4.206 Visualization
Massachusetts Institute of Technology
Professor Larry Sass

Recitation 5

March 6 & 7, 2003

Introduction to Rendering

Down Load - your **Assignment 4** from studio.mit

Recitation Schedule

1) Points from the lecture & preview of Recitation 5.

2) Open your **Assignment 4 & 4_206_Recitation_05.PDF** tutorial from StudioMIT.

3) Go through the tutorial.

4) Discuss Assignment 5.

5) Questions.

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Overview of 3D Viz
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The Process to Make a Rendering from your AutoCAD Model

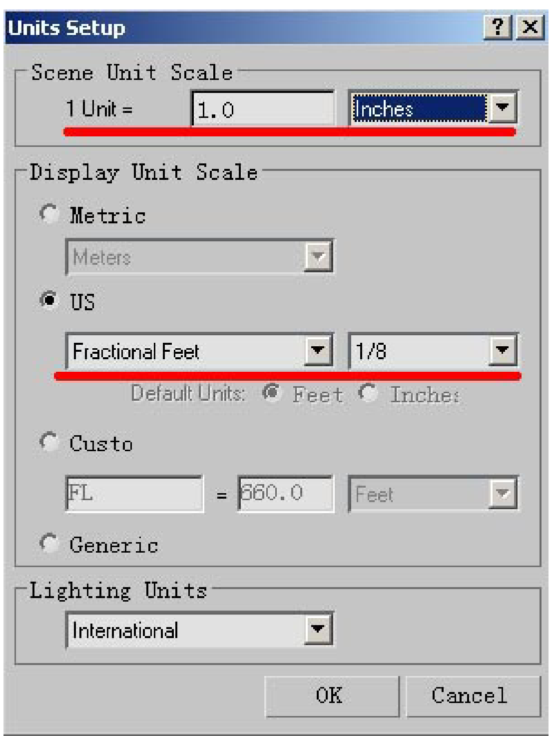
1. In AutoCAD, organize objects by layers

AutoCAD entities on one layer will become one single object in VIZ, and can only be assigned a single materail. You should think about what materials you want to use in VIZ, and organize the AutoCAD layer before you transfer your file.

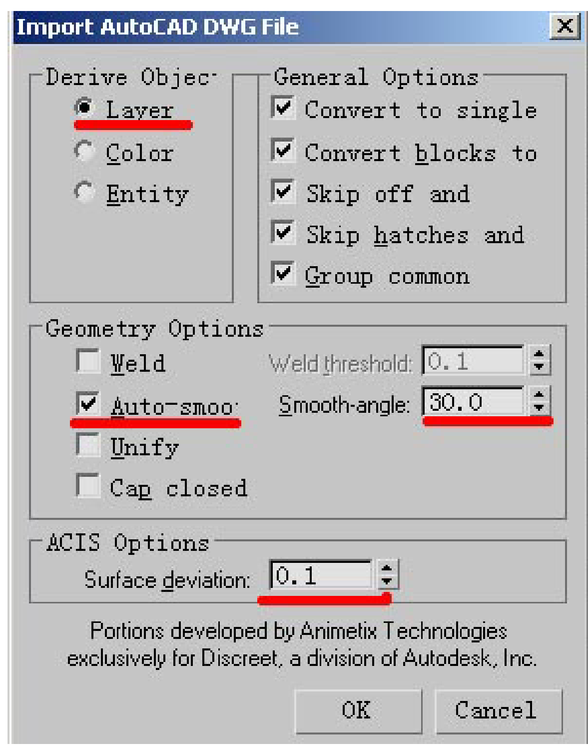
In AutoCAD, save the .dwg file as usual. All visible objects in the saved file will be transferred into VIZ. Therefore, you need turn off some unnecessary layers, and only keep the objects you need.

2. Transfer file from AutoCAD to VIZ
a) Set up your units in 3D VIZ

Before importing your AutoCAD model to 3D VIZ, you should set up the unit system to specify what one unit in your AutoCAD model means.
go to: **Customize>Units setup>Scene Unit Scale**



b)Import the AutoCAD model to 3D VIZ
go to: **File>Import**
When you import a DWG file from AutoCAD to3D Viz , you will get a dialog



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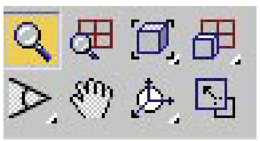
Basic 3D VIZ Command

1. Saving/loading/merging models

File>save save as 3D studio model in **.max** format
File>open load previously saved .max file
File> Merge merge another file into the current file, but you can only marge **.max** file

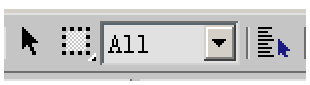
2. Quick viewing



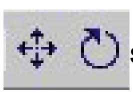
These are 8 buttons at the lower right.

Customize>Viewport Configuration>Layout you can specify a desired view from the menu.

