

CADSTAR

TrainingServices



quadra
solutions

People. Knowledge. Innovation.

Our role is driven by demand and vindicated by success.

Commercially orientated training courses provided by Quadra Solutions ensure you are equipped with the skills and knowledge to bring your PCB from concept through to placement and manufacture. With over 40 years of collective experience in the design, engineering and manufacture of PCB's, our instructors are capable of training novices through to the more advanced user how to successfully and cost effectively turn their concepts into reality with CADSTAR PCB design technology.

Targeted to meet your requirements

Designed and written by our PCB design professionals all of the courses at Quadra Solutions are specifically focused on developing the skills, knowledge and abilities of your design team members to the highest level of PCB design standards.

Classes of no more than 6 delegates guarantees individual care and the highest level of personal tuition. Quadra instructors operate in an open and honest environment to encourage discussion, ideas and fruitful learning.

Focused on business considerations

Quadra Solutions training packages are designed to increase productivity and improve performance leading to a higher return on investment through efficient and effective use of your software. Whether it is SI Verify, PR Editor XR2000, PR Editor XR2000 HS, or a CADSTAR Essentials course you are looking for, we can offer a training package to suit your business.

We aim to provide training that is educational, hands-on and relevant. We provide a comprehensive range of scheduled training courses which are held at our training centre in Accrington or, alternatively, can be arranged on your premises. Where a scheduled course does not fit your needs we can provide tailored training specifically for your individual or company requirements.



Why take our word for it.....

Having never used CADSTAR software before, a colleague of mine who is very well associated with Quadra suggested I got booked onto the essentials course, which I did. The instructor at Quadra spent just 4 days taking me through all the functionality and then I got started on the refurb of over 100 turret control computers for the MoD.

Paul Carr, BAE Systems

I went on a two day, one on one, advanced course at Quadra. The course was very flexible in that I was able to bring along notes that I had been making on functionality I had been struggling with, and this was covered in the course. The instructor built on these notes and covered the advanced skills I would need to progress from where I was, at that stage, also covering some of the not so visible software functionality which can speed up many of the tasks. Training is something which I think is necessary to be able to use all the diverse tools within any software, without the training I received, I would have been phoning the Quadra technicians constantly so they could talk me through how to perform a variety of tasks.

Dave Naish, PCB Designer, DiGiCo UK Ltd

We had a training course with Quadra Solutions for 6 members of our team, onsite with us. It was really good, the instructors from Quadra brought all the equipment they needed, the relevant PC's, everything, we just provided the room. We found the instructors very helpful and knowledgeable, all our questions were answered and it was clear they knew what they were talking about. We are looking at booking on some more training with Quadra very shortly.

Chris Stills, Technical Director, Sonifex



You might not know.....

>According to the Evolve Consultancy Survey, 22% of respondents reported that by far the most common issue is in regard to users' lack of knowledge, training or understanding of software.

>Research shows that 1.3 million people go to work every day without the skills required to maximise their job potential. (The Times Newspaper)

>The Computer Suppliers Federation conducted a study of trained and untrained operatives and found that untrained operatives only used 20% of the functionality of the software, took twice as long to reach the same level of productivity as a trained user and never achieved the skill level of trained users either.

CADSTAR Essentials - 4 days

This course covers the fundamental principles of the CADSTAR software, delegates learn all the basics of CADSTAR through to the advanced design tools and techniques.

Objectives

The primary objective of this course is to provide delegates with a thorough understanding of the principals of schematic capture and PCB design, validation and documentation processes that they will use to develop PCBs using CADSTAR.

Who Should Attend

This course is designed for new CADSTAR users and those without any previous CADSTAR training.

Prerequisites

Some working knowledge of PCB layouts would be an advantage but not essential.

Note

This course can be split into two, two day courses, one course focusing on Schematics and one course focusing on PCB Layout.

Course Outline

- >System overview, CADSTAR User Interface
- >Assignments and defaults
- >Library Structure
- >Using the graphical Library Editor and stack management
- >Library searcher and workspace, internet libraries
- >Editing and datasheet generation
- >Component selection, placement, tools and techniques
- >Hierarchy, all aspects of hierarchical creation and management
- >Using the forward ECO and back annotation function
- >Macros, their use and format
- >Post processing, using the WYSIWYG post processor
- >Transfer to PCB
- >Creating custom reports using the report generator.
- >Understanding net codes - net classes and spacing classes
- >Attributes and constraints -their use and benefit
- >Generating a BOM
- >Symbol and component version control
- >Using the symbol and component creation wizard.
- >Function keys - definition and usage
- >Design technology - creating custom technologies,
- >Utilities - setting colours, grid units and defining layers
- >Creating and importing PCB outlines
- >Route editor interactive - application of a dynamic route editor
- >Introduction to test lands
- >Copper pour functionality and manipulation
- >Split power planes



PR Editor XR2000 - 2 Days

This course will provide delegates with a comprehensive understanding of routing and all the tools and functionality of the PR Editor software.

Objectives

This course has been designed to enhance routing productivity, develop existing skills and to encourage the use of interactive routing techniques.

Who should attend

Those users who are new to PR Editor.

Prerequisites

Working experience with PCBs is essential.

Course Outline

- > System Overview, menus and toolbar options
- > Manual routing in the PR Editor application, and routability analysis
- > Interactive autorouting, harnessing the power of the tool
- > Auto routing strategies, push n shove, rip up and retry
- > Routing algorithms memory route, river route, bus route, freehand route, multi pass and smoothing
- > Copy and paste routing groups
- > Creating and saving component footprints for optimal routing of dense designs
- > Automatic testpoint generator
- > Shape creation for templates, keep outs and copper pour
- > Study all of the report outputs available
- > Use CADSTAR PCB attributes such as net_via, net_testpoint, pin_routing, net and spacing classes



CADSTAR 3D - 1 Day

An introduction to design verification in the world of 3D, this course guides the delegate through how to check and verify designs within a 3D environment.

