

Next Club Meeting: Wednesday, August 11th,
7:30 - 9:30 p.m. Cupertino Room,
Quinlan Center, 10185 N. Stelling Rd.,
Cupertino, CA



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Affordable HD Cameras

Tony Dometelli our July guest speaker explained pluses and minuses of the new video recorders. **Pages 1 and 2**

President's Message

Jack Gorham learns through music how editors can shape movies with unique characteristics. **Pages 3**

VP's Message

Mother Nature made Milt Kostner's photo trip to Alaska frustrating but he brought home some fine clips. **Page 3**

The making of "Harmonica Duel"

Craig vonWaaden screened his second music video and relates his technique. **Page 4**

Lens Filter Saves Editing Time

Bart Wittekind finds that some effects are simpler with camera accessories. **Pages 3**

Cheap Trick for Behind Camera RC

Milt Kostner shares his clever idea to expand the range of camera remote control. **Pages 3**

July 2010 Meeting
Highlight

Understanding HD

A presentation by Tony Dometelli

"Harmonica Dual"

A movie by Craig VonWaaden

Expecting only a discussion on several affordable HD video cameras, attendees at the July club meeting were presented with a wide range of knowledge about video capture in general by our guest speaker.

The Many Ways to Capture Video



Arranged by club secretary Fred Pfost, and attended by 23 members, the talk was given by **Tony Dometelli**, Video Production Manager at Keeble and Shuchat, possibly the Bay Area's premier supplier of photographic tools and supplies to the profession. Tony is well qualified to explain video capture in its various forms to the layman and answered questions from club members in a clear and understandable manner. He began his talk with consumer video's roots.

many. Since that time the camcorder has evolved in many forms to the high performance video recorders available today. Earlier camcorders shot mediocre quality linear footage which could be a nightmare to edit. Digital cameras changed all that by being far superior in quality and enabling a single person with one computer to edit a final production.

HISTORY

Before 1983 video cameras were very expensive professional production tools, and then Sony introduced its Betamax camera and JVC introduced the more compact VHS-C camera making videography affordable to

RECORDING DEVICES

Today one is not constrained to a camcorder to shoot video. Other devices include cellphones, compact digital still cameras, laptop computers and media players and even digital single lens reflex cameras. The video quality they capture however is

Wednesday August 11th Meeting
"Creative Editing" Movies Screened
Club President Jack Gorham provided members with 19 various video clips. In August we'll see what creative editors in the club can do with them.

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Continued from page 1

not the same, nor are their practical functions. Few can capture to standard TV formats and usually record at a slower frame rate of between 15 and 30fps (frames per second). However, with continuing advancement in electronic technology it is likely that these devices will eventually replace low-end camcorders.

VIDEO RESOLUTION

Video quality, outside of the camera's lens, is primarily the product of two things: frame rate and video compression. There are more than one standard frame rate used for television productions and are divided between interlaced (i) and progressive (p). Video compression is the business of reducing the quantity of information that the camera records to a practical size.

FILM AND TELEVISION FRAME RATES

The term "interlace" comes from early television's use of a cathode ray tube which employed phosphorous to illuminate the picture. However, by the time the horizontal scan reached the bottom of the picture the phosphorous had dimmed at the top of the picture. The solution was to scan alternate horizontal lines followed by scanning the previous non-scanned lines. For digital TVs this is not a factor so "progressive" or non-interlaced scanning where all lines are scanned sequentially can be employed. Camcorders usually offer a choice of either.

60i is the standard video rate per second for U.S. television and has been so since 1941.

30p mimics a traditional movie camera's frame by frame image capture for a close to cinematic appearance. It is the common camcorder rate.

24p is useful for transferring video to film and is the standard rate per second employed in sound/motion films. The slower rate causes a slight flicker which is believed to attract the attention of the viewer's eye.

50p and 60p may be used in high-end HDTV systems and mostly used in set-top boxes.

VIDEO COMPRESSION

Most video compression is termed "lossy" in that much of the data captured is not necessary for achieving a good visual result. MPEG-2 for example is a compression type used in DVDs that can compress a two hour movie by 15 to 30 times. Video compression works by comparing pixel blocks (macroblocks) from one frame to the next and only sends out the difference. This works best for stationary subjects but not so well for movement where the pixel blocks change from frame to frame and where the compression codec needs to send out more information.

