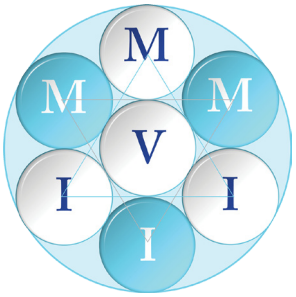
CQue 2.0

Quick Installation and User Guide

Linux Version for Canon



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1 Introduction

CQue 2.0 is a tool to create and manage printer queues on Linux platforms. It will be mostly used by system administrators, though once a queue is created, an ordinary user may benefit from *CQue 2.0* by the possibility to adjust 'last minute' printing parameters from most common Linux applications (OpenOffice, LibreOffice, etc.). In a more classical sense, *CQue 2.0* allows for the creation of dedicated printer queues, including support for a number of command line options.

This manual provides details to enable a quick installation of *CQue 2.0*. The package is compatible with Linux 32 and 64 bits versions starting with kernel 2.4-7 (32bits) and 2.6-27 (64bits) and later. It has been tested on RedHat, Fedora, Mandriva, Debian, Suse and UBUNTU and should be compatible with other versions of Linux.

The *CQue 2.0* package is compatible with CUPS. A CUPS version 1.2.X or newer is recommended.

With respect to the version ***CQue 1.0*** some important changes of ***CQue 2.0*** include:

- All PPD files have been revised to allow for support of secured printing and printing with department accounting through the GTK+ interface. Unfortunately *OpenOffice* and *acroread* for Linux do not yet use this type of interface. It is expected, however, that future releases of these programs will support the CUPS specifications of PPD file syntax, as used by GTK+.
- CQue now ships in *rpm*, *deb* and *tgz* packages.
- The installation of an *rpm* or *deb* package includes the execution of the *setup* program and installs the PPD files in an appropriate system directory. Any existing CQue 1.0 printer queues will be automatically upgraded with the new PPD files.
- For special purposes the *tgz* package allows for in installation without upgrading existing CQue 1.0 printer queues.
- Upgrading from SQue 9.X for Linux to CQue 2.0 for Linux is not supported. If you want to upgrade SQue 9.X to CQue, you would fist have to install CQue 1.0 (which transforms SQue printers queues to CQue printer queues) and then CQue 2.0.

To install CQue you must be logged on either as *super-user* or *root* (*System Administrator*). A user who is not super-user (i.e. a *normal user*) will not have the rights to add or delete printer queues.

CQue 2.0 for Linux comes without any licence key. It has its own licence statement to be subscribed at download time and it does not fall under the GNU/GPL licence conditions.

This manual does not cover details on the structure of files, scripts and environment variables concerning CQue. It uses an example of a general installation and explains how to use CQue under normal circumstances. For a more extensive and detailed description of CQue please refer to the *CQue 2.0 Reference Manual*.

This manual describes the *interactive version* of *CQue*, so you will need at least a running X11 desktop. In other words, this version of CQue will not work on an alphanumerical terminal.

☞ ***Please note that as CQue will add new PPD files to the Linux operating system it will restart the CUPS printer manager at the end of the installation!***

For details of known limitations, bugs or work arounds of specific operating systems, please always read the Appendix E: "Release Notes"!

1.2 Before Installing CQue 2.0

CQue 2.0 can be obtained by:

- Downloading from the web.

or

- Obtaining a copy on on CD-ROM.

1.2.1 Using the web

You can download the driver from the Canon web site for your country or directly from http://software.canon-europe.com.

There are three different archive formats:

- tar + gzip: a gzipped tar archive with extension: *.tgz.
- rpm: an rpm archive with extension: *.rpm.
- deb: a deb archive with extension: *.deb.

As there exist many different Linux distributions and various package management systems too, it may happen that your distribution does not support rpm nor deb packages by default. In that case we recommend using the *.tgz version of CQue, which should run on all known Linux systems.

In general we recommend to use either the rpm or deb package, as the installation of such a package is fully automatic, including the upgrading of any existing CQue 1.0 queues.

If you downloaded a copy of CQue 2.0 from the web in **.tgz* format the file will be in a compressed format. You will need to decompress the file, using an appropriate interactive package of gzip, and extract the contents to a designated directory on your system, for example ***/tmp***.
If you cannot decompress the file using this method you can extract the contents of the file using the following commands (we recommend doing this from the /tmp directory):

```
gzip -d cque-xx-2.0-9.tgz
tar xvf cque-xx-2.0-9.tar
```

or in one sweep (with the GNU version of tar):

```
tar xzvf cque-xx-2.0-9.tgz
```

where the 'x' depends on the language of the version of CQue.

The first line will decompress the archive, the second line will extract all files from it.
If you downloaded a copy of CQue 2.0 from the web in **.rpm* format you will need to extract the files, using an appropriate (interactive) package of rpm.
And if you downloaded a copy of CQue 2.0 from the web in **.deb* format you will need to extract the files, using an appropriate (interactive) Debian package installer.

1.2.2 CD-ROM

To obtain a copy of CQue 2.0 on CD-ROM please contact your local Canon Sales Office.

On the CD-ROM the package will be available in both *.tgz, *.rpm and *.deb formats.

1.2.3 Support

For support, please contact your local Canon service technician/representative.

2 Installing CQue 2.0

Note: This section describes how to install or upgrade CQue 2.0. To *uninstall* CQue 2.0 refer to section 4 of this manual please.
Note: RPM and DEB installations of CQue 2.0 will automatically try to update the PPD files of existing CQue printer queues.

2.1.1 Installing a TGZ package

If you extracted the files from a *.tgz version you will need to start setup from the directory where you extracted the files to. Normally a subdirectory: cque-xx-2.0-0 will have been created.
The *CQue 2.0 Reference Manual* describes all options supported by setup. Here we only mention the -q option: If you run setup with the option ***-q1*** then setup will ask for permission to upgrade any previously CQue 1.0 printer queue.

To start a ***default*** installation, either double-click on the **setup** icon, or alternatively from a terminal window type:

```
./setup
```

The installation will silently start and will terminate with a restart of the CUPS printer daemon. The start up may take a while when setup configures an SELinux module if necessary.

Otherwise, if you want to *control the upgrading of individual CQue 1.0* printer queues then from a terminal window type:

```
./setup -q1
```

The start up may take a while when setup configures an SELinux module if necessary.
If the setup program does not encounter any previous CQue 1.0 installation, it will behave as described above.
If it does encounter a previous CQue 1.0 installation, setup will ask for permission to continue the upgrade. You answer by typing ***y*** or ***yes*** if OK, or ***n*** or ***no*** if not OK, followed by the <**RETURN**> key.
For each CQue 1.0 printer queue encountered this procedure is repeated.
If you want to upgrade all following CQue 1.0 printer queues at once, you may also reply by ***a*** or ***all*** followed by the <**RETURN**> key, when asked permission for the upgrade of a printer queue.
Of course setup never modifies a non-CQue printer queue.
Please have a look at the log file: /var/log/CQue2.0_UpdateLog after running setup.

2.1.2 Installing an RPM package

The rpm package appears with its specific icon in a file browser as in fig. 1. The "look and feel" of the menus may differ among different Linux distributions, but the general way will resemble the example we present here (Fedora Core).

When you double click on the icon, the following menu opens up:

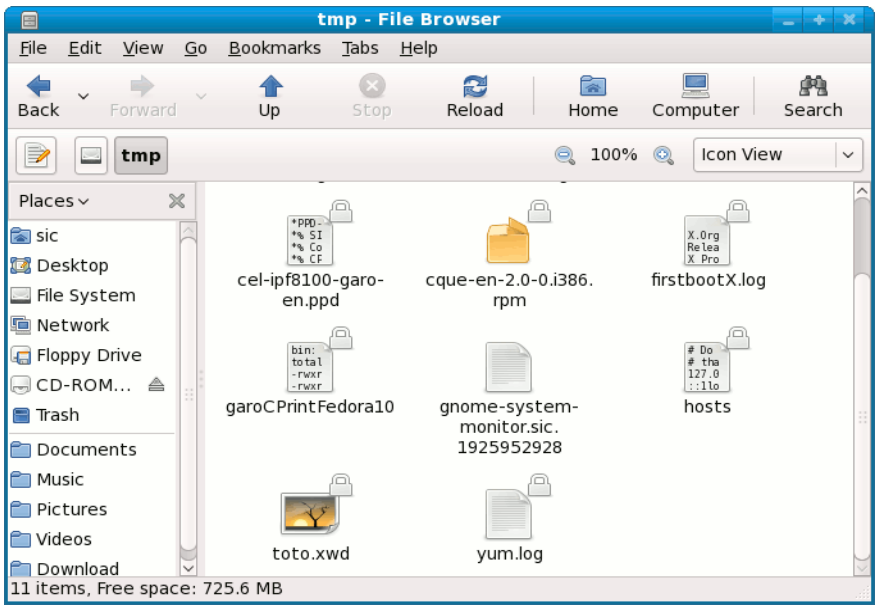


Figure 1 The CQue rpm package.

If you agree to continue with the installation, click on *Install*.
You may now be queried to identify yourself with the ***root*** password. Only the ***root*** has the right to add system software. Thereafter the following window displays:

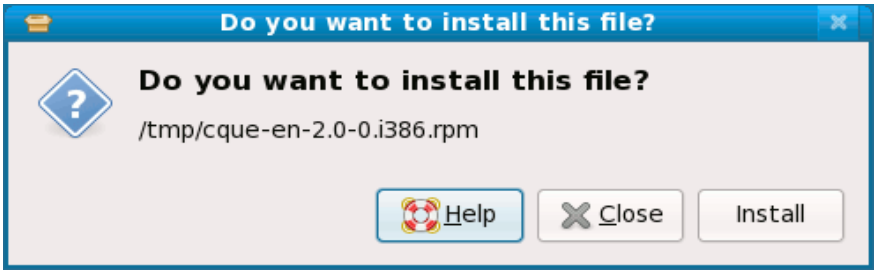


Figure 2 Confirm CQue rpm package installation.

As the CQue driver is not bound to a specific Linux distribution, the package has not been signed. It is, however, completely safe to continue with the installation.



Figure 3 Missing signature of the CQue rpm package.

The rpm manager checks any package dependencies.



Figure 4 Resolving dependencies of the CQue rpm package.

And finally the package will be installed.

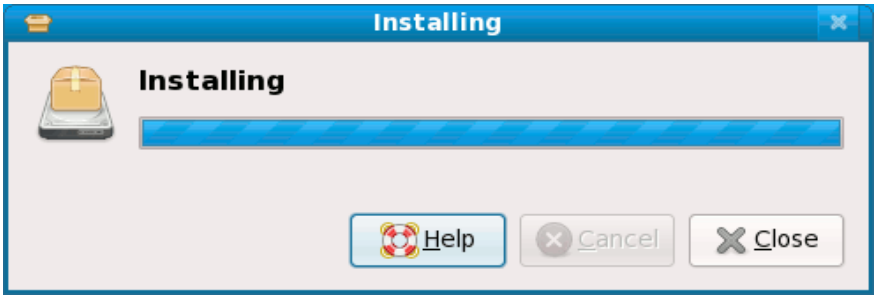


Figure 5 Installing the CQue rpm package.

A review of the full installation procedure will be found in the file: ***/var/log/CQue2.0_UpdateLog***.
The documentation will be installed into the directory ***/usr/share/doc/CQue2.0***.
Please note that if you upgrade from a CQue 1.0 installation an rpm installation will automatically update any CQue printer queue. You may check the file ***/var/log/CQue2.0_UpdateLog*** to verify which printer queues have been upgraded successfully.

If you do not want to extract the files and install them using this interactive method you can extract and install the contents of the file using the following command from a terminal window:

```
rpm  -Uhv  cque-xx-2.0-9-i386.rpm
```

The rpm program will automatically extract the files to the directory:

```
/opt/cel
```

and run the setup program in the same manner as described above. At the end de CUPS daemon will be restarted.

2.1.3 Installing a DEB package

The deb package appears with its specific icon in a file browser as in fig. 6. The "look and feel" of the menus may differ among different Linux distributions, but the general way will resemble the example we present here (Ubuntu).

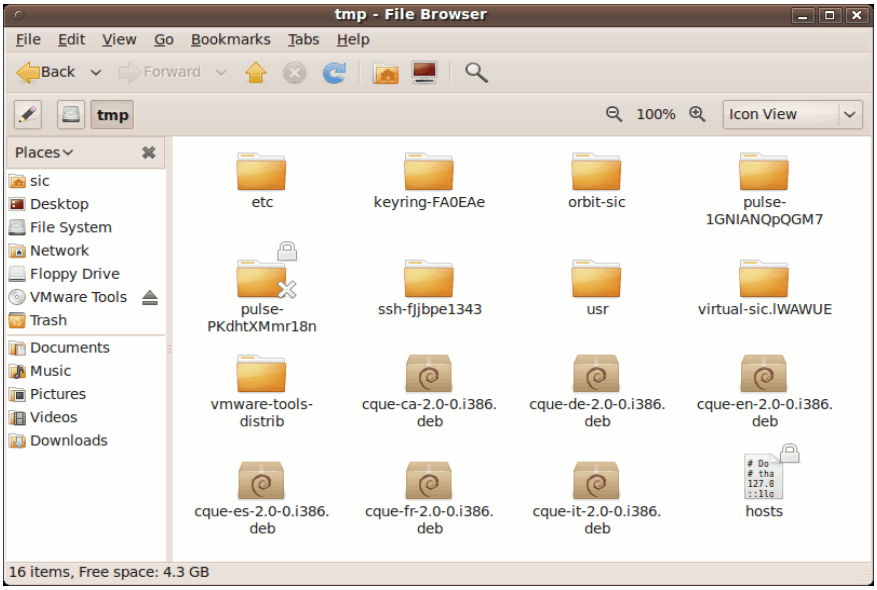


Figure 6 The CQue deb package.

