SimplifyDA

A leading supplier of an independent topological planning and routing software for PCB, Packaging, and Flat Panel Display routing software.

SimplifyDA

Mission

Provide innovative autorouting technology to automate manual electronic layout design processes.

Cut the design time by at least half!

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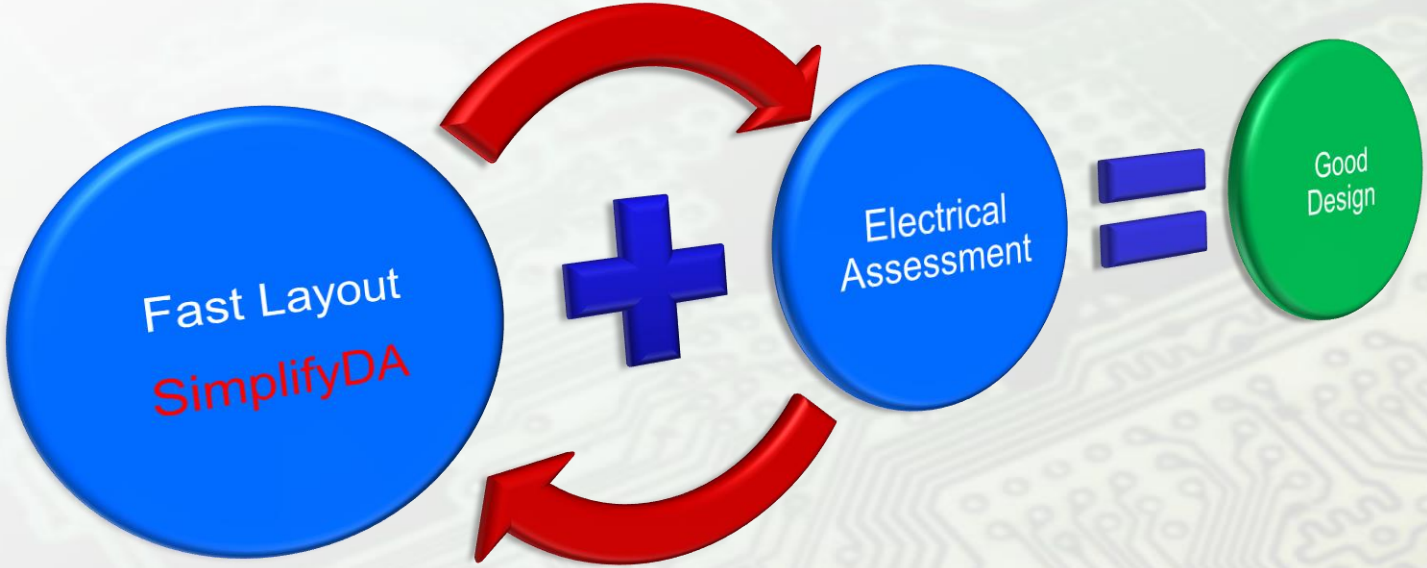
What Makes a Good Design?



SimplifyDA help reducing the time on layout design in order of magnitude!

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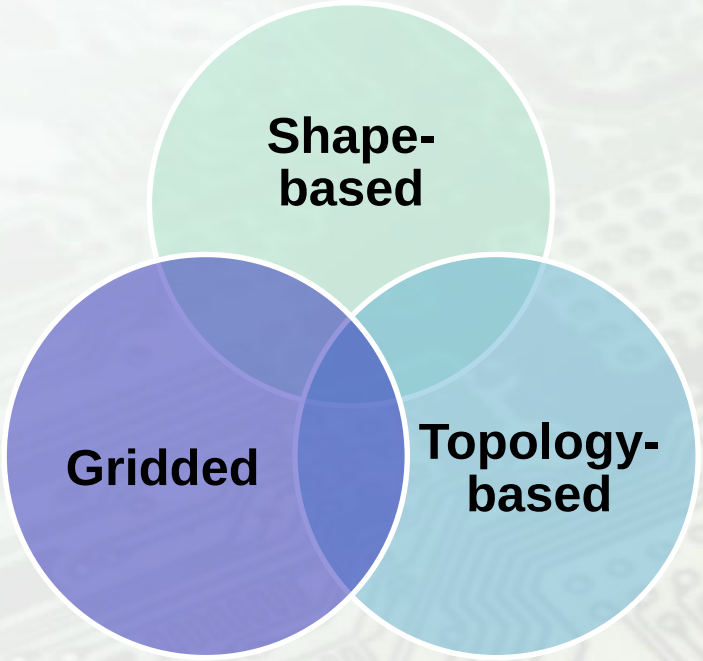
Architecture



SimplifyDA combines the strengths of three generations of autorouting technology!

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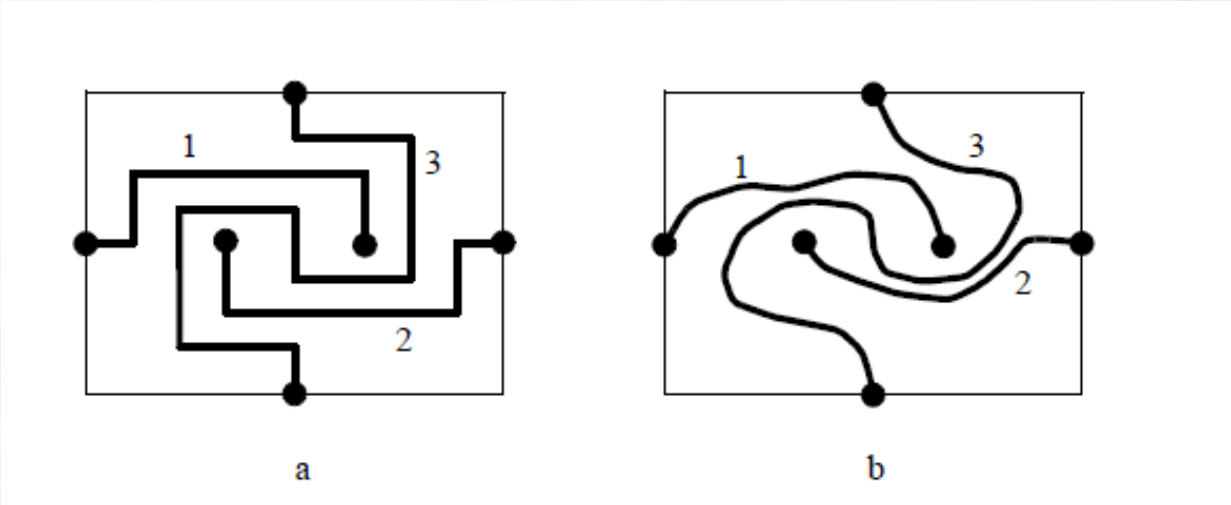
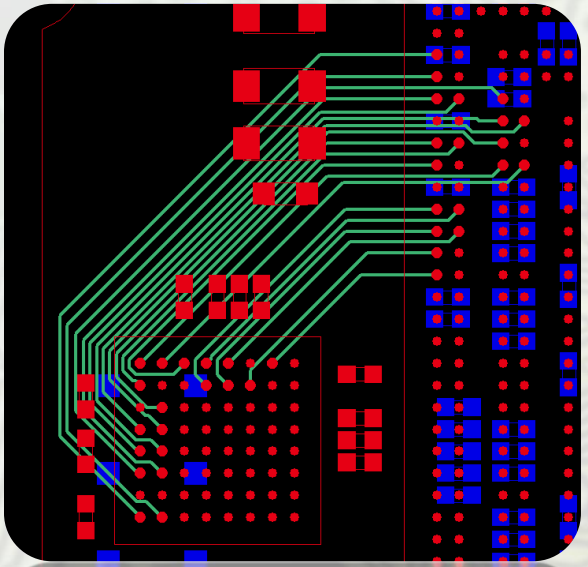
Topology-based routing



Topology-based algorithms simplifies routing problems

Highlights

- Industry leading **bundle planning & autorouting technology**
- **Very easy** operation for bundle planning
- **Very fast** autorouting
- Useful routing features
  - BGA fanout
  - Pin-swap routing
  - Routing path control
  - Diff-pair routing



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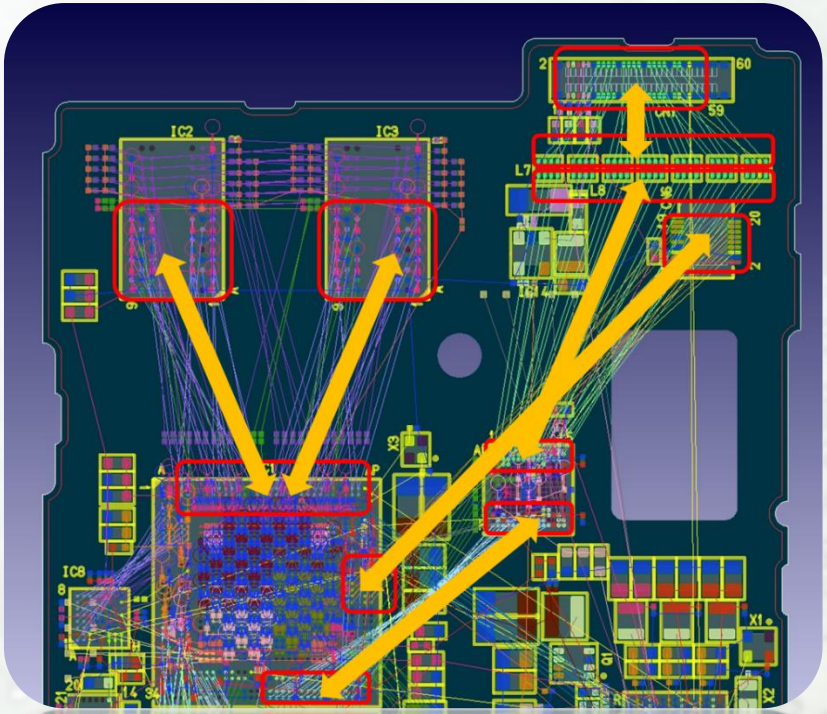
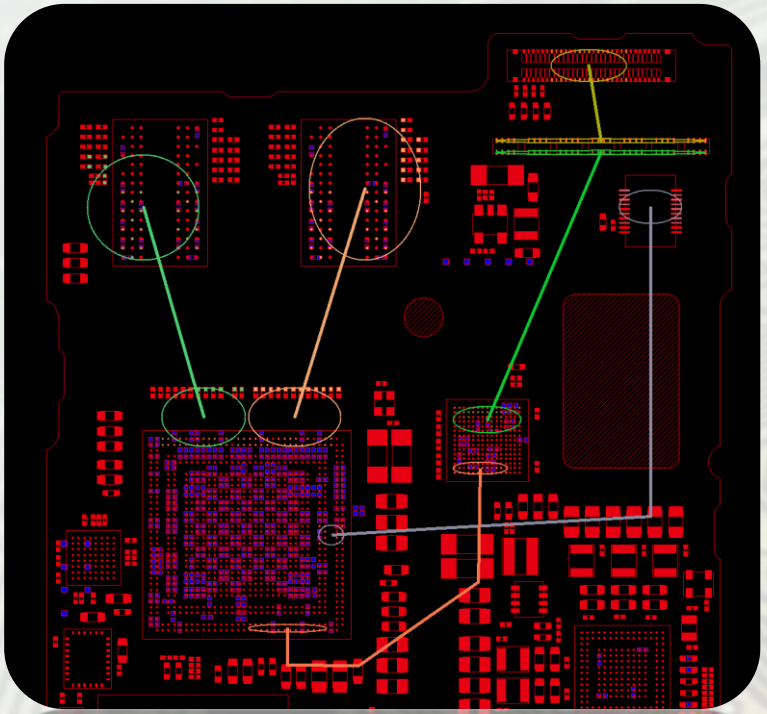
Flow Planning

- Grouping



- Planned



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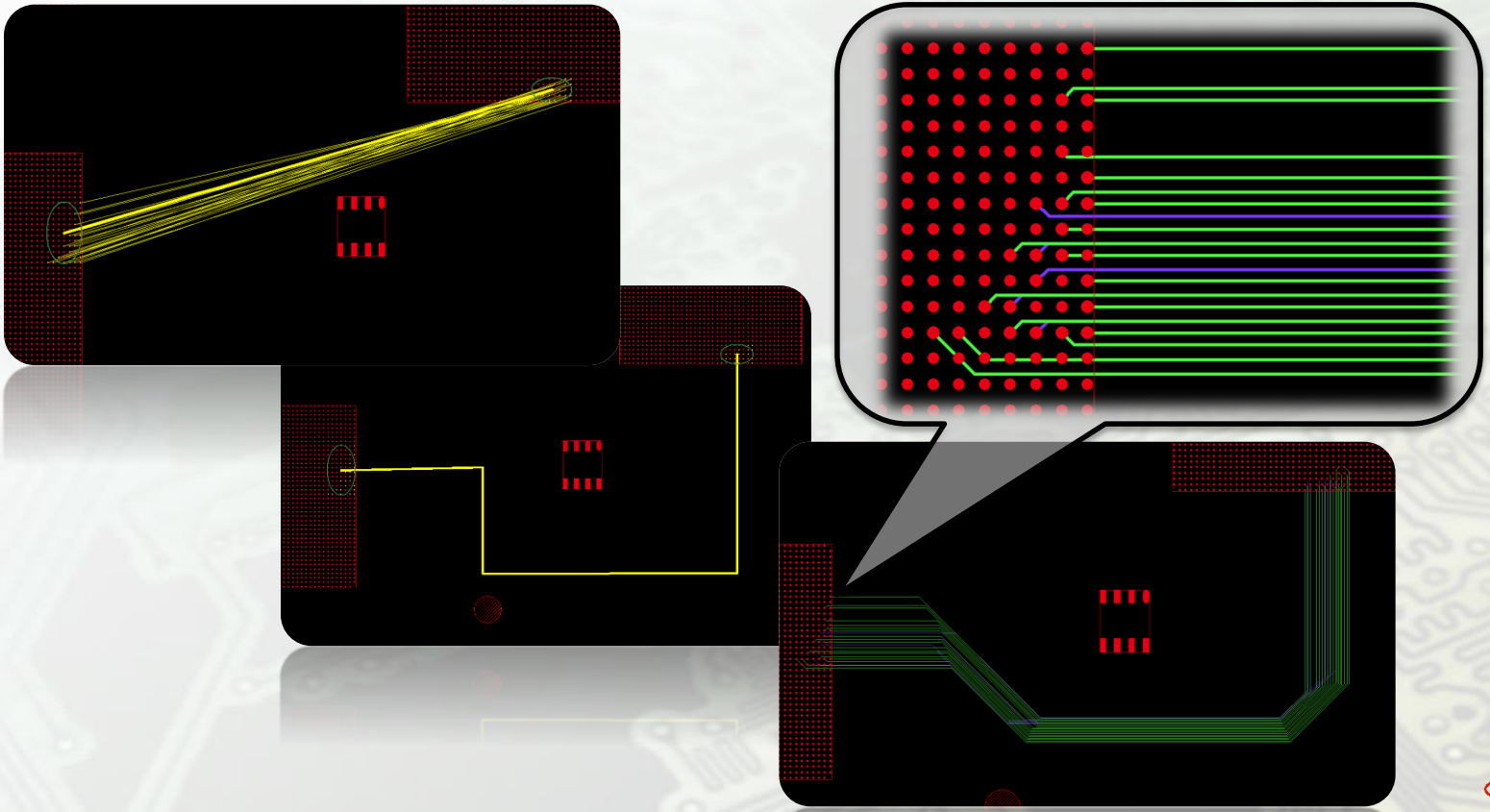
Globally Guided Autorouting



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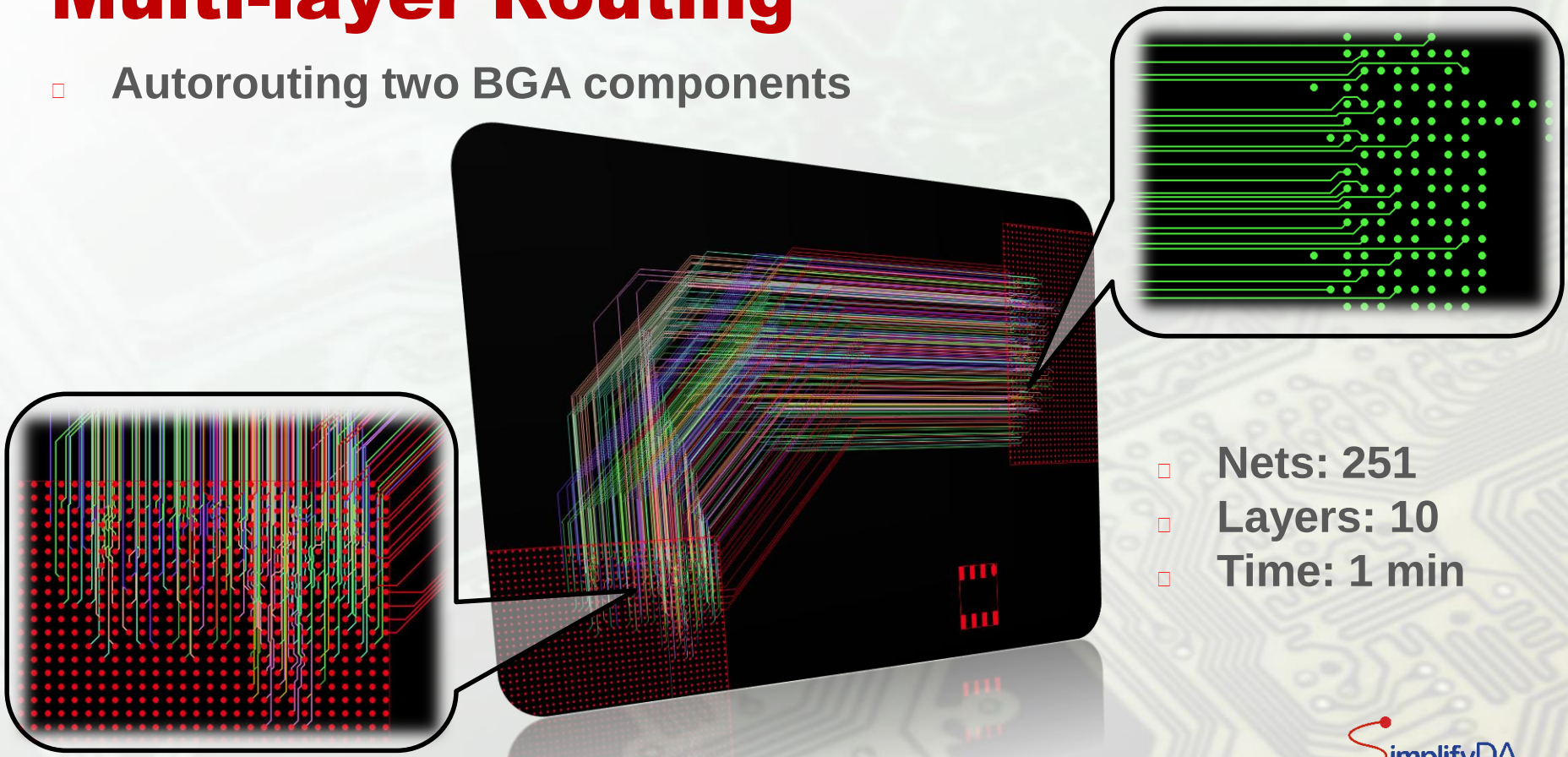
Multi-layer Routing

- Autorouting two BGA components



- Nets: 251
- Layers: 10
- Time: 1 min

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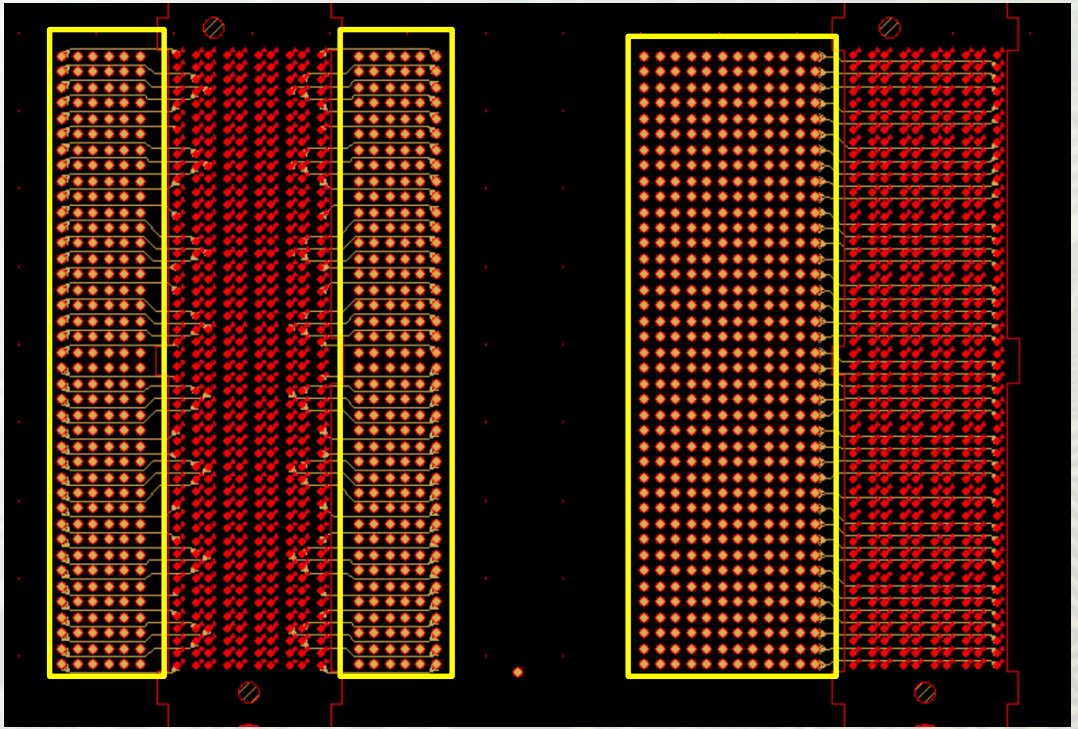
Via pattern routing

Drop vias before routing for better control!



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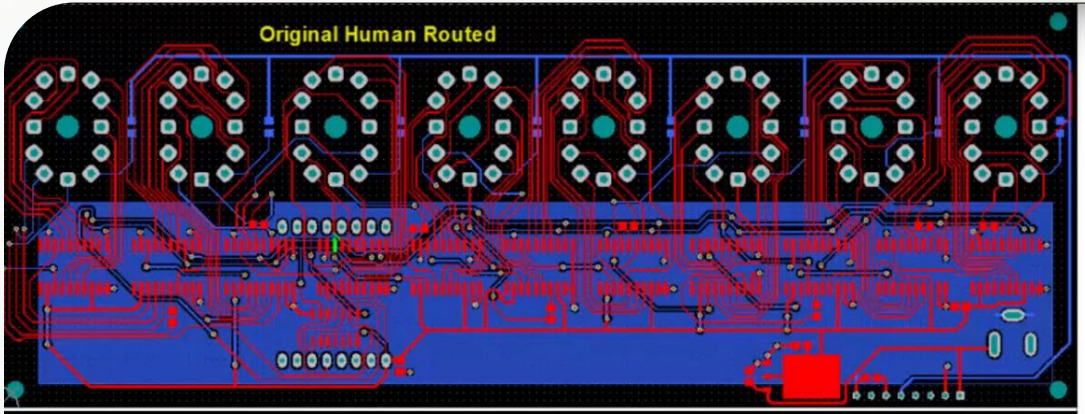
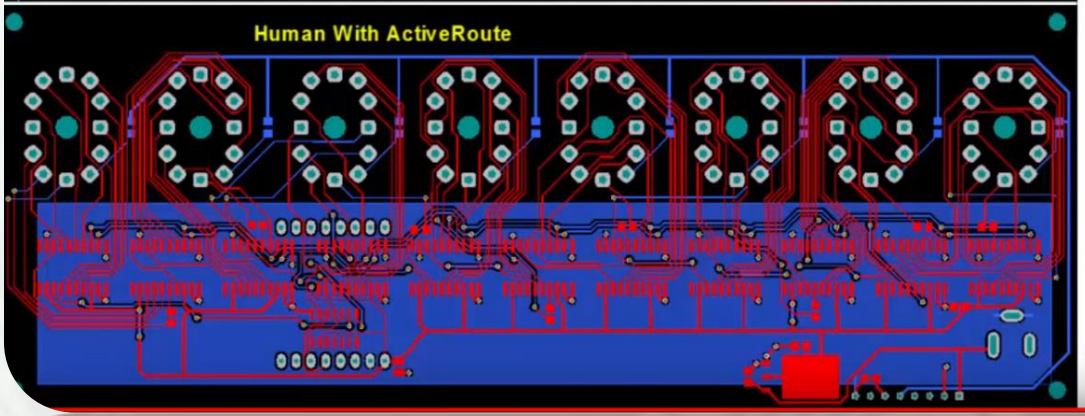
Routing Result Better Than Human's



Vias = 110
Total Route Length = 5,964mm



Vias = 104
Total Route Length = 5,462mm

ActiveRoute = 2 min for 82 routes
InteractiveRoute = 29 min for 51 routes
Maximize Plane Connectivity = 4 min

Total Signal Route time 35 min

View Video

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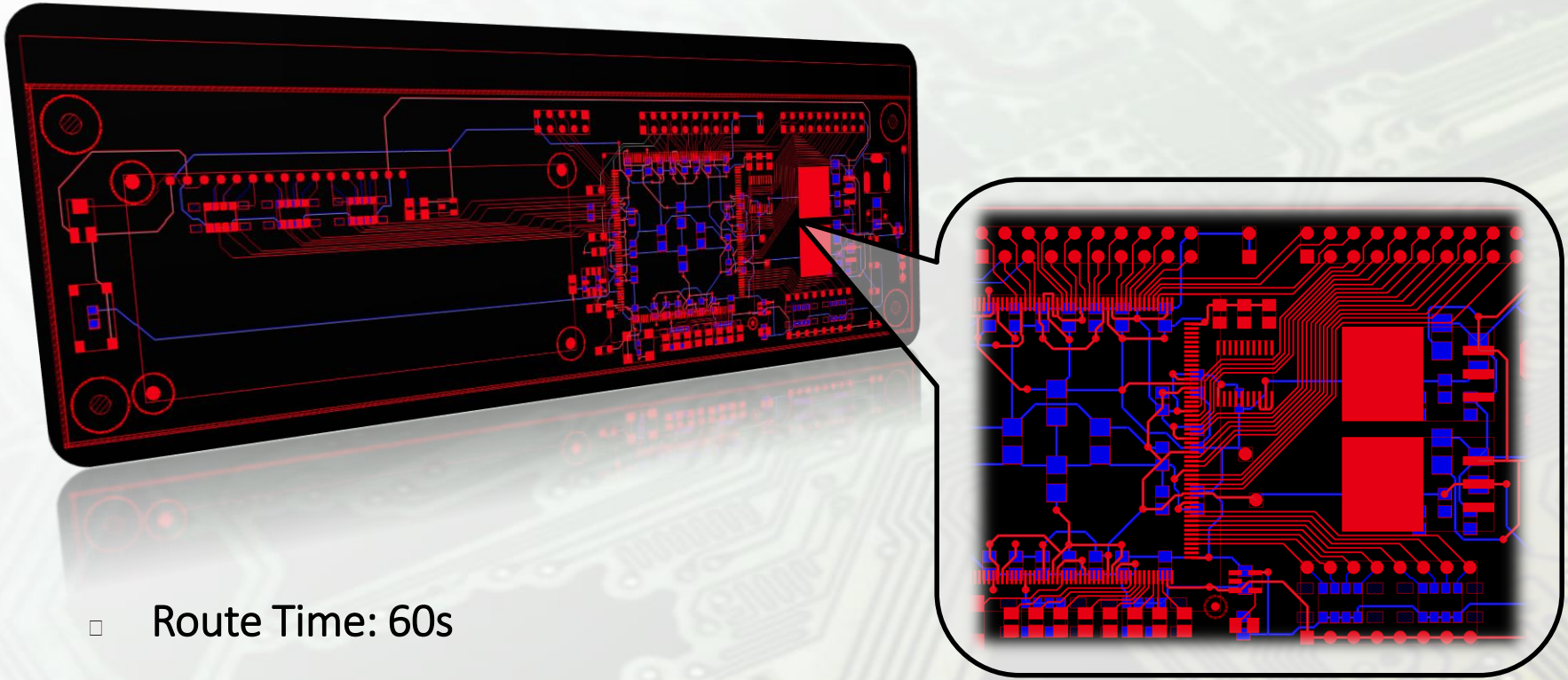
Single Layer Routing



- Route Time: 60s

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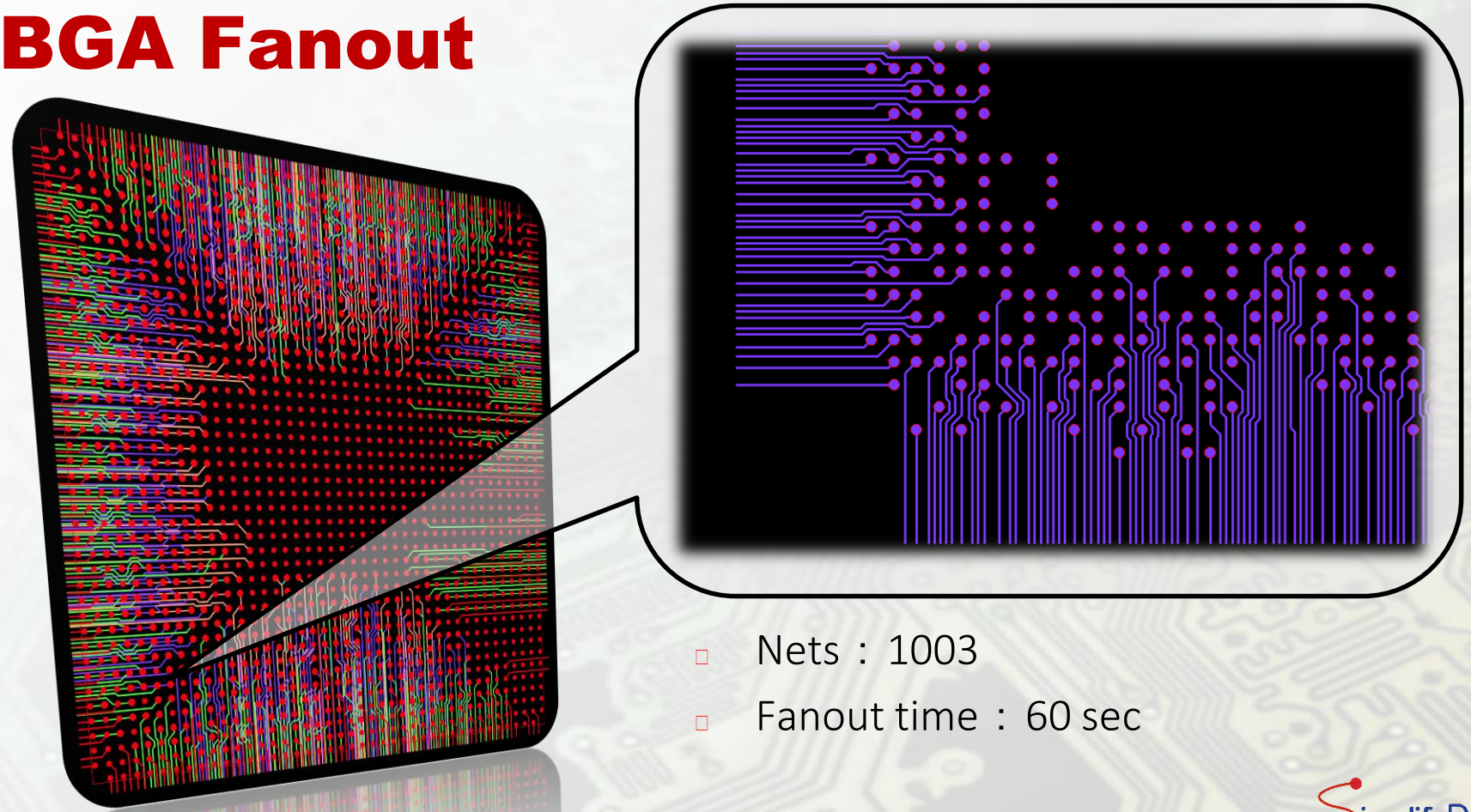
BGA Fanout



- Nets：1003
- Fanout time：60 sec

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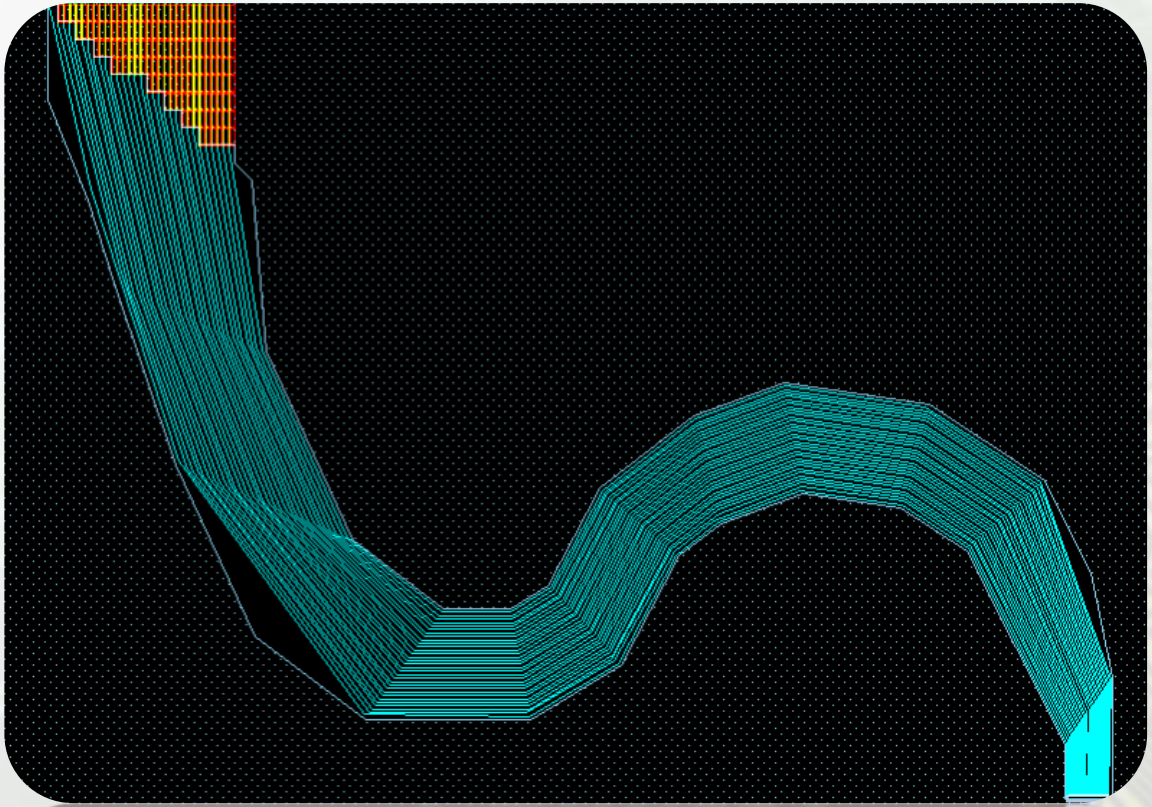
Any-angle Routing



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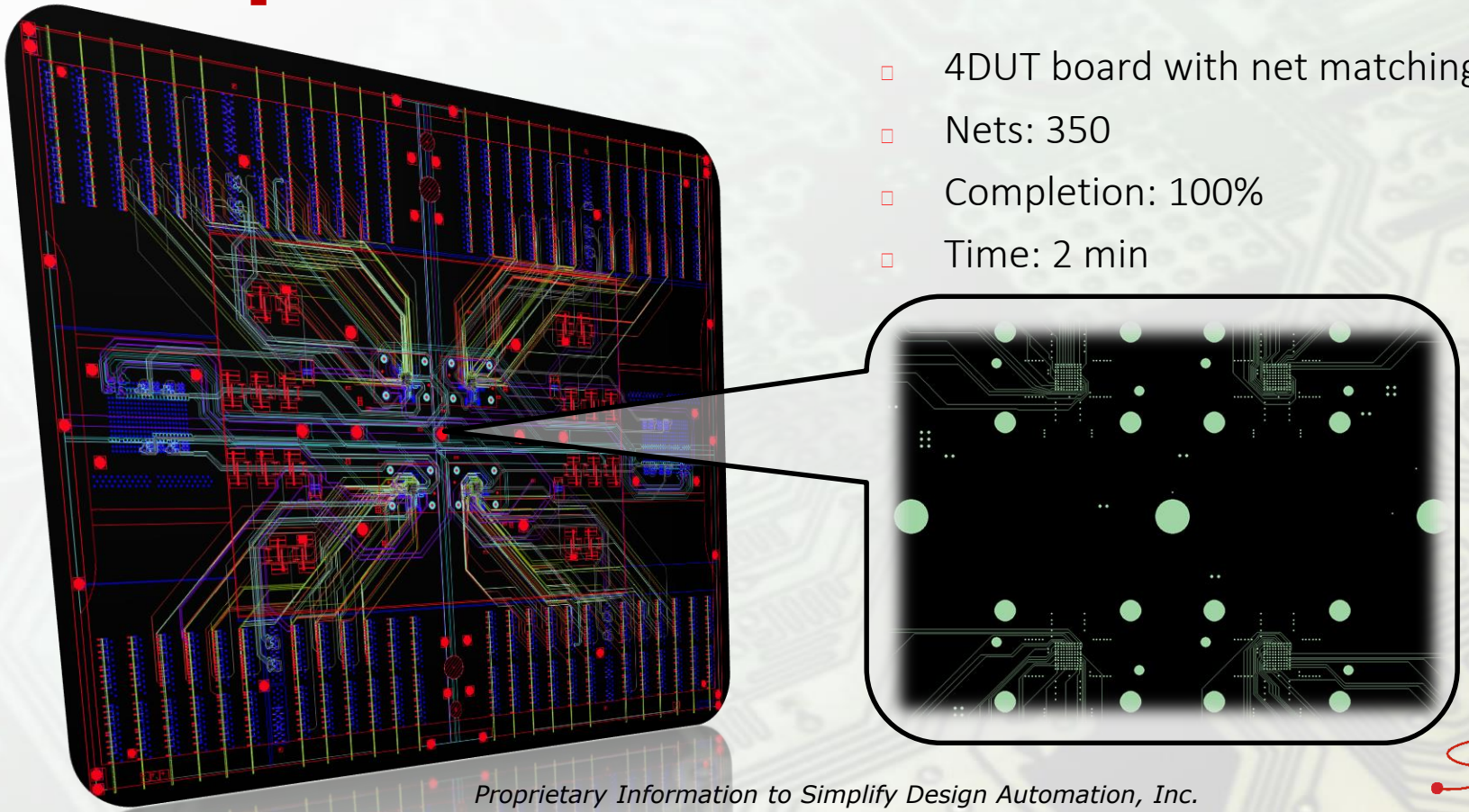
Sample: DUT Board



