

# Promotional CADSTAR Bundles Americas

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CADSTAR Distribution Manager





## Extreme

- Including 1 year software upgrades, technical support and access to the online libraries
- B<sup>2</sup>Spice Mixed Mode Simulation
- Design Migration
- Schematic Design
- Library Editor
- Library Datasheet Publisher
- Variant Manager
- PCB Design Editor (unlimited)
- Place & Route Editor
- Unlimited Layer Auto-router
- XR5000 HSpeed router
- Rules by Area
- Board Modeler Lite (3D)
- EMC Adviser
- Signal Integrity Verify
- Free Gerber Editor (Excelcam)
- Free Design Viewer
- Network or Node-locked license

Main Menu

## Professional

- Including 1 year software upgrades, technical support and access to the online libraries
- B<sup>2</sup>Spice Mixed Mode Simulation
- Design Migration
- Schematic Design
- Library Editor
- Library Datasheet Publisher
- Variant Manager
- PCB Design Editor (unlimited)
- Place & Route Editor
- Unlimited Layer Auto-router
- XR2000 HSpeed router
- Rules by Area
- Board Modeler Lite (3D)
- EMC Adviser
- Free Gerber Editor (Excelcam)
- Free Design Viewer
- Network or Node-locked license

## Basic

- Including 1 year software upgrades, technical support and access to the online libraries
- B<sup>2</sup>Spice Mixed Mode Simulation
- Design Migration
- Schematic Design
- Library Editor
- Library Datasheet Publisher
- Variant Manager
- PCB Design Editor (unlimited)
- Place & Route Editor
- 6 Layer Auto-router
- Free Gerber Editor (Excelcam)
- Free Design Viewer
- Network or Node-locked license

# CADSTAR Product Information



- Design Migration
- Library Editor
- Schematics
- B<sup>2</sup> Spice (Beige Bag)
- FPGA Design (Aldec) - Optional
- Variant Manager
- PCB Design
- Place & Route Editor
- Rules by Area
- HSpeed Routing
- Dragon Autorouter - Optional
- SI Verify
- EMC Adviser
- BoardModeler Lite (3D)
- Manufacturing Output
- Design Viewer

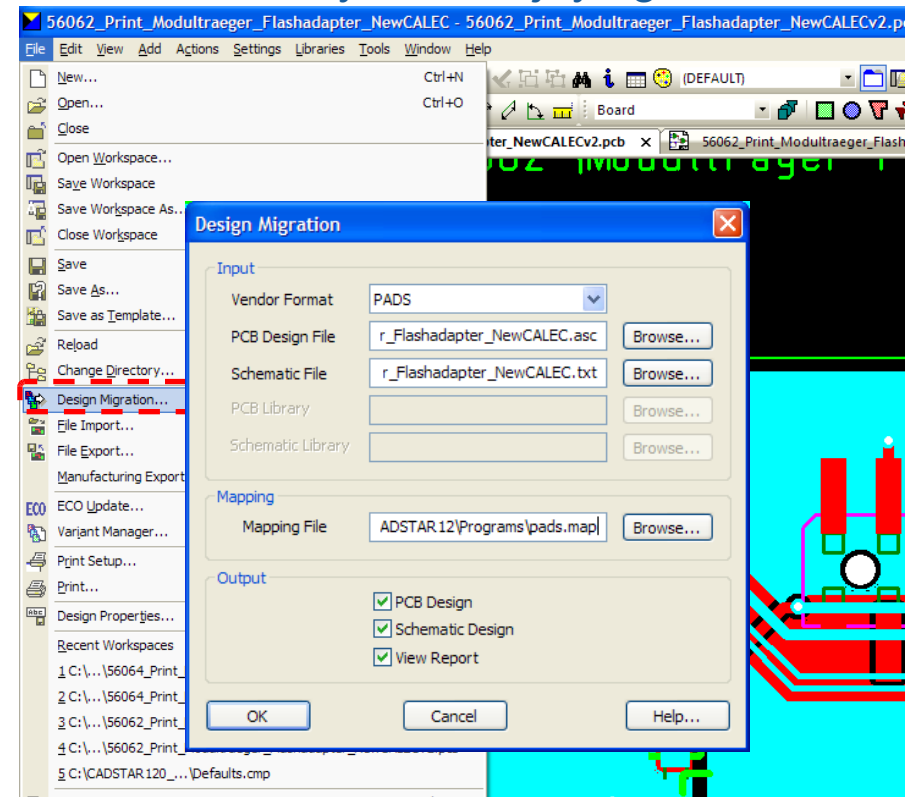
# CADSTAR Design Migration Tools

- Migrating designs and libraries into CADSTAR from incumbent EDA tools allows you to transition without having a negative impact on existing design schedules, schematics and libraries
  - Using these tools, you can move from your current PCB design tool safely and without disruption, enabling you to immediately start enjoying the benefits of CADSTAR

## BENEFITS

Migration is available from:

- Mentor Graphics - PADS
  - Available Nov 2009
- Cadence OrCAD coming soon
  - Planned Jan 2010
- Altium - Protel & PCAD coming soon
  - Planned Mar 2010



# CADSTAR Library



- As the components used in PCB designs become more sophisticated and complex with higher density pin configurations, the need to create accurate design libraries becomes paramount
- CADSTAR's on-line libraries have more than 250,000 ready-made parts and are updated and expanded constantly
- If the part required is not available in the libraries, CADSTAR offers a set of tools to enable any user to quickly and accurately create their own parts

## BENEFITS

- Schematic & PCB component wizards
- Version control
- Datasheet publisher
- Object linking and embedding (OLE) integration with links to ODBC databases
- and much more...

