CQue 4.0

Quick Installation and User Guide

Linux Version for Canon

Contents

1 Introduction

CQue 4.0 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 4.0* by the possibility to adjust 'last minute' printing parameters from most common Linux applications (GTK+ oriented applications, OpenOffice, LibreOffice, etc.). In a more classical sense, *CQue 4.0* 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 4.0*. 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. **Please see the CQue Reference Manual, section 1.2 and 1.3 for more details**.

The *CQue 4.0* package is compatible with CUPS. A CUPS version 1.2.X or newer is recommended.

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 4.0 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 4.0 Reference Manual*.
For printing multiple copies of a document with finishing (like stapling) please refer to section 4.3.

As of the version 4.0-0 CQue does **not** include an *interactive interface* of its own. To create a printer queue, please use the CUPS interface or the Linux system tool for printers. CQue is independent of any graphics libraries like X11, PNG or TIFF.

☞ **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 B: "Release Notes"!

1.2 Before Installing CQue 4.0

CQue 4.0 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.

If you downloaded a copy of CQue 4.0 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-4.0-11.tgz
tar  xvf  cque-xx-4.0-11.tar
```

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

```
tar  xzvf  cque-xx-4.0-11.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 4.0 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 4.0 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 4.0 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 4.0

Note: This section describes how to install or upgrade CQue 4.0. To *uninstall* CQue 4.0 refer to section 4 of this manual please.

Note: RPM and DEB installations of CQue 4.0 will not automatically 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 4.0 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 2.0 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.

Of course setup never modifies a non-CQue printer queue.

Please have a look at the log file: /var/log/CQue4.0_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).
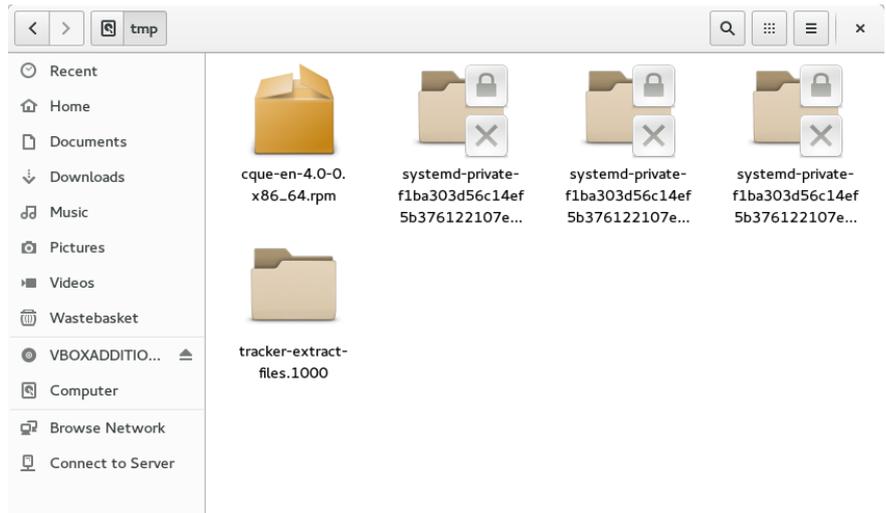

Figure 1 The CQue rpm package.

To have more control over the installation you may prefer to use the non-interactive method to install CQue described at the end of this section.
When you double click on the icon, the following menu opens up:
As the CQue driver is not bound to a specific Linux distribution, the package has

Figure 2 Confirm CQue rpm package installation.

not been signed. It is, however, completely safe to continue with the installation. If you agree to continue with the installation, click on *Install*.
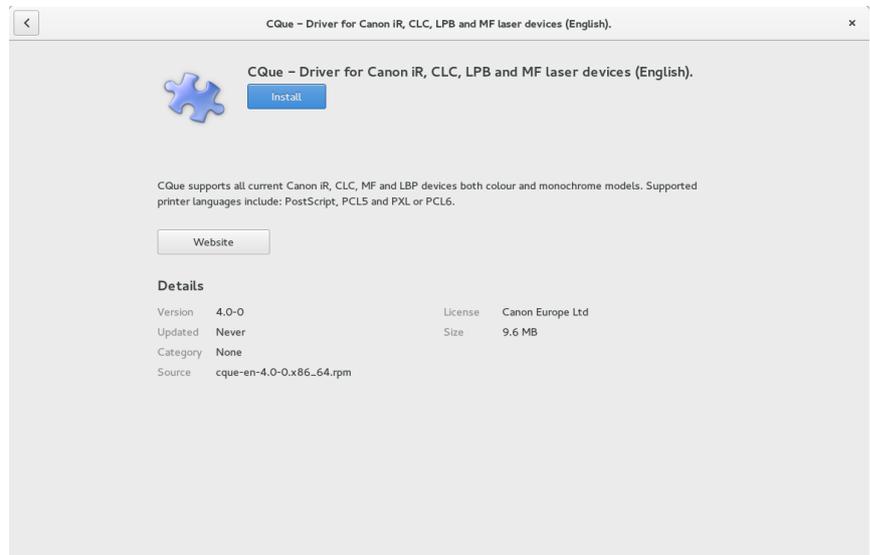
You may now be queried to identify yourself with the *root* password. Only the *root* has the right to add system software.
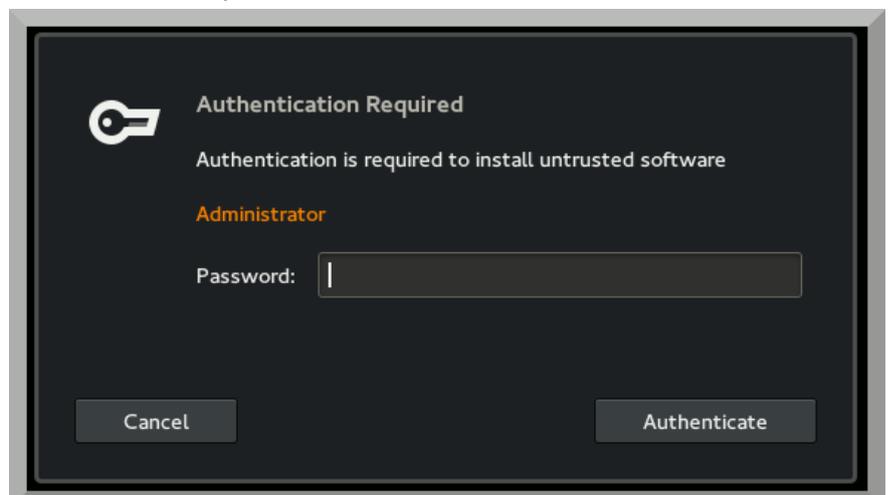

Figure 3 Authentication required for the CQue rpm package.

The rpm manager checks any package dependencies. And finally the package will be installed.
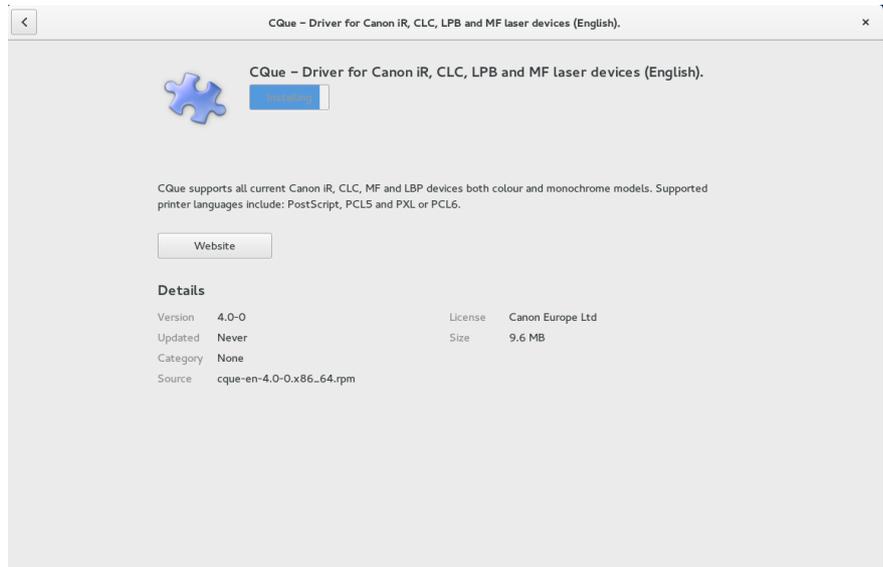
During installation you might see:

Figure 4 During the installation of the CQue rpm package.

