

# Top 10 charts

All good things come to those who wait is sensible advice for anyone thinking of equipping their PC with the latest accessory. Flat-panels, DVD writers and smartphones are just three of the areas where prices have plummeted in the past 18 months. Indeed, whether you're talking about PCs, printers or projectors, today's technology will set you back less than it did at the beginning of the millennium.

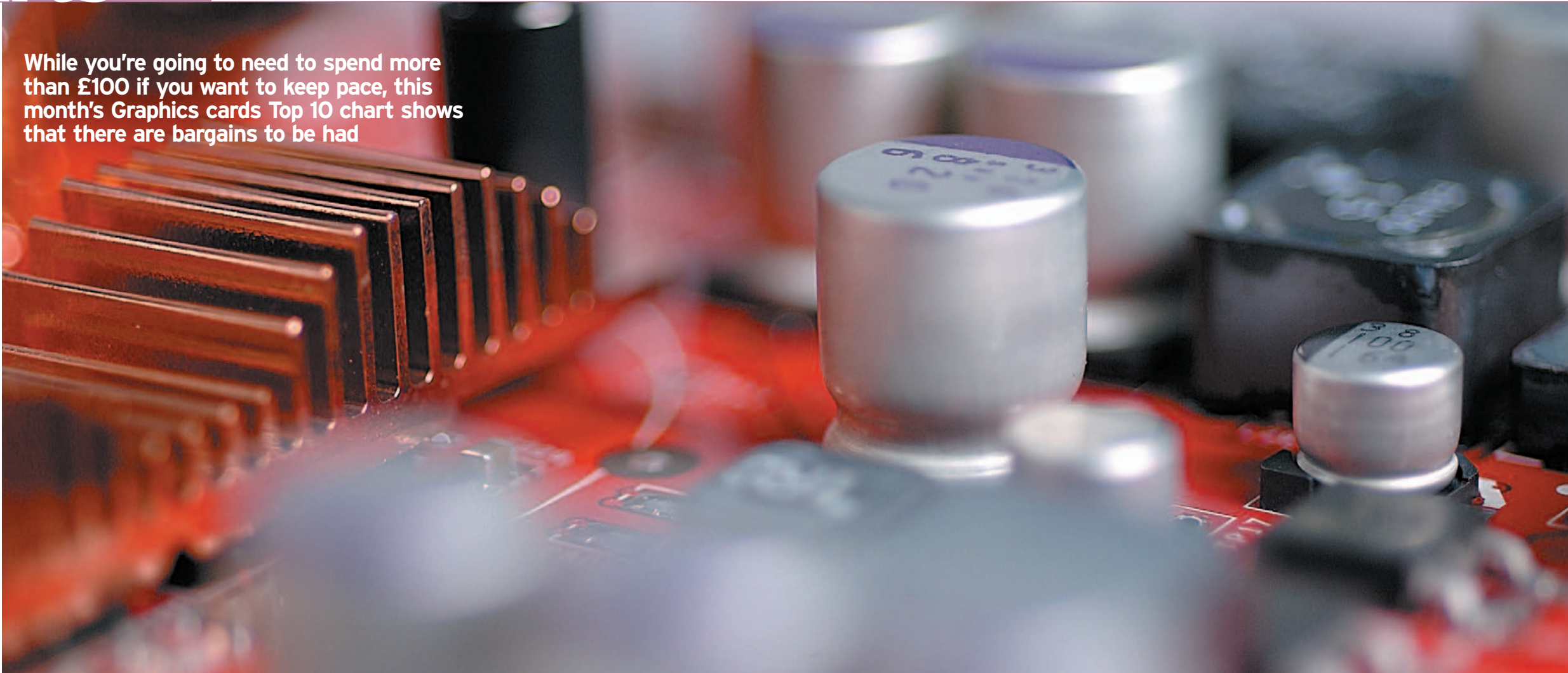
The exception to this is the graphics card market, where the huge number of manufacturers fought tooth and nail in 1999 to see who could dive furthest under the £100 mark. Compare this to today's two-horse race, where the reward for releasing the fastest graphics chip is being able to charge £300 or £400 a time, and you see that, here at least, consumers have to stump up if they want to play the greatest game in town.

