page 30.

Skipping over a protected field

Since the title field is **Protected** against data entry, you want to ensure that the cursor skips over it to the next unprotected field. This can be a big time-saver for your menu users—a feature they will appreciate.

Remember when you changed the **Skip** option to **Y** on the XMEDIT Options Screen in "Go!" on page 9?

When you changed the **Skip** option, you specified that the cursor should automatically skip over all **protected** fields and position itself on the first input space in the next **unprotected** field. Because the title has been **protected** and you have specified this option, you will notice on the action bar pull-down menu for Skip that **Skip** is in effect for this field, when normally **Noskip** would be the default:

Check on the default Skip attribute setting

1. Type **s** to choose the Skip attribute type
2. Press **Enter** to display the pull-down menu
3. Notice **S** is the pre-selected default setting

You didn't change any information, so just quit from the pull-down menu and the action bar (feel free to explore the other attribute default settings before you quit the action bar—just enter the capitalized letter signifying an attribute type, note the default setting, and then press **Enter** to return to the action bar):

To quit from the action bar

1. Press **Enter** to accept the default setting and leave the pull-down menu
2. Press **PF3/PF15** to quit the action bar and return to Input mode

Now continue with "Attributes for input fields" on page 31 to create the attributes for the data entry fields on the practice menu.

Attributes for input fields

Before we continue to assign attributes to the input fields on the practice menu, we want to discuss some of the things you should consider when you choose attributes for a field.

The attributes assigned to a field depend, to a large extent, on the function of the field. For example, the only purpose of the title field is to identify the menu; therefore, it has the attribute for normal intensity display—**Dim**. In addition, it is a **Protected** field so that users cannot overwrite the title.

Data entry fields are usually assigned the **Unprotected Dim** (normal) attributes. For this exercise, we'll presume that the menu will also be used to query a database to find out who has a specific manual. When used this way, it makes sense to have the Borrower's Name and Borrower's Telephone Number fields attract the user's attention. Therefore, they should be **Unprotected** and **Bright**.

We will also presume that the date in the Date Borrowed field will be generated by the program from the system date; users should not enter data in the field. Therefore, we'll make this field a **Protected** field and display it as a normal, or **Dim**, field.

We'll start with the Manual Number field....

Creating attributes for input fields

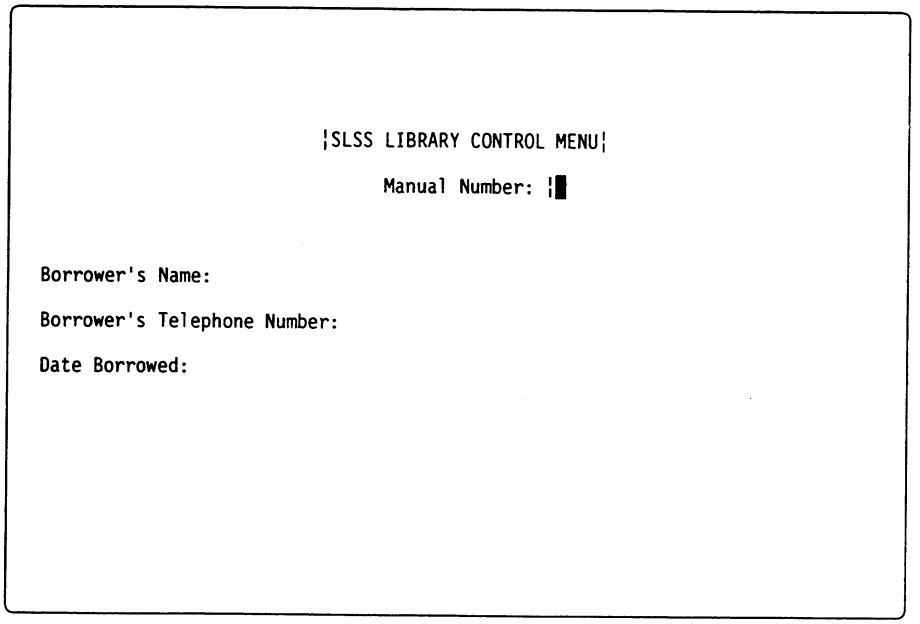
The Manual Number field is where the borrower enters the vendor-assigned number of the book being borrowed. Since the field is a user-input field, it should be **Unprotected**. As there is no compelling reason to highlight the input data, give it the **Dim** attribute:

