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Movie makers

If you've got hours of disjointed and shaky holiday video footage then an affordable video-editing PC is exactly what you need to give it a professional look

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There's not long between Christmas and your summer holidays, but that video tape you filmed over the festive season is still sitting unedited and unseen in the camera, while a new one is lined up to record your forthcoming travels. So, what do you do if you don't want to bore your relatives to tears with three hours of random shots? Edit them, of course.

Just a couple of years ago this would have taxed even the most expensive of systems, but to demonstrate just how far prices have fallen we asked PC vendors for a complete video-editing outfit for less than £900 excluding VAT.

Over the next 11 pages we review nine machines built with this task in mind. Each manufacturer has approached the problem from a different direction. Many have included two cards – one for capture and one for output, while others have opted for an all-in-one device. The cream of the crop includes the ability to handle both digital video (DV) and analogue input and output. All of these factors are taken into account in order to decide which package you need to buy if you're to transform your amateur film into a cinematic masterpiece.

To give us more space to talk about video-editing aspects of these PCs, we have not made reference in our reviews to some of the more commonplace components. For example, each system includes a modem. However, for the full rundown of components, check the features table.



Atlas/Hi-Grade XP1.8G PW04

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Hi-Grade 020 8532 6515

PROS Good monitor; TV-tuner; video-editing software **CONS** Poor 3D performance

OVERALL A disappointing showing from Hi-Grade this month

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

This Hi-Grade system is built from a strange collection of parts, and not all of them are necessarily what you would expect to see in a video-editing system.

When it arrived in our labs the system wasn't properly configured as it was running at 200MHz bus and 200MHz memory, rather than the intended 266MHz setting. It's easy enough to rectify this, but that should not be necessary. Our major complaint, however, is the inclusion of a single 256MB PC2100 DDR SD-Ram memory module, as Nvidia's Nforce 420-D chipset uses a 128bit memory bus to improve the overall system performance. The 128bit bus means that the memory has to be installed in pairs to gain full benefit, so two sticks of 128MB would have been more appropriate.

The processor is an Athlon XP 1800+ and the Sysmark performance is among the best. Graphics performance is a different story,

though, as the Nforce 420-D can't compete with any of the other graphics cards on test this month. You do, however, get S-Video and composite video-out as Hi-Grade has fitted a riser card in the AGP slot to accommodate this. You also get six-channel sound courtesy of the Nforce 420-D southbridge, which is capable of Dolby Digital decoding.

A TV-tuner card with S-Video and composite video-in as well as a radio tuner handles our video capture requirements. You'll also find a three-port Firewire card fitted to handle more modern DV camcorders. Storage is handled by a 60GB 7,200rpm Maxtor hard drive, supplemented by an LG 16x10x40x CD-RW and a 16-speed DVD-Rom drive.

An excellent 17in LG Flatron 795FT monitor supports flicker-free resolutions of up to 1,600 x 1,200 at 75Hz. One of this month's best video-editing packages, Cyberlink Powerdirector 2.0, is also supplied.



Evesham Axis 1700+ Wonder

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Evesham 08707 287 070

PROS ATI All-in-Wonder Radeon 8500 DV **CONS** Poor monitor

OVERALL A very capable system with good speakers that just misses the top spot

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

We're used to seeing good PCs from Evesham and this time it's a close call between Evesham and Mesh as to which is the group test winner. Both machines feature the spectacular ATI All-in-Wonder 8500 DV graphics card (also branded as Connect).

Although our initial review of this card showed that the software was still in its early stages, it is one of the most fully featured cards currently on the market. You get a host of connection options on this board, including both S-Video and composite video-in and -out, Firewire, an S/PDIF connection for digital audio output during DVD playback and even a digital TV-tuner. You also get a very fast 3D card with 64MB of DDR SG-Ram to back it up.

Evesham's processor of choice is an Athlon XP 1700+, which is a bit weaker than the 1800+ in the Mesh. To form the basis of the system, 256MB of PC2100 DDR SD-Ram has been fitted to a Gigabyte 7VTX-P motherboard, which also handles sound through an

onboard Soundblaster 128 chip capable of 4.1-channel sound. This complements the Creative FPS1600 speakers very well. A 40GB Samsung hard drive is the system's main storage, kept company by Samsung's 24x10x40x CD-RW and 16-speed DVD-Rom drive.

The monitor is our major criticism with this system, as it's an Evesham-badged 17in unit that is not quite up to the standard of others seen this month. It's only capable of a top flicker-free resolution of 1,152 x 864 at 75Hz. Putting some slightly less impressive components in other parts of the machine in favour of a better monitor could have won Evesham an Editor's Choice award. The All-in-Wonder Radeon 8500 DV comes with a copy of Ulead VideoStudio 5 for video editing, and Mediator 6 for multimedia manipulation. Overall, it's not a bad setup but it's overshadowed by the better-specified entry from Mesh.

Ideal Aptus G-10XP

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Ideal 0870 745 5061

PROS Good monitor and graphics card **CONS** Poor video input options

OVERALL A reasonable system for the money, but it lacks S-Video input

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

This Ideal system, while not being a bad machine, lacks some of the more multimedia-oriented features we have seen in some of the other PCs in this group test.