Main Menu

The screenshot shows the ZUKEN Linkz website interface. At the top, there is a navigation bar with links for LINKZ, NEWS, DOWNLOAD, HOTLINE, MANUALS, and LOGOUT. The main content area displays the title "SM320C6201B-GLP-16 Library Datasheet" and identifies it as a "Fixed-Point Digital Signal Processor (429pins)". Below this, there is a "Download Part" section with a link to "SM320C6201B-GLP-16.zip". A "Part Attribute Table" is provided, listing various attributes and their values. At the bottom, there is a "Symbol" section with a visual representation of the component's pin configuration.

Part Attribute Table	
Attribute Name	Attribute Value
SI_PART	SM320C6201B-GLP-16
Height/Inches	0.129
Manufacturer	TEXAS
Component Description	Fixed-Point Digital Signal Processor
Package	CBGA
Technology	CMOS
Elec_type	IC
URL to Manufacturer's PDF datasheet	<a href="http://www.s.ti.com/sc/psheets/equs031a/equs031a.pdf">www.s.ti.com/sc/psheets/equs031a/equs031a.pdf</a>

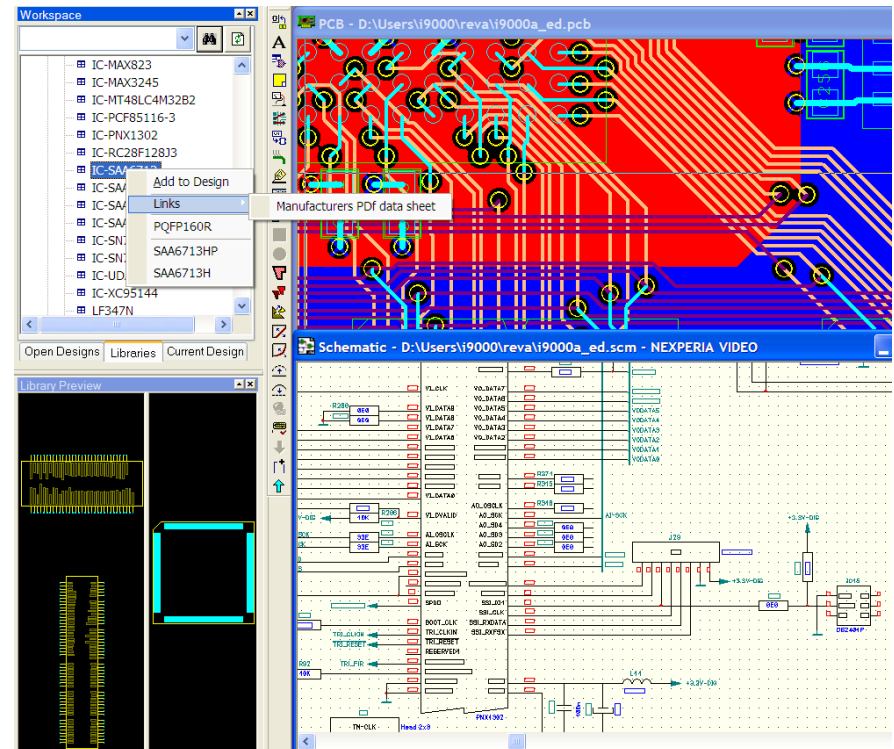
# CADSTAR Schematics

- CADSTAR Schematics is a highly integrated front-end solution, providing a smooth and error-free transition (forward & back annotation) between schematics and PCB, easy to learn and use for both occasional and frequent users

## BENEFITS

- Hierarchical design
- Constraint driven
- Re-use design
- Version control
- Variant Manager
- Auto connect
- Search & filter libraries
- Intelligent signal busses
- Signal sheet references
- Intelligent PDF output
- and much more...

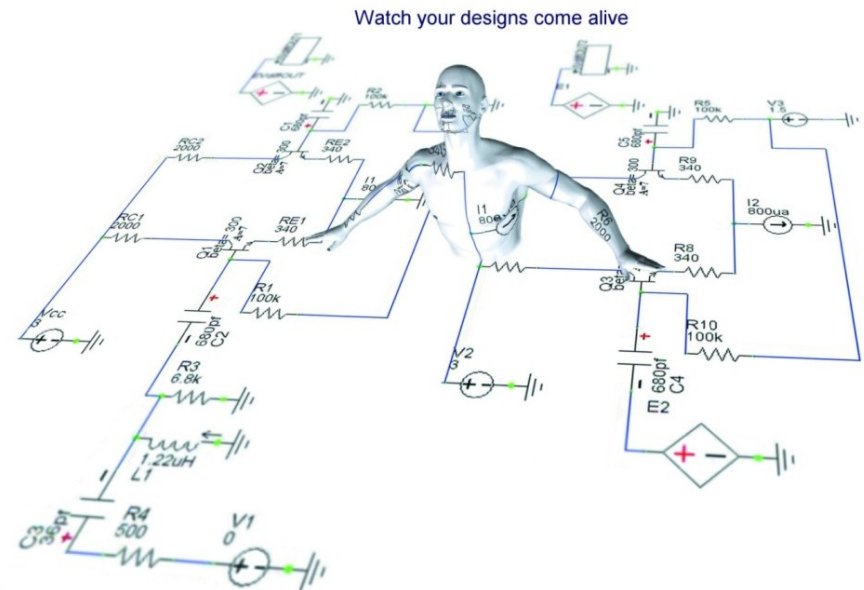
Main Menu



- B<sup>2</sup> Spice A/D Professional CS integrates with CADSTAR and enables Analog Digital and Mixed-Mode simulation

