

Printer

The programs available under this menu allow you to simply and easily configure and maintain system printers, manipulate print jobs, manage TTY ports, and add, delete, enable, and disable printers. The actual options are:

- Configure (all)
- Configure (local)
- Queue
- Custom Driver
- TTY Configure

Configure (all) / Configure (local)



These two programs pop up a window displaying all the currently configured printers ([Figure 7-1](#)).

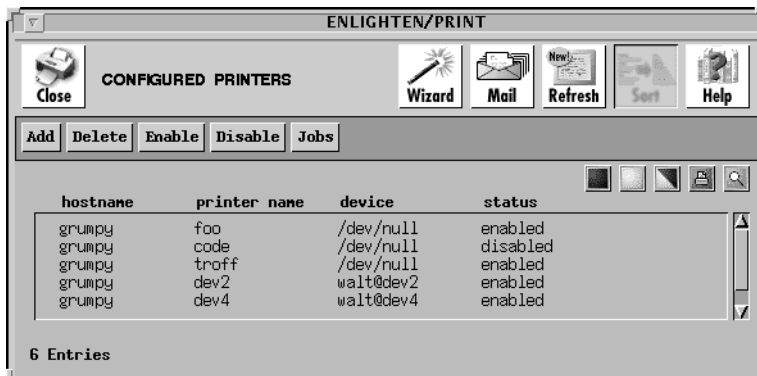


Figure 7-1 Configured Printers window

The “Configure (local)” option is similar to the “Configure (all)” option, except it reports only local printer destinations. The Configure (local) option does not display network printers. This can be useful to gain a better overview of printer resources.

From the Configured Printers window, you have the option to:

- Add Add a printer
- Delete Delete a printer
- Enable Enable a printer
- Disable Disable a printer
- Jobs View and modify print jobs

Add

You can define a printer as a print server or a print client. Altogether, there are three options for configuring a printer when you click the Add button: as a Print Client, a Local Print Server, or a Network Print Server.

Each of these windows contains buttons and fields that are common to both print client and print server configurations.

Common Buttons

Apply

Click this button to save the configuration specified.

Clear Fields

Click this button to clear the existing choices in all fields.

Cancel

Click this button to close the window without making any changes.

Common Field

Print Service Type

This set of toggle buttons specifies whether to configure a printer client or printer server. The setting you choose will determine the look of the rest of the window.

The following subsections detail the window and field formats for each option.

Print Client

This section describes configuring printers as print clients. To do so, select the Client option from the Add a New Print Service window ([Figure 7-2](#)).

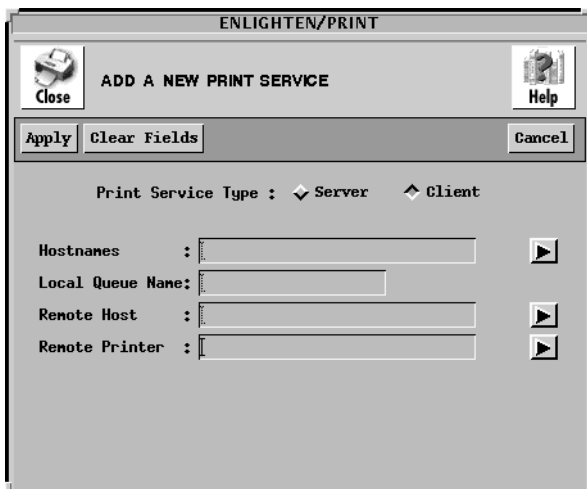


Figure 7-2 Add a New Print Service window

The following subsections describe the format for the rest of the fields in the Add a New Print Service window (Add Print Client option).

Hostname

Type the hostname to configure the new printer on a subset of the currently managed hosts. Leave a blank space between each hostname if you are specifying multiple entries. You can also click the arrow button to the right of the field to bring up a pick list of all currently managed hosts and make your selections from there.

Local Queue Name

Type the full pathname for the local printer queue.

