



CADSTAR Lite

D A T A S H E E T

CADSTAR Lite is Zuken's integrated schematic and PCB design solution available at a very affordable price.

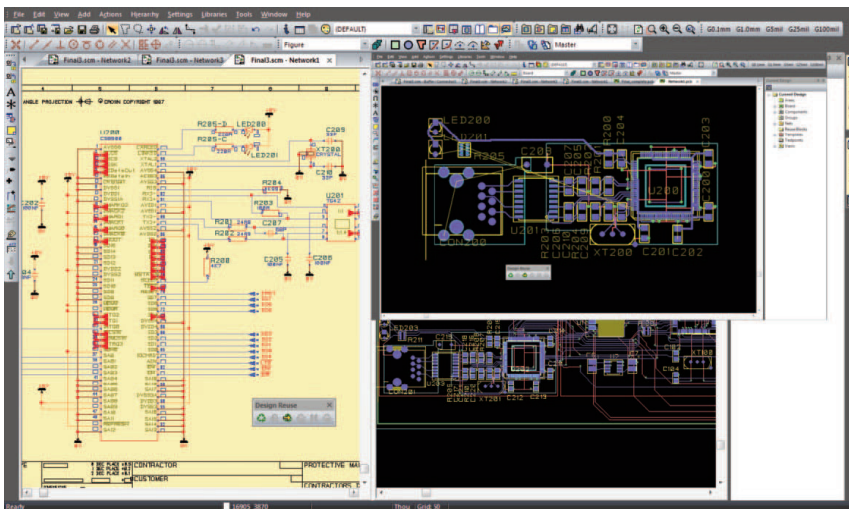
CADSTAR is an intuitive Windows based program that is easy-to-use, fast and error-free, helping you deliver effective designs in less time.

With industrial-strength technology from Zuken, one of the longest established suppliers in EDA, it has the breadth of capability and power you need to address today's demanding design challenges.

CADSTAR Lite provides vast functionality and performance at a price you can afford. 33% of the world's PCBs are designed on Zuken tools - why not join them?

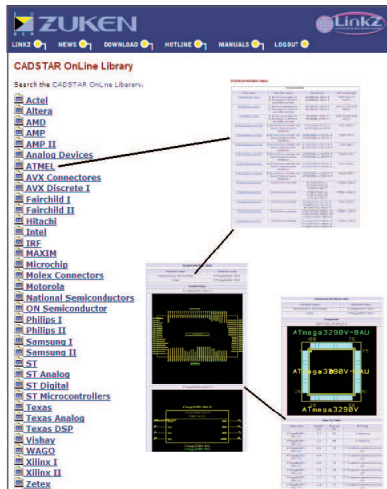
BENEFITS

- Short time-to-market for product design
- OCBC compliant database support
- A powerful online component library
- A smooth product development flow without data loss or distortion
- Advanced design rule checks for right-first-time design
- A scalable design solution that integrates with most industry leading EDA software for total flexibility to design simple or complex PCBs
- Reuse of any number of approved „re-use blocks“ in any future design
- Intuitive GUI; menus, toolbars, macros and more totally configurable
- Intelligent copy and paste
- Create a searchable electronic document in PDF format
- Unparalleled interactive component placing and routing with outstanding performance completion and manufacturability



Choose a Part from our Expanding OnLine Libraries

Access our OnLine Libraries with over 250,000 parts from over 30 major manufacturers, all created to IPC7351 standards.



A Customisable, Powerful G.U.I.

Set up the screen just as you like: all menus, toolbars, macros and shortcuts are totally configurable. The multiple document interface lets you display any combination of application windows, making it easy to compare designs or copy data from one to the next. Dockable feature windows that automatically minimise when not in use ensure you retain the maximum screen area for your design.

Strokes

Strokes are a series of intuitive mouse movements that enhance pan and zoom capability, to speed up navigation around your design and allow you to maintain focus on your design objectives.

Drag & Drop

Simply drag and drop parts from your library onto your designmaking Schematic generation fast and intuitive.

Version Control of Library Elements

CADSTAR automatically maintains a track of the version of Parts, Symbols and Components used in your design, allowing you to validate your designs use only the correct parts.

