

MIT9904-20: High-Resolution Modeling of Architectural Interiors

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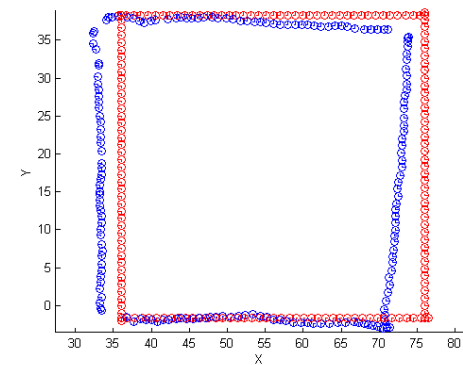
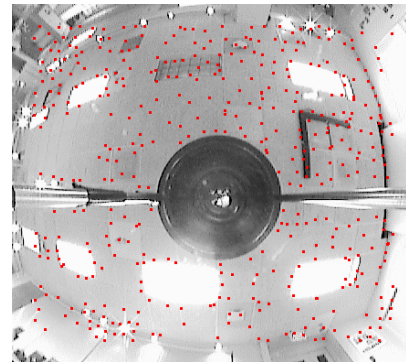
Goal: Rapid Capture of Interior Architectural Spaces

- Acquire high-fidelity geometric and photometric models of real environments
- Provide ability to simulate, visualize and physically interact with this environment



Recent progress

- Prototype acquisition robot assembled w/ omni-directional camera, on-board CPU, odometry
- Tracking and pose estimation software initially deployed
- Students: Aaron Isaksen, Wojciech Matusik, Rhys Powell, Michael Bosse





- Next six months:
 - Move from batch to on-line processing
 - More robust ego-motion estimation
 - Scale to acquisition of entire 2nd floor of LCS
 - Sparse, dense 3D reconstruction algorithms