Remote Host

Type the hostname you want to use as the print server for this particular client. You can also click the arrow button to the right of the field to display a list of all hosts in the current pool.

Remote Printer

Type the remote printer you want to use to service the print jobs. Click the arrow button to the right of the field to display a list of all known printers defined on hosts in the current pool.

Local Print Server

This section describes configuring printers as local print servers. To do so, you must select the Server and Local options from the Add a New Print Service window ([Figure 7-3](#)).

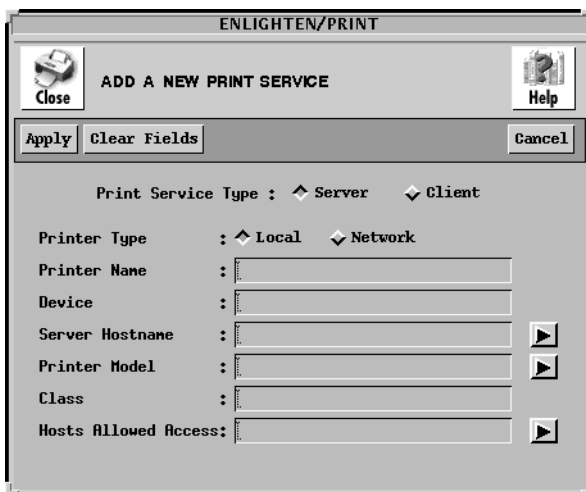


Figure 7-3 Add a New Print Service window

The following subsections describe the formats for the rest of the fields in this Print Service window (Add Local Print Server option).

Printer Name

Type the printer name users will use to refer to the printer. Use a meaningful name, such as the printer's location, type, or purpose. This name is also referred to as a printer *queue* or *destination*. These expressions can be used interchangeably.

This field is mandatory; enter the name of the new printer.

Device

Type the device, such as `/dev/lp` (parallel) or `/dev/ttyh7` (serial), where the printer will be attached. This device must already exist.

Server Hostname

Type the hostname from the current pool that you want to use as the print server for this printer. The arrow button to the right of the field displays a list of all hosts in the current pool.

Printer Model

Specify the type of printer driver you want to use. You must enter a hostname in the Server Hostname field before selecting a driver. The arrow button to the right of the field displays a listing of all the available printer models.

This field is mandatory. See [“Custom Driver” on page 7-12](#) for more information on creating your own printer drivers.



When you add a printer to the system, it is automatically enabled.

Class

For systems using the System V type spooling system, you can better distribute print jobs on multiple printers of the same type. When you enter a printer in the Class field, the print job is sent to the first available printer in the printer class.

This field is an optional field. If you don't enter a printer class, then the printer (queue) will not be put into a printer class. If you enter a printer class that does not exist, the class will automatically be created.

This field is not used by systems using the Berkeley style printer spooler (lpd) or by IBM AIX systems.

Hosts Allowed Access

This field lets you specify which hosts are allowed access to the print server. The arrow button to the right of the field displays a list of all hosts in the current pool.

Network Print Server

To configure printers as network print servers, select the Server and Network options from the Add a New Print Service window ([Figure 7-4](#)).

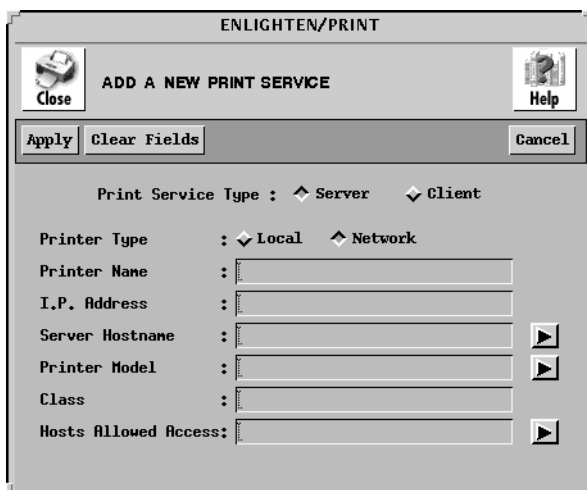


Figure 7-4 Add a New Print Service window

These fields are the same as the ones for the Local Print Server, except you need to specify an I.P. Address for the network printer rather than a Device name for a local printer. See [“Local Print Server” on page 7-5](#) for a description of the rest of the fields in this Print Service window.