## BENEFITS

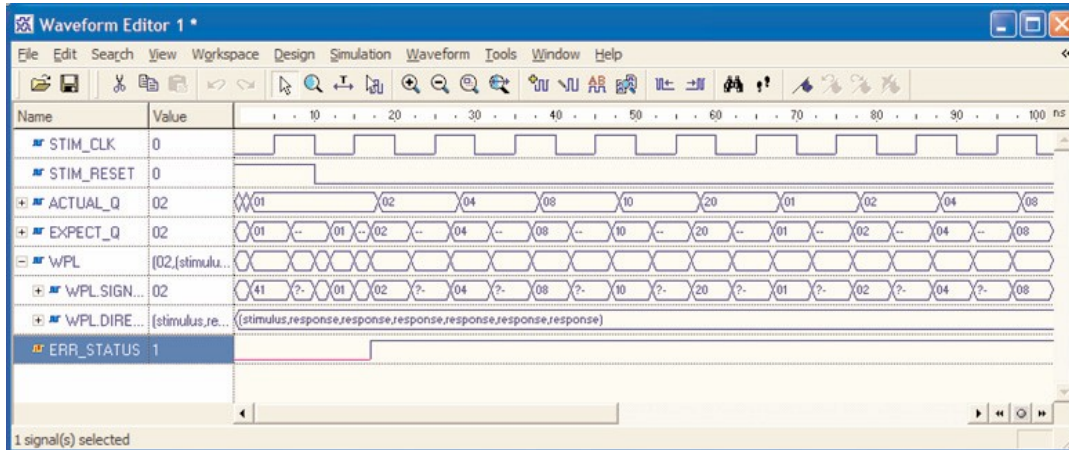
- Import CADSTAR circuits into B<sup>2</sup>Spice for simulation
- Library Editor to map parts from CADSTAR libraries into the B<sup>2</sup>Spice database
- Mixed-mode circuits
- Virtual instruments
- Monte carlo
- Multiple parameter sweeps
- Powerful tests
- Real-time parameter modifications
- Cross probing
- 25,000 device library
- and much more...



# CADSTAR FPGA (Optional)



- A collaborative product from Aldec & Zuken offering a complete FPGA – PCB design and verification solution by combining ACTIVE-HDL Lite and CADSTAR supporting Actel, Altera, Lattice, Quicklogic and Xilinx from one mixed language simulation environment



## BENEFITS

- An integrated environment offering the ability to run RTL and to verify the design using a rich set of debugging tools
- Integrates and runs any combination of logic synthesis and implementation tools reducing manual time consuming data entry and verification
- Post-synthesis and timing simulation
- Robust and complete FPGA design and verification
- Export & Import of I/O Pin information between FPGA and PCB design to ensure pin synchronization of both environments in order to optimize not only the FPGA design, but as well the PCB routing
- and much more...

# CADSTAR Variant Manager



- Allowing you to manage all the variants of a design for multiple product and international requirements, storing all information in a single Schematic and PCB design file, each with its own Bill of Materials (BOM)

## BENEFITS

- Enables you to generate variants of a 'master' design without having to maintain separate files for each variant
- Change of Partname, Value or Fitted/Not Fitted components per Variant
- Hide Not Fitted components and connections when printing
- Variants are inserted in the Batch Process table, Partlist & Report Generator
- and much more...

	Use	Description	Variant	Process Type	Colour/Report File	Device Type	Device
1	<input checked="" type="checkbox"/>	Gerber Copper pattern Componentside	Europe	Artwork	Gerber Cu Co	Photo Plotter	RS274-X.L
2	<input checked="" type="checkbox"/>	Gerber Copper pattern Solderside	Europe	Artwork	Gerber Cu Sol	Photo Plotter	RS274-X.L
3	<input checked="" type="checkbox"/>	Gerber Solderresist Componentside	Europe	Artwork	Gerber Solder	Photo Plotter	RS274-X.L
4	<input checked="" type="checkbox"/>	Gerber Solderresist Solderside	Europe	Artwork	Gerber Solder	Photo Plotter	RS274-X.L
5	<input checked="" type="checkbox"/>	Gerber Solderpaste Componentside	Europe	Artwork	Gerber Solder	Photo Plotter	RS274-X.L
6	<input checked="" type="checkbox"/>	Gerber Silkscreen Componentside	Europe	Artwork	Gerber Silksc	Photo Plotter	RS274-X.L
7	<input checked="" type="checkbox"/>	Gerber Silkscreen Componentside	America	Artwork	Gerber Silksc	Photo Plotter	RS274-X.L
8	<input checked="" type="checkbox"/>	Partlisting	Europe	Report	<Parts List>	Text File	<None>
9	<input checked="" type="checkbox"/>	Partlisting	America	Report	<Parts List>	Text File	<None>
10	<input checked="" type="checkbox"/>	Placementdata	Europe	Report	Placement.rgf	Text File	<None>
11	<input checked="" type="checkbox"/>	Drilldata (Plated Through Holes)	Europe	N.C. Drill	Default.col	NCDrill File	EXCELLO
12	<input checked="" type="checkbox"/>	Drilldata (Non-Plated Through Holes)	Europe	N.C. Drill	Default.col	NCDrill File	EXCELLO

