



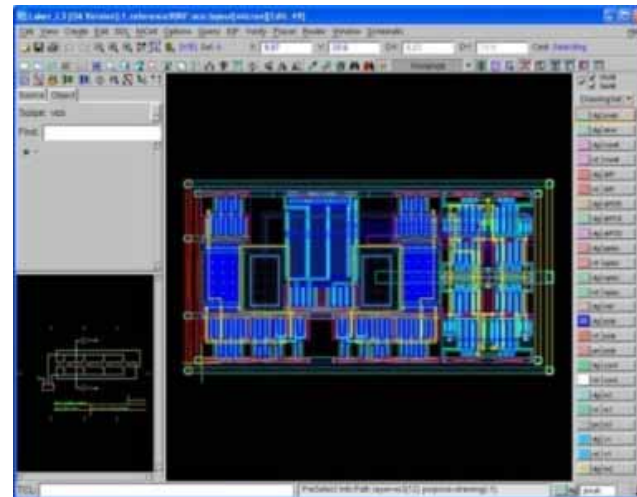
IPL Interoperability Tour

November 5, 2009

IPL Demo

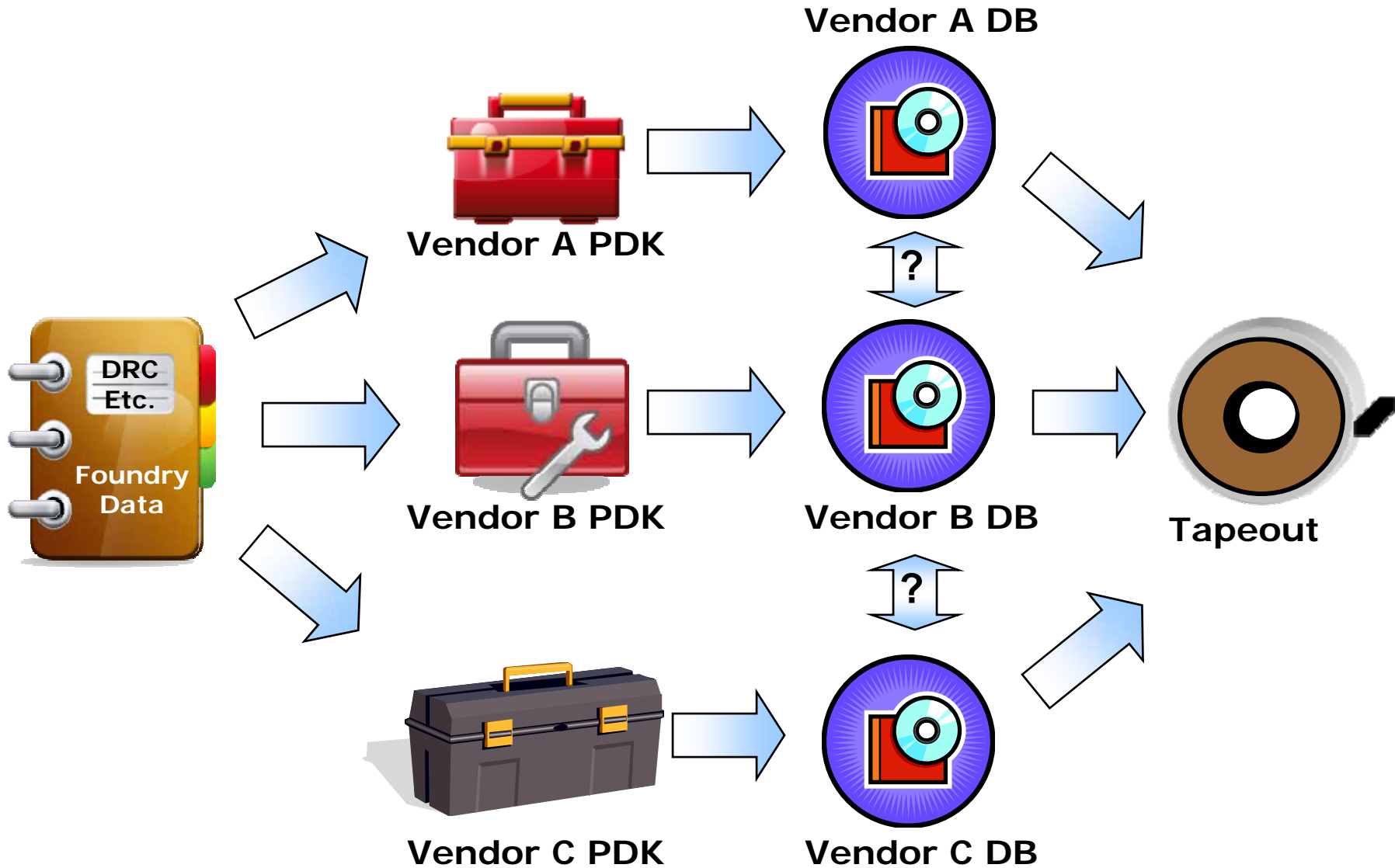
One PDK for All

- Objectives
 - Show one interoperable PDK working in multiple vendor tools
 - Show one circuit working in multiple vendor tools
- Demo Circuit
 - VCO with generic 90nm interoperable PDK
- Demo Partners
 - Ciranova
 - Mentor Graphics
 - Pyxis Technologies
 - SpringSoft
 - Synopsys



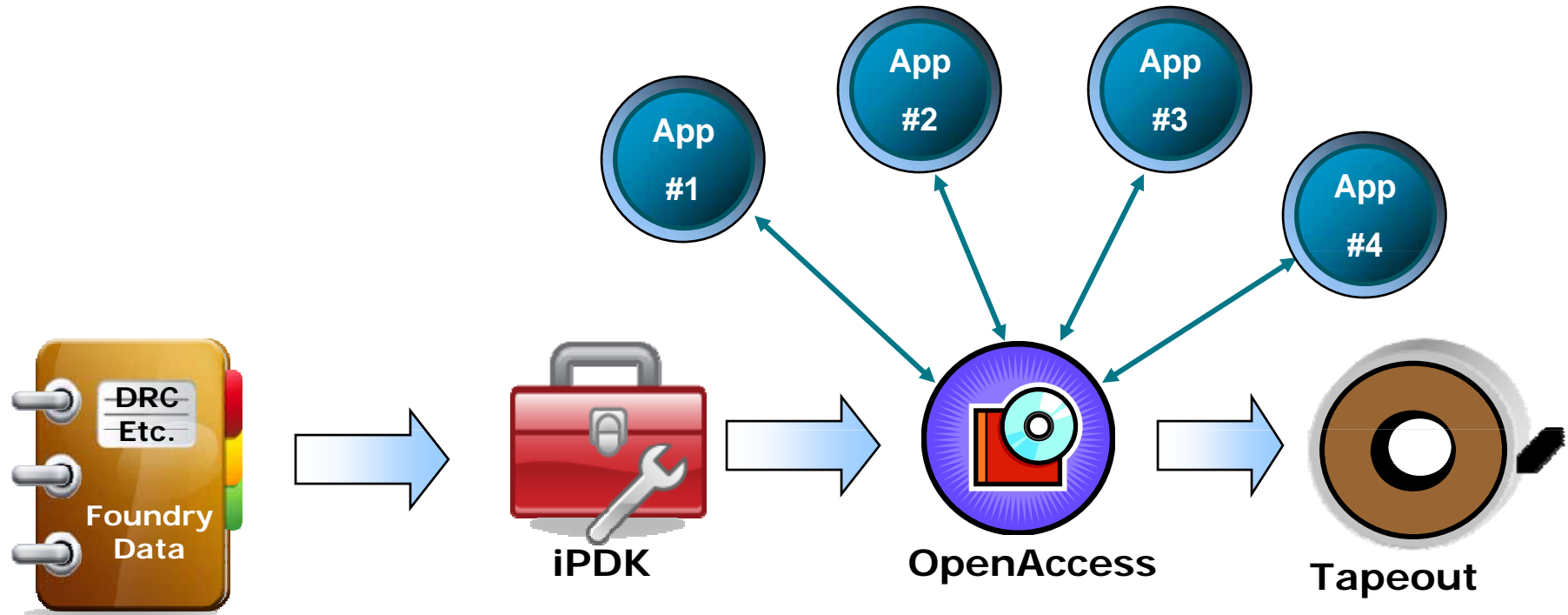
Traditional PDK Model

Peace, Love & Interoperability



Interoperable PDK Model

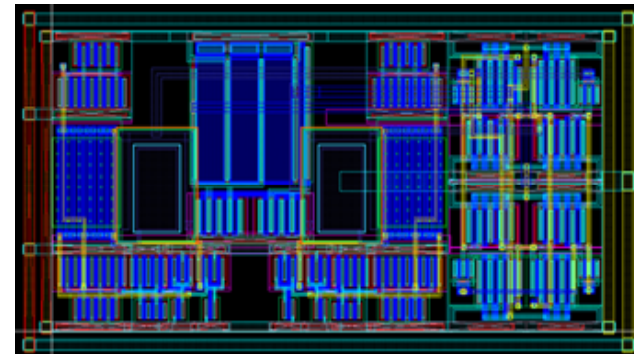
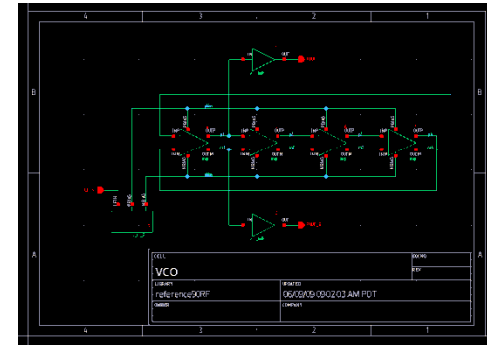
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& Interoperability



Demo Flow

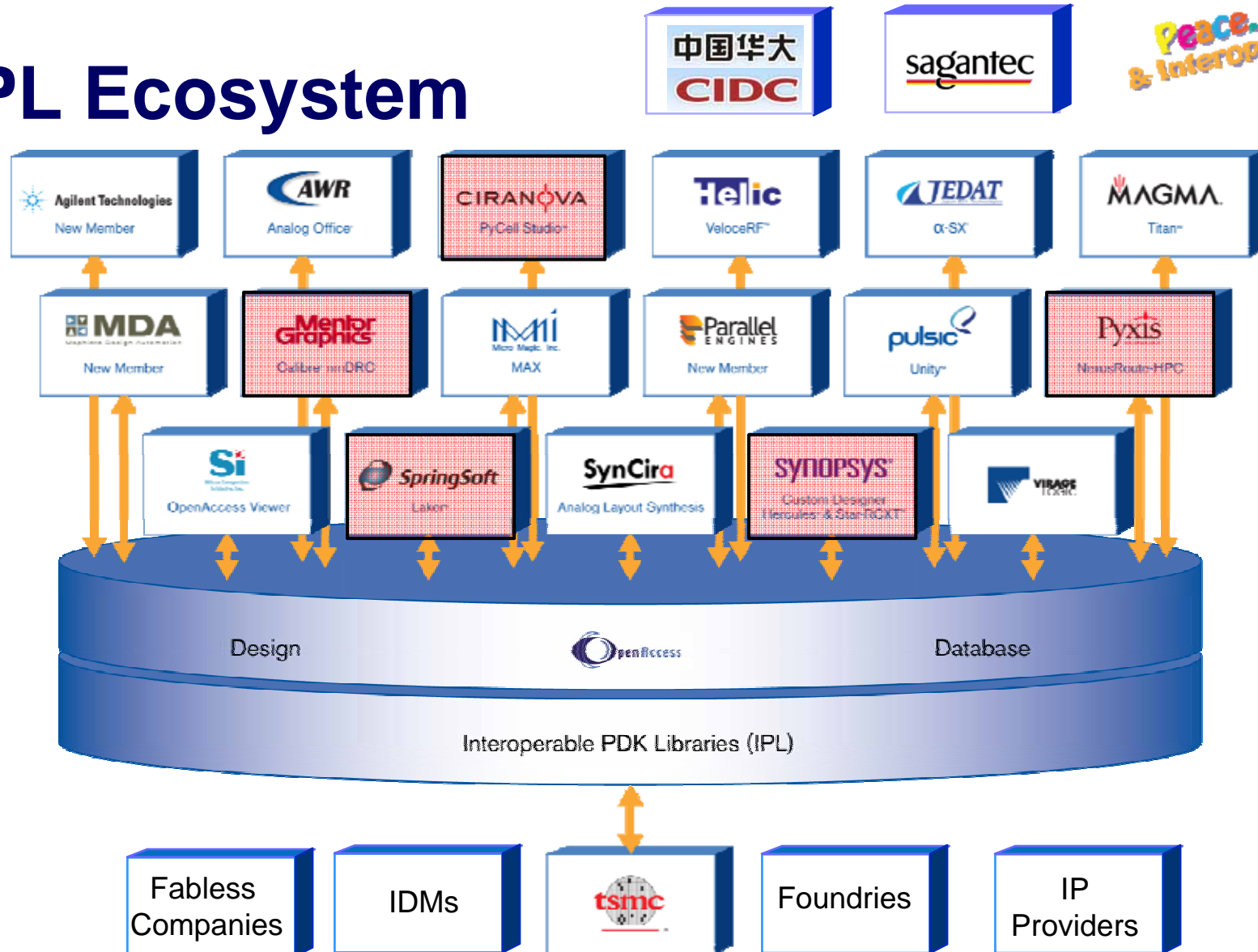
Peace, Love
& Interoperability

- 1 Interoperable PDK
- 1 OA design database
- 5 vendors, 10 tools
- No data translations



IPL Ecosystem

Peace, Love & Interoperability



Demo Flow

IPL India



SYNOPSIS®



Develop PDK

Create schematic & simulate

Schematic Driven Layout

Run DRC

Route

Fix Layout, Final DRC/LVS/RCX & Simulate

Peace, Love & Interoperability

IPL US



SpringSoft

SYNOPSIS®

CIRANOVA

SpringSoft

Mentor Graphics

Pyxis Technology

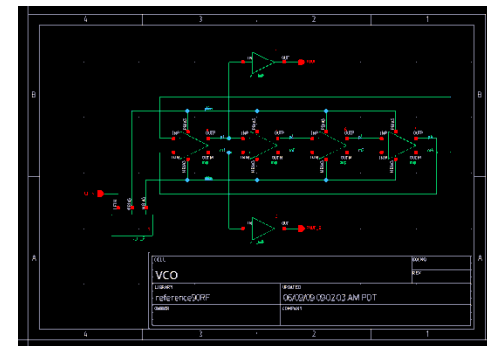
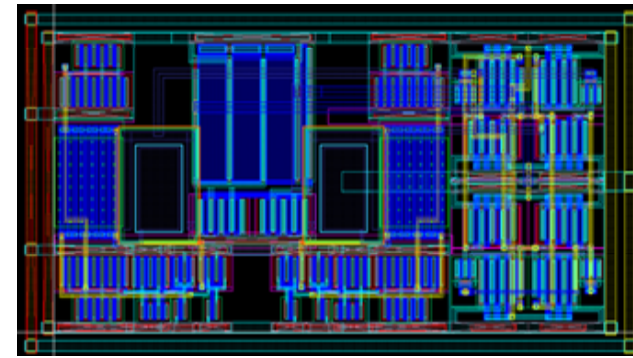
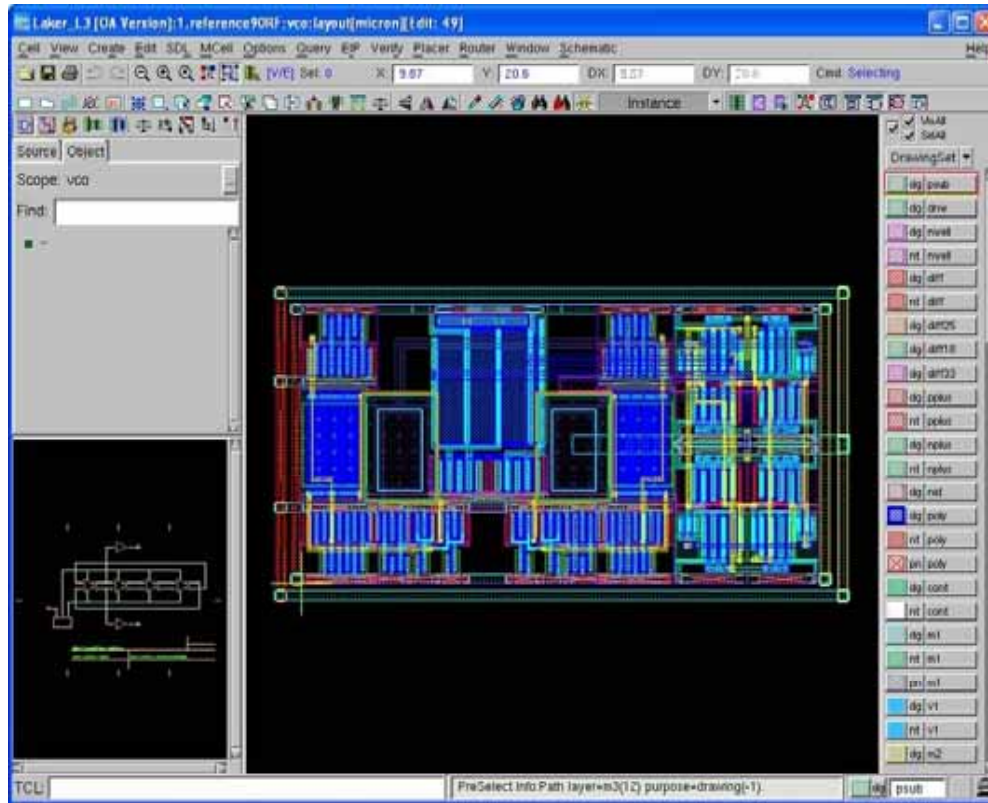
SYNOPSIS®

