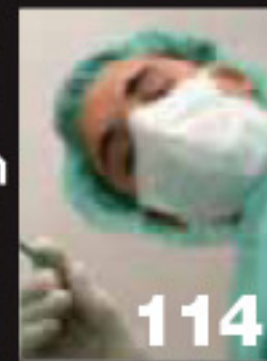




BECAUSE ONLY PHISH-LOVIN' HIPPIES NEED FRESH AIR AND SUN



Tech Medics
This month:
Yet another month when a lot of people ask us which graphics card they should buy.

MANUFACTURER: Falcon Northwest
PRODUCT: Mach V

PRICE
\$5,245



FALCON NORTHWEST HAS BEEN SHIPPING high-end gaming systems for almost as long as *Computer Gaming World* has been in print. Over the years, the company has remained focused on delivering maximum gaming performance, though not without a cost. While Falcon Northwest does offer a budget system, its Mach V systems have long been the company's flagship. The latest Mach V gaming rig keeps the flame alive.

Just about every aspect of gaming is addressed here: a fast CPU, low-latency memory, twin BFG GeForce 7800 GTX OC graphics cards in SLI mode, and dual Maxtor 300GB hard drives set up as a RAID 0 array. About the only item that's not maxed out is the soundcard, which is the "entry level" version of Creative Labs' new X-Fi line. While it lacks the X-RAM of the pricier X-Fi variants, it's still a premium soundcard by any other measure.

BIRD OF PREY

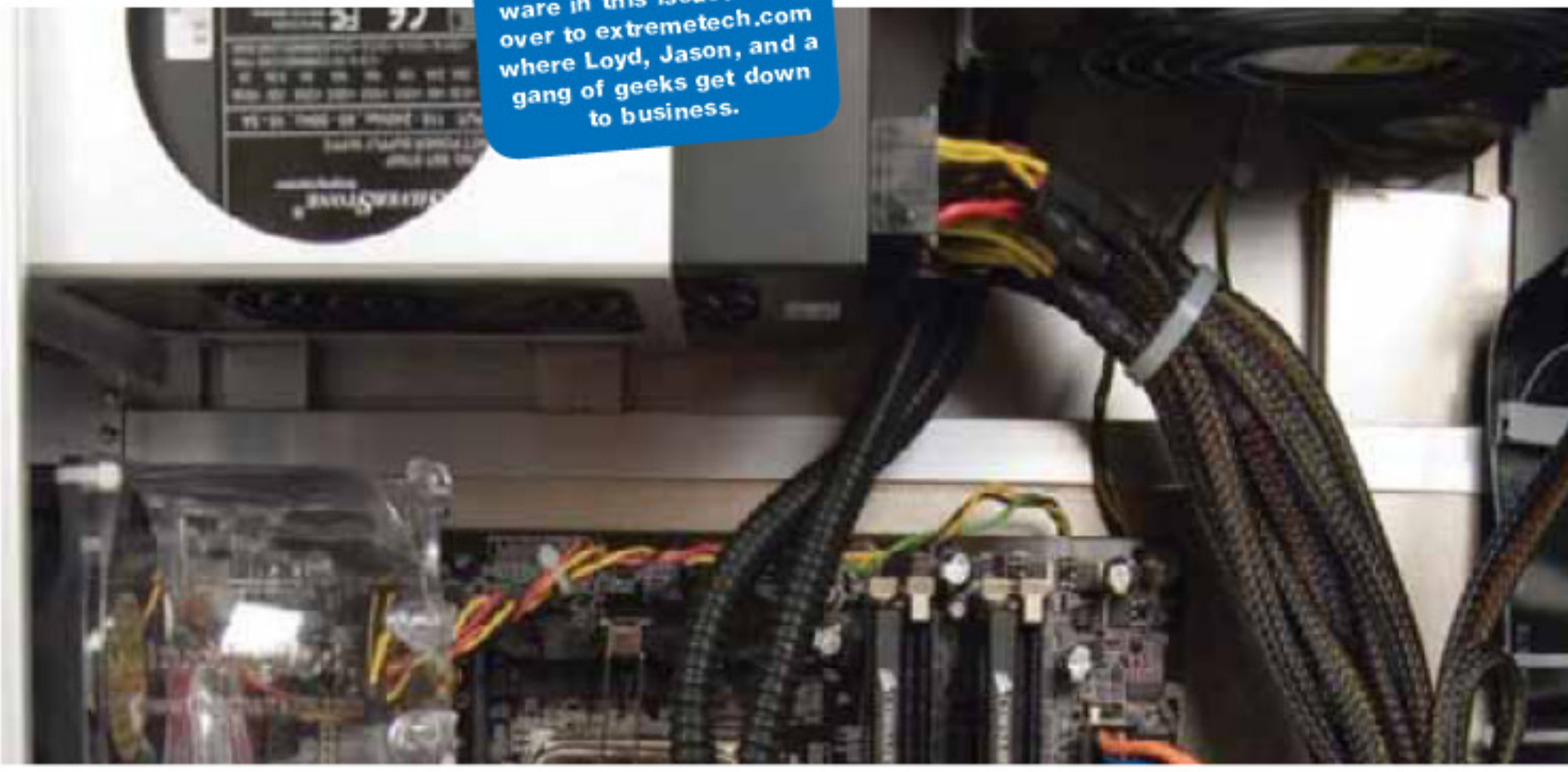
The heart of the system is the overclocked revision E Athlon 64 FX-57, built on AMD's 90nm manufacturing process. AMD ships the FX-57 unlocked, which means that users and OEMs can overclock the CPU if they have a cooling system and motherboard capable of handling it. The motherboard is the Asus A8N-SLI Deluxe, which has the voltage regulators to handle an overclocked FX-57. The motherboard can also handle running the Corsair XMS Pro memory modules at slightly tweaked voltages, which means they can be set to very low latencies—CAS 2-2-2-5 in this case.

