3DS MAX

An Introduction to the 3DS MAX interface

This tutorial will introduce the interface and basics behind Autodesk 3ds Max

Modeling

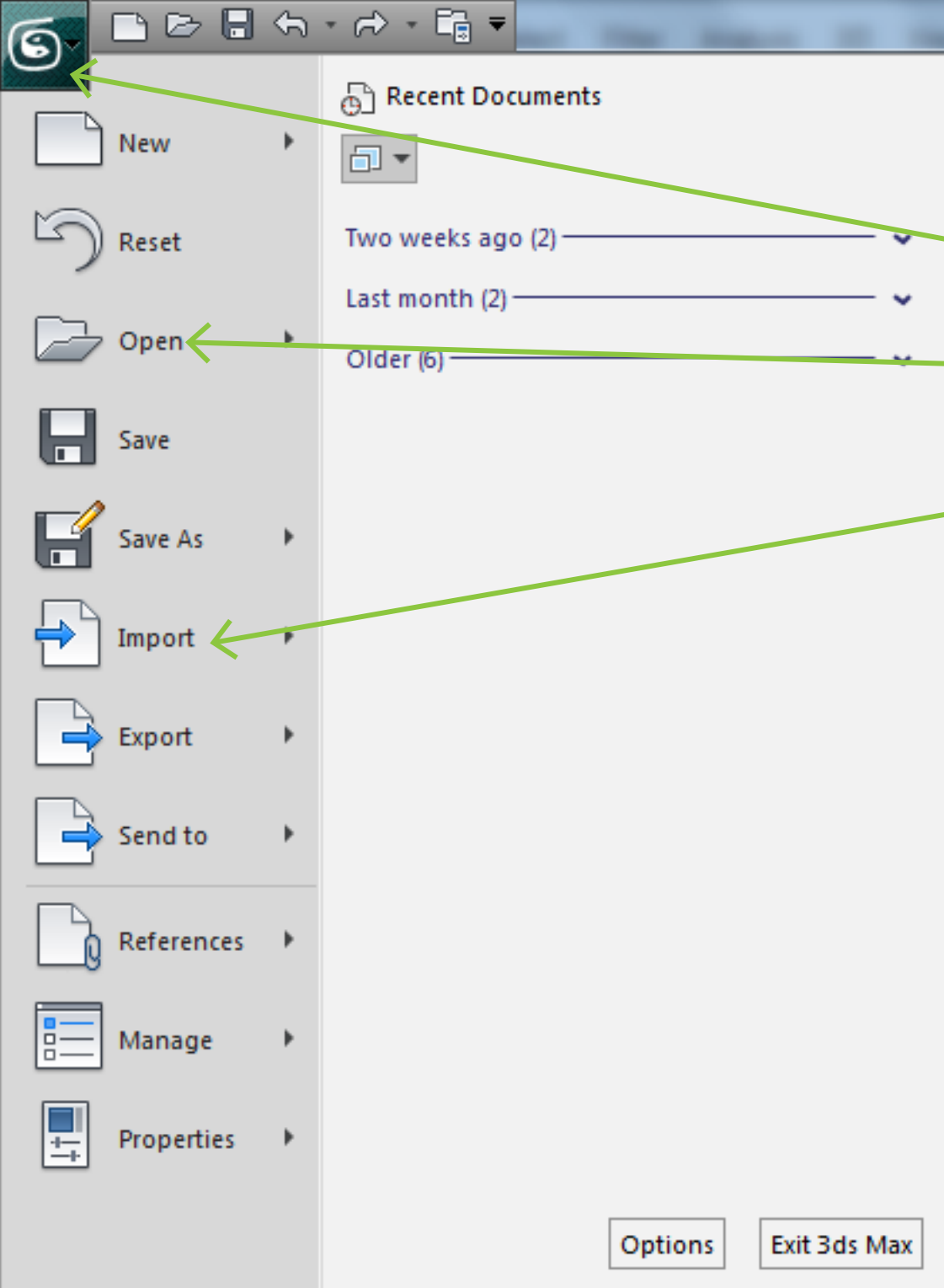**Creating complex 3d Forms**

Animation

Creating video animations of models

Rendering

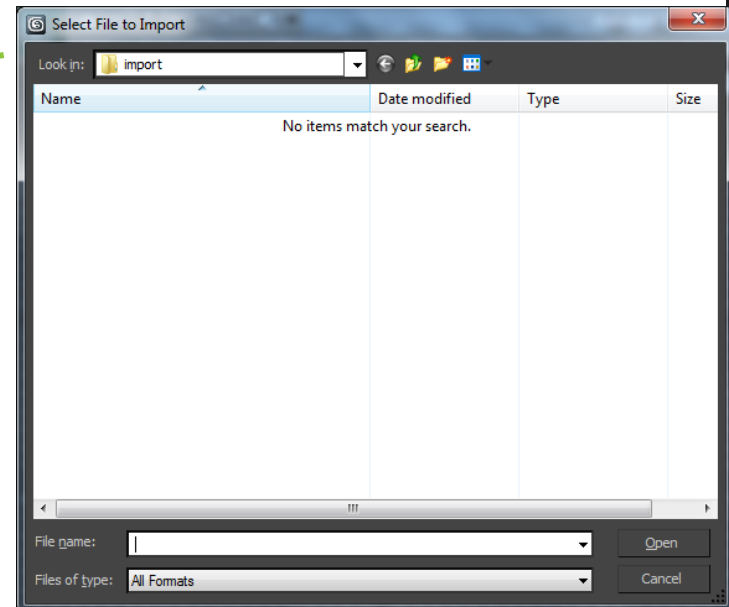