NAME

cspice - convert SPICE network description into the database

SYNOPSIS

cspice [-psw] networkfile ...

OPTIONS

The following options can be specified:

-p   Run the C preprocessor before parsing the input file.

-s   The silent mode suppresses messages about the actions taken by *cspice* which are usually printed on screen.

-w   Do not print warnings.

DESCRIPTION

Cspice is a program that generates from a *SPICE* network description a circuit description in database format. The database format can serve as input to several application programs, e.g. the circuit simulator *spice*, the switch-level simulator *sls*, and the network comparison program *match*. A description of the spice language can be found in the SPICE User's Guide. The spice description that can be used as input for *cspice* extends the normal spice network description in that numbers as well as identifiers may be used for node and terminal specifications.

A network description can be hierarchical and may reside in several files. However, when one particular network is added to the database, network descriptions of the networks that are called in the network must have been added to the database before.

In the file "global_nets" one may optionally specify names of nets (terminals) that are global. Each node or terminal that has a name equal to the name of a global net, will be connected to other nodes and terminals that have the same name, among other things by possibly defining extra terminals for each network. First, *cspice* will try to find a file "global_nets" in the current working directory. Second, if the above attempt fails, *cspice* will try to open a file "global_nets" in the corresponding process directory.

NUMERIC SUFFIXES

Cspice supports the following scale-factor letter conventions (case is insignificant):

A	1e-18
F	1e-15
P	1e-12
N	1e-9
U	1e-6
M	1e-3
MI	25.4e-4 (MIL)
K	1e+3
ME	1e+6 (MEG)
G	1e+9
T	1e+12

CONFIGURATION FILE

At start-up of the program, *cspice* will read some information from a configuration file called ".cspicerc". First, it tries to read this file from the process directory (without leading dot). Second, it tries to read this file from the home directory of the user. Thirdly, it tries to read this file from the current directory. Settings in the second and third configuration file overrule the previous settings. The configuration file may contain the following keywords, followed by a specification on the same line if the keyword ends with ':';

FORBID_FIRST_CAPITAL_ON
Generate an error message if the name of a network that is defined starts with a capital.

FORBID_FIRST_CAPITAL_OFF
Don't generate an error message (default mode).

RUN_CPP_ON
Run the C preprocessor before parsing the input file.

RUN_CPP_OFF
Don't run the C preprocessor (default mode).

CPP_OPTIONS:
Options for running the C preprocessor (default none).

DEFAULT_INCLUDE:
Specifies a file that is automatically included at the top of the input file if the C preprocessor is run (default: no include).

EXAMPLES

% cspice latch.spc

AUTHOR

A.C. de Graaf, A.J. van Genderen, S. de Graaf.

FILES

ICDPATH/share/lib/process/*process*/cspicerc
(default) configuration file

HOME/.cspicerc   (1st altern.) configuration file

.cspicerc   (2nd altern.) configuration file

global_nets   (default) file to specify global nets

ICDPATH/share/lib/process/*process*/global_nets
(altern.) file to specify global nets

/usr/tmp/x∗   temporary files

SEE ALSO

"SPICE 3B1 User's Guide", Department of Electrical Engineering and Computer Sciences, University of California, Berkeley.
csls(1ICD), sls(1ICD), nspice(1ICD), xspice(1ICD).