TOP 10 POWER PCs

Details	Last month's position	First reviewed	PC World-Bench	Price (ex VAT)	Warranty	Processor type/speed	RAM	Hard disk/capacity	Mother-board	Chipset	Modem	USB ports	Monitor	Screen size	Dot pitch	Max resolution @75Hz	Graphics card	Graphics chip	Graphics card memory	Sound card	Speakers	No of speakers/subwoofer	DVD-ROM speed	CD-RW read/write/rewrite rate	Office suite & other extras
1 Mesh Matrix 1900 TI5X 020 8208 4702 www.meshcomputers.com	1	Feb 02	121 (WB 4)	£1,299	3-year onsite parts and labour	AMD Athlon XP 1900+/ 1.6GHz	512MB DDR RAM	Maxtor/ 80GB	Asus A7M266-E	Ali-Magik	56K	4	Mitsubishi DPRO 920	19in	0.24mm	1,600x 1,200	nVidia GeForce3 Ti 500	nVidia GeForce3 Ti 500	64MB	Creative Audigy	Creative DTT2200	5/Y	24x	32x/24x/10x	Windows XP Home, Microsoft Works Suite 2001
2 Systemax A1900Fz Pro 0870 729 7364 www.sytemaxpc.co.uk	2	Feb 02	117 (WB 4)	£1,329	1-year onsite 2-year return to base	AMD Athlon XP 1900+/ 1.6GHz	256MB DDR RAM	IBM/ 60GB	MSI	Via KT266A	56K	2	CTX PR960F	18in	0.24mm	1,600x 1,200	Gainward GeForce3 Ti 500	nVidia GeForce3 Ti 500	64MB	Creative Audigy	Creative DTT2200	5/Y	16x	32x/16x/10x	Windows XP Home, games bundle
3 Mesh Matrix XP 1900-R85 020 8208 4702 www.meshcomputers.com	3	Jan 02	259 (WB 2000)	£1,399	3-year onsite	AMD Athlon XP 1900+/ 1.6GHz	1,024MB DDR RAM	Maxtor/ 80GB	Asus A7M266	Via KT233	56K	4	Mitsubishi DPRO 920	19in	0.24mm	1,600x 1,200	ATI Radeon 8500	ATI Radeon 8500	64MB	Creative Audigy	Creative DTT2200	5/Y	16x	40x/24x/10x	Windows 2000, Microsoft Works Suite 2001 Nero, PowerDVD
4 Advent 3969SP 0870 546 4464 www.pcworld.co.uk	4	Feb 02	120 (WB 4)	£1,216	1-year onsite, 2-year return to base	AMD Athlon XP 1900+/ 1.6GHz	512MB DDR RAM	Maxtor/ 80GB	Gigabyte GA-7DX	Irongate 4 761	56K	2	Samsung 957DFT+	19in	0.25mm	1,600x 1,200	Leadtek GeForce3 Ti 500	nVidia GeForce3 Ti 500	64MB	Creative Labs Live 5.1	Creative DTT2200	5/Y	16x	32x/16x/10x	Windows XP Home, Microsoft Works Suite 2001
5 Evesham Axis 1900+ Ti5 0800 038 0800 www.evesham.com	5	Feb 02	124 (WB 4)	£1,599	2-year onsite, 1-year parts and labour	AMD Athlon/ XP 1900+/ 1.6GHz	512MB DDR RAM	Western Digital/ 100GB	Asus A7M266-E	Via KT266A	56K	4	Samsung SM170T	17in flat-panel	0.26mm	1,280x 1,024	nVidia GeForce3 Ti 500	nVidia GeForce3 Ti 500	64MB	Creative Audigy	Creative DTT2200	5/Y	16x	40x/24x/10x	Windows XP Home, Star Office
6 Time Machine 2000+ PQ Flex 0870 830 3116 www.timecomputers.com	NEW	Mar 02	113 (WB 4)	£1,399	3-year collect and return	AMD Athlon/ XP 2000+/ 1.67GHz	512MB DDR RAM	Seagate/ 80GB	Asus A7M266-E	Via KT266A	56K	2	LG Flatron 915F Plus	19in	0.24mm	1,600x 1,200	Asus V8200 T5 Pure	nVidia GeForce3 Ti 500	64MB	Creative Audigy	Creative DTT2200	5/Y	16x	40x/16x/10x	Windows XP Home, games bundle
7 Atlas Meridian XP19PV01 020 8532 6100 www.higrade.com	6	Feb 02	121 (WB 4)	£1,499	1-year onsite, 2-year return to base	AMD Athlon/ XP 1900+/ 1.6GHz	512MB DDR RAM	Maxtor/ 80GB	Asus A7M266-E	SiS	56K	2	LG Flatron 915F	19in	0.24mm	1,600x 1,200	Gainward GeForce3 Ti 500	nVidia GeForce3 Ti 500	64MB	Creative Labs Live 5.1	Creative DTT2200	5/Y	16x	40x/16x/10x	Windows XP Pro, Lotus SmartSuite Millennium, McAfee AntiVirus
8 Hi-Grade Ultis PV4-2200 A03 020 8532 6100 www.higrade.com	NEW	Mar 02	120 (WB 4)	£1,459	1-year onsite, 2-year return to base	Intel Pentium 4/ 2.2GHz	256MB DDR RAM	Maxtor/ 60GB	MSI MS-6547	SiS	56K	4	LG Flatron 915F	19in	0.24mm	1,600x 1,200	MSI nVidia GeForce3 Ti 500	nVidia GeForce3 Ti 500	64MB	Creative Audigy	Creative DTT2200	5/Y	16x	40x/16x/10x	Windows XP Home, Lotus SmartSuite Millennium
9 Evesham Evolution 2.2 0800 038 0800 www.evesham.com	NEW	Mar 02	122 (WB 4)	£1,999	2-year onsite, 1-year parts and labour	Intel Pentium 4/ 2.2GHz	512MB DDR RAM	Maxtor/ 120GB	Via	P4X266	56K	4	LG Flatron 782LE	19in	0.27mm	1,280x 1,024	nVidia Titanium	nVidia GeForce3 Ti 500	64MB	Creative Audigy	Creative DTT2200	5/Y	16x	40x/24x/10x	Windows XP Home, StarOffice
10 NEC Powermate Select XL3 A1900+ 0870 010 6326 www.nec-online.co.uk	7	Feb 02	109 (WB 4)	£1,599	3-year onsite	AMD Athlon/ XP 1900+/ 1.6GHz	512MB DDR RAM	Seagate/ 80GB	Gigabyte GA-7DX	AMD 760	56K	2	NEC Multisync HR19	19in	0.25mm	1,600x 1,200	Leadtek GeForce3	nVidia GeForce3	64MB	Creative Labs Live 1024	Creative DTT2200	5/Y	16x	24x/8x/4x	Windows 98 SE