Thereafter the following window displays:

A review of the full installation procedure will be found in the file: */var/log/ CQue4.0_UpdateLog*.

The documentation will be installed into the directory */usr/share/doc/CQue4.0*.

Please note that if you upgrade from a previous version of CQue any existing printer queues will not be affected.
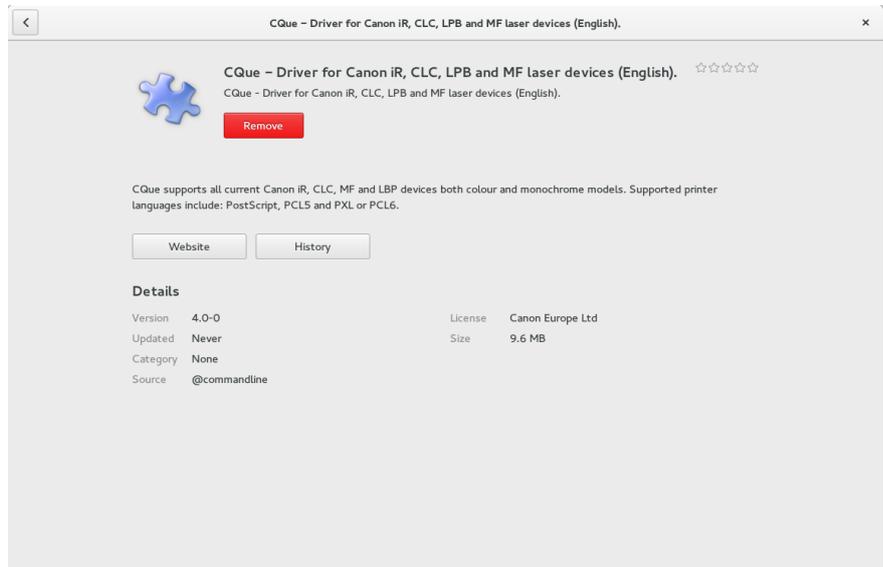
Figure 5 After installation of the CQue rpm package.

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:

dnf install cque-xx-4.0-11-i386.rpm

or (older approach)

yum install cque-xx-4.0-11-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.

Depending on the Linux distribution used (i.e. not supporting **yum** or **dnf**), you may also try one of the following commands:

rpm -Uhv cque-xx-4.0-11-i386.rpm

If (obvious) dependency conflicts would arise (see release notes, appendix F), you may run:

rpm -Uhv --nodeps cque-xx-4.0-11-i386.rpm

The installation will be the same and you may check the file */var/log/CQue4.0_UpdateLog* to verify whether the installation was successfully.

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).
To have more control over the installation you may prefer to use the non-interactive method to install CQue described at the end of this section.
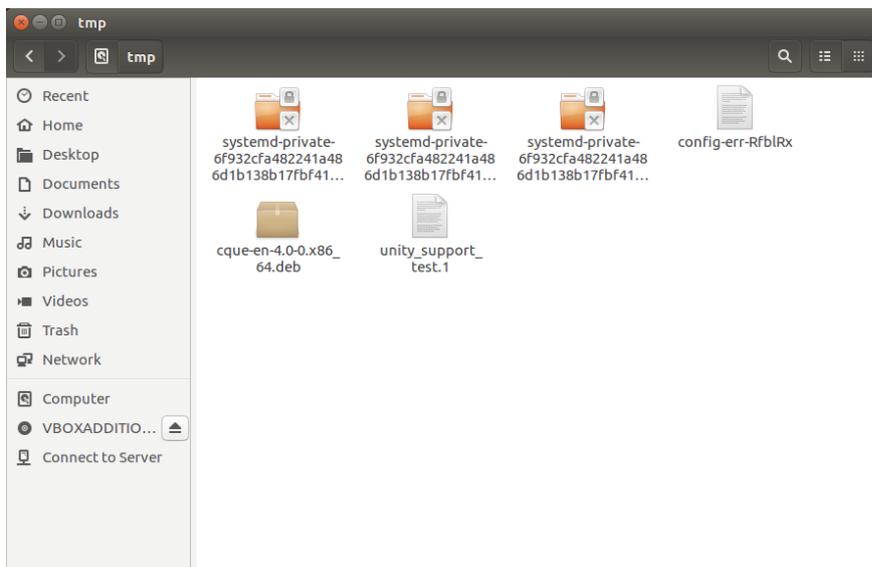

Figure 6 The CQue deb package.

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***.
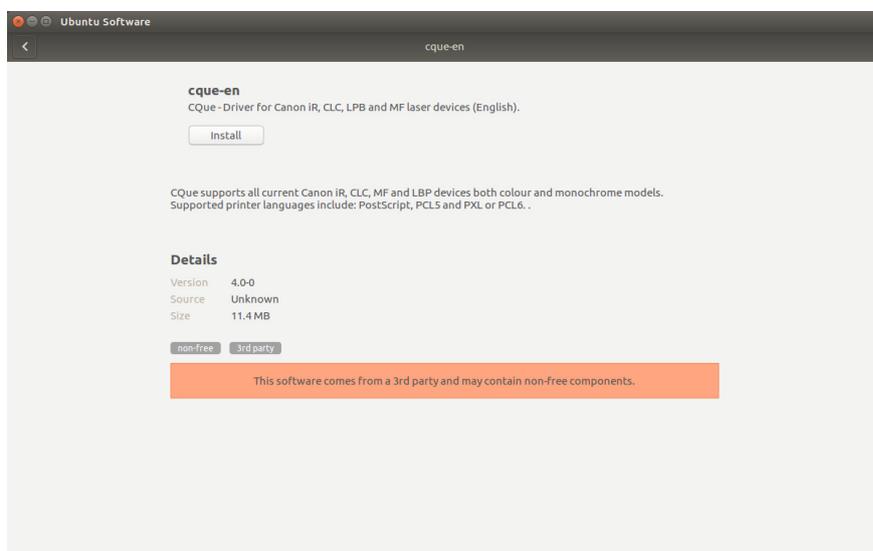

Figure 7 Confirm CQue deb package installation.

Before the installation can start you will have to authenticate yourself.

On Ubuntu (and other .deb oriented Lunix system) you should type here **your own password** (not the root password, which often is not even available).

Then the installation of *CQue* will start.
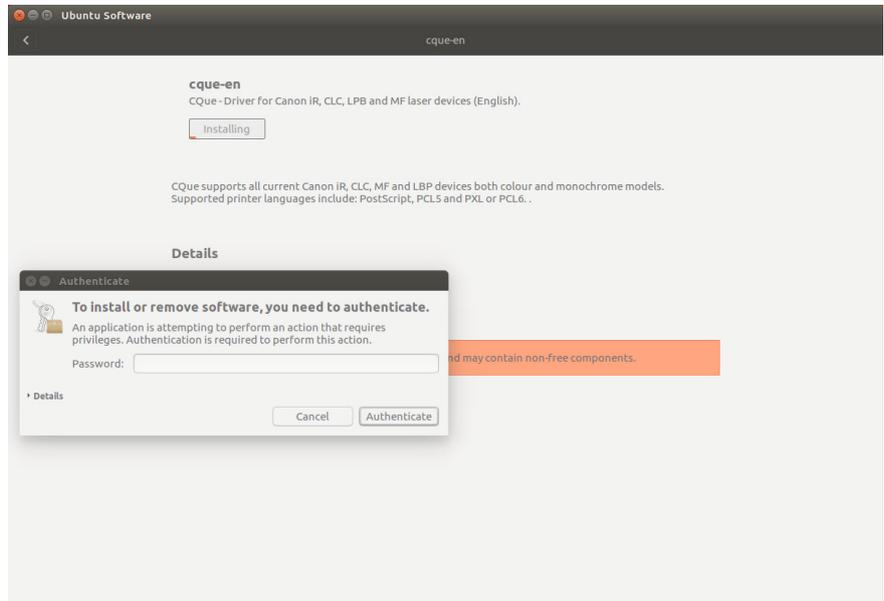
Figure 8 Authentication for the CQue deb package.

