

*Laker*

# From DF2 to OA What's Required

Silicon Canvas

Joe Puchta

<http://www.sicanvas.com>

# Who is Silicon Canvas

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- ◆ **EDA Leader in Advanced Custom Layout Technologies and Test Chip Development**
  - User Centric with Controllable Automation
- ◆ **Laker Product**
  - Best-in-Class automated layout environment
  - Over 180 customers WW
  - Proven technology with over 1000 tape-out's
- ◆ **Fitting both environments**
  - Full custom layout
  - Post P&R for final design closure
- ◆ **Layout automation and capacity**
  - Making Laker the next generation tool of choice

# Laker Capabilities – Chip Finishing

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## One-Stop Shop for *Efficient* Design Closure

- ◆ ECO
- ◆ Link to Front-end Debussy / Verdi
- ◆ Hierarchical Net Tracer and Short Finder
- ◆ Antenna Diode Insertion or Layer Change
- ◆ ID, Rip & Reroute critical nets
- ◆ Metal Slot
- ◆ Notch Fix
- ◆ Signal Integrity Repair
- ◆ Dummy Metal Filler

# Challenges for OA Platform Success 1

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## ◆ Stable OA version 2.2

- TB released on Oct. 31?

## ◆ Cadence's commitment

- Create a compelling event for customers to move
- Stop selling DF2 version of any tools
- New development in OA only
- Truly open skill code for P-Cells and others
- Complete CDN tool set porting to OA (front to back)

## ◆ OA Infrastructure ready

- Training and support
- Bug / Enhancement Work Flow
- User's Forum

# Challenges for OA Platform Success 2

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## ◆ Availability of Best in Class tools

- Independent EDA Vendor Support

## ◆ Major customer support of OA

- Large customers drive the development of all Tools
- Through \$\$\$\$ purchases
- Most have internal tools
- Must commit to port internally developed tools to OA

# Silicon Canvas' Commitment to Interoperability

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- ◆ **Silicon Canvas is fully committed to customer success**
- ◆ **Specifically, through providing best-in-class tools**
- ◆ **Supporting cross-platform interoperability**
  - Laker.mw Beta version available today
  - One Japanese customer
  - OA and Volcano under development
  - Full integration with Mentor PV
- ◆ **Why settle for lesser quality tools just because they fit into a proprietary flow**

**This level of commitment is required  
from all vendors**

# Current Laker Status for OA

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- ◆ **OA API**
  - Offers total: 1265 functions
  - Implemented: 358 (28%) at this time
- ◆ **No additional license required – Laker on OA**
- ◆ **Platform Support:**
  - SUN.32, SUN.64, IA.32, IA.64, HP.64 , AMD.64
- ◆ **Development kit: Red Hat 8.0, SUNWspro 6.2, HP11**
- ◆ **Use dynamic link/static link scheme**
- ◆ **Ready to support OA version 2.2 three months after release – (Oct 31 ?)**

# Some Current OA Limitation

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## ◆ Library

- No library rename/copy/close function

## ◆ CellView

- No magnitude in transform
- Could not create name like ABC[1][2]
- oaCellView::getRefCount includes both internal and external opens
- dbCellView::getRefCount only includes external opens
- oaPath/oaPolygon setPoints() -> The point array is first compressed to remove collinear and coincident points -> dbPath/dbPolygon didn't has this limitation

# Current Laker Status for MW

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## ◆ Synopsys Map-In API

- Offers total: 608 functions
- Implemented: 278 (46%) at this time
- Number of C/C++ code lines implemented: 40,000 lines

## ◆ No additional license required – Laker on Milkyway

## ◆ Platform Support:

- SUN.32, SUN.64, IA.32, IA.64, HP.64 , AMD.64

## ◆ Laker.mw Beta version available today

## ◆ Open Issues

- No common validation test suites data available
- Need more detail and complete document, examples of database traversal and technology file handling
- Need more effective memory management scheme due to performance issue

# Thank you!

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# Laker



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You Will Ever Take*