Objectives

Having attended this course, students will be proficient in the use of CADSTAR 3D.

Who should attend

This course is essential for those just getting started with CADSTAR 3D in order for them to gain immediate benefit from their investment in the tool.

Prerequisites

Knowledge of PCB design is essential.

Course Outline

- > Becoming acquainted with the interface
- > Preparing a PCB design for 3D analysis
- > Loading a design and its geometry into 3D
- > Carrying out a collision check
- > Changing to a new carrier (Board outline)
- > Using symbols from the 3D Library
- >Performance collision simulation checks
- >Design rule checks
- >Moving components in a 3D environment



CADSTAR Update Training - 1 Day

Over the last two years Zuken have released CADSTAR versions 10 and 11, within these two releases there are many new features and functions that both improve your productivity whilst designing with CADSTAR and expand the capability of the software.

Objectives

Quadra have developed a single day update course designed to help you realise the benefits of the latest version of CADSTAR and to make sure you get the very best from your investment in CADSTAR. Our update course consists of 4 modules, Library Editor, Schematic Editor, PCB Editor and PR Editor with each module focusing on the changes incorporated in Versions 10 and 11.

Who Should Attend

This course is designed for CADSTAR users who need update training on versions 10 and 11. Ideally delegates will have recently been working with CADSTAR 8 or 9 and have some knowledge of what CADSTAR 10 and 11 have in addition.

Prerequisites

Working knowledge of CADSTAR 8 or 9.



Course Outline

Library Editor

- >Learn how to incorporate version control into your Symbol, Components and Part libraries
- >Discover how to improve your library structure with the adoption of new attributes within your libraries
- >Understand how to reload selected parts from libraries.
- >Improve the readability of your circuit diagrams by adopting the new sheet reference tools
- >Busses and groups now show in workspaces, we will show you how this can benefit your design flow.
- >A good library structure is key, we will show you how the new multiple field search can significantly speed up your designers

Schematic Editor

- >Busses have changed, there are new improved ways to generate and handle busses in CADSTAR Schematics
- >Realise what the new powerful positional rename incorporated into Schematics can offer on both new and existing designs.
- >See the possibilities that CADSTAR FPGA delivers throughout the whole design process

PCB Editor

- >We will show you how to implement and use 'Rules by Area'
- >We will conduct a brief masterclass in ODB++, what is it, why use it, what are the benefits?
- >How to set up and use slotted holes
- >Learn all about non-functional-lands, what are they?, why should they be removed?, what are the implications ?
- >Realise the power of pin and gate swapping.

PR Editor

- >Flip your designs
- >Drop Vias, how to implement and use
- >New Characteristic impedance calculator, in PR Editor 2000's' and above
- >Understand how to set up and use the trunk router.

Plus much more that we could not specifically categorise into one of the modules above such as;

- >The ability to store part information in your designs and what this means to you.
- >Custom Colours, highlight unconnected pins, multiple net highlight, What is lowlight? Drill offset, New Native PDF out.



PR Editor XR2000 HS - 2 Days

This course is an absolute must for those designing in the high speed digital world. Covering all aspects of routing within PCB design, delegates will learn how to accurately and intelligently use the Constraint Manager and PR Editor software within their PCB design from start to finish.

Objectives

The primary objective of this course is to provide delegates with a thorough understanding of the principal functionality and uses of the PR Editor tool. Delegates will learn the basics of constraint driven methodologies and how to best implement the various high speed design tools available within PR Editor.

Who should attend

Those new to PR Editor and those who require update training on new versions of the software.

Prerequisites

Working knowledge of CADSTAR is essential and some experience of routing would be an advantage.

Course Outline

- >Constraint Manager
- >Working with attributes and constraints
- >Net topology management
- >Managing skew groups
- >System overview, menus and tool bar options
- >Interaction with differential pairs
- >Utilisation of 'length based' attributes
- >Creating materials and building logical layer stacks
- >Impedance control designs
- >Shield routing
- >Utilisation of 'delay based' attributes
- >Delay-based routing
- >Cross talk analysis



CADSTAR SI Verify - 2 Days

A Front to Back Guide to the Application of CADSTAR SI Verify Tool in PCB design. From the very basics through to the advanced concepts and uses for the SI Verify tool, this course covers everything a delegate will need to be able to use SI Verify effectively.

Objectives

The primary objective of this course is to provide delegates with a thorough understanding of the principal functionality and uses of the SI Verify tool.

Who Should Attend

Those who are new to SI Verify and its uses and functionality.

Prerequisites

Experience of PCB layout and design is essential.

Course Outline

- > System Overview
- > The Constraint Manager Interface
- > Menus and toolbar options
- > Preparing a design for analysis in CADSTAR SI Verify
- > IBIS Models, where to source them, how to import and edit
- > The Circuit Model Editor
- > The Scenario Editor, powerful functional 'what If' pre design engineering
- > Reflection simulation
- > Signal screening
- > Crosstalk simulation
- > Termination analysis
- > Layer stack Configuration Editor
- > Wave form analyser



Easy ways to book your next course....

- 1 Telephone: 01254 301888
- 2 Email: training@quadrashop.co.uk
- 3 Fax back the registration form to: 01254 301323
- 4 Web: www.quadrashop.co.uk
- 5 eshop: book online now at www.quadrashop.co.uk



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