

NAME

chsmc – CHSM-to-C++ compiler driver script

SYNOPSIS

chsmc [*options*] *source-file*

DESCRIPTION

chsmc is the front-end to the Concurrent Hierarchical Finite State Machine compiler for C++. The command uses **chsm2c++(1)** for syntax checking, type checking, intermediate C++ code generation and a C++ compiler for code generation.

When produced, an executable file has the name `a.out` unless the `-o` option is used.

For the CHSM source file, *source.chsmc*, **chsmc** creates two temporary files, *source.h* and *source.c*, containing the generated C++ code in the current directory for subsequent compilation with a C++ compiler. The `-k` (keep) option preserves the files.

OPTIONS

Options begin with a ‘-’ for short options. In addition to the options described below, **chsmc** accepts other options via the `-O` option and passes them on to the C++ compilation system tools. See **cpp(1)** for pre-processor options, your C++ compiler manual page for C++ compiler options, **ld(1)** for link editor options, and **as(1)** for assembler options.

Unlike some other compilation tools, options supplied to **chsmc** are *position-independent*. The following options apply to the CHSM-specific parts of the compilation process:

- `-c` Passed to the C++ compiler to suppress linking with **ld(1)** and just produce a `.o` file. This option renders the `-l` and `-L` options useless.
- `-Dname[=def]` Passed to the C++ compiler to define a symbol name for **cpp(1)**.
- `-E` Run only **chsm2c++(1)** on the CHSM source file and send the result to standard output.
- `-g` Passed to the C++ compiler to produce additional symbol-table information used for C++ source debuggers.
- `-k` Leaves the intermediate C++ files in the current directory after the compilation process.
- `-Idirectory` Passed to the C++ compiler to add *directory* to the list of directories in which to search for `#include` files for **cpp(1)**.
- `-llibrary` Passed to the C++ compiler to link the resultant C++ object code with the library *library*.
- `-Ldirectory` Passed to the C++ compiler to add *directory* to the list or directories in which to search for libraries for linking using **ld(1)**.
- `-n` No-execute mode. Parse the command-line, but do not execute any commands.
- `-o` Passed to the C++ compiler to set the executable output file name.
- `-O“ ,other”` Pass the comma-separated argument string “*other*” to the C++ compiler to allow implementation-dependent options to be specified. Note the requirement of the initial comma.
- `-P` Passed to **chsm2c++(1)** to suppress `#line` directives in the intermediate C++ files.
- `-v` Print the version number of **chsm2c++(1)** and exit.
- `-V` Print command-lines for **chsm2c++(1)** and/or the C++ compiler prior to execution.

FILES

<i>file.chsmc</i>	chsm-C++ source file
<i>file.h</i>	intermediate C++ declaration file
<i>file.c</i>	intermediate C++ definition file
<i>file.o</i>	object file
<i>a.out</i>	default executable output file name
chsmc	CHSM driver shell script

chsm2c++ CHSM compiler
libchsm.a CHSM run-time library

ENVIRONMENT

The following environment variables are set within the **chsmc** driver script, but can be set in the environment to override various settings:

CC The C++ compiler.
CCFLAGS C++ compiler flags.
CCHEXT Intermediate C++ declaration file name extension.
CCCEXT Intermediate C++ definition file name extension.
CHSM2CXX The CHSM-to-C++ compiler **chsm2c++(1)**.
CHSM2CXX_FLAGS CHSM-to-C++ compiler flags.
CHSM_I Auto-specified **-I** directive(s). Must specify at least where the CHSM include file (**chsm.h**) is.
CHSM_L Auto-specified **-L** directive(s). Must specify at least where the CHSM library file (**libchsm.a**) is.
CHSM_l Auto-specified **-l** directive(s). Must specify at least the CHSM library file (**libchsm.a**).

SEE ALSO

chsm2c++(1), **cpp(1)**, **as(1)**, **ld(1)**, **chsm-c++(4)**

DIAGNOSTICS

The diagnostics produced by **chsmc** itself are intended to be self-explanatory.

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