Our main complaint has to be the support for video-in, as this is handled by an ATI TV-Wonder VE card, which is only capable of capturing video from a composite video source – a poor choice if you want to capture from a non-DV camcorder with minimal loss of quality.

Although the graphics card, a 64MB Asus V7700 TI, features both S-Video and composite out, the lack of decent input options makes the S-Video-out somewhat redundant.

The A7V266-E motherboard is also from Asus. This is a budget model, but it still features a six-channel C-Media sound chip. Ideal has chosen not to use this chip, instead fitting a Soundblaster Audigy card. A better choice would have been to fit a separate Firewire card and a better

video-capture card. Although the sound quality of the Audigy card far surpasses that of the humble C-Media chip, unless you plan on making music it's hardly a big deal for the average user.

A 41GB IBM Deskstar hard drive is the main storage unit in the Ideal, supported by a 16x12x40x CD-RW from Cyberdrive as well as a Pioneer 16-speed slot-in DVD-Rom drive.

Performance-wise the Ideal is nothing out of the ordinary as it's based on an Athlon XP 1700+ processor and 256MB of PC2100 DDR SD-Ram. The specs are a little on the low side when compared to this month's competition.

However, Ideal has supplied one of the best monitors this month, an LG Flatron 795FT, capable of flicker-free resolutions of up to 1,600 x 1,200 at 75Hz. This is a cut-down version of the 'Plus', though, lacking its USB hub, but that is a small price to pay, as this is a quality piece of kit.



Intellect Power Vivo 1800

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Intellect 0161 429 9911

PROS Two hard drives **CONS** Unable to complete performance testing

OVERALL Things started well for this Intellect, but could not be sustained

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

In a high-end video-editing system you would expect to find two hard drives, one for the operating system and one for the video data. We didn't really expect this at £899, so imagine our surprise when we opened up the case of this Intellect PC and found just that. Two 41GB 7,200rpm IBM Deskstar drives are a great way to start off a video-editing setup. Sadly, things don't follow this through, as there is only 128MB of PC2100 DDR SD-Ram under the hood, which is a bit puny if you're doing something as memory-intensive as video editing.

The processor, though, is well up to the task: it's an Athlon XP 1800+ fitted to a Gigabyte 7DX motherboard. This board is now a bit long in the tooth but is still a reasonable choice. A Soundblaster 128 chip fitted to the motherboard provides sound, together with a set of Creative Soundworks SW320 stereo speakers with a subwoofer. Just one card, an ATI Radeon Vivo with 64MB of DDR

SD-Ram, handles both graphics and video. It is not exactly cutting edge any more but it is still a solid choice. Bear in mind, though, that as the Vivo is the only means of getting video into and out of the Intellect you'll perhaps end up wishing you had the S-Video-in or Firewire ports featured in other machines in this group test.

Removable storage comes in the shape of a TDK Cyclone 24x10x40x CD-RW and a Samsung 16-speed DVD-Rom. The 17in Samsung Syncmaster 700IFT monitor is capable of flicker-free resolutions of up to 1,600 x 1,200 at 75Hz.

For video-editing you get a copy of Ulead Videowave 5. This is pretty basic, but it will get you started. You also get the standard ATI software pack, including a DVD player and a basic video-capture utility.

Sadly, this machine was unable to complete all our Sysmark tests, so we can't say how it performed compared to other systems in this test.



Mesh Matrix XP 1800+ DV

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Mesh 020 8208 4706
PROS ATI All-in-Wonder Radeon 8500DV graphics card **CONS** Poor speakers
OVERALL A great system for home-video editing, but it could do with better speakers
FEATURES ■■■■■ **PERFORMANCE** ■■■■■
VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

If you're looking at buying an easy-to-use all-in-one video-editing kit there are really only two options this month; Evesham or Mesh.

Both of these systems feature the excellent ATI All-in-Wonder Radeon 8500DV graphics card, which among its attributes counts both high-quality analogue video capture and a Firewire port. On top of this you also get a quality 64MB graphics card, a digital TV-tuner, S/PDIF-out for DVD playback and an RF remote control.

To back up this high-quality card you'll find an Athlon XP 1800+ processor and 256MB of PC2100 DDR SD-Ram fitted to an Asus A7A266-E motherboard. An onboard six-channel C-Media sound chip handles sound, but you only get a poor set of stereo desktop speakers from Teac to go with it.

There's not a huge amount of storage space here, considering this is a PC you will use for video editing. The hard drive is a 41GB, 7,200rpm

unit from IBM. Teac makes another appearance in the optical arena, producing the chosen 24x10x40x CD-RW, while Pioneer handles removable read-only storage with a 16-speed DVD drive.

Mesh is one of three companies to supply the brand new Mitsubishi Diamond Pro 740SB monitor, which is capable of a flicker-free resolution of 1,600 x 1,200 at 75Hz.

There's a lot of software in this box. Much of this is thanks to the ATI All-in-Wonder card, which features software to handle everything from watching TV to playing DVDs.