Output Directory: D:\CADSTAR60\_Demos\Projects\Variants\Manufacturing Output\

Report... Check PCB Start

Ready.

# CADSTAR PCB Design

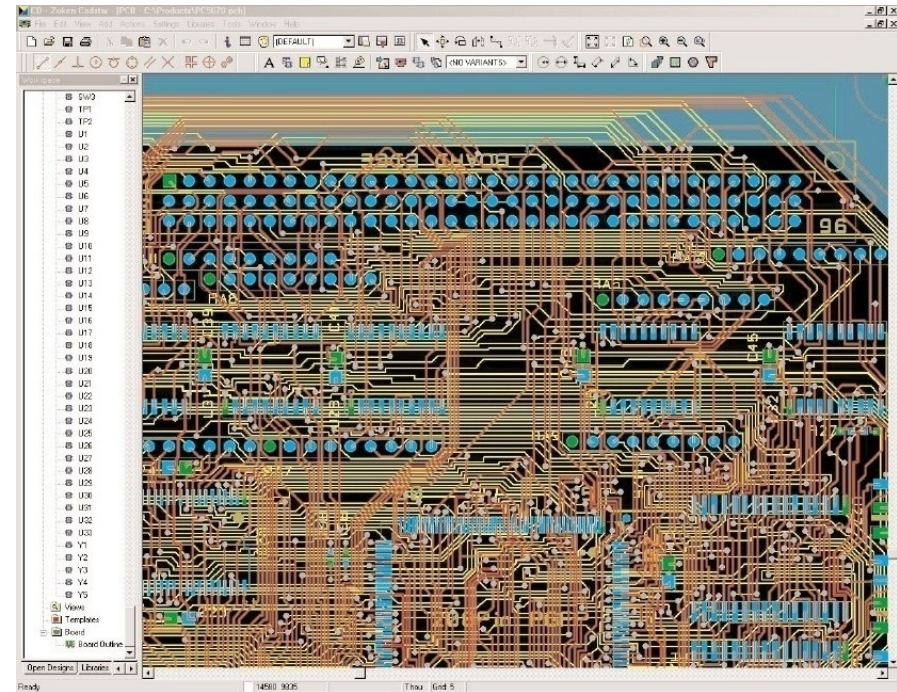


- The constraint driven approach of CADSTAR PCB layout helps you create right-first-time designs no matter what the complexity - from designs that are single-sided and double-sided, through to more advanced technologies involved in multilayer, SMT and RF designs

## BENEFITS

- Forward & back annotation
- Constraint driven
- Re-use design
- Version control
- Variant Manager
- Replicate placement
- Powerful drawing tools
- Auto dimensioning
- Snap to
- Batch Process
- and much more...

Main Menu



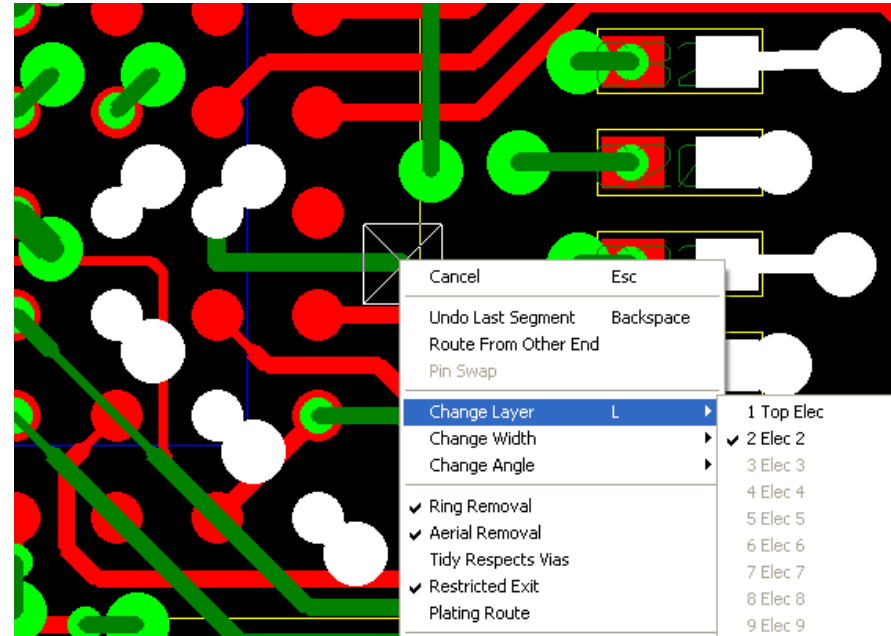
# CADSTAR Place & Route Editor



- With CADSTAR's placement and routing tools, we have simplified the completion of everyday tasks

## BENEFITS

- Advanced interactive placement & routing tools
- Push-aside & spring-back
- On-line design rule check
- Active-45 single click manual routing
- Copy & paste routing
- Copper pour and plough
- Trunk routing
- Memory routing
- Curved routing
- Fan-out
- Auto routing
- and much more...



