

# WORKSTATION ENHANCED

» CAD2 is a specialist workstation vendor which boasts superior knowledge of CAD software. **Greg Corke** took a trip up to its Derby offices to find out more

**F**or many CAD users, the workstation has become a commodity product. It can be bought online in seconds and delivered to your door, just like a book from Amazon. But what if you don't know what to buy? What if you're confused by the huge array of CPUs, graphics cards and hard drives, or you don't know the best configuration for your CAD software? What if you need reactive support from people who understand how CAD works? CAD2 is a Derby-based specialist workstation manufacturer who prides itself on its knowledge of CAD. It consistently delivers well built workstations, as attested by the countless machines we've reviewed over the years, but we've never before taken an in-depth look at the added value services the company offers. A trip to Derby at the tail end of last year revealed all.

## APPLICATION KNOWLEDGE

Workstation requirements vary greatly from application to application, and you wouldn't buy the same graphics card or CPU for 3ds Max as you would for Inventor. Over the years, CAD2 has built up a broad experience of a number of CAD applications but it specialises in SolidWorks. It is the only independent SolidWorks Solution Partner for hardware and with access to beta releases, it is able to track and test in advance changes in hardware requirements. It also has hands-on experience of a wide range of Autodesk products, including Inventor and 3ds Max, but for products where it doesn't have access to the software, it draws on the experience of key customers to hone its recommendations.

On CAD2's website, it recommends low, medium and high specification machines for a wide range of applications. However, in order to gain a better understanding of customer requirements it often asks for specific information such as types of projects undertaken and typical assemblies (number of parts, features, file size).

For a more in-depth assessment CAD2 also enables customers to try out hardware on their own datasets. Customers can visit its Derby offices to test out a range of hardware including AMD or Nvidia graphics, quad core or dual core CPUs, Windows XP or Vista, 32-bit or 64-bit.

Web demos are also available. Here the customer remotely takes control of a workstation to demonstrate the performance under CPU intensive tasks such as model loading or rendering. Certain customers are also offered sale or return on workstations.

Once a purchase has been made CAD2 can install customers' software so it's configured and ready to go. Multi core workstations can also be tuned to work in the most efficient way. For example, certain processes can be assigned to specific cores, so rendering and simulation does not interfere with core modelling tasks.

## WARRANTY AND SUPPORT

36-month collect and return warranties come as standard. However, according to CAD2 there is very little that goes wrong with a modern workstation anyway. It quotes around a 0.1% failure rate on hard disks (only enterprise-class hard drives are used) and a 1% failure rate on graphics cards. For many companies, however, being without a workstation for any amount of time can be catastrophic for their business. For this reason, CAD2 has set itself up to most effectively provide guided support for customers over the phone. As everything is built in exactly the same way the tech support guys know how cables are routed, what colours they are etc, making it easy to communicate with customers. This means problems can often be diagnosed over the phone and components shipped out the same day for the customer to install.

## CONCLUSION

CAD2 is one of a rare breed of workstation manufacturers that offers a lot more than just a box of components. Its first hand experience with the mainstream CAD packages means that it is able to understand and assess the requirements of CAD users and offer them a number of ways to assist them in their decision making process.

Its machines are not for everyone, particularly as there are plenty of workstation manufacturers out there who can beat them for price, but there's plenty to say for a vendor who can offer expert guidance on all aspects of CAD hardware and support throughout its products' lifecycles.

[www.cad2.com](http://www.cad2.com)

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## SPECIALIST TECHNOLOGY

In addition to 'standard' workstations, CAD2 offers a number of specialist technologies, including render nodes/farms, CAD servers, General Purpose Graphics Processing Units (GPGPU)-based workstations or supercomputers.

However, one of the most widely applicable technologies is what it calls 'Workstation-enhanced'. These are essentially workstations which use 'overclocked' processors to boost performance, though CAD2 is very much against the use of this word

for fear of association with amateur PC enthusiasts. It asserts that its Workstation Enhanced technology is the result of over 400 hours of R&D and the platform is perfectly stable for long-term use, which it backs up with a standard 36-month warranty. CAD2 is currently

focusing on Core2 Duo for 'Workstation Enhanced' due to its excellent price/performance. This means a 3.33GHz E8600 chip is run at a whopping 4.2GHz. Much higher quality RAM is also used and each machine is kitted out with what CAD2 calls a Phase

III acoustic upgrade. This keeps the machine extremely quiet despite its enhanced watt load and includes replacing all the standard chassis fans for low duty, dual bore units and lining the inside of the chassis with foam insulation.