The video-editing software is Ulead Videostudio 5, and if you're into presentations, there's a copy of Mediator 6 thrown in for good measure. Overall, though, Mesh has produced a good system that just beats Evesham because it's cheaper to upgrade these disappointing speakers than to bring Evesham's monitor up to the standard seen here.



Multivision Vision Pro SB

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Multivision 0870 220 2822
PROS Fast processor; good monitor **CONS** Poor video hardware and software
OVERALL A good system, but it lacks a bit in the video-editing department
FEATURES ■■■■■ **PERFORMANCE** ■■■■■
VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

If you're looking for a speedy machine then look this way. Multivision's submission is one of the fastest machines in this month's test, sporting an Athlon XP 2000+. The processor is accompanied by 256MB of PC2100 DDR SD-Ram and has been fitted to an MSI K7T266 Pro2 motherboard. This is the basic offering without USB 2.0, but it's still a solid board and Multivision has included a couple of extra USB ports around the back.

Graphics are handled by a Winfast Geforce2 TI card with 64MB of graphics memory and S-Video-out as well as hardware monitoring so overclockers can keep an eye on what they're doing. Our main complaint about this PC has to be the video-in facility, provided in the shape of a Hauppauge WinTV Go card. This is a very basic TV-tuner card and it lacks both S-Video input and mpeg-2 support. If you're the lucky owner of a modern digital camcorder, though,

you have the option of connecting it to the Firewire port of the Soundblaster Audigy sound card.

The speakers of choice, a set of Cambridge Soundworks DTT2200, are a reasonable selection for games and DVD playback. Storage-wise you'll find a 40GB Seagate Barracuda 7,200rpm hard drive, an Aopen 24x10x40x CD-RW with buffer under-run protection and a 16-speed DVD-Rom unit from Cyberdrive. The monitor is yet another Mitsubishi Diamond Pro 740SB with a top flicker-free resolution of 1,600 x 1,200 at 75Hz.

In terms of software, Multivision has supplied a copy of Lotus SmartSuite Millennium, which is a cut above some of the alternatives we've seen this month, especially as we didn't specify an office package as one of our requirements. To be honest, though, we would rather have seen the money spent on video-editing software, as you're left with only Windows Movie Maker.



Panrix Merlin 1800

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Panrix 0113 244 4958

PROS Great video-editing software; huge hard drive **CONS** No analogue input

OVERALL But for the inclusion of analogue video-in this could have been a winner

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■

The most impressive feature of this system is its enormous hard drive, a 76.8GB IBM unit. This is accompanied by 256MB of PC2100 DDR SD-Ram. Combined, these should serve the home-video editor well.

The Athlon XP 1800+ processor is housed in yet another MSI K7T266 Pro2 motherboard, in this instance featuring six USB ports and external diagnostic LEDs. The graphics card is a Hercules Geforce2 Ultra with 64MB of DDR SD-Ram as well as S-Video out and DVI connectors. As with so many systems this month you'll find a Soundblaster Audigy sound card with Firewire and a set of Cambridge Soundworks DTT2200 speakers to handle the audio requirements of this machine.

The most important requirement in this group test is video-editing capabilities, and in a way Panrix has outshone the rest of the competition by adding a Pinnacle Studio DV Plus card, which is a high-end Firewire

card that also offers S-Video and composite video output of the final edited movie.

The Studio DV Plus software is also excellent to use and it makes it a doddle to edit your footage after it has been transferred to the computer. The interface is very easy to use and it takes only a few minutes of tinkering to produce an acceptable home video.

At the front is a 16-speed Matsushita DVD-Rom drive as well as a 16x12x40x Cyberdrive CD-RW. Sadly, there are no free 5.25in drive bays in this system, but there are two spare external 3.5in bays. The monitor is one of three Mitsubishi Diamond Pro 740SB units that we've seen this month. This is a quality screen capable of a flicker-free resolution of 1,600 x 1,200 at 75Hz.

Overall this is a very good package, but the lack of analogue input unfortunately costs Panrix an award this month.



Poweroid 3016

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Poweroid 0870 220 0444

PROS USB 2.0; quality monitor; great software package **CONS** Poor video input options

OVERALL If your camcorder has a digital output this is a great system

FEATURES ■■■■■ **PERFORMANCE** ■■■■■

VALUE FOR MONEY ■■■■■ **OVERALL** ■■■■■



If you're after a stylish computer then this Poweroid might catch your eye. With a shiny silver-coloured front it certainly stands out from the crowd and, we think, looks rather good. In terms of features, though, there's little else to set the Poweroid apart.

The fully featured MSI K7T266 Pro2-RU motherboard has both USB 2.0 and EIDE Raid. Had the Raid been utilised you could add another four storage devices. On the motherboard is this month's slowest-clocked processor – an Athlon XP 1600+.

A reasonable 256MB of PC2100 DDR SD-Ram is fitted, while an ATI Radeon 7500 graphics card with 64MB of DDR memory handles graphics. The card offers both DVI and S-Video connectors in addition to the normal VGA port. Poweroid intends fans of analogue video to transfer their work using the S-Video-out. ATI's TV-Wonder VE handles video input, but only if you're happy to use a composite connection.

