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As advertised on TV, the Pentium II is Intel's latest processor for high-performance PCs. Amazingly, its power isn't reflected in its price – we check out 10 Pentium II PCs costing around £1,500

To the POWER of



Intel is the world's biggest supplier of processors for desktop PCs, and when it launches a new chip everyone has to sit up and take notice. In the past, it has used this clout to charge premium rates for its latest products, penalising 'early adopters' (industry jargon for the nerds who have to have the latest of everything) for their desire to be at the head of the pack.

With the Pentium II, things have been different. It was launched at virtually the same price as Pentium MMX chips were being sold for only a few days before, so systems using the new chip are equally affordable. To prove it, we asked a number of leading PC manufacturers to supply us with systems costing around £1,500 including VAT. The only condition was that they had to include a PII processor – everything else was left up to them.

Amazingly, half the systems we tested came with speedy 266MHz processors rather than the slower 233MHz chips – and

II

Mesh said it would have fitted a 300MHz chip for the price if Intel could have supplied one in time.

All of the machines here are fast, so you shouldn't look at their performance in isolation. Our star ratings are also relative to the PCs in this test: even the lowest scorer is fast enough to run the most demanding applications and games smoothly. In fact, it's faster than two of the big-name systems we tested in October – and they cost almost £1,000 more. Although next year's programs will test it more severely, this PC should cope well with them and will be able to run up-to-date business software well into the future.

When choosing between the systems rated here, you should pay at least as much attention to the build quality, customer service and

extras as you do to the speed of the PC. Unless you're an extremely demanding user, performance is only really an issue inasmuch as it provides a degree of future-proofing.

Carrera Power Pro II



sufficient for most needs, even though part of it is already taken up by a pre-installed copy of Lotus SmartSuite 97. It uses Intel's older Pentium II support chipset and like every other machine in this test includes a healthy 32Mb of RAM. There's also an ATi Xpert graphics card, a popular choice and an excellent performer.

The sound card and speakers are both from Yamaha and are a good match for each other. That is, they're a good match when they are actually producing sound: when we

first tried to play an audio file we were rewarded with nothing more than silence. The cause of this problem was actually very simple: the audio connector from the CD-ROM drive had been plugged into the sound card the wrong way round.

Rectifying this is literally a five-second job, but only because we guessed that this was a likely cause. If an inexperienced user is faced with silence they may not have any idea of how to remedy it – and Carrera's quality control really should have picked this up before the machine was shipped to us.

We were also, somewhat surprisingly, disappointed in the monitor supplied by Carrera – a Studioworks 55i from LG Electronics. Normally, LG monitors are fine, so this may have been a rogue example, but it just didn't give a good picture. The best way of describing it is fuzzy, and despite numerous adjustments we just couldn't improve it.

This said, Carrera's Power Pro II is a very reasonable PC. It's got a good specification and is one of the faster 233s we tested. If yours doesn't have the glitches we experienced, you won't be disappointed.

For a 233MHz machine based on the old 440FX chipset (see box, next page), the Carrera is a good performer. The monitor we received isn't up to standard though, and better machines are available.

- £1,498 (inc VAT)
- Carrera: 0171 830 0486

Carrera Power Pro II				
Build quality	★	★	★	★
Features	★	★	★	★
Performance	★	★	★	★
Value for money	★	★	★	★
Overall	★	★	★	★

Dan Dantum II/CH 233



slower EDO RAM that is standard on machines using the older 440FX chipset, as well as an Ultra DMA hard disk.

Better still, it has top-notch graphics. The Dan uses the same ATi card as the Carrera, but in its AGP variant. AGP (Accelerated Graphics Port) is a new graphics technology developed by Intel, and a card plugged into an AGP slot can run graphics much faster than existing PCI products. It can also use the main system memory to help calculate big graphics textures, making it especially good for 3D games.

Apart from the graphics card, all these performance tweaks are on the motherboard so they're not immediately noticeable when you open the case. What is noticeable, though, is the amount of space – not a single expansion slot has been filled.

Although it's one of only two machines in this test not to have a modem, and there has been no upgrade from the on-board 16-bit Sound Blaster-

compatible sound chip, this is reflected in the extremely competitive price. However, the unbranded speakers are nowhere near as good as the Yamaha set Dan normally supplies, and the software bundle is untypically sparse.

