

PassmoreLab Expands Work to Include Stereoscopic Microscopy

PassmoreLab expands its digital 3D imaging capability into the realm of high-definition stereoscopic microscopy, capturing nature's smallest creatures in 3D for the first time ever.

San Diego, CA ([PRWeb](#)) September 25, 2008 -- Continuing to broaden its scope of development in the world of stereoscopic 3D, digital technology leader PassmoreLab, through a partnership with TrueVision Systems, Inc., now adds a hi-def microscopy division to its San Diego production facility. With already cutting-edge capability in the areas of live-action 3D video production, 2D-to-3D conversion, and other technical development for scientific research, education, and entertainment, this latest expansion enables the company to go where 3D has never been before -- into the hidden world of animals, insects, plants, and the interaction of life on some of its smallest scale.

In order to accomplish such a breakthrough, it took the successful synthesis of microscopy with the technology of digital 3D video, coupled with the creation of specialized software, to surmount the technical problems that have hindered the process in the past. Company founder and president, Greg Passmore, noted that this recent success grew out of an ongoing process of innovation required to produce some of PassmoreLabs nature-oriented documentary films.

"We're in the process of shooting a variety of nature-oriented projects," says Passmore, "including films on sharks, vampire bats, butterflies, wasps, and other insects. One of the limitations we've had in the past has been that we have done some macro photography, but we were really lacking and wanted to be able to do high-definition stereoscopic microscopy. This is a very complicated process, it requires extremely scarce and expensive equipment, and there are a lot of complex technical issues involved in association with interocular distance and convergence. Many companies had, in fact, told us that stereoscopic microscopy was not possible, or certainly not practical."

Over that past several months, PassmoreLab's technicians have worked with a series of manufacturers to acquire and install a high-quality Leica binocular microscope that interfaces optically with a specially designed stereoscopic camera from TrueVision Systems. In combination with the TrueVision 3D HD recording system, "The unit operates in perfect synchronization," says Passmore, "and it gives us the incredible capability now to shoot live microscopic life. We intend to use this imagery to significantly enhance the educational experience and viewing quality for our audiences."

The company has already began experimenting with shooting live insects, as well as developing medical imagery related to human pathology, and other diverse scientific areas such as petrology and micropaleontology. Passmore points out that they are also working on a series of software enhancements for autocalibration and extremely fine levels of alignment. "We've been using bright-field and oblique optical microscopy," he notes, "and we're now experimenting with the use of stereopsis with dark-field phase contrast and digital-interference contrast microscopy. As we move into the use of high dynamic range photography in our mainstream productions, we expect to utilize many of the techniques we're perfecting in HDR in order to cross apply into confocal microscopy."

"We believe that PassmoreLab has special talents, by bringing together software engineers, mathematicians, visual artists, videographers, and musicians in a heterogeneous work environment, where everyone brings their own solutions to unique problems. Our goal is to use creative conflict and unique perspectives to produce novel

solutions, which would normally be overlooked through the overspecialization that too often hinders the industry today," Passmore stated.

About PassmoreLab:

PassmoreLab was established in San Diego, California, in 2003. The company's staff is comprised of programmers and scientific engineers, and also includes graphic artists, videographers, stereographers, a musical composer, and even a biologist. PassmoreLab facilities include a full studio, video/film post-production, an optical development lab, and a software development environment. PassmoreLab is a firm with staff located around the world, with offices in San Diego, South Africa, Russia, and the Philippines.

About TrueVision

TrueVision Systems Inc. is a medical device company focused on improved patient outcomes and efficiencies through better visualization during microsurgery. TrueVision has developed and patented an intelligent, real-time 3D HD vision platform for microscopes. The company is developing a suite of specific software applications that uniquely facilitate the integration and management of imaging modalities widely used in microsurgery.

TrueVision Systems, Inc. 114 E. Haley Street, Suite L, Santa Barbara, CA 93101, (805) 963-9700,

www.truevisionsys.com.

###