Fortunately, Poweroid has made the wise choice of fitting a Soundblaster Audigy to take care of sound. This has an integrated Firewire port, to which a DV camcorder can be attached. To accompany this you also receive a set of Cambridge Soundworks DTT2200 speakers. Poweroid has also supplied a copy of Pinnacle Studio DV 7 for video editing.

There is plenty of storage space in the Poweroid's 61.5GB IBM Deskstar hard drive. Removable storage comes in the shape of an LG 16x10x40x CD-RW and a 16-speed Toshiba DVD-Rom drive.

If you are a serious video editor a good display is vital, and Poweroid has supplied an Iiyama Vision Master Pro 413, capable of a flicker-free resolution of 1,600 x 1,200 at 75Hz. This has dual D-Sub connectors, allowing you to connect two systems at one time.

Overall a fairly average PC and the home video editor may find better options elsewhere.

Systemax A1800AW

PRICE £1,056.33 (£899 ex VAT) **CONTACT** Systemax 0870 7297 366

PROS One-card solution to video editing **CONS** Video capture drivers not installed

OVERALL A good PC but it lacks that something extra to win an Editor's Choice award

FEATURES **PERFORMANCE**
VALUE FOR MONEY **OVERALL**

In this month's group test the competition has been particularly fierce. Our budget was set deliberately low, so that the manufacturers taking part would have to think very carefully about what they included – and what they left out.

Systemax has used some of its budget to provide a Gainward Geforce2 TI500 card with video in and out. The chip handling this video capability is made by Philips and is fairly common on a range of Nvidia cards to provide a reasonable quality video signal.

If you are the proud owner of a brand new DV camcorder the Firewire port will be of use to you. This is built into the Soundblaster Audigy card, so you'll find it around the back of the case. It is a good alternative to a dedicated card.

The overall system performance is good. This Systemax is built around an Athlon XP 1800+ processor fitted to an MSI K7T266 Pro2 board with

256MB of DDR SD-Ram. Storage is taken care of by a 40GB IBM Deskstar hard drive. The optical quota is fulfilled by a Samsung 16x10x32x CD-RW and 16-speed Samsung DVD-Rom. For gamers, or those who want to watch DVDs, there is a set of Cambridge Soundworks DTT2200 speakers – a decent enough 5.1-channel setup.

The monitor is a very retro-looking 17in CTX EX710F capable of a flicker-free resolution of 1,600 x 1,200 at 75Hz. It's a reasonable display but the styling might not appeal to all.

The biggest issue we had with the Systemax was that it didn't arrive with the Nvidia video-capture drivers installed. It's easily done but should have been sorted out before the system was sent in.

You get a copy of Ulead Videostudio SE with the graphics card and WinDVD is thrown in too. The Systemax is a capable video-editing system, but it lacks the extra touch that would give it an Editor's Choice award.



THE CUTTING EDGE: VIDEO-EDITING SOFTWARE

There's a chance you could be reading this group test with no intention of buying a new machine. What you already have feels fast enough and should keep you going for a good few years yet. The only thing missing, then, is the software, so which package is right for you?

Video-editing software comes in all shapes and forms and, perhaps most significantly, at a wide range of prices. So what do you get for your money?

One of the most common video-editing suites is Ulead Videostudio (www.ulead.com), which you'll find bundled with several graphics cards that feature video-in and -out ports. This is a fairly straightforward package that's been tailored to suit beginners, although more intermediate users might find it just a bit too basic (see review p78).

The similarly named Videowave (www.mgisoft.com) is yet another beginners' package, offering very similar features to the Ulead alternative. If this sounds like your kind of thing, check out the Flash tutorial on MGI's website. Don't forget to read this month's workshop where we show you how to edit your videos with Videowave.



Ulead's Videostudio is a common editing package that is aimed at beginners

More professional users will already be familiar with the Pinnacle Systems brand. This company sells cards or breakout boxes, complete with software, to get you up and running from day one. Its Studio 7 package is more advanced than the other pieces mentioned above, but being what Pinnacle would consider a 'budget' offering it still lacks some of the features of the company's more expensive