If you buy this machine you'll have to be content with half a dozen MMX titles and a pre-installed copy of Microsoft Works. Granted, this is adequate for most needs, but you don't even get a set of backup disks with it. At least the mouse is a genuine Microsoft rodent.

Dan's Dantum II/CH 233 is a good, solid machine and an excellent performer for its specification. Its low price means that you can afford to add the extras, like a modem, that other manufacturers have supplied as standard.

- £1,352 (inc VAT)
- Dan: 0181 830 1100

Dan Dantum II/CH 233				
Build quality	★	★	★	★
Features	★	★	★	★
Performance	★	★	★	★
Value for money	★	★	★	★
Overall	★	★	★	★

What is the Pentium II?

Since November 1995, Intel has sold two types of processor. The Pentium, and more recently its multimedia version, the Pentium MMX, is aimed at desktop machines because it is relatively cheap and handles Windows 95 well. The much more expensive Pentium Pro runs Windows NT more efficiently and has been sold primarily to businesses to power their servers.

The Pentium II brings these two development streams together. This processor will run Windows 95, its successor Windows 98 and Windows NT equally happily – it is as efficient with 16-bit code as it is with 32-bit programs. What's more, it includes MMX technology so it's very suitable for home users.

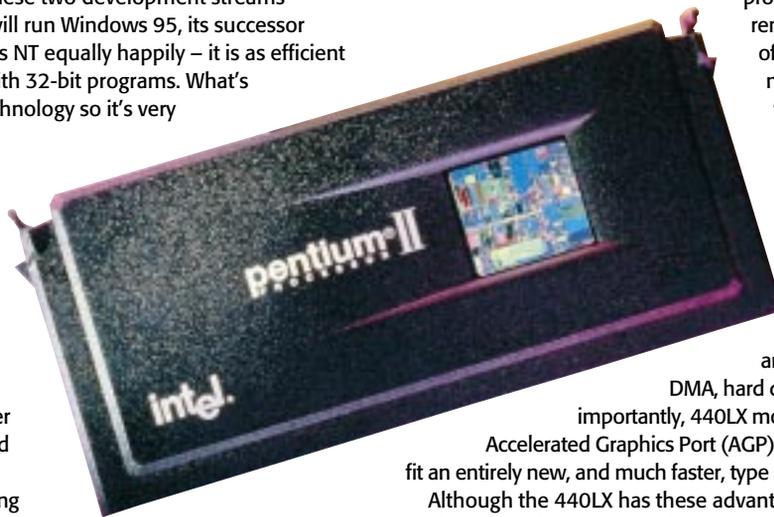
The most obvious difference between the Pentium II and earlier chips is that rather than sitting in a socket, the Pentium II is a large black oblong, attached to the motherboard by an edge connector. This is called Slot One and is faster than the old Socket 7 (used for Pentium and Pentium MMX processors): upgrading isn't possible without a new motherboard.

The chip is so big because of the manufacturing process. With the Pentium Pro, the processor and the on-board cache were

made together. A manufacturing error in either one meant that the whole lot had to be thrown away: this led to enormous wastage and high selling prices for the chip. With the Pentium II, the on-board cache (a whopping 512Kb) is made separately from the processor; then the two are combined.

Despite the fact that the PII's cache runs at half the speed of the processor (this will be remedied in the next version of the PII, currently code-named Deschutes), it's the fastest chip yet for the PC. To run at full power though, it needs to be paired with a proper support chipset called the 440LX. The 440LX allows the processor to use a faster type of memory (SDRAM) and a more efficient, Ultra DMA, hard disk controller. More importantly, 440LX motherboards have an Accelerated Graphics Port (AGP) slot, which allows you to fit an entirely new, and much faster, type of graphics card.

Although the 440LX has these advantages, don't fret about performance if you're considering a PC fitted with the older 440FX chipset as it isn't necessarily any slower. However, you won't be able to upgrade it to AGP in the future unless you buy a new motherboard.



Dell Dimension XPS D233



Dell's entry in this group test makes it clear that including the latest technology doesn't actually guarantee great performance. During our tests, the Dimension turned in a respectable figure for a 233MHz machine, but it's no flyer despite having the 440LX chipset and SDRAM.

