



PC Plus



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Sharp Shooters

Only a couple of years ago, video editing was strictly for the professional. Today, it's becoming more and more mainstream. With the advent of cheap digital camcorders, the price of VHS and 8mm camcorders has had to drop considerably. It's now possible to pick up a machine, which is up to the standard needed by most home users, for around £400. At the other end of the scale, machines like the Canon XM1 are offering broadcast quality pictures and the ability to input and output at digital quality (so that you can preserve the quality of your images) for around £1,500.

On the PC side, up until now, the major limitation for video producers has been the size and speed of hard drives. Digital video takes up 3.6MB of disk space per second, and if you want to produce a video you've got to have room for all the footage that makes up the production as well as your final edit. A 15 minute production with all the footage and other files associated with it can eat up around 16GB of disk space. In fact, video is probably the only medium capable of filling the massive hard disks coming on the market today.

Luckily, the cost of disk space is dropping by the day. We used a 20GB drive for this test – enabling us to play with about one and a half hours of footage – and it cost just £150. Add to that the speed of modern processors, and you can cut down the time taken to process special effects to a level where it's almost acceptable. Some of the products we've looked at here even let you create certain effects in real-time or quasi-real time as you watch.

Once video makes it on to the hard disk, it can go anywhere. Video tape is the favourite destination right now but, increasingly, people are creating content for the Internet, using freely available tools to stream clips live from their Web sites, or posting them as video letters via e-mail. With CD-ROM writers (and even DVD writers) becoming more affordable, new formats for the home video producer are rapidly coming on to the scene.

At the top end of this video revolution, it's possible to set up a complete production suite which will enable you to produce TV quality results on the desktop for only a couple of thousand pounds. At the bottom end, anyone with a couple of hundred to spend can expect to cut together impressive looking productions from their holiday videos, family events, or whatever else they choose to point their camcorders at.

As was proved last year by the *Blair Witch Project*, all that separates the professionals from the amateurs now is a million dollar advertising campaign. If you've got the skill and the determination, the equipment to produce your video masterpiece is readily available.



Blair Witch Project eat your heart out. Desktop video puts filmmaking into the hands of everyone.

With desktop PCs finally up to the challenge of producing top quality video, **Christian Darkin** checks out some of the best routes into desktop video editing





BUYING ADVICE

Analogue/digital

All video is digital by the time it reaches your hard disk. However, you've got a choice of ways to get it there, and each has its own advantages and disadvantages:

Buying an analogue capture card

Knowing your camcorder: If you want to capture video from an analogue source like a VHS, 8mm, S-VHS, or Hi8 camcorder or VCR, you've got no choice here. Footage has been recorded as an analogue signal and you need to get a card that can digitise it.

Choosing a card: The cards available compete as to how they compress the video as it's captured to your hard drive. Most analogue cards will let you pick a compression rate, enabling you to make a trade off between image quality and storage space. Analogue video usually has a much lower data-rate than digital. Using MPEG or MJPEG you can get roughly VHS quality video at around 550KB per second, so you can store about six times more MPEG footage on your disk than DV footage.

Deciding on quality: On the other hand, the fact that the footage is compressed in this way reduces its quality. Each time you send your video into the computer or back out to analogue tape, you have to re-compress it and the quality of the sound and video drops.

Analogue cards reviewed here: Fast AV Master, Fast Clip Master, Pinnacle Studio MP10

Buying a digital or firewire card

Knowing your camcorder: If you've got a digital camcorder, it will be recording your footage in a format the PC can recognise right from the start. There's nothing to stop you using an analogue card to capture this footage, but buy a digital capture card and you can take that video straight on to your hard disk without re-compressing it in any way.

Choosing a card: Strangely, not all capture cards produce the same kind of video files. They all use different compression codecs. However, the essential point is that the video remains unchanged.

Deciding on quality: If you have a camera that accepts digital input (and most don't) then you can send your edited footage back out to be recorded on a camera tape without any loss of quality. In other words, you can produce a master copy of your video work and free up disk space by deleting the files from disk.