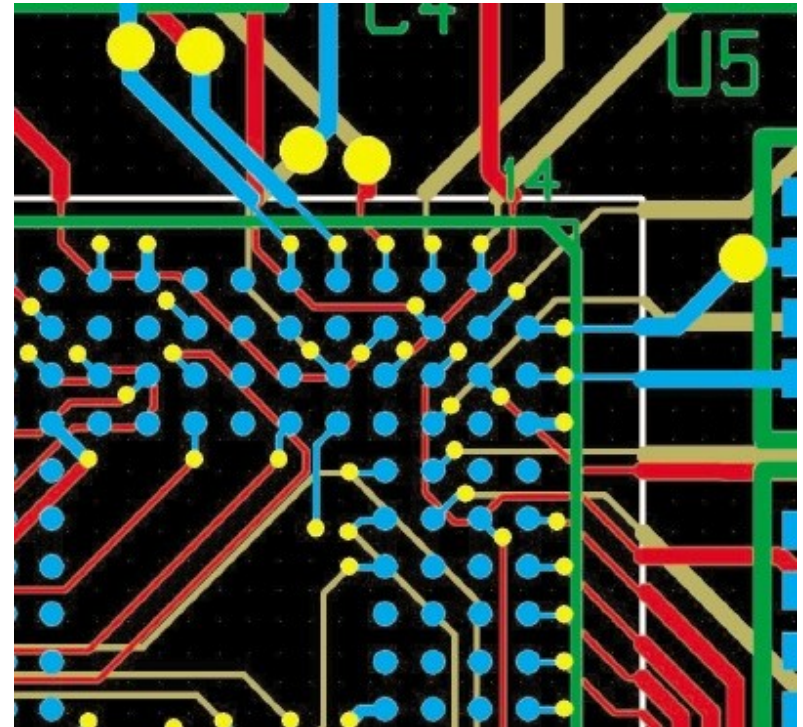
# CADSTAR Rules by Area



- The rules-by-area function automatically routes using different design rules, such as reduced track widths, to meet the challenge of small complex dense components

## BENEFITS

- Benefits you when you are forced to compromise your design rules when using for example BGAs
- Helps you when yield is a problem in the design of fine-pitch devices
- Incorporate overlapping areas that can be any shape into your designs
- Lets you copy areas, while also obtaining and copying the associated technology restriction rules
- Definable routing widths, via technologies and spacing rules per area and layer
- and much more...



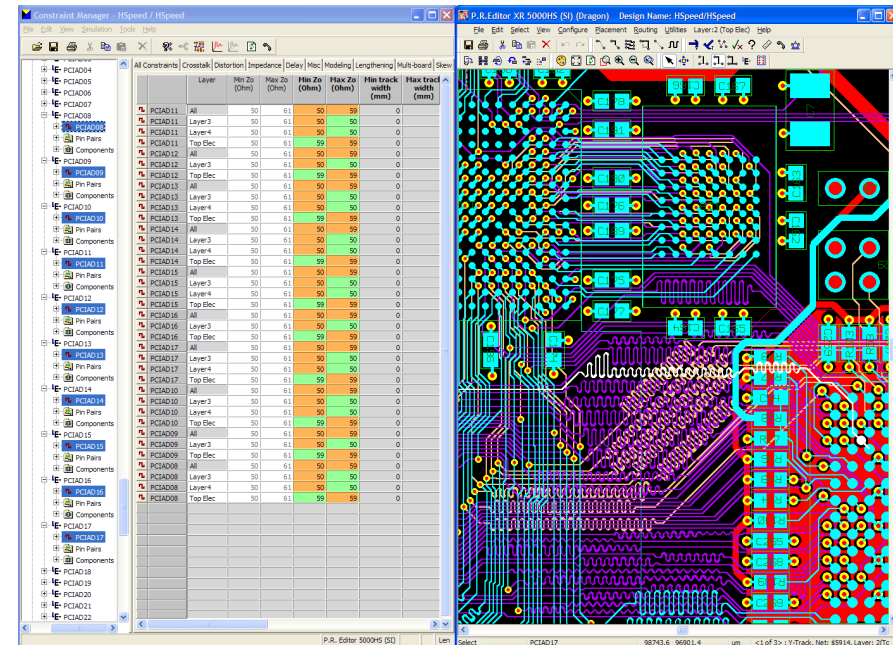
# CADSTAR HSpeed Routing



- The Place & Route Editor XR HS can handle a wide range of circuit rules and routing constraints that you can set early in the design process to ensure your designs are implemented correctly first time, every time

