



# What to Look for When Shopping for a Video Camera

**2** 009 could well be the year your ministry decides to buy a new video camera (or three) for either the first time or to replace existing obsolete technology. With the ever-expanding formats, features and price points among today's digital video technology it's a very exciting time to go video camera shopping. But before you run out to Best Buy, log on to eBay.com or place that order with a national video supply house, there are several important decisions to be made before making what could be one of the largest media technology purchases of the year. This article will address a few of the most important ones. With all of the changes in video technology there are a lot of myths and misunderstandings circulating among media ministries of all sizes coast to coast. Here are some of the most important questions to ask (and answer) on your way to the perfect (for you and your ministry) video camera purchase.

## CAMERA CLASS

Although all cameras do not neatly fit into clearly-defined camera class categories there are three four general camera categories depending on whom you ask: Consumer, Prosumer and Professional (or Industrial). Which of these three categories you shop in will affect the quality of your video ministry on multiple levels from day one – so choose wisely. The level of production quality your ministry is committed to, along with budget realities will no doubt be one of the most important decisions determining which class of gear you end up purchasing. It is very important that you research the capabilities and limitations of each of these three classes of gear before spending hundreds or thousands of dollars on a single camcorder or an entire camera system.

## SINGLE-CHIP vs. THREE-CHIP

All consumer camcorders are single-chip cameras meaning they have only one computer chip to capture the resolution, color, light sensitivity and other aspects of the

recorded image. Three-chip cameras have three dedicated chips, one for each primary color (red, green, blue) resulting in greatly improved light sensitivity, color reproduction, picture clarity and image resolution. Among Three-chip cameras, price and performance are determined by the size of the chips. Three-chip prosumer camcorders are typically equipped with 1/6" to 1/3" chips. Professional camcorders are usually equipped with 1/2" or 1/3" chips. CMOS chip technology is adding another variable to the "chip equation" but that's another article.

## IN-SANCTUARY (InS) vs. OUT-OF-SANCTUARY (OutS)

This is the first big camera decision you need to make. Although budget realities may dictate otherwise, it is much preferred to not attempt to use the same camera(s) in the sanctuary as for out-of-sanctuary videotaping. Doing so will wear out your equipment much faster and you will not be able to benefit from equipment specifically designed for these distinctly different video camera applications

within ministry settings. In-sanctuary cameras should be cameras which are capable of a “studio configuration” (tripod-mounted lens controls, external viewfinder, camera control unit, etc.). Although there are third-party companies producing prosumer-level (and sometimes consumer-level) accessories, cameras and accessories in this class do not have adequate studio configuration capabilities, performance and overall quality.

### **IN-SANCTUARY: HUMAN-OPERATED vs. ROBOTIC**

Robotic cameras may be a good solution but they have their very real limitations. All but the very high end (i.e. VERY expensive) robotic camera systems can match the soft touch of human hands when it comes to zoom and focus. Not surprisingly, when it comes to robotic camera systems and any video camera, you get what you pay for. Robotic cameras can help cut down on the number of camera operators required but tend to diminish the overall production value compared to human-operated cameras.

### **HD vs. SD (High Definition or Standard Definition)**

For the VAST majority of churches shooting, editing, projecting and recording in HD is simply not an option or even a necessity. Sure HD looks great and I’m looking forward to the day when we are all HD but that day is many years away for most small to mid-size houses of worship and even some very large ministries. Right now a wise decision for purchasing an OutS camcorder would be a unit which records both HD and SD to either: digital tape, hard drive or flash media.

### **FORMAT: In-Sanctuary Cameras (InS)**

For InS cameras you may not need to purchase camcorders since most ministries will simply be recording the master video mix at video control and not in each individual camera. The most important decision then becomes what signal type the cameras are capable of producing to provide the highest possible video quality. Aside from budget, the type of signal sent from your camera(s) will be largely determined by what video switcher/scaler and video projection unit(s) you use.

### **FORMAT: Out-of-Sanctuary Cameras (OutS)**

Although many of the tapeless camcorder formats and media (AVCHD, miniDVD, flash memory, etc.) are generating a lot of attention they come standard with some substantial limitations which camera manufacturers are not talking about. AVCHD is much more difficult for your computer hardware and software to edit than .avi and .mov files captured from miniDV, DVCam or other digital tape-based formats. Also, the picture quality of AVCHD and many of the other new compressed video formats are inferior to miniDV especially in footage containing a lot of fast motion/movement. The best advice I can give you if opting for a tapeless camcorder is to be sure to purchase your editing software FIRST and ensure it is capable of editing the new file format recorded by your new camcorder. Then, immediately beef up your computer with a new processor and a significant increase in RAM!

### **NEW or USED**

One of the smartest ways to save thousands of dollars, especially on higher-end prosumer and professional cameras is to consider buying used gear, especially for in-sanctuary cameras. Yesteryears (5-10 years old) high quality \$8,000-\$15,000 cameras and accessories can be had for a fraction of their original cost and will continue to shoot “pretty pictures” for years to come. For OutS camcorders, buying used can still be a substantial cost-saving decision although not as substantial as higher end in-sanctuary cameras/systems. eBay is your friend but do your homework before you “click” that “Place Bid” button. There are some amazing video camera bargains to be had for the smart media ministry shopper.

There are obviously more variables in your important camera purchase decision but if you ask and answer the above questions and issues you will be well on your way to finding the camera solution best fitted for you and your ministry. Regardless of which camera or camera system you purchase, make the absolute best use of it for as long as you have it.