When you double click on the icon, the following menu opens up:

A review of the package to install appears. To continue the installation, please click ***Install package***.

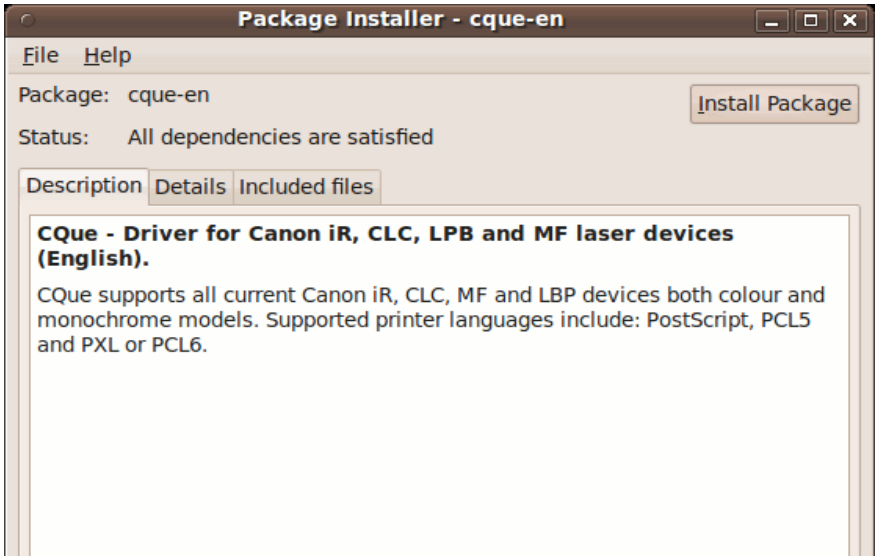


Figure 7 Confirm CQue deb package installation.

Then the installation of *CQue* will start.



Figure 8 Installing the CQue deb package.

At the end of the installation of *CQue* this window will display.



Figure 9 End of the installation of the CQue deb package.

If you do not want to install the package using this interactive method you can extract and install the contents of the file using the following command from a terminal window:

```
dpkg  -i  cque-xx-2.0-9-i386.deb
```

The ***dpkg*** program will automatically extract the files to the directory:

```
/opt/cel
```

and run the setup program in the same manner as described above.
At the end de CUPS daemon will be restarted.
On Debian you may also use the recommended program ***aptitude*** to install CQue.

3 Running CQue 2.0

Once CQue is installed you may start it from a shell. Please use the following command*:

```
cque
```

or

```
/opt/cel/bin/cque
```

Alternatively, you can use the Browser to the directory *'/opt/cel/bin'* and from there select the icon or file *cque*.
The file *cque* is a script, created during setup, which includes the necessary environment variables to run *CQue.exe*. *Never* try to run *CQue.exe* itself.
(Refer to *Appendix B* for further information on how to run *cque* from the "Start" menu of the desktop).

When you run *cque* the following window will display:

1 A list of existing Queues.
2 A Main Menu (File, Edit, Options, About).
3 A Menu of Tabs of which only one is visible, i.e. Queues.
4 Next and/or Previous buttons.
5 OK, Help and Cancel buttons.
6 A Menu for the Queue Type.
7 A text field for the queue name.

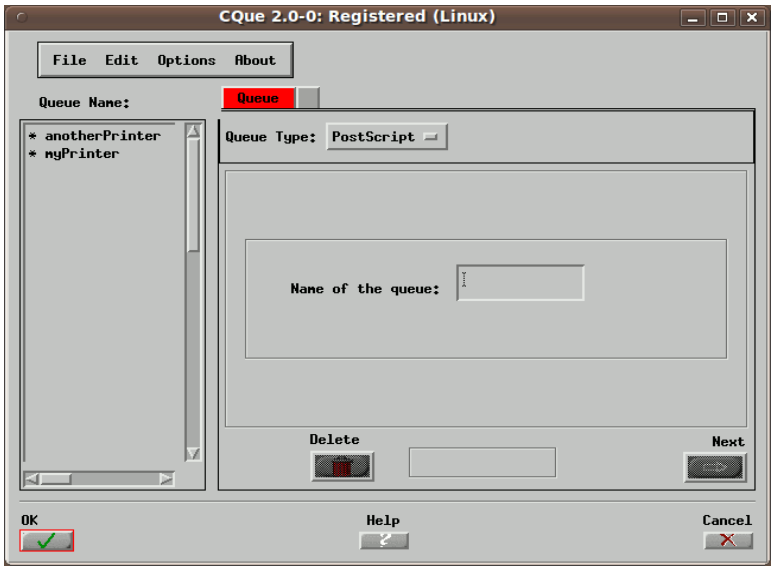


Figure 10 CQue Main Menu

*) A link will exist to /usr/bin/cque too allowing to run cque without any prefix.

3.1.1 List of Queues

In the *list of queues* there are two types of entries:

- If an entry has an asterisk (*) in front, then it is a printer queue, which is not managed by CQue. These could be local or remote queues generated with the native printer manager of your Linux system.

- The other queues are genuine CQue queues, which can be managed by CQue.

A CQue queue can also be managed by the native printer manager of your Linux system except for some advanced options (like forced mailbox printing, secure printing and department accounting).

3.1.2 Main Menu

The *main menu* contains the following sub menus:

1 File
2 Edit
3 Options
4 About

The details of these menus can be found in the *CQue Reference Manual*.

3.1.3 Main Menu of Tabs

The *menu of tabs* contains the following tabs:

1 Queues
2 Port
3 Model
4 Device Options
5 Print Options
6 Advanced
7 Extra

3.1.4 Buttons

The *Next button* navigates to the next menu or window. This button is initially greyed out as long as no valid queue name is specified.

Note: No *Previous button* shows on the first menu/window.

When you use the *Next* (and possibly) *Previous* buttons to navigate, the tab of the current menu will become red. You can also directly access a specific menu of the above list making use of the *tabs menu*. Finally you can navigate using the *Edit* menu.

The *Delete* button enables you to delete a selected queue. You must first select the queue from the list and then select *Delete*. A message will display asking you to confirm the deletion. If you confirm, the queue will be permanently deleted from the system.

The *OK button* and *Cancel button* are quite general and serve the obvious purposes. They can be used in many situations.

The *Help button* displays on-line help as follows:

1 Select *Help*.
2 The cursor changes into a question mark.
3 Select the object or window element you want information about.
4 A help window will display with the information on the requested object.

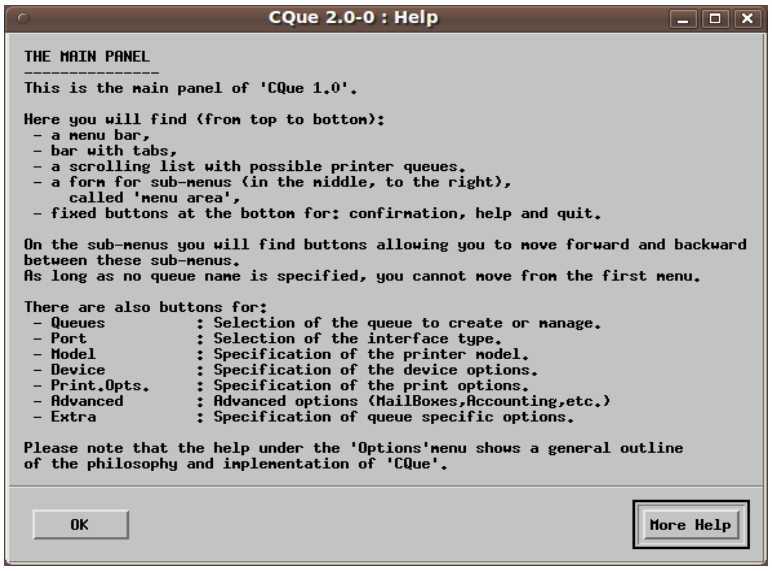


Figure 11 CQue Help Menu

3.2 Setting up a Queue with CQue 2.0

The following procedure must be run to set up a printer queue before it can be created:

1 Enter creation mode.
2 Determine the type of queue required.
3 Enter the queue name.
4 Select a port.
5 Select the model of the printer.
6 Specify the device options.
7 Viewing the printer options.

3.2.1 Enter Creation Mode



Figure 12 Enter Creation Mode

(If you already created or managed other queues with CQue you may reset CQue first with "Reset CQue" under the Options menu).
Before creating a printer queue with CQue, you should first enter ***creation mode***. In this mode all actions of CQue apply to the new printer queue to be created.
You enter creation mode from the ***File*** menu. The Create button is a toggle button, which should be activated.

Once activated the main menu slightly changes, displaying a red message under the queue name text field as in figure 13.

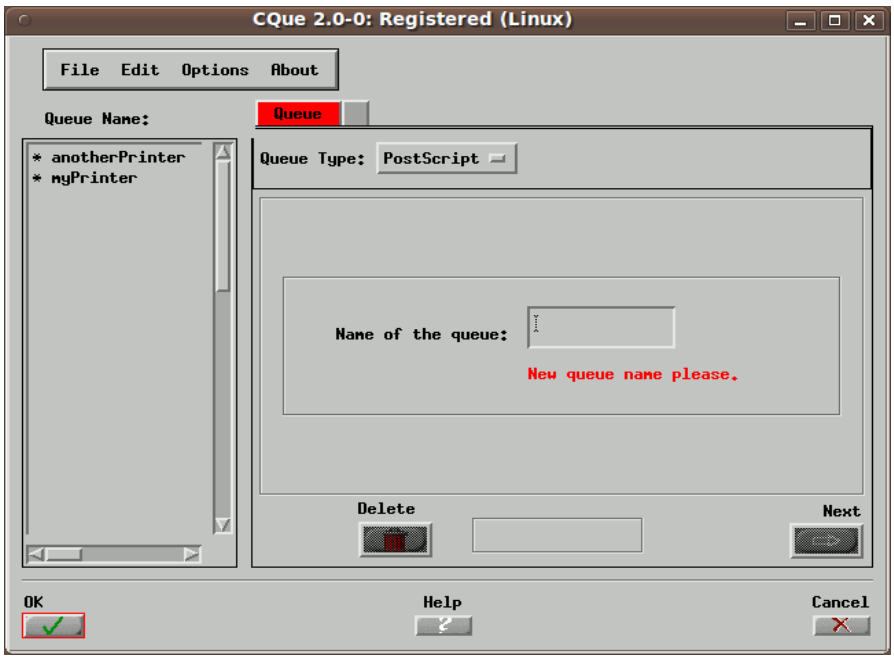


Figure 13 CQue in Creation Mode

Please note that creation mode stays active until you either de-activate it through the File menu, or when you finish creating the queue.

When in creation mode the name of the queue you are working on will display in red.

3.2.2 Determine the Queue Type

Before you will create your first printer queue with CQue, you should first decide what the purpose of the queue will be.
There are four different types of queues:

1 PostScript
2 PCL (PCL5e or PCL5c)
3 PXL (PCL6)
4 raw

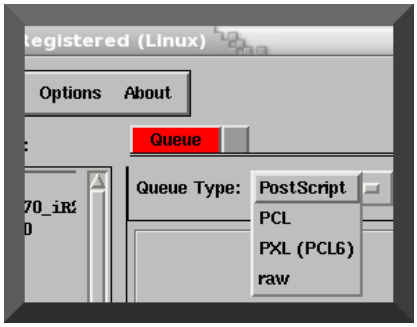


Figure 14 Queue Type Menu

3.2.2.1 A PostScript Queue

A *PostScript queue* handles PostScript data, but it will also try converting non-PostScript data to PostScript data, if necessary.

3.2.2.2 A PCL Queue

A *PCL queue* will print PCL data, including plain ASCII text. Input from applications generating PostScript will automatically be converted to PCL. In general PCL5e will be used. Most Canon colour devices, if supporting PCL, will be compatible with this type of PCL too.

3.2.2.3 A PXL Queue

A *PXL queue* will print PXL or PCL6 data, including plain ASCII text. Input from applications printing in PostScript will automatically be converted into PXL. Most recent Canon colour devices, if supporting PXL, will be compatible with this type of PCL. Note that older Canon colour devices may not support this type of PCL.

3.2.2.4 A Raw Queue

A *raw queue* will not perform any processing and output the data 'as is' to the Canon device.

A raw queue can be created or deleted with *CQue*, but once it is created you can not modify any of its parameters.

3.2.3 Enter the Queue Name

Once you have determined the type of queue you require, enter a unique name for the queue in the *Name of the Queue* field. Please note that this name appears in red too at the bottom of the menu.

Select ***Next***. The menu for selecting a port will now display.