On the other hand, with digital capture you don't get to make any decisions about how the footage is captured. Everything has to be captured at DV bandwidth – that is 3.6MB per second and there's nothing you can do to reduce it. Even if your video's going to end up on the Internet at 28KB it still has to be captured at DV quality, and this eats disk space like nothing on earth. 1GB of disk space will get you less than five minutes of video.

Digital cards reviewed here: Pinnacle Studio DV, Fast DV.now, Digital Origin Moto DV

Buying a dual capture card

Although they're outside the price range covered by this feature, you can get cards which can capture both analogue and digital footage. These generally capture at DV bandwidth, but are ideal if you're working with broadcast quality analogue camcorder formats (like betcam).

Editing software



The Premiere interface is a little cluttered, but it's full of useful features.

ADOBE PREMIERE 5.1

A good, solid video editor with a well thought out range of effects

PRICE	£429	EX VAT	£365	Minimum requirements	Pentium with 64MB RAM.
SUPPLIER	Adobe				Win 95/98/NT 4.0
PHONE	0131 458 6842			Tested on	Pentium III 733 with 128MB RAM
WWW	www.adobe.com				

E editing with this package is pretty intuitive. Elements are dropped on to the timeline, and altered to size with a range of cutting and moving tools. To add an effect, you right-click on a clip. To add a transition, you simply create an overlap between two clips and drop it on to the transition track between them.

Sound is handled well, with a range of sound tools coming as standard which even Speed Razor can't match. There's a graphic equaliser, a noise reduction filter and various tools for making weird and wonderful sound effects.

Premiere has its annoying features. For example, if you need to alter something in the middle of a project and the length of the piece changes, Premiere is apt to shuffle clips which come after your change. In addition, it bizarrely doesn't include a list of recent files on the file menu.

There are a lot of windows and even on our large monitor, we ended up spending a lot of time re-sizing and shifting windows around to get to the tools we needed. However, this reflects the fact that Premiere has a lot of features. You can do a lot with it, and you can do it quickly.

Premiere is easy enough to pick up for those just getting into video editing, and it's powerful enough to be used by many professional editors.

PC Plus

ADOBE PREMIERE 5.1

For Good range of features, fast to work with, impressive sound tools

Against Too many windows, some awkward idiosyncrasies

Range of features	8
Ease of use	8
Documentation	8
Performance	9
Value for money	8

8/10

Capture card



DIGITAL ORIGIN MOTO DV

The basic digital kit. All you need, but not much more

PRICE	£351	EX VAT	£299	Minimum requirements	Pentium 200 with 64MB RAM
SUPPLIER	Computers Unlimited			Tested on	Pentium III 733 with 128MB RAM
PHONE	020 8358 5856				
WWW	www.digitalorigin.com				

Moto DV is a digital capture card from Digital Origin. It's roughly on a par with DV.now and Studio DV.

The Moto DV capture utility is basic, to say the least. You control the recording with one button which starts and stops video capture, and you watch the footage on a small monitor screen. You can control your camera with a set of on-screen buttons, and that's about it. After you record a sequence you're asked if you want to keep it, and you give it a name. It's as simple as that.

However, there's no way to browse the footage you've already recorded, and you can't do batch captures (where you ask the software to capture a list of video clips you've compiled earlier). There is an information panel letting you know how much space you've got on disk, how much recording time this amounts to, and what performance you can expect from your hard drive. However, when we loaded the program, all this information was either wrong or incomplete.

Also bundled with the Moto DV is Photo DV – a still image capture utility. Photo DV does its job without too much fuss and lets you grab quality images from a DV source.

Editing on the Moto DV is handled using Adobe Premiere LE. This adds a good deal of flexibility to the package and makes it quite respectable.

PC Plus

DIGITAL ORIGIN MOTO DV

For Basic DV capture, Premiere LE offers good solid editing

Against Capture package very limited, separate capture utilities for still and moving images

Range of features	6
Ease of use	8
Documentation	8
Performance	7
Value for money	7

7/10



PC Plus

Capture card



FAST AV MASTER

An old analogue capture board which is still going strong

PRICE	£499	EX VAT	£425	Minimum requirements
SUPPLIER	Fast			Pentium 166 with 64MB RAM, Windows 95/98 or NT 4.0
PHONE	020 8968 0411			Tested on Pentium III 733 with 128MB RAM
WWW	www.fastmultimedia.com			

The AV Master has been around for a while now. It's an analogue card, but enables you to capture up to S-VHS quality (higher than the other analogue digitisers reviewed here).

