NAME

bmlist - basic mask list file

DESCRIPTION

The basic mask list file "bmlist.gds" as used by the programs *cgi*(1ICD) and *cig*(1ICD) contains the mask names cross reference list for *gds2*. *Gds2* layer numbers, or combinations of a *gds2* layer number and a *gds2* data type, are related to mask names as used in the *maskdata*(4ICD) file for the process.

The basic mask list file "bmlist.cmk" as used by the programs *cmsk*(1ICD) and *xcmk*(1ICD) contains the mask names cross reference list for *cmk* (CIRCUITMASK). *Cmk* mask names are related to mask names as used in the *maskdata*(4ICD) file for the process.

FORMAT GENERAL

The *bmlist* file contains one line for each mask. Lines that start with a '#' character are treated as comment lines.

FORMAT GDS

For "bmlist.gds", on each line that is not a comment line, first the standard process mask name and second the corresponding layer number for *gds2* are specified. Optionally, the mask name is immediately followed (without space characters) by a colon and the word term or label. Also optionally, after the layer number, a data type or text type number for *gds2* may be specified.

When *cgi*(1ICD) converts a *gds2* record to the project database, it will first try to select a mask name in the "bmlist.gds" file for which layer number and data type match with the layer number and data type of the *gds2* record. If such a mask cannot be found, it will try to select a mask name for which the layer number matches with the layer number of the *gds2* record and for which no data type is specified. When no data type is specified for the *gds2* record, *cgi*(1ICD) will try to select a mask name that has a corresponding layer number and that has no data type specification.

In general, when more than one line matches with the *gds2* record, the mask name of the first matching line will be used.

A mask name may immediately be followed by a colon and the word term. In this case the line specifies that text structures for the specified layer number are mapped to terminals on the specified mask. The optional third value then specifies the text type that is required for the text structure.

When a mask name is immediately followed by a colon and the word label, a text structure for the specified layer number is mapped to a label on the specified mask. Again, the optional third value then specifies the text type that is required for the text structure.

Further, the following property names, followed by a number, may be specified on a line in the "bmlist.gds" file, to specify the property numbers that are used for these properties (see *cgi*(1ICD)): prop_instance, prop_termlay, prop_term, prop_labellay, prop_label.

When *cig*(1ICD) converts a layout polygon from the project database to a *gds2* record, it will use the layer number and optional data type that are specified on the first line in the file "bmlist.gds" that contains the mask name of the polygon. In a similar way, terminals and labels are converted to *gds2* text records with a layer number and optional text type that are specified on the first line in the file that contains the mask name followed by a colon and respectively the word term or the word label. If the latter information is not available, terminals and labels are included in the output as a boundary element with a property attached to it (see *cgi*(1ICD)).

FORMAT CMK

For "bmlist.cmk", on each line that is not a comment line, first the mask name for *cmk* and second the corresponding standard process mask name are specified. Mask names of the used process which are not specified are automatically mapped to there own name. Thus, an empty mask list means that the mask names of the used process are used as *cmk* mask names. In "bmlist.cmk" each mask name (*cmk* or standard process) can be mapped only once to one other mask name.

EXAMPLE

As an example, here is the *bmlist.gds* file for an example N-well cmos process:

```
# scmos_n - N-well cmos example process
cpg        46
caa        43
cmf        49
cmf:term   49
cms        51
cms:term   51
cca        48
ccp        47
cva        50
cwn        42
csn        45
cog        52
cx         0
```

Here is different version of the *bmlist.gds* file for the same process. In this example, all interconnect masks have the same gds layer number but different data types or text types. In addition, labels on "cms" are specified with text structures with layer number 46 and text type 4.

```
# scmos_n - N-well cmos example process
cpg        46  1
caa        43
cmf        46  2
cmf:term   46  2
cms        46  3
cms:term   46  3
cms:label  46  4
cca        48
ccp        47
cva        50
cwn        42
csn        45
cog        52
cx         0
```

As another example, here is the *bmlist.cmk* file for an nmos process:

```
cb   ng
co   nc
cs   nb
di   ni
in   nm
od   nd
ps   np
xb   nx
```

At each line we see first the mask name for *cmk* and second the standard process mask name.

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FILES

`ICDPATH/share/lib/process/`*process*`/bmlist.gds`

`ICDPATH/share/lib/process/`*process*`/bmlist.cmk`

`ICDPATH/share/lib/process/`*process*`/maskdata`

SEE ALSO

Circuitmask User Manual, Philips, August 1978.
cgi(1ICD), cig(1ICD), cmsk(1ICD), getproc(1ICD), maskdata(4ICD), xcmk(1ICD).