NAME

xspf - extract SPF network description out of the database

SYNOPSIS

xspf [-defghikonprtuvxy -w width -z name -O name -C file -D name -F outfile -X lib] cell

OPTIONS

-d Use original *database names* for instance names.

-e Expand name arrays into single names.

-f Send output to a file *cell*.spf instead of to *stdout*.

-g Connect a large *grounded resistor* to each node of the two nodes that are connected by a net statement.

-h Also extract *hierarchy* (used local sub-cells).

-i Also extract *imported* sub-cells (when option **-h** is used).

-k Output all cells as sub-circuits.

-o Omit model definitions for devices in the output file.

-n Always add terminals for *n-bulk* connections.

-p Always add terminals for *p-bulk* connections.

-r Do not generate **DEFINE lines.

-t Do not output unconnected instances.

-u Do not automatically add terminals for bulk connections.

-v Enable *verbose* mode.

-w Use *width* for the output listing.

-x Omit nodes whose name start with "gnd" or "GND".

-y Omit nodes whose name start with "vss" or "VSS".

-z *prefix* Omit nodes whose name start with *prefix*.

-O *name*
Omit the node that has this name. This option has a default value "GND".

-C *file* Use the specified *file* as the control file.

-D *name*
Define label *name* for conditional reading of the control file.

-F *outfile*
Send output to the specified file.

-X *lib* Exclude specific certain library cells from the listing (when options **-hi** are used). This is very useful if you have a design with your own imported libraries. This option may be given several times. There are two exclude possibilities: (1) all lib's starting with absolute path (for example "-X /usr/ocean"); (2) the lib with basename (for example "-X primitives").

DESCRIPTION

Xspf is a program to extract an SPF circuit description out of the database. Default, only a circuit description of the cell itself is extracted and no sub-cells are extracted. When using the **-h** option the program will also extract all (local) sub-cells that are not a function (see "SLS: Switch-Level Simulator User's Manual") or a device.

The *xspf* program is a derivate of the *xspice* program. See also the description in the *xspice* manual page.

Xspf adds Cadence Standard Parasitic Format (SPF) information to the SPICE alike output. The output is in proposed Detailed SPF (DSPF). It contains complete extracted circuit information intended to be used in conjunction with a circuit simulator for comprehensive simulation or with a timing analyzer for delay analysis.

For *xspf* the netlist in the database must contain conductor numbers. This netlists are generated with the *space(1ICD)* layout to circuit extractor.

THE CONTROL FILE

For *xspf* a control file may be used. The default name of the control file is "xspicerc". First, the program tries to read this file from the current working directory. Next, it tries to open the control file in the process directory. Note, the control file may also be used for other programs.

See the *xspice* manual page for a complete description of all possible parameters. Only two useful specifications for *xspf* are given here.

The *hier_name_sep* parameter defines the DIVIDER character (default '/') that must be used:

hier_name_sep *char*

The *inst_term_sep* parameter defines the DELIMITER character (default ':') that must be used:

inst_term_sep *char*

CONTROL FILE CONDITIONALS

See the *xspice* manual page for more details.
The following condition is true for *xspf*:

#if SPF

EXAMPLES

% xspf -h latch

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FILES

cell`.spf`	(output file, when option **-i** is used)
`xspicerc`	(default control file for xspf/xspice/...)
`spicemod`	(models file for xspf/xspice/...)

SEE ALSO

cspice(1ICD), putdevmod(1ICD), space(1ICD), xcontrol(1ICD), xspice(1ICD), xspef(1ICD).