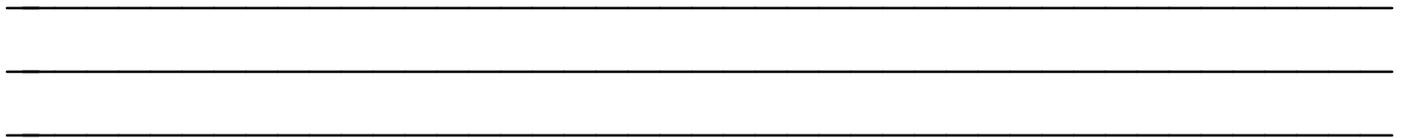




ACCOUNTFLEX

System Administration



The System To Account On

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1. INTRODUCTION

1.1 Overview

This System Administration manual describes procedures for menu design, menu security, unix security, programming, printer setup, and terminal setup.

To access the System Administration menu, press the F3 function key while on any Accountflex menu. Upon pressing the F3 key you will be prompted for a menu code. Enter the menu code **SA** (or **D** for some versions) and the following Systems Administration menu will appear.

```
                                samenu
ACCOUNTFLEX                      Company Name          DATE: 08/07/07
                                System Administration Menu (SA)

MENU BUILDING                    PROGRAMMING
1. Design                         11. Select Source
2. Print - Detail                 12. Edit Source
3. Print - Documentation          13. Compile Source
                                14. Run SQL statement

MENU SECURITY                     MISCELLANEOUS
5. Define User Types             18. Printer Control
6. Define Users                  19. Printer Configuration
7. Change Password              20. Terminal Control
8. Print Permissions             21. Email Users
                                22. Email Messages
                                23. Email Attachments

                                Enter Selection > 1 _
```

The chapters that follow explain each of the above menu choices.

1.2 Features

The System Administration menu provides many features for configuring your system.

Below are some of these features:

- Menu building.
- Password protection by user.
- Menu choice security by user.
- Program modification
- Printer Control (i.e. compressed print, pitch, etc.)

- Printer Configuration (i.e. identification names, lines per page, character width, etc.)
- Terminal Control (i.e. graphics, keyboard, attributes, etc.)
- Unix security.

1.3 About the Document

This manual is designed to be a comprehensive Systems Administration guide for the AccountFlex System. This guide is organized into two levels, Chapter and Section. Each chapter describes a major function; each section describes various aspects related to the chapter. Below is a brief summary of each chapter in this manual.

Chapter 1 Introduction

This chapter provides a summary view of the System Administration Manual.

Chapter 2 Menu Building

This chapter provides general instructions on how to build or change Accountflex menus.

Chapter 3 Menu Security

This chapter provides instructions for the menu security system. In this chapter you will learn how to assign user passwords and control user access to menu choices.

Chapter 4 Printer Setup

This chapter provides instructions for setting up printers.

Chapter 5 Terminal Setup

This chapter provides instructions for setting up terminals.

Chapter 6 UNIX Security

This chapter describes how UNIX file permissions may be used for additional security.

2. MENU BUILDING

2.1 Overview

This chapter explains how to build menus (options 1 - 3 on the System Administration menu). You will want to read this chapter in order to add or change menus.

2.2 MENU BUILDING

To add or change menus select option 1 on the Systems Administration Menu. The following entry screen for building menus will appear.

cwmenu2

INFOFLEX CHANGE MODE MENU BUILDER DATE:

MenuCode M Prev MenuCode Template actmenu
Title1 Master Menu
Title2
No.Columns 0 format top row 0 col 0 bottom row 0 col 0

Description	Password
1 Account Receivable	M R
2 Account Payable	M P
3 General Ledger	M G
4 Payroll	M E
5 Bank Reconciliation	M B

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 ^F3 ^F4 ^F5 ^F6
Save Help Add Qry Prev Next Frst Last Del Move

The menu builder screen behaves and adheres to the same rules as for any other Accountflex entry screen (refer to Chapter 2 of any Accountflex Module manual).

