Innovative Solution to Video Enhancement

Video observation systems have become common fixtures in our everyday lives. Cameras mounted obscurely on walls, ceilings, and even traffic lights, capture the average person on videotape several times a day. Banks, gas stations, convenience and retail stores, and office buildings use video systems for business, customer, and employee safety. Through a licensing agreement, Intergraph Government Solutions, of Huntsville, Alabama, adapted a technology originally developed at NASA’s Marshall Space Flight Center for enhanced video imaging, in developing its Video Analyst™ System. Barco Inc. Display Systems, Duluth, Georgia, also has a licensing agreement with Marshall and is incorporating the technology into its new computer hardware, designed for real-time video image enhancement, stabilization, and tracking.

Marshall’s scientists developed the Video Image Stabilization and Registration (VISAR) technology to help FBI agents analyze video footage of the deadly 1996 Olympic Summer Games bombing in Atlanta, Georgia. VISAR technology enhanced nighttime videotapes made with hand-held camcorders, revealing important details about the explosion.

Intergraph’s Video Analyst System is a simple, effective, and affordable tool for video enhancement and analysis. It combines high-end broadcast-quality systems with an easy-to-learn, user-friendly interface. Currently, the Video Analyst System is available for use with Microsoft® Windows® 2000, Adobe®, and Premiere® applications.

Many of the benefits associated with the Video Analyst System include support of full-resolution digital video, frame-by-frame analysis, and the ability to store analog video in digital format. Up to 12 hours of digital video can be stored and maintained for reliable footage analysis. The system also includes state-of-the-art features such as stabilization, image enhancement, and convolution to help improve the visibility of subjects in the video without altering underlying footage.

Adding to the appeal of this innovative technology is its price/performance value. The coupling of the system’s highly technical workstation abilities with the cost-effective Microsoft Windows 2000 operating system, provides an unparalleled graphics-intensive video analysis. Even a novice can quickly learn to operate the system, eliminating the need for costly video specialist training.

Adaptable to many uses, Intergraph’s Video Analyst System meets the stringent demands of the law enforcement industry in the areas of surveillance, crime scene footage, sting operations, and dash-mounted video cameras. Military applications include security, video feed from aircraft, target identification and confirmation, weapons deployment, damage assessment, surveillance and reconnaissance, training, and mission debriefing. The Video Analyst also adds significant value to the sophisticated surveillance systems prevalent in the intelligence field. With features such as enhancement, image tracking, and the ability to accept sonar data, the system greatly enhances the use of satellite or aerial video. The affordable, easy-to-use characteristics of the Intergraph system benefit both government agencies and the commercial sector.

From satellite imaging to catching criminals, the collaborative efforts of NASA and Intergraph Government Solutions have brought another NASA technology down to Earth.