IBM Application Program Driver/400 Version 3

**User's Guide**

Release 6.0

**IBM**

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**User's Guide**

Release 6.0

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┌─ Note! ──────────────────────────────────────────────────────────────────────────┐
│                                                                                    │
│   Before using this information and the product it supports, be sure to read the general information under "Notices" on page  v. │
│                                                                                    │
└────────────────────────────────────────────────────────────────────────────────────┘
```

**First Edition, September 1995**

This edition applies to Release 6 Modification Level 0 of IBM Application Program Driver/400 Version 3 (5716-PD1) and to all subsequent releases and modifications until otherwise indicated in new editions or technical newsletters.  See the Summary of Changes for the changes made to this manual.  Make sure you are using the correct edition for the level of the product.

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# Contents

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| Operational Assistant | |

# About This Book

This book explains how to use the IBM* licensed program Application Program Driver/400 Version 3 (program number 5716-PD1), referred to as APD/400 in the following.

## How This Book Is Organized

This book consists of the following chapters:

Chapter 1, "Introduction to APD/400" describes standard as well as new features of APD/400, and provides a list and description of new tasks.

Chapter 2, "Using Online Help Information" tells you what types of online help information are available in APD/400, and explains how to access this information.

Chapter 3, "APD/400 Displays" provides information about the layout and use of APD/400 displays. All fields on standard APD/400 displays, function keys, menu bars, pull-down menus, menu windows, and pop-up windows for select functions are described in detail.

Chapter 4, "Using APD/400" describes in detail how to use APD/400 services, such as selecting your work environment, start program, personal menu, and working with batch jobs.

Chapter 5, "Maintaining Multiple APD/400 Tasks" explains how to start and end multiple APD/400 tasks, in particular how to add, select, and delete tasks.

Appendix A, "Pull-Down Menus" shows the layout of pull-down menus, and provides a short description of options available on each pull-down menu.

Appendix B, "Menu Window Cascades" shows examples of menu window cascades both with and without a menu bar.

The "Glossary of Terms and Abbreviations" defines terms used in this book.

The "Bibliography" provides a list of publications related to APD/400.

An index helps the user locate information in the book.

## Who Should Read This Book

This book is designed for end users working with applications on the Application System/400* (AS/400*) system, who are not necessarily AS/400 experts.

End users work only with the control part of APD/400 and its related functions. You are not required to perform administrative tasks.

# Chapter 1.  Introduction to APD/400

APD/400 is a menu-driven system that integrates multiple applications, and functions common to those applications, in a single processing environment. Additional features and services enable you to customize APD/400 to your own specific requirements.

These features and services include:

**Initial Menu Selection**
> You can specify an initial menu to be displayed after you sign on to APD/400.  The system then displays that menu without intermediate menus.

**Personal Menu Selection**
> You can create your own personal menu combining the tasks you most often use.

**Expert Codes**
> You can use expert codes to move directly to menus and applications.  This saves time, because you bypass intermediate menus and avoid having to sign off and on.  It is no longer necessary to prefix an expert code with the ID of an application when that expert code starts a function in an application other than APD/400.

## Other Features

Some other important APD/400 features are:

**Menus in Windows**
> You can display menus on a full screen or in windows.  Several windows are displayed in a cascade.

**Menu Bars**
> All menus contain menu bars from which you can select choices.  Users can decide to switch menu bars on or off.  You can still use expert codes as before.

**OfficeVision/400* Support**
> You can now access OfficeVision/400 features from all installations.

**Pull-Down Menus**
> A pull-down menu is available for every choice on a menu bar.  Pull-down menus provide a list of tasks to select.

**Customized Menus**
> Users can determine how full-screen menus and windows appear.  You can choose the color and style of various components of displays and windows, including menu bars, title area, window border, menu choice area, and command line.

**Multilingual Support for Applications**
> APD/400 supports applications that are enabled for multiple languages. Under APD/400, an application can be used in different languages simultaneously.

**Multilingual Support for APD/400**

APD/400 itself is enabled for multiple languages, and can be used in different languages simultaneously.

For a general introduction to APD/400 functions and services, refer to the *IBM Application Program Driver/400 Version 3: General Information* manual.

# Chapter 2.  Using Online Help Information

APD/400 provides general and specific help information for displays and for fields on displays.

Select the `About help` option from the `Help` pull-down menu, or enter expert code `HELPHELP` to produce the `About Help` information display.  This display explains how to retrieve help information from the APD/400 online information system.

In APD/400, you can access online help information from every active display. Help is cursor sensitive.  Different helps are displayed for different cursor positions. What kinds of help are available, and how to display help information is explained in the following.

Press F1 (Help) to produce a help display.  There is also a Help key on most keyboards.  In APD/400, this key has the same effect as F1 (Help).

## Help for Menus

For help information about menus, do the following:

- Place the cursor on a menu option to display help for that option.

- Place the cursor on the *Selection or expert code* prompt to display general help in the use of menus.

- Place the cursor anywhere else on the menu to display general help for the active menu.

**Note:**  These rules apply to full-screen menus and menu windows.

## Help for the Menu Bar

For help information about the menu bar, do the following:

- Place the cursor on a menu-bar choice to display help for that choice.

- Place the cursor on the border of the menu bar display, or between the menu bar options for general help in the use of menu bars.

## Help for Pull-Down Menus

For help information about pull-down menus, do the following:

- Place the cursor in the input field in the top left corner to display general help for pull-down menus.

- Place the cursor on any option of a pull-down menu to display help for that option.  This can be a help display that belongs to an application.

- Place the cursor anywhere else on the pull-down menu to display general help for the active pull-down menu.

# Help for Functional Displays

On functional displays, APD/400 provides *item-specific* and *extended* help information.  To receive item-specific help, place the cursor as follows:

- On a data entry or an output field, to receive help for that field.

- In the function key area, to receive a description of how to use the function keys.  On some APD/400 displays, the description of function keys is part of the general description of the display.

Extended help provides a general description of the display and a description of all items on the display.  Extended help is displayed when:

- The cursor is not in any specific area of the display, such as on the display title or the instruction line.

- You press F2 (Extended help) on the help display of an item-specific help.

# Help for Messages

To receive help for messages that are shown on the bottom line of displays, place the cursor on the message, and press F1 (Help).

# Using the Search Index

Press the F11 (Search index) on any APD/400 help display to search for information that is not directly related to the currently active APD/400 display.  You are prompted to enter some key words that the system uses to find information.

For example, if you are on the `Schedule a Batch Job` display, and you do not know what the word *batch* means, press F11 (Search index), and type the word `batch`. The AS/400 help system then displays a list of help information that matches the word *batch*.  Select the information you want from this list.

Additional information about how to use the AS/400 help system is available when you press F1 (Help) on any APD/400 help display.

# Chapter 3.  APD/400 Displays

All APD/400 displays have a standard layout, as shown in Figure 1.  Options and responses vary according to the task.

```
                              (Menu Bar)
 .....................................................................
 (Expert Code)              (Task Description)          (Installation ID)
                                                        (Data Set ID)




                              (Display Area)




 (Selection or Expert Code Area)
           _____

 (Function Keys)
 (Messages)
```
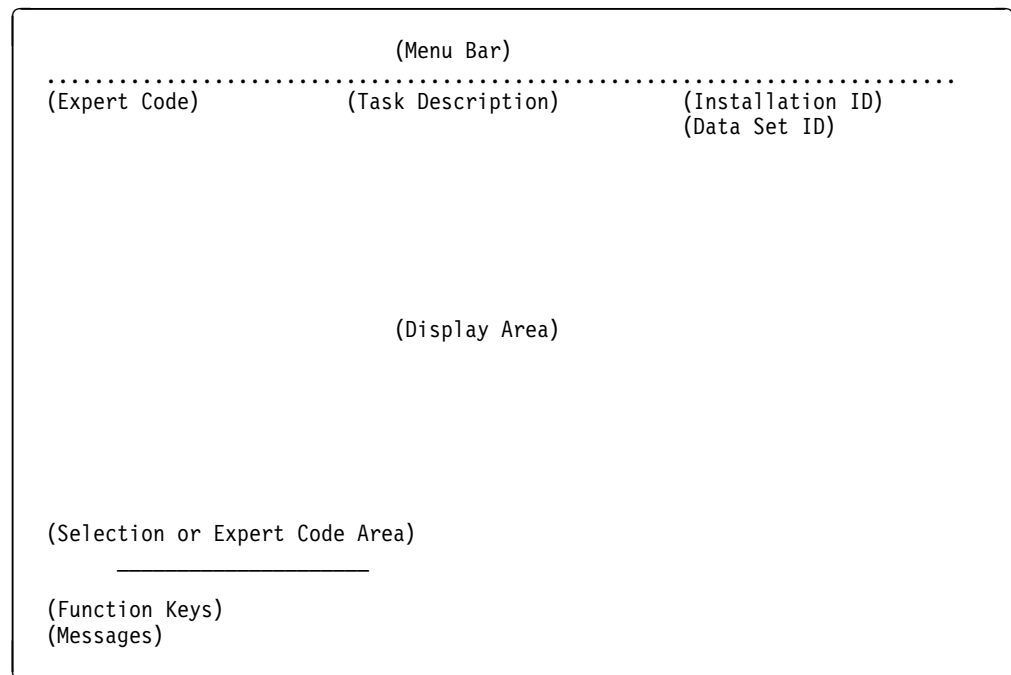
*Figure 1.  Standard APD/400 Display*

**Information Fields**
> Two lines at the top of the display are reserved for fields that describe the task, as in Main Menu, and when applicable, the expert code of the task, the ID of the data set, and the ID of the installation.

**Display Area**
> Main display area for task options, prompts, and responses.

**Selection or Expert Code Area**
> Lines 20 and 21 show the prompt and command line where you enter a selection or an expert code.  This area appears on all menu displays.

**Function Keys**
> Line 23 shows function keys available for that specific display.  If all available function keys do not fit on one line, press F24 (More keys) to display additional function keys.

**Messages**
> Line 24 is reserved for AS/400 system and APD/400 messages.

**Menu Bar**
> Lines 1 and 2 show the menu bar, when it is in use.  Users can decide whether to use menu bars or not.
>
> A displayed menu bar always belongs to the current full-screen menu.

**5**

## Information Fields

Fields on APD/400 displays provide the following information:

**Expert Code**
> The name of your application and the expert code of the task or menu currently displayed, separated by a slash (*/*), as in `APD/MAIN`.

**Task or Menu Description**
> A short description of the task or menu you are using, as in `Main Menu`.

**Installation ID**
> The identification of the installation where you are working.

**Data Set ID**
> The identification of the application data set you are using.

## Display Area

An APD/400 menu display contains a list of task options, each preceded by a number.  The following command line is displayed below the list of options:

```
Selection or expert code
```

_____

To select the required task option, either:

- Place the cursor on the option line, and press Enter.

- Type the option number on the command line, and press Enter.

- Type the expert code of the task option on the command line, and press Enter. You can use F11 as a toggle key to reveal or conceal the expert codes for each option.

**Note:**  Remember that you must always press Enter to confirm an entry.

Some APD/400 menu displays consist of more than one page.  Use F8 or the Page Down key to reach menu options on succeeding pages.

The option numbers shown on the menus in this manual can differ from those you see on your screen if your APD/400 administrator has made changes.  Some options are not displayed because you are not authorized to process the tasks represented by those options.

## Selection or Expert Code Area

When you want to process an application task under APD/400, you activate that task by working your way through APD/400 and application menus until you reach the menu containing the task.  On that menu, you can either place the cursor on the option line next to the task and press Enter, or you can type the option number of the task you want to process on the command line and press Enter.

Once you are used to starting tasks under APD/400 control, you can use an expert code to shorten the time required to access and start a task.

Each task that can be processed from an APD/400 or an application menu has its own expert code, usually shown in the upper-left corner of the display that is in view while the task is being processed. The more you process certain tasks under APD/400, the easier it is to remember the expert codes of those tasks.

When you know the expert code of the task you want to process, you do not need to access the menu containing the task option. Instead, you can activate the desired task from any menu shown on the screen. Just type the expert code on the command line of the menu, and press Enter. The task is processed immediately.

## Finding Expert Codes

You can find expert codes for the tasks you want to process as explained in the following.

Press F4 (Prompt) on any APD/400 or application menu to produce the `Select Expert Code` display. This display shows the list of expert codes for all tasks you are authorized to process, a short description of each task, the ID of the application to which each task belongs, and at the left, an *Option* column in which you can select an expert code directly from the display. Figure 2 shows an example of the `Select Expert Code` display.

```
   Options   Environment   Operations   Services   Office   Help
 ...............................................................................
 APD/MAIN                            Main Menu

  Select one of the following:

  ..............................................................................
  :                           Select Expert Code                               :
  :                                                                            :
  : Type option, press Enter.                                                  :
  :    1=Select                                                                :
  :                                                                            :
  : Opt    Expert code Text                                          Appl.     :
  :   _    ADMHDG       Administer Menu Headings                     APD       :
  :   _    ADMMDTA      Administer Master Data                       APD       :
  :   _    ADMMNU       Administer Menus                             APD       :
  :   _    ADMPMU       Administer Personal Menu                     APD       :
  :   _    ADMSTRPGM    Administer Start Program                     APD       :
  :                                                                  More... : :
  :  F3=Exit   F12=Cancel   F17=Position to    F24=More keys                   :
  :                                                                            :
  :                                                                            :
  :............................................................................:
```

Figure 2. Select Expert Code

From this list of expert codes, you can do the following:

- To go directly to a task that is farther down the list and therefore not visible, press F17 (Position to). In the `Position the List` window, type the first letters or the name of the task and press Enter. If APD/400 cannot find the task you are looking for, the cursor moves to the task that is next in alphabetical order to the one you specified.

- Press F18 (Subset) to produce the `Expert Code Subset` window. Enter a search string in one or more of the three fields to display a smaller list of expert codes, as explained in the description of F18 on page 9. You then see a list of expert codes matching your search string.

**Note:** On any APD/400 or application menu, press F11 (Expert code) to reveal expert codes for tasks you are allowed to process. Press F11 again to conceal the expert codes.

An expert code can exist in more than one application, and represent different functions. When you enter an expert code to start a task, the system first searches APD/400 and then all other applications to find that task. It may sometimes be necessary to prefix the expert code of a task with the ID of the application to which it belongs, as in XXX/MAIN, where XXX is the ID of the application and MAIN is the expert code of the task you want to start.

## Function Keys

Line 23 is reserved for the display of available function keys. Each option has a number and a brief description, for example, F3 (Exit). Use the F1 key to display help texts.

The most commonly used function keys are described in the following:

**F1=Help**

Press F1 to display help information on various subjects, depending on the position of the cursor. For example, when the cursor is placed on a task (menu option), help information explains that task. When the cursor is in free space, you receive general information about the menu that is currently displayed.

**Note:** You can also press the Help key instead of F1, if this key is available on your keyboard.

**F3=Exit**

Press F3 to end a task and return to the initial menu. If you are already at the initial menu, you return to the main menu.

**F4=Prompt**

Press F4 to produce the `Select Expert Code` display, showing a list of all expert codes that you are authorized to use.

**F5=Refresh**

Press F5 to show the revised display after you have made a change.

**F7=Up, F8=Down**

Press F7 or F8 to move backwards or forwards through a display. Menus can contain up to 99 options. Where there are more options than the existing space can display, you can move the display up or down.

When you see `More...` on line 19 of the screen, press F8 to display the next list of options. Continue to do this until you see `Bottom`.

To go back through the list of options, press F7. You can also use the Page Up and Page Down keys to move backwards and forwards on a display, if these keys are available on your keyboard.

**F9=Retrieve**

Press F9 to retrieve the last expert code you entered. Press this key repeatedly to retrieve all previously entered expert codes.

**F10=Action**

Press F10 as a toggle key to activate the menu bar from the main menu, or to deactivate the menu bar and return to the main menu. This function key is available only when menu bars are switched on. You can also use F12 to deactivate the menu bar.

**F11=Expert Code (Options)**

Press F11 as a toggle key to reveal the expert codes of options on the menu, or to display the options without expert codes.

**F12=Cancel**

Press F12 to cancel a function and return to the previous display.

**F17=Position To**

Press F17 to display the `Position the List` window. Specify either the complete name of the entry or the initial characters of the name, and press Enter. Remember that if that entry cannot be found, the cursor moves to the entry (expert code, application ID, or data set ID) that is next in alphabetical order to the one you specified.

Specify `*TOP` to move the cursor to the first entry, or `*BOT` to move the cursor to the last entry on the list.

**F18=Subset**

Press F18 to display a smaller portion of a large screen format or file.

Fields for selecting subsets begin with an asterisk (**\***). To select a subset, enter a search string in input fields starting with an asterisk. Start typing at the asterisk. Press Enter when you have finished typing the search string. The next display shows all entries matching the specified search string.

If you press Enter without entering a search string, the previous display reappears.

Enter a search string in any of the following ways:

| Input | Result |
|---|---|
| **A** | Displays all entries with entry A in the corresponding field. |
| **A\*** | Displays all entries beginning with A. |

In some administrative functions, the following ways of entering search criteria are not available:

| Input | Result |
|---|---|
| **\*A** | Displays all entries ending with A. |
| **\*A\*** | Displays all entries containing A. |
| **\*A\*A** | Displays all entries ending with A and having another A at any other position. |

**Subset Selection for Texts**

Asterisks in the text field have no special meaning. Enter search criteria in any of the following ways.

| Input | Result |
|---|---|
| **Admin** | If this entry is inserted in the text field, all entries containing Admin are displayed. You do not need asterisks in the text field. |
| **Work S** | If this entry is inserted in the text field, all entries containing Work followed by an S anywhere in the text are displayed. Entries with an S followed by Work are not displayed. |

**F23=Set Initial Menu**
> Press F23 to set the active menu as initial menu when you sign on to APD/400.

**F24=More Keys**
> Press F24 to display additional keys that are available, but cannot be displayed on the current screen.

## Messages

AS/400 system and APD/400 messages are displayed on the message line at the bottom of the display. These messages are usually self-explanatory. However, if you need further information, place the cursor on the message and press F1 (Help).

There are message types:

- Information messages
- Confirmation messages
- Error messages.

## Menu Bars

APD/400 now includes *menu bars* and *pull-down menus* to make it easier for you to navigate through APD/400 and applications installed under APD/400.

APD/400 can be used with or without menu bars. The default setting for the menu bar is *on*. However, users can switch the menu bar off and on again using the SWTMNUBAR (Switch Menu Bar) command. The switch is not effective immediately. You must leave APD/400 using `End Task`, then start APD/400 again for the switch to take effect.

The `No menu bar available` message appears at the bottom of your display when you start APD/400 and no menu bar has been defined for the menu, the application, or the APD/400 application.

Figure 3 on page 11 shows the menu bar at the top of the main menu display.

```
   Options   Environment   Operations   Services   Office   Help
  ......................................................................
  APD/MAIN                          Main Menu

  Select one of the following:

      1. Application Program Driver

     50. OfficeVision/400
     51. AS/400 Operational Assistant

     90. End Task




  Selection or expert code

       _____

                  F4=Prompt    F10=Action                 F24=More keys


```
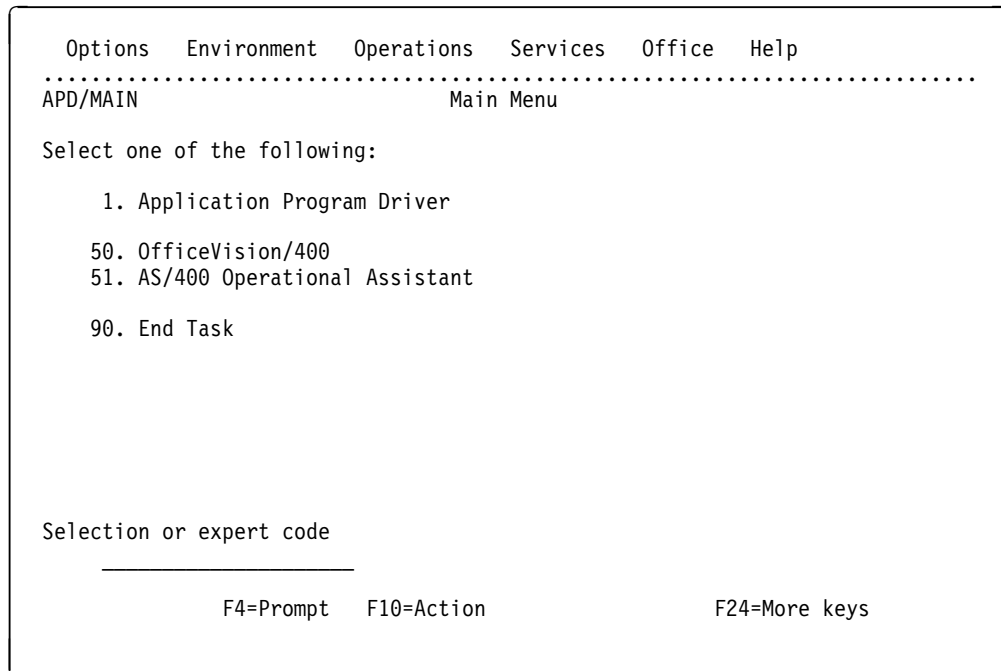
*Figure 3. Menu Bar*

Press F10 (Action) to activate the menu bar.  F10 (Action) moves the cursor to the menu bar so that you can select a menu-bar choice.  Press F10 again or F12 to deactivate the menu bar and return to your starting point on the current menu.

In a full screen menu you can also activate or deactivate the menu bar by moving the cursor with the tabulation or the arrow keys from the selection or expert code field to the menu bar, or back from the menu bar to the selection or expert code field.

## Menu Bar Description

The following describes the appearance, maintenance, and contents of menu bars:

- The color of menu-bar choices depends on the current color setting in the application to which the menu bar belongs.  This color is used for unselected choices.

- The color of the menu-bar border depends on the current color setting of the window border in the application to which the menu bar belongs.  Four border character sets, seven colors, and two attributes are available.

- Menu bars can contain a maximum of 6 choices.  Choices are maintained using Administer Menus.

## Activating Pull-Down Menus

Each menu-bar choice requires a pull-down menu from which to start a task.  You cannot start a task from a menu bar.  Only tasks for which the user is authorized are available on pull-down menus.

Use the TAB or arrow keys to place the cursor on one of the menu-bar choices. Press Enter to activate the pull-down menu.

When the pull-down menu appears, select an option in one of two ways:

- Type the number of the option in the option field.
  It is <u>not</u> necessary to press Enter.
- Place the cursor on an option, and press Enter.

```
   Options   Environment   Operations   Services   Office   Help
.......................  ...........................  .....................
APD/MAIN                : _ 1. Printer output...    :
                        : ‾ 2. Jobs...              :
Select one of the followi :  3. Messages...         :
                        :   4. Send message...      :
   1. Application Progr  :  5. Change password...    :
                        :   6. Operation assist...  :
  50. OfficeVision/400   :..........................:
  51. AS/400 Operational Assistant

  90. End Task




Selection or expert code
   _____

          F4=Prompt    F10=Action              F24=More keys
```
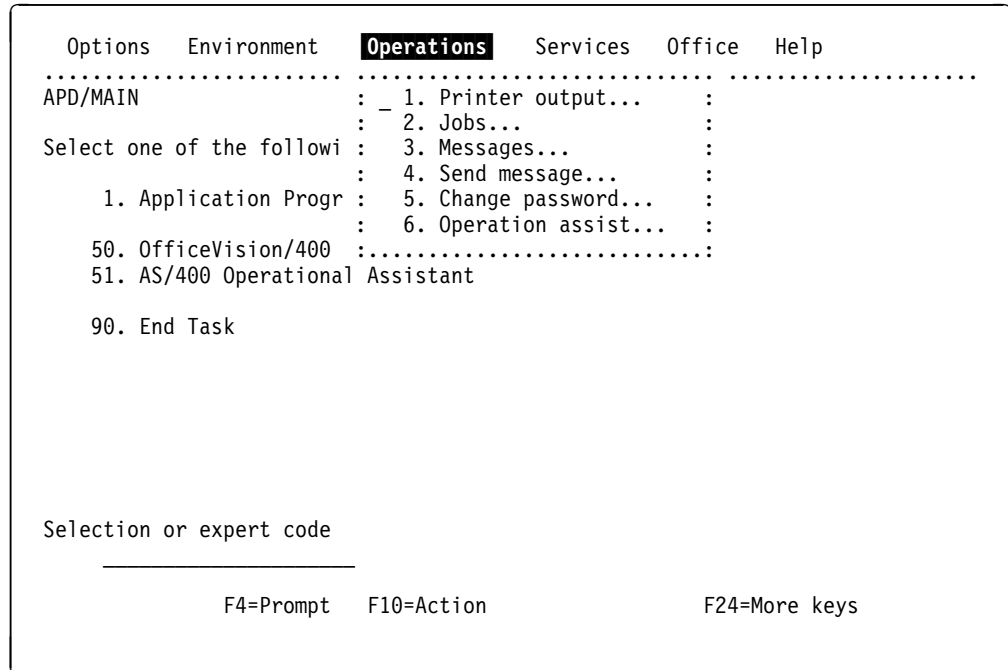
*Figure 4. Pull-Down Menu (Operations)*

Place the cursor on the menu-bar choice Operations. Press Enter to produce the pull-down menu for Operations, as shown in Figure 4.

Pull-down menus appear directly beneath the selected menu-bar choice and can display a maximum of 9 options. The color defined for the application to which the menu bar belongs is used for all items (border, choices) on the pull-down menu.

To switch from one pull-down menu to another, move the cursor with the tabulator or arrow key to the required menu bar choice and press Enter.

## Function Keys on Menu Bars and Pull-Down Menus

On menu bars, only F1 (Help), F10 (Action), and F12 (Cancel) are available. When you press F10 or F12 from the active menu bar, the menu bar is deactivated and control returns to the menu.

On pull-down menus, F1 (Help), F10 (Action) and F12 (Cancel) are also available.

When you press F10 (Action) on a pull-down menu, control returns to the menu.

After leaving the pull-down menu, the pull-down menu disappears.

**Exception:** If the menu bar was activated from a window, control returns to the menu bar. When you press F12 (Cancel) on a pull-down menu, control returns to the menu bar.

To return to the underlying display from a pull-down menu, press F12 (Cancel) to return to the menu bar, then press F12 (Cancel) again or F10 (Action) to return to your original starting point on the underlying menu.  You cannot move the cursor directly to the underlying display and process functions there.

### Menu Control

When a task selected from a pull-down menu has been processed, control returns to the underlying APD/400 menu.  When you select a menu task from a pull-down menu, that menu is displayed and becomes the controlling menu.

### Cursor-Sensitive Help

The help information you see depends on where the cursor is placed on the menu bar or pull-down menu.  To receive general help for the menu bar and pull-down menu, press F1 (Help) when the cursor is on the menu bar border.

To receive specific help for a task in a pull-down option, press F1 (Help) with the cursor on that option when the pull-down menu is active.

## Menu Windows

APD/400 now provides menus in windows.  When more than one *menu window* is on the screen at the same time, windows are displayed in a cascade.

Users can decide whether to use menus in windows or not.  If you decide not to use menus in windows, menus are displayed on the full screen as usual.  Processing a task option from a menu window is exactly the same as processing that option from the usual full-screen menu.

The APD/400 administrator determines which of the existing APD/400 menus can be displayed in windows.

The default setting for menu windows is *on*.  Use the new SWTMNUWDW (Switch Menu Window) command to switch menu windows on or off, or select option 1 (Menu windows on/off) from the pull-down menu for `Options` on the menu bar.  This switch is effective immediately and does not require you to leave APD/400.

Figure 5 on page 14 shows the `Administer Master Data` menu in a window.

```
   Options   Environment   Operations   Service   Office   Help
 ...............................................................................
 APD/MAIN                           Main Menu

 Select one of the following:
 .......................................
 :       Administer Master Data           :
 :                                         :
 : User and Authorization                  :
 :    1. Administer User Entries           :
 :    2. Administer User Groups            :
 :    3. Administer Authorization Lists    :
 :    4. Print Authorization Environment   :
 :                            More...      :
 : _____                       :
 :                                         :
 :                                         :
 :.......................................:


 Selection or expert code
      ADMMDTA_____


 F3=Exit        F4=Prompt   F10=Action   F12=Cancel    F24=More keys
```

*Figure 5. Menu Window*

A menu window appears when you activate a menu that the APD/400 administrator
has defined as a menu window, and menu windows are switched on.

The `More...` indicator is displayed in the lower right-hand corner of the window
when a menu has more than 6 options. The `Bottom` indicator is displayed when
you reach the end of the option list.

The *Selection or expert code* prompt is at the lower left and center of the window,
on line 9.

It is possible to choose the color and style of the window border. Refer to the *IBM
Application Program Driver/400 Version 3: Administrator's Guide* to find out how to
do this.

# Using Menu Windows

When you are using a menu window that has its own menu bar, you can produce
that menu bar in one of two ways:

- Press F23 (Set initial menu) to set the menu that is currently displayed in a
  window as your initial menu. An initial menu is always displayed on the full
  screen.

- Ask your application administrator to change the display mode of that menu
  from window to full screen.

In a menu window, you can proceed in one of three ways:

- Place the cursor on a menu option, and press Enter.

- Type the number of a menu option on the command line, and press Enter.

- Type the expert code of any task on the command line, and press Enter.

When you activate a menu window, control transfers to that window. To switch control back to the underlying full-screen display, you must press F12 (Cancel) until the window disappears, and you reach the full-screen menu.

Use F10 (Action) on a menu window to transfer control to the menu bar on the full-screen display.

## Pop-Up Windows for Select Functions

All select functions are now displayed in pop-up windows. These functions are as follows:

- Select Installation
- Select Applications
- Select Data Sets
- Select Expert Codes
- Transfer to an Interrupted Task
- Select Printer
- Select Languages

Windows for all select functions are similar to the window for `Select Data Sets` described in the following.

In the following example, illustrated by Figure 6 through Figure 9, the user has selected `3 Data Sets` from the `Environment` pull-down menu, then pressed F17 (Position to) and F18 (Subset).