Using PF6/PF18 for Unprotected Dim attributes

1. Position your cursor at the beginning of the Manual Number field by placing the cursor in the space to the right of the colon and spacing over two spaces
2. Press PF6/PF18 to bring up the action bar
3. Press PF3/PF15 to quit

Surprised? There is now a split vertical bar at the cursor position. This split vertical bar marks the beginning of the **Unprotected Dim** Manual Number field.

By entering the attribute action bar from a previously unmarked position on the menu, you indicated that a field was to be marked with attributes. By leaving the action bar without changing any settings, you accepted the default field attributes, which are just what you wanted for this field—unprotected and dim are defaults:



Now mark the end of this field:

Marking the end of the Manual Number input field

1. Space over 9 spaces
2. Press PF6/PF18
3. Type **P** for Protect and press **Enter**
4. Type over the **U** with the letter **p** and press **Enter**
5. Press **PF3/PF15** to quit the action bar

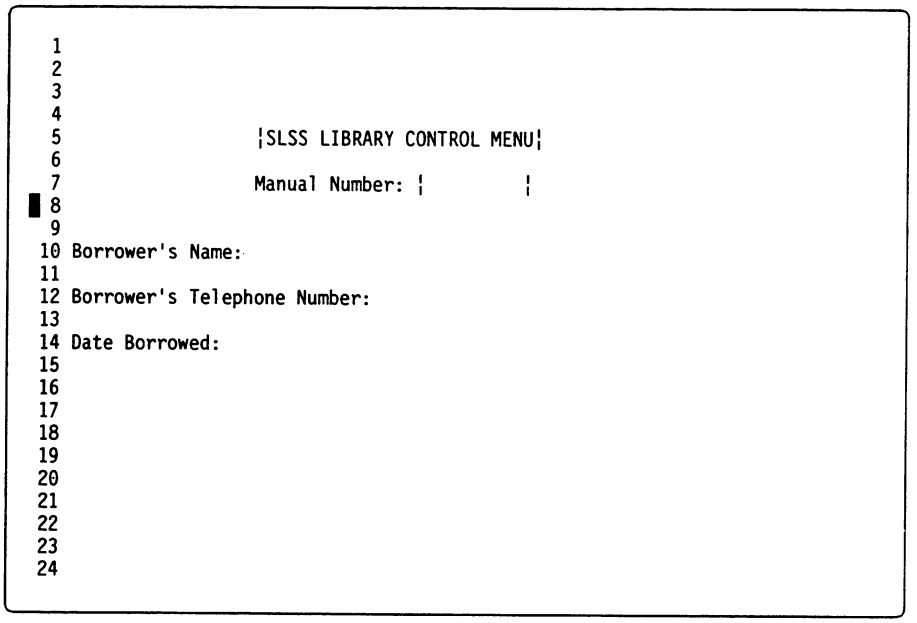
The new split vertical bar marks the end of the Manual Number input field. It also marks the beginning of a **Protected** area that wraps around the end of the screen to the beginning of the next attribute area you will set.

```
                    ¦SLSS LIBRARY CONTROL MENU¦
                         Manual Number: ¦        ¦

Borrower's Name:

Borrower's Telephone Number:

Date Borrowed:
```

Notice that after you define an input area for the Manual Number, the field is no longer centered on the screen. Edit the menu to center the field under the title:

To edit the Manual Number field

1. Press **Enter** to go the Edit mode screen
2. Place the cursor in the prefix area on the Manual Number line
3. Type **ce**
4. Press **Enter**



Now assign attributes to the remaining input fields. Continue with "Borrower's Name and Telephone Number" on page 35.

