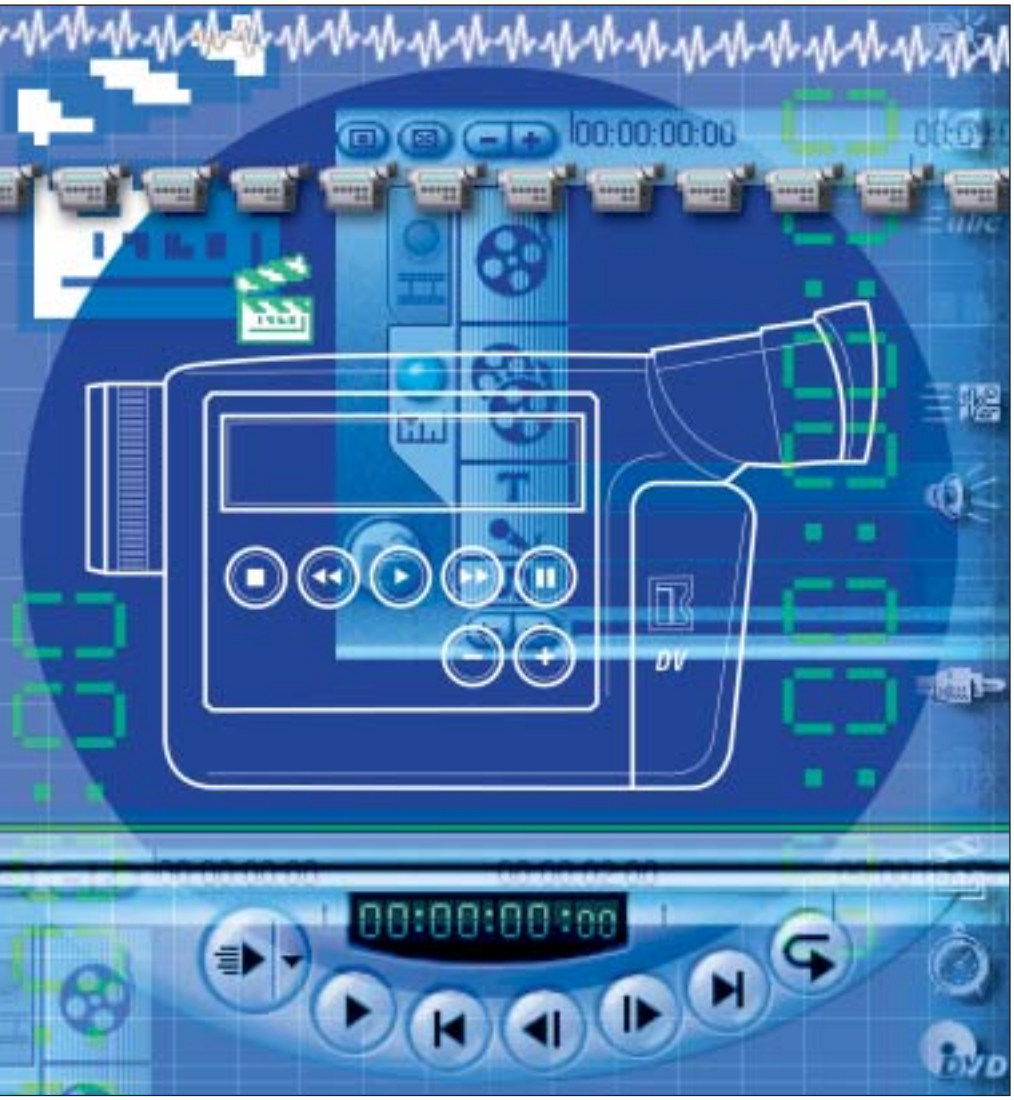
workshop



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Video-editing tips & tricks

Making movies on your desktop is a rewarding experience but it takes a great deal of practice before the results begin to match your expectations. Jason Whittaker provides a quickstart guide for new filmmakers plus expert tips for seasoned pros looking for some new directorial tricks

Video editing is one of the few tasks for which all that power in your PC is perfectly suited. While word processing and sending emails hardly touches the surface of a system's hardware capabilities, video editing needs plenty of processing power and memory in order to work correctly.