Having the more modern motherboard does mean that the Dimension comes with an AGP slot, which provides a useful degree of futureproofing if you're

likely to upgrade the graphics card. For the moment though, it's fitted with a PCI card, a 4Mb STB Nitro. Although this is a 3D accelerator, it isn't the fastest card on the market and will hold the system back somewhat. If you have a particular interest in games, it could be worth waiting until the first AGP-specific titles come out and then upgrading the Nitro.

Sound is provided by an on-board chip, played through a pair of Altec Lansing speakers. Although small, they produce a fair sound: it's a good second to the Yamaha set supplied with some other machines.

There's also a modem as well as some free trial software to get you on the Internet. Our test machine was fitted with a 33.6Kbits/s model, but Dell assures us that by the time you read this it will have been upgraded to a faster 56Kbits/s device.

In terms of software, Dell has broken away from the trend set by half of the machines in this test. Rather than Lotus SmartSuite, the Dimension is supplied with Microsoft Office Small Business Edition. This includes Word, Excel and

Publisher 97, together with a copy of route-finding software AutoRoute Express and Small Business Financial Manager. This combination is probably more useful for home or small business users than, say, Office Professional, which includes PowerPoint and Access. The biggest advantage of Office, though, is that it comes with an installation CD-ROM: this will save you the tedium of copying software onto floppies to create a set of backup disks.

Don't expect it to break any speed records, but Dell's Dimension XPS D233 is a fine machine. It's solid, backed by Dell's reputation, and can be upgraded with an AGP graphics card once the software arrives that is able to use its capabilities.

- £1,503 (inc VAT)
- Dell: 0870 1524625

Dell Dimension XPS D233

Build quality	★	★	★	★	★
Features	★	★	★	★	★
Performance	★	★	★	★	★
Value for money	★	★	★	★	★
Overall	★	★	★	★	★



Elonex PT-6233/I



are a bit tricky to get to, which might cause problems if you want to fit more memory in the future.

What's more, a machine with this chipset couldn't normally take advantage of the extra speed offered by an Ultra DMA hard disk. To get around this, Elonex has fitted a UDMA controller on an expansion card along with its generous 4.3Gb hard disk. Although this takes up an extra PCI slot, the performance boost should be worthwhile.

One of the other slots is taken up by an ATi XPERT@Work graphics card. This too is fast, being one of the quickest cards on the market and is also ideal for games despite its name. However, all this effort doesn't really seem to have made much difference. The Elonex was actually the second slowest PC on test, beaten convincingly by the similarly-specified Carrera - which doesn't have the extra hard disk controller.

Founded in 1986, Elonex is one of the longer-established PC builders, so the PT-6233/I was a bit of a disappointment. A lot of thought has clearly gone into the design, but it hasn't quite been taken far enough. It's fitted with the older 440FX chipset, so its 32Mb of RAM is installed on SIMMs (Single Inline Memory Modules). This doesn't have real disadvantages in itself; however, the sockets

Be careful if you buy the Elonex with a view to fitting extra cards later on. There are two ISA slots free, but most people will find the two PCI slots more useful. Unfortunately, the case doesn't have cut-outs to allow USB ports to be fitted, so Elonex has fitted them to a slot backing plate - and this actually blocks off one of the PCI slots.

The rest of the components go some way to making up for this. An AWE 64 sound card fills one of the ISA slots, and so does a modem. Like the Dell machine, it comes with a set of Altec Lansing speakers and Microsoft Office Small Business Edition.

By and large the Elonex has a thoughtful design, and is well built. It's only a mediocre performer, but has a worthwhile set of components.

● £1,499 (inc VAT)

● Elonex: 0181 452 4444

Elonex PT-6233/I				
Build quality	★	★	★	★
Features	★	★	★	★
Performance	★	★	★	★
Value for money	★	★	★	★
Overall	★	★	★	★

Evocom Prestige PII-266



prejudiced - it took ages to clean them up. One of the screws that holds the power supply in fell out too and, although this isn't a major problem, it doesn't make for a good start.

The Evocom Prestige PII-266 came with both an IntelliMouse and an ordinary Microsoft one, but when we tried to plug the IntelliMouse in the installation routine told us that it couldn't find the driver, and there was no documentation provided to help us find it manually.

The PC comes bundled with games and multimedia software, including RAC Rally and Actua Soccer, but there isn't any business software at all. This and the fact that it's got an AWE64 sound card suggested to us that Evocom is aiming this machine at the games player, and the graphics card is a Matrox Mystique 220 with 2Mb of memory. However, serious gamers will be disappointed by the speakers - they're small and tinny.

