

Quadra **Solutions** Limited

People. **Knowledge.** Innovation.



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solutions

Quadra Solutions **An Introduction**

Quadra Solutions covers four main competencies:

- > **Computer Aided Design Solutions**
- > **PCB Design Services**
- > **Technical support**
- > **Training**

In each one of these four core services we look to not only satisfy our customers, but to exceed their expectations



Autodesk
Authorized Value Added Reseller

Authorized

Distributor



Quadra Solutions A Brief History

- Established in 1999 based in Accrington, Lancashire
- European CADSTAR Distributor of the year 1999, 2000, 2006, 2007
- Awarded Autodesk Authorised Training centre in 2001
- In 2004 moved into larger premises to improve training facilities
- Autodesk's fastest growing reseller 2006, 2007
- In 2008 became Autodesk Authorised Accreditation Centre
- Sole UK CADSTAR Reseller status awarded in 2009
 - Extended to Benelux 2010



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Quadra Solutions **Quality Policy**



Quadra Solutions Limited aim to provide goods and services to the highest quality standards and strive for total customer satisfaction



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Quadra Solutions **The Team**

Directors

Steve Dobson
Rob Hargreaves
Simon Dobson
Keith Watkins

Product Specialists

Kevin Doherty
Steve Livsey
James Latham
Simon Jackson
Bob Sadowski

Autodesk Support

Dave Wilkinson
Matt Hutchinson
Andrew Canfield

Marketing

Rachael Norris

PCB Design Bureau / CADSTAR Support

Matt Lamkin
Dave McClew
Paul Harrison
Mark Watkins
Mike McCartan
Phil Johnson

IT Support

Steve Taylor

Admin

Tori Sciekowski



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Quadra Solutions Training Services

Quadra's training centre delivers the highest standard of courses throughout the UK for PCB and mechanical designers, and has gained the prestigious Autodesk 'Authorised Training Centre' (ATC) recognition.

- We offer regular CADSTAR & Autodesk courses on all aspects of the software
- On-site or at the purpose built training facilities at Quadra Solutions
- Range of standard or bespoke courses to fit your needs
- CADSTAR & Autodesk Authorised Training Centre
- Autodesk Authorised Certification Centre
- Training grants and financial assistance available
- Class sizes limited to six



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The Cadstar Training Team

Rachael

Marketing



Tori

Administration



Matt Lamkin

Cadstar Products



Keith Watkins

High Speed & SIV Specialist



Dave Wilkinson

ECAD / MCAD Integration



Bob Sadowski

Product Specialist & Consulting



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Cadstar Courses Available

- Cadstar Essentials
- Routing Fundamentals - PR Editor XR2000
- High Speed Design - PREditor HS
- Signal Integrity - S.I.V.
- 3D Integration - Board Modeler Lite
- Product Updates - Version dependant
- Library Management
- Design Automation
- Custom content



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Essentials

- Objective

- to provide delegates with a thorough understanding of the principles of schematic capture, PCB design, library concepts, design validation and the documentation processes

- 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

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Routing Fundamentals

- PREditor XR2000

- Objectives

- provide delegates with a comprehensive understanding of routing and all the tools and functionality of the PR Editor software
- enhance routing productivity, develop existing skills and encourage the use of interactive routing techniques

- 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

High Speed Design

– PREditor HS

- Objectives

- provide delegates with a thorough understanding of the principal functionality and uses of the PREditor HS
- Delegates will learn the basics of constraint driven methodologies and how to best implement the various high speed design tools available within PR Editor

Constraint Manager overview

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

Signal Integrity Verify

- Objectives

- provide delegates with a thorough understanding of the principle functionality and uses of the SI Verify tool

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



3D Integration

- Board Modeler Lite

- Objective
 - Provides delegates with the skills to visualise, verify and measure PCB data in in the world of 3D
- The user interface
- Preparing a PCB design for 3D analysis
- Loading a design into 3D
- Substituting accurate 3D models
- Creating and import 3D models
- Carrying out collision checks
- Moving components
- Export MCAD files
- Importing MCAD files and transfer to Cadstar

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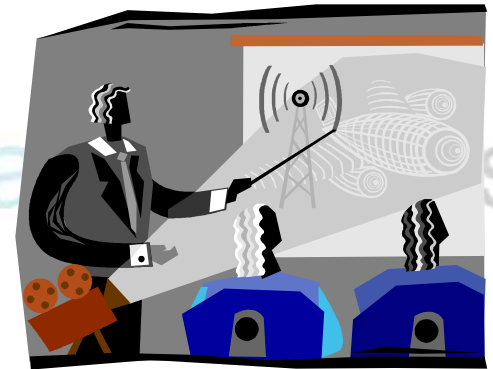
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Specialist & Custom Courses

- Library Management
- Customisation
- Manufacturing Automation
- Etc..



Summary



- **Employers** gain higher profits and a host of other bottom-line *benefits* from workplace education programs
- More skilful **employees** save employers *time and money*, and improve *performance and productivity*



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