

Unity™ Chip Planner

HIERARCHICAL FLOORPLANNING FOR CUSTOM DESIGNS

As semiconductor-processing technologies move toward smaller geometries, the complexity of custom integrated circuits (ICs) increases significantly every year. However, many custom design teams are still using the same, primarily, manual floorplan assembly methodologies that have been used for the last 10 years or more. Pulsic Unity Chip Planner, the first truly hierarchical floorplanner for custom design, enables custom design teams to manage growing complexity while accelerating design closure and improving design quality.

RIISING CHIP COMPLEXITY REQUIRES A NEW APPROACH

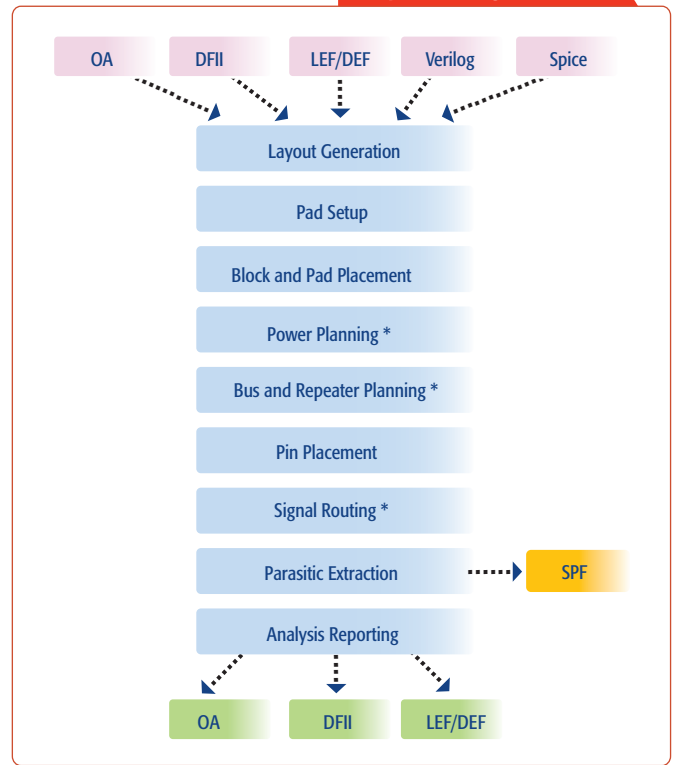
As design complexity has grown in all areas of chip design, design tools aimed at digital designs have largely kept pace. Automated, hierarchical floorplanners are a standard part of the digital design flow. However, these tools do not address the unique needs of custom design. So, until now, many custom design teams have struggled with bottom-up assembly methodologies that lack a global understanding of a chip's routing congestion and top-level parasitic data for simulation until the chip is almost complete.

Lack of automation makes pin placement and routing problematic. And, generally, the various layers of hierarchy are created in isolation of each other, which leads to problems once the design is assembled fully. Excessive layers of hierarchy created by bottom-up methods waste both design effort and silicon resource. With these manual approaches, the frequent netlist changes that are a natural part of a leading-edge design process become very difficult to manage efficiently, resulting in a loss of productivity.

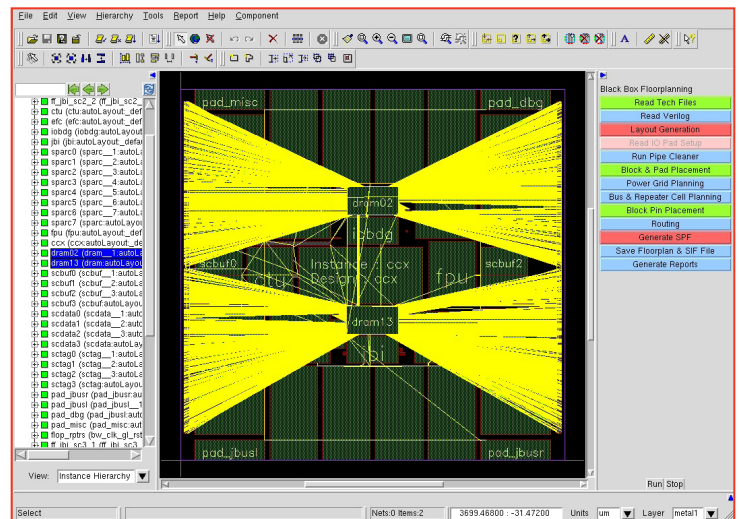
FULLY HIERARCHICAL FLOORPLANNING SPEEDS CUSTOM DESIGN CLOSURE

Pulsic Unity Chip Planner addresses these critical issues with the first fully hierarchical, top-down and bottom-up floorplanner for custom design. By providing a high level of automation, Unity Chip Planner gives accurate results quickly and enables custom design teams to respond to netlist changes quickly and easily. Unity Chip Planner provides all the necessary tools and technologies within a fully integrated floorplanning environment. The guided flow offered in Unity Chip Planner helps ensure faster design closure with successful results every time.

Chip Planning Flow



* Requires additional product license



Top level block placement is completed with flightlines for datapaths illustrated above