## BENEFITS

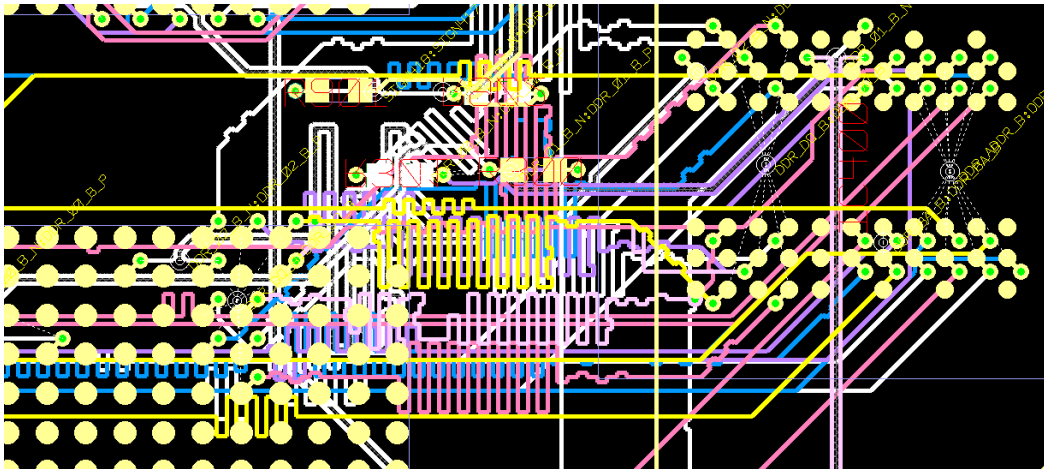
- Pin & branch ordering
- Controlled stub-lengths
- Min/max length and delay constraints
- Skew constraints
- Maximum crosstalk limits
- Differential pair routing
- Route shielding
- Daisy chain routes
- Impedance, overshoot and crosstalk head-up routing display
- Interactive length and skew control
- and much more...



# Dragon Auto-Router (Optional)



- A New Approach to Auto-routing
  - Adoption of Zuken technologies developed for high-end EDA solutions also available with CADSTAR
  - The Dragon Routing Platform moves away from traditional settings-based auto-routing to a new approach that combines intelligence and a strategy-driven approach to meet your routing requirements



## BENEFITS

- Intelligent environment to solve your routing problems
- Easy setup
- Reduced design cycle times
- Routing consultant
- Generates routing strategies
- What-if analysis of multiple strategies
- Re-use strategies across designs
- Native 45-degree routing
- Fan-out for high pin count devices
- Meeting high-speed constraints
- Differential pair routing
- Minimize uncoupled length and skew
- and much more...

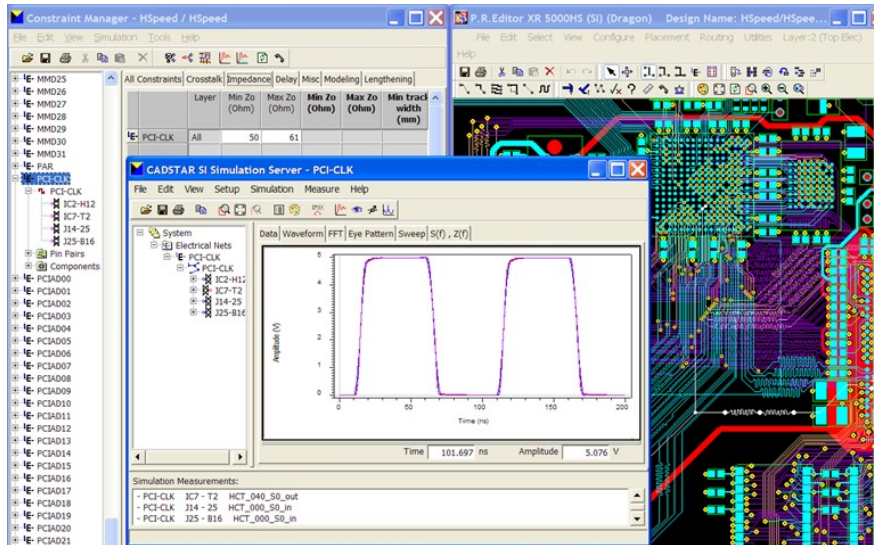
# CADSTAR SI Verify



- A complete post-layout signal integrity simulation toolset, seamlessly integrated into CADSTAR
  - Sophisticated post layout signal analysis: delays, rise/fall times, lossy/lossless transmission lines, coupled/uncoupled transmission lines, differential pairs, time or frequency domain, editable stimulus definition

## BENEFITS

- Evaluate the effects of proposed layer stack changes, different track widths, and track-to-track spacing
- Constraint Manager as design navigation cockpit for simulation
- ‘What If’ Scenario Editor
- Single simulation library to ensure consistency (IBIS import)
- Digital and Analog Stimulus
- Critical nets highlighted
- Comprehensive Analysis Backplane
- Waveform Display
- Eye diagram
- RF Models for passive Devices
- and much more...