```
   Options    Environment    Operations   Services   Office   Help
............ .............. ............. ..................................
APD/MAIN    : 3   1. Installations...   :
            :     2. Applications...    :
Select one o :   3. Data sets...        :
            :     4. Tasks...           :
    1. Appl :     5. Printers...        :
            :     6. Languages...       :
   50. Offi :                           :
   51. AS/4 :...........................:

   90. End Task




   Selection or expert code

      _____

            F4=Prompt   F10=Action            F24=More keys
```

*Figure 6. Select Data Sets from Pull-Down Menu*

```
   Options   Environment   Operations   Services   Office   Help
..............................................................................
APD/MAIN                            Main Menu

Select one of the following:

      ........................................................................
      : APD/SLTDS                        Select Data Sets                    :
      :                                                                      :
      : Type options, press Enter                                            :
      :   1=Select                                                           :
      :                                                                      :
      : Option   Data set   Application   Text                               :
      :    _       DS03       PAYROLL      IBM                               :
      :    _       DS04       PAYROLL      EXTRA1                            :
      :    _       DS05       PAYROLL      INTER                             :
      :    _       DS06       PAYROLL      RRSERV                            :
      :    _       DS07       PAYROLL      SLBANK                            :
      :                                                                 More... :
Sel : F3=Exit  F5=Refresh   F12=Cancel   F17=Position to   F18=Subset        :
      :                                                                      :
      :                                                                      :
      :......................................................................:

```

*Figure 7. Select Data Sets Using Pop-Up Window*

```
   Options   Environment   Operations   Services   Office   Help
..............................................................................
APD/MAIN                            Main Menu

Select one of the following:

      ........................................................................
      : APD/SLTDS                        Select Data Sets                    :
      :                                                                      :
      : Type options, press Enter                                            :
      :   1=Select                                                           :
      :                                                                      :
      : Option  Data set  Application Text                                   :
      :    _       D ......................................................  :
      :    _       D :                 Position the List                  :  :
      :    _       D :                                                 :  :
      :    _       D : Position to ... _____ Data set          :  :
      :    _       D :                                                 :  :
      :            : F12=Cancel                                        :  :
Sel : F3=Exit  :                                                 :  :
      :            :                                                 :  :
      :            :                                                 :  :
      :            :.................................................:  :
      :......................................................................:

```

*Figure 8. Position the List Pop-Up Window*

```
   Options   Environment   Operations   Services   Office   Help
 .......................................................................
 APD/MAIN                          Main Menu

 Select one of the following:

     .......................................................................
     : APD/SLTDS                        Select Data Sets                 :
     :                                                                   :
     : Ty ...............................................................  :
     :   :                          Subset Data Sets                 :  :
     :   :                                                           :  :
     : Op :  Type choices, press Enter                               :  :
     :   :                                                           :  :
     :   :     Data set  . . . .   *__      *, *generic*, name        :  :
     :   :                                                           :  :
     :   :     Application . . .   *_____   *, *generic*, name        :  :
     :   :                                                           :  :
     :   :     Text  . . . . . .   *_____  :  :
 Sel :  F :                                                           :  :
     :   :  F3=Exit    F12=Cancel                                    :  :
     :   :                                                           :  :
     :... :                                                          : .:
         :............................................................:
```

*Figure 9. Subset Pop-Up Window*

For detailed information about pull-down menus, menu windows, and window
cascades, refer to Appendix A, "Pull-Down Menus" on page 47, and Appendix B,
"Menu Window Cascades" on page 54.

# Chapter 4. Using APD/400

This chapter describes APD/400 services and explains how to use them.

## Starting APD/400

Some users go directly into APD/400 when they sign on to AS/400.  Where this is not the case, proceed as follows:

1. Sign on to AS/400.

2. Type `STRAPD` on the command line of the AS/400 main menu.

3. Press Enter.

The system displays the APD/400 `Main Menu`, as shown in Figure 10.

```
   Options   Environment   Operations   Services   Office   Help
 ....................................................................
 APD/MAIN                          Main Menu

 Select one of the following:

     1. Application Program Driver

    50. OfficeVision/400
    51. AS/400 Operational Assistant

    90. End Task




 Selection or expert code
     _____

              F4=Prompt   F10=Action              F24=More keys

```

Figure  10.  APD/400 Main Menu

Specify option 1 (Application Program Driver), or expert code `APD`.  The system displays the APD/400 initial menu, which contains the functions you are authorized to use.  Figure 11 on page 19 shows an example of an APD/400 initial menu.

```
   Options   Environment   Operations   Services   Office   Help
 ...................................................................
 APD/APD                    Application Program Driver

 Select one of the following:

      1. Administer Master Data
      2. Install and Delete Applications
      3. Save and Restore Data
      4. Service Functions




 Selection or expert code

   _____


 F3=Exit        F4=Prompt   F10=Action   F12=Cancel    F24=More keys
```

*Figure 11. APD/400 Initial Menu*

Select the `Service Functions` menu by specifying its option number, or expert code `EXTSRV`. The system displays the following menu.

```
   Options   Environment   Operations   Services   Office   Help
 ..................................................................
 APD/EXTSRV                    Service Functions

 Select one of the following:

   User's individual Settings
      1. Administer Personal Menu
      2. Administer Start Program
      3. Select Installation
      4. Select Data Sets
      5. Change Default User Profile

   Job Control
      6. Work with Scheduled Batch Jobs
      7. Work with Canceled Jobs
      8. Work with Jobs
      9. Work with APD/400 Batch System

 Selection or expert code

   _____


 F3=Exit        F4=Prompt   F10=Action   F12=Cancel    F24=More keys
```

*Figure 12. Service Functions (Page 1)*

Press F8 or the Page Down key to reach the second page of this menu. In
Figure 13 on page 20, you can also see the additional function keys that appear
when you press F24 (More keys).

```
   Options   Environment   Operations   Services   Office   Help
................................................................................
APD/EXTSRV                         Service Functions

 Select one of the following:

   Print Outqueue
      10. Select Printer
      11. Work with Printer Output

   Miscellaneous
      12. Work with Messages
      13. Command Line
      14. Select Languages




 Selection or expert code
     _____


 F9=Retrieve    F11=Expert code    F23=Set initial menu    F24=More keys
```

*Figure 13. Service Functions (Page 2)*

Options that are not visible on the Service Functions menu can be seen and accessed only by authorized users.

The Service Functions menu offers the following options:

1. Administer Personal Menu
   Select this option to create your own personal user menu, consisting of tasks you use most often.

2. Administer Start Program
   Select this option to specify a program to run automatically whenever you sign on to APD/400.

3. Select Installation
   Select this option to work on another installation.

4. Select Data Sets
   Select this option to change to another data set.

5. Change Default User Profile
   Select this option to change the default user profile, if you are authorized to do this.

6. Work with Scheduled Batch Jobs
   Select this option to change batch jobs that you scheduled in APD/400.

7. Work with Canceled Jobs
   Select this option to restart or remove interrupted batch jobs.

8. Work with Jobs
   Select this option to work with Operating System/400* (OS/400*) user jobs.

9. Work with APD/400 Batch System
   Select this option to display the state of the batch system.

10. `Select Printer`

     Select this option to change the printer environment for a single job or task, or permanently.

11. `Work with Printer Output`

     Select this option to work with all spooled files in OS/400.

12. `Work with Messages`

     Select this option to display all AS/400 system and APD/400 related messages.

13. `Command Line`

     Select this option to produce an AS/400 window, from which you can press F4 for a list of commands, or F9 to retrieve previous commands.

14. `Select Languages`

     Select this option to specify a language priority list.

For further information contact your system administrator.

## Selecting Your Working Environment

The `Service Functions` menu offers options to help you select and control your APD/400 environment.  These options are as follows:

- `Select Installation`

- `Select Data Sets`

- `Select Printer`

- `Administer Start Program`

- `Select Languages`

## Selecting an Installation

Your APD/400 administrator may have set up separate installations for test, education, and production environments.

If you are allowed to work on more than one installation, you can switch between installations that are available to you.

Select option 3 (Select Installation) from the `Service Functions` menu, option 1 (Installations...)  from the `Environment` pull-down menu, or enter expert code `SLTINS` to produce the `Select Installation` display.

```
    Options   Environment   Operations   Services   Office   Help
 ...............................................................................
 APD/APD                       Application Program Driver

 Select one of the following:

      ..........................................................................
      : APD/SLTINS                    Select Installation                      :
      :                                                                        :
      : Type option, press Enter.                                              :
      :   1=Select                                                             :
      :                                                                        :
      : Option    Installation   Text                                         :
      :                          Default installation                         :
      :   _           101        Educational installation                     :
      :   _           123        Test installation                            :
      :                                                                        :
      :                                                                        :
      :                                                              Bottom :
 Sel  : F3=Exit   F5=Refresh   F12=Cancel   F17=Position to                  :
      :                                                                        :
      :                                                                        :
 F3=  :..........................................................................:
```

*Figure 14. Select Installation*

Figure 14 is an example of a `Select Installation` display, which shows a list of all installations on which you are authorized to work.  Fields on this display provide the following information:

`Installation`   ID of the installation

`Text`            Brief description of the installation

To select an installation, type 1 in the *Option* column next to that installation, and press Enter.

## Selecting a Data Set

In APD/400, you can use various data sets within an application.  This is useful for maintaining separate data for different companies, clients, or departments.

When you are using more than one data set at a time, you can switch between available data sets.

Select option 4 (Select Data Sets) from the `Service Functions` menu, option 3 (Data sets...)  from the `Environment` pull-down menu, or enter expert code `SLTDS` to produce the `Select Data Sets` display.

```
   Options   Environment   Operations   Services   Office   Help
 ...............................................................................
 APD/MAIN                              Main Menu

 Select one of the following:

     ...........................................................................
     : APD/SLTDS                           Select Data Sets                     :
     :                                                                          :
     : Type options, press Enter.                                               :
     :   1=Select                                                               :
     :                                                                          :
     : Option  Data set  Application Text                                       :
     :    _      DS03      PAYROLL     IBM                                       :
     :    _      DS04      PAYROLL     EXTRA1                                    :
     :    _      DS05      PAYROLL     INTER                                     :
     :    _      DS06      PAYROLL     RRSERV                                    :
     :    _      DS07      PAYROLL     SLBANK                                    :
     :                                                                More... :
 Sel :  F3=Exit  F5=Refresh   F12=Cancel    F17=Position to    F18=Subset       :
     :                                                                          :
     :                                                                          :
     :..........................................................................:
```

*Figure 15. Select Data Sets*

Figure 15 is an example of a `Select Data Sets` display, which shows a list of all data sets you are authorized to use. Fields on this display provide the following information:

`Data set`      ID of the data set

`Application`   ID of the application to which the data set belongs

`Text`          Brief description of the data set

To select a data set, type `1` in the *Option* column next to that data set, and press Enter.

## Selecting a Printer Environment

To select a print environment, select option 10 (Select Printer) from the `Service Functions` menu, option 5 (Printers...) from the `Environment` pull-down menu, or enter expert code `SLTPRT` to produce the `Select Printer` display.

```
   Options   Environment   Operations   Services   Office   Help
 ...................................................................................
 APD/MAIN                          Main Menu

  Select one of the following:

      ...............................................................................
      : APD/SLTPRT                         Select Printer                          :
      :                                                                            :
      : Type options, press Enter.                                                 :
      :   1=Select for task   2=Select for job   3=Select for user                :
      :                                                                            :
      : Option Device     Text                           Status                    :
      :   _    DBCSPRT     Printer for DBCS               Printing                  :
      :   _    PRT01       Created by autoconfiguration   Printing                  :
      :   _    PS55DBCS    Device created for PS55DBCS    Stopped                   :
      :   _    QSYSPRT     Created by autoconfiguration   Printing                  :
      :   _    PRT02       Printer for ID                 Printing                  :
      :                                                                  More... :
  Sel : F3=Exit  F5=Refresh   F12=Cancel   F17=Position to   F18=Subset            :
      :                                                                            :
      :                                                                            :
      :...............................................................................:
```

*Figure 16. Select Printer*

Figure 16 is an example of a `Select Printer` display, which shows a list of printers
you are allowed to use.  The current printer is marked in reverse image.  Fields on
this display provide the following information:

`Device`     Identification of a printer

`Text`       Brief description of the printer

`Status`     Current status of the printer

To select a printer, type one of the following options in the *Option* column next to a
printer, and press Enter:

1 = Select a printer for the next task to be processed.  APD/400 resets the
environment to the default printer when the task has been completed.

2 = Select a printer for the current session.  APD/400 resets the environment to the
default printer when you have signed off.

3 = Select the default printer.  This printer becomes the default printer for all tasks
or jobs until you use this option again to specify another printer as the default.

## Selecting a Start Program

You can specify a start program to run whenever you sign on to APD/400.  When
your start program has finished running, APD/400 displays the initial menu.

To select a start program, select option 2 (Administer Start Program) from the
`Service Functions` menu, or enter expert code `ADMSTRPGM` to produce the `Select
Start Program` display.

```
  APD/ADMSTRPGM                    Select Start Program

  Current start program . . :     *NONE


  Type option, press Enter.
    1=Select

  Option  Expert code  Type   Text                              Appl.
    _     *NONE               Drop initial program
    _     ADMAPDPRM    P      Administer Parameters             APD
    _     ADMAPL       P      Administer Applications           APD
    _     ADMAUT       P      Administer Authorizations         APD
    _     ADMCOE       P      Administer Data Set               APD
    _     ADMCTLREC    P      Administer Control Records        APD
    _     ADMDS        P      Administer Data Set               APD
    _     ADMENV       P      Administer Batch Environments     APD
    _     ADMEXC       P      Administer Exclusions             APD
    _     INVOI        P      Invoicing                         PAY
    _     PRTINV       P      Printing Invoices                 PAY
    _     SALFIG       P      Printing Sales Figures            PAY
                                                                  More...
  F3=Exit   F12=Cancel   F18=Subset   F24=More keys

```

*Figure 17. Select Start Program*

Press F24 (More keys) to see additional function keys that are available on this
display.

Figure 17 is an example of a `Select Start Program` display, which shows a list of
programs from which you can select a start program. Fields on this display provide
the following information:

`Current start program`
> Expert code of the program currently assigned to run when you
> sign on. If no start program has been selected, the word `*NONE` is
> displayed.

`Expert code`   Expert code of the program.

`Type`          Type of expert code (P, L, or C).

`Text`          Brief description of the program.

`Appl.`         Application to which the program belongs.

To select a program as your start program, type `1` in the *Option* column next to that
program, and press Enter.

If you no longer require a selected start program, select expert code `*NONE`.

## Multilingual Support for Applications under APD/400

When a user has set up a personal language priority list, APD/400 can do the
following:

- Display help information in the language with the highest priority.

- Display helps and messages in a second language.

# Selecting Languages

Each user can specify a list of languages in order of preference. This priority list is valid for OS/400, APD/400, and for all applications. To specify a language priority list, select option 14 (Select Languages) from the `Service Functions` menu, option 6 (Languages...) from the `Environment` pull-down menu, or enter expert code `SLTLNG`.

`Select Languages` shows a list of available languages that are used in at least one application. Using this list, you can rank as many as eight languages in order of priority to create your own working language list.

You need to do this only once, but you can change the priorities on the list at any time. Whenever you select an application that is available in a language on your list, you can use the application in that language.

Previously selected language priorities appear at the top of the language list. The first language on the list is your most preferred language.

Figure 18 is an example of a language priority list.