Evocom fitted the 266MHz processor

to our test machine, pleading a shortage of the 233MHz version. Although this is normally an extra hundred pounds, Evocom assured us that it would offer a free upgrade if a component was out of stock when a customer placed an order.

However, this upgrade hasn't helped its performance. It's easily the slowest of the 266MHz machines, only just ahead of the 233MHz Dell and Carrera PCs. The Dan beats it comfortably.

Could do better. We like Evocom's policy of giving free upgrades rather than keeping a customer waiting for a machine - it's just a shame the PC itself wasn't up to scratch. Not a good performer for the specification.

● £1,585 for PII 266MHz

● £1,467 for PII 233MHz

(both prices inc VAT)

● Evocom: 07000 386583

Evocom Prestige PII-266				
Build quality	★	★	★	★
Features	★	★	★	★
Performance	★	★	★	★
Value for money	★	★	★	★
Overall	★	★	★	★

As Evocom is a relatively small company, based in north London, we assumed its machine would be built with care and attention to detail. Instead, it arrived in a battered cardboard box smothered in layers of tape and stuffed to the brim with polystyrene packing chips.

These went all over the floor when we opened the box, so perhaps we're

KT Computers Vision Value Pentium II-233



With KT Computers' previous track record in the *What PC?* labs we expected to see a good system. However, when we switched the Vision Value on, it was set up for US users, with American spelling, American currency, dates and so forth. This certainly isn't what we'd expect, and it does suggest a lack of thought at the very least.

KT certainly didn't put any thought into the software bundle supplied with this system - there isn't one. Purely on these grounds, this machine isn't a good

buy for a first-time user, as you will be faced with forking out for any software on top.

This said, the specification of the Vision Value is adequate: it's got a 3.2Gb hard disk, an AWE64 sound card and a modem that, at 56Kbits/s, is among the fastest currently available. It's worth noting, though, that, because no official 56kbits/s standard has yet been set, you'll only be able to get the benefits of this speed from an Internet Service Provider (ISP) that supports k56Flex.

However, the Matrox Mystique graphics card supplied seemed to give very poor performance. Delving into the setup files revealed that it had been installed using drivers over a year old. Worse, it would be unlikely to run any modern games properly as KT had only supplied DirectX 2.0. Version 5.0 of Microsoft's games and multimedia supplement has just been released.

What's more, the machine we were sent didn't match the spec sheet that came with it. The sheet claimed that the processor - cunningly hidden behind the

power supply - was the 233MHz version. Unusually, the setup and boot-up screens didn't mention the processor speed so, suspicious as ever, we whipped out the power supply to reveal that it was actually a 266MHz. Its performance is in line with this but not exceptional.

Virtually KT's only saving grace is the monitor, a Sony model. Although some people don't like the fine wires that can show up on a Trinitron screen, the flatter display really is easier on the eye.

This is the third time KT has appeared in *What PC?* The first time, we were impressed enough to give its system a recommended award, but the machines have gone downhill since then. The Vision Value doesn't live up to its name.

- £1,644 for PII 266MHz
- £1,498 for PII 233MHz (both prices inc VAT)
- KT Computers: 0181 961 8897

KT Computers Vision Value Pentium II-233					
Build quality	★	★	★	★	★
Features	★	★	★	★	★
Performance	★	★	★	★	★
Value for money	★	★	★	★	★
Overall	★	★	★	★	★

Is the Pentium dead?

The Pentium itself is already dead, discontinued without ceremony shortly after the launch of the Pentium II. For marketing reasons though, Intel is prolonging the life of the Pentium MMX until the middle of next year.

Although the Pentium II is very suitable for desktop machines - it is MMX-enabled and very reasonably priced - Intel's manufacturing plants can't make enough of it to supply all the desktop systems currently being sold. Until its new factories come on stream, it must continue making the Pentium MMX to keep up with demand.

The demise of the Pentium processor itself is not the real issue though. What is at stake is the future of motherboards. Like the Pentium MMX itself, its rivals (the Cyrix 6x86MX and the AMD K6) physically fit in Socket 7. The Pentium II requires Slot One, which permits a faster processor than the practical Socket 7 limit of 300MHz.