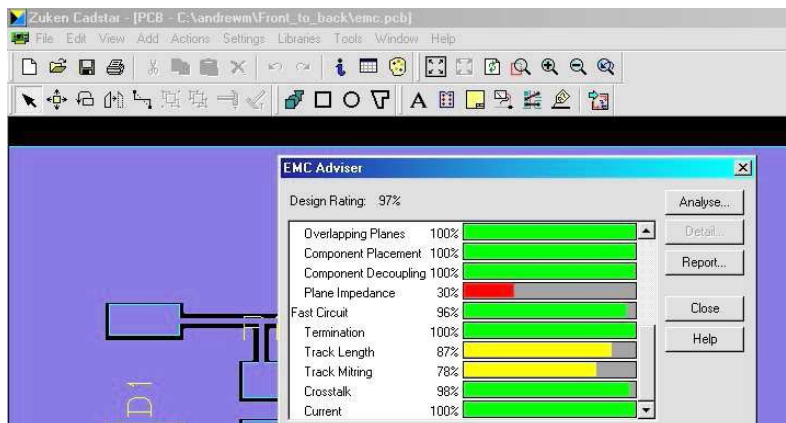
# CADSTAR EMC Adviser



- With the CADSTAR EMC Adviser, Zuken is meeting the requirement for improved EMC compliance of PCBs
  - Avoidance of closed and open loop antennae, Track shielding, Impedance profile, Primary routing directions, Track stub lengths, Track resonance, Ground return loops, EMC compatible layer stack, Isolated copper areas, Overlapping power planes, Component placement partitioning, Component decoupling requirements, High power plane impedance, Termination, Track length, Track corner mitering, Crosstalk analysis, Track impedance and Track current capacity

## BENEFITS

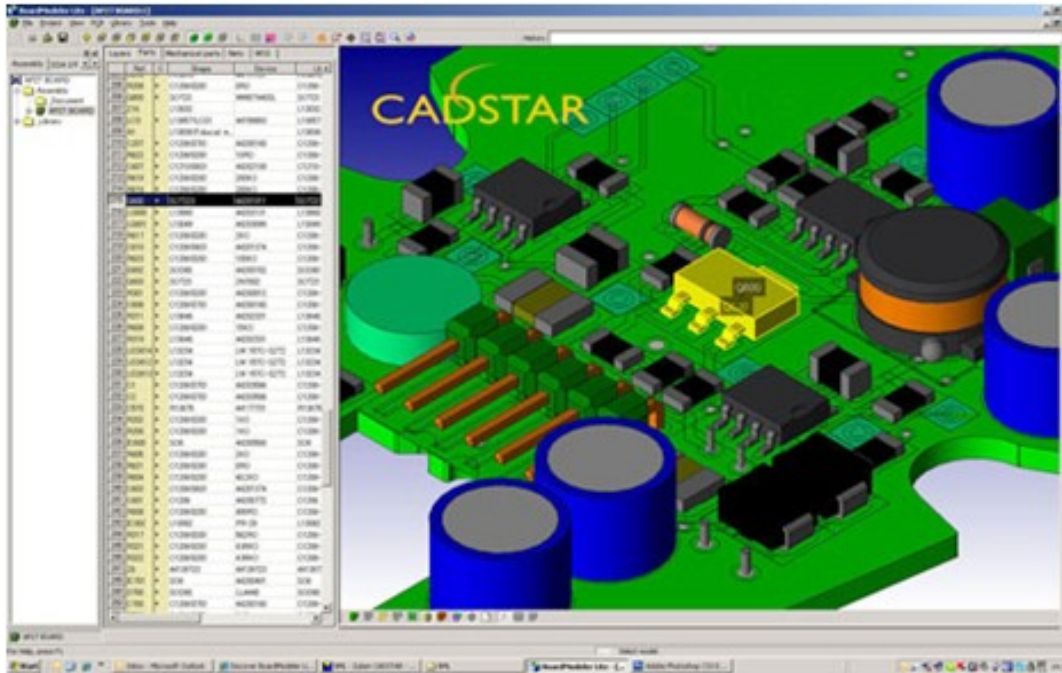
- Fully integrated
- Driven from Schematics
- Graphical histograms
- Parameters for 'What If' situations
- Highlighting reported concerns
- Suggest files
- Rule weightings
- Reusable configuration
- Integrated field solver
- Checking against 20 pre-defined rules
- and much more...



# CADSTAR Board Modeler Lite



- BoardModeler Lite bridges the gap between electronic and mechanical design allowing the PCB designer to work in a 3D environment



## BENEFITS

- Import new board outlines and height areas to meet the CAD design
- Easy control icons
- Move, rotate, mirror and align components
- On-line or batch collision checks between components, boards and cases
- View individual collisions and make placement changes to resolve them
- Simple or detailed 3D models
- Import/Export of STEP, ACIS, STL and IDF format
- Reduces number of unnecessary iterations between departments
- and much more...