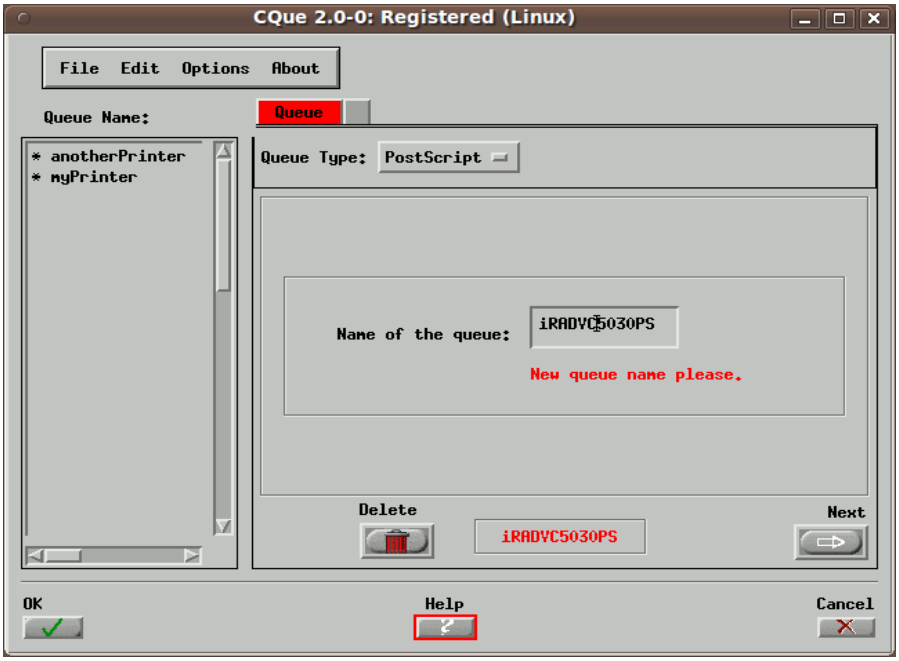


Figure 15 Entering a Queue Name

3.2.4 Select a Port

The *'port'* of the queue enables you to specify where the output of the queue will go to. There are the following possibilities:

1. Remote LPD
2. Remote TCP/IP(9100)
3. Remote IPP
4. Local USB
5. Local
6. File

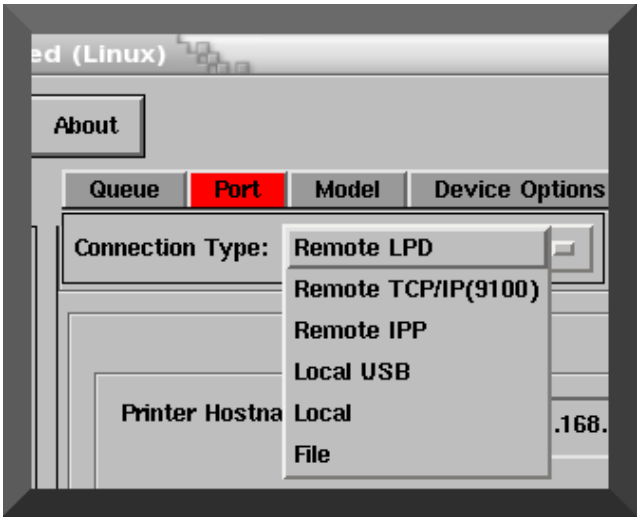


Figure 16 Port Type Menu

You may make use of any type of queues, but *we recommend using remote LPD queues directly* or possibly remote TCP/IP.

Refer to the *CQue Reference Manual* for further detail.

3.2.4.1 A Remote LPD Port

When we select a remote LPD port, the following window will display:

You must specify the *hostname* or the *IP address* of the Canon device.

And the name of the *remote LPD queue* on the Canon device together with the name of the Remote LPD Queue. A list of pre-defined names is provided; if you cannot find the name, then you can select "Other queue" and type the name in the text field called *Remote Queue*.

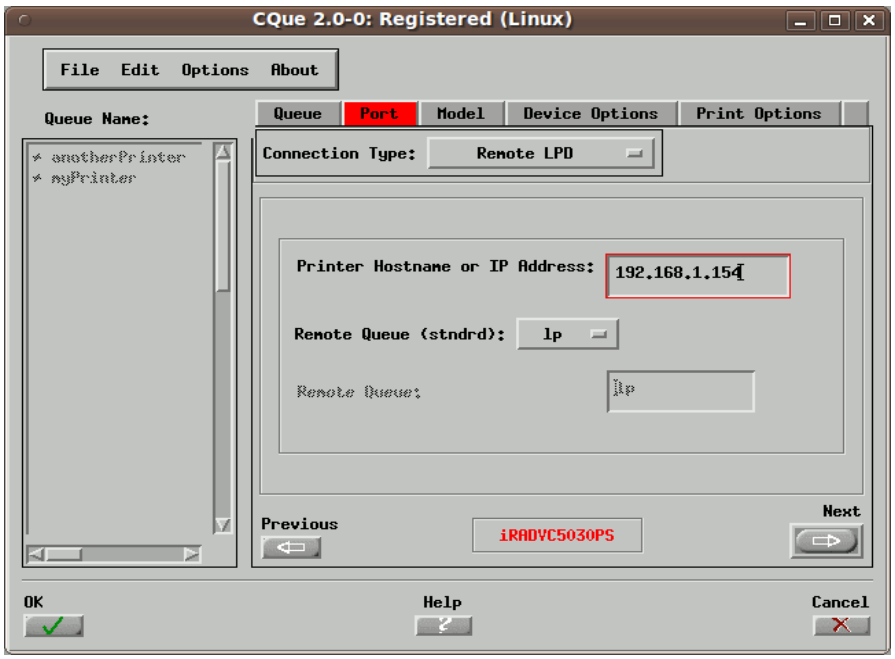


Figure 17 A Remote LPD Port

This type of queue will be most common for Linux.

If the *'next button'* is not becoming available or not reacting, please verify on the preceding menu that the queue type is really other than *raw*.

3.2.4.2 A Remote TCP/IP(9100) Port

When you select a remote TCP/IP(9100) port, the following window will display:

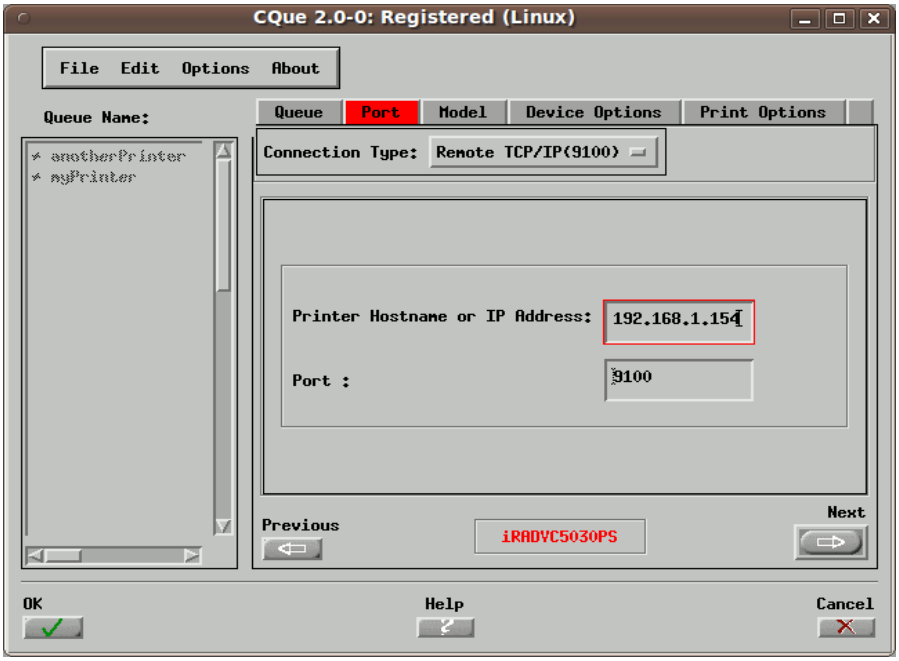


Figure 18 A TCP/IP (9100) Port

You must specify the *IP address* or the *hostname* of the Canon device.

You may specify a port number too, but for most copiers/printers the port number should be 9100.

3.2.4.3 A Remote IPP Port

When you select a remote IPP port, the following window will display:

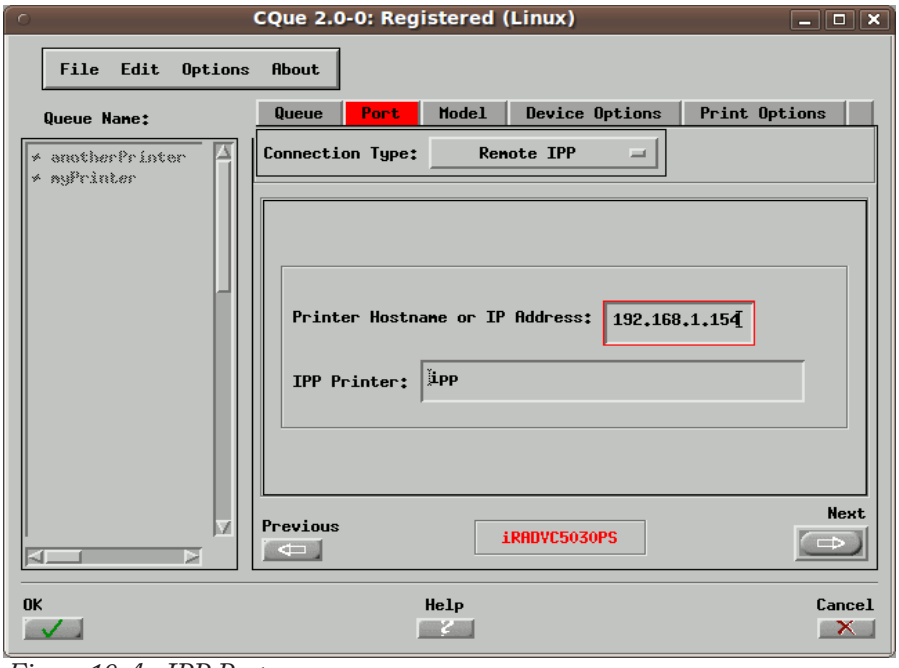


Figure 19 An IPP Port

You must specify the *IP address* or the *hostname* of the Canon device.
You must specify a remote IPP printer too. For Canon devices you may leave ***ipp***. If printing through a MS Windows server, you might enter:
printers/remotePrinterName
where ***remotePrinterName*** corresponds with the printer on the server.

Not all Canon devices may support this IPP protocol.

3.2.4.4 A Local USB Port

Please make sure before selecting this type of port that the Canon device is connected to your Linux system.

When you select a local USB port, the following window will display:

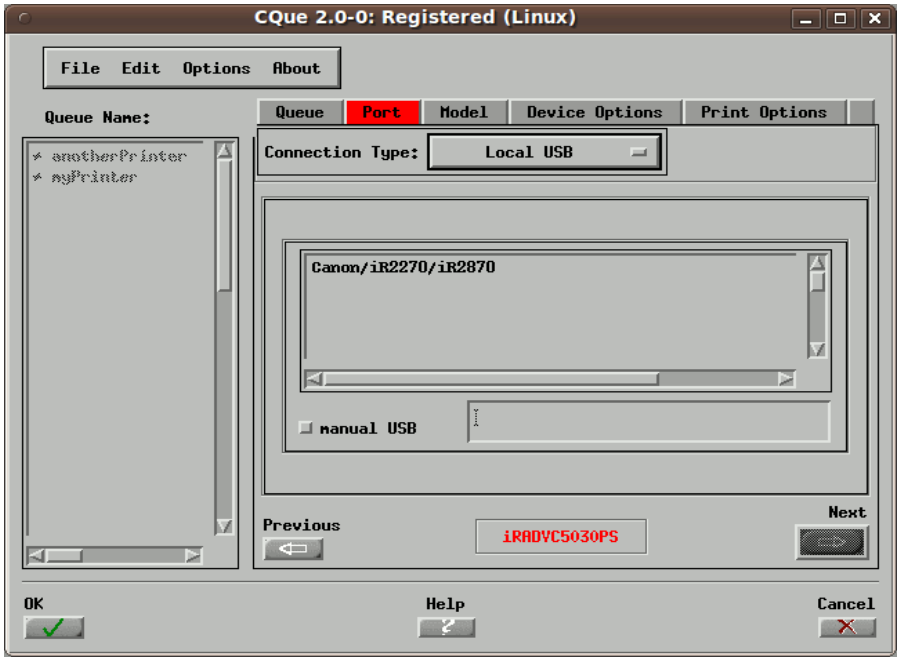


Figure 20 A local USB Port

A list will display with all recognised USB devices. Select the line corresponding with your Canon device by double clicking on it.

If for some reason the device would not show up in the list, you may select manual USB and enter a device manually. In that case that would probably be something like:

```
/dev/usb/lp0
```

The first method, i.e. double clicking on the line in the list, is the preferred one. In that case CQue will select the device the same way as CUPS does. If more than one USB devices are connected at the same time to your system, the order of connection does not matter in this case.
When a device is specified as */dev/usb/lp0* or so, and more than one USB devices are connected to the Linux system, than it does matter in what order the devices are connected.

Not all Canon devices may support this USB protocol.

3.2.4.5 A Local Port

When you select a local port, the following window will display:

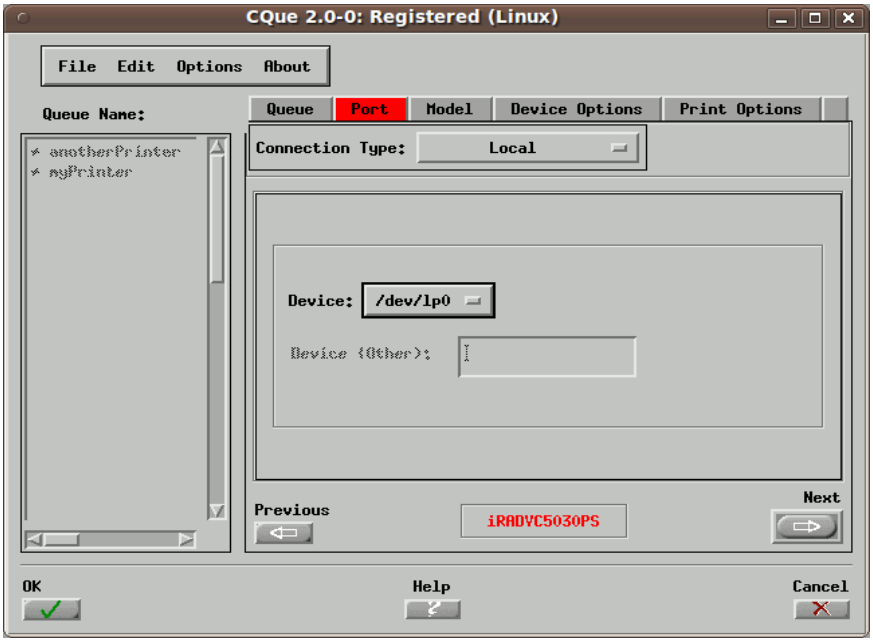


Figure 21 A Local Port

To specify the device of the local port you may click on the button for the devices.

