

the `-static` option is not used, then this links against the shared version of `libstdc++`. That is normally fine. However, it is sometimes useful to freeze the version of `libstdc++` used by the program without going all the way to a fully static link. The `-static-libstdc++` option directs the `g++` driver to link `libstdc++` statically, without necessarily linking other libraries statically.

-symbolic

Bind references to global symbols when building a shared object. Warn about any unresolved references (unless overridden by the link editor option `-Xlinker -z -Xlinker defs`). Only a few systems support this option.

-T *script* Use *script* as the linker script. This option is supported by most systems using the GNU linker. On some targets, such as bare-board targets without an operating system, the `-T` option may be required when linking to avoid references to undefined symbols.

-Xlinker *option*

Pass *option* as an option to the linker. You can use this to supply system-specific linker options that GCC does not recognize.

If you want to pass an option that takes a separate argument, you must use `-Xlinker` twice, once for the option and once for the argument. For example, to pass `-assert definitions`, you must write `-Xlinker -assert -Xlinker definitions`. It does not work to write `-Xlinker "-assert definitions"`, because this passes the entire string as a single argument, which is not what the linker expects.

When using the GNU linker, it is usually more convenient to pass arguments to linker options using the `option=value` syntax than as separate arguments. For example, you can specify `-Xlinker -Map=output.map` rather than `-Xlinker -Map -Xlinker output.map`. Other linkers may not support this syntax for command-line options.

-Wl,*option*

Pass *option* as an option to the linker. If *option* contains commas, it is split into multiple options at the commas. You can use this syntax to pass an argument to the option. For example, `-Wl,-Map,output.map` passes `-Map output.map` to the linker. When using the GNU linker, you can also get the same effect with `-Wl,-Map=output.map`.

-u *symbol* Pretend the symbol *symbol* is undefined, to force linking of library modules to define it. You can use `-u` multiple times with different symbols to force loading of additional library modules.

-z *keyword*

`-z` is passed directly on to the linker along with the keyword *keyword*. See the section in the documentation of your linker for permitted values and their meanings.

3.16 Options for Directory Search

These options specify directories to search for header files, for libraries and for parts of the compiler: