Hardware

When you try to compare one company with another to make a buying decision, it is sometimes hard to know what you are really buying? Everyone seems to know what to charge. The equipment they use is not the whole story — but it is part of the story.

Telos, in 2006, formed an alliance with Commercial Recording Studios, one of the finest Recording Studios in North America. Their reputation in the audio world speaks for itself and they have applied the same rigorous standards as they have expanded into video.

All the hardware we use for our productions is top tier. The philosophy is simple — use the best. It costs more to buy up front but if you are serious about your work it only makes sense to have the support of the best tools.

For the record, here is a list of the hardware we use, a description of our team and a rundown of why your next project should be shot in High Definition.

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Hardware

Thanks to a strategic alliance with Commercial Recording Studios, Telos is able to take advantage of some of the best hardware in the industry.

Audio

- Digital Audio Field Recorder

Microphones

- Senheiser
- AKG D-112
- Audio Technica AT4041
- Audio Technica AT4073a Shotgun
- Audio Technica AT825
- Beyerdynamic MC930
- Beyerdynamic Opus 87
- Beyerdynamic Opus 88
- Beyerdynamic Opus 99
- Countryman E6 Omni
- EV ND408
- EV ND468
- EV PL20
- Neuman TLM170
- Neuman U87
- Schoeps CMC4-U
- Sennheiser MKH416 Shotgun
- Sennheiser MKE platinum
- Shure SM57
- Sony C-800G

Outboard Gear

- API 3124 Pre Amp
- Drawmer 1960 Pre Amp
- AMEK 9098 Pre Amp
- UREI 1176LN
- UREI LA-4
- Valley Dynamap 730
- Coleman Audio SR5.1MKII
- Z SYS 128 Digital Router
- Genelec 1029A, 1030A, 1031A
- Yamaha NS-10M
- SONY PCM-7030
- Tascam DA-98
- Aardverter Digital Converter

Mixing Consoles (Four Studios):

- Fairlight Dream Constellation System with WAVES plugins
- 3 – Fairlight Prodigy System with MFX3 Editing

Video

- Panasonic High Definition Camera HPX2000
- 1080i, 720p, 480p, 480i, and 576i (a total of 17 HD and SD formats). The camcorder supports flexible compression rates including DVCPRO HD/50/25/DV, as well as the new AVC-Intra codec.
- 12 – 16 gig P2 Cards
- Fujinon High Definition Lenses/ HA 13x4.5 BERM wide-angle and telephoto
- Tripods – Sachtler & O'connor
- Panasonic B2 LH 1700WP Monitor
- Final Cut Pro High Definition Editing Systems
- Sony Digital Beta Cam
- Sony Beta SP
- Sony DV Cam
- Sony 3/4
- Rourke Digital Video Playback
- Pyxis Digital Video Playback
- Signa Video Router
- Axia Livewire Router
- Jib Arm and Dolly

The Telos Team

The best equipment is an indicator of potential quality but it is not a guarantee of the best production. The quality of your finished project is ultimately controlled by the people who put it together. Telos aligned itself with Commercial Recording because of the talented experts running the first class equipment. At Telos, we do not look at the gathering of audio and video as a commodity. This is our passion and our joy. When you make a decision about who to hire it is important every person on your team is an expert in their field. They should truly love what they do.

Telos Productions President: Thomas Ball

Commercial Recording President: George Gates

Digital Cinematographer: Ted Sikora

Sound and Digital Dolby 5.1 mixing: Jeff Gates

Recording Engineer: Ed Wolf

Web Work & Animation: JIm Peto & Zack Wills

Information Tech: Dan Bays & Charles Yost

Administration: Cristy Zdenek & Kathy Koch

Graphic Design: Tim Lachina & Michelle Moehler, Walter Greene+Co

High Definition

Why shoot your next project in High Definition?

I can remember in Junior High School seeing a cover story in a swell magazine called *Fantasy and Science Fiction* that one day we would use low power lasers in all sorts of consumer applications. Back then, I thought lasers were pretty damn cool and come to think of it I still do. I could not figure out how they could possibly be employed to play back music but when the first Sony Compact Disc player came out I, being an "early adopter" bought one as fast as I could. I remember reading an interview at the time with Sony founder, Akio Morita. He said, "Once you get used to digital on Compact Disc it is hard to go back to anything else."

I started my career working in film. Then moved on to U-matic 3/4" videotape. When Sony Betacam (a broadcast format not to be confused with Betamax) came out, Telos was among the first wave of companies to embrace the new format. The pictures looked stunning. It was always a let down to use ¾" shots in a Betacam program; they looked fuzzy and dated. I can remember shooting the Hanover Trade Fair in Hanover West Germany in 1984 with a Betacam Sony had loaned us since they were not yet commercially available. German TV crews stopped us on the street and said, "Ach, Be-ta-cam — zis is our future!" And so it was for the next twenty years.

High Definition (HD) is part of the same evolution. Once you get used to it its hard to go back. When you see it side by side with Standard Definition (SD) the benefits are obvious. So what's the problem? I guess there isn't a problem except for a worldwide TV industry in complete turmoil.

Everyone is terrified of backing the wrong horse. Everyone remembers the VHS v.s. Betamax debacle and no one wants to bet wrong. HD production equipment is expensive. It is a time of careful transition. Consumers are completely confused. You almost never see real HD playing in public (like in an airport or in a bar) on a widescreen plasma monitor. They play SD stretched out to fill the screen and people don't seem to notice. For anyone in the business this drives us completely nuts. Real HD is gorgeous. First rule of thumb is, if it doesn't look really good to you it probably isn't HD.

The first difference is the widescreen look which is at an "aspect ratio" of 16x9 (16 units wide by 9 units tall). A standard TV picture is in a ratio of 4x3 (4 wide and 3 high). There are instances where, to play back

on a 16 x 9 screen, the SD signal is purposely distorted and then stretched to fill the wider screen in playback. This is called anamorphic. (The word is from the Greek meaning, to *form again*.) The resolution is compromised in this process. High Definition is shot in a ratio of 16 wide and 9 tall. It does not have to be stretched or distorted to play back on a 16x9 screen. You don't need to have any black bars on the top and bottom (letterbox) or on the sides (pillar box) to see the entire picture. But, just because the picture fills the wide screen does not make it HD.

HD pictures require more pixels. How many more and in what configuration is what everyone is arguing about. One huge factor relates to interlace v.s. progressive scans. This has to do with those little horizontal lines in a standard TV picture. In progressive scan, since there aren't any scan lines, you end up with a whole frame without lines that create jagged edges. It looks much more like film. Combine that technology with up to 9 times more pixels and you get a really gorgeous looking picture.

(continued)

Your next project should be shot in HD even you plan to distribute it on the web or on a standard DVD. Why? Because all the footage you gather goes into a library and in the future you are going to want the best image quality possible. If you were a recording artist would you bring out your next big hit on vinyl? Hopefully, you want to show off your production with HD projection to a large group or on a high definition monitor with a blue ray DVD player. But, even if you are not ready for that, you should still gather your program in HD. HD squeezes down to SD beautifully. Going the other way looks lousy. There is also a lot of confusion about what is real HD. Every consumer camera selling for a few thousand dollars claims to be HIGH DEFINITION. The reality is you get what you pay for and real HD Cameras, with the proper HD lenses, cost about $100,000.00. If there weren't important differences no one would spend the money.

Our new camera is a fully decked out Panasonic HPX2000 for which we investigated long and hard. For me to get behind a Panasonic camera took a major leap of faith. I have always been a Sony devotee. After careful comparison and consultation we pulled the trigger on the Panasonic and we hope the decision will be as long lasting as the decision twenty years ago to go with Betacam. The reason was pretty simple. Better looking video, which when adjusted properly, looks like film.

I'm excited about all these changes for many reasons not the least of which is the fact that HD allows video to really give you the look of film. The (real) HD cameras not only deliver a more film like picture they also behave and capture more like a film camera, the new fancy name for this development is digital cinematography, which is very descriptive. I've always had problems with the language around all these things. The word "movies" v.s. the word "films." The word "videographer" always struck me as impressive as the community college major in Cosmetology. I've always considered myself a filmmaker even though I haven't actually shot film in 30 years. Digital Cinematography, however, implies the technical and artistic judgment of an exciting new professional discipline and art form. The film v.s. video look is a very old debate. I started my career with film and went to video because of practical considerations. No one ever had a problem with the look of 35mm film. I was happy to do your project in film as long as you had twice the time and three times the money. With HD we can now deliver a film look and film quality with all the convenience, speed and practicality of video. Welcome to the Brave New World.