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PANORAMA

OF AMATEUR FILM & VIDEO

SUR LE FILM ET VIDEO

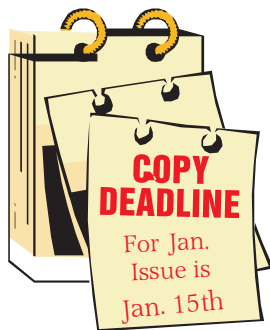


The Publication of the SOCIETY of CANADIAN CINE AMATEURS / SOCIETE DES CINE AMATEURS

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PRESIDENTS MESSAGE



Photo by Joseph Bochsler Jr.

Fred Briggs, FSCCA

Late again! But getting better! Maybe we can get the January Issue out in January!

Again I'm relieved that I know of none of our members passing away, though I'm quite aware that most of us are getting older (including your President!)

However, there is some bad news: three of our members have decided not to continue their SCCA Membership. Eleanor Haire of Victoria has informed me that due to a stroke she suffered about a year ago, she has lost much of her control of one arm, and hasn't been able to do anything in video since. Erhard Schmitz, who first contacted me many years ago for advice in his unsuccessful efforts to get a video club going in the Brossard or Montreal area, has never been able to find anyone with whom he could practice the hobby, and as a result he has finally lost interest. And Andy van Dyk of St. Catharines is no longer interested in movie making, has sold most of his equipment, and has turned his attention to another hobby, playing guitar.

Still, while we hate to lose even one member, we know nothing lasts forever, and we have recently gained a new member from Ottawa (Bob Bayne) and have been told that another (Wayne Schaler) will be joining soon. Another recently joined member, John Cook, who wrote the excellent article on the SteadyCam that appeared in the September PANORAMA, has written three (3) articles for this issue!

Membership Fees from those in arrears have been arriving lately, and we hope to email an updated Membership Roster in the New Year.

For those who live in Southern Ontario or near the border in New York, we want

to draw your attention immediately to the article on Page 11 about the involvement of members of the Brantford Video Makers in a Special Presentation that will be broadcast from WNED of Buffalo on Saturday, December 12th at 6:30 PM. I've been struggling to get this issue out in time for you to catch the show, but if I'm too late, or you're otherwise engaged (lots of Christmas Banquets coming up!), it will be on again – we just don't know when, or if we'll even hear in advance! So if you can get WNED, and have to be out, set your recorder to get it!

Also, you'll see (on [Page 5](#)) that the Compulsory Theme for the Intercities Com-

petition has been announced: "THE ROAD ..." We've witnessed a persistent tendency for entrants to use the Theme as a Title, so this year, you fill in the blanks, and at least we should get some variation in the Titles so we can distinguish between the entries by name!

This month I'm going to use some of my allotted space to step out of the "Presidential" Business and share a few observations about a couple of movies I've seen lately, and I mentioned briefly in my article on [CGI \(Page 12\)](#), but refrained from including there because it was already a very disjointed piece! ■

WHAT'S IN A NAME?

by Fred Briggs

Carolyn and I don't go to a lot of Movies at the Theatre, mostly just the Biggest Productions. For a good story, good acting, good direction, etc., we can usually wait till it come on TV, and that's even more so now' since we have an HD 67" Screen! So when we go, it's usually a Blockbuster, shown on the largest screen at the Cineplex. We're happily retired, so we usually attend a Matinée Performance to save money and avoid the crowds, especially when it's a kiddie show. So we went to see the Disney Production of *A Christmas Carol* on a Monday afternoon. We had several other errands to run while we were out, and we arrived at the theatre much too early for the screening we planned to see – early enough to get into the earliest screening just as it was about to start!

There was a long line at the Popcorn Counter, so we finally left it, expecting to slip out later when the line went down.

The lights had already gone down when we entered the theatre, and the place was packed with small children with their mothers! So packed, that we couldn't quickly find two seats together except over against the wall. (Not the best spot from which to watch a 3D film! - I later learned that it was a Professional Development Day - a school holiday!)

Every now and then I would see a mother taking a child down the aisle, obviously to the washroom because most mothers were there with more than one child (their own and/or their neighbour's). As the others were staying in their seats, the mothers were obviously coming back.

Finally I slipped out to get that popcorn (still a huge line) and when I got back the story had passed from the non threatening

character setup sequences to the terrifying trips with the Christmas Spirits.

This was the IMAX 3D Computer Animated Version (we didn't see it in an IMAX Theatre), in **extremely good stereoscopic 3D**, and it was magnificent! It was also Produced, Written and Directed by [Robert Zemeckis](#), whose previous credits include a great string of *Tales From The Crypt*, and who creeped me out in the first film of his I ever knew was his, but I can't think of the name right now.

It was really scary!

But I didn't hear any crying – no mothers were leading a troop of kids out of the theatre! I had been thinking "If a mother can't trust Disney Studios to make a movie fit for children, who can they trust?" But then I thought "It was Walt who killed Bambi's Mother! What kind of a mean sadist was he?"

When the audience came out I saw no children who seemed to be frightened! I picked out the smallest child in the corridor and went up to her mother. "Was your daughter frightened?" Apparently not! I guess kids today have been exposed to a lot more than I was at their age. So if you get the chance, don't miss taking your grandchild to see Disney's *A Christmas Carol*!

The second recent film I mention in the [CGI article](#) was 2012. Some people will look down their nose at this one because of the current publicity of the dire predictions by Nostradamus, the Mayan Calendar, etc., and even more by the welter of Documentaries timed to coincide with the theatre release of this film. Don't let it frighten you away, though. In spite of the ridiculous pseudoscience, this film is definitely a must-see because of the fantastic special effects! It's worth seeing just for the super-volcano erupting, or the tremendous earthquake, or Los Angeles sliding into the Pacific, or the tidal waves hitting the Himalayas, etc., etc.. You've never seen anything as well done as each of these! See it! ■

CLUB NEWS

By Thom Speechley FSCCA



We have enjoyed an extended fall-like season in our part of Canada but I sense the party is almost over. We read, with a touch of envy, how our friends in the lower part of the continent, continue to schedule their *outdoor* shooting activities. However, I do look forward to our London club's first 'snowscape' in living colour and hi-def! Unless we just get to see the 'sameold' Florida or Vegas holiday visits.

BRANT VIDEO MAKERS

Brant Camcorder News editor, Dan Kennaley

Dan's October Newsletter advised that that month's meeting would be devoted to a review and showing of member's video shot as part of the WNEC "Our Town" project. Details of this interesting effort are described in a separate article in this issue. Dan mentioned that since that project put the Club in touch with many other video hobbyists in the community, he hoped that those connections might eventually attract new members to the club.

BUFFALO VIDEO-MOVIE MAKERS

"Camerama" editor Chris Scioli

After a month's absence, the club's October meeting was held at the regular place, "The Screening Room". The general topic of the evening was 'horror', and several videos of that genre were shown. The documentary "The Blood Is the Life: The Making of 'Bram Stoker's Dracula'" (2007) explained the use of old fashioned effects tricks in the 1992 feature by Francis Ford Coppola. Chris Scioli and Jared Garlipp shared the 1995 clip "Premonitions Following an Evil Deed" from the DVD "Lumière and Company." Also viewed was the opening to Dan Monroe's locally produced movie "House of Horrors" (2009) to observe their use of a 35mm lens adapter and ADR for audio. Jon Soyka wrapped up the evening with "The Vacuum Cleaner Salesman", a DVD transfer of a 1957 film by Jack Simpson of the Hamilton club.