The Mach V could have been overclocked simply by increasing the CPU clock multiplier by a full notch, but Falcon instead chose to increase it by a half increment (from 14x to 14.5x) while also increasing the memory clock to 207MHz from the default 200MHz. This means the CPU still runs at 3.0GHz (14.5 times 207MHz), but with better memory bandwidth, which helps when it comes to gaming. And that's what this system is all about. The FX-57 stays cool at 3.0GHz due to the Sanyo Denki liquid-cooling system. While it's a liquid cooler, it's completely sealed and guaranteed for seven years.

If the CPU is the heart of the system, the soul is the matched BFG GeForce 7800 GTX OC graphics cards. BFG clocks these babies higher than the default clock, running the core at 460MHz (versus 430MHz) and the memory at 1.3GHz DDR (versus the 1.2GHz DDR standard). The two PCI Express cards run in SLI mode and deliver prodigious framerates at 1600x1200. They even deliver good framerates if you have one of those spiffy—and oh-so-pricey—widescreen displays

EXTREME TECH!

Want a ridiculously hardcore look at all the hardware in this issue? Head over to extremetech.com where Loyd, Jason, and a gang of geeks get down to business.



Such neat cabling! If only our office desks were organized this well.

that offer 1920x1200 resolution.

A pair of Maxtor DiamondMax 10 drives in RAID 0 mode handles the storage chores. (You can get them configured in RAID 1 mode if you prefer redundant data security over sheer performance.) Falcon also supplies a pair of optical drives—one dedicated DVD-ROM drive, plus a DVD burner for backup or creating your own movies.

The front of the Mach V's case features a cutout of the company's logo, which glows blue behind the cutout. When we opened up the box, the cables inside were neatly dressed, and we could easily access all the hardware. One of the slicker aspects of the liquid-cooler design is how it's mounted. The small pump assembly is mounted in the top of the case and doesn't block access to any of the internals of the system. Since the radiator fan is also mounted in the top of the case, you won't want to pile up game boxes or other items over the exhaust fan. One big advantage of the liquid cooling, though, is that the system runs quieter than an equivalent air-cooled system.

