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PADS VX Release and Interactive and Autorouting Routing Strategies

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Board System Division

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Mentor Graphics

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Targeting Personal Productivity for Individual Users

- PADS VX changes the desktop PCB market
  - Tool & library Integration ensures correct by design
  - Faster high speed designs through constraint management
  - Highly efficient user interface
  - Output to manufacturing
- PADS VX leverages Mentors PCB solutions portfolio
  - Broadest portfolio
  - Scalability through shared technology
- PADS VX represents a change in our "desktop" solution
  - Combines unmatched design technology, completeness and price performance

PADS VX Available Now

Mentor Graphics pads start smarter

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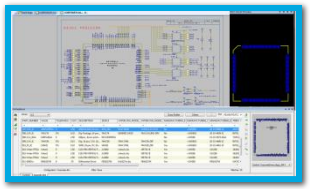
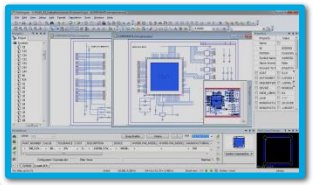
PADS VX – Integrated and Complete

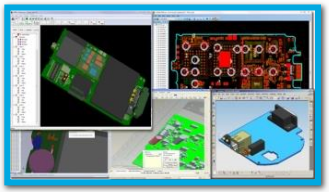
Central Library & Library Management

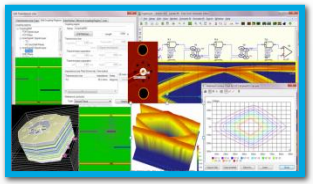




Schematic Capture – Component Information System

PCB-MCAD Collaboration





Simulation & Analysis with HyperLynx

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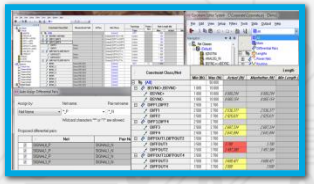
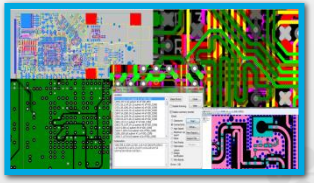
Archive Management