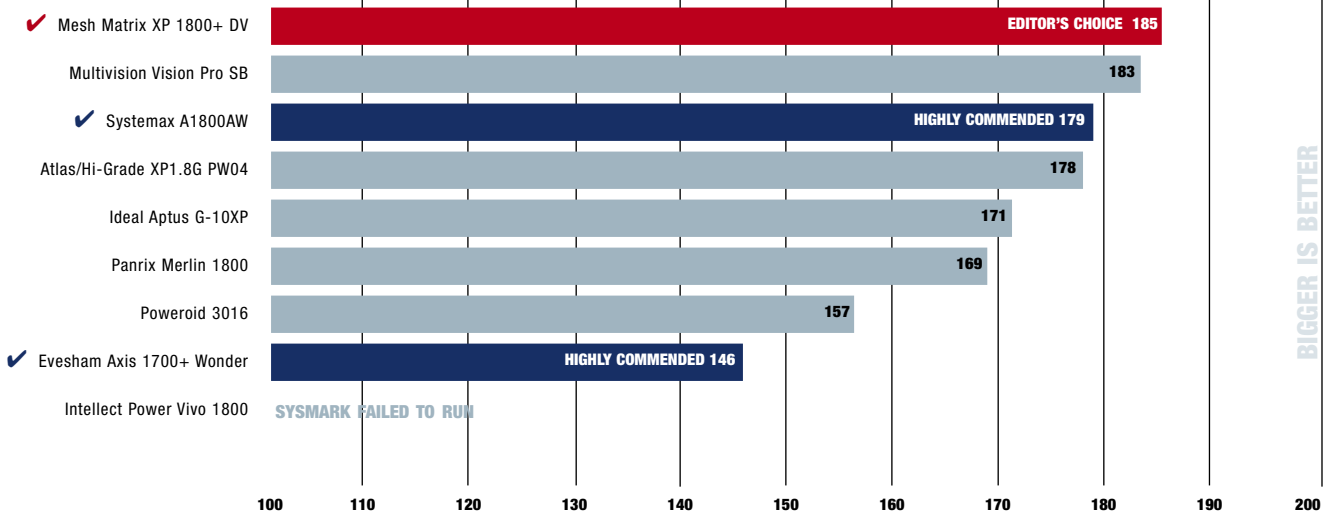
options. Don't be deterred by the high-end brand; it is very easy to get to grips with.

If you are running Windows XP then you might be tempted to make do with Windows Movie Maker. There's no denying that using this integral part of the operating system you can make some very competent videos – after all, on the day of Windows XP's launch it set the record for making the world's quickest-produced music video – but it remains a very basic option. If you want to do complex transitions or burn your results to a DVD then you might be better off with one of the paid-for options.

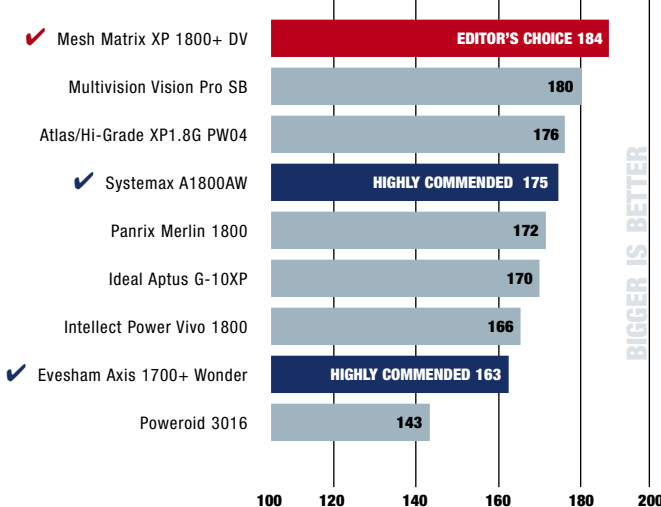
Of course there are more professional solutions such as Adobe Premiere (www.adobe.com), but don't expect this to come cheap as it's priced in the region of £500 inc VAT. You do get a lot for your money, but this is not a piece of software targeted at the home user, although if you're a real enthusiast you probably already own a copy. Pinnacle also offers a range of high-end video software packages, although they're geared more toward the company's own hardware products.

