

# Printer Profiles

This chapter covers the following topics:

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  - Managing Your Printer Profiles
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## General Information

As a general rule, the administrator defines and maintains printer profiles - they are indicated by an (S) in the "Display Printer Profiles" screen. The administrator may also authorize users to customize printing, which means they can define their own printer profiles.

A printer profile contains the command sequences required by a particular printer to produce the intended output. Without the correct profile, certain features such as bold printing and underscoring, do not work correctly.

The command sequences that a particular printer requires are listed in the corresponding printer manuals. These manuals are your first source of information if you want to specify a printer profile.

Since the "channels" between a terminal/workstation and a printer are usually long and intricate, the information provided by the printer manuals is not sufficient to define a printer profile successfully. Before you begin, you should ask your system programmer for detailed information.

### **Caution:**

In a mainframe environment, the Natural PM module and the NTTAB or NTTAB1 macros for a printer may require modifications if non-printable characters are to be sent to the printer. You should discuss this with your administrator.

## Adding a Printer Profile

Issue the following command sequence from any point in Con-nect:

```
ADD Printer
```

As a result, the "Add Printer Profile" screen appears.

```

1:09 PM          * * * C O N - N E C T 3 * * *          2.Feb.94
Cabinet LS          Add Printer Profile          Wednesday

      Folder Work_____ File _____

Profile Name _____

Description _____
_____
_____

Page Length 60_
Line Length 65_

Private use _ or Security Read 7 Modify 7 Copy 7

Mark to Modify _ Command Sequences
                _ Character Translations

Complete the information above and press ENTER to add
Command /
Copy      Display Erase      File      Info      Modify      /

```

In addition to the information which you enter in every "Add" screen (see *The "Add" Screens*), you must specify the following printer definition criteria in the "Add Printer Profile" screen.

### Profile Name

A unique name that must not exceed 32 characters.

### Page Length

The default page length (number of lines) is displayed.

### Line Length

The default line length (number of characters) is displayed.

### Command Sequences

You must mark this field with any character if you want to specify/modify the printer command sequences required to produce the intended output (for example, bold printing). See Printer Command Sequences.

### **Character Translations**

Optional - you must mark this field with any character if you want to specify/modify the printer codes required to enable national characters to be printed correctly. See Character Translations

Press ENTER to add the printer profile.

# Printer Command Sequences

If you marked the "Command Sequences" field in the "Add Printer Profile" screen, the "Add Sequence *Printer-name*" screen appears (you press ENTER to display the second page).

```

1:09 PM          * * * C O N - N E C T 3 * * *          2.Feb.94
Cabinet LS      Add Sequence Research                Wednesday
Folder Work    File
Hexadecimal Command Sequences must start and end with '$'.
Comment Lines must start with '*' in the first Column of Symbol.

Symbol          Printer Command Sequence ( maximum 4 lines )
-----
* RS_____   Reset_____
* OP_____   Open_____
* CL_____   Close_____
* FF_____   Form Feed_____
* F1_____   Form Feed from Tray (Bin) 1_____
* F2_____   Form Feed from Tray (Bin) 2_____
* M0_____   Bold Print Off_____
* M1_____   Bold Print On_____
* I0_____   Italic Off_____
* I1_____   Italic On_____
* S0_____   Subscript Off_____
* S1_____   Subscript On_____
Enter a command, press a PF-key, or enter * to display commands
Command /
Abandon Bottom Quit Top

```

In this screen, you enter the information that a particular printer needs to use various Con-form text processing facilities, for example italic printing (see the *Con-form User's Guide*). These facilities are activated by escape sequences within the document text which contain the symbols defined here. Different printers require different printer command sequences to activate the escape sequences.

By default, Con-nect enters (as comments) the symbols which are usually required for the full range of Con-form facilities and a description of what each of these symbols represents.

## Symbol

A symbol that is used in a Con-form escape sequence (for example, M1 to start boldface printing). This can be either a symbol with a fixed meaning or a user-defined symbol.

## Printer Command Sequence

The command sequence executed by the printer when the symbol is encountered within the text of the document. The command sequence must not exceed four lines.

The default entries are intended to serve as examples of which symbols you *should* specify. These defaults are provided as comment lines which start with an asterisk (\*). A comment line does not affect the printer; it can be used to explain what the (preceding or following) printer sequence does.

You must enter a printer command sequence as follows:

- To include one of the defaults, remove the asterisk (\*) and the blank preceding the symbol, and type the *actual* printer command sequence over the description currently shown in the "Printer Command Sequence" line(s).
- To include a different printer command sequence, type over the defaults. You can also enter ,W (to open a window with blank lines) and enter the new sequence on the blank lines preceding or following the defaults.

The printer manual provides information regarding the actual printer command sequences.