At the end of the installation of *CQue* this window will display.
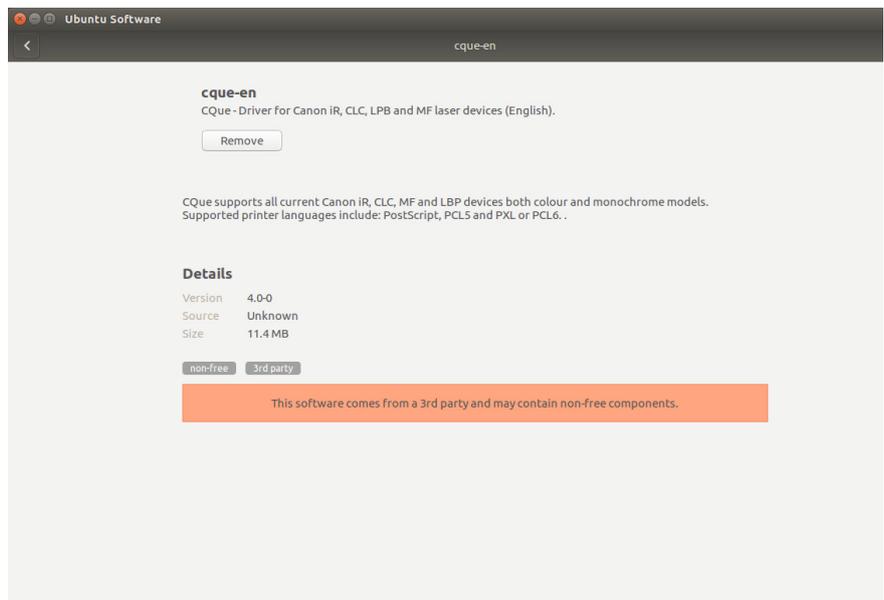
Figure 9 End of the installation of the CQue deb package.

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.

You can install the package for example with dpkg:

sudo dpkg -i cque-xx-4.0-11-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, which is a more user friendly interface to *dpkg*.

The installation will be the same and you may check the file */var/log/CQue4.0_UpdateLog* to verify whether the installation was successfully.

3 *Setting up a Queue of CQue 4.0*

3.1 General considerations

A printer (or printer queue) is in general characterised by:

1. The queue name, or printer name.
2. The port or URL, normally depending on the IP address of the printer.
3. The type of queue i.e. PostScript, PCL5, PCL6 or PXL.
4. The model of the printer (once we know the type).
5. The device options - the optional hardware installed on the printer.
6. The printer options.

Before creating a printer queue the items 1. to 4. should be known. Once the printer queue is created the items 5. and 6. will take on default values and can always later be modified. Please note that on Linux and with CQue printer queues it is not possible to query the device (the printer) for possible installed optional hardware.

For the type of queue the following options are available, depending on the hardware installed on the printer:

3.1.1 A PostScript Queue

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

3.1.2 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 is used. Most Canon colour devices, if supporting PCL, will be compatible with this type of PCL too.

3.1.3 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.
To convert PDF or PostScript data to PXL or PCL6 **ghostscript** is used. For office applications without high level graphics (image, pictures etc.) this format will print reasonably fast on

Canon devices. For applications with high level images and pictures (especially in colour) PXL or PCL6 printing may be slow. Therefore a data compression option is implemented with the following values:

- None - no compression; this may generate large spool files
- JPEG - JPEG compression; in some cases this may slightly reduce image quality. This mode only affects image data and does not affect text or line graphics data. This is the default choice.
- Weak 1 - A less sophisticated compression scheme; technically called RLE (run length encoding).
- Weak 2 - A less sophisticated compression scheme; technically called Delta Row encoding.

Depending on the type of application, some experimentation may be necessary. **If ever printing times remain long, we strongly recommend to use the PCL5 driver**. It is known that the ghostscript PXL data often is very slow on some Canon devices, whereas the PCL5 driver for the same devices prints much faster with the same print quality.

Linux comes with various methods to create a printer queue:

1. The CUPS browser interface. As CUPS is available on virtually all Linux distributions this method is strongly recommended.
2. The lpadmin command line. This is also always available on all Linux distributions and rather standard.
3. The Linux system printer manager. This is rather system dependent and may vary from one system to another.

In this manual we will discuss the ***CUPS method*** and the ***lpadmin method***.

The Linux system printer manager method is not discussed. Due to different approaches depending on different versions of the Linux distribution a printer queue created by this tool will work, but it may not always find the correct CQue PPD file for the printer.

3.2 Setting up a Queue with CUPS

3.2.1 Starting the CUPS interface

The CUPS interface is launched by typing in any browser: **http://localhost:631**

Depending on the version of CUPS the following interface will display (details may differ but the general method is always the same):

Figure 10 The CUPS interface

To arrive at the administration interface click on "Adding Printers and Classes".
This opens the Administration interface where you can manage printers and jobs.
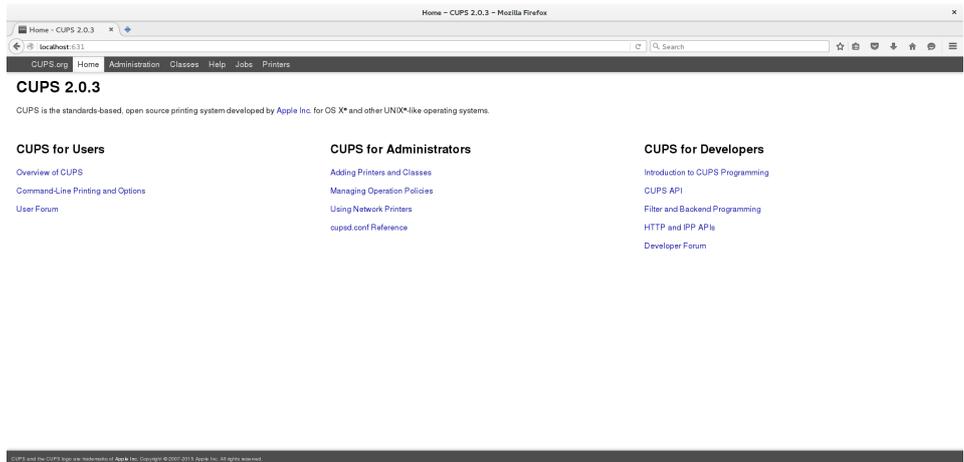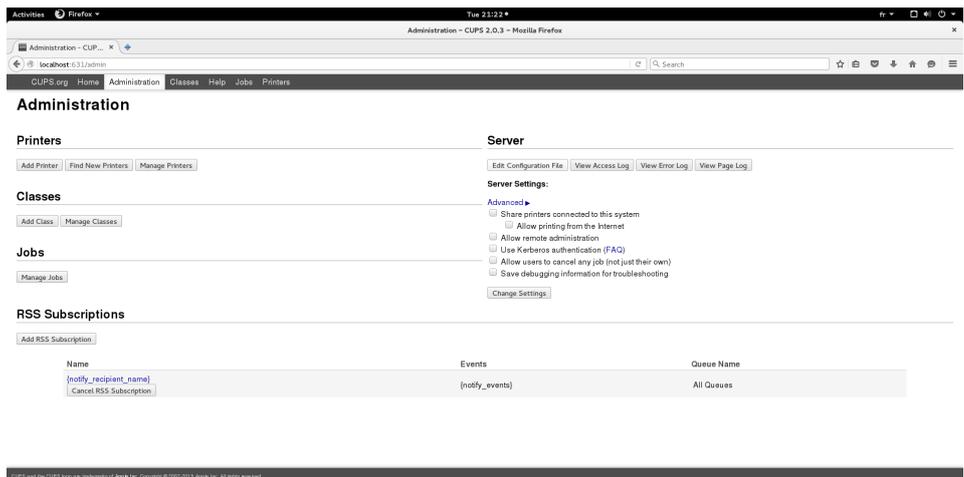

Figure 11 The CUPS Administration interface

It is possible that the CUPS program will ask for authentication as root (Fedora) or your own account (Ubuntu, Debian).
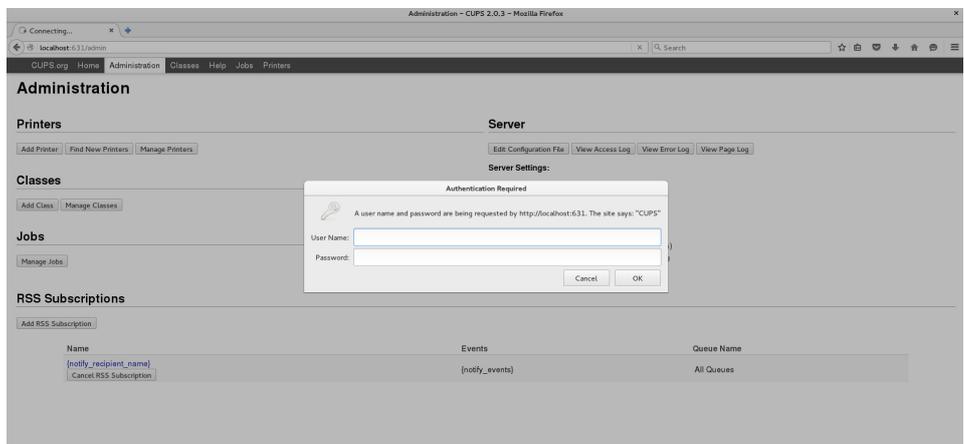