**Creating visually stunning images of models**

THE ARC.
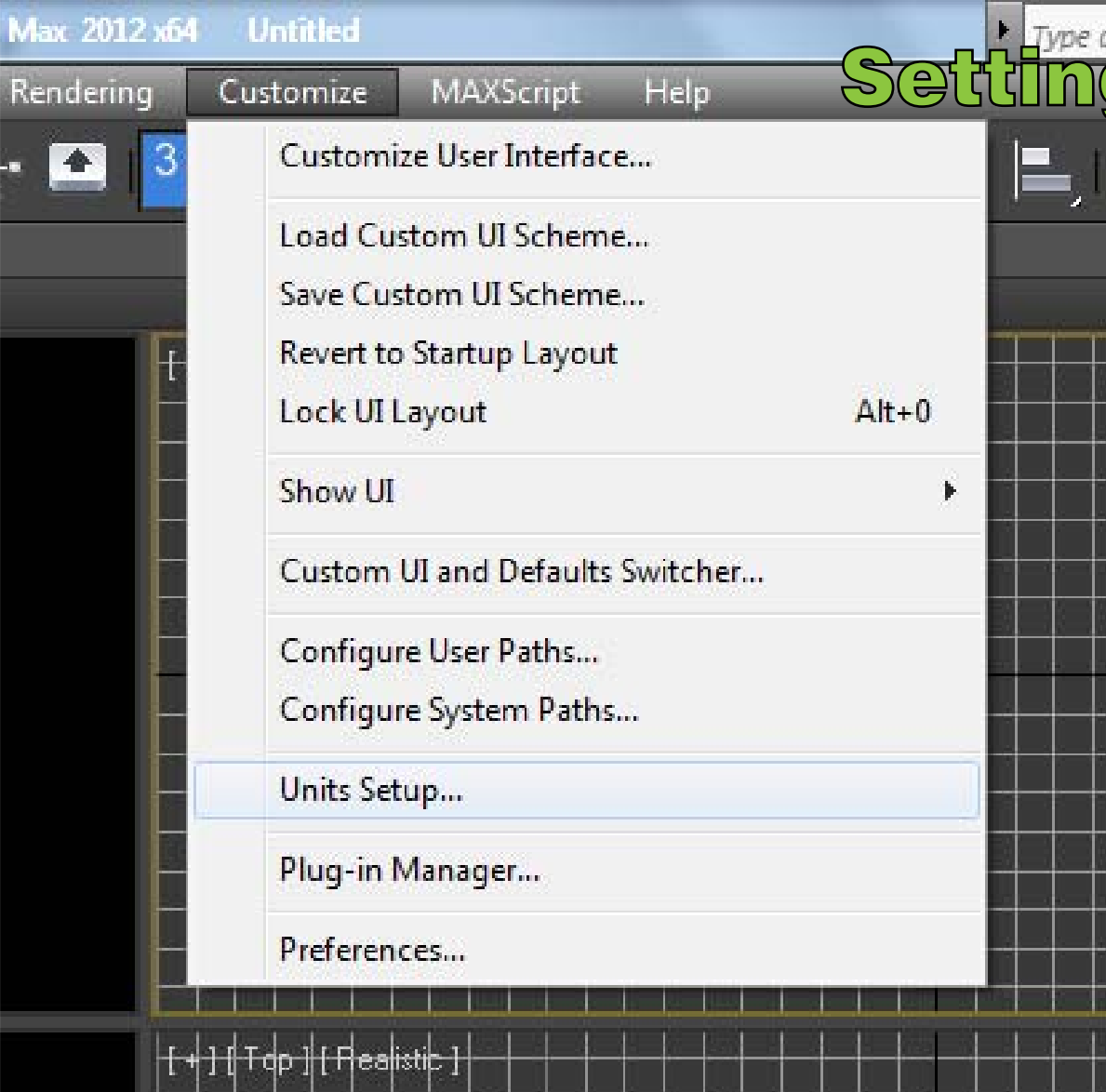
3ds Max opening...
Now what?

