MAX-3D Path Finder
Complex placement, shortest path
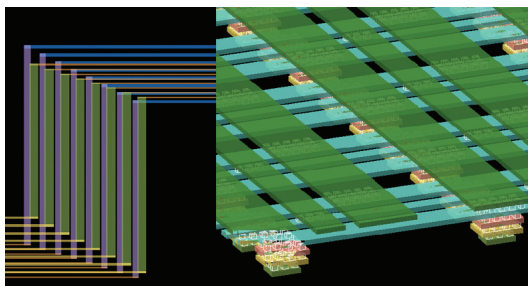
Examples of 3D Path Finder capabilities
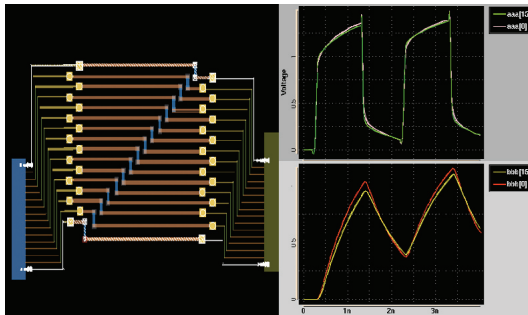
Two 3D nets selected in 3D design.

Simulation results for two selected nets.


Easily generate complex busses.

Easily generate complex PDN.

- Import Verilog or 2D floorplan

- Specify/modify 3D floorplan

- View 3D connections via fly-lines or actual routes

- Quickly route complex 3D busses

- Extract and simulate specified 3D nets

- Powerful PDN (power distribution network) generation
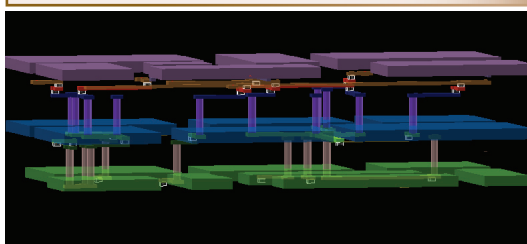
MAX-3D TSV Placer
Simplify TSV location / placement

3D view of 3 stacked die before TSV Placer
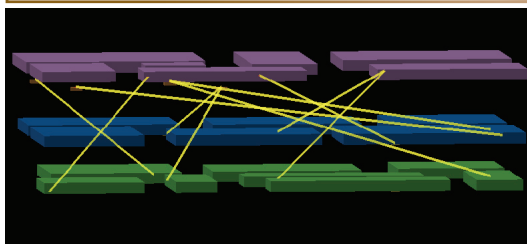
Three stacked die with connectivity displayed as flylines.

3D view of 3 stacked die after TSV Placer

After TSV Placer: TSVs placed and connections made.

- Automatically finds "holes" for TSVs

- Automatically optimizes and places TSVs

- Shows 3D connectivity with fly-lines

- Exports TSV data back into your 2D tools

Micro Magic Inc.

MAX-3D-Design Suite

Built on MAX-3D, Micro Magic's native 3D Layout Editor

The MAX-3D-Design Suite contains everything necessary to plan and lay out today's complex wafer-stack and interposer multi-technology designs.

MMI's suite of 3D tools includes DPC-SUE, MAX-3D, MAX-3D TSV Placer, and MAX-3D Path Finder.

- **Load multiple chips in the same or different technologies**
- **Manage multiple levels of hierarchy and multiple tech files all at the same time**
- **Edit and view today's largest designs**
- **Automatic Connectivity Tracing through multiple levels**
- **Show 3D connectivity with fly-lines**
- **Use your existing 2D Tech files**
- **View Results in 3D**

A Sample 3D Design Flow

MAX-3D Design Suite integrates seamlessly with other industry standard tools.

DPC-SUE to import designs from either 2D floorplanner or block-level verilog; specify chip level, block size, connectivity; and export floorplan to MAX-3D.

MAX-3D for true 3-dimensional layout, supporting multiple distinct technology files for Through-Si Via 3D wafer-stack and interposer design.
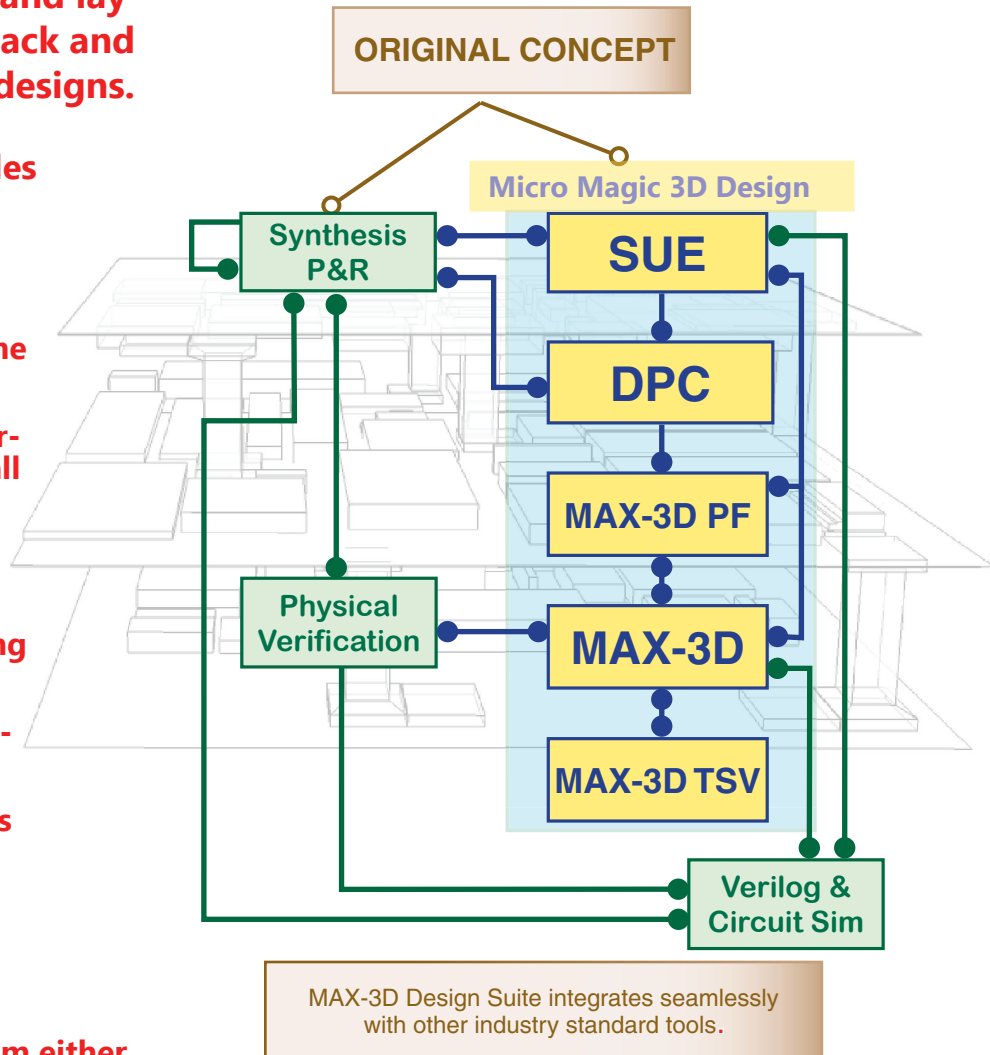
MAX-3D Path Finder, to explore viability of interposer or stacked-die implementations.

MAX-3D TSV Placer for automatically locating, optimizing and placing TSVs.

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