

February Meeting

What you need to know about microphones. and an invitation to make a movie.

Pages 1 and 2

President's Message

It's time to get off the sofa and outside with the camcorder says Bob Meacham. Page 3

Videomaker Magazine Offer

Videomaker has a series of free video training reports to download.

Page 3

VP's Message

Craig VonWaaden offers useful tips on narrating one's movies gleaned from his own experiences.

Page 4

Let's Make a Movie

Ron Rhodes has some ideas on how we can collaborate on an all-member movie.

Page 5 and 6

Tech Tips

Want to know how to do time-lapse videos? Frank Swanson explains it all.

Page 7

February 2012 Meeting

Highlights "About Microphones"

& "Let's Make a Movie" Presentations

If you want to buy a new microphone for your next video production, or join other members in planning a cooperative movie venture, the Viewfinder's February meeting room was the place to be.

Fred Pfost provided schematics and performance charts as well as the utility of various mikes available to us, while Ron Rhodes came up with ideas on how the club might involve all or most of our members in a club video project.

Wednesday March 14th Meeting

Effective Voice-Over

Dana Marks, a professional voice actor who's clients include companies in the technology industry will speak about ways to improve your narration in the movies you make and the effect that sound has on the audience.



What You Need to Know About Microphones By Fred Pfost

(Fred Pfost, a professional audio and video engineer and Viewfinder member knows more about sound than anyone we know. The following is a condensation of Fred's presentation - Ed.)

HISTORY

1876: First microphone invented by Emile Berliner and used as a telephone voice transmitter.

1878: David Edward Hughes invented the carbon microphone, later developed during the 1920s.

Early 1920s: Drs. Walter H. Schottky and Erwin Gerlach co-invented the first ribbon microphone

1964: Bell Laboratories researchers James West and Gerhard Sessler invented the electret microphone.



The 1970's: Dynamic and Condenser microphones providing lower sound level sensitivity and clearer sound recording were developed.



HOW MICROPHONES WORK

Microphones convert sound waves into electrical voltages that are eventually converted back into sound waves thru speakers. They were first used with early telephones and then radio transmitters. Various mechanical techniques are used in building microphones but the two most commonly encountered are the magnetodynamic and the variable condenser designs.



Continued page 2

Microphones, from page 1

The Dynamic Microphone

In this microphone sound waves cause movement of a thin metallic diaphragm and an attached coil of wire. A magnet produces a magnetic

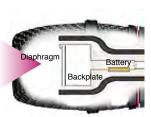
field which surrounds the coil, and motion of the coil in this field causes current to flow. As current is produced by the motion of the



diaphragm, and the amount of current is determined by the speed of that motion, this kind of microphone is known as velocity sensitive.

The Condenser Microphone

In a condenser microphone the diaphragm is mounted close to, but not touching, a rigid backplate. A battery



connects both pieces of metal, which produces an electrical charge who's amount is determined by the voltage of the battery.

The amount of current is essentially proportional to the displacement of the diaphragm, which moves in response to sound, and is so small that it must be electrically amplified before it leaves the microphone.

Electret Microphones

Electret microphones are a variant of condenser microphones that mostly utilize a permanently charged dia-

phragm over a conductive metal



back-plate. They are usually small, even minuscule, cheap and light. They are especially responsive to the range of sounds from the lower mids to the

highest frequencies and are best for voice communication, where clarity of speech is desirable over perfect sound reproduction.

Lavalier Microphones

The familiar 'interviewer's collar pin'. It is a small, usually electret microphone worn below the chin and,

clipped to clothing. These microphones may be corded or wireless. The wireless version runs into a transmitter, usually worn on the belt. Lavaliers can be powered by batteries or phantom power, depending on the manufacturer.

Stereo Microphones

You don't need a special microphone to record in stereo, you just need two. A stereo microphone is really two microphones in the same case. There are basically two kinds: extremely expensive professional models with precision components and adjustments, and cheap consumer versions.

PICK-UP PATTERNS

Many people believe that microphones only pick up sound from sources they are pointed at but in fact we can only approximate that action, and usually at the expense of other desirable qualities.

Omni

The simplest microphone design will pick up all sound, regardless of its point of origin, and is thus known as an omnidirectional microphone. They are very easy to use and generally have good to outstanding frequency response.

Bi-directional

A pickup pattern that accepts sound striking the front or rear of the diaphragm, but does not respond to sound from the sides. Frequency response is just as good as an omni, at least for sounds that are not too close to the microphone.

Cardioid

The concept is a mic that only picks up sounds it is pointed at. The reality is different. The first problem is that sounds from the back are not completely rejected, but merely reduced about 10-30 dB. The second problem is that the actual shape of the pickup pattern varies with frequency. For low



frequencies, this is an omnidirectional microphone.

A third effect, known as the "proximity effect" is that the microphone will emphasize the low frequency components of any source that is very close to the diaphragm. Many cardioid microphones have a built in filter switch to compensate for proximity. Bidirectional mics also exhibit this phenomenon.

Tighter Patterns

The Hypercardioid pattern is very popular, as it gives a better overall rejection and flatter frequency response. A "shotgun" mic carries these properties to extremes by mounting the diaphragm in the middle of a tube. The shotgun is extremely sensitive along the main axis, but the frequency response of this mic is so bad it is usually electronically restricted to the voice range. A popular choice where it is used to record dialogue for film and video. ■

FREE LENS CLEANING KITS!

For 2012 club members

Purchased by Treasurer Frank Swanson, the kit contains a 1 oz. bottle of cleaning fluid with a green mosaic hi-tech micro-fiber cloth. Effectively cleans all lens types, including cameras, without streaking or smearing.

A very useful package to keep in one's camcorder bag



PRESIDENT'S MESSAGE



"Don't Sit at Home"

Photographer Elliot Erwitt once said, "Nothing happens when you sit at home." I have to agree with him. He would carry a camera with him at all times and shoot anything that interested him. You know, I think he has a good approach here.

How many times have you been out and seen something that made you wish you had a camera with you? Have you ever thought of taking your camera with you when you meet others for coffee, at a luncheon or on a walk in the park? I think the two main ingredients here are, obviously; 1) not sitting at home and 2) carrying a camera.

We all have a tendency to do what is comfortable in our lives. We fall into routines and move through each day with repetitiveness. I had read that to break old routines, or habits, you need to consciously make the effort to do just one thing differently. It can be as simple as breaking a craving by eating whatever it is with your other hand, by changing your walk from evening to first thing in the morning, by inverting your day's to-do list. All of these provide the opportunity to open you up to new things and keep you motivated to do things, like not sit at home!

When you think about the videos that members bring in to share, how many are based on what happened at home? I would have to say pretty close to zero. If you want to shoot more video but are finding few things of interest, it becomes obvious that you need to not sit at home. Just getting out of the house can provide stimulation. Like seeing the early morning sunrise with its red clouds and pale blue sky. Seeing that the trees are budding with spring blossoms. Watching the lights get brighter on the Mary Avenue pedestrian bridge as the twilight wanes. All of these provide great opportunities to shoot interesting stuff and only requires you doing the above mentioned two things (out of the house and carry a camera).

I think inspiration and creativity come from many places, but it really only happens when we open up ourselves to see things with a new eye, in a new light. A lot of the stuff I shoot comes from my fishing trips. I enjoy shooting outdoors and shooting interesting, action shots. But this has me thinking along another avenue as well. I am going to start carrying my camera and shooting more urban stuff. I am also thinking about capturing a "Day in the Life". You know, record some of the stuff I do in one particular day. In fact, I would be interested in selecting a date and have our members participate and do the same. Kind of a "Day in the life of our club members". We can then edit it down to a short video (you know not all that happens is interesting) and share them with our members. Interested? Let me know.

In the interim, I encourage each of you to "not sit at home", get out to shoot more videos and let's all see what we get.

Bob Meacham

Videomaker

Magazine Offers Free Regular Training Updates

How to Make a Storyboard is a guide for movie directors when they're just setting out to make a movie. This illustrated article written by Jennifer Albright for Videomaker Magazine is a guide showing camera angles and shot variations that are essential for good cinematography. It's a great way to learn how to get better results in any video project.

Learn:

- Introduction to Storyboarding
- The Different Types of Shots
- Depicting Camera Movement
- The 180 Degree Rule
- More hints for Successful Story

boarding from a Pro

- Examples from Actual Storyboards to Demonstrate Every Technique
- Additional Resources

To access this and other free special

training reports by email you'll need to sign up at



www.videomaker.com/r/570. If you like our Viewfinders monthly Tech Tips articles, you'll find this series is also a great help in improving your video skills.