But while you're going to need to spend more than £100 if you want to keep pace, this month's Graphics cards Top 10 chart (see page 196) shows that there are bargains to be had. That is if you can cut through the hype and endless debates about image quality and DirectX 9.0.

This month's top card first appeared in the middle of 2003, but we have yet to see a product that offers a significantly superior gaming experience. It goes to prove that, even in the cutting-edge world of graphics cards, the latest technology isn't the only way forward.

One area where you definitely can't complain about high prices is the desktop PC market, and this month we welcome the cheapest batch of Power PCs ever. So to get 64bit processors, eight speed DVD writers and flat-panels at knockdown prices, turn to page 186 now.

While you're going to need to spend more than £100 if you want to keep pace, this month's Graphics cards Top 10 chart shows that there are bargains to be had



### The Top 10 chart awards

Top-ranking products are eligible for either Best Buy or Recommended awards. A Best Buy product takes the number one spot thanks to a superlative combination of features, performance, value for money and customer service (where we have the data). Those that earn a Recommended are pretenders to the Best Buy crown. Almost as good, they offer great value, quality and performance.

Chart rankings are based on a calculation of features and performance compared to price, so the highest scoring products also represent the best value for money.

### Prices

Our price categories for PCs, notebooks and digital cameras include VAT and are as follows:

#### PCs

Power PCs	over £1,410
Budget PCs	£700-£1,410
Superbudget PCs	sub-£700

#### Notebooks

Power notebooks	over £1,200
Budget notebooks	sub-£1,200

#### Digital cameras

Professional	over £700
Intermediate	£300-£700
Beginners	sub-£300

All prices printed in *PC Advisor* are quoted by the manufacturer or distributor and include VAT. Prices are only intended as a guide and you may see products on sale for less or more than our quoted price.

If you're interested in purchasing any of the products reviewed in *PC Advisor* then please contact the manufacturer or supplier direct, mentioning both the magazine and the issue in which you saw the product.

If it won't supply the product as reviewed, contact us at [reviews@idg.com](mailto:reviews@idg.com). Please note manufacturers are under no obligation to feature reviewed products on their websites.

*PC Advisor's* recommendations are for guidance only and are not a guarantee of suitability. The publisher takes no responsibility for purchasers' decisions.

### What is PC WorldBench 4?

WorldBench 4 is the latest version of our benchmarking software. It has been updated to allow us to test PCs running Windows XP and also contains an upgraded base system against which results are compared.

The PC WorldBench 4 benchmarking software tests how well a system runs 11 different everyday applications in order to provide the best indication of its real-world performance.

The 11 packages are: Photoshop 5.0, PhotoPaint 8.0, Quicken Deluxe 99, Lotus 1-2-3 9.0, Lotus Word Pro 9.0, Access 2000, Excel 2000, PowerPoint 2000, Word 2000, Netscape Communicator 4.73 and Visio 5.0 SE.











Test results are then collated and compared against a reference system - namely a Gateway Select 1200 PC, with a 1.2GHz AMD Athlon processor, 128MB of RAM, 20GB Quantum Fireball hard drive and VisionTek GeForce3 graphics card. To make it easy to compare, the control PC's score is set at 100, so a system that scores 150 is 50 percent faster than the control PC and so on.