1 Mesh Matrix 1900 TI5X

This is our second month of using the new version of WorldBench – our in-house benchmarking software. As version 4 uses a different base PC than WorldBench 2000 to generate its scores, results from the two tests are not comparable. So although systems tested with the previous version seem to have higher scores, they are not necessarily faster.

Mesh may have been the first to use AMD's new Athlon XP 1900+, but the competition has now caught up. Despite this, Mesh has managed to hold the top of the chart with the Matrix 1900 TI5X, scoring 121 in WorldBench 4.

There's more to the Mesh than just a fast processor, though. Inside you'll find 512MB of DDR (double data rate) RAM and an 80GB Maxtor hard drive. It's unlikely you'll ever need such large amounts of storage, but it sets you in good stead for the future. The Diamond Pro 920 monitor produces a good display and nVidia's latest graphics chip, the GeForce3 Titanium 500, provides top-quality performance. Mesh has chosen Creative's Audigy sound card, which provides decent audio and equips you with a FireWire port for fast data transfer.

All in all, the Mesh Matrix 1900 TI5X provides performance, features and value for money, coming in just £99 over the £1,200 category boundary.

← The high-performing Mesh Matrix 1900 TI5X continues to reign at the top of our chart

2 Systemax A1900FZ Pro

Hot on the heels of Mesh is the A1900FZ Pro from Systemax. This Recommended system uses the same Athlon XP 1900+ chip, but only manages to squeeze 117 points out of it in WorldBench 4. Although the Systemax offers 256MB of DDR (double data rate) RAM, compared to some other systems with 512MB, it's unlikely that you'll see that much difference unless you're running lots of applications simultaneously. Similarly, you'd be hard pushed to fill the 60GB hard drive unless you were doing some serious video editing.

The inclusion of a GeForce3 Titanium 500 graphics card will please gamers, as will the six bundled games. Combined with the CTX PR960F monitor, this produces a superb display. Creative's new Audigy sound card hooks up well with the surround DTT2200 speakers. For backup there's a 32-/16-/10-speed (read/write/rewrite) CD-RW facilities. Topping off the multimedia capabilities are a 16-speed DVD-ROM and an ATI TV card, so you can watch TV on your PC.

↑ With high-calibre graphics and sound, DVD drive and TV card, the Systemax is an entertainment PC

3 Mesh Matrix XP 1900–R85

The 1900-R85 is a tidy, well presented PC with ample documentation, but it's what's under the bonnet that makes it stand out. The Matrix's Athlon XP 1900+ chip is backed up by a huge 1,024MB of DDR (double data rate) RAM and an 80GB hard drive. All this secures the Matrix XP 1900 the highest WorldBench 2000 score of its time of 259. However, we should mention that the R85 will ship with XP Home, rather than Windows 2000 as we used, which may slow its performance down.