Constraint Management

PCB Layout & Routing



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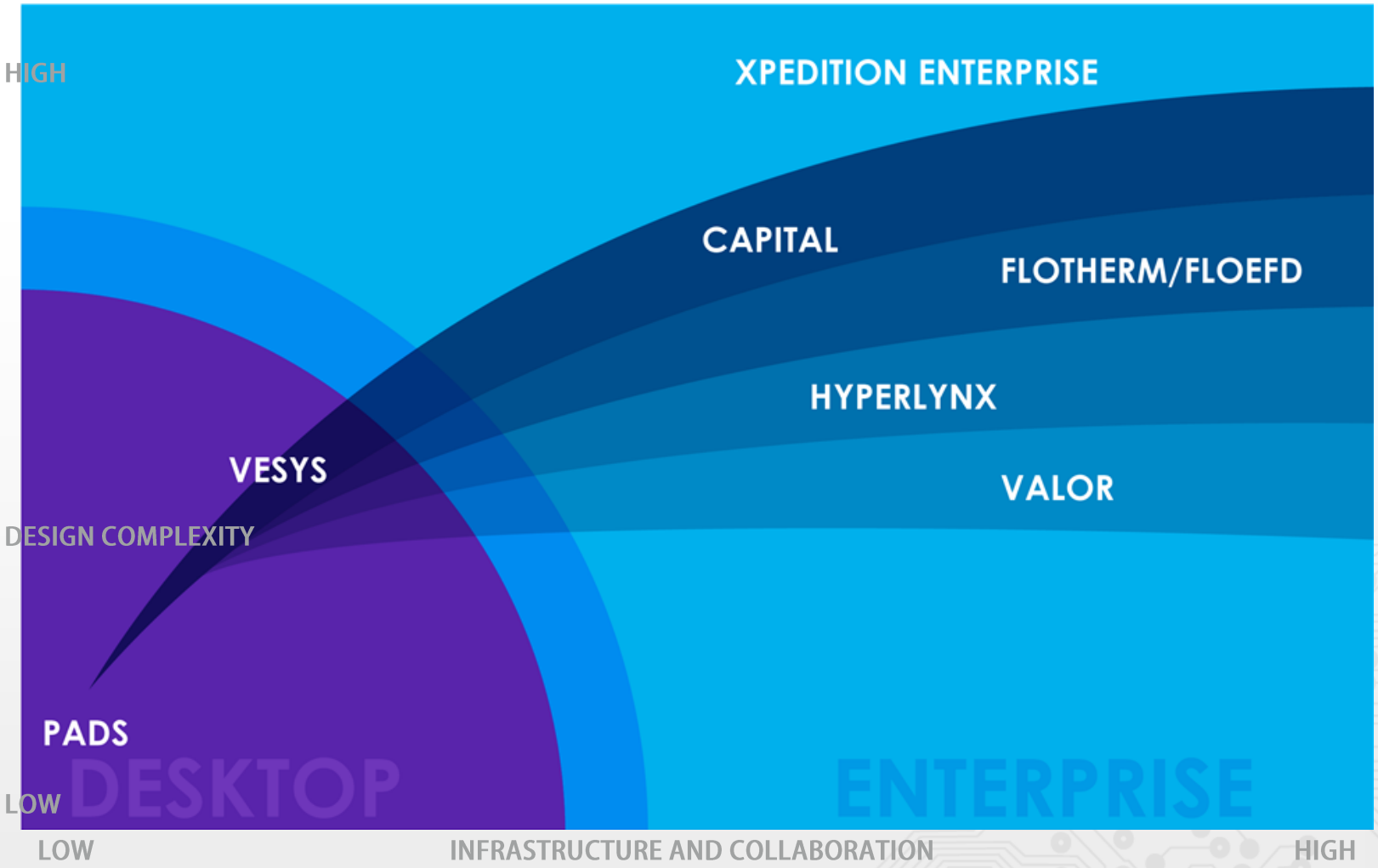
PADS VX Solution Range – Grows With Your Needs



