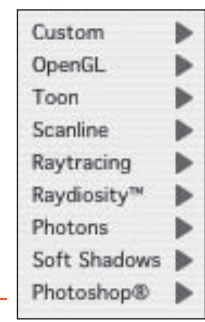


Tools

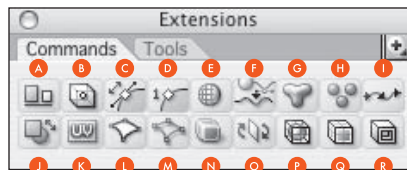


| | | |
|--------------------|--|--|
| Reshape/Edit | | Edit |
| View Move | | Object Move |
| View Rotate | | Object Rotate |
| View Magnify | | Object Scale |
| Lathe | | Extrude |
| Sphere | | Cube |
| Cone | | Rounded Cube |
| Cylinder | | Pyramid |
| Text | | Bézier Pen Tool |
| Rectangle | | Oval Tool |
| Rounded Rectangle | | Regular Polygon |
| Point Light | | Spotlight |
| Camera Object | | Grid |
| Break Joint | | Joint |
| Attribute Detach | | Attribute Attach |
| | | Rendering Tool |
| | | Rendering Presets |
| Dock Palettes | | Stack Palette |
| Hide/Show Palettes | | Object Properties • Environment • Extensions |
| | | Status • Project Window • Resource |

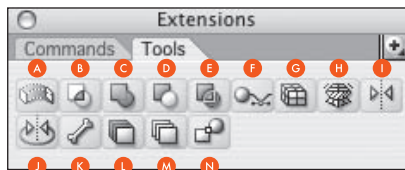
Tool Palette Note:
Double-clicking a tool will invoke the Tool Settings Dialog.



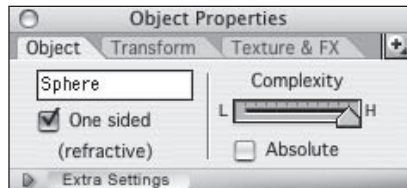
Extensions & Object Properties



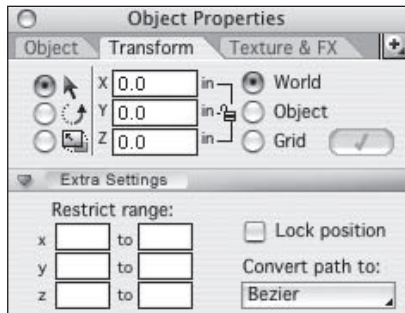
- Commands Tab**
- | | |
|--------------------|---------------|
| A Align | J Unboolean |
| B Re-center | K Burn UV |
| C Align Handles | L Hull |
| D Make First Point | M Unhull |
| E Smooth Mesh | N Fillet |
| F Drop A Curve | O Flip Faces |
| G Meld | P Subdivide |
| H Unmeld | Q Unsubdivide |
| I Align To Path | R Thickness |



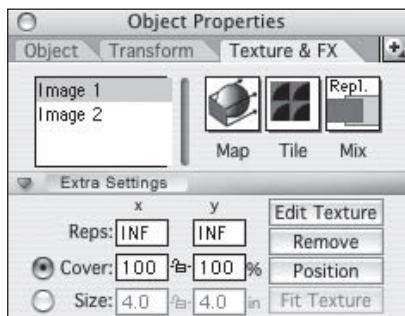
- Tools Tab**
- | | |
|-------------------|-----------------|
| A Path Extrude | J Linked Mirror |
| B Intersect | K Bones |
| C Union | L Skin |
| D Subtract | M Unskin |
| E Cut | N Snap |
| F Convert To Path | |
| G Deform | |
| H Jiggle | |
| I Mirror | |



- Object Tab (Standard Objects)**
- Object name
 - One sided checkbox for refractive objects
 - Complexity slider - low to high detail
 - The Expert Settings may provide additional controls

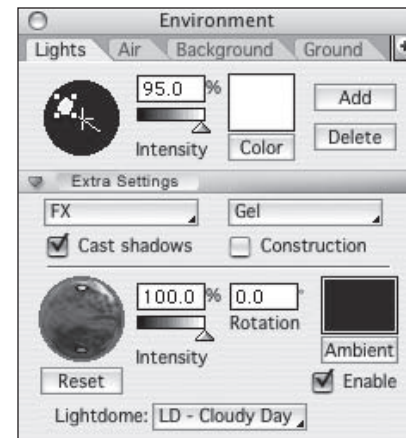


- Transform Tab**
- Move, rotate, and scale objects - numerically
 - Transform objects relative to world, object, or grid
 - Restrict transformations - numerically
 - Convert animation path type



- Texture & FX Tab**
- List of applied Textures - drag to re-order
 - Mapping Styles, Tiling Styles, Mixing Rules
 - Texture repetition, coverage or size - numerically
 - Texture editing buttons

Environment

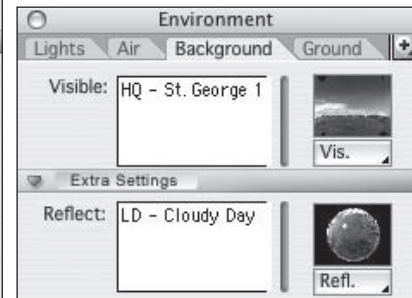


Lights Tab
Directional lights (top left) provide lighting similar to the sun - sharp light with crisp shadows. Click on the small disc to select or rotate the light(s) around your model.

