

Computer Science 411/611
Virtual Reality Systems
Fall 2004
Project 4 – Architectural Walkthrough

Due: Friday, 11/12/2004

Overview

A popular use for VR is an architectural walkthrough – that is, providing a user with a virtual tour of an existing or proposed structure. For the latter case, exploring a planned building before it is constructed may provide valuable information for modification before anything is set in stone.

For this project, your team must design and implement a virtual structure based on the viewer project you completed for the previous assignment. Create an interesting building (house, cathedral, office building, academic structure) that allows the user to explore various rooms and/or parts.

Description

Given the code presented in class, develop a program satisfying the conditions above that works with the head-mounted display (helmet) and/or VR mouse located in McAdams 304. You may work individually, or in teams (preferred) of 2-4. Keep in mind that higher quality work will be expected from larger teams. You may want to consider balancing your team with both technical and artistic members. You may also want to include students with Maya experience to add high-quality components to your project. Designate a team captain to help with organization.

Students in 611 must provide additional decoration for the building (e.g., wallpaper, paintings, sculptures, etc) that follows a theme. We'll discuss textures in class, as well as importing models from Maya.

The above specifications comprise the minimum requirements (85%). For the creative component (15%), you could design a more elaborate structure, include an elevator, make an outdoor terrace, add furniture, install stained glass, etc. Be adventurous – make this virtual world a place where users would like to go!

Submission Requirements

All projects must be demonstrated in person. I will set up a sign-up sheet with 20-minute slots for each team to show their work. You may attend other demos (if the demonstrating team agrees) to see what others created for their projects.

As part of the requirements for this project and in order for others to view your work, you must create a web page with

- team member names
- a description of the project
- at least three different views of your world

Try to make your webpage interesting so that someone who sees it will want to visit your world.

Submit your tar'ed and gzip'ed code by e-mail (tadavis@vr.clemson.edu). Please include a makefile or compilation command, along with the URL for your project web page.