Figure 12 The CUPS Authentication interface

3.2.2 Add a printer - specify printer port

To specify the port of the printer various options are offered (also sometimes called URL's). In this example we select a TCP/IP 9100 port, which for CUPS is: "AppSocket/HP JetDirect".
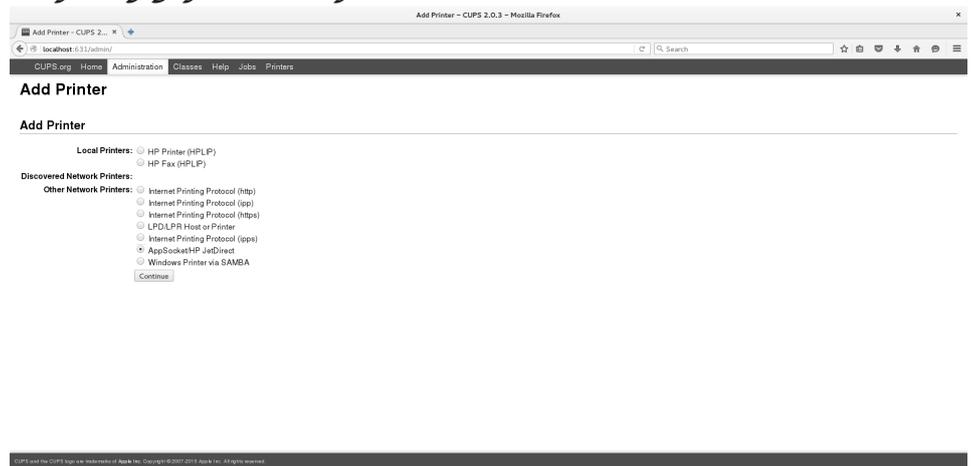
Figure 13 The CUPS "Add Printer" interface – Specify port type

When clicking "Continue" the full URL should be specified. Note that CUPS proposes the syntax with various examples.
Clicking "Continue" again gives the following interface:

Figure 14 Specify the CUPS URL or port

3.2.3 Add a printer - specify printer name

The printer name should be specified here. It is recommended to use a name without spaces.
Optionally you may specify a description and a location but that is not necessary.
Click "Continue" again.

Figure 15 Specify the CUPS printer name

3.2.4 Add a printer - specify printer model

The printer model should be defined in two steps. First specify the brand, i.e. "Canon" and hit "Continue".

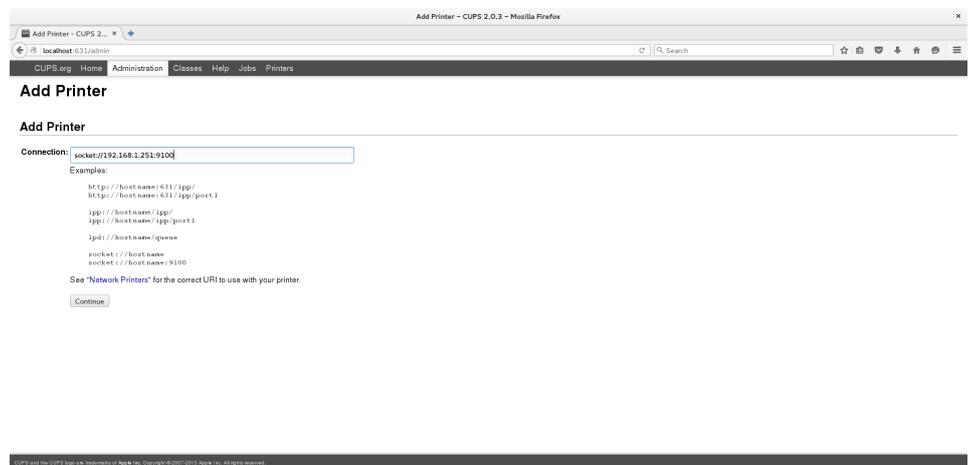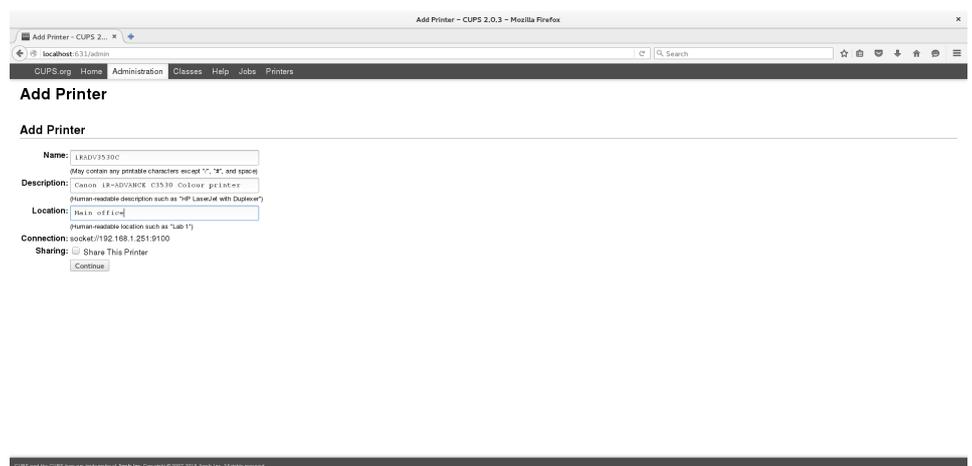NOTE: Optionally you might specify here a specific PPD file, if you were to install a special printer for which a PPD file is supplied.

Figure 16 Specify the CUPS printer model (brand – Canon)

The list of printer models may be very long. In general it is arranged in alphabetical order. In our example we specify as model: **Canon iR-ADV C3525/3530 PCL (en)**.

In general CQue printer models have the following syntax: **Canon** followed by the model (**iR-ADV C3525/3530**),
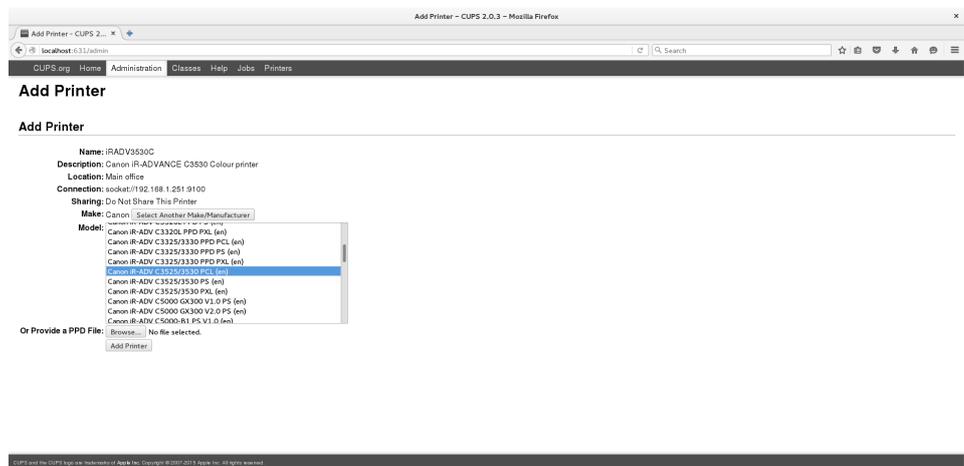
Figure 17 Specify the CUPS printer model

followed by the PDL (**PS, PCL, PXL**) followed by the language (**en**). Now the printer can be created by hitting "**Add Printer**".

