

**NAME**

**ldd** - list dynamic object dependencies

**SYNOPSIS**

**ldd** [-a] [-f *format* [-f *format*]] *program* ...

**DESCRIPTION**

The **ldd** utility displays all shared objects that are needed to run the given program or to load the given shared object. Contrary to **nm**(1), the list includes "indirect" dependencies that are the result of needed shared objects which themselves depend on yet other shared objects.

Zero, one or two **-f** options may be given. The argument is a format string passed to **rtld**(1) and allows customization of **ldd**'s output. If one is given, it sets `LD_TRACE_LOADED_OBJECTS_FMT1`. If two are given, they set `LD_TRACE_LOADED_OBJECTS_FMT1` and `LD_TRACE_LOADED_OBJECTS_FMT2`, respectively. See **rtld**(1) for details, including a list of recognized conversion characters.

The **-a** option displays the list of all objects that are needed by each loaded object.

**IMPLEMENTATION NOTES**

**ldd** lists the dependencies of an executable by setting **rtld**(1) environment variables and running the executable in a child process. If the executable is corrupt or invalid, **ldd** may therefore fail without providing any diagnostic error messages.

**EXAMPLES**

The following is an example of a shell pipeline which uses the **-f** option. It will print a report of all ELF binaries in the current directory, which link against the old `libc.so.6`:

```
find . -type f | xargs file -F ' ' | grep 'ELF.*dynamically' | cut -f1 -d' ' | xargs ldd -f '%A %o\n' |  
grep -F libc.so.6
```

**SEE ALSO**

**ld**(1), **nm**(1), **readelf**(1), **rtld**(1)

**HISTORY**

A **ldd** utility first appeared in SunOS 4.0, it appeared in its current form in FreeBSD 1.1.