The 3ds Max logo in the upper left corner acts like the main file button of most programs.

If anything was previously developed in 3ds max, then the file can be opened here.

Most often, other formats will be imported to Max. If this is the case, then hitting import will open an import window where one can choose any format to import into Max.

THE **ARC.**
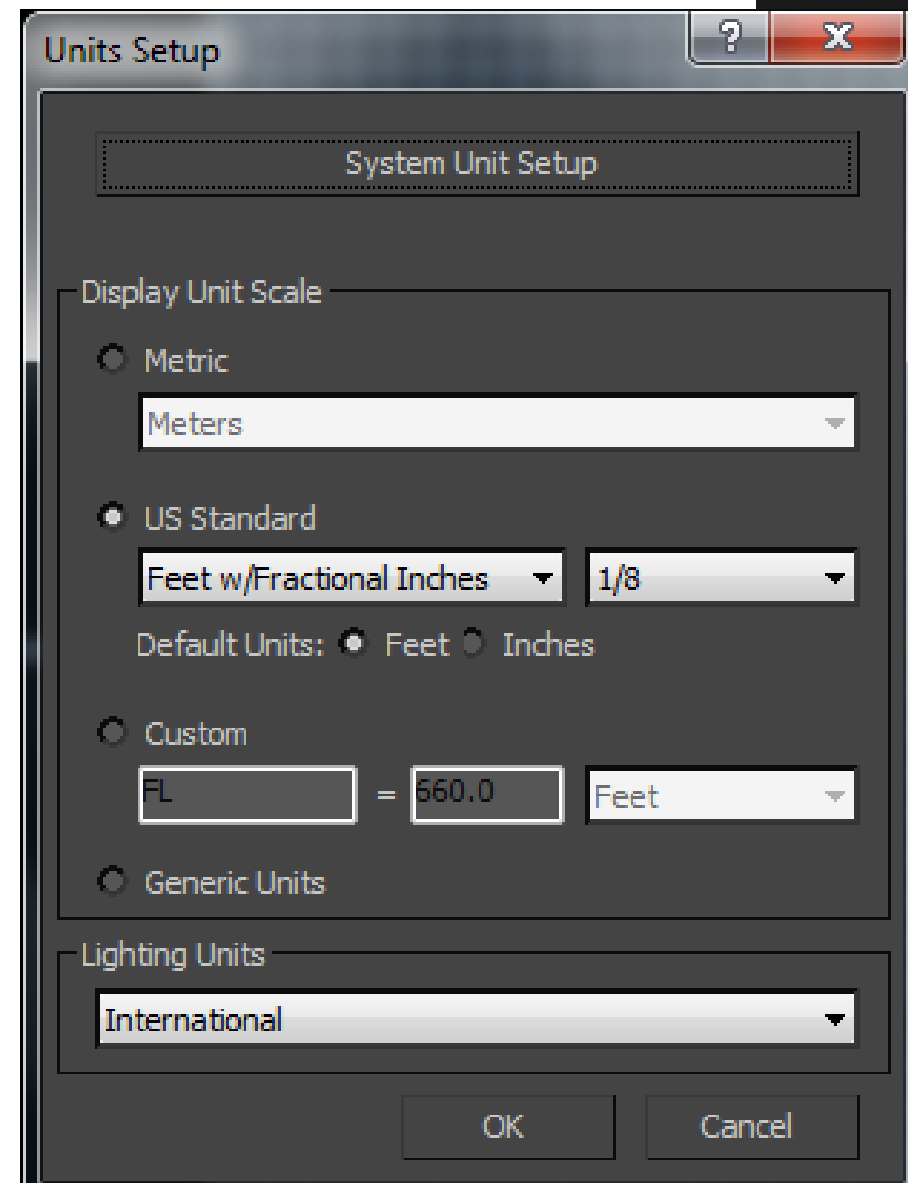
Coherence between models that may be imported is key. In order to keep the same scales, the units must be the same. The customize menu in Max will allow one to select the units setup menu. In the Units Setup, one can choose to set the units to whichever the model requests.

