FTM – Central Cad & Design Solution

CALIBRERUN INTERACTIVE FLOW FOR TILING

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1 - INTRODUCTION

This documentation aims to present the **calibrerun** feature concerning the Dummies Generation flow. Calibrerun is a ST tool which allow the designer doing drc, lvs verifications, and generating tiles (dummies), either in Mask or NoMask, in a graphical interface or in batch mode.

You could not have exactly the same as shown in figures if you are in a mask (b7rf, b6g...) or a non mask techno (h9, c090, c065,...).

1.1 Process options

- All technos which DK use calibrerun

1.2 Back-End

- Calibre

1.3 Hardware

- Sun workstation / Solaris2
- Linux

1.4 Prerequisites

Here are the prerequisites needed to perform the tile generation in interactive way:

- Uniopus from 5.0 and next
- Calibre from 2005.1

2 - FLOW DESCRIPTION

In the unix window, launch the calibrerun interface by typing the command *calibrerun -gui &*

The following window will open :

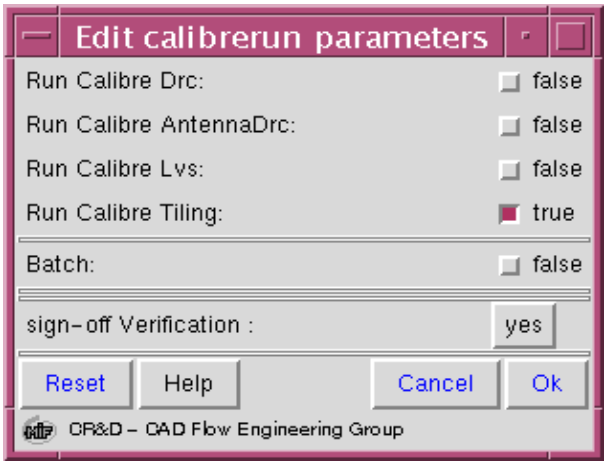

Figure 1 – Calibrerun interface

You can select either of these options to launch the corresponding checks. Here is presented the dummies generation.

2.1 Tiling via calibre interactive

To perform the tiling generation, select "Run Calibre Tiling" option and type OK. You can notice that the sign-off verification has no effect in the dummies generation: It only concerns DRC, LVS and antenna checks that are mandatory before the design approval.

Then, the following windows open:

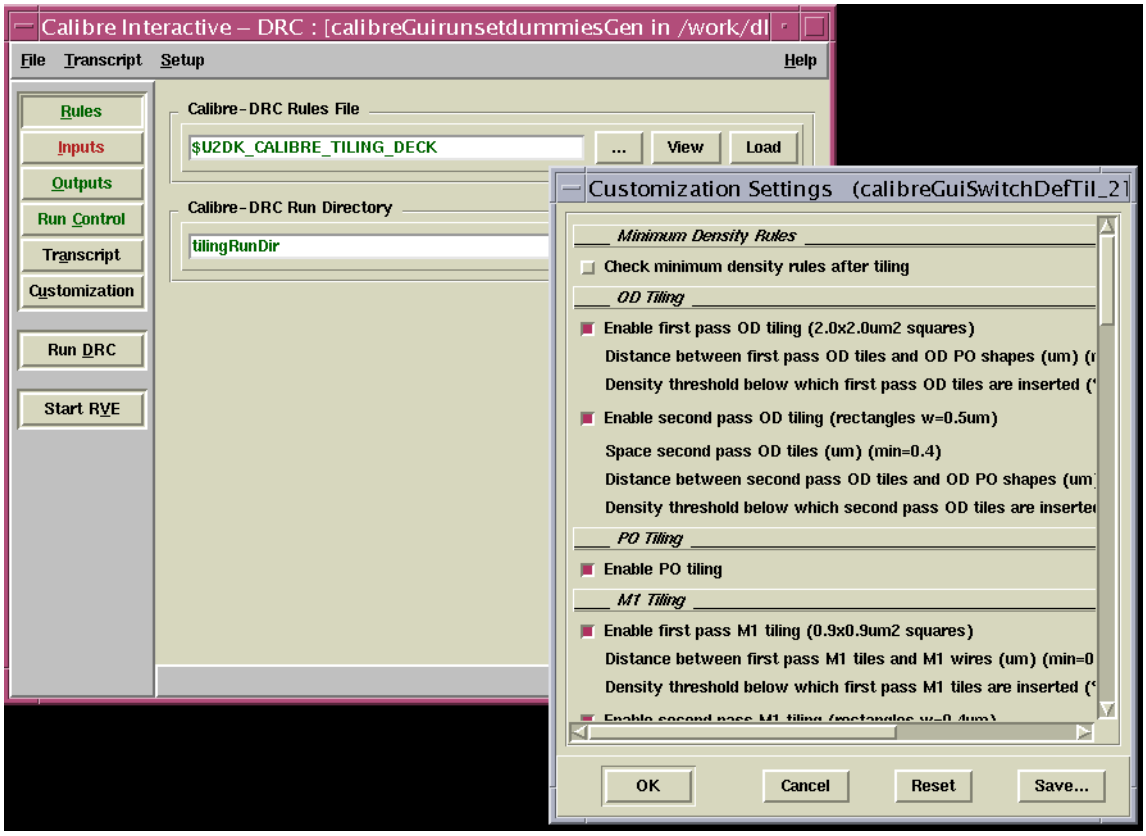

Figure 2 – Calibre interactive

This is the usual Calibre environment: 1st, one has to select the different options required (to personnalize the dummies generation.). The default customization is adviced. Please notice that the same window can be obtained by typing the command: *calibrerun -tiling &* .