LAB RESULTS

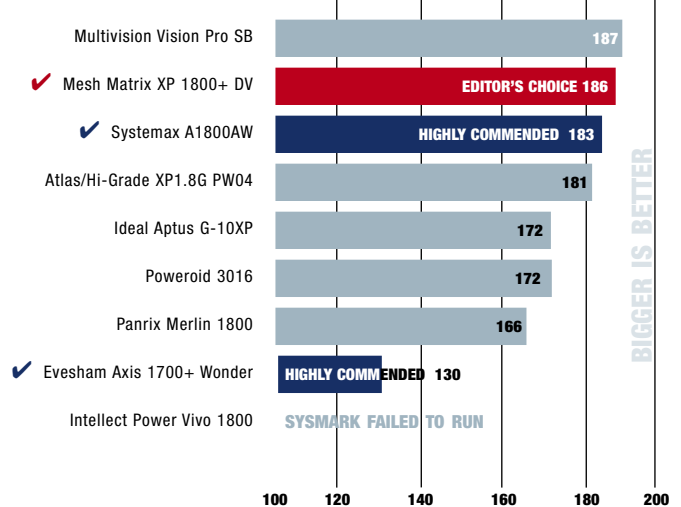
Sysmark 2001 overall



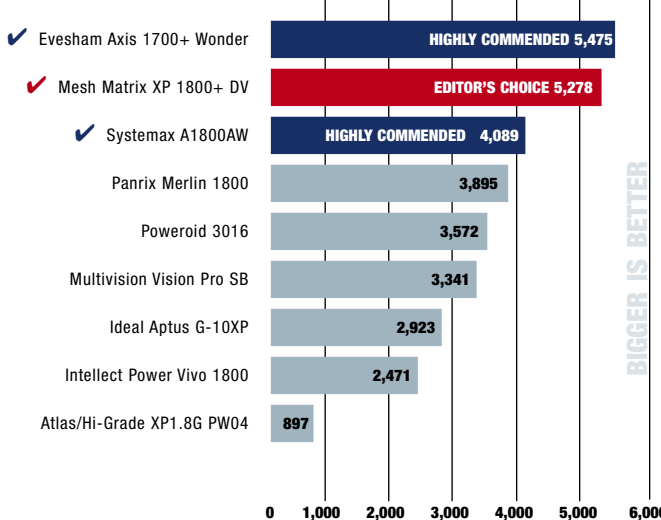
Sysmark 2001 Internet content creation



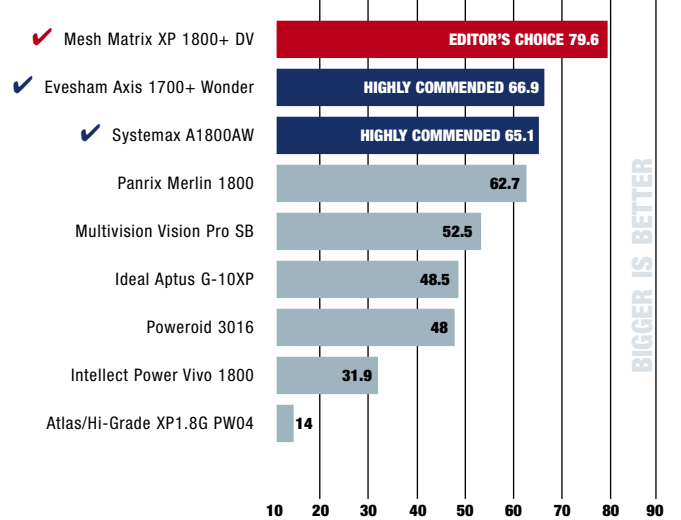
Sysmark 2001 office productivity



3DMark 2001 (1,280 x 1,024 at 32bit)



Quake III Team Arena (fps) (1,280 x 1,024 at 32bit)



Please see page 43 for an explanation of how we tested the PCs

TABLE OF FEATURES



MANUFACTURER	ATLAS/HI-GRADE	EVESHAM	IDEAL	INTELLECT
MODEL NAME	MERIDIAN XP1.8G PW04	AXIS 1700+ WONDER	APTUS G-10XP	POWER VIVO 1800
Price inc VAT (ex VAT)	£1,056.33 (£899)	£1,056.33 (£899)	£1,056.33 (£899)	£1,056.33 (£899)
Sales telephone	020 8532 6515	08707 287 070	0870 745 5061	0161 429 9911
URL	www.higrade.com/atlas	www.evesham.com	www.idealcomputing.co.uk	www.intellect.uk.com
HARDWARE SPECS				
Processor	Athlon XP 1800+	Athlon XP 1700+	Athlon XP 1700+	Athlon XP 1800+
Memory/type	256MB PC2100 DDR SD-Ram	256MB PC2100 DDR SD-Ram	256MB PC2100 DDR SD-Ram	128MB PC2100 DDR SD-Ram
Occupied/spare memory (Ram) slots	1/2	1/2	1/2	1/2
Max memory in this configuration	1.2GB	1.2GB	1.2GB	640MB
Maximum memory supported by motherboard	1.5GB	1.5GB	1.5GB	1GB
Hard disk manufacturer, model and spin speed	Maxtor Diamond Max Plus D740X/7,200rpm	Samsung Spinpoint 40V 5,400rpm	IBM Deskstar 7,200rpm	IBM Deskstar 7,200rpm x2
Hard disk size/interface (UltraDMA66/100 or SCSI)	60GB UltraDMA100	40GB UltraDMA100	41GB UltraDMA100	41GB UltraDMA100 x2
Storage drive manufacturer and model	LG GCE-8160B	Samsung SW-224B	Cyberdrive CW308D	TDK Cyclone 24x10x40x
MOTHERBOARD COMPONENTS				
Motherboard manufacturer	MSI	Gigabyte	Asus	Gigabyte
Model/chipset	MS-6773/Nvidia Nforce 420-D	GA-7VTX/Via KT266A	At7V266-E/Via KT266A	GA-7DX/AMD761-Via 686B
EXPANSION AND I/O				
No of 3.5/5.25in bays	3/4	4/3	3/3	3/3
No of free 3.5/5.25in bays	1/2	2/1	1/1	0/1
No of PCI/ISA/shared/AMR slots	4/0/0/1	5/0/0/1	4/0/1/0	5/0/0/1
No of free PCI/ISA/shared/AMR slots	1/0/0/0	4/0/0/1	1/0/0/0	4/0/0/1
No of USB/serial/parallel/PS/2	2/2/1/2	4/2/1/2	4/2/1/2	2/2/1/2
MULTIMEDIA				
DVD manufacturer/model	EPO DVD-8216	Samsung SD-616	Pioneer DVD-106S	Samsung SD-616
DVD speed/interface	16x/EIDE	16x/EIDE	16x/UltraDMA66	16x/EIDE
Sound card manufacturer	Onboard	Onboard	Creative	Onboard
Sound card model	Nforce 420-D	Soundblaster PCI 128	Soundblaster Audigy	Soundblaster PCI 128
Speakers manufacturer and model	Cambridge Soundworks DTT2200	Creative FPS1600	Creative FPS1600	Cambridge Soundworks SW320
Graphics card manufacturer and model	Onboard	ATI All-in-Wonder Radeon 8500DV	Asus V7700TVT	ATI Radeon Vivo
Chipset	Nforce 420-D	ATI Radeon 8500	Nvidia Geforce2 TI	ATI Radeon
Memory and type	32MB shared	64MB DDR SG-Ram	64MB DDR SG-Ram	64MB DDR SD-Ram
Monitor manufacturer and model	LG Flatron 795FT	Evesham EV771	LG Flatron 795FT	Samsung Syncmaster 700IFT
Monitor size/max viewable diagonal	17in/16in	17in/15.9in	17in/16in	17in/16in
Maximum resolution at Vesa refresh	1,600 x 1,200 at 75Hz	1,152 x 864 at 75Hz	1,600 x 1,200 at 75Hz	1,600 x 1,200 at 75Hz
OTHER INFORMATION**				
Misc hardware	Stereo TV-tuner, onboard 10/100Mbit Lan	N/A	ATI TV-Wonder VE	N/A
Video connectors	S-Video & composite in/out 3 x Firewire ports	S-Video & composite in/out 2 x Firewire ports	S-Video & composite out, composite in 1 x Firewire port	S-Video & composite out, composite in
Video-editing software	Cyberlink Powerdirector 2.0	Ulead Videostudio 5, Mediator 6	ATI Multimedia Centre	Ulead Videowave 5, ATI Multimedia Centre
Bundled software	N/A	Sun Star Office	N/A	Microsoft Works 2002
Standard warranty RTB = return to base, C&R = collect and return	3 years on site	2 years on site, 1 year RTB	1 year on site, 1 year RTB	1 year on site, 1 year RTB

