PANDA 3D

Easy but Powerful Engine for Virtual Environments

Disney Imagineering VR Studio

- **Disney Imagineering** designs the most complex and innovative rides for the **Disney** themeparks.
- In1998 Disney opened **DisneyQuest** in Florida, the world largest arcade for virtual rides and virtual reality entertainment.
- **VR Studio** within Disney Imagineering developed the VR technology.

Panda 3D – The Beginning

- The virtual rides of DisneyQuest were produced using a new graphics engine developed by Imagineering, called **Panda 3D**.
- The first VR ride they developed using Panda 3D was **Alladin's Flying Carpet** (1998).

Panda 3D – The Engine

- **Panda 3D** is a 3D engine "and more".
- The engine is written in **C++.**
- It is easy to load **models** and characters into the engine (there are many converters available).
- Originally being a commercial engine, there are many **tools** with Panda 3D, e.g. for supporting content preparation and for profiling.
- The engine already contains **modules** for more than graphics, including sound and music, as well as simple physics.
- At run-time the engine interprets a program written using the **Python** scripting language, which essentially coordinates the application: Sets up the user interface, feeds data to the engine and defines the interactivity .

Panda 3D - Free

- In 2002 Imagineering released the Panda 3D code to the public. Now under a modified **BSD license**.
- The code continues to be developed at Imagineering and at the **CMU Entertainment Technology Center** where it is used for teaching the development of interactive digital entertainment.

Panda 3D – Game Development

- Panda 3D is still used at Disney to develop games, including **Toon Town Online** (the first MMO for kids)...

...and most recently "Pirates of the Carabian Online".

Panda 3D – At Reykjavik University

- At Reykjavik University we use Panda 3D both for teaching and research.
- Proven to be very straight-forward to use, but also very powerful.

Virtual CADIA (Pálmi og Páll)
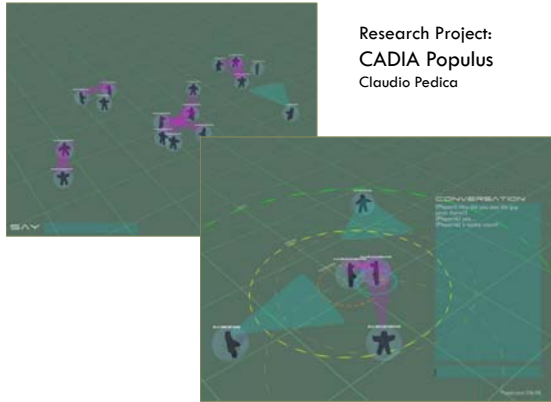
Research Project:
CADIA Populus
Claudio Pedica

Previous VE Course Projects (Spring 2007)

Programming Assignment:
Little Red Ridinghood
Páll og Pálmi

Programming Assignment:
The Amazing Race
Guðný and Freyr

Previous VE Course Projects (Spring 2008)

Programming Assignment :
Eyjastökkvarinn
Arnar og Bjarki

Programming Assignment :
Hrólfur og Eva
Bjarni

Panda 3D – Web Site

http://www.panda3d.org