Borrower's Name and Telephone Number

Like Manual Number, the Borrower's Name and Telephone Number fields are input fields and should be **Unprotected**; these two fields should also be highlighted to attract special attention—**Bright**:

To assign these attributes

1. Press PF3/PF15 to return to the Input mode screen
2. Place the cursor in the space to the right of the colon in the Borrower's Name caption and space over two spaces
3. Press PF6/PF18
4. Type **i** for Intensity and press **Enter**
5. Type **b** for Bright (over the default **D** for Dim) and press **Enter**
6. Press **PF3/PF15**

   A split vertical bar appears, marking the beginning of the name field.
7. Space over 26 spaces

   We'll have the name field accept as many as 25 characters, so put another attribute character in position 26 to mark the beginning of the protected area between name and telephone number.
8. Press PF6/PF18 again

While all of this is becoming familiar to you, and before the process gets too repetitive, we'd like to show you how you can assign attributes just a bit more quickly.

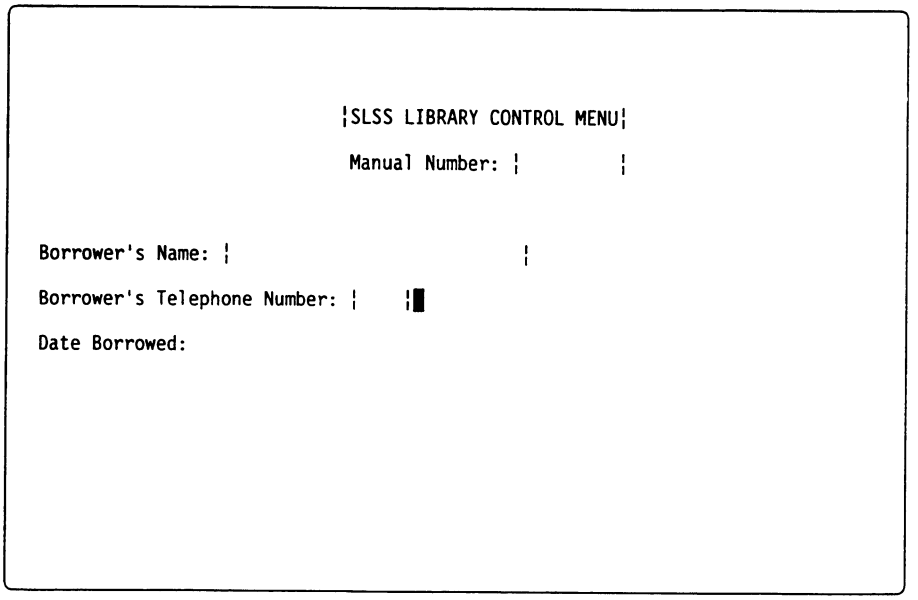
When you become familiar with the choices available to you on the pull-down menus, you can enter two characters directly into the action bar field:

To speed you on your way

1. Type **pp** for Protect and Protected and press **Enter**
2. Press **PF3/PF15** to quit the action bar

   It's as easy as that! Notice that a split vertical bar has appeared to mark the end of the Borrower's Name field and the beginning of the protected area that will continue to the Borrower's Telephone Number input field we'll assign next.
3. Place the cursor in the space to the right of the colon in the Borrower's Telephone Number caption and space over two spaces
4. Press PF6/PF18 to re-enter the action bar
5. To start the input field, type **ib** for Intensity and Bright and press **Enter**
6. Press **PF3/PF15** to quit the action bar
7. Space over 5 spaces to allow a telephone extension to be entered
8. Press PF6/PF18 once again
9. Mark the end of the **Unprotected Bright** input field and start a **Protected** area by typing **pp** and press **Enter**
10. Press **PF3/PF15**

Notice that each field where you set attributes has an associated pair of split vertical bars:



Finish assigning attributes to the practice menu by continuing with "Attributes for the system-generated date" on page 37.

Attributes for the system-generated date

The date in the Date Borrowed field is generated and displayed by the program; therefore, protect this field against user input, and display it in normal intensity. You can probably do this with your eyes closed by now, but if you need help, review how to assign Protected Dim attributes in "The field protection attribute" on page 26 where we assigned these attributes to the menu's title field.

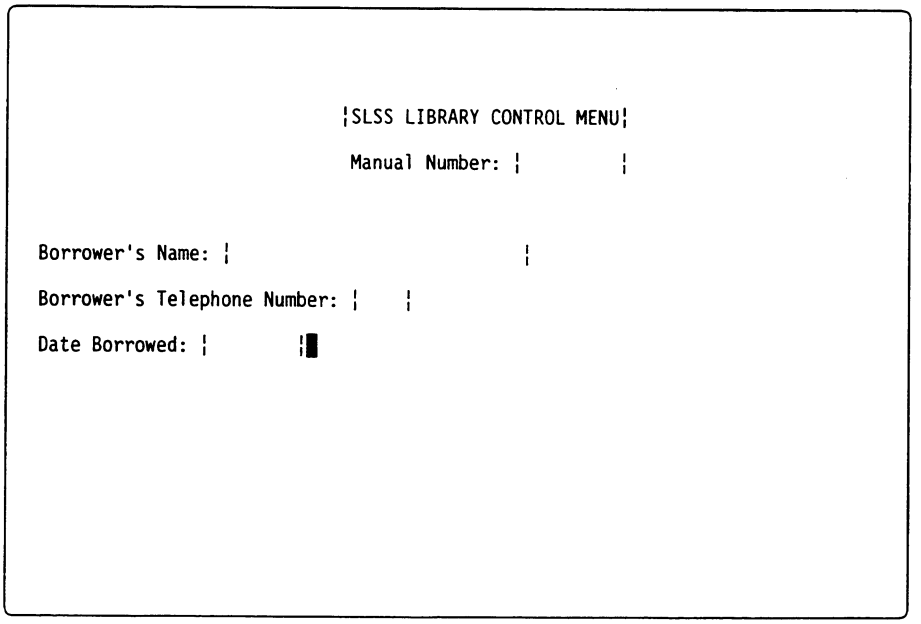
To assign attributes to the Date Borrowed field

Place the cursor to the right of the colon in the Date Borrowed caption and space over two spaces

1. Mark the start of the **Protected Dim** field
2. Space over 8 positions
3. Mark the end of the field and start another **Protected** area

   Note: This **Protected** area continues in effect and wraps around the end of the terminal screen to the next attribute marker it encounters, which, in this case, is another **Protected** area—the menu title.

You have finished assigning the menu's field attributes.

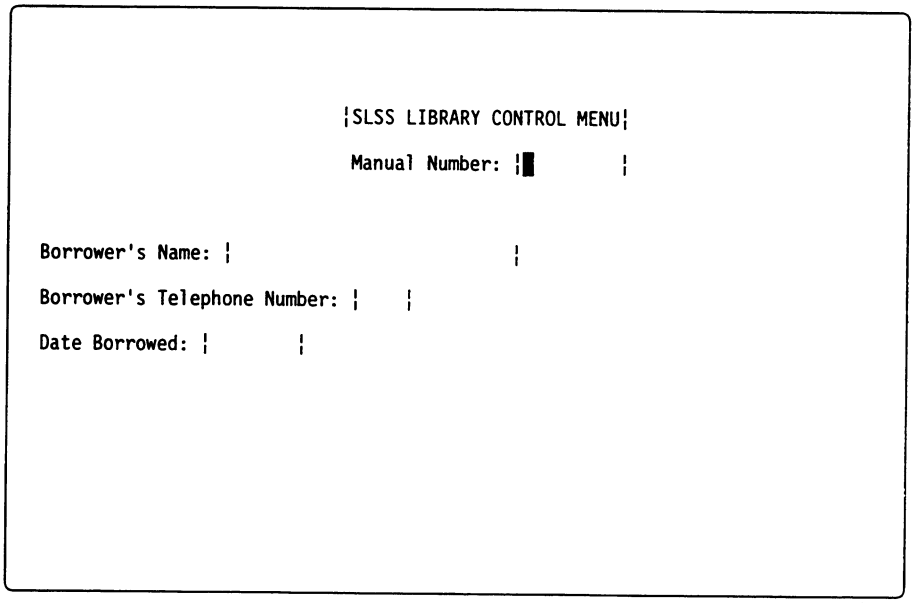


Positioning the cursor for input

When a data entry application displays a menu for input, the cursor should appear at the first input position of the first unprotected field on the menu. For the practice menu you have created, that is the first position of the Manual Number field:

To position the cursor at the first input position

1. Use the cursor keys to place the cursor at the first input position of the Manual Number field
2. Press PF11/PF23



The screen is simply refreshed when the initial cursor position is defined by pressing PF11/PF23.