3.2.5 CUPS - Set Printer Options

Once the printer has been created various options can be specified. These depend on the printer model, but in general will include **Installed Options**, **General**, **Canon Device Specific**, **Paper**, Finishing, etc. The options *Banners*,
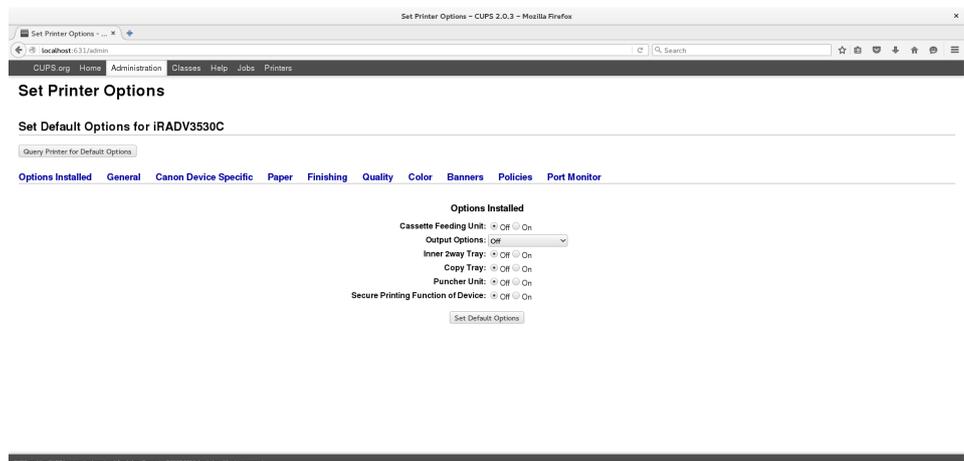
Figure 18 Specify the CUPS printer options – Overview

Policies and *Port Monitor* are CUPS specific and independent of the printer model.

An example of Installed Options could be:
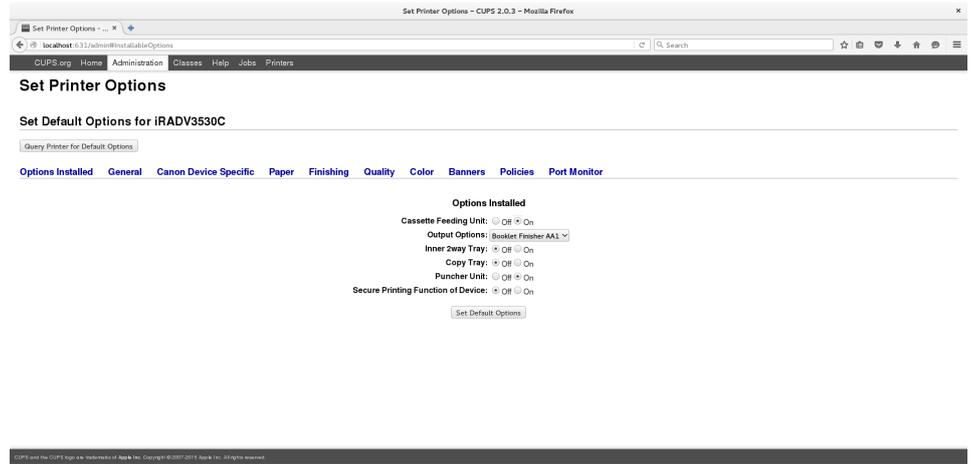
Figure 19 Specify the CUPS printer options – Options Installed

The **General** section normally contains options not found in other sections.
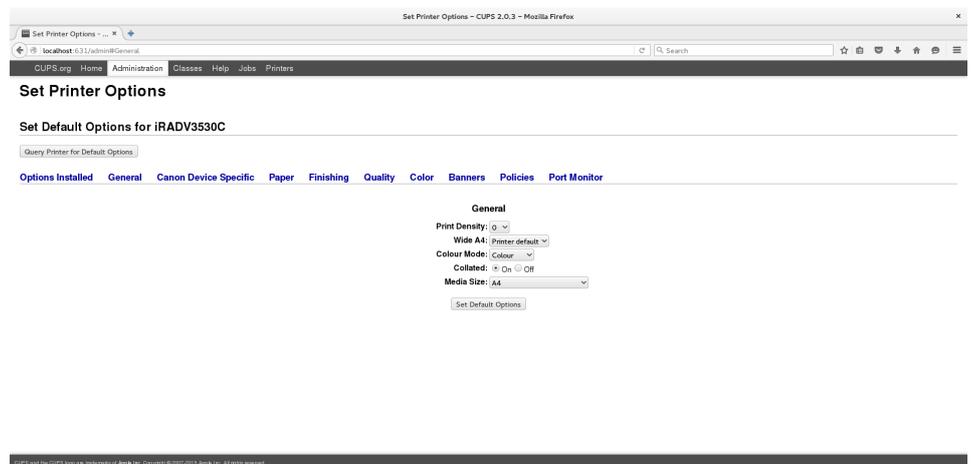
Figure 20 Specify the CUPS printer options – General Options

The **Canon Device Specific** section normally contains options like **mailbox printing**, **secured printing** and **printing with department accounting**. The **Repeat Job** is a special option for printing the same job with finishing (like stapling) a multiple number of times.
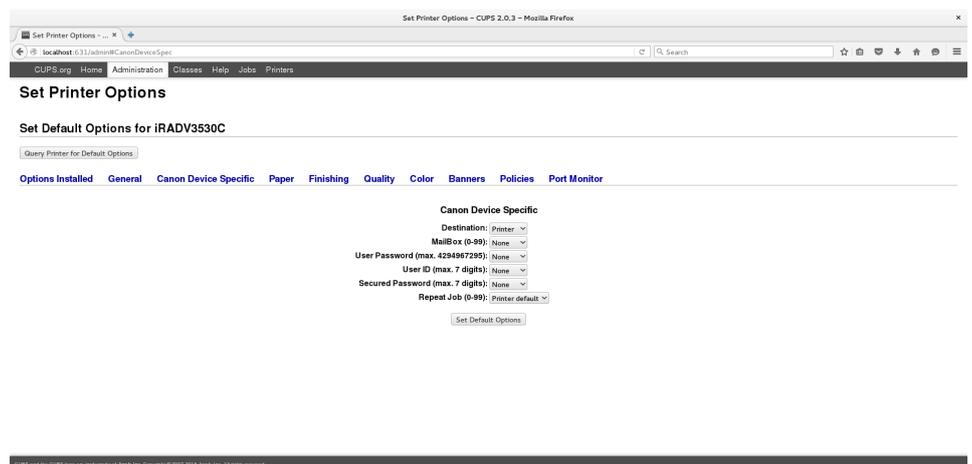
Figure 21 Specify the CUPS printer options – Canon Device Specific Options

The **Paper** section normally contains options like paper trays and media types.
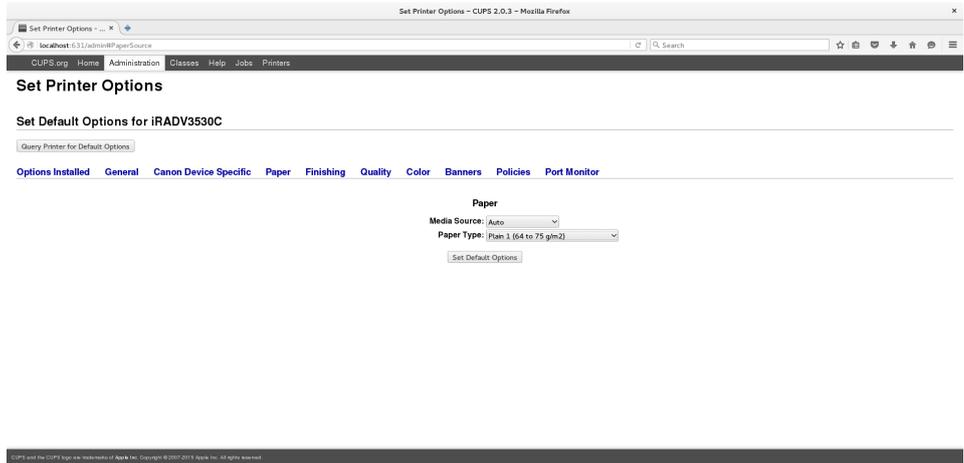
Figure 22 Specify the CUPS printer options – Paper Options

