

## NAME

`c++filt` – Demangle C++ and Java symbols.

## SYNOPSIS

```
c++filt [-_|--strip-underscores]
        [-j|--java]
        [-n|--no-strip-underscores]
        [-s format | --format=format]
        [--help] [--version] [symbol...]
```

## DESCRIPTION

The C++ and Java languages provides function overloading, which means that you can write many functions with the same name (providing each takes parameters of different types). All C++ and Java function names are encoded into a low-level assembly label (this process is known as *mangling*). The `c++filt` [1] program does the inverse mapping: it decodes (*demangles*) low-level names into user-level names so that the linker can keep these overloaded functions from clashing.

Every alphanumeric word (consisting of letters, digits, underscores, dollars, or periods) seen in the input is a potential label. If the label decodes into a C++ name, the C++ name replaces the low-level name in the output.

You can use `c++filt` to decipher individual symbols:

```
c++filt <symbol>
```

If no *symbol* arguments are given, `c++filt` reads symbol names from the standard input and writes the demangled names to the standard output. All results are printed on the standard output.

## OPTIONS

`-_`

`--strip-underscores`

On some systems, both the C and C++ compilers put an underscore in front of every name. For example, the C name `f__` gets the low-level name `_f__`. This option removes the initial underscore. Whether `c++filt` removes the underscore by default is target dependent.

`-j`

`--java`

Prints demangled names using Java syntax. The default is to use C++ syntax.

`-n`

`--no-strip-underscores`

Do not remove the initial underscore.

`-s format`

`--format=format`

`c++filt` can decode various methods of mangling, used by different compilers. The argument to this option selects which method it uses:

`auto`

Automatic selection based on executable (the default method)

`gnu`

the one used by the GNU C++ compiler (g++)

`lucid`

the one used by the Lucid compiler (lcc)

`arm`

the one specified by the C++ Annotated Reference Manual

`hp`

the one used by the HP compiler (aCC)

edg

the one used by the EDG compiler

gnu-v3

the one used by the GNU C++ compiler (g++) with the V3 ABI.

java

the one used by the GNU Java compiler (gcj)

gnat

the one used by the GNU Ada compiler (GNAT).

**--help**

Print a summary of the options to **c++filt** and exit.

**--version**

Print the version number of **c++filt** and exit.

## FOOTNOTES

1. MS-DOS does not allow + characters in file names, so on MS-DOS this program is named **c++fi lt**.

## SEE ALSO

the Info entries for *binutils*.

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