Testing what you have done so far

The practice menu is nearly complete. You have:

- Entered display text for the title and field captions
- Edited the text to arrange it in a neat, uncluttered display
- Defined an associated display or input field for each caption by assigning field attributes
- Programmed the cursor to skip from one input field to the next input field, skipping over the protected fields
- Arranged for the cursor to be positioned on the first input position when the menu is displayed

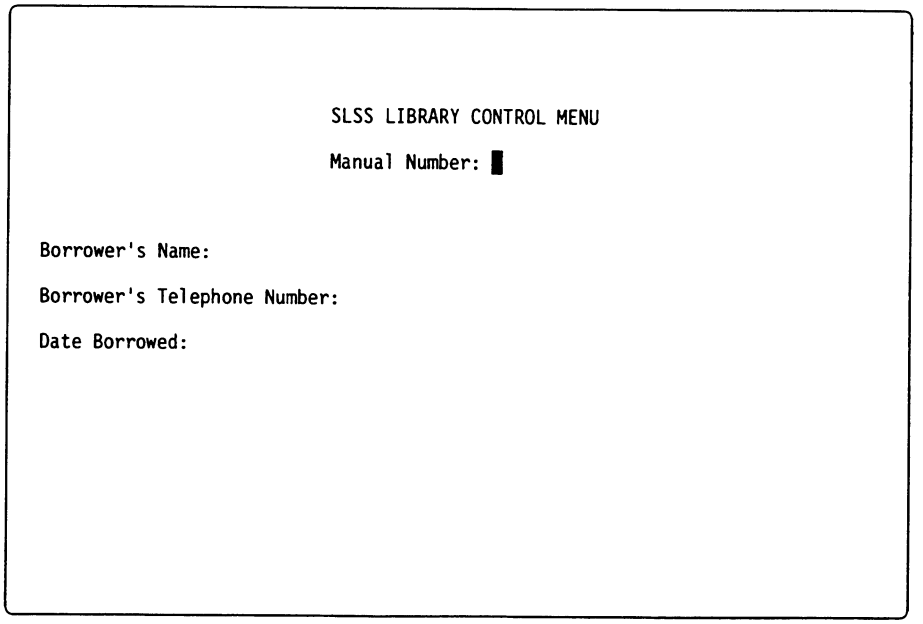
Let's ensure that the correct fields are unprotected, and that a user can enter data into the menu:

Test the menu for proper display and data entry

1. Press **PA1** from Input mode to go into *Display* mode

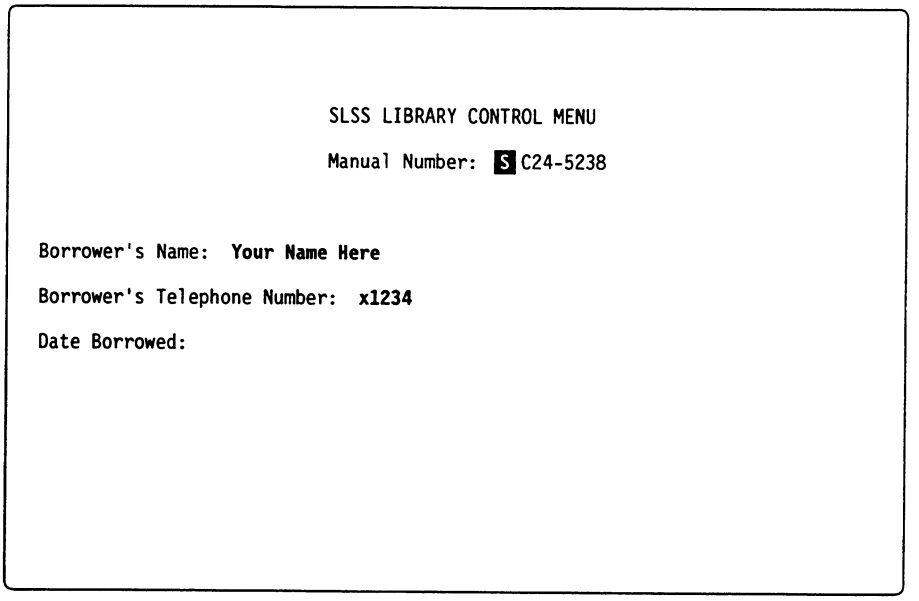
   Now you see the menu without the split vertical bars (¦) and with the cursor positioned at the first data input area on the menu. You specified this initial cursor position by pressing PF11 in the previous step.

