

# Panda 3D

An Easy but Powerful Engine for Virtual Environments

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## Disney Imagineering VR Studio

- **Disney Imagineering** designs the most complex and innovative rides for the **Disney** theme parks.
- In 1998 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.



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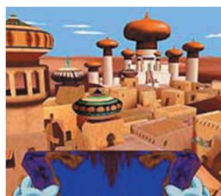
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## Panda 3D in the Beginning

- 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).



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## Panda 3D 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 interfaces to physics engines.

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## Panda 3D and Python

- At run-time the engine interprets a program written using the Python scripting language.
- In a basic sense, the script coordinates the application: Sets up the user interface, feeds data to the engine and defines the interactivity.
- However, most parts of the Panda 3D engine can be accessed through a Python interface.

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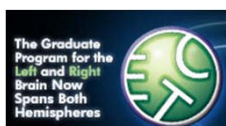
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## Panda 3D is Free

- 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.



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## Panda 3D in Games

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



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



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## Panda 3D at RU

- 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)

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Research Project:  
CADIA Populus



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Previous VE Course Assignments (Spring 2007)



Páll og Pálmi



Guðný and Freyr

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Previous VE Course Assignments (Spring 2008)

Arnar og Bjarki



Your location is (-197.71, -140.87, 3.77)



Bjarni

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Previous VE Course Assignments (Spring 2009)

Ari



You better the hell is going wrong!



Kristján og Pétur

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Previous VE Course Assignments (Spring 2009)

Hrafn



Haukur og Þorgeir



"Murder, who did?"

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# Panda 3D on the Web



<http://www.panda3d.org>

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