NAME

highlay - high-light the layout of conductors and/or devices

SYNOPSIS

highlay [-npeoFvmidL -l mask -w width -c outcell] [-N *n1,n2...* -P *p1,p2...* -E *e1,e2...*] cell [namefile]

OPTIONS

-n Select nets.

-p Select ports.

-e Select devices (fets and bipolar transistors).

-L High-light with the conductor masks (default: all original masks that are present at that position).

-l *mask* Use specified mask for high-lighting (default: all original masks that are present at that position).

-w *width*
The width of an area with which a selected conductor area should be extended (can only be used in combination with the option -l, default is 0).

-c *outcell*
Name of output cell (default: HIGH_OUT).

-o Do not include the original cell as a sub-cell.

-F Include the original cell at the same level.

-v Verbose mode. Print the nets, ports and devices that are selected.

The following options are only appropriate when using match results (no namefile is specified).

-m Select matching items.

-i Select inconclusive items.

-d Select deficient items.

-N *n1,n2...*
Select the nets that are part of groups *n1,n2....*

-P *p1,p2...*
Select the ports that are part of groups *p1,p2....*

-E *e1,e2...*
Select the devices that are part of groups *e1,e2....*

DESCRIPTION

Highlay(1ICD) is a program for high-lighting one or more (extracted) conductors and/or devices in a layout-editor/viewer. In order to use *highlay* for a particular cell, first run the layout-to-circuit extractor *space(1ICD)* for this cell using the option **-x**.

The conductors (nets/ports) and devices that are high-lighted can be specified in two different ways: (1) they are specified in a namefile, or (2) they are selected from the output of the circuit comparison program *match(1ICD).*

When a namefile is specified, the names of the nets, ports and/or devices that are high-lighted are read from this file. The names must be separated by tabs, spaces and/or newline characters. For the devices, the database names must be used. These are the names that are obtained when *xsls(1ICD)* or *xspice(ICD)* is used with the option **-d**, but without the prefix character. Nets, ports and/or devices are selected for high-lighting according to the use of the options **-n**, **-p** and/or **-e**.

When no namefile is specified, *highlay* will read output of the program *match* for the specified cell. In that case, it will select nets, ports and/or devices according to the use of the options **-m**, **-i**, **-d**, **-n**, **-N**, **-p**, **-P**, **-e** and/or **-E**. A net, port or device is high-lighted if and only if it is selected by one of the options **-m**, **-i** or **-d** and by one of the options **-n**, **-N**, **-p**, **-P**, **-e** or **-E**. In order to obtain correct input for *highlay* from *match,* the latter program should be run using the option **-edif**.

Highlay will generate a new cell that contains (default) the high-lighted parts of the specified cell, plus a copy of the specified cell as a sub-cell. The name of the new cell that is generated is (default) HIGH_OUT. This name can be changed by using the option **-c**. The nets, ports and/or devices that are selected for high-lighting are (default) displayed in their original mask colors. An alternative mask for high-lighting can be specified by using the option **-l**.

NOTE

Note that names that are printed in spice descriptions as in_1_ in_2_, might be known in the layout database - and must therefore be referred to in the namefile of *highlay* - as in[1] in[2].

EXAMPLE

An example of a namefile "`latch.hil`" for *highlay* is as follows:

vdd
a1
a2
_T2

This namefile may be used to obtain a cell HIGH_OUT in which the nets vdd, a1 and a2 and the device _T1 of cell latch are high-lighted, as follows.

$ highlay -n -e latch latch.hil

EXAMPLE2

Name wildcards can also be used in the namefile. For example to select all names:

*

For example to select names "grp1" to "grp12":

grp*

For example to select only names "grp11" and "grp12":

grp??

Note that only one '*' may be used in a name. Characters behind the '*' are not supported.

AUTHOR

A.J. van Genderen

SEE ALSO

match(1ICD), space(1ICD).