```
   Options   Environment   Operations   Services   Office   Help
  ...................................................................
 APD ..................................................................
    :  APD/SLTLNG              Select Languages                     :
 Sel :                                                              :
    :  Select up to eight languages to specify your preferred      :
    :  language list.                                              :
    :  To add a language, type a priority between 1 and 8.         :
    :  To change the position of a language, type over the priority. :
    :  To remove a language, space over the priority. Press Enter. :
    :                                                              :
    :  Priority    Language                                        :
    :     1        French                                         :
    :     2        Belgian Dutch                                  :
    :     3        English                                        :
    :     _        Japanese                                       :
    :     _        Canadian French                                :
    :     _        German                                         :
    :                                                     More... :
 Sel :  F5=Refresh   F12=Cancel                                    :
    :                                                              :
    :                                                              :
    :..............................................................:
```

*Figure 18. Select Languages*

# Selecting a Language for an Application

When tasks from different applications are included on an APD/400 menu, APD/400 selects a language to be used for the description of each task. APD/400 uses the user's language priority list to select a language from those available in the application.

The Select Language for Application window appears when APD/400 is required to display messages or helps, under the following conditions:

- An application supports more than one language.

- You have not specified a language priority list.

- The application is not available in any language on your priority list.

```
   Options   Environment   Operations   Service   Office   Help
 ...............................................................................
  APD/MAIN                          Main Menu

  Select one of the  .....................................................
                     :                                                   :
     1. Application :          Select Language for Application           :
                     :                                                   :
    50. OfficeVisio :    Application . . :   PAYROLL                      :
    51. AS/400 Oper :                                                    :
                     : Select your preferred language, press Enter.      :
    90. End Task    :    1=Select                                        :
                     :                                                   :
                     : Option   Language                                 :
                     :    1      German                                  :
                     :    _      Japanese                                :
                     :    _      Canadian French                         :
                     :    _      Spanish                                 :
                     :                                                   :
  Selection or exper :                                          Bottom   :
                     : F12=Cancel                                        :
                     :                                                   :
            F4=P    :                                                    :
                     :.....................................................:
```

*Figure 19. Select Language for Application Window*

Figure 19 is an example of a Select Language for Application window. Fields in this window provide the following information:

Application     Application for which a language must be selected.

                Only the abbreviation of the application is displayed because APD/400 does not yet know in what language to display the description of the application.

Language     List of languages available in the application.

In this pop-up window, you must select a language for the application. This selection is stored for future use, and is deleted as soon as you create your own language priority list.

# Creating Your Own Personal Menu

Users may find it necessary or useful to combine the tasks they use most often into one menu. In APD/400, you can create a personal menu for each installation you are authorized to use.

To create your personal menu for the current installation, select option 1 (Administer Personal Menu) from the `Service Functions` menu, or enter expert code `ADMPMU` to produce the `Administer Personal Menu` display.

```
  APD/ADMPMU                     Administer Personal Menu

    Menu Task . . . :   JIM           Personal Menu

  Type option, press Enter.

  To add a task to menu, type an option number between 1 and 99.
  To change the position of a task, type over the option number.
  To remove a task, space over the option number.

  Option  Task          Text                                   Appl.
    01    ADMAPDPRM     Administer Parameters                   APD
    03    ADMAPL        Administer Applications                 APD
    06    ADMAPP        Administer Applications (Developer)      APD
    __    ADMAUT        Administer Authorization Lists          APD
    __    ADMCOE        Administer Data Set                     APD
    __    ADMCTLREC     Administer Control Records              APD
    __    ADMDS         Administer Data Set                     APD
    __    ADMENV        Administer Batch Environments           APD
    __    ADMEXC        Administer Exclusions                   APD
    __    ADMHDG        Administer Menu Headings                APD
                                                              More...
  F3=Exit   F5=Refresh   F12=Cancel   F17=Position to   F18=Subset

```

*Figure 20. Administer Personal Menu*

Figure 20 is an example of the `Administer Personal Menu` display, which shows a list of available tasks. From this list you can select tasks to change, add to, or remove from your personal menu. Fields on this display provide the following information:

`Menu Task`    Name of your personal menu, always your user ID

`Task`         List of tasks you are authorized to use

`Text`         Brief description of each task

`Appl.`        ID of the application to which the task belongs

The current numbers of selected tasks, if any, are displayed in the *Option* column. Selected tasks are always displayed at the top of the list, even when they do not match a subset you display by pressing F18.

All option numbers from 1 through 99 are valid. You can assign numbers to individual tasks by entering numbers in the *Option* column, or remove tasks by replacing the numbers with blanks.

Press Enter when you have finished.

## Using Personal Menus

When you have created your own personal menu, you can access it as follows:

- On any APD/400 or application menu, type the name of your user profile on the command line, and press Enter.  If the name of your user profile is USER, type USER.

- If another menu of the same name already exists, either in the current application (the application to which the active menu belongs) or in APD/400, that menu is displayed.  In this case, name your personal menu APD+/USER, because all personal menus belong to the APD+ application.

  APD+ is a special application ID used to access your personal menu.

- If you want your personal menu to be your initial menu, press F23 while your personal menu is displayed on the screen.  After you have done this, your personal menu appears first whenever you sign on to APD/400.

## Scheduling Batch Jobs

In APD/400, users can run batch jobs.  Batch jobs run in the background without user interaction, so that you can continue working while batch processing is going on.

When a task is designed to run as a batch job, select the required option, or enter the expert code on an APD/400 menu.  Your application administrator or application developer has already determined the order and contents of APD/400 displays that appear next.

**Note:**  Your screen may not display all items described here.

If a job is to run more than once, you can also specify the name of a timetable, and the date when you want the recurring job to run for the last time.

## Submitting Batch Jobs

When you select a batch task from a menu or by entering the expert code, the Schedule a Batch Job display appears.

Depending on what the administrator specified when the task was created, this display is sometimes informational only.  Values that you are allowed to change are displayed in input fields.  If F10 (Using a timetable) is available on the display, you can run the task as a recurring batch job.
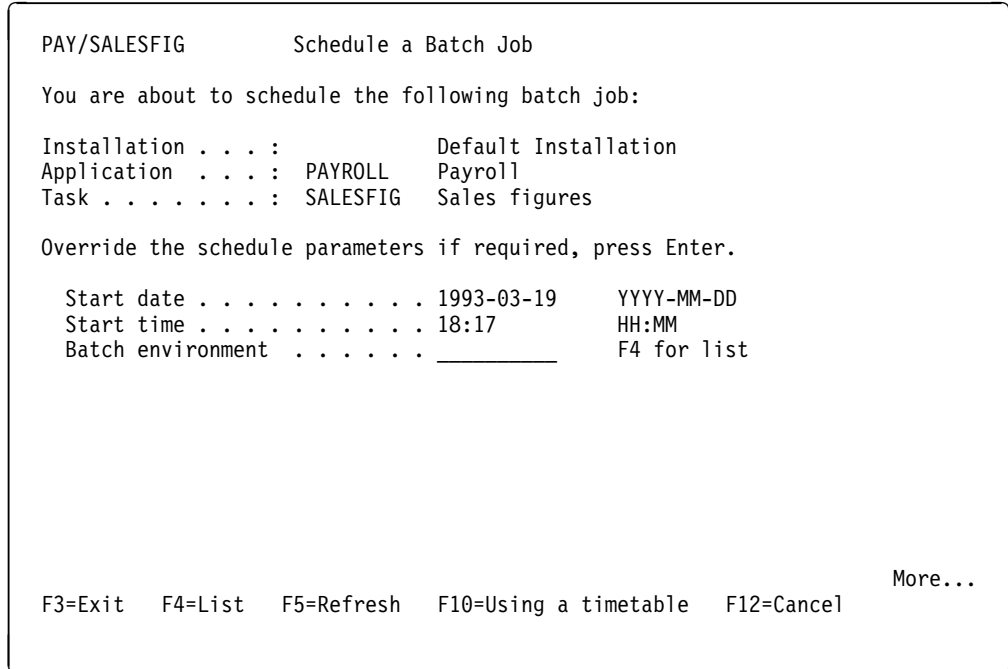
```
 PAY/SALESFIG          Schedule a Batch Job

 You are about to schedule the following batch job:

 Installation . . . :          Default Installation
 Application  . . . :  PAYROLL    Payroll
 Task . . . . . . . :  SALESFIG   Sales figures

 Override the schedule parameters if required, press Enter.

   Start date . . . . . . . . . 1993-03-19     YYYY-MM-DD
   Start time . . . . . . . . . 18:17          HH:MM
   Batch environment  . . . . . . _____    F4 for list




                                                          More...

 F3=Exit   F4=List   F5=Refresh   F10=Using a timetable   F12=Cancel
```

*Figure 21. Schedule a Batch Job (Page 1)*

Figure 21 is an example of a `Schedule a Batch Job` display. Fields on this display provide the following information:

`Start date`  Current date. If this is an input field, you can change the displayed value.

`Start time`  Current time or a time specified by the application administrator. If this is an input field, you can change the displayed value.

`Batch environment`  Usually the name of an APD/400 environment. If this is an input field and you have special requirements, (for example, you want your output to be printed on a specific printer, or the job to run faster than usual), you can specify a batch environment.

If the *Start date* and *Start time* fields are input fields on the display, you can press F10 (Using a timetable) to run this task as a recurring batch job (see "Running a Recurring Job" on page 32).

The batch job is scheduled when you press Enter.

If `More...` is visible in the lower right-hand corner, press the Page Down key to reach the second page of `Schedule a Batch Job`, on which you can specify parameters for program tasks.

**Note:** You may see a display that is not part of APD/400, but of an application program. If so, see the description of that application for details.

Figure 22 on page 31 shows an example of page 2 of `Schedule a Batch Job`.

```
PAY/SALESFIG          Schedule a Batch Job

You are about to schedule the following batch job:

Installation . . . :          Default Installation
Application  . . . :  PAYROLL   Payroll
Task . . . . . . . :  SALESFIG  Sales Figures


Specify the task parameter, press Enter.

  _____
  _____
  _____
  _____
  _____
  _____
  _____
  _____




                                                            Bottom
  F3=Exit   F5=Refresh   F11=Alternate view   F12=Cancel

```

*Figure 22. Schedule a Batch Job (Page 2)*

On the second page of Schedule a Batch Job, you can specify parameters for individual tasks on a process list or a program.  For tasks on process lists, this display reappears for each task so that you can specify a parameter value.  Use the Page Down key to scroll through the tasks.

Press F11 (Alternate view) for an different view of this display, as shown in Figure 23 on page 32.

**Note:**  This alternate view is different in the DBCS version.

```
PAY/SALESFIG        Schedule a Batch Job

Installation . . . :            Default Installation
Application  . . . :  PAYROLL    Payroll
Task . . . . . . . :  SALESFIG   Sales Figures


Specify the task parameter, press Enter.

            ----+----1----+----2----+----3----+----4----+----5
  1 -  50   _____
 51 - 100   _____
101 - 150   _____
151 - 200   _____
201 - 250   _____
251 - 300   _____
301 - 350   _____
351 - 400   _____
401 - 450   _____
451 - 500   _____
501 - 512   _____
                                                              Bottom
 F3=Exit   F5=Refresh   F11=Alternate view   F12=Cancel
```

*Figure 23. Schedule a Batch Job (Page 2, Alternate View)*

Figure 23 is an example of the alternate view of page 2 of the `Schedule a Batch Job` display.  On this display, provide the following information:

`Parameter`    Specify a parameter value.  The value you enter here is not defined by APD/400, but by the program that is run as a batch job or a task on a process list.  See the description of that program for details.

Press Enter to submit the job.

# Running a Recurring Job

If you want to run a batch job more than once, at specific times, or on specific dates, press F10 (Using a timetable) on the first page of `Schedule a Batch Job`. APD/400 then displays two additional input fields, as shown in Figure 24 on page 33.

```
  PAY/SALESFIG           Schedule a Batch Job

  You are about to schedule the following batch job:

  Installation . . . :           Default Installation
  Application  . . . :  PAYROLL   Payroll
  Task . . . . . . . :  SALESFIG  Sales Figures

  Override the schedule parameters if required, press Enter.

    Start date . . . . . . . . . 1993-03-19     YYYY-MM-DD
    Start time . . . . . . . . . 18:17          HH:MM
    Batch environment  . . . . . . _____    F4 for list

    Recurring job parameters:
    Timetable  . . . . . . . . . _____      F4 for list
    End date . . . . . . . . . . _____      YYYY-MM-DD




                                                          More...

  F3=Exit   F4=List   F5=Refresh   F10=Resolve timetable   F12=Cancel
```

*Figure 24. Schedule a Batch Job (for a Recurring Job)*

Enter information in the following two fields:

Timetable   Specify the name of an existing timetable for the recurring batch job.  If
            you do not specify a timetable, the job is run only once.

End date    Specify the date when you want the batch job to run for the last time.
            Use the date format displayed at the right of the field.

Press F10 (Resolve timetable) to see the actual dates and times when your
recurring job will run, according to the timetable you have specified.

```
  PAY/SALESFIG          Display Resolved Timetable Entries

   Installation  . :                  Default Installation
   Application . . :    PAYROLL        Payroll
   Task  . . . . . :    SALESFIG
   Timetable . . . :    TIMETABLE1
   Start date. . . :    1993-03-19
   Start time. . . :    18:17
   End date. . . . :    2000-01-17

    Number    Date          Week     Day of the week          Time

       1      1993-03-19    12       Tuesday                  18:17
       2      1993-03-20    12       Wednesday                02:09
       3      1993-03-20    12       Wednesday                10:09
       4      1993-03-20    12       Wednesday                18:09
       5      1993-03-21    12       Thursday                 02:09
       6      1993-03-21    12       Thursday                 10:09
       7      1993-03-21    12       Thursday                 18:09
       8      1993-03-22    12       Friday                   02:09
                                                                More...


   F3=Exit    F12=Cancel
```

*Figure 25. Display Resolved Timetable Entries*

Figure 25 shows an example of `Display Resolved Timetable Entries`.

## Working with Scheduled Jobs

You can examine the batch jobs you have scheduled and, where necessary, change a scheduled job using the `Work with Scheduled Batch Jobs` display.

To use this function, select option 6 (Work with Scheduled Batch Jobs) from the `Service Functions` menu, or enter expert code `WRKSCDJOB` to produce the `Work with Scheduled Batch Jobs` display, as shown in Figure 26 on page 35.