A list with predefined devices will display corresponding to parallel or serial port(s) on your system. If the device you want to use is not listed, you must select *Other* and enter the device name into the text field called "Device (Other)".

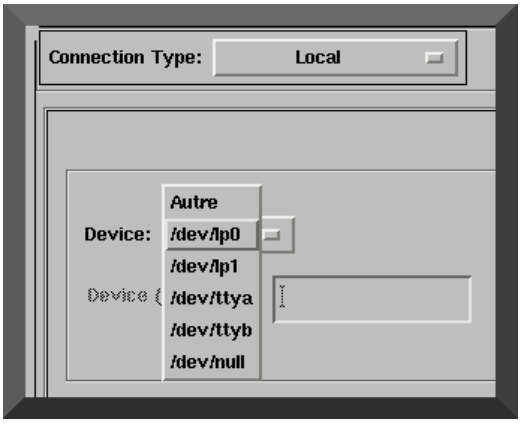


Figure 22 Supported Local Ports

The device */dev/null* is the so-called null device, which would be of use for logical queues only.

CQue will rely on the printer manager for the processing of the local device.

Many recent Canon devices do not support parallel or serial ports anymore.

3.2.4.6 A File Port

When you select a file port the following menu will display:

You must specify the name of a file into which the output will be saved.

With a file browser you can also browse the file system of your workstation, to search for an appropriate location.

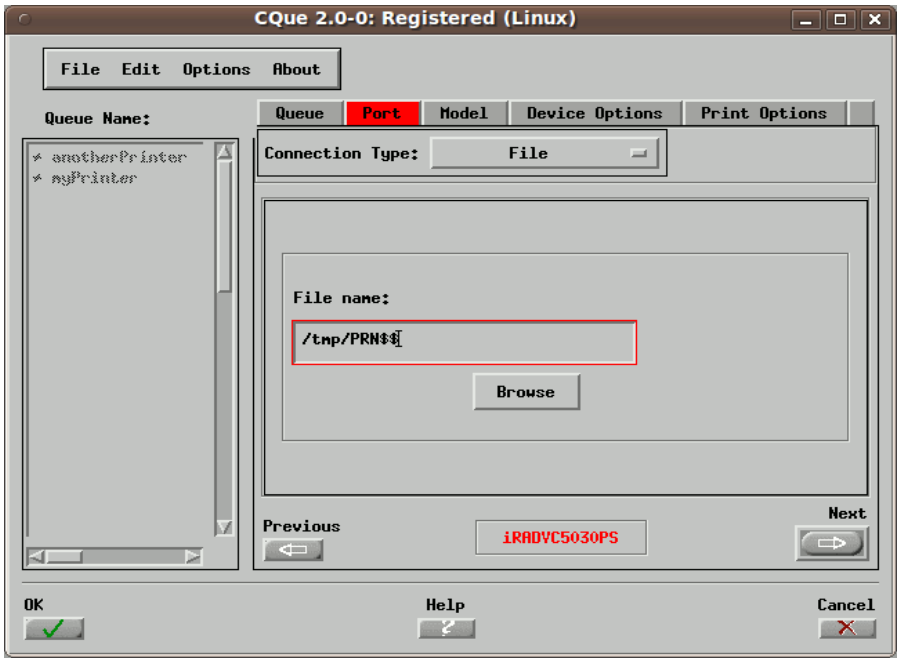


Figure 23 A File Port

A technical note:
If you append two dollar signs to the specified name of the file, each print job will be printed into a separate file, the name of each file consisting of that name extended with the process id. Thus each job will be printed in a different file.
For example, */tmp/PRN$$* will print to a file in the */tmp* directory with name *PRNXXXX* where *XXXX* corresponds with the process id of the print job (this is *not* the id attributed by the print manager to the job).

See the *CQue 2.0 Reference Manual* for possible constraints imposed by CUPS on printing to files on the file system of your Linux distribution.

3.2.5 Select Printer Model

The model of the Canon device includes all the features of the printer such as the installed finisher modules and the options related to these finisher modules.

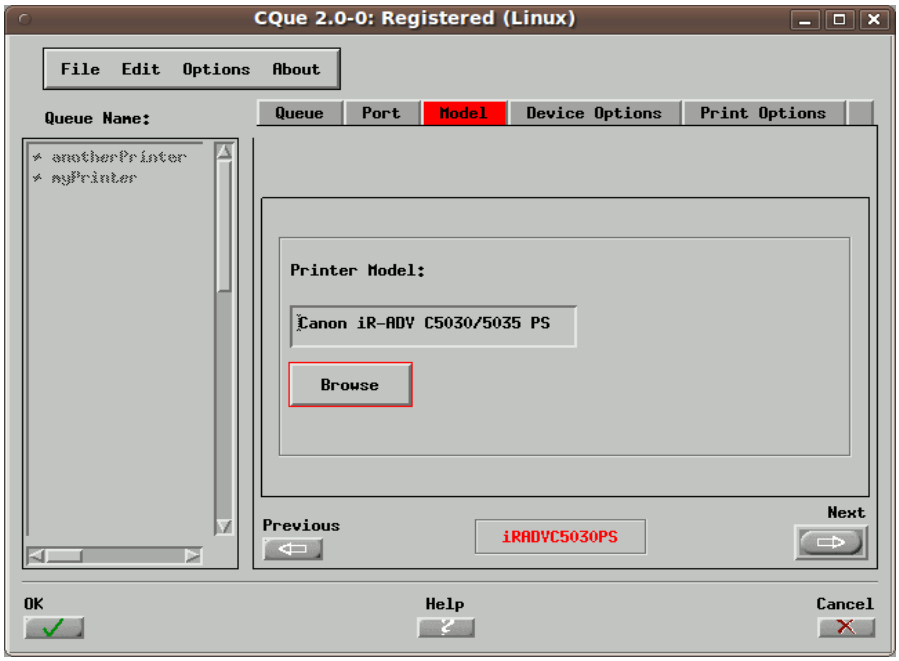


Figure 24 The Printer Model

CQue uses a number of pre-installed printer model files. Use the ***Browse*** feature to find and select the printer model you require.
Please note that the list may be different depending on the type of queue you want to create (PS, PCL or PXL).

If your printer model is not in the list, please refer to the *CQue 2.0 Reference Manual* for details on how to add a printer model.

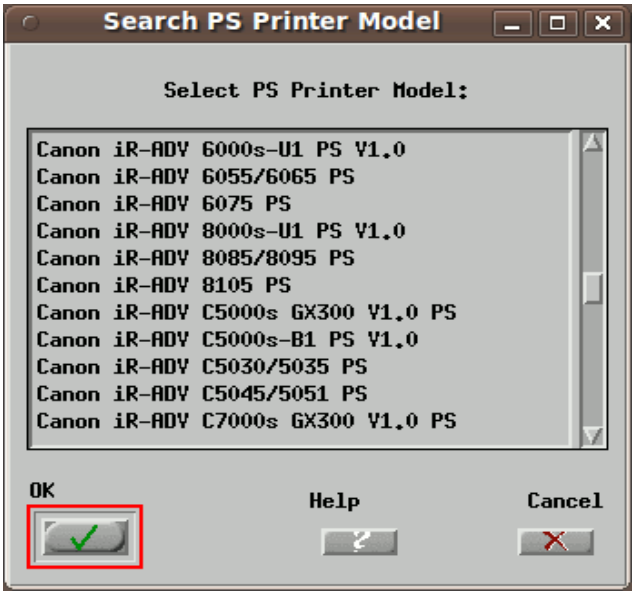


Figure 25 Model Browser

3.2.6 Device Options

Device options define the hardware and software components of the Canon device. They must be specified on the window under the “Device Options” tab. The current version of CQue does not detect the various finisher modules of the copier automatically. For the correct specification of the printer options (section 3.2.7), however, it is important to know what the exact capabilities of the Canon device are.

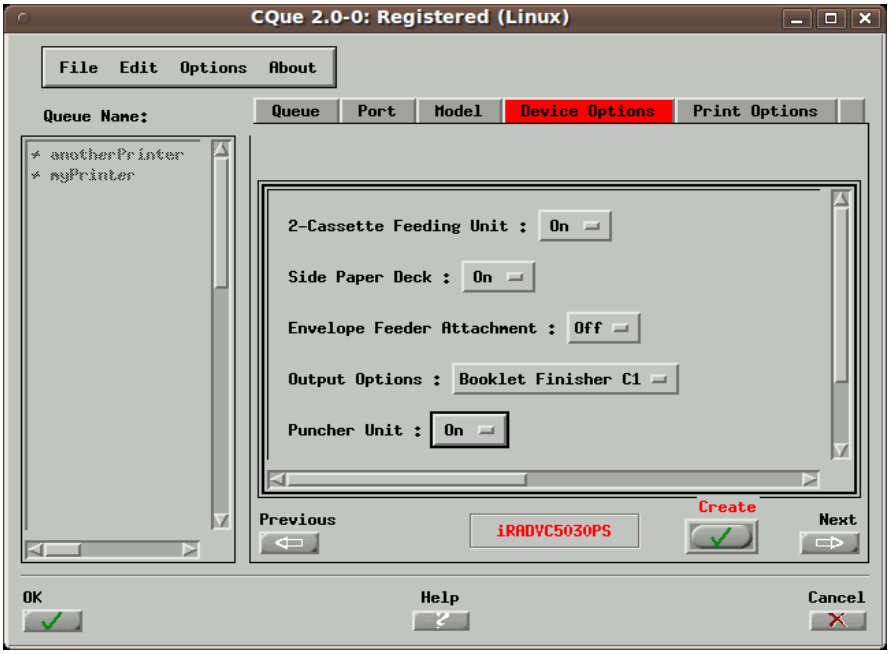


Figure 26 Device Options

On this menu you must select those features of the Canon device corresponding with the installed hardware and or software modules of the Canon device.

3.2.7 Viewing the Printer Options

Finally you should specify the so called printer options on the window under the "Print Options" tab.

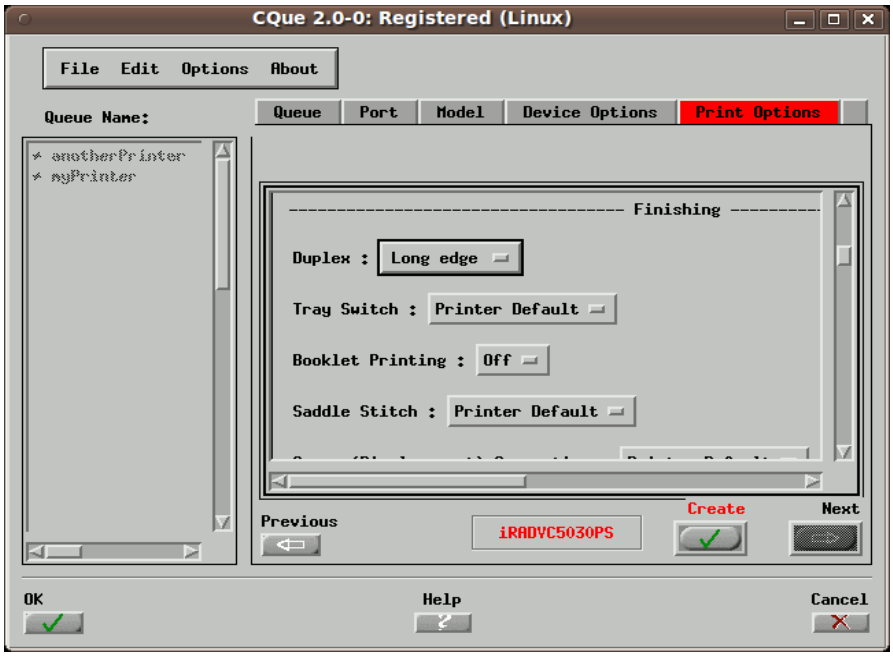


Figure 27 Printer Options

You can ***update*** or add the data of the printer setting with the ***Update*** button, but only if the queue is already created. (fig 28).
If you are in *creation mode* then there is no update button. Instead there is a red ***Create*** button (fig 29). The creation of the queue is described in the next section.

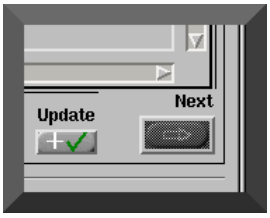


Figure 28 Printer Options Update

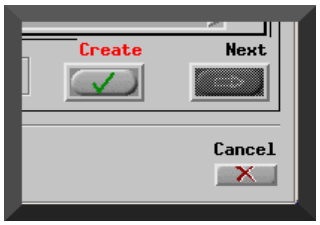


Figure 29 Printer Options Create

This window also allows for the setting of some Canon device specific printer options, like destination, mailbox number, user ID and password as well as secured printing password.
Some main applications like OpenOffice, acroread etc. may not yet allow for the setting of password and/ or user ID strings. This is a feature due to the different types of printer interfaces used by these applications.
Section 3.2.9 describes how to deal with these Advanced Options in more detail.