- 4DUT board with net matching
- Nets: 350
- Completion: 100%
- Time: 2 min

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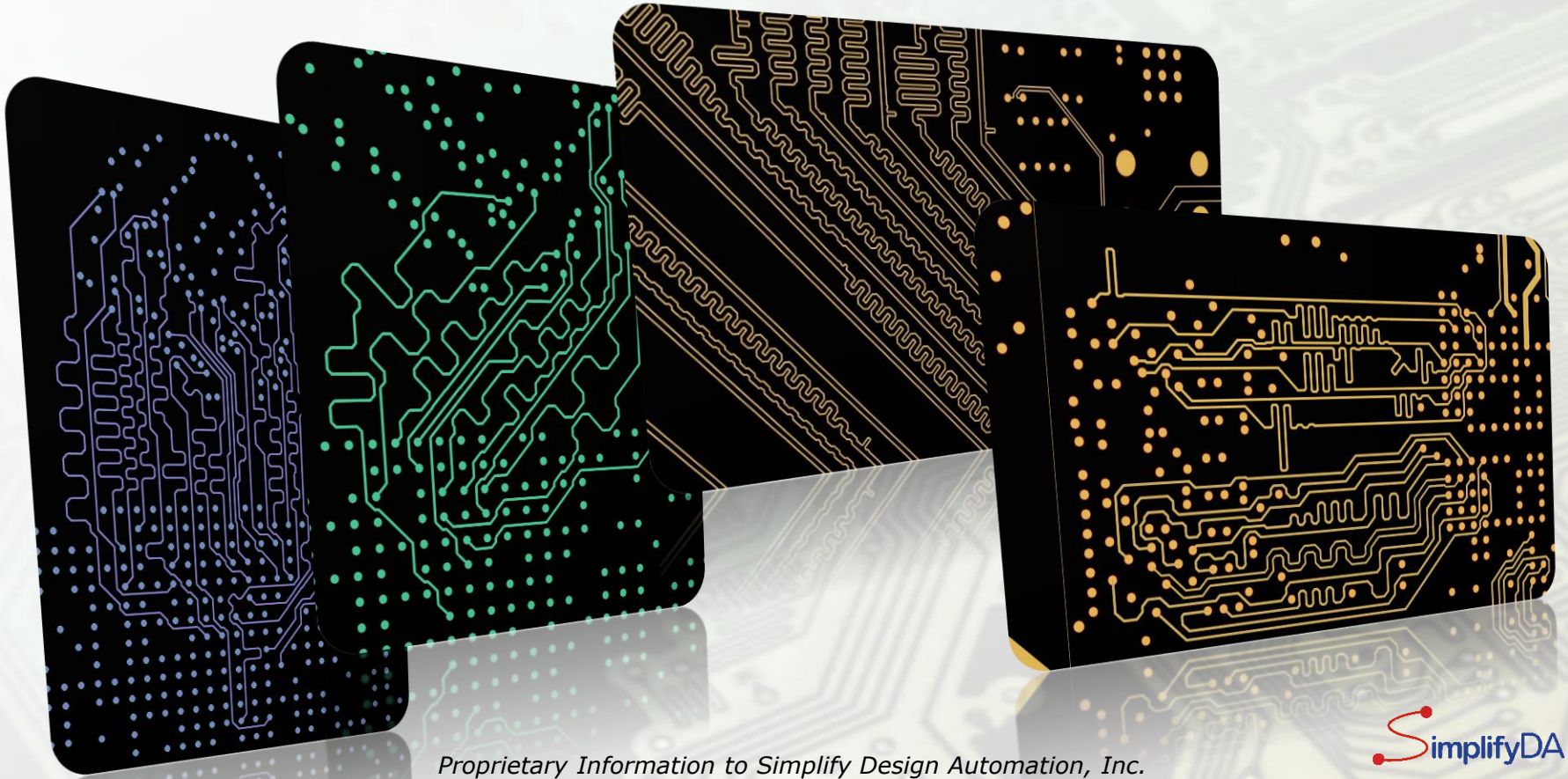
Automatic Tuning



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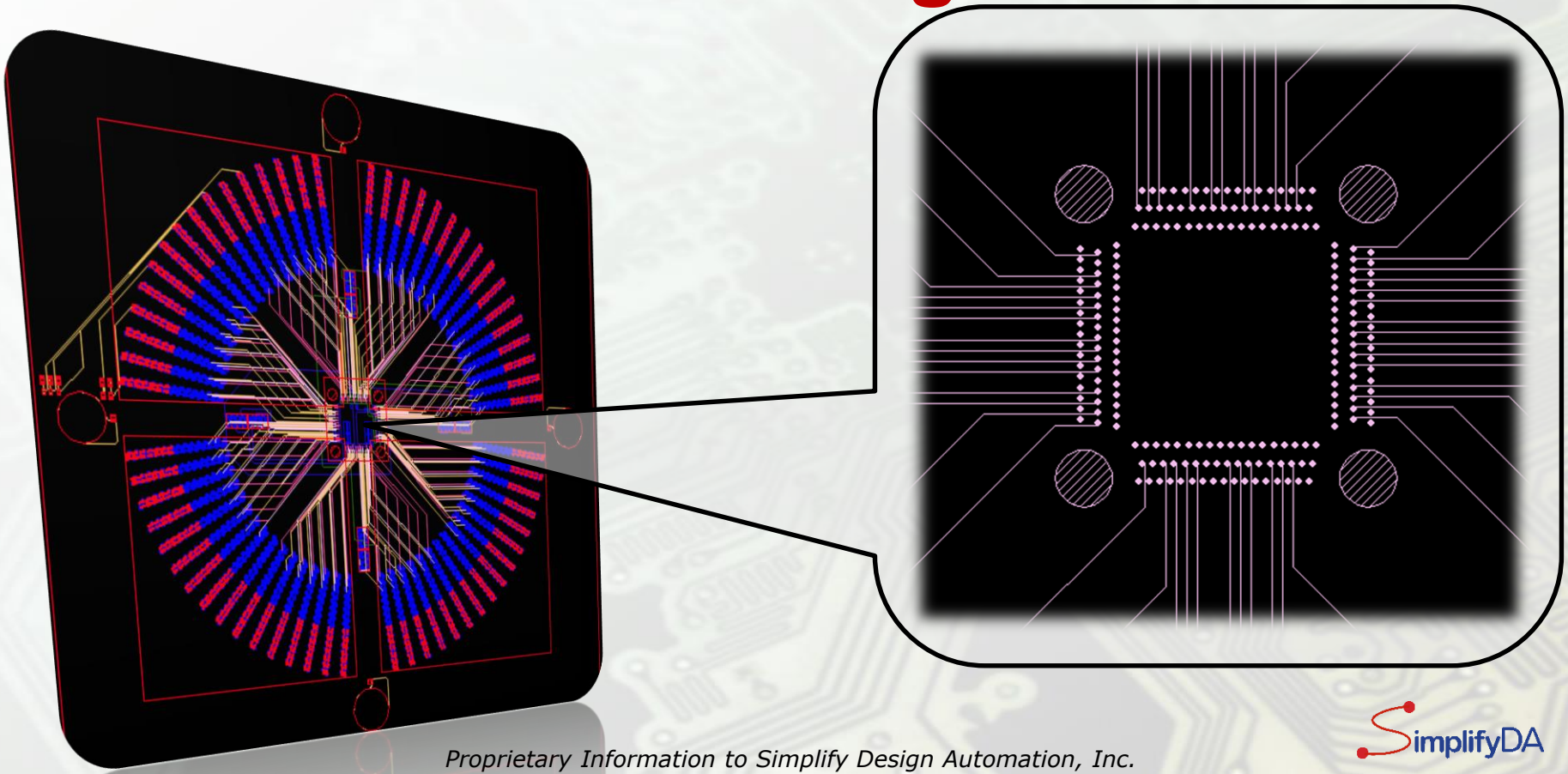
Testboard Autorouting