The **Finishing** section normally contains options like duplex printing, stapling and of course finishing. These options will depend on the Installed Options specified previously.
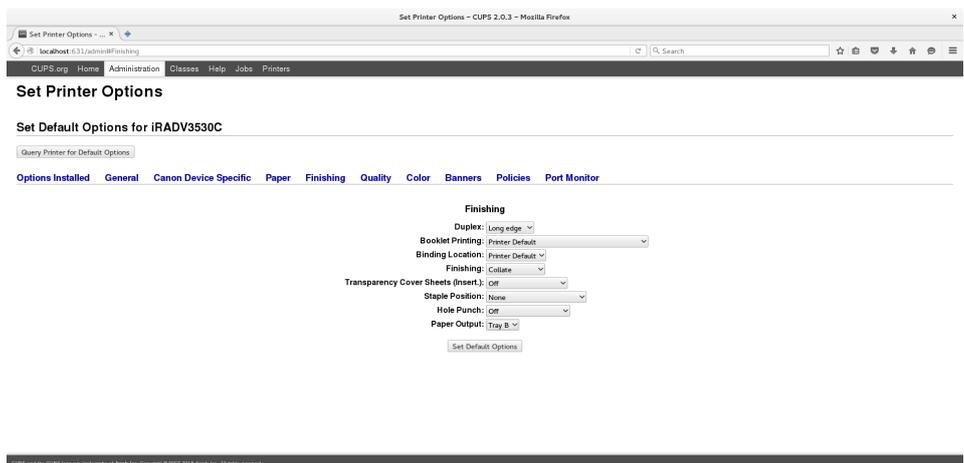
Figure 23 Specify the CUPS printer options – Finishing Options

The **Quality** section (if available) normally contains options like resolution, toner save etc.
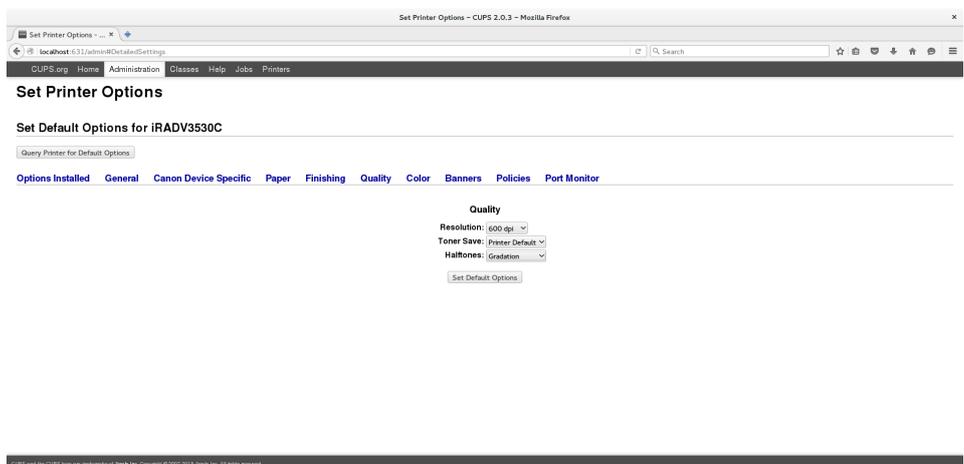
Figure 24 Specify the CUPS printer options – Quality Options

Once the **Set Default Options** button is hit a review of the printer queue appears. From this menu several maintenance and administrative options can be accessed.
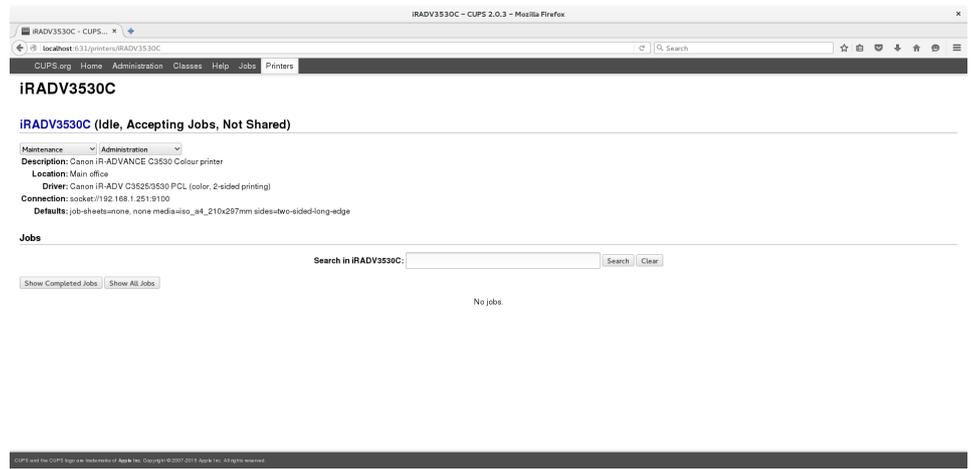
Figure 25 CUPS Review of printer queue

3.3 Setting up a Queue with lpadmin

Although the description of the previous section is the preferred one, you may also create a printer queue with the CUPS *lpadmin* command. You should know two things:

- The PPD file and its location.
- The IP address or host name of the Canon printer.

The PPD file will be installed by the setup program into the system PPD folder. Or, into a subdirectory, called cel. But for the purposes of lpadmin you may also use the PPD file which is always stored in the folder: ***/opt/cel/ppd***.

If you want to know which file corresponds to your model (if this is not clear from the file name) you may run, for example:

> zgrep ModelName /opt/cel/ppd/* | grep ***pattern***

where ***pattern*** is specific for your printer. As an example:

> zgrep ModelName /opt/cel/ppd/* | grep 3530

will show that the PPD file for this model is:

> /opt/cel/ppd/ppd/cel-iradvc3525-pcl-en.ppd

If we suppose that the name of the printer queue to create is 'iRADV3530C' and its IP address is 192.168.1.251 then you may run the following commands:

> **lpadmin -p iRADV3530C **
> **   -i /opt/cel/ppd/ppd/cel-iradvc3525-pcl-en.ppd **
> **   -v socket://192.168.1.251:9100 -E**

These three lines, starting with lpadmin, form actually one line. If you type it on one line, please leave out the backslashes.
The -E option the equivalent of:

> **accept iRADV3530C**
> **cupsenable iRADV3530C**

The PPD file will now be copied into **/etc/cups/ppd/iRADV3530C.ppd** and the CUPS printer manager will have added an entry into the file **/etc/cups/printers.conf**. CUPS will use this latter PPD file, and will never modify the original PPD file from the /opt/cel/ppd directory.

If you want to know all PPD options of the printer you may type:

lpoptions -p iRADV3530C -l

This will show all PPD options supported. Without the option **-l** only the currently set default values will be shown.

4 Printing with a Queue of CQue

4.1 Printing in General

The CQue PPD files are fully compatible with CUPS and thus any printer interface relying on the CUPS syntax will support all provided options. This is especially true for program using the GTK+ printer manager - which nowadays most applications do.

4.1.1 Advanced Options

The following advanced options are available - depending on the printer type of course - some low end printers may not support all or any of these options:

1. *Mail 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 through 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*.

4.2 Printing with the GTK+ Interface

Figure 26 GTK+ user interface

The GTK+ interface is supported by most applications. In this example it is called from LibreOffice. To access the printer options, please click **Properties**... (A similar interface opens up when called from other applications).

The following interface opens up:
The **Paper** options are relatively straight forward.
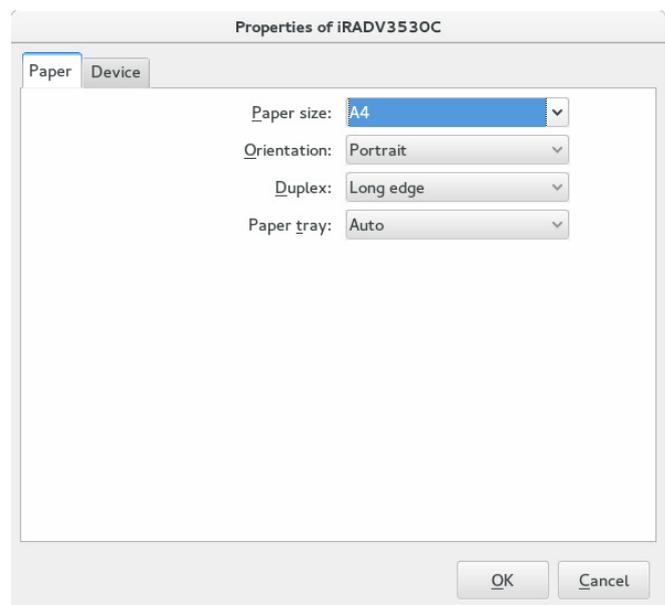
Figure 27 GTK+ user interface

When clicking **Device**, the following interface (as an example) opens up - see next page.

