

It's time to rethink...

Automated Frame Generation

REUSABILITY

A frame description file is specified per process and can be further parameterized to handle revisions and options.

SECURITY

Checks are performed at each step of the frame generation flow ensuring error free database and mask order.

RELIABILITY

Frame generation solution has been used in production by leading edge companies for years.

AUTOMATION

Integrated Mask Data Preparation solution is scriptable for full automation in production mode.

PORTABILITY

XYALIS Mask Data Preparation solution supports standard layout and job deck formats: GDSII, OASIS, OASIS.MASK, MEBES.



- Reusable frame description file
- Reticule optimization
- Graphical constraint input
- Support for multi-chip assemblies
- Mask manufacturability verification
- Automatic documentation and database merging
- Essential companion toolbox

Shrinking geometries, new manufacturing paradigms, exploding file sizes... It's time to rethink everything.

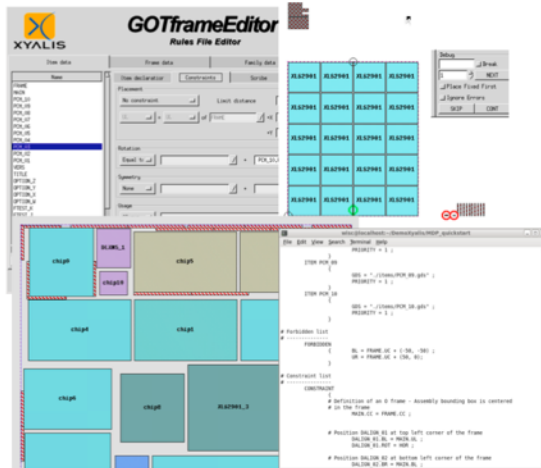
XYALIS increases the productivity, reliability, and repeatability of frame generation with GOTframe, an intuitive but powerful frame placement engine that handles the largest designs with maximum performance and minimum memory requirements thanks to the new GDSII & OASIS (GOT) data representation engine tailored to leverage native OASIS.MASK optimizations.

GOTframe automates the insertion of all process and mask specific items: alignment marks, test structures... in the scribe lines. A reusable process-specific file describes all items required by the technology and manufacturing and inspection equipments, along with their placement constraints. The placement engine finds an optimal solution meeting the constraints while minimizing the scribe line width. Dummy fill can be inserted in the scribe lines to increase yield.

By automating a repetitive process, GOTframe increases productivity with a powerful manufacturing object placement engine, enables maximum reuse of item definition and constraints, avoids costly errors due to manual operations, and maximizes silicon by proposing an optimum reticule placement for arrays of chips. GOTframe works for both regular arrays of dies and multi-chip assemblies.



Features and Benefits



ESSENTIAL COMPANION TOOLBOX

XYALIS offers a set of tools dedicated to Mask Data Preparation (multi-chip assembly, mask set creation) and manipulation of large layout databases that can process even the largest GDSII and OASIS files, with the highest processing speed and the lowest memory requirement, and provide a safe transfer to silicon for the most complex SOC designs.

SYSTEM REQUIREMENTS

Runs on any Linux workstation with RedHat 6 or above. Management of multi-cores is automatic.

A Mac OSX version is also available.

Binaries for other platforms may be provided on request.

INFORMATION

For more information on products or services please visit

www.xyalis.com

or e-mail sales@xyalis.com

- **Reusable process-specific frame description file**
A reusable frame description file describes the process-specific items and their associated constraints: location, transformation, placement order, and advanced conditional constraints. Protect layers are automatically generated. The intuitive, human readable frame description file handles any type of frames and can be parameterized for reusability.
- **Reticule optimization**
GOTframe select the optimum chip rotation in order to increase the number of dies in the frame. If mandatory items cannot be placed in the initial reticule, GOTframe computes the minimum scribe line expansion necessary to place all items.

- **Graphical constraint input**
The frame description file is an intuitive, human readable intuitive description of the process-specific constraints. It is easily created and updated with any text editor or through a set of forms provided by a dedicated graphical user interface which speeds up ramp-up time.
- **Support for multi-chip assemblies**
GOTframe inserts process-specific items in the scribe lines of regular arrays of dies. It is also designed to insert process-specific items around and in between the chips of a multi-chip assembly created with XYALIS GOTmuch.
- **Mask manufacturability verification**
A design database analyzer combined with an assembly rule checker warrants that the generated frame is free from error. Special checks are carried out to ensure that the final mask set database can be handled with no problem by any mask shop and manufacturing processing and inspection tool.
- **Automatic documentation and database merging**
User documentation is generated by the click of a button. Format is customized through a plug-in mechanism. Final layout data is generated as a single or multiple files to offer the best trade-off between job deck complexity and file size.



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