1 Design - 1 PDK - Same Result

Peace, Love & Interoperability

SpringSoft Laker Custom Layout

Synopsys Galaxy Custom Designer



“IPL India” Front-End Flow

Peace, Love & Interoperability



SYNOPSYS®

SYNOPSYS®



2 tools

Galaxy Custom Designer™ SE
HSPICE®

“IPL US” Backend Flow

Peace, Love
& Interoperability

4 tools

PyCell Studio™

Develop PDK

CIRANOVA

Create schematic
& simulate

Laker™

Schematic Driven
Layout

SpringSoft

Calibre®

Run DRC

Mentor
Graphics

NexusRoute™-
HPC

Route

Pyxis
TECHNOLOGY

Fix Layout, Final
DRC/LVS/RCX &
Simulate



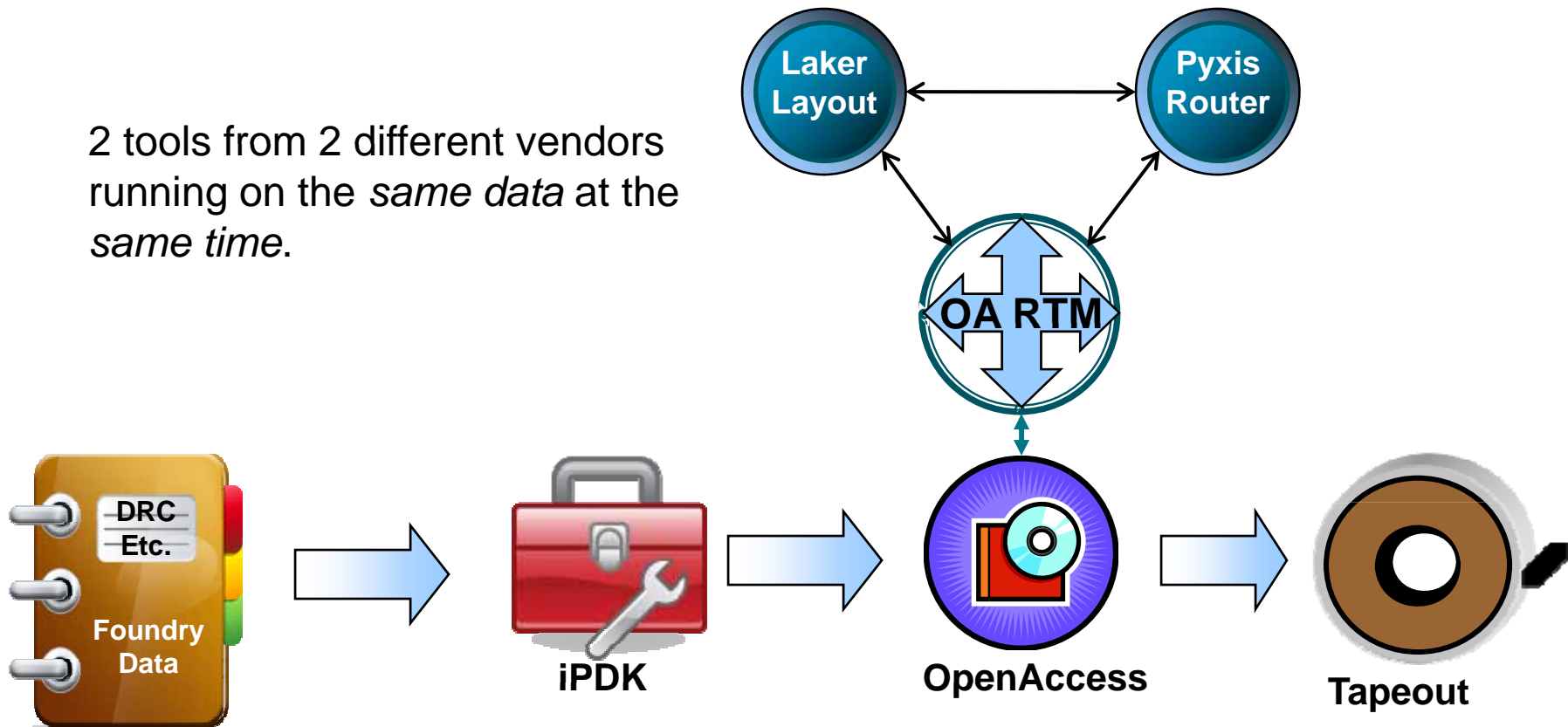
SpringSoft



Interoperability Drives Innovation

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2 tools from 2 different vendors running on the *same data* at the *same time*.