2. Try typing some real data in the fields



The cursor should stop at the end of each input field, and jump to the beginning of the next input field when you press **Return**.

Notice that the cursor will not go to the Date Borrowed field. That is because this is a protected field and the data to be displayed in this field will be generated by the application from the system date.



To return to Input mode

When you finish practicing, press **PA1** again to return to the Input screen

Identifying menu fields for the application

In order for a field to be used for data entry or display, an application must be able to refer to that field. Therefore, any field to be referenced by an application must have a name.

Note: It is not necessary to provide names for the fields containing field captions. The captions are there only to identify the data field.

The fields to name on the practice menu are:

Manual Number

Borrower's Name

Borrower's Telephone Number

Date Borrowed

Note: Although a user cannot enter data in the *Date Borrowed* field, the program will need to refer to it to display the system date.

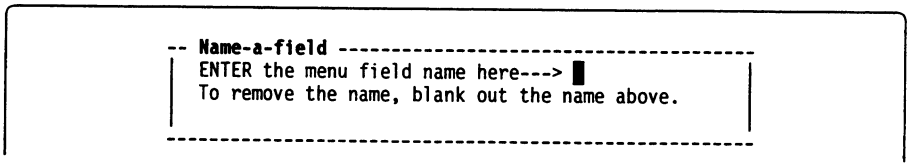
Naming input fields

Now provide a name for each of the input fields on the practice menu, beginning with Manual Number:

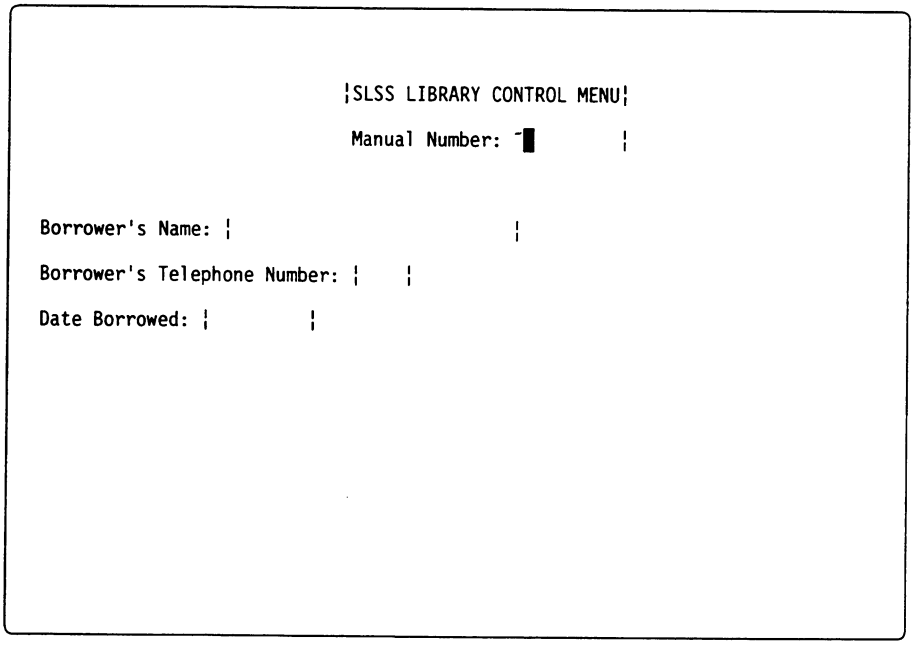
To name menu fields

1. Place the cursor on the attribute character—the split vertical bar—that marks the beginning of the Manual Number input field
2. Press PF12/PF24 to display the *Name-a-field* pop-up window

   The cursor is positioned at the beginning of the input area, ready to accept a field name
3. Enter a name for the field, **BOOKNUM**
4. Press **Enter** to return to the practice menu



After you press **Enter** to return to the practice menu, you will notice that the split vertical bar attribute character at the beginning of the input field has been replaced by a tilde (~), indicating that the field has a name.

