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Red Hat Enterprise Linux Release 9.2 Manual Pages on 'ldd.1' command

$ man ldd.1

LDD(1) Linux Programmer's Manual LDD(1)

NAME

ldd - print shared object dependencies

SYNOPSIS

ldd [option]... file...

DESCRIPTION

ldd prints the shared objects (shared libraries) required by each pro?

gram or shared object specified on the command line. An example of its

use and output (using sed(1) to trim leading white space for readabil?

ity in this page) is the following:

```
$ ldd /bin/ls | sed 's/^ */    /'
    linux-vdso.so.1 (0x00007ffcc3563000)
    libselinux.so.1 => /lib64/libselinux.so.1 (0x00007f87e5459000)
    libcap.so.2 => /lib64/libcap.so.2 (0x00007f87e5254000)
    libc.so.6 => /lib64/libc.so.6 (0x00007f87e4e92000)
    libpcre.so.1 => /lib64/libpcre.so.1 (0x00007f87e4c22000)
    libdl.so.2 => /lib64/libdl.so.2 (0x00007f87e4a1e000)
    /lib64/ld-linux-x86-64.so.2 (0x00005574bf12e000)
    libattr.so.1 => /lib64/libattr.so.1 (0x00007f87e4817000)
    libpthread.so.0 => /lib64/libpthread.so.0 (0x00007f87e45fa000)
```

In the usual case, ldd invokes the standard dynamic linker (see

ld.so(8)) with the LD_TRACE_LOADED_OBJECTS environment variable set to

1. This causes the dynamic linker to inspect the program's dynamic de?

pendencies, and find (according to the rules described in ld.so(8)) and load the objects that satisfy those dependencies. For each dependency, ldd displays the location of the matching object and the (hexadecimal) address at which it is loaded. (The linux-vdso and ld-linux shared de? pendencies are special; see vdso(7) and ld.so(8).)

Security

Be aware that in some circumstances (e.g., where the program specifies an ELF interpreter other than ld-linux.so), some versions of ldd may attempt to obtain the dependency information by attempting to directly execute the program, which may lead to the execution of whatever code is defined in the program's ELF interpreter, and perhaps to execution of the program itself. (In glibc versions before 2.27, the upstream ldd implementation did this for example, although most distributions provided a modified version that did not.)

Thus, you should never employ ldd on an untrusted executable, since this may result in the execution of arbitrary code. A safer alterna? tive when dealing with untrusted executables is:

```
$ objdump -p /path/to/program | grep NEEDED
```

Note, however, that this alternative shows only the direct dependencies of the executable, while ldd shows the entire dependency tree of the executable.

OPTIONS

--version

Print the version number of ldd.

-v, --verbose

Print all information, including, for example, symbol versioning information.

-u, --unused

Print unused direct dependencies. (Since glibc 2.3.4.)

-d, --data-relocs

Perform relocations and report any missing objects (ELF only).

-r, --function-relocs

Perform relocations for both data objects and functions, and re?

port any missing objects or functions (ELF only).

--help Usage information.

BUGS

ldd does not work on a.out shared libraries.

ldd does not work with some extremely old a.out programs which were built before ldd support was added to the compiler releases. If you use ldd on one of these programs, the program will attempt to run with argc = 0 and the results will be unpredictable.

SEE ALSO

pldd(1), sprof(1), ld.so(8), ldconfig(8)

COLOPHON

This page is part of release 5.10 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/.