

## KEYBOARD HOTKEY SHORTCUTS



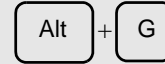
**G** = "Grab" the model to move and rotate freely  
**H** = Translate and zoom the model without changing the rotation  
**J** = Rotate the model with haptic detents along the major screen axes



**Standard Views**  
**F2** = Front view  
**F3** = Right view  
**F4** = Left view  
**F5** = Top view



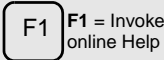
**Side Views**  
**F6** = Right of main view  
**F7** = Top of main view  
**F8** = Left of main view  
**F9** = Bottom of main view  
**F10** = Hide Side Views



**Ctrl+G** = Grab and move the model to change which parts of the model are within the touchable area

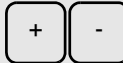


**Clay Hardness** - Adjust the resistance of the clay. A value of 1 is hardest (like rock), a value of 0 is softest (like butter).



**F1** = Invoke online Help

**Context-Sensitive Help** - Double-click the Active Icon for help specific to that tool



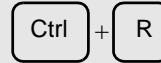
**+/-** = Increase or decrease the size of the sculpting tool



**P** = Equivalent to pressing the PHANTOM stylus switch



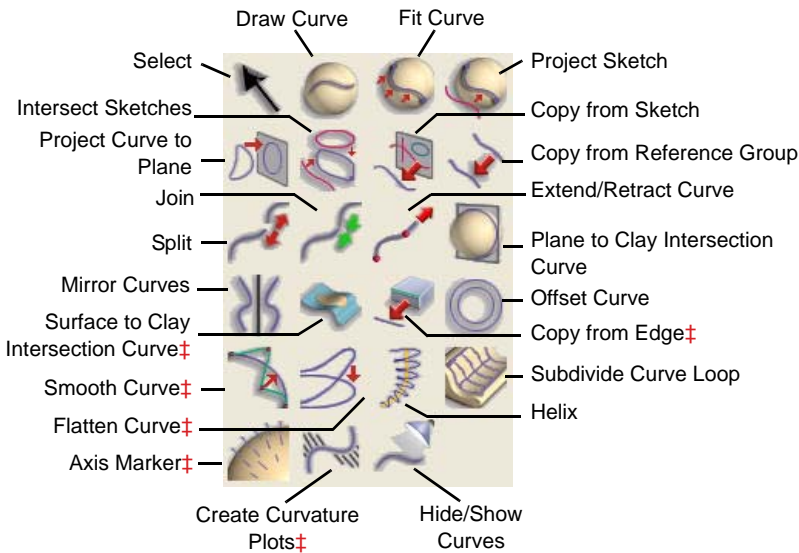
**Space** = Invoke the Favorites menu



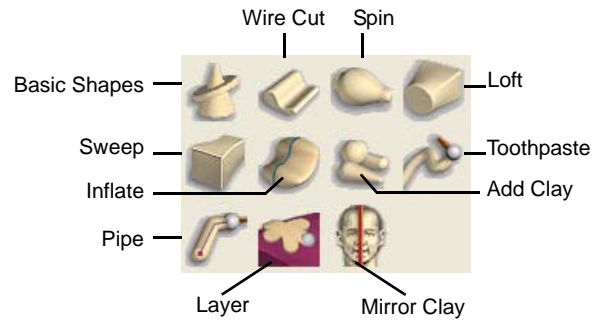
**Ctrl+R** = Refresh Model

## FREEFORM PALETTE MENUS

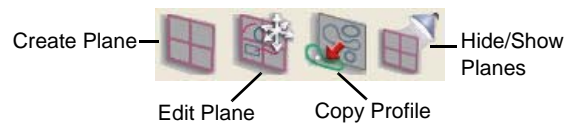
**CURVES** - Use to create and edit 3D curves that can be used to add detail to models.