AVCHD FOR HD VIDEO CAMERAS

AVCHD (Advanced Video Coding High Definition) Is a format co-created by Sony and Panasonic for recording and playback with high definition camcorders. It is also suitable for a range of recording media such as DVDs, flash cards and hard drives. Favorable reviews comparing AVCHD and HDV have made the AVCHD format acceptable for professional use.

CONSUMER HDV CAMERAS

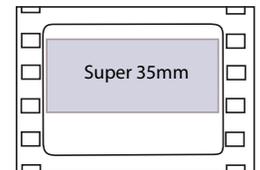
As a rule, cheaper cameras have small sensors, the heart of the video camera, ranging from 1/5th to 1/2 inch. Small sensors require greater compression (pixels crowded together) which may cause "noise". HD cameras require large sensors to fit a great deal more information on the same size frame as a standard definition camera. As one hour of uncompressed HD video adds up to 720 gigabytes of information some form of compression whether HDV or AVCHD is needed.

DIGITAL SLR

A major drawback of fixed lens small camcorders is the very short focal length they employ. Camcorders have moderately wide angle lenses designed to allow full focusing from near to distant objects. This severely limits control of depth of field if one

wishes to hold an object in focus while nearer and farther objects go out of focus. The answer to this problem may be to shoot with a digital SLR camera.

In recent years a number of dSLR cameras with HD video capability have been introduced, beginning with Canon's 5D line. These cameras have two advantages over the camcorder: the ability to change lenses and enable choices of shallow depths of field. While current dSLRs suffer from poor handling and video usability that the videographer requires, they have found a place in the arsenals of professional film makers who practice depth of field and optical techniques which the video camera cannot provide. Professional film production people using Canon's 5D cameras, which capture twice the resolution of movie cameras, work in the Super 35 motion picture format. The digital image uses the full area of film including the portion usually reserved for sound. Super 35mm is then printed to regular 35mm along with the separately recorded audio for movie house distribution.



COMBO-CAMERAS

In response to the move to shoot video with dSLR cameras several manufacturers have attempted to combine the features of a still camera and a video camera in one body. The first was Sanyo's Xacti HD1 which combined 5.1 megapixel still with 720p video capabilities. Canon and Sony have introduced camcorders with still photo features similar to a digicam while Panasonic working from the other side offers a dSLR with video features usually found only on a camcorder.

Tony's wide ranging presentation making sense of some of the more complex issues of HD video was very well received. He is available to answer video questions in the video department at Keeble and Shuchat's store in Palo Alto. ■

PRESIDENT'S MESSAGE



Artistic Talent and Passion

My wife and I just returned from Carmel where we enjoyed our week of glorious music at the Carmel Bach Festival. We have been going to the Festival for over 20 years and we were saddened by the final concert series by the conductor Bruno Weil and his Concertmaster Elizabeth Wallfisch. These two people have brought such exciting artistic talent and passion to the Festival which we will always remember. Maestro Weil had assembled talented musicians from all over the world to form a

magnificent orchestra. We hope his replacement will come close to his accomplishments.

On our return to the Bay Area, we played one of the musical pieces that we heard at the Festival, but by a different conductor and orchestra, and we were amazed at the difference in the two versions. They were playing the same notes, but the one at the Festival was so much better. It seemed to have more artistic talent and passion. Every conductor has their own interpretation and requirements of how an orchestration is to be performed.

The same thing holds true for editing a film, but even more so. Film editors work with the same film clips and yet they can make completely different stories. It has been said that a film can be three different stories, one by the screenwriter, one by the director and one by the film editor.

At our August 11 meeting we will be viewing seven or eight "Creative

Editing" stories that are based on the same film clips given to each participant. Last year, when the Board was planning the programs for 2010, I thought that giving members the same video clips and allowing them to create their own stories would be a good challenge. I assembled 19 different video clips on a disc and gave them to the eight members who accepted that challenge. I anticipate that we will see eight different stories.

I hope that many of our members will be at our August 11 meeting to see what different stories can be made from the same video clips. I think we should see some wide differences based on how each editor has interpreted the clips and how creative is his or her imagination. We hope this will bring out the artistic talent and passion of our members.

Jack Gorham

V.P.'s MESSAGE



My Two Cents

My wife and I just returned from a ten day vacation from normal retirement life and I'd like to tell you about it from a photographer's view. We flew to Fairbanks, bussed to Denali N.P., trained to Anchorage, flew to Juneau, and cruised for four nights.

Fairbanks is a small town that didn't represent any spectacular images to me. The highlight turned out to be a bus trip to the home of Mary Shields, first woman to finish the Iditarod sled race (third place - two women have won it since). Mary treated us to

an amazing two hour discussion of the race, the training of dogs, and a visit to her seven friendly dogs. Mary has been featured on a PBS DVD. Wouldn't you know that I thought this would be a nothing and left my video camera at the hotel in favor of my still camera. (Moral - always take you video gear along!) Anchorage and Juneau were more of the same. We didn't go for city life.

August is supposed to be one of the months of the year with minimum rain. Unfortunately nobody told Mother Nature! While we saw five bears, caribou, couple of moose, two fox and seven wolves from the 13 hour 91 mile road trip, the bus is not permitted to stop on the two lane road for more than a moment, again limiting opportunity to 3X zoom snapshots. Mountains? I became an expert at photographing the bottoms

of mountains under the low thick clouds. Mt. McKinley is visible less than 30% of the time. Likewise the train trip offered little opportunities.

Was this the way the whole trip would go? Please God, give us something, I prayed. We boarded the 84 passenger Cruise West Spirit of Discovery with 51 passengers on board. Immediately after departing from Juneau the clouds parted. My prayer was heard! Glacier Bay and it's many glaciers were seen and videographed in bright sunlight. The Margerie and John Hopkins glaciers were glorious in their splendor and the ship provided a smooth and stable platform for my tripod. I took lots of clips of this limited subject.

The trip proved once again that weather is critical. Prayer may help. Next time (if there is one) I go on land by my rental car but you can't beat a small cruise ships in Glacier Bay (unless you own a yacht).

Milt Kostner



The Making of the Movie "Harmonica Duel"

By Craig vonWaaden

My latest video project has been the 2010 Metro Fountain Blues Festival (a.k.a. San Jose Blues Fest). The video shoot was done with two other independent videographers. I operated my camera at the base of the stage while my friend Bill Lafferty operated my second camera from a tripod. Another cameraperson from CreaTV of San Jose was also recording handheld, plus the primary videographer associated with the festival was setup on a tri-pod. Fortunately, we all agreed to cooperate and collaborate.

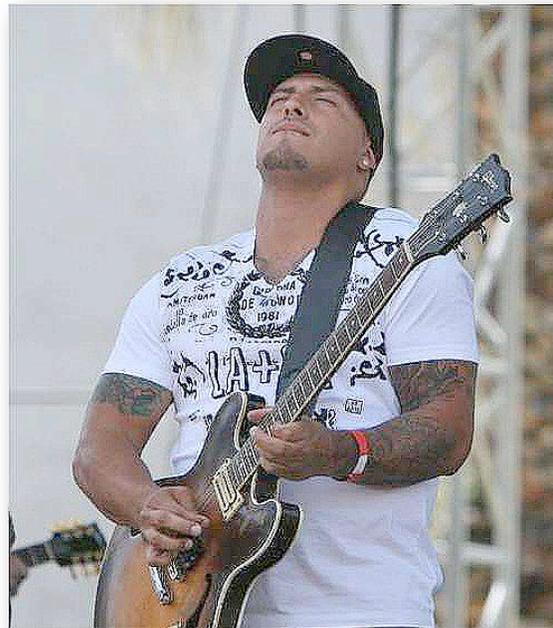
The video that I showed in July was the All-Star Band's "Harmonica Duel" between Andy Just and Gary Smith. I also have another song by Maxx Cabello Jr. that's edited and I'll almost certainly show it some other time if I have a willing audience (see photo).

The tricky thing about editing this video was the different formats used among the different crews. I used standard def, 16:9 mini-DV format, 30 fps. The CreaTV cameraman used standard def 4:3, 30 fps. Primary videographer used Hi-Def 720p 16:9, 24 fps using DVC Pro format. This is the got'cha when independent videographers work together last minute: three different formats and two aspect ratios. Not good!

Unfortunately for me, Final Cut Express (FCE) does not directly support DVC Pro format. In order to view the video I had to purchase a codec from a 3d party manufacturer (*Calibrated-Q*

DVC ProHD Decode by Calibrated Software). This took care of the different formats problem.

Once I got the videos loaded into FCE, I had to deal with the aspect ratio problem. One camera angle was shot 4:3 while the other two were 16:9. There was actually a simple solution to this. Since I prefer 16:9, all I had to do was enlarge the 4:3 video to fit the 16:9 frame. A 33% increase to the video fits the 16:9 frame perfectly yet didn't reduce the resolution noticeably. I also had to adjust some of those shots vertically so the subject fit the frame properly.



Guitarist Max Cabello Jr. Photo by Bill Lafferty

After that, I had to sync up the 4 camera angles. I often get asked how this was done but it's fairly easy for music. First I get all angles roughly in sync, say within a second or two. I shrink the scale (size) so I can see all camera angles at once on the canvas.

Then I find somewhere in at least two of the camera angles where the drummer hits a symbol. I set a marker on each video angle's frame where that happens. Then I slide one of the videos on the timeline until the markers are at the same point. Then repeat the process for the other angles. The other angles don't need to use the same sync point as the first two because the footage is continuous. This allows me to pick another symbol crash/sync point as some other point in the song.

The audio is a mix of the soundboard recording and one camera's mic. Luckily I have a friend who's an audio engineer. I gave him the all the audio records I had and some loose guidelines of what I wanted. In other words, I gave him a lot of freedom to do what he felt was needed. He returned the polished version (compressed, EQ'ed, sync'ed, etc.) to me in a few weeks. A good friend to have!

I have two songs edited at the moment but my goal is to complete at least three more songs. I'll keep you posted on the progress and where you might be able to see it once its done. ■

CLUB MEETINGS REFRESHMENTS VOLUNTEERS

The club thanks those who will or have provided refreshments

Jan 13th	Fred & Joann Pfrost
Feb 10th	Bernie & Nancy Wood
March 10th	Brian Lucas
April 14th	Richard Brownlie
May 12th	Irv & Mary Webster
June 9th	Linda Grodt
July 13th	Bob Meacham

Aug 11th	Jim Gorman
Sept 7th	Stan Smith
Oct 13th	Frank Yap
Nov 10th	Janet Holl

A Time Saving Camera Filter

By Bart Witterkind, our member in Bangkok

I have been spending too much time working in Photoshop selecting and lifting a particular subject from the center of a photo and then placing it on a blue background. I then transfer it to my video editor where, using the "Blue Box" feature, I can place it where I want. All this takes more time than I would wish.

Then I remembered that I had a camera lens filter which I have been carrying around with me forever that might speed the process up. (Fortunately my Camera shoots stills in the 9X16 size.) Now that I have finally tried it, I am pleased with the result. I thought about this just before a shoot in Chaing Mai, Thailand where they were to have a Flower Festival.

The lens filter has a clear center which graduates to white, becoming more dense as it moves out to the perimeter. This blocks out the edges, which in this case are not wanted,

and the center retains the subject in full color.

The effect allows the "white" to be tinted slightly with the more vibrant colors of the photo.

I plan to use the silhouetted flowers with a white background in the movie's introduction. The title script is placed under the flowers and will fly (zoom) in to the center.

I have two more filters to test from the set and will keep you posted. Hope this will stimulate a short cut idea for your future editing and shooting. ■

Illustrations at right from top to bottom:

- 1). *The original scene*
- 2). *Through the camera lens filter*
- 3). *The final edited title slide*



MEET OUR NEW MEMBER Jim Gorman

Jim considers himself a beginner videographer. He joined the club to improve his editing and creative skills which he wants to apply to his mainly family and sports movies. Watching members movies and discussing their techniques he hopes to learn what they did to make them interesting. You can meet Jim at the August meeting where he will provide the evening's refreshments.

Welcome to Viewfinders, Jim.

TREASURER'S REPORT FOR JULY 2010

Bank Account Beginning 7/1/10	\$1722.17
Income Subtotal:	\$19.00
Dues (1) \$14	
DVD Sales (1-MT) \$5	
Expenses Subtotal:	\$54.28
Contest Entry Fees \$50	
Contest Mailings \$4.28	
Bank Account Ending 7/31/10	\$1686.89

JOIN / RENEW THE VIEWFINDERS CLUB FOR 2010

The membership dues for new members is pro-rated and now just \$14 for individuals, \$17 for families and \$5 for full-time students. The renewal dues for members is \$30 for individuals and \$35 for families. Bring your check or cash to our August 11th meeting. Make your checks payable to the "Viewfinders Club".



Frank Swanson

DIY Camera Remote Fix

If you are willing to invest a bunch of money on a more expensive camera than I own, you can purchase radio based remote operators to eliminate the small jerks which occur when you push buttons on your camera to start and stop your take, or zoom the frame (especially in HDV). I can't go that way.

My Cannon HV-30 does come with an IR remote, but it's usage is limited to the front side of the camera. You know, a remote you use to include the cameraperson in the captured image. It doesn't work in three-quarters of the circle around your camera.

I've discussed this lack of utility with my friends and came up with a couple of possible solutions. One was to mount a 180 prism onto the IR sensor so that IR signals from the rear would be recognized. But this had the drawbacks that such prisms are rare and expensive, that you may possibly damage the camera sensor and that the prism would stick out from the camera and snag on your case.

A second possibility was to use optical fiber routed from the camera back to front. The problem here was the need for a 90 degree fixture to get the concentrated ray into the sensor and what to do with the back end transmitting fiber.

While the second way was more attractive I thought there had to be a better way. I happened to chance on a clear straw, the kind with the bend for horizontal sucking. Why not try that? It was easy to tape it up to the camera, and it worked! The straw diffused the beam enough IR to trip the sensor! (See photo) Three short gobs of rubber cement replaced the tape and held it nicely in place without interfering with the camera operation. And it doesn't interfere with the remote-up front usage. A little innovation goes a long way. Note: This technique may work with any camera featuring an IR remote. ■

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VIEWFINDERS SUDOKU PUZZLE

By Frank Swanson

The goal of Sudoku is to fill in every empty box with one of nine letters. Each letter can appear only once in each horizontal row, as well as only once in every vertical column and only once in each of the nine 3X3 squares. This month's puzzle contains the nine letters A, D, G, H, I, N, O, S and W. To help you get started, let's say you wanted to put an "N" in the top middle square where the letters H, A, O, G and D are located. You couldn't put the "N" in the left column because there already is an "N" in the left column of the center square and in the right column of the bottom middle square. So the "N" must go into the only open square of the middle column between the "H" and the "D". As another clue, the nine letters form a word that refers to the process of enhancing text overlays in video titling. Have fun!

				H				
			A		O	H	W	
O		W	G	D				I
I							A	N
				I	A	O		H
	A	G	N	O	H			S
G	N	S					H	
A	I		H	G	W			D
H		D			N			A

Answer can be found on page 8

TECH TIPS

SHOOTING TIPS FOR THE AMATEUR VIDEOGRAPHER: Part 6 by Frank Swanson

The Seven Deadly Camera Sins

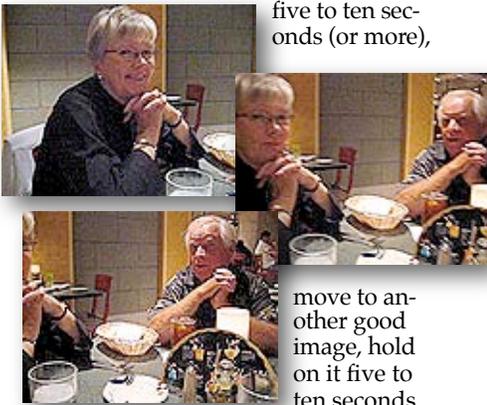
This month's article deals with what *not to do* when shooting with your camcorder. After you read my comments about these common mistakes, pay attention to the next several videos that you see at our Club meetings and try to determine if the camera operator committed any of these seven deadly camera sins.



Often when we pull out our camcorder we point it at the subject, press the Start button

and begin shooting without much thought to what we're doing. What else is there so long as we get footage that we can edit into a movie? The more footage we record the better when it comes to editing, right? Well, no. there's *good* footage and *bad* footage. Here are the seven most common mistakes made by camera operators:

1. Firehosing: aiming your camcorder in the general direction of your subject and then waving it vaguely around the area without decisively framing anything. Instead, frame a good composition, roll five to ten seconds (or more),



move to another good image, hold on it five to ten seconds

(or more), and repeat if necessary. This tells your audience what you'd like them to focus on for that scene.

2. Snapshotting: treating your camcorder like a still camera, shooting endless little snippets too short to view properly. No shot should be less than five to ten seconds long.

3. Headhunting: centering close-ups on the subject's eyes (or object's center). Instead keep subject's eyes in the top third of your frame (or object's center in the left or right third of your frame). Note: it's quite all



right to cut off people's hair, but not their chins.

4. Backlighting: auto exposure tends to expose for bright backgrounds, throwing darker foregrounds into underexposed shadow. Either move subject away or reposition yourself to eliminate bright backgrounds (e.g. windows, lights, sky), or move or



zoom in closer so subject fills most of the frame.