Video capture is handled through Fast's own capture utility, Fastcap. Within Fastcap, you can organise, browse through and play out all the AV Master files on your system. They're displayed clearly as thumbnails, and you can even create a play list to enable you to play several files in order without interruption. In other words, if you're working on a large project, you can cut together each scene as a separate video file, then tell Fastcap to play them out for recording on to tape.

The AV Master is bundled with Ulead's excellent Media Studio. It fits in well with the AV Master and makes for a high class, flexible editing system.

Overall, although the AV Master's not going to enable you to produce broadcast quality analogue video, it gives you the quality for semi-professional video editing and matches the quality of all analogue and many digital camcorders being sold on the high street. With a good image you're unlikely to notice any reduction in quality on your edited productions. In addition, the software provided with the AV Master will enable you to complete most common editing, titling and SFX tasks. It's a good all-round solution.

Capture box



FAST CLIP MASTER

An external analogue box for VHS and Internet productions

PRICE	£299	EX VAT	£254	Minimum requirements
SUPPLIER	Fast			Pentium 266MHz with 64MB RAM, Win95/98
PHONE	020 8968 0411			Tested on Pentium III 733 with 128MB RAM
WWW	www.fastmultimedia.com			

Like the Pinnacle Studio MP10, the Fast Clip Master is a self-contained external unit. Like the MP10 it captures small, MPEG quality video files and gives you some pretty basic software to edit them with.

Capture, cataloguing and editing is handled through a utility called Fast.easy. This enables you to digitise and save still images, sounds and MPEG 1 video without fuss. There is a good range of controls for tweaking the quality of your images as you capture them. You can adjust the brightness, contrast, colour, sharpness and screen alignment before you capture.

Fast.easy lets you catalogue and organise your media files and play them either to the monitor or to the Clip Master itself (so you can plug in a VCR or TV). Click the Edit button and Fast.easy becomes a basic 'cuts only' editor. For more complex work, the Clip Master is bundled with Ulead's Video Studio and a basic still image package, Photo Express.

All-in-all, Clip Master is a neat package. It's well tuned to producing Internet video because you can capture straight to low bit-rate files at sizes which are appropriate to the Net rather than having to re-compress your work later. This means you can produce Internet video faster with Clip Master than with other packages.

Capture card



FAST DV.NOW

A basic digital capture card with well integrated software

PRICE	£399	EX VAT	£340	Minimum requirements
SUPPLIER	Fast			Pentium II 400 with RAM
PHONE	020 8968 0411			Tested on Pentium III 733 with 128MB RAM
WWW	www.fastmultimedia.com			

The DV.now boasts native DV editing throughout the process. In other words, it takes on the whole production process from capturing your clips with its own Fast Forward software, through to exporting them to its editing package, Adobe Premiere LE, cutting them together and exporting them as files which can be played back directly to tape through Fast Forward.

Clips are stored as separate video files (with a .dif extension) and sound files (.wavs). Capturing them in Fast Forward is as easy as hitting the capture button. Shots are automatically named and displayed in the Clips window. You can trim clips by marking their 'in' and 'out' points, and you can drag them into any order in the clips window. Now when you select the clips and hit play, they will all play back in the correct order.

On its own, this function is of little use unless you want to work very fast or have limited disk space. However, click the export button and Fast Forward will load up Premiere LE and transfer all your files along with their in and out points to the timeline – creating an instant edit you can then work on in more detail.

Premiere LE itself is a cut-down version of Premiere. It features fewer effects than its big brother but its layout is similar and, for most editing projects, you won't even notice the difference.

