Octave / MATLAB Toolbox for GDSII Stream Format

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New releases of the toolbox can be downloaded from:

https://sites.google.com/site/ulfgri/numerical/gdsii-toolbox

Documentation

Additional documentation is available on:

https://sites.google.com/site/ulfgri/numerical/gdsii-toolbox

in a tutorial: GDSII_for_the_Rest_of_Us-<date>.pdf
The file gdsii_docs-<nn>.zip contains definitions of the GDS II file format and example scripts for the toolbox.

Functions

Toolbox functions are grouped into the following directories:

Basic:
    Contains the low level functions for reading and writing of files in GDS II stream format and defines objects and methods for working with GDS II layouts.

Elements:
    Contains functions that return gds_element objects.

Structures:
    Contains functions that return gds_structure objects

Boolean:
    The GDS II toolbox contains a method that performs boolean set operations on boundary elements. This is described in more detail in the file: README-Boolean / README-Boolean.pdf

Misc:
    Functions that don't return gds_* objects.

Scripts:
    Command line scripts for Octave that can be run directly

from the shell prompt in a Linux / Unix environment.

Compiling

This software contains several MEX functions, which must be compiled with a C compiler (and a C++ compiler for the Clipper library), before the library can be used. The C compiler must be sufficiently C99 conformant; the LCC compiler that is included with earlier versions of MATLAB will not compile many of the mex functions (see the MATLAB documentation for compiling external functions).

For Octave on Linux, the mex functions are compiled by executing

```
$ ./makemex-octave
```

at the shell prompt. In MATLAB or Octave on Windows the mex functions are compiled by changing to the ./gds2-toolbox directory and running

```
>> makemex
```

at the MATLAB/Octave command prompt.

Useful Stuff

Very good viewer and editor for GDS II files: http://www.klayout.de

Help

If you find a bug in the software, please send a message to ulf.griesmann@nist.gov or ulfgri@gmail.com and I will try to fix it.