THE
ARC.

The main toolbar is where the main functions are located.

Select Object by clicking on screen

Select Object name

Select and move item

Select and rotate item

Select and scale item

Snaps Toggle

Select to Mirror an item

Material Buttons

Right clicking on the snap button will bring up the snap menu. Here you can select the type of points that the cursor will snap to in the interface. When done selecting, hit the red x to close the window and save changes.

The Interface

3ds Max runs on an interface that is strictly button based rather than programs like AutoCad that are mostly command based.

THE
ARC.
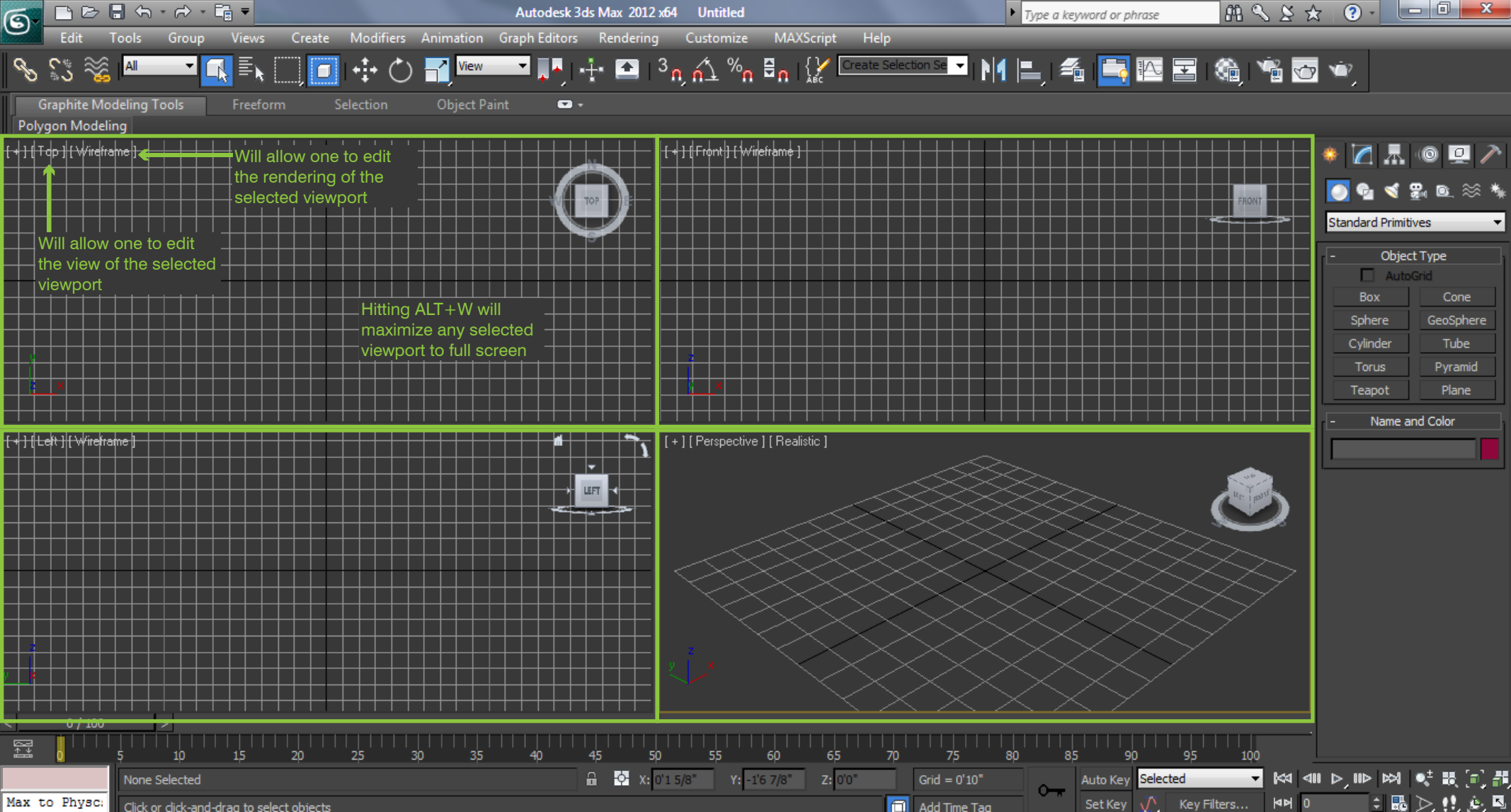
Viewports

3ds Max is based by default in four different viewports. The four viewports show four different views of the modelspace.

Working between multiple viewports at one can allow much more efficiency and flexibility in design. The ability to see how the model looks in various views at one time is important to the final outcome.

THE ARC.

The create tab will allow one to easily choose a form or type of shape from the menu and build it. Various other objects can be chosen from the menu, such as shapes, cameras, and lights from the same menu.

