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HUB

DIGITAL

LIVING

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Challenge 3
Photo
Contest

Jennifer Hollett,
MuchMusic VJ

Digital Video

Editing software and hardware
Digital camcorder buyer's guide

Formerly **The Computer PAPER**

In the House

On the Move

Of the Mind

Digital Living

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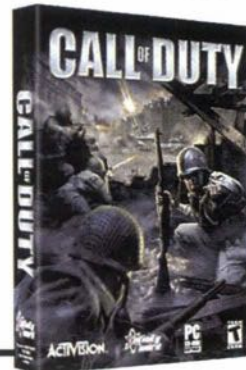
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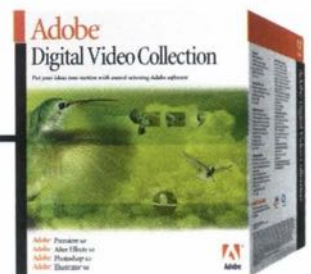
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Megan Johnston

Over the holidays, I saw a couple of first-run films in movie theatres. On both occasions, the audience had to endure public service announcements on the evils of downloading movies. They were emotional appeals — complete with violins — from the “little guys,” talking about how they love their jobs and how illegal downloads hurt them personally. They (and the industry paying for the ads) have a point, but they’re wagging their fingers at people who’ve just travelled from their homes, paid for parking, and doled out \$11.50 each for a ticket. Viewing these ads costs mere minutes of our time (multiplied by each film viewed), but they’re examples of innocent bystanders being targetted.

Another recent example is the mid-December extension of the Copyright Board of Canada’s levy on media (audio cassettes, rewriteable CDs, and MiniDiscs) to include non-removable memory in digital audio recorders, such as MP3 players. While not as bad as some pundits predicted (\$2 for those with up to 1 GB of memory, \$15 for 1 to 10 GB, and \$25 more than 10 GB), you pay even if the music you’re playing on your shiny new iPod is from a legitimate source — like your own CD library or legal music download sites. Next target in the penalize everyone-approach to compensating for theft? Your ISP. The group representing Canadian songwriters, SOCAN, argued before the Supreme Court of Canada in early December that everyone is downloading music, so all ISPs should pay a blanket fee. The ISPs counter that they’re just a convenient (and lucrative) target, but if the court agrees with SOCAN, expect ISP fees to rise whether you’re using your service to access P2P sites to “share” music and movies or to email pictures of the new baby to grandma and grandpa.

While watching anti-piracy PSAs takes only a few minutes of our time and the media levy (in original and extended versions) takes only a few of our dollars, they are more pieces in a puzzle that normalizes the expectation that everyone should pay rather than encouraging creators and copyright holders to adjust to the realities of digital formats. — Megan Johnston, Editor

Letters

The problem is not so much with the PC becoming obsolete [‘The three-year itch,’ December] as the need to keep up with the Jones’s and second-guessing the need for a faster processor and more memory (supposedly) needed for more current applications. I used my 286 working in DOS from 1988 to 1997, before I grudgingly put my \$2,700 down for a blazingly fast 200 MHz PC! I am still using that PC with good result for all the applications I currently have.— Harry Anchan, Calgary

I loved your article ‘How to: Plan Holiday parties with your handheld’ [December]... Your article did spark my new year’s resolution: get into shape!... After all, if you can plan complex holiday parties on a handheld, why not my weekly gym routine?— Rob Turner, Edmonton

Editor: On page 22, we have an article on software for keeping weight loss and exercise resolution.

Letter of the month contest

The prize this month goes to **Patrick Young** of Vancouver: “I really identified with ‘The three-year itch’ article. I too have a 233 MHz Pentium II... I’ve considered upgrading many times but held off on this decision. I know ultimately that I will have to bite the bullet and buy a new system... My big concern though is the question of obsolescence and future functionality. And it was great to see this question touched upon by Andy Walker (‘CyberWalker’). I currently still have three different towers left from the old days and am hoping my next purchase will be the last but I know this isn’t realistic. I’ve got two new year’s resolutions involving digital technology. First, I’d like to finish transferring my music collection from my CDs onto MP3 format and I have a more ambitious goal of being involved in the completion of an independent DV film based on any short or feature length script that I’ve written.”

Fujifilm Canada is giving away a digital camera for the best letter of the issue. The camera is its new pocket-size Fuji FinePix A205, a 2.0 megapixel model, with 3X zoom, and 1.5-inch colour LCD monitor for reviewing shots and navigating the commands. This month, in addition to feedback on the issue, tell us about your digital dream home. Drop us a line at letters@hubcanada.com.



HUB

DIGITAL LIVING

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EDITORIAL

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A preview of new and notable digital devices. Look for full reviews in upcoming issues of HUB: Digital Living.

Home theatres were soooo 2003. This year, it's all about the home multiplex... if Kaleidescape (www.kaleidescape.com) has anything to do with it. The company has developed a system that stores up to 160 DVD movies (expandable to more than 400), which can be streamed to an unlimited number of displays throughout your home. Of course, there is the little matter of investment: the base Kaleidescape System lists for \$34,830*, and requires a Movie Player (\$5,135*) for each display you stream video to. At press time, a rep said Kaleidescape had one Canadian dealer in Vancouver and was actively seeking more dealers here (see Web site for updates).

Kaleidescape



Until recently, digital single lens reflex (DSLR) cameras have been the domain of the pros. Canon's Digital Rebel brought this form factor into the grasp of the consumer. Now Nikon (www.nikon.ca) is joining the fray with the D70 — a DSLR with an estimated price of \$1,400 for the body. That's \$100



Nikon D70

less than Canon's entry-level DSLR. Expect the price war to begin when the D70 starts shipping in February. Although details are sketchy at this time, the camera is rumoured to have a top resolution of 6.3 MP and Nikon is working on a special lens for this new model.



Late 2003 brought new Tablet PCs from Viewsonic and Toshiba. Both new models convert from slate-style tablets to notebook PCs. The Viewsonic (www.viewsonic.com) V1250 includes a 12.1-inch LCD screen, is powered by an Intel Mobile Pentium M ultra low-voltage processor, and pricing starts at \$2,400. The

Viewsonic V1250

new **Toshiba** (www.toshiba.ca) tablet, the **Portégé M200**, also sports a 12.1-inch screen — in this case, an ultra-bright SXGA+TFT display. The M200, which is powered by a 1.6 GHz Intel Centrino processor, includes a sensor that detects the orientation of the display and adjusts the image, rotating it if necessary, with the touch of a button. Pricing for the M200 starts at \$3,550.

Adobe, developer of the ubiquitous Portable Document Format, has opened up a digital storefront to sell books and publications for download directly to a PC or PDA. You can get to the Adobe Digital Media Store by pointing your browser to

Adobe Digital Media Store

the Web site (www.digitalmediastore.adobe.com) or by clicking the "Get eBooks Online" button in new versions of Adobe Reader and Acrobat software. Content-wise, the number of book titles is "in the thousands," the (mostly U.S.) magazines reflect a wide range of topics, and the newspapers include a number of international dailies (including the Globe and Mail). Prices are in U.S. funds and are affordable compared to print versions. Though offering convenience, the content has to be read on your PDA or PC display, which is getting better, but is still not the equivalent of the printed page.

*Converted from US dollars.

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Action!

Making your own movies

The urge to make one's own movies is as old as the movies themselves. From the original Hollywood moguls through to your obsessive cousin who videotapes every millisecond of each family function, the desire to capture life and play it back at will is almost primal. But maybe you already know this. Maybe you have stacks of your videotape creations. Or maybe you have a camera and want to direct. Either way, you have digital video (DV) in your near future. DV isn't as daunting or as expensive as it used to be, but there are a few things you should know before you call "Action!"

Working with DV can be broken down into roughly three steps: capture, edit, and output.

Capture

Capturing video is the process of getting your image from a camera or VCR into your computer, usually using editing software. If you have a digital video camcorder you're in luck; most DV cameras have a port for a FireWire connection (also known as IEEE 1394 or i.Link), which transfers 30 frames of video a second at a resolution of 720x480 pixels (the same as DVD), and with no loss of image quality. All you need is a FireWire port on your computer and a cable. All recent Macs have a built-in FireWire port, as do an increasing number of PCs, but there's still a good chance you'll have to buy an add-on card for about \$50.

Things are a little more involved if your video is coming from an analogue source like a VCR. An internal card takes up no desk space, but the speed of your computer becomes a bottleneck — don't expect high-resolution, full-motion video on an older machine. (New computers purchased within the past year are generally up to the

task, but before you purchase any equipment for video capture, make sure your current configuration is up to the task.) On the other hand, external FireWire or USB capture devices take on most of the processing chores, which means your computer doesn't have to be up-to-the-minute. The same, incidentally, is true of DV cameras; the video is already compressed and encoded on the tape, and the camera is just downloading the information to your computer.

Elsewhere in this issue we've looked at a few new video cameras, and some video capture hardware.

Edit

Once you have the footage on your hard drive, it's time to put everything together with an editing program. This is where you take all your raw material and put it all together to make a movie. Generally, editing programs have some kind of onscreen holding area where you keep all this material (often divided into at least three groups: video, audio, and still images). You then assemble all the video clips you want to use by dragging them from the holding area to your work area, in the desired order.

Your work area will be either a storyboard or a timeline. A storyboard displays your work in progress as a series of thumbnails, each one indicating a separate clip. This makes it easy to follow the overall progression of the movie (there's the love scene, then the kung fu scene, then the car chase), but difficult to get a visual sense of time or pacing (each thumbnail represents one clip, regardless of running time — you can't tell if the car chase is longer or shorter than the kung fu scene). A timeline has a track indicating elapsed time, and indicates where each clip starts and stops. Typically, there are multiple tracks to indicate where video, audio, and other elements start and stop in relation to each other. This can be harder to follow if you're not used to it, but it allows for more precise work.

For a polished presentation, you don't just string a bunch of video clips together. First you have to trim any extra footage from each clip, then determine how one scene will flow into the next using transitions. A transition can be a cut (one scene abruptly switches to the next), a wipe (an animated dividing line between both scenes sweeps across the screen), a dissolve (one scene fades into another), or something even more creative. You'll probably also want to add titles and spiff up the soundtrack with music clips and/or sound effects.

Output

Finally, there's the matter of releasing your masterpiece to the world. You can save your work as a video file and gather your friends around the computer, or put it on the Internet for a potential audience of billions. Or you can save everyone a lot of squinting and output your finished video to tape, DVD, or Video CD (sort of a low-resolution CD equivalent to DVD).

Many of the programs you can use for editing your masterpiece can also be used to format your movie for output, and even to burn it to CD or DVD. This issue also includes overviews of some editing software packages.

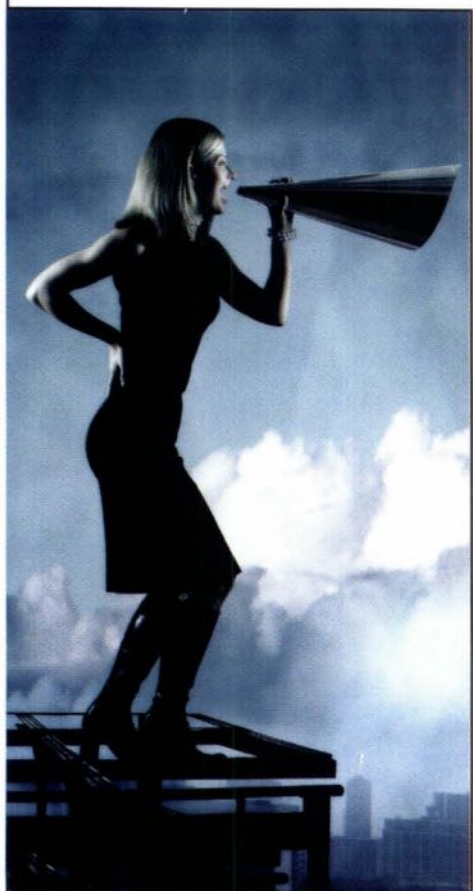
By Emru Townsend

Getting primed

For those who are just starting out in the world of digital video, it's fairly common to go through the whole process and be unsatisfied with the results. Adobe has an online digital video primer that can help you through it, including the differences between analogue and digital, types of compression, system configuration, video capture, editing, and output. The guide is a PDF file, so you may need to download Acrobat Reader software, but it's worth the effort.

www.adobe.com/motion/events/pdfs/dvprimer.pdf

By Sean Carruthers





Looking for a new digital video camera that squeezes high quality into the palm of your hand? We checked out three new compact models that offer slightly different high-end consumer features.

Compact and affordable

Canon ZR70MC

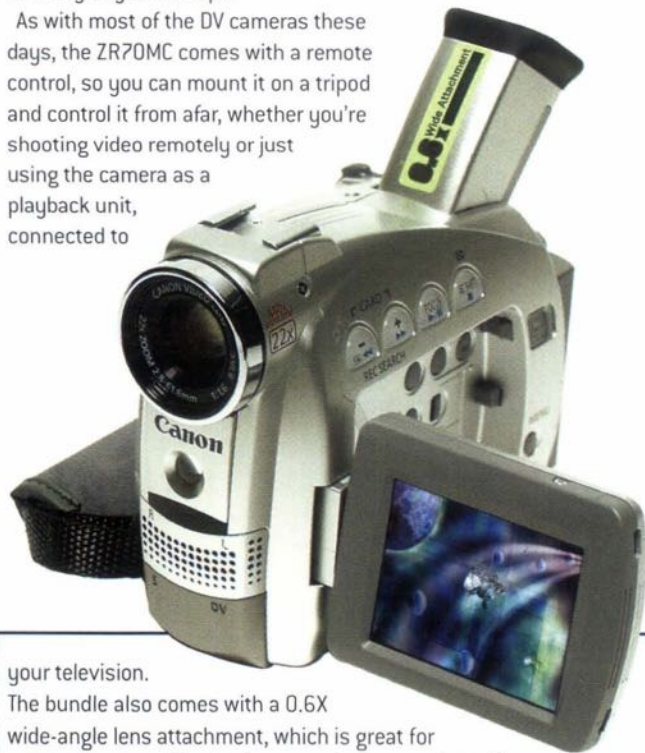
www.canon.ca Estimated price: \$1,200

When digital video cameras first started to take off, most were pretty bulky, and the compact models could cost you many thousands of dollars. Canon was one of the companies that pushed the price point down with its tiny, yet affordable models. The ZR70MC is one of Canon's newer DV cameras.

Compared to other DV cameras, the design seems a bit strange, with more height and less width. Like the other models in the ZR line, this one fits very nicely into the palm of the hand; it's small enough to carry easily, but not so small that it's hard to grip naturally. The taller design also means more room for the lens assembly up top, allowing this compact camera to sport a 22X optical zoom lens. It also has a larger LCD viewfinder, at 2.5 inches diagonally, which spins through 270 degrees so you can almost always see what you're shooting.

The camera uses standard MiniDV videotapes for capturing your movies, and has a SecureDigital slot (and includes an 8 MB card) for still picture capture (up to 1,024x768 pixel images). A switch on the side allows you to select which media you save to: you can also save short movies to your SD card, or still images with voice commentary to your DV tape.

As with most of the DV cameras these days, the ZR70MC comes with a remote control, so you can mount it on a tripod and control it from afar, whether you're shooting video remotely or just using the camera as a playback unit, connected to



your television.

The bundle also comes with a 0.6X wide-angle lens attachment, which is great for getting in more of the landscape or for group shots. [It

doesn't work so well when you have to zoom in, though, so you should only use it when you'll be at minimum magnification.]

The good news about the camera is that, despite the comfortable form factor, excellent zoom, large LCD viewfinder, and the bonus accessories, it's still one of the more affordable DV cameras available. If you're looking for a camera, this is an excellent place to start (and end!) your search.

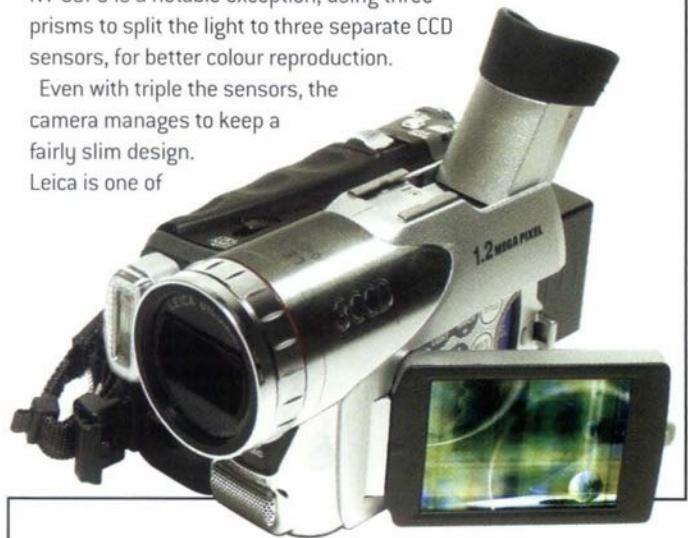
The three-CCD advantage

Panasonic NV-GS70

www.panasonic.ca Estimated price: \$1,649

Although the three-CCD design is popular in higher-end digital video cameras, it's less common in consumer-level models. Panasonic's NV-GS70 is a notable exception, using three prisms to split the light to three separate CCD sensors, for better colour reproduction.

Even with triple the sensors, the camera manages to keep a fairly slim design. Leica is one of



Panasonic's main partners when it comes to optics, both in DV and with its Lumix digital still camera line, and this camera features a 10X Leica optical zoom. With this camera, you actually have the option of focusing manually — just flick the manual focus switch on the side, then spin the focus ring around the lens.

Another nice feature: not only can the camera capture still images of up to 1.2 MP, it also has a built-in flash, which isn't that common with DV. Still images are saved to SD memory (an 8 MB card is included) or you can record them to tape (it's like a paused image with your voice commentary). A switch on the side of the camera allows you to choose your media.

Ergonomically speaking, the camera is quite nice, with a design that fits nicely into the palm of your hand. Most of the controls are within easy reach of your fingers when you're using the hand strap, except for the menu controls, which you probably want to keep away from your fingers anyhow, to avoid accidentally hitting them. The camera comes with a 2.5-inch LCD viewfinder that spins through 270 degrees, so you can almost always see what you're shooting.

The downside for a model with three CCDs onboard: it's more costly. Those who really value better image quality should check this out, but beginners will probably find a more basic model just as satisfying to start out with, and at a much more reasonable cost.

DV that's solid (state)


D-Snap SV-AV100

Panasonic, www.panasonic.ca
Estimated price: \$1,649

Gadgets get smaller all the time, but one thing that's kept DV cameras from shrinking too much is... well, where would you put the video tape? Sony has introduced a DV camera that uses the MicroMV format, but why not just get rid of the tape altogether?

Panasonic has done just that with the D-Snap SV-AV100, a tiny camera that saves video to a SecureDigital memory card. True, there have been other gadgets that store video to removable memory, but the SV-AV100 is the first to actually capture and save MPEG2 video/audio to memory cards. That's the same quality found on DV cameras and DVD, which is a big step up from the quality other solid state media video cameras offer.

The downside is you can't save that much MPEG2 video to the card: only 10 minutes of video at full quality can be saved to the 512 MB card that comes in the box. You can bump that down to "normal" MPEG2 recording mode, but that halves the resolution, which isn't so good if you're after quality. The good news is that if you're putting together a large project, 10 minutes will probably get you one or two scenes, which you can offload to your notebook PC, then move to the next scene. If you're using it more for fun than high quality, you have the option of saving in the more common MPEG4 format. The 512 MB card will store up to an hour of highest-quality MPEG 4 (320x240 resolution at 1 Mbps). Read full review online.

 more @ hubcanada.com

Ultra-compact DV Sony Handycam DCR-IP1

www.sonystyle.ca Estimated price: \$1,600

If you're after something that's even smaller than your typical compact DV camera, Sony's got a new ultra-compact model. In fact, although this model uses a digital video cassette for storage, the DCR-IP1 is barely bigger than most digital still cameras from the compact end of the spectrum. Of course, this ultra-small size comes at a cost.

To get the camera smaller, a few of the functions had to be compressed into a smaller space. Where most DV cameras have a switch that flips between off, camera, and playback modes, and gives you the option to save to tape or memory card, the DCR-IP1 has a single sliding switch; push down to turn on, push down again to save to the memory card, and push down once more to move to playback/edit mode. Also, all of the setup for the camera is done on the rotating LCD viewfinder, which is touch-sensitive; manoeuvring your finger into the right place isn't easy, but a bit of practice will pay off.

The main problem with a camera this small is usability: it's awkward to hold, and because the buttons are all located on the rear of the camera, they're awkward to use. The buttons are the lesser problem here; again, even though the zoom

button configuration isn't ideal, you'll get used to it with practice and enjoy the 10X optical magnification.

The bigger issue is that holding the camera is more difficult; chance are that one of your fingers will end up in front of the lens on a regular basis thanks to the lack of anywhere to place them comfortably when holding the camera with one hand. [Alternately, you may end up covering the microphones with your finger, which will muffle the sound or generate annoying rustling noises.] It's a bit easier to hold the camera with both hands, using your other hand for stabilization.

Another compromise to get the size down is the decision to use MicroMV cassettes instead of the now-standard MiniDV cassettes. These tapes are a fraction of the size, but for

the time being they're also more expensive (around \$20 each), and they're also a lot harder to find at retail at the moment; we tracked them down at the Sony Store but not at any of the other usual major outlets for video tapes, including the cutting-edge specialty stores.

The decision to use a different tape format shouldn't surprise those familiar with Sony; the company just loves going against the flow, often developing its own formats even when another is the de facto standard. More exasperating, though:

continued on page 16



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What to look for in a camcorder

Consider two camcorders — say the Canon ZR60 at just over \$600, and the GL2 at \$3,400 — though you could make a similar comparison with other manufacturers' products. You'd be correct in concluding that the one costing five times as much is a superior piece of equipment, but is it the best camera for you?

If you've just graduated from a filmmaking course and want to be another Robert J. Flaherty or Budge Crawley, the GL2 will take you further down that road. On the other hand, if you just want something to throw in the picnic hamper to capture family moments, it wouldn't be the best choice.

What should you look for? Following are a few specifications you might encounter during your shopping expedition, and how they contribute to your video aspirations.

Recording formats and media

MiniDV: The DV standard, developed in the early 1990s, is by far the most common digital video format today and most consumer camcorders follow it, using small MiniDV tape cassettes for recording. Two notable exceptions are Digital8 and DVD.

Digital8 camcorders produce DV format video too, but use cassettes the size of those in analogue Video8 or Hi8 camcorders. This is useful if you already have a collection of Hi8 tapes: you can pop them into the Digital8 camcorder and upload them to your computer with the camcorder doing the analogue-to-digital conversion. The Digital 8 technology — found mainly on Sony products — is more a "bridging" technology for those who used the older formats; the technology seems to be on the way out, however.

DVD-based camcorders allow you to record DVD-R (you can record just once on each disc) or DVD-RW or DVD-RAM (you can re-record to the disc many times). Video recorded onto DVD-R discs can generally be just dropped into any DVD player for instant playback, but with DVD-RW and DVD-RAM discs, you need to check whether your player is compatible with those formats. DVD cameras are getting a slow start but look like they might come into their own in the near future.

Digital vs. optical zoom

A common lens specification for camcorders is 10X optical and 20X digital zoom, which lets you zero in on the action. But remember that digital zooms are in-camera blowups rather than optical magnifications so their results are inferior, especially at high magnifications. If zoom performance is important to you, pay more attention to the optical zoom specifications.

Still image recording

Camcorders are getting better at doubling as digital still cameras. Advancements include larger image size (up to 3 MP on some models), separate removable memory cards for storing still photos, and built-in flash units. But be aware that many cameras up-sample the image, which can compromise the quality. If image quality is paramount, it may be best to buy a separate digital still camera.

Image stabilization

Most camcorders have big zoom lenses but using the camera at maximum zoom without a tripod creates jerky footage that can make your audience seasick. Image stabilization circuitry smoothes out

the bumpiness of handheld shots and is a worthwhile feature for most users.

Beyond automatic everything

Most camcorders are designed to be easy to use, and include controls that automatically adjust for a variety of lighting conditions and sound levels. You can literally point and shoot to get acceptable video. But if you're the kind of videographer who might want to exert more artistic control, make sure the camcorder allows this. If you want to control the lighting, look for a camcorder with manual exposure controls, manual white balance, manual focus, and provisions for mounting an external light. For more control over sound, look for an external microphone jack and manual sound-level controls.

Ergonomics

Comfort and convenience are the orders of the day. Camcorders come in a variety of sizes and shapes, and you'll find some are more conducive to holding in certain ways or are generally more comfortable, so test a number of models. The record button and the zoom controls are the ones you'll use most often, so make sure they are placed in a way that's comfortable for you to use, and that they are large enough.

One or three CCDs

A CCD (charge-coupled device) is the sensor array that captures the video. On a single CCD camera, three composite colours (red, green and blue) are recorded by one sensor, while a three-CCD camera has separate sensors for each colour. It used to be that only professional-level cameras had three CCDs, but today you can find models for under \$1,500 (e.g., the Panasonic PV-GS70). The main benefits of three-CCD cameras are brighter video and more saturated colour, but single CCD cameras are adequate for virtually all non-professional applications.

In-camera FX

Many cameras include special effects generators that allow you to fade to black or apply transitional effects between shots, or apply text or titles. These are nifty and simple to apply but if you intend to seriously edit your video on a computer using video editing software, you'll gain more flexibility applying the transitions in the edit suite.

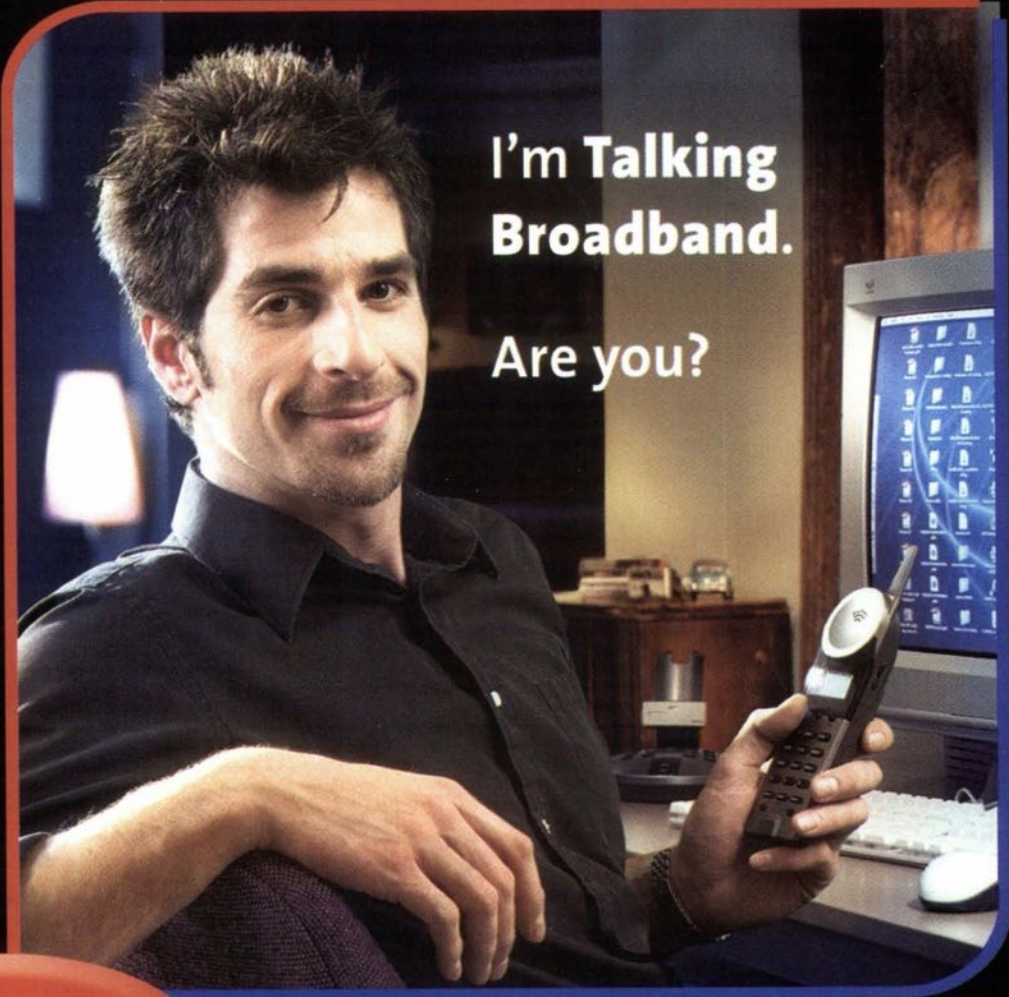
Accessorize

If you shoot a lot indoors, an auxiliary video light or two would be a worthwhile investment, and an external microphone can make a world of difference to your audio quality. In many cases the cameras have mounts for such accessories, though they may be proprietary; you'll want to weigh the advantages of camera-specific accessories versus the flexibility of standalone versions.

Steadyyyyy...

Mounting your camcorder on a tripod will make your video footage steadier but tripods tend to be inconvenient to set up. A monopod is a good compromise.

By David Tanaka



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Jennifer Hollett

Jennifer Hollett co-hosts MuchMusic's MuchOnDemand, a show where viewers choose the videos they want to see by logging on to the station's Web site and casting a vote. Hollett also participates in live online chats with viewers during the show. Hollett tells HUB about starting her career in the new media industry, and how technology has played a major role in her profession.

"I went to study journalism and communications at Concordia [University] in Montreal. One of the first things I did when I got to school was get an email address. That was 1994," Hollett says.

"I had a lot of pen pals in different parts of North America... and I wanted to be able to communicate with them faster than snail mail. It really changed the way I communicated not only with pen pals but eventually everyone in my life who has access to a computer."

During her time at Concordia, Hollett was offered a job with Sony Music as a campus marketing representative. She accepted the position, and it wasn't long before she moved to Sony's new media team.

"The consumer technology group was responsible for developing the Web presence for artists like Celine Dion and Our Lady Peace. [My job] was to take care of the stuff that would be on the site, more than a bio and a couple of publicity pictures. And really at that point, in '96 and '97, that's all you'd find at an artist's or band's Web site — just basic information. It would be more of a Web page. In the mid- to late-'90s we didn't have many Web sites, we had Web pages, so they wanted to evolve that.

"I never planned to work in new media — I didn't even know that a career in new media was an option. I've often told students that I speak to in high schools that when I was in high school the career I started out with didn't exist. Web site designer, or online content developer, or project manager for a new media group — there was no such thing. It was in its very early stages."

During the mid-'90s, just as Hollett moved to the new media team at Sony, the dot-com boom was taking North America by storm. Hollett experienced it firsthand.

"My job at Sony really took off. I was working in the dot-com business during the right era, the right wave. It was so much fun to be working in everything that was new media in the late-'90s. It was unbelievable. It was a bunch of kids running the world for a brief moment. That's what it felt like. We were thinking of things that hadn't been done before and working with what would change everything in the music industry before anyone realized the impact."

Then, a contact referred her to an audition for a new digital channel owned by CTV called Talk TV. Hollett got the job, and left Sony to pursue her original dream: broadcast journalism.

"That was a whole other challenge for me, with it not only being something new, but a new technology, that being digital television and digital cable. A lot of the things I went through joining a new media group at the time that I did, I experienced again working for a digital network, at a time when no one even knew what digital meant. Whereas now most people I know are making reference to their digital networks and channels.

"The Web played a huge role in the show. The show I worked on at Talk TV was called The Chat Room, so that was driven by the chat and interactivity."

From there, a producer from CTV moved to MuchMusic and suggested Hollett send in a package and audition.

"What's interesting is that the experience I gained working in new media, working so closely with music and technology is carried through in everything that I've done. MuchOnDemand could not exist without Team Digital and MuchMusic.com. All the videos come through technology. That's how we connect with our viewers."

Hollett is from a generation that experienced the transition from writing homework with a pen to word processing, from doing research solely at libraries to doing research primarily online.

"I had a friend [who] always used to say that everyone has a book inside them, and I think that's evolved into everyone has a TV show inside them, or a Web site inside them. I think that everyone should be able to share their story."

By Jessica Malone



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Thanks to the PowerPod, your DV camera can do double duty as a PC Web cam. The device (software bundled with a "robotic" tripod that can hold cameras of up to 1.35 kg) allows you or others to control your camera remotely over the Web. The software allows you to pan left or right by 80 degrees and 50 degrees up or down. Full review online.



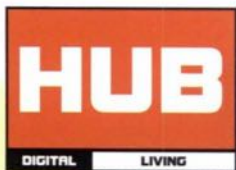
because the format of the camera is different you need to use Sony's own software to get video from the camera onto your PC. The built-in Microsoft DV camera drivers do not work for this camera. Fortunately, Sony's MovieShaker application is very easy and enjoyable to use.

Between uses, you drop the camera into a recharging cradle that also doubles as the USB/FireWire dock for transferring data to your PC. When you flip the camera into play/edit mode, you can transfer your still images to the PC; in camera mode, you can stream live video to your computer, instead. The camera comes with several pieces of

software designed to make all of this easier, including editing software and the ability to auto-download images when you drop the camera into the cradle.

In the end, though the camera's a bit of work to get used to, it's quite a powerful little unit, and it packs a ton of functions into a device that's small enough to tuck away into a coat pocket.

By Sean Carruthers



DIGITAL VIDEO CONTEST

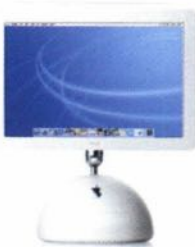
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HUB's digital video contest Entry Form. Deadline February 23rd, 2004

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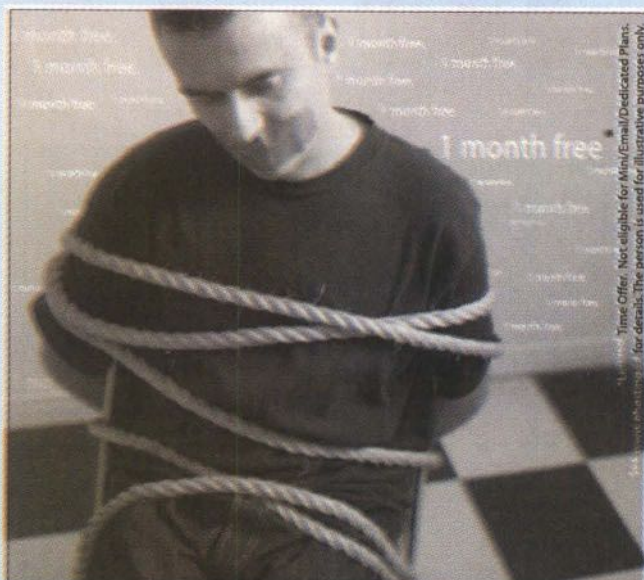
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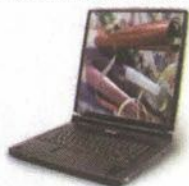
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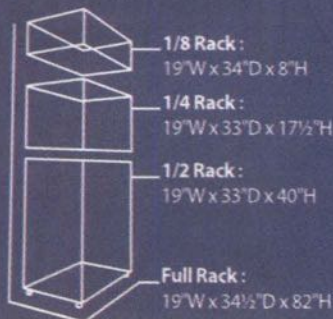
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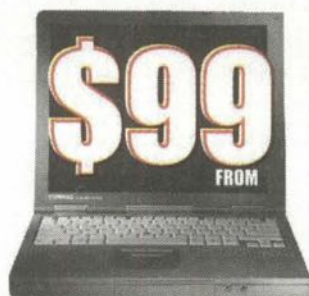


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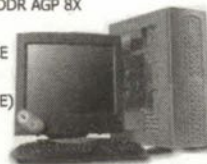
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Internet socialites



According to research conducted by Ipsos-Reid pollsters, Canadians with online access are embracing the Internet as a way to meet new friends and stay in touch with old friends.

Almost seven-in-10 online Canadians have used the Internet for social interaction, according to Ipsos-Reid.

The study involved 1,000 telephone interviews with Canadian adults and 1,000 online interviews with Canadian Internet users in September and October.

Social activities done online

Email is still the most common way Canadian adults have interacted with each other online, according to the Ipsos-Reid research, followed by:

Participating in live, online chat:42%

Using Net to contact someone they've lost touch with:35%

Taking part in online computer games:32%

Taking part in online forum or bulletin board discussion:29%

Using Internet Relay Chat: 18%

Making online telephone calls:11%

Using online personals service:10%

Using an online dating service:6%

Generation gap

For each of these activities, online Canadians 18 to 34 years of age are much more likely than older Canadians to take part, says Ipsos-Reid. For example, 64 per cent of that demographic have taken part in live online chat and 50 per cent have take part in online games. Those numbers drop to 31 per cent and 21 per cent, respectively, for those 55 years of age or older.

"I think we're seeing a greater acceptance of the second-generation of Internet activities," said Rhys Gibb, senior research manager with Ipsos-Reid. "The first generation of activities were individual and transactional in nature, such as buying or banking online, or just gathering information. The second generation of Internet activities are social, participative, and integrated into the user's lifestyle. There's a clear movement towards much greater social acceptance of these online social activities than we've seen in the past."

Source: The Canadian Inter@ctive Reid Report

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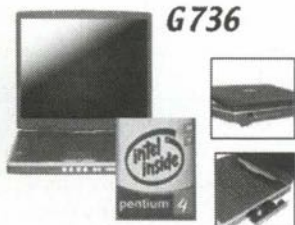
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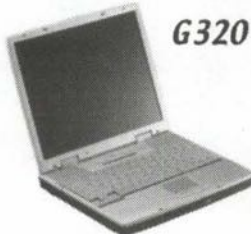
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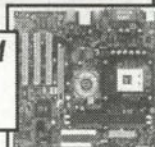


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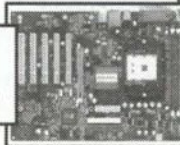
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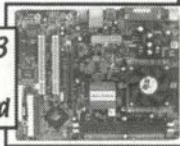
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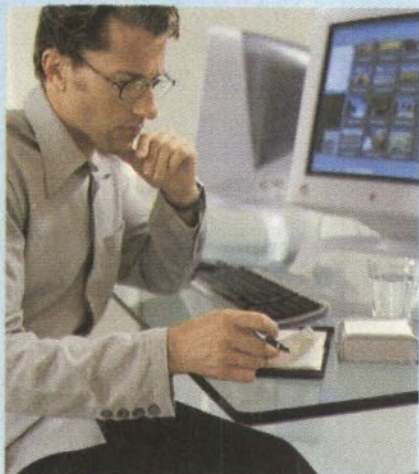
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IM @ work



Instant messaging is becoming so prevalent in the workplace that U.S.-based IM solution provider Omnipod thought it would be interesting to see what slang was creeping into IM sessions among employees.

"Most casual IM users are familiar with acronyms such as LOL for laugh out loud," said Omnipod chief executive,

Gideon Stein. "We were amused to discover that one of the top 10 most commonly used acronyms dealt with the boss, or those in a supervisory position."

According to a press release from Omnipod, there are currently more than 100 million users of IM worldwide, and Gartner Group predicts that by 2006, IM will be used more often than email as the preferred method of messaging in the enterprise.

Omnipod says IM is gaining popularity in the corporate environment because it allows for real-time electronic communication, remote brainstorming, and is a cost-effective and immediate way to keep in touch with traveling employees, telecommuters, partners, vendors, and customers.

So, in an attempt to crack the workplace chat code, Omnipod surveyed 1,500 end-users of its enterprise IM solutions to find the 10 most popular IM acronyms. The company said participants represented a cross-section of industries and that acronyms used in everyday speech, such as FYI or ASAP, were

not included in the list.

The results of Omnipod's survey found that the 10 most commonly used acronyms while instant messaging in the workplace are:

1. BRB: Be right back
2. CTRN: Can't talk right now
3. IMO: In my opinion
4. HTH: Hope this (or that) helps
5. IAM: In a meeting
6. WFM: Works for me
7. BFO: Blinding flash of the obvious
8. DHTB: Don't have the bandwidth
9. IHMB: I hate my boss
10. SLAP: Sounds like a plan

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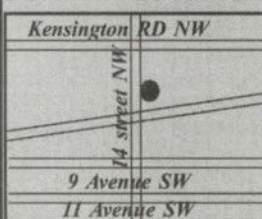
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Making the cut

Hardware and software for editing your digital movie

Where digital moviemaking is concerned, there's no shortage of software and hardware that will help you get the job done. While no one is exactly giving the stuff away, it's become a lot less expensive to get the tools that will help you produce high-quality work.

The hardware

ATI All-in-Wonder Radeon

www.ati.com Estimated price: \$249 to \$599

ATI's versatile All-In-Wonder Radeon series follows a simple premise: video in, video out. While they serve as excellent video cards for LCD and CRT monitors, they also provide TV viewing, video capture, DVD playback, and analogue output. Pay attention to the different models' capabilities: I worked with a 9600 Pro, for instance, which



includes a remote control for TV viewing and can output directly to two video devices simultaneously.

However, it lacks a DVI connector for digital LCD screens — something the original All-In-Wonder Radeon had two years ago.

You'll often find editing software bundled with video capture hardware, and the All-In-Wonder Radeons are no exception. The 9600 Pro comes with Pinnacle's Studio 8 and muvee's autoProducer.

Pinnacle Studio MovieBox USB

www.pinnaclesys.com Estimated price: \$269

If you'd rather not have video capture tied to your video card, or if you're using a slightly older computer, then an external option is for you. Pinnacle's Studio MovieBox USB is a stylish silver box that



takes analogue video and sends it to a computer via a USB 2.0 cable. You can also use it to send your edited video back to your VCR, TV, or camcorder. And, as the name implies, Pinnacle Studio editing software is included in the box.

ADS Tech Instant DVD 2.0

www.adstech.com Estimated price: \$239

ADS Tech's Instant DVD 2.0 package works the same way as the MovieBox, but you can only use the included capture software. It comes with muvee autoProducer SE and Ulead's VideoStudio 7 SE and DVD MovieFactory SE (the "SE" stands for Special Edition; in the



case of bundled software, that usually means it's missing some of the standard edition's features). Again, it uses USB 2.0 to connect to the PC.

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Gearing up for DV

Before you start eyeing video capture hardware and editing software, you should take a look at two key components of your computer system to make sure it's up to par.

CPU: How fast your computer needs to be depends on how you're capturing video and how patient you are. Internal capture boards like ATI's All-In-Wonder cards put a considerable load on the CPU; full-screen, full-motion video (a resolution of 720x480 pixels at 30 frames a second) needs at least a 1.5 GHz processor to avoid missing any frames. If you're using a DV camera or an external board, you can drop down to 733 MHz with little trouble — but then when it comes time to generate your finished movie, you'll have to cool your heels while the computer puts all those fancy effects, transitions, and titles together.

Hard drive: There's no such thing as too fast or too big. To keep up with the constant flow of video data, a 7,200 rpm drive is a must. And get as big a drive as possible: video takes up a lot of room, over 200 MB per minute. If possible, consider getting a separate drive strictly for video work.

Editing controllers

Digital video auteurs will appreciate these USB controllers, which mimic the jog and shuttle dials found on professional editing decks and higher-

end VCRs. Thanks to heavily customizable drivers, they can be given separate settings for different applications — so that, say, the same shuttle motion zips you through your video in one program or scrolls through your spreadsheet in another.

Griffin PowerMate

www.griffintechnology.com Estimated price: \$59

You can assign a handful of preset functions or specific keystrokes to any of the six possible actions (based on rotating or clicking) with this controller, tweaking the sensitivity for each. Windows and Mac compatible.

Contour ShuttleXpress

www.contourdesign.com Estimated price: \$79

True control freaks will likely prefer the ShuttleXpress. It has five additional buttons on the base's outer rim; a true shuttle outer-ring dial (it scrolls faster the farther it's turned, and snaps back to its centre position when released); presets for almost 50 programs; and is customizable to within an inch of its life, with settings that can be exported for future reference or as a backup. Windows and Mac compatible.

By Emru Townsend

Canopus ADVC100

www.canopus.com Estimated price: \$385

ADS Tech Pyro A/V Link

www.adstech.com Estimated price: \$239

As streamlined as the MovieBox and Instant DVD products are, they're both PC-only. That's one reason I prefer products like Canopus's ADVC100, or ADS Tech's Pyro A/V Link (includes

Ulead VideoStudio 7); they often cost more (usually when they offer extra features like the ADVC100's locked audio synchronization, which keeps the sound from drifting away from the image), but they work on Macs and PCs, require no special drivers, and work with just about any capture or editing software. They can do all this because they take analogue video and output DV through a FireWire cable — effectively fooling a computer into thinking there's a DV camera attached. And there are bonuses: you can use them to output DV or analogue video from your computer, or transfer video between analogue and DV cameras and recorders without using a computer at all.

The software

If you're not happy with the video editing software built into your operating system, there are a number of other, more powerful packages you can shell out your hard-earned money for. Here are a few selected titles.

On the Macintosh there's Apple's iLife package, which includes iMovie and iDVD. iMovie hooks very neatly into iDVD, allowing you to set chapter points from within the editing process. (www.apple.com/ca/ilife/)

On the Windows side of things, two of my favourite programs are Pinnacle's Studio 8 (www.pinnaclesys.com, \$109) and Roxio's VideoWave 5 Power Edition (www.roxio.com, \$89), both of which offer drag-and-drop simplicity and are completely self-contained — with either program, you can capture footage, edit it, and output to tape, a file, or DVD.

It's hard to say that one program is better than the other. For the everyday capture-edit-output, they're quite similar and just about as easy to use; certain options just happen to be located in different places. Both have their high points: using VideoWave's Video Mixer and a little creativity, you can create sophisticated split-screen and overlay effects, while Studio's range of transitions is absolutely mind-boggling. On the other hand, both also have strikes against them: VideoWave is the only program I know of that exclusively uses the storyboard, which makes it awkward to, say, start or stop an audio clip at a precise spot in a video sequence; Studio can make it difficult to split a clip already on the timeline into two smaller clips.

Both programs allow you to export your final movie as a stand-alone or streaming file (MPEG, AVI, Windows Media, RealVideo), with a wide selection of prefab options but also allowing for complete customizability. And of course you can also output to digital or analogue tape.

When it comes to creating DVDs, they are almost evenly matched. Both come with their own presets and plenty of raw material for creating your own menu backgrounds and buttons, and

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Cost-free DV:

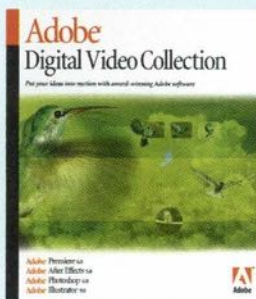
When editing is already bundled with your OS

When it comes to editing software, you can get a reasonable number of features without it costing you a cent. Windows XP users have Microsoft's Windows Movie Maker 2 (www.microsoft.ca) and Macintosh OS X users have iMovie 3 (www.apple.ca), both of which are free (with the purchase of the operating system) and fairly basic — they're also fairly powerful but make that power easy to use.

Movie Maker, for instance, has a pane on the left side that outlines the steps to creating a movie, and provides messages that guide you along the way. Apple's iMovie doesn't hold your hand quite as overtly, but its thoughtful layout and detailed popup messages help beginners fill in the blanks.

A casual look at the two programs' lists of features would suggest that there isn't any need to actually pay for an editing program. After all, both

have a considerable number of transitions, special effects, functions for titles and credits, and more. But appearances can be deceiving. The simplicity of these programs is partly due to a certain lack of choice. For example, just try to export your movie as a file type other than the companies' proprietary formats (Windows Media for the Microsoft program, Quicktime for the Apple title). Burning your movie isn't an option, either — you have to use another program for that.



The big time

Adobe Video Collection

www.adobe.com Estimated price: \$1,549 (standard), \$2,299 (pro)

Low-cost DV editing software has come a long way, to the point that it can take you 90 per cent of the way to productions that rival slick Hollywood production quality. But getting that last 10 per cent costs considerably more.

Bundling Premiere Pro, After Effects, Audition, and Encore DVD (the pro version includes Photoshop), Adobe's Video Collection isn't cheap, but it's about half the price of buying the programs individually.

The Video Collection contains just about everything you need to set up a mini-studio. Premiere Pro completely revamps Adobe's editing powerhouse, making it less daunting for first-time users while diminishing none of its power; After Effects' update isn't as drastic, but it's still a top-notch animation and effects package.

What really rounds out the package are two relatively new additions to the Adobe stable: Audition (formerly Syntrillium's Cool Edit Pro) and Encore DVD. Audition is for creating soundtracks, with the ability to edit, tweak, and mix up to 128 tracks; it also comes with an extensive library of high-quality music loops. Encore DVD provides absolute control over DVD authoring, right down to creating elaborate menus and hidden "Easter eggs."

The real bonus is that all of these programs are intertwined; you can, for instance, edit footage in Premiere, create animated titles in After Effects using Photoshop filters, create an audio loop in Audition, and pull it all together in Encore DVD for a killer DVD menu.

The Video Collection definitely isn't for beginners, but if your interest in DV is professional, it's a worthwhile investment.

Beyond basics

Of the mind

Final Cut Express

Apple, www.apple.ca Price: \$450

Migration from entry-level to professional-level software is never easy, especially when it comes to digital video editing tools. There is a large cluster of suites for beginners, a handful of high-end packages, and very little in between. In the Mac world, however, Apple has given video enthusiasts a leg up from iMovie with Final Cut Express — a cut down version of Final Cut Pro. Happily, Final Cut Express is also roughly one third of the \$1,599 price of the high-end suite.

This slimmed version retains the look and feel of its full-strength sibling and files saved in Express

can be opened in Pro. Where it is limited is that it can only handle digital video files that originated in a FireWire-equipped DV camcorder and not uncompressed video files or video from analogue sources. Some animation and compositing features have also been scaled back for this version. What you do get is still the essence of a high-end DV editing suite. An advanced yet easy-to-use colour corrector will enhance your clips, as will hundreds of pro-grade transitions, filters, and effects. Besides standard video editing tools, Final Cut Express has some powerful audio tools, as well a voiceover tool with built-in audio filters, and the ability to use up to 99 audio tracks in your project. You can easily save your finished project

to tape or as a QuickTime movie.

Final Cut Express is not as friendly as iMovie, but if you've moved beyond the novice stage, you won't go wrong with this video editing suite. When you outgrow it, you can upgrade to the full version and you won't have to endure a steep learning curve. Final Cut Express is a great product that fills a gap.

It requires a system running Mac OS 10.2 or higher.

By Nestor Gula



Encore DVD

Adobe, www.adobe.com Price: \$839

Requires: Windows XP

Over the past few years it's been common for writers — myself included — to claim that many authoring programs let you make DVDs just like those you'd buy from a Hollywood studio. Let me be the first to apologize: it simply wasn't true. I've got two words that illustrate what's been missing: commentary track.

That's right. Who could forget one of the selling points of commercial DVDs, where directors and actors spend two hours giving you a blow-by-blow account of the movie you're watching? And that's not all that's absent: features like subtitles, extra (non-movie) files, multiple angles and language tracks are lacking in most consumer DVD-authoring packages. That's fine for most people — adding subtitles to your DVD copies of old Beachcomber episodes might be a bit much — but it's enough to make filmmakers, educators, and training professionals look elsewhere. And that's the niche that Adobe's Encore DVD fills.

If you're used to inexpensive DVD-authoring programs, Encore DVD takes a little getting used to. Rather than dividing the interface into separate sections for video capture, organizing clips, creating menus and finally burning a disc, Encore DVD piles everything onto one screen. In fact, the beta version of Encore DVD I've been using bears a passing resemblance to Adobe's flagship title, Photoshop.

When I started, I was presented with a

toolbar, two palettes, and an otherwise empty screen.

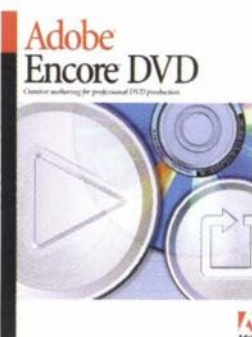
In keeping with the Photoshop tradition, Encore DVD doesn't hold your hand; in fact, it expects you to show up with your homework done. Central to Encore DVD is a project window that holds all of your "assets," the video, audio, and image files that make up the raw material of your DVD. As you create new menus, they also appear in this holding area. Connecting assets — say, assigning a video to a menu button, or determining the order of video files — is a matter of dragging and dropping links between different windows and palettes.

Another nice feature is the timeline view, which can accompany any audio or video asset. In this view, the different video and audio elements are displayed as separate tracks. If you add a separate audio track (commentary, for example), you'd just drag the audio file onto the timeline among the other audio tracks. Setting chapter points is a matter of inserting and positioning markers along the timeline; these markers can be easily repositioned or deleted at any time.

These features are just the tip of the iceberg. As with many other Adobe products, Encore DVD is complete enough that you could use it for years and not use all of it — but if you need a feature, it's probably there. You can also integrate with Adobe Photoshop, Premiere, or After Effects so that modifying an asset in one of these will update it in Encore DVD.

Considering its capabilities (and price), Encore DVD isn't for everyone. But if you're serious about making movies now or in the future, it should have everything you need. The only thing missing is a cheaper "lite" version that would provide an entryway into the more complex Encore DVD. However, if you have the bandwidth (or the time) you can download the trial version to use for 30 days.

By Emru Townsend



Technological trends

Rehumanization

Over the past few years, young people have been looking for ways to make their world more human and less dominated by technology. "They are putting more flesh to the metal," says Valiquette.

This larger trend is a backlash against the dotcom bubble bursting, as well as residual angst over the Millennium crisis, the events of Sept. 11, 2001, the economic crisis, and war. Look around, and it's all there in the simplest things, like communicating (with a cell phone) and listening to music (on an MP3 player).

Transition

This is an extended notion and underscores that we're between technological developments. "In every major facet of technology, something significant has changed dramatically over the past couple of years," says Valiquette.

An MP3 player purchased in 2000 with a few megabytes of memory is now a joke.

Napster has died; flat-screen monitors are de rigueur. One third of young people download movies and eight per cent download commercials, all of which is changing the way youth connect with media.

"We're in between technological developments and you don't want to come out on the wrong side of whatever version of the Beta/VHS debate you're dealing with," says Valiquette.

That said, this is not a reason to stagnate, stop doing research, or turn one's back on technology. Quite the contrary, in fact.

If it's big with you...

If you're in your third decade or beyond and think young people's taste for technology has little to do with yours, think again. We're living in a time of youthfulness, and what's hot for the 13 to 29 set soon becomes hot for everyone.

"There's a real love of youthful things in boomers," says Max Valiquette, president and youth insight broker of Youthography, a Toronto-based, marketing consultant service. "The older the boomer group of our population gets, the more they value youth and that's a tremendously, tremendously important thing."

Boomers are the largest group of adults that remember what it was like to be young, want to still be young, and in ways can be. "Something big with young people — it can be big with adults as well," says Valiquette.

On the other hand, the large, empowered group of young people are the early adopters. They, especially males, are the ones who have the time to work at finding out what technologies are available, and they are interested, involved, and care about technology.

Personalization. Empowerment. Independence. These are words that describe today's youth and explain why certain technologies stick.

"One of the reasons why young people tend to gravitate to technology as a category is because technology as a category tends to satisfy a lot of those things," says Valiquette.

Top teen tech

Cell phones are the number one technology for youth, because cell phones provide that unique mix of connectedness, independence, freedom, and control this age group finds so important.

"It's your own, you customize it the way you want to, you don't

worry about anyone else deleting your messages, you don't worry about not being able to reach somebody. It's very, very, very much a kid thing," says Valiquette.

Over half of Canadian youth carry cell phones. Kids download what, when, and how they want to, and every day brings new options, whether it be streaming video, location-based services, or multimedia messaging.

MP3 players fit the youth bill because they're smaller than Walkmans that play back CDs, and therefore can be taken more places and used more discretely. Downloading music, from a youth perspective, is all about empowerment.

"Frankly, if you're young, it's about taking control of your life, taking control of your media," says Valiquette.

Two other technologies that top the list are CD burners — not cutting edge, but still, not everyone has one — and a gaming platform of one form or another.



The next big thing

Given the way youth look at life and technology, Valiquette even hazards a guess on what will thrive in 2004. We'll see an increasing number of iPod knock-offs (made by companies other than Apple), he says, but the really big ticket will be something that does everything.

"Everyone is waiting for the big impressive all-in-one device that allows them to talk on the phone, play their MP3s, play some decent video games, surf the Web, and send and receive email," says Valiquette.

Of course by "everyone" Valiquette means youth — and then everyone.

By Mara Gulens

ATMs get personal

Digital Living

Do you miss your friendly neighbourhood bank teller? Well, it won't be quite the same, but new software being integrated into automated teller machines (ATMs) will once again offer a friendly face to help with your daily banking, in the form of an avatar, an on-screen personality that will guide ATM users through transactions.

Most Canadians are familiar with basic banking machine transactions, as we lead the world in ATM usage — averaging 47.8 transactions per person, per year, according to NCR Canada, the leading manufacturer of bank and credit union machines in the country. But new machines over the next couple of years will offer more complex functions, like cheque scanning and cash sorting, which is where avatars shine.

Nick Hames, vice-president of NCR Canada's financial solutions division, explains: "On our new machine, where we're separating where they're putting in their cash from their cheques, we've found that the read rate is much higher where the consumer just smooths the cheque out a little bit first or the cheque is inserted the right way in the machine. And the avatar is a very friendly, very unassuming way to help the consumer do that."

Hames, who was in Vancouver for the annual B.C. Credit Union Trade Show in late November, said the new interface was a hit with users in recent pilot programs. Users can choose a character they're comfortable with for their transactions. "The whole idea was to let the consumer set up the profile of avatar that they wanted to work with, and that became their trusted agent," said Hames.

Users will be able to customize other interface features as well, such as screen colour, type size, and font for on-screen messages.

The preferences are set up in the branch or through Internet banking, and then automatically appear when users insert their cards into an ATM.

Wireless technology is also making its way into ATMs, with machines that can transfer data wirelessly, run on DC batteries powered by solar panels, and include GPS tracking devices in case of theft. Hames said the untethered machines are ideal for temporary use at trade shows and special events like the Calgary Stampede.

By Sharlene Myers



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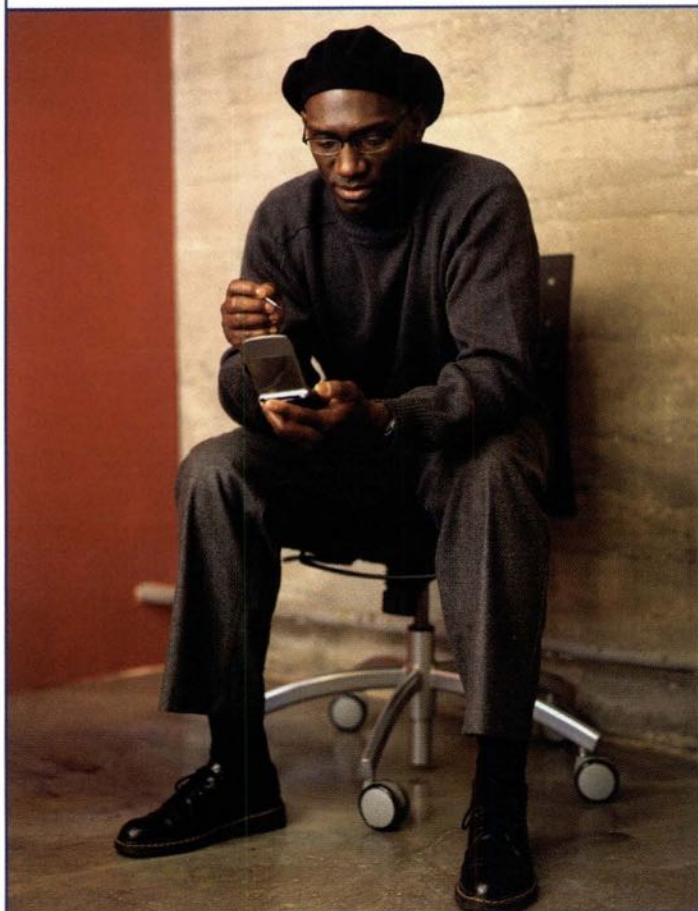
How to: Use technology to keep your resolutions

Nearly anyone who has ever made a new year's resolution has probably made one to eat better, exercise more, and/or to lose weight — variations of these are the most common resolutions, which is hardly surprising, considering the abundance of rich food and resulting sluggish feelings the holidays bring.

But considering the reputed dismal success rate of resolutions, it's surprising anyone still makes them — especially diet and exercise resolutions, which seem particularly hard to keep.

Often, we fail because our resolutions are too vague: "I want to lose weight" is only a wish, really, unless we have a plan, a bunch of smaller goals that lead to the larger one. By writing down what we want to do, we force ourselves to be more specific and hold ourselves more accountable. A PDA is good for this, since we carry them everywhere and consult them regularly. If you don't use a handheld, desktop calendar software works too.

So, for example, if you've decided that you want to lose weight or exercise more, sit down at the beginning of the week and schedule your workouts as appointments in your datebook (don't forget to allow for prep and travel time before and after). If you like checking things off, also add each workout to your to-do list for that day. If your workouts are first thing in the morning, but you find your snooze button too easily, set an alarm on your workout appointment and leave your handheld within hearing range but out of reach of your bed.



Facing the bottom line

Part of the problem most of us have in losing weight is that it's difficult to assess how much we're actually eating every day and how much less we need to eat in order to shed pounds. Software programs are now available that go far beyond simple food diaries — they calculate optimal and actual caloric intake and clarify what you need to aim for to meet weight loss or other dietary goals.

One such program, Diet and Exercise Assistant 5.0, from Keyoe Inc. (www.keyoe.com) is available for Palm OS and Pocket PC, as well as Windows, with conduits included for both handheld formats (US\$20 for handheld versions, US\$10 for Windows version — functionally limited trial versions are available). Feed your current and goal weights into the software, along with other statistics like gender and height, and the program comes up with a daily calorie count to reach your weight loss goal. It also includes a chart to show you whether your current and goal weights fall within a healthy range for your height.

But it doesn't just count calories; it keeps track of carbohydrates, fat, saturated fat, protein, and fibre, comparing daily levels to your nutrient goals, according to your choice of diets (choose between USDA pyramid guidelines, a low carbohydrate plan, or customize a nutrient balance for yourself). The program also helps track body measurements and blood pressure.

An extensive database makes it simple to log everything you eat, and you can add to the database any foods you don't find already entered — the required information is usually on the food package. The database includes popular menu choices from several fast food chains — recommended reading before turning into that drive-through on the way home.

Keeping track

If your goals are more fitness oriented or if you're training for an event, you might be more interested in keeping a workout log. PDAs, from Acrocat Software (www.acrocat.com, US\$25 each for Palm and Windows versions, US\$40 for both), allows users to set up strength training routines and plan cardio sessions, and then check off individual exercises as they do them. This can be helpful in a couple ways. First, looking back after a few days or weeks on how much you've done can help keep the motivation up when your energy is low. The second goes back to planning. If, in addition to scheduling workouts in your datebook, you decide in advance exactly what you're going to do during each session, it's harder to brush one off.

Pocket PC users looking for a similar program might want to check out MySportTraining by Expose (www.mysporttraining.com). Expose also offers other related programs, including one for runners called MyRunningLog. All of these programs are also available in Windows desktop versions, which can be used alone or synched with the handheld versions (prices vary between US\$15 and US\$25 each).

By Sharlene Myers

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Some disassembly required

European laws make it easier to recycle e-waste in Canada

From the horses' mouths

You can find out more about how manufacturers are designing with the environment in mind and/or reclaiming computers by visiting these sites:

Dell

www1.ca.dell.com/content/topics/global.aspx/corp/environment/en/index

HP

www.hp.com/hpinfo/globalcitizenship/environment/can/canrecycle.html

IBM

www.ibm.com/ibm/environment/

Toshiba

www.toshiba.ca/web/link?id=27

Talk to enough people involved in the world of recycling and you'll hear about the "waste stream" and "end-of-life" (or EOL) issues. The waste stream is just that: the flow of discarded objects from our homes and businesses into landfills and dumps. Last month, we looked at ways to keep computers out of the waste stream, if only for a little while. But as we all know, there comes a time when a computer's usefulness is definitely at an end—and that's when we start looking at EOL options.

There are three major players who bear responsibility when it comes to computer EOL issues: the public, the government, and industry.

The public is, of course, you and me; it's our responsibility to use

the services we have available to reduce the environmental impact of EOL technology. However, it's the government, at municipal, provincial, and federal levels that help make many reclamation services available to us. But if you speak to enough people at the government and activist level, it's quickly agreed that the first crucial steps have to be taken by the industry — the companies that make the computers we use — though sometimes a little prodding is required by the government.



■ Apple is one of the companies designing cases and components that are easier to take apart.

Take a look at Europe: legislation puts the obligation on manufacturers to collect and properly dispose of computers, which in turn makes it a matter of self-interest for companies dealing in Europe to make it easier to disassemble computers and identify the plastics and metals so they can be reused or disposed of properly and efficiently. It also encourages them to use less hazardous materials in the manufacturing process.

Legislatively, though, Canadians aren't quite as advanced. Our southern neighbours have a patchwork of bills that are largely on a state-by-state basis, and tend to put the cost of reclamation on consumers. For instance, while California's e-Waste Collection and Recycling Act requires manufacturers to eliminate some hazardous materials from CRT monitors by 2007, consumers in that state will have to pay a few extra dollars to cover disposal costs whenever they buy a new TV or monitor as of this July.

The situation in Canada is similar, with different provinces at different levels of commitment. Alberta was the first province to introduce an e-waste program, the Fluorescent Bulb & Computer Recycling Program, in 2001. Manitoba's provincial government also proposed e-waste regulations in late 2002. At the other end of the spectrum are Ontario and Quebec, where little is being done at the provincial level. No one is yet making demands of industry.

So if our governments aren't leaning on the manufacturers, who is? Interestingly, the answer goes back overseas: we're benefiting as companies redesign their computers and other products to make it easier to comply with European legislation. Here are some highlights of the way things are going:

- Easy disassembly is key to proper recycling or disposal.

Companies like IBM, Apple, Hewlett-Packard, and Dell have been designing their computer casings so they can be taken apart quickly, without needing specialized tools. Snap-in fasteners are increasingly common, as manufacturers minimize the number of screws and the amount of glue used to hold things together.

- Lead is, proportionally, the most worrisome substance to be found in computers and monitors, and much of that lead is found in the solder that binds circuits and components together. Sony started developing a lead-free solder in 1995, and has started to implement its use in certain product lines. Intel has also been working on lead-free components, developing its first (a network interface card) in 2002. Both companies plan to eventually have completely lead-free products.

- Halogen-free motherboards (halogens are typically used for flame retardants) have become increasingly common over the last three years.

- More companies are taking back computers for reuse or disposal, though often for a small fee; Hewlett-Packard deserves special mention for taking back other manufacturers' computers.

By Emru Townsend

Next month: What to do about all those batteries, inkjet and toner cartridges, CDs, and disks your computer has been consuming over the years.



DECEMBER PHOTO SPREE WINNER!

THE WINNER:

Congratulations go to Jean Liu of Kanata, whose photo of a tulip won the Still Life edition of our bi-monthly Photo Spree challenge.

Jean used an HP Photosmart 812 to capture the image and Adobe Photoshop 5.5 to add a border and tweak the colour. For this image, Jean wins a Lexmark P3150 All-In-One Photo Printer.

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THE RULES: You must use a digital camera to capture the subject. Work can be submitted via email (contest@hubcanada.com). Accompanying your photo should be the make and model of the camera you used, the names of any software you used to modify the image and, if possible, the f/stop and shutter speed you used to take the photo.

Submit your photographs, along with the information from the form below, by February 16, 2004. You can submit up to three photographs, all of which must be accompanied by a submission form. Entries must be submitted via email. Files should be no bigger than 500 KB and no smaller than 300 KB. One photo per email.

Contest Rules: Prizes must be claimed by April 15, 2004. Winners must provide valid identification upon claiming prize. The prizes awarded are not transferable and cannot be redeemed for cash. To enter and to be eligible to win, persons must be residents of Canada, and not employees or be domiciled with an employee of CCP Media, its affiliate companies, or advertising or promotional agencies. The winners will be selected by HUB on February 17, 2004 from among all eligible entries received on or before contest close date. Winners will be contacted by telephone or email. In the event that they cannot be contacted within the first week following the contest another entrant will be selected. All entries become the property of HUB and may be used in subsequent advertisements for the contest. All entries must be submitted by their artist and must be original work.

HUB's Photo Spree contest form. All submissions must contain this information. Send to contest@hubcanada.com

Deadline: February 16, 2004

Name:

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E-Mail:

Phone Number:

Age:

Occupation/School:

Title of Entry:

Camera Used:

Software Used:

30675827

Whether you're a one-man army or just another soldier in a platoon, the fight against fascism in Europe and the Pacific in World War II has helped shed some light for video gamers on a war that, in many ways, shaped the world we live in today. But now more than ever, the war has provided the perfect backdrop for plenty of action-packed games in the gaming industry. In tribute to the victory over fascist tyranny, here's a roundup of new titles based on that period in history.

Call of Duty

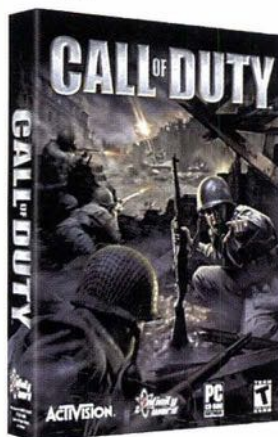
Activision, www.activision.com

Platform: PC

Online: Yes

Price: \$59.99

Call of Duty was the brainchild of former members of the development team 2015, which put together Medal of Honor: Allied Assault. And with the addition of a Russian perspective, the Eastern Front finally gets a chance to shine in an acclaimed World War II shooter.



Graphics: Being a PC-only game, Call of Duty has the advantage of utilizing the PC's processor power, which translates into one fine-looking game. Although its look isn't revolutionary, the portrayal of war-torn chaos at Stalingrad and the intensity of the D-Day parachute drops are sights worth seeing more than once.

Sound: Given the developers' credentials, it's hardly surprising that the sounds of war in Call of Duty are as authentic and gripping as any other war game on the market,

especially in action-packed sequences during the Pegasus Bridge and Stalingrad missions.

Replay value: It's rare that a game's single-player component can be overly addictive, but Call of Duty has so many memorable missions that you'll probably want to go through some of them again just to get another look. The load of great action online in the multiplayer component is also noteworthy.

Medal of Honor: Rising Sun

Electronic Arts, www.ea.com

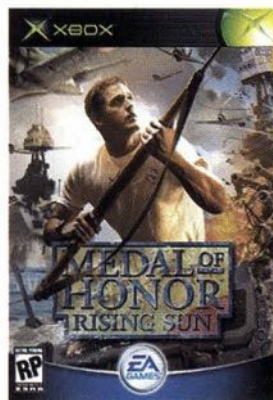
Online: PS2 only

Platform: PS2, Xbox, GameCube

Price: \$69.99

Switching its focus for the first time to the Pacific and the war against Imperial Japan, EA's Medal of Honor franchise takes you from the surprise Japanese attack at Pearl Harbor to the jungles of Guadalcanal and the streets of Singapore in Rising Sun.

Graphics: Rising Sun's graphics engine has become a shadow of its former self, even on the Xbox. Surprisingly, the once-impressive visual display a la 2002's Frontline has become a grainy patchwork of jungle leaves and dilapidated Asian cities in Rising Sun.



Sound: With Japanese troops screaming death at you and the sounds of jungle and naval warfare feeling oh so close to home, Rising Sun continues the franchise's strong reputation of delivering authentic and earth-shaking sounds of war. There's an eeriness to the sounds in some of the missions that sets Rising Sun apart, largely because it's based on a conflict that was fought in unusual terrain (for the American troops, at least).

Replay value: Although there are some great missions in the single-player element, PS2 users with a network adapter can rejoice and take solace in being the only ones to take part in online death matches. For those with the other two platforms, sadly, the only thing bringing them back would be the insanity at Pearl Harbor and the offline multiplayer.

Secret Weapons Over Normandy

LucasArts, www.lucasarts.com

Online: No

Platform: PS2, Xbox, and PC

Price: \$59.99 (PC), \$69.99 (PS2, Xbox)

While other battles took place on the ground, there were also major battles to be won in the air, and Secret Weapons Over Normandy takes you straight into the cockpit and right into the line of anti-aircraft fire to experience it all. But don't let the title fool

you: this game takes you to just about every major theatre of war and lets you master the many different fighter planes used in Western Europe and the Pacific.

Graphics: Although relatively crisp and altogether decent, the developers did sacrifice detail for speed, so you can expect the frame rate to drop once in a while when things get hot in the skies. That said, the aerial combat has a breathtaking feel that has just as much to do with looks as it does with style.

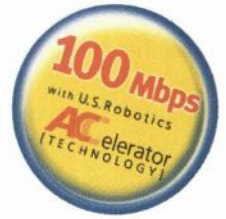


Sound: If you ask the people on the ground, whom you bomb relentlessly, they might say it's downright scary. No, but seriously, the sound of oncoming aerial fighters, bullets whizzing by, and whistling bombs are as authentic as any World War II aerial combat game to date.

Replay value: It's too bad that an online component wasn't part of the plan for Secret Weapons because it would've been a great feature. As it is, the replay value is relatively weak, but if you love fighting in the air, then you shouldn't have a hard time enjoying this one after your first run through the game.

By Ted Kritsonis

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Games for non-gamers

If it's fair to say that future growth of the video game industry relies on getting everyone — not just “gamers” — in on the action, then the three hardware/software bundles below may be ahead of their time.

While video game consoles have traditionally been relegated to the basement or a child's room, Sony's Eye Toy, Microsoft's Xbox Music Mixer, and Konami's Karaoke Revolution for PS2 could help elevate consoles to a place in the living room, as an accepted piece of home entertainment hardware.

Eye Toy

Sony for PS2 ■ www.eyetoy.com ■ \$59.99

Sony's Eye Toy scores for allowing just about everyone to get in on the gaming action — parents, grandparents, and young children — with relative ease.



Eye Toy is a simple Web cam-type camera that plugs into a PS2's USB port and allows players to interact directly with 12 included mini-games. After a simple setup process, players appear on screen to act as the in-game controller, doing away with control pads and other peripherals, simplifying gameplay, and making it accessible to non-gamers.

Bundled games include Wishy Washy, an amusing diversion that has gamers waving their arms to clean as many soapy windows as possible within a time limit;

Kung Foo, another timed game, that has players hitting small on-screen enemies before they can get a hit in; and Beat Freak, where players hit targets on screen in time to music. Others are in a similar vein.

More software will be required to maintain interest, but Sony has already announced follow up titles Play 2 and Groove.

Xbox Music Mixer

Microsoft for Xbox ■ www.xbox.com/musicmixer ■ \$59.99

Not so much a game as it is software to turn the Xbox into a picture viewer, music player and karaoke machine, Xbox Music Mixer is an interesting and pretty well realized application.

Music Mixer connects with a home PC using the Xbox's Ethernet



port to transfer music in WMA or MP3 format, JPEG pictures, as well as karaoke songs purchased from xboxkaraoke.com and stored on the Xbox's 8 GB hard drive. Using the included controller adapter and sturdy microphone, karaoke mode in

Music Mixer is similar to any other karaoke machine, but with only 15 songs included, downloadable tracks costing US\$1.99 for a “chart topper,” and no compatibility with existing CD+G karaoke discs, it's more expensive to keep alive. However, users can sing along with songs in their existing library, either stripped of their vocals in Music Mixer or with vocals intact, but with no words to follow on screen.

Setting up a connection with, and importing pictures and music from, the PC is simple. Once imported, users can create playlists, slideshows using various transitions set to music, and can even make rudimentary music videos. Perhaps the biggest benefit of the software is its potential to make the Xbox act as a bridge, getting music stored on the home PC to the living room stereo, if so hooked up.

Predictably, Music Mixer is only compatible with Windows XP and requires Media Player 9 (a free download).



Karaoke Revolution

Konami for PS2 ■ www.konami.com/karokerevolution

\$69.99 (with USB headset mic) \$49.99 (without)

Karaoke Revolution is an excellent example of a game that does things a little differently to capture the interest of a new group of potential gamers.

As the name suggests, players sing along with popular songs (35 included) in traditional karaoke style. However, singers are marked on their timing and accuracy in hitting the notes and are awarded points accordingly.



While the game can be set

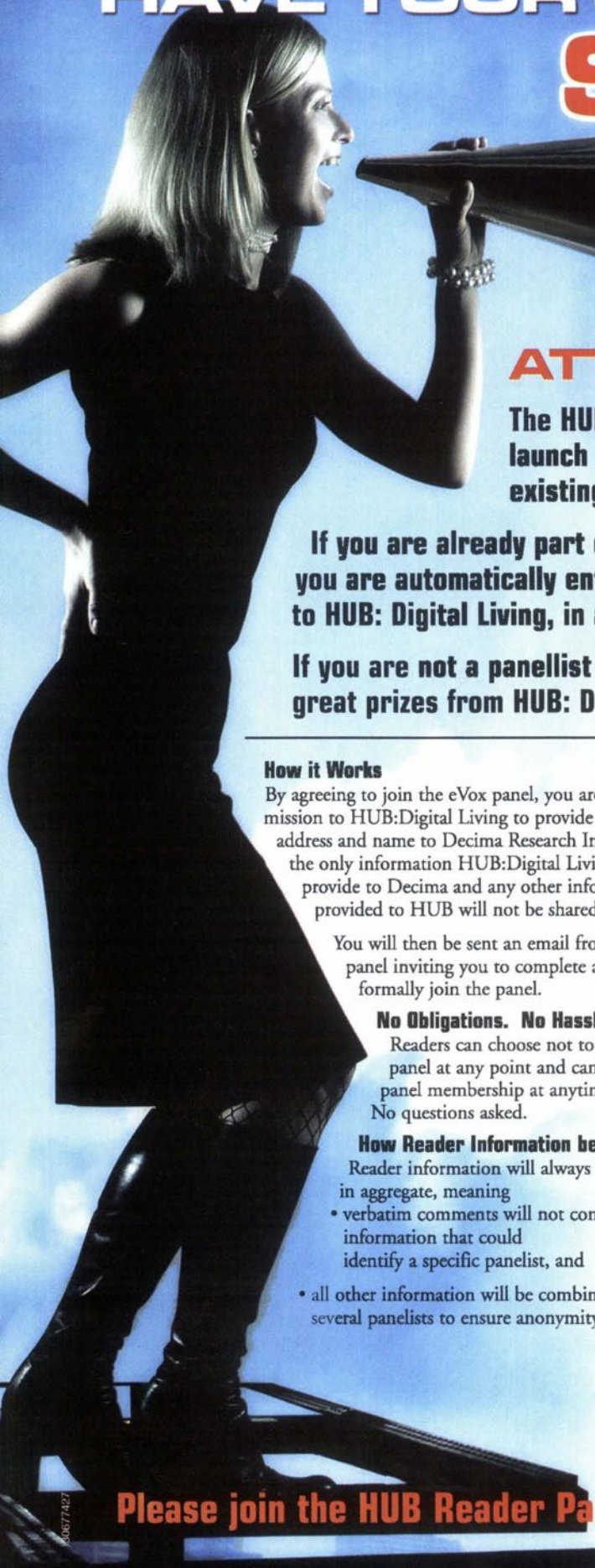
up to be very forgiving or very demanding of pitch and timing, it allows for little deviation, so those looking to break off into karaoke freestyle may be disappointed. Scoring points by mimicking the song being played gradually fills a meter. If at the end of a phrase the meter is full or close to,

gamers are afforded a score of “good,” “great,” or “excellent,” and a combo string starts, adding multipliers to points. Good scores unlock new arenas to perform in, new songs, characters, and costumes.

All songs are available in non-competition modes right from the start, though: titles like Billie Jean, originally recorded by Michael Jackson; Aretha Franklin's Chain of Fools; Norah Jones' Don't Know Why; and Avril Lavigne's Complicated. The 35 included songs will eventually get tired, but an option in the menu hints at expansion discs to come.

By Andrew Moore-Crispin

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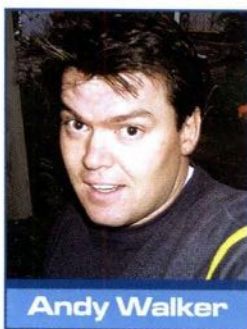
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Say cheese!



Andy Walker

There you are, bending over at the wave pool in your Speedo or bikini in the most unflattering pose possible and the next

thing you know – click – someone has published your picture on the Internet.

Chances are that someone snapped that picture with one of the new cam-phones, a mobile phone with a built-in digital camera.

Cam-phones are being made by all the major mobile handset makers these days. They integrate a tiny lens and digital camera chip into a phone in such a James Bond way that you can't tell if someone is looking up their accountant's phone number or framing you in their viewfinder.

Once the image is stored in the camera, it can be sent wirelessly across the cellular phone network to other phones or emailed to the world.

Perhaps you got a Thighmaster during the holidays and don't mind being photographed in your beach attire, but what happens if you're in the changing room at the gym with your skivvies on the floor and someone secretly pulls out their cam-phone?

It's a real problem. YMCA facilities in Australia have banned cam-phone use; so has the YMCA in Calgary and other fitness facilities. Many in the U.S. have followed suit.

Meanwhile Japan is way ahead of North America with 25 million camera phones on the streets. And mayhem has ensued. Japan's magazine publishers association has mailed out 34,000 posters to bookstores asking people not to take pictures of magazine articles with their cam-phones. There are also stories of men being arrested for snapping shots up women's skirts.

It's a problem that's not going to go away. According to the ARC Group, a technology research firm, there will be 130 million handsets with camera capability shipping worldwide by 2005, and when faster wireless data networks come on line in the next few years, that is expected to grow to 210 million by 2008.

With that growth, I'm sure we'll see similar news stories in Canada in 2004 as the devices catch on here. We may be a nation of nice people, but we

still have our contingent of perverts.

Picture quality on the devices is no better than a Web cam. You're looking at 640x480 pixels, which is enough for a large image (about 8x6 inches) on your computer display. That quality is not good enough to print out on paper, but nonetheless, a naked picture is a naked picture.

So what to do? Well, what did we do when porn started appearing on the Internet? Nothing much. Perhaps we became a little more desensitized to graphic imagery and worried about our children's exposure to the smut. Maybe we used technology to fight technology and bought software to filter the naughty stuff.

Mostly people will ignore the cam-phone deviants and adapt their modesty. Of course, there will be technology fixes too. Two U.K. companies, Sensaura and Iceberg Systems, have together developed a method of disabling the

camera component in mobile phones. A camera disabling technology is built into a cam-phone, which responds to a wireless signal sent by another device. Facilities like fitness centers could buy gear to activate the signal. The two companies say they are in talks with cellular phone manufacturers to get their solution into handsets.

However, the news about cam-phones isn't all bad.

The majority of cam-phone owners are photographing their families, posing their pets, and using the devices to show the Home Depot guy what connector they need on the dishwasher.

The cameras have been used to nab criminals too.

Last August, a 15-year-old New Jersey boy was accosted by a man in a car, so the teen snapped pictures of him and his car's license plate with his camera phone and then escaped, found his older brother and together they delivered the pictures to the police. Later, an arrest was made in connection with the crime.

Soon though, it won't just be stills. Coming to cellular phones in 2005, and maybe before, will be movie camera capability on mobile handsets.

Sure enough that too will be used for good, and for bad. The question remains: Will you film your visit to the Paris Hilton? Or become her?

Andy Walker is a Canadian journalist based in California.



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