


Hammer Cheat Sheet Project

Features marked with (++) are only available in Hammer++.

Features marked (tf) are only available when mapping for Team Fortress 2.

16:13  **Mr. Burguers** if you're using Hammer++ right-click the block outline and choose "Create Arch" instead it's faster and you don't need to remember to change it back to the block shape

<https://ficool2.github.io/HammerPlusPlus-Website/features.html>

This project is still WIP. Feedback or help appreciated.

Viewports

W/A/S/D move 3D view

Z toggle mouselock in 3D view

SPACE+MOUSE1/MOUSE3 turn 3D view

SPACE+MOUSE2 pan 3D view

CTRL+A equalize viewport sizes

SHIFT+Z maximize current viewport, press again to return

TAB cycle through 2D views

CTRL+SHIFT+N toggle entity names in 2D view

O toggle coordinates in 3D view

P toggle grid in 3D view

CTRL+E center 2D views on selection

CTRL+SHIFT+E center 3D views on selection

Tools

Selection Tool - SHIFT+S/ESC

SELECTING

MOUSE1 to select object (duh)

hold **CTRL** to select multiple objects

hold **CTRL+MOUSE1** quickly select multiple objects

PAGE UP/PAGE DOWN/SHIFT+MOUSE3 cycle through selections behind/in front

SHIFT+Q/ESC deselect everything

CTRL+C copy selection

CTRL+V paste selection

CTRL+X cut selection

CTRL+SHIFT+V paste special

CTRL+G group selection
CTRL+U ungroup selection
H hide selection
SHIFT+H hide everything but selection
U unhide everything

ENTITY TYPES

ALT+S turn selection into instance
CTRL+R turn selection into prefab
CTRL+T turn selected brushes into (new) brush entity
CTRL+SHIFT+T turn selection into individual brush entities
CTRL+SHIFT+W turn brush entity into worldbrushes
ALT+ENTER / **Doubleclick** open selection properties

TRANSFORMING

CTRL+SHIFT+M merge selected brushes into one (if possible)
CTRL+L / **CTRL+I** mirror selection horizontally/vertically relative to camera
DEL delete selection (duh)
E scale selection
R rotate selection
X move selection relative to origin
X/Y/Z lock gizmo for that axis

MOVING

MOUSE 2 cycle through movement/rotation/transform modes
X cycle through gizmo types

hold **ALT** while moving/rotating to disable snapping to grid/15°

ALT+N move selection to floor
ALT+CTRL+N move selection to floor and align
ALT+U move selection to ceiling
ALT+CTRL+U move selection to ceiling and align
UP/DOWN/LEFT/RIGHT nudge selection in the direction by 1hu
CTRL+B snap selection to grid
CTRL+SHIFT+B snap selection to grid individually
SHIFT+MOUSE1 Dragging copy selection
SHIFT+MOUSE1 Dragging on named path_track and keyframe_rope: automatically connect entities

OTHER

SHIFT+T apply selected texture to all sides of brush

Block Tool - **SHIFT+B** / Polygon Tool (++) - **SHIFT+N**

ENTER create drawn object
ESC delete drawn object

Texture Tool - SHIFT+A

MOUSE1 select face and texture

CTRL+MOUSE1 select multiple faces

SHIFT+CTRL+MOUSE1 invert selection/deselection of faces on entire brush

Texturing

MOUSE2 apply texture to face

ALT+MOUSE2 apply texture to face and align with selected face

CTRL+MOUSE2 apply NODRAW to a face

SHIFT+MOUSE2 apply texture to all faces of brush

ALT+SHIFT+MOUSE2 “wrap” texture around all faces of brush

Displacements - Paint Geometry

ALT+MOUSE1 Dragging change size of editing sphere

SHIFT+MOUSE1 Dragging drag single vertex along current painting axis

ALT+MOUSE2 change painting axis to this face's normal

Displacements - Paint Alpha

MOUSE1 Holding apply secondary texture of material

MOUSE2 Holding apply primary texture of material

Overlay Tool - SHIFT+O

SHIFT+MOUSE1 Dragging snap overlay vertex to another overlay's vertex

Enable/disable **Texture Lock** for advanced Overlay positioning

Clipping Tool - SHIFT+X

MOUSE1 Dragging create new clipping plane

SHIFT+MOUSE1 Dragging create new clipping plane and delete the previous one

CTRL+MOUSE1 move all clipping vertices together

MOUSE1/SHIFT+X cycle through clip modes

ENTER clip!

O toggle measurements in 2D view

C toggle 2-point/3-point clipping mode

Vertex Tool + SHIFT+V

MOUSE1 select single vertex in 3D view or entire edge in 2D view

CTRL+MOUSE1 select multiple vertices/edges

CTRL+F split face (add new edge)

ALT+E scale selected vertices

SHIFT+V cycle through display modes

Physics Tool (++) - SHIFT+P

SPACE start/stop simulation

Entity Report

Lighting Preview (++)

L - instantly bake the entire map - Lighting Preview window does not need to be open

More Features

Entity Tool - SHIFT+E

C while a light entity or anything with a color keyvalue is selected: Open color picker window

Replace Tool - CTRL+SHIFT+R

Camera Tool - SHIFT+C

Problem Checker - ALT+P

Transform Tool - CTRL+M

Carve Tool - SHIFT+CTRL+C

Sprinkle Tool - SHIFT+F

Go to Brush - SHIFT+CTRL+G

Texture Browser - ALT+F8

Model Browser - SHIFT+F10

Particle Browser - SHIFT+F11 (++)

Sound Browser - SHIFT+F12 (++)

Map > Entity Report

Cordon Tool

Visgroups

Mapping

Geometry

Logic

Optimization

Compiling

Testing

Launch Parameters

-novid +sv_cheats 1 +mp_waitingforplayers_cancel 1 +host_threaded_mode 0 -console
-condebug -conclearlog -hijack (TODO: ADD MORE)

Resources

- Hammer++
- CompilePal
- ABS
- FGD for a LORD
- BSPsrc
- GCFScape

Sun Zoo Says:

- There are almost always multiple ways to solve a problem.
- Read the full compile log. The actual error is often in the middle somewhere, not at the end.
- It is usually better to start with the big picture and then work towards details than the other way around.
- Don't be afraid to steal from official maps! No need to reinvent the wheel every time.
 - Go around official maps and turn stuff into prefabs. You don't want to make a set-up of lamp prop, map sprite, light beam, and light entity every time you need to brighten a room. Same with common structures like stairs or window frames.
- Use a **prop_static set to a playermodel** (models/player/hwm/...) for a quick scale reference that will not be visible in the compiled map.
- Use the **editor_text** (++) entity to place notes inside your map that will not be visible in the compiled map.
- Map leaking? Use **Map > Load Pointfile** to quickly figure out where.