The modifier tab is where complexity comes into play for 3ds Max. Selecting various modifiers will change and add different features to the models.
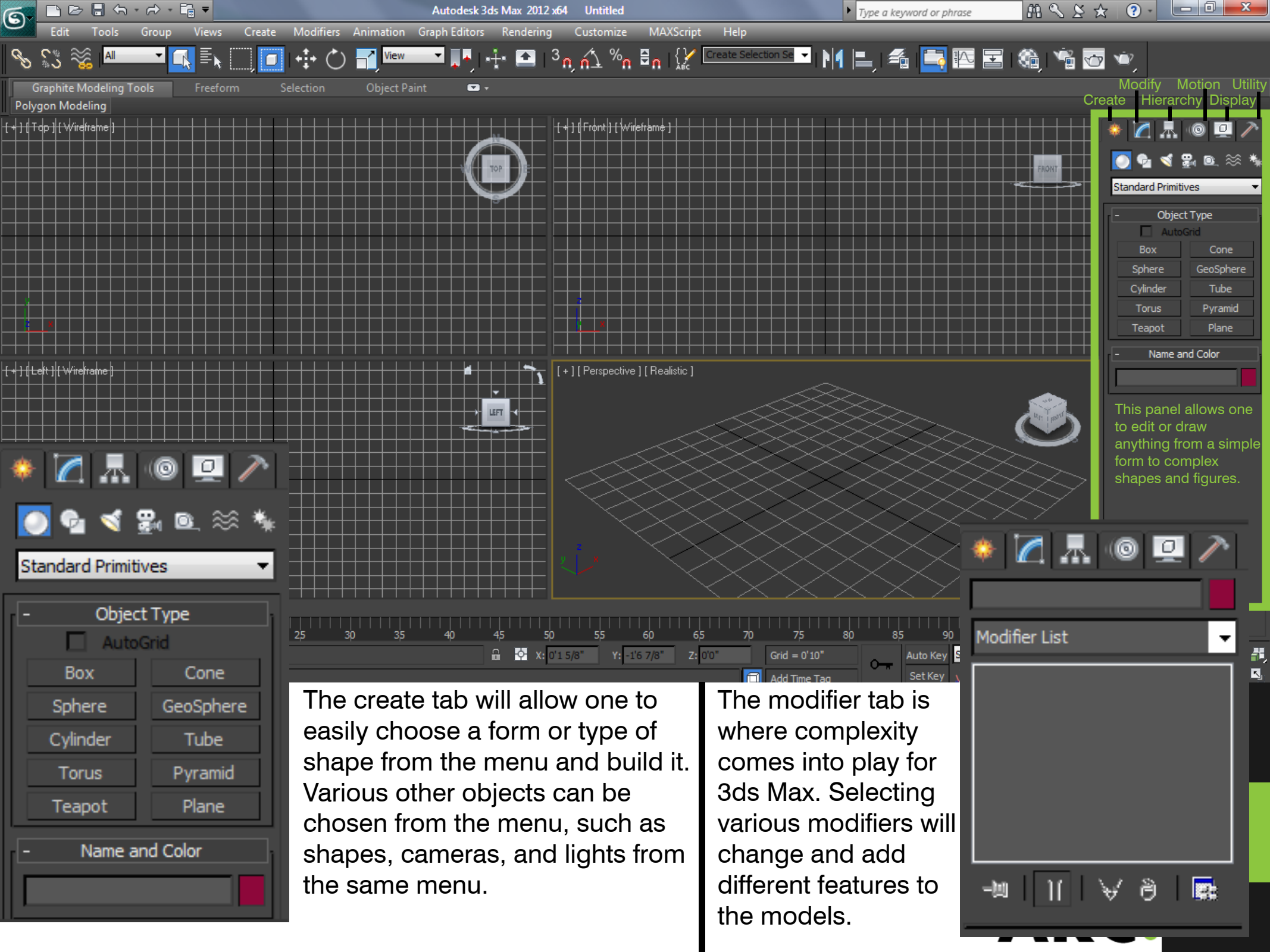
This panel allows one to edit or draw anything from a simple form to complex shapes and figures.

Create Modify Motion Utility
Hierarchy Display
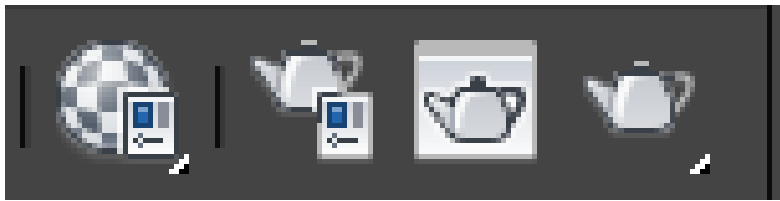
Material Browser | Render Setup | Render Window | Start Render

The render setup window holds every adjustment and option available for the rendering.