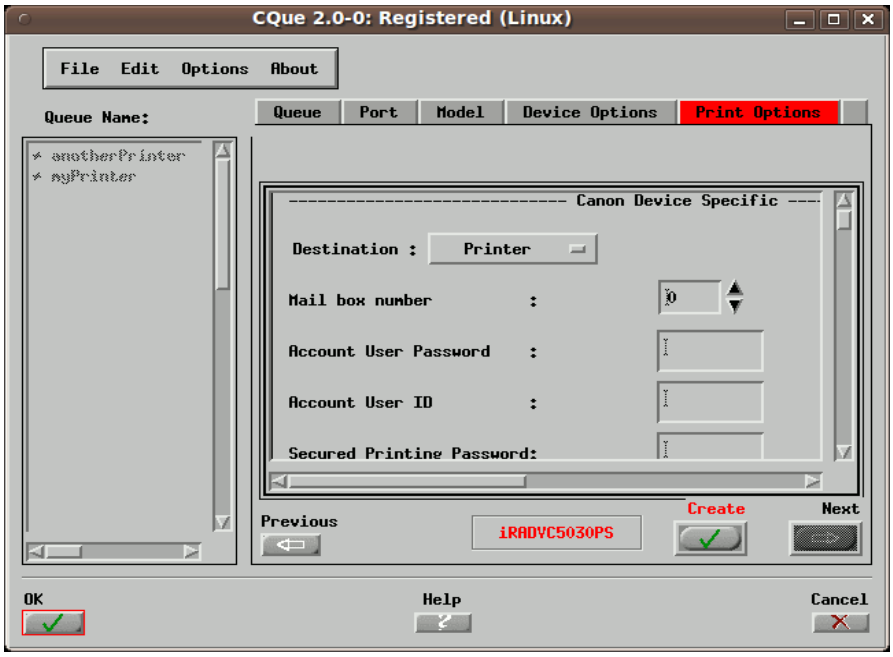


Figure 30 Canon Device Specific Printer Options

3.2.8 Creating the Queue

After setting up the required data for the queue, i.e. its name, type, port, device options and printer options, you can now create the queue.

To create the queue, select *Create* from the lower right of the *CQue main window* (see fig. 29 on the previous page).

The following window will display:

This window shows a review of the data for the queue to be created. If the data are correct select *OK* to create the queue.

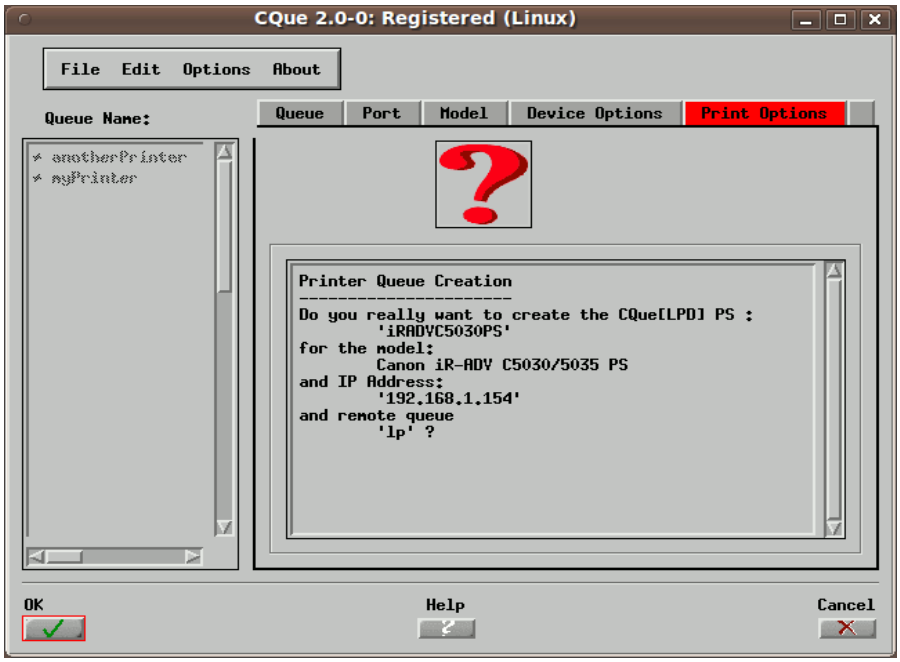


Figure 31 Confirmation of Creation of the Queue

Please note that once the queue has been created the creation mode ceases to be active. The name of the queue now appears in black instead of in red. You may add advanced data, such as mail box or secured print information and update these data using the *Update button* (see fig. 28 on the previous page) on the various menus or the *OK button* on the main menu.

3.2.9 Advanced Options

The following advanced options are available:

1. *Mail box (or file box)*[§] *printing*: The job will be sent to one of the file boxes of the copier and will stay there to be printed at a later time.
2. *Printing with (department) accounting.* In this case the user should have a valid user ID and password on the Canon device. The job to be printed will be credited on the account of the user.
3. *Secured printing.* The job will be sent to a public mail box (with a password) to be printed at a later time. The user will be required to type in the password on the Canon device panel to start the printing of the document.

In many cases the above operations require user intervention locally on the Canon device or throug a web browser having access to the Canon device, for example to specify user id's and passwords, or to print a job once it arrived in a mailbox, etc.
An in-depth discussion of all these advanced features, their advantages and their limits would be far beyond the scope of this *Quick Guide*. You will find more information in the documentation of the Canon device itself as well as in the *CQue Reference Guide*.

The following table shows which combinations of options are allowed (these properties are typical of the device and do not depend on the operating system):

Combination	Supported
Mailbox + Accounting	Yes
Mailbox + Secured Printing	No
Accounting + Secured Printing	Yes

The latest GTK+ interface supports advanced options directly from the PPD. Hence applications using the GTK+ interface will allow for setting of advanced options directly from an application when printing. Fig. 32 shows an example of setting such print options.

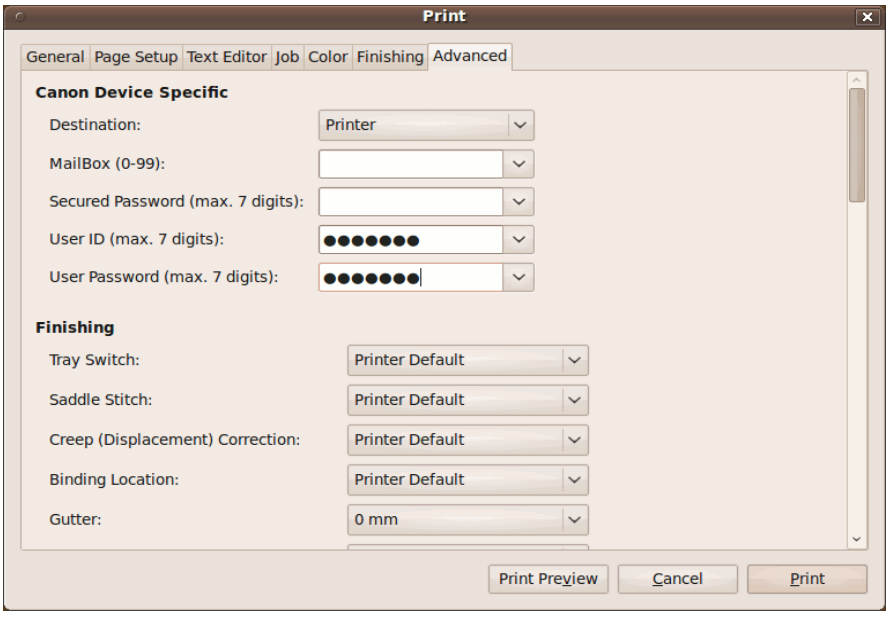


Figure 32 Advanced Options: GTK+ user interface

[§] We use the terms "File box" and "Mailbox" interchangeably.

When re-printing or re-opening an older session and then printing, the GTK+ interface does not always show advanced options in a correct way. If, for example in the text editor ***gedit***, like in fig. 32 you would have activated department accounting with a user ID and a user password, these would not be shown again by the GTK+ interface! But they would still be active.

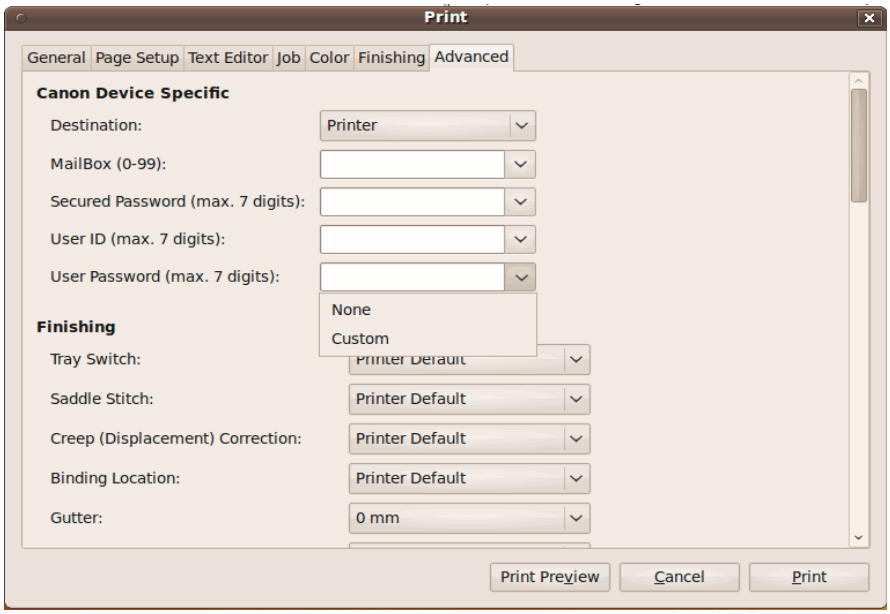


Figure 33 Advanced Options: GTK+ user interface

This may be a limitation of the current GTK+ implementation. Please note that ***gedit*** maintains a hidden file ($HOME/.gnome2/gedit/gedit-print-settings) into which all printer settings are stored and thus retrieved when restoring a previous session.

Other applications, which also use the GTK+ print interface, do not have this behaviour.

If you want to reset an advanced option, i.e. de-activate it, please click on the right drop down menu of the option you want to reset, and there select “NONE”. If you were to select “CUSTOM,” then you must specify a value (password or ID).

3.2.9.1 How CQue Manages File Boxes, User IDs and Passwords for Different UNIX Users

As we have seen the Canon device knows about features like *file boxes, user ID-s* and *passwords*. The Linux operating system knows about *user names* or *login names*. The *root* user plays a special role, both on the Linux level and for CQue.
Of course, the root is the only user with enough rights to modify the global behaviour of these advanced options of the printer queue. But for CQue the root user plays another role too, as will be clear from what follows.

Within CQue you may create a list of users or logins and specify Canon device features for each user. CQue will associate UNIX logins to Canon device features in the following way:

	root	***normal user***
Filebox	Each job of a normal user not in the list will go to the file box.	Each job of this user will go to the file box.
Secured printing	Each job of a normal user not in the list will use the specified password.	Each job of this user will use the specified password.
Accounting printing	Each job of a normal user not in the list will use the specified user ID and password.	Each job of this user will use the specified user ID and password.

Perhaps not all possibilities will be of interest to all applications, but this approach is very powerful as some examples will show further below in this section.

All advanced entries also come with a so-called “force” flag: If this flag is set, then the associated value cannot be changed from the printer setting menu of any application (OpenOffice etc.). If the flag is not set, then the user has the freedom to modify a value, if the user interface properly allows for such modifications.

The force flag does not have very much meaning for the root user (except when root himself would be printing): once a root value is set, it overrides any selection made by a user who is not in the list. This is not the case for a user who is in the list.

If the force flag for a certain user is set (by the system administrator) then that user will not be able to modify the associated value from any application.
Otherwise values for this user may be changed.

3.2.9.2 File Box Specification for Linux Users

To specify a file box, click on the *box button* on the Advanced options menu. The following window will display:

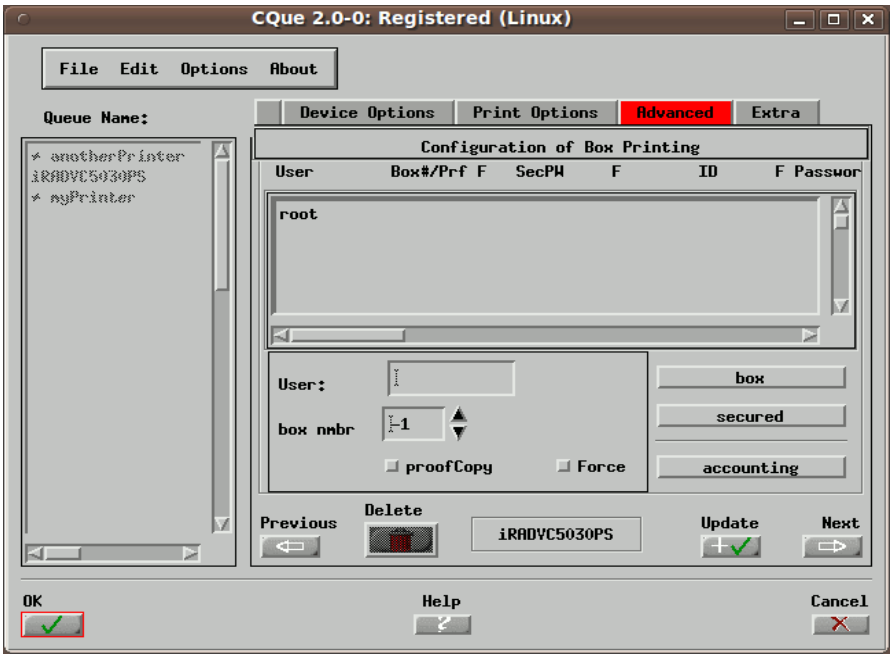


Figure 34 Advanced Options: Filebox

From this window you must specify the:

1. user name.
2. file box number.
3. force flag.
4. proofcopy flag.

The *user name* can be any legal UNIX login.
If you specify *root*, please note that the values for that user will hold for any other user not in the list. The root user has a special meaning: If root is present, then the jobs of all users will be sent to the file box of 'root', except if a user itself is specified in the list (with a different file box number). In that case, and only for that user, his own file box number would be used.

The *file box number* can be '0' up to a maximum specified by the copier, normally '99'. A value of '-1' indicates no file box.

