



# Distribution-Independent Printer Driver Packages

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- **Problems**

- Distributions do not ship all available printer drivers
- Free drivers from upstream need to be compiled by users -> driver installation too complicated for unexperienced users
- Manufacturers make packages only for a few major distributions
- Driver packages often difficult to find on manufacturer's web sites
- Testing/packaging effort for manufacturers and driver developers too high to ship binary driver packages for all distributions

- **Existing Infrastructure**

- **OpenPrinting database** (former linuxprinting.org), central database for printer/driver info
- **LSB** provides tools and infrastructure to create **distribution-independent binary packages**



- **Solution**

- **Distribution-independent printer driver packages**

- Based on **LSB 3.2** for binary format
- Using **CUPS**, **Ghostscript** (with IJS, CUPS Raster and OpenPrinting Vector interfaces), **foomatic-rip** which is on any distribution and required by LSB 3.2.
- Make packages part of OpenPrinting database, so that they can be easily found
- Infrastructure for automatic package lookup, download, and installation through the internet by printer setup tools



- **Distribution-independent**
  - One package for Linux, instead of one for Red Hat, one for SuSE, one for Ubuntu, ...
- **Binary packages**
  - User does not need to compile, system is also suitable for closed-source drivers
- **Same installation method for all driver packages**
  - A printer setup tool can easily install them automatically
- **One download location at the OpenPrinting site**
  - Easy to find for both humans and printer setup tools
  - Granting redistribution permissions of non-free drivers is much easier.



- **Driver query API for printer setup tools**
  - All needed info available: License, supplier, support contact, print quality indices. So the setup tool and the user can easily find the driver suiting best for him.
- **Distributions look up drivers at OpenPrinting**
  - Distributions do not need to support all printer models
  - So drivers newer than the distro are available, for updates and for new printer models.



- **Sample packages and packaging instructions updated to LSB 3.2**
- **Set indexing of package repository for automatic update with apt-get and yum, including conversion of packages to .deb.**
- **Work in progress on printer setup tool system-config-printer and driver download manager Jockey**
  - In model/driver selection step of add-printer wizard an OpenPrinting lookup with the printer ID can be performed.
  - This is done by calling Jockey with the printer ID via D-Bus.
  - Jockey offers then the available drivers and installs after the user agrees.
  - For non-interactively set up queues (Plug'n'Print) for which no local driver got found a “Select/Change Driver” button can be clicked in the notification bubble to get into the driver selection step.



- **Signing of the driver packages on the server**
- **Infrastructure for approving uploads of PPDs and packages in hot folder**
- **Scripts for automatically indexing and signing new packages, moving away the old versions, ...**
- **Documentation of requirements for driver packages (Driver packaging policy)**



- **General info**

- <http://www.openprinting.org/>

- **For developers**

- <http://www.linux-foundation.org/en/OpenPrinting/Development>

- <http://www.linux-foundation.org/en/Developers>

- **For driver developers**

- <http://www.linux-foundation.org/en/OpenPrinting/WritingAndPackagingPrinterDrivers>

- **For developers of printer setup tools**

- <http://www.linux-foundation.org/en/OpenPrinting/Database/Query>

- **Available driver packages**

- [http://www.openprinting.org/driver\\_list.cgi](http://www.openprinting.org/driver_list.cgi)

- **How to install driver packages**

- <http://www.linux-foundation.org/en/OpenPrinting/Database/DriverPackages>

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