

NAME

colaps - flatten the hierarchy of a cell in the circuit view

SYNOPSIS

colaps [...options...] [project] <sdfinputcell>

PARAMETERS

project Name of the (seadif) library project, if not specified
local (seadif) library name is taken.

<sdfinputcell>
Name of the (seadif) cell of the library project.

OPTIONS

-h Help--- print list of options.

-k <keepfile>
Input file containing a list with circuits and/or
instances which should not be flattened.

-c Flatten everything as far as the primary cell level,
that is, down to the level which consists exclusively
of transistors, capacitances or resistances.

-o <sdfoutputcell>
Name of the output (seadif) cell to be created in local
(seadif) library. The default output cell is <sdfinputcellFlt>
for an (seadif) imported cell or <sdfinputcell> for a local
cell.

-l Keep track of the flattened paths of the instances.

-f <trackfile>
Output file containing the list with flattened paths
and their instances. By default the <outputcell.list>
is taken.

-q Do not print the state of the program during execution.

DESCRIPTION

COLAPS reads the circuit description of an <sdfinputcell> and recursively of all its children. It then removes the model calls a certain optional level. Finally, it writes the flattened cell into the <sdfoutputcell> of local (seadif) library. COLAPS is operat cells used must have a correspondent (seadif) description.

By default, COLAPS flattens all the circuits found in the <sdfinputcell> to the <sdfoutputcell>. If one or more <childcircuit> all but the specified circuits and/or instances are flattened to the output. If -c option is specified then all but primary cells and file> are possible.

FILES

To run properly the command requires that a <keepfile> is present in your current directory when -k option is specified. This which shouldn't be flattened. Each line in this file should contain first the circuit name and/or second the instance name which fied then this particular circuit is not flattened. If, both a circuit and an instance name are specified then this particular instanments is treated as comment. The lines starting with procent character (%) are also treated as comment lines.

An example of such a <keepfile> is:

```
%keepfile for my inputcell
.
.
.
<sdfinputcell> <childinstance1>  do not flatten <childinstance1>
                                %of circuit <sdfinputcell>
<childcircuit1>                %do not flatten <childcircuit1>
<childcircuit2> <childinstance1> do not flatten <childinstance1>
                                %of circuit <childcircuit2>
.
.
.
%end of the list
```

EXAMPLE

Use the program nelsea to convert the cell between nelsis and seadif. To flatten all cells of nelsis circuit 'myadder' down to the

```
nelsea -C myadder
colaps -c myadder
nelsea -rC myadder
```

To flatten all cells of imported circuit 'impcell_adder' from project 'other_proj', exclusively the cells specified in 'nonflatfile'

```
colaps -l -k nonflatfile other_proj impcell_adder
```

Examples of other possibilities:

```
colaps -l -f trackfile_name other_proj impcell_adder
colaps -c -o outputcell_name other_proj impcell_adder
colaps -c -k nonflatfile -o outputcell_name other_proj impcell_adder
```

AUTHOR

Viorica Simion, Delft University of Technology.

SEE ALSO

nelsea(1SDF)