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13 Environment Variables

This section describes the environment variables that affect how CPP operates. You can use them to specify directories or prefixes to use when searching for include files, or to control dependency output.

Note that you can also specify places to search using options such as `-I`, and control dependency output with options like `-M` (see Invocation). These take precedence over environment variables, which in turn take precedence over the configuration of GCC.

`CPATH`
`C_INCLUDE_PATH`
`CPLUS_INCLUDE_PATH`
`OBJC_INCLUDE_PATH`

Each variable's value is a list of directories separated by a special character, much like `PATH`, in which to look for header files. The special character, `PATH_SEPARATOR`, is target-dependent and determined at GCC build time. For Microsoft Windows-based targets it is a semicolon, and for almost all other targets it is a colon.

`CPATH` specifies a list of directories to be searched as if specified with `-I`, but after any paths given with `-I` options on the command line. This environment variable is used regardless of which language is being preprocessed.

The remaining environment variables apply only when preprocessing the particular language indicated. Each specifies a list of directories to be searched as if specified with `-isystem`, but after any paths given with `-isystem` options on the command line.

In all these variables, an empty element instructs the compiler to search its current working directory. Empty elements can appear at the beginning or end of a path. For instance, if the value of `CPATH` is `:/special/include`, that has the same effect as '`-I. -I/special/include`'.

See also Search Path.

`DEPENDENCIES_OUTPUT`

If this variable is set, its value specifies how to output dependencies for Make based on the non-system header files processed by the compiler. System header files are ignored in the dependency output.

The value of `DEPENDENCIES_OUTPUT` can be just a file name, in which case the Make rules are written to that file, guessing the target name from the source file name. Or the value can have the form '*`file target`*', in which case the rules are written to file *file* using *target* as the target name.

In other words, this environment variable is equivalent to combining the options `-MM` and `-MF` (see Invocation), with an optional `-MT` switch too.

`SUNPRO_DEPENDENCIES`

This variable is the same as `DEPENDENCIES_OUTPUT` (see above), except that system header files are not ignored, so it implies `-M` rather than `-MM`. However, the dependence on the main input file is omitted. See Invocation.