



## **VWF Interactive and Automation Tools**

### **2004 Implemented Capabilities and Enhancements**

#### 1. DECKBUILD WINDOWS

- Made Deckbuild the Process group leader
- Allow "init" to form part of extract name
- Added the Optimizer
- Improved how Athena is passed it's init infile
- Improved continuation lines when param lines are used in optimizer mode
- Improved z order problem with main window and optimizer window
- Implemented the copying of optimized params to the deck
- Implemented extract logging to results.final when in optimizer mode
- Implemented autoweight dialog box
- Added graphical cue for toggling params and targets
- Changed behavior of cell verification
- Added optimizer security call

#### 2. DECKBUILD UNIX/LINUX

- Overhaul and improvement of the Implant, Epitaxy, Bake, Deposit, Rate Deposit and Diffusion pop-ups in the Athena interface
- Support for Victory simulator
- Manual and release notes pdf files now available from DECKBUILD
- Extensive improvements and modifications to the Clever interface
- Introduction of oxide and nitride as synonyms for SiO<sub>2</sub> and Si<sub>3</sub>N<sub>4</sub>
- Added min.conc.file to the Extract syntax in analogy with max.conc.file
- Upgraded treatment of axis labels. Named nodes such as vcct.node."V[1]" can now be used
- Enhancement to the max.bound/min.bound syntax in Extract. Given a material, the max or min x or y value of the aggregate of \*all\* regions consisting of that material can be found
- Deckbuild will now detect in all known cases if a structure to be plotted is in two or three dimensions and will use Tonyplot or Tonyplot3D accordingly
- Improved \$variable substitution in a go lines
- Updated Deckbuild's Tonyplot command

#### 3. TONYPLOT Windows

# SILVACO

- Upgraded contours dialog box
- Enhanced File>export
- Printer Setup dialog improved
- Improved printing
- Transparent keys implemented
- Added n/p doping feature
- Updated to SFLM 6
- Made rainbow 30 the default for contour drawing
- Added support for OMNI licensing

## 4. TONYPLOT UNIX/Linux

- Support for OMNI licensing (sflm6)
- Improved printing with fonts in Contours legend
- Allow exporting of data generated by user-defined functions
- Default the Contours to "Rainbow 30"
- The production mode is always enabled, no extra license required
- Ability to define vector quantities with custom X and Y in the Vectors popup
- The lpstat service is now used to build the list of printers on all platforms
- New Release notes and User's Manual accessible from the Help menu

## 5. TONYPLOT3D

- Support for OMNI licensing (sflm6)
- Added ability to load a structure file made of prisms
- Software renderer upgraded to Mesa 6.0 for the -nohw command line option
- New Release notes and User's Manual accessible from the Help menu

## 6. MASKVIEWS

- Added a feature to load and save GDS2 files
- Changed the default offset to "No"

## 7. DEVEDIT

- Enhanced Region Border conflict resolution
- Added new materials to the region materials list
- Electrodes are now considered metals so polysilicon can be a metal or a semiconductor based on whether or not it is an electrode (This affects mesh constraints)
- Improved handling of negative values when added as an impurity distribution

# SILVACO

- Fixed bug losing semiconductor direction and lattice temperature for structures being remeshed
- Added conversion of region border line to region polygon
- Material names allowed to start with a number
- Improved lost license recovery logic when operating in batch mode
- Support for OMNI licensing (sflm6)

## 8. VWF Automation Tools

- VWF Automation Tools product suite has been subject to a thorough overhaul, porting to current OS and many minor issues have been resolved
- VWF Automation Tools has been ported to the Linux operating system
- OMNI licensing has been implemented
- The resolution of database corruption issue
- Improved database size limitation, preventing database files from growing without limit
- Corrected worksheet display
- Improved refresh and scrolling within VWF Database Visualizer
- Host machine names now display correctly in VWF Network Visualizer