

Essentials

Undo **Ctrl + Z**
 Redo **Shift + Ctrl + Z**
 Show QuickMenu..... **Spacebar or right mouse click**
 Clear Canvas background - *only clears pixels from Canvas—does not affect 3D model* **Ctrl + N**
 Show/hide floating palettes **Tab**
 Show item description **Ctrl + cursor over UI item**

***** **To enable sculpting, a mesh must be in 3D Edit mode** *****

Enter 3D Edit mode draw tool out on Canvas, then press **T**
 Polyframe view **Shift + F**
 Floor Plane **Shift + P**
 Perspective mode **P**

Saving & Loading

Save a ZPR - *Project file—saves all loaded Tools, scene, and Canvas* **File> Save As** or **Ctrl+S**
 Save a ZTL - *Tool file—saves active Tool only* **Tool> Save As** or **Shift + Ctrl +T**
 Save a ZBR - *Document file—only saves Canvas info* **Document > Save As**
 Quicksave - *saves numbered ZPR of current project to Quicksave folder* **9**
 Lightbox - *content browser—double click on file thumbnail to open* **,**
 Import - *make default PolyMesh3d Star active before import to avoid scale issues* **Tool > Import**

Mesh Visibility & Selection

Choose active Selection brush *select brush while holding* **Shift + Ctrl**
 Begin drawing selection area by starting the stroke while holding down **Shift + Ctrl**
 Move the active selection area..... **Spacebar + drag**
 Hide mesh *outside* green selection area **Shift + Ctrl + click, release keys & drag**
 Hide mesh *inside* red selection area **Shift + Ctrl + click, release keys & drag + press Alt**
 Show entire mesh - *reveals all hidden polygons* **Shift + Ctrl + click** background
 Show only selected Polygroup - *on fully visible mesh* **Shift + Ctrl + click**
 Hide selected Polygroup - *on fully visible mesh* **Shift + Ctrl + click** twice
 Hide selected Polygroup - *on partially visible mesh* **Shift + Ctrl + click**
 Reverse visibility **Shift + Ctrl + click & drag** background
 Grow visible selection - *on partially hidden mesh* **Shift + Ctrl + X**
 Shrink visible selection - *on partially hidden mesh* **Shift + Ctrl + S**
 Grow all - *reveals all connected polygons on partially visible mesh* **Shift + Ctrl + A**
 Outer ring - *on partially hidden mesh* **Shift + Ctrl + O**
 Grow to Polygroups - *on partially hidden mesh* **Shift + Ctrl + Q**

Select active Subtool - *in Canvas viewport* **Alt + click, or Shift + Alt + click** on Subtool
 List Subtools **N**
 Toggle Subtool visibility - *Subtool palette* **click** eyeball icon (**Shift + click** toggles *all* Subtools)
 Toggle Subtool Polypaint - *Subtool palette* **click** paintbrush icon (**Shift + click** toggles *all* Subtools)

Navigation - 3D Edit Mode

Fit mesh to view - *with Tool in 3D Edit mode* **F**
 Constrain to 90-degree rotation press **Shift** when dragging to rotate
 Rotate around Z-axis **Shift, click, release Shift, drag**

Right-Click Navigation

Move - *can be over the model* **Alt + right-click & drag**
 Scale/Zoom - *can be over the model* **Ctrl + right-click & drag**
 Rotate - *can be over the model* **right-click & drag**

ZBrush Classic Navigation - *drag outside of thin white line near Canvas border when zoomed in*

Free Rotate **click & drag** background
 Move **Alt + click & drag** background
 Scale/Zoom **Alt + click, release Alt, drag** background

Sculpting & Painting

Draw..... **Q**
 Move..... **W**
 Scale **E**
 Rotate **R**
 Select 3D brush Brush Pop-up **B + [first letter] + [orange letter]** shown
 Use / adjust active Masking brush start stroke or adjust while holding **Ctrl**
 Use / adjust active Selection brush start stroke or adjust while holding **Shift + Ctrl**
 Change stroke type, alpha, or texture for different effects
 Symmetry mode - *toggle on/off* **X**
 Sculpttris Pro mode - *toggle on/off* ****
 Lazy Mouse - *toggle on/off* **L**
 Draw Size **S**, or use the **[]** keys to adjust by set units
 Focal Shift **O**
 RGB Intensity **I**
 Z Intensity **U**
 Toggle ZAdd and ZSub..... **Alt** (hold down)
 Select color under cursor..... **C**
 Switch color **V**
 Replay last stroke **1**
 Replay last stroke relative **Shift + 1**
 Brushes with stroke type: Curve (ex: ClipCurve) - *add soft direction change* tap **Alt** once
 - *add sharp direction change* tap **Alt** twice
 - *reverse direction of operation* ... **Alt** (hold down)
 Xtractor brushes - *capture detail* **G**
 Spotlight Texture > Add to Spotlight
 Activate / deactivate Spotlight **Shift + Z**
 Show / hide Spotlight dial **Z**