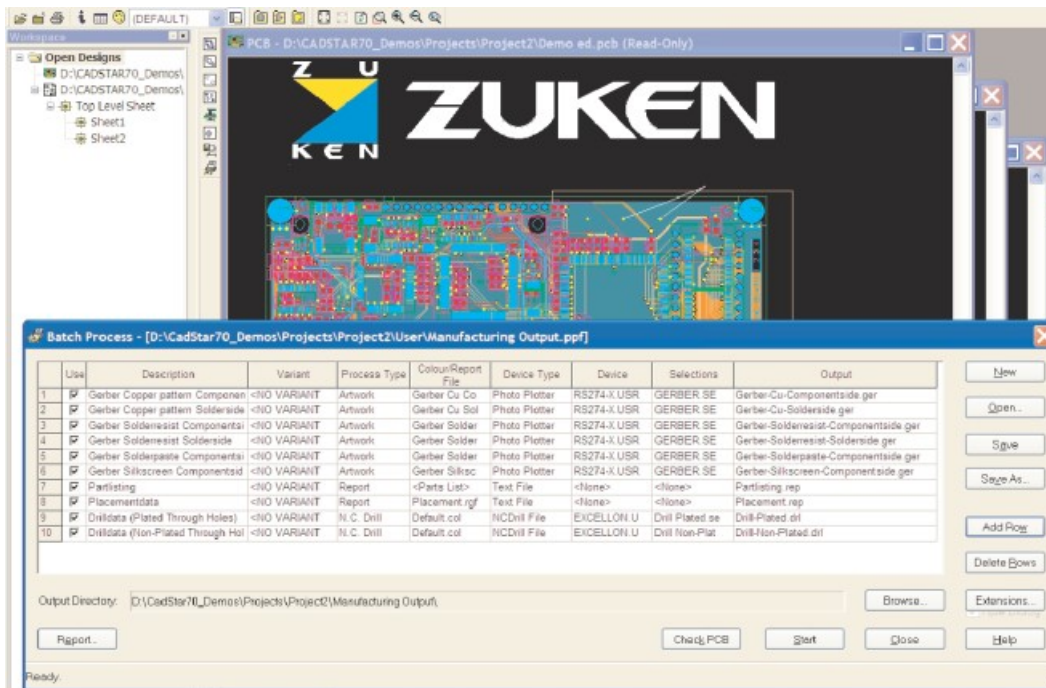
# CADSTAR Manufacturing Output



- The Batch post process option available as standard in CADSTAR allows users to process manufacturing data quickly and accurately

## BENEFITS

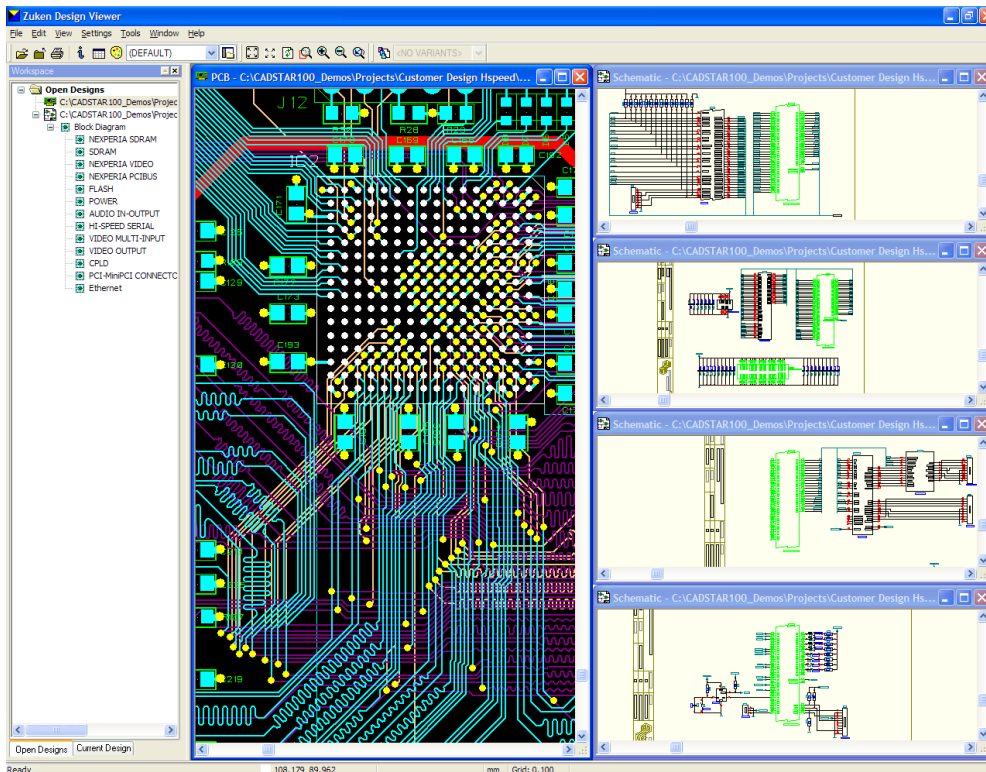
- CADSTAR provides manufacturing output formats such as extended Gerber (RS274X), extended NC Drill (Excellon), Bill Of Materials (B.O.M's), Insertion data, ODB++, IPC356-D and native PDF output for documentation
- Simple or complex Bill Of Materials can be created in standard text format or through the OLE interface available as standard, output directly within MS Excel
- CADSTAR also supports the ODB++ container to send bundled fabrication, assembly, placement data and test data to the manufacturers
- and much more...



# CADSTAR Design Viewer



- The CADSTAR Design Viewer is a *FREE* download that lets you share and access CADSTAR design data



## BENEFITS

- CADSTAR Design Viewer makes design data accessible to anyone
- Easy viewing, cross probing and sharing of schematic and PCB design data
- Provides management, project leaders, sub-contractors, engineering and design teams, purchasing departments, manufacturers, and customers with direct access to design data to help them plan projects and track and review progress
- Built on the same GUI as CADSTAR itself and is very easy to use
- and much more...

# Electrical & Electronic Engineering

*- Our focus, your benefit*