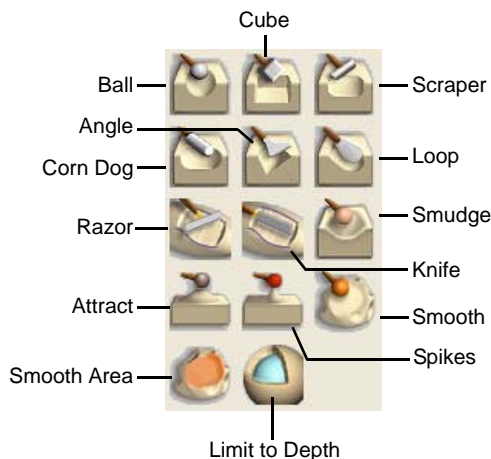
**CONSTRUCT CLAY** - Use to rough-out models quickly and easily.



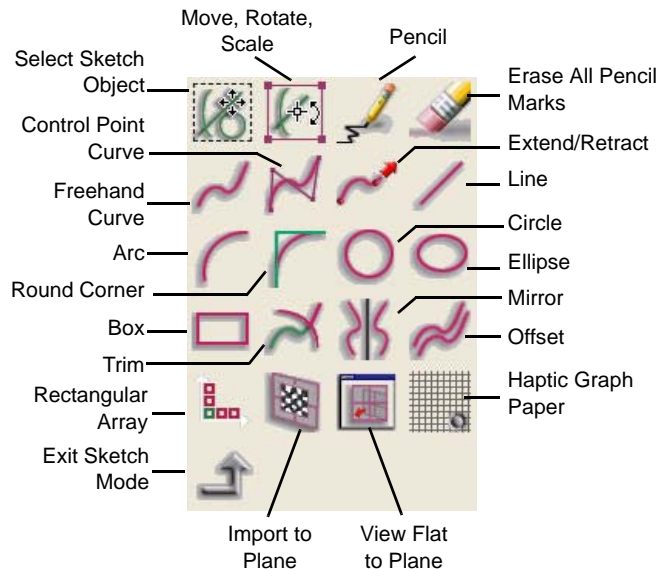
**PLANES** - Use to create and edit planes.



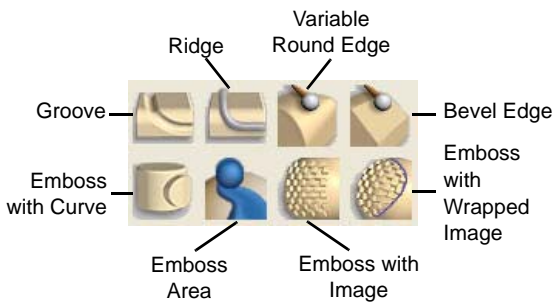
**SCULPT CLAY** - Use to modify, refine, and add design details to models.



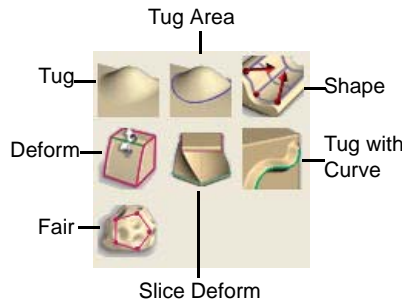
**SKETCH** - Use to sketch on flat 2D drawing planes.



**DETAIL CLAY** - Use to modify, refine, and add detail & texture to a model.



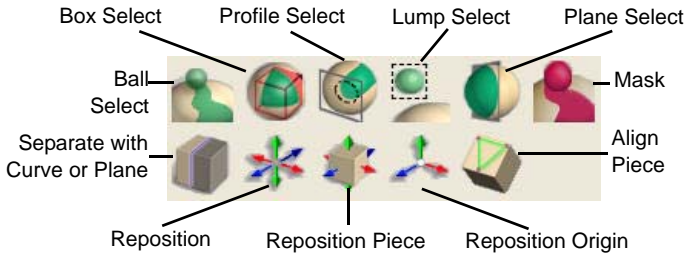
**DEFORM CLAY** - Use to push and pull an area of a model.



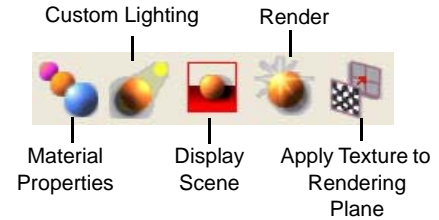
**PAINT CLAY** - Use to apply paint to a model.



