We are on the 3rd Floor Stage

Set up:
Thursday, September 25
17:00 - 20:00

Present:
Friday, September 26
9:00 - 15:00

Mario's mobile:
076 258 1802
<table>
<thead>
<tr>
<th>Week</th>
<th>Day</th>
<th>Event</th>
<th>Time</th>
<th>Lecture</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Wed</td>
<td>Lecture 1</td>
<td>13-15</td>
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<td>Intro</td>
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<td>Week 1</td>
<td>Fri</td>
<td>Lectures 2-3</td>
<td>15-19</td>
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<td>Week 3</td>
<td>Wed</td>
<td>Lecture 4</td>
<td>10-12</td>
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<td>Thu</td>
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<td>Week 5</td>
<td>Mon</td>
<td>Lecture 6</td>
<td>8:30-10</td>
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<td>Hello World! Demos</td>
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<td>Week 5</td>
<td>Thu</td>
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<td></td>
<td>• Wed</td>
<td>Lecture 8</td>
<td>14-16</td>
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<tr>
<td></td>
<td>• Thu</td>
<td>Debaser Invation</td>
<td>16-20</td>
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<td></td>
<td>• Fri</td>
<td>Debaser Domination</td>
<td>8-18</td>
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<td>Lecture 9</td>
<td>8-10</td>
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<td>Week 6</td>
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<td>13-15</td>
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<td>Kista Mässan Invation</td>
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<tr>
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<td>Thu</td>
<td>Kista Mässan Domination</td>
<td>16-23</td>
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<td>Kistamassan Domination</td>
<td>30-Sun</td>
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Agenda

1. Updates?
2. Introduce Pierre - TA
3. Introduce Anton - Inventor
4. Plan Demo Day
5. Plan ForskarFredag
6. Group Meetings
7. One-on-one meetings
Updates

• What works now?
• What will work in a week?
• What didn’t work?
• What will not work in a week?
• What are the obstacles in your way?
Pierre Neidhardt
Teaching Assistant
pe.neidhardt@googlemail.com

Help you coordinate, acquire, run, execute, present, poster print, compile, transport, manage, update, communicate, lead, learn, film, photograph, interview, update, discuss, critique

9/18/2014
Anton Osika

- Inventor
- Simple HUD 4 phone
- Demo
  - Javascript
  - 3JS
  - WebGL
  - Goo Technologies
  - Argon Browser
- anton.osika@gmail.com
Demo: Purpose

- Demonstrate working projects
- Interact with each other’s projects
- Discuss
- Improve
- BUT...
  - Train to:
    - Present in 60 seconds to six-year-olds
    - Observe and gather formative evaluation quantitative and qualitative data in the field
    - Ellicit constructive criticism
Demo: Schedule

1. Pod Racer 14:15
   Context switch 10:35
2. Space Survival 14:40
   Context switch 11:00
3. Survival in the Dark 15:15
   Context switch 11:35
4. YA3 15:40
Demo: Structure

• Technical Presentation 05:00
• Interactive Demo 15:00
  – Hands-on
  – Non team members
  – As many as possible
  – Discussion going on
• Context Switch 05:00
Demo: Roles

• At least:
  – One presenter
    • Present script only
    • Answer questions
  – One observer
    • Take notes
    • DO NOT TALK
  – One inquirer
    • Ask clarifying questions
    • Do not ask leading questions
Demo: Presentation on Poster

• One slide
• 2, 3 or 4 columns
  – Motivation and Goals
  – Methods
  – Results
• Few words many images
• Link to how to do and present posters
Multi-Flash 3D Photography: Capturing the Shape and Appearance of 3D Objects

A new approach for reconstructing 3D objects using shadows cast by depth discontinuities, as detected by a multi-flash camera. Unlike existing stereo vision algorithms, this method works even with plain surfaces, including unpainted ceramics and architecture.

Data Capture: A turntable and a digital camera are used to acquire data from 670 viewpoints. For each viewpoint, we capture a set of images using illumination from four different flashes. Future embodiments will include a small, inexpensive handheld multi-flash camera.

Recovering a Smooth Surface
The reconstructed point cloud can possess errors, including gaps and noise. To minimize these effects, we find an implicit surface which interpolates the 3D points. This method can be applied to any 3D point cloud, including those generated by laser scanners.

Photometric Reconstruction
Using the implicit surface, we can determine which points are visible from each viewpoint. To model the material properties of the surface, we fit a per-point Phong BRDF model to the set of visible reflectance observations (using a total of 67 viewpoints).

\[
I_\lambda = k_{d\lambda} + k_{d\lambda} n \cdot l + k_{s\lambda} (r \cdot v)^n
\]

Ambient Diffuse Specular

Multi-Flash Turntable Sequence Images
Phong (Specular)

3D Point Cloud Implicit Surface Phong (Diffuse)

Estimated Phong Appearance Model
Introduction

Voice is one of the most natural means of expression. We always appreciate our vocal interaction in game interfaces, and I was using this instinct to power up a beautiful game! Incorporating visualization techniques, Celestia uses vocal input based on pitch deviation as a primary control and provides insight into innovation of vocal interaction.

