

Micro Concepts Training Services



Formed in 1989, Micro Concepts are a premier supplier of Autodesk Computer Aided Design solutions in the UK. We provide a high level of training solutions through our team of qualified technical engineers, who have many years experience in both CAD and real world engineering solutions. Micro Concepts is an Autodesk Authorised Training Centre (ATC) and continually maintains the high standards and on-going accreditation testing required by Autodesk to retain this title.

Our instructors are required by Autodesk to take regular assessments to maintain the high level of service and knowledge that is expected from an accredited Training Centre, and we are proud that our team constantly have one of the highest pass results within the Autodesk channel.

The Need For Training

The one question that arises time and time again when it comes to implementing training is “*Why* should I take training?” In order to answer this question we need to understand the four key stages involved in learning any new process.

- 1 - *Unconscious Incompetence*
- 2 - *Conscious Incompetence*
- 3 - *Conscious Competence*
- 4 - *Unconscious Competence*

The problem when faced with any new situation, be that using a computer aided drawing package or learning to drive a car, is that we are Unconsciously Incompetent.

What do I mean by this? Well put simply, we don't yet know what we don't know. I'll let you read and digest that statement again but let's put it into context.

I sit in a motor car for the first time ever, I know what it is that I want to do, I want to drive the car but I am completely unaware (*Unconsciously Incompetent*) of the process necessary to drive a car. I don't know what buttons or levers do what in order to make the car go.

Ok so now I am one step further on, now I am *Consciously Incompetent* at least now I am aware (consciously) of how much I don't know.

This is the stage where I now know that I need training. I am not going to be able to safely drive this car by just pressing a bunch of buttons and levers and seeing what happens, I need to be trained how to do this properly and in the correct manner.



Transferring this idea back to CAD software you cannot just sit down at a new piece of software and teach yourself how to use it. Why not? Because you don't know what you need to learn.

Now you could fumble around push a few buttons, run through a few tutorials in a very disjointed manner and 'muddle through' but you will never be as productive and thus get the same return on investment as someone who has been trained how to drive this piece of software.

Obviously the consequences of teaching yourself how to use a piece of software and getting it wrong are not quite as serious as they are when teaching yourself how to drive a car but why is it that we wouldn't dream of letting somebody operate a brand new 5 axis milling machine without some form of training however we are more than happy to let somebody just 'have a go' when it comes to an investment of thousands of pounds worth of computer software?

Having invested heavily in a new tool, you need to get your staff up and running and using that tool as soon as possible, the only way to achieve this is to take training so that they can then become *Consciously Competent*.

Training will show people the required process necessary to get the most out of the system they are trying to operate. This is where they become *Consciously Competent*, they now know what they need to know and how to do it.

In time we require them to reach the final stage, *Unconsciously Competent* this is where we can fly around the software pressing buttons and pulling levers without really thinking (Consciously) about what it is we are actually doing. At this stage the software has just become a tool and we use it without thinking.

This is how we manage to drive our car to work each morning without really thinking about every pedal and button we are pressing, I'm sure you have had the experience of arriving at work in your car with very little recall of the journey you have just taken?

This does lead on to another very interesting question "Who is really driving the car?" but we'll leave that one for another time.



"It's Easy When you know how."

Return On Investment (ROI)

Consider the following scenario:

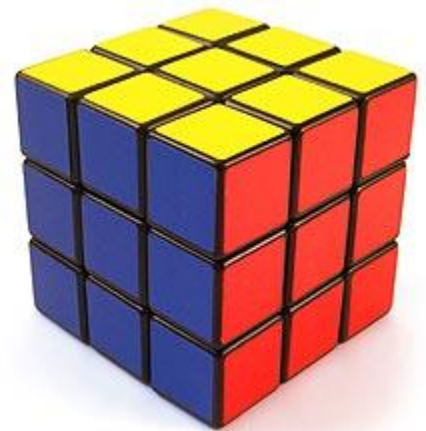
Imagine that you do not know how to solve the World Famous puzzle cube. If I were to hand you said cube and ask you to solve it how long do you think it would take you to 'Just Muddle Through' and work out how to solve the cube? An hour? A Day? A Week? – Never?