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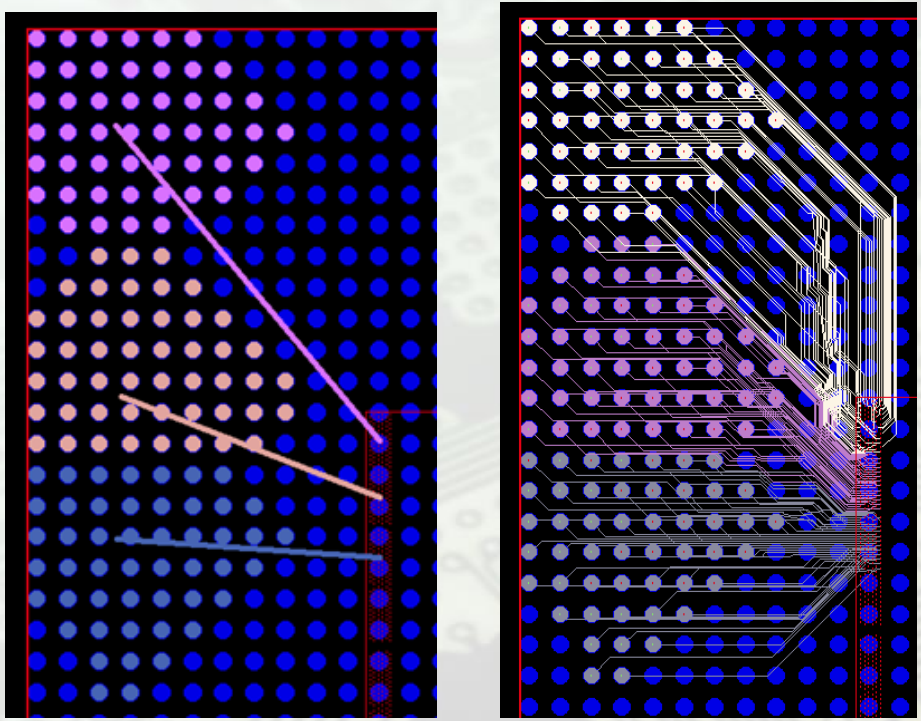
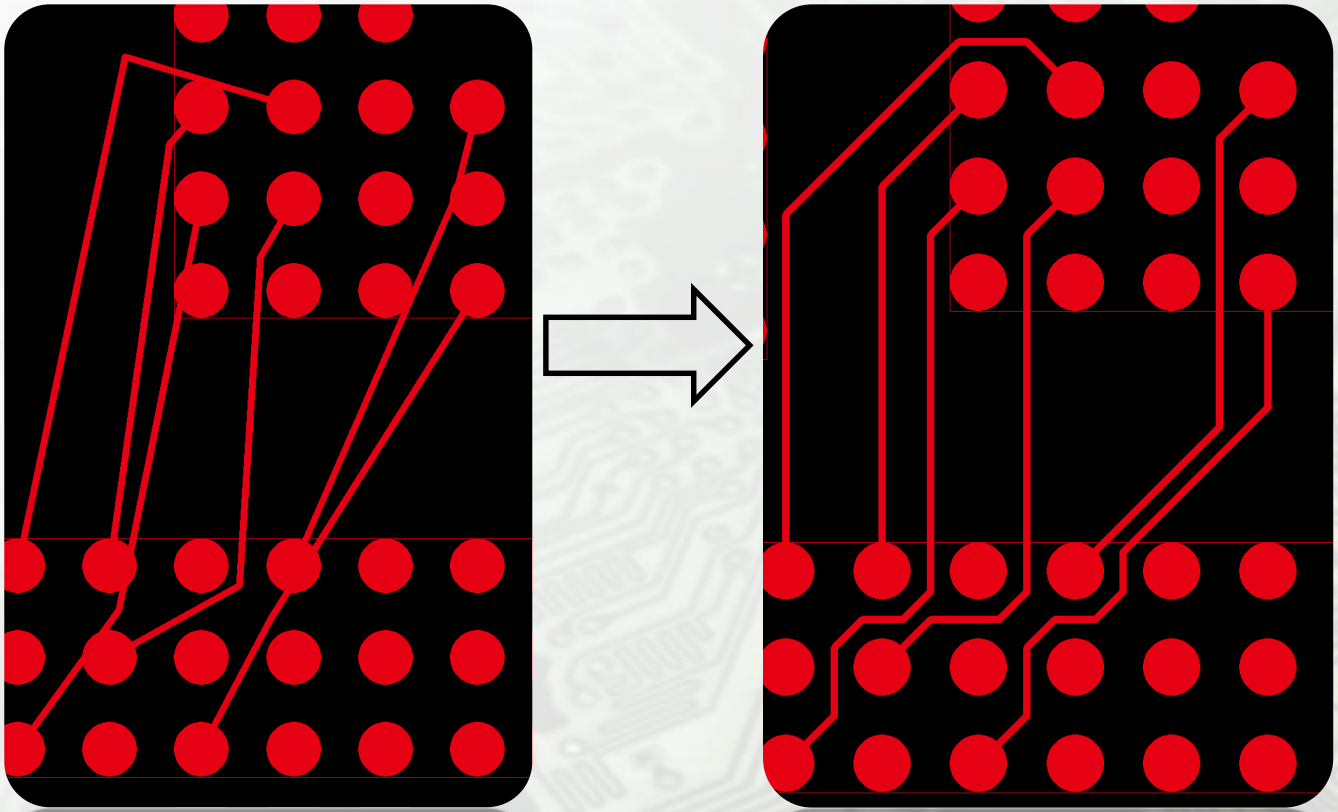
Autoroute for Pin-out Assignment



*From Excel to **SimplifyDA**!*

- High-speed auto-routing for net assignment

Interactive Topology Routing



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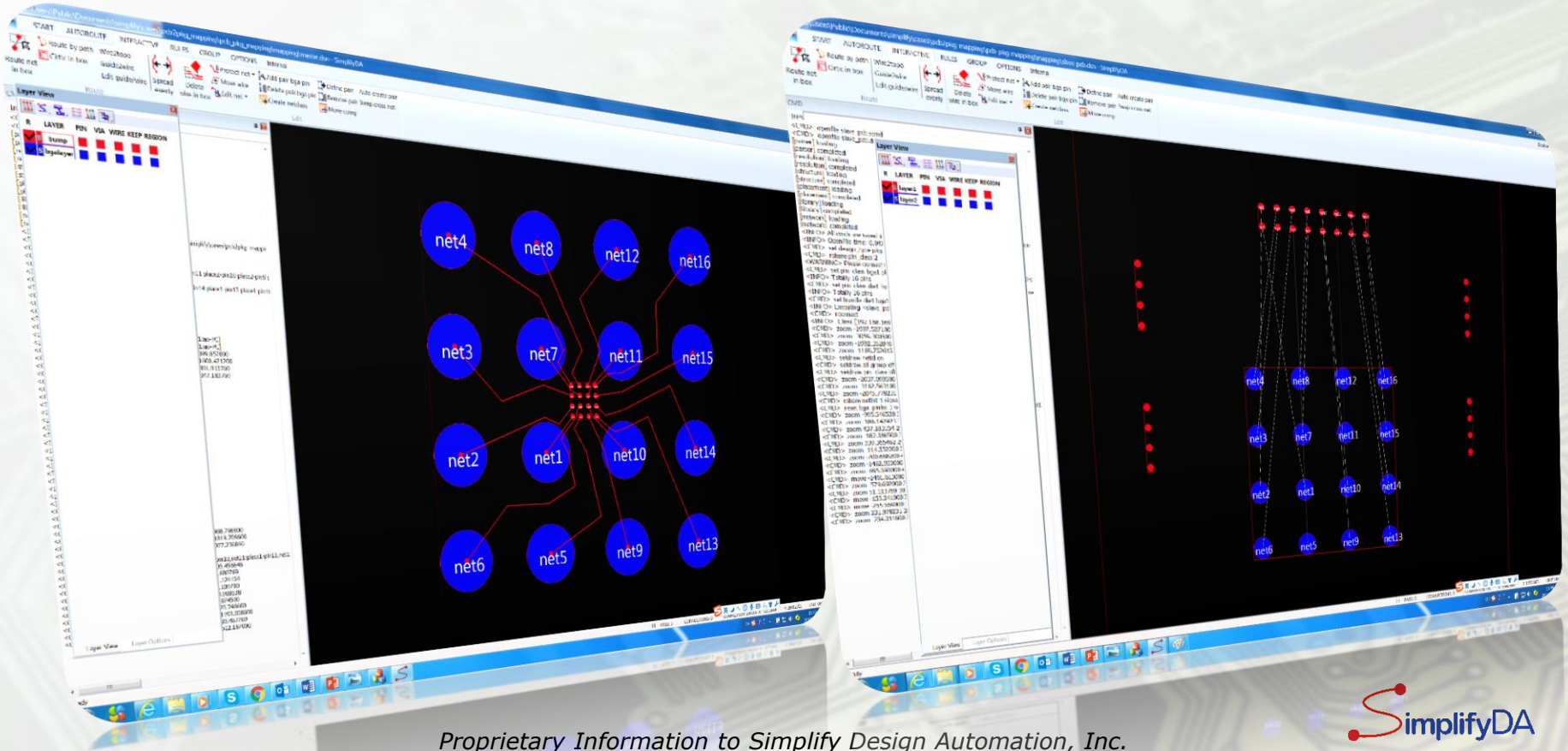
Co-design Package and Board