PC Plus

FAST AV MASTER

For High quality analogue capture, includes a good software bundle

Against Doesn't quite go up to broadcast standard, technology quite old

Range of features	8
Ease of use	8
Documentation	8
Performance	8
Value for money	8

8/10

PC Plus

FAST CLIP MASTER

For Simple installation, tune your files as you capture them, easy output as Internet videos

Against USB connection will limit users, VHS quality only

Range of features	9
Ease of use	9
Documentation	8
Performance	8
Value for money	7

8/10

PC Plus

FAST DV.NOW

For Good basic card and software, capture and edit software well integrated

Against Using other software may prove tricky

Range of features	7
Ease of use	8
Documentation	8
Performance	8
Value for money	7

7/10



Editing software



VideoWave presents everything you need using clear, bold icons making video production nice and simple.

MGI VIDEOWAVE

Video editing made a little too simple

PRICE	£79	EX VAT	£68
SUPPLIER	MGI		
PHONE	0800 973 830		
WWW	www.mgisoft.com		

Minimum requirements Pentium II 266 with 64MB RAM
Tested on Pentium III 733 with 128MB RAM

Capture card



PINNACLE STUDIO DV

Budget DV with some neat disk saving features

PRICE	£149	EX VAT	£127
SUPPLIER	Pinnacle		
PHONE	01895 442 003		
WWW	www.pinnaclesys.com		

Minimum requirements Pentium II 233 with 32MB RAM
Tested on Pentium III 733 with 128MB RAM

Capture card



PINNACLE STUDIO MP10

A serial port MPEG digitiser for the camcorder enthusiast

PRICE	£249	EX VAT	£212
SUPPLIER	Pinnacle		
PHONE	01895 442 003		
WWW	www.pinnaclesys.com		

Minimum requirements Pentium 133 with 64MB RAM, Win95/98
Tested on Pentium III 733 with 128MB RAM

VideoWave makes video editing simple. That's what it says on the box, and there's no arguing with it. It's one of the most simply laid out packages on the market. There's no clutter on the screen and everything you need from capture through to special effects and output of the finished video is right there on screen, represented as big bold icons.

VideoWave doesn't have a timeline, it presents your project as a filmstrip. Each shot is shown as a single still image so you can see, at a glance, how the clips fit together into your production.

The central monitor window handles everything you need to do with a clip from capturing it from tape through to trimming it to size, adding effects and titles, altering the sound and working with transitions. You can even make basic animations using effects, transitions, titles, and motion by setting different values for the Start, Hold, and Finish points of various aspects of your clip.

In its latest version, VideoWave concentrates on MPEG and DV – providing smoother use of these two formats. It also adds MPEG-2 support so, if you want to, you can create DVD projects on it. That said, if you're making DVDs, you'll probably be working on a whole different level to VideoWave.

If you're just going to be doing the odd piece of editing, VideoWave might be the way to go.

The Studio DV is Pinnacle's low cost digital editing solution. It competes very well on price with Fast's DV.Now and Digital Origin's Moto DV, and offers a good deal more than either in terms of features.

The card itself is pretty standard and it's certainly easy-to-use. The Studio editing software is identical to that included with the MP10.

There are a couple of intelligent and useful additions to the normal DV fare. One is Smart Capture where you can capture your DV footage at reduced quality and bandwidth. These low quality videos can then be edited in studio DV.

When you tell the software to output your production, it will automatically locate the original footage on your camcorder tape, re-digitise only what it needs at full resolution and use this footage to compile the finished movie.

The other clever feature is intelligent rendering. Here, Studio DV only renders those parts of the video that it can't play back in real-time (that is, those clips with transitions or captions added to them). This can save a lot of disk space by not duplicating massive amounts of DV material. These functions will be a real bonus for anyone working on a budget.



The Pinnacle Studio MP10, like the Fast Clipmaster, is designed primarily for low-end users. This neat little unit plugs straight into your PC's parallel port and enables you to capture and output analogue video and audio.

The MP10 works in MPEG, creating relatively small files up to roughly VHS quality (at around 540KB per second, you should be able to fit six times more video on your hard disk than if you were using a digital capture card). You can capture using the MP10 recorder software, or within Pinnacle's Studio editing package.