HAMILTON VIDEO/FILM MAKERS

"Reel News", editor Dave Stewart

This year's October "Visitor's Night" was not as well attended as in previous years (surely not the 'recession') but invited guests and new members helped make it a memorable meeting. The featured guests were "Rilstone Productions", a team of four young men directed by Mike Rilstone, a student of Sheridan College. They showed their production "Donkey Hotay" and took questions from club members after the showing. An interesting venture shown by new member Omid Rais-Firouz, was the 4:40 minute trailer called "Hamilton - Here I come". The video was produced to "interest investors and the city fathers in a romantic-comedy about immigrants' take on arriving in and living in Ham-

ilton." Long range hopes for the production are that it becomes a TV series. The club will follow this project closely. Other films shown were by Alex Szatmary, Fred Briggs, Jon Soyka and two productions by Rick Doelle. As usual, thanks were extended to Carolyn Briggs and her team for the excellent offerings of food.

The November meeting was dedicated to "Remembrance Day", to be celebrated the following week. Club member Adam Houston showed a seven-minute video documenting his reunion in Taiwan with fellow survivors of a Japanese prison camp during WWII. Dan Copeland showed a short documentary in the form of a music video honouring the ceremonies on the "Highway Of Heroes", where processions of vehicles carry fallen armed forces members from CFB Trenton to Toronto.

The November meeting was also an opportunity to celebrate the club's winning entries in the 2009 SCCA contest. Awards were presented by Contest Chair Keith Gloster to: Alex Szatmary, two 1st place and one each, 2nd and 3rd place, Dan Copeland, three 1st place and two Hon. Mention, Ben Andrews, one 1st, The Hamilton Club, two 1st place and one 3rd. Hamilton thereby regains its title of "Amateur Movie Capital of Canada".



The Rilstone Production Group

photo by Joe Bochsler

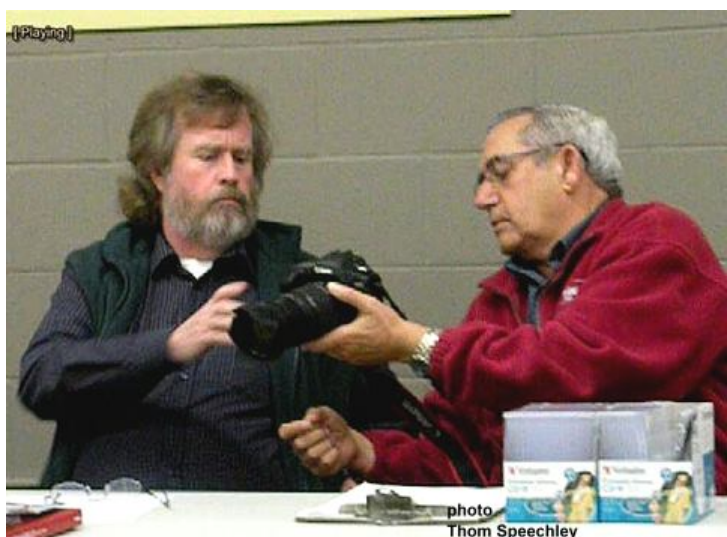
INSTITUTE OF AMATEUR CINEMATOGRAPHERS (IAC)

Film and Videomaker editor, Garth Hope

The December issue of F&V contains two reports on the 71st UNICA film festival, held this year in Gdansk, Poland. In addition to the excellent program, both reviewers, David Watterson and Eric Montague, were very impressed by the local hospitality and remarkably well restored buildings and monuments of this historic city. Tom Hardwick's column this time is a new treatment of classic advice for preparing for a live event shoot. He uses as an example, an invitation to cover a child's riding class. The article starts with planning and the preparation of a list of basic questions to cover issues like when, where, who, final video format, rain dates, etc. Then Tom describes his own equipment lineup using two cameras with accessory lenses and appropriate microphones. The most valuable part of the article is the extra tips and advice regarding the anticipation of probable action that will enhance the final production. In a similar article, Ian Morris describes filming of a band concert in order to capture one specific musical number. It is also a two-camera effort and illustrates how footage from one viewpoint can be used to establish synchronization of sound with other angles on the timeline. You can watch the result just by clicking on [YouTube](#).

LONDON VIDEOGRAPHY CLUB

November was another well attended meeting, featuring Bill Dow's presentation on the steps involved in establishing your own web site. Bill presently administers two such sites and offered several very useful tips to demystify and make the process easier for beginners. Kim Brown took over the 'Still Camera' portion of the meeting and demonstrated the features of the remarkable new Canon EOS 5D Mark II. This is one of the new generation of cameras which combine excellent still picture capability and full hi-def video. Phil McLeod showed his hi-def production of London's unique nature spot, the Medway Creek conservation area. His early morning visits even brought him in contact with a family of deer and numerous other forms of wildlife. A very patient and successful effort.



**Paul Armstrong and Jim Bristow
examine the Canon EOS 5D Mk II**

SACRAMENTO AMATEUR MOVIE MAKERS

From the club's website - <http://www.samm.netfirms.com/>

Erick Lorenz has been updating other members via e-mail regarding the new still/video SLR,s (also the subject of the London club

news) He has provided useful links for members to pursue the subject. Illness of some members resulted in the cancellation of the November 12th meeting but Bob White reports that the project, "Midas Sack of Flour" is progressing well. The important scene involving the family in the plot has been completed. Efforts are now being made to identify a suitable location for a saloon scene and Bob has requested that members look for historical photographs, which might be used as "B roll" material to illustrate military activities discussed in the film's dialogue.

TORONTO FILM AND VIDEO CLUB

TFVC Newsletter editor Josephine Black

The November Newsletter announced that the Toronto Club has been given a reprieve. We are delighted to hear that during their Annual General Meeting in November, it was decided to keep the club together, but with a reduced agenda of activities and fewer meetings. In addition, there will be no official executive, but several members have volunteered to continue to provide support and will assume responsibility for equipment, the treasury and the running of meetings. The club will not meet in January or February, which recognizes that those months were usually poorly attended due to weather problems and member absences. Contests, the annual contest banquet and the newsletter have been cancelled. There will be no December meeting this year but the Christmas Party was scheduled for November 28th. This final newsletter edition also noted that Jon Soyka presented a cheque from the dissolution of AMMA to the club at the November AGM. The \$445 has been deposited in the club's account.

WINNIPEG AMATEUR MOVIE AND VIDEO CLUB

Bulletin editors, Wallace and Jeanette Robertson

In the November "Bulletin", President Al Ross recounts his visit, with Wallace Robertson to a showing of experimental film produced by the Super 8mm section of the Winnipeg Film Group. It's a rather humorous account of how many people react to "artistic" creations which bear absolutely no relationship to what we consider 'film'. You can sample similar material by this group if you visit "Vimeo" at: <http://vimeo.com/>

In August, Winnipeg was visited by the "Mynarski Lancaster" bomber, named for a WWII VC winner Andrew Mynarski, who came from Winnipeg. This is one of only two 'Lancs' in the world, which is still airworthy. Wallace and Jeanette and Al and Thelma Ross visited the fly-in and Wallace shot video of the event. The video, which included informative voice-over, was shown at the October club meeting. There are three video accounts of the landing posted at <http://www.youtube.com> (Type 'mynarski' in the search box.) Also shown that evening, was a video which Fred Schlanda had shot at a 'tongue-in-cheek' church fashion show. The report by Jeanette Robertson in the Bulletin is as humorous as we assume the video was. ■

**ADVANCE NOTICE FOR THE
SCCA CLASS "E" COMPETITION**

**THE COMPULSORY THEME FOR 2010
INTERCITIES TROPHY WILL BE**

"THE ROAD ..."

Get the Shot!

By Fred Briggs

Yesterday I ran across a new (to me) program for creating paintings from photographs or sketches. I received an email from a company through which I had bought some excellent programs in the past, so even though I thought I already had a first class program for this job, I decided to give it a look. The program is Dynamic Auto-Painter 2.0.7, or DA-Painter for short, and you visit the [Home Page here](#).

