CAD 2 Imagine Go-Duo2

Specifications

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- Intel T7600 Core 2 Duo 2.33GHz (dual core processor)
- 2 x 1GB of DDR-2 memory
- Nvidia Quadro FX 2500M graphics card (512MB)
- 17 inch X-black TFT screen (1,920 x 1,200 resolution)
- 8 x DVD-RW drive
- Windows XP Professional (32-bit or 64-bit)

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In the last issue of Workstation we looked at Woodcrest, Intel's latest desktop Xeon CPU, which is a derivative of its new mainstream processor, the Core 2 Duo. In this issue we see the Core 2 Duo go mobile courtesy of technical workstation specialist, CAD 2, who has just launched its first Core 2 Duo mobile workstation, the Imagine Go-Duo2.

Codenamed Merom, Intel's new mobile EMT64 dual core processor is remarkably similar to its desktop counterpart - the main difference being the speed of the Front Side Bus (FSB) and the maximum clock speed, which peak at 667MHz and 2.33GHz respectively with the T7600 model featured in our test machine.

While the slower FSB is due to compatibility with Intel's previous generation Mobile 945 Express, the reduction in clock speed is designed to limit power consumption to around 30W. This same regard for battery life was not given by Nvidia, however, when it designed the 512MB Quadro FX 2500M graphics card, which sits at the heart of CAD 2's Imagine Go-Duo2, and draws up to 100W of power. While this limits the amount of time you can work away from a power outlet, it does mean you have an extremely powerful 3D graphics card at your disposal.

In terms of memory, the test machine was kitted out with 2GB of DDR-2, but can take a maximum of 4GB. As the Core 2 Duo is a 64-bit processor, those running Windows XP x64 Edition and compatible applications will now be able to work with models over 2GB in size when they're on the move. CAD 2 will be able to support this Operating System once Nvidia ships its mobile 64-bit graphics drivers.

The 17 inch TFT has a native resolution of 1,920 x 1,200, which is great for maximising the amount of CAD data you can fit on the screen but can make it hard to read small text and icons, though third party software can improve this. The screen also has an X-Black finish, which makes black more black, colours brighter and image quality arguably sharper. Some love it and others hate it. In this instance I'm one of the others as I find it far too reflective

under certain lighting conditions, but a matt finished display is also available as an option if you so choose.

The test machine shipped with a 100GB high performance 7,200RPM S-ATA drive. This can be supplemented with another S-ATA drive at the expense of the DVD drive and configured in a Raid 0 array for speed or Raid 1 for fault tolerance. This will, however, put further load on your battery. A much more effective move would be to replace the DVD drive with a second battery, in effect doubling battery life.

The mobile workstation is kitted out with all the standard features including integrated high speed wireless LAN, Bluetooth, 4x USB 2.0, Firewire, Gigabit LAN, 56K modem, serial, IrDA & PCMIA. Less standard features include a 4 in 1 digital memory/smart card reader a 1.3 Mega Pixel digital camera and a DVI output to connect to external TFTs or digital projectors. For true mobile connectivity, there's also a 3G Internet Option, which is fitted in the internal mini-pci socket.

The keyboard is excellent, firm and responsive and features an extremely useful numerical keypad. I was less impressed with the touchpad which often missed my double clicks, though serious CAD users would most probably use an external mouse.

At 3.76kg CAD 2's Imagine Go-Duo2 is not the lightest notebook you can get your hands on, it's not the most stylish machine, and battery life for 3D CAD isn't great unless using two batteries, but it certainly doesn't disappoint when it comes to raw processing power. It's up there with most desktop workstations and for the first time gives mobile users access to the full extended memory benefits of 64-bit environments, and with growing model complexity high-end CAD users who spend time away from the office are sure to take notice.