Once the differents fields are filled, the application can be run and the output file TILES.gds2 is generated by default (can be changed in output field).

Finally, when the dummies generation is performed, the GDS file with dummies can be found in the Run directory (by default, ./tilingRunDir).

2.2 Merge tiles GDS with main GDS

The application does not merge the two gds files. This must be done by hand.

To get the final gds file, two methods are available:

- with piGetInfo tool:

First of all, create a file names "fgdsout.setup" with the following lines:

```
GDSCELLNAME="DUM_inputfile"
I2 GDSFILE="fullpath/inputfile.gds" GDSCELLNAME="inputfile" MASTERBBOX=[-0,-0,0,0]  BL=[0,0];
I1 GDSFILE="DUMMIES.gds2" GDSCELLNAME="input_DUMMIES" MASTERBBOX=[-0,-0,0,0]  BL=[0,0];
```

Blue fields must be filled with the correct file and cell names.
1st line: name of the final GDS cell: DUM_inputfile.
2nd line: name + cell name of the main GDS.
3rd line: name + cell name of the file generated during the tiling generation.

Then the merge can be done by typing in the unix window:

piGetInfo $DKITROOT fgdsout fgdsout.setup DUM_<inputfile.gds>

- with OPUS :

Create a new cell view in which you just have to instanciate your two cells input.gds and TILES.gds2 in point (0,0).

Then the DRC or DRC for Mask can be run on the final gds.

2.3 Tiling in batch mode

A new "Batch" button is available in calibrerun menu:

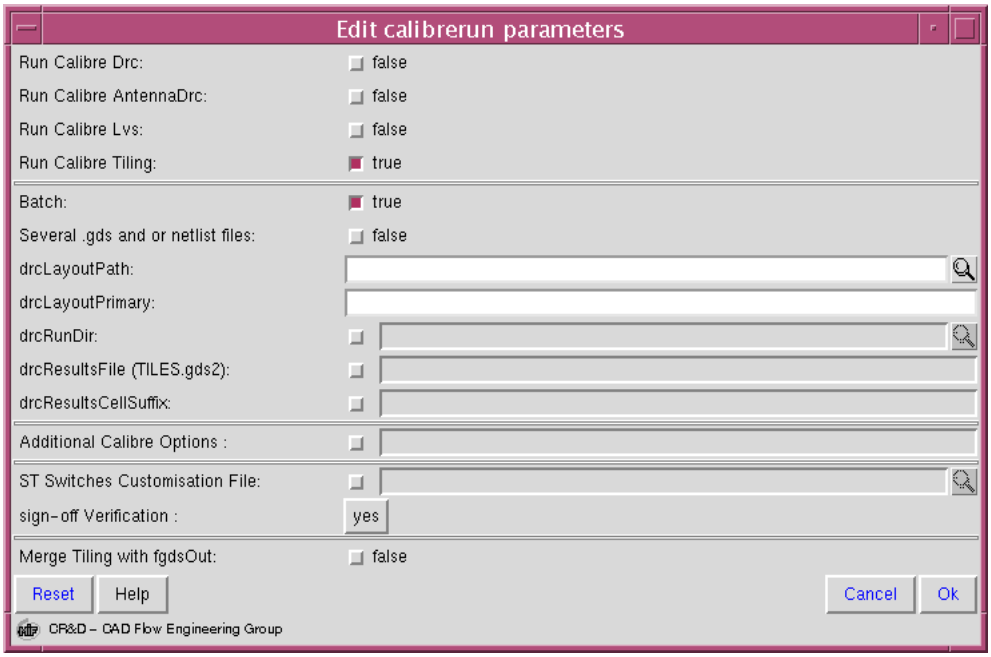

Figure 3 – Calibrerun in batch mode

When selected, several fields appear. You have to specify:
- The GDS file (full path),
- The cell name of the GDS.

Then, the generation can be launched. You will obtain the file TILES.gds2 in the tilingRunDir, then you can merge this file with the main GDS file as indicated in 2.2 chapter.

If you select the "Merge Tiling with fgdsout" box, the merging of these files will be done automaticcaly, and the final file, called DUM_cell_name.gds, will be available in the tilingRunDir. Thus, this is a faster way to get one's final GDS.