Airport Evacuation Simulation

By

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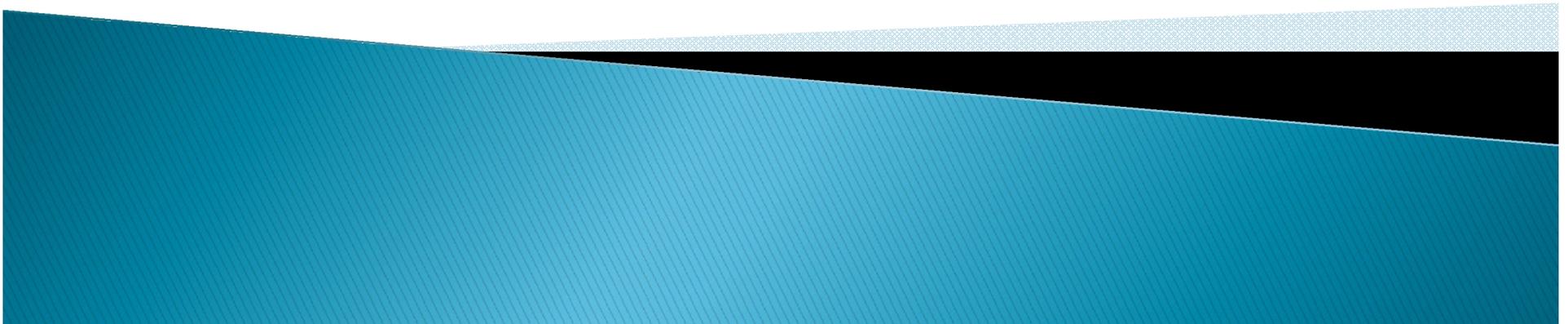
Airport Evacuation/Security

- Terminal at Newark airport evacuated after man enters secure area through exit By Steve Strunsky/The Star-Ledger
- Newark Airport Evacuated Over Baby Security BreachBy Andre Tartar
- Auckland airport evacuated after alarm activated January 31, 2012 by Sky Today ·

Goals and Objectives

- Create a virtual simulation of an evacuation at Dulles Airport
- Through virtual simulation, show effective ways to conduct an evacuation.
- Show a room, outdoor, and individual perspective for the airport evacutation.
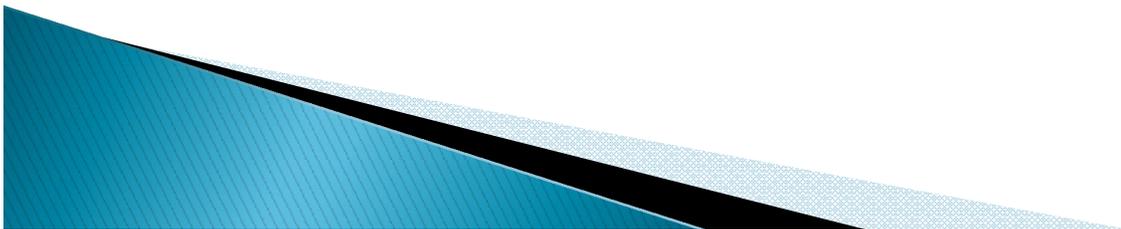
Software Used
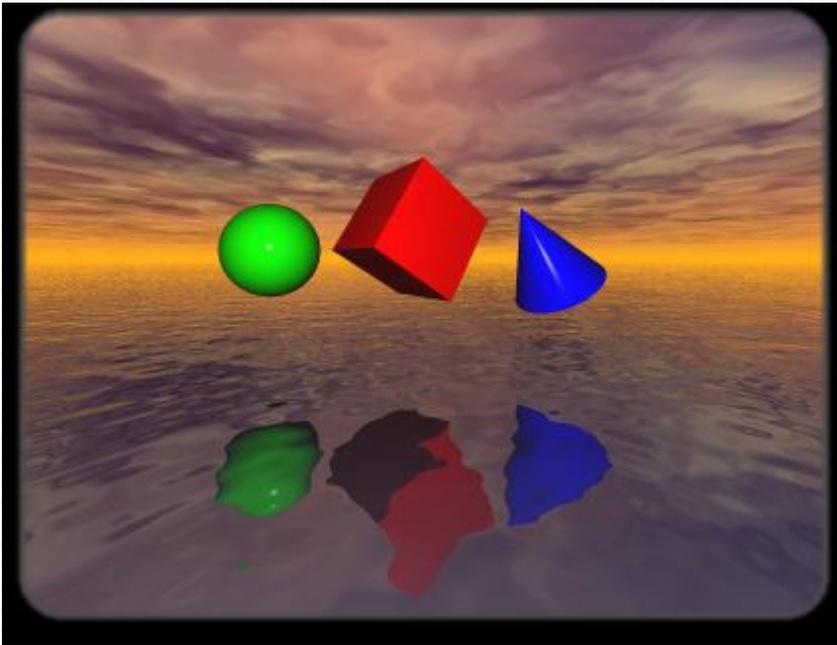
VRML (Virtual Reality Modeling Language)


Autodesk 3d Studio Max

Big thanks to
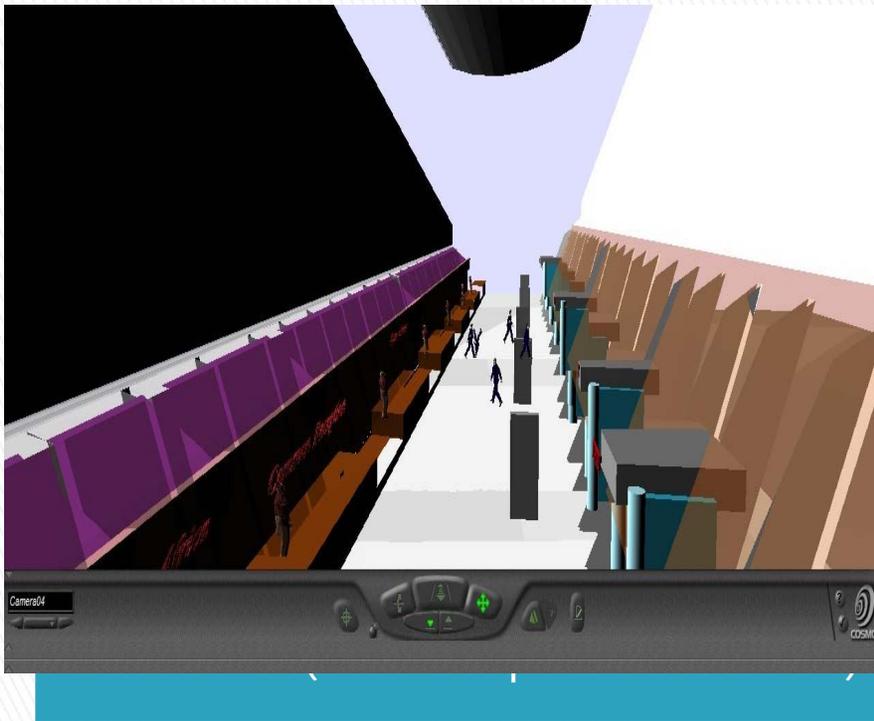
Tyreek Edwards (Virtual City)

Our Airport

Modeling

- Lights- We used a Daylight System from 3ds Max
- Animation- 3ds max CAT rig Skeleton was used for the people leaving the airport
- Java script in VRML was used to take control of the pedestrian Character
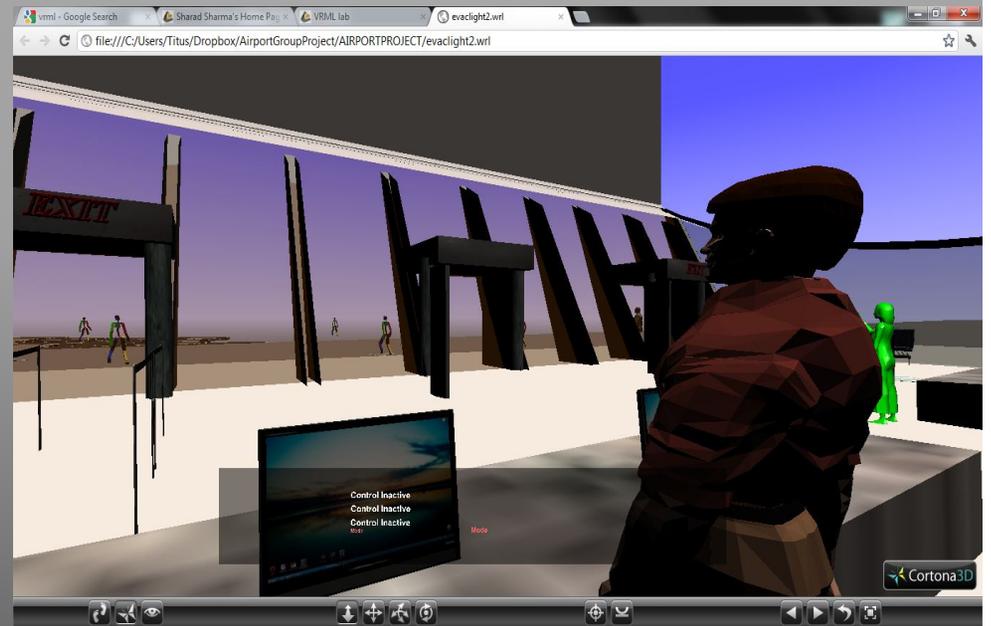
Why this is Useful

- Different Airports will require different evacuation procedure as they all have different architecture.
- Using 3d Simulations is much more efficient than gathering a mass of people and having them re-evacuate the airport over and over.
- It is much cheaper (and more realistic) to reproduce fires, explosions, any catastrophe using a 3d environment than in real life.
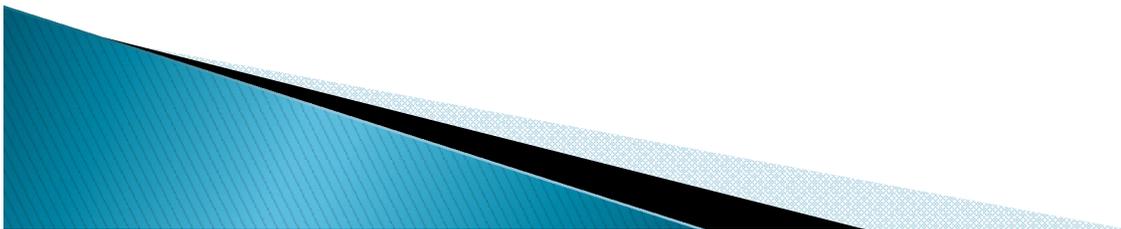
The Downside

