Theatrical Collaboration over the Internet

Joe Geigel
Dept of Computer Science
Golisano College of Computing and Information Sciences
Rochester Institute of Technology
About me

• Assistant professor in Dept of CS at RIT
• Internet 2 rookie
• Email: jmg@cs.rit.edu
• My interest
  – Use of Internet 2 for distributed performance
• My project:
  – Virtual Theatre
Virtual Theatre

Integration of distributed virtual reality / gaming technologies into the theatrical storytelling process.

• Our experiments in theatrical storytelling
  – Live...action takes place in a distributed virtual space
  – Performers / crew control from a physical space
  – Active Audience Participation

Spring 2004 - present
Virtual Theatre

- Art and Technology Collaboration

- Visuals
- Lighting / Staging
- Technology
Virtual Theatre

• Mission
  – Create a distributed, shared, theatrical experience

• Approach
  – Use a distributed virtual world in which to perform

• Implementation
  – Adapt a gaming engine for theatrical purposes
  – Use Access Grid for “behind the scenes” communication
System Architecture

VIRTUAL THEATRE LAYER

Gaming Engine

Graphics API  Networking API

Graphics Hardware  Network Hardware

To display  To network
Virtual Theatre
Virtual Theatre and Collaboration

• Collaboration on two levels
  – Performance
    • By its very nature, theatre is a collaborative art.
    • Different people in different places sharing in the same performance
  – Process
    • Successful collaboration between artists and technologists.
Virtual Theatre

• Goals:
  – Artistic
    • Create engaging distributed theatre
  – Technical
    • Create technologies that enable engaging distributed theatre.
  – Education
    • Create curiculum that fosters collaboration between art and tech.
Virtual Theatre at RIT

- Offering companion courses annually since spring 2004:
  - Design
    - Create models, sets, avatars, animations, lighting.
  - CS
    - Create technical infrastructure for performance.
What’s the Buzz? (Spring 2004)

- Story
  - Inspired by *Duck Amuck*
  - Bees in search of nectar
  - Changing scenes and flowers
  - Flower vs. Bees
  - Improvisation
What’s the Buzz? (Spring 2004)

Characters
What’s the Buzz? (Spring 2004)
Getting By (Spring 2005)
Future Plans

- Move from LAN to Internet
- Create an infrastructure for presentation of live performance in a virtual space over the internet
  - Theatrical interface
  - General yet robust
  - Explore use of access grid in the process.
Thanks

• Questions?

• Contact: jmg@cs.rit.edu