Installation and Configuration Manual

Thermal Printers - Linux Spooler Driver

For POS and Kiosk printers

Driver Version: **1.0, release 1**

1 PACKAGE DESCRIPTIONS

These *drivers* are available in RPM packages, which is a widely adopted package format in various Linux distributions.

The following package is available:

Package Name	Description
1. bemathermal-spooldrv	*Spooler Driver* for CUPS. Tested on the following Linux distributions: Red Hat Linux versions 8.0 and 9; Red Hat Enterprise Linux version 3; Conectiva Linux versions 8 and 9; Fedora Core versions 1 and 2; SuSE Linux versions 9 and 9.2.[1]

1.1 Related Files

The following file refer to the package above:

Package #	File Name	Description
1	bemathermal-spooldrv-1.0-1.i386.rpm	RPM instalable package containing the *driver* executable and printer description files. Currently the following models are supported: "58mm", "76/80mm" and "112mm".

1.2 Package Dependencies

For each provided RPM package, some extra packages are needed for installation:

Package Name	Packages Needed for Installation
1. bemathermal-spooldrv	cups; cups-libs

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[1] Due to differences in the main system libraries, these RPM packages will not install on older versions of these distributions. We'll release specific versions for these distributions in the near future.

2 INSTALLATION INSTRUCTIONS

2.1 Package Installation

Package installation can be done using any graphical utility which is suitable for installing RPM packages. Nevertheless, the most simple and direct way of installing RPM packages is using the **rpm** command line utility.

Please follow the steps below to install the provided package successfully:

1. Open a terminal (command line shell) as the "**root**" user;

2. Copy the necessary RPM file to a temporary directory. On the following example, we considered that the RPM package is located on a diskette, and we are going to copy it to the **/root** directory:

```
# mkdir /mnt/floppy
# mount /dev/fd0 /mnt/floppy
# cp /mnt/floppy/bemathermal-spooldrv-1.0-1.i386.rpm /root
# umount /mnt/floppy
```

3. Install the package using the **rpm** command. On the following example, we considered that the necessary RPM package was already copied to the **/root** directory on the target machine:

```
# cd /root
# rpm –ivh bemathermal-spooldrv-1.0-1.i386.rpm
Preparing...                ########################################### [100%]
   1:bemathermal-spooldrv   ########################################### [100%]
Stopping cups: [   OK   ]
Starting cups: [   OK   ]
```

4. Make sure that the CUPS printer *spooler* is correctly installed, configured, and that it's already started (must be running). The following example shows how this could be done under Red Hat and compatible Linux distributions[2]:

```
# chkconfig cups on
# service cups start
```