Design

The initial idea came to us as a scenario of someone playing a game using only her voice. She is charmed with the mystical celestial environment which merges visual and vocal elements seamlessly.

We started with the story of a newborn star wanting to grow. However, comets and nebulae might hurt it in its journey. Fortunately, your voice can help it gain more power by destroying smaller planets.

Game Play

The purpose is to guide a newborn star through the universe with (melody). The user's voice can change the star's altitude, smaller planets, and survive encounters with comets and nebulae. Every element of the environment is linked to the background music; the combination of the music visualization with three different colors, leading to high, mid and bass range of the soundtrack in real-time.

Approach

By using Fast Fourier Transformation algorithm and voice spectrum analysis, we precisely selected 3 pitches as controllers, because they are in the best detection range and also in perfect harmony with background music. The whole experience of playing Celestia can be singing a song by connecting those notes in chord as game progresses. We also adapted two different pitch ranges to accommodate both female and male voices.

Future Work

We introduced Celestia to a festival to improve the game for live audiences. Rummed out to be a great success, people think "It's visually and visually appealing". Celestia is not confined to human voice. Users can play instruments, such as guitar, harmonica, or other bells.

We will keep exploring more possibilities of Celestia. iOS version will follow soon.
PRESENTATION OF 
TIME-EVOLVING ACTIVITIES 
USING 
COMMUNICATION ARCHIVE DATA
Planetary Defence

Introduction
Planetary Defence is an online 3D graphics multiplayer game. You shoot rockets at your opponents and you can shoot your opponents’ rockets down.

Motivation
- Build lightweight socializing
- Learn new technologies
- Design Entertainment

Goals
- Multiplayer
- Multiplatform
- High resolution
- 3D game
- On the web

Technology
- WebGL
- Web sockets
- HTML5
- Three.js

Interaction
- Swipe / click and drag
- Tap / click

Mobile Game Play

Conclusions
- Real-time 3D graphics
- Multiplayer interaction
- Online
- No downloading!

References
1. Three.js https://github.com/mrdoob/three.js
Demo: Questions

• Clarifying questions:
  – What do you mean by “so and so”?
  – I don’t understand, could you explain it differently?
  – Could you talk about that further?
  – Tell more about that...
  – How does that make you feel?
  – ”Following” questions
Demo: Questions

• Leading questions:
  – What do you think?
  – Is it working for you?
  – **Do you like it?**
  – What would you improve?
  – What would you change?
  – Why don’t you like it?
  – Why do you like it?
HERE, LET ME SHOW YOU!
Observers

- Pen and pad
- Take copious notes
- Count, count, count!
- Take photos
- Record (VERY SHORT) videos – be selective
- Record (VERY SHORT) testimonials
Remember: Deliverable

- Working VIC Demo
- Code with good comments
- Webpage with:
  - Description
    - Goal and motivation of the project
    - Explanation and Justification of the graphics and interaction technologies used and developed
    - Challenges
    - Obstacles
    - Related work
    - Lessons learned
  - Photos
  - "Making of" documentary (2 minutes)
  - Demo Reel (30 seconds)
  - Optional PR material (logo, trailer, flyers, posters, catalog)
  - User testimonials (what did people say)
Demo: Audience

• Take notes
• Comment during demo
• Take notes of comments
• Transfer your notes to the facebook wall
• Help each other
Demo: Grading

- Pass with Honors – 5/5
- Pass – 4/5
- Not pass – 0/5
Questions?
We are on the 3rd Floor Stage

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17:00 - 20:00

Present:
Friday, September 26
9:00 - 15:00

Mario's mobile:
076 258 1802
Debaser in Medborgarplatsen
Debaser in Medborgarplatsen
Debaser 3rd floor stage
Debaser 3\textsuperscript{rd} floor stage
ForskarFredag 2012
ForskarFredag 2013
Space Distribution
Grading of ForskarFredag

- 10%
- Group
  - 9:00 – 16:00 (- 1% per hour missed)
- Individual component – KTH social
  - Answer the survey which will be posted on Friday, September 26 at 17:00 before Sunday, September 28 before 23:55. It is very important that you answer it as soon as possible after ForskarFredag is over.
ForskarFredag Survey

• What did you learn presenting, observing, interacting?
• What were the most common questions?
• What were the challenges?
• What were the rewards?
• A few technical questions.
Communication

• Poster feedback
• Printing (Thursday morning)
• Other communication materials
  – Web page
  – Flyers
  – Logo
  – Slogan
  – ...

9/18/2014  AGI14 - L7
Requirements

Pod Racer
- Bucket seat
- Vic chair
- Coffee
- Low table
- Tile cabinet
- Screen
- High table

Kinect stress testing

YA3
- Samsung TV
- Kinect
- High table
- Laptop (yours)
- Electricity
- Spotlight
- Blue painter’s tape
- Control
- Cardboard wall x2

Space
- Survival wall
- High table
- Coffee table
- Screen
- Occulus
- Wii

Pac Man
- Pac Dudes
- High table
- TV
- Wii x 2
- Coffee table
- x Screens?
Requirements
Thank you!

marior@kth.se

Questions?