Delete

To delete a printer from the system, click the Delete button. From the Configure Printers window, highlight the printers you want to delete from the system. EnlightenDSM will prompt you to confirm your choice in order to ensure the selection was correct.



EnlightenDSM cannot delete a printer configuration if there are pending print requests. Use the 'Printer → Queue' menu item to cancel all pending print requests on the printer you want to delete.

Enable

Click the Enable button to enable a printer that has been disabled. The Enable command is similar to physically turning the printer on; it tells the print queue administrator daemon that the printer is now available for printing. Any print jobs that might have been waiting in that print queue will now begin to print.

Disable

Click the Disable button to stop the highlighted printers from receiving print requests from the spooler. Any job that is currently printing will be added back to the print queue to be reprinted once the printer is enabled. This command does not stop users from sending print jobs to the disabled printer; those print requests will be added to the print queue.

Jobs

Click the Jobs button to display all print jobs currently printing or waiting to be printed for the highlighted printer destinations. A pop-up window will notify you if there are no jobs. If there are print jobs, the Printer Queue window will appear. This window and its features are described in [“Queue” on page 7-9](#).

Queue



This program displays a list of all outstanding print requests (jobs). EnlightenDSM allows you to issue specific commands, such as canceling print requests and enabling or disabling a printer. The Printer Queue window ([Figure 7-5](#)) appears only if there are pending print jobs. If not, a message window appears stating that there are no pending jobs.

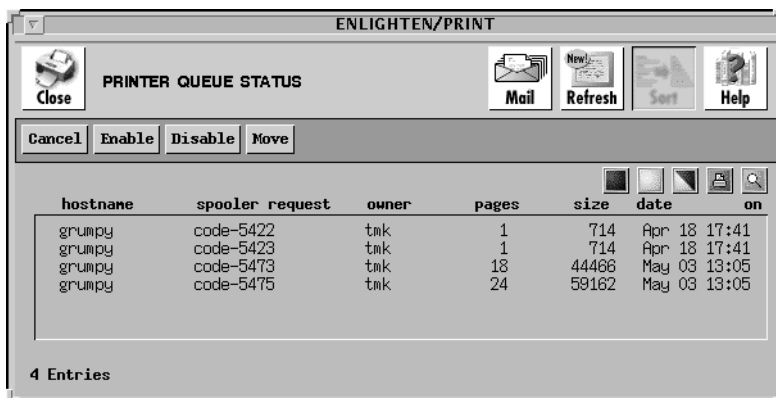


Figure 7-5 Printer Queue Status window

The following sections detail the operations of the buttons within the Queue Status window.

Cancel

Click the Cancel button to delete the selected print job from the system. If the job is currently printing, the Cancel command will remove the print request from the system; however, the printer may continue printing until its buffer is empty.

Enable

The Enable button is similar to turning the printer on. It tells the print queue administrator that the printer is now available for printing. Any print jobs that might have been waiting in that print queue will now begin to print.

Disable

Click the Disable button to temporarily stop printing. The printer queue will still accept print jobs. Typically, you use this command when the printer is out of paper or will only be out of service for a short while. When a printer is disabled, its print queue is kept intact.

Disabling stops the marked printers from receiving print requests from the spooler. Any job currently printing will be added back to the print queue to be reprinted when you re-enable the printer. This command does not stop users from sending print requests to this printer; those print requests will be added to the print queue.



On Sun O.S. 4.1.x, or other systems on which the Berkeley style printing system is running, the disabling of a printer will cause it to decline print requests until it is re-enabled. Also, all printers on the same device are enabled/disabled even if only one is highlighted.