The editor itself is basic but effective – at the level of VideoWave or Ulead Video Studio. Footage, titles and transitions appear in a album, from which they can be dragged into the main work area.

You can work in timeline mode (where your productions are displayed in the usual video editing format, storyboard mode) where clips appear as single images, or text mode – where shots are listed along with details about their length, and any transitions that have been applied to them.

The MP10 is a complete editing system. It's designed for those who want to create videos primarily for home use, or for CD or Internet distribution.

PC Plus

MGI VIDEOWAVE

For One of the most simply laid out packages, good animation tools

Against No timeline, you can't layer effects

Range of features	6
Ease of use	9
Documentation	8
Performance	7
Value for money	7

7/10

PC Plus

PINNACLE STUDIO DV

For You can capture 'off-line' quality video to save space, intelligent rendering reduces disk wastage

Against Editor not quite up to Premiere LE standard

Range of features	9
Ease of use	8
Documentation	8
Performance	9
Value for money	10

9/10

PC Plus

PINNACLE STUDIO MP10

For No installation, low bandwidth capture, well designed for the home user

Against VHS quality is as good as it gets, using other software might be tricky

Range of features	7
Ease of use	8
Documentation	7
Performance	7
Value for money	9

7/10



Editing software



SpeedRazor is a professional tool, packed with top features but it can be a little overbearing to start with.

SPEED RAZOR 4.5 SE

A top-quality editing package, but surprisingly light on sound control

PRICE	£646	EX VAT	£550	Minimum requirements	Pentium 200MHz with 128MB RAM WinNT
SUPPLIER	In-sync				graphics display capable of 1,024x768 at 16-bit quality
PHONE	020 7287 6070			Tested on	733 Pentium III, 128MB RAM
WWW	www.in-sync.com				

Speed Razor is a package for those who take video editing seriously. It comes in a number of versions – each tuned to a particular capture card. The reason for this is that Speed Razor uses real-time rendering for at least some of its effects and transitions and whereas some capture cards are able to help out with the calculations, some aren't.

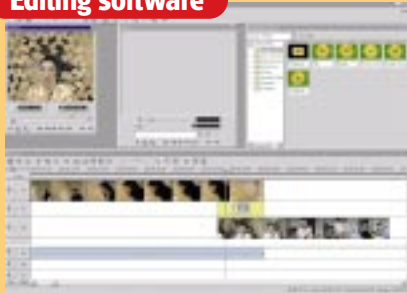
The screen is well laid out, providing quick access to all the tools you'll need. There's a pretty substantial choice of effects included in the package, including all the usual colour balance and image warping ones, as well as some functions which would be more at home in a high-end effects package – like motion tracking and 3D video effects. Each aspect of each effect can be altered over time using easily editable rubber bands.

In addition, you can create custom transitions and image manipulations from the built-in ones. This is useful if you want to build up a house style for your editing projects.

Speed Razor's sound editing tools aren't quite up to scratch. There are no noise filters, no sound effects, and no graphic equaliser – a bit of an omission in a package which is otherwise so strong.

Although the program is clearly aimed at editing professionals (and its price has been set accordingly), a 'competitive upgrade' is available.

Editing software



Media Studio gives you a full range of editing and effects tools.

ULEAD MEDIA STUDIO PRO

A complete post production suite. More than just a video editor

PRICE	£469	EX VAT	£399	Minimum requirements	Pentium 166 with 64MB RAM
SUPPLIER	Ulead			Tested on	Pentium III 733 with 128MB RAM
PHONE	01420 838 11			Other information	Upgrade: £186
WWW	www.ulead.com				

Media Studio is the most direct competitor for Premiere we've tested. As with most editing packages, media elements are imported into a library, then dragged and dropped on to the timeline where they can be trimmed to size, cut together and have effects and transitions added.

The way the program handles playback is a little clumsy. You need to choose between quick preview where all the effects are left out, and full playback where they're all rendered before you can see your work.

Media Studio's does score over Premiere in a couple of ways, though. It's a complete studio. You don't just get the video editing package, you also get a capture utility, a very neat titling and graphics package and a fairly average audio editor.