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[2] Note: on some Linux distributions the CUPS printing system is reffered to as "cupsd" and not "cups", as shown in this example.
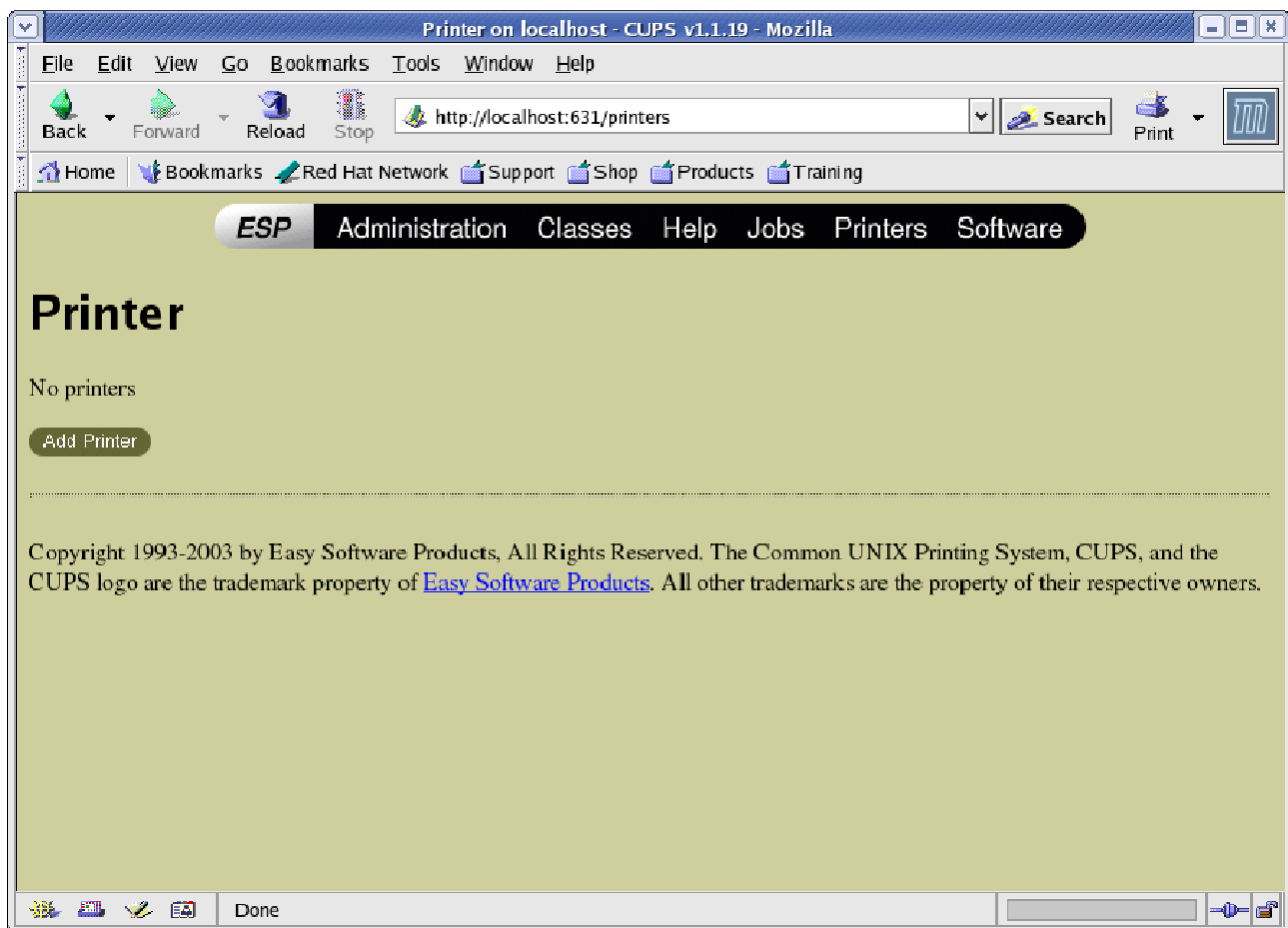
3 SET UP INSTRUCTIONS

3.1 Configuring a printer with the spooler driver

1. Launch a Web browser and access the administration interface of the CUPS server, pointing the browser to **http://localhost:631** (local host, port 631). The following figure shows the start page:
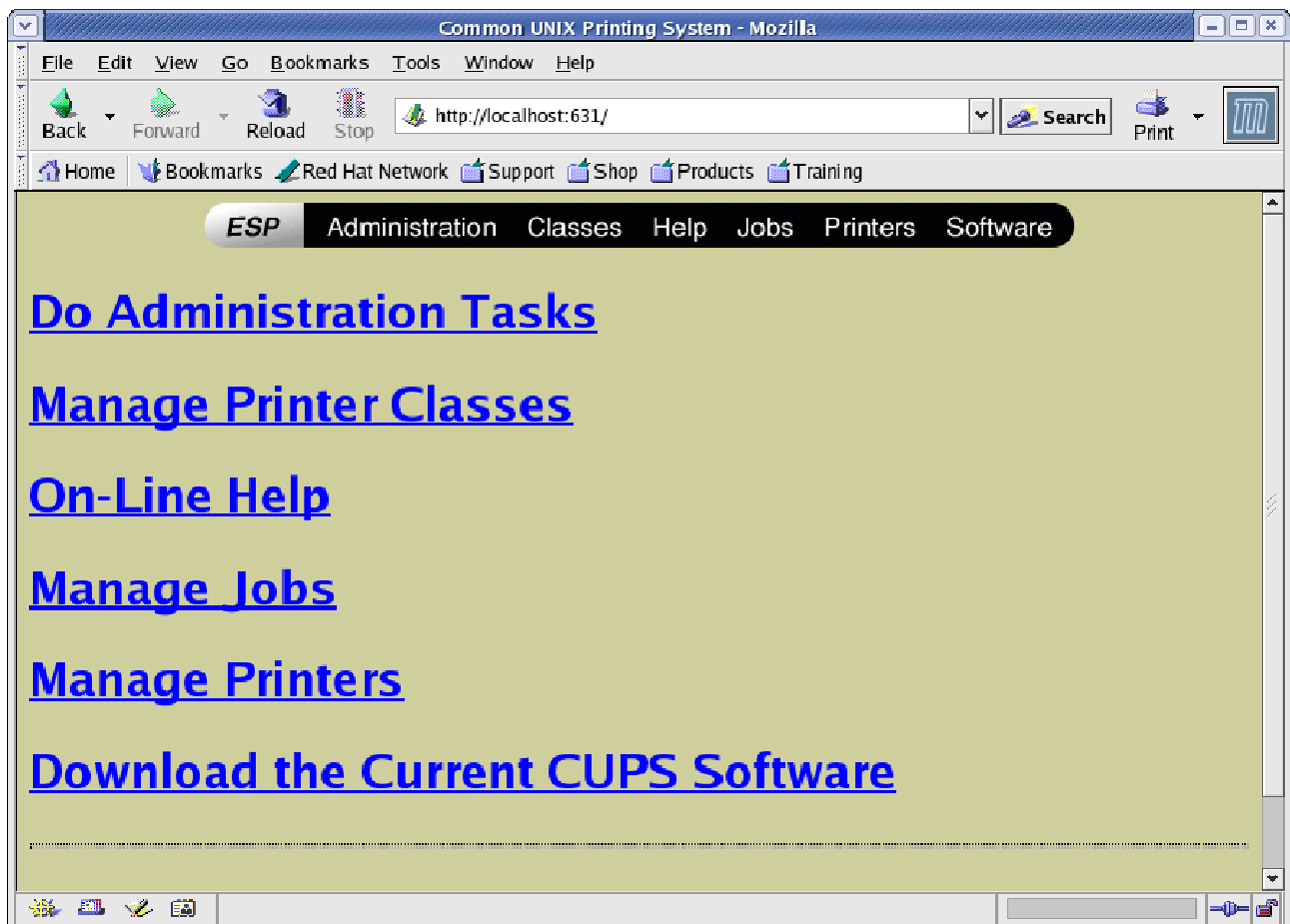
2. Click on link "**Manage Printers**" to proceed to the CUPS printer administration page:

3. Click on the "**Add Printer**" button to start the printer configuration wizard. This action requires administrator rights and you will be asked to authenticate your request. In many Linux distributions the *login* and *password* of the "**root**" user must be informed. Under Red Hat Linux distributions, any user that is a member of the group "**sys**" has administrative rights over the CUPS server:

Note: under SuSE Linux distributions, it's necessary to set up a CUPS managed MD5 password for the spooler administrative users. This can be achieved using the **lppasswd** command, as shown in the example below:

```
# lppasswd -a root -g sys
Enter password: ******
Enter password again: ******
```

It's not required that this user exists in the **/etc/passwd** database, but common printer commands such as **lp**, **lpstat** and **lpadmin** require that "CUPS users" exist also in the system's users database.

4. Once authenticated, the wizard will be launched, asking for basic printer information. The only required field is the printer "**Name**", which cannot contain spaces or special characters. The "**Location**" and "**Description**" fields correspond to the physical location of the printer and its detailed description, respectively. Both are optional. Fill in the fields and click on "**Continue**":
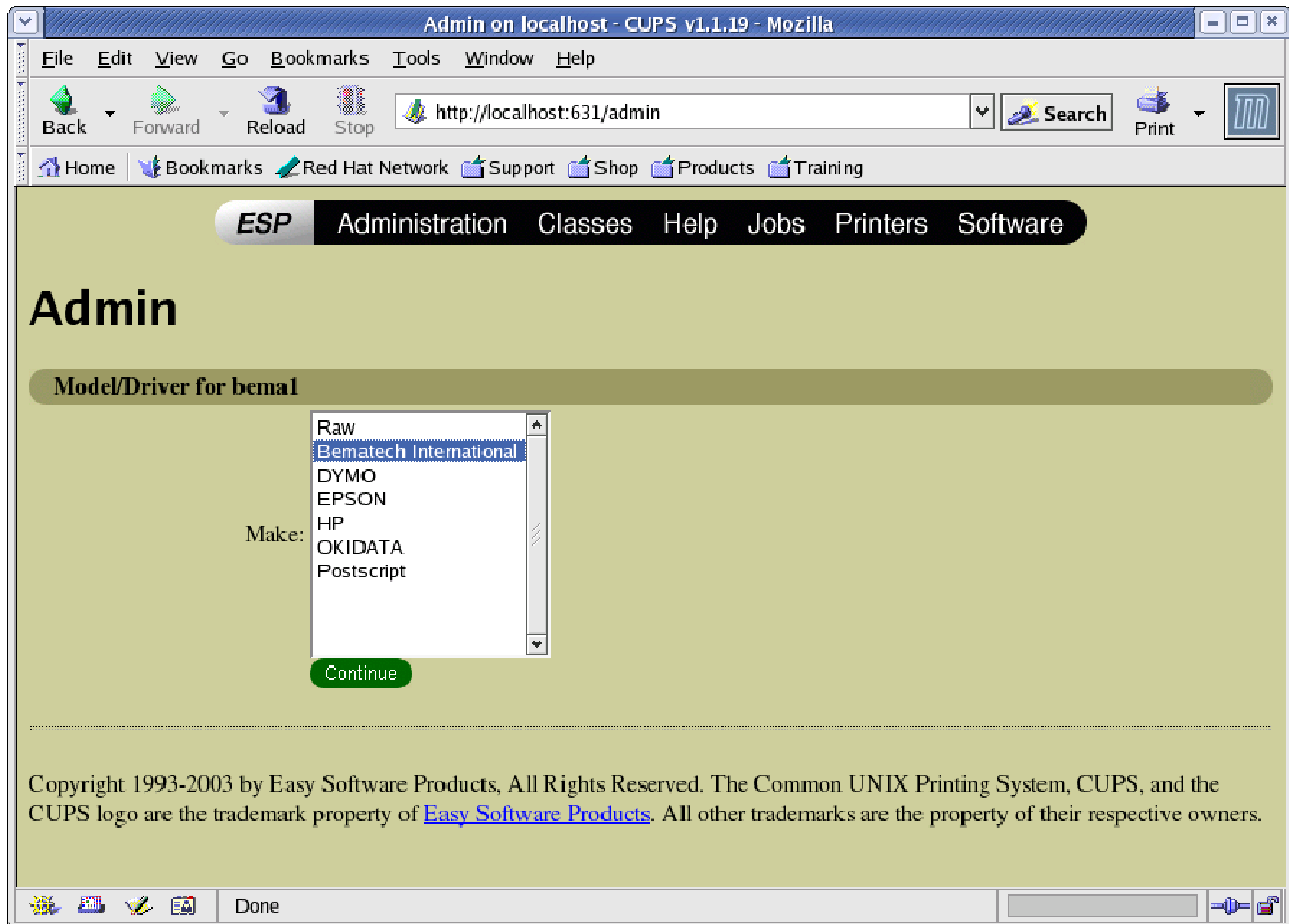
5. The next step is to inform the physical device where the printer is connected to, usually a parallel or serial port. Choose the correct device in the list and click on "**Continue**":
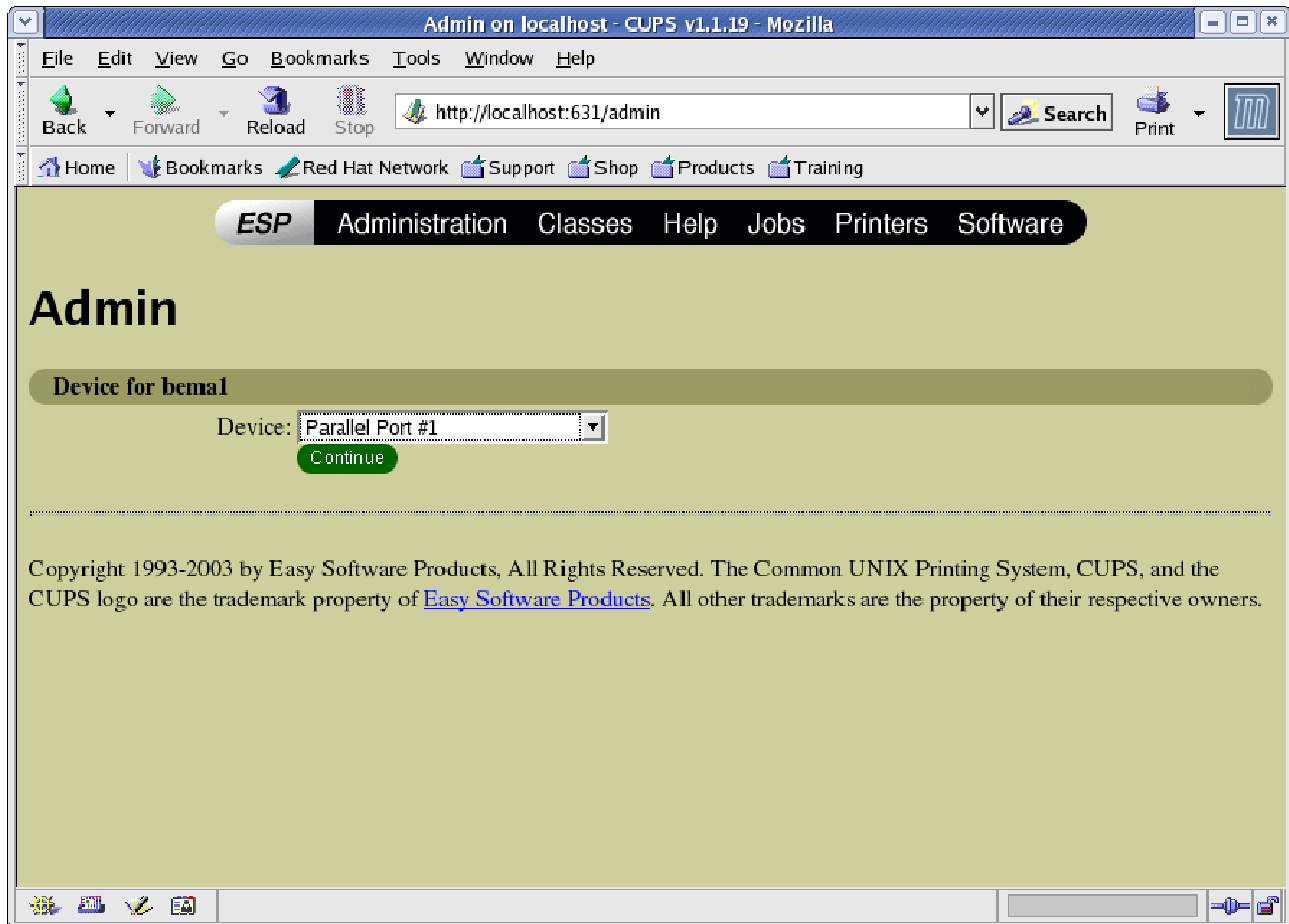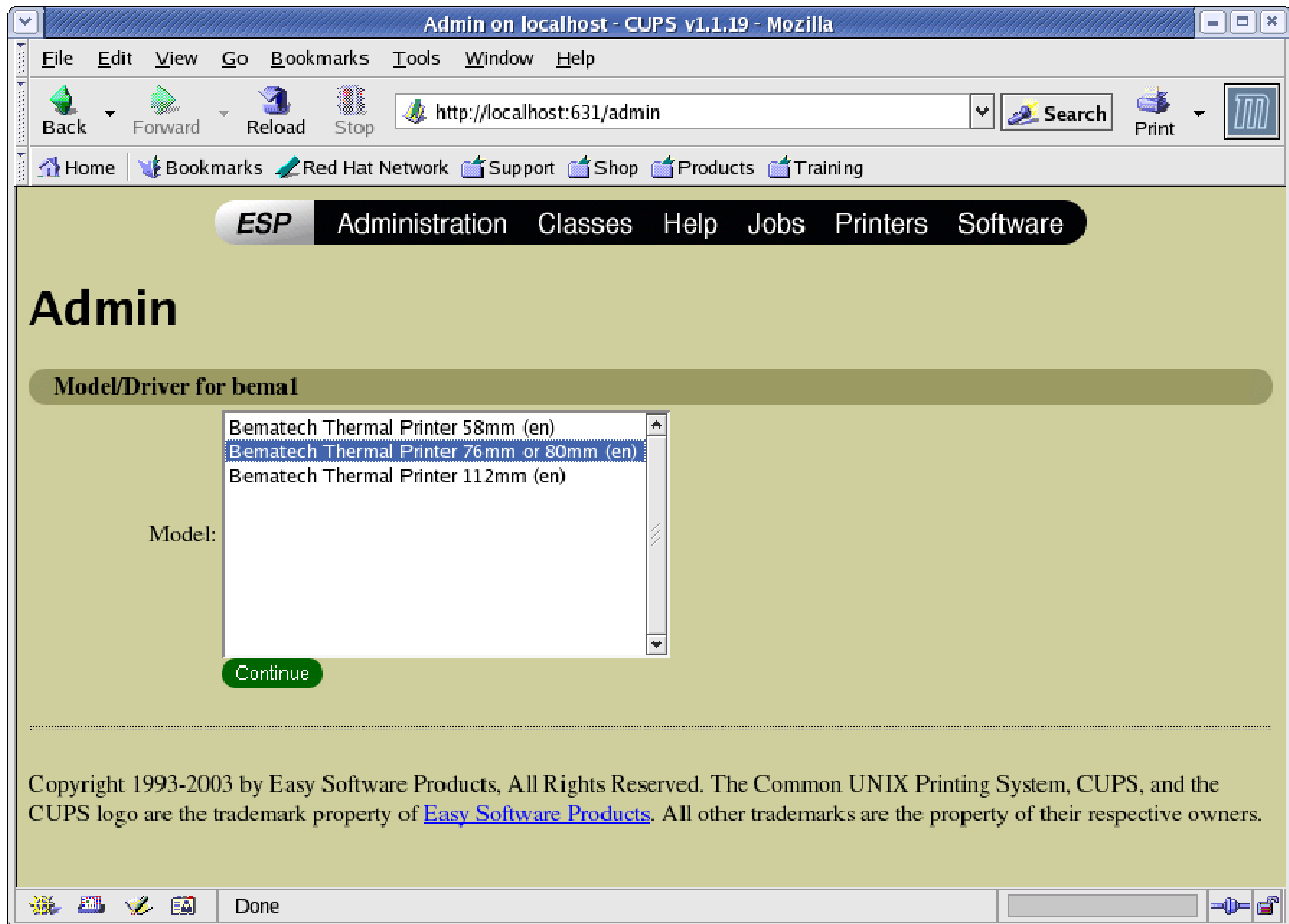
6. On the next step the wizard will ask for the printer manufacturer. Choose "**Bematech International**" in the list and click on "**Continue**":

