**3 The Houdini Workspace**

**RADIAL MENUS**

One way to access tools in the Scene View is the radial menus which you can access using the X, C and V hotkeys. Each of these brings up a radial menu with lots of options for you to choose from.

**SHELF TOOLS**

At the top of the workspace, you will find multiple shelves filled with tools for creating and manipulating objects, geometry, cameras, lights and effects.

**TAB MENU**

Another way to access tools in either the Scene view or the Network view is to press the tab key. This brings up a menu of available tools and nodes you can use in your work.

**3D VIEW TOOLS**

Here are some of the hotkey combinations available while viewing. You can skip spacebar/alt if you are actually in the View tool:

**Tumble** Spacebar or Alt[Opt] - Left Mouse Button [LMB]

**Pan** Spacebar or Alt[Opt] - Middle Mouse Button [MMB]

**Dolly** Spacebar or Alt[Opt] - Right Mouse Button [RMB]

Here are some other hotkeys, you can use to get your bearings:

**Home Construction Plane** : Spacebar + H

**Frame All** : Spacebar + A

**Home Selected** : Spacebar + G

**2D PAN AND ZOOM**

You can click on the 2D Pan and Zoom tool in the Operation Control bar to change your view in 2D without altering your 3D camera position. The widget at the top left lets you click to pan and zoom or to reset the view with Ctrl - LMB click.

**FIRST PERSON CAMERA**

While in the View tool, you can turn on a first person fly through mode similar to those used in videos games.

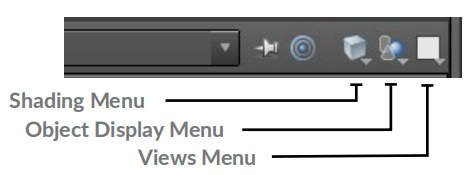
**Toggle First person On/Off** M

**Dolly In/Out** W/S

**Pan Right/Left** A/D

**Look Around** LMB

**VIEWPORT DISPLAY MENUS**



Change how objects appear and views are organized using the menus in the top right of the Scene view or the V radial menu.

**Shading Menu** - Choose from options such as wireframe, flat shaded, smooth shaded or smooth wire shaded.

**Object Display Menu** - As you dive into networks, this menu sets whether you hide, view or see geometry ghosted.

**Views Menu** - This menu lets you split your scene view into various views such as perspective or orthographic views.

**DISPLAY OPTIONS BAR**

At the right side of the scene view, the display bar gives you access to options for viewport display. Here are a few examples.

**Reference Plane/Ortho Grid** - Turn on and off a grid that can be used for reference and for grid snapping.

**Construction Plane** - Turn on and off a construction plane which is used to define where you place objects or points.

**Lock Camera** - Lock the current camera to the view so that view changes modify the camera transform values.

**High Quality Lighting with Shadows** - Set the best quality of viewport rendering.

**Display Primitive Normals** - Show the normals belonging to all primitives in the scene to determine their direction.

**DISPLAY OPTIONS**

The Scene and Network views each have Display option panels that you can access by clicking on the icon at the bottom of the Display options bar or using the following hotkey: D.