AMD's recent court case against Intel ended with it winning the right to use MMX technology in its processors, but Slot One technology was specifically excluded. Intel wants to keep the technology proprietary and has no intention of licensing it to other manufacturers.

Even if they do manage to crack the Slot One design, Intel's rivals will stay one step behind. Deschutes, the next-generation Pentium II, is an even bigger package designed to fit Slot Two. Although a backwards-compatible Slot One Deschutes will be available, this will mean yet another motherboard design for high-spec PCs.

If it can confine rival processors to low-end systems, Intel should have a near-monopoly of the desktop processor market: its current market share is already 80 percent worldwide. Limited to 300MHz as the Pentium II hits 400MHz and beyond, the long-term future of the K6 and 6x86MX is doubtful.



Mesh Pegasus LX266



Mesh has just celebrated its tenth birthday, so its staff should have a fair idea of what makes a good PC. Sure enough, compared to many other machines, the Pegasus was a pleasure to review, and for the money - it just shimmies under our price ceiling - it offers an astonishingly high specification.

Like virtually every other machine here, the Pegasus comes with a fast 3.2Gb hard disk and 32Mb of RAM, a combination which should be able to cope with most software for at least a

couple of years. It also boasts the latest Pentium II support chipset as well as AGP graphics.

Opening the box reveals an AWE64 sound card and a fast modem filling the system's ISA slots. This doesn't mean that expansion will be a problem though, as all four PCI slots are empty. An ATi graphics card is fitted in the Pegasus's AGP slot. This combination of components ought to ensure great performance, and it does. The Pegasus is the second fastest machine here - and in fact only one of our Dream Machines from the October issue would have out-performed it.

It could have been even faster - Mesh tells us that the 300MHz version would have been sent to us at the same price, if Intel could have supplied a chip in time. With this processor, it would have offered really serious performance at a bargain price.

It isn't just a fast machine though. Little things, like the documentation being supplied in a specially-printed Mesh folder, leave you with the impression that the Pegasus is a professionally put-together system. The monitor, an ADI

MicroScan model, is good and Mesh was the only company to supply a back-up disk for its pre-installed copy of Lotus SmartSuite.

The only (minor) thing to spoil this impression was the extra fan that had been fitted inside the case. Because it runs so fast, the Pentium II processor can get very hot. Every chip is fitted either with a large heatsink or a fan to keep it cool and Intel recommends that extra cooling be fitted to the case to help. Mesh has followed this suggestion by zip-tying another fan to the edge of the power supply. It blows across the processor and is perfectly secure, but it doesn't look very professional.

The Pegasus really flies. It's an excellent performer and has almost everything you're likely to want in a PC.

● £1,498 (inc VAT)

● Mesh: 0181 452 1111

Mesh Pegasus LX266				
Build quality	★	★	★	★
Features	★	★	★	★
Performance	★	★	★	★
Value for money	★	★	★	★
Overall	★	★	★	★

Systems 2001 Ultimate System 266/T



A quick phone call to Systems 2001 reveals that its staff answer the phone just as 'Systems': the company also trades as HM Systems and Minstrel Systems. This explains why this PC came with Systems 2001 paperwork, a Minstrel mousemat and a Minstrel badge on the front of its rather ugly case.

Once we'd negotiated the eccentric power switch - turn *and* push down a small, blue knob - it was time to run our tests. Or rather, it was time to find a spare power cable for the monitor - only a pass-through cable had been supplied, and sadly this wasn't matched by a socket on the back of the PC.

A shiny new LX chipset on an equally shiny Asus motherboard graced the inside, and the AGP slot had an Asus graphics card. Asus is one of the best known motherboard makers, so we had high hopes for this PC, especially as it had a 266MHz chip.

However, like the Dell, this PC proves fairly effectively that the latest technology doesn't necessarily produce a speedy machine. It was easily the slowest of the systems clocked at 266MHz, and was comfortably beaten by the Dan. Even with their slower chips, neither the Carrera nor the Dell was far behind.

Beyond this - and don't forget, it still outclasses three-month-old machines which cost this much - we could find

little to criticise beyond the absence of a modem. It has a good-sized hard disk and a fast CD-ROM drive, as well as a reasonable monitor. It's got an AWE 64 sound card and a quality pair of Yamaha speakers, and it all works well with Lotus SmartSuite. The problem is, other systems have got all this, and a modem, and better performance, for the same price.