```
   APD/WRKSCDJOB              Work with Scheduled Batch Jobs

   Type options, press Enter.
     2=Change   3=Hold   4=Delete    5=Display    6=Release

   Option   Date       Time    Status Expert code  Application  Inst.  User
     _       1993-03-19 08:17    CNL    SALESFIG     PAYROLL             JIM
     _       1993-03-19 18:02    REC    BALANCING    PAYROLL      001    MARY













     F3=Exit    F10=Other jobs   F12=Cancel   F18=Subset   F24=More keys

```

*Figure 26. Work with Scheduled Batch Jobs*

Figure 26 shows an example of the Work with Scheduled Jobs display, on which
you can change a scheduled batch job.  Fields on this display provide the following
information:

Date          Date when the batch job is processed

Time          Time when the batch job is processed

Status        Status of the batch job

Expert code   Expert code of the batch job

Application   ID of the application to which the job belongs

Inst.         ID of the installation where the job is running

User          ID of the user who scheduled the batch job

Press F11 (View 2) for an alternate view containing a description of each task, as
shown in Figure 27 on page 36.

```
APD/WRKSCDJOB           Work with Scheduled Batch Jobs

Type options, press Enter.
  2=Change   3=Hold   4=Delete   5=Display   6=Release

Option   Date       Time    Status Text
  _      1993-03-19  08:17   CNL    Invoicing
  _      1993-04-20  18:09   RLS    Sales
  _      1993-05-04  08:10   HLD    Receipts
```

*Figure 27. Work with Scheduled Batch Jobs (View 2)*

**Note:** You can press F10 to display a list of batch jobs scheduled outside APD/400. For details, see "Checking Other Batch Jobs" on page 38.

## Changing Scheduled Batch Jobs

To change a scheduled batch job, type 2 in the *Option* column. You can change batch jobs with RDY (Ready), REC (Recurring), or HLD (Held) status only.

You see the Change Scheduled Batch Job display when you are about to change a recurring batch job. If you are changing a recurring batch job (a batch job with a timetable defined for it), the parameters for recurring jobs (Timetable and End date) are displayed automatically. Otherwise, you must press F10 to see the parameters for recurring jobs.

```
  PAY/BALANCE            Change Scheduled Batch Job



   Installation . . . :          Default Installation
   Application  . . . :  PAYROLL    Payroll
   Task . . . . . . . :  BALANCE    Balancing the time-sheets

   Change the schedule parameters if required, press Enter.

     Start date . . . . . . . . . 1993-02-04    YYYY-MM-DD
     Start time . . . . . . . . . 17:50         HH:MM
     Batch environment  . . . . . . _____     F4 for list

     Recurring job parameters:
     Timetable. . . . . . . . . . PAYROLL02_    F4 for list
     End date . . . . . . . . . . 1993-05-31    YYYY-MM-DD




                                                              Bottom
   F3=Exit   F4=List   F5=Refresh   F10=Resolve timetable   F12=Cancel

```

*Figure 28. Change Scheduled Batch Job*

Figure 28 shows an example of the `Change Scheduled Batch Job` display.

Specify the required changes.  Press Enter to confirm the changes, or F10
(Resolve timetable) if you are changing a recurring batch job.

**Note:**  A changed job is marked *CHG on the `Work with Scheduled Batch Jobs`
display.

## Deleting Scheduled Batch Jobs

To delete a scheduled batch job, type 4 in the *Option* column next to that job on the
`Work with Scheduled Batch Jobs` display.  Press Enter to confirm that you want to
delete the batch job, or press F3 or F12 to cancel the delete operation.  A deleted
entry is marked *DLT on the `Work with Scheduled Batch Jobs` display.  You cannot
delete batch jobs with SBM (Submitted), ACT (Active), or RST (Restartable) status.

## Holding and Releasing Scheduled Batch Jobs

On the `Work with Scheduled Batch Jobs` display, you can hold a batch job to
prevent it from being processed at the specified date and time.  Place the cursor on
the batch job you want to hold, and specify option 3 (Hold).  Held entries are
marked *HLD.

**Note:**  You can hold batch jobs with RDY (Ready) or REC (Recurring) status only.

On the `Work with Scheduled Batch Jobs` display, you can also release a held batch
job so that it can run at the specified date and time.  If that time and date is already
in the past when you release the job, APD/400 processes the job immediately.
Place the cursor on the batch job you want to release, and specify option 6
(Release).  Released entries are marked *RLS.

**Note:**  You can release batch jobs with HLD (Held) status only.

# Checking Other Batch Jobs

While working with scheduled batch jobs, you can also check the status of batch jobs that are not controlled by APD/400.  Press F10 (Other jobs) on the `Work with Scheduled Batch Jobs` display to see all current batch jobs that are not under APD/400 control.  `Display Batch Jobs` shows a list of all jobs running in batch mode that have not been scheduled and submitted by APD/400.

```
                           Display Batch Jobs

          Job         User         Date         Time         Status
          SALESFIG    JIM          1993-03-22   13:49:25     Running
          BATCHJOB2   BOB          1993-03-22   14:33:19     Waiting


















          F3=Exit    F5=Refresh   F12=Cancel  F17=Position to   F18=Subset
```

*Figure 29. Display Batch Jobs*

Figure 29 is an example of the `Display Batch Jobs` display, which shows current jobs outside APD/400.  These jobs are displayed to give you an overview of the batch situation.  You cannot change anything about these jobs.  Fields on this display provide the following information:

Job      Name of the job as it is known on AS/400.

User     ID of the user who created the job.  You see a list of all jobs under your user ID.  To see jobs of other users, press F18 (Subset) to select those users from the `Select Batch Jobs` display.

Date     Date on which the job was created.

Time     Time when the job was created.

Status   Current status of the job.

Press F18 (Subset) on the `Display Batch Jobs` display to produce `Select Batch Jobs`, as shown in Figure 30 on page 39.

```
                          Select Batch Jobs

  To see a different selection of jobs,
  overwrite the displayed value for User ID, press Enter.

     User ID . . . . . . . . .   JIM_____    *, generic*, name

















     F3=Exit    F12=Cancel
```
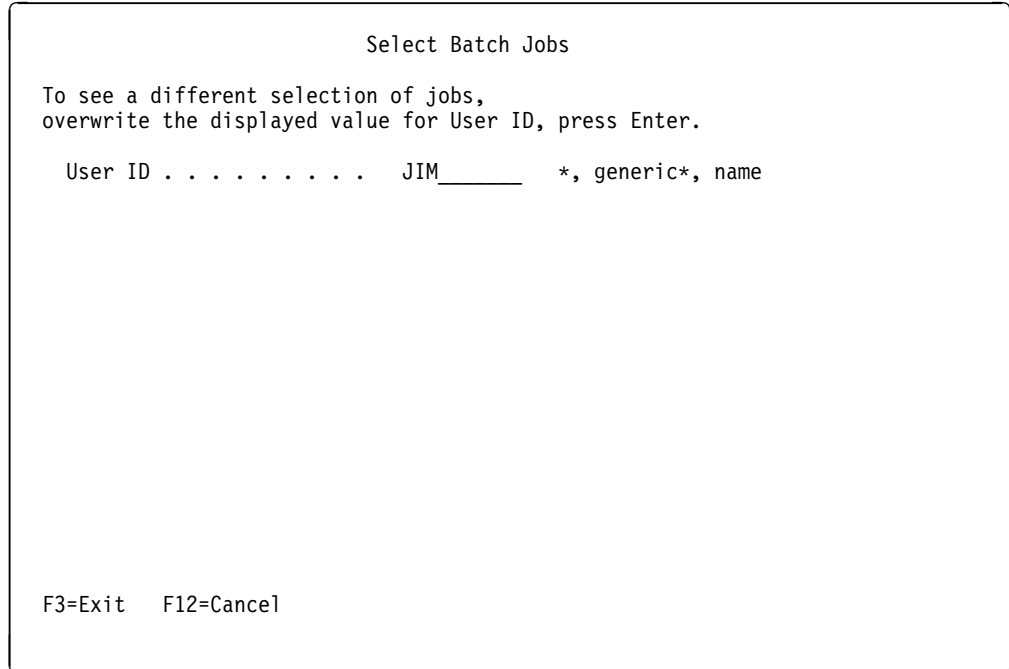
*Figure 30. Select Batch Jobs*

Figure 30 shows the `Select Batch Jobs` display, from which you can view batch jobs running under user IDs other than your own.

Enter the following information:

`User ID`   Specify the user or users whose batch jobs you want to see on the `Display Batch Jobs` display, and press Enter.

## Working with Canceled Jobs

When a job has been canceled due to an interruption or an AS/400 system failure, the AS/400 system indicates that a restart is pending.  `Work with Canceled Jobs` is displayed directly after sign-on when restarts are pending.

You can also select option 7 (Work with Canceled Jobs) from the `Service Functions` menu, or enter expert code `WRKCNLJOB` to produce the `Work with Canceled Jobs` display.

**Note:**  In restart situations, ask your administrator what caused the abnormal stop, and whether or not that condition still exists.

Remember the following:

- Only the submitting user or the administrator is authorized to restart or delete a failed job.

- Failed jobs are shown on the `Work with Canceled Jobs` display, but only the failed jobs that you started.  However, you can press F18 (Subset) to see failed jobs of other users.  When you have pressed F18 (Subset), type the ID of a specific user to see the failed jobs of that user.  Type an asterisk (*) to see the failed jobs of all users.

- Entries on the `Work with Canceled Jobs` display are sorted by user ID.

```
APD/WRKCNLJOB              Work with Canceled Jobs

Type option, press Enter.
  1=Select    4=Delete    5=Display    6=Release

Option  User         Expert code  Application  Inst.  Processing Restart
                                                      type       type
   _    JIM          SALESFIG     PAYROLL      0001   I          M
   _    JONES        ADMMDTA      APD                 I          Y
   _    SMITH        BATCHRUN1    MAPS         MAPS   B          M












F3=Exit    F5=Refresh    F12=Cancel    F18=Subset
```

*Figure 31. Work with Canceled Jobs*

Figure 31 shows an example of a `Work with Canceled Jobs` display.  Fields on this display are as follows:

| | |
|---|---|
| `Option` | Type one of the following options in the *Option* column: |
| | 1 = Select (to restart canceled interactive jobs) |
| | 4 = Delete (not valid for restart type M) |
| | 5 = Display |
| | 6 = Release (to restart canceled batch jobs) |
| `User` | ID of the user who submitted the canceled job |
| `Expert code` | Expert code of the canceled job |
| `Application` | ID of the application to which the canceled job belongs |
| `Inst.` | ID of the installation on which the canceled job is scheduled |
| `Processing type` | I   Interactive task |
| | IL  Interactive process list |
| | B   Batch task |
| `Restart type` | Y   Normal restart control |
| | M   Mandatory restart |

# Restarting Canceled Jobs

You can restart both interactive and batch jobs that have been canceled.  Proceed as described in the following.

## Interactive Jobs

To restart a canceled interactive job, select that job on the `Work with Canceled Jobs` display.  Type `1` in the *Option* column next to that job, and press Enter.

If you are the user who originally started the canceled job, the job is restarted and APD/400 returns to the interrupted task.

## Batch Jobs

To restart a canceled batch job, release the job on the `Work with Canceled Jobs` display.  Type `6` in the *Option* column next to that job, and press Enter to produce the `Release Canceled Batch Job` display.

```
  PAY/SALESFIG          Release Canceled Batch Job

  Installation . . . :          Default Installation
  Application  . . . :  PAYROLL    Payroll
  Expert Code  . . . :  SALESFIG   Sales Figures

  Type choices, press Enter.

  Start date  . . . . . . .  30.01.1993   DD.MM.YYYY

  Start time  . . . . . . .  14:32        HH:MM

  F3=Exit    F12=Cancel
```

*Figure  32.  Release Canceled Batch Job*

Figure 32 shows an example of the `Release Canceled Batch Job` display.  Fields on this display are as follows:

`Start date`   You can change the restart date of a canceled job by entering any valid date.  If you specify a date prior to the current date, APD/400 restarts the job immediately.

`Start time`   You can change the restart time of a canceled batch job by entering any valid time.

Press Enter to restart the job.  Restarted entries are marked `*RLS` on the `Work with Canceled Jobs` display.

# Deleting Canceled Jobs

To delete a canceled job, type 4 in the *Option* column next to that job on the Work with Canceled Jobs display, and press Enter.

All deleted jobs are marked *DLT on the Work with Canceled Jobs display. To remove those deleted jobs from the batch system, you must now delete them from the list of jobs on the Work with Scheduled Jobs display. All deleted jobs are marked *CNL on the Work with Scheduled Jobs display.

# Displaying the State of the Batch System

When you are informed that a job you submitted to the APD/400 Batch System did not run at the scheduled time or did not start when you submitted it to run immediately, you can check whether or not the APD/400 batch system is active.

To display the state of APD/400 batch system, select option 9 (Work with APD/400 Batch System) from the Service Functions menu, or enter expert code WRKMONSTS.

Figure 33 shows an example of the Work with APD/400 Batch System display.

```
  APD/WRKMONSTS              Work with APD/400 Batch System

  Number of jobs activated by the APD/400 Batch System:

    Jobs that are currently active . . . . . . :   0000

    Jobs that are waiting on the job queue . . :   0001

  Current state of the APD/400 Batch System  . . :  1   Active



  Specify the requested state of the APD/400 Batch System, press Enter.

    Requested state of the APD/400 Batch System  . .   __    1   =   Active
                                                             2   =   Not activating
                                                             3   =   Hold
                                                             4   =   Hold, no locks
                                                            90   =   Down



  F3=Exit   F5=Refresh   F12=Cancel
```

*Figure 33. Work with APD/400 Batch System*

**Note:**  You may not be able to change the state of the batch system.  If you try to specify another state on the display, an error message appears explaining that you are not authorized to change the state of the APD/400 monitor.

The normal state of the APD/400 Batch System is Active.  Contact your APD/400 administrator if the state is anything other than Active, and you want to run batch jobs, or if the state of the APD/400 Batch System says Active, and your jobs have not started.

# Chapter 5.  Maintaining Multiple APD/400 Tasks

You can switch between tasks in one application, or between tasks in different applications.  To do this, press the Attention key on any display or menu to produce the `Transfer to an Interrupted Task` display.

You can start a new task from the `Transfer to an Interrupted Task` display.  Whenever you add a new task, APD/400 is started again.

The number of tasks that can run simultaneously is determined by the APD_GROUPJOBS_MAXIMUM system parameter.  The APD/400 administrator regulates this parameter.  Refer to the *IBM Application Program Driver/400 Version 3: Administrator's Guide* for detailed information about this parameter.

If you need to start new group jobs while the maximum number of group jobs is active, either ask your APD/400 administrator to change the system parameter, or delete tasks that are no longer needed, as described in "Deleting a Task" on page 45.

When you press the Attention key for the first time, the display shows the last task you were using as the only selectable option.

For example, if you press the Attention key while using the `Administer Personal Menu` display, a menu option for that task is shown on the `Transfer to an Interrupted Task` display.

Figure 34 shows an example of a `Transfer to an Interrupted Task` display.

```
   APD/ADMPMU                  Administer Personal Menu

     Menu Task . . . :   JIM          Personal Menu

   Type option, press Enter.

