

DebuggingPrintingProblems

**Debugging
Central**

This page is part of the debugging series - pages with debugging details for a variety of Ubuntu packages.

Reporting Bugs

Beginning with 9.04, Jaunty Jackalope, to report printing bugs use 'ubuntu-bug cups' which will gather useful information about your system related to printing like the version of Ubuntu you use, configured printers and the versions of important printing packages installed and automatically attach them to your bug report. You can also add the information after the bug is reported by executing 'apport-collect BUGNUMBER' where BUGNUMBER is the cups report you want to add information to.

In releases 8.10, Intrepid Ibex, and older, attach to your bug report the output of the printingbuginfo script located at: <https://wiki.ubuntu.com/PrintingBugInfoScript>. It manually collects the same information that is collected in the cups apport hook, used by ubuntu-bug and apport-collect above.

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Package assignment

Starting with Intrepid the **cupsys** package has been renamed to **cups**. Subsequently, bugs about Intrepid (8.10) should be assigned to the **cups** package and bug reports about previous releases should be assigned to **cupsys**.

Printer detection

USB printer

1. Make sure that the printer is connected to your system and powered on.

2. Open a terminal/console and check if the usb kernel modules are loaded:
`$ lsmod | grep usb`
3. Unplug the USB printer cable from your computer and enter this command:
`$ tail -f /var/log/messages`
4. Reconnect the USB printer cable, you should see some messages appearing.
5. Press Ctrl-C to stop the logging.
6. Find out if your printer gets detected by CUPS:
`$ lpinfo -v`
7. Attach the output of the above commands to the bug report.

Parallel port printer

1. Make sure that the printer is connected to your system and powered on.
2. Open a terminal/console and check if the lp and ppdev kernel modules are loaded:
`$ lsmod | grep lp`
`$ lsmod | grep ppdev`
3. Check if the kernel detected the parallel port during bootup:
`$ dmesg | grep par`
4. Find out if your printer gets detected by CUPS:
`$ lpinfo -v`
5. Attach the output of the above commands to the bug report.

Printing bug info

Attach the output of the printingbuginfo script for some useful information about your system related to printing like the version of Ubuntu you use, configured printers and the versions of important printing packages installed. The printingbuginfo script can be found here: <https://wiki.ubuntu.com/PrintingBugInfoScript>.

Beginning with 9.04, Jaunty Jackalope, the information collected by the printingbuginfo script is collected in the cups apport hook. So if you use 'ubuntu-bug cups' to report the bug the log files will be gathered automatically. Additionally, you can add the information after the bug is reported by executing 'apport-collect BUGNUMBER' where BUGNUMBER is the cups report you want to add information to.

CUPS error_log

This is a file where CUPS writes information about what it is doing. Almost all printing problems can be diagnosed from the error log, so it is the first place to look to start

solving problems. To be useful, you must change the logging level:

1. In Ubuntu Gutsy or newer, select "System" -> "Administration" -> "Printing" in the main menu of your desktop. The printer setup tool system-config-printer will open. Select "Server Settings" in the list on the left. Then check the checkbox "Save debugging information for troubleshooting" and click "Apply".
2. In all Ubuntu flavors (also Kubuntu and server editions) you can run

```
$ cupsctl LogLevel=debug
```

to activate debug logging.
3. In older versions of all flavors, where there is not yet a "cupsctl" command, edit the file `/etc/cups/cupsd.conf`, find the line **LogLevel ...** and change it to **LogLevel debug**, save the file. Then restart CUPS:

```
$ sudo /etc/init.d/cupsys restart
```
4. Clear the queue from any stuck jobs by deleting the jobs in the job viewer or running the "cancel -a" command.
5. Try to print something. Wait until the job disappears from the queue or turns into "Stopped" state, independent whether something gets out of the printer. If the job never reaches "Stopped" state after the printer not showing any reaction for a longer time you also can go on to the next step.
6. Scan or photograph the printout if it is not correct and attach the images to the bug report.
7. Add `/var/log/cups/error_log` as an attachment to the bug report. Note that the file is not accessible for normal users. You need to access it as root. To view the file run

```
$ sudo less /var/log/cups/error_log
```

and to copy it for attaching to a bug report run

```
$ sudo cp /var/log/cups/error_log ~
```

```
$ sudo chmod 777 ~/error_log
```

Troubleshooting Wizard

There is a troubleshooting wizard in system-config-printer (System -> Administration -> Printing). You find it by in the "Help" menu of system-config-printer. It produces a text file with a lot of useful information to attach to bug reports. Follow the instructions of the wizard. If you reach the test page step, you can either click the button to print the test page or you can print a job to the selected printer from any application or from the command line. The job will be shown in the integrated job viewer. Wait until it completes or goes into "Stopped" state. **ONLY THEN AND NOT BEFORE** mark the checkbox at the job, answer whether the job got printed correctly, and click "Forward". After that the file will get generated. Save it and attach it to your bug report.

Print Error pop-up window

If a print job fails, a job viewer with the failed job ("Stopped" state) and pop-up window telling that the job has problems will appear. If you click the "Diagnose" button, the troubleshooting wizard will open. Do not delete the job before having completed the wizard. Take care to choose the printer with which the problem occurred. In the "Test Page" step you do not need to print anything, nor to wait. Mark the stopped job in the integrated job viewer, click "No" at the question and then "Forward". After that save the file and attach it to the bug report.

AppArmor Protection of the printing system

From Gutsy on the security of the CUPS printing system is improved by using AppArmor. Unfortunately, the configuration is not perfect yet, especially if third-party printer drivers are used. If you have any problems with printing, try deactivating the AppArmor protection with `sudo aa-complain cupsd`. If this helps, look for messages containing **audit** in the `/var/log/messages` file. These show which components are accessed by the printing system for which there is no explicit permission given in `/etc/apparmor.d/usr.sbin.cupsd`. You can re-activate AppArmor via `sudo aa-enforce cupsd`. Report a bug, about the package **cups** (**cupsys** on 8.04 and older), so that we can correct the default configuration of AppArmor.

Known bugs

Description of known issues, how to recognise them and stock responses/actions.

Bug#	Description	Action
29050	Parallel/LPT printer not detected in Dapper and Edgy. Fixed in Feisty.	add "ppdev" to <code>/etc/modules</code>

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