Render Setup: mental ray Renderer

Indirect Illumination | Processing | Render Elements
Common | Renderer

Common Parameters

Time Output
- Single — Every Nth Frame: 1
- Active Time Segment: 0 To 100
- Range: 0 To 100
  File Number Base: 0
- Frames: 1,3,5-12

Area to Render
View — Auto Region Selected

Output Size
Custom — Aperture Width(mm): 36.0
Width: 640 | 320x240 | 720x486
Height: 480 | 640x480 | 800x600
Image Aspect: 1.333 | Pixel Aspect: 1.0

Options
- Atmospherics — Render Hidden Geometry
- Effects — Area Lights/Shadows as Points
- Displacement — Force 2-Sided
- Video Color Check — Super Black
- Render to Fields

Production — Preset: -------------------- | Render
ActiveShade — View: Perspective

This area can select what view will be rendered

This area is where adjustments as to which viewport will be rendered and the size of the renderered image

Perspective, frame 0, Display Gamma: 2.2, RGBA Color 16 Bits/Channel (1:1)

Area to Render: View | Viewport: Perspective | Render Preset: --------------------

RGB Alpha

Image Precision (Antialiasing): Medium: Min 1/4, Max 4
Soft Shadows Precision: 1X - Default
Final Gather Precision: Draft
Reuse: Geometry | Final Gather

Glossy Reflections Precision: 1.0X - Default
Glossy Refractions Precision: 1.0X - Default
Trace/Bounces Limits
Max. Reflections: 4
Max. Refractions: 6
FG Bounces: 0
Production
Render

When the render is started, the render window will open and this is where the render will be viewed. From this menu you can save, clear, or copy the current rendered image.
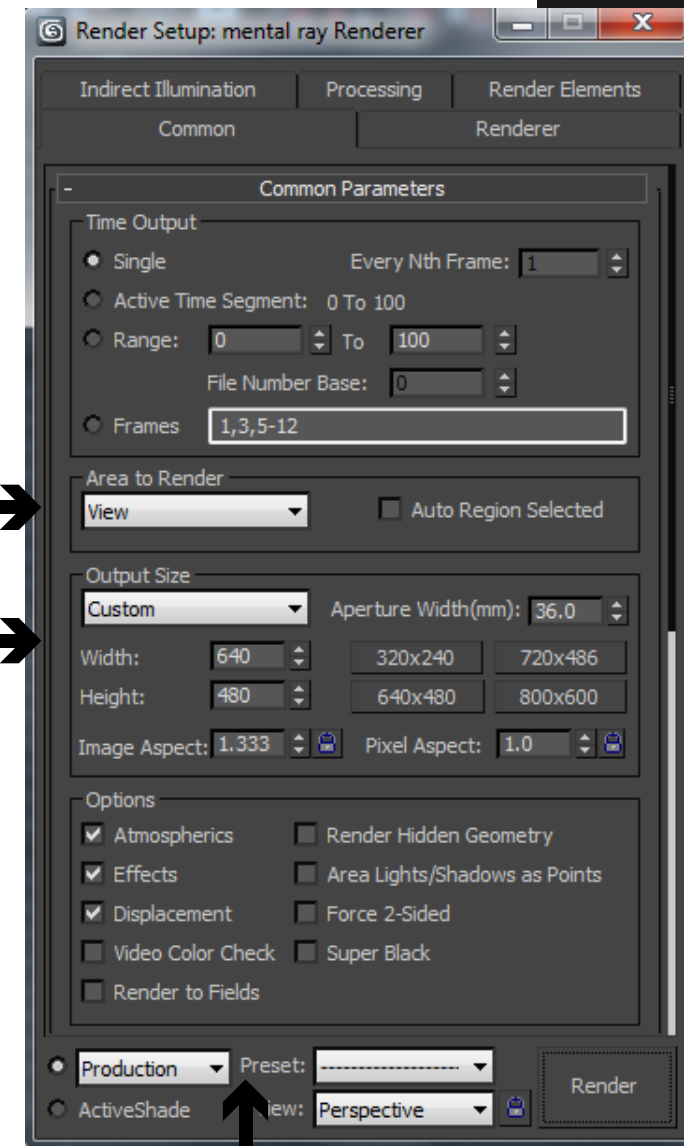
Max has various preset rendering conditions, such as mental ray daylighting that require few changes with great results.

THE ARC.

Material Editor

Previews of the output of the material when rendered

Get material will create a new material from scratch to be ready for editing.