The *force flag* will determine whether a user has the right to modify the setting from within any application like OpenOffice: If set, then the value may not be changed, otherwise the user may, if he wishes, still modify the file box number.
Please note: if a file box is specified here, automatically the destination of the document will not be the printer, but the file box. This is independent of the setting for the destination in any application printer menu.

The *proofcopy* flag indicates whether a proof copy should be printed when a job is submitted to the Canon device. If this is set, then each time a job is sent to the Canon device, a copy will be printed and the job will then be stored in the file box. This is useful if you need to print further copies of the document after inspecting the proof copy.

You can add and/or update the values for a particular user using the *Update button*.

Examples:

- If you would like to create a queue that will print to file box 3 for all users, then you would specify *root* as user and *3* as file box number.

- If you would like all jobs for the user *sic* to go to file box number 7, then figure 35. shows the parameters.

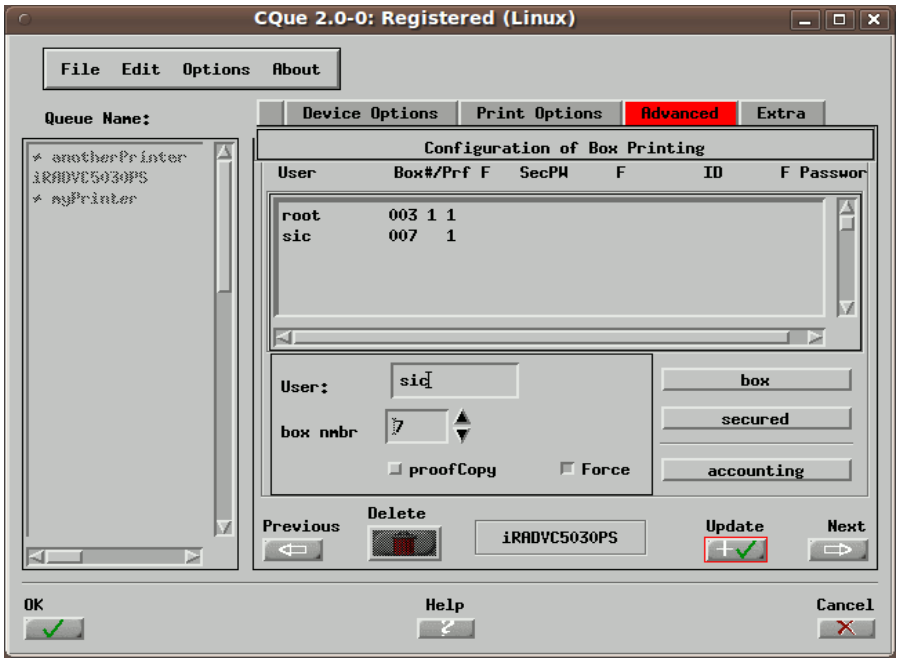


Figure 35 File Box for the user 'sic' and 'root' (all other users)

3.2.9.3 Accounting Printing Specification for Linux Users

To specify Accounting Printing click on the *accounting button* on the Advanced options menu. The following window will display:

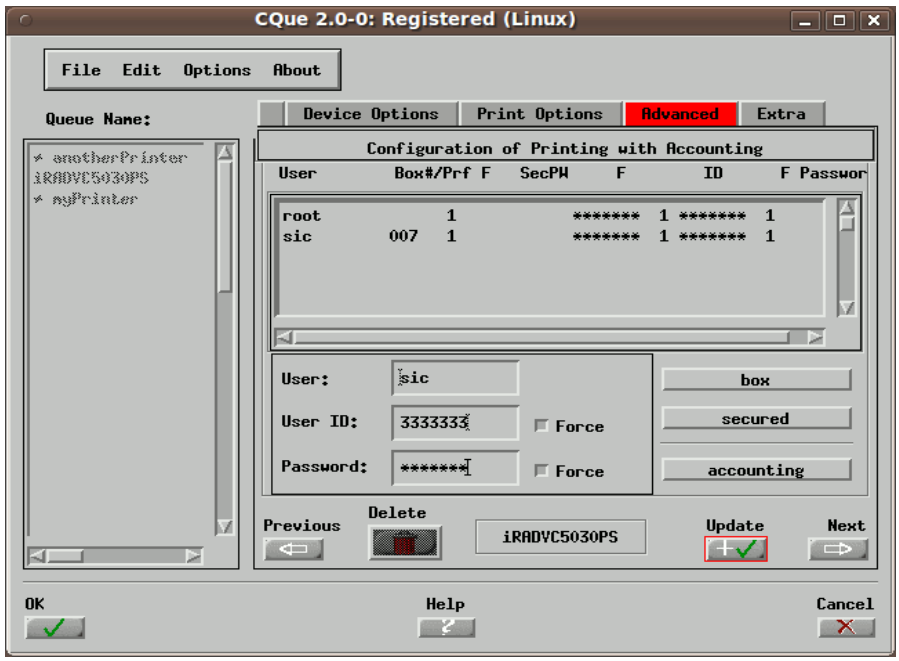


Figure 36 Advanced Options: Accounting

From this window you must specify the:

1. user name.
2. user ID.
3. user password.
4. force flags.

The user name can be any legal UNIX login.
If you specify *root*, please note that the values for that user will hold for any other user not in the list. The root user has a special meaning: If root is present, then the jobs of all users will be processed using the user id and password of 'root', except if a user itself is specified in the list. In that case, and only for that user, his own user id and password would be used.

The user ID and password are numerical values of up to seven digits.
You *must* specify a user ID, but the password is optional.

The current version of CQue does support department accounting, but is not able to give any feedback. Therefore, if printing quota are used up, further printing will be refused silently by the Canon device.

3.2.9.4 Force a User ID / Password

Next to the text field for the *user ID* and the *password* there is a toggle button *force*. If this button is selected, then the corresponding value will be forced.

If a value is *forced*, it will be taken into account automatically by CQue. Thus each job sent to a queue with forced values for the user ID and password will print making use of this user ID and password, *without any possibility for the user to modify these values*.

If a value is *not forced*, it will be taken into account by CQue, but the user still has the possibility to modify the values from the application he is printing from (if the printer setup menu of that application properly supports modification of these values).

The example of figure 36. shows the case for our user 'sic' with user ID 3333333 and a password which is hidden from display.

3.2.9.5 Secured Printing Specification for UNIX Users

To specify Secured Printing click on the *secure button* on the Advanced options menu. The following window will display:

From this window you must specify the:

1. user name.
2. password.
3. force flag.

The user name can be any legal UNIX login.
If you specify *root*, please note that the values for that user will hold for any other user not in the list. The root user has a special meaning: If 'root' is present, then the jobs of all users will be sent making use of the secured

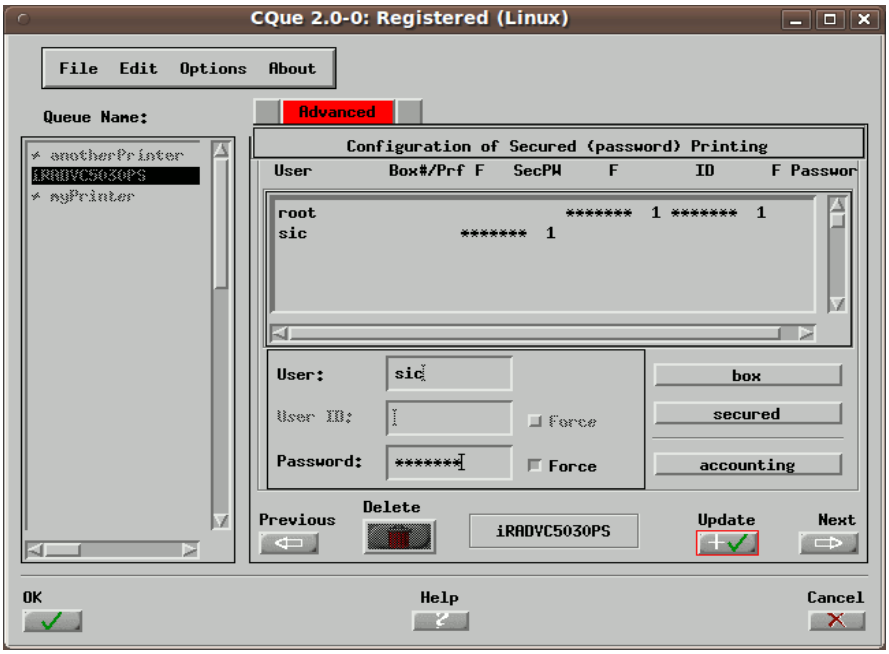


Figure 37 Advanced Options: Secured Printing

password of 'root', except if a user itself is specified in the list. In that case, and only for that user, his own secure password would be used.

The user password consists of a numerical value of up to seven digits.

3.2.9.6 Force a Password

Next to the text field for the *password* there is a toggle button *force*. If this button is selected, then the corresponding value will be forced.

If a value is *forced*, it will be taken into account automatically by CQue. Thus each job sent to a queue with forced values for the secured password will print making use of this user password, *without any possibility for the user to modify this value*.

If a value is *not forced*, it will be taken into account by CQue, but the user still has the possibility to modify the values from the application he is printing from (if the printer setup menu of that application properly supports modification of these values).

The example of figure 37. shows the case for our user 'sic' with a password which is hidden from display.

3.2.9.7 Deleting an Entry of the Advanced Options Menu

If you were to delete an entry from the list of users, double click on the entry to select it.

The waste basket (*Delete* button) will become accessible.

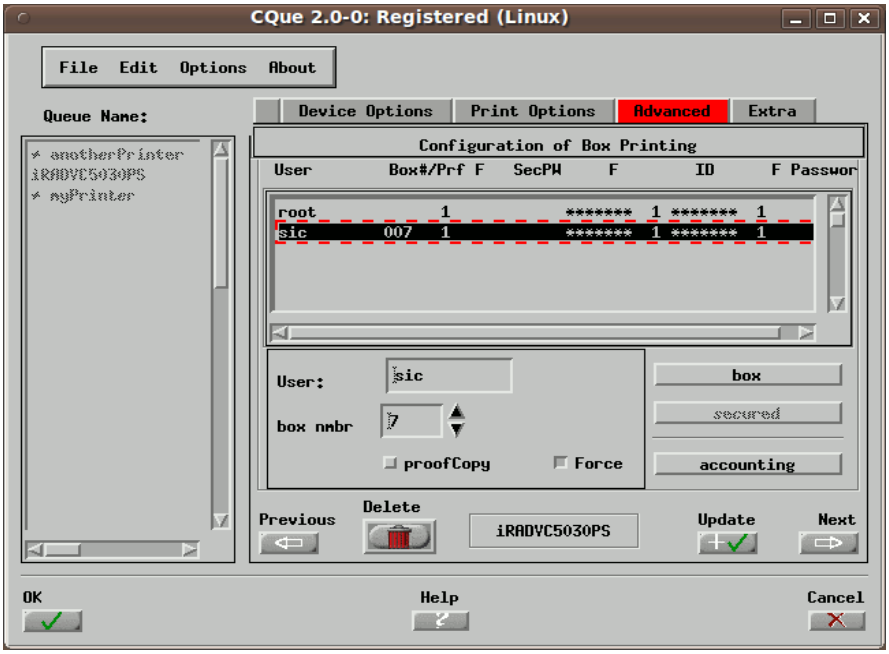


Figure 38 Advanced Options: Selecting an entry to delete

When you hit the *Delete* button the entry will not be deleted immediately. The following verification window will display:

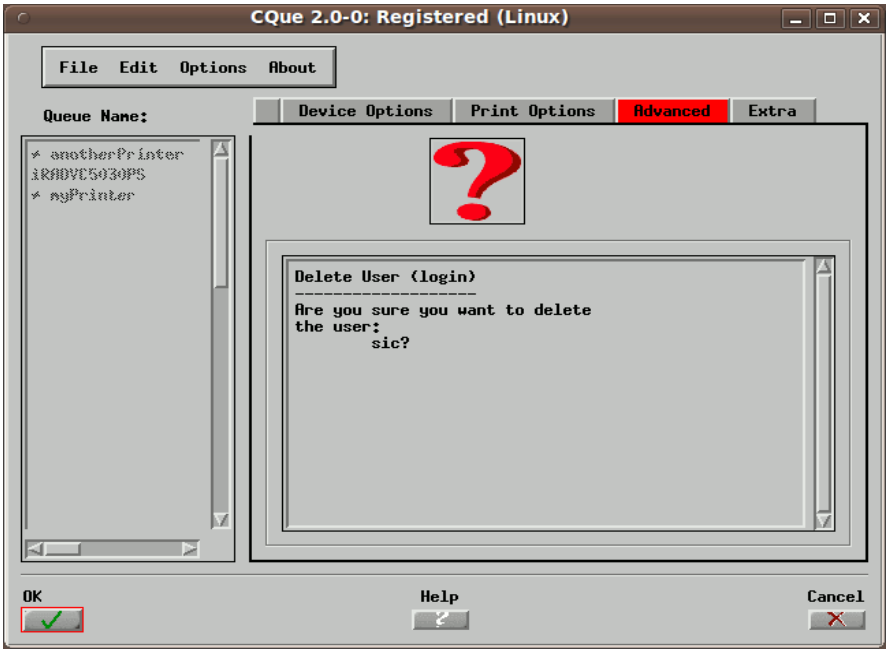


Figure 39 Advanced Options: Verification before deleting the entry

The selected user name, in our example 'sic', will display and if you are really sure, you may click the *OK* button to activate the deletion.

3.2.10 Extra & Banner Options

The *Extra tab* contains first two entries for the option of a *banner page*: A banner page before and/or after the job are possible.

The possible types of banners, supported and generated by CUPS are displayed in fig. 41.

Also the *Error Policy* of the queue can be modified here. The possible error policies are displayed in fig. 42.

