



| 2D Navigation | |
|----------------|-------------------------------|
| LMB | select object drag to move |
| MMB | drag to pan |
| WHEEL | zoom |
| F1 | operations menu |
| TAB | toggle 3D view |
| 1..9 | grid size |
| Ctrl-z | undo |
| Ctrl-y | redo |
| Ctrl-a | select all |
| Ctrl-i | invert selection |
| ` (back quote) | clear selection |
| HOME | zoom to fit |
| END | pan to camera |
| ' (quote) | place camera at cursor |
| f | toggle free / grid snapping |
| g | toggle grid display |
| a | pan with mouse |
| \ | toggle recently used |
| b | toggle browser panel |
| N | next map |
| P | previous map |

| 2D Edit Modes | |
|---------------|--------------|
| t | Thing mode |
| l | Linedef mode |
| s | Sector mode |
| v | Vertex mode |

| Tagging | |
|---------|-------------------|
| ;+f | Apply a fresh tag |
| ;+l | Apply latest tag |

| Selections | |
|------------|-----------------------------------|
| o | copy and paste |
| c | copy props of selected to focused |
| C | copy props of focused to selected |
| H | mirror horizontally |
| V | mirror vertically |

| Mouse Transforms | |
|------------------|-------------|
| r | ratio scale |
| R | free scale |
| Ctrl-r | rotate |
| K | shear |

| Things Edit Mode | |
|------------------|-------------------------|
| SPACE | add thing |
| w | rotate 45 deg acw |
| x | rotate 45 deg cw |
| d | separate stacked things |
| m | merge into stack |

| Vertice Edit Mode | |
|-------------------|--------------------------|
| SPACE / RMB | draw line |
| d | disconnect |
| m | merge selected |
| l | reshape into line |
| O | reshape into circle |
| D | reshape into half-circle |
| C | reshape into 120 deg arc |
| Q | reshape into 240 deg arc |

| Linedef Edit Mode | |
|-------------------|--------------------------------|
| e | select chain |
| E | select chain by texture |
| w | flip |
| k | split |
| A | auto align offsets |
| d | disconnect |
| m | merge one-sided into two-sided |

| Sector Edit Mode | |
|------------------|-----------------------------|
| SPACE | add sector |
| d | disconnect |
| m | merge selected |
| e | select by same floor height |
| E | select by same floor tex |
| D | select by same ceil tex |
| w | swap floor / ceil tex |
| , and < | lower floor |
| . and > | raise floor |
| [and { | lower ceil |
|] and } | raise ceil |

| 3D View | |
|---------------|-----------------------------------|
| Arrows / WASD | move |
| LMB | select sides |
| MMB | pan |
| PGUP/PGDN | move up / down |
| g | toggle gravity |
| r | adjust offsets with mouse |
| c | clear offsets |
| l | toggle lighting |
| t | toggle texturing |
| o | toggle objects |
| x | align x offset to left wall |
| y | align y offset to left wall |
| z | align x and y offset to left wall |
| X/Y/Z | align offsets to right wall |