NAME

xspef - extract SPEF network description out of the database

SYNOPSIS

xspef [-cdefgGhilopqrsvxy -z name -O name -C file
-D name -F outfile -M file -X lib] cell

OPTIONS

-c Add "∗C x y" coordinates and ∗N statements.

-d Also add "∗D cell" to instance statements.

-e Expand name arrays into single names.

-f Send output to a file *cell*.spef instead of to *stdout*.
With option **-h**, also a file is created for every sub-cell.

-g Don't exclude the *ground* net.

-G Also don't exclude the *ground* node in ∗CAP lines.

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

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

-l Use an instance_pin name for *local* DNET names.

-o Don't try to *omit* the ∗RES sections.

-p Don't use *port* names in place of net_name:index.

-q Don't use *instance* names in place of net_name:index.

-r Don't generate ∗DEFINE lines.

-s Don't generate the ∗GROUND_NETS line.

-v Enable *verbose* mode.

-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.

-M *file* Read conductors/contacts file and add comments to the resistors.

-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

Xspef is a program to extract an SPEF 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.

See also the description in the *xspice* manual page.

The *xspef* program generates output in Standard Parasitic Exchange Format (SPEF) as proposed by IEEE Standard Draft P1481, v1.0.4 April 8, 1997. The output is in many aspects different from SPF and SPICE.

For *xspef* 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 *xspef* 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 *xspef* 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*

For SPEF, this separator characters may only be '.', '/', ':' or '|'.

CONTROL FILE CONDITIONALS

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

#if SPEF

EXAMPLES

% xspef -h latch

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FILES

cell`.spef` (output file, when option **-f** is used)

`xspicerc` (default control file for xspef/xspice/...)

`spicemod` (models file for xspef/xspice/...)

SEE ALSO

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