Below is a description of each screen field.

Menu Code

This is the code name for a menu. We recommend that it be short, such as M for master menu or P for accounts payable menu, though it can be up to 10 alphabetic characters in length. Do not use numbers in the menu code.

Previous Menu Code

This is the code name for the menu that calls the menu you are defining. A main menu, of course, would not have a previous menu.

Template

You may create custom menu formats called templates. The template name is the first parameter of a **MENU** section in **menu.flx**. The template name can be up to 18 characters in length. Where the **template** field is left blank, the menu format will be automatically generated at run-time. For a technical discussion about creating templates, please refer to your Infoflex-4GL manual Chapter 6.5.

No. of Columns

A menu can list its options in single or multi-column format. By default, the menu choices will be listed in a single column. To organize menu choices into multiple columns you would specify the number of columns here. Note that a 0 or blank for the number of columns is the same as 1. This value is ignored where a template has been specified.

Title

There can be up to two lines of 76 characters each for the menu title.

Format

There are three format options for a menu. The default, which is no value for format, will display a frame around a menu. Option **N** will not display the frame. Option **O** is for overlaid menus. An overlaid menu will display in a bordered window.

Top Row, Col, Bottom Row, Col

If you have specified an overlay format (previous field is set to 'O') then you will need to provide the coordinates for the overlay. The coordinates are entered as the row and column of the upper left corner and the row and column of bottom right corner.

The array portion of the menu builder screen allows you to define each menu choice. Below is a description of each array field.

Description

The option description or text can be up to 60 characters in length. If you define a menu template with shorter fields or use a two column format, your option text will be truncated.

Password

The **Password** may be 8 characters in length and is used to restrict access to a menu choice. A menu choice having a password will require the user to enter the password in order to access the program specified in the **Execution Line** (see below).

Execution Type

At run-time a menu option may invoke another menu, a program, or a function. The execution type is specified with an **M**, **P**, or **F**.

Execution Line

For an execution type of **M** the execution line for the option is a menu code. For an execution type of **P** the execution line is a program command, such as:

flex filename

For an execution type of **F** the execution line is a function call. In the third case the **menu.pic** file must be invoked by a custom Infoflex application program, that is, a program in which **INSTRUCTIONS** section C language functions are linked (more on this in the Infoflex-4GL manual Chapter 7, THE INSTRUCTIONS SECTION).

Clear Screen Flag

Entering **Y** to this field will cause the screen to clear when the menu option is invoked. Entering **N** or leaving it blank will cause the screen not to be cleared. Note that Infoflex or Accountflex screens will automatically clear without having to set the **Clear Screen Flag** equal to **Y**.

Before Option RETURN

If you enter **Y** to this field, the menu will require the user to enter **RETURN** before executing the option. Entering **N** to this field or leaving it blank will result in the default behavior of not prompting.

After Option RETURN

If you enter **Y** to this field, the menu will require the user to enter **RETURN** upon returning to the menu after executing the option. Entering **N** to this field or leaving it blank will result in the default behavior of not prompting.

2.3 MENU PRINTING

To print menus select option 2 or 3 on the Systems Administration Menu. The menu reports operate like any other Accountflex report program (refer to chapter 2 in any Accountflex module manual).

Below is a sample report showing the Accountflex master menu.

Menu Code: < M >
Template: actmenuPrev Menu Code:
No. Columns: 0Title1: Master Menu
Title2:

Option#	Description	Password
1	Accounts Receivable	
M	R	
2	Accounts Payable	
M	P	
3	General Ledger	
M	G	
4	Payroll	
M	E	
5	Bank Reconciliation	
M	B	
6	Inventory	
M	I	
7	Bill of Materials	
M	BCM	
8	Sales	
M	S	
9	Purchase Order	
M	O	
10	Job Cost	
M	J	
11	System-Wide Control	
P	actflex sysfile -f sysfiles c N	
12	QUEUE	
M	Q	
13	Queryflex Report Writer	
P	qfrun	
14	System Utilities	
M	U	

O

Enter 'N' to NOT permit access to the Operating System.