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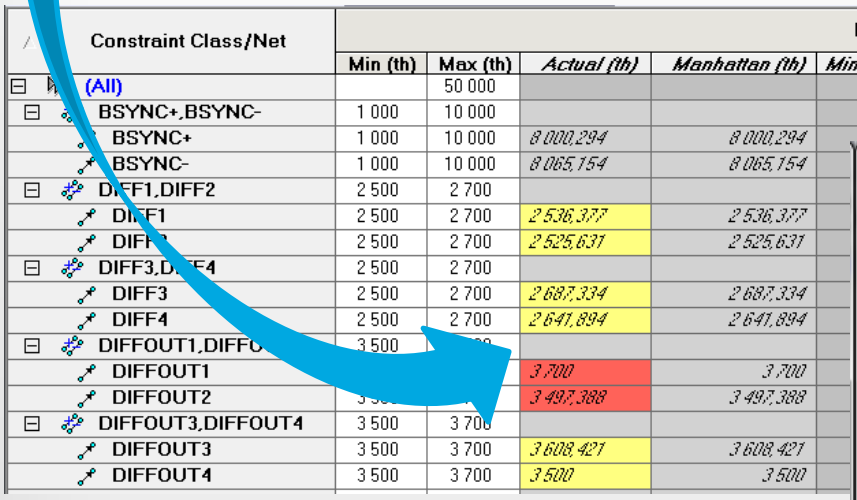
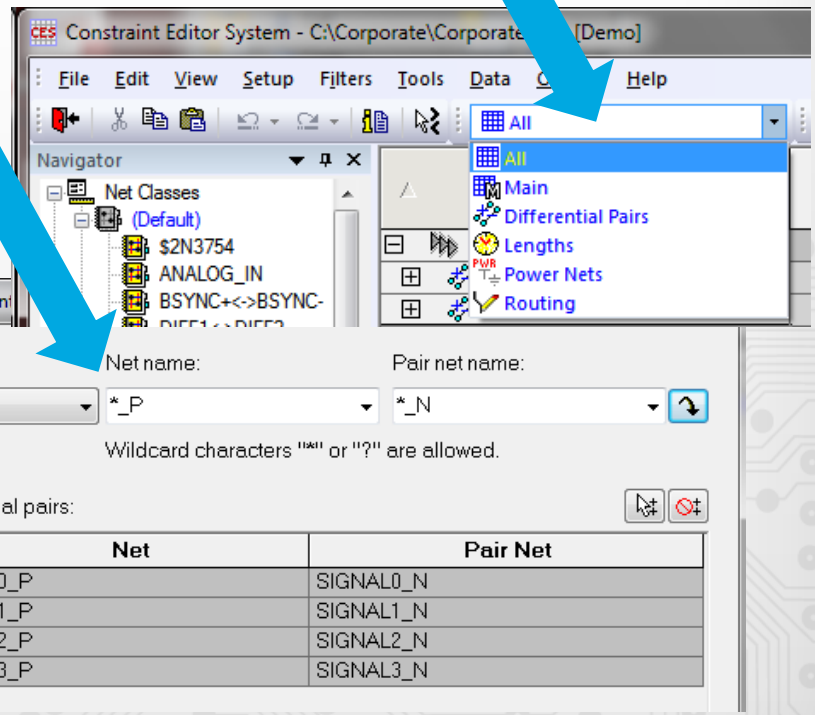
Constraint Management

NEW IN PADS® VX

- Spreadsheet paradigm increases productivity
- Extensive filters for viewing specific objects & constraints
- Color highlighting for rules violations
- Auto assign Differential Pairs



Constraint Class/Net	Length				
	Min (th)	Max (th)	Actual (th)	Manhattan (th)	Min Length (th)
(All)		50 000			
BSYNC+,BSYNC-	1 000	10 000			
BSYNC+	1 000	10 000	8 000,294	8 000,294	
BSYNC-	1 000	10 000	8 065,154	8 065,154	
DIFF1,DIFF2	2 500	2 700			
DIFF1	2 500	2 700	2 536,377	2 536,377	
DIFF2	2 500	2 700	2 525,631	2 525,631	
DIFF3,DIFF4	2 500	2 700			
DIFF3	2 500	2 700	2 687,334	2 687,334	
DIFF4	2 500	2 700	2 641,894	2 641,894	
DIFFOUT1,DIFFOUT2	3 500				
DIFFOUT1			3 700	3 700	
DIFFOUT2			3 497,388	3 497,388	
DIFFOUT3,DIFFOUT4	3 500	3 700			
DIFFOUT3	3 500	3 700	3 608,421	3 608,421	
DIFFOUT4	3 500	3 700	3 500	3 500	