Masking

Choose active Masking brush *select brush while pressing Ctrl*
Effects can vary when different stroke types or alphas are applied

MaskPen (default) *paint mask directly on mesh by starting stroke over the mesh while pressing Ctrl*
..... *draw out area mask by starting stroke over empty space while pressing Ctrl*
Masking brushes (other) *draw out masking area by starting stroke while pressing Ctrl*

Invert mask - *reverses current masking status of active points* **Ctrl + click** background
Erase mask **Ctrl + Alt** (hold down)
Clear mask **Ctrl + click + drag** background
Blur mask **Ctrl + click** on mesh
Sharpen mask **Ctrl + Alt + click** on mesh
Topological Masking - *in Move, Scale, or Rotate mode* **Ctrl + click + drag** on mesh

MeshFromMask

MeshBalloon, MeshExtrude, MeshExtrudePro, MeshProject, or MeshSplat brushes

Create mesh - *begin stroke over mesh while pressing Ctrl, draw shape, release*
Create mask - *begin stroke in empty space while pressing Ctrl, draw shape, release*

Add to shape - *camera must be unchanged* hold **Shift** before releasing stroke
Subtract from shape - *camera must be unchanged* hold **Alt** before releasing stroke
Intersection from shape - *camera must be unchanged* ... hold **Shift + Alt** before releasing stroke

With Live Boolean mode active:

Create additive Subtool hold **Shift** before releasing stroke
Create subtractive Subtool hold **Alt** before releasing stroke
Create intersection Subtool hold **Shift + Alt** before releasing stroke

Canvas

Actual size **0**
Antialiased half size **Ctrl + 0**
Snapshot model to Canvas **Shift + S**
Fill Layer **Shift + F**
Crop and fill **Shift + Ctrl + F**
Clear Canvas background - *only clears pixels from Canvas—does not affect 3D model* **Ctrl + N**
Zoom in/out **+ / -**

Best Preview Render (BPR) - *requires active Tool in 3D Edit mode.*

Render Canvas with BPR **Shift + R**
Render area under cursor **Ctrl + R**

Geometry

Subdivide **Ctrl + D**
Switch to higher subdivision level **D**
Switch to lower subdivision level **Shift + D**

Dynamesh

Set resolution and enable in Tool > Geometry > Dynamesh
Remesh Dynamesh mesh - *masking must be cleared first* **Ctrl + drag** background

HD Geometry

Toggle HD Sculpting mode *cursor over mesh*, **A**
Render all HD Geometry *cursor over background*, **A**

IMM - InsertMultiMesh

Show pop-up - *with IMM brush active* **M**
Insert IMM as negative mesh hold **Alt** while inserting
Insert IMM at fixed size based on DrawSize hold **Ctrl** while inserting

Curves draw curve, then **click** on mesh to confirm
Smooth curve **6**
Snapshot curve **5**
Delete **Alt** + draw across curve

ShadowBox - *convert to ShadowBox - turn off Solo mode, then Tool> Geometry> ShadowBox*

Transpose

Gizmo 3D Mode

Move - *along axis* **click + drag** on **X, Y, or Z** arrows
- *along screen plane* **click + drag** on grey screen plane arrows
Scale - *along single axis* **click + drag** on the red **X**, green **Y**, or blue **Z** rectangles
- *uniform* **click + drag** on the yellow center square
Rotate - *around selected axis* **click + drag** on the red **X**, green **Y**, or blue **Z** circles
- *around screen axis* **click + drag** on the grey circle
Inflate **Ctrl + click + drag** on yellow center square
Clip - *flattens along selected axis* **Ctrl + click + drag** on **X, Y, or Z** arrows

Duplicate unmasked mesh hold **Ctrl + drag** arrow
Repeat duplicate hold **Ctrl + drag** arrow for first copy, release **Ctrl** & continue **drag**
Duplicate as negative mesh - *for Dynamesh subtraction* **drag** arrow while holding **Ctrl + Alt**
Extrude unmasked polygons - *on partially masked mesh* **drag** arrow while holding **Ctrl**
Place Gizmo manipulator - *in Move, Scale, or Rotate mode* **Alt + click** on mesh
Reposition Gizmo manipulator - *unlock, position manipulator with Move, Scale, and Rotate functions*
Unlock Gizmo manipulator - *with cursor over manipulator* hold **Alt**