5. Motor-zooming: using zoom repeatedly, going back and forth, etc. Use zooming sparingly and for effect only. When zooming to create a new image size, start the new shot so that it will edit smoothly with the old one (e.g. if the pre-zoom shot is centered on some object, end the zoom with the object in the center – this way you can cut out the zoom footage in post-production to retain continuity). If you want to keep the zoom footage in your final movie, record at least five seconds of footage before and after zooming. Transitions between zoom clips is distracting in most cases. In general avoid on-camera zooming for

your edited production, and cover it up with a cutaway.

6. Upstanding: recording everything at eye level can get tedious for the viewer. For varied perspectives, shoot from a lower or higher position (e.g. sitting down or standing on a small ladder) which adds visual interest and variety. Rotatable LCD viewfind-



ers allow positioning the camcorder anywhere and still see what you're shooting.

7. Jogging: making shaky footage, either by walking while shooting or by allowing the camcorder to shake. To avoid this problem, use image stabilization (if you have it) and avoid very long telephoto lens settings when handholding. When you do move the camcorder, use the LCD monitor (instead of the eye piece), and carry the camcorder like a very hot cup of coffee. Also keeping your elbows cocked outboard act as shock absorbers. Using your camcorder mounted on a monopod while holding the bottom with your other hand usually provides smoothness to your movement as well.

So, now you know both *what to avoid* and *what to do to get good footage* the next time you shoot. It's amazing how often we see in our Club movies at least several of these camera sins. Committing any of them for even a brief moment draws attention away from the story and jerk us back into reality; watching a movie with other Club members. Everything we record should keep attention away from camera operating mistakes. Take a look at your most recent movie production and self-examine it for these seven deadly camera sins. Next month I'll talk about "*The Art of Composition*" and how to properly frame your subjects in various situations. ■

CREDITS

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Viewfinder Newsletter is published during the fourth week of each month for Viewfinders Digital Video Club of Cupertino members. Please send announcements and articles for submission to the publisher during the two weeks previous to the following monthly issue. Send address and email corrections to the publisher.

MONTHLY CLUB MEETINGS

Held in the Cupertino Room, Quinlan Center. 10185 N. Stelling Road, Cupertino, California. Watch the calendar for programs updates. Guest admission is free.

MEMBERSHIP DUES

- \$30 for individuals
- \$35 for families
- \$5 for full-time students

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Crossword Puzzle Answer

N	G	A	W	H	I	S	D	O
S	D	I	A	N	O	H	W	G
O	H	W	G	D	S	A	N	I
I	O	H	S	W	G	D	A	N
W	S	N	D	I	A	O	G	H
D	A	G	N	O	H	W	I	S
G	N	S	O	A	D	I	H	W
A	I	O	H	G	W	N	S	D
H	W	D	I	S	N	G	O	A

CLUB MEETING EVENTS 2010

<p>January 13th, Wednesday</p> <p>Fred Heiman movie maker: Presentation and Opera San Jose, & wildlife documentary videos screened</p> <p>Tech-Tips: Frank Swanson</p>	<p>Feb 10th, Wednesday</p> <p>2009 Contest winners movies screened by Frank Swanson</p>
<p>March 10th, Wednesday</p> <p>Celx pre-production software demonstrated by Milt Kostner</p> <p>Tech-Tips: Frank Swanson</p>	<p>April 14th, Wednesday</p> <p>De Anza student's movies screened and discussion</p> <p>"Theme Challenge" announced for June screening</p>
<p>May 12th, Wednesday</p> <p>Nimitz Grade School movies screened and presented by teacher Susan Woods</p> <p>August "Creative Editing" contest announced by Fred Pfof</p>	<p>June 9th, Wednesday</p> <p>Theme Challenge "Creatures" movies screened</p> <p>Tech-Tips: Frank Swanson</p>
<p>July 13th, Tuesday</p> <p>Tony Dometelli from Keeble and Shuchat will talk about HD cameras</p> <p>Tech-Tips: Frank Swanson</p>	<p>August 11th, Wednesday</p> <p>Members "Creative Editing" clips screened</p> <p>Tech-Tips: Frank Swanson</p>
<p>September 7th, Tuesday</p> <p>"The Better Part" TV Interview with Bob Meacham</p> <p>Herb Wolf's new movie screened</p> <p>Tech-Tips: Frank Swanson</p>	<p>October 13th, Wednesday</p> <p>Annual Member Video Contest videos screened and judged</p> <p>Tech-Tips: Frank Swanson</p>
<p>November 10th, Wednesday</p> <p>Meeting: Awards presented to member video contest winners, board election and social</p>	<p>DECEMBER</p> <p>No meeting this month</p>