Move

Click the Move button to move print jobs from one printer queue to another if, for example, a printer breaks down or has many jobs queued. EnlightenDSM displays a window showing a list of all available printer destinations. Select the new printer destination (queue).

EnlightenDSM will then ask for confirmation to move each of the highlighted print jobs to the other printer. If you click the Yes button, the print job will be moved to the selected print queue.

You can move print jobs to print queues on other hosts even if the new destination host has a different spooling system running.



When moving a print job, you should select a new printer destination compatible with the old printer destination. Failing to do so may produce unexpected results.

Custom Driver



You can use this program to define custom printer models or drivers. Each type of printer has its own characteristics; for example, a laser printer needs to map the print commands differently than a dot matrix style of printer. Use the Custom Driver window to create different types of printer drivers.

The following sections detail the fields and their formats for the options shown in the Create Custom Printer Model window ([Figure 7-6](#)).

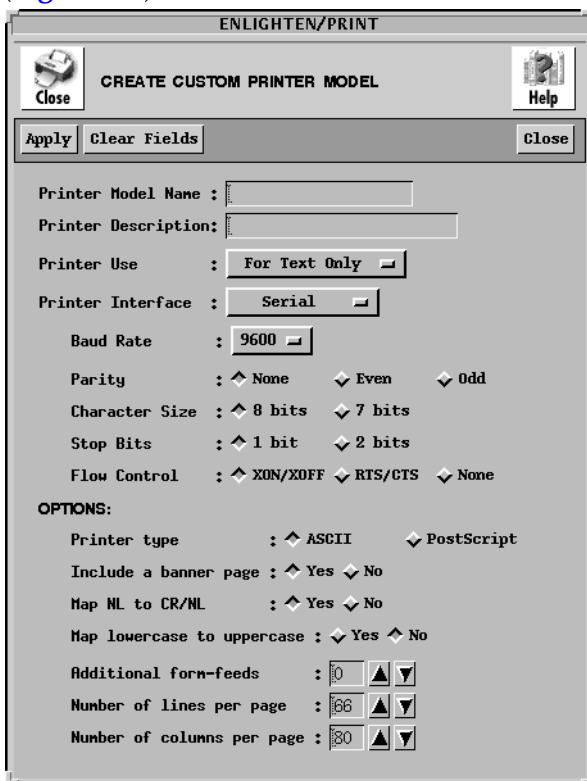


Figure 7-6 Create Custom Printer Model window

Fields

This window contains the following fields:

Printer Model Name

Type a unique name that refers to this particular printer driver. This name is usually related to the model of printer, for example a “Raven PR 9101” might be called `rav9101`.

Printer Description

You can optionally enter a brief description of the driver in this field.

Printer Use

This field allows you to specify how the printer will be used. If you want to use the printer for printing text fields and graphic designs or charts, the interface will have to include a graphic module. If you want to use the printer only for text, then only the text module is required.

Using the left mouse button, click the option button to display the following list of options:

- For Text Only (the default)
- Text or Graphics
- Other

If data sent to the printer is already formatted for that printer, choose the Text or Graphics option. This is typical of applications such as word processors or drawing programs where the printer type can be selected at print time. The application prepares its output for the chosen printer.

If, however, you want to print only plain text, then choose the For Text Only option. If you have to manipulate the text before it is sent to the printer, you can use the `OPTIONS` section to specify pre-printing manipulations. See the following subsections for more details.

Printer Interface

The Printer Interface option allows you to choose the type of hardware interface that is needed for the printer to work properly. Different

types of printers require different types of interfaces. The interface may be:

- Serial (the default)
- Parallel
- Data Products
- Other

The most common of these is Serial or Parallel. Using the left mouse button, click the appropriate printer interface. Refer to your printer manual for more information about what interface is required.

