



VRML



-Anuja Nagare

What is Virtual Reality?

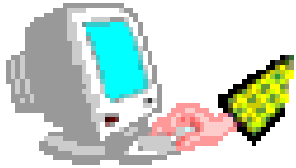
- ▶ High-end user-computer interface that involves real-time simulation & interaction through multiple sensorial channels

- ▶ Eg. sensorial channels:

Vision, Sound, Touch



Virtual Reality



Technology that allows user to **Interact
with computer simulated environment**



Virtual Environment

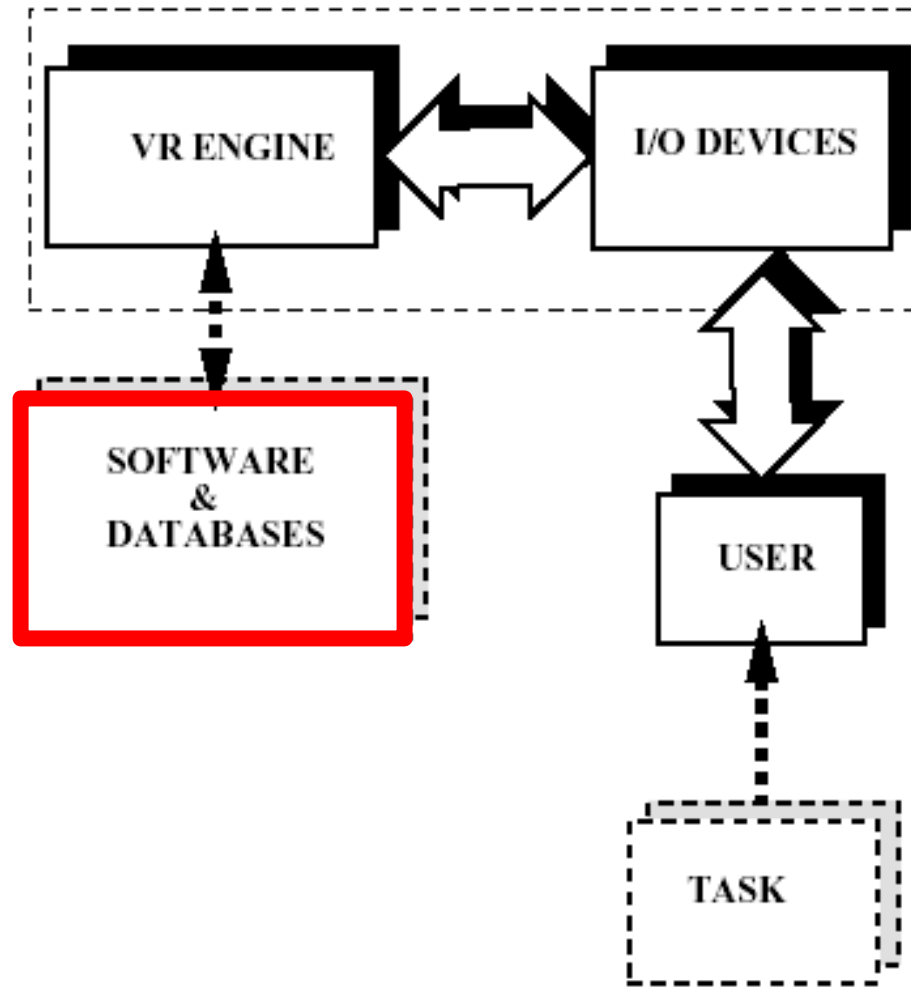
- ▶ Simulated by computer which tries to imitate real thing
- ▶ Interaction can vary from looking around to interactively modifying the world





Virtual Environment

5 classical components of VRS



VRML Plug-in & Browser Detector

Cortona3D



Virtual Reality Modeling Language

- ▶ Open standard tool
- ▶ Text based “Scene Description Language”
- ▶ Displays 3-D objects on WWW
- ▶ 3-D equivalent of HTML
- ▶ Produces 3-D space that appears on display screen
- ▶ User can figuratively move within space
- ▶ Can be detected by various web browsers



Virtual Reality Modeling Language

- ▶ Case Sensitive
- ▶ .wrl file extension
- ▶ VRML header is main component
- ▶ Typical structure consists of:
 - ▶ VRML header
 - ▶ Comments
 - ▶ Nodes



Typical Structure VRML File

- ▶ **VRML header:**

- ▶ **#VRML V2.0 utf8**
- ▶ (**U**niversal character set **T**ransform **F**ormat)

- ▶ **Comment:**

- ▶ **# this is a Comment**

- ▶ **Nodes:**

- ▶ **Node type {}**
- ▶ Shapes, Transformations, Lights, Materials, Timers, etc .



Links

- ▶ **To Download Cortona3D:**

<http://www.cortona3d.com/>

- ▶ **For VRML Demos :**

<http://cs.iupui.edu/~aharris/webDesign/vrml/>



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