We wouldn't make a song and dance about this PC. It's fast enough - but a good bit slower than we would have expected. The missing cable suggests a lack of care when it was being packed.

● £1,726 (inc VAT)

Note: We were originally told that this system cost £1,491 inc VAT, but just before *What PC?* went to print Systems 2001 revealed that the actual price is £1,726, pushing it above our ceiling of £1,500.

● Systems 2001: 0181 830 1300

Systems 2001 Ultimate System 266/T				
Build quality	★	★	★	★
Features	★	★	★	★
Performance	★	★	★	★
Value for money	★	★	★	★
Overall	★	★	★	★

Time PowerStation 233-2



Regular readers will know that we've not looked at a Time machine for almost two years. The brand is owned by a company called Granville Technology, which also owns Colossus and MJN. Usually, when we've reviewed a Granville PC it's been an MJN machine.

This time we asked specifically for a Time PC. The Time PowerStation 233-2 that we were supplied with turned out to be the worst performer in this group test

by a margin of something over 10 percent - though admittedly this is still faster than two much more expensive PCs we reviewed two months ago.

Although a Time machine, our review PC bore Colossus badges: clear evidence of Granville's economies of scale. The PC is

adequately built, but some of the ports were mounted on a very flimsy blanking plate. Inside the box was a reasonable mix of components: a large hard disk, Yamaha sound card and an ATi graphics card. This is PCI rather than AGP - the PowerStation is built around an FX chipset - but should still offer decent performance.

With such a 3D accelerator and the supplied joystick, Time obviously reckons that the machine will spend a good part of its time running games. As an aid to this, the boot-up screen offers you the

choice between opening Windows or a DOS prompt optimised for games. Sadly, if you want to run up-to-date games you'll need every scrap of extra performance this can give you: the PowerStation just isn't a fast machine when compared to the others we had on test.

It does, however, come with more software than any other PC we looked at. As well as Lotus SmartSuite 97, there's a bundle of MMX titles and another collection of discs that includes DesignWorks 3.5 and PressWorks 2.5. A backup disc for SmartSuite will, though, cost you almost another £200.

We weren't impressed with Time's PowerStation 233-2. It's not the worst machine here, but there is nothing outstanding about it to redeem its poor performance.

- £1,491 (inc VAT)
- Time: 01282 770044

Time PowerStation 233-2					
Build quality	★	★	★	★	★
Features	★	★	★	★	★
Performance	★	★	★	★	★
Value for money	★	★	★	★	★
Overall	★	★	★	★	★

Watford Electronics Aries Performa II '97



Watford Electronics is best known for its mail-order service, with an enormous range of computer parts and software. Despite this choice, you'd expect a system from Watford to have a few gaps. The Aries Performa II '97 is no exception: there are apparently random holes in the back of the case. In fact they're intended to let you plug

speakers or a microphone into the on-board sound card. Since this has been disabled and an AWE64 supplied, we would have expected the holes to have been blocked off, but leaving them open won't cause any harm.

When we looked at the Performa's spec sheet we were impressed to see 64Mb of RAM, especially as the bottom line read £1,450. Then we looked at the small print. £1,450 excluding VAT.

One quick phone call later, we'd whisked out a DIMM to bring it down to 32Mb - and bring the price under our ceiling.

Nonetheless, it's got a 266MHz processor and the new LX chipset, together with a 4.3Gb hard disk which should be ample for your needs. There is an AGP slot, but Watford has fitted a Matrox Mystique graphics card in a PCI slot. Unhampered by this, the Aries flies along: it's the fastest machine in this test.

To round this out, Watford has supplied a modem and a reasonable monitor,

together with WordPerfect Suite 7. This comes with a full set of disks and manuals, but your first task will be to install it because Watford hasn't. Still, at least this shouldn't take too long - and it'll scarcely make an impression on that hard drive.

Apart from the gaps in the case and the fact that Watford hasn't fitted an extra cooling fan in the slot provided, our only concern about the build quality of the PC was the fact that the AWE64 card wasn't screwed down properly: this should have been picked up by Watford's quality control.

If you buy from Watford you won't be disappointed. Even with 32Mb of RAM the machine flies along, and you've got scope to add an AGP graphics card if you want to in the future.