Mixed Multiple Sheets And Hierarchical System Design

CADSTAR seamlessly manages the connectivity throughout all levels or hierarchy and across all sheets. Use any combination of hierarchical blocks to organise and bring structure to even the most complex design.

Add Multiple Area Definitions to Components

Build intelligence into your library to prevent routes or vias being placed under components to avoid sensitive areas.

Alternate Components

You can assign any number of alternate component shapes to a part, making it easy to support the use of alternative footprints or mounting strategies for assembly.

Symbol Design Wizards

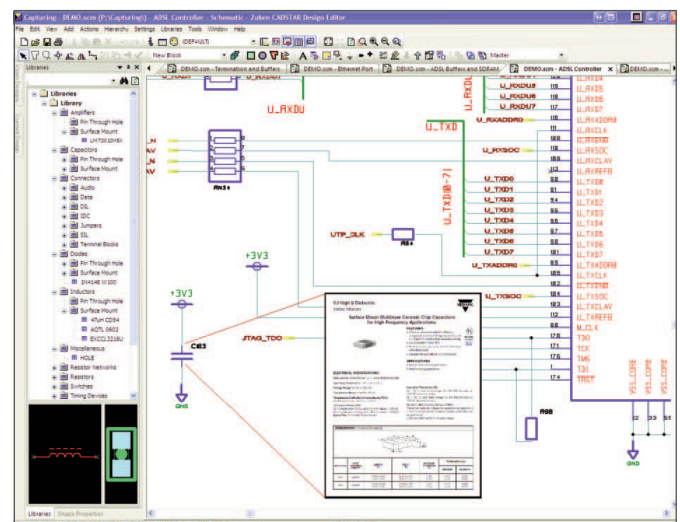
Follow the fast, easy step by step process guide to create your own Schematic symbols and PCB components (footprints).

Zones

Easily navigate around your schematic and follow the connectivity by way of automatically added hyperlink text to show where else that net exists throughout the schematic.

Intelligent Links

CADSTAR provides the facility for manufacturer's data sheets to be linked to a part within the library. These links propagate throughout the design process giving Engineers instant access to the datasheet from the schematic or the PCB.



Intelligent Copy and Paste

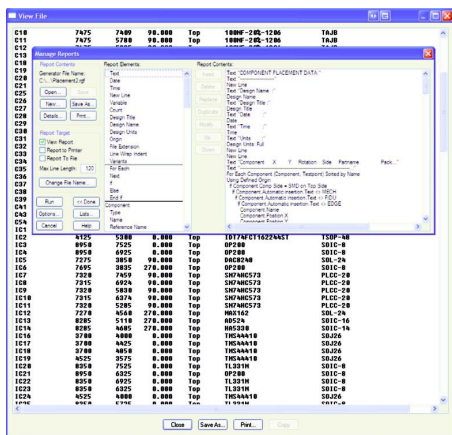
More than just Windows copy and paste, CADSTAR automatically re-assigns reference designators to maintain electrical integrity of the design.

Forward Engineering Control

Capture design intent and constraints within CADSTAR schematic that are automatically annotated to the PCB design. Route widths, component groups, spacing classes and a wide range of other attributes can all be assigned by the Engineer, with the reassurance that all constraints will be available for the PCB Layout designer.

Report and Programming Options

CADSTAR provides standard reports for electrical rule check, unconnected pins, parts list and host of other, plus a built-in Report Generator that lets you extract the data you need in a flexible format. DRC error checks report have 'active' hyperlinks: click on the error and instantly navigate to that area of the design.



If you need more power, the OLE Automation interface lets you manipulate the design and extend the core functionality by adding your own features.

Single Click Transfer to PCB

Because CADSTAR is a single executable there is no need to import/export any parts lists to go from the schematic to the PCB environment – just one click and CADSTAR manages the binary transfer for you.

Template Designs

Company standards can be built in to user defined templates – layer stacks, board finishes, manufacturer notes, etc. can all be incorporated within a design template to ensure repeatability.

Import and Export of DXF (IDF optional)

Import complex geometry from your mechanical systems using industry-standard DXF format, saving time whilst maintaining accuracy. Export all or part of your design to DXF format for documentation or other purposes.

Suppress Inner Layer Pads

CADSTAR automatically removes unconnected inner layer pads to benefit both the manufacturer and designer by providing more space for routing.