Here all device specific options from the PPD file for the Canon printer can be specified.
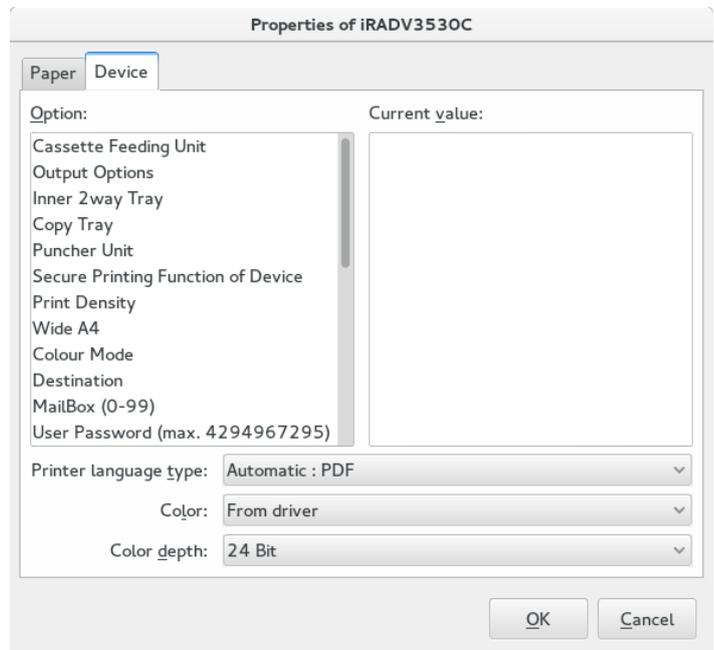
Figure 28 GTK+ user interface: Device specific options

For example for mailbox printing select as **Destination**: **MailBox**.
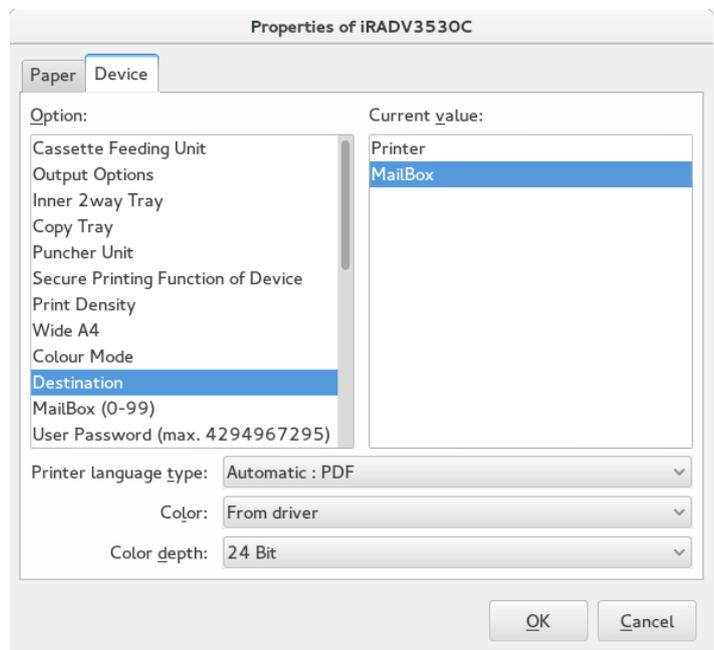
Figure 29 GTK+ user interface: Mailbox printing

And then specify a mailbox number (from 0 - 99). First click on **Custom** and then fill in the field above with the requested number.
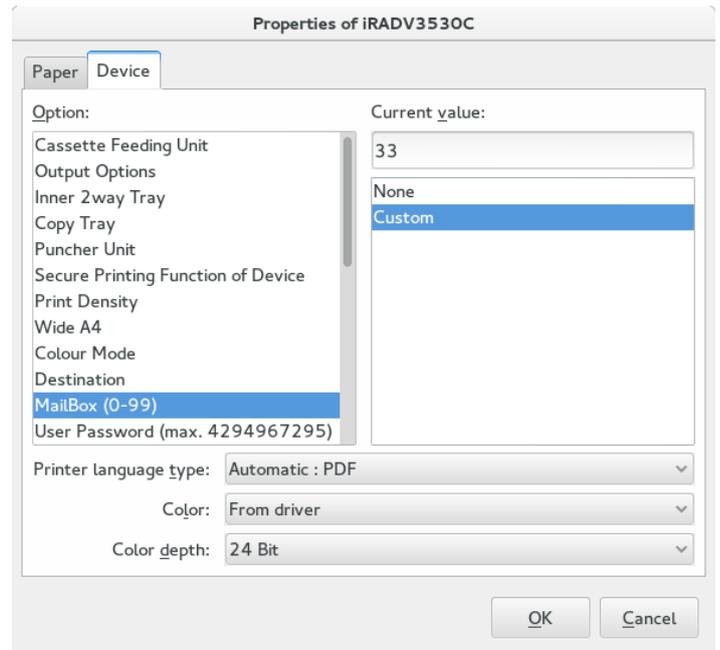
Figure 30 GTK+ user interface: Mailbox printing

For **Secured Printing** a similar procedure holds.

The same is true for printing with department accounting (User ID and User Password).
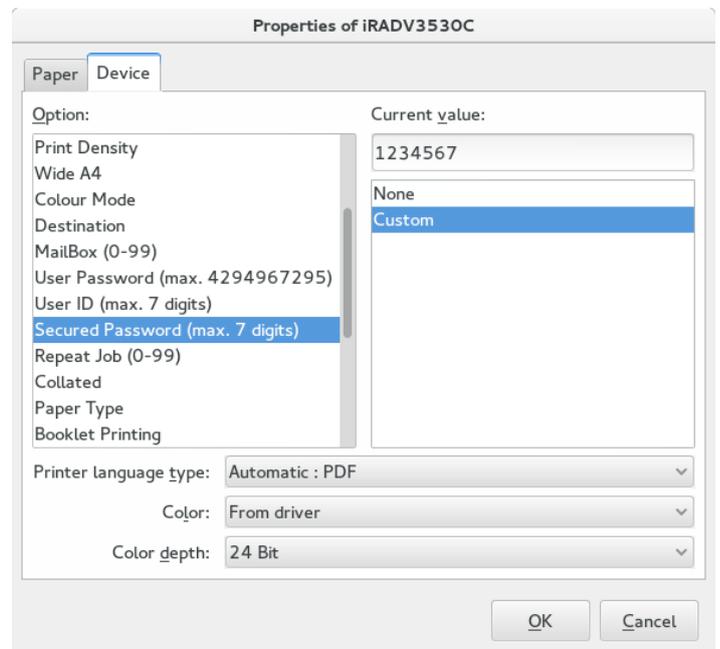
Figure 31 GTK+ user interface: Secured printing

4.3 Printing Multiple Copies of a Document with Finishing

When printing multiple copies (say N copies) of a document with stapling or other finishing features most CUPS implementations will concatenate the output N times and then staple the resulting concatenated file. To prevent this CQue PPDs support a feature: **Repeat Job** within the **Canon Specific Options** section.

This allows you to specify from 1 to 999 copies 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.

Two features are available:

RepeatJob : specifies the number of copies to be printed between 1 and 999.

Optimise RepeatJob: If **TRUE**, then the driver will generate a file with a PJL header requesting the number of copies. This is very efficient as only one job is submitted, which is then printed N times. This may not work if the Canon device has no internal memory to store the job.

If **Optimise RepeatJob** is **FALSE**, then the driver will generate N jobs and send these to the Canon device, which will then of course have N entries in the log file too. This may pose a problem if many copies are requested (i.e. N > 100 on some devices).

5 Non-standard Installations of CQue 4.0

5.1 Upgrade Installation to CQue 4.0

If a version of CQue is already installed on your Linux workstation the setup program will detect that. The setup program of CQue will install the full package but will not touch any existing printer queues.
These printer queues will continue to work with the newly installed package.

A review of the upgrade installation will be available in the file *var/log/CQue4.0_UpdateLog*.

5.2 De-Installation of CQue 4.0

If you want to de-install an existing version of CQue 4.0 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/CQue4.0_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.

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: 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 20-2*

   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.

23. *CQue 2.0-10*

CQue 2.0-10 adds some new LBP B/W and MF Colour devices. Also some minor bugs have been solved.

