SYNOPSYS®
Silicon to Software™

Synopsys and Altera

Altera Deploys Lynx Design System to Accelerate 14 Nanometer Design

"

With Lynx it is easier to develop and maintain workflows that are used by our design teams. Lynx adds significant capability beyond what we can deliver without substantial investment in CAD resources"

Steven Cline
Sr. Design Automation Manager, Altera

ALTERA®

Business

Altera® develops FPGAs and SoCs that use the most advanced manufacturing processes available to deliver the density and performance customers require. Stratix® 10 FPGAs and SoCs leverage Intel® Custom Foundry's 14-nm 3D Tri-Gate (FinFET) transistor technology and enables breakthrough levels of performance and power efficiencies not otherwise possible.
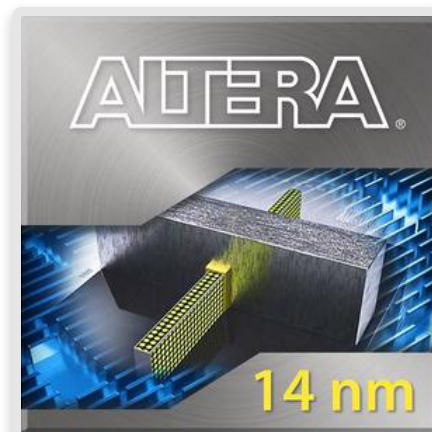
Challenges

To help manage and support their rapidly evolving design flows for Intel 14-nm process technology, Altera needed to deploy a design environment that would:

▸ Integrate all EDA tools used in the design flow
▸ Optimize design metrics visualization, analysis and tracking of progress
▸ Work with foundry-specific design flows
▸ Ensure compatibility with internal resource management, load-sharing and revision control

Synopsys Solutions

▸ Lynx Design System
▸ Galaxy™ Design Platform

Benefit

Lynx Design System allowed for straightforward and fast integration of Synopsys and third-party tool flows targeting Intel 14-nm 3D Tri-Gate transistor technology in a matter of days, replacing Altera's in-house developed RTL-to-GDSII infrastructure. Altera designers are now able to easily create and update flows and collect metrics to track design results in a consistent environment. This enables them to accelerate the time to desired performance goals.

The wide-ranging capabilities of Lynx have led to the Altera Design Automation team deploying Lynx as the flow control solution of choice for RTL-to-GDSII design. Additionally, the standardized and robust automation infrastructure is being leveraged for specialized flows including regression test and load balancing, cell characterization, circuit simulation and analysis, PrimeTime® or NanoTime to HSPICE® correlation and library quality analysis.

"Lynx is very robust – we have yet to have a single failure in almost 6 months of development and test.

Steven Cline
Sr. Design Automation Manager, Altera