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Top 10 Power PCs

				Power PCs	Processor type	RAM	Motherboard	Monitor		Graphics card maker	Sound card	DVD drive speed	Operating system, software and extras	
					Processor speed	Hard disk capacity	USB ports	Dot pitch		Graphics chip	Speakers	CD-RW drive speed		
								Maximum resolution@75Hz		Graphics card memory	Subwoofer			
PCADVISOR BEST BUY	1		<b>Mesh Matrix 64 3200+ MAX</b> 0870 046 4747 www.meshcomputers.com New	• £1,399 inc VAT • 3-year onsite warranty • First review Apr 04	AMD Athlon 64 3200+  2GHz	512MB DDR RAM  2 x 120GB Serial ATA	Asus K8V Deluxe  6	18in ViewSonic VP181b flat-panel  0.28mm 1,280x1,024		ATI  ATI Radeon 9800 Pro 128MB	Creative Audigy2 ZS  7 x Creative Inspire 7700 yes	12x/4x/2.4x/2.4x/2.4x (DVD-ROM/-R/+R/-RW/+RW) 52x/52x/32x (CD-ROM/-R/-RW)	Windows XP Home, Microsoft Works 7.0, Pinnacle Studio 8.0 SE	
					WorldBench 4				142					
	PCADVISOR RECOMMENDED	2		<b>Microland Tech AD 105.01</b> 0870 443 0399 www.microlandtechnology.com New	• £1,201 inc VAT • 2-year onsite, 1-year return-to-base warranty • First review Apr 04	AMD Athlon 64 3200+  2GHz	512MB DDR RAM  160GB Serial ATA	Gigabyte GA-K8VT800 Pro 8	19in Mitsubishi Diamond Pro 930SB  0.24mm 1,600x1,200		ATI  ATI Radeon 9800 Pro 128MB	Creative Audigy2 ZS  7 x Creative Inspire 7700 yes	12x/8x/8x/2x/2x (DVD-ROM/-R/+R/-RW/+RW) 52x/52x/32x (CD-ROM/-R/-RW)	Windows XP Home, Microsoft Works Suite 2004
				WorldBench 4				139						
PCADVISOR RECOMMENDED		3		<b>Evesham Axis 64 3200+</b> 0870 160 9500 www.evesham.com New	• £1,499 inc VAT • 2-year onsite, 1-year return-to-base warranty • First review Apr 04	AMD Athlon 64 3200+  2GHz	1GB DDR RAM  160GB Serial ATA	MSI K8T Neo  6	19in ViewSonic VP191s flat-panel  0.294mm 1,280x1,024		ATI  ATI Radeon 9800 SE (All-in-Wonder) 128MB	Creative Audigy2 ZS  7 x Creative Inspire 7700 yes	12x/4x/4x/2x/2.4x/3x (DVD-ROM/-R/+R/-RW/+RW/+RAM) 32x/24x/16x (CD-ROM/-R/-RW)	Windows XP Home
					WorldBench 4				142					
	PCADVISOR RECOMMENDED	4		<b>Microland Tech AD 101.01</b> 0870 443 0399 www.microlandtechnology.com Last month 1	• £1,549 inc VAT • 2-year onsite, 1-year return-to-base warranty • First review Jan 04	AMD Athlon 64 3200+  2GHz	512MB DDR RAM  160GB Serial ATA	Gigabyte GA-K8VT800 8	19in Mitsubishi Diamond Pro 930SB  0.24mm 1,600x1,200		ATI  ATI Radeon 9800 Pro 128MB	Creative Audigy2 ZS  7 x Creative Inspire 7700 yes	12x/4x/4x/2x/2.4x (DVD-ROM/-R/+R/-RW/+RW) 52x/52x/24x (CD-ROM/-R/-RW)	Windows XP Home, Microsoft Works Suite 2004, games bundle
				WorldBench 4				141						
		5		<b>Mesh Matrix 64 3200 BPC</b> 0870 046 4747 www.meshcomputers.com Last month 2	• £1,399 inc VAT • 2-year onsite, 1-year return-to-base warranty • First review Feb 04	AMD Athlon 64 3200+  2GHz	512MB DDR RAM  2 x 120GB Serial ATA	Asus K8V Deluxe  6	17in Sharp LL-T17A4 flat-panel  0.264mm 1,280x1,024		Sapphire  ATI Radeon 9800 128MB	onboard SoundMax  6 x Creative Inspire 6700 yes	8x/4x/4x/4x/2.4x (DVD-ROM/-R/+R/-RW/+RW) 52x/52x/24x (CD-ROM/-R/-RW)	Windows XP Home, Microsoft Works 7.0, Pinnacle Studio 8.0 SE