BIG MONEY

The big downside is that this will set you back a cool \$5,245, including the deeper Icon case needed to handle the sealed liquid-cooling unit. That's not cheap, so the next question is: How does it perform? The answer: like a champ. Note that we ran all our benchmarks at 4x full-screen antialiasing and 8x anisotropic filtering, except the Shader Mark 3.0 version of *Splinter Cell Chaos Theory* (its SM3 version won't do FSAA). We got some

pretty stunning numbers as a result. *Splinter Cell Chaos Theory*, in particular, can crush even some high-end graphics cards, so running at 75fps is great. We also tested the system in an intensive LAN gaming session, and the whole affair ran smoothly, with no glitches or crashes, even when we had it overclocked.

If you want to spend even more money, Falcon Northwest offers glossy, car-finish-quality paint jobs—and even custom graphics and specialized window and lighting treatments. Be prepared to be amazed at the final price, however. On the other hand, you can also buy a system without liquid cooling for about \$250 less, which will drop it below that magical five grand number. (But if you're spending this much anyway, why skimp?) Note, finally, that all these prices are just for the system—no monitor, keyboard, or speakers included. But your five grand will keep you gaming at least until the post-Windows Vista games start shipping. By then, all of us will be upgrading. /Loyd Case

Mach V **\$5245**

About the only thing that keeps us from calling this a perfect system is the high price.

COMPUTER GAMING WORLD VERDICT ★★★★★

YOUR FIVE GRAND WILL KEEP YOU GAMING AT LEAST UNTIL THE POST-WINDOWS VISTA GAMES START SHIPPING.

FALCON NORTHWEST MACH V

As cool—and expensive—as it gets

INSIDE



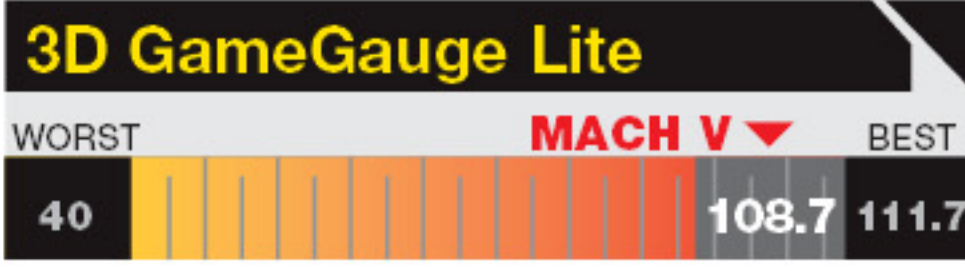
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REVIEW
Lowered Expectations
ATI's budget X1300 Pro gives a bum deal.



111
REVIEW
Calling the Audible
Logitech's newest speakers go wireless.

Making Sense of 3D GameGauge Lite

Each system goes through an exhaustive series of benchmark tests in order to assess overall performance and raw speed values. Benchmarking consists of both the industry's undisputed reference synthetic benchmark utility, 3DMark05, along with CGW's own real-world game benchmarking suite, 3D GameGauge Lite. 3DGG Lite consists of a brilliant collection of A-list action games like *Splinter Cell Chaos Theory*, *Doom 3*, *Unreal Tournament 2004*, *Far Cry*, and *Painkiller*. 3DGG Lite video configurations are set at 1280x1024 resolution with 2x antialiasing and 4x anisotropic filtering enabled, except for *Halo*, which gets no benefit from either technique. Results are then tabulated and posted as a raw geomean score for your reference.



HOW OUR GRAPH WORKS We graph a product's benchmark scores to demonstrate how it compares to the scores of other products we've reviewed in the last six months. During that time, the lowest 3D GameGauge Lite score we've seen is 40; as of now, the highest is 111.7.