Note that if "Stop the queue" is selected, then in case of a problem, like for example a paper jam, the queue will indeed be disabled (stopped) and needs to be enabled manually after the original problem has been solved.

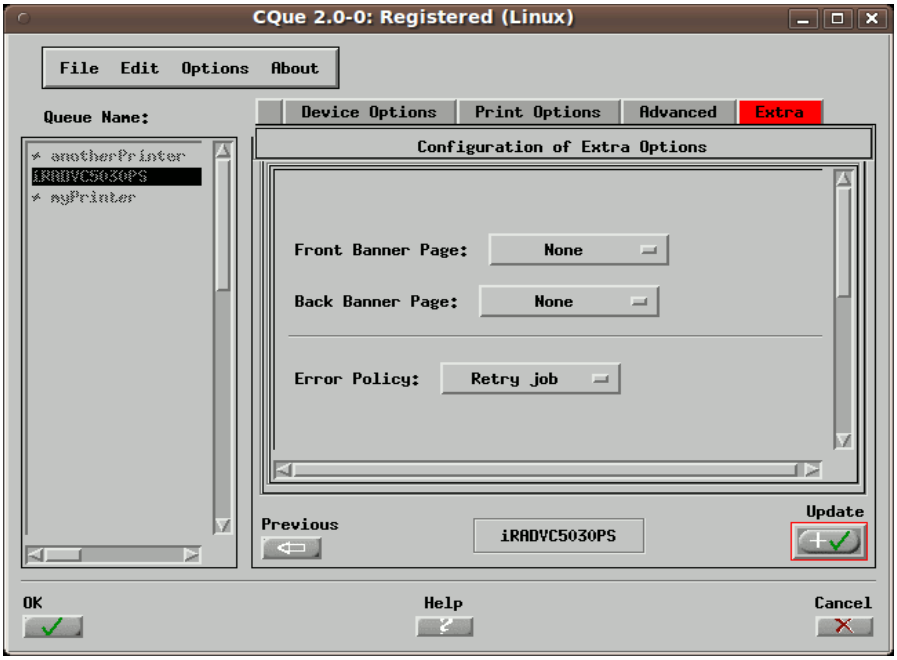


Figure 40 Extra and Banner Options

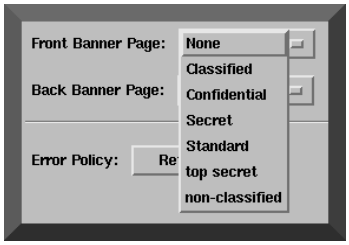


Figure 41 Banner Type Options

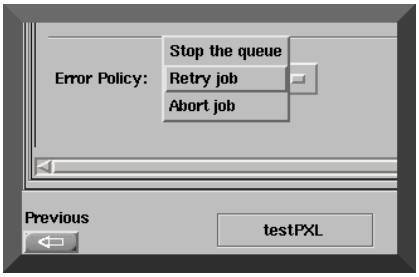


Figure 42 Error Policy Options

3.2.11 Printing Multiple Copies of a Document with Stapling

When printing multiple copies (say N copies) of a document with stapling most CUPS implementations will concatenate the output N times and then staple the resulting concatenated file. To prevent this CQue 2.0-9 PPDs support a feature: ***Repeat Job*** within the ***Canon Specific Options*** section. This allows you to specify from 1 to 99 copies for applications with the GTK+ print interface and 1 to 25 otherwise, with proper stapling of each copy. This feature is supported for PostScript, PCL5 and PCL6 Canon devices allowing PJL headers, i.e. some pure PostScript EFI devices are excluded.
Note: N copies of a document may generate N separate entries in the log file of the Canon device.

4 Non-standard Installations of CQue 2.0

4.1 Upgrade Installation of CQue 2.0

If a version of SQue 9.X is installed on your Linux system and you want to upgrade to CQue 2.0, this has to be done in two steps:

1. First upgrade SQue 9.X to CQue 1.0. This process will upgrade any SQue printer queue to a CQue printer queue.
2. Then upgrade CQue 1.X to CQue 2.0. This process will upgrade any CQue printer queue to the new CQue 2.0 printer queues.

There is no way to upgrade SQue directly to CQue 2.0 with automatic upgrading of printer queues.

If a version of CQue 1.X is already installed on your Linux workstation, and you want to upgrade to CQue 2.0, please use one of the three methods outlined in chapter 2. The setup program will automatically detect any previously installed CQue version and switch to upgrade mode.

4.2 De-Installation of CQue 2.0

If you want to de-install an existing version of CQue 2.0 from your Linux workstation, you may do so with a system tool if you installed CQue as an rpm or deb package.
Alternatively you may runs setup from a terminal window with the options -d:

```
/opt/cel/bin/setup  -d
```

The program will ask for confirmation and then delete any CQue queues, as well as (most of) the CQue programs and tools. As you run setup, it is probable that the Linux system will prevent to delete the program setup itself!
A review of the actions taken can be found in /var/log/CQue2.0_UpdateLog.

Appendix A: Command Line Options

CQue relies on the CUPS printer manager for the processing of printjobs. The CUPS lp command supports a number of command line options, frequently used in classical UNIX printing.

The syntax for command line options is:

lp -d*printer* -o *option1* -o *option2* ....

Here ***option1*** has for example the syntax: *duplex=DuplexNoTumble*, or: *PageSize=a4*, etc.

Some main applications, for example ***acroread***, allow for the specification of such kind of options in the printer interface menu or windows.

To get a full listing of all options supported by the printer you may use the CUPS specific command:

lpoptions -l -d*printer*

Appendix B: Accessing CQue from the Desktop

Once the program is installed you may want to access it in a rather convenient way.
One way to do this is to include access to CQue from the toolbar of the desktop.
With a file manager go to the installation directory of CQue, i.e. */opt/cel*. Locate there the item "CQue 2.0 Printer Driver" with the MVI logo (not the CQue2.0.png file, which contains the same logo image) and drag it to a position on the workspace bar of the desktop. You may now click on MVI icon in the toolbar to start *cque*. This would work for Gnome as well as KDE.

Another way to do this is to include access to CQue in the startup menu. To this end the setup procedure creates a file *CQue2.0.desktop* in the working directory of CQue. (by default: */opt/cel*).
We describe here the procedure for RedHat which is rather general and applies mutatis mutandis to most current Linux versions. You might consult the FAQ section of the website: http://www.mv-informatique.com/forum which will contain updates on this topic.

You should copy the file *CQue2.0.desktop* to the directory:

```
/usr/share/applications
```

After that execute the following commands:

```
cd  /var/lib/menu/kde/Applications/System/MoreSystem
ln  -s  /usr/share/applications/CQue2.0.desktop  CQue2.0.desktop
```

This creates a link to the file CQue2.0.desktop in the /usr/share/applications directory.
You may now access CQue from the startup menu. It will be in the sub-section *"Extra System Utilities"* of the *"System tools"* section.

Finally, if you want to have a shortcut of CQue on the desktop, you may also do the following: Locate with a browser the program *cque* in the */opt/cel* directory. Then copy-paste it onto the desktop.

Appendix C: Using XPP for Passing of Printer Options

CQue supports department accounting and secured printing. Some main applications, like OpenOffice etc., however, do not yet support a mechanism to pass strings (i.e. user id or password strings) to the printer. Therefore the PPD files of CQue supply some dummy values, like 11111, 22222, 33333. These values are, most probably, never to be used.

To bypass this problem you may want to make use of XPP, an ***X11 Printer Panel***. If the official package repository of your Linux distribution does not have a ready-to-install package for XPP you may have a look at: http://cups.sourceforge.net/xpp. The binary will normally be installed as ***/usr/bin/xpp***. (Note: XPP depends on the library ***fltk***, which if not available by default will have to be installed too).

To make use of XPP you would first install the XPP package if it is not installed yet. Thereafter you may add a printer to OpenOffice by using the *spadmin* program of OpenOffice itself. The OpenOffice suite is normally installed in ***/usr/lib/openoffice*** (or a name resembling this, perhaps with the version added). Within the OpenOffice directory there is a subdirectory ***program*** and there you will find the program ***spadmin***.

When you run ***spadmin*** (as super-user or root), the following window will display:

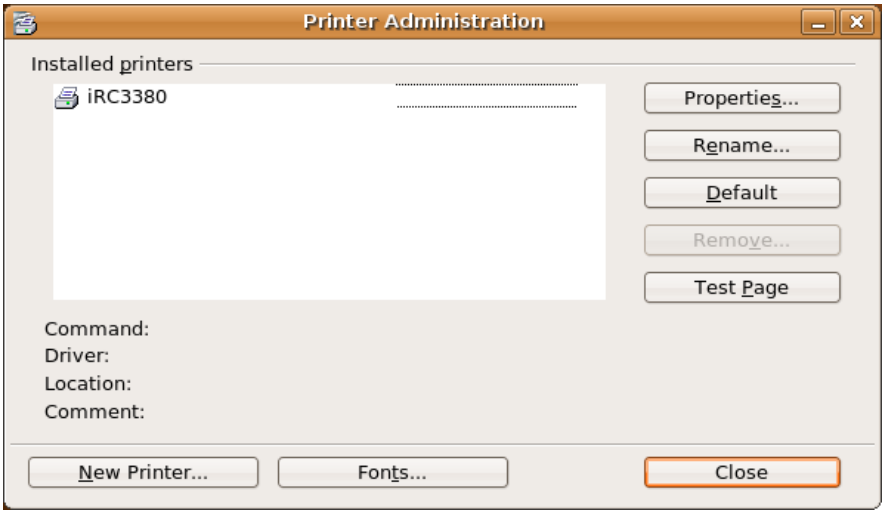


Figure 43 Start of OpenOffice spadmin

Click on the ***New Printer*** button to arrive at the window:

Here we are asked for the device type. Please choose a ***PDF converter***. It is used here only as a dummy. Click ***Next*** to arrive at the window on the next page.

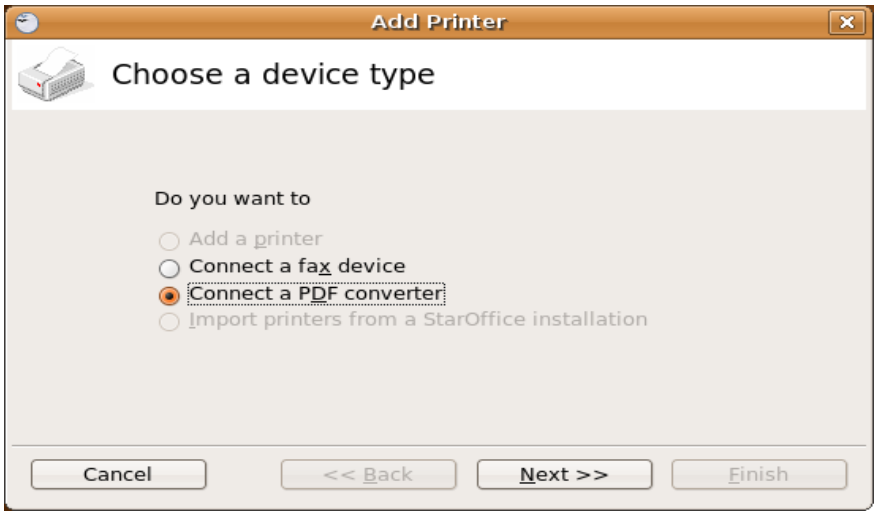


Figure 44 Choose PDF converter device type

We choose the default PDF driver (it is a dummy anyway). Click ***Next*** again to arrive at the following window:

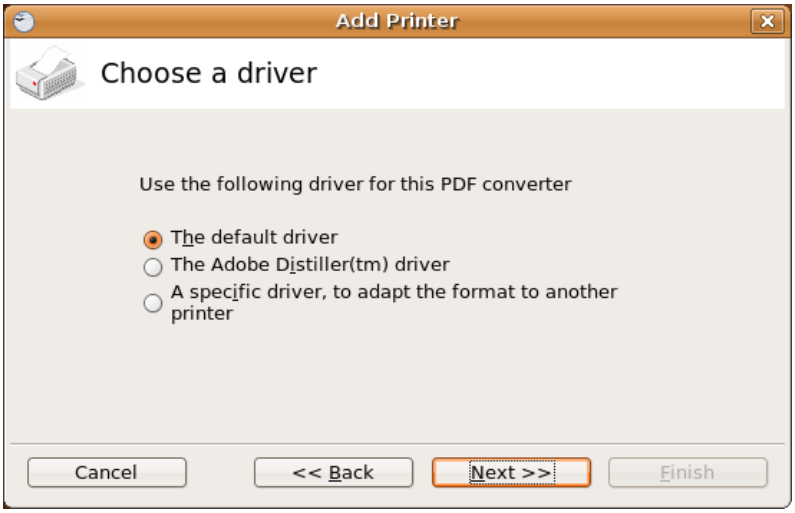


Figure 45 Choose PDF default driver

Speficy the xpp execution path (by default: ***/usr/bin/xpp***). You do not need to specify any additional arguments. Click ***Next*** to arrive at the next window:

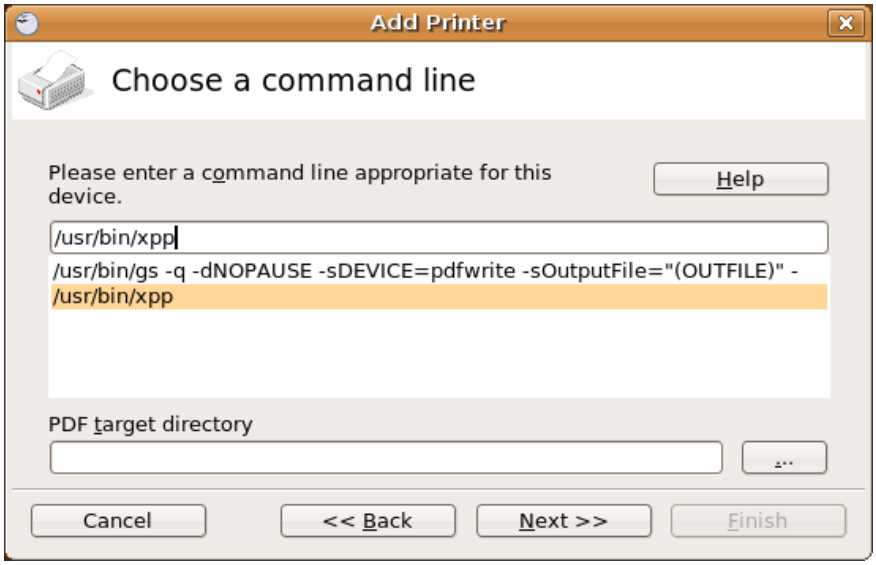


Figure 46 Specify xpp command line execution path

Choose a name for the printer, in our example: ***XPP Print***. This is the name, which will show up in the printer dialog of OpenOffice. Click ***Finish*** to terminate the installation.