- £1,498 (inc VAT)
- 01582 487777

Watford Electronics Aries Performa II '97					
Build quality	★	★	★	★	★
Features	★	★	★	★	★
Performance	★	★	★	★	★
Value for money	★	★	★	★	★
Overall	★	★	★	★	★

Pentium II PCs compared

Manufacturer	Carrera	Dan	Dell	Elonex	Evocom	KT Computers	Mesh	Systems 2001	Time	Watford Electronics
Model name	Power Pro II	Dantum II/CH 233	Dimension XPS D233	PT-6233/1	Prestige PII-266	Vision Value Pentium II-233	Pegasus LX266	Ultimate System 266/T	PowerStation 233-2	Aries Performa II '97
Price (inc VAT)	£1,498	£1,352	£1,503	£1,499	£1,585/£1,467 (see note 1)	£1,644/£1,498 (see note 2)	£1,498	£1,726	£1,491	£1,498
Contact	0171 830 0486	0181 830 1100	0870 1524625	0181 452 4444	07000 386583	0181 961 8897	0181 452 1111	0181 830 1300	01282 770044	01582 487777
Processor speed (MHz)	233	233	233	233	266/233	266/233	266	266	233	266
Chipset	440FX	440LX	440LX	440FX	440FX	440FX	440LX	440LX	440FX	440LX
Memory	32Mb EDO	32Mb SDRAM	32Mb SDRAM	32Mb EDO	32Mb EDO	32Mb EDO	32Mb SDRAM	32Mb SDRAM	32Mb EDO	32Mb SDRAM
Hard disk	3.2Gb	3.5Gb	3.2Gb	4.3Gb	2.1Gb	3.2Gb	3.2Gb	3.2Gb	3.2Gb	4.3Gb
CD-ROM	24x	24x max	12-24x	24x	16x max	24x	24x	24x	24x max	24x
Sound card	Yamaha OPL4	on-board (16-bit)	on-board (16-bit)	AWE64	AWE64	AWE64	AWE64	AWE64	Yamaha	AWE64
Speakers	Yamaha YST-M20 DSP	unbranded	Altec Lansing ACS90	Altec Lansing ACS90	unbranded	unbranded	Yamaha YST-M20 DSP	Yamaha YST-M20 DSP	unbranded	unbranded
Graphics card	ATI XPERT	ATI XPERT	STB Nitro	ATI XPERT	Matrox Mystique 220	Matrox Mystique	ATI XPERT	Asus	ATI	Matrox Mystique 220
Graphics type	PCI	AGP	PCI	PCI	PCI	PCI	AGP	AGP	PCI	PCI
AGP slot	○	●	●	○	○	○	●	●	○	●
Monitor	LG Studioworks 55i	Dan	Dell	Elonex	Hanol Mazellan 15AX	Sony Trinitron 15in	ADi MicroScan	CTX 15in 15S	CTX 15in 15S	CTX
Modem (Kbits/s)	33.6	○	33.6 (56) (see note 3)	33.6	33.6	56	33.6	○	33.6	33.6
Other									Quickshot joystick	
Warranty	3yrs return to base	1yr return to base	1yr return to base	1yr on-site	1yr on-site & 2yrs return to base	5yrs return to base	1yr return to base	3yrs return to base	1yr return to base	1yr on-site & 5yrs return to base
Software	Lotus SmartSuite 97	Microsoft Works	Microsoft Office Small Business Edition	Microsoft Office Small Business Edition	Multimedia bundle	none	Lotus SmartSuite 97	Lotus SmartSuite 97	Lotus SmartSuite 97 & bundle	Corel WordPerfect Suite 7
Mouse	Microsoft Mouse	Microsoft Mouse	Microsoft IntelliMouse	Microsoft IntelliMouse	Microsoft Mouse & Intellimouse	Microsoft Mouse	Microsoft Mouse	Microsoft Mouse	Logitech	unbranded
Extra cooling	○	●	●	○	○	○	●	●	○	○
BAPCo test results (see graph)	235	250	230	223	243	251	266	239	198	271
Overall	★★★★	★★★★	★★★★	★★★★	★★★	★★	★★★★★	★★★	★★★	★★★★

Notes: 1. Evocom PC supplied and tested with PII 266MHz (£1,585). Price with PII 233MHz £1,467.
 2. KT Computers supplied and tested with PII 266MHz (£1,644). Price with PII 233MHz £1,498.
 3. Dell Dimension PC supplied with 33.6Kbits/s modem but due to be upgraded to 56Kbits/s modem for the same price.
 4. All machines supplied with 4Mb video card except Evocom, which came with a 2Mb card.

