

## 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.
---------	--

`<sdinputcell>`  
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.

- 1 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 at a certain optional level. Finally, it writes the flattened cell into the `<sdfoutputcell>` of local (seadif) library. COLAPS is operated on a set of cells used must have a correspondent (seadif) description.

[illegible]

## FILES

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