M

Enter 'N' to NOT permit menu jumping (F3 key from any MENU).

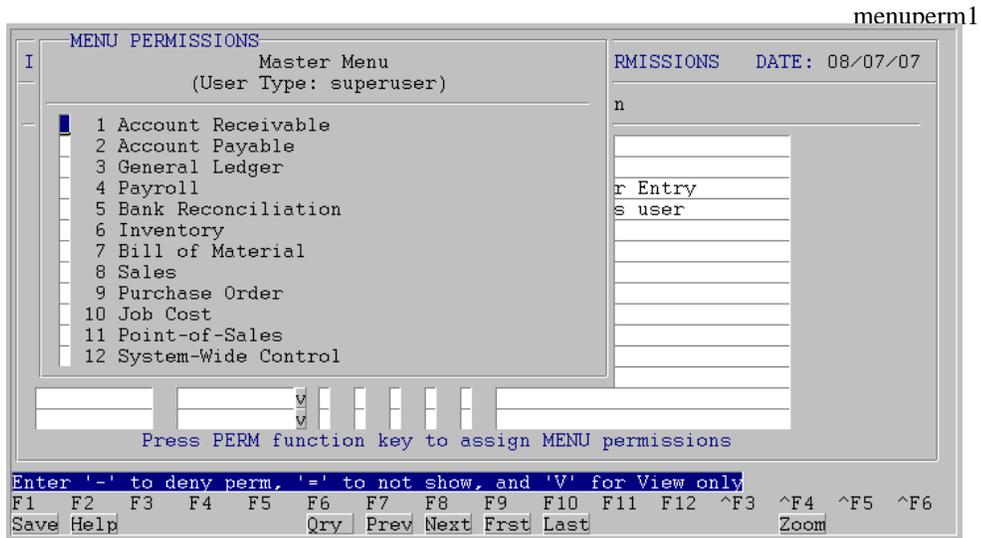
H

Enter 'N' to NOT permit zoom access from within HELP, or enter 'V' to permit zoom access but in VIEW mode only. Zoom access from HELP allows users to add new entries to the HELP popup list by pressing the **ZOOM** function key.

Description

This is a freeform description field.

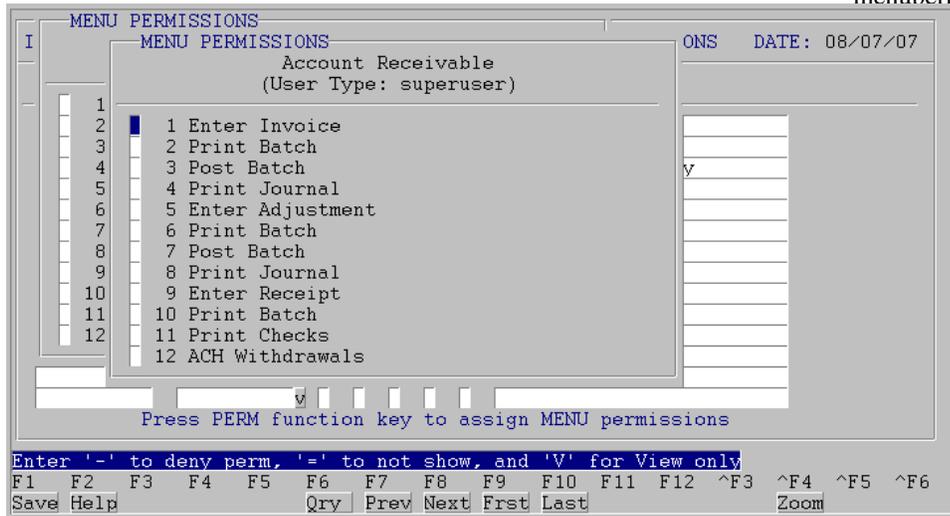
To specify menu permissions for a **User Type**, press the **PERM** Function key. Upon pressing the **PERM** key, the Menu Permission screen will appear as shown below.



