

Course Announcement July-September 2002.
Meets 1000-1050, Monday-Thursday, Halligan 123.

MV4204 Computer Graphics using the Virtual Reality Modeling Language and X3D



Extensible 3D
Graphics
using XML



Prerequisites: none. Programming level: beginner to intermediate.

VRML is the ISO-standard interchange language for 3D graphics on the Web. X3D is the Extensible Markup Language (XML) tagset for VRML. 3D browsers are available for Netscape and Microsoft Internet Explorer. A good textbook, a free authoring tool and several hundred example scenes let you “learn by example.”

We can now create, export, link & combine 3D graphics in a hardware-independent way. We will create dynamic network-capable 3D models that are as accessible as standard 2D Web pages written in the Hypertext Markup Language (HTML). Shifting the focus in 3D from “programming” (i.e. low-level function libraries) to “building content” (i.e. interchange models in VRML/X3D) has big benefits. Using our new X3D-Edit tool makes things easy. It’s also pretty cool!

This course provides an introduction to the hardware and the software used in the production of computer generated images. No previous 3D graphics experience is assumed - students and staff from any curriculum at NPS are welcome to attend. Student deliverables in this course are design projects using X3D. We’ll also briefly examine how to generate and animate VRML using *Java*. This course is an acceptable substitute for the other intro 3D graphics courses, CS 4202/4203.

Textbook: Ames, Andrea L., Nadeau, David R. and Moreland, John L.,
VRML 2.0 Sourcebook, 2nd edition, John Wiley and Sons Inc., New York, 1997.

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