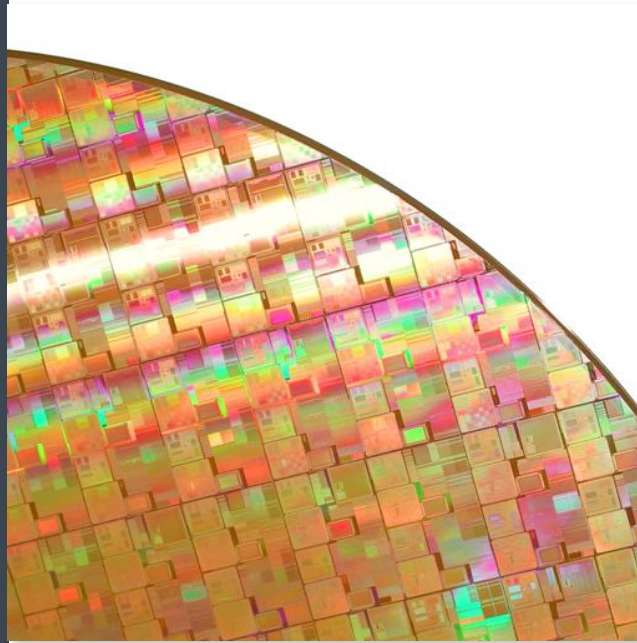# It's time to rethink…

…multi-chip assembly

GOTmuch

- Production aware placement

- Mask manufacturability verification

- Automatic dummy fill

- Intuitive graphical environment

- Fully scriptable

- Web interface & SQL connection

- Automatic documentation and database merging

- Essential companion toolbox

XYALIS reduces multi-chip assembly cycle time from days to minutes increases with GOTmuch, an interactive and intuitive multi-chip assembly framework.

Multi-chip assemblies, also known as Multi Project Wafers, Shuttles, or Pizza Masks are becoming more prevalent in order to share mask costs between projects. They are used for manufacturing test chips, prototypes, and low production chips.
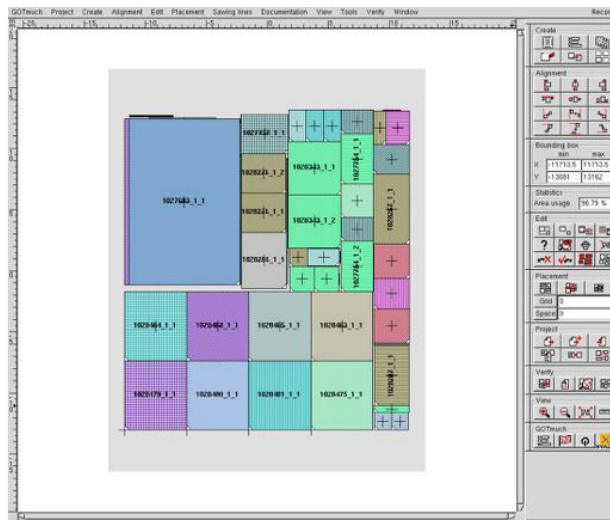
GOTmuch increases productivity, maximizes yield, and eliminates the risk of error by combining an easy to use graphical editor with powerful engines that automate all steps: automatic verification of database integrity and mask manufacturability of each imported chip, optimized assembly placement, assembly wide dummy fill insertion, documentation generation.

GOTmuch is a powerful workbench for creating multi-chip assemblies. With its embedded TCL engine, it is fully scriptable for full automation in production mode. It can also be interfaced with any SQL database thanks to its built-in universal SQL connector.

XYALIS

Features and Benefits

● **Production aware placement**
An automatic placement engine minimizes multi-chip assemblies area while GOTcross takes into account advanced placement criteria and production requirements to provide an optimum placement minimizing production costs according to user defined criteria.

● **Automatic dummy fill**
To increase manufacturing yield designers must add dummy tiles to empty areas of the design to help flatten the surface of each metal layer before Chemical Mechanical Polishing (CMP). Using GOTfiller, GOTmuch automatically inserts dummy tiles or full-layer structures in the empty areas between chips in the multi-chip assembly. The resulting database is only a few percent of the original database.

● **Mask manufacturability verification**
A design database analyzer combined with an assembly rule checker warrants that the generated 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.

● **Intuitive graphical environment**
The intuitive customizable graphical environment can be used to quickly build multi-chip assemblies with manual or automatic placement. It is also the cockpit of XYALIS Mask Data Preparation solution, from where users can launch and control all tasks necessary to build mask sets.

● **Fully scriptable and SQL ready**
GOTmuch comes with a large set of TCL based commands to build and manipulate multi-chip assemblies from automated scripts. Its built-in universal SQL connector allows to interface GOTmuch with any SQL database.

● **Automatic documentation and database merging**
User documentation is generated by the click of a button. Format can be customized through a plug-in mechanism.