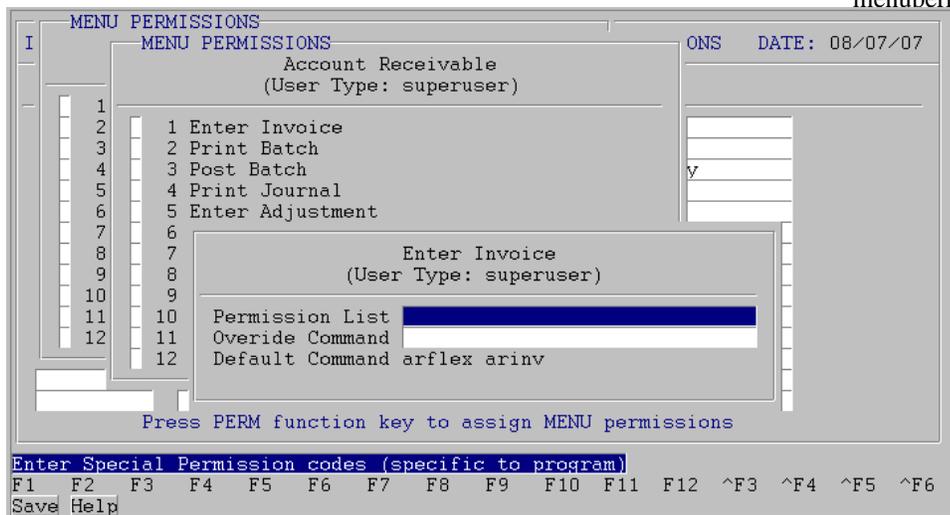
This is a *MULTI-RECORD* screen listing the menu choices found on the **User Type's** starting menu. The column preceding each menu choice is where you will grant permissions. This column may be one of 4 values.

Value	Description
blank	allow permission to execute the menu choice.
-	deny permission to execute the menu choice.
=	do not show menu choice.
V	permit the menu choice but in view mode only. This option is applicable if the menu choice calls an Inflex data entry program.

If a menu choice calls another menu, press the **ZOOM** key to bring up its Menu Permission screen. For example, pressing **ZOOM** while censored on the Accounts Receivable menu choice will bring up the following Menu Permission screen.



If the menu choice does not call another menu but instead executes a program, the following Menu Permission screen will appear.



The following is a description of each field on the above screen.

Permission List

This field is for listing permission keywords that will be passed to the program executed by this menu choice. Permission keywords are used to provide program specific security. For example, if you do not want to show the Social Security Number when accessing the employee entry screen you would specify the permission keyword **NOSSN**.

Override Command

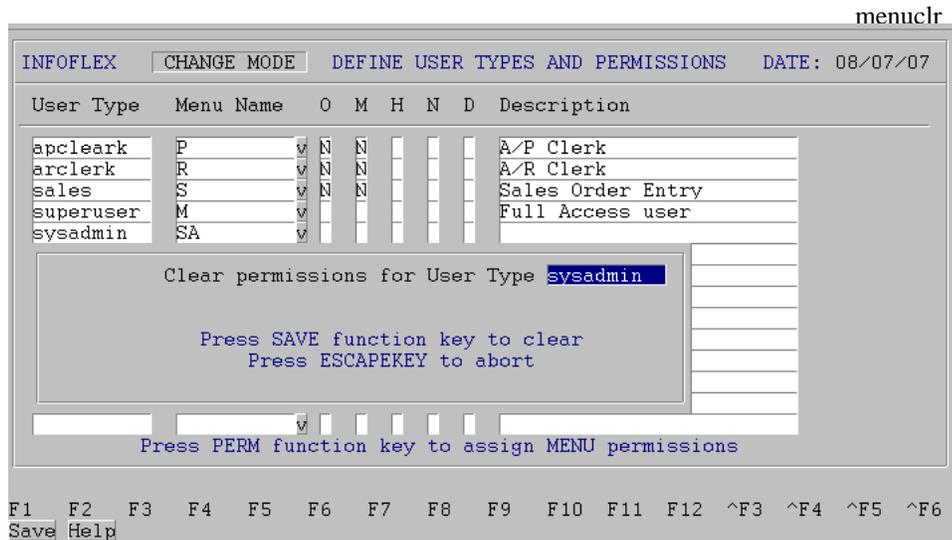
You may specify a command to be executed when this menu choice is selected. This command will override the default command which is displayed below.

