Matlab / Octave Function Library for GDS II Stream Format

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New versions of the toolbox can be downloaded from:

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

These functions are particularly useful when a layout is the result
of a computation. Matlab / Octave can then be used as a macro language
for writing the layout.

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 in one case),
before the library can be used. In Octave, this is done by
executing the

```
./makemex-octave
```

script at the shell prompt. In MATLAB the mex functions can be
compiled by changing to the ./gdsii directory and running

```
>> makemex
```

at the MATLAB command prompt.

NOTE:

The LCC compiler that was included with some versions of MATLAB is
not able to compile the Clipper library, which is written in C++.
If no good C compiler is available, the General Polygon Clipper
library must be used instead of the Clipper library for Boolean set
operations (but check the license ...). The toolbox must then be
compiled with the

```
>> makemex_gpc
```

script.

Useful Stuff

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

LayoutEditor for inspecting and editing of GDS II files:
http://www.layouteditor.net

Help

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