					WorldBench 4				144					
		6		<b>Microland Tech AD 102.01</b> 0870 443 0399 www.microlandtechnology.com Last month 3	• £1,399 inc VAT • 2-year onsite, 1-year return-to-base warranty • First review Feb 04	AMD Athlon 64 3200+  2GHz	512MB DDR RAM  160GB Serial ATA	Gigabyte GA-8VT800 8	19in Mitsubishi Diamond Pro 930SB  0.24mm 1,600x1,200		ATI  ATI Radeon 9800 Pro 128MB	Creative Audigy2 ZS  7 x Creative Inspire 7700 yes	12x/4x/4x/2x/2.4x (DVD-ROM/-R/+R/-RW/+RW) 52x/52x/32x (CD-ROM/-R/-RW)	Windows XP Home, games bundle
				WorldBench 4				142						
		7		<b>Time Platina 32 PQ</b> 01282 777 555 www.timecomputers.com Last month 4	• £1,499 inc VAT • 3-year return-to-base warranty • First review Jan 04	AMD Athlon XP 3200+ 2.2GHz Barton core	1GB DDR RAM 2 x 160GB Serial ATA	MSI K7N2 4	19in LG Flatron F900P  0.24mm 1,600x1,200		ATI  ATI Radeon 9800 Pro 128MB	Hercules Digifire 7.1  7 x Creative Inspire 7700 yes	12x/4x/2x/1x (DVD-ROM/-R/-RW/-RAM) 32x/12x/8x (CD-ROM/-R/-RW)	Windows XP Professional, Microsoft Works Suite 2004, 6-in-1 flash memory drive, business/music suites, games, gamepad
					WorldBench 4				133					
		8		<b>Evesham Axis 3200PP</b> 0870 160 9500 www.evesham.com Last month 5	• £1,499 inc VAT • 2-year onsite, 1-year return-to-base warranty • First review Jan 04	AMD Athlon 64 3200+  2GHz	256MB DDR RAM  160GB Serial ATA	MSI K8T Neo  8	17in Philips 170B flat-panel  0.264mm 1,280x1,024		ATI  ATI Radeon 9800 SE (All-in-Wonder) 128MB	Creative Audigy2 ZS  7 x Creative Inspire 7700 yes	8x/4x/4x/2x/4x (DVD-ROM/-R/+R/-RW/+RW) 52x/52x/24x (CD-ROM/-R/-RW)	Windows XP Home, Microsoft Works Suite 2004
				WorldBench 4				141						
		9		<b>Sony Vaio PCV-RS326</b> 020 7365 2947 www.sonymstyle-europe.com New	• £1,661 inc VAT • 1-year return-to-base warranty • First review Apr 04	Intel Pentium 4  3GHz	512MB DDR RAM  160GB Ultra ATA	Asus P4SD-VX  7	17in Sony SDM-HX73 flat-panel  0.264mm 1,280x1,024		ATI  ATI Radeon 9200 128MB	onboard SoundMax  2 x Sony Vaio Active no	8x/4x/4x/2x/2.4x (DVD-ROM/-R/+R/-RW/+RW) 32x/16x/8x (CD-ROM/-R/-RW)	Windows XP Home, Microsoft Works 7.0, Norton Internet Security 2004
					WorldBench 4				124					
		10		<b>IBM ThinkCentre A50p</b> 0800 169 1458 www.ibm.com/uk New	• £1,449 inc VAT • 3-year return-to-base warranty • First review Apr 04	Intel Pentium 4  3GHz	512MB DDR RAM  80GB Ultra ATA	Intel  6	17in IBM L170 flat-panel  0.264mm 1,280x1,024		ATI  ATI Radeon 9800 Pro 128MB	onboard SoundMax  2 x IBM Infinity no	16x (DVD-ROM) 52x/52x/32x (CD-ROM/-R/-RW)	Windows XP Home, Lotus SmartSuite Millennium, Norton AntiVirus
				WorldBench 4				122						