Default Command

This is the command that will be executed when this menu choice is selected unless the **Override Command** is specified above. This is a view only field.

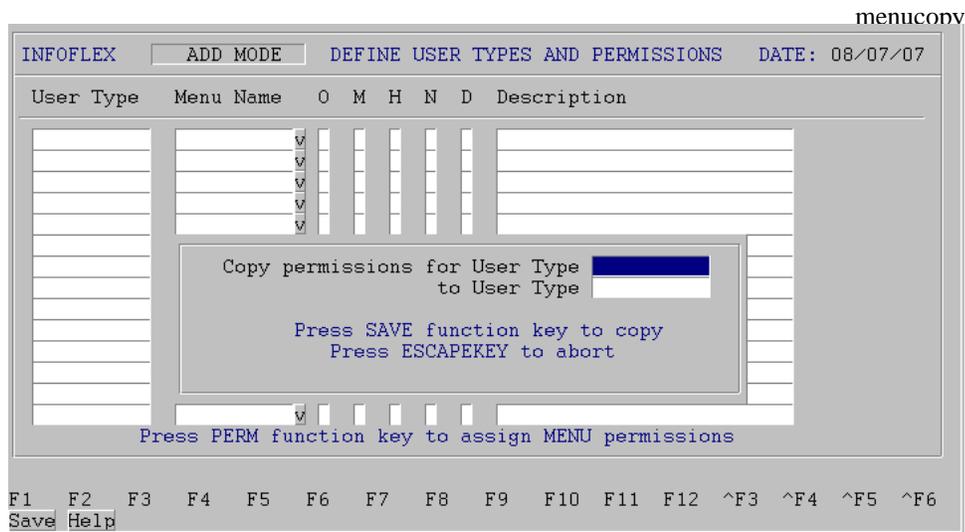
Besides the **PERM** function key, there are two other important functions keys available when defining **User Types**: **CLR** and **COPY**. The **CLR** function clears previous menu permission settings. The **COPY** key copies menu permissions from one **User Type** to another. Each of these functions is shown below.

When you press the **CLR** function key, the following screen will appear.



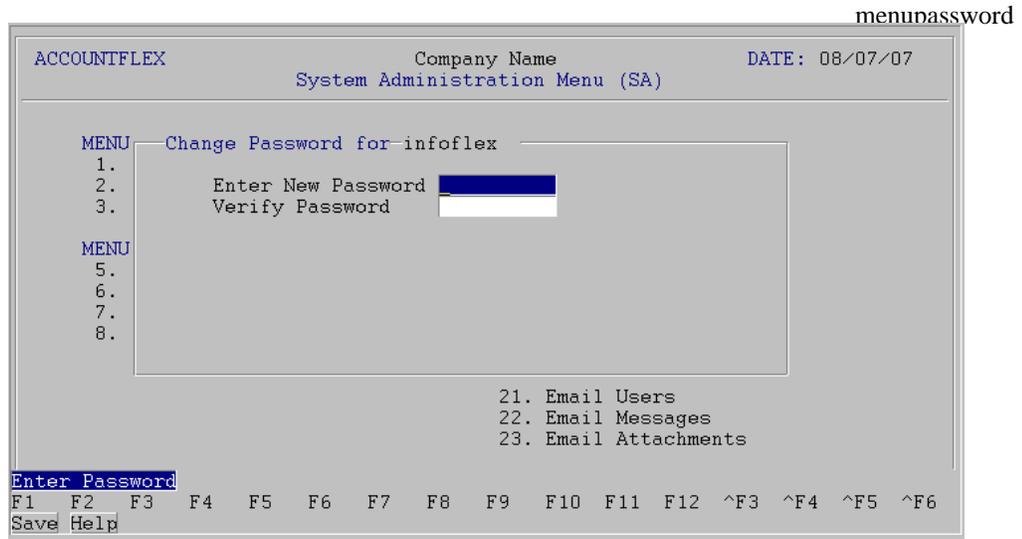
To clear a specific **User Type**, enter the **User Type** in the prompt provided. To clear ALL **User Types** leave the prompt empty.