You can use the following text processing and positioning commands while adding the command sequences:

```
,W
,W(n)
+n
-n
ABANDON
TOP
BOTTOM
```

**Note:**

When you do not enter a number with the ,W command, a window of 6 blank lines is opened. The maximum number of blank lines for the ,W(n) command is 10.

The screen below illustrates how the symbols and printer command sequences might be entered in a mainframe environment. The default values provided by Con-nect remain as comments below each sequence for the sake of clarity.

```

1:10 PM          * * * C O N - N E C T 3 * * *          2.Feb.94
Cabinet LS      Add Sequence Research          Wednesday
Folder Work    File
Hexadecimal Command Sequences must start and end with '$'.
Comment Lines must start with '*' in the first Column of Symbol.

Symbol          Printer Command Sequence ( maximum 4 lines )
-----
M0              $1B$(s0B
* MO            Bold Print Off
M1              $1B$(s3B
* M1            Bold Print On
I0              $1B$(s0S
* I0            Italic Off
I1              $1B$(s1S
* I1            Italic On
S0              $1B&a-36V$1B$(s0H
* S0            Subscript Off
S1              $1B&a+36V$1B$(s17H$1B&k12H
* S1            Subscript On
Enter a command, press a PF-key, or enter * to display commands
Command /
Abandon Bottom Quit Top
```

You must start and end hexadecimal printer command sequences with a dollar sign (\$).

To include a dollar sign in a printer command sequence, you must enter either \$\$ or enter its hexadecimal value (enclosed between two \$ characters).

To include blanks in a command sequence, you must enter the hexadecimal value, e.g. \$40\$, instead of the blank. These blanks are stored and not compressed. Blanks which you enter without using the hexadecimal value are only place holders, and are not considered as part of the command sequence.

To include a comment, you must enter an asterisk (\*) in the first column of the "Symbol" column. Both the "Symbol" line and the corresponding "Printer Command Sequence" line are then interpreted as a comment. Each comment line must be preceded by an asterisk.

**Note:**

In a mainframe environment, the internal storage space for the command sequences and the character translations for one printer profile together is restricted to approximately 2 K. Blanks are not counted.

Issue the QUIT command to save the command sequences.

## Symbols in the Mainframe Environment

When you specify the printer command sequences, you can use the following symbols:

- Symbols with a Fixed Meaning
- User-defined Symbols

### Symbols with a Fixed Meaning

The symbol names below are fixed values that are defined in Con-form. You must *not* change them, since certain internal tasks would not be executed by Con-form if you replaced them by other symbols.

#### Symbols Which Must Not be Included in the Document Text

The following symbols must *not* be included in the document text - they are supported automatically.

Symbol	Description
CL	CLOSE. To reset the printer to its original state. This command is automatically transmitted after every formatted printout.
FF	FORM FEED.
NL	NEWLINE.
OP	OPEN. To initialize the printer. This command is automatically transmitted before every formatted printout.
RS	RESET. To reset the printer to the initial status.

#### Symbols Which Must be Included in the Document Text

To use the features below, the following symbols must be included in the document text, preceded by the Con-form escape character which is defined with the ".OP ESC=*character*" instruction:

Symbol	Description
A1	Switches left-to-right orientation on.
A0	Switches left-to-right orientation off.
B	Goes back one character.
E1	Switches superscript printing on.
E0	Switches superscript printing off.
I1	Switches italic printing on.
I0	Switches italic printing off.
M1	Switches boldface printing on.
M0	Switches boldface printing off.
S1	Switches subscript printing on.
S0	Switches subscript printing off.
U1	Switches underscoring on.
U0	Switches underscoring off.
Z1	Switches right-to-left orientation on.
Z0	Switches right-to-left orientation off.

For example, to invoke italic print within your text, you must specify an escape character, and then include the symbol for italic print in the document text as follows:

```
.OP ESC =/
This should be printed in /I1italic print/I0.
```

The resulting output would be as displayed below:

```
This should be printed in italic print.
```

### Symbols Which Must be Defined in the Printer Profile

If you want Con-form to format your text automatically, using a specific pitch and line spacing, the corresponding Con-form instructions (e.g. .CS 100 and .LS 060) must be included in the document text. Additionally, the following symbols must be defined in the printer profile:

Symbol	Description
CI100	CI $nnn$ to define pitch size in $nn.n$ (10) characters per inch.
LI060	LI $nnn$ to define line spacing of $nn.n$ (6) lines per inch.

You must *not* include the symbols in the document text.

If the symbols have not been defined in the printer profile, the above Con-form instructions do not work correctly.

## User-defined Symbols

You can define your own symbols. The symbols must also be included in the printer profile, along with the corresponding command sequences.

These symbols must be included in the document text, preceded by the escape character and enclosed either in parentheses or in apostrophes.