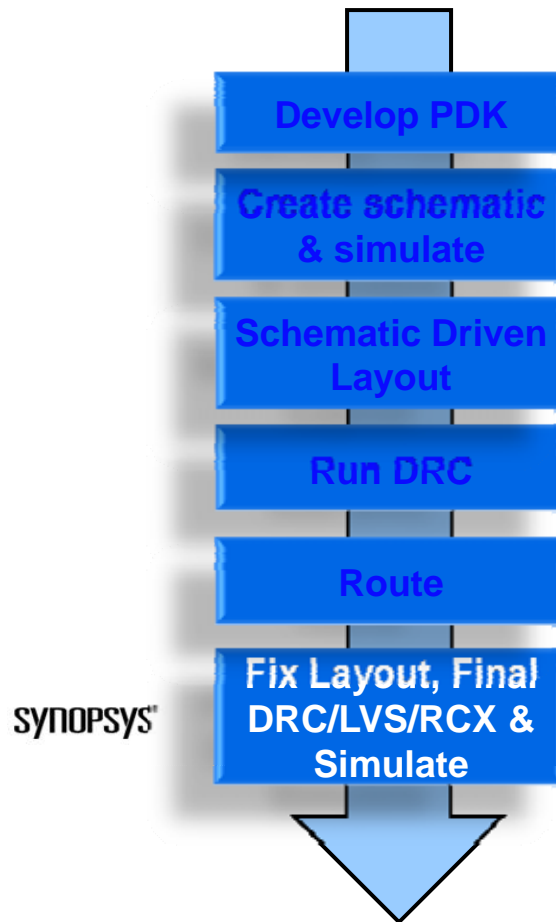


“IPL India” Front-end

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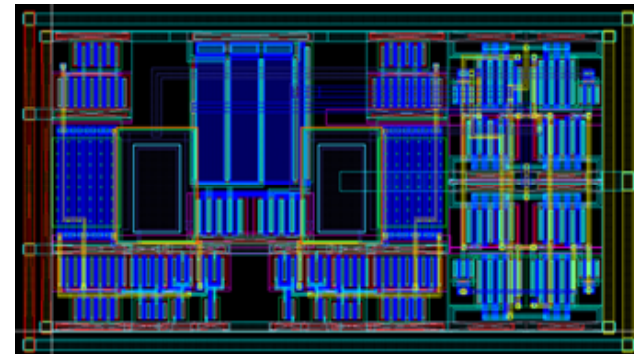
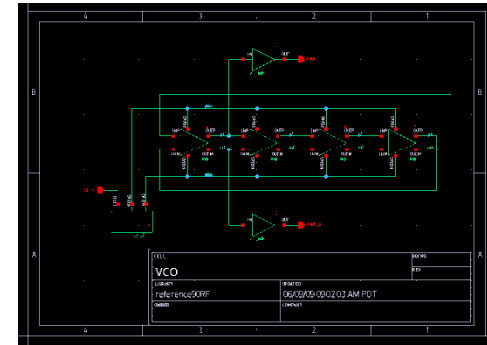
4 (new) tools

Galaxy Custom Designer LE
Hercules™
STAR RC™
HSPICE

Review

Peace, Love
& Interoperability