If the printer interface selected is `Serial`, then additional information will be required to properly set up the serial interface. The information required is:

- Baud rate — The speed at which the printer will send and receive data. Click the appropriate baud rate.
- Parity — Select the parity the printer will be using. The options are Odd, Even, or None.
- Character Size — The size of the byte the printer uses. The two options are 7 bits or 8 bits.
- Stop Bits — The stop bits setting for the printer. The two options are 1 bit or 2 bits.
- Flow Control — This is how the printer recognizes signals from the operating system. The flow control tells the system if the printer is ready to receive information or if it is busy printing. This field is hardware dependent on the serial boards installed in the machine. Most serial printers use Xon/Xoff flow control.



All of the flow control options are dependent on the serial board's capabilities. Not all flow control options are supported on all serial (TTY) boards.

Please check your printer manual for complete information regarding the serial interface settings.

Options

You can use the options area for any pre-printing manipulation this custom printer driver needs.

- **Printer type**

Click the PostScript button if the printer is running PostScript emulation. Otherwise, click the ASCII button.
- **Include a banner page**

To identify individual printer jobs, you can add an optional banner page by clicking the Yes button.
- **Map NL to CR/NL**

For some printer emulations, such as HPCL, the carriage return (CR) character must be mapped to CR/NL (New line) for proper output of lines of text. For these emulators, click the Yes button.
- **Map lowercase to uppercase**

If the printer only prints in uppercase mode (typically band printers) or if you want all uppercase output, click the Yes button.
- **Additional form-feeds**

When the print job is finished, the printer driver will output up to five additional form feeds to advance the paper. The default value is zero. Enter or select a new value as desired.
- **Number of lines per page**

Enter the number of lines of text for a single page. This information is used in determining when a page ends. The default value is 66. Enter or select a new value as needed.
- **Number of columns per page**

Enter the number of characters to fit onto a single line of text. This information is used in determining where to wrap text to a new line. The default value is 80. Enter or select a new value as required.

Buttons

This window contains the following buttons:

Apply

When you have completed filling in this window, click the Apply button. A window appears confirming the creation of the new printer model. Then you can assign it to a device in the Printer Configuration window.

Clear Fields

Click this button to clear the existing choices in all fields.

Close

Pop down the window without performing any other action.

TTY Configure



You can use this program to display a list of all configured ports on the local UI machine ([Figure 7-7](#)). You can add new ports and modify, enable, or disable existing ports. You can also access port information by port number or TTY name.

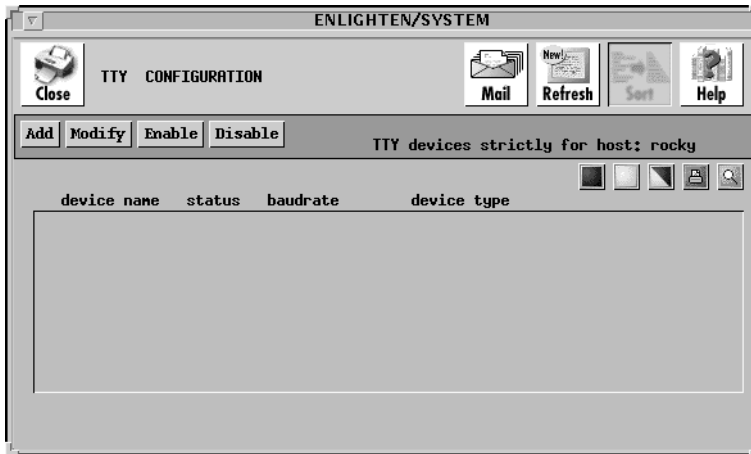


Figure 7-7 TTY Configuration window

From here, you have the option to:

- Add Add a new device to the system
- Modify Modify an existing TTY port
- Enable Enable an existing TTY port
- Disable Disable an existing TTY port

Add

Click the Add button to quickly and easily add a TTY port.
See [Figure 7-8](#).

