Maya reference notes

Rotate around the object or scene. The camera pivots around the center of the current view.

**Alt + Left Mouse Button (LMB):** **Rotate (Tumble) the View**

Moves the camera left, right, up, or down without changing its orientation, allowing you to see different parts of your scene.

**Alt + Middle Mouse Button (MMB):** **Pan the View**

Zooms in and out of the scene. This doesn't move the camera; instead, it changes the focal length, making objects appear closer or farther.

**Alt + Right Mouse Button (RMB):** **Zoom (Dolly) the View**

Alternative Zooming Methods/Dolly

* **Scroll Wheel:** **Zoom**
  + Scrolling up or down on the mouse wheel allows you to zoom in or out incrementally.
* **Ctrl + Alt + LMB:** **Zoom**
  + This is another method to zoom in and out using the left mouse button.

Other Useful Navigation Tips

* **F Key:** **Focus on Selected Object**
  + Pressing F will center the camera on the selected object, making it easier to work on specific parts of your scene.
* **A Key:** **Frame All**
  + This frames all objects in the scene within the viewport.
* **Spacebar:** **Switch Between Viewports**
  + Tapping the spacebar quickly switches between different camera views, like the top, front, side, and perspective views.
* **Shift + Alt + RMB:** **Orthographic Views**
  + Hold these keys and drag the mouse to change between orthographic views (top, front, side) without switching to the full viewports.

Customizing Viewport Navigation

* You can customize your navigation controls in the **Preferences** menu under **Interface > Devices** if you prefer different shortcuts.

A computer screen shot of a keyboard

Description automatically generated

Object/Green mode- moves whole object

Component/Blue mode- move vertices

Switching to Component Mode

1. **Using the Toolbar:**
   * **Select the object** you want to edit.
   * In the **Status Line** (toolbar at the top), you'll see different icons for component selection:
     + **Vertices (V):** A small dot icon.
     + **Edges (E):** A line segment icon.
     + **Faces (F):** A square icon.
     + **UVs (U):** A grid icon.
   * Click on the icon corresponding to the component you wish to edit.
2. **Right-Click Context Menu:**
   * **Right-click** on the object. A marking menu will appear.
   * From this menu, choose the component type (Vertex, Edge, Face, UV, etc.) by moving the mouse over the desired option and releasing the right-click.
3. **Keyboard Shortcuts:**
   * **F9:** Switch to **Vertex** selection mode.
   * **F10:** Switch to **Edge** selection mode.
   * **F11:** Switch to **Face** selection mode.
   * **F12:** Switch to **UV** selection mode.
   * **Ctrl + F9, F10, F11, F12:** Select vertices, edges, or faces without changing the current selection mode.

Manipulating Components

Once in Component Mode, you can select and manipulate components using various tools:

* **Select Tool (Q):** Select individual components by clicking on them or dragging a marquee box.
* **Move Tool (W):** Move selected components.
* **Rotate Tool (E):** Rotate selected components.
* **Scale Tool (R):** Scale selected components.

Additional Tools in Component Mode

* **Soft Selection (B):** Smoothly transitions the effect of transformations across nearby components, making edits more natural. Enable it by pressing B and adjust the falloff with B + LMB.
* **Symmetry:** Work on one side of the object and have the other side mirror your changes. Activate it in the **Symmetry Settings** under the **Modeling Toolkit** or the **Mesh Tools** menu.

Switching Back to Object Mode

* To switch back to Object Mode, either:
  + **Right-click** on the object and choose **Object Mode** from the marking menu.
  + Press **F8** to toggle between Object Mode and the last used Component Mode.
* **Single Object**:
  + Click on the object with the **Left Mouse Button (LMB)**.
* **Multiple Objects**:
  + **Shift + LMB**: Add or remove objects from the selection.
  + **Drag-Select**: Click and drag with LMB to select multiple objects within a rectangular region.
* **Lasso Tool**:
  + **Q Key**: Select the **Lasso Tool** from the tool panel and draw around objects to select them.
* **Marquee Tool**:
  + **Q Key**: Select the **Select Tool** and click-drag to create a marquee selection box.
* **Outliner**:
  + **Windows > Outliner**: Open the outliner to select objects from a hierarchical list, which is especially useful for complex scenes.
* **Component Selection**:
  + Press **F8** or right-click on an object and select **Vertex**, **Edge**, or **Face** to enter component mode and select individual parts of a mesh.

3. **Manipulating Objects**

* **Move**:
  + **W Key**: Switch to the **Move Tool**. Click and drag the arrows on the gizmo to move objects along the X, Y, or Z axis.
  + **Hold Shift**: Constrain movement to grid increments.
* **Rotate**:
  + **E Key**: Switch to the **Rotate Tool**. Click and drag the colored rings around the object to rotate it along the X, Y, or Z axis.
  + **Hold J**: Rotate in 15-degree increments (default, adjustable).
* **Scale**:
  + **R Key**: Switch to the **Scale Tool**. Click and drag the cubes on the gizmo to scale the object uniformly or along individual axes.
  + **Center Cube**: Click and drag the center cube to scale uniformly across all axes.
* **Transformation Shortcuts**:
  + **Ctrl + Z**: Undo the last action.
  + **Ctrl + Y**: Redo the last action.
  + **D Key**: Temporarily switches to **Pivot Mode** to change the pivot point of the object.
* **Soft Selection**:
  + **B Key**: Activate soft selection, allowing you to affect nearby components (vertices, edges, faces) when transforming an object.
  + **B + Drag**: Increase or decrease the soft selection radius.
* **Snap Tools**:
  + **X Key**: Activate grid snap (snaps to grid points).
  + **C Key**: Activate curve snap (snaps to curves or edges).
  + **V Key**: Activate point snap (snaps to vertices).
* **Duplicating Objects**:
  + **Ctrl + D**: Duplicates the selected object, creating an identical copy.
  + **Shift + D**: Creates a duplicate and repeats the last transformation (useful for creating patterns).
* **Deleting Objects**:
  + **Delete Key**: Removes the selected object or component from the scene.

Set project is same as save as

Whitebox-Start with basic primitive shapes