When you press the **COPY** function key, the following screen will appear.



like users to change their own passwords you can place this choice on the main menu.

The screen for changing passwords is as follows.



4. PROGRAMMING

4.1 Overview

This chapter shows how to develop or change Accountflex programs (options 11 - 17 on the System Administration menu). Before tackling this chapter, you should first read the Inflex-4GL manual.

5. PRINTER SETUP

5.1 Overview

This chapter shows how to manage your printers using the **Printer Control File** and the **Printer Configuration File** (options 18 and 19 on the System Administration menu). The **Printer Control File** is where you will define your printer's command sequences for compressed print and pitch. The **Printer Configuration File** is where you will specify printer additional parameters such as its identification name, printer control file name, character width, and page length. Both of these printer files are optional and are only necessary if you require the control features they offer.

5.2 Printer Control File

This section describes how to install and edit a printer control file. The printer control file contains command sequences that are specific to your printer model. These command sequences control printer characteristics such as compressed print and pitch levels. The following 2 subsections describe how to Install and Edit the **Printer Control File**.

5.2.1 Installing the Printer Control File

Install the **Printer Control File** by assigning the control file name to the environment variable **FXPRINT**. Below is the command to set **FXPRINT**.

```
FXPRINT=hplaser; export FXPRINT
```

5.2.2 Editing the Printer Control File

If the **Printer Control File** must be modified or does not exist, you will need to edit/create it. To edit/create a printer control file, select **Printer Control** on the the System Administration menu.

The following menu will appear:

```
SELECT PRINTER TYPE

1. tosh351   : Toshiba P351/P321/P341
2. hplaser2  : HP Laserjet Series II
3. ex800     : Epson EX-800
4. pan1091   : Panasonic KX-P1091
5. nec2080   : Nec 2080
```

```
Enter printer number (a=add, q=quit):
```

If the printer is not on the menu, add it by entering an 'a' to the above prompt. The system will prompt you for the printer name and then add it to the list of selectable printers.

After selecting a printer the following menu will appear:

```
P R I N T E R   S U P P O R T   M E N U ( /usr2/fx/dev )
```

- ```

1. Assign settings.
2. Display settings.
3. Print settings.
4. Test settings.
5. Save settings.
6. Save & Install settings to /usr2/fx/dev.
Q. Quit.
```

```
Select Menu Option #
```

The following subtopics briefly describe what each above menu option does.

### 1. Assign settings

You will be placed in an editor to assign control sequences. The control sequences are written in **termcap** style (eg., the **ESC** character is **\E**).

### 2. Display settings

Control sequences will be displayed at the terminal.

### 3. Print settings

Control sequences are printed.

### 4. Test settings

This option is not implemented at this time.

### 5. Save settings

This option saves the control sequence settings to the directory **.../fx/src/term**.

### 6. Save & Install settings to .../fx/dev

This option saves the control sequence settings to the directories **.../fx/src/term** and **.../fx/dev**. The version in **.../fx/dev** will be used by Infoflex at run-time.

### Q. Quit

This option exits the program.

## 5.3 Printer Configuration File

This section describes how to install and edit a **Printer Configuration File**. The **Printer Configuration File** allows you to specify additional parameters about each printer such as its identification name, printer control file name, character width, and page length. The following 2 subsections describe how to Install and Edit the **Printer Configuration File**.

