

 **Team Assignments**



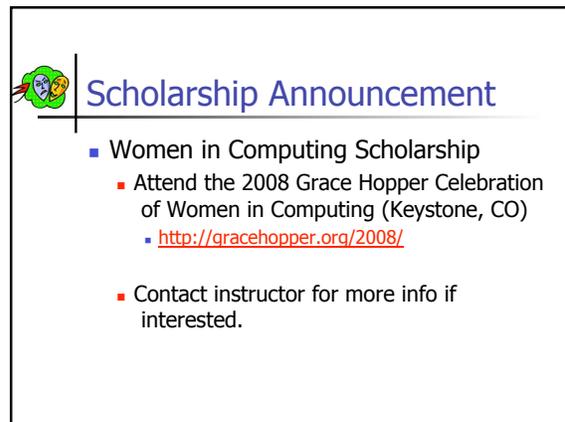

 **Graphics opportunities**

- Latest SIGGRAPH job posting now linked from my home page:
  - <http://www.cs.rit.edu/~jmg/SIGGRAPHjobs.html>
  - Link from my home page
  - Updated every 2 weeks or so.
- Grad projects / Independent Study
  - Link from my home page.



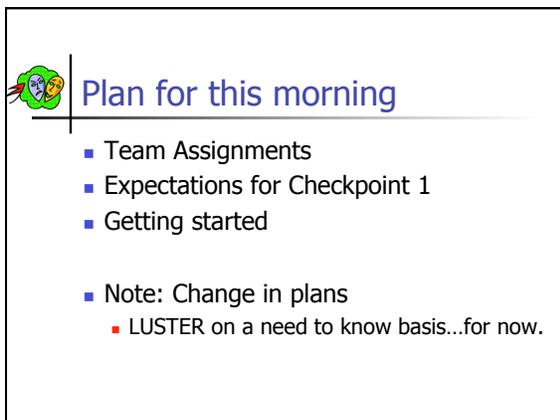
 **Announcement**

- RIT is looking for a few good programmers!
  - ACM Programming Contest
  - 3 people teams
  - Tryouts Tues, Sept 23<sup>rd</sup> at 5pm (ICL3)
    - FREE FOOD!
  - Contact Paul Tyman ([ptt@cs.rit.edu](mailto:ptt@cs.rit.edu)) by Sept 22<sup>nd</sup>.



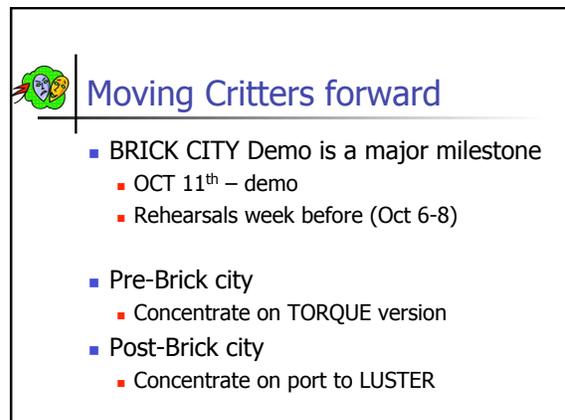
 **Scholarship Announcement**

- Women in Computing Scholarship
  - Attend the 2008 Grace Hopper Celebration of Women in Computing (Keystone, CO)
    - <http://gracehopper.org/2008/>
  - Contact instructor for more info if interested.



 **Plan for this morning**

- Team Assignments
- Expectations for Checkpoint 1
- Getting started
- Note: Change in plans
  - LUSTER on a need to know basis...for now.