- Converting 3ds Max to VRML and VRML to 3ds Max
- Preserving Textures during file Conversions
- Minor bugs (airport roof glitch, constant crashing during animations, textures disappearing and re-appearing)
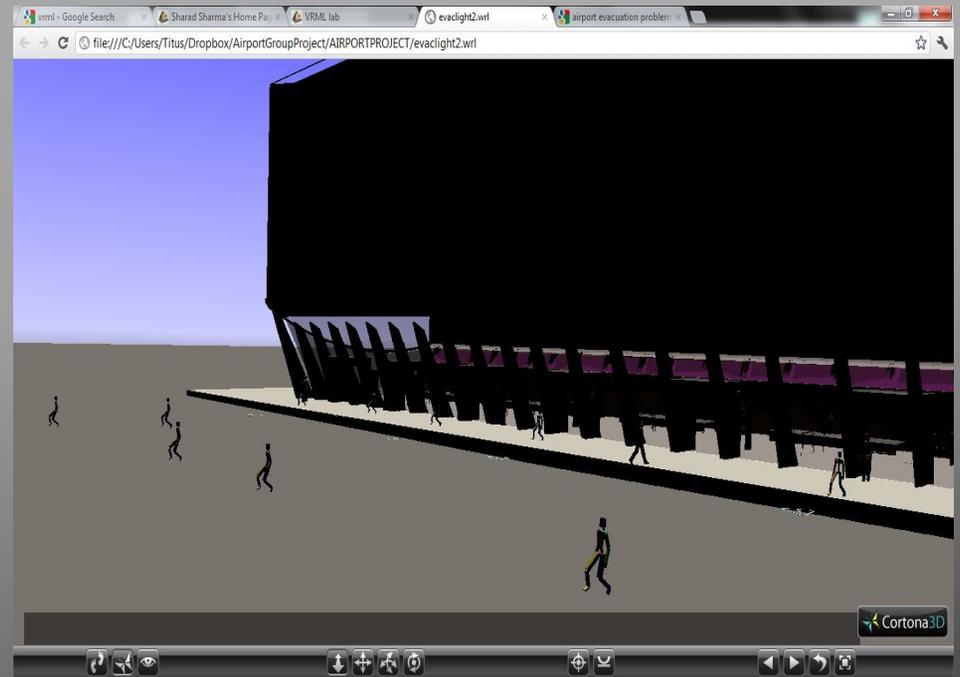
Potential Improvements
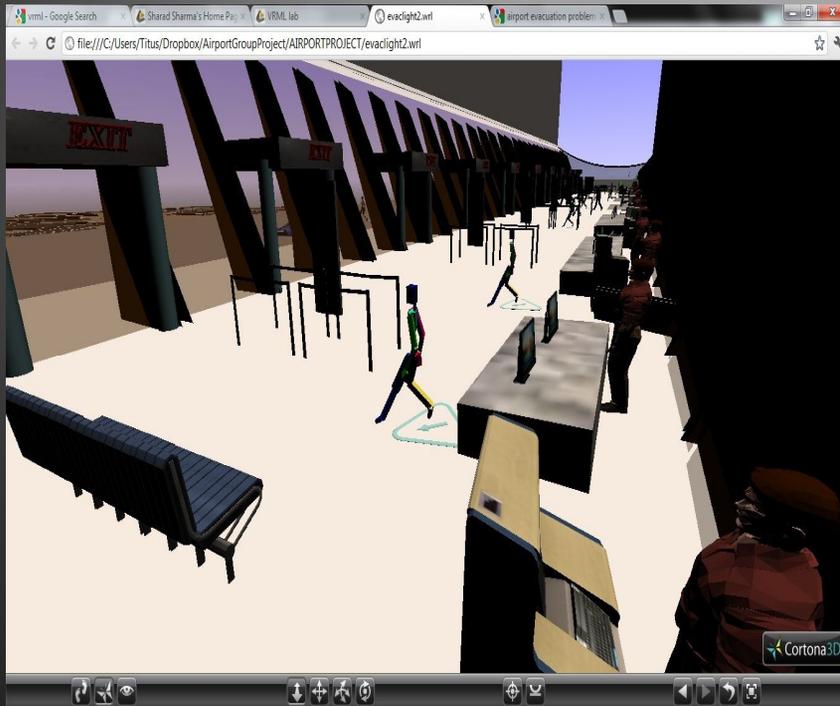
- To improve this model we can insert the catastrophe. (fire, bomb, plane crash, natural disaster)
- We can add meshes to the walking skeletons in the environment.
- Add Animated employees.
- Add a Multi-User Environment

The End