Bi-Directional Cross Probing

Useful as both a placement aid and for diagnostics on a completed PCB, selections of any electrical item(s) within the schematic will automatically select the corresponding item in the PCB – or from PCB to the schematic with support for multiple monitors.

Drawing and Dimensioning with Snaps

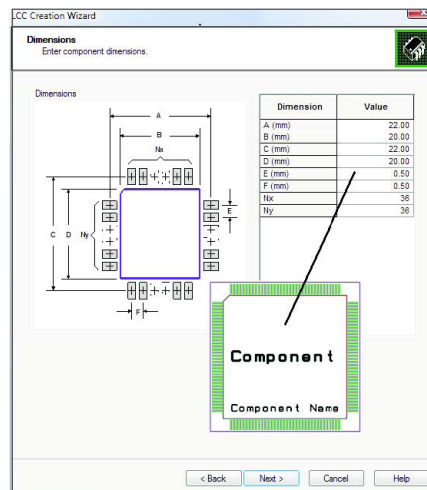
CADSTAR has a complete suite of drawing and dimensioning tools, together with the selectable 'autosnap' functionality to simplify shape creation and editing.

Slotted Holes

View slots as you would expect to see any standard drill hole. Once you have specified the slot dimensions and orientation the feature will be correctly reflected in the resulting NC drill program.

Component Footprint Wizard

DIP, SOIC, BGA, QFP – all quickly and accurately created by following the simple process steps.



Intelligent PDF

The intelligent PDF writer creates a searchable electronic document that contains parts attributes from your library. Allow colleagues to view and navigate around your design without the risk of any unintended changes.

Star Points

When needing to join multiple ground nets at one central location, CADSTAR will automatically recognise these features and exclude any false errors from your DRC reports.

Replicate Placement

Using multiple channels in your designs? Huge time savings can be made by not having to repeat multiple instances of critical analogue placement. Complete the first instance and CADSTAR will automatically select the correct components to complete the rest.

Assisted Placement

Use the Auto Placement routines to logically organise components around the board, check space requirements for each side of the PCB and evaluate alternative rotations for arrays of high pin count devices.

Design Block Reuse

Create a library of matching 're-use blocks' for schematic and PCB, making the best use of existing design elements in future designs. Simply add a sub-circuit block to your Schematic, transfer to PCB and load a predefined layout block including components, tracks, copper and text. Whether you use it for multiple channel designs, critical analogue or RF circuit blocks, or just to replicate a commonly used layout pattern, Design Reuse will save you time and ensure repeatability of design.

Batch Processing

Set up a single batch file for all of your design data requirements, and then all of your post processing will be completed with a single mouse click. CADSTAR supports all industry standard formats such as Gerber 274X, NC Drill and ODB++.

Place and Route Editor Interactive

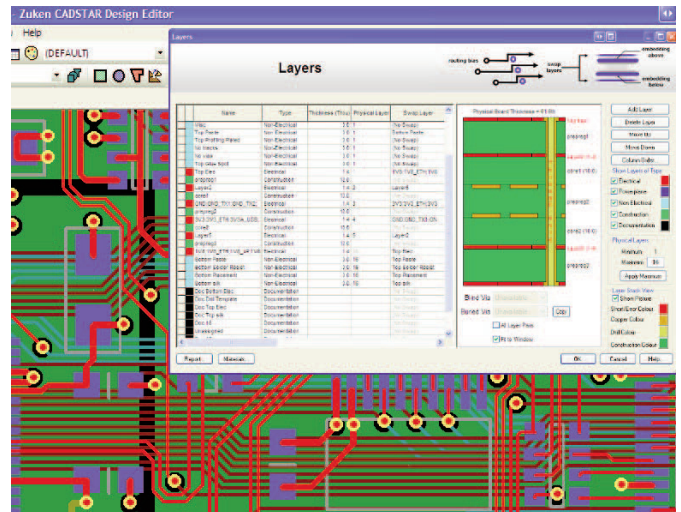
P.R.Editor XR offers a powerful, interactive placement and routing environment that provides outstanding performance, high completion rates and manufacturability of the final design. Online DRC (Design Rules Check) when used in conjunction with the 'no-errors' option you can be assured of routing an error free design.

