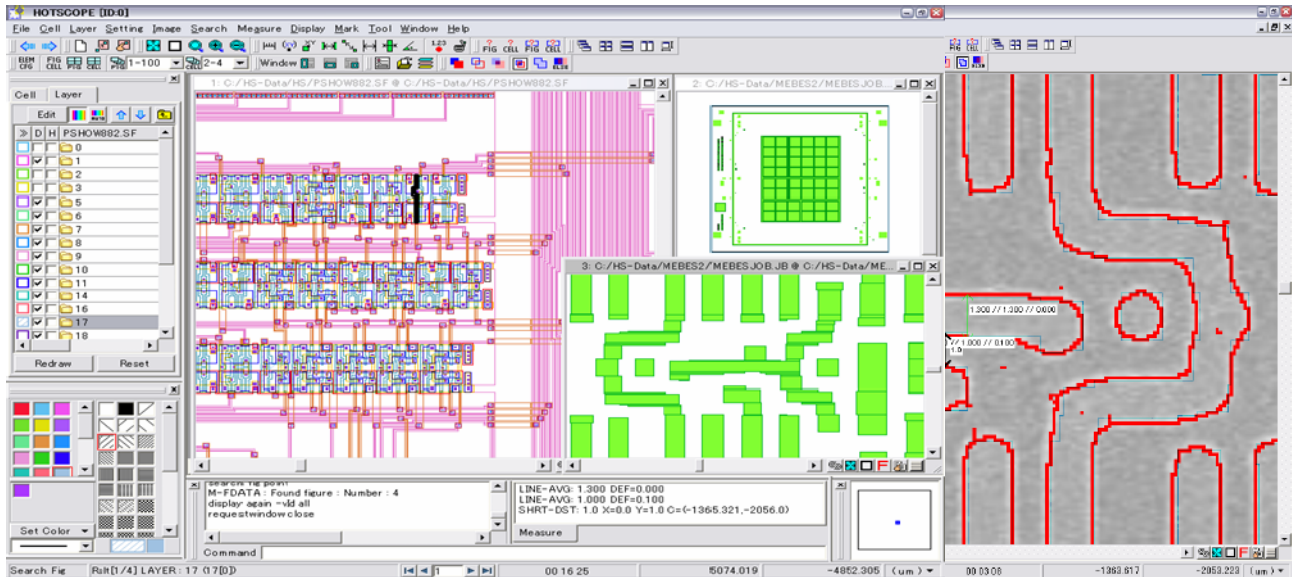


HOTSCOPE

High Performance DFM Browser



Browser for VLSI Design and Manufacturing

Layout and photomask data for deep sub-micron process ICs have experienced a size explosion, due in part to manufacturing data preparation steps such as the insertion of OPC and dummy patterns. For the complex designs of today, post-OPC/dummy insertion layout and photomask data is on the order of 10 to even 100 times larger than the original layout data. File sizes now extend into the 10s of gigabytes range. Conventional EDA data viewers are incapable of handling such large data sets with reasonable response time. HOTSCOPE is a powerful data browser providing extremely fast opening of these large data files, quick viewing magnification, and very efficient inspection of layout and photomask data.

Features

Large File Size Capacity

HOTSCOPE is capable of handling data files of 50 gigabyte or more and JOBDECS including 1,000 files or more. HOTSCOPE is extremely fast for opening and displaying large data sets.

Multi-Format Support

HOTSCOPE is capable of reading many industry standard data formats. The user can easily overlap/compare the original layout data (GDS) to the mask data (MEBES, for example).

Indexing

When opening a data file for the first time with HOTSCOPE, an index file is created. The existence of this index file drastically reduces access time for future displaying of the data.

API

HOTSCOPE comes equipped with APIs and a scripting i/f (AXEL) to create new functionality and customize HOTSCOPE to your liking.