* Mesh motherboard has two slots for DDR SD-Ram and three slots for SD-Ram ** All PCs come with 56K modems



MESH	MULTIVISION	PANRIX	POWEROID	SYSTEMAX
MATRIX XP 1800+ DV	VISION PRO SB	MERLIN 1800	3016	SYSTEMAX A1800AW
£1,056.33 (£899)	£1,056.33 (£899)	£1,056.33 (£899)	£1,056.33 (£899)	£1,056.33 (£899)
020 8208 4706	0870 220 2822	0113 244 4958	0870 220 0444	0870 7297 366
www.meshcomputers.com	www.multivision.co.uk	www.panrix.com	www.poweroid.com	www.systemaxpc.co.uk
Athlon XP 1800+	Athlon XP 2000+	Athlon XP 1800+	Athlon XP 1600+	Athlon XP 1800+
256MB PC2100 DDR SD-Ram	256MB PC2100 DDR SD-Ram	256MB PC2100 DDR SD-Ram	256MB PC2100 DDR SD-Ram	256MB PC2100 DDR SD-Ram
1/1 0/3*	1/2	1/2	1/2	1/2
768MB	1.2GB	1.2GB	1.2GB	1.2GB
1GB DDR or 1.5GB SDR	1.5GB	1.5GB	1.5GB	1.5GB
IBM Deskstar	Seagate Barracuda ATA	IBM Deskstar	IBM Deskstar	IBM Deskstar
7,200rpm	7,200rpm	7,200rpm	7,200rpm	7,200rpm
41GB UltraDMA100	40GB UltraDMA100	76.8GB UltraDMA100	61.5GB UltraDMA100	40GB UltraDMA100
Teac CD-W524EB	Aopen CRW2440	Cyberdrive CW308D	LG GCE-8160B	Samsung SW-224B
Asus	MSI	MSI	MSI	MSI
A7A266-E/Ali Magik1	K7T266 Pro2/Via KT266A	K7T266 Pro2/Via KT266A	K7T266 Pro2-RU/Via KT266A	K7T266 Pro2/Via KT266A
3/3	4/4	5/2	5/4	4/3
1/1	2/2	3/0	3/2	2/1
4/0/1/0	4/0/1/0	4/0/1/0	4/0/1/0	4/0/1/0
3/0/1/0	1/0/1/0	0/0/0/0	2/0/0/0	1/0/1/0
4/2/1/2	4/2/1/2	6/2/1/2	8/2/1/2 (4 USB 2.0)	4/2/1/2
Pioneer DVD-116	Cyberdrive DM166D	Matsushita SR-8587	Toshiba SD-M1612	Samsung SD-616
16x/UltraDMA66	16x/EIDE	16x/EIDE	16x/EIDE	16x/EIDE
Onboard	Creative	Creative	Creative	Creative
C-Media CM18738	Soundblaster Audigy OEM	Soundblaster Audigy	Soundblaster Audigy	Soundblaster Audigy
Teac Powermax 80/2	Cambridge Soundworks DTT2200	Cambridge Soundworks DTT2200	Cambridge Soundworks DTT2200	Cambridge Soundworks DTT2200
ATI All-in-Wonder Radeon 8500DV	Leadtek Winfast Titanium TH	Hercules 3D Prophet 2 Ultra	ATI Radeon 7500	Gainward Geforce2 Ti500
ATI Radeon 8500	Nvidia Geforce2 TI	Nvidia Geforce2 Ultra	ATI Radeon 7500	Nvidia Geforce2 TI
64MB DDR SG-Ram	64MB DDR SD-Ram	64MB DDR SD-Ram	64MB DDR SD-Ram	64MB DDR SD-Ram
Mitsubishi Diamond Pro 740SB	Mitsubishi Diamond Pro 740SB	Mitsubishi Diamond Pro 740SB	Iiyama Vision Master Pro 413	CTX EX710F
17in/16in	17in/16in	17in/16in	17in/16in	17in/16in
1,600 x 1,200 at 75Hz	1,600 x 1,200 at 75Hz	1,600 x 1,200 at 75Hz	1,600 x 1,200 at 75Hz	1,600 x 1,200 at 75Hz
N/A	Hauppauge WinTV Go	Pinnacle DV Studio Plus	ATI TV-Wonder VE	N/A
S-Video & composite in/out 2 x Firewire ports	S-Video out, composite out converter, composite in, 1 x Firewire port	2 x S-Video out, composite out, composite out converter, 3 x Firewire ports	S-Video out, composite out converter, composite in, 1 x Firewire port	S-Video & composite in/out, 1 x Firewire port
Ulead Videostudio 5, Mediator 6	None	Ulead Videostudio 5, Mediator 6	ATI Multimedia Centre, Pinnacle Studio DV 7	Ulead Videostudio SE, WinDVD
N/A	Lotus Smartsuite Millennium	N/A	N/A	Microsoft Works Suite 2002
3 years on site	2 years on site	2 years on site	1 year on site, 2nd year RTB	2 Years on site

