

**NAME**

strip - Discard symbols from object files.

**SYNOPSIS**

```
strip [-F bfdname |--target=bfdname] [-I bfdname |--input-target=bfdname] [-O bfdname |--output-target=bfdname] [-s|--strip-all] [-S|-g|-d|--strip-debug] [--strip-dwo] [-K symbolname |--keep-symbol=symbolname] [-N symbolname |--strip-symbol=symbolname] [-w|--wildcard] [-x|--discard-all] [-X |--discard-locals] [-R sectionname |--remove-section=sectionname] [-o file] [-p|--preserve-dates] [-D|--enable-deterministic-archives] [-U|--disable-deterministic-archives] [--keep-file-symbols] [--only-keep-debug] [-v|--verbose] [-V|--version] [--help] [--info] objfile...
```

**DESCRIPTION**

GNU **strip** discards all symbols from object files *objfile*. The list of object files may include archives. At least one object file must be given.

**strip** modifies the files named in its argument, rather than writing modified copies under different names.

**OPTIONS**

**-F** *bfdname*

**--target=***bfdname*

Treat the original *objfile* as a file with the object code format *bfdname*, and rewrite it in the same format.

**--help**

Show a summary of the options to **strip** and exit.

**--info**

Display a list showing all architectures and object formats available.

**-I** *bfdname*

**--input-target=***bfdname*

Treat the original *objfile* as a file with the object code format *bfdname*.

**-O** *bfdname*

**--output-target=***bfdname*

Replace *objfile* with a file in the output format *bfdname*.

**-R** *sectionname*

**--remove-section=***sectionname*

Remove any section named *sectionname* from the output file. This option may be given more than once. Note that using this option inappropriately may make the output file unusable. The wildcard character \* may be given at the end of *sectionname*. If so, then any section starting with *sectionname* will be removed.

**-s**

**--strip-all**

Remove all symbols.

**-g**

**-S**

**-d**

**--strip-debug**

Remove debugging symbols only.

**--strip-dwo**

Remove the contents of all DWARF .dwo sections, leaving the remaining debugging sections and all symbols intact. See the description of this option in the **objcopy** section for more information.

**--strip-unneeded**

Remove all symbols that are not needed for relocation processing.

**-K** *symbolname*

**--keep-symbol**=*symbolname*

When stripping symbols, keep symbol *symbolname* even if it would normally be stripped. This option may be given more than once.

**-N** *symbolname*

**--strip-symbol**=*symbolname*

Remove symbol *symbolname* from the source file. This option may be given more than once, and may be combined with strip options other than **-K**.

**-o** *file*

Put the stripped output in *file*, rather than replacing the existing file. When this argument is used, only one *objfile* argument may be specified.

**-p**

**--preserve-dates**

Preserve the access and modification dates of the file.

**-D**

**--enable-deterministic-archives**

Operate in *deterministic* mode. When copying archive members and writing the archive index, use zero for UIDs, GIDs, timestamps, and use consistent file modes for all files.

If *binutils* was configured with **--enable-deterministic-archives**, then this mode is on by default. It can be disabled with the **-U** option, below.

**-U**

**--disable-deterministic-archives**

Do *not* operate in *deterministic* mode. This is the inverse of the **-D** option, above: when copying archive members and writing the archive index, use their actual UID, GID, timestamp, and file mode values.

This is the default unless *binutils* was configured with **--enable-deterministic-archives**.

**-w**

**--wildcard**

Permit regular expressions in *symbolnames* used in other command line options. The question mark (?), asterisk (\*), backslash (\) and square brackets ([]) operators can be used anywhere in the symbol name. If the first character of the symbol name is the exclamation point (!) then the sense of the switch is reversed for that symbol. For example:

```
-w -K !foo -K fo*
```

would cause strip to only keep symbols that start with the letters “fo”, but to discard the symbol “foo”.

**-x**

**--discard-all**

Remove non-global symbols.

**-X**

**--discard-locals**

Remove compiler-generated local symbols. (These usually start with **L** or **..**)

**--keep-file-symbols**

When stripping a file, perhaps with **--strip-debug** or **--strip-unneeded**, retain any symbols specifying source file names, which would otherwise get stripped.

**--only-keep-debug**

Strip a file, removing contents of any sections that would not be stripped by **--strip-debug** and leaving the debugging sections intact. In ELF files, this preserves all note sections in the output.

The intention is that this option will be used in conjunction with **--add-gnu-debuglink** to create a two

part executable. One a stripped binary which will occupy less space in RAM and in a distribution and the second a debugging information file which is only needed if debugging abilities are required. The suggested procedure to create these files is as follows:

- 1.<Link the executable as normal. Assuming that it is called>  
foo then...
- 1.<Run `objcopy --only-keep-debug foo foo.dbg` to>  
create a file containing the debugging info.
- 1.<Run `objcopy --strip-debug foo` to create a>  
stripped executable.
- 1.<Run `objcopy --add-gnu-debuglink=foo.dbg foo`>  
to add a link to the debugging info into the stripped executable.

Note---the choice of `.dbg` as an extension for the debug info file is arbitrary. Also the `--only-keep-debug` step is optional. You could instead do this:

- 1.<Link the executable as normal.>
- 1.<Copy `foo` to `foo.full`>
- 1.<Run `strip --strip-debug foo`>
- 1.<Run `objcopy --add-gnu-debuglink=foo.full foo`>

i.e., the file pointed to by the `--add-gnu-debuglink` can be the full executable. It does not have to be a file created by the `--only-keep-debug` switch.

Note---this switch is only intended for use on fully linked files. It does not make sense to use it on object files where the debugging information may be incomplete. Besides the `gnu_debuglink` feature currently only supports the presence of one filename containing debugging information, not multiple filenames on a one-per-object-file basis.

#### **-V**

##### **--version**

Show the version number for **strip**.

#### **-v**

##### **--verbose**

Verbose output: list all object files modified. In the case of archives, **strip -v** lists all members of the archive.

#### **@file**

Read command-line options from *file*. The options read are inserted in place of the original *@file* option. If *file* does not exist, or cannot be read, then the option will be treated literally, and not removed.

Options in *file* are separated by whitespace. A whitespace character may be included in an option by surrounding the entire option in either single or double quotes. Any character (including a backslash) may be included by prefixing the character to be included with a backslash. The *file* may itself contain additional *@file* options; any such options will be processed recursively.

## **SEE ALSO**

the Info entries for *binutils*.

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