However, the most useful addition is Video Paint. Video Paint is a fully-featured painting package with all the editing, drawing and image manipulation tools you'd expect, except that it also enables you to work on video files as well as still images. You can paint on to individual frames of a clip one at a time, editing out objects, or painting in elements from a different shot or picture. You can add special effects, remove wires, microphones or unwanted passers by. You can even clone parts of an image from the same frame or another video shot. If you have the time and patience, you can achieve any effect you like.

Editing software



Video Studio is well laid out and takes you through the editing process step-by-step.

ULEAD VIDEO STUDIO

An easy way into video editing

PRICE	£81	EX VAT	£69	Minimum requirements	Pentium 300 with 32MB RAM, Win95/98/2000 or NT 4.0
SUPPLIER	Ulead			Tested on	733 Pentium III, 128MB RAM
PHONE	01420 838 11				
WWW	www.ulead.com				

Video Studio sits quite definitely at the budget end of video editing. It's aimed at the same market as VideoWave, but we found it more practical than its competitor.

It's got a timeline and a Storyboard view. You can switch between them at the click of a button. The storyboard gives you an overall picture of how your video cuts together – you can see each shot and how it links in to the complete story. You can change the order of clips by simply dragging them into a different place on the storyboard. Timeline view lets you see the length of each clip in relation to all the others, and the way sound files and effects are layered to produce the finished scene.

The program works like a wizard, taking you from capture through storyboarding to effects, titling, voiceover recording, music and, finally, output in your chosen format. You can output your files in a number of ways including straight to the Internet as a streaming Web page.

Video Studio does the job and at a reasonable price. Most video capture cards come bundled with some kind of editing software, though, and it's difficult to see how most people would justify buying the package if they already had a video editor of some kind.

PC Plus

SPEED RAZOR 4.5 SE

For Professional level editor, real-time dissolves and some effect, good range of effects

Against Poor sound tools

Range of features.....	9
Ease of use.....	8
Documentation.....	8
Performance.....	9
Value for money.....	7

8/10

PC Plus

ULEAD MEDIA STUDIO PRO

For Full range of post production tools, smooth and flexible editor

Against Preview options could be better, a lot of switching between packages

Range of features.....	9
Ease of use.....	8
Documentation.....	8
Performance.....	8
Value for money.....	8

8/10

PC Plus

ULEAD VIDEO STUDIO

For Simple to use, smooth and responsive, a range of different ways of working

Against Limited effects

Range of features.....	7
Ease of use.....	9
Documentation.....	8
Performance.....	8
Value for money.....	8

8/10



JARGON EXPLAINED

Which video format?

Video comes in a multitude of formats. Here are some of the popular ones...

AVI

The chosen format for most video work on the PC. AVIs are flexible and you can choose from a large number of compression methods (or codecs), many designed for high compression video (that is, cinepak and Indeo). Your capture card will usually come with its own compression codec and you'll usually only be able to play out through the card video created with that codec.

MPEG-2

MPEG video is a format used by cable TV companies as well as by DVD machines. It gives good domestic quality pictures at a relatively low data-rate, and can be played back on a range of platforms.

MJPEG

Essentially a series of JPEG frames streamed together. You can set the compression to suit, from VHS quality down. It's a compression method used to capture analogue signals.

MOV

Quicktime MOV files are generally used when video has to be cross platformed between the MAC and the PC. It's as flexible as the AVI format and there are a range of codecs for different purposes. Most editors will be able to produce MOV files.

RM

Realmedia video was designed for the Internet. It compresses to incredibly low bandwidth files, but you can't edit it and it's not much use for high-quality work. Some editors can output Realmedia files, but most can't. However, there's a

free encoder available which will render AVI files to RM format.

VHS and 8mm

VHS and 8mm are low-end domestic camcorder formats. They're fine for most uses, but typically produce less distinct video pictures than S-VHS and Hi8. You also tend to find that strong reds and greens will bleed or glow using these formats, especially once you've copied from camera to tape. Super VHS and Hi8 give better resolution picture (they record more lines of video per frame). Images are sharper and colours better represented.

