

**NAME**

dubdata - technology description for the program dubcheck

**DESCRIPTION**

For the description of the design rules that are checked by the program *dubcheck* the technology file *dubcheckdata* is used. For each technology used a file *dubcheckdata* must be present in the corresponding process directory. The format of this file is illustrated by the following example.

**EXAMPLE**

```

bool_0  nw_vln  NOFILE  0 20  0  0  0  OD.3.1
bool_2  nw_vln  NOFILE  0 20  0  0  0  OD.3.2
bool_1  nw_vln  NOFILE  10 0  0  0  0  OD.4.1.1
bool_3  ps_vln  od_vln  5  0  0  0  2  PS.3.1
od_vln  ps_vln  NOFILE  0  3  0  0  0  PS.4.1
bool_3  od_vln  ps_vln  6  0  0  0  2  PS.5.1
bool_1  bool_4  NOFILE  6  0  0  0  0  SP.3.1
bool_5  sp_vln  NOFILE  6  0  0  0  1  SP.3.2
bool_8  bool_7  od_vln  0  0  0  0  4  SP.3.3+SN.4.3
bool_8  bool_7  od_vln  0  0  0  0  5  SP.3.3+SN.4.3
bool_8  bool_6  NOFILE  12 0  0  0  3  SP.3.3+SN.4.3
od_vln  sp_vln  NOFILE  0  6  0  0  1  SP.4.1
sp_vln  bool_5  NOFILE  0  6  0  0  0  SP.4.2
bool_0  bool_4  NOFILE  6  0  0  0  0  SN.3.1
bool_9  sn_vln  NOFILE  6  0  0  0  0  SN.3.2
bool_2  bool_7  od_vln  0  0  0  0  4  SN.3.3+SP.4.3
bool_2  bool_7  od_vln  0  0  0  0  5  SN.3.3+SP.4.3
bool_2  bool_6  NOFILE  12 0  0  0  3  SN.3.3+SP.4.3
od_vln  sn_vln  NOFILE  0  6  0  0  1  SN.4.1
od_vln  bool_9  NOFILE  0  6  0  0  0  SN.4.2
bool_12 od_vln  NOFILE  5  0  0  0  0  CON.3.1
bool_12 ps_vln  NOFILE  0  5  0  0  0  CON.3.2
bool_13 sn_vln  NOFILE  3  0  0  0  0  CON.3.3
sp_vln  bool_13 NOFILE  0  3  0  0  0  CON.3.4
bool_14 od_vln  NOFILE  5  0  0  0  0  COP.3.1
bool_14 ps_vln  NOFILE  0  5  0  0  0  COP.3.2
bool_15 sp_vln  NOFILE  3  0  0  0  0  COP.3.3
sn_vln  bool_15 NOFILE  0  3  0  0  0  COP.3.4
bool_17 ps_vln  NOFILE  4  0  0  0  0  CPS.4.2
bool_17 od_vln  NOFILE  0  5  0  0  0  CPS.4.3
bool_19 in_vln  NOFILE  3  0  0  0  0  IN.3.2
bool_20 in_vln  NOFILE  10 0  0  0  0  CB.1.1

```

Each line of this file must contain the following items in the order given:

The first file involved with the operation. In case of an overlap check this is the file of which the elements have to be overlapped.

The second file involved with the operation. In case of an overlap check this is the file of which the elements have to overlap the elements of the first file.

A helpfile involved in the operation. This file is used for checks with a certain kind. If not needed, 'NOFILE' is coded.

The overlap the second file must have over the first file. If it is zero, no overlap check will be carried out.

The minimal gap between non overlapping elements of the first and second file. If it is zero no check will be carried out.

The minimal gap that must be maintained if the length of the gap is only small.

The maximum gaplength for which the reduced gap value may be applied.

The value of the variable kind.

For gap checks the value of kind means:

0: do not suppress gap errors of overlapping items.

1: suppress gap errors of overlapping items.

For overlap checks the value of kind means:

0: check for a total overlap.

1: check for overlap over two opposite sides.

2: only check the overlap for places where the helplay has no overlap with the layer that has to be overlapped.

3: check only at the sides indicated by the conn\_dir array. This array will be filled using checks with kind = 4 and kind = 5.

4: sets the conn\_dir array to 'check bottom and top overlap' if in the same polygon of the helplayer there is one area of the second layer present to the left and one to the right of an area of the first layer.

5: sets the conn\_dir array to 'check left and right overlap' if in the same polygon of the helplayer there is one area of the second layer present to the bottom and one to the top of an area of the first layer.

6: only check the overlap for places where the helplay has no overlap with the layer that has to be overlapped, and the edges of this layer and the edges of the helplay do not coincide.

A string indicating which design rules are involved.

Optionally a comment\_string may be added to each line.

#### **AUTHOR**

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#### **FILES**

ICDPATH/share/lib/process/process\_name/dubcheckdata

#### **SEE ALSO**

T.G.R. van Leuken, J. Liedorp "An Hierarchical and Technology Independent Design Rule Checker", Delft University of Technology, autocheck(1ICD), dimcheck(1ICD), booldata(4ICD)