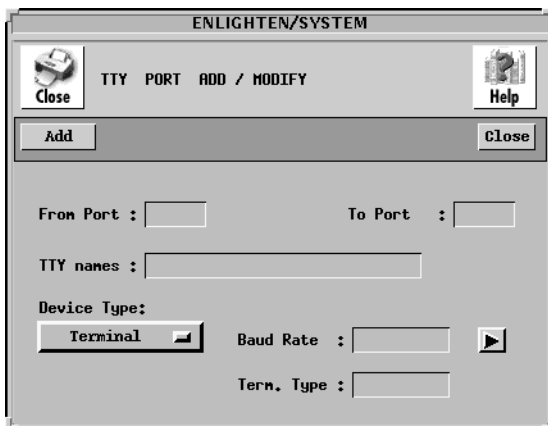


Figure 7-8 Adding a TTY Port

Fields

This window contains the following fields:

From Port

Use this field to specify the first port number to be configured when you're defining new TTYs. If the TTY is already defined, you can leave this field blank and enter the TTY name field instead. The sequence for port numbering always starts at 0 (zero), not 1 (one). For example, if there are 16 ports on the machine, the port numbers will be 0 to 15.

Check with your hardware vendor for more information on the number of ports and their setup.

To Port

Use this field to specify the last port number to be configured when you're defining new TTYs. If you are configuring only one TTY, you can leave this field blank.

TTY names

You can use this field to specify the exact TTY name of a port. Every port on a system has a port number and a corresponding TTY name. If you're configuring new TTYs, leave this field blank and the system will assign the TTY name to each port as it is defined.

If the previous two fields (From Port and To Port) are blank, you must specify the TTY name(s) in this field. Leave a blank space between each TTY name for multiple entries.

Device Type

Use this field to choose the type of device that will be added. Click the left mouse button and a list of available device types will appear. You can choose one of the four standard device types:

- Terminal (the default)
- Serial Printer
- Dialin Modem
- Dialout Modem



Because each device type has unique characteristics, it is important that you select the correct device type. If the wrong device type is chosen, the port may not react as expected.

Baud Rate

The baud rate is the speed at which the port will send and receive signals. The most common speeds for dialin modems are 1200, 2400, 4800, or 9600 baud. For terminals the most common speeds are 4800, 9600, or 19200 baud. Click the arrow button on the right to display a pick list of the baud rates and select one of them. EnlightenDSM will insert your selection into this field.

Term. Type

When a user accesses the system from this port, the system will set the terminal type to whatever you specify here. Each terminal has its own set of characteristics, for example, an IBM 3151 terminal emulation is not the same as a VT100 emulation. If the terminal type is unknown, specify the `vt100` type.



It is important that you select the correct terminal type. If the wrong emulation is chosen, the screen display will not work properly.

Buttons

This window contains the following buttons:

Add

Click the Add button to add your TTY selection(s).

Close

Click this button to discard any changes and close the window.

Modify

Click this button to modify a TTY port. The TTY Port Add/Modify window appears, as shown in [Figure 7-8](#). The first three fields in this window are not available, though; the only fields available for modification are the Device Type, Baud Rate, and Term. Type fields. Once you've made all your changes, click the Modify button to change the TTY port settings.

Enable

When you enable a port, you are telling the operating system this port will be used to log in to the system. Since this will allow users to log in to the system via the named port, make sure you do not enable a printer or dialout port.

Highlight the desired device names you wish to enable and click the Enable button. A pop-up window will appear asking for confirmation. Click the appropriate button.



Do not enable a port that has been designated as a serial printer port. The system will try to send the login sequence to the printer and all sorts of strange things will happen.

Disable

If a port is disabled, the operating system will not offer users the ability to log in via that port. Printer and dialout ports are already disabled when configured. You can selectively disable other ports to manage which ports provide access to the system.

Highlight the desired device names you wish to disable and click the Disable button. A pop-up window will appear asking for confirmation. Click the appropriate button.



Disabling a port where a user is currently logged in will *not* log out the user. The user will be able to continue working until he or she does log out. After all users are logged out of the port, it is then disabled from further logins.