In the [Spring 2008 PANORAMA](#) (Page11) I wrote a very detailed and exhaustive examination of a number of programs that did something similar, and I *would* recommend that you go back and reread that piece before going on with this, but I went back to it myself, and I think only a handful of readers would be bothered to go back and reread the entire piece (it's rather heavy going in places). Instead I decided to quote here one paragraph to explain in a nutshell why I'm covering this subject again, or why I ever did in the first place.

After getting BlackMagic [see Fall 2007 PANORAMA, Page 7] I realized that I could colour a copy of a black and white picture and lap dissolve between them either way as a transition between colour and black and white. Now I realized that I could also use the painting effect to change from a series of photos to paintings, or vice versa. I could even turn the first frame [of a video] into a painting, lap dissolve from that to the same frame as a still, and then start that shot in video, starting in slow motion, slowly bringing it up to normal speed!

To remind yourself of the reasons I want these capacities, you could go back to the Spring 2008 article and read enough of it to get the background, without wading through all the tedious stuff about those software trials.

The Dynamic Auto-Painter Program is one of several programs of interest to video makers (some of which we may review in a future article) sold by [mediachance](#), a privately held company started by Roman Voska, a Czechoslovakian programmer now living in Ottawa. This program seems to have been created by him and Román Cortés.

D-A Painter has more in common with GMX-PhotoPainter than with any of the others described in that Spring 2008 article, but with D-A Painter you don't have to do as much work, and it cost about half as much. With GMX-PhotoPainter you can have very complete control of the work flow and the results, or you can make all the settings and then let the program do the painting automatically.

With D-A Painter you make your choices and settings and then let it go to town. In continuous mode, it will continue working until you shut it off, but you can stop it at any time to make changes to the settings. About the only participation you have in the painting process itself is to drag the mouse around the screen to guide

the auto-painting to put more emphasis in areas of your choice, but in a few types of paintings, notably portraiture, you first indicate an area in which you want to maintain a closer adherence to reality.

There are twenty preset styles of painting: Aquarell, Benson, Camille, Cezanne, Chalk, Felt Tip, Illustrator, Klimt, Monet, Pastels, Pencil, Portraitist, Realism, Sargent, Starry, Sunflowers, Vegetables, Watercolor, Wax, and WetOnWet. Most of these names give an indication of what to expect ("wax" is "crayons") but wait till you see what Starry does to an architectural structure!

All 20 Presets are shown on [Page 7](#), using a portrait I'm sure you've all seen [before](#). Of course, some of these styles are better suited to landscapes, flowers, etc., but I don't think vegetables will get much use!

But you aren't limited to those 20 Presets! There are a number of Palettes from which you can select, you can choose between the extremes of Expressive and Realistic, Dry and Wet, set Minimum and Maximum Brush Size, and Number of Strokes up to 4000, or Continuous (it will make many thousands of brush strokes until you stop it). You can select from 4 different Resolutions for the Canvas, Vary Sliders from Faithful to Impressionist and from Real to Surreal, and the Detail Brush Time from Less to More in seven stages, and seven Quality Settings from Speed to Precision.

I could give a much more detailed description of the process but there isn't much point in it when you can see demonstrations of the program working, on its own and guided by the operator, on [YouTube](#) (and when the demo finishes you can click for more). The samples shown truly reflect the way the program works, the speed as which it works, and how much of the work is done by the program, unattended!

The price advertised on their web site is US\$48. You download and install the Free Trial, which puts a "watermark" on each painting when you finish it. To buy the program you go onto their web site and you'll be charged the Canadian Equivalent Price, plus about C\$6.00 for the Registration Backup Service (good for one year), bringing the Total up to about C\$60 (C\$59.58 today!) and they'll email you the Registration Number that you enter into the program to be clear of future watermarks.

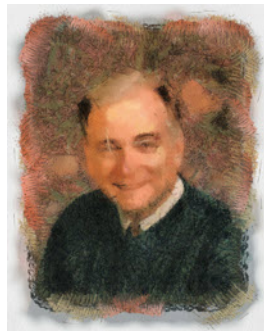
By the way, I no longer feel that converting individual video frames to paintings and then stringing them back together as video would work, not only because of all the work involved, but because each painting will be different, and that will make the video "crawl" or "squirm".

I now hope only to produce paintings from photographs, postcards, etc., to provide more variety in those many instances where stills have to be used instead of video, and I'm placing my hopes for *animated* paintings in another direction now.

For my latest approach, please see [CGI on Page 12](#).



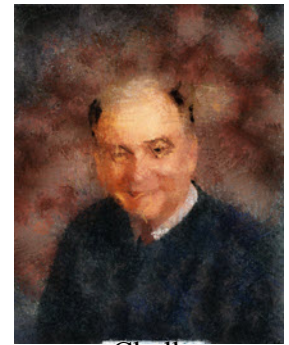
Realism



Illustrator



Pastels



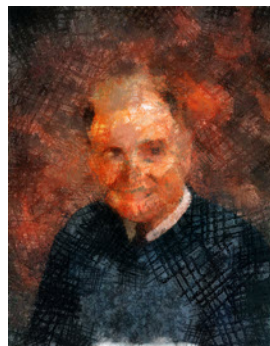
Chalk



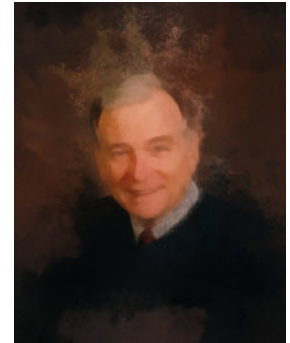
Pencil



Felt Tip



Wax



Portraitist



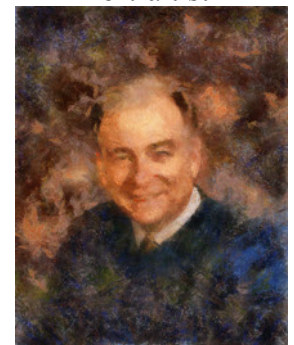
Watercolor



Wet On Wet



Aquarelle



Benson



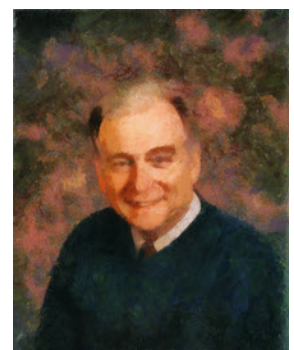
Camille



Cezanne



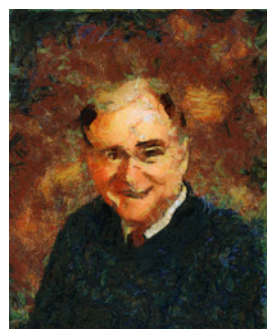
Sargent



Monet



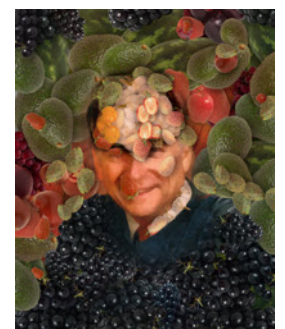
Klimt



Sunflowers



Starry



Vegetables

RECORDING GOOD SOUND FOR FILM AND VIDEO

JOHN COOK REPORTS ON THE NOVEMBER 14th WORKSHOP OF THE MULTICULTURAL CINEMA CLUB OF KITCHENER

SPEAKER

Earl McCluskie is a recording producer and engineer based in the Waterloo region. In addition to CD recording and concert production, he has worked in audio post-production with the CBC for the Nature of Things, Fifth Estate and drama, as well as numerous independent video productions. He is currently producing a video documentary for the Wellington Winds, and as recording producer and engineer on an independent film project with Helmut Lipsky and Stefan Pleszczynski (CBC's Da Vinci's Inquest, Intelligence) in Montreal.

EXECUTIVE SUMMARY

How to make the best of the bad audio situations encountered in on-site video recording.

1. Always monitor the sound with quality noise attenuating headphones.
2. Don't use AGC (automatic gain control on the audio).
3. Turn off noise sources if possible. Stay far away from noise sources.
4. Use an omnidirectional lavalier microphone rather than a more distant cardioid or shotgun.
5. Avoid hard reflective surfaces close to the microphone.
6. Beware of mixing microphone signals together.

Poor audio can spoil an otherwise good film or video. The two main concerns are noise and poor intelligibility or sound quality. We are trying to get the desired audio signal cleanly and well above the total noise floor.

MICROPHONES

Microphones can be classified in 7 different pickup patterns: omnidirectional, cardioid, hyper-cardioid, super-cardioid, bi-directional, surface and parabolic reflector. The graph of the directional pickup characteristics of a microphone is referred to as its polar pattern.

1. Omnidirectional

Omnidirectional or pressure microphones are of simple construction and pick up sound from all directions. Like all devices, they are not perfect, being more sensitive to the higher frequencies from the front.

2. Cardioid

This is the basic heart-shaped directional microphone pattern. It cancels sounds from the rear by slowing down the sound reaching the rear of the diaphragm with a array of frequency selective delay passages so the sound coming from the rear cancels the sound coming from the front. Because we are dealing with discreetly tuned passages, its frequency response is never as smooth as the omnidirectional on axis, and is markedly poorer from the sides and rear. This poorer quality is euphemistically referred to as colouration. One can simulate the effect by forming a pipe with one's hands leading to the ear and listening to the sound quality.

One of the most famous professional microphones, the legendary Neuman U-67, exhibits horrible polar response even slightly off axis. It has been the most popular microphone used in professional vocal recording for over five decades, as listeners of pop music have gotten used to its peculiar sound which has good punch on cheap sound systems.

A microphone's polar pattern generally is only published at 1,000Hz. At higher frequencies, the polar pattern gets quite lumpy, and becomes omni-directional at low frequencies. One often has to dig quite deeply to get the polar patterns at frequencies other than the 1000Hz which is usually the only frequency at which the pattern looks like a cardioid. Even the most expensive directional microphones have disappointing looking polar patterns the further we get from 1,000Hz.

3. Hyper-cardioid

This pattern has a narrower front lobe than the cardioid, accompanied by lumpy rear lobes at 1,000Hz. At high frequencies the patterns are still narrower towards the front and lumpier to the sides and rear. At low frequencies it also reverts to omnidirectional.

4. Super-cardioid

The super-cardioid has polar patterns more exaggerated than the hyper-cardioid. The hyper-cardioid and super-cardioid don't have specified definitions. The shotgun microphone is referred to as a hyper-cardioid by some manufacturers and as a super-cardioid by others. It is readily identified by its long length and openings down the side for the delay lines. Generally, the longer the microphone slot array the more directionally selective the microphone is. Unfortunately, the more directional the microphone, the more coloured the sound is even slightly off axis. For this reason, it is very important that highly directional microphones be aimed accurately.

5. Bi-directional

The ribbon microphone uses a micron thin z-folded limp ribbon in a strong magnetic field to convert sound velocity (as opposed to pressure) to an electrical signal. It's pickup pattern is a figure 8, being absolutely dead to sound coming at right angles to the ribbon. Unlike the cardioid, it's pickup pattern is remarkably consistent through the full range of frequencies. It's sound reproduction can be very good indeed, with very little colouration. Unfortunately the fragile ribbon is often blown out by the common habit of blowing into the microphone, so it is only of use in protected studio environments.

6. Surface

Surface microphones are typically mounted on a large surface such as a floor or a large table and pick up the sound that impinges the hard surface. This is a very unconventional design with unique characteristics over which there is little control. It would appear to have little application to portable video recording.

7. Parabolic Reflector

A microphone is mounted at the focal point of a hard plastic parabola. *Similar to a reflecting optical telescope, the pattern and gain can be changed by design (focal length and f stop).* To be of manageable size, the directional low frequencies cut off early. This is not a severe limitation for the high frequency songs of birds, squirrels, crickets, etc. in nature films. The microphone is still omnidirectional for the low frequencies as are other microphones. Remember though, that the higher the frequency the greater the loss with distance through the air, so you can't be too far away.

MINIMIZING NOISE PICKUP

The best way to minimize noise pickup is to record far away from noise. **Always listen with noise cancelling headphones to check for problems.** If the noise source is unavoidable, get the microphone as close to the speaker's lips as possible so his voice is at a much higher level at the microphone than the noise. Also make sure the microphone is directly pointed at his lips to pick up the high frequencies, so important to speech intelligibility. Otherwise you'll have to compensate by boosting the high frequencies in post production, also boosting high frequency noise.

Start with an omnidirectional microphone for optimum sound quality. A cardioid microphone up close is the next best approach, as it will reduce the higher frequency noise off axis while adding colouration, but it has to be pointed more accurately than an omni. *Most lavalier microphone have a boost in the presence range of frequencies around 3,000 Hz. The idea is to recover intelligibility lost due to the fact that although the microphone may be pointed at the speaker's lips, it is not on-axis directly in front of him. If a lavalier is held directly in front of a speaker, it will have a more piercing colouration.* Earl discussed the many methods of hiding the tiny microphones now available, in the clothing, in the hair, near the hinge of glasses etc.

Getting close is a vastly superior technique from the sound quality standpoint than trying to minimize the noise with a cardioid or shotgun microphone at a distance.

Wireless microphones are certainly convenient, but in addition to possible interference from other radio devices, there is always a noticeable degradation in quality caused by the wireless link. Wired is better - in this case cheaper is better, as far as quality is concerned.

LOW FREQUENCY NOISE

Low frequency noise is the biggest headache with all microphones, as all popular types pick up low frequencies quite uniformly from all directions. The characteristic of omnidirectional low frequency pickup is the cause of the initiation of feedback in PA systems, which will typically take off in harmonics of the low frequency that initiated the feedback.

The best way to address the low frequency noise pattern is to record at a location where it doesn't exist. If unavoidable, low frequency noise can be reduced by rolling off the low frequencies preferably during recording rather than post production. If the low frequency signal is large, it will cause inter-modulation (I.M.) distortion to the higher frequencies, which will remain even after the low frequencies are rolled off.

WIND NOISE

We're all familiar with the rumble of wind hitting a microphone diaphragm. The first line of defence is to get out of the wind. A foam filter covering the microphone is the second line of de-

fence, at the expense of muffling the high frequencies. The second line of defence is a fake fur wind sock. The muffling effect of fake fur is even more dramatic as Earl demonstrated by talking through one. Muffling reduces intelligibility. Highs will have to be boosted during edit, with the resultant increase in high frequency noise. One approach, which doesn't muffle the sound nearly as much, is to contain the microphone in a cage over which a condom is stretched. Works well - looks awful.

HANDLING NOISE

Microphone handling noise varies with the specific microphone designs. Some of the best studio microphones have the worse handling noise, as they are meant to be mounted on isolation mounts on microphone stands. In designs optimized for minimum handling noise, there is a suspension for the microphone element, and the wiring from it is flexible enough so little of the case and cable vibration is transferred to the microphone capsule. There is no specification for measuring handling noise characteristics, and you can only verify performance in this regard by trial, so let the buyer beware. The worse microphones, in this regard, will even pick up the vibrations induced in the cable.

OTHER NOISE

It's always advisable to carefully monitor the sound with noise cancelling headphones during the whole shoot. Earl has experienced RF pickup from I-phones and Blackberry handsets in the vicinity that resulted in chirps picked up by his studio microphones. It took him a while to figure out that the inaudible chirps were caused by the handset's radio waves getting into the microphone circuitry. So it's a good idea to turn off all cell phones in the vicinity when recording. *Some dynamic (ones that use magnets and coils) microphones can pick up interference from magnetic fields, such as transformers, florescent ballasts, electric motors, car ignition, TVs etc. If you suspect the noise you hear may be coming from one of these sources, try repositioning the microphone to a position that cancels the noise pickup. All of the above sources of interference can haunt wireless microphones, though you might find a clear channel.*

REMOVING NOISE

Once you have the noise recorded, only limited steps can be taken to reduce it. If it's a hum from a florescent ballast, a low cut filter will help. You may have to include notch filters at 60Hz, 120hz, 240hz etc. - not something easy to do. A comprehensive audio filter system can be used to filter out the offending frequencies, if you have the skill and time, but you will also filter out some of the content frequencies. The more drastic the filtering in the important human voice frequencies, the more coloured the sound.

A noise reduction program such as the one within the Magix Movie Edit Pro video editor can be surprisingly effective in removing ambient noise, with a few clicks of the mouse, after one gives the program a sample of the noise alone. I've found it most effective in removing furnace noise and the ticking of a clock.

In a ridiculously extreme case, where the original speech is completely drowned out by the noise, the program can totally remove the noise, making speech quite intelligible, BUT the sound quality will sound like one is listening through an array of resonating pipes due to the aggressive filtering. The filter parameters can be adjusted to bring back a bit of the noise to mask the colouration, but we'd have to be really desperate pushing the technology that

far. If we haven't been using our headphones, and getting control of the situation, the only solution may be ADR.

ADR

Automatic Dialogue Replacement. Nothing automatic with this technique, except it is automatically used in the movie industry. Movie sets tend to be noisy, with poor quality sound effects from the live recording. ADR is done in a sound studio. While watching a monitor and listening to the recorded sounds with headphones, the actors re-record the dialogue trying to lip sync.

These days, with the common abominable video/audio sync of digital TV, bad lip sync wouldn't be noticed. Lip sync performance will have to improved if the audio/video sync problems are ever solved for digital TV. One area where lip sync is a real art, is in Quebec, where they manage to lip sync French in place of the English dialogue. I'm always amazed how well it's done.

Optimized sound effects are also mixed into the final audio track. It is very important that a significant period of clean background noise is recorded on set, as the dead silence of a studio is unnatural. Make sure this background doesn't include a recognizable sound such as a bird chirp which would sound canned if it repeats every 10 seconds.

AGC

Using the Automatic Gain Control to automatically control the volume of the sound can cause problems with the sound track. If for example, a door is slammed, this system will reduce the gain, expecting another door to slam. If no slam occurs, the gain will be slowly increased to bring the sound level back to normal. In the worse case, pumping of the sound levels will occur. Most manufacturers use proprietary algorithms to program the action, and it's hard to predict which conditions will present problems. It's very time consuming to try and clean up the sound track of this level pumping fault.

It's far safer to use manual settings of the audio gain, set to 10db below peak, for the maximum expected sound level, done on a sound check. 10db is usually plenty of margin for unexpected peaks, and is safe enough because of the low noise floors of modern audio equipment. If a door gets slammed and the audio clips, you must re-record if it's over top of the speech you need. Otherwise just edit the noise out. You need to pay attention to your headphones.

LIMITERS

A limiter adjusts the gain very rapidly to prevent the audio from overloading. When digital audio overloads, we hear a loud unnatural high frequency noise - most irritating. Some cameras have built-in limiters. External limiter are available to be added between the microphones and the camera.

MICROPHONE PLACEMENT NO-NOS

Hard surfaces near a microphone cause major sound colourations. The reflected sound will hit the microphone's diaphragm at high enough amplitude to cancel the incident sound at specific frequencies through the whole audio spectrum, so the resultant frequency response looks like a comb - bad colouration. Earl demonstrated by talking into the corner of the room - the detrimental effect was quite startling. This effect is quite noticeable in a car with its hard glass surfaces. If you can afford it, it can be eliminated by removing the windshield and rolling down the windows.

Otherwise, get the microphone as close to the lips as possible and as far away from the glass as you can.

Problems arise if you are mixing the signals of two or more microphones into one channel, as in an interview. Each voice will be picked up by both microphones having much the same effect as a nearby hard surface - comb frequency response. The general rule of thumb is to make sure the distance between microphones is at least 3 times the distance from each microphone to its speaker. So you are stuck keeping the speakers far enough away from each other. If the sound environment is controlled, you can have them close to each other and use a single or coincidental stereo microphone set-up - see stereo below.

If you are mixing the signal from microphones, it's best if they are identical types and the wiring is identically phased. Don't mix cardioid and omnidirectional types, as the pickup patterns will mix and very strange pickup patterns can result with dead spots where you expect live spots, and live spots where you expect dead spots, and you can get totally out of control.

HIGH QUALITY STEREO SOUND

This requires a relatively quiet controlled location. The easiest way is to use a one piece stereo microphone. You can also use a pair of cardioids with the diaphragm of one located directly over the diaphragm of the other. The pair are set on a plane, facing the music, at an angle of 90 to 120 degrees to each other. Make sure you plug the left facing one into the left channel.

This technique is know as X-Y recording, coincidental location or a Blumlein pair. It gives very good and stable stereo sound images with minimum colouration. One can actually get very decent stereo sound if your camcorder happens to have a good built-in stereo microphone (such as a Sony DSR-HC-9) and the sound source is loud and close enough.

PROXIMITY EFFECT

The proximity effect is more pronounced with the larger diaphragm and ribbon microphones. As one gets closer to the microphone, the low frequencies are boosted giving a booming authoritative tone to the voice. Taking advantage of the proximity effect is a favourite technique for sexy sounding male announcers.

Bing Crosby used this effect to great benefit to enhance his weak voice by singing very close to the typical diamond shaped ribbon microphone. Ba Ba Ba BOO. There is a marked contrast in Bing's talking and singing voice in his movies. For more natural sound, these old ribbon microphones had up to 3 position low cut filters built-in to compensate for 3 ranges of distances. Most of the large diaphragm condenser microphones also feature built-in selectable low cut filters for this same reason. So low cut filters in microphones, microphone amplifiers and mixing consoles can be used to reduce low frequency noises, audible hum, as well as the Ba Ba Ba BOO of close voice miking.

RECOMMENDED WEBSITE

Earl McCluskie recommended a [website](http://www.iofilm.co.uk/io/mit/001/good_sound.php) which had a good summary of audio recording considerations.

www.iofilm.co.uk/io/mit/001/good_sound.php

NB the 001 is all numbers. The rest of the o's are the letter.



SURROUND SOUND MICROPHONE SYSTEM

Holophone PortaMic 5.1

By John Cook

The surround sound aficionado can now record surround sound on his camcorder on the 2 channel stereo audio tracks!

Overview This surround-sound microphone is designed to clip into the accessory shoe of your camcorder and encode Dolby ProLogic II surround-sound on to the two channel audio tracks of your camcorder. On playback, the sound track can be decoded back to 5.1 channels using SurCode or any Dolby PLII decoder commonly used to decode surround sound from DVDs.

Description The microphone system uses 5 microphones protruding out of the face of an egg shaped body facing left front, front center, right front, right rear and left rear (this is for the 5 in the name). There is also an internal microphone that responds from 100Hz to 20Hz for the sub-woofer (this is for the .1 in the name). The egg shape is horizontal with the pointy end facing forward. The structure reminds me of Kermit's head minus ping pong ball eyes and mouth, and it's the usual grey foam filter colour rather than green. The egg is mounted above a box that contains the Dolby PLII encoding electronics powered by a 9V battery. The output is via a 3.5mm plug that plugs into the external microphone inputs of most camcorders.

The performance spec, which has me confused, is the signal to noise ratio, which is specified at more than 64db. With a maximum sound pressure level specification of 130db, this calculates to a noise level of 66db, which would be very loud indeed. I would suggest anyone considering a purchase test the noise level before committing. Electret condenser microphones do tend to be noisy. Perhaps the processing adds up the noise from all six microphones.

Company Rising Sun Productions of Schomberg ON, starting up in 1994, developed their Holophone series of surround sound microphones with cooperation from Canada's National Research Council. Their earlier professional products (\$4,000 to \$6,000) were used throughout the film, video and TV industries. The professional line supports all the various 5.1, 6.1 and 7.1 surround sound systems, including IMAX, Dolby Digital EX, DTS ES, Circle Surround II (CS II), Dolby Digital, Dolby ProLogic II, DTS, Circle Surround, AAC, WMA and SDDS.

Cost The PortaMic 5.1 is their entry into the serious amateur field at \$500 U.S. The large windscreens which you would definitely need for external use sell for the professional price of \$300.

Principle of Operation The idea behind the design is to simulate the sound fields around the human head which allow us to detect the direction of sounds, with omni-directional micro-

phones facing the directions required. Omni-directional microphones are directional at the higher frequencies we use to determine sound direction. Being omni-directional, these microphones do not suffer from the wavelength cancellation effects that cardioid microphones do. On the PortaMic 5.1, each of the 5 directional microphone elements is mounted on the horizontal centerline of the egg, mounted in the center of individual hard plastic mounts looking very much like nipples. There's also an internal sub-woofer microphone.

References You can read a review of the Holophone PortaMic 5.1 in the December 2009 issue of *Videomaker*.

[Sun Productions Ltd.'s Website](#)



THE WNED "OUR TOWN" PROJECT

Thom Speechley



Video and film clubs rarely get a chance for such a shooting challenge (and free PR) like the opportunity that came recently to the Brant Videomakers Club. The city of Brantford is about 109KM (70 miles) from Buffalo NY and is considered part of the market area for PBS affiliate station WNED. In fact, along with Hamilton, Toronto and other centres in Southern Ontario, that geographical area provides a significant source of WNED's operating income from viewer donations. To recognize this involvement, the station has, for several years been creating a series of one-hour productions titled "Our Town". Each program is dedicated to a single city or community in the viewing area. In Ontario, in addition to Brantford, places selected include Kitchener/Waterloo, Markham, Niagara-on-the-Lake, and Welland.

Along with about twenty-five other local video enthusiasts, Brant club members Dan Kennaley, Randy Hincks, Terry Kittridge, Keith Gloster and Joan Jacquemain each accepted an assignment to provide footage for the final production. Local sites covered by the club group included the Brantford walking trail system, the venerable CNR railroad station and the Sanderson Center for performing arts. Club members and other participants got a preview of the production on November 30th, at a local meeting facility. **The program is scheduled for broadcast on Saturday December 12th at 6:30PM.** You will also find more details about the project at The [Brantford Project Page on the WNED web site](#). Be sure to use the link there to Keith Gloster's tour of the Sanderson Center.



CGI By Fred Briggs

I'm about to take us on a journey where most of us have never been before. A few of our members are already way ahead of the rest of us, and many of you simply won't want to go, and won't go. But I need to start with some of the reasons I want to take us this way, and it's going to be a rough ride, like walking down the aisle of a speeding, lurching, train, especially when we pass from one car to another.

First, let's look at the Art of Magic. My sister was a performing magician, and my father invented magic tricks and for a while was the President of the local Magician's Union. I learned a few tricks from them, but mostly I learned some important principles. What the layman calls a Trick, is really a series of Tricks, each of which must be performed perfectly to create the illusion. Most of the routine has to be performed exactly right, or the whole thing falls down, or worse yet, the audience will see how it's done. If someone shows you a magic trick, don't ask him to do it again! He won't. If he does, you'll see that it's exactly the same as the first time, and start to figure out why it has to be done exactly that way to make the trick work. Of course, much of the routine is designed to contribute to the distraction of your attention, or designed to be different so that if you think you know how he's doing it, he suddenly convinces you that you're wrong because that "single solution" doesn't hold up anymore. You can buy tricks, or gimmicks, but that won't make you a magician. Magic is a skill – an ART!

Making movies is much like Magic! Many critics declare Citizen Kane as the best movie ever made, and it's my favourite too – I can watch it over and over, getting more out of it every time. It was Orson Welles's first film. He brought his experience as a Stage Magician to Hollywood, and poured it into Citizen Kane. Books have been written about how Welles accomplished some of those fantastic shots by applying what he knew about stage magic.

I should have made it clear immediately that I'm *not* talking about the art of story telling, or character development, or plot development, or script writing, or directing actors, or lighting or cinematography, all of which are extremely important to the success of a movie. I'm really talking about the visual art of presenting things that aren't real, commonly referred to as Special Visual Effects.

In the past they were sometimes produced optically, or mechanically. Artists were hired to paint scenes on glass to place between the actors and the camera. For Jaws, they built a mechanical shark. Flying saucers, and Superman, were suspended from thin, strong, titanium wires. I won't go on because I know you know all about those "tricks".

Sometimes the monster was a man in a monster suit, like The Creature From The Black Lagoon, but in the first Alien film, the audience didn't once see the entire Alien! Often it was just a shadow (of a man in a suit, or a cardboard cutout), sometimes it was just a moving foot, or an arm operated on strings like a puppet, or a model head operated from below by a puppeteer using sticks! This was the magician's art: stringing together a series of tricks to produce an illusion.

Now let's lurch into the next car.

When I first saw Star Wars I was thrilled to pieces. Sure I enjoyed the movie, but what really thrilled me was that it was now clear, thanks to George Lucas, that from that moment on there was nothing to hold back the imagination of the creative writer. Any-

thing could be filmed! Jumanji! What Dreams May Come! Baron Munchausen! Night At The Museum! I could go on, but you get the idea.

Of course, with a Hollywood budget, just about anything could be filmed anyway, but it's getting better all the time.

Next Car.

I've always believed that anyone aspiring to be a writer, should read a lot of good books, and anyone wanting to make films, should watch a lot of films. In the past couple of weeks I saw Disney's Christmas Carol and 2012. Christmas Carol is all animation in terrific 3D, but it isn't drawn by hand the old way. It's all computer animation. 2012 is partly real sets and actors, and partly computer animation.

Carolyn hates Special Effects films. "It's all BLOW THEM UP!" But she loved both these films, and thought each should get the Academy Award for Special Visual Effects! But by the time you read this, James Cameron's Avatar will probably be out – Science Fiction with live actors and sets and computer animation in 3D. *This year* I'll watch the Academy Awards. (It's usually all about Actors and Actresses!)

But the budgets for these three films is out of my range. I want to make a very big documentary, about a great number of different subjects, so I watch a great number of documentaries on television to pick up all the tricks I can. Most of these are Canadian, and they have to keep the budget down (but not down to our level). Prehistoric animals, space stuff, ancient battles, ancient cities, engineering, all kinds of history, and more different kinds of computer animation then you'll ever see at the Cineplex!

But can I do this stuff myself, on my own computer? I sure hope so!

I've been immersing myself in the world of 3D Animation for the home computer for over a year now, and I find there are a great many programs available, some quite expensive, and some free. Over the past 10 years a whole cottage industry has arisen with people designing clothes, faces, hair, models, props, furniture, scenery, etc, at home, and selling it on the internet, for affordable prices, mostly through a few "brokers" or "portals".

I kept running into it when I was searching for more information on (stereoscopic) 3D, and I was annoyed when I so often found that they were talking about computer drawings that made a figure look three dimensional with lighting that behaved as though the figure was three dimensional. I hit even more of it when looking for "in-betweening" software, part of my effort to convert real video to animated paintings. But some of those "wrong turns" turned out to be very interesting, and slowly I've acquired much of the software I'm going to need for CGI. All I need now is the time to master it all.

I'd like to take you along with me on this journey.

Let's start right now!

First, click on [CGI](#) and read the summary on wikipedia. (You'll have to scroll down in order to read enough of it to understand what we'll be talking about in this series!)

Then come back here and I'll send you somewhere else.

My wanderings through the 3D Maze eventually led me to the work of Dr. David Martin, who happened to live in Ottawa, and we were able to present him as one of our Speakers at the Convention in September. He astounded everyone there, and he only had time to show us two of his short productions! Now you can go to [his web site](#)) and watch them all! If you start in methodically looking at everything on his web site, you may never get to his 3D Animations, so look for the strip of icons below the large rectangular

artwork. The first of those icons is a House (his Home Page) and the last is a Film Reel – Creative Animations and Images. When you click on that one you'll see Animations 1, 2, and 3, with each folder holding several short animations – 29 in all! Even if you aren't thrilled with each and every one, looking at all of these will show you what can be done with these techniques, and you should know that David didn't have to build all his components from scratch. He has purchased every item all ready to go, for very small fees!

The CIAFF has a Division for Animations (within each of the Classes of Amateur, Student, and Independent Professional), First place for Amateur Animation in 2008 went to *Attack of the Vortagons*, submitted by Laurie Calvert and his two sons, Laurie Jr. and Jonathon. They were so pleased with the Award that they emailed us a photograph of the three of them holding the trophy.



You can see *Attack of the Vortagons*, and many other projects they have done, at [Calvert Films](#).

Again, their work may not be exactly your cup of tea, but isn't it exciting to know that *you* could make the *videos you want to make*, at very little cost?

Whether you want to emulate Laurie and make full length feature films, or amusing little shorties like David Martin, or just want a way to shoot the unshootable like I want to, then maybe CGI, or 3D (for one eye!) Computer Animation is a way you'd like to go.

Many people disdain anything anyone does on a computer. How many times have you heard someone ask "How did they do that?" and heard (or gave) the answer "It's done on a computer!" The response is usually "Oh!, seldom "But how do they do it?"

In olden days, whatever we didn't understand was relegated to the category "Magic". I've always felt that it was a pity that the New Guinea tribesmen dismissed aeronautics, or the automobile, as Magic. You can only properly appreciate the intricacies of something you understand, and I know many people have no patience with, or use for, computers, though most of us in the hobby of video making have had to make some adoption of this newfangled wonderland. Still, I've heard of an individual in a Video Club insisting that a "video" made without a "Video Camera", can't be called a video at all, and must not be allowed to enter video competitions!

If you're quite sure that you won't want to get involved with "a new hobby", thanks for sticking with this topic this far, and you're dismissed now.

If you're still here, I'd like to point out that I'm prepared (no, not prepared, just willing) to help you enter this new field, and get your feet wet, but as we get into it deeper, you're going to have to swim for yourself.

I suggest that I guide you to some places where you can get free software, and you can download it to try. There's nothing better than trying something for yourself, unless it's getting it for free! There's no way to stop the curious (and some of us are very curious indeed) from nosing around and stumbling over something good, but I think it would be best if I provided a little help each issue and suggested a web site to visit, and something to download.

By the time we get to things for which you need to spend your money, you'll already have enough experience to know whether this is promising and you are ready to bite the bullet, just keep using the free (or nearly free) stuff, or delete it all from your hard drive and go back to the Land of the Innocent.

To start, I recommend that you visit the [DAZ web site](#). Here you can Register for Free and download the free DAZ 3D Program.



I suggest that you also download the Characters and associated articles of clothing, props, backgrounds, etc. that are also offered free. They may not be exactly what you will want later for your own video, but you have to start somewhere, and you'll need these things to start gaining experience.

I wouldn't recommend jumping right into the Tutorials they offer until you've gained a little familiarity with the program, the terms used in this industry, and the opportunities and problems that come with the program. First browse through the 435 Page Manual (pdf file, thank God!) to get some kind of overview, then play with the program and figures, etc., then go back to the Manual as questions arise, etc., and finally, for the more esoteric questions, try the Tutorials

That one first visit will probably give you more than you can handle the first month, but you may want to browse through some of the other stuff they offer for sale just to see what's available (but stay away from any other software for awhile). You'll notice that there are two different prices for many articles: a Regular Price and a Platinum Club Price (usually \$1.99). You'll see that the Platinum Club can save you a lot of money, but I wouldn't recommend the outlay for the Platinum Membership until you're ready to buy a lot of stuff. There are also regular sales, so it's well worthwhile to put items that interest you onto your Wish List for purchase later, and then, if they offer it on sale, the sale price would be the price now shown in your Wish List. From time to time, they also offer Free Vouchers, but they usually expire within a month, and they can't be used on Platinum Club Items. Don't be in a hurry to spend your money, but later, if and when you decide to purchase one of the various software programs, that's the time to buy into the Platinum Club! By the way, the Platinum Club has saved me a bundle, but I have not renewed the Annual Membership, but am now paying a monthly rate so I can drop out when I feel that I'm not getting enough use out of it.

In the next PANORAMA I plan to cover Poser and discuss the various figures, their idiosyncrasies, and talk about some of the things you will have run into since you started on this journey.

The pictures included as samples with this article are here to show you the quality of the items not only available in this 3D Animation Field, but are actual examples of the material that DAZ includes in its Free Download for you to get started.

Oh, by the way, to the best of my knowledge, everything in this field available for Windows is also available for Mac!



GREEN SCREEN WORKSHOP

By John Cook

On Saturday, Nov 28, I attended another workshop put on by the Multicultural Cinema Club of Kitchener. The purpose of this workshop was to give an overview and all basics related to Green Screen Room and its Options (colours, materials, portability issues), Lighting the Green Screen and Talent, Final Cut Workflow and Keying Effects.

It was presented by Chris Meidell who is the founder of Modevation Media and founder of WaterlooTech.tv. He is chair of the Media Producers Group of Ontario and has been involved with production and post production on 4 documentaries in collaboration with the Multicultural Cinema Club. Chris is passionate about storytelling and the tools we use to tell the stories.

With one of the few green screen studios in the Waterloo area, Chris shared some of his insights into shooting with a green screen in studio and in the field.

Executive Summary

Use a large smooth painted wall for a screen.

Light it softly and evenly - not too bright.

Locate the subject half way between the camera and screen.

For maximum realism, light the subject appropriately to the background that will be used.

Avoid subjects with key colours, see-through apparel, white apparel or curly hair.

Shoot in HD for significantly better results.

Keying

Green screen is a common application of Keying. Keying means making a select part of the image transparent to an underlying image. In addition to Colour or Chroma Keying, one can also do Luma Keying, which triggers on brightness levels.

Chroma Keying

The colours commonly used as a background for Chroma Keying are green and blue, as these colours are generally absent in the human face. If one used orange, portions of the face would become transparent, giving unnatural results.

Luma Keying

Keying on specific levels of brightness is commonly used on a smoke image, to make it transparent to the scene. This is a common way to add smoke to a scene. Typically the smoke images are obtained from a video library.

Screen Material

Painting a smooth wall with a saturated blue or green paint is the most reliable approach. The expensive photographic paints available are not necessary as there is enough adjustment in the editing programs to compensate for paint and lighting colour shifts.

Paper screens can crease and fabric screens can wrinkle causing significant problems.

For the demonstration Chris, used a 12 foot wide roll of green paper mounted on a Manfrotto frame.