○ No ● Yes * = Poor ** = Below average *** = Average ★★★★ = Good ★★★★★ = Excellent

Alternatives

When Paragon Computers submitted a PC marked as a K6 machine, we thought the company had misunderstood our request. Nonetheless, when we opened the lid there was a 233MHz PII processor inside, together with 32Mb of RAM and 2.5Gb of hard disk space. The package includes a 56Kbits/s modem, together with Lotus SmartSuite 96 – and all for the bargain price of £1,397.

Rather more expensive, but carrying the assurance of the Compaq brand name is the Presario 4830, designed to be easy to use. Easy Access buttons let you operate the CD player and use the modem as a speakerphone, while another gives you one-touch access to the Internet. The system comes with a 266MHz processor, 32Mb of RAM and a 6.5Gb hard disk, as well as a surround sound processor and MPEG-2 decoder: it can be yours for £2,899.

Even more expensive – double the

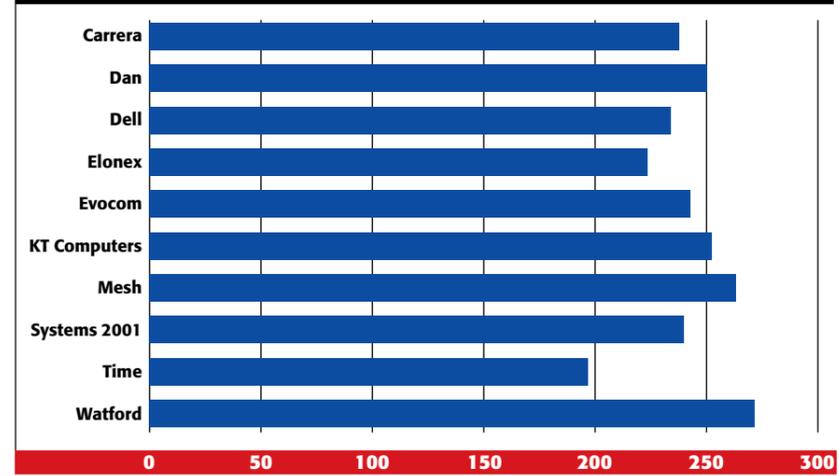
price of any machine in this group test – is the Viglen Awesome PC 300. That awesome price tag buys an awful lot of computer though: it comes with a 300MHz PII processor, 64Mb RAM and a cavernous 8.4Gb hard disk. It's based on the 440LX chipset and its graphics – AGP of course – are provided by a 4Mb ATI XPERT@Work, combined with a 3Dfx accelerator. Other features include an LS-120 'superfloppy' drive with 120Mb capacity, TV tuner, sound card and speakers with subwoofer and Dolby ProLogic surround sound, together with a modem. Oh – there's also an MPEG-2 decoder and DVD-ROM drive so you can play DVD movies on the 17in



monitor. The price for all this is a cool £3,071 (including VAT and delivery) – but that also includes a colour scanner.

- Compaq: 0990 134456
- Paragon: 0181 478 8700
- Viglen: 0990 944944

Pentium II performance graph



NOTES: BAPCo benchmarks from which this chart was generated were performed in the What PC? VNU Labs. In all tests, a longer bar indicates a better system performance.

Performance is affected by a number of factors, including processor, memory, graphics hardware and hard disk, but, as a yardstick, a PC fitted with a Pentium 166MHz MMX and 32Mb of memory comes in at around 165, while a top-of-the-range 266MHz Pentium II machine with 64Mb of memory might score up to 300.



In some group tests it's very easy to pick a winner while in others it's much harder. This was one of the easy ones. The Mesh Pegasus LX266 is a deserved winner: not only is it almost the fastest machine on test, but it also doesn't skimp on other features and is superb value for money. It's easily the Best Buy.

Choosing the runners-up was harder. Dan's PC was a fine performer, but it just doesn't offer enough when compared to the other machines on test. Although neither the Dell Dimension nor the Watford Aries Performa have AGP cards, they both have the extra future-proofing offered by the AGP slot, together with good software bundles. The Dell isn't quite such good value as the Watford but is better built: we have no hesitation in recommending them both.

John Sabine