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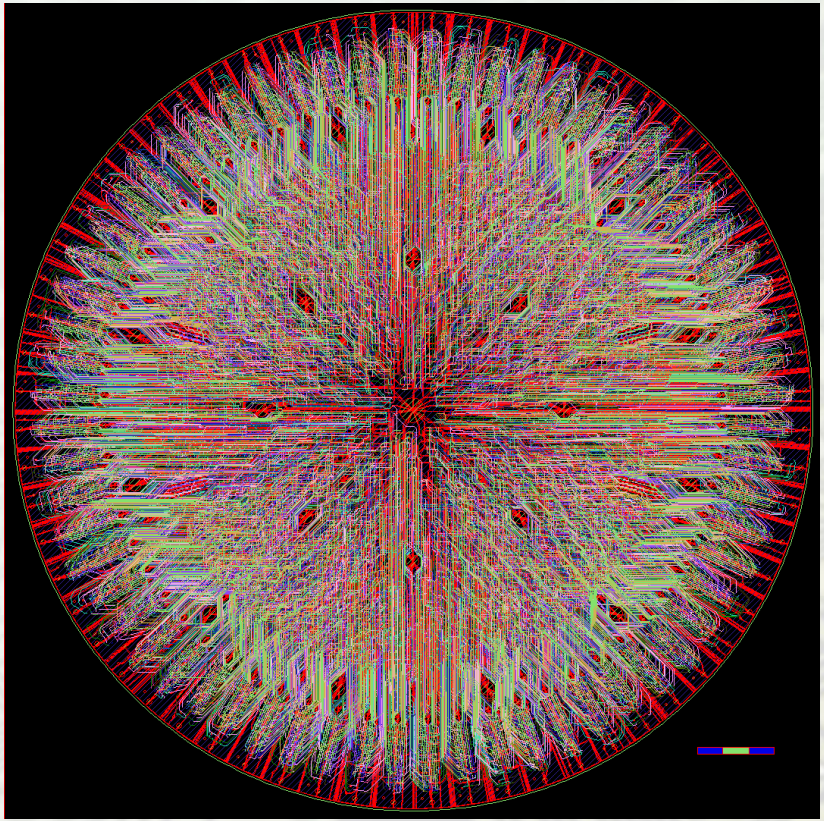
Sample Result

Nets: 8684

Routing Layers: 16

Completion: 100%

Route time: 8.3H



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Ease of Use

Easy setups

- Design rules can be imported from host-CAD.
- Bundle setup is easy.
- Autorouting can be executed by default setups.

Easy cmd file execution

- All operations executed are automatically saved in did file.
- User can execute & modify the cmd file iteratively to get the best routing result.

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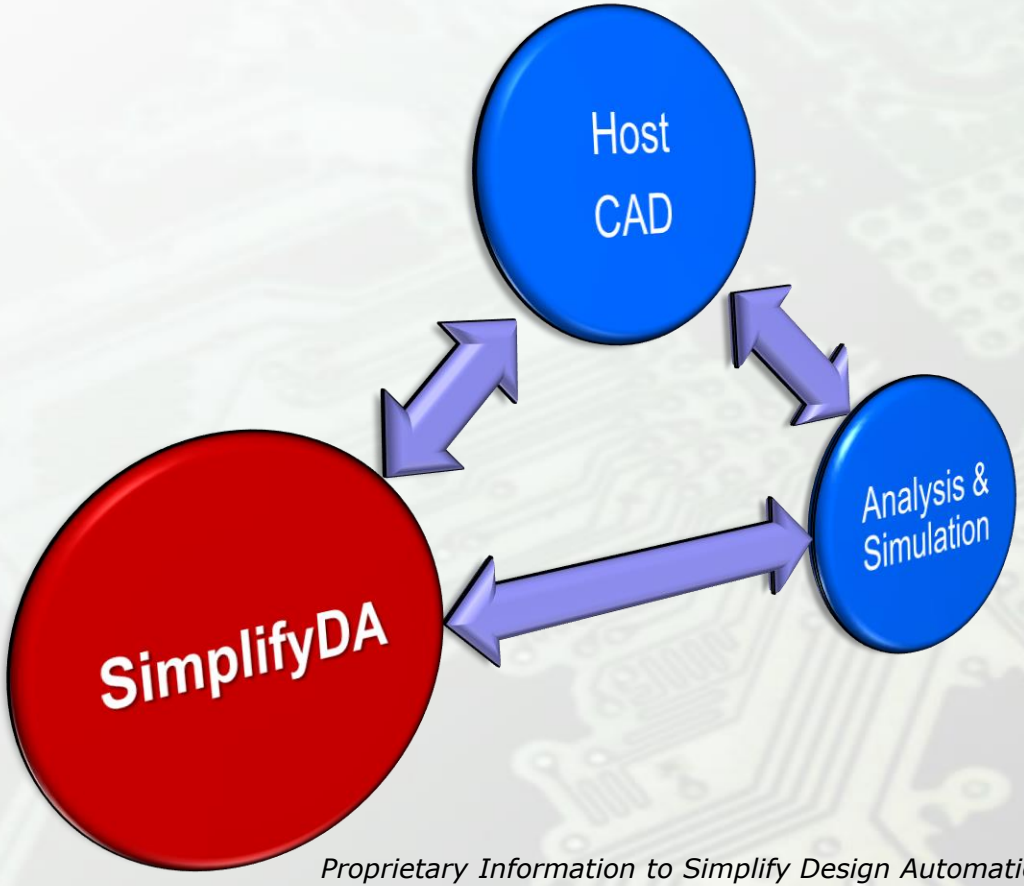
Data Design Flow



- DSN
- DCF
- RTE
- SES
- Other data I/F

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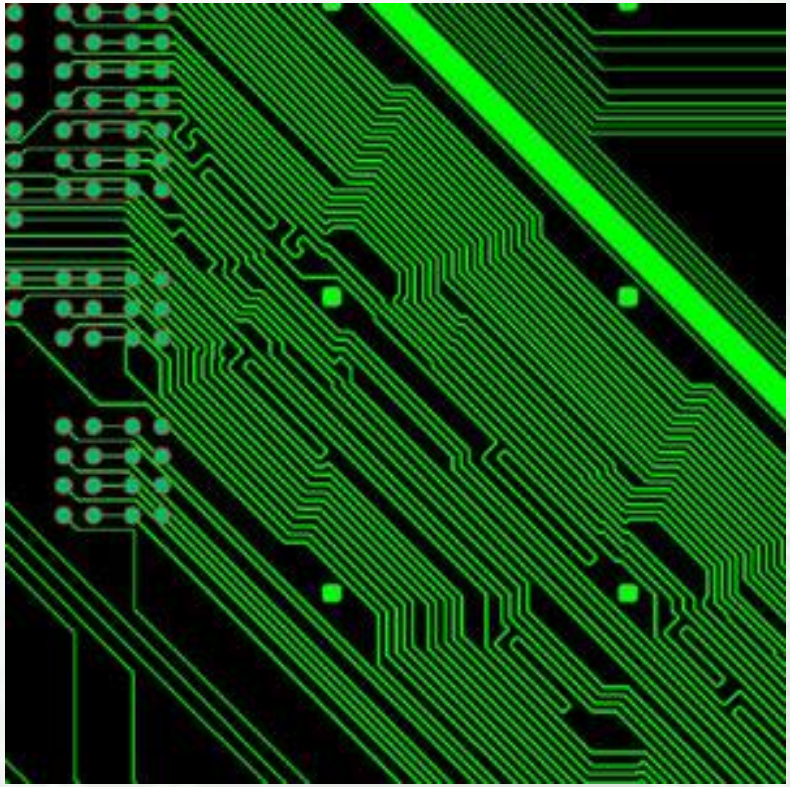
In the News



Read our PCB007 interview here:

http://www.iconnect007.com/index.php/article/116368/simplifyda-time-for-a-new-autorouter-paradigm/116371/?skin=design - 116368

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