

TrueVision 3D Visualization and Guidance System Adds Refractive Cataract Toolset

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Officials from TrueVision Systems, Inc. (Santa Barbara, CA) detailed the added components of its TrueVision 3D Visualization and Guidance System at the annual meeting in San Diego.

The TrueVision 3D Visualization System is a stereoscopic 3D high-definition visualization system that displays the surgical field of view in real-time on a 3D flat-panel display in the operating room. TrueVision recently received 510(k) clearance from the FDA to market the system with its new proprietary software tools, called the TrueVision Refractive Cataract Toolset. Computer-aided surgical guidance is provided to the surgeon during specific procedures such as corneal limbal relaxing incisions (LRI) to correct astigmatism, capsulorhexis, and toric IOL positioning.

In an interview with EyewireToday.com, Robert Reali, vice president of Operations and Marketing at TrueVision, said one of the main benefits of the system is that it allows everyone in the operating room, including patients, to see what the surgeon is doing.

"They can see the depth of field and they can better expect what the surgeon is going to do. They're all seeing the same - the exact field of view that the surgeon does, whether he's looking in the eyepiece or looking at the screen," Dr. Reali said.

David W. Friess, OD, FAAO, director of clinical and regulatory affairs at TrueVision, told EyewireToday.com that the new software allows the surgeon to perform guidance surgery in a heads up manner.

"It allows us to use a preoperative image and create these digital templates for positioning and sizing of your capsulorhexis, and positioning and sizing of your LRI incisions, and then the toric alignment acts as markings digitally in 3D," Dr. Friess said. "During surgery, those templates are tracked-positioned in real time using eye-tracking. The surgeon can rotate the IOL according to where the digital alignment guide is rotated. They can position their capsulorhexis based on where the template overlay appears."

"We capture in 3D, we register in 3D, then we do surgery in 3D. This system integrates that all together," Dr. Friess said.

Mr. Reali said the TrueVision 3D Visualization System is now used in 75 institutions.