The past and future of Space Survival and 2Pacs

Mario Romero
2014/10/15
<table>
<thead>
<tr>
<th></th>
<th>Date</th>
<th>Time</th>
<th>Activity</th>
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<tr>
<td>1.</td>
<td>Wed Sept 03 13-15</td>
<td>Lecture 1</td>
<td>Intro</td>
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<td>2.</td>
<td>Fri Sept 05 15-19</td>
<td>Lecture 2-3</td>
<td>Group Formation and brainstorming</td>
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<td>5.</td>
<td>Thu Sept 11 10-12</td>
<td>Lecture 5</td>
<td>Feedback on proposals</td>
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<td>6.</td>
<td>Mon Sept 15 8:30-10</td>
<td>Lecture 6</td>
<td>Hello World! Demos</td>
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<td>7.</td>
<td>Thu Sept 18 10-12</td>
<td>Lecture 7</td>
<td>Demo Day and ForskarFredag Planning</td>
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<td>8.</td>
<td>Wed Sept 24 14-16</td>
<td>Lecture 8</td>
<td>Demo Day!!!</td>
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<td>9.</td>
<td>Thu Sept 25 16-20</td>
<td>Debaser Invasion</td>
<td>Setup 16:00 – 20:00</td>
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<td>10.</td>
<td>Fri Sept 26 8-18</td>
<td>Debaser Domination</td>
<td>ForskarFredag 2014!!!</td>
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<td>11.</td>
<td>Mon Sept 29 9-10</td>
<td>Lecture 9</td>
<td>Reflections of ForskarFredag</td>
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<td>12.</td>
<td>Wed Oct 8 13-15</td>
<td>Lecture 10</td>
<td>The past and future of YA3 and PodRacer</td>
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<td>13.</td>
<td>Mon Oct 13 8:15-10</td>
<td>Lecture 11</td>
<td>Epson Moverio – Project 2 industrial sponsor</td>
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<td>13.</td>
<td>Thu Oct 30 -Sun Nov 2, 9-19</td>
<td>Kistamåssan Domination</td>
<td>Reflections on ComiCon</td>
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<td>15.</td>
<td>Tue Nov 4 10-12</td>
<td>Lecture 13</td>
<td>New groups</td>
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<td>16.</td>
<td>Wed Nov 5 10-12</td>
<td>Lecture 14</td>
<td>Epson Moverio Workshop</td>
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<td>17.</td>
<td>Fri Nov 7 15-19</td>
<td>Lectures 15-16</td>
<td>Proposals</td>
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<td>20.</td>
<td>Tue Dec 2 10-12</td>
<td>Lecture 20</td>
<td>Feedback on proposals. Early hello world demos</td>
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<td>21.</td>
<td>Fri Dec 5 15-19</td>
<td>Open House</td>
<td>Hello world !demos</td>
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<td>Demo Day!!!</td>
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<td></td>
<td>Thu Dec 4 15-18</td>
<td>VIC Invasion</td>
<td>Prepare Open House</td>
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<td>Fri Dec 5 15-19</td>
<td>Open House</td>
<td>AGI14-VIC Open House</td>
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Agenda

1. Reflection on Moverio
2. Space Survival
3. 2Pacs
4. Break (5 minutes)
5. Schedule Individual Meeting
6. Schedule Group Meeting
7. Volunteers for Kista Mässan Invasion
8. Comic Con Planning
9. Particle Systems
10. Volume Rendering
Next Lecture: Epson Moverio for Project 2

Augmented-reality see-through heads-up display.

Vadim Couthon
National Sales Manager at Epson Europe
Remember: Deliverable Oct 28

• 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)
Space Survival

• The Tiny Earth and The Mystery of Parallax

• Haptic Feedback

• Light Scattering
2Pacs

• Wii Mote Testing Interface
• Backups:
  – Wii mote + nunchuck
  – Fresh Batteries
  – Keyboard
  – Wired game pads
  – What if? Kinect
Admin

1. Schedule Individual Meeting
2. Schedule Group Meeting
3. Volunteers for Kista Mässan Invasion
Comic Con Planning

- Model
- Google Doc
- Scheduling
Individual Meetings

Mon 20/10

08:00 – 09:00
No meetings possible

Tue 21/10

08:00 – 09:00
No meetings possible

Wed 22/10

08:00 – 09:00
No meetings possible

Thu 23/10

09:00 – 10:00
Hanna

11:00 – 12:00
Fortum - Joakim - Johan

13:00 – 14:00
Björn defense

14:00 – 16:00
Reserved Max, Andreas

Fri 24/10

08:00 – 09:00
No meetings possible
Group Meetings
Google Sheet for Self-Organization

• [https://docs.google.com/spreadsheets/d/1VjRsYTua9qE1nTTtOpr9emtVdfOCz4wi28VRtTqV3dw/edit#gid=106079050](https://docs.google.com/spreadsheets/d/1VjRsYTua9qE1nTTtOpr9emtVdfOCz4wi28VRtTqV3dw/edit#gid=106079050)
Particle Systems

- Original Paper
  - Particle Systems: A Technique for Modeling a Class of Fuzzy Objects
  - ACM SIGGRAPH 1983
  - William Reeves
  - Let’s read the paper
Demo
Paper’s Abstract

• Model fuzzy objects
  – Fire
  – Clouds
  – Water

• Particles = primitives of a volume

• Shape of volume is non-deterministic (stochastic)

• In time:
  – Generated
  – Move
  – Change
  – Die
Model (Algorithm)

1. Generate new particles
2. For all particles
   1. Assign individual attributes
   2. If too old, kill
   3. Else, transform = f(dynamics)
3. Render image of living particles
Exercise at home

• Simple Particle System
  – Link
• Understand Code
• Modify to
  1. Simplify to one particle with simple trajectory
  2. Interactive Particle Cannon
• Share through FB wall
Thank you!

marior@kth.se

Questions?