When a material is as desired, this button will apply the material to any selected object.

3ds Max has many pre-made materials that can be used as is or easily customized.

The material editor tab is one of the most important parts of rendering. In order to make a model look like something other than a grey box, a material must be created. Most new versions of 3ds Max have the "Slate Material Editor," but the "Compact Material Editor" can be selected by the mode button.
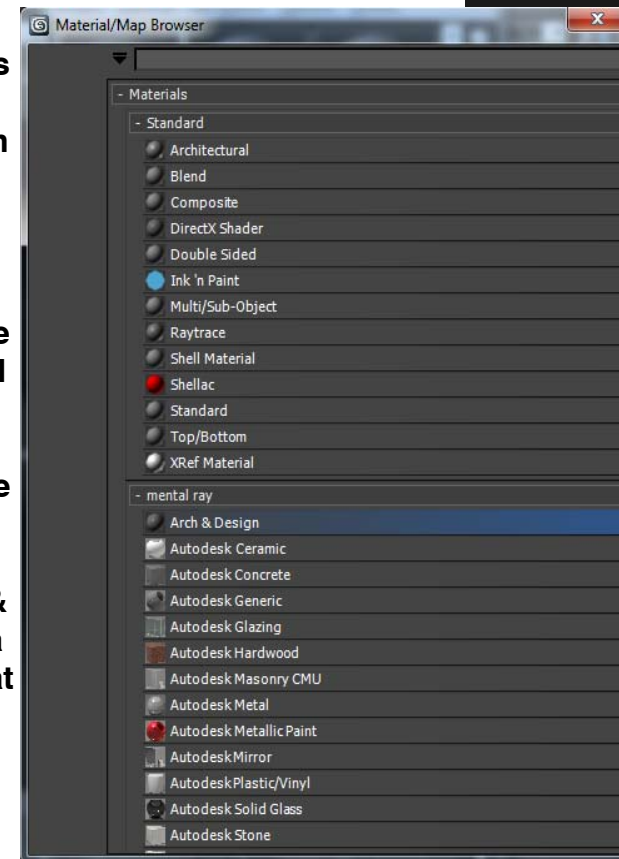
When the get material button is selected, this window will open up as the materials available to be selected. The materials that are under the mental ray tab are advised to be selected because they are higher quality when rendered. Arch & Design acts as a base material that can be customized.

Material Editor - Material #26

Modes Material Navigation Options Utilities

Material #26   Arch & Design

Templates
(Select a template)

arch+design mental ray®

BRDF
- By IOR (fresnel reflections)
- Custom Reflectivity Function

Reflectivity vs. Angle: 1.0

0 deg. refl: 0.2
90 deg. refl: 1.0
Curve shape: 5.0   0.0

0 deg   90 deg

Main material parameters
Diffuse
Diffuse Level: 1.0   Color:
Roughness: 0.0

Reflection
Reflectivity: 0.6   Color:
Glossiness: 1.0   ☐ Fast (interpolate)
Glossy Samples: 8   ☐ Highlights +FG only

Material/Map Browser

- Materials
  - Standard
    - Architectural
    - Blend
    - Composite
    - DirectX Shader
    - Double Sided
    - Ink 'n Paint
    - Multi/Sub-Object
    - Raytrace
    - Shell Material
    - Shellac
    - Standard
    - Top/Bottom
    - XRef Material
  - mental ray
    - Arch & Design
    - Autodesk Ceramic
    - Autodesk Concrete
    - Autodesk Generic
    - Autodesk Glazing
    - Autodesk Hardwood
    - Autodesk Masonry CMU
    - Autodesk Metal
    - Autodesk Metallic Paint
    - AutodeskMirror
    - AutodeskPlastic/Vinyl
    - Autodesk Solid Glass
    - Autodesk Stone

More Questions?

Come by the arc for any further help regarding anyting 3ds Max

Autodesk makes multiple trial versions and student verions of their software available for any student on their website.

http://usa.autodesk.com/3ds-max/