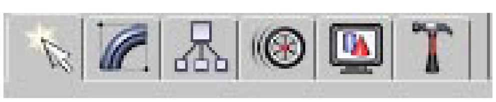
3. Selection& Move



Select object/Rectangular Selection/Selection Filter/Select by name

 **Select and move/Rotate**

4. Icons at the top right



These are **Create/Modify/Hierarchy/Motion/Display/Untilities**

<u>Change the color or name of an object:</u>

a).select the object

b) Hit the modify button 

c) change the name and color showing up

click here to change color

click here to change name

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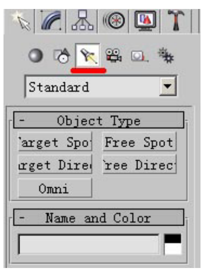
Basic 3D VIZ Command

5 . Lights

Create> Lights

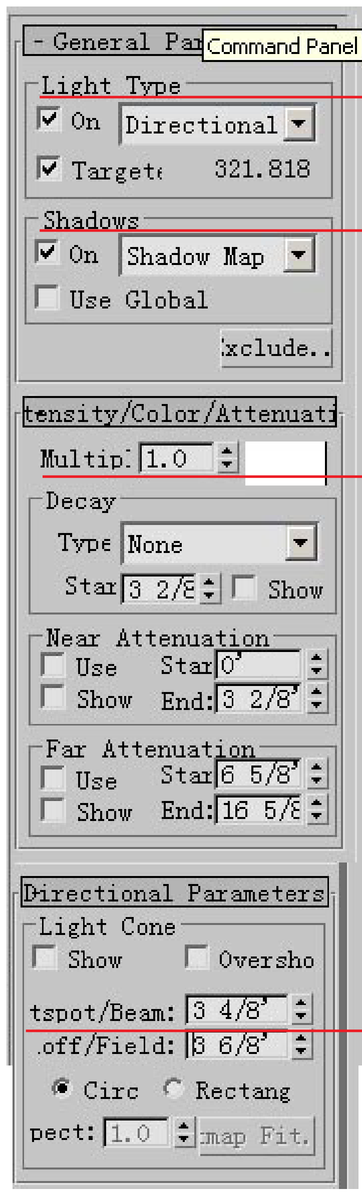
Pick a light choose **Target Direct**



locate the light normally specify the location of light in **TOP** view, then adjust the height of the light in other views.

The same methord is applied to **Omni** light.

Change the parameter of light



turn lights on/off

turn shadow on/off

set the intensity of the light

ajust the **Hotsport** *and* **Falloff** *to change the diameter of light cone*

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5 . Camera

Create>Camera

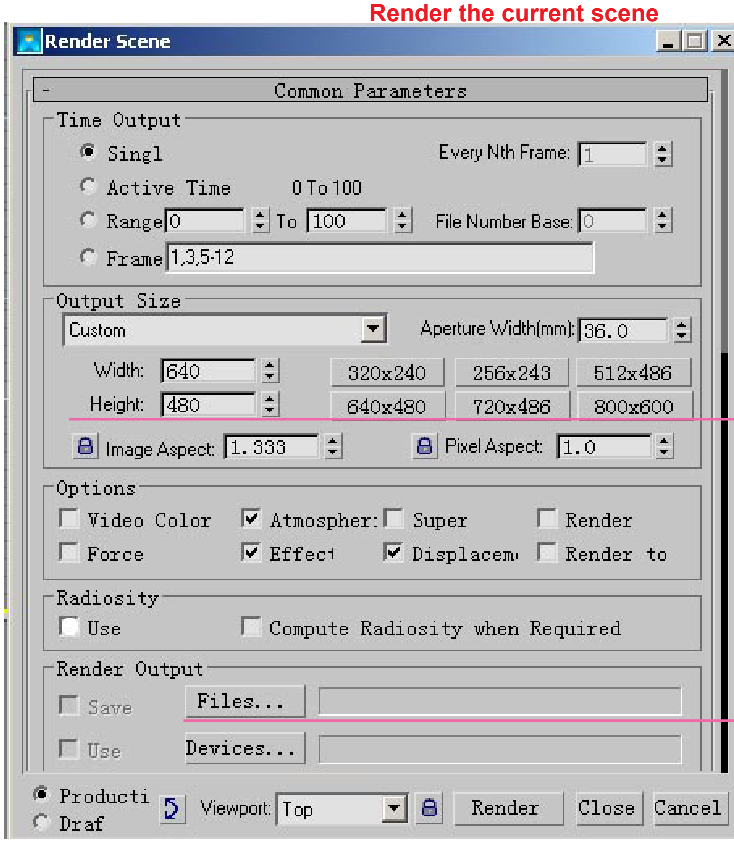
Pick a camera choose **Target**

place the camera normally specify the location of camera in **TOP** view, then adjust the height of the camera

6 . Rendering

Rendering>Render or click

Render the current scene



For quick test rendering, choose small size,
For high quality rendering, use 800X600 or larger

Click **Files ,** *specify the name and saving path of your rendering image.*

7 . Printing

You can use Photoshop to open your rendering image and print.