DV

Digital cameras always produce better pictures than SVHS or Hi8 machines. The image is recorded digitally, so if you capture it into your PC digitally, you won't lose any quality. Digital cameras are not all the same, however, the image quality is affected by the quality of the camera lens, and the surface area of the light sensitive chip(s) used to record the image.

PAL

Pictures displayed on a TV in the UK are always in the PAL format. This means they're essentially 768 x 576 pixels in size (although technically PAL is 640 lines we don't actually see all these, the top and bottom of the screen are out of the viewing area of your TV and are used to carry other information). PAL runs at 25 frames per second with two fields per frame. It's interlaced, so half the image is updated at a time. There's no point in working at any higher quality than this for television because a TV simply can't display it.

DISK SPACE

What extra upgrades do I need?

Let's say you've got a half hour video to make...

If you want to make a half hour video, you'll probably shoot about eight times more material than you use. You'll end up digitising about half of that (unless you've planned your edit very well in advance). That means you'll need enough disk space for two hours of raw footage.

You'll also need room to render the finished video – that's another half an hour. DV runs at 3.6MB per second – that's 216MB per minute, so our production is going to need a 32GB hard drive.

This is where a camcorder with digital input can help. If you split your show into scenes, then capture and edit the footage for one scene at a time, you can send each completed scene back to the camcorder to be recorded

on a blank tape. Once all the scenes have been finished, you can re-digitise and assemble them. That way, instead of needing two and a half hours of storage, you only need one hour or 13GB.

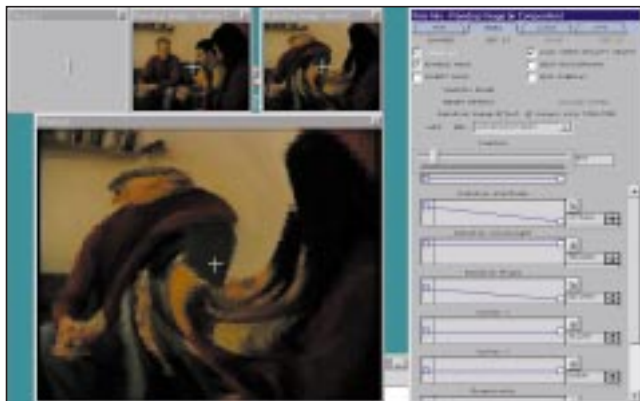
Assemble the scenes by recording them next to each other on the tape instead of doing it inside the PC. You only need enough storage for your longest scene, and the footage that makes it up.

If you're using analogue capture instead of digital, you can cut your disk space significantly. Something like the MP10 or ClipMaster can record footage at 500KB per second or less. Our 30 minute production would take up about 4.5GB.

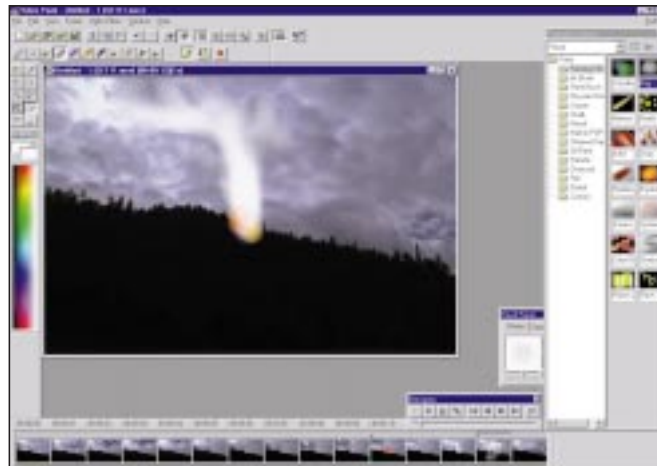


It's possible to produce some pretty spectacular effects on the desktop. This is produced using Premiere's chromakey effect.

Video Paint is part of the Media Studio suite. Here we've painted the fire on to sequential frames of video.



There are a wide range of effects tools and they can be animated over time.





PC Plus Verdict

Can you really expect to create professional looking productions with just a camcorder and a PC?

