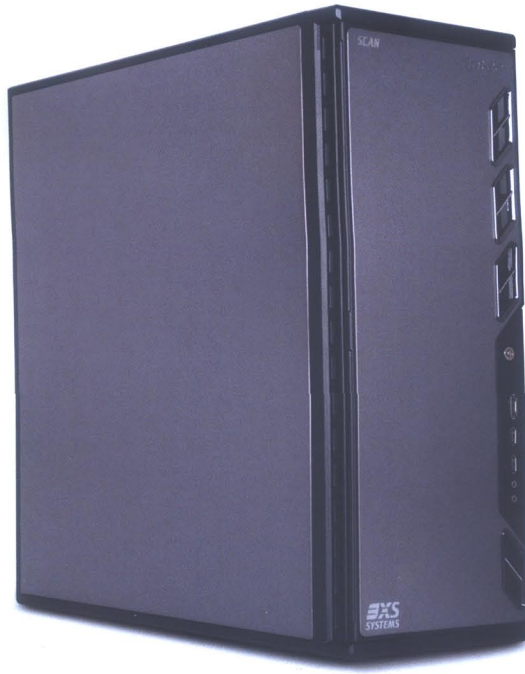
Software Modelling Workstation

PRICE
3XS 3D Modelling Workstation
- £2,250 / $3,440 / €2,662 (excluding VAT)

MAIN FEATURES
- 3.2GHz Intel Core i7-970 CPU overclocked to 3.8GHz
- 12GB DDR3-1600 SDRAM
- 2GB ATI FirePro V7800 graphics
- 128GB Crucial Real SSD
- 1TB Western Digital Black SATA hard disk
- Pioneer DVR-S18LBK 22x DVD rewriter
- Akasa multi-card reader
- Windows 7 Professional 64-bit
- Ports: 7x USB2, LAN, 2x eSATA/USB2, eSATA, FireWire, microphone input, 7.1 surround audio output, optical audio output

MANUFACTURER
Scan

WEBSITE
3xs.scan.co.uk



Scan's handsome 3XS Modelling Workstation is an independent producer's dream combination of speed and value

The 3XS 3D Modelling Workstation offers exceptional performance in multithreaded applications – but doesn't break the bank thanks to the overclocked processor

Scan 3XS 3D Modelling Workstation

An overclocked Intel Core i7 CPU and powerful ATI graphics make for a heady combination concludes **James Morris**

The durability of Intel's Core i7 processors seems to be making its mark on the 3D content creation market. These processors are capable of running well above stock frequency very comfortably. We've already seen this facility taken full advantage of by Workstation Specialists (see issue 133, page 122). Now Scan is throwing its hat in the ring with its 3XS 3D Modelling Workstation.

Central to the 3XS is an Intel Core i7 970 CPU, which sports six cores and a native clock speed of 3.2GHz. However, this processor supports hyper-threading, so the six real cores are presented as 12 virtual ones, providing potentially even more performance with multithreaded applications, particularly rendering. On top of this, Scan has permanently increased the clock speed to 3.8GHz. This disables the Intel Turbo Mode option, which increases clocks dynamically on a per-core basis depending on processing load. But overall performance will be improved, and Scan charges no extra for this. There is also no detrimental effect on the system warranty. Scan has allied the overclocked processor with a 12GB complement of PC3-12800 DDR3 memory, which takes full advantage of the 64-bit Windows 7 operating environment – but the use of six modules leaves no DIMM slots free for upgrade.

The excellent specification doesn't end there. An ATI FirePro V7800 with 2GB of fast GDDR5 memory takes care of graphics acceleration. This is one of the most powerful OpenGL cards currently available, with a massive 1,440 complement of stream processors and support for all the latest standards, including DirectX 11, OpenGL 3.2 and Shader Model 5. In tandem with the appropriate software, it can also be harnessed for non-3D computing tasks, thanks to its OpenCL 1.0 compatibility.

A duo of disks is provided for main storage. A 128GB Crucial Real SSD houses the OS and apps, providing super-fast access, whilst a 1TB 7,200rpm Western Digital Caviar Black conventional hard disk is available for general data. Rounding up the spec, a Pioneer 22x DVD rewriter and multi-card reader offer a comprehensive array of removable storage options.

With its overclocked CPU and fast graphics, we were expecting great results from the 3XS in our testing, and we weren't disappointed. With Maxon Cinebench R11.5, the CPU score of 9.78 was better than Workstation Specialists' 4.2GHz WSX-6+. However, the OpenGL score of 71.52 was marginally behind. With R10, the 3XS achieved a single-CPU rendering score of 5,475, a multithreaded score of 30,364, and an OpenGL result of 10,496. All are slightly behind the WSX-6+, but only by as much as you would expect given the difference in core clock speed. While the 3XS may not be the quickest of the two Core i7 systems we've seen with permanently increased clock speeds, it is significantly cheaper than the Workstation Specialists' alternative. Considering that the specs are otherwise very similar, Scan has managed to put together a system with extremely competitive performance for a very reasonable price. It's a dream combination of speed and value. ■

About the author
James Morris has tracked the rise of every new development, from OpenGL accelerators to multi-processor workstations, over more than 15 years of testing 3D content creation hardware

3D WORLD VERDICT

PROS
- Overclocked processor and ATI graphics are great for modelling
- 12 virtual cores are brilliant for rendering

CONS
- Single CPU socket and fully stocked RAM sockets leave no room for upgrade

The 3XS takes full advantage of Intel's Core i7 processor and offers great performance