although it won't be until 64bit applications and operating systems are available that we'll see the full potential of this particular processor.

The 19in Mitsubishi Diamond Pro 930SB monitor might be rather bulky but it projects a beautifully sharp and clear image. Visuals are capably handled by the Radeon 9800 Pro graphics card, while the addition of the 7.1 Creative speaker system and Audigy2 sound card makes this machine primed for games use.

The Microland's DVD writer is one of the few available that boasts eight-speed DVD-R/+R burning rates, allowing you to back up large amounts of data in record time. Microsoft Works Suite 2004 rounds off this superb, value-for-money package.

3 NEW Evesham Axis 64 3200+

PCADVISOR RECOMMENDED Like the rest of this month's top four machines, the Evesham Axis is powered by an Athlon 64 3200+ processor and, as you'd expect, it's stonkingly quick.

There's a generous 1GB of DDR RAM and, even if the 160GB Serial ATA hard drive isn't enough for all your files, a multiformat DVD writer is on hand for additional backup. Indeed, so versatile is the latter that it supports DVD-RAM as well as the more commonplace DVD+RW and



1 NEW Mesh Matrix 64 3200+ MAX

PCADVISOR BEST BUY This month it's the Matrix 64 3200+ MAX from Mesh that steals the Best Buy award in the Power PCs category. Combining a great set of specs, good performance and a decent price, this model proved to be top of the pile in a very strong field.

To reflect the ever-changing industry, we've lowered the minimum price for Power PCs to £1,200 inc VAT. Fierce competition in the desktop market means that you can now get much more for your money, and Mesh has put together

a stunning package for a shade under £1,400.

In terms of components, the Mesh 64 3200+ processor guarantees impressive performance and the 18in flat-panel display from ViewSonic not only generates an excellent image but looks fantastic too.

The ATI Radeon 9800 Pro offers more bang for your buck than any other graphics card and the sound system is also first class. Two 120GB hard drives are Raid configured for fast data retrieval and you'll find it difficult to fill this massive 240GB of storage space. A dual-format

DVD writer is included for backing up your data and the CD writer offers the fastest speeds available.

Should you want to upgrade there's plenty of room inside the tower case and everything is neatly arranged. A wireless keyboard and mouse keep messy cables to a minimum, while the plethora of ports and connectors includes three FireWire ports, six USB 2.0 ports on the case (two front-mounted) and four more on the flat-panel.

With a three-year onsite warranty and decent software bundle, the Mesh makes a great all-round PC that should suit the needs of every user.

2 NEW Microland Tech AD 105.01

PCADVISOR RECOMMENDED This month's first Recommended award goes to Microland's Tech AD 105.01. Component for component, this PC might not be able to match some of the other systems here. However, it more than makes up for this with a price tag of just £1,201 inc VAT.

A WorldBench 4 score of 139 isn't the highest in the chart, but in reality few users are likely to notice the difference in speed between this and the Best Buy Mesh PC. The Athlon 64 3200+ processor handled our benchmark tests with ease,

DVD-RW formats, ensuring that it'll be many years before your drive becomes obsolete.

The 19in ViewSonic flat-panel display offers an actual viewing size even greater than that of a 19in CRT monitor, although its space-saving benefits are likely to be an even bigger selling point. Getting the most out of the display is easy with the Radeon 9800 All-in-Wonder graphics card. It's not only great for gamers but comes equipped with TV and video facilities too.

All this comes protected under a three-year warranty which includes two-year onsite cover. A great buy. It's only the slightly high price tag and lack of a software bundle that holds this Evesham in third place.



#### 4 Microland Tech AD 101.01



Our final Recommended award goes to the Microland Tech AD 101.01. Having held the Best Buy position for the last four months, it's the stiff competition from the newcomers that robs it of the top spot. But this model is still a good all-round package that will undoubtedly appeal to those wanting the latest and greatest technology.

Visuals are where this PC really excels. The Mitsubishi Diamond Pro 930SB is the top 19in CRT monitor on the market and the ATI Radeon 9800 Pro graphics card makes the best possible use of it. When we ran the Quake III Annihilator demo test at a resolution of 1,600x1,200, it achieved an impressive frame rate of 104.7fps (frames per second).

The Creative Inspire 7700 speaker system has seven satellites and a subwoofer and provides great surround sound. In fact, this PC remains very much on top of its game. If only the £1,549 price tag had fallen to reflect the Microland's age, the Tech AD 101.01 would have made a better job of holding on to its number one spot.



#### 5 Mesh Matrix 64 3200 BPC

Only two issues ago the Mesh Matrix was tucked away in the Budget PCs category. But its WorldBench score of 144 continued to demonstrate that its true capabilities were better suited to the Power PCs chart. Even at fifth place, the 3200 BPC still holds a two point advantage over Mesh's top-spot model.

The 17in Sharp LL-T17A4, however, is now one of the smaller flat-panels in the chart, while the onboard sound and six-piece Creative speakers are easily outdone by the rest of the top eight.

But there's still plenty to relish here. DVD write speeds are good, the whopping 240GB of hard drive space is excellent and, despite its age, 64bit processor technology is included. Mesh's latest PC is the better deal, but if you can get this at a price cut then it's well worth looking out for.

#### 6 Microland Tech AD 102.01

Microland has made quite an impression in a very small space of time. So much so, in fact, that it manufactures three of the top six Power PCs in this month's chart. Like the Mesh Matrix 64 3200 BPC, this former Budget PC has made a smooth transition to the Power category and only the 3200 BPC can better its WorldBench 4 score of 142.

As more manufacturers are moving towards flat-panel displays, the Microland's 19in Mitsubishi monitor proves that nothing can beat the gorgeous colours of a top-quality CRT screen. It's also a delight to see such a powerful audio system - the Creative Audigy2 ZS sound card and Inspire 7700 speakers are a great pairing.



It's hard to recommend this system when the latest Microland Power PC offers much the same components for £200 less, but the Tech AD 102.01 still shows enough flair to merit consideration.



#### 7 Time Platina 32 PQ

The Platina offers plenty for those who like to indulge themselves. The 1GB DDR RAM should ensure that all applications and games run smoothly. There are also two 160GB hard drives included. You may think this an extravagance, but if you're into digital video editing or keep collections of MP3 files you'll find this a real bonus.

The LG Flatron CRT monitor is more than a match for the majority of flat-panels and the performance of the Radeon 9800 Pro graphics card should please the most demanding of gamers. The six-in-one card reader is an excellent addition, especially for digital camera enthusiasts.

Unfortunately, though, the Time wasn't flawless. Aside from the poor warranty (which offers no onsite cover), the Athlon XP 3200+ processor not only lacks 64bit technology but produced a fairly meagre WorldBench 4 score of 133 - some 11 points short of the fastest PC in the chart. The Platina is also a little overpriced in spite of its large memory and drive storage.

#### 8 Evesham Axis 3200PP

Slipping down to eighth place is the Axis 3200PP from Evesham, a previous Recommended award winner. It's still a good PC, though, and the WorldBench 4 score of 141 proves that it's a fast system. Had Evesham decided to put more than 256MB of DDR RAM in the Axis, we're convinced it would have gone faster still.

Both the Evesham systems in the Power PC chart boast the excellent Radeon 9800 All-in-Wonder graphics card and this model pairs up nicely with a space-saving 17in Philips flat-panel display. The 160GB hard drive offers as many gigabytes as





you're likely to need and a dual-format DVD writer and Creative Audigy2 sound card are excellent additions. Audiophiles are well catered for thanks to the 7.1 speaker system, but the lack of system memory combined with the quality of the opposition keep the Axis in eighth place.