Editor's Choice

Video editing is something that until recently has not been possible to do at home unless you were willing to spend a small fortune on dedicated hardware. Now computers are faster, hard drives are bigger and video input and output peripherals are more affordable. The result is growing interest from home users.

The biggest breakthrough in the home-editing arena has been the introduction of DV (digital video) technology. It has simplified video editing greatly and made it a digital process from beginning to end, especially if you have a camera that can accept a digital stream coming back in as well as sending one out. All that is necessary on the PC is the relevant software and a Firewire port. The latter is fast becoming a standard feature on new PCs, a fact that has been proven in many recent group tests, and this month in particular where the majority of the Firewire ports on show have been included as part of a Creative Soundblaster Audigy card.

If you don't have one of these cards and don't want to reconfigure your sound setup, though, don't worry. You can pick up a Firewire card for around £30, but at that price don't expect to get any software other than the necessary drivers.

If you're a beginner, and don't want to dabble in the more complex areas of video editing then one of the less expensive software packages will probably do everything you need – just don't expect to be making the next instalment of *Star Wars*, as the effects library is likely to be limited to say the least.

Many of the more expensive semi-professional packages are available in cut-down 'LE' form, while some others are tied to the specific hardware with which they are supplied. Be wary of this, though, as it will limit your upgrade options.

If you have a video camera, but don't have a Firewire connector, don't despair. One of the requirements of this group test was that all the machines should be supplied with analogue input and output options. The only manufacturer to omit this feature was Panrix. This is a shame because in other respects it provided a first-class system, with one of the best DV cards at this price point. When it comes to an all-in-one solution, though, it's hard to beat the All-in-Wonder Radeon 8500DV, which

features just about every connector you could possibly need.

Only Systemax supplied a machine with an all-in-one card based on Nvidia graphics chips. This is not as advanced as the Radeon 8500DV, but is still a reasonable choice, which makes video editing a real possibility for the beginner.

The rest of the pack this month supplied some kind of a TV-tuner-based video-in card and the TV-out on the graphics card for sending the output to a recording device. This is not a bad way of doing things as long as the two cards used both feature a full set of connectors. Sadly that wasn't always the case here – many of the TV-tuner cards featured only a composite video-in connector. As the composite video signal is not of very high quality don't expect it to produce brilliant results.

The winners

It's not easy to pick out a winner when there is such a varying range of systems to choose from. Although we still expected the systems submitted this month to perform adequately in all areas, we made it clear from the outset that we would be putting most weight on video-editing capabilities. With this in mind, the **Editor's Choice** this month is the **Mesh Matrix XP 1800+ DV** for its fully featured and easy-to-use video-editing capabilities. When running our benchmarks it was also one of the fastest machines in the test. It features a quality monitor and a well-rounded feature set, but sadly the worst speakers of the bunch.

Our first **Highly Commended** award goes to the **Evesham Axis 1700+ Wonder**. It features the same graphics card as the Mesh, but the monitor is not up to quite the same standard. As we would prioritise a quality monitor over better speakers for video editing it couldn't beat the Mesh Matrix.

Finally, the second **Highly Commended** accolade goes to the **Systemax A1800AW**. In this well thought-out system all analogue inputs are on one card, but more importantly it also offers S-video input – something many of the other PCs in the group are missing. Sound and DV input are handled by a Soundblaster Audigy card, which adds greatly to the overall features list.



Mesh Matrix XP 1800+ DV



Evesham Axis 1700+ Wonder



Systemax A1800AW

The biggest breakthrough in home editing was DV technology