   To   ..............................................................
   To  :                Transfer to an Interrupted Task             :
   To  :                                                            :
       : Type option, press Enter.                                  :
   Opt :   1=Select                                                 :
    _  :                                                            :
    _  : Option   Interrupted Task                                  :
    _  :    _     Administer Personal Menu                          :
    _  :                                                            :
    _  :                                                            :
    _  :                                                            :
    _  :                                                  Bottom :
    _  : F3=Exit   F5=Refresh   F6=Start a new task   F12=Cancel    :
    _  :                                                            :
       :                                                   : More...
   F3= :                                                            :
       :............................................................:
```

*Figure 34. Transfer to an Interrupted Task (Example 1)*

# Adding a Task

Press F6 on this display to start a new task. The APD/400 main menu or your initial menu (if you have defined one) appears, and from there you can either enter the expert code or work through the menus to select the second task you want to process.

For example, if you are now using the `Work with Scheduled Batch Jobs` display, you would see that menu option below the `Administer Personal Menu` option on the `Transfer to an Interrupted Task` display, as shown in Figure 35.

You can now press F6 to add another task to this menu, or you can select one of the existing tasks to continue your work.

# Selecting an Interrupted Task

If you press the Attention key again while processing a second task, you see your original task and your second task on the `Transfer to an Interrupted Task` display.

To return to an interrupted task, select that task from the `Transfer to an Interrupted Task` display. To do this, type 1 in the *Option* column next to that task, and press Enter.

```
 APD/WRKSCDJOB           Work with Scheduled Batch Jobs

 Type options, press Enter.
   2=Change   3=Hold   4=Delete   5=Display   6=Release

 Option   Date     Time   Status Expert code  Application  Inst.  User
     ...........................................................
     :                Transfer to an Interrupted Task           :
     :                                                          :
     : Type option, press Enter.                                :
     :   1=Select                                               :
     :                                                          :
     : Option   Interrupted Task                                :
     :    _     Administer Personal Menu                        :
     :    _     Work with Scheduled Batch Jobs                  :
     :                                                          :
     :                                                          :
     :                                                          :
     :                                              Bottom :
     : F3=Exit   F5=Refresh   F6=Start a new task   F12=Cancel  :
     :                                                          :
     :                                                          :
 F3= :                                                          :
     :..........................................................:
```

*Figure 35. Transfer to an Interrupted Task (Example 2)*

# Deleting a Task

To delete a task, do the following:

1. Select the task you want to delete from the `Transfer to an Interrupted Task` display.

2. Go to the APD/400 main menu by doing one of the following:
   - Enter expert code `MAIN` on the command line of any menu.
   - Press F3 as often as necessary to return to the main menu.

3. Select option 90 (End Task) on the APD/400 main menu to delete the task.

You can also delete a task by entering expert code `SIGNOFF` on any menu screen.

When you delete a task, you return to the last active task before control transferred to the delete operation. When you press the Attention key again, you see that the task just deleted is no longer shown on the `Transfer to an Interrupted Task` display.

When you try to delete the last or only task, a confirmation display appears. You must indicate whether or not you really want to leave APD/400, otherwise the APD/400 task resumes.

# Appendix A. Pull-Down Menus

This appendix shows sample layouts of pull-down menus available from the menu bar on the APD/400 main menu.

## Activating Pull-Down Menus

To produce a pull-down menu, press F10 (Action) and place the cursor on the menu bar choice, or move the cursor with the tabulator key or arrow key to the menu bar choice, and press Enter.  To leave a pull-down menu, press F10 (Action), or F12 (Cancel).

## Options on Pull-Down Menus

To select an option from a pull-down menu, type the number of that option in the option field.  It is <u>not</u> necessary to press Enter.

You can also place the cursor on the menu option you want to select, and press Enter.

## Pull-Down Menu for Options

Figure 36 shows the pull-down menu that appears when you select `Options` from the menu bar.  This pull-down menu contains settings for an individual user.

```
     Options    Environment   Operations   Services   Office   Help
 ......................... ...................................................
 :  __ 1. Menu windows on/off :                Main Menu
 :  __ 2. Expert codes on/off :
 :     3. Menu bar off        :
 :     4. Temporary sign-off  :
 :     5. End task...         : iver
 :                            :
 :                            :
 :...........................: istant

      90. End Task




   Selection or expert code
        _____

            F4=Prompt   F10=Action            F24=More keys
```
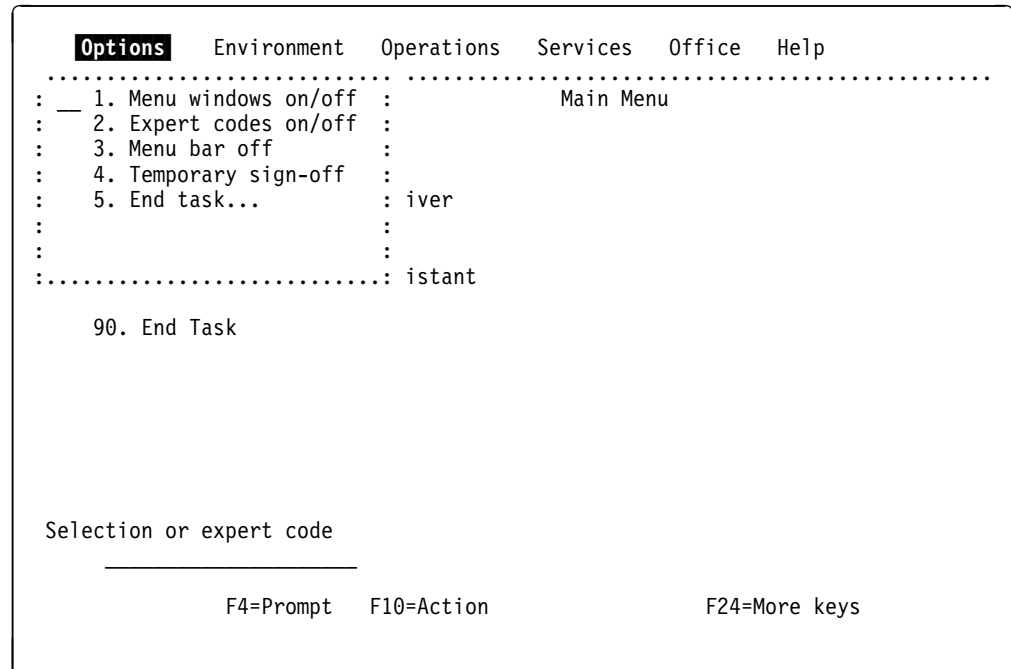
*Figure 36. Pull-Down Menu (Options)*

The following options are available on the `Options` pull-down menu:

1. `Menu windows on/off`

   Select option 1 switch menu windows either on or off. The switch is effective immediately.

2. `Expert codes on/off`

   Select option 2 to reveal expert codes, or to conceal them.

3. `Menu bar off`

   Select option 3 to switch menu bars off. You must leave APD/400 using `End Task`, and start APD/400 again to make the switch effective.

4. `Temporary sign-off`

   Select option 4 to leave APD/400 temporarily.

5. `End task...`

   Select option 5 to leave APD/400. The `Exit APD/400` confirmation window appears.

# Pull-Down Menu for Environment

Figure 37 shows the pull-down menu that appears when you select `Environment` from the menu bar. Use this pull-down menu to change the environment in which the application is running.

```
   Options   Environment   Operations   Services   Office   Help
 ...........  .............................  ....................................
 APD/MAIN    :  __ 1. Installations...   :
             :     2. Applications...    :
 Select one o :   3. Data sets...        :
             :     4. Tasks...           :
     1. Appl :     5. Printers...        :
             :     6. Languages...       :
    50. Offi :                           :
    51. AS/4 :...........................:

    90. End Task






 Selection or expert code

     ──────────────────

             F4=Prompt   F10=Action              F24=More keys
```
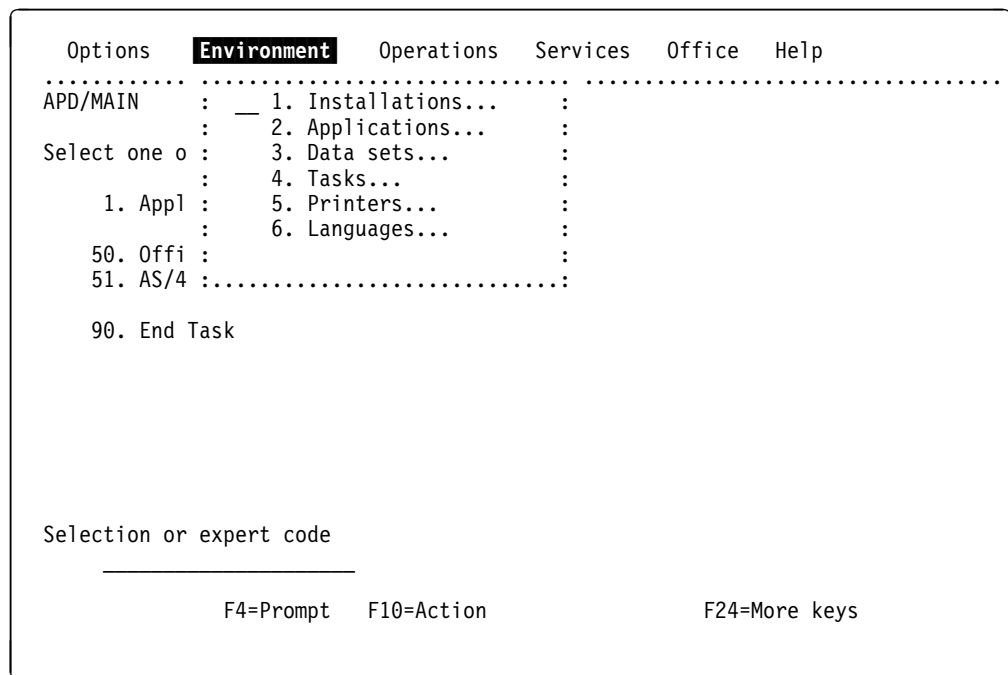
Figure 37. Pull-Down Menu (Environment)

The following options are available on the Environment pull-down menu:

1. Installations...

   Select option 1 to work on another installation, as described in "Selecting an Installation" on page 21.

2. Applications...

   Select option 2 to display the main menu of the current installation.

3. Data sets...

   Select option 3 to use another data set, as described in "Selecting a Data Set" on page 22.

4. Tasks...

   Select option 4 to display the expert codes of all tasks you are authorized to process.

5. Printers...

   Select option 5 to specify a printer, as described in "Selecting a Printer Environment" on page 23.

6. Languages...

   Select option 6 to specify a language priority list, as described in "Selecting Languages" on page 26.

## Pull-Down Menu for Operations

Figure 38 shows the pull-down menu that appears when you select Operations from the menu bar. Use this pull-down to select from a subset of APD/400 tasks that provide OS/400 operations.

```
    Options   Environment   Operations   Services   Office   Help
 ........................ ............................. .....................
 APD/MAIN                 :  __  1. Printer output...   :
                          :      2. Jobs...             :
 Select one of the followi :    3. Messages...          :
                          :      4. Send message...     :
     1. Application Progr :      5. Change password...  :
                          :      6. Operation assist... :
    50. OfficeVision/400   :                            :
    51. AS/400 Operational:............................:

    90. End Task




    Selection or expert code
    _____

              F4=Prompt   F10=Action            F24=More keys
```
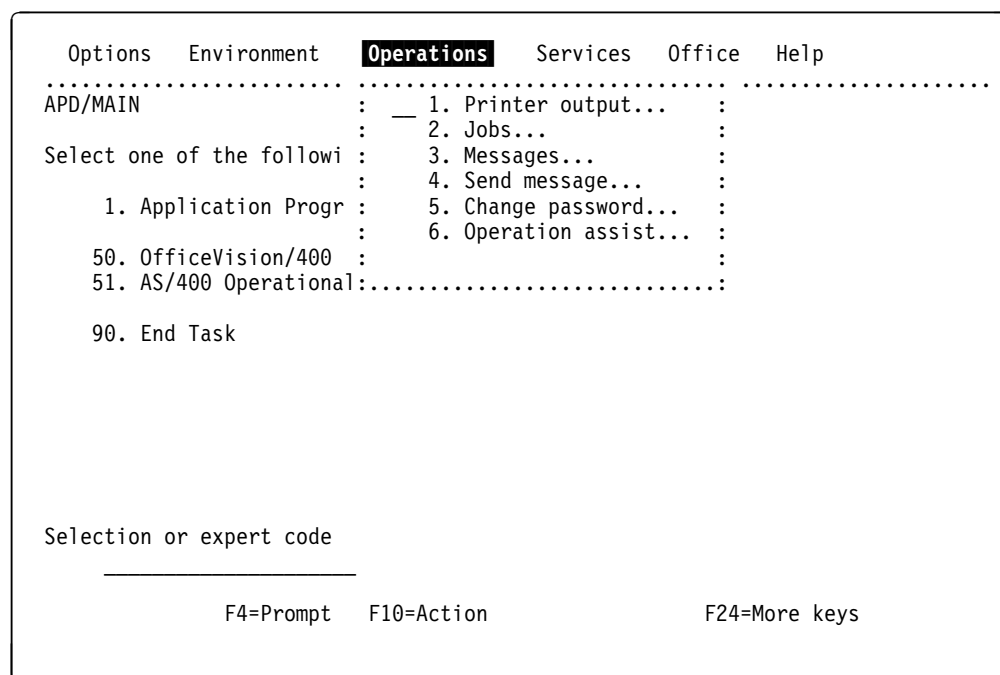
*Figure 38. Pull-Down Menu (Operations)*

The following options are available on the `Operations` pull-down menu:

1. `Printer output...`
   Select option 1 to go directly to the OS/400 `Work with All Spooled Files` display.

2. `Jobs...`
   Select option 2 to go directly to the OS/400 `Work with User Jobs` display.

3. `Messages...`
   Select option 3 to go directly to the OS/400 `Display Messages` display.

4. `Send messages...`
   Select option 4 to go directly to the OS/400 `Display Program Message` display.

5. `Change password...`
   Select option 5 to change your OS/400 password.

6. `Operation assist...`
   Select option 6 to produce the OS/400 `Operational Assistant (TM) Menu`. The Operational Assistant* menu offers the same options as numbers 1 - 5 on the `Operations` pull-down menu, and the `Information and Problem Handling` option.

   When you leave any OS/400 display you reached through the `Operations` pull-down menu, you return to the command line of the controlling APD/400 menu, and not to the menu bar.

## Pull-Down Menu for Services

Figure 39 shows the pull-down menu that appears when you select `Services` from the menu bar. Use this pull-down menu to access APD/400 tasks that manage the user's environment and the APD batch system.