Copper Planes with Auto Re-Pour

Definition of multiple planes and copper areas is fast and easy, with the added benefit of an automatic re-pour mode to ensure copper is regenerated after editing tracks to maintain the maximum area and plane connectivity.

Layer-Stack Editor

If you need to specify your build and layer to layer dielectric spacings, CADSTAR offers a scaled cross sectional representation detailing any via requirements and all copper weights. This image can then be used in any external documentation.



Powerful Interactive Routing

Including memory routing, 90 degree, 45 degree and any angle routing, online DRC routing and even curved routing.

Design Comparison

Powerful and configurable design compare will compare PCB to PCB, SCM to SCM or SCM to PCB and show the differences.

Feature List

General

- True 32 bit Windows application
- Support for Windows XP, Vista, and Windows 7 (32 bit and 64 bit)
- True metric and imperial unit support
- Database resolution 0.001mm
- Rotation to 1/1000 Degree
- 255 layers
- Embedded or True Type fonts

Interaction

- Support for undo/redo
- Macro recorder
- User definable toolbars and function keys
- Keyboard commands
- Online help
- Smart update
- Intelligent cut, copy and paste
- Tool tips
- Import of 3rd party schematics and PCB (PADS, OrCAD, PCAD and Protel)
- Access to the Zuken OnLine Libraries
- Schematic symbol wizards
- Component footprint wizards
- Multiple library support
- Customisable library attributes
- Intelligent hyperlinks
- Interactive drag and drop

PCB

- User definable design origin
- 2000 pins per component
- Documentation symbols
- Positional rename
- Secondary reference designator
- Component areas (keep out, no vias)
- Back annotation to schematic
- Manual and automatic placement
- PCB footprint alignment
- Component wizards
- Replicate placement
- Automatic pin & gate swap
- Blind and buried Vias
- User definable 'pad stack'
- Design rule check
- Measurement/dimension tool with snap feature
- Item property with editable query
- Duplicate shapes

Schematics

- True connective data structure
- User definable sheet sizes
- Flat sheet and hierarchical design
- Parametric library searcher
- Zones, with off-sheet references
- Star point plane connection
- Testpoints in SCM and PCB
- Design templates
- Text readability
- Electrical rules check
- Binary transfer to PCB design and ECO update
- Cross-probing between schematic and PCB

Routing

- Grid-free routing
- Interactive and semi-automatic routing
- Auto-necking to SMD pads
- Teardrops
- Support for split planes
- Automatic copper pour and repour
- Online DRC
- 90, 45 and free angle routing
- Routability analysis and report

Outputs

- Manufacturing export – gerber (RS-274X, RS-274D), ODB++
- Batch post process
- Smart PDF output
- Excellon drill file output

Optional Modules

- Variant manager
- Spice simulation
- High Speed Router (HSpeed)
- Dragon Autorouting platform
- Rules by area
- CADSTAR FPGA
- BoardModeler Lite (3D)
- EMC advisor
- SI Verify

More

CADSTAR is a fully featured PCB Design System renown for its excellent price-performance ratio. From simple single-sided through-hole designs to multi-layer, surface mount, high-speed digital and analogue designs,

CADSTAR is capable of designing today's most demanding Printed Circuit Boards. From schematics, board- and FPGA level system design,

PCB layout, high-speed and signal integrity, analysis, 3D, creation of manufacturing output, to complete data management capabilities and extensive internet-accessible libraries containing over 250,000 components, CADSTAR provides you with all technologies necessary for a complete electronic development process in one environment.

CADSTAR Express

A free download of CADSTAR's Express provides a quick and easy way for you to experience the basic features of CADSTAR. It includes all the functionality, limited to 300 pins and 50 components, plus the opportunity to experience Zuken's advanced P.R.Editor XR 2000. In addition you are also able to view samples of CADSTAR Exchange, a 250,000+ components OnLine Library.

CADSTAR Design Viewer

A free download of CADSTAR's design viewer gives easy viewing and sharing of schematic and PCB design data. This allows management, project leaders, design partners and customers to plan or discuss projects and track and review progress.

For more information on all the tools and solutions available with CADSTAR, please visit www.zuken.com/CADSTAR.