The current world record for solving the Rubik's cube is 9.18 seconds and is held by Edouard Chambon (France) in the Murcia Open 2008. That's correct, in the time it took you to read the previous sentence Edouard can complete the Rubik's cube.

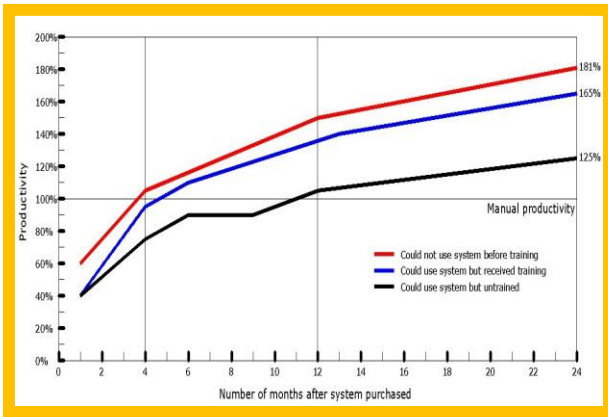
How? Edouard was not born knowing how to solve the Rubik's cube, it is something he has learnt to do and then just as importantly something he has practised over and over to become good at. Very good in fact.

"It's easy when you know how."

I asked you a question about how long it would take you to muddle through, the reality of this situation is that all the time your CAD users are just muddling through it is costing you money. The sooner you can get them up to speed and using the software as a tool like any other tool the faster you start to get a Return On Your investment. The only way to do this is to structure and follow an implementation plan that takes them from novice to expert in the shortest space of time.



Proven Track Record



Micro Concepts have an understanding of the importance of utilising your investment and have a proven track record of providing training that is educational, hands on and relevant. We provide a comprehensive range of scheduled training courses that are held at our training centres in Cambridge and Reading or, alternatively, can be arranged on-site, including tailored courses for specific individual or company requirements. All courses are conducted by our qualified design and engineering personnel, all having their own specialist field and many years experience in the relevant commercial industries, enabling us to provide constructive and relevant tuition.

After nearly two decades in the marketplace we are pleased to have built up an impressive customer base covering industries such as:

Engineering (Mechanical & Electrical)

Pharmaceutical & Chemical Equipment

Automotive & Aerospace

Process, Packaging & Handling

Building & Construction

Councils & Local Authorities

Point of Purchase, Retail

Health Authorities & Trusts

Aerospace & Defence

Housing Associations

When to Train



Investing in a new CAD product / upgrade, or even an existing system can become more productive for your business if you invest in training your staff.

There is no doubt that good training pays dividend. But managers too often see it as an unnecessary expense or even as just very expensive and subsidised 'time off' work. CAD training is also often provided at the wrong time in the trainees' work experience. It is often crammed in when there is a lull in productive workflow, rather than provided at the outset of a person's introduction to the software. In addition, immediate training is vital to extract full benefit from product upgrades.

If training is not provided at the outset, users have to scuffle around and work out their own ways of operating, wasting valuable time while doing so, and then possibly developing a method that is not as effective as it could be. If training is provided later on, after they have developed 'some way' of working with the software, there can be resistance to change. Time can be wasted unlearning unproductive habits and re-learning more productive ones. In such cases, the training time and cost can be wasted.



AberdeenGroup

A recent report by the independent research company - Aberdeen Group - entitled 'Best Practices for Migrating from 2D to 3D CAD' states that best in class design companies are 76% more likely than the industry average to send their staff on training within the first three months of implementation.

They follow on to state that at three to six months the Best in Class extend their training program by taking further training and utilising online resources such as tutorials.

After six months the Best in Class establish an internal expert within the company as a continuing, resource who keeps on learning.