- 1 Interoperable PDK
- 1 OA design database
- 5 vendors, 10 tools
- No data translations

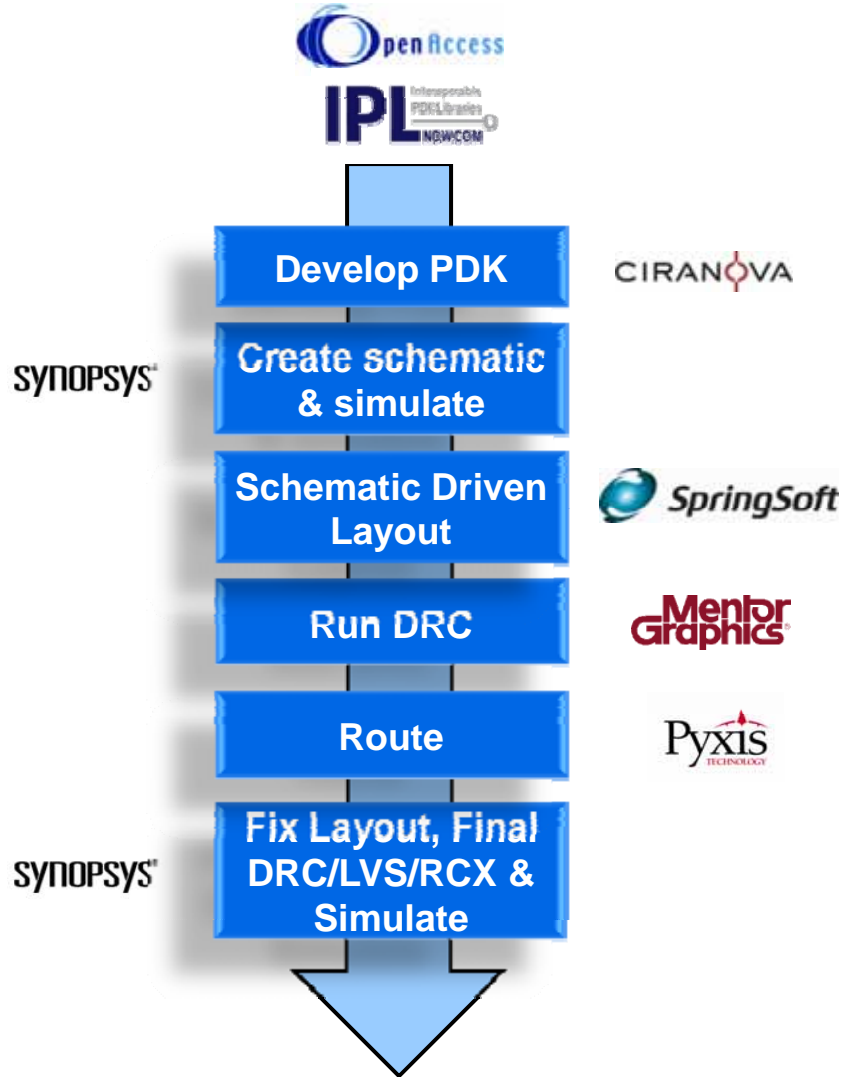


Summary

IPL India



SYNOPSYS®



Peace, Love & Interoperability

IPL US



SpringSoft

Peace, Love & Interoperability

IPL Interoperable
PDK Libraries
NOW.COM