24. *CQue 3.0-0*

CQue 3.0-0 adds some new iRADVANCE colour and LBP B/W and MF devices. The version 3.0-0 is a **major release**, including updated documentation. Also some minor bugs have been solved. Support of XPP is discontinued.

25. *CQue 3.0-1*

CQue 3.0-1 adds some new colour and B/W LBP and MF devices.

26. *CQue 3.0-2*

CQue 3.0-2 adds iR-ADV C5560-5550 and iR-ADV C5540-5535 colour devices.

27. *CQue 3.0-3*

CQue 3.0-3 corrects some minor bugs and adds iR-ADV C7580/7570, iR-ADV C7565, iPR Svr G100, iPR Svr F200, iR-ADV C5500s GX500, iR-ADV C7500s GX500, iR-ADV C5500s-P1 and MF249dw devices.

28. *CQue 3.0-4*

CQue 3.0-4 adds iR-ADV colour devices (iR-ADVC255, iR-ADVC355, iR-ADVC3500 series) and grey-scale devices (iR-ADV4500 series).

29. *CQue 3.0-5*

CQue 3.0-5 adds the LBP 312x device.
CQue 3.0-5 also solves a couple of security issues and is now compiled with more

recent (and secure) libraries on Linux kernel 4.1. This implies that the motif library as well as the png library version 16 have to be available on the Linux workstation. Versions using the older method of compilation (i.e. static compilation on Linux kernel 2.6) will be maintained and are available on request. Please see the **CQue Reference Manual** section 1.2 and 1.3 for more details.

30. *CQue 3.0-6*

CQue 3.0-6 adds the LBP 613C, LBP 653C, LBP 654C devices, MF633C, MF635C and MF73xC devices, as well as the iR C3025.
Also some minor bugs are resolved.

31. *CQue 4.0-0*

CQue 4.0-0 is a major release of CQue. It comes with the same PPDs as previous versions but the graphical user interface is absent. This eliminates many security and compatibility issues.
The following devices have been added: MF522x, MF525x, MF421dw, MF426dw, MF428dw, MF249dw and LBP212dw, LBP214dw and LBP21x.

32. *CQue 4.0-1*

CQue 4.0-1 improves the printing of several copies of a document including finishing - see section 4.3 *Printing Multiple Copies of a Document with Finishing*.
Also for some EFI devices printing to mailbox is correctly supported.
All PPD files have been revised, 3 new models are added: iR-ADV 715i II, iR-ADV 615i II and iR-ADV 525i II.

33. *CQue 4.0-2*

CQue 4.0-2 adds a number of models: iR-ADV C356i, iR-ADV C256i, iR-ADV C356P, iR-ADV 4551i III, iR-ADV 4545i III, iR-ADV 4535i III, iR-ADV 4525i III, iR-ADV 6575i III, iR-ADV 6565i III, iR-ADV 6555i III, iR-ADV 6555i III PRT, iR-ADV 8505 PRO III, iR-ADV 8595 PRO III, iR-ADV 8585 PRO III, iR-ADV C356i III, iR-ADV C256i III, iR-ADV C356P III, iR-ADV C3530i III, iR-ADV C3525i III, iR-ADV C3520i III, iR-ADV C5560i III, iR-ADV C5550i III, iR-ADV C5540i III, iR-ADV C5535i III, iR-ADV C7580i III, iR-ADV C7570i III, iR-ADV C7565i III. If you use an imageRunner ADVANCE Generation3 2nd Edition (name ending with version suffix 'II'), please select a driver model without a version suffix. E.g. for product name: "*imageRUNNER ADVANCE C55xx II*" use the compatible driver with name: "*imageRUNNER ADVANCE C55xx*".

34. *CQue 4.0-3*

CQue 4.0-3 adds a number of models: iPR-C710_810_910, iR-ADV C475i III, iR-ADV 525i

III, iR-ADV 615i III, iR-ADV 715i III, LBP 623Cdw, LBP663Cdw, LBP664Cx, MF643Cdw, MF645Cx, MF742Cdw, MF744Cdw, MV746Cx. See Release note 33. for models of generation III.

35. *CQue 4.0-4*

CQue 4.0-4 adds the following models: iR 1643i(F), LBP 223dw, LBP 226dw, LBP 228x, LBP325x, MF443dw, MF445dw, MF446x, MF449x, MF542x, MF543x.
Also the option for PXL data compression was introduced to slightly improve PCL6 or PXL printing on devices supporting this PDL. See section 3.1.3 for more details.

36. *CQue 4.0-5*

CQue 4.0-5 adds the following models: iR 2625i, iR 2630i, iR 2635i/2645i, LBP 852Cx, iPR C165. Some minor bugs were fixed too.

37. *CQue 4.0-6*

CQue 4.0-6 adds the following models: iR C3125i, iR-ADV DX C3720, iR-ADV DX C3725i, iR-ADV DX C3730i, iR-ADV DX 4725i, iR-ADV DX 4735i, iR-ADV DX 4745i, iR-ADV DX 4751i, iR-ADV DX C7765i, iR-ADV DX C7770i, iR-ADV DX C7780i, iR-ADV DX 8705, iR-ADV DX 8786, iR-ADV DX 8795.
Some minor bugs were fixed too.
For those Canon device which support PCL5 Emulation modes, this feature is supported by CQue too. This feature alters the paper cassette selection behaviour. The settings of this feature are under the location "PCL5 Emulation mode" of the CUPS Web user interface and are also available during the printing process in the application. Please select the emulation mode according to the settings of the Canon device. Typically Mode 0 for iSensys devices and Mode 2 for iR-Advance devices. See *Appendix B2* of the *CQue Reference Manual* as well as the manual of the Canon device for more details.

38. *CQue 4.0-7*

CQue 4.0-7 adds the following models: iR 2425, iR 2425i, iR-ADV DX 6000i, iR-ADV DX 6755i, iR-ADV DX 6765i, iR-ADV DX 6780i, iR-ADV DX C5735i, iR-ADV DX C5740i, iR-ADV DX C5750i, iR-ADV DX C5760i. Some minor bugs were fixed too.
For those Canon device which support PCL5 Emulation modes, this feature is supported by CQue too. See *Appendix B2* of the *CQue Reference Manual* as well as the manual of the Canon device for more details.

39. *CQue 4.0-8*

CQue 4.0-8 adds the following models:
iPR C170, iR-ADV DX 617, iR-ADV DX 717, iR-ADV DX 527, iR-ADV DX C257/357,

iR-ADV DX C477, iR-ADV DX C5840/5850, iR-ADV DX C5860/5870, iR1643P, iR C1533i, iR C1533iF, iR C1538iF, MF832C, MF1127C / C1127iF/i, MF1238 / 1238iF/i, LBP1127C / C1127P, LBP1238 / 1238P/Pr.
Some minor bugs have been corrected.

40. *CQue 4.0-9*

CQue 4.0-9 adds the following models:
iR C3226, iR-ADV C3822, iR-ADV C3826, iR-ADV C3830, iR-ADV C3835, LBP722C, i-SENSYS X C1533P, i-SENSYS X C1538P, iR-ADV 6860/6870.
A bug for A6 paper size printing has been corrected as well as some minor other bugs.

41. *CQue 4.0-10*

CQue 4.0-10 adds the following models:
Canon iR1643 II Series, iR2725/2730, iR2735/2745, iR-ADV 4825, iR-ADV 4835, iR-ADV 4845, iR-ADV 6855/6860/6870, LBP1238II/1238P/PrII, LBP1333C/C1333P, LBP236, LBP673C, MF1238II/1238iF/iII, MF1333C/C1333iF/i, MF453/455, MF552/553, MF752C/754C.
For PCL printers the PCL Emulation mode defaults to "mode 0". Some minor bugs have been corrected.

42. *CQue 4.0-11*

CQue 4.0-11 adds the following models: Canon iR2925i/2930i, iR2935i/2945i, iR-ADV DX 4925i, iR-ADV DX 4935i, iR-ADV DX 4945i, iR-ADV DX 529i(Z), iR-ADV DX 619i(Z), iR-ADV DX 719i(Z), iR-ADV DX 8905, iR-ADV DX 8986/8995, iR-ADV DX 6980i, iR-ADV DX C3922i, iR-ADV DX C3926i, iR-ADV DX C3930i, iR-ADV DX C3935i, iR-ADV DX C259i/C359i/C359P, iR C3326i, i-SENSYS X C1946P, LBP1861/1861P, LBP1871/1871P.