For example, you have defined a symbol called "Courier" which invokes this font. When you want to use parentheses, you include the following instructions in your document text:

```
.OP ESC=/  
/( COURIER)
```

When you want to use apostrophes, you include the following instructions in your document text:

```
.OP ESC=/  
/" COURIER "
```



The following characters require special consideration:

*	Within Con-nect, any asterisk (*) signals the beginning of a comment; thus if it is to be part of the printer code, it must be entered as a hexadecimal value.
?	Within Con-nect, any question mark (?) in an input field other than the "Modify <i>Document-name</i> " (editor) screen, invokes the help facility; thus if it is to be part of the printer code, it must be entered as a hexadecimal value.
blank	If a blank is to be part of the printer code, it must be entered as a hexadecimal value.

When adding the character translations, you can use the same text processing and positioning commands as when adding the printer command sequences.

Issue the QUIT command to save the character translations.

The example below shows the character translations for the special German characters.

```

1:18 PM          * * * C O N - N E C T 3 * * *          2.Feb.94
Cabinet LS      Add Transl. Research          Wednesday
Folder Work    File
Hexadecimal command sequences must start and end with '$'.
Comment lines must start with '*' in the first column of Character.

Character      Printer Code ( maximum 4 lines )
-----
  ä            $7B$
  Ä            $5B$
  ö            $7C$
  Ö            $5C$
  ü            $7D$
  Ü            $5D$
  ß            $7E$
  _____
  _____
  _____
  _____
  _____
Enter a command, press a PF-key, or enter * to display commands
Command /
Abandon Bottom Quit Top
    
```

## Managing Your Printer Profiles

Issue the following command sequence from any point in Con-nect to display a list of all available printer profiles:

```
DISPLAY Printer
```

As a result, the "Display Printer Profiles" screen appears.

```

1:20 PM          * * * C O N - N E C T 3 * * *          2.Feb.94
Cabinet LS          Display Printer Profiles          Wednesday

Cmd Printer Profile Name          Folder          File          Date Filed
-----
__ Research          Work          2.Feb.94
__ CANON          (S)          12.Jan.94
__ PRINTER-PROFILE1          (S)          1.Oct.93
__ PRINTER-PROFILE2          (S)          25.Oct.93
__ PRINTER-PROFILE4          (S)          27.Jan.94

Cmds are 1 or 2 characters from the list below (FLIP for PF-keys)
Command /
Copy      Display Erase      File      Info      Modify      Top

```

The printer profiles are arranged alphabetically. Your own printer profiles are displayed first, followed by those created by the administrator.

The columns display the following information:

### Printer Profile Name

The name of the profile to be used when an object is sent to the printer (see *Print Defaults* and the descriptions of the commands OUTPUT and PRINT in section *Documents*).

### Folder

The name of the folder in which the printer profile is stored. The printer profiles created by the administrator are marked with (S); you can use these profiles, but cannot erase, file or modify them.

**File**

If the profile is stored in a file, the file name is displayed in this column.

**Date Filed**

The date when the printer profile was first filed.

## Commands for Printer Profiles

The command prompting line of the "Display Printer Profiles" screen shows all the commands which apply to printer profiles. The commands are described in section *Commands*. The following exceptions apply when working with printer profiles:

- COPY
- DISPLAY
- MODIFY

### COPY

Do *not* attempt to add a profile by copying one of the language-dependent printer profiles (PRINTER-PROFILE *n*) and then modifying it. The language-dependent profiles all end with a number, which indicates the language code for that profile (e.g. PRINTER-PROFILE1, PRINTER-PROFILE2). These profiles are only for language-dependent system use.

### DISPLAY

When you issue the DISPLAY command with a specific printer profile, the resulting screen shows the definition criteria specified when the profile was added. In addition, it contains two fields which you can mark to display the command sequences and character translations associated with the profile.

### MODIFY

When you issue the MODIFY command with a specific printer profile, you can change the definition criteria in the resulting screen. In addition, the screen contains two fields which you can mark to modify the command sequences and character translations associated with the profile. If you mark both fields, the "Modify Sequence *name*" screen appears first.

You modify the command sequences and character translations by typing over them. You can use the same commands which are available when a command sequence or character translation is added.

Any blanks that result from the deletion of characters from your command sequence remain visible in the modified command sequence. This has no effect on the interpretation of the sequence, since all blanks are compressed in the object storage. An entire line consisting only of blanks is automatically deleted.

If you want to include blanks in the command sequence, enter the hexadecimal value, e.g. \$40\$, instead of the blank. These blanks are stored and not compressed. In a hexadecimal sequence, blanks should only occur at the end of a line. The sequence must be syntactically correct without the blanks.

You issue the QUIT command to save the modifications. If you issue the ABANDON command, the modifications are not saved.

## Printing a List of All Logical Printers

You can print a list of all logical printers. The following information are printed: logical printer name, destination, printer profile name, and description (one line). See the *Con-nect Utilities* documentation, section *Print Logical Printers* for detailed information.

To access the Utility function directly from your Con-nect session, you can ADD an application (see *Adding an Application to Access the Con-nect Print Utilities*).