3D modeling of static and dynamic scenes

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Abstract

In this talk, I will describe the efforts at U.C. Berkeley's video and image processing lab in the area of 3D model generation. The first half of the talk will focus on static 3D modeling and visualization of urban environments; our approach to this problem consists of generating airborne and ground based models separately and fusing them so as to arrive at a photo realistic 3D models suitable for virtual walk thrus, drive thrus and fly thrus. Our current system is fast, and entirely automated, with no human intervention. The second half of the talk will focus on a system for 3D modeling of dynamic scenes, and as such is work in progress. I will talk about our system architecture and algorithms for generating a time varying 3D depth map sequence.

This work is done jointly with Christian Frueh, who is currently a postdoc at U.C. Berkeley.