It’s time to rethink...

...mask and field assembly

- Automated field placement with reusable templates
- Supports Multi Layer Reticule and Multi Scan technologies
- Automated creation of compatible step plans and wafer maps
- Mask manufacturability verification
- Automatic documentation and database merging
- Essential companion toolbox
- SQL connection to any DB

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

XYALIS increases the productivity, reliability, and repeatability of field and mask set edition with GOTmask, an interactive and intuitive mask edition framework.

GOTmask automates mask set assembly, supporting new technologies such as Multi Layer Reticules, Multi Scan masks, back side masks, full wafer or 1X masks, stitching process, independently of the targeted mask shop or mask making equipment. It ensures that all masks in the mask set are compatible and optimizes the step plans and wafer maps.

By automating a repetitive process and by verifying the manufacturability of the resulting mask set, GOTmask increases the productivity of the mask data preparation team, avoids costly delays at the mask shop, and prevents the manufacturing of faulty mask sets.

GOTmask automates the edition of mask sets and seamlessly handles heterogeneous equipments (scanner, stepper, 1X ...).


### Features and Benefits

- **Automated field placement with template**
  The different elements constituting the mask: fields, alignment and inspection marks, barcodes... are assembled on the mask using a dedicated graphical environment or reusable scripts. Default settings allow for most common mask assembly practices but can be customized to match specific procedures and placement can be manually modified.

- **Support for MLRs and Multi Scan technologies**
  New mask manufacturing technologies, such as Multi Layer Reticule and Multi Scan technologies aim at reducing the cost of mask sets by using a single mask for printing several reticules. GOTmask streamlines the instantiation of multiple fields on the mask by automatically positioning the fields. GOTmask also offers support for backside masks.

- **Support for heterogeneous equipments**
  GOTmask fully support heterogeneous equipments (scanner, stepper, 1X...). A specific flow for full wafer or 1X masks optimizes the field placement in order to maximize the number of chips or minimize the number of shots necessary to produce the chips. This flow accommodates multi-chip masks.

- **Automated creation of compatible step plans and wafer maps**
  GOTmask automates the creation of the step plan for each mask of the mask set. It optimizes the reticle placement in order to maximize silicon usage or minimize manufacturing time, while taking into account protected zones on the wafer. It is possible to manually fine tune the step plan. A Mix and Match function ensures that all step plans and the wafer map are fully consistent and generates any missing wafer layout. Complex processes such as stitching are fully supported. To improve wafer planarity and increase manufacturing yield GOTmask offers wafer level dummy fill.

- **Mask manufacturability verification**
  A design database analyzer combined with an assembly rule checker warrants that the mask data is free from error. Special checks are carried out to ensure that the final mask set database can be handled without 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 can be customized through a plug-in mechanism.

- **SQL database connection**
  GOTmask comes with a built-in universal SQL connector.

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**ESSENTIAL COMPANION TOOLBOX**

XYALIS offers a set of tools dedicated to Mask Data Preparation (frame generation, multi-chip assembly) 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 requirements, 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-core 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](http://www.xyalis.com) or email sales@xyalis.com

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