

**NAME**

dali\_drc - design rule file for the layout editor dali

**DESCRIPTION**

The layout editor *dali* (1ICD) offers an internal design rule check facility to perform single layer checks on the mask-layout being edited. The rules that are used by this facility are retrieved from the *dali\_drc* file of the process that corresponds to the project of the mask-layout being edited. For a certain process this file specifies per mask the minimal width and gap spacings that the mask geometries should obey.

**FORMAT**

The *dali\_drc* file contains (zero or) one line for each mask, as well as optional comment lines. The order in which the lines appear is not of interest. If a mask-line is missing, no check is performed for that specific mask. Comment lines start with a '#' character.

Each non-comment line contains five fields. The first field of a line specifies the mask for which the rules are defined in that line. The mask is specified by its mask number (see also *maskdata* (4ICD)) The second field specifies the minimal width (in lambdas) allowed for the mask geometries. The rule that is applied by dali for gap-checks depends on the length of the opposing edges for which a gap check is performed. The third field specifies the minimal gap allowed if both edges are longer than a given critical length. The fourth field specifies the minimal gap allowed if either one of the edges is shorter than or equal to this critical length. The critical length is specified in the fifth field.

**EXAMPLE**

As an example, here is the *dali\_drc* file for a standard 4u nmos process:

```
# Dali design rule file for the standard 4u nmos
# process.
# mask   width   gap     sh_gap  crit_length
0        2       2       2       5
1        2       2       2       5
2        3       2       1       5
3        2       0       0       5
4        2       0       0       5
5        2       0       0       5
6        2       0       0       5
7        2       0       0       5
```

For example, we see that for all masks (except mask 2) a minimal width of 2 lambda is required. For mask 2 (mask name 'nm', see also *getproc* (1ICD) and *maskdata* (4ICD)) a minimal width of 3 is required. Also, for mask 2 a minimal gap of 1 is allowed if the length of one of the edges is smaller than or equal to 5. For the masks 0 and 1 no distinction is made for gap checks. No gap constraints are provided for the masks 3 - 7. The critical length specification is therefore of no interest for masks 3 - 7, just as for the masks 0 and 1.

**AUTHOR**

P. van der Wolf

**FILES**

ICDPATH/share/lib/process/TECHN/dali\_drc

**SEE ALSO**

P. van der Wolf and J. Liedorp, "Dali User's Manual", Delft University of Technology, Dimes Design and Test Centre.

dali(1ICD), getproc(1ICD), maskdata(4ICD)