```
   Options   Environment   Operations   [Services]   Office   Help
............................................ ................................ .........
APD/MAIN                          Main :  __  1. Personal menu...       :
                                       :      2. Start menu             :
Select one of the following:           :      3. Start program...       :
                                       :      4. Scheduled jobs...       :
     1. Application Program Driver      :      5. Canceled jobs...        :
                                       :      6. Commands...             :
    50. OfficeVision/400               :      7. Service Functions       :
    51. AS/400 Operational Assistant   :                                :
                                       :..............................:
    90. End Task




   Selection or expert code


   _____

              F4=Prompt   F10=Action              F24=More keys
```
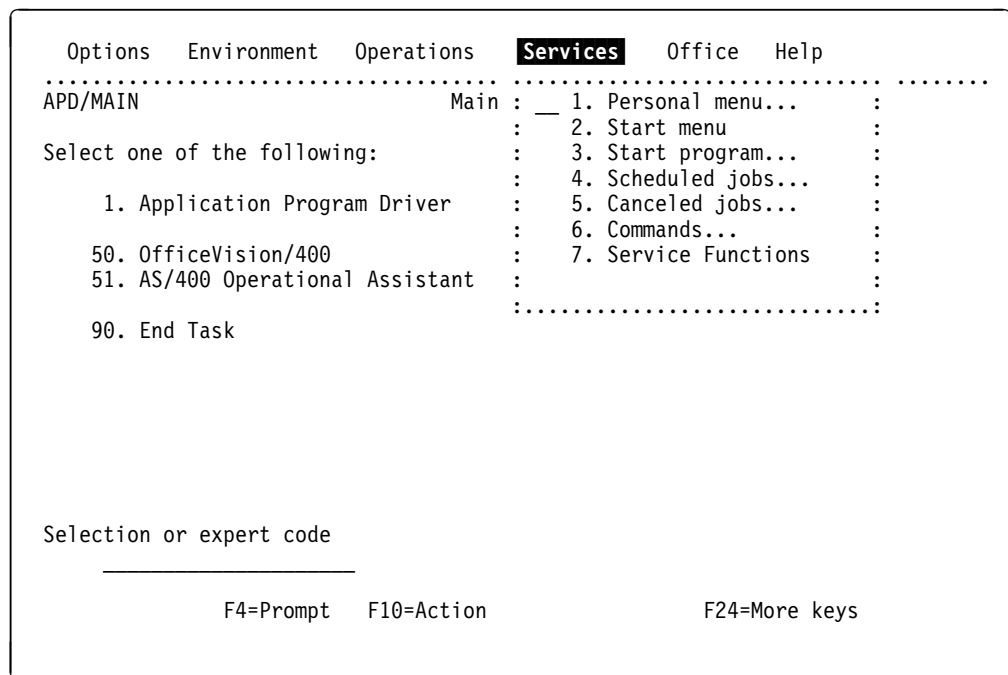
*Figure 39. Pull-Down Menu (Services)*

The following options are available on the Services pull-down menu:

1. Personal menu...
   Select option 1 to administer your personal menu, as described in "Creating Your Own Personal Menu" on page 28.

2. Start menu...
   Select option 2 to set an initial menu, as described in "Using Personal Menus" on page 29.

3. Start program...
   Select option 3 to specify a start program to run when you sign on to APD/400, as described in "Selecting a Start Program" on page 24.

4. Scheduled jobs...
   Select option 4 to work with scheduled jobs, as described in "Working with Scheduled Jobs" on page 34.

5. Canceled jobs...
   Select option 5 to work with canceled jobs, as described in "Working with Canceled Jobs" on page 39.

6. Commands...
   Select option 6 to produce the AS/400 Command window, in which you can press F4 (Prompt) for a list of commands, F9 (Retrieve) to bring back previous commands, or F12 (Cancel) to leave the window.

7. Service Functions...
   Select option 7 to produce the Service Functions menu, which consists of 14 options.

## Pull-Down Menu for Office

Figure 40 on page 52 shows the pull-down menu that appears when you select Office from the menu bar. Use this pull-down menu to access APD/400 tasks for Office. These APD/400 tasks process only OfficeVision/400 commands.

```
    Options    Environment   Operations   Services    Office    Help
  ................................................ ................................
  APD/MAIN                              Main Menu   :  _  1. Calendars...         :
                                                    :     2. Mail...              :
  Select one of the following:                      :     3. Send message...      :
                                                    :     4. Send note...         :
      1. Application Program Driver                 :     5. Word processing...   :
                                                    :     6. Administration...    :
     50. OfficeVision/400                           :                             :
     51. AS/400 Operational Assistant              :                             :
                                                    :.............................:
     90. End Task




   Selection or expert code
        _____


              F4=Prompt    F10=Action                    F24=More keys

```

*Figure 40. Pull-Down Menu (Office)*

The following options, available on the `Office` pull-down menu, are described in the relevant OfficeVision/400 documentation:

1. `Calendars...`
    See the description of the STROFC (1) command program.

2. `Mail...`
    See the description of the STROFC (2) command program.

3. `Send message...`
    See the description of the STROFC (3) command program.

4. `Send note...`
    See the description of the STROFC (4) command program.

5. `Word processing...`
    See the description of the STRWP program.

6. `Administration`
    See the description of the STROFC (9) command program.

# Pull-Down Menu for Help

Figure 41 shows the pull-down menu that appears when you select `Help` from the menu bar.  Use the functions on this pull-down menu to receive additional user information.

```
   Options   Environment   Operations   Services   Office    Help
...................................................  .............................
APD/MAIN                              Main Menu     : _ 1. About help...        :
                                                    : ¯ 2. Tutorial...          :
Select one of the following:                        :   3. Question & Answer... :
                                                    :   4. User support...      :
     1. Application Program Driver                  :                           :
                                                    :                           :
    50. OfficeVision/400                            :...........................:
    51. AS/400 Operational Assistant

    90. End Task




Selection or expert code

   ───────────────────

             F4=Prompt   F10=Action                    F24=More keys
```
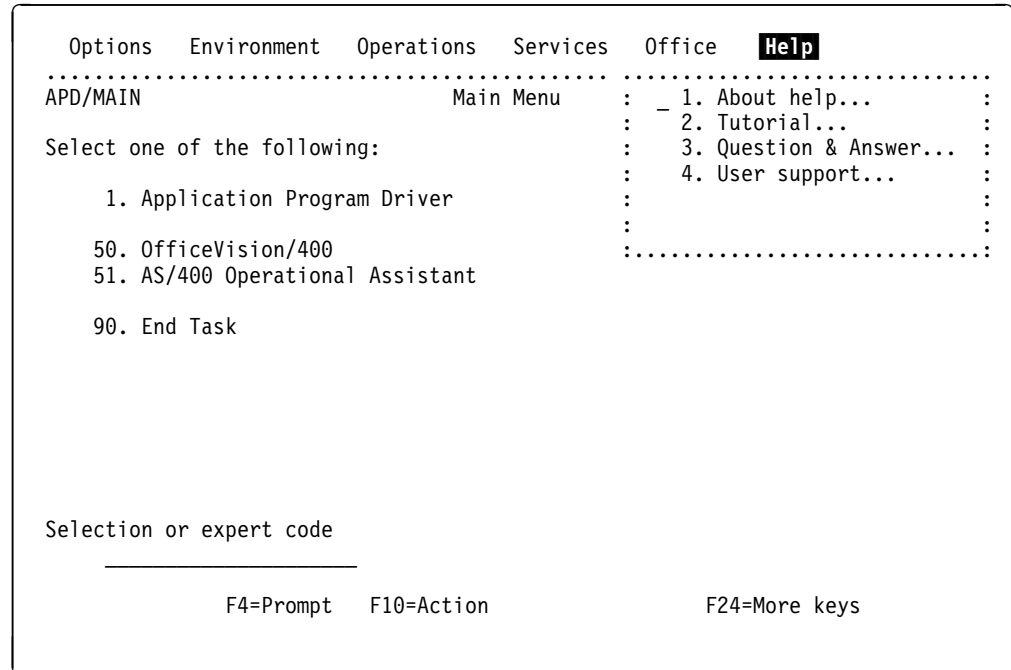
*Figure  41. Pull-Down Menu (Help)*

The following options are available on the `Help` pull-down menu.

`1. About help...`
> Select option 1 to find out how and where to find specific help information.

`2. Tutorial...`
> Select option 2 to start the online tutorial session.

`3. Question & Answer...`
> Select option 3 to produce the `Question & Answer (Q & A)` menu, from which you can select any Q & A task for which you are authorized.

`4. User support...`
> Select option 4 to access the user support and education menu.

For information on maintaining menu bars and pull-down menus, refer to the relevant chapters in the *IBM Application Program Driver/400 Version 3: Administrator's Guide.*

# Appendix B.  Menu Window Cascades

You can activate menu windows one after the other while you are working.  This causes a cascade of windows.

There are four positions for windows in a cascade.  If a fifth menu in the sequence is requested, that menu overlays the menu window in position number 1, and so on.  The number of overlaying menu windows is unlimited.

When you are using menu windows with a menu bar, remember the following:

* A displayed menu bar always belongs to the current full-screen menu.

* When you are using a menu window with its own menu bar, you can produce that menu bar in one of two ways:

    – Press F23 (Set initial menu) to set the menu that is currently displayed in a window as your initial menu.  An initial menu is always displayed in full-screen mode.

    – Ask your application administrator to change the display mode of the menu from window to full screen.

In this appendix, you can see examples of cascaded menu windows on displays both with and without menu bars.

## Menu Window Cascade with a Menu Bar

The following examples show how menu windows cascade on a display with a menu bar.  Figure 42 shows a cascade of two menu windows on a display with a menu bar.

```
   Options   Environment   Operations   Service   Office   Help
 ..............................................................................
 APD/MAIN                         Main Menu

 Select one of the following:
 ......................................
 :      Application Program Dri .........................................
 :                             :             Administer Master Data      :
 :   1. Administer Master Data :                                         :
 :   2. Install and Delete App : User and Authorization                  :
 :                             :    2. Administer User Groups            :
 :   4. Service Functions      :    3. Administer Authorization Lists    :
 :                             :    4. Print Authorization Environment   :
 :                             :                                         :
 : 1_____           :                            More...      :
 :                             : 4_____                       :
 :                             :                                         :
 :............................ :                                         :
                               :.........................................:
 Selection or expert code
      _____

 F3=Exit        F4=Prompt   F10=Action   F12=Cancel      F24=More keys
```

*Figure 42. Cascade with Two Menu Windows*

Figure 43 shows a cascade of three menu windows on a display with a menu bar.

```
   Options   Environment   Operations   Service   Office   Help
...............................................................................
APD/MAIN                            Main Menu

Select one of the following:
......................................
:      Application Program Dri ........................................
:                              :          Administer Master Data      :
:  ......................................                              :
:  :    Print Authorization Environment  : orization                  :
:  :                                     : ter User Groups            :
:  :     1. Print Authorization Environment : ter Authorization Lists :
:  :     2. Print Authorization Environment : uthorization Environment :
:  :                                     :                            :
: 1 :   30. Print Authorization Environment :              More...    :
:  :                                     :_____                    :
:  :                          More...  :                            :
:.. :  _____                :                            :
:  :                                     : ........................:
Sel :                                    :
   :......................................:

  F3=Exit       F4=Prompt   F10=Action   F12=Cancel     F24=More keys
```

Figure 43. Cascade with Three Menu Windows

Figure 44 shows a cascade of four menu windows on a display with a menu bar.

```
   Options   Environment   Operations   Service   Office   Help
................................................................................
APD/MAIN                            Main Menu

Select one of the following:
......................................
:      Application Program Dri ........................................
:                              :          Administer Master Data      :
:  ......................................                              :
:  :    Print Authorization Envir ........................................
:  :                              :            Service Functions       :
:  :     1. Print Authorization En :                                   :
:  :     2. Print Authorization En : User's Individual Settings        :
:  :                              :    1. Administer Personal Menu      :
: 1 :   30. Print Authorization En :    2. Administer Start Program     :
:  :                              :    3. Select Installations          :
:  :                              :    4. Select Data Sets              :
:.. : EXTSRV_____         :                          More..    :
:  :                              : _____                 :
Sel :                             :                                    :
   :............................ :                                     :
                                  :......................................:
  F3=Exit       F4=Prompt   F10=Action   F12=Cancel     F24=More keys
```

Figure 44. Cascade with Four Menu Windows

# Menu Window Cascade without a Menu Bar

Figure 45 shows a cascade of two menu windows on a display with no menu bar.

```
APD/MAIN                         Main Menu

Select one of the following:
.....................................
:        Application Program Dri ........................................
:                                :            Administer Master Data     :
:     1. Administer Master Data  :                                       :
:     2. Install and Delete App  : User and Authorization                :
:                                :     2. Administer User Groups         :
:     4. Service Functions       :     3. Administer Authorization Lists :
:                                :     4. Print Authorization Environment:
:                                :                                       :
: 1_____              :                            More...    :
:                                : 4_____                     :
:                                :                                       :
:........................        :                                       :
                                 :.......................................:

                                                                More...
     Selection or expert code
          1_____


     F3=Exit        F4=Prompt                F12=Cancel     F24=More keys
```
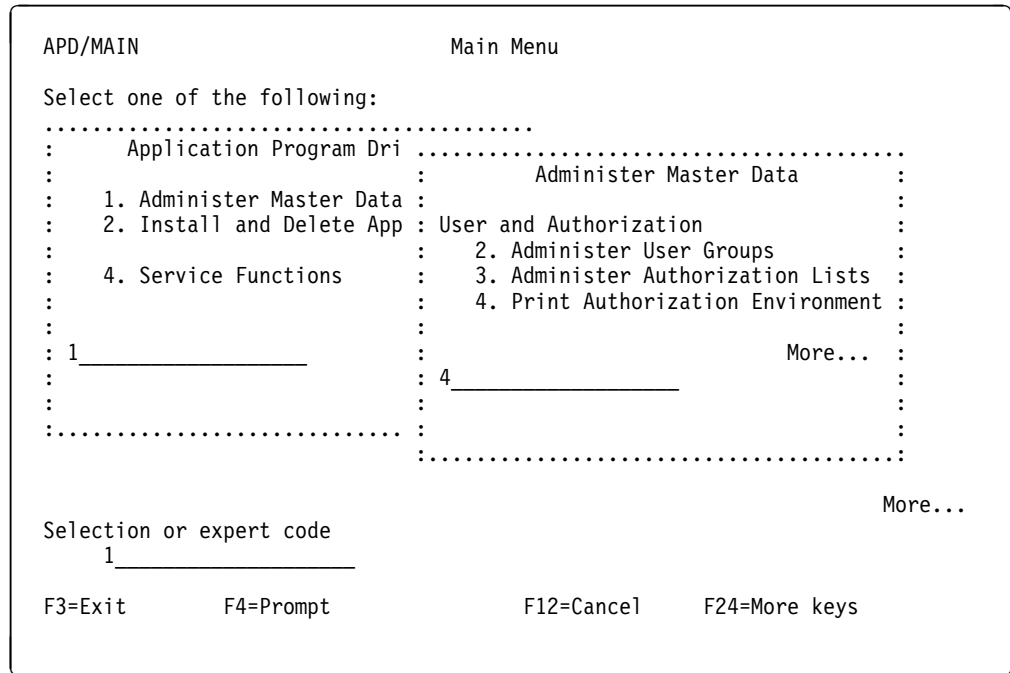
*Figure 45. Cascade with Two Menu Windows*

Figure 46 shows a cascade of three menu windows on a display with no menu bar.