Potential buyers are spoilt by the audio visual experience. ATI's 64MB Radeon 8500 performs just as well as the

↑ With 1,024MB of DDR RAM, the Mesh Matrix XP 1900 -R85 continues to be a strong contender

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GeForce3 and the Mitsubishi monitor complements it well. We were impressed by the Audigy sound card, while the DTT2200 speakers offer cinema-style sound. To be picky, a copy of Works Suite 2001 isn't the most generous software bundle. However, a three-year onsite warranty more than makes up for this.

4 PC World Advent 3969SP

PC World holds on to its Recommended award for a second month with the Advent 3969SP machine. The Athlon XP 1900+ and 512MB of DDR (double data rate) RAM combine to produce a WorldBench 4 score of 120. There's a huge 80GB of storage on offer from the Maxtor drive, which is more than enough for all but the most demanding users.

The third entry to utilise nVidia's latest graphics chip, the GeForce3 Titanium 500, the PC World Advent will keep gamers happy. The 19in Samsung 957DF monitor is not as good as the CTX model seen on the Systemax, but it's still a solid performer. Toshiba provides the 16-speed DVD-ROM drive, and there's also a 32-/16-/10-speed (read/write/rewrite)

← PC World stays at number four in the chart, with its powerful but cheap system, the Advent 3969SP

Samsung CD-RW for backup. Rather than opting for the new Audigy sound card, PC World has instead chosen its predecessor – the Live 5.1, which doesn't have the option of FireWire.

The Advent 3969SP is the cheapest entry in the Top 10 Power PC chart, but this does show in some of the components – and the warranty only stretches to one-year onsite.

5 Evesham Axis 1900+ Ti5

Evesham claims the highest score in our WorldBench 4 benchmark with 124, but it isn't enough to move the Axis higher up the chart. There's a healthy 512MB of DDR (double data rate) RAM and a 100GB hard drive – more than most users could ever hope to fill. Ditching the traditional CRT (cathode ray tube) monitor in favour of a Samsung flat-panel benefits those with limited desk space. It only offers a maximum resolution of 1,280x1,024, but the combination DVI (digital video interface) and GeForce3 Titanium 500-based graphics card guarantees a rock-solid image. Overall, the Axis 1900+ is an excellent package – but the £1,599 price tag stops it climbing further up the chart.

6 Time Machine 2000+ PQ Flex

We're not sure what went wrong with the Time. It showed plenty of potential on paper, but the PQ Flex just didn't put it into practise. Despite using AMD's fastest Athlon XP 2000+ chip, running at 1.67GHz, backed up by 512MB of DDR (double data rate) RAM and a 64MB

↑ The Evesham Axis 1900+ Ti5 achieved the highest WorldBench 4 score, but has a high price tag to boot

GeForce 3 Ti 500 card, it only managed to pull in a WorldBench 4 score of 113.

Setting aside this poor result, the rest of the Time's setup is typical of our Top 10 chart – it has an 80GB hard drive, which might not be the most generous on offer, but we challenge you to fill it up quickly. There's also a 16-speed DVD-ROM drive and 40x/16x/10x (read/write/rewrite) CD-RW for backups, Audigy sound card and 5.1 surround sound speakers.

Overall, it's a shame Time couldn't make this system shine when it comes to performance, as it has all the hallmarks of a winner.

↓ Time failed to pull in a decent performance score, despite housing the Athlon XP 2000+ chip

[NEW]

Motherboards: the right one for your processor

When it comes to buying a brand-new PC, there's little point worrying too much about which motherboard it comes with. The manufacturer will generally choose the most appropriate one for the PC specification you want. When it comes to upgrading, however, it is worth doing some homework.

As technology advances so quickly, it's advisable to look at replacing the motherboard if you're upgrading your processor. Even if the new processor is compatible with your old board (which is highly unlikely), you won't get the full benefit if you instantly hobble the chip by putting it in an old board.

Motherboard manufacture is generally dominated by Taiwanese firms, and as such the names may be unfamiliar. Some brands to look out for are Abit, AOpen, Asus, DFI, Gigabyte and MSI (or Microstar). One name you might have heard of is Intel.

Motherboard development closely follows processor advancements, so if you're buying a new processor then it's likely a new motherboard will have been designed with it in mind.

For a full round-up of motherboards and a closer look at the technology, see *Technofile* on page 81. We tell you what features you should look for and what's available on the market.