#### 9 NEW Sony Vaio PCV-RS326

The Sony Vaio might be a sight for sore eyes, but its high price and relatively slow performance will unfortunately leave you aching in other areas. The 160GB hard drive offers plenty of storage space but it's hampered by the slower Ultra ATA interface. While the Sony monitor offers a sharp image, its 17in viewing area seems rather cramped for a Power PC. And the Radeon



9200 graphics card is slow and outdated - it doesn't even have DirectX 9.0 support.

The audio system - consisting of an onboard sound chip and two small speakers - lacks impact, although the software bundle (which includes Norton Internet Security and Microsoft Works 7.0) offers some compensation.

A one-year warranty seems rather miserly for £1,661 and it's this high price tag, even more than the low-calibre spec, that pushes the Sony perilously close to the bottom of the chart.

#### 10 NEW IBM ThinkCentre A50p

Propping up the table is the ThinkCentre A50p from IBM. Unfortunately, this entry fails to match up to the opposition in

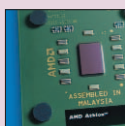


terms of specifications or performance. Using a 3GHz Pentium 4 processor, the ThinkCentre only managed a score of 122 in our WorldBench 4 tests and was slower still when the hyperthreading technology was enabled.

The ThinkCentre won't win any awards for design, either. The angular, black tower unit is an eyesore and the keyboard looks as old as the hills. IBM has also taken the rather odd decision to scatter some primary colours over the system, giving the ThinkCentre the appearance of a child's toy.

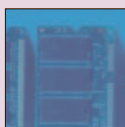
On the plus side, beginners will feel at ease with the kind of support programs that come preinstalled on all IBM systems and the three-year warranty is comprehensive, even if it isn't onsite cover.

## Buying advice



- **Processors** We've seen the first AMD Athlon 64 processors enter the Power PCs chart. Athlon XP chips

are still a good bet but make sure they have the Barton core. This makes them faster and more efficient than the older Athlon XP CPUs using the Thoroughbred core. If you would prefer an Intel processor, look out for P4 chips running at more than 3GHz. These use hyperthreading technology that can, theoretically, make your CPU act as two chips.



- **Memory** The minimum memory allocation in your new PC should be 512MB of fast DDR RAM. Some vendors will give you as much as 1GB, so it's worth shopping around. While the PC2700 (DDR333) standard is good, go for the faster PC3200 (DDR400) if you can.

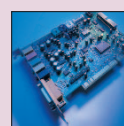


- **Storage** Get at least a 120GB hard disk for your money. Most vendors will offer more space than this,

perhaps on two or more drives. Look for the Serial ATA interface as it allows you to access your data more quickly. With more than one hard drive you may want to opt for a Raid configuration which will make accessing and storing data faster still. If not, two hard drives are still a good idea as they provide you with additional backup options and protection against failures.

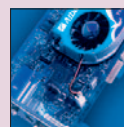


- **Monitor** In terms of CRT screens, accept no less than a 19in display with a dot pitch of 0.25mm or less, and capable of reaching 1,600x1,200 at 75Hz. If you opt for a flat-panel, it should be at least 17in and have a native resolution of 1,280x1,024.



- **Graphics card** ATI's Radeon 9800 Pro is the most popular choice at the moment; a good alternative is

the ATI Radeon 9800 XT or nVidia GeForce FX 5950 Ultra. If gaming is important then look for a graphics card with no less than 128MB of DDR RAM. ATI Radeon All-in-Wonder cards fulfil the functions of both a graphics card and a TV tuner without compromising games performance.



- **Sound card** Speaker systems should have a subwoofer and at least six satellites; seven are better still. Either the

Creative Inspire 7700 or Videologic ZXR-750 systems will serve you well. Creative has the sound card market all but sewn up at the moment with the Audigy2 ZS, but there are other 7.1 sound cards available such as the Hercules Digifire.