3D-Mapping and Modeling

Paracosm is a software development company developing a cloud-based system that transforms consumer-grade depth cameras into powerful 3D-mapping and modeling systems. Depth cameras, such as Primesense and Kinect, are gaining popularity in the mass-market as they become more affordable. The company’s patented technology allows users to quickly and inexpensively generate high-quality three-dimensional models of any indoor environment.

Technology

Paracosm’s patented Application Programming Interface (API) generates a detailed 3D model from a scan of an indoor environment. There are two methods of 3D modeling on the market today. The first option is time-consuming since it requires manual measurements, photographs and input of all data into 3D-modeling software. The second option is expensive and labor-intensive, as it requires spherical laser scanners that cost between $50k and $300k and the hiring of a survey team. Paracosm’s disruptive technology allows users to scan any space with a low-cost depth camera and upload the resulting data to Paracosm’s secure servers in a matter of minutes – a process that could take weeks or even months using available technology. Paracosm’s software reconstructs the information into a 3D model without the need for human intervention. Users can then download their 3D models and import them into their preferred 3D computer-aided design (CAD) software or modeling program.

Market Potential

3D modeling is a powerful tool with applications in a wide variety of industries, including Geographic Information Systems, building management, forensic reconstruction and retail-store layout. Until now, high costs have precluded many companies from using 3D models outside of mission/enterprise-critical situations. Laser scanners cost $50,000 - $300,000 and require weeks or months of labor billed at $2,000 per day to produce a 3D model. The arrival of low-cost depth cameras, such as Primesense and Kinect, has substantially widened the market for 3D mapping. More than 24 million Kinect units have been sold worldwide and the total 3D market is expected to reach $9.82 billion by 2018. Most of these low-cost depth cameras are used for motion-sensing video games; consumers are only now beginning to recognize their remarkable value as 3D modeling tools.

Strategy

Paracosm will use direct sales to take its software to market, focusing on forensics reconstruction and building surveys for facilities management. The software is undergoing alpha tests by Warren Forensics, a leading forensic engineering and consulting firm. Paracosm has also initiated partnerships with several building survey companies that have signed up as alpha testers. Early adopters include NASA’s Langley Research Center, Graebert, PlanIt Measuring, and Visual Intelligence. Sales to these markets will begin in the third quarter of 2014. Marketing that targets the retail mapping and real-estate virtual touring sectors will commence in 2014’s first and second quarters and the company plans to enter the general consumer market by 2015.
Management Team

Amir Rubin, CEO
Amir Rubin, CEO & Founder of Paracosm, established the company in 2013. He is also co-founder of Prioria Robotics, an unmanned systems company developing solutions for surveillance and security tasks. He handled development for version 1.0 of Shadow Health’s Learning Management System and was awarded a patent for a stereo-vision system that weighs cattle based on 3D imagery. He mentors young entrepreneurs and frequently lectures UF engineering classes on product development. Mr. Rubin graduated from the University of Florida’s Electrical and Computer Engineering program in 2003.

Christian von Kleist, CTO
Christian von Kleist is Paracosm’s Chief Technology Officer. He learned Apple BASIC and C programming languages at just 12 years old. While programming for the University of Florida’s Interdisciplinary Center for Biotechnology Research, he created a computing cluster for searching DNA sequence data and processing DNA consensus data. Mr. von Kleist also co-founded a security consultancy company, where he worked as a professional hacker and discovered security flaws in cloud infrastructures for high-profile clients, including as Facebook and Adobe.

Karl Dockendorf, CSO
Karl Dockendorf, Ph.D., is the company’s Chief Scientific Officer. His research focuses on robotics, intelligent machines, and image and signal processing. After earning his doctorate in biomedical engineering at the University of Florida in 2008, he created a company dealing with advanced automated signal processing cores. Later, he accepted a research position at HRL Laboratories, where he won internal and DARPA funding for new methods of information processing inspired by brain architectures.

Contact Information
Amir Rubin
Paracosm
(352) 575-0259
amir@paracosm.io
http://paracosm.io