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7 Atlas Meridian XP19PV01

The Meridian drops down a place this month owing to the new entry at number six. It uses AMD's latest processor coupled with 512MB of DDR (double data rate) RAM, and produces a WorldBench 4

↓ The Atlas houses many of the same components as the Best Buy Mesh, but fails to sit higher up the chart

score of 121. Atlas has also opted for the same motherboard as Mesh – Asus' A7A266-E – which supports both SDR (single data rate) and DDR RAM.

Inside the XP19PV01, you'll find an 80GB hard drive, 40-/16-/10-speed (read/write/rewrite) LG CD-RW and 16-speed LG DVD-ROM drive. The inclusion of a 64MB GeForce3 Titanium 500 card will be useful if you spend a lot of time playing games on your PC, as will the 19in LG Flatron 915 FT monitor.
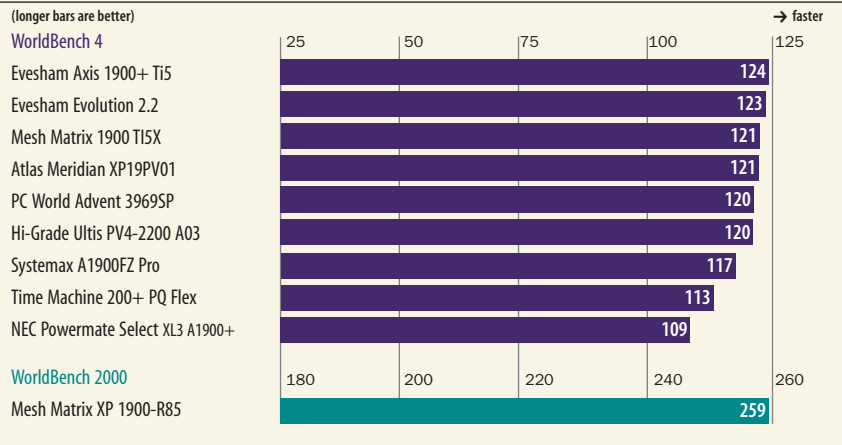
8 Hi-Grade Ultis PV4-2200 A03

Hi-Grade's Ultis, with 256MB of DDR (double data rate) RAM and a 64MB GeForce 3 Ti 500-based graphics card managed a WorldBench 4 score of 120, which is only an adequate performance. Worse still, AMD's pricing ensures that the

↓ Hi-Grade's new entry, the Ultis PV4, fails to climb higher up the chart due to its high price tag

[NEW]

PC WorldBench: Power PCs

(longer bars are better)   → faster

WorldBench 4	25	50	75	100	125
Evesham Axis 1900+ Ti5				124	
Evesham Evolution 2.2				123	
Mesh Matrix 1900 TI5X				121	
Atlas Meridian XP19PV01				121	
PC World Advent 3969SP				120	
Hi-Grade Ultis PV4-2200 A03				120	
Systemax A1900FZ Pro				117	
Time Machine 200+ PQ Flex			113		
NEC Powermate Select XL3 A1900+			109		

WorldBench 2000	180	200	220	240	260
Mesh Matrix XP 1900-R85					259

£1,599 Hi-Grade looks an expensive alternative to our chart-topping Mesh.

The nVidia Titanium graphics chip will make short work of the latest games titles, and the sharp 19in Flatron monitor offers a vivid, steady picture. The audio system teams Creative's latest Audigy card with the meaty DTT2200 speakers, and drive facilities range from the 60GB hard drive to 16-speed DVD-ROM and 40-/16-/10-speed (read/write/rewrite) CD-RW. Connectivity is another strength, with four USB ports and FireWire.

9 Evesham Evolution 2.2

Evesham has opted for VIA's P4X266 chipset for the Evolution 2.2, which is also a DDR (double data rate) solution. Using the same 2.2GHz P4 processor as the Hi-Grade, Evesham managed to rack up 122 points in WorldBench 4. To make sure you've got plenty of space, there are two 60GB hard drives that appear as one 120GB unit. Evesham has used Creative's latest Audigy card and adds a FireWire port. Gamers will enjoy the GeForce3 Titanium 500 card and the 17in flat-panel offers a superb display and saves desk space. Unfortunately, the high price tag keeps it off our wish list.

10 NEC Powermate Select XL3 A1900+

NEC settles for tenth place with the Select XL3. Built around an Athlon XP 1900+ processor and 512MB of DDR (double data rate) RAM, the Powermate scored 109 in WorldBench 4. There's more than enough storage thanks to an 80GB hard drive, and NEC has saved a

[NEW]

↑ The Evolution 2.2 is an expensive system, but it does feature a space-saving flat-panel display and massive 120GB hard drive

thought for backup with a Pioneer drive. The 19in MultiSync monitor produces a solid display, and is combined with GeForce3-based graphics card. If you're not fanatical about sound, this system is more than adequate.

↓ The NEC Powermate uses the ageing Creative Live 1024 sound card, so there's no FireWire option