So the importance of not only taking training but continuing to take training cannot be overstated. It is imperative that people's CAD skills are kept honed especially with new versions of the software being released so regularly.

"The axe must be kept sharp or it will turn into a hammer."

Train for Productivity!

When a valuable 'must-have' upgrade with great new features comes along, the training of users to take advantage of the new features or learning how to use an enhanced interface is essential. Gaining benefit in the product improvements through its new features, and then making sure that the users will know how to drive those improvements, can only be achieved through continued training. In too many cases, these criteria are not followed through. A sudden and significant drop in company productivity can be avoided by implementing your CAD system with effective and professional training.

Micro Concepts Training

With Micro Concepts training, your business will benefit from time saved and resources re-deployed, new opportunities can be made possible for future projects/business ventures and give you the competitive advantage. All our ATC scheduled training courses combine lecture, demonstration, and hands-on instruction using course materials and courseware which have been authorised by Autodesk. We follow the strict guidelines given by Autodesk to make the courses as beneficial and relevant as possible. All courses are monitored via an on-line delegate feedback form, which is completed by the student and is linked directly to Autodesk's ATC administration centre.

Facilities & ATC Accreditation

Micro Concepts is an Authorised Autodesk Training Centre (ATC) and we have modern, fully equipped facilities with high specification CAD equipment using the latest CAD software and hardware. All our scheduled courses are run in a relaxed and friendly environment and numbers are kept small so that each delegate can receive the attention they may need throughout the course. All courses encourage the delegates to get as much 'Hands On' training as possible. Let's face it you learn to swim by swimming, not by watching someone else.

Many organisations provide training on Autodesk software, but only authorised resellers, or educational institutions recognised as Autodesk Authorised Training Centres (ATC) meet Autodesk's rigorous standards of excellence. All courses must be taught by approved ATC instructors who must meet strict standards for instructional quality and experience and all ATC centres are closely monitored by Autodesk to ensure that facilities, equipment, and instruction meet their standards.



On Site & Bespoke Training

If our location is a problem, then we can provide on-site training at your company's premises or at a location which is more convenient. All courses can be catered for whether it be a standard ATC course or a tailored course specific to your requirements and Micro Concepts can arrange to provide equipment if necessary.

We also provide bespoke training, to suit your specific requirements. From an initial meeting to assess your requirements, to course content and completion, our instructor's knowledge and experience will help you achieve results and productivity to maximise your return on investment.

If you would like further information on our training courses or would like to know more about how Micro Concepts can help you "Train for Productivity" Please contact our training department who will be happy to help.

You can contact them on 01223 716200 or by email: training@microconcepts.co.uk
Or alternatively visit our website at www.microconcepts.co.uk for more information.

“Micro Concepts has a skilled and friendly team who have supported e2v Technologies (UK) Limited to move forward with Inventor, AutoCAD, VIZ & MAX over the last few years. Both companies understand each others business requirements and have forged a strong partnership.

They are to be congratulated on their commitment to both the products and the services associated with the successful implementation, training and support”

Ralph Coulson, CAD Manager, e2v Technologies (UK) Limite

“The training provided by Micro Concepts was well planned. We had a requirement to satisfy a number of varying skill levels and the necessity to achieve standardisation within our drawing office. Micro Concepts tailored our training to meet these requirements, enabling all of our users and, ultimately the company to benefit from the training investment.”

Les Abbatt, Design Office Manager, Carter Design Group Ltd

I would like to thank Peter and all concerned for their efforts in making the Inventor training so productive & enjoyable. Not only was a very complicated subject laid out in such a way as to make it very understandable, but it was explained very well with reference to applications that everybody could relate to. Further, the whole learning environment was very comfortable and relaxed. Congratulations on a job well done.

Rob Clay, Design Engineer, Falcon Engineering



Micro Concepts Scheduled Courses

Listed below are scheduled courses Micro Concepts offer at our training centre. All courses are ATC certified.