Layout

The screen is the object the furthest away from the camera. It



is evenly illuminated by soft (large area) lights. The subject should be about half way between the screen and the camera to allow room for subject lighting and minimize the screen colour from illuminating the subject. This setup requires a relatively large screen. Spacing the subject away from the screen, not only minimizes the key colour light spilling on to the subject, but also allows a minimum depth of field setting to even out imperfections in the screen.

Camera

SD cameras usually yield disappointing results because of their fuzzy resolution of the hair profile. Use an HD camera for the most realistic looking results.

Screen Illumination

The screen should be illuminated softly and evenly. Soft lights yield very fuzzy shadows. Soft lighting means a large light source like a soft box, umbrella or florescent. The idea here is to minimize the variations due to surface irregularities. It's a good idea to check the evenness of the illumination using the camera's histogram or zebra stripe functions. Adjust the camera's f stop manually to bring the screen illumination within the operating range of these functions.

The screen should not be so bright as to spill its colour on to the subject. Blue and green florescent bulbs can be purchase for the purpose. These cut down on the intensity but greatly increase colour saturation. Similarly green or blue gel filters can be used in front of the lights to cut intensity and increase colour saturation. Keeping the screen intensity down will minimize green colour spillage on to your subject, as will keeping your subject away from the screen.

Take care that the subject does not cast shadows on the screen.

Subject Lighting

Using a rear highlight light is desirable to give the subject a three dimensional look. Remember to light the subject appropriately to the background you are keying in. If it's a beach scene, light it like a beach. You want the final product to look as real as possible.

Ensuring all lighting is of the same colour temperature minimizes undesirable light spilling on to your subject.

Colour Correction

Always use a white card at the subject to set the colour correction. As the green screen can be a major part of the image, automatic colour correction would be knocked off by the saturated green colour.

Subject Considerations

Avoid apparel that are of similar colour to the screen. Make note of glasses and jewelry. See-through cloth will mess up the key trigger points. Since white is all colours, it can cause significant difficulties. Curly hair also presents problems similar to see-through fabrics.

Object Floating in Space

Most green screen subjects are standing on the ground, but we only frame them well above their feet. Floating an entire person or object is much more demanding. The problem is screening the support area. How does one evenly illuminate the green screen which extends from in front of the subject to behind him, without

green spilling on to the subject? How does one keep dirty footprints off the green screen, which will be in focus? It is easier to suspend the subject in a harness with green suspension cables, a common practice in Hollywood.

Another challenge is shooting a floating object with a green support. The support could be painted, covered in green paper or green cloth. Lighting the support so it is a green colour even with the green background is challenging. Any imperfections in the support are harder to blur out, as they'll be closer to the focusing plane. Keeping green reflected light off the object will also be a chore.

Outdoors

Shooting outside with a green screen is very challenging indeed. You need a movable screen, to ensure it is properly lit by the sun, which unfortunately is a point source of hard light. The usual portable screens, paper and cloth, can seriously misbehave in the wind. Any creases will be highlighted by sunlight. Ideally you would want to illuminate the screen with a diffuse cloudy sky, but this lighting may not be appropriate for the subject. You could use the soft light from the sky by locating the screen in the shade, but this again may not be appropriate lighting for the subject. The basic problem is that sunlight overwhelms any lights you may want to use.

Author's note: A shining example of outdoor Chroma Key is the televised NFL games, where it is used to mark the first down lines and the 10 yard targets on the TV picture. The screen is the green of the grass. Works like Magix.

Editing Considerations

Chris demonstrated using the related key functions on Final Cut Workflow. There are specialty Chroma Key programs available such as Serious Magic that excel in Chroma Key. These are usually more demanding of finances and processing time.

As you adjust the key threshold, you will see a green halo around the subject. Adjust the key trigger to just eliminate the halo.

Use the matt function to show the key mask in black to verify that there are no unexpected effects.

It's best to zoom in on the image edges to verify that the settings are correct.

Remember that adjusting the image's colour will effect the key settings. So check when you adjust either. If you have green spill on to your subject, use the spill suppressor function or you may want to use the colour wheel to minimize this effect.

The demonstration showed how very tedious the process can be.

Movie Example

The movie 300 is a good example of an entire movie using green screen. [Click on the image below to see a 4 minute video about Making the Movie.] ■



BACK TO THE INTERNET TRUE OR FALSE?

by Thom Speechley

Anti-Virus and Anti-Spyware utilities are universally considered to be essential for all computer users. This is especially true for anyone who does a lot of Internet browsing. Maintaining the necessary level of protection by constantly updating the program with current data, the sometimes cumbersome and intrusive nature of some brands, can be a high price to pay for peace of mind. But now there appears to be a growing trend with another annoyance: "False Positives". False positives are something we have learned to live with regarding email "Spam Filters". It's not a major inconvenience to have to scan your in-box before sending spam to the trash can. However, a well-intentioned anti-virus program can cause havoc if allowed to make it's own decisions. This may be a growing issue and one we should perhaps review more frequently.



I discovered this hazard the hard way on the night of December 2nd, when my freeware antivirus program, "Avast" flashed a warning that I had just installed a Trojan. The program advised me to reboot the computer and let "Avast" rid me of this dire threat. I obediently re-

booted and left the room for about three minutes. When I returned, the program was still churning away and indicated that it had detected and DELETED 375 infected files! I immediately stopped the scan and began to examine the information on the screen. I recognized several of my favourite utilities and one of my DVD burning programs, which now no longer existed on my computer. I then started another computer and "Googled" the name of the suspect Trojan, 'Win32:Delf-MZG'. To my horror, the sites found by Google also listed the name 'Avast' and the subject 'false positives'. Opening one of the sites revealed that I had been the victim of a massive blunder by Alwil, the Czech company who created Avast. Their latest update was treating all data written with a particular computer language as a Trojan! So now I had to figure out how to restore all, or most of the programs and files which had been trashed by Avast.



I found a log of the scan in the program folder for Avast and printed its ten pages so that I had something to work with.

I could not use the Windows XP "Restore" feature because ALL of the records for that utility had been deleted! I worked at it until about 2 AM and decided I needed some

rest to deal with this situation in the morning.

Next morning, immediately after starting my computer, Avast popped up a message that a 'new' version was now ready for download. No explanation, no apology. Should I take the chance? Couldn't be any worse, so I installed the new version, which

promptly stopped telling me I had a Trojan. Now back to the chore of putting my software back together. It's still a work in progress but Alwil finally offered an apology (Gee! Thanks) and a link to simple instructions on how to restore all the trashed files. I will have to study that a little more before trying it out.

The purpose of telling you this tale of woe is that if you haven't yet had such an experience and you do get caught, there are a few precautions you can take to avoid the mess I got myself into. This was my first experience, as far as I know. And by the way ALL anti-virus and anti-spyware programs have a history of finding false positives. Again, it's part of the price.

If you do get a warning from your AV program, don't panic. First thing to do is verify if there is a real threat. Either pause the program or quarantine the suspected virus/trojan and close the program. If you are on a network, disable it or shutdown any other computers on the network. If you have a second anti-virus program installed, use it to scan the affected file. If the second program also finds the infection, it should be treated as real and the program should be allowed to remove it. Since you probably don't have a second AV program installed, you can check a suspect file at one of these free sites. <http://virusscan.jotti.org> or <http://www.virustotal.com>. Locate the suspect file, right click on the file name and select "copy". Then open one of those sites and 'paste' the file copy into the box. After the file is scanned and if an infection is found, it should advise you how to get rid of the infection. If it turns out to be false, reboot your computer and when your AV now tells you have a virus, tell the program to do nothing or to ignore it. It should have no affect on your ability to now use or run whatever file might have been involved.