7. Next, choose the appropriate printer model to your device. The example below shows a 76/80mm paper width thermal printer being selected. Click on "**Continue**" to go on:

8. Done! The printer is now added to your system, with its default configuration. To return to the printer administration page, click on the "**Printers**" option in the menu at the top of the page. You can optionally click directly on the printer name to view it alone on the screen:
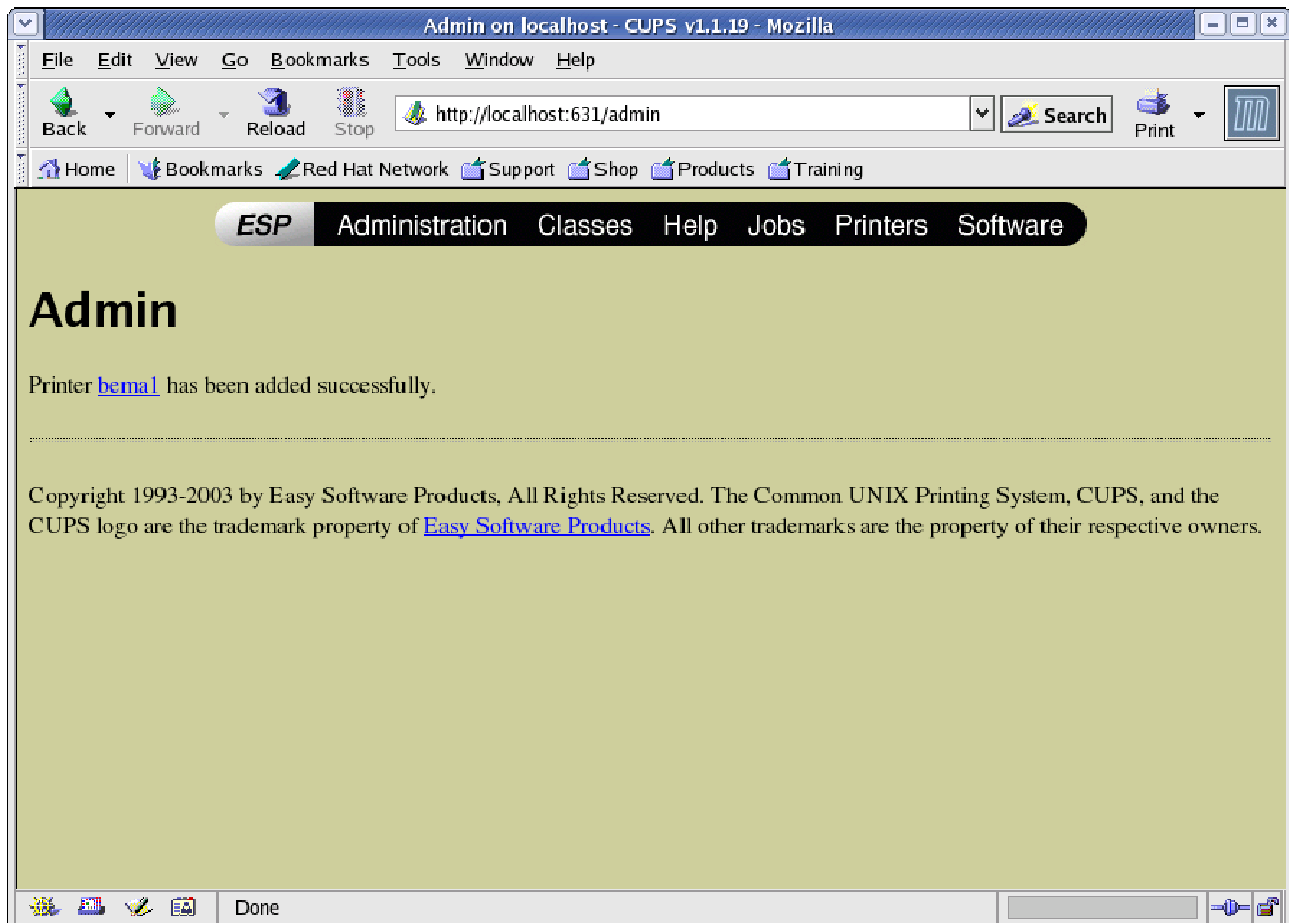
9. Back to the printer administration page, you are ready to print a test page. Click on the "**Print Test Page**" to do this. The "**Modify Printer**" button can be used to change the