

1001 Acquisition Viewpoints : Efficient and Versatile View-Dependent Modeling of Real-World Scenes Presented

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Modeling real-world scenes is a challenging problem in computer graphics. A detailed model of a real world scene (either created manually or acquired automatically) can have substantial complexity. Such models require either an intense modeling effort or expensive equipment for acquisition.

Our approach is to use the ModelCamera to interactively acquire approximate scene models. The ModelCamera acquires in two separate passes color frames and geometry (49 depth samples per frame) from more than a thousand viewpoints. The operator interactively guides the acquisition process. The acquired model is then rendered by creating a view-dependent mesh that is colored by projective texture mapping using the acquired color frames.

In this talk I will present our latest results and give a live demo of our system.