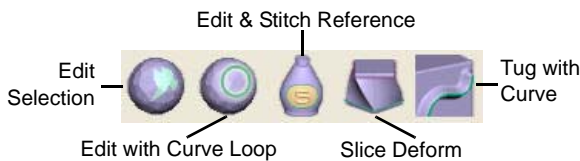
**SELECT/MOVE CLAY** - Use to select, mask, position, and scale.



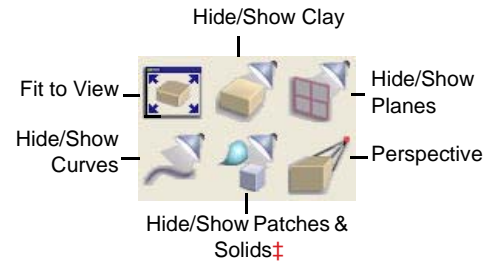
**RENDERING** - Use to create photo-realistic renderings.



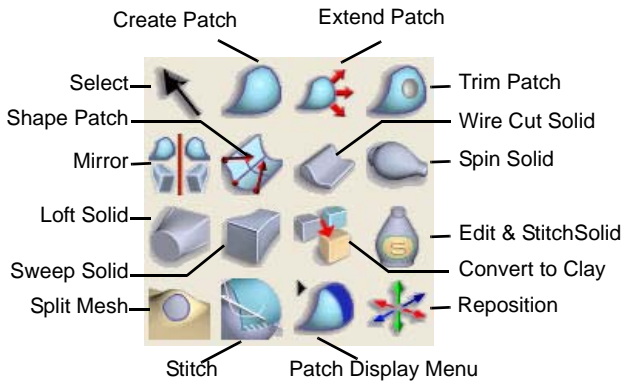
**REFERENCE PIECE** - Use to edit mesh objects.



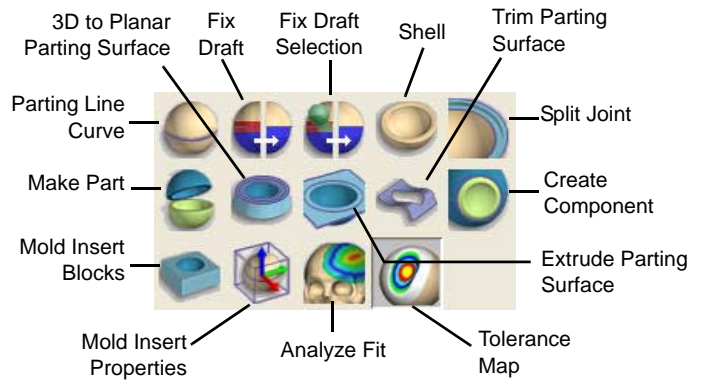
**UTILITY** - Use to adjust your view and hide/show objects.



**PATCHES/SOLIDS** † - Use to create and edit surfaces and solids.



**MOLD** † - Use to prepare models and create tooling for molding.



## KEY CONCEPTS TO REMEMBER

### Work from Coarse Clay to Fine

When creating new models from scratch, it is best to first create a rough shape using a coarse clay setting such as "Rough Shape" or "Refine Shape". Then, use the "Change Clay Coarseness" command for more fine-grained clay settings, such as "Add Detail," as you refine the model.

### Let Haptics Guide You While Creating 3D Curves

To trace a surface that is concave, run the tool along the outside of the model. To trace a surface that is convex, run the tool along the inside of the model.

### Sculpt from Inside or Outside

When sculpting you can work on the outside or inside of the model. Keep in mind that the control of the tool may differ and that sometimes it is more effective to work from inside the model.

### Watch the Status Bar

The status bar, located under the dynabar, contains embedded help. Sometimes it will describe what a tool does or prompt you for the next step in using a particular tool.

### Pay Attention to Dynabars

Many commands have controls that are specific only to them. The bottom toolbar will change dynamically and present the options for that tool.