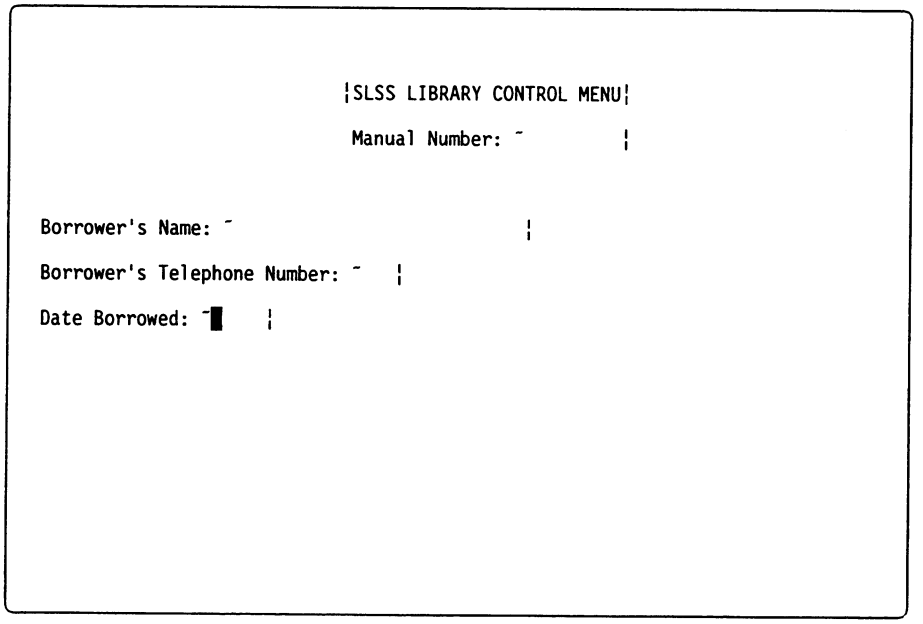


Name the remaining fields on the practice menu

Now add these names to the other input fields:

Borrower's Name	BNAME
Borrower's Telephone Number	BPHONE
Date Borrowed	BDATE

When you are finished, the practice menu should look like this:



Now that you have it, what do you do with it?

At this point, there are three things you can do with the practice menu. You can:

- Create a print file of your practice menu
- Save the menu in a CMS file on your A-disk, or
- Quit the menu without saving a copy

To create a print file of the menu

1. Press PA1 to enter *Display* mode
2. Press PA2

The XMEDIT menu editor program creates a print file of the menu and, when you press PF3/PF15 leave the XMEDIT menu editor, sends it to your virtual printer.

To file the menu...

Press PF3/PF15

The menu is saved on your A-disk under the fileid you gave it, SLSSCTRL MENU A.

... Or, to quit the menu

PF2/PF14 from Input mode.

The following message will be presented asking you to confirm that you want to quit:

```
-- Confirm ---------------------------------
|  *** Press PF02 or PF14 to really quit,   |
|  any other key to return to XMEDIT ***    |
-------------------------------------------
```

Press PF2/PF14 again to quit from XMEDIT. No file is saved on your A-disk. If you had previously saved a copy of the menu, and used PF2/PF14 to quit, any changes you made to the menu in this session of XMEDIT are lost.

If you have previously saved a copy of the menu, and want to re-enter XMEDIT to make additions or changes to the menu, enter the XMEDIT command with your menu name:

```
XMEDIT menuname
```

You will enter Input mode where your menu appears with all the previously set options in effect.

Where do you go from here?

You have now mastered the basics of creating application display screens with XMENU's menu editor, XMEDIT. For additional practice, try your hand at creating some of the menus shown in the first part of this book.

If you plan to continue designing and creating menus, you should read the *XMENU Editor User's Guide and Reference* to find out more about the XMEDIT program. When you're ready to create an application that displays and uses information from your menus, start with *XMENU in Minutes: A guide to using menus with EXECs.*