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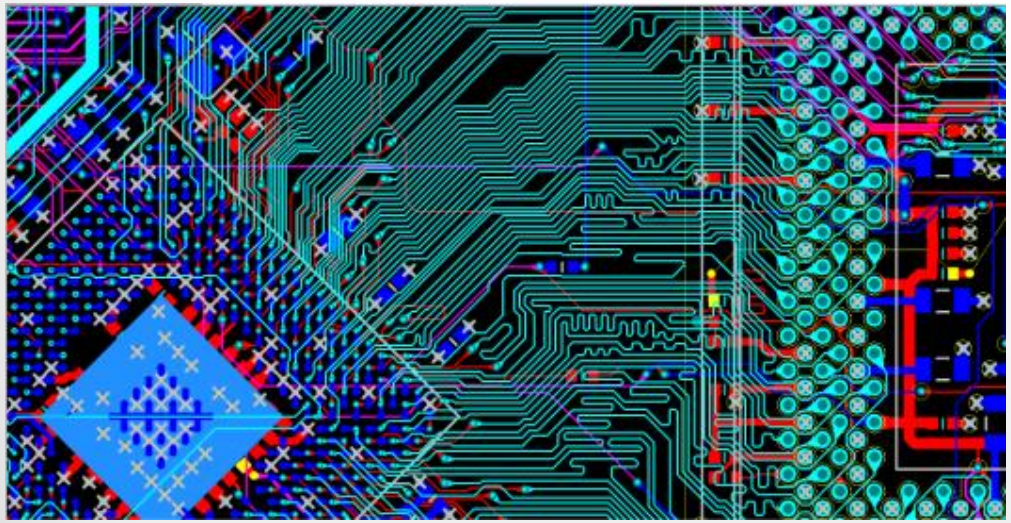
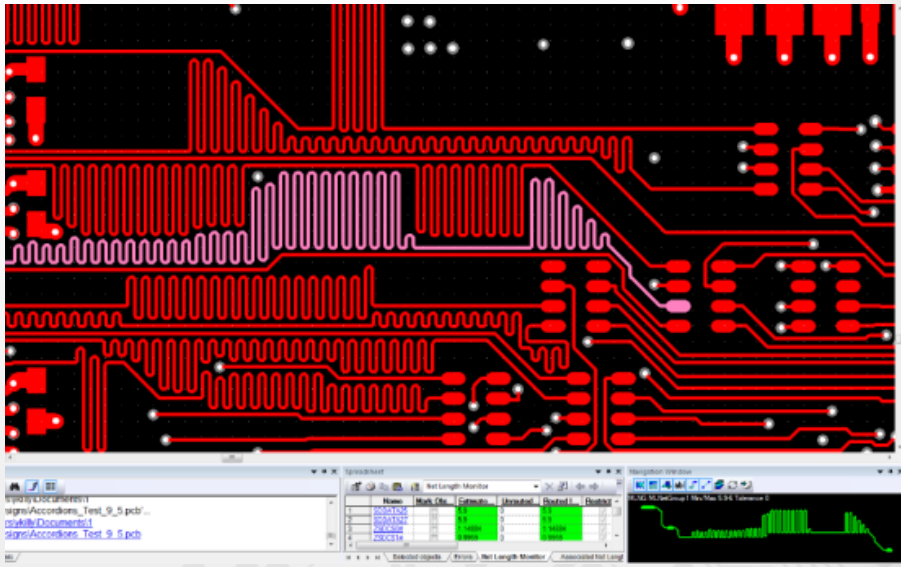
What is important for Routing

- Online design rule checking to prevent costly errors
- Robust rules hierarchy
- Constraint-driven interactive and auto-routing





