GenISys Layout BEAMER

E-beam Pattern Conversion and Proximity Correction

Equipment Training
Layout BEAMER training is part of the General Electron Beam Lithography Training. See CNF Lab Users Electron-Beam Lithography page for details on trainings.

Description:

The preparation of large layout data for e-beam direct write requires a highly efficient, flexible and robust framework for design and execution of complex processes including layout handling, processing, PEC, process modeling & correction, inspection and conversion to the machine format. Layout BEAMER is a highly intuitive, process flow driven layout processing solution.

Capabilities:

- VisualFLOWTM graphical user interface for drag & drop design of process flows
- Import of layouts in different formats
- Layout Viewer
- Extraction of cells, layers or regions of interest
- Export to different formats
- Layout operation (e.g. healing, tone-reversal, bias, Boolean functions)
- E-Beam Proximity Effect Correction
- Output formatter for different E-Beam machines

Large Beamer Flows:

If you are processing a large BEAMER design, you may need more resources than those available on the physical CNF conversion computers. We have you covered – BEAMER can be run in the cloud on AWS for low hourly rates. CNF Computing will work with you to set up a virtual machine optimized for your jobs memory, cpu, and/or disk I/O and storage requirements.

Shared Licensing

The BEAMER license is shared among all our users running BEAMER software.

To ensure you do not eat up the entire BEAMER license at once, under File - Properties - General - Computation, please make sure the "Number of threads" setting is no larger than 4.

Documentation:

- Beamer Quick Start
- Beamer Tone Reversal
- LayoutBeamer Manual
- LayoutBeamer Training Videos
- JEOL Formatter Manual
- Heidelberg Formatter Manual
- Data Preparation - Zero Width Lines

Invoking Beamer:

On the CNF conversion computers, the current version of GenISys Beamer can be invoked with any of the following commands (don't type in the dollar sign, that is the command prompt):

```
$ beamer
```

A previous version of GenISys Beamer may be available in case of bugs found in the most recently installed version. If you need to run a previous version of BEAMER, please contact CNF Computing.

Python Invocation

Beamer includes a python library. We have created two shell scripts which start Python with your environment appropriately set for Beamer.

To use the production version of Beamer with Python:

```
# Python3 version:
$ beamer-python [additional arguments]

# Python 2 version:
$ beamer-python2 [additional arguments]
```

In your python script, you will need to import "BEAMERpy" .