Got a smart phone? Then make a movie!

"With the iPhone's impressive video capabilities, the iPhone 4 has already proven to be a formidable opponent to the Flip Video as was seen with the movie Apple of my Eye, shot and edited entirely on an iPhone 4."

From www.thenextweb.com



Apple of My Eye by Michael Koerbel Check it out at http://vimeo.com/12819723

V.P.'S MESSAGE



Adding Narration To Improve Your Travelog Videos

When Ann and I go on vacation, there's no use in trying to hide it: we're tourist. We both have our cameras in hand and we shoot dozens of pictures (sometimes hundreds!). And when the vacation's over and a few weeks go by, we document our adventures. Ann likes to make scrapbooks, I like to make travelog videos.

For our trip to Portland, the travelog I created used mostly photos. So the resulting video is really more of a slideshow than a "movie". But rather than just put music to the slideshow and call it done, we added narration to guide the viewer as to what's being shown. Plus the narration makes it much more personal.

The first step was to put the photos in chronological order and selecting only the best ones. As a rough guide, I estimate each photo accounts for about 6 seconds of video. If you want to discuss every photo, in all likelihood, you're going to a video that's too long. I try to target my videos for about 8 minutes, so that's about 80 photos. From that set, I recommend printing only the top 30% of those to photos because it inevitably take longer than 6 seconds to discuss each photo.

Then I prepare my digital audio recorder. I used a pretty simplistic setup. I positioned the recorder halfway between me and Ann on a table, placing it as close as possible without it getting in the way. After checking the levels, I'd start recording. We'd make a brief introduction and then start reviewing the printed photos together. I would flip

through the arranged photos and talk about them with Ann. At the end, we'd give a simple closing as a bookend. The narration is basically an unscripted discussion of our vacation photos.

Then I would begin editing just the narration. The audio editing software I like is called Audacity (available at www.audacity.sourceforge.net). Its pretty easy to use and its free.

Editing the narration can be time-consuming but is well worth it to tidy it up. Its entirely a cutting operation: taking out the "uhh"s and "umm"s, long pauses, misspoken phrases and anything else you don't want to include. You probably won't notice these while you recorded it, but trust me, they'll be there.



Craig and Ann in Florence, Italy. February 2012

Once I am satisfied with the narration track, I then bring it into the video editor and then start layering the digital photos to match what's being discussed on the audio. For some of the photos, I recommend placing them slightly ahead (~1 second) of the audio track. This helps lead the viewer into what will be discussed next. And if you don't have enough photos to cover what's said on the audio track, just make the photo duration longer. However, try to keep the pacing fairly consistent throughout (unless the narration dictates otherwise).

I'm a fan of the "Ken Burns Effect". Giving each photo a subtle pan and zoom makes still photos more dynamic and enjoyable. But don't start adding effects until you've got all your photos set on the video track. If you end up re-arranging or cutting out a section, you don't want to have wasted your efforts. I recommend adding a background music track but mix the level carefully. Don't let the music compete with the narration. I also added a few sounds effects when it fit with the narration.

You can view our Portland travelog video on youtube:

www.youtu.be/JXOXX8ZPgPY Looking back, some of the comical bits we included missed the mark but it is what it is. I haven't seen the video for a few years so viewing it again helped me remember what a fine vacation it was.

I hope you'll share your travelog videos with the club no matter how you choice to build it!

Craig VonWaaden

Viewfinders Web Site

viewfindersclub.org

Latest Updates

Home Page: Another chance to see the two fine articles about our club by local newspapers

About Us Page: See a YouTube link to the Bob Meacham-Phil Lenihan *Better Part* interview.

Meetings Page: Watch Ron Rhodes Gold DVD winning movie "Insert Movie Here" and download the short video loop "Drifting Hearts".

Productions Page: Click on past club video production titles to view excerpts.

Newsletter Page: Download all Viewfinders Newsletters since January 2007 with a list of selected articles.

I've now installed code to our website pages that tells us the number of visitors that visit our site and from which region of the world they come from. This should provide some valuable and fascinating information.

Webmaster: Frank Swanson

Let's Make a Movie Together

A crowd powered project presented by Viewfinder's Club Secretary Ron Rhodes

Ron suggests that, as a video club, it would be a good idea for the whole membership to produce an annual video. While the club has a dedicated group within the membership to make more complex movies, he thinks that allocating time at each club meeting for a simple video project would be fun to do and instructional. He'd like feedback from members on the feasibility and interest in the idea.





At the February meeting he presented a series of slides, (which may be seen on his web site at: www.tokenreality.com along with video clips) which provides some guidelines for such a project. The following is a summary.

OVERVIEW

At each monthly meeting allow 15 minutes approximately to the project. This would incorporate planning, shooting and editing the movie for screening at the end of the year. Members would share ideas and vote for content. A timeline and progress would be published each month in this newsletter and on the club's web site.

PROGRAM FORMAT

This may be an interview format similar to PBS's "America's Test Kitchen". One club member may act as the interviewer and another club member who has expertise in a subject describes, with cut-away shots, the topic.

CONCEPT PRESENTATION

A discussion of member submitted concept ideas and video style, and a vote on the most favored.

Ron has a couple of suggestions:

A commercial for the Viewfinders Digital Video Club in which members would be interviewed and would include "Behind the Scenes" clips.

An original movie idea: "Cages". We live, work and play in "Cages". A movie about how we surround ourselves with security apparatus such as locked doors, work cubicles, fences, etc. A poem suited to the visuals may be narrated on the sound track.

THE SCRIPT

Questions to ask: What is the goal of the story? Do we have a main character? Is there a problem to be solved?

Viewfinders Commercial points: Who we are and what we are about. Our location. Members statements. What Viewfinders can do for you.

"Cages" points: Virtual cages when we are engrossed with smart phones, and computers. Mobile cages such as the cars we drive. Building cages such as our houses and work places.

Narration voice over: A poem that may be concerned with slamming doors and gates, locks and keys, existence in cars, houses and offices, and so forth.

STORYBOARD

Use software or 3x5 cards to arrange scenes from the script in a logical order. Decide which are establishing, objective, subjective, or POV scenes. Use colors to link similar scenes with the same meaning or story thread. Trace multiple story lines.

PROJECT RESOURCES

From the script, list the resources required by the story including actors, props, and production equipment. What resources do we already

have? What costs, if any, would need to be covered.

PLANNING

Viewfinders Commercial: Shoot during meeting breaks. Gather external shots during the day. How many camera's should we use? Who will collect media? Who will edit? Get Music. Check lists to be made and handed out. What are our timelines and deadlines?

"Cages": Solicit clips. Audition narrators. Select music. Set up editing sessions.

VIDEO SHOOTING

We can solicit video clips from the members for generic or background scenes and use behind the scenes footage.

Viewfinders Commercial: For member interviews, we can set up teams in the meeting room. One member gives their statement about what the club means to them, the other gets to direct and photograph it.

"Cages": There might be closeups of locks, keys and doors that can be shot at the meetings. Otherwise, may need lots of five second shots from all over.

RECORDING A VOICE-OVER

Script should be longer than necessary so we can cut it down.

Set up a recording booth in our meeting room; center stage or off in corner? What hardware do we use to record; camera - stand alone gear - computer? Microphone selection,

Continued page 6

Viewfinders Video Production Group

The VPG met in January to begin planning locations for this year's movie.

If any Viewfinder knows of an office building that would allow a one day weekend shoot this Spring or Summer the VPG would be pleased to hear of it. Please contact Bob Meacham.

Thank you.

let's make a Movie, from page 5

positioning and sound proofing. How do you limit background noise? Sound effects; CD Library or Internet download?

EDITING SCENES

Ensure we get everything on our storyboard list. Be prepared for reshoots. Keep track of all the files. Determine whether PC or Mac platform.

We could give members a chance to edit parts during the meeting. We could get members' input on what to edit, which transitions to use.

SOUND INTEGRATION

With the rough cut movie, add narration and background music for fit. Add sound effects if needed. Consider a need for additional video footage or audio.

Did we record background/ambient sound to play between narration sentences?

How do we makes audio cuts in the middle of a song?

If we have the audio beginning and the audio ending working, how do we make them meet in the middle?

TITLES AND DVD MENU

If we kept good records, we should be able to list everyone who was involved in the project.

What is the best speed for scrolling and crawling? How small can we make the lettering?

Do we want to insert a still from the movie in the Menu? Do we need chapter tags? How about sub-menus? What format to we want to output it to? Can we upload it to YouTube?

DID WE HAVE FUN?

Was it too complicated?

Were there too many choices? Not enough input?

What should we do next time that we didn't do?

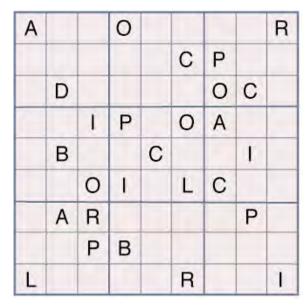
What was unnecessary?

Is the finished movie what we started out planning to do?

What should we do next time? ■

Welcome to the Viewfinders Club SUDOKU Puzzle

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, B, C, D, I, L, O, P, and R. To help you get started, let's say you wanted to put an "A" in the square where just the "B", "I" and "O" are located. You couldn't put the

"A" in the left column because there is an "A" in that column of the top-left square. And you couldn't put the "A" in the middle column because there is an "A" in that column of the bottom-left square. That leaves only one box for the "A": the box between the "I" and "O". As another clue, these nine letters form a word that refers to a handheld device that the director uses to hold the script. The answer to this month's puzzle appears on page 8 of this newsletter. Have fun! ■

TREASURER'S REPORT FOR FEBRUARY 2012

Bank Account Beginning 2/1/12 \$1662.83

Income Subtotal: \$90.00

Dues (3) \$90

June 13th

Open

Expenses Subtotal: \$249.23 Website 3-year Renewal \$197.44

Business Cards \$51.79
Bank Account Ending 2/29/12

Account Ending 2/29/12 \$1503.60



JOIN/RENEW YOUR CLUB MEMBERSHIP FOR 2012

The membership dues for 2012 are like last year: \$30 for individuals, \$35 for families and \$5 for full-time students. Bring your check or cash to our March 14th meeting. Make checks payable to "Frank Swanson" with "Viewfinders Club Dues" on the memo line.

Frank Swanson

REFRESHMENTS VOLUNTEERS

The club thanks those who will or have provided refreshments. Please let Brian Lucas know which months you will be available to volunteer.

Jan 11th Craig VonWaaden July Glenn Mooty &? Feb 8th JoAnn & Fred Pfost August Open Mar 14th Nancy Wood & Trixie Visser September Open Apr 11th Linda Grodt & Brian Lucas October Open May 9th Open November Open



SHOOTING TIPS FOR THE AMA-TEUR VIDEOGRAPHER: Part 18 by Frank Swanson

Time Lapse Videography

We've all seen time-lapse videos — back in high school science films illustrating how flowers bloom in just ten seconds, or the fast-rolling clouds in the dramatic opening sequence of a television movie. Since the beginning of films, time-lapse shots have been a staple special effect in movies, TV shows, commercials, and just about all other moving image forms. And, whether you know it or not, YOU can create time-lapses for your videos. Yes, with nothing more than a camcorder, a tripod and a healthy dose of patience, you can shoot time-lapse sequences that will amaze and impress your friends.

Basics of Time-lapse Videography.

The art of making an event take less time to occur on screen than it did in



capable of shooting single frames, so most time-lapse video is accomplished in the editing room. Time-lapse video requires more careful preparation than most kinds of video production: stability, power supply, lighting and shot selection are the four things to consider.

1. *Camera Stability:* A rock-solid tripod is a must for time-lapse videography. The slightest camera move-

ment can scrap the entire shoot and force you to start over from scratch. If you're using one of those "free tripods" that they give away when you buy your camcorder, like those with plastic legs, go out and buy a much heavier and more versatile tripod for your videography work - don't skimp on the tripod. In addition, it's best to shoot with your camcorder on its widestangle setting, to help minimize all potential camera movements (e.g. unexpected wind). Once you begin recording, you must not touch the camcorder to make adjustments or stop/restart the recording (if you must do the latter,

get a remote control for your camera).

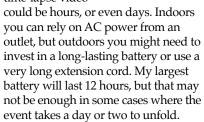
Make sure you have everything com-

pletely set up and ready to go before

you press that "start" button.

2. Power Supply:

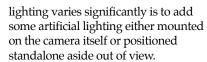
Make sure that you have enough power to keep your camcorder running for the entire length of the shoot, which in the case of time-lapse video



3. Lighting: Before you begin, it's a good idea to think ahead about what your lighting might look like throughout the shoot – at the beginning, middle and end. Unless you're shooting inside a completely enclosed studio (unlikely), you'll probably have to think about what the sun is going to do while you're recording. Check the weather forecast for your area, because you might find that it suddenly becomes cloudy in the middle of your time-lapse shoot. Of course, the

movements of the sun and changes in weather patterns are among the more intrigu-

ing and frustrating aspects of timelapse videography. One of the solutions when the natural outdoor



4. Shot Selection: Lighting and weather might help you determine the type of shot to attempt. Before you begin shooting outdoors, you'll want to know whether the sun will be setting behind your subject or to the side where shadows will be seen moving. A polarizing filter or a neutral density filter may be needed to cut the direct glare of the sun if it appears in your frame. You might need to adjust the white balance to a setting that will work for the entire shot time so that the color of the subject isn't altered from what you actually see with your eyes.

All of the preparations mentioned above apply when shooting to edit a time-lapse video. In addition to them, consider how you're going to edit the footage. Will you simply fill a one-hour tape at normal speed, and then adjust the speed accordingly with your editing software? Or will you shoot short snippets at regular intervals (i.e. over many hours or even days), then import them into your editing software and arrange them from there? This latter method can be extremely tedious, nerve-wracking and time-consuming, but well worth the effort. How much speed increase should you effect with your footage? There is no general ruleof-thumb regarding the speed increase. It will vary greatly with the type of shot you're after. A sunset, for example, looks pretty good when sped-up 60 times (one frame for every two seconds of real time). A shot of traffic running through a busy intersection might require that you speed it up only a little bit, say, 10 to one, or one frame for every 1/3-second. You may have to try several speed-ups to find the one that you think looks best.

One final comment. Be patient. If your time-lapse video doesn't work out exactly the way you expected, don't despair Chalk it up to experience and try again. You might be amazed at the quality you can achieve with just a minimum of effort and patience. The final results can be more than just impressive; they can be just downright spectacular.

CREDITS

Editor and Publisher: Brian Lucas newsletter-editor@viewfindersclub.org

Viewfinder Newsletter is published during the fourth week of each month, except December, 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

OFFICERS

officers@viewfindersclub.org

President: Bob Meacham president@viewfindersclub.org

Vice President: Craig VonWaaden vice-president@viewfindersclub.org

Treasurer: Frank Swanson treasurer@viewfindersclub.org

Secretary: Ron Rhodes secretary@viewfindersclub.org

WEBSITE

www.viewfindersclub.org

Sudoku Puzzle Answers from Page 6

Α	P	С	0	L	В	1	D	R
0	1	В	D	R	С	Р	L	Α
R	D	L	Α	1	Р	0	С	В
С	L	1	Р	В	0	Α	R	D
Р	В	Α	R	С	D	L	1	0
D	R	0	1	Α	L	С	В	Р
В	Α	R	L	0	1	D	P	С
1	С	Р	В	D	Α	R	0	L
L	0	D	С	P	R	В	Α	1

CLUB MEETING EVENTS

2012

January 11th, Wednesday

Award Winning Amateur Movies: screenings from recent AMPS and SCCA events

February 8th, Wednesday

Microphones. Fred Pfost describes types and performances Let's Make a Movie. A slide show and discussion by Ron Rhodes Tech-Tips: "Cutting Classes - Blending Modes"

March 14th, Wednesday

The importance of audio narration to capture and hold viewers' attention
By Dana Marks - Voice-Over Professional

Tech-Tips if time allows

April 11th, Wednesday

Program to be announced

Tech-Tips if time allows

May 9th, Wednesday

Nimitz Grade School Movies: screened and presented by teacher Susan Woods

Tech-Tips if time allows

June 13th, Wednesday

Program to be announced

Tech-Tips if time allows

July: date to come

Program to be announced

Tech-Tips if time allows

August: date to come

Program to be announced

Tech-Tips if time allows

September: date to come

Program to be announced

Tech-Tips if time allows

October: date to come

Annual Member Video Contest: Screening of best movies produced by Club members this year

Tech-Tips if time allows

November: date to come

Golden DVD Awards Night: screening of the top three movies for the year; also election of Club officers for 2013

DECEMBER

No meeting this month