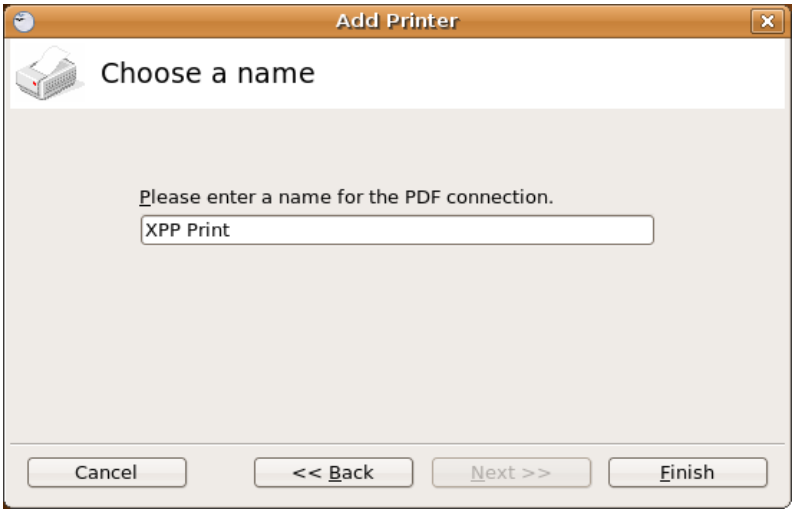


Figure 47 Choose a name for the printer

After termination the printer will show up in the list of printers known to OpenOffice.

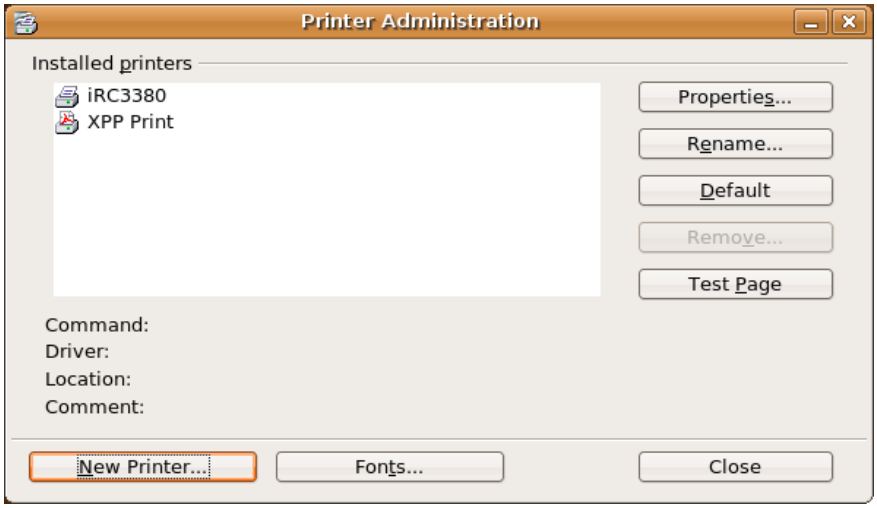


Figure 48 List of printers supported by OpenOffice

Once you have edited a document in OpenOffice you can print it selecting the printer ***XPP Print***. Do not specify any properties here. The print properties will be specified after XPP opens up:

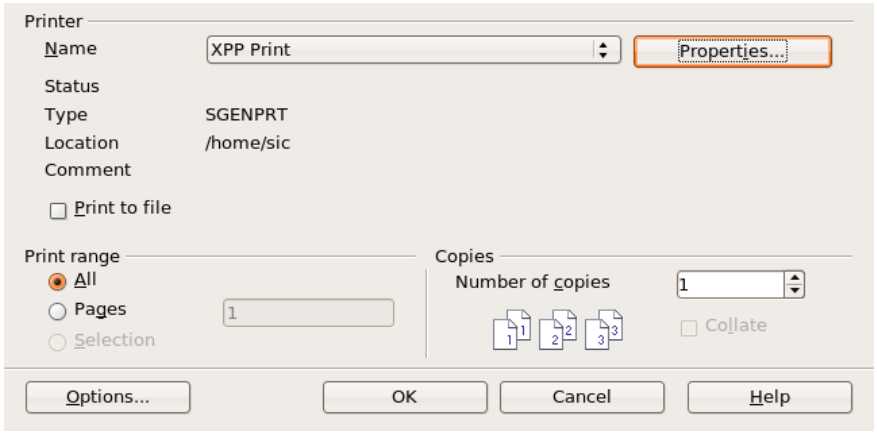


Figure 49 Printing from within OpenOffice

Now from the XPP window select the printer you want to use and click on the ***Options*** button. This will open up the last window (on the following page):

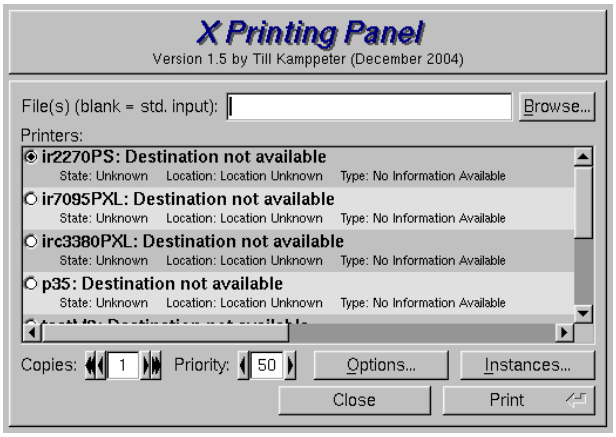


Figure 50 The XPP Window

Select the ***Canon Device Specific*** tab to possibly specify userID and or password strings.

On the other tabs you can specify all other finishing options. With the ***Save settings*** button you can store your parameters as default setting. Thus, next time when you print, you would only select the ***XPP Print*** printer and then click on the ***Print*** button to send the job to the Canon device.

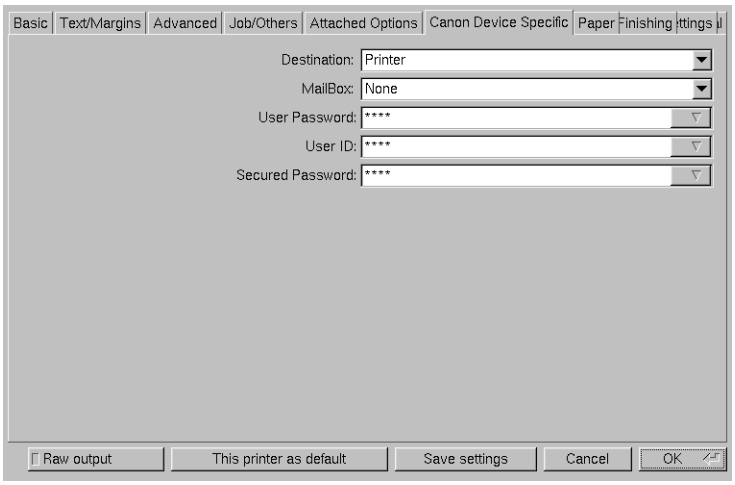


Figure 51 The XPP Printer Options Window

This procedure is only necessary when the passing of strings like user ID and/or passwords is an issue. Otherwise all relevant finishing options will be available directly through the OpenOffice print dialog itself.

The procedure is known to work for all versions of ***Mandriva***, ***Suse*** and ***Ubuntu***. It is known to fail for ***Fedora Core*** (the installation of the printer with OpenOffice works, but it will not show up in the print dialog). You may consult the ***sicforum*** site for additional information.

Appendix D: Release Notes

This Appendix describes some of the known limitations and bugs on specific releases of Linux operating systems. You may always have a look at the ***sicforum*** for more up-to-date information.
***Please note**: Further and more recent release notes may be found in the "**Release Notes**" section of the **CQue Reference Manual**.*

1. *First release version 1.0: January 2008*

   This is the first official release of CQue 1.0.

2. *CUPS 1.3.2 (distributed by UBUNTU 7.10)*

   The CUPS 1.3.2 release as distributed by UBUNTU 7.10 has some limitations for legacy SystemV printing. For example the /etc/cups/interface directory is non-existent and the /usr/share/cups/model directory, though existing, is empty.

3. *Printing multiple copies from OpenOffice*

   When printing multiple copies of the same document from OpenOffice, please note the behaviour for the various types of PDL as described in the following table.

Number of Copies	PS	PCL	PXL
1	prints 1 copy	prints 1 copy	prints 1 copy
N > 1 with collate	prints N copies	prints N copies	prints N copies
N > 1 without collate	prints N copies	prints 1 copy	prints 1 copy

   Thus, if possible, we recommend using the collate option of OpenOffice.

4. *OpenSuse*

   For OpenSuse the RPM version should be used with "rpm --nodeps".
   OpenSuse checks for "foomatic-filters," whereas CQue requires "foomatic."

5. *LBP Support*

   For the LBP5970/5975 advanced features (mailbox, secured printing, department accounting) are not supported. Stapling is supported in PostScript only.

6. *PCL Offsets*

   CQue allows for very precise positioning of the print data on the page. As not all Canon devices use the same PCL interpreter, details may differ between different

Canon devices. The program sicgsfilter supports an option (-r) to manually specify PCL offsets in the PPD file. See Appendix C of the CQue Reference Manual for more details.

7. *SELinux*

Several Linux distributions, including Debian and Fedora, come with the SELinux layer by default. If SELinux enforced then some CQue log messages would generate a SELinux warning. Therefore the setup program will now install a SELinux module if it detects the presence of enforced SELinux protection.

8. *CQue 1.0-8*

As of version 1.0-8 of CQue all PPD files have been revised for greater compatibility with the standards of foomatic and Adobe.

9. *Linux 64 bit (x86_64) support*

As of version 1.0-9 CQue comes with a separate package for Linux 64 bits version. The kernel version should be 2.6-27 or newer.

10. *CQue 1.0-10*

CQue 1.0-10 adds new devices and corrects some bugs for IPP and USB printing.

11. *CQue 1.0-11*

CQue 1.0-11 adds new devices and corrects some bugs in PPD files.

12. *CQue 2.0-0*

CQue 2.0-0 comes with a new set of PPD files compatible with the CUPS PPD extensions used by the latest GTK+ print interface.
Support for Debian .deb packages is added.
Automatic installation with rpm and deb packages is supported, avoiding the need to run setup manually.

Please note: Due to a bug #3631 in CUPS versions up to and including 1.4 it is not possible to set default values for the advanced options (mailbox, secured printing and printing with department accounting) making use of the user interface of CQue. This bug will be fixed in release 1.5 of CUPS.
When printing from applications making use of GTK+ advanced options are supported as described in this manual, and they do work correctly.

13. *CQue 2.0-1*

CQue 2.0-1 adds some new devices especially for professional printing.

14. *CQue 2.0-2*

CQue 2.0-2 adds some new devices especially entry level devices.

15. *Printing multiple copies of a document with stapling*

When printing multiple copies (say N copies) of a document with stapling most CUPS implementations will concatenate the output N times and then staple the resulting concatenated file. To prevent this CQue 2.0-2 PPDs support a feature: ***Repeat Job*** within the ***Canon Specific Options*** section. This allows you to specify from 1 to 99 copies for applications with the GTK+ print interface and 1 to 25 otherwise, with proper stapling of each copy. This feature is supported for PostScript, PCL5 and PCL6 Canon devices allowing PJL headers, i.e. some pure PostScript EFI devices are excluded.
Note: N copies of a document may generate N separate entries in the log file of the Canon device.

16. *CQue 2.0-3*

CQue 2.0-3 adds some new iR-ADVANCE and LBP devices.

17. *CQue 2.0-4*

CQue 2.0-4 adds some new iR-ADV B/W and Colour devices.

18. *CQue 2.0-5*

CQue 2.0-5 adds some new iR-ADV B/W and Colour devices.
Also some minor bugs have been resolved.

19. *CQue 2.0-6*

CQue 2.0-6 adds some new iR-ADV B/W and Colour and B/W LBP devices.
CQue 2.0-6 revises PPD files for compatibility with CUPS versions 1.6 and later.
If you use CUPS 1.6 or later, please use CQue 2.0-6 or later.
Manual paper selection bug fixed for PCL drivers.
Limit for password of printing with department accounting fixed and some minor bugs were fixed too.

20. *CQue 2.0-7*

CQue 2.0-7 adds some new iR-ADV B/W and Colour and B/W LBP devices.
CUPS 1.7 integrates the foomatic package into CUPS itself. CQue 2.0-7 is the first version to be compatible with this new approach of CUPS.

21. *CQue 2.0-8*

CQue 2.0-8 adds some new iR-ADV B/W and Colour devices.

22. *CQue 2.0-9*

CQue 2.0-9 adds some new iR-ADV B/W and Colour devices. Also some minor bugs have been solved.