Performance

MEBES	27G	33G JOBDEC (319 patterns)	
New Open	15m 40s	14m 45s	
Cache Open	1s	1s	
Viewing	1 - 4s	2 - 4s	
GDS-II	1.4G	11.5G	22.5G
New Open	53s	3m 0s	7m 0s
Cache Open	2s	1s	1s
Viewing	1 - 2s	1 - 2s	4 - 7s

Platform: SunBlade2000, CPU: 1.05GHz x 2, Memory: 2GB

Remote Viewing

Using standard internet browsers, HOTSCOPE users can view layout and mask data remotely.

Image Processing

HOTSCOPE provides image processing, line extraction, and area calculation functionality.

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Functions

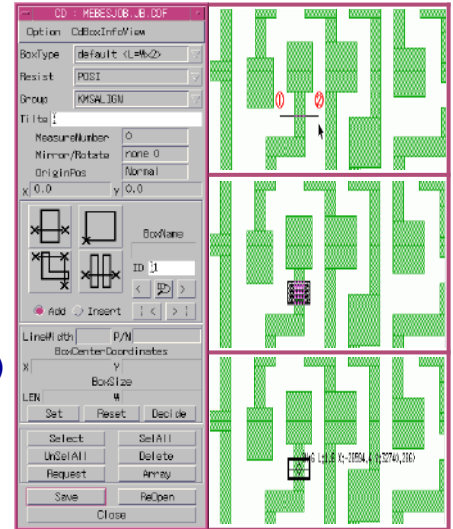
- Multi-file open, File search, Cell/Cell name/Figure search
- Overlapping Display of Data (Any combination of Layout patterns and Job files) with Scale Factor (Mirror/Rotation/Reflection)
- Multi-windowing, Coloring and Filling for Layer/Pattern/Frame
- Measuring (Corner, Side, Figure, Cell Frame, Critical Dimension, etc.)
- Error Trace (Calibre/Hercules interface)
- Cutting out of partial GDS
- Assist Line (X/Y/XY line, Slant line, Circle, and step-by-step assist lines)
- Area Calculation (Area, Area ratio)
- Bitmap Operation (OR, AND, XOR, NOT, OR+, AND+, XOR+, NOT+)
- Marking, Cassette/Pellicle Viewing
- API and scripting interface (AXEL)
- Equivalent Net Trace
- Printing Support (Image output, Save window image, etc.)
- CD measurement script generation
- Image Viewing and Processing

Supported Formats

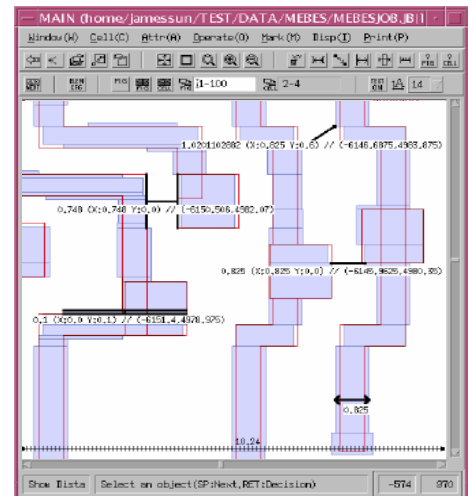
- MEBES (MODE I/II, EXT, RETICLE, MODE5) Pattern/Job
- HL (700/800/950/7000) Pattern/Job
- VSB (8/11/12) Pattern/Job, Toshiba EB Format (Ver1.0, Ver2.0)
- JEOL (6AIII/7000MV/9000MV) Pattern/Job
- GDS-II, OASIS
- MALY & P10
- Calibre™ / Hercules™ Error file tracing

Supported Platforms

- Sun/Solaris 8, 9, HP-UX11
- Windows 2000, XP
- RedHat/Linux 8.0, 9.0, Enterprise 3.0



CD Measurement Sample



Measurement Sample

Sales and Support:



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Development:

DNP Dai Nippon Printing