ANALYSIS

Desktop video is well and truly here

And the PC is now up to the job

Video editing hardware is cheap enough to be worth considering for anyone with a camcorder and a PC. analogue capture will probably be the choice for many people just now, since the ability to capture from a variety of camcorders as well as VCRs gives you greater flexibility. The high data-rate will probably put others off digital capture until 20GB or 30GB hard disks become the norm.

The real clincher for digital capture will come when all DV camcorders appear with digital inputs as well as outputs. This will enable you to record your edited productions on to a blank camcorder tape without loss of quality. Right now, some bizarre import rules mean that digital in camcorders end up costing about £200 more. However, for those with the right camcorder and a large enough hard disk, there are some excellent DV bargains to be had.

On the analogue side, self-contained serial and USB port devices seem to be increasingly popular. With these come uncomplicated editing packages designed to make video accessible to anyone.

The result is sure to be an explosion in well-made home movies, and at least the possibility of staying awake through other people's holiday, wedding and baby videos.

BEST DV CAPTURE DEVICE

PINNACLE STUDIO DV

PRICE £149 EX VAT £127 SUPPLIER Pinnacle PHONE 01895 442 003
WWW www.pinnacle.sys.com

If you're looking for a straight DV card, the Pinnacle Studio DV is the clear winner in our tests. Despite being less than half the price of its competitors, it's a good product with plenty of features. The editing software is not as flexible as Adobe Premiere LE which is bundled with the Fast DV.now and the Digital Origins Moto DV, but the ability to capture and edit low bandwidth or 'off-line' video files is a real disk space saver. The product's intelligent rendering also reduces the amount of space you need to edit. In fact, with the Studio DV, you can probably produce your DV programmes in around half the usual disk space. Buying a cheap capture card for DV isn't going to affect the quality of your images and, if your interest in video develops, your money would be better on better editing software.



BEST EDITING SOFTWARE

ADOBE PREMIERE 5.1

PRICE £429 EX VAT £365 SUPPLIER Adobe PHONE 020 8606 4001
WWW www.adobe.com

This one could have gone three different ways. If you do a lot of editing then the package you choose will depend on your own taste and the way you work.

Speed Razor clearly scores over Premiere in several important respects, but it's considerably more expensive. Media Studio offers better titling and graphics, and the excellent Video Paint is great for effects and image enhancement work.

In the end, however, we decided to plump for Premiere because it's a good all-rounder. Basic editing is very quick and intuitive, and the effects filters are (generally) designed for real use rather than gimmickry.

In addition, Premiere has far better tools for cleaning up sound than any of its competitors. Most domestic camcorders have sub-standard microphones, so the ability to improve sound in post-production is vital.

BEST ANALOGUE CAPTURE DEVICE

FAST CLIP MASTER

PRICE £299 EX VAT £255 SUPPLIER Fast PHONE 020 8968 0411
WWW www.fastmultimedia.com

With its ability to capture straight to video, CD or Internet quality, and its USB connection, the Clip Master certainly represents the easiest route to desktop video we've yet seen.

Bundled with Video Studio, a good budget editor, and with an extensive capture package, the Clip Master will let you input and output video and sound at a high enough quality for most home video users and CD-ROM producers.

As with our choice of DV card, the deciding factor was not the hardware but the software. The Pinnacle MP10 is a similar machine, but Fast has clearly thought about what people are actually doing with low-end video digitisers (editing home movies and producing video for Web sites). They've also added some one-click tools for sending video clips by e-mail and converting to Realmedia streaming video.

BEST BUDGET EDITING SOFTWARE

ULEAD VIDEO STUDIO

PRICE £81 EX VAT £69 SUPPLIER ulead PHONE 01420 838 11
WWW www.ulead.com

At the budget end of the market, we went for Video Studio. It's aimed at the same market as VideoWave, but we found it more practical than its competitor. It's trendy looking, with lots of textured buttons and tactile looking knobs but underneath this toy-like interface, it's a real editor.

Video studio leads you through the production process with a series of buttons which mimic the operation of a wizard, but it doesn't restrict you to following any particular path – you can jump back and forth in the process as much as you like.

Our only worry with editors in this price range is who is going to buy them, given that most capture cards are already bundled with this kind of product.