printer details (not its configuration). Use the "**Delete Printer**" button to permanently remove the printer from the system. To configure the printer parameters, click on the "**Configure Printer**" button (see figure in the next step):
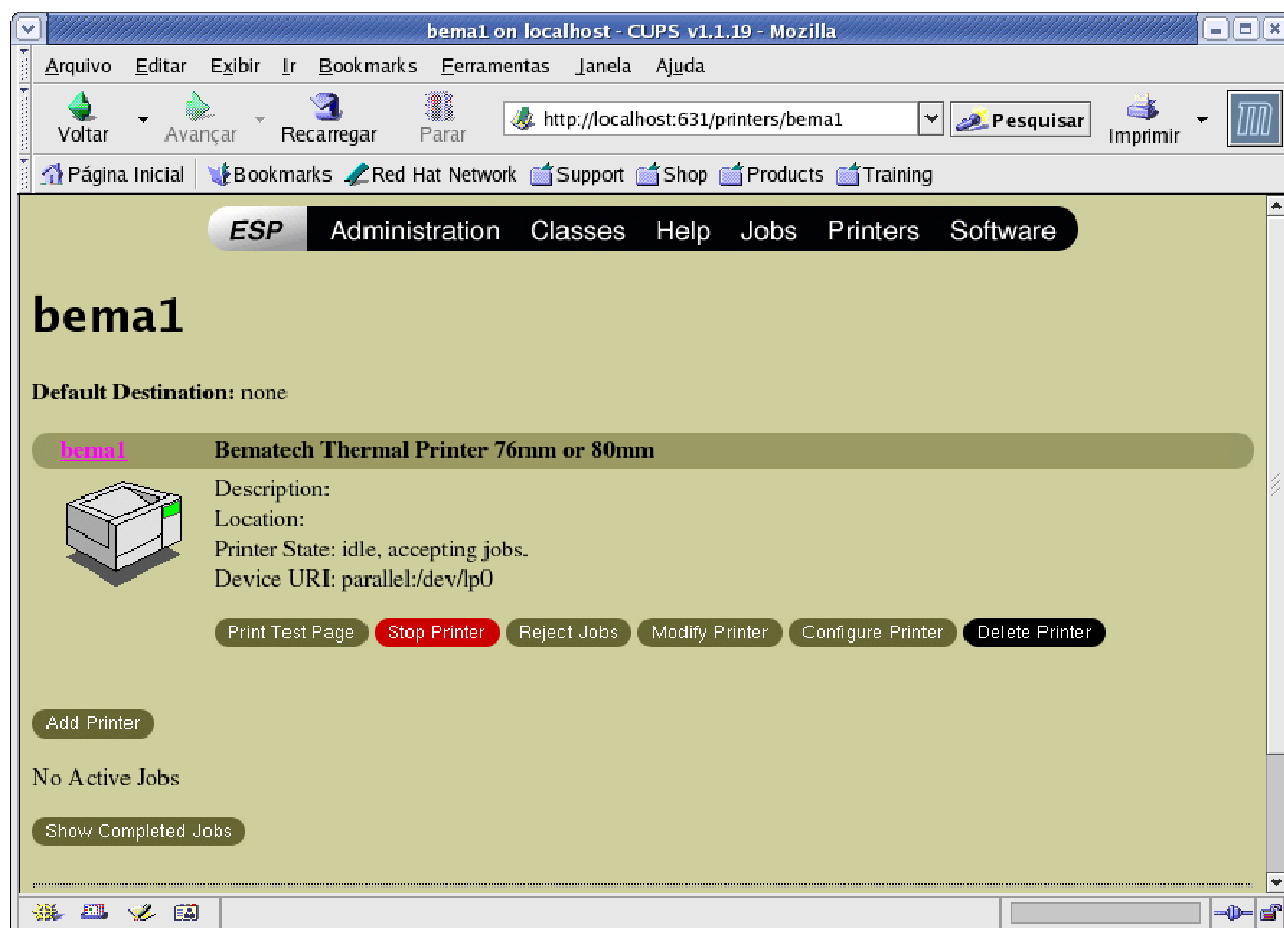
10. The "**Cutter Configuration**" option allows choosing whether the paper is automatically cut or not after each printed page. The "**Output Resolution**" option selects the "**203x203 DPI**" or "**203x90 DPI**" printer resolution. The "**Media Size**" option controls how the driver interacts with application data sent to the printer. The "**A4 (scalable)**" and "**Letter (scalable)**" attributes should