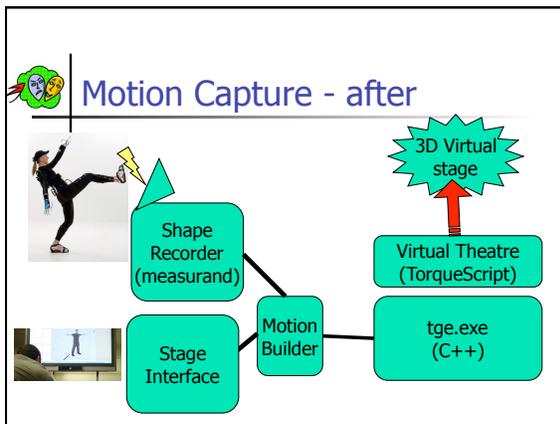
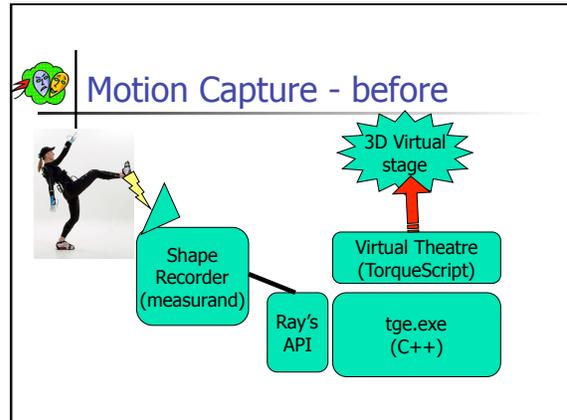


 **Moving Critters forward**

- BRICK CITY Demo is a major milestone
  - OCT 11<sup>th</sup> – demo
  - Rehearsals week before (Oct 6-8)
- Pre-Brick city
  - Concentrate on TORQUE version
- Post-Brick city
  - Concentrate on port to LUSTER

### Major work areas

- Five major areas collapsed to two:
  - Motion Capture
  - Staging



### Motion Capture

- Three major tasks:
  1. moCap -> MotionBuilder
  2. motionBuilder plugin
  3. motionBuilder -> game engine
- Three teams:
  1. moCap system
  2. moCap plugin
  3. moCap integration

### Motion capture

- Grabbing
  - Since grabbing involves articulated figure motion controlled by moCap...it is added to moCap

### Motion Capture

- Sub-teams:
  1. moCap system
  2. moCap plugin
  3. moCap integration
  4. Grabbing



## Motion Capture

- MoCap System
  - Joan Wang (G)
  - Pranabesh Sinha (G)
  - Erik Carlson



## moCap system

- Tasks:
  - Logistics of getting each moCap system working with MotionBuilder
  - Learning MotionBuilder from a "user" perspective
  - Interface with artists – rig models that play nice with MotionBuilder
    - Import such models into game engine.



## Motion Capture

- moCap plugin
  - Abhijit Bhelande (G)
  - Andrew Brown (G)
  - Christopher Murdock (G)



## moCap plugin

- Tasks:
  - Write a MotionBuilder plugin allowing an application to query motion data.
  - Learn MotionBuilder (Open Reality) SDK
  - Design a general interface that a game engine can use.



## Motion Capture

- moCap integration
  - Andrew Galante (G)
  - Abhishek Moothedath (G)
  - Rodrigo Urra



## moCap integration

- Get data from MB plugin into game engine
  - 1<sup>st</sup> Half: Hacked up TORQUE engine
  - 2<sup>nd</sup> Half: LUSTER engine.



## Motion Capture

- moCap Grabbing
  - Nicholas Wilsey (G)
  - Robert Yates



## moCap grabbing

- Design a mechanism for moCap controlled character to "pick up" items
  - Cueable event
  - Implement in TORQUE and LUSTER
- Questions for moCap

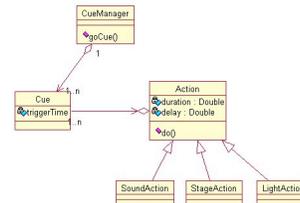


## Staging

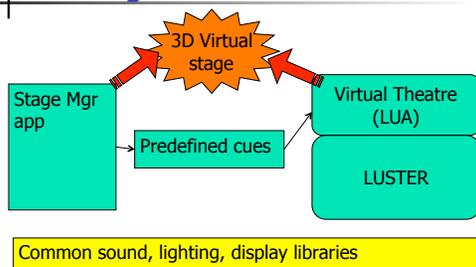
- Underlying all tasks:
  - Enhanced event model
  - New interfaces for LUSTER
- Major tasks:
  - Implementing event model
  - Stage Manager app
  - Audience /Staging / puppet interface in LUSTER
  - Integrating audio subsystem for LUSTER