Software	Course	Course Description	Course Length
AutoCAD / LT	AutoCAD/LT Part 1 Essentials	Covers the fundamental skills required by to complete every day draughting tasks using the latest version of AutoCAD or LT <i>Prerequisites - None</i>	3 Days
	AutoCAD Part 2 Intermediate	Extends the skills provided in the Essentials training by introducing concepts & techniques to organise workflow and gain further productivity <i>Prerequisites – AutoCAD Part 1</i>	3 Days
	AutoCAD 3D Solids	This courseware introduces users who are proficient with AutoCAD's 2D commands to the concepts and methods of 3D modelling. <i>Prerequisites – AutoCAD Parts 1 & 2</i>	2 Days
	AutoCAD Update 2009 to 2010	Maximise productivity with your updated software by learning the latest features in AutoCAD <i>Prerequisites – AutoCAD Part 1</i>	1 Day
	Transitioning to AutoCAD 2010	Contact us for details of transitioning from older versions of AutoCAD to the latest Version 2010.	2 Days
Autodesk Inventor	Inventor Part 1 Essentials	This structured course aims to teach the basic skill set of Inventor for parts, assembly modelling & creating manufacturing drawings <i>Prerequisites - None</i>	4 Days – Split 2 + 2
	Inventor Part 2 Intermediate	A structured course aimed to build on the basic skill set learned in Part 1 for parametric parts and assembly modelling <i>Prerequisites – Inventor Part 1</i>	2 Days
	Inventor Update	Maximise productivity by keeping up to date with new enhancements available in the latest release	1 Day
	Inventor Sheet Metal	This course aims to explore all aspects of the powerful sheet metal functionality in Inventor <i>Prerequisites – Inventor Part 1</i>	1 Day
	Inventor Professional - Tube and Pipe	Explore all aspects of the Tubing & Piping module available in Inventor Professional <i>Prerequisites – Inventor Parts 1& 2</i>	1 Day
	Inventor Professional - Wire and Harness	Explore all aspects of the Wire & Harness module available in Inventor Professional <i>Prerequisites – Inventor Parts 1& 2</i>	1 Day
	Inventor Professional - Using the Simulation / Analysis Interface	An introductory course covering the fundamental principles and recommended workflows for creating dynamic simulations of mechanisms using Autodesk Inventor Professional <i>Prerequisites – Inventor Part 1 & a knowledge of the principles of Stress Analysis</i>	2 Day
	Skeletal Modelling	This advanced modelling techniques course explores the concept of Skeletal or Master Sketch Modelling as a method of creating robust, flexible assemblies. <i>Prerequisites – Inventor Parts 1& 2</i>	1 Day
	Inventor Rendering and Animation	Learn to create photo-realistic renderings and animations of existing 3D Inventor Models. <i>Prerequisites – Inventor Part 1</i>	1 Day

	<u>Inventor Administration</u>	Learn the necessary skills to implement & administer Inventor for your drawing office	1 Day
Autodesk Vault	<u>Vault User</u>	Essential training to understand the benefits & methodology employed when using Autodesk Vault <i>Prerequisites – Inventor Part 1</i>	1 Day
Autodesk Vault	<u>Data Management Server Administration</u>	Learn the necessary skills to implement & administer Vault for your drawing office	1 Day
Autodesk Vault Manufacturing	<u>Vault Manufacturing User</u>	Quickly and accurately share design data across a manufacturing team using Autodesk Productstream <i>Prerequisites – Autodesk Vault</i>	1 Day
AutoCAD Electrical	<u>AutoCAD Electrical Essentials</u>	Leverage the full potential of the AutoCAD Electrical environment with this structured course <i>Prerequisites – AutoCAD Part 1</i>	4 Days – Split 2 + 2
AutoCAD Mechanical	<u>AutoCAD Mechanical Essentials</u>	Leverage the full potential of the powerful AutoCAD Mechanical environment with this structured course	2 Days