### 5.3.1 Installing the Printer Configuration File

Installation of the **Printer Configuration File** consists of assigning the environment variable **FXPRT** the fullpath of where the configuration file resides. A sample configuration file resides in the path **.../fx/dev/prconfig**.

To set the **FXPRT** environment variable for the sample configuration file enter the following command.

```
FXPRT=.../fx/dev/prconfig; export FXPRT
```

Note that you should copy the sample **prconfig** file to a private area so any future updates will not overwrite your changes.

### 5.3.2 Editing the Printer Configuration File

The next step after installing your printer configuration file is to customize it for your site.

To customize the configuration file select **Printer Configuration** on the the System Administration menu. You will then be placed in an editor in order to modify the configuration file.

The sample configuration will appear as follows.

| Infoflex Name | OS Name   | Printflex Name | Width | Length | Bottom Margin | End Feed | Options     |
|---------------|-----------|----------------|-------|--------|---------------|----------|-------------|
| 0             | laserjet  | hplaser        | 80    | 60     | 2             | Y        |             |
| 1             | laserjet  | hplaser        | 80    | 60     | 10            | Y        | -olandscape |
| 2             | laserjet2 | hplaser        | 170   | 60     |               |          |             |
| 3             | deskjet   | hplaser        | 170   | 60     |               |          |             |
| disk          | Serial    | hplaser        | 80    | 60     |               |          |             |

Below is a description of each field or column.

#### Infoflex Name

This is the name Infoflex uses to refer to the printer. To route an Infoflex report to this printer you would enter a **Report Destination** of **P** followed by the Infoflex printer name. For example,

**Report Destination: P1**

If you enter a **P** without an Infoflex printer name, it will default to the Infoflex printer name **0**.

Note that users can have different default printers by assigning them different **Printer Configuration Files**.

**OS Name**

This is the operating system's destination name for this printer. For Windows/NT use lpt1, lpt2, etc..

**Printflex Name**

This is the name of the **Printer Control File** that applies to this printer.

**Width**

This is the printer's character width. If the report output exceeds this width it will automatically be compressed (provided the compressed print sequences are defined in the **Printer Control File**).

**Length**

This is the printer's lines per page. This is important for correctly aligning pages.

**Bottom Margin**

Not used at this time.

**End Formfeed**

Enter "Y" if you would like a formfeed at the end of each report.

**Options**

These options are passed *as is* to the printers interface program. One popular option is the landscape option which would be specified here as *-landscape*. This feature is not available on DOS/WINDOWS.

## 6. TERMINAL SETUP

### 6.1 Overview

This chapter shows how to manage your terminals using the **Terminal Control File** (options 20 on the System Administration menu). The **Terminal Control File** is required in order to run Inflex screens under UNIX operating systems only. The **Terminal Control File** is where you will define your terminal's command sequences for such characteristics as video attributes and key recognition.

### 6.2 Terminal Control File

This section describes how to install and edit a terminal control file. The terminal control file contains command sequences that are specific to your terminal model. These command sequences control terminal characteristics such as video attributes and key recognition. The following 2 subsections describe how to Install and Edit the **Terminal Control File**.

#### 6.2.1 Installing the Terminal Control File

Install the **Terminal Control File** by assigning the control file name to the environment variable **FXTERM**. Below is the command to set **FXTERM**.

```
FXTERM=wyse60; export FXTERM
```

Normally you will not need to set **FXTERM** because it defaults to the value of **TERM**.

#### 6.2.2 Editing the Terminal Control File

If the **Terminal Control File** must be modified or does not exist you will need to edit/create it. To edit/create a terminal control file select **Terminal Control** on the Systems Administration Menu.