Camcorders have gradually fallen in price over the past decade and now offer more features and improved quality at a truly affordable cost. As such, more and more people are purchasing DV (digital video) cameras in order to capture precious family events or more ambitious business projects. Some industry experts have even predicted a movie revolution, whereby small companies and individual filmmakers will produce movies for distribution on DVD or across a high-speed broadband internet connection.

While we can't tell you how to become the next David Lynch or Peter Jackson (both of whom began on small individual projects before moving on to direct blockbusters), we can offer advice on using your camera to the best effect. There has never been a better time for making your own movies, so what is stopping you? The director's chair awaits…

ILLUSTRATION: JESS READ

Get the right shot

Your finished video can only be as good as its constituent parts, so it's important to ensure the raw material is as interesting and professional-looking as possible. As well as choosing an appropriate subject and planning in advance how it will fit into the overall narrative, you'll want images to be sharp, uncluttered and well composed.

• Up close and personal **Closeups work best for intense moments – either high drama or when you need to concentrate on a person speaking. Extreme closeups, where only part of the face fills the screen, can really affect the tension, while a mid closeup (or head and shoulders) works best for dialogue between two people, also known as talking heads.**

• Long shots **When filming a character so that they fill the screen, don't cut them off at the ankles or knees if possible as the effect can look rather odd. Long shots are particularly effective for placing a subject in context. For long and close shots, a rule of thumb for a balanced effect is to place the subject's eyes about a third of the way down the screen.**

• Don't cross the line **When you are shifting between two characters facing each other during dialogue, you should imagine (or even draw) a line between their eyes. Always keep your camera on one side of this line – if you cross it the sequence will become disorienting for viewers when you cut both sets of the shots together.**

• Soundtracks **One way to organise your video is to film a sequence for a continuous soundtrack such as a band playing or continuous speech. That way you have something to cut to, even if you don't use the sound in every scene.**

↑ If you have access to two digital video cameras then add the professional touch to your movie by creating a master shot – that is, a still and wide scene such as a deserted beach. You can then use a second camera to add in characters chatting and walking along the sand

• The master shot **Chances are you are only using one camcorder to shoot your video. However, if you were treated over the festive period then this may not be the case. If you have a couple of devices then why not try this technique that is often used by professionals? Set up one camera to film a still and wide scene, creating the so-called master shot. This covers the basic scene, so you can use the other camera to shoot your characters and any dialogue that is occurring while continually cutting back to your master shot.**

A man with a plan

If you're going to create a DV masterpiece using your camcorder then you're certainly not going to suffer the planning problems Martin Scorsese experienced while filming *Gangs of New York.* It took Scorsese 30 years to get around to directing the 19th century epic and its $100m dollar budget meant that distributors Miramax insisted on final cuts. For the rest of us, a 30-day shoot and £100 budget may be more realistic figures.

Even the smallest film can benefit from careful planning, however. For the average family holiday flick a script is overkill, but unless you are willing to show tapes of unedited footage any production will benefit from at least a simple list of what you want to shoot.

Before you even pick up your camera and start shooting it is worth working out a basic script, including dialogue if necessary. At the very least you need an outline of what you want to film, what will happen in each scene and how long each scene will last. It is useful to build up your script into a storyboard, depicting a visual of each scene or change within a scene.

A storyboard doesn't have to be particularly artistic – for example, simple stickmen showing where a subject and cameraman will stand or move are often more than sufficient.

• Prepare your equipment This is an obvious point but no less important for that. Do you have enough tapes to capture your footage? If you will be away from a power source, do you have enough batteries for the shoot? (Hint: buy plenty as they run out quickly.) Will you need to take additional materials with you for a shoot? Many high-end notebooks are more than capable of working with video, so they make superb editing desks in the field. Ensure that the laptop has enough power and hard drive space for your video-editing requirements, though.

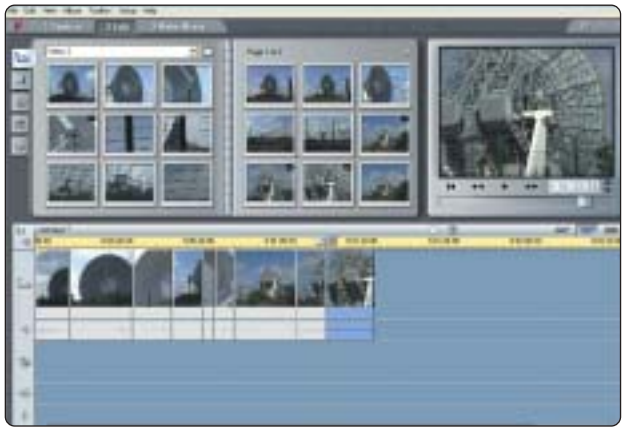
• Using shot lists If your video is not entirely impromptu, a shot list of scenes can help you plan in advance.

• Software storyboarding Storyboards are traditionally created on paper, with large budget productions hiring artistic talent to illustrate a film's concepts. Storyboards do not need to be so lavish – sketches and diagrams that map out principal actions in a scene are just as effective. Software such as Storyboarder (www.di-o-matic.com) or StoryBoard Quick (www.storyboardartist.com) can help you organise your shots.

• Use the light Modern cameras, even low-end mini DV devices, are generally very good with natural light. This is a boon for the amateur as you don't need to provide additional light to get a good effect.
Be aware, though, of how natural light changes over the day. Shooting part of a

Cutting it

1 If you are working with FireWire, be sure to film your video as separate scenes. These will then be imported automatically into your video editor as individual clips, making them easier to work with. Programs such as Pinnacle Studio (shown here) organise such clips into a library that can then be dragged on to the workspace. Expert modes of video-editing packages typically employ a timeline, giving you more control over cutting and combining clips. A simpler approach is to use a storyboard that presents your scenes in a linear fashion



2 When working with a timeline your video editor will include tools for trimming scenes. It is always a good idea when filming to make sure that you include time in and time out for a scene, so that you have space to work with when locating an appropriate shot. While just about every editor on the market offers a huge range of transition effects, the best way to link between scenes is with a cut. This is also more suitable for video effects such as zooming into a subject: cut between different closeups rather than using the zoom button on your camcorder

Bluescreen work

1 If you wish to superimpose – or composite – video by shooting it against a blue or green background (also known as chroma keying), this is where semi-professional applications such as Adobe Premiere, After Effects or Ulead Video Editor pay dividends. In Premiere, for example, after inserting scenes in a new channel you can open the video clip's properties dialog box to set its transparency. The selected background colour will be filtered out to reveal underlying scenes. Be prepared to experiment with the settings for chroma keying. First results, especially from mini-DV cameras, are unlikely to be pixel perfect

2 Most editors offer some tools for applying special effects to your movies, even if they are no more than page-curl transitions or the ability to alter colours in your clips. Some, such as MGI VideoWave, have a wider range than others, including effects for creating coloured gradients, swirls, vignettes and painted effects. Typically you drag the effect you wish to use on to your clip and then use a slider or dialog box to control the outcome. It is worth taking care with such effects, however – the most dramatic results onscreen tend to come from compositing different scenes

scene in the morning and then the rest in the afternoon will be noticeable.

• Preparing additional lighting If you need extra lighting then the most common setup uses three lights. The key light is placed 45 degrees to the camera and subject, with a fill light on the opposite side. This fill light is typically half the strength of the key light and prevents the subject getting lost in shadow. Finally, a backlight is placed behind the subject (but not directly in front of the

camera) to highlight its outline and pick it out from the background.

Shooting stars

Shooting scenes is, in many ways, the most difficult part of the moviemaking process and the one area where you will benefit from plenty of practice. Computers have made the once-arcane process of editing video simpler than ever. Modern cameras can take a lot of the guesswork out of capturing footage but, often, to get the most professional results you must switch off automatic features and set up your shots manually.

Before you begin shooting, experiment with the camera: learn all its settings, see what footage looks like in different lights or with different exposures and teach yourself to move with the camera. Always ensure that you view any videos on a large screen: something that appears fine in a tiny viewfinder can look disappointing when blown up.

• Get a tripod This is a simple and straightforward trick that will immediately make your work look less amateurish. Later you may wish to experiment with edgy handheld shots, but start with something solid and stable.

• Bright lights Keep a large piece of shiny metal or a mirror handy for lighting up dark areas around a subject's face (as most light shines from above, it can create inappropriate shadows). Try not to use light shining from directly behind the camera as this will create a very flat effect without shadow to define shape.

• Set the white balance While most cameras automatically control contrast, being able to set the white balance (how white appears when filmed) manually will give you greater control over the quality.

• Go easy on the zoom Just because your camera can zoom in 320 times doesn't mean that you have to. Zooming in and out is likely to cause viewers motion sickness and is a certain indication of an amateur video. If you do need to zoom then stagger the effect: zoom in part of the way slowly, hold the camera at that point then slowly zoom in some more. When editing you can then cut from distance to closeups. The general rule with digital zooms is don't bother: all they do (in contrast to optical zooms) is cut out the centre of the image so that it can be expanded.

• Follow the track When tracking or panning a subject (see *Camera shots* on page 122 for explanations), one trick is to hold the camera still while they move on to screen, follow them while they are the centre of attention, then hold the camera still again while they move offscreen in the opposite direction.

• In and out time Make sure to start filming plenty of time before your scene begins and to continue rolling after it ends. It can be tricky to cut your video later if there are no spare frames to delineate between scenes.

Call the editor

The first step towards a successful edit is to transfer footage to your PC. If you are using a DV camera and have a FireWire port then the process could not be simpler.

Connect your device using the DV-out port, start your camera and video-editing package (the latter will probably fire up automatically depending

Exporting video

1 When you are ready to export your video, all editors will offer you a range of options for different purposes. The better budget programs, such as Pinnacle Studio, cover the main formats from AVI, Mpeg, QuickTime, streaming (Real Player or Microsoft's new Advanced Streaming Format) and tape. The latter is best if you wish to export uncompressed video back to your camcorder for storage or on to video tape for distribution. However, other ways of sharing your clips – on video disc or across the internet – require much higher compression. In general, Mpeg format is the most widely compatible, but different codecs for QuickTime and AVI offer better compression rates

2 A number of editors, even entry-level programs such as VideoWave, now come with the capacity to burn to DVD – rapidly the fastest way of distributing digital video. If you have a DVD recorder then you can add buttons, backgrounds and video clips to your file and burn it on to a disc. Even those without a DVD burner but with a CD recorder can use these programs' facilities to create movies. By burning mini-DVDs you can create high-quality short movies or, with Video CD, longer, lower quality films that are capable of storing nearly an hour's worth of footage

on how Windows is set up) and import your video to disk.

It is worth making a few comments on the hardware requirements for video editing, which is one of the most intensive tasks you are ever likely to do on your PC. If you have bought your PC in the past two years then you are likely to have enough processing power and memory (assuming 256MB minimum) to achieve most tasks.

Today's top-end PCs will also have enough disk space, but as uncompressed footage chews up 1.6GB per minute you can never have too much. Secondly, such disks need to be fast – a 5,400rpm (rotations per minute) drive will probably keep up with your 400Mbps (megabits per second) FireWire port, but newer, faster drives are much better.

If you don't have a FireWire port then you will need to invest in video capture equipment. At its simplest this will use USB to connect to video, but it is only worthwhile for USB 2.0 as slower USB 1.1 cannot capture video at sufficient quality.

Basic video cards for less than £100 such as the Pinnacle DV200 (www.pinnaclesys.com) are more than sufficient for the casual video editor, while more expensive models such as the Matrox RT2500 (www.matrox.com) offer real-time effects.

• Codecs While you may work with uncompressed footage, it is unlikely that you will store or transfer video this way. Codecs (from compressor/decompressor) will compress footage and different ones work with different types of footage. Variants of the Mpeg codec are the most popular, as for DVD footage and the latest version of QuickTime (which uses Mpeg-4), but you will want to experiment to find the one that offers the best compression rates versus quality.

• The simple cut is best How many films have you seen recently that use page curls or interleaving blinds to effect transitions? Complex crossovers between scenes tend to be reserved for films or videos that seek to emulate the nostalgia of the 70s when such effects were first introduced. By and large, simple cuts or fades to and from black work best.

• Set up a monitor If you already have a TV-out port on your graphics card and appropriate software then you can set up a separate video monitor to preview your work: how video appears on a PC screen often does not correspond to how it appears on television.

• Chroma key work One of the most common effects for movies is to shoot a subject against a blue (or sometimes green) background, which can then be removed or keyed out from the video. The blue or green colour is selected as a chroma key to create a transparent effect. Many video-editing applications now include tools to automate this process, making it even simpler to apply.

• Showcase your work Once your video is complete there are plenty of places you can share your masterpiece online, including Atom Films (www.atomfilms.com) and iFilm (www.ifilm.com). When preparing video for online distribution, sites such as these will often specify the format your video should take, such as a particular codec to use and resolution, but typically videos for the web will be output at a size of 320x240 pixels. ■

Camera shots

Moving the camera too much will make your video look amateurish, but there are six basic moves that can create dynamic effects when used cautiously.

• Zoom **The most obvious and easiest camera move, zooming in and out of a subject can be used for dramatic effect. It is worth bearing in mind, however, that such shots look very unnatural and are rarely seen outside documentaries.**

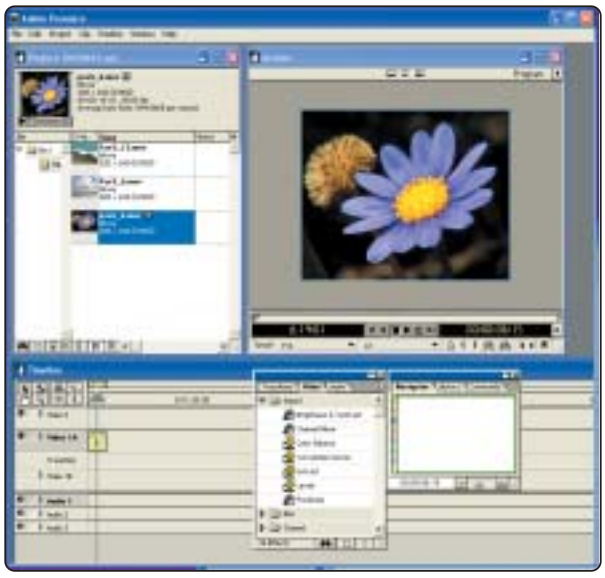
• Pan **Another easy move but one more often seen in films, this involves the camera remaining stationary but moving from side to side.**

• Track **Similar to panning, tracking involves moving the camera either side to side or in the direction towards or away from the subject. This is much more difficult than simple panning but is great for action shots.**

• Tilt **As the name suggests, tilting involves tipping the camera up or down, as when moving from one subject to another.**

• Crane **Involving the whole camera being moved up or down, the term stems from the fact that a hydraulic crane is often used for this effect in films. The shot is effective when opening to a wider perspective or closing to a narrower view.**

• Handheld **Rather than a specific shot, this simply involves using a camera without a tripod. While we would generally recommend using a tripod to appear more professional, a great number of directors do precisely the opposite to achieve edgy effects. If you want to convey the impression of a person hastily following your subject, this is often the best way to go.**



← Zooming in and out of a subject, such as this flower, is a camera shot often employed by documentary makers