Command/Control Click will toggle the light direction between front and back. Select a Directional light to modify its Intensity, Color, FX, Gel, Cast Shadows, and Construction status. Enable the Construction checkbox to make the Directional light visible in your modeling view only, and not rendered in your scene.

Lightdome lighting (lower left) is similar to light cast by an overall environment - such as the sky and clouds or an illuminated room. Choose a Background to light your scene from the pop-up menu. Lightdomes only cast shadows with Raydosity or the Soft Shadows rendering presets.

Ambient light (lower right) provides an overall wash of light. Ambient sets the minimum amount of light that will show in the darkest areas of your model. Use Ambient cautiously as it may reduce the realism of your renderings.



Background Tab
In addition to being used for Lightdomes, Backgrounds can be applied to your model as a visible image to appear in your renderings behind the objects and/or as images to reflect in the surface of objects that have reflective textures applied to them.

Use the pop-up menu to select a Background from the Resource library, or you can create new Backgrounds using the New command from the menu. You can also create and load Backgrounds by using the Backgrounds tab of the Resource palette.

Once a Background is created or loaded using the Resource palette they will appear in the top portion of the pop-up menu in this Background tab of the Environment palette. Choose any Background you want to use and a checkmark will appear next to its name.

Keyboard Shortcuts (Macintosh/Windows)

File Menu

| | |
|--------|----------------|
| New | Command/Ctrl N |
| Open | Command/Ctrl O |
| Close | Command/Ctrl W |
| Save | Command/Ctrl S |
| Import | Command/Ctrl I |
| Print | Command/Ctrl P |
| Quit | Command Q |

Edit Menu

| | |
|-----------|----------------|
| Undo | Command/Ctrl Z |
| Cut | Command/Ctrl X |
| Copy | Command/Ctrl C |
| Paste | Command/Ctrl V |
| Duplicate | Command/Ctrl D |

Selection Menu

| | |
|----------------------|----------------|
| Select All | Command/Ctrl A |
| Select None | Command/Ctrl 1 |
| Hide Selected | Command/Ctrl 3 |
| Show Hidden | Command/Ctrl 4 |
| Make Shy | Command/Ctrl 5 |
| Make Shy Normal | Command/Ctrl 6 |
| Make Construction | Command/Ctrl 7 |
| Make Const. Norm. | Command/Ctrl 8 |
| Hide Animation Paths | Command/Ctrl 9 |
| Show Animation Paths | Command/Ctrl 0 |

Rendering Menu

| | |
|--------|----------------|
| Render | Command/Ctrl R |
|--------|----------------|

Modeling Menu

| | |
|------------------|----------------|
| Reshape | Command/Ctrl L |
| End Reshape/Edit | Command/Ctrl E |
| Align | Command/Ctrl / |
| Group | Command/Ctrl G |
| Ungroup | Command/Ctrl U |

Scripting Menu

| | |
|--------------|----------------|
| Smaller Font | Command/Ctrl ; |
| Larger Font | Command/Ctrl ' |

Windows Menu

| | |
|--------------------------|----------------|
| New Window | Command/Ctrl \ |
| Fit Views To All | Command/Ctrl = |
| Fit Views To Selection | Command/Ctrl - |
| Fit Views to Active Grid | Command/Ctrl [|
| Reset Views | Command/Ctrl] |

Tool palette Switch Temporary

| | | |
|----------------------|---------|----------------|
| Select Object Move | 1 | |
| Select Object Rotate | 2 | |
| Select Object Scale | 3 | |
| Select View Move | Shift 1 | Space |
| Select View Rotate | Shift 2 | Shift Space |
| Select Zoom (In) | Shift 3 | Cmd/Ctrl Space |
| Select Zoom Out | Opt/Alt | Opt/Alt Space |

Palette Hotkeys

| | |
|---------------------------|---|
| Information palette | I |
| Object Properties palette | O |
| Project window | P |
| Resource palette | R |
| Environment palette | E |
| Extensions palette | T |

Selecting Objects

| | |
|----------------------------|------------------|
| Extend Selection | Shift |
| List objects on depth axis | Ctrl/Right Click |

Moving Objects

| | |
|-----------------------|--------------------|
| Move origin point | Command/Ctrl |
| Perpendicular to grid | Command/Ctrl Shift |

Polygon Mesh Editor/Reshape Tool Palette

| | |
|-------------|---------|
| Vertex Mode | Shift . |
| Edge Mode | Shift / |
| Face Mode | Shift , |