The following menu will appear:

## SELECT TERMINAL TYPE

1. tvi910 : TeleVideo 910
2. tvi920 : TeleVideo 912C/920C
3. tvi925 : TeleVideo 925
4. vt52 : DEC VT52
5. adm3a : LSI ADM 3A
6. viewpt : ADDS Viewpoint/3A Plus
7. altos3 : Altos III
8. altos4 : Altos IV
9. altos5 : Altos V
10. wyse : Wyse WY-100
11. wyse50 : Wyse 50+
12. wyse60 : Wyse 60
13. pcunx : ISC UNIX 5.3
14. pcxnx : SCO XENIX
15. ansi : SCO XENIX V/386

Enter terminal number (a=add, q=quit): 8

If the terminal is not on the menu add it by entering an 'a' to the above prompt. The system will prompt you for the terminal name and then add it to the list of selectable terminals.

After selecting a terminal the following menu will appear:

## TERMINAL SUPPORT MENU (/usr2/fx/dev)

-----

1. Assign CRT & ACTION KEY Settings.
2. Assign ACTION KEYS Settings via Keyboard.
3. Display CRT Settings.
4. Display ACTION KEY Settings.
5. Print Settings.
6. Test Settings.
7. Save Settings.
8. Save & Install Settings to /usr2/fx/dev.
9. Load Settings from TERMCAP file.
- Q. Quit.

Select Menu Option #

The following subtopics discuss what each above menu option does.

### 1. Assign CRT & ACTION KEY Settings

You will be placed in an editor to assign control sequences. The control sequences are written in **termcap** style (eg., the **ESC** character is **\E**).

### 2. Assign ACTION KEYS Settings via Keyboard

In this mode, you can define the control sequence for a action key by simply pressing the action key at the keyboard. Action keys are defined as non-data entry keys such as Function keys, Arrow keys, and Control keys.

### 3. Display CRT Settings

Terminal output control sequences will be displayed at the terminal. A \* by the capability description indicates that the capability is required by Infoflex. A \*\* indicates that the capability is desirable.

### 4. Display ACTION KEY Settings

Keyboard input control sequences for action keys will be displayed at the terminal.

### 5. Print Settings

Control sequences are printed.

### 6. Test Settings

This option is not implemented at this time.

### 5. Save settings

This option saves the control sequence settings to the directory **.../fx/src/term**.

### 6. Save & Install settings to .../fx/dev

This option saves the control sequence settings to the directories **.../fx/src/term** and **.../fx/dev**. The version in **.../fx/dev** will be used by Infoflex at run-time.

### 9. Load Settings from TERMcap file

This option loads the control sequences definitions from your UNIX **/etc/termcap** file. Be sure that the terminal name assigned in the **termflex.dir** file is the same as the one in **termcap**.

After loading from **termcap**, the **A\_TYPE** capability may need to be updated. **A\_TYPE** tells TERMFLEX how to set a video attribute. This flag is set to **1** if the terminal sets attribute bytes before and after an output string. The flag is **0** if the terminal does not bracket the output string with attribute bytes. This setting corresponds to the **sg#** parameter of **termcap**. TERMFLEX assumes that the terminal will use a consistent method for outputting video attributes. This may not always be the case as **termcap** will allow a mixture of methods (eg.: **sg#0**, **ug#1**). To resolve this you will want to use the specific attribute control sequences in your terminal manual to define attribute settings.

### Q. Quit

This option exits the program.

## 7. UNIX SECURITY

### 7.1 Overview

This chapter describes how to set UNIX file permissions so users can not access the Accountflex programs directly from the UNIX operating system. If your users do not have direct access to the UNIX operating system this may not be a concern.

To protect against direct access from UNIX follow these steps.

- 1) Logon as root.
- 2) Create a user called *infoflex*.
- 3) Position to the directory **...act/bin**
- 4) Run the command **actperm**

```
./actperm
```

**Actperm** will modify all Accountflex files to have owner and group set to *infoflex*.

After **actperm** is run, users (other than *root* or *infoflex*) will NOT be able to access, modify, or delete Accountflex programs directly from the UNIX operating system. All users will however be able to run **actd** to bring up the Accountflex system.

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