be used when the application is not able to "talk to CUPS" via its API, and can only generate "standard" paper size outputs (such as A4 or Letter). The "**Thermal Paper Roll XXmm**" attribute should be used when the application is able to "ask" CUPS about the paper size and generate appropriate output. The "**Starting Banner**" and "**Ending Banner**" options are standard, allowing one to define pre and post printing pages for each print job. Click on "**Continue**" to save the configuration:
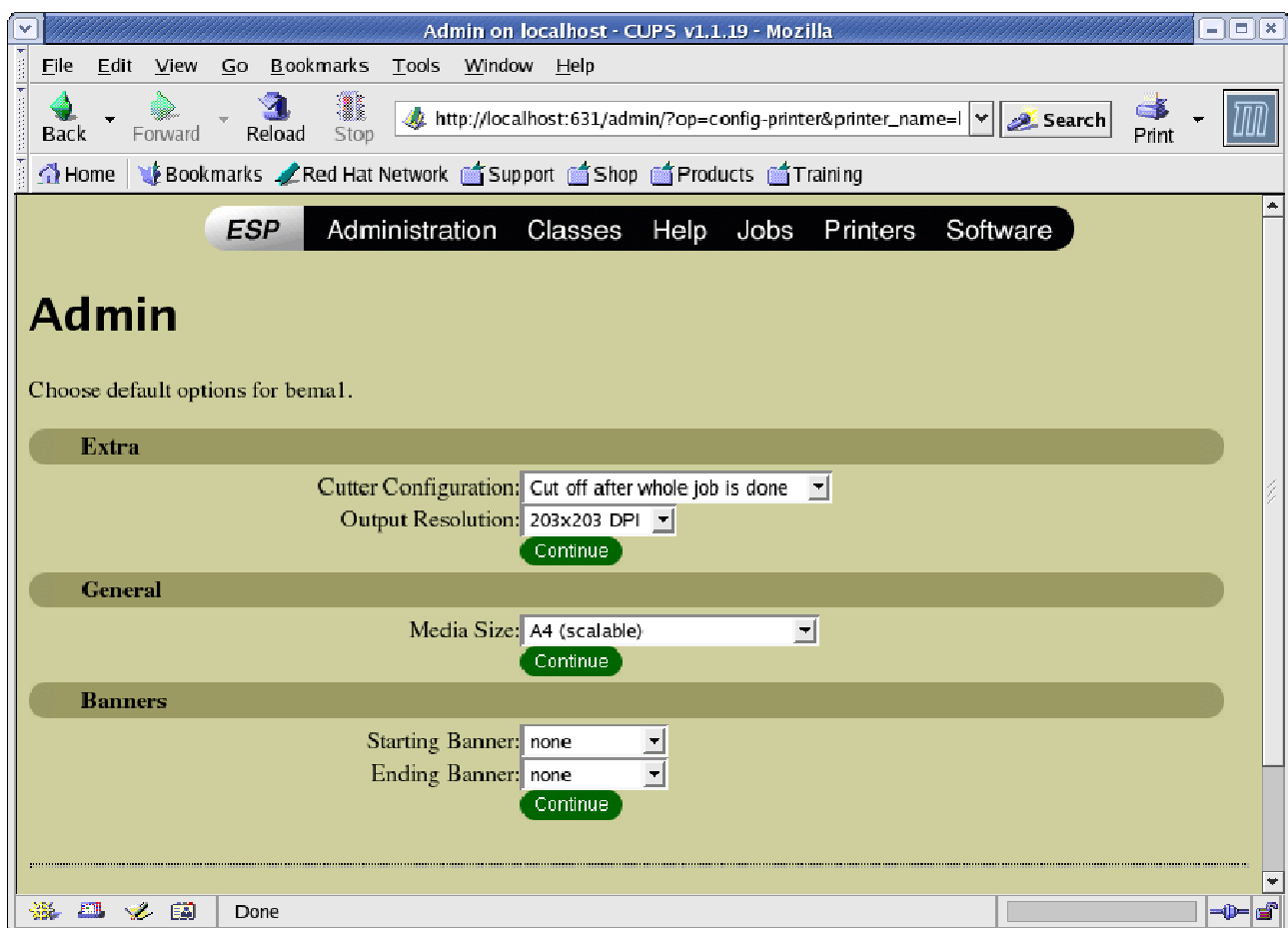
11.After altering the printer configuration, select any option in the menu at the top of the page if want to do further configuration or set up: