

# PANORAMA

OF AMATEUR FILM & VIDEO

SUR LE FILM ET VIDEO



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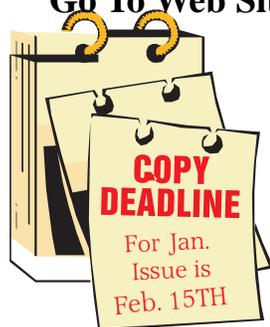
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Photo by Joseph Bochsler Jr.

### Fred Briggs, FSCCA

Anybody reading the November Issue some months from now might assume that it was published in November, but *you* are well aware that, as usual, I'm way behind. Right now I'm struggling to get this finished and into your hands before the end of January. There's no use in telling you how busy I've been since November, when the September Issue was delivered. Rather, I just have to redouble my efforts to get the January Issue out by the end of February!

Of course, I always try! But in addition to the periodic interruptions like Christmas, New Year's, winter storms and snow shovelling, something new has come up this time.

Recently I began to realize that, unlike my former youthful optimism, I was as susceptible to the ravages of time as anyone else, and I was beginning to be aware of my age. At 73 I began to really understand the inevitable truth: I can't go on forever, and I'm not talking about retiring. Oh, my health is fine, and inside I still feel like I'm sixteen, but a stroke, heart attack, or even an automobile accident, wouldn't just cripple *me*, but the SCCA too, as things stand now.

While I'm not complaining, too many things depend on me for their continuance. All the financial books are in my computer, and Carolyn would have no idea how to get them out. Carolyn can sign cheques, but if somebody suddenly had to take over as Treasurer, they would be severely handicapped when it came time to file the Annual Charity Report to Revenue Canada. I have a great number of files and records on my computer, backed up on another hard drive on the same computer. There are

paper records of many things, of course, but they're spread around among other things in seven filing cabinet drawers. I have all the Music Library and SFX Library on another computer, and the CD's are stored safely, but who know how or where to find them? The same thing goes for all the back issues of PANORAMA: I have boxes of old issues, and those I have published myself are in a computer. The old films and videos from the CIAFF are stored off site, as are the old Trophies that we used to award for a year and then retrieve to add new names. I also have many of the past SCCA Annual Contest winning videos (in the hopes of some day having a way to distribute them (with permission, of course) to our Member Clubs.

I maintain our four web sites, and look after renewing the fees for the web hosting, domain names, etc. If I should go down, whoever took over would be unable to access any of the sites for maintenance without the passwords, and would not receive email messages from the companies that manage the domain names. Again, I'm not complaining about the work: I just feel that we have to begin to find, and train, people who can take over these functions in the event of my incapacitation.

In recent years, Stella Magic, Sandy Whitehouse, Joan and Joe Bochsler, and now Thom Speechley, have retired from the SCCA Board, and no one has come forward to take their places. I have approached four members of the SCCA about coming onto the Board, and they have each agreed. Rick Doelle lives in Stoney Creek, Paul Bentley lives in Hamilton, John Cook lives in Tottenham, and Joan Jacquemain lives in Brantford, and all are members of the Hamilton Video/Film Makers, which means they can all attend Executive Meetings in Stoney Creek, and the SCCA Board has appointed them all to the Board. We have not yet assigned duties to them, but Joan Jacquemain has agreed to be Secretary, and Rick Doelle, who lives the nearest to me (and our banks), has agreed to become a signing officer for our two bank accounts.

The new Board has begun an examination of the various questions we face, and consideration of solutions. We will begin with the purchase of two 1-terabyte external hard drives and I'll copy all our computerized files onto both of them so that the backups can be stored in two different places. Then, of course, we'll have to keep them up-to-date! Finding solutions to all

the challenges will take some time, but we have recognized the need and begun the process!

### PANORAMA

But again, I must ask for help filling the pages of PANORAMA. We need more articles to publish, and you don't have to live near here to participate in this way! Of course, I'd love someone who can fill four or five pages every issue, but if you can only fill a couple of pages a year, that's a help. How about it?

### SCCA Annual Competition

The Executive has chosen the Assigned Theme for the Intercities (Class "E") for 2011: "**The Way It Should Have Been**". Keith Gloster is preparing an overhaul of some of our Rules and the Entry Forms, which will be circulated to the Board for approval by email, and then distributed to our membership either in the pages of the next PANORAMA or by email, and posted on the [sccaonline.ca](http://sccaonline.ca) and [s-c-c-a.ca](http://s-c-c-a.ca) web sites. A major change will be a requirement that Entries for the "Garlick Trophy" or "Club Competition" (Class "D") must be produced by a group of at least three people, instead of the Club simply submitting the best video produced in their club by an individual. It's not too early to get your club members working on possible submissions, but if you're not in a club, you can now get a few friends to join you in a crew, and qualify!

### Membership

We also want to distribute, by email, an updated list of "Members In Good Standing" with their phone numbers and email addresses (we no longer publish their home addresses – if you need that you can contact them and ask for it!) Note that we don't publish the names of "Members in Arrears". However, at this time we only have 42 Members and Member Clubs in Good Standing, while there are still 23 Members or Member Clubs in Arrears (not counting those who were dropped off the Membership List in June for nonpayment)! This will be the last PANORAMA that will be emailed to you if you are in Arrears, and you will know that includes you from the email by which this PANORAMA is delivered.

By the way, I have sent you the email for this issue because Jim Town, our Membership Chairman, has had a computer disaster! ■

# CLUB NEWS

By Thom Speechley FSCCA



## BUFFALO VIDEO-MOVIE MAKERS

The November meeting featured entries in the "Shorty Contest". They were: "Beautiful Day in My Neighborhood" by DAN COPELAND, "Cans" by LARRY BROOKS, "Dog Man" by JASON PFAFF and "Lumina" by THOMAS BAUM.

The two top entries were shown. (I don't have a record of which ones they were.) Guest speaker Jon Soyka discussed the importance of "B-Roll" footage. Terry Kimmel showed three short clips under the collective title of "People are Awesome". The purpose was to highlight the amazing physical abilities of popular performers such as Buster Keaton. John Weiksna showed a clip demonstrating the process used by three designers to duplicate the action during the WWII Omaha Beach landings. [The complete series can be seen here.](#)

Terry Kimmel also announced that he would be looking for an interim Program Chairperson to replace him because of overwhelming personal obligations.

Featured speaker at the December meeting was Carl Mrozek, a Buffalo based director at Eagle Eye Media HD and international writer/reviewer for TV TECHNOLOGY magazine. Carl showed examples of some of his nature video productions. Jon Soyka offered a pair of challenges to members, which he intended as a preparation for the Annual Club competition, to held in March. For the January meeting, he is asking participants to show a ten (10) second production consisting of no less than three different shots! For the February meeting, he wants to see entries of up to seven minutes but shot entirely in one room. The January meeting was also used as a forum to develop more projects for the coming year. These announcements were distributed in the newly revived club newsletter "Camerama", prepared by John Weiksna as interim editor.

## HAMILTON VIDEO/FILM MAKERS

Reel News, editor Dave Stewart

The main activity of the October meeting was a live demonstration by Jon Soyka of the use of a computer and Avid "Liquid" software to edit footage provided by Dan Copeland. Jon explained why he uses a particular sequence of operations that may not follow the procedure of other editors. He also pointed out that the method he prefers is most appropriate for the subject of the video under construction. In this case, it was a series of interviews of participants at a local "Postcard" club exhibition. Included with the demonstration was an explanation of the need for and value of "B" roll footage, particularly when the production is primarily of interviews. Viewing the completed nine-minute production wrapped up the evening.

A unique 'show-and-tell' evening was featured at the November meeting. Several members showed and demonstrated their favourite hardware 'gimmicks', many developed after years of frustration and trying. Fred Briggs showed a portable clamping device for quickly mounting a camera on any handy, rigid structure. He also showed a small umbrella, which attaches to the camera's shoe mount to protect from light rain. Harold Cosgrove demonstrated an eyepiece made from an old slide viewer to provide shade while using a camera's LCD viewfinder in bright sunlight. Several other quite creative bits of hardware were also shown. Videos shown that night included "Moving Postcards" by Alex Szatmary. Shots taken in Budapest were used to which Alex applied a special effects program to create a 'post card' look for modern video images. "The Magnificent Manual", a Super Dave Osborne spoof by Jim Small and Ekhard Kries, and a short feature by George Gerula were also shown.

The December meeting was a combined Visitor's Night and annual Christmas Celebration. A special welcome was given returning members Joan and Joe Bochsler. The couple has relocated to Hamilton and hope to resume more regular attendance at meetings.

Jon Soyka hosted the evening which featured five members' videos and a 'teaser' from this year's CIAFF entries which will be the feature of the January meeting. Paul Bentley showed two short videos about local subjects which were used as part of the recent mayoralty campaign of a local candidate. Joan Jaquemain then showed an entertaining story of the removal of a family of raccoons during demolition of part of downtown Brantford's main street. Alex Szatmary showed an updated version of



his animated feature, "Busy Bee". He is using a more advanced animation program and the results are quite impressive. Dan Copeland showed a three-minute feature, "A Day In Our Neighbourhood", it was taken along the Hamilton waterfront from a moving vehicle. The action was speeded up in editing to move the story along. The CIAFF entry shown was "The Blind Cross", from Switzerland.

A very ample offering of seasonal treats was enjoyed to complete the evening.

### [INSTITUTE OF AMATEUR CINEMATOGRAPHERS \(IAC\)](#)

*Film and Videomaker editor, Garth Hope*

The 2010 edition of the UNICA film and video contest (UNION INTERNATIONALE DU CINÉMA) was held in Switzerland in August. The December issue of Film and Video Maker includes a report on the event. UNICA is probably the largest international organization dedicated to the making of non-commercial films and video. Visit their [web site](#) for a look at this extremely influential group. New IAC Chairman, Ron Prosser, also talks about UNICA in his debut column in the magazine.

Many IAC affiliated cubs now have web sites and Peter Kidman and Dave Watterson offer a two page article outlining features they feel are most useful on a web page. The article lists vital information which must appear on the sites home page. The list includes the obvious: meeting place, time, location, membership cost and coming events. Somewhat less obvious might be competition details and reports on previous meetings. It was pointed out that at one site, fewer than 30% of first time visitors explore beyond the first (home) page.

In this issue, Tom Hardwicke starts a two-part review of the new Sony HXR-NX5 professional camcorder. This is Sony's first flash memory camera at this price level. (\$4000+ CDN) Tom compares it with the Sony Z1, miniDV tape camera, with which he has done most of his professional work. Some of the better features of the NX5 are "Super Steadycam" and slow motion at 200FPS! But in this preliminary review, he has some issues with the 'ergonomics' of the newer camera and the poor brightness of the hi-def viewfinder screen. However, he does emphasize the definite advantages of solid state recording, and applauds Sony for not limiting the type of card to Sony's pricey proprietary "Memory Sticks".

In a similar article in this issue, Colin Lamb starts a two-part series discussing the pros and cons of shooting video with a DSLR. The more obvious benefits are lens interchangeability, DOF control, large sensor and low-light capability. Disadvantages include poor audio without an external Mic, size and weight, short battery life and relative high cost of flash memory compared with tape or camera HDD. Another less obvious handicap is the fact that when shooting video, the eye-level viewfinder is disabled because the internal mirror has to be raised to expose the image sensor while shooting. He insists on adding a shade (loupe) to get best use of the LCD finder. That also adds bulk to the physical size of the camera. Another remark he makes is with regard to the time limit for a single video shot with a DSLR. Colin claims that being able to fill an entire card with a single shot would place the camera in the same taxation bracket as a camcorder! That's an interesting angle and may very well be true in UK, but references on the web blame the short shot time on either: a) the image sensor overheats and must be shut down. (Time dependent on resolution and compression factors) or b) flash memory cards are formatted to FAT32 and subject to the 4GB-file size limitation. I will be interested to see if Colin offers any further clarification on this point in the second part of his otherwise very helpful article. You can see what Colin has done with his Canon D7 at [Vimeo](#).

### [LONDON VIDEOGRAPHY CLUB](#)

From the website

A live demonstration of chroma key was offered at the November meeting. Bob Plumsteel and Kim Brown set up a green screen and used Premiere Pro to create the effect. Alan Parr showed his video production of an earlier trip to Arizona.



**Kim Brown and Bob Plumsteel set up to demonstrate chroma key using Premiere Pro.** *photo – Bill Dow*

The December annual Christmas celebration included a showing of the October Bag Shoot. Part one was a skit of a frenetic attempt to resuscitate a heart attack victim. Part two featured a divorce bound couple fighting over a dog. Kim Brown showed a unique hi-def video of his 2010 visit to Hawaii, which featured famous Hollywood filming locations and included short clips from the theatrical films involved. Paul Herbert showed a "ProShow" slide show of his recent trip to Thailand. At the January meeting Thom Speechley discussed "intellectual property" issues and explained how to avoid problems by downloading royalty and copyright free music, video and sound effects. He took the opportunity to also explain that SCCA membership includes access to a large library of permissible materials. Using a laptop and Internet connection, he then demonstrated the use of several free software programs to catalogue and to annotate lists of images stored on disk. Jim and Linda Bristow showed a slide presentation of the memorials to the WWII Pearl Harbour Attack and new member Mary Alexander showed her first video attempt, a recent visit to Newfoundland. She asked for helpful criticism and while other members made some suggestions, they complimented her on doing a surprisingly good job as a first time camcorder user.

### [SACRAMENTO AMATEUR MOVIE MAKERS](#)

From the club's website

The Sacramento club was unable to meet during the months of November and December. Their scheduled January meeting should provide an opportunity to review unfinished projects from 2010. The club's feature production, "The Midas Sack of Flour" is at the top of the agenda.

### [VIEWFINDERS DIGITAL VIDEO CLUB OF CUPERTINO CA.](#)

"Newsletter" editor Brian Lucas

The November issue of the newsletter lists and describes the nine entries in this year's club video contest. The videos were shown and judged at the October meeting. Entry subjects range from local salmon fishing to a special visit to the palace of Catherine the Great in St. Petersburg. Winners were honoured

at the November club meeting. This issue also devotes a page to the CIAFF contest which the “Viewfinders” entered for the first time this year. One of their entries received an award of merit in the Class D best club entry. Frank Swanson contributed a very thorough article on the subject of chroma key. The most interesting tips were to use the ‘zebra stripe’ feature (found on many camcorders) to judge the uniformity of illumination of the ‘chroma’ background and, carefully positioning the subject to avoid “spill”, the reflection of the green/blue screen on the subject’s head or body.

The January issue reports on the November meeting during which winners in the annual contest were recognized and awarded their trophies. First place went to Virginia Misoff for her African safari feature “What You Can See in Tanzania”. There was a tie for second place between Bernie Wood for “The Puffin”, shot in Newfoundland and “River of Ice”, an aerial view of Alaska glaciers by Milt Kostner. Jim Ciarico was awarded third place for his western cattle ranch study, “Branding”. In this issue, editor Brian Lucas explains the differences in filter performance between film and digital based photography. He points out that traditional UV and “skylight” filters might help protect your camera lens but have no photographic effect with digital because the new technology is virtually insensitive to UV wavelengths. He also cautions about vignetting at wide-angle settings when ‘stacking’ a number of filters at one time. An article by Frank Swanson illustrates effective ways to create a short video using the technique known as the “montage”. There are several definitions for this process but it always consists of a series of quick shots, stills or moving action, which compresses the action and advances the story. The sequence is usually accompanied by appropriately paced music. (Training sequence in “Rocky”). Frank’s article emphasizes the importance of timing, in order to keep the video moving.

In a related article, Milt Kostner reviews a book which mentions this technique, *The Invisible Cut (How Editors Make Magic)* by Bobbie O’Steen. The author uses examples from nine successful Hollywood productions to demonstrate the key elements of good editing.

### WINNIPEG AMATEUR MOVIE MAKERS

“Bulletin” editors, Wallace and Jeanette Robertson

The November issue of the “Bulletin” now lists the club’s new web site which we printed here in the last Panorama. Since then, the site has been relocated (see above link). This change also reflects the club reverting to it’s original name.

They have added some interesting links to club photos and online videos. So change your bookmark. At the October meeting, webmaster Debbie Clark ‘walked’ members through the site using a laptop and projector. The presentation was very helpful, according to editor Wallace Robertson. Four members’ films were shown that night. “Anthrocan’ by James Robertson, a convention of people costumed as familiar “anthropomorphized” characters from literature and the movies. “Rockin’ Rickie Rocket” by Randy Clark, a performance of a percussion group at a festival in Banff. “The Cretaceous, a Most Dangerous Sea” by Bill Preston, Herpetologist. This involved a trip to the Canadian Fossil Discovery Centre in Morden, Manitoba. “18 Wheels 2 Inches” by Coralee Robertson is a record of her trip with her father, a heavy equipment haulage driver.

The decision to revert to the club’s original name was voted on and passed during the business session of the November meeting. Four films shown that night were: “Sea Life”, an underwater excursion by Bill Preston, “A Day In The Life”, examining the daily

activities of a household cat, also by Bill Preston, “Devil’s Acre”, by Adrian Robertson, showing the elaborate and spooky Halloween decorations around his home and “Las Vegas” a commercial video of the many attractions in that city.



The club’s annual dinner in December also served as a celebration of the club’s seventy-fifth year of operation. Congratulations. This must come as a shock to members of clubs trying to hang together after only fifteen or twenty years. The “Bulletin” included five pages of photos taken at the event. The affair was very well attended and also raised a generous contribution to a local charity.

The club’s name change was discussed and members are invited to submit a new logo to highlight the change. Other activities at the December meeting included the filming of “quickie” commercials. Jeanette Robertson demonstrated the huge benefits of clamping devices for the ironing board, including other humorous suggestions for their use. Thelma



Ross’ presentation was somewhat more serious and demonstrated the proper way to sort recyclables for greatest effect.

# GET THE SHOT & CGI & 3D

BY FRED BRIGGS

There was considerable delay in the writing of this article because I couldn't come up with a subject, or theme, for either *Get The Shot*, *CGI*, or 3D was big enough to fill an article. Try as I might, I was dry, but I did think of several small pieces that I could use if only I could find a way to tie them together somehow. Finally, I realized that would be easier if I just put them all into one article, because some of the information applies to both *Get The Shot* and *CGI*. There may be some abrupt changes in topic or direction but I promise it isn't a rant – just a rave! And if something isn't interesting, just read on, because the subject will change soon enough.

By now, everyone who reads my articles in PANORAMA regularly is well aware that I've been working for a long time (eleven years so far) on a [video history](#) of my birthplace.

One reason it has taken me so long is the necessary research. Several people have told me "You'll never finish it. You should write a book. You'd be done by now. The way you're going no one will ever see it!" Well, both a history book and a history video require research, but a video requires more complete details. It's easy to skip over the things you don't know when you're writing a book. I know that because I can't find all the details I need in history books – I have to go back to older sources, original documents, newspaper reports of the day, and personal letters and diaries. Besides that, a general audience wouldn't be interested in all the details I plan to include, like the people who have lived in the place will be, and that's the audience for whom I'm making it!

Furthermore, when you're shooting video, you come up with questions for which you *must* have an answer. As an example, the history books say the Americans came ashore at the King's Head Inn in 1813 and burned the Inn and the outbuildings. My research has revealed that there was a barn, and a stable. I can show an American soldier putting a light to the Inn, the barn, and the stable, but what about the horses in the stable? Would they drive them out first, so the British could round them up the next day, or shoot them first, or burn them alive?

Many people would take issue with the latter, especially the Americans who have helped me as re-enactors and will be interested in seeing at least their part in the production. To find a reasonable answer I had to research in detail the behaviour of American troops on British soil throughout the War of 1812!

Beyond the research, there is the question of visuals. There are, in general, two types of history books – the serious histories that are mostly words with a few pictures either scattered through the book or gathered together in one place, as a superfluous bonus, and the Pictorial, or Coffee Table Book, that is full of pictures, usually one per page, with a little snippet of history below the picture as a caption, or on the facing page. In neither case is there any effort to tell the history *by* pictures – just *with* picture at the most.

But videos are all about pictures of one kind or another, from one end to the other.

One solution to the problem of finding pictures is to use live video showing a talking head, but even that needs pictures to cover the edits. And now we are into the various ways to get and use those pictures.

In short (too late!), I chose to make a video instead of writing a book because I like video (or film). I write *these* articles to inspire *you* to make videos, and to bring to your attention some of the tricks, sources, and software that I've found for this purpose.

Back in the days of Super 8 my passion was fiction films, drama and comedy. Once I was well into video, I mostly made event videos – dance recitals, sports, amateur dramatic stage productions, etc., and, of course, the everlasting weddings! But somewhere along the way I was drawn to documentaries. An early example of an excellent documentary series was the 1969 BBC production, [Civilization: A Personal View by Kenneth Clark](#) based on his book about Art in Western Civilization down through the ages. But the one that really excited me was the 1972 BBC-Time-Life Films production [The Ascent of Man](#), written and narrated by Jacob Bronowski. There were a great number of things done extremely well in that series, but the thing I remember most was the remarkable transitions that moved

Bronowski through a series of fantastic locations! One moment he would be strolling along the seashore, telling his story to the camera, and he would bend down and pick up a shell, and as he stood up he was now standing on a lava field, still holding the prop, and still talking right through the cut! Brilliant! "Editing"? I call it "Planning", and I've adopted the practice.

I watched it repeatedly through rerun after rerun, but finally, it was gone. And I had developed a passion to study good documentaries to see how they did things, and how I could do them, too.

Recently I found Bronowski's series as a set of DVD's in the Hamilton Public Library, and made a copy for my own study. If your library doesn't have it, you can get it from Amazon.ca for \$340, or Amazon.com for \$90 (but they only have 3 Sets at that price when I last looked!) so check your local library first!

Back to the War of 1812/King's Head Inn: Carolyn and I took a holiday to Nova Scotia with our friends, Eckhard and Christa Kries, in their mobile home. On the way home we went through the New England States, and I noticed several Georgian houses that had been built in the early 19<sup>th</sup> Century. Back home, I searched the internet for Historical Societies along the New England coast and contacted many of them to inquire about houses that might look like the King's Head Inn. The following year Carolyn and I took a vacation driving to Boston and from there to Bar Harbor, Maine, photographing every building that had some features that matched those in the drawings made by Lt. Governor Simcoe's wife. None were just right, and I thought I would have to "build" the King's Head Inn by "cutting and pasting" bits of various photographs in Photoshop.

Speaking to an 1812 Re-enactor about this problem, he told me that there would be a "Grand Tactical" (the big Annual 1812 Reenactment alternating each year between Canada and the US) the coming summer, with a large contingent of both American and British Re-enactors for the weekend, and there was a building there he thought would suit my purposes. I found it on the internet, and the building was as close to

perfect as I could hope to find. Carolyn and I drove the 180 km to [Genesee Country Village](#) south of Rochester to inspect the site and [building](#) and make arrangements for permission to shoot there.

When the time came, Eckhard Kries, Jim Small, and I drove down there in Eckhard's mobile home, and spent three days getting all kinds of shots on video and stills, with great cooperation from the Re-enactors, especially the Americans who don't usually come up here in great numbers. We even shot a sequence in which an American Infantryman entered a kitchen, picked up a black cast iron pot on the hearth and a burning brand from the fire, put it into the pot and carried it out the door and down a stairway to the ground level and crossed the ground in the "spinning room" to the spot where we had piled up a lot of dry flax, and he knelt there with his back to us and went through the motions of lighting the flax with the smoking brand, though keeping it well away from it, of course.

There were other scenes we shot of soldiers setting the buildings alight, and I intended to add flames to the buildings with [particleIllusion](#) while the soldiers marched away.

It wasn't till we were home that I realized that I didn't have a shot of the heaped up flax to add the flames to, and I couldn't think of any other way to do it, so later, Carolyn and I returned to Genesee Country Village, moved back the furniture in the flax room (with permission) to the positions it had occupied the year earlier, piled up the flax again, and *Got The Shot*, a still picture that I could "set fire to" when the time came.

So much for the inspiration. Now I'll turn to information that might actually help you solve some of your problems.

I was talking with someone a few days ago about the experiment some are trying -- bringing still photographers into their club as members and letting them show their slide shows on video. Some of the new members haven't wanted to watch videos! Anyway, the fellow I was talking to was adamant that "there shouldn't be any stills in a video!" That made me think again about all the ways to add motion to your stills, particularly zooming on a still and panning across it, about which I've written in *Make The Shot*.

Suddenly I realized that up till now I had missed one idea that would really help to turn it into a video. You may be using the still to "paper over" an edit of your onscreen narrator's delivery, or the still might be

used with music, an off-screen narrator, or both, but it would pass for video a lot easier if you used sound effects appropriate to the shot. Do you remember the description of panning across a photo of a motor boat, and even the waves appeared to be moving? Where's the sound of the motorboat? Or you could be panning along a shoreline photo taken from a boat. Why not add the sound of the boat from which you are apparently shooting, and the waves splashing on the shoreline and the side of the boat, and maybe even sea gulls overhead? Many things can be animated this way, but only a few things normally move noiselessly. Sometimes my stupidity amazes me!

I've watched an awful lot of amateur films and videos over the years (and a lot *were* awful, too) but many of the most memorable images that still stand out were reflections. Describing this shot isn't easy, but I clearly remember a shot of the reflection on the moving water of a brightly painted boat. The boat itself wasn't even shown, but the film maker was being very artsy. If you don't have the nerve to be artsy, you might feel more comfortable showing first the reflection and then slowly tilting up to reveal the boat itself.

In a documentary on architecture I saw recently on television, the cameraman showed a very modern building with a façade that was one big mirror, and at an angle to the camera. There was an expanse of concrete on the ground (i.e. no narrow sidewalk) that reflected in the mirror and seemed to go on forever -- in fact, you didn't really see any building! A man appeared in the distance on the left, walking closer to the camera, and then he suddenly entered the frame from the opposite direction at the right frame edge, and continued until he suddenly disappeared into thin air. Actually he had stepped into a recess in front of the door, which was invisible to the camera!

You can understand what I'm pitifully trying to describe if you remember seeing the trick where someone stands half hidden around the corner of a mirrored wall and raises the only arm and the only leg that the camera can see. This is especially effective if he starts from



a squat and then bounds up as he raises the visible limbs, and then holds the position for a minute before lowering his limbs again, giving the illusion of hanging suspended in the air for a moment.

Keep your eyes open to reflections and illusions like this that can really grab the audience's attention.

I once wrote about morphing from one portrait to another, but I recently saw an improvement on this trick in a documentary I was watching. The camera zoomed slowly into the eyes of the person and then dissolved into the eyes of the second person before slowly pulling back again. The hard part of this is getting the eyes in the two portraits perfectly aligned before you start the sequence.

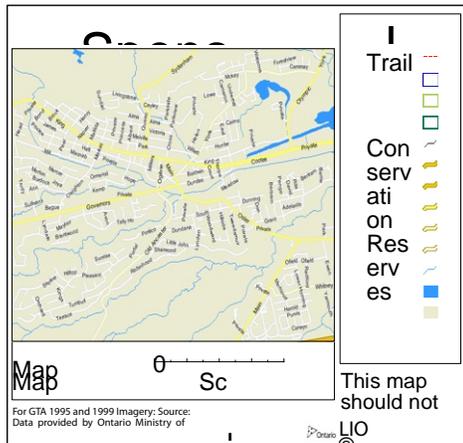
As I've already said, I watch a lot of documentaries, mostly for the subject matter, but also for the tricks that I can learn. Just as important are the things I see which make me say to myself "There's another thing I never want to do!" Just today I saw one in which there were a lot of pictures of planets and their satellites taken from man-made satellites, and each cut was emphasized by adding a glitch, distortion, visual breakup or noise, rolling scan lines, etc., all different. Boy, did that suck! If you have any doubt, straight cuts are usually best!



Do you ever need a map in a documentary? I'll need several, but this is a history video and I can't use the free mapping programs supplied by Google (go to Google Maps and click on *My Maps*) because they're full of modern roads and streets and Tim Horton's. I expected to solve that problem by scanning a current, copyrighted map and using it just as a guide as I selectively draw over it in Photoshop (or any other program that uses layers), and then dropping out the base and just using the layers I had drawn. I will still probably use that for some of them, but I've found another way, good for anyone living in Ontario.

I was Googling for Mapping Software when I found the Land Information Ontario

Map Program, free from the Ontario Government! This program is internet based and lets me make accurate maps showing just what I want to show, and I can even make one without the elevation lines and another with them, and dissolve from one to the other in my video. I don't know if something similar is available in the other provinces, but most of us are in Ontario, and it didn't seem worthwhile to do the research for all the other provinces, but if that's you, and you're interested, give it a try.



One of the things for which I need a map is the visit to the Lake Ontario Head-of-the-Lake by René-Robert Cavelier, Sieur de La Salle and Francois Dollier de Casson in 1669. The log written by his map maker, René de Brehant de Galinée tells us that the party visited a Seneca Village on the south shore of Lake Ontario, canoed past the Niagara River, and crossed the isthmus of land into what is now Hamilton Harbour just west of the Lake. They then portaged south to the Grand River to reach Lake Erie. It has long been thought that they landed on the north shore of the present Hamilton Harbour, at a point now known as LaSalle Park. However, recent investigations suggest that they most likely continued across that water to Dundas, and took a very different route to the Grand River. I've taped an interview in the field with a leading authority on the old Indian Trails in this area, and we have visited several points on possible trails.

I had been planning for a long time to illustrate this episode in my video. A decade ago I obtained unused footage shot by the CBC of a reenactment of a similar historic journey, but everyone in the canoes is a "Jesuit missionary", and the locale (the French River) is much rockier and rougher than the Head-of-the-Lake on Lake Ontario, so I had decided to use a mixture of that footage and my own animations, and I acquired Vue, in part because of the great "flyover" shots of which it's capable, in

addition to its apparent superior handling of water which I'll need to illustrate the "Burlington Races", an 1813 sea battle between the American and British fleets on Lake Ontario in a heavy gale!

But now I realized that the steepness of the elevation of the various possible routes La Salle may have taken was critical, and very few people would be able to follow "the lay of the land" by looking at topographic maps with curvy brown lines displaying the elevations in a video.

Fortunately, discussions with a new friend I had made in the world of animation (he designed the British and American 1812 uniforms I'll be using to augment the reenactment footage I've been shooting for years) revealed that his career had originally been as a mapmaker! He told me that all of the geographic data for the USA was available for free, and Vue was capable of importing this data and converting it into a terrain model. The data was called Digital Elevation Model Elevation Data, and is known as DEM for short, and the computer files each have a .dem suffix!

Eureka! I was able to find the data for the area which interests me and downloaded it from a web site operated by the [Canadian Council on Geomatics](#). All you have to do is visit the site, register, and then download for free!



I had already downloaded Vue Pioneer 9 for free, and then upgraded it to Vue Frontier 9 (for \$49 on Special). The advertising (list of features) indicated that Vue could import DEM data, but the instructions stated that you had to use a 3D IMPORT Module that was part of Vue 9 Esprit (\$199), Vue 9 Studio (\$399) and Vue 9 Complete (\$599)! The 3D Import Module could be added to Vue 9 Pioneer or Vue 9 Frontier for \$129. (See May 2010 PANORAMA pages 13 & 14)

However, I found a way to Import a Picture as Terrain Data, and it worked with DEM files! I won't detail it here, because this whole section is meant to inform you of some possibilities. I'm most likely the only one

with both the need and the program, but if you are interested in doing this, contact me and I'll explain further.

Anyway, now I have a way of [creating a terrain with accurate representation of the lay of the land](#), on which I can indicate trails, and to and over which I can fly my camera!

We've all heard "Necessity is the mother of invention." I'd like to add "Problems are the source of solutions." I've never run out on the street naked (well, maybe, when I was very young), but I have run out on the street! There's nothing as satisfying as finally solving a problem, unless it's solving a mystery!

For many years I've asked everyone my age and older, who lived on "the Beach" about an incident I remember witnessing in part in which some bank robbers were chased by the police down the Queen Elizabeth Highway and across the "Beach Strip", (formally known as Burlington Beach to the Province of Ontario, and as Hamilton Beach to the Federal Government and to Hamilton, who had continually tried to annex us since at least as early as 1874, and probably longer – whoops, that's a rant!) and ending up in a spectacular crash of the escapees' car into a delivery truck. I tried to no avail to get a lead on the approximate year, so I could search the pages of the Hamilton Spectator on the microfilms stored in the Hamilton Public Library. I thought it could be as early as 1944, or as late as 1952, and I Googled every keyword I could think of, several times. I kept finding one irrelevant reference in a Federal Government Document, but nothing closer than that. I could spend the rest of my life perusing the pages of "The Spec" and never find it, without some kind of a date!

I was looking for something else in the Burlington Public Library and asked a member of the staff for help as I didn't know where to find their index. She conducted a search on a computer, and I saw a vast array of sources never available to me before. Asking about them, I learned that I could access these sources at my home computer, but only if I had a Burlington Library Card.

I finally got one, by a means that will remain secret to protect the innocent and the guilty (that would be me!).

It took awhile to figure out how to access these sources, and then I spent many long hours on the internet searching (by keyword) the pages of The Star and The Globe newspapers, both from Toronto. The

Hamilton Spectator wasn't among the collection of sources, but I figured the story was big enough to make the pages of the big Toronto papers. I used all kinds of keywords, together and in various combinations, over a period between 1942 and '52, without any hits. Then starting all over again (because I didn't know what I had missed), I began the search in 1941. BIN-GO! I had it in no time. I found it in the Star. Then, knowing the date, I found it easily in The Globe. Driving up to Hamilton, I found it in the Spectator on microfilm. Each paper agreed on the main points (a rarity), but each of them supplying details missed by the other two.

And what a story it was! I won't relate it all here, but there are a great number of twists and turns, reversals and advances in another direction. Even aside from the fact that I was only four years and four months old (and the Queen Elizabeth Way was only two years old) when it all happened, this is another one of those great stories I keep finding for this epic video!

There are about six to eight pictures that appeared in the three newspapers. The copies I have from the internet and the microfilm are unusable, and I'll try to get the originals from the newspapers' picture archives, but even if I'm successful, I'll need a lot more than that to illustrate the story. What will I put on the screen?

Well, I could find a cute little blond four-year old to tell the story. No, I've seen my pictures when I was that age, and I'll never find a kid that cute! 3D animation? I have more on my plate than I can chew now, and this one would really be tough because there are so many characters involved. Maybe I could find a 3D model of the old Packard Sedan the crooks stole the night before for the crime, but the two-year old QEW would really be a problem, as would the police chase, and smashing up cars in animation is beyond me!

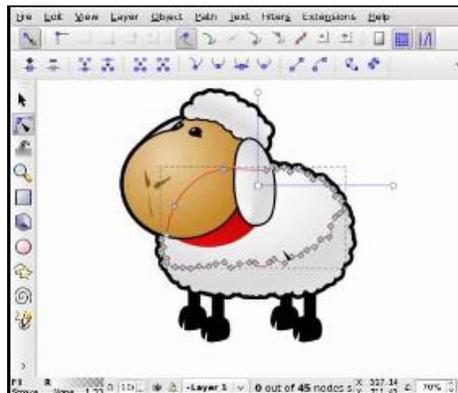
Maybe I could do it Comic Book Style, with a series of still photos. I might be able to pose real people. Maybe I could turn each picture into black and white ink drawings, heck, I might as well make it coloured comics ...

I guess I could start with a script, and then have it read by someone who can use Walter Winchell's voice (or I could try it myself - if you don't remember his voice and style, you can hear it [here](#)) and then shoot or draw the pictures needed to illustrate the script as a comic strip. Maybe I could get some old film footage of a 1940's era bank robbery, 1940's police cars chas-

ing crooks on a super highway in California ...

I started to search old film footage in the Public Domain and came across some old Bowery Boys movies (the robbers were their age), before they were The Bowery Boys. I downloaded a couple, but I soon saw that most of it is shot deliberately in very poor light, the only roads and streets are the "Back Lot" New York City Streets, and the cops were behaving far too friendly to "the boys".

Meanwhile, I started looking for ways to produce a comic strip. I'm not sure if I'll use any of them, but you might, so here's what I downloaded.

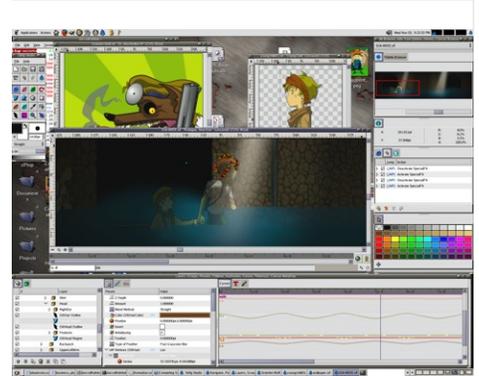


[Inkscape](#) An Open Source vector graphics editor, with capabilities similar to Illustrator, CorelDraw, or Xara X, using the W3C standard Scalable Vector Graphics (SVG) file



[Pencil](#) Pencil is an animation/drawing software for Mac OS X, Windows, and Linux. It lets you create traditional hand-drawn animation (cartoon) using both bitmap and vector graphics. Pencil is free and open source.

[Synfig Studio](#) Synfig Studio is a free and open-source 2D animation software, designed as a powerful industrial-strength solution for creating film-quality animation using a vector and bitmap artwork. It eliminates the need to create animation frame-



by frame, allowing you to produce 2D animation of a higher quality with fewer people and resources. Synfig Studio is available for Windows, Linux and MacOS X.

All are free, so go ahead and download any or all of them if you think you might like to use them. Now, if I could only draw ... ! I guess I should start with the script.

There is another program that may interest those of you who would like to animate your own drawings, or even photographs of your friends. Anime Studio Debut is produced and sold by [Smith Micro Software](#), and also sold by [Content Paradise](#), one of the many 3D Animation web sites I visit regularly and from whom I have bought a number of models and props, though I don't think I've written about them yet.

Anime Studio is an unusual program that lets you create cartoons in parts, and then easily animate the whole or the parts. As I'm not much of an artist, I was most interested in another feature that lets you apply "bones" to limbs in a photograph of a person, and then animate the person through those bones. This was quite an exciting concept. Perhaps I could pose someone and photograph them from several positions moving around them, and capture them from head to toe, and then place them in another scene and animate them! The Debut Edition lists at \$49.99 and the Pro



Version lists at \$199.99, but I regularly get emails announcing reduced prices, so I bought Debut for \$29.99 (The Pro Version

would have been \$129.99) I haven't actually tested this, but I have installed it and searched through the 278 page Manual (and the 389 page Manual for the Pro Version) and found that they have so little to say about this bone feature, that it doesn't look like I wouldn't be disappointed. But Smith Micro Software has another couple of programs which might interest you, Manga Studio Debut at \$49.99 List, and Manga Studio EX at \$299.99 (ON SALE NOW FOR 5 DAYS FOR \$99.99!). (Manga is the Japanese style of Cartooning.)

But if you want your cartoons to talk, [Reallusion](#) has two programs in that department – CrazyTalk6 (\$49.95 for Facial Animation of any drawing or photograph) and CrazyTalk Animator, (\$179.95) a 2D Animation Program that includes full animation and a talking head.

In the years 2005 and 2006 I used to watch *The Naked Archaeologist*, a religious archaeology documentary series about the early history of Judaism, Christianity and Islam, written by and starring Simcha Jacobovici, Israeli born Toronto Film Maker who has won a Genie, two Geminis, and three Emmys among many other awards. The series has been continued off and on, with *sixty-five episodes* so far. Simcha created quite a stir with his special *The Lost Tomb of Jesus* in 2007. In 2006 he wrote and co-produced an epic presentation, *The Exodus Decoded*, hosted by himself and James Cameron, who also filled the role of Executive Producer for that one show.

That one blew me away, and I bought a copy after what seemed like a perpetual delay before the DVD's were finally distributed to the public. Amazon.com will sell you a copy now for the reduced price of \$17.99, and will provide you with the contacts of sixteen people who can sell you a new copy for \$11.93 plus shipping, but Amazon.ca doesn't have any, and the other sellers they list will charge you more. The DVD also contains History in the Making about how the film was made, about 8 minutes long with a couple of minutes on the "Virtual Museum".



There was much that was new in this presentation, and much of that was the ex-

tensive use of 3D CGI with a "camera" constantly on the move in the "Virtual Museum". This treatment was, and still is, more 3D than much of Avatar, and without any special glasses! The program was even more spectacular because much of the "hosting" was performed by James Cameron, or Simcha embedded in the three dimensional CGI set, and many of the video clips of various experts were presented on flat screens in this moving milieu.

You can [stream sections of the show for free](#). Part 3 will demonstrate some of the CGI in the Virtual Museum.



Well, Reallusion also sells a couple of programs capable of performing these tricks. iClone4 3d Animation and Video FX (\$79.95) that lets you build 3D Actors, provides easy scene and set design, lets you animate actors with your own voice (not a big need, as I see it), and ADD ANY VIDEO TO A 3D SCENE.

iClone4 3D Movie Machine (\$199.95) provides real-time animation & video compositing, In-screen motion editing and facial puppeteering, advanced timeline editing with a transition curve, and enhanced visual quality with HDR lighting effects. See the [iClone Product Demo for an introduction and a variety of tutorials](#).

They also have [popVideo Converter](#) for \$99.95 (\$20 Reduction if you have bought iclone4) that they bill as *One-Click Chromakey*. You'll still need the green/blue screen, but it doesn't have to be so carefully lit, free of creases, etc. The chromakey video can be imported into the software and it will remove the background in an intelligent way. Read the web page, and see if you need it. I suspect that more of our readers will find this one useful than some of the other products described in this article. By the way, iClone4 includes 3D Stereo creation! What a segue!

At a recent meeting of the Hamilton

Video/Film Makers, we made a couple of 3D tests of the orange/blue coding system.



Dan Copeland had a 5-minute demonstration of 3D Stills he had prepared for use with the amber and blue glasses that yours truly had supplied for the 3D demonstration that he had brought. Dan's stills were well shot, and 3D could be seen, but the individual shots were on the screen for such a short time, and usually either spinning in, moving across the screen, or spinning off the screen, so there wasn't really enough time for the members to look at the stills long enough to appreciate the 3D illusion.

I had copied the CBC one-hour program *Queen Elizabeth in 3D*, and from that I had removed all the commercials, and much of the non-3D material of the Queen that had been used to pad out the program to the length required for broadcast, leaving only the 3D segments and some 2D footage that showed the equipment that was used to shoot the original stereo footage on three different occasions.

The purpose of this exercise was to see if the amber/blue coding system was sufficiently better than the old red/blue or red/green anaglyphic methods. There is no hope that it could be as good as using Polaroid glasses, or shutter glasses, or an HD 3D large screen television, but the question was "could this method be used to screen 3D video to a large audience without the inherent costs associated with the purchase of a special 3D television set, or special 3D projectors, with the associated large number of expensive shutter glasses in either case, or two 2D projectors that could be fitted with Polaroid filters to match a large number of less expensive Polaroid glasses?"

The Royal Canadian Legion Hall in which the Hamilton Club holds these monthly meetings is perfect for such a test because of its great length, with some of our members habitually sitting way-up-front near the screen with others spread out through the rows of chairs behind them, and a handful sitting near the back of the room

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# WHAT'S ALL THIS DSLR STUFF FOR VIDEO ALL ABOUT ANYWAY? BY JOHN COOK

As you may have noticed, DSLR's for video are all the rage with the fashion conscious videographers. But why?

Why would you want to shoot videos with a digital single lens reflex camera intended for still photography, that has video capabilities tacked on to it by manufacturers, most of whom also manufacture real video camcorders? As can be expected, there are advantages and disadvantages. The disadvantages are being slowly ironed out. You may have noticed that video recording capabilities are becoming abundant in most digital still format cameras, from cell phones, 15fps point and shoot cameras, and interchangeable lens digital cameras through to the serious DSLR cameras which are the subject of this article.

I'll also compare some of the features of the video DSLR's to those of conventional HD camcorders such as the \$1050 high definition HDV based [Sony HDR-HC9 mini-DV HandyCam](#)

## Image Quality

The first point you'll hear is that DSLR's have larger image sensors than conventional camcorders, with better image quality and light sensitivity.

## Large Choice of Lenses

DSLR's have interchangeable lenses, so you have a very large choice of lenses.

HandyCams come with a fixed lens with telephoto and wide angle extender lenses available. These extender lenses suffer from significant limitations. The telextender will vignette as you zoom out, which will not be immediately visible on your LCD viewfinder which shows a cropped version of what you see on your HD TV. The wide angle extender, when fully zoomed in, will be out of focus.

The DSLR's larger sensor requires larger and more expensive lenses. Please note: even though they may share the same mounts, there are compatibility issues between lenses and camera bodies. The big one to watch out for is sensor coverage. A lens meant for a smaller sensor will not cover a larger sensor. There are also electrical connection compatibility issues related to diaphragm, focus and image stabilizers. DSLR lenses, as a rule, have manual zoom control.

## Shallower Depth of Field

Because the sensor is larger, the lenses are of longer focal length for the same angular coverage of the scene. The longer the focal length of a lens, the shallower its depth of field for any particular f stop. Shallow depth of field is used in many Hollywood movies to centre our attention on the important part of the scene. It is also common to "pull focus" on the

scene to move our attention to another part of the same scene in another plane closer to or farther from the lens.

To achieve minimum depth of field, we would select the lens with the smallest numerical f stop, and use it wide open. For proper exposure, we may need to use the slowest ISO and add neutral density filters or polarizing filters. **Polarizing filters**, besides knocking the light down by a couple of stops, can kill reflections from non-metallic surfaces, including water, as well as darkening the blue of the sky and enhancing cloud detail, depending on the position of the sun. Camera stores are flogging the more expensive circular polarizing filters for all digital cameras. They claim that the linear polarizing filters handicap auto-focusing. I've found the linear polarizing filters to be far more effective in cutting glare and darkening sky and have yet to observe any problem in auto-focusing.

For shallowest depth of field, you need the fastest lenses. Don't be shocked that the fastest lenses are priced up in the several thousand dollar range. Remember that your run-of-the-mill f4-5.6 DSLR lens will not have a much shallower depth of field than your run-of-the-mill f1.8 camcorder lens, which is over 2 f-stops faster.

Composition also effects depth of field. Decreasing the distance to your subject and increasing the distance to your background will increase the blurring of your background.

The DSLR's shallower depth of field is a double edged sword. If you need shallow depth of field, and have the time to accurately focus, then you are fine. If you need greater depth of field and accurate focusing is a problem, then you are out of luck. A DSLR will always have a shallower depth of field at each respective f stop for the same lens angle of view, when compared to a smaller image sensor camcorder. Focusing will always be more critical on a DSLR than a conventional camcorder.

## Focusing

The DSLR allows a shallower depth of field at the expense of always demanding more careful focusing than a camcorder. For shallowest depth of field, the DSLR also needs the most expensive lenses and adding neutral density filters to your repertoire of tools.

The other thing to remember is that while shooting video, the mirror is up, disabling the auto-focus and auto-exposure functions. This makes the DSLR very awkward to use when shooting non-choreographed motion. Even with choreographed motion, life is difficult without added personnel. An external LCD monitor can be used to overcome the serious limitation of most built-in DSLR's and Camcorders' LCD's, which shows a cropped version of the picture shown on HDTVs. The quality demands and price of this external monitor is very high if it is to also be used for focusing on the go.

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The new \$800 [Sony A55V DSLR](#) features a semi-transparent mirror, allowing most of the light from the lens to hit the sensor while diverting a small portion to the optical viewfinder like the old film movie cameras. What's old is new again! This allows the auto-focus and auto exposure to work while still maintaining an accurate through the lens optical viewfinder when shooting video. It does, however, add another optical element in the light path to reduce image quality.

### Lens Control Devices

These are commonly called follow-focus devices, though they can also be used to control zoom. A decent follow-focus device will set you back about \$1,400.

The objective is to bring the focus or zoom control knob out to the side for a camera focus flunky to twist. The dials feature a whiteboard ring to mark predetermined focus or zoom points. Flexible extensions with a knob on the end are available to minimize camera disturbances as the controls are worked. These accessories use a plastic toothed gear that clamps around the lens' focus and zoom rings, and the rest of the gear train and control mechanism mounts on a compatible camera rail system.

A [Sony HD HandyCam](#) has "Spot Focus", "Spot Meter" as well as "Spot Focus and Spot Meter" functions. You simply touch the spot on the LCD touch screen you want to focus or meter. This makes pull-focus and pull-exposure very convenient and at no extra cost.

### Camera Rails and Brackets

The rail and bracket systems for mounting accessories will give your camera the appearance of a small Hollywood Panavision camera. There's a plethora of accessories that you can hang on these mounts, besides the follow-focus devices we mentioned above -- microphones, wireless microphone receivers, lights, HD monitors, matteboxes, as well as the must-have digital audio recorders. These rigs have sections looking like Swiss cheese with patterns of mounting holes threaded to 1/4-20 and 3/8-16 for accessories from microphones, to receivers, to digital audio recorders, to lights. They also feature cold shoes (as opposed to "hot" shoes with electrical connections) and adjustable handles.

### Audio on DSLR's

The built-in audio on DSLR's sucks! First, the built-in microphones are typically poor quality mono, hidden inside the camera bodies, giving much worse sound than the camcorders' built-in stereo microphones. Secondly, good luck finding a DSLR with microphone and headphone jacks to facilitate the use of external microphones with headphone monitoring. Thirdly, most DSLR's have only automatic volume control. On the few with manual volume control, you cannot access the control or the level indicators when shooting video. A DSLR for directly recording quality audio is severely handicapped.

All the serious DSLR videographers use portable digital audio recorders that record on flash cards. These typically come with built-in stereo microphones, and Cannon connectors for plugging in professional balanced output external microphones. These connectors can also supply phantom power for professional condenser microphones. The \$370 Zoom model H4N is very popular. If you're a bit fussy about amplifier noise, you may want to look

up the \$600 and up Marantz line whose noise level is supposed to be significantly quieter.

Digital audio recorders can be distributed at the shooting scene with their audio files mixed after the shooting session with any type of camera.

### Microphones

Most DSLR videographers use shotgun microphones. You want to avoid some models which have O ring suspensions that audibly squeak when the microphone moves in its mount.

When it comes to wireless microphone systems, the \$600 Sennheiser is known for its small size, while the larger \$450 Sony wireless system is known for its noise immunity.

### Image Stabilizer Noise

Some lenses have noisy optical stabilization which can be picked up by even a mounted shotgun microphone.

### Manual Audio and Video Control

As you must all know by now, serious videographers do not use automatic audio level controls or automatic exposure functions. Hollywood has it a lot easier on this count as they have a herd of dudes assigned to control audio volume (and equalization), hold microphone booms, pull focus, as well as individuals responsible for controlling the exposure and colour of the video. All these guys are tethered to the camera via cables. Hurray for Hollywood! Good luck to the lone camera man trying to do the work of 5 men.

### 24fps

The "cinematic look" of 24fps rather than 30fps seems to be all the rage with the artsy crowd. Many DSLR's will only shoot at 24fps. The advantage is that there is less data to compress and store. The disadvantage is that you get syncopated motion fitting 24 fps into 30fps TV. The 24fps to 50fps conversion for other TV markets is somewhat smoother. The jerky motion of 24fps becomes very obvious when panning. The irony is that this "cinematic look" never occurs in the cinema where the projector is running at 24fps, but only when 24fps is reproduced on 30fps TV.

### H264 Video Quality Issues

The recent generations of camcorders (flash card and hard drive units) and video DSLR's use the H264 compression standard. H264, a subset of Mpeg-4, is used on AVCHD equipment and is commonly used on BluRay. Most H264 devices feature 1920 x 1080p. In comparison, HDV for miniDV cassettes camcorders is 1440x1080i and uses MPEG-2 video compression, far less aggressive than H264.

This means that with DSLR's and other H264 devices, it is more important for you to get your picture settings correct when you shoot. You don't have the leeway of HDV to make exposure, white balance and colour corrections in post (i.e. in your editing program). The correction steps in post for H264 material will be too coarse and you will end up with a lousy picture.

One trick, used in desperation to somewhat reduce the degradation, is to convert H264 to one of the less aggressive codecs, do your corrections and edit, and then output back to H.264.

To quote a fan of the DSLR video format, "the compression is part of the format's aesthetic. It adds a beautiful quality to the image that's unique to this camera system." Goes to prove that one man's bugs are another man's features, especially in the world of art.

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## Video File Storage

After you fill your flash card with your priceless video, you have to dump it somewhere safe. Professionals will use a laptop with something like the Media Sonic Pro Raid 5 hard drive array box, which sells for \$250 less drives, stuffed full of 2TB SATA drives. Buy drives that are at least one step up from the economical models for better reliability. The newest Raid 5 protocol allows much more storage capacity per array and quicker recovery times when a hard drive dies, as die they will.

MiniDV cassettes seem so much more convenient in comparison. One hour of uninterrupted shooting and no laptop and hard drive array to lug along and wait to boot up before you can download your flashcards.

## Image Sensor Performance & ISO Settings

Because of their larger sensors, DSLR's claim better picture quality and better low light sensitivity than camcorders. Mind you, as the technology advances, exceptions abound. For example, even though the newer \$5,000 [Canon EOS-1D Mark IV](#) has a smaller sensor than the \$3,600 [Canon EOS 5D Mark II](#), the smaller sensor outperforms the older, larger one in low light levels.

It's also worth noting that DSLR's perform best at their "native" ISOs. For Canon DSLR's you will get a better picture at 160, 320, 640 and 1280 ISO "native" settings than at in-between ISO settings. That's because other values need complex conversion calculations with round-off errors, rather than a simple binary shift.

## Auxiliary Lighting

Lights such as the 48 LED \$400 Litepanel MICRO LED light, powered from 4 high capacity AA Sanyo batteries delivers about 4 hours of life without recharging or changing the batteries. Filters are available for it to match tungsten light characteristic.

## Camera Platforms

A rigid tripod with a decent fluid head is still the platform of choice.

If you're going hand held, and cannot afford a \$6,000 SteadyCam and the 60 hours of practice it takes to get your first decent clip, you can try a shoulder mount.

A popular shoulder mount comes from Israel for a cost of about \$700. It has an adjustable shoulder saddle, camera mount with rails, handles and a spring-loaded support rod, which plugs into a socket in a waist level belt. This spring loaded rod allows you to tilt smoothly. You pan by twisting your body. There are adjustments aplenty on this rig.

As with the steady cam, you have to learn to walk all over again, this time smoothly. Walk like a lady in high heels, toes first -- not heels. Just don't wiggle your hips.

## DSLR's and Motion

DSLR's can exhibit some serious motion artefacts, such as jumpy motion and skewing or distorting of moving objects. First, always make sure you use a fast enough flash card.

As far as the DSLR itself is concerned, a lot depends on its H264 codec's capabilities. The other important spec is the video transfer rate -- the faster the better. While 25Mb/sec is adequate for DVI 1440x1080i camcorders, 1920x1080p is nearly three times more demanding. The latest \$30,000 professional camcord-

ers feature 50Mb/sec. with XDCAM HD422 codecs and still recommend 720p for rapid motion capture! Small wonder that DSLR's exhibit poor motion capture abilities compared to the old miniDV HDV based HD camcorders.

As with all aspects of video, one can expect the motion performance to improve with future models as video transfer rates and codecs improve.

## PROJECT SUITABILITY

### DSLR's

DSLR's are well suited for choreographed Hollywood style movies. Because of their larger format, picture quality is better, but focusing is more critical (shallower depth of field). Auto-focus is inoperable when shooting video on most DSLR's. Tracking focus is a real challenge, in most cases requiring an extra person to pull focus. The well equipped DSLR videographer is rather conspicuous with his rail attached accessories and body mount. There's a lot he has to manage, from exposure and colour control, focus, zoom and audio level setting and level monitoring. Then he has to worry that his DSLR will show objectionable artefacts when shooting rapid motion.

### HDV Camcorders

A now out-of-fashion miniDV HD camcorder, in comparison, is far more suited to shooting action sports, as it can keep subjects in focus automatically, has greater depth of field because of its smaller sensor and can deliver a much larger zoom range at more reasonable cost, while giving convenient zoom control with a Varizoom controller. But most importantly, the HDV camcorder, *because of its less aggressive compression*, also delivers more reliably smooth motion on fast action. Being able to shoot for one hour before reloading tape is advantageous compared to having to stop and reset your DSLR every 12 minutes of shooting. Not having to dump flash cards on to a hard drive in the middle of a shoot is another plus for miniDV camcorders. In comparison to a full DSLR video rig, a Camcorder can be relatively inconspicuous. One can immediately play footage via HDMI without having to try to sync a digital audio recorder. Some consider the HD camcorder's features a valid tradeoff for a DSLR's slightly better picture quality.

### New Hybrid Still/Video Cameras

The \$850 [Olympus E-P2](#) and \$750 [Sony NEX-5](#) are high quality digital still cameras that shoot HD video and use interchangeable lenses from their respective DSLR families. These cameras eliminate the DSLR mirror system and its optical viewfinder, thus allowing auto-focus and exposure control while shooting video. These cameras retain the other features of DSLRs including their image sensors and prices, while saving considerably on size and weight. The Olympus E-P2 was used in the filming of Disney's *Secretariat* to get the difficult close-in action shots, that would have been impossible with a DSLR. The E-P2 also features a removable LCD monitor that can be mounted in a convenient place.

Sony has introduced their \$2,000 [NEX-VG10](#) video Camcorder featuring a large DSLR sized image sensor and interchangeable lenses. It takes E-mount lenses as well as A-mount lenses from their DSLR family with an adapter.. Unlike most camcorders, these lenses do not have motorized zoom, so a Varizoom type controller cannot be used. This camcorder features a high quality quad capsule microphone system for Dolby 5.1 sound recording.

The manufacturers are mixing and matching their DSLR and camcorder component parts to meet most photographers' wants.

### Equipment Suppliers

The serious DSLR videographer can deal with specialty camera vendors such as [Vistek](#), [DV Shop](#) (on Dundas St. West Toronto, U.S.

suppliers and suppliers from all over the world via the Internet. [B&H Photo](#) in N.Y. City is also good to deal with, as they have web pages dealing specifically with DSLR equipment for video, as well as a large family of printed catalogues available free.

Remember, when shipping from the U.S., avoid UPS standard, as UPS charges exorbitant brokerage fees for crossing the border. They got me once for \$59 on \$16 worth of goods. The U.S. postal service is preferred. I've heard that UPS Expedited avoids the exorbitant brokerage fee, and works out cheaper than the Post office, but I haven't tried it myself.

### Publications

I picked up a magazine *HD VideoPro* at a convenience store. The December issue has several articles on HD DSLR gear and applications, as well as an article on the shooting of *Secretariat*. The trend of professionals away from camcorders and to DSLR's is very apparent in this publication.

### Summary

"You pays your money and you takes your choice". You can look like a Hollywood operator, a TV operator, or a tourist. You can be a Ludite and stick to your old miniDv tapes. There's no avoiding the fact that the trends are towards still cameras that shoot video, rather than video cameras that shoot stills. Amateur movie shooters get hassled a lot less with a still camera than a video camera. If you just snap a few pictures and video short scenes as we did with our film movie cameras, flash cards have adequate capacity.

Camera manufacturers would prefer to get away from very tight tolerance and troublesome mechanisms such as tape drives and disk drives. They tried hard drives, but they tended to die from jolts. DVD camcorders, with their need to waste valuable time formatting media, proved unpopular. Flash is now the medium of choice. Flash media and the hard drives that you dump to, are not the camera manufacturers' problem, with which I'm sure they are very happy.

We are at that point in time when video DSLR's are suitable for many high quality professional projects. Camcorder and DSLR manufacturers are one and the same. They have the tools to mix and match components to meet all users requirements. Design decisions are not technology limited, but rather market driven. Manufacturers, as is their custom, control the release of products to optimize their bottom line. So our choice is to buy now, or wait for something better and cheaper later. But you don't live forever.



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near the kitchen, to keep an eye on the Membership Information and preparations for the Coffee Break. A few of us who were keenest moved back and forth through the length of the hall to see how it looked at different distances. While the appearance of the 3D varied with the viewing distance, it was present throughout. Some people didn't seem to see it very well, or at all, and this might possibly be because of their position, or just their lack of experience and training in seeing stereographic images.

Beside the low turnout because of the predicted storm, a few left immediately after the Break to beat a late storm, and the number still in the room for the test/demonstration was disappointingly low. When the lights came on the audience was asked to raise their hands if they thought this amber/blue coding was worth further investigation, and then those who thought it wasn't worth pursuing were asked to raise *their* hands. There was a slight majority for those who thought the investigation should be pursued, but the biggest number (like any election in Canada or the USA) was those who sat on their hands!

There were a few questions and comments from the members, but in the main they were questioning aspects of 3D that are inherent in every 3D system, and didn't really relate specifically to the amber/blue trial.

We don't yet have the actual amber and blue "filters" anyway, but if we can obtain them, our experiments will continue. After we have produced our own 3D video, we can repeat the experiments with more control on conditions like the optimum viewing distance from the screen.

There hasn't been a great deal of progress in the 3D field, and some stores selling the 3D television sets have reported poor sales. It seems the public either doesn't like it, or doesn't care, at least not enough to dump that fairly new and big HD television, and part with a wad of money. Nevertheless, 3D remains a hot topic among manufacturers, and everyone is striving to bring out the beat-'em-all innovation. Consider John Cook's article on Standards in this issue, and it should be clear that it's still too soon for you to jump into the market!

And if that isn't enough, consider the possibility that [home holography, while difficult to say aloud, is just around the corner!](#) We'll watch this one closely, and when we see it, we'll let you know! (We might see it first on our webcams and laptops!) Till then, you can see a short video on the subject, with a new Princess Leia, on the link above.



Meanwhile, just to hold us, James Cameron's latest 3D action thriller, [Sanctum](#), will be in the theatres **starting February 4, 2011, in IMAX 3D and REAL D)) 3D**, depending on the theatre in your home town.

Not bad for having nothing to write about! It's always encouraging to see what can be accomplished when you try hard!

# MURPHY'S LAW OF STANDARDS

By John Cook

1. If there are two ways of doing anything, men will always do it both ways resulting in two "Standards". In other words, no standard at all.

1(a) If both ways don't become "Standards", the wrong way will become the "Standard".

Examples:

1. Numeric key pads. The old standard desktop adding machine has the numbers 1 2 3 on the bottom as does your PC as do your calculators. The Telephone keypad has them on top!

2. The standard for color coding left and right sides for headphone has been "red for right". The red/blue anamorphic glasses had red for left.

3. When Faraday labelled the first battery + and - he got it wrong! We later discovered that electrons actually move, and they ended up negative. So then for visualizing electron flow in semiconductors etc., to keep polarity correct in our minds, we visualize holes moving from positive to negative. Holes, which are positive are the opposite of electrons. 1(a).

I have a U.S. military manual on electrical motors. The author decided to do things right and relabeled positive negative, had electrons positive and moving in the right direction, so everything "made sense". All the rules of magnetics were reversed, i.e. right hand rule became left hand rule etc. Nice try! Some poor soldiers learned everything "right" and then no doubt tried to apply things in the real world of industry or further education, "wrong".

4. We drive on both sides of the road depending upon the country. Up until the late '60s, the Swedes drove on the left, with their steering wheels on the left! I guess it was more challenging that way. Then one midnight, they switched sides, but of course they weren't really stupid, they left their steering wheels on the left.

5. The electrical code uses white for neutral and black for hot. In electronics, black is used for ground or 0 volts, because in the "standard" color code: black is 0, brown is 1, red is 2, orange is 3, yellow is 4, green is 5, blue is 6, violet is 7, gray is 8, white is 9. The logic is the colours of the spectrum from 2 to 7 and then fill in the

ends with black, white and gray.

6. In a car's electrical system, we switched from positive ground to negative ground. Why? Because it seemed more "logical". In the '70s I owned a GM PD4104 highway coach (36 foot bus with luggage compartments below, air suspension, supercharged 2 cycle Detroit Deisel engine) beautiful piece of machinery. It had a positive ground 12V electrical system, the old fashion way even though it was built in 1955. But WHY? . The thing I noticed was the lack of corrosion of the body and the green corrosion of the copper wiring unless you sprayed it with a wax aerosol. It was no coincidence that cars started to corrode badly when they switched to negative ground. God damn Faraday!

7. Buttons and zippers. You know the tradition is for men to have them opposite to women. I guess it facilitates undressing each other when they're in a rush. Well the Chinese screwed that all up. Their zipper sides are quite arbitrary. It was very unnerving at first, but we finally got used to working both ways.

8. In Europe, switches are up for off and down for on. In America it's the other way round.

9. Then there's pedal controls on cars. An old 80 year old friend of mine, Ted Elmer, got mixed up at his antique car auction and drove right over his best friend while moving a model T a couple of feet last month. It seems they've standardized that. "Oh the humanity!"

10. Don't get me going on PC programs. There's Alt X and Alt E for Exit. There's Alt V and Alt W for Print Preview. often with different releases of the same software. What's wrong with those guys? I guess everyone wants to set the world on fire his own way. When Microsoft designed Excel, it made every command as different as possible from Lotus 123. Clever Quattro Pro programmers made Quattro Pro respond to both sets of commands.

I could go on and on.

Thanks,  
John Cook