```
APD/MAIN                         Main Menu

Select one of the following:
.....................................
:        Application Program Dri ........................................
:                                :            Administer Master Data     :
: ....................................                                   :
: :   Print Authorization Environment    : orization                    :
: :                                       : ter User Groups              :
: :   1. Print Authorization Environment : ter Authorization Lists      :
: :   2. Print Authorization Environment : uthorization Environment     :
: :                                       :                             :
: 1 :  30. Print Authorization Environment :                More...    :
: :                                       :_____                        :
: :                         More...  :                                  :
:.. : _____                    :                             :
    :                                     : .......................:
    :                                     :
    :.....................................:                  More...
     Selection or expert code

          _____


     F3=Exit        F4=Prompt                F12=Cancel     F24=More keys
```
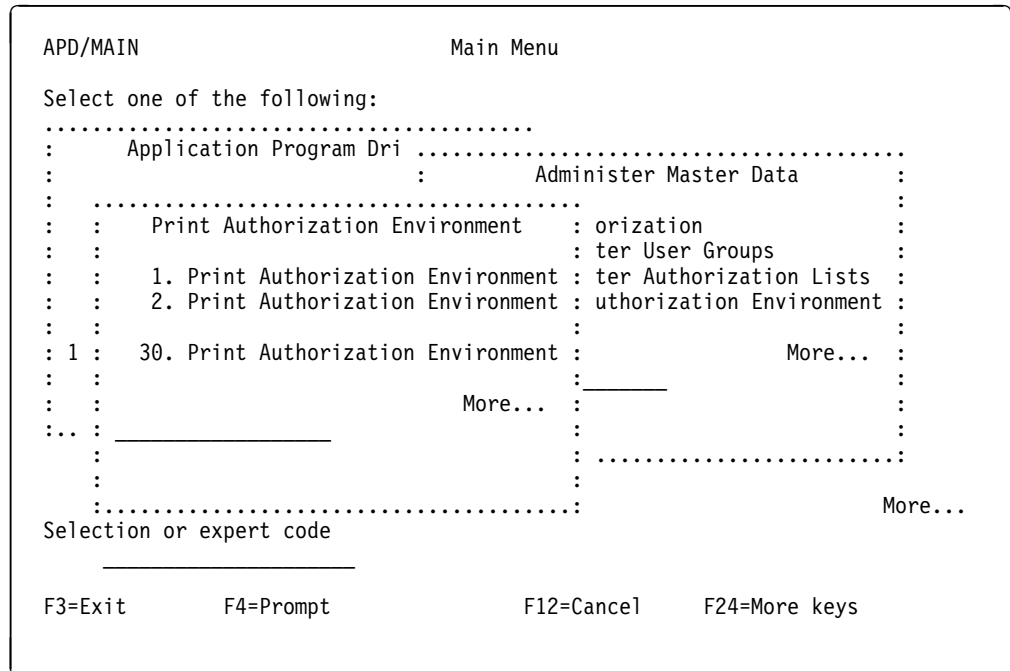
*Figure 46. Cascade with Three Menu Windows*

Figure 47 shows a cascade of four menu windows on a display with no menu bar.

```
APD/MAIN                        Main Menu

Select one of the following:
.........................................
:       Application Program Dri .........................................
:                              :        Administer Master Data       :
:  .........................................                         :
:  :     Print Authorization Envir .........................................
:  :                             :            Service Functions      :
:  :     1. Print Authorization En :                                 :
:  :     2. Print Authorization En : User's Individual Settings      :
:  :                             :    1. Administer Personal Menu    :
: 1 :   30. Print Authorization En :    2. Administer Start Program   :
:  :                             :    3. Select Installations        :
:  :                             :    4. Select Data Sets            :
:.. : EXTSRV_____         :                           More..   :
   :                            :    _____             :
   :                            :                                    :
   :.......................... :                                    :
Selection or expert code        :..................................:
   _____

F3=Exit       F4=Prompt               F12=Cancel    F24=More keys
```

Figure 47. Cascade with Four Menu Windows

# Glossary of Terms and Abbreviations

This glossary defines terms used in the APD/400 library.

## A

**AIP**.   Application interface program.

**application**.   A program used to perform a particular data processing task, such as inventory control or payroll.

**application interface program (AIP)**.   A functional interface used by APD/400 to invoke the corresponding application.

**API**.   Application program interface.

**application program interface (API)**.   A functional interface that allows an application program written in a high- or low-level language to use specific data or functions of APD/400.

**authorization**.   The process of giving a user either complete or restricted access to an object, resource, or function.

**authorization list**.   Authorization lists are used to protect menus, menu options, installations, and data sets from unauthorized access.  An authorization list consists of a 10-digit authorization list name and a list of authorization list entries, each of which is comprised of a user name and an authority level.

## B

**back up**.   To save some or all of the objects on a system to a tape or diskette, for safe keeping.

**backup**.   (1) Pertaining to an alternative copy used as a substitute if the original is lost or destroyed, such as a backup log.  (2) The act of saving some or all of the objects on a system to a tape, diskette, or save file. (3) The tapes, diskettes, or save files with the saved objects.

**Batch Monitor Program (BMP)**.   The program used by APD/400 to control batch jobs.

**batch processing**.   A method of running a program or a series of programs in which one or more records (a batch) are processed with little or no action from the user or operator.  Contrast with *interactive processing*.

**BMP**.   Batch Monitor Program.

## C

**CL**.   control language

**command**.   A statement used to request a function of the system.  A command consists of the command name abbreviation, which identifies the requested function, and its parameters.

**Common User Access (CUA)**.   Pertaining to a Systems Application Architecture (SAA) specification that gives a series of guidelines describing the way information should be displayed on a screen, and the interaction techniques between users and computers.

**control language**.   The set of all commands with which a user requests system functions.

**control record**.   The description of a save operation for libraries and folders.  Record details include the save cycle, the number of generations to be stored, the medium, and the starting date.

**CUA**.   Common User Access.

## D

**data description specifications (DDS)**.   A description of the user's database or device files that is entered into the system in a fixed form.  The description is then used to create files.

**data set**.   A data environment contained within an application.  For applications that are multi-data set enabled, data sets could be used for different departments or clients.

**DBCS**.   Double-byte character set.

**DDS**.   Data description specifications.

**default**.   A value that is automatically supplied or assumed by the system or program when no value is specified by the user.

**DLO**.   Document library object.

**document library object (DLO)**.   Any system object that resides in the document library, such as RFT and FFT documents, folders, and PC files.

**double-byte character set (DBCS)**.   A set of characters in which each character is represented by 2 bytes.  Languages such as Japanese, Chinese, and Korean, which contain more symbols than can be represented by 256 code points, require double-byte

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character sets. Because each character requires 2 bytes, the typing, displaying, and printing of DBCS characters requires hardware and programs that support DBCS.

# E

**exclusion**. An exclusion defines which programs cannot be active simultaneously in an application.

**exclusion list**. An exclusion list combines tasks into groups. Defining exclusion lists saves the work of specifying each program for exclusions. Programs with identical exclusion characteristics can be combined in exclusion lists. An exclusion list can be either a function list or an object list.

**expert code**. A command or abbreviation used to invoke a menu or program. Entering an expert code allows the user to access a menu, task, or program directly (without calling intermediate menus), as well as to switch between applications without signing off and on. Pressing F4 on a menu screen displays a list of all expert codes for which the user is authorized.

# F

**folder**. A directory for documents. A folder is used to group related documents and to find documents by name. The system-recognized identifier for the object type is *FLR. Compare with *library*.

**function key**. A keyboard key that allows the user to select keyboard functions or programmer functions. The keys available are displayed in line 23 of the screen display.

# H

**help function**. Pressing either the Help key or F1 on a display provides information on a specific part of that display or the whole display, depending on the position of the cursor. If the cursor is located on a message, second-level text for that message is displayed.

**high-level language**. A programming language, such as RPG, BASIC, PL/I, Pascal, COBOL, and C used to write computer programs.

**HLL**. High-level language

# I

**IBM SAA OfficeVision/400 Version 3**. The IBM licensed program that allows users to prepare, send, and receive mail; schedule items on calendars; maintain directories of names and addresses; file and retrieve documents; and create and maintain distribution lists. SAA OfficeVision/400 also provides word processing functions and the capability to work on behalf of other users.

**initial menu**. The first menu displayed after sign-on. Each user can set a personal initial menu. Pressing F23 on a menu labels it as the initial menu for the user.

**installation**. A specific processing environment containing applications and data sets. For example, different installations could be used for test and production environments.

**interactive processing**. A processing method in which each operator action causes a response from the program or the system. Contrast with *batch processing*.

# J

**job**. (1) A unit of work to be done by a computer. (2) In the SAA OfficeVision/400 calendar function, an item that schedules a control language (CL) command to run at any date or time.

**journal**. A system object that identifies the objects being journaled, the current journal receiver, and all the journal receivers on the system for the journal. The system-recognized identifier for the object is *JRN.

**journal receiver**. A system object that contains journal entries added when changes are made to an object, for example, when an update is made to a file being journaled. The object type is *JRNRCV.

**journaling**. The process of recording, in a journal, the changes made to a physical file member.

# L

**language priority list**. In APD/400, a list of available languages ranked in order of a user's preference, to enable the use of an application in one of the preferred languages. Number 1 on the priority list is the user's most preferred language.

**library**. A system object that serves as a directory to other objects. A library groups related objects, and allows the user to find objects by name. The system-recognized identifier for the object type is *LIB. Compare with *folder*.

**library list**.   A list that indicates which libraries are to be searched and the order in which they are to be searched.   The system-recognized identifier is *LIBL.

**library name template**.   Naming conventions used in combination with the installation and data set IDs to resolve a library name during installation of an application that supports multiple installations or multiple data sets.

**local data area**.   A 1024-byte data area that can be used to pass information between programs in a job.   A separate local data area is automatically created for each job.

# M

**menu**.   A displayed list of items from which a user can make a selection.   The system-recognized identifier for the object type is *MENU.

**menu bar**.   The area containing keywords at the top of a display that gives a user access to actions available for that display.   After a user requests a choice in the menu bar, a pull-down menu is shown below the menu bar.

**message**.   A communication sent by the AS/400 system or APD/400, and displayed either on line 24 of the screen or in window format.

**MNCS**.   Multinational character set.

**More**.   When displays and menus comprise several pages, More... is displayed at the bottom of all screens except the last one.

Position your cursor on the display, or message line, and press F8.   You can continue to do this until the word Bottom is displayed.

**multilingual support**.   Support that includes more than one national language on a system.   See also *National Language Support*.

**multinational character set (MNCS)**.   A set of graphic characters that support the languages within a specific language group.

# N

**National Language Support (NLS)**.   The ability for a user to communicate with hardware and software products in a language of choice to obtain results that are culturally acceptable.   See also *multilingual support*.

**NLS**.   National Language Support.

# O

**object**.   A named storage space that consists of a set of characteristics that describe itself and, in some cases, data.   An object is anything that exists in and occupies space in storage, and on which operations can be performed.   Some examples of objects are programs, files, libraries, and folders.

**OfficeVision**.   See *IBM SAA OfficeVision/400 Version 3*.

**Operational Assistant**.   Pertaining to a part of the operating system that provides a set of menus and displays for end users to do commonly performed tasks, such as working with printer output, messages, and batch jobs.

**output queue**.   An object that contains a list of spooled files to be written onto an output device, such as a printer or a diskette.   The system-recognized identifier for the object type is *OUTQ.

# P

**parameter**.   A value supplied to a command or program that is used either as input, or to control the actions of the command or program.

**process list**.   A list of program or command tasks that are automatically processed in sequence.   The last entry can be a menu.   A process list is a special type of menu in which all tasks are activated.   Only when the last task has been processed is control returned to the previous menu or the menu at the end of the process list.

**program**.   A sequence of instructions that a computer can interpret and run.

**pull-down menu**.   An extension of the menu bar that displays a list of available choices for a choice selected by a user in the menu bar.   After a user selects a choice in the menu bar, the pull-down menu is shown.

# Q

**queue**.   A list of messages, jobs, files, or requests waiting to be read.

# R

**restart**.   The action necessary when a batch job has failed to run as scheduled.

**restore**.   To copy data from tape, diskette, or a save file into auxiliary storage.   Contrast with *save*.

# S

**SAA**. Systems Application Architecture.

**save**. To copy specific objects, libraries, or data by transferring them from main storage or auxiliary storage to a media such as tape, diskette, or a save file. Contrast with *restore*.

**scheduled job**. A batch job that becomes eligible to run at a specified date and time.

**scroll**. To move a display image vertically or horizontally to view data that cannot be seen within the boundaries of the displayed screen.

**SEU**. Source entry utility.

**source entry utility (SEU)**. A function of the AS/400 Application Development Tools licensed program that is used to create and change source members.

**spooled file**. A file that holds output data waiting to be processed, such as information waiting to be printed.

**start program**. A program defined by a user to run at sign-on time.

**symbolic library name**. A name given to represent a library in an application that supports multiple installations or multiple data sets. A symbolic library name is used in conjunction with a library name template.

**Systems Application Architecture (SAA)**. Pertaining to an architecture defining a set of rules for designing a common user interface, programming interface, application programs, and communications support for strategic operating systems such as the OS/2, OS/400, VM/370, and MVS/370 operating systems.

# T

**tape cartridge**. A case containing a reel of magnetic tape that can be put into a tape unit without stringing the tape between reels.

**tape drive**. A device used to move the tape, and read and write information on magnetic tapes.

**task**. A basic unit of work to be performed. In APD/400 there are six task types:

- Command
- Menu
- Menu bar
- Process list
- Program
- Pull-down.

**textual data**. The collective term for menus, displays, lists, prompts, options, online help information, and messages.

**timetable**. A schedule showing a planned order or sequence, used in APD/400 to determine when to run a recurring batch job.

**toggle**. Pertaining to a switching device, such as a toggle key on a keyboard that allows a user to switch between two types of operations. For example, in APD/400 you can press F11 to display expert codes, and press the key again to return to the original screen display.

# U

**UIM**. User Interface Manager.

**user exit**. A program routine given control by APD/400 to enhance services provided by APD/400 functions.

**user identification (user ID)**. The name used to associate the user profile with a user when the user signs on the system.

**User Interface Manager (UIM)**. A function of the operating system that provides a consistent user interface by providing comprehensive support for defining and running panels (displays), dialogs, and online help information.

**user password**. A unique string of characters that a system user enters to identify that user to the system, if the system resources are secured.

**user profile**. An object with a unique name that contains the user's password, the list of special authorities assigned to the user, and the objects the user owns. The system-recognized identifier for the object type is *USRPRF.

# V

**value**. Data (numbers or character strings) entered in an entry field, and data supplied in parameters of CL commands.

# W

**window**. A part of the display screen with visible boundaries in which information is displayed. For example, in APD/400 when F17 (Position to) is pressed (where applicable), the `Position the List` window is displayed over the current display.

# Bibliography

This bibliography lists related APD/400 publications and other documentation that provides general information.

**IBM Application Program Driver/400 Version 3 publications**

- *Administrator's Guide*, SH12-6403-00
- *Developer's Guide*, SH12-6404-00
- *General Information*, GH12-6401-00
- *Licensed Program Specifications*, GH12-6400-00.

**Other IBM publications**

- *AS/400 Using OfficeVision/400*, SH21-0697
- *AS/400 Security Concepts and Planning*, SC41-3301
- *AS/400 National Language Support*, SC41-4101
- *AS/400 Control Language Reference* , SC41-4722.

# Index

# Your comments, please ...

**IBM Application Program Driver/400 Version 3**
**User's Guide**
**Release 6.0**

**Publication No. SH12-6402-00**

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