## Event Model



## Defining cues



## Staging

- Teams
  - Team Event
  - Team StageMgr / Team Interface
  - Team Audio



## Staging

- Staging – Event
  - Rohan Mehalwal (G)
  - Kyle Tirak



## Staging – Events

- Tasks:
  - Implementation of full event model
    - Working in TORQUE
    - Well designed in LUSTER
  - Triggering and timing



## Staging

- Staging – Interface
  - Colin Doody (G)
  - William Jennes
  - Michael Romero (G)
  - Stacy Pline
  - Daniel Wisnewski



## Staging – Interface

- Tasks:
  - Design and Implement LUSTER interfaces into virtual stage
    - Stage Manager app (Colin)
    - Stage Manager client
    - Puppet client
    - Audience client
  - Import of assets into LUSTER
  - Integrate Event model when ready



## Staging

- Staging – Audio
  - Paul Solt (G)
  - Jordan Caras



## Staging – Audio

- Responsible for audio subsystem
- Tasks:
  - Define and implement audio subsystem in LUSTER
  - Testing of audio w/multiple audience members
  - Best practices for audio
    - Spatialized sound
    - Sound effects
    - Streaming audio



## Team Access Grid

- Utilize the access grid
- Tasks:
  - Define and implement "communication configuration" for performance
  - Define and implement method of recording/playback of performances



## Team Access Grid



## Questions?

- Before moving on to Checkpoint 1



## Checkpoint 1

- Focus on preparations for Brick City Demo
  - TORQUE
    - moCap using ShapeWrap / MB
    - Event chaining / grabbing
  - LUSTER
    - Design and prototyping



## Checkpoint 1 - moCap

- Goal:
  - Get ESTER working from ShapeWrap thru MotionBuilder to TORQUE
- Sub-tasks
  - moCap : ShapeWrap -> MotionBuilder
  - Plugin: initial protoype of MB plugin
  - Integration: MB->torque
  - Grabbing implementation in TORQUE



## Checkpoint 1 - moCap

- Getting Started:
  - Docs for MotionBuilder and Open Reality SDK linked from Web site
  - Shapewrap III training videos
  - Access to current TORQUE source...Look at moCap folder.



## Checkpoint 1 – Staging / Audio

- Goals:
  - TORQUE
    - action chaining in cues
  - LUSTER – prototyping / design



## Checkpoint 1 – staging /audio

- Sub-tasks
  - Implement event chaining and grabbing in TORQUE
  - **Design** doc ( Mock-up / Prototype ) in LUSTER of
    - Stage Mgr app
    - Puppet client
    - Stage Mgr client
    - Audio subsystem



## Checkpoint 1 - staging

- Getting started
  - TORQUE – get existing code
    - Stage Manager client
  - LUSTER – Intro to LUSTER here in 2<sup>nd</sup> half



## Checkpoint 1

- All deliverables will be built upon in future checkpoints.
  - Either in idea, process, design, or code
- Checkpoint 1 demos
  - Wed, Sept 24<sup>th</sup>



## Logistics

- Access to Graphics Lab
  - Teams moCap / Access Grid
  - Others if requested
  - See Joanne in CS Office to get card swiped.



## Logistics

- Current TORQUE source
  - Available via SVN
  - See mycourses for location and password



## What next?

- From this point on
  - Lectures are working time for teams
  - Short common time at start of lecture to discuss issues to project as a whole
  - Schedule meetings to discuss more complex / pressing issues.
  - Expect problems and learn from overcoming them!
- Questions?



## What next?

- Break
- After the break
  - moCap teams in Graphics Lab for orientation
  - Staging team in ICL6
    - For LUSTER training