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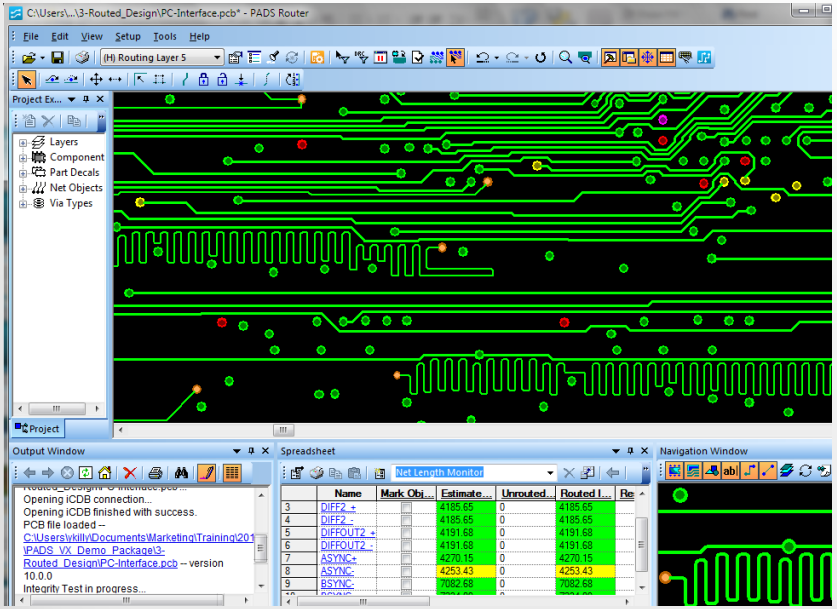
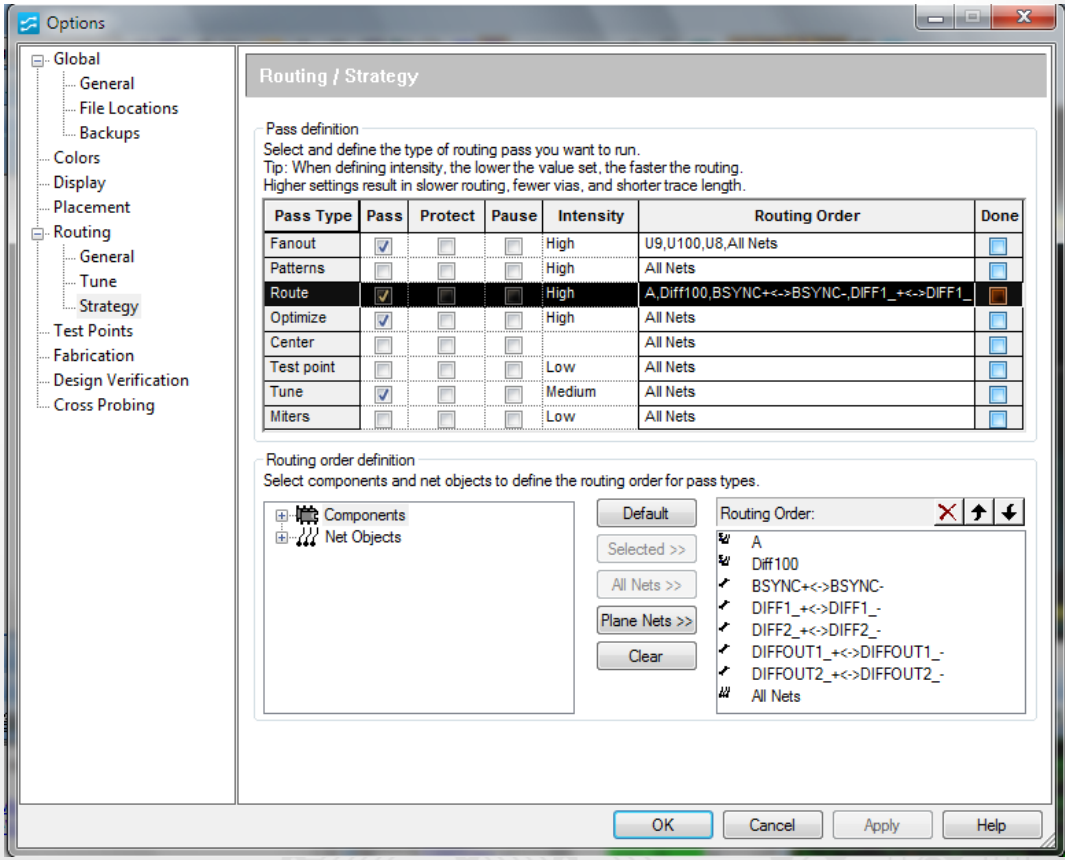
Autorouting in Stages

- Autoroute like you would route manually
  - Fanout
  - Critical Signals
  - Important sections
  - Dense components
  - Route the rest of Signals





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