DO IT YOURSELF MEDIA CONVERSION
(A DRAFT)

The GO-VIDEO VR3930

The Media Conversion SIG aim is to suggest cost effective & affordable alternatives either through a service or on your own. This document will deal with the second aspect of the SIG. What equipment can help save time for large projects. For small projects what equipment could be available in the lab for the lab to be more productive. As we transition from the Standard TV World to High Definition, Image Resolution also has to be kept in mind without having to deal with professional grade equipment.

One focus is on TV/DVD Recorder Combos (like the GOVIDEO VR3930) which can be used to display Slide Shows, play DVDs and MP3 music, sometimes simultaneously. TV/DVD Recorders are also effective edit- while - converting machines for Tapes to DVDs conversions.

With the optical disk it is possible to convert and edit later without losing resolution. It is also a standard element which leads to combined libraries easy to construct and access. These some day may be automated at reasonable costs.

Computer/Electronic Equipment Buying

It is almost impossible these days to know the characteristics of computer & electronics equipment unless you learn it from a friend. Sales people have very limited knowledge. It is not possible to get a demonstration (Except by going to CES). Even our SIG leaders do noy have the time or capability to survey the market. If they could, as you will see in this paper, the market is ever evolving very quickly.

However a lot can be done by going to manufacturers internet sites and learning features and specifications so that products can be compared. Sony is a good place to start because not only can you get specs, but you can also get (in customer support) users manuals. That together with accessing www.howstuffworks.com (And SIG leaders) can give you a good understanding of the basic range of products available.

At that point the best advice that can be given is to select a few contenders, and purchase/return each until you find the one that does the job the best. Take advantage of the return policies of places like Fry's, Costco, and Wall Mart (3 months) to "field test"these machines. Many do not come up to expectation, and some are better than expectation.

What is proposed may seem cumbersome for the first time, but I found that to be enjoyable after a while. You get to understand terminology, and you become a self-made Guru yourself.

Copying and Distribution.

With Media Conversion we are building a library of memories. This library is an investment that

we want to preserve first by keeping a master in a safe place, and enjoy or work with copies. Optical disks are very susceptible to scratches and breakage so it is a good idea to create a Working Set which can be easily replaced.

Copying can be done very fast with a reader/burner pair. As most of our computers came with a DVD player, and a CD Burner. The CD Burner should be discarded and replaced with a DVD burner. This way direct copies can be made which use very little hard disk buffer space, and proceed as fast as the burner can go. Nero is excellent in this respect. It also would be a good idea to replace the reader as well, as fast and inexpensive readers are available. I have been able to copy a full DVD in less than 10 minutes this way.

Actually as we use our converted media, we learn that because it is easy to copy, we end up making multiple copies for the children, and friends. People drop in. You can quickly show what you have, and if they like it they can leave with the same material that you have. In general no editing is necessary. Might as well send everything to the grand children and let them do the editing. Also you might want to plan your "Library" of optical disks with that objective in mind., and have less on a disk so that elements can be quickly copied instead of having to be extracted.

Scanning Slides/Negatives and Slide Shows

I have learned that with photography each person is an expert, and nobody takes better pictures than she or he. So what follows are some things that we found useful. You may be doing them already or your way is better. So this is an invitation to share your successes with us.

In our case, with slides, the first step was to organize things that we would do after we retired.. After a few test runs, we concluded that the objective should be to organize in small batches. That was useful for processing and storing. It was also recognized that in general films and slides still qualified as Archival Material in most instances. So ease of access to the original media goes in hand with a similar capability with the scanned elements.

As we began we came across a batch processing scanner (Epson Perfection 4870 Photo $450.00). It can handle as many as 24 negatives or eight 35 mm slides at one time. While scanning can be time consuming, this is the sort of things that you can start and walk away. It works with Photoshop elements 2 which also offers batch handling capabilities. It works in 3 modes: Automatic which produces standard size (6X4) images, Home: which also automatically can produce images up to 8 ½ X 11, and Professional where you can specify the desired resolution. This model also has the capability to remove dust particles, fibers, and tears using the Digital Ice technology automatically. (A $200 version exists EP 4180 without Digital Ice, 4 slides/12 negatives)

After a purchase/evaluation/return, we decided to keep the machine for the quality of the resulting image resolution for slides and films. The machine has two coupled scanners (One in the bed, and one in the cover) who together can "see through" the films. This is different from earlier scanners who were based on scanning by reflection, and for slides assisted with a different light source in the cover. These scanners optics were focussed on the image side of the bed glass, and because of spacing and negatives film curvature had a limit on the resolution capabilities

The resulting images of the 4870 are just as good as seeing multi megapixels digital photos. In some cases there is not much difference between the automatic and the manual modes.

When dealing with negatives, it is useful to keep negative strips in transparent plastic pages made for binders. The pictures organization is based on the pictures as they were taken, and can be the base for an archive (Slides could be organized that way, but the next step in organization is possible as they are individual entities). So we end up with sheets of negatives. With the 4870 it is possible to generate proof sheets which show on one page each negative as a sort of thumbnail of the negative. This we did in Professional mode with very good results. Positive thumbnails are generated automatically.

Out of curiosity, I scanned a short strip of Super 8mm film and was able to get a reasonnable picture. This might be a way to extract pictures of people without using video editing software.

Back to the organizing/scanning process. The idea for us is, starting with the originals) to create big batches based on vacation, visit, family events, family line, individuals. For negatives each batch is sequential in the order that the pictures were taken. For slides, pictures, individual negatives, the organization can be close to the desired end product: a photo disk that can be used for slide shows on you TV Screen. As the basic scanner outputs are PSD images, they can be thought of as a second level of archives: high resolution images that can be accessed individually for quality printing or restoration for example. For general use a JPEG version is created which can be stored in the same folders as the PSD versions. This JPEG version can be though of as sort of the proof sheets made from sheets of negatives. This can be the source material for slide shows and distribution. It does not take too much space. It can stay on the hard disk while the PSD versions can be stored on DVDs.

At this point, we are in par with Digital Images as far as handling in JPEG is considered, so old pictures can be handled as conveniently. They can quickly be copied for distribution. They can be integrated in the total of digital imagery, and associated with related videos, and audio (music or conversations). It is then easy to go from segments of videos, slides, and audio to canned or interactive slide shows. [What I call Canned Slide Shows are video movies or DVDs which are created with video editing software. What I call interactive slide shows are simply groups of slides placed in a folder.] Groups of these folders can be copied to CDs and DVDs to be displayed on Computers or modern DVD Players using the “Play as a Slide Show” function. The slide show will cycle and repeat through the contents of a folder as a separate entity. This way a CD or a DVD can contain a number of slide shows that can be viewed individually according to the interest of the audience. It turns out that, as the quality of images seen on a screen is improving, photography has evolved naturally from individual selected pictures (Family Photo Album) to slide shows of an environment of people of places, sometimes almost as a psudo movies

Do it yourself Video Tape Conversions.

The GOVideo machine

Comments on choosing a Large Screen TV

(Source Tim at Circuit City - Sahara & Decatur)

Large Screens Technology: Contrast ratio is a major determinant for large screens. Plasma and DLP have better contrast ratios (by far) than LCDs. Projection systems (DLP or LCD) have longer life than the others as the bulb assembly can be replaced. Plasma is likely to have a shorter life than LCDs as the light source is phosphors. Plasma also can degenerate non uniformly again as phosphors may not be uniform over the screen.

This would make DLP a better candidate over all. The way DLP works is that there is one mirror for each pixel that is projected on the screen. Current chips have 1.2 Megapixels (mirrors). Mirror tilt determines the intensity. Works like grayscale in colors. A higher pixel model is coming along soon.

Once contrast, and lifetime considerations are decided pay close attention to the native resolution of the screen. If the price is low, then you may not get full HDTV capability. The higher resolutions will be displayed but the image quality will be limited to your set resolution. In particular beware EDTV.

Computer inputs have been discontinued recently because computer images resulted in screen burn outs (Plasma !, LCDs ?). Most of a computer image does not change for a long time (Ex. even when you are typing). Consideration for showin slides on a large screen ?

A good 3 CCD camcorder is available under $500 with 3 CCDs and 1.2 Megapixels images. Note: had a better discussion on Video images vs. Digital Images: Digital images relate directly to the # of CCD pixels. For Videos.the number of pixels is the same for all cameras, but the quality of the resulting image can be different, and is based on the optica, and CCD capability of the original camera. Ex. compare DVDs vs IMAX DVDs image quality they all have the same number of pixels but the sharpness depends on the sharpness of the original image. On the other hand,

Storage, Library, Archiving

Computer / VCR / TV Display System

Distribution of functions for processing