Tools

| | |
|--------------------------|---------------------|
| Move Tool | M |
| Rotate Tool | J |
| Scale Tool | K |
| Magic Wand | W |
| Extrude Tool | U |
| Inset (use Extrude Tool) | Left & Right arrows |
| Bevel Tool |] |
| Cut Tool | \ |

Contextual Menu

| | |
|------------------|-----------|
| Face Mode | |
| Dissolve | Backspace |
| Bridge | B |
| Flip | L |
| Mirror | Shift M |

Edge Mode

| | |
|-------------|-----------|
| Dissolve | Backspace |
| Loop Select | L |
| Ring Select | N |
| Connect | C |
| Bridge | B |
| Fill | 0 (zero) |

Vertex Mode

| | |
|----------|-----------|
| Dissolve | Backspace |
| Connect | C |
| Gravity | V |

Selection

| | |
|----------------|-------------|
| Paint Select | Shift Drag |
| Paint Deselect | Option Drag |

Working with Bézier Handles

| | |
|-------------------------|--------------|
| Hinge direction handles | Command/Ctrl |
| Disjoint hinged handles | Option/Alt |

2D Reshape

| | |
|--------------------|------------|
| Add a vertex point | Option/Alt |
|--------------------|------------|

Nudging Objects (Relative To Active Grid)

| | |
|----------------------|---------------------|
| Negative Z direction | Up arrow |
| Positive Z direction | Down arrow |
| Positive X direction | Right arrow |
| Negative X direction | Left arrow |
| Positive Y | Cmd/Ctrl Shift Up |
| Arrow | |
| Negative Y | Cmd/Ctrl Shift Down |
| Arrow | |
| Accelerate Nudge | Cmd/Ctrl Arrow |
| Decelerate Nudge | Option/Alt Arrow |

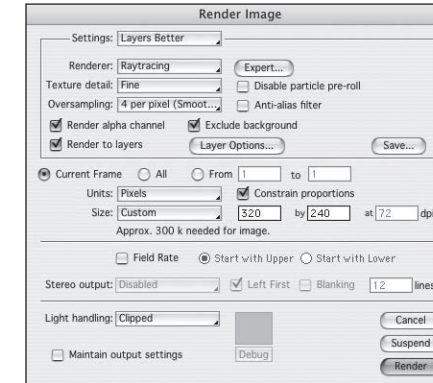
Changing View Orientation

| | |
|-----------|---|
| Left | 4 |
| Front | 5 |
| Right | 6 |
| Back | 7 |
| Top | 8 |
| Bottom | 9 |
| Isometric | / |

Changing Grids

| | |
|--------------------------|---|
| Make X Grid active | X |
| Make Y Grid active | Y |
| Make Z Grid active | Z |
| Cycle forward all grids | + |
| Cycle backward all grids | - |

Rendering Controls



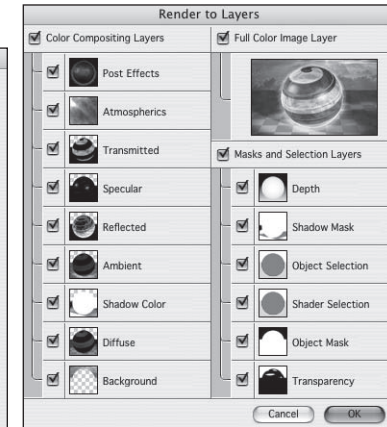
Render Image Dialog

At the top of the **Render Image** dialog is the **Settings** drop-down menu, which is identical to the Rendering tool Presets menu in the **Tool palette**.

These presets allow you to quickly switch from one rendering style to another, at varying quality levels, and even select special options for your renderings. Just selecting a preset will load its settings into all of the other areas of the Renderer Controls, and can be used to “reset” any of the options (including those hidden in **Expert** dialogs).

The **Frame** controls section of the **Render Image** dialog includes options for determining the pixel size and resolution of your image, which frames from an animation to render, and whether you want to render directly to interlaced video fields.

You can also adjust the number of dots per inch in the final rendered image. This setting determines the resolution of the final image. If **Pixels** is selected in the **Units** pop-up, the resolution is always 72 dpi and cannot be changed.



Render To Layers

To turn on **Render to Layers**, either check this option in the **Render Image** dialog, or choose one of the Photoshop® presets. The presets will automatically check the option and set certain options in the **Layer Options** dialog as well.

Once the **Render to Layers** option is checked, the **Layer Options...** button becomes active. Pressing this button opens the full **Render to Layers** dialog. In this dialog you can check which components of your rendering will be stored to individual layers in a Photoshop file when using Raytracing or Raydisoiity. The various components represent everything from individual texture attributes, to post-processing FX, to useful masks and modifier layers.

The reason behind rendering your image to **Photoshop Layers** is to aid in compositing and controlling the scene **after** it has finished rendering.