

NAME

ldconfig – configure dynamic linker run-time bindings

SYNOPSIS

/sbin/ldconfig [**-nNvXV**] [**-f conf**] [**-C cache**] [**-r root**] *directory*...

/sbin/ldconfig **-l** [**-v**] *library*...

/sbin/ldconfig **-p**

DESCRIPTION

ldconfig creates the necessary links and cache to the most recent shared libraries found in the directories specified on the command line, in the file */etc/ld.so.conf*, and in the trusted directories, */lib* and */usr/lib* (on some 64-bit architectures such as x86-64, */lib* and */usr/lib* are the trusted directories for 32-bit libraries, while */lib64* and */usr/lib64* are used for 64-bit libraries).

The cache is used by the run-time linker, *ld.so* or *ld-linux.so*. **ldconfig** checks the header and filenames of the libraries it encounters when determining which versions should have their links updated.

ldconfig will attempt to deduce the type of ELF libraries (i.e., libc5 or libc6/glibc) based on what C libraries, if any, the library was linked against.

Some existing libraries do not contain enough information to allow the deduction of their type. Therefore, the */etc/ld.so.conf* file format allows the specification of an expected type. This is used *only* for those ELF libraries which we can not work out. The format is "dirname=TYPE", where TYPE can be libc4, libc5, or libc6. (This syntax also works on the command line.) Spaces are *not* allowed. Also see the **-p** option. **ldconfig** should normally be run by the superuser as it may require write permission on some root owned directories and files.

Note that **ldconfig** will only look at files that are named *lib*.so** (for regular shared objects) or *ld-*.so** (for the dynamic loader itself). Other files will be ignored. Also, **ldconfig** expects a certain pattern to how the symlinks are set up, like this example, where the middle file (**libfoo.so.1** here) is the SONAME for the library:

```
libfoo.so -> libfoo.so.1 -> libfoo.so.1.12
```

Failure to follow this pattern may result in compatibility issues after an upgrade.

OPTIONS

-c fmt, **--format=fmt**

(Since glibc 2.2) Cache format to use: *old*, *new*, or *compat* (default).

-C cache

Use *cache* instead of */etc/ld.so.cache*.

-f conf Use *conf* instead of */etc/ld.so.conf*.

-i, **--ignore-aux-cache**

(Since glibc 2.7) Ignore auxiliary cache file.

-l (Since glibc 2.2) Library mode. Manually link individual libraries. Intended for use by experts only.

-n Process only the directories specified on the command line. Don't process the trusted directories, nor those specified in */etc/ld.so.conf*. Implies **-N**.

-N Don't rebuild the cache. Unless **-X** is also specified, links are still updated.

-p, **--print-cache**

Print the lists of directories and candidate libraries stored in the current cache.

-r root Change to and use *root* as the root directory.

-v, **--verbose**

Verbose mode. Print current version number, the name of each directory as it is scanned, and any links that are created. Overrides quiet mode.

-V, --version

Print program version.

-X Don't update links. Unless **-N** is also specified, the cache is still rebuilt.

FILES

/lib/ld.so

Run-time linker/loader.

/etc/ld.so.conf

File containing a list of directories, one per line, in which to search for libraries.

/etc/ld.so.cache

File containing an ordered list of libraries found in the directories specified in */etc/ld.so.conf*, as well as those found in the trusted directories.

SEE ALSO

ldd(1), **ld.so(8)**

COLOPHON

This page is part of release 5.05 of the Linux *man-pages* project. A description of the project, information about reporting bugs, and the latest version of this page, can be found at <https://www.kernel.org/doc/man-pages/>.