

Litho Resources

Please contact John Treichler or Alan Bleier for training.

Availability:

The package is available in [AFS](#) under *shares - public - processes_from_cnf_staff - Computing*

Description:

Java based CNF lithography resource was designed to help CNF users attain ultimate control of vertices when dealing with curved geometries. This resource will not replace a CAD package, but will help export GDS files with generated features which could then be imported and laid out within a CAD package. Arrays of circles, ellipses, tori, concentric rings (bulls eye patterns), spirals are amongst some of the elements provided within the package. Furthermore, the resource provides standard and custom lithographic alignment marks, job and schedule file generation with array layout viewing (similar to ACHK) along with dose generation (dose and base dose with ability to import dose tables) for the JEOL9300 and JEOL6300 electron beam lithography tools, JEOL alignment offset calculator, a text generation resource with resolution control, custom label generator for individual die, arbitrary function generator, modulated pillar/hole arrays, photonic crystals, zone plates, are several additional resources within the package.

Capabilities:

- Shapes with vertex control - circle, ellipse, torus, bulls eye, spirals (Archimedes, Fermat, Logarithmic)
- Contact Lithography Alignment Marks
- Autostep 200 Alignment marks
- JEOL 9300/6300 schedule and job file creation, visual display of die placement, dose and base dose matrices, etc
- JEOL ebeam alignment offset calculator
- JEOL Max frequency and Write time estimation calculator
- Sceleton (Monte Carlo simulation for Ebeam lithography) - job file generation and autorun
- Text to GDS, Binary zone plates, Photonic Crystals, Pillar-Hole arrays (with modulated shapes), Random polygon placement and square arrays
- Label maker, Arbitrary Function Generator, Cantilever Arrays, Grayscale Image to GDS
- Woollam to Filmetrics conversion

Applications:

- Lithography (Electron beam and Optical)
- Image Processing
- Metrology