Note: the following HotKeys are for PC installations. Mac users should substitute CMD for CTRL.

These work in all Blender windows if the context allows.

ESC: quit process
TAB: toggle edit mode from whichever other mode you are in
SPACE: search toolbox
CTRL-LMB: lasso select: drag the mouse to form a freehand selection area. Note if you have changed preferences to set LMB as select, this becomes CTRL-RMB
CTRL-SPACE: toggles move/rotate/scale widget visibility
SHIFT-SPACE: maximize window/return to previous size
F11: hides/shows the render window
F12: starts rendering from the active camera
CTRL-M: mirror: then enter X, Y, or Z mirror an object along that axis
CTRL-O: opens folder containing the last saved file
CTRL-ALT-Q: toggles Quad Window view
CTRL-U: save user defaults: save user preferences and opening scene. Defaults can be reset with File – Load Factory Settings and saving again with CTRL-U
CTRL-Y: redo
CTRL-Z: undo

Object Mode HotKeys
These are mainly bound to the 3D Viewport Window, but many work on objects in other windows

HOME: all objects in the visible layer are displayed centered in the window
NUMPAD-PERIOD: zoom to selected
A: select/deselect all
SHIFT-A: add item to scene
B: border select: draw a rectangle with the LMB. All objects within this area are selected. Draw a rectangle with the MMB to deselect objects.
C: circle select: this acts like a paintbrush with the LMB to select objects; the brush must cross the object origin. Scroll the mouse wheel to expand/reduce the size of the circle, right click to end and select. Use MMB to deselect in same way.
CTRL-C: copy menu: this copies information from active object to other selected objects
SHIFT-C  *centre zero view*: the 3D cursor is set to (0,0,0) and the view changed so that all objects, including the 3D cursor, are shown. This is a slight variation to HOME.

ALT-C  *converts extruded curve object to mesh* using settings in the Properties-Active Spline panel.

SHIFT-D  *add duplicate*: the selected objects are duplicated; grab mode starts at once

ALT-D  *add linked duplicate*: linked duplicates are created from selected objects; grab mode starts at once

F  *make face* from selected vertices or edges

G  *grab* (ie: move) mode; this has powerful options for constraining movement

-  *SHIFT*: fine movements.
-  *SHIFT-X*: Locking the X axis in place. Moving in Y, Z plane only
-  *SHIFT-Y*: Locking the Y axis in place. Moving in X, Z plane only
-  *SHIFT-Z*: Locking the Z axis in place. Moving in X, Y plane only
-  *X, Y, Z* constrains to X, Y or Z axis of the **global** reference frame
-  a second *X, Y, Z* constrains to X, Y or Z axis of the **local** reference frame
-  a third *X, Y, Z* removes constraints
-  number entry defines precise translation in selected units (default is Blender units)

ENTER finalizes, ESC exits

CTRL-J  *join objects*: selected objects of the same type are added to the active object

M  *moves selected object(s) to another layer*

R  *rotate mode*: works on selected object(s). In Blender rotation is by default perpendicular to the screen regardless of the view direction or ViewMode. The degree of rotation is defined by mouse movement. The rotation pivot point is set by the 3DViewport Header buttons. Constraints for this mode include

-  *SHIFT*: fine movements.
-  *X, Y, Z* constrains to X, Y or Z axis of the **global** reference frame
-  a second *X, Y, Z* constrains to X, Y or Z axis of the **local** reference frame
-  a third *X, Y, Z* removes constraints
-  number entry defines precise angle in system units (default is degrees)

ENTER finalizes, ESC exits.

S  *scale selected object(s)*; the amount is controlled by the mouse movement, and the pivot point set by the settings of the 3D Viewport header pivot Menu. Useful constraints include

-  *SHIFT-X*: Locking the X axis in place. Scaling in Y, Z plane only
-  *SHIFT-Y*: Locking the Y axis in place. Scaling in X, Z plane only
-  *SHIFT-Z*: Locking the Z axis in place. Scaling in X, Y plane only
-  *X, Y, Z* constrains scaling to X, Y or Z axis of the **local** reference
-  a second *X, Y, Z* removes constraints
-  number entry defines precise relative scaling (1 is same size; .5 is half; 2 is 200%)

ENTER finalizes, ESC exits

SHIFT-S  opens the snap menu

CTRL-T  *selected object(s) track active object*: select the object doing the tracking first (often a camera) then the tracked object.
Z toggles Solid Mode on/off
ALT-Z toggles Textured Mode on/off

Edit Mode – General

TAB toggles Edit/Object modes
CTRL-TAB opens Vertex Select, Edge Select, and Face Select menu
CTRL-LMB create vertex: use RMB if you have mouse buttons reversed from default
A select/unselect all
N show/hide number panel: simpler than the object mode one, in edit mode this works for mesh, curve, and surface: the location of the active vertex is displayed.
O switch in/out of proportional editing
SHIFT-O cycles through proportional editing options
U unwrap UVs menu
W specials popup menu: a number of useful editing tools are included as an alternative to the mesh tools available on the side panel toggled by T

Edit Mode - Mesh

ALT-RMB loop select: vertices, edges, or faces. Alt-LMB if you have changed mouse prefs
CTRL-NUM + adds to selection all vertices connected by an edge to a selected vertex
CTRL-NUM - removes from selection all vertices of the outer ring of selected vertices
E extrude selected: extrude in Edit Mode transforms all the selected edges to faces. If possible, selected faces are also duplicated. Grab mode is started directly after this command is executed
ALT-E extrude options: selected region or individual faces
CTRL-E edge menu: displays options related to the selected edges, including Make Face, Subdivide, Mark Seam, Edge Slide, Edge Loop, and Edge Ring
F make edge/face: if two vertices are selected an edge is created; if three or four are selected, a face is created.
SHIFT-F fill selected: all selected vertices that are bound by edges and form a closed polygon are filled with triangular faces. Holes are taken into account. This operation is 2D; various layers of polygons must be filled in succession
CTRL-F face menu: displays options related to selected faces, including Flip Normals, Tris to Quads, and Shade Smooth/Shade Flat
H hide selected
SHIFT-H hide unselected
ALT-H show all hidden items
ALT-J join faces: selected triangular faces are joined in pairs and transformed to quads
K knife tool menu – you must have all vertices selected for this to work
L select linked: if you start with an unselected vertex near the mouse cursor this vertex is selected together with all vertices that share an edge with it
SHIFT-L deselect linked: if you start with a selected vertex, this vertex is deselected, together with all vertices that share an edge with it
CTRL-L  
**select linked selected**: starting with selected vertices, all vertices connected to them are selected too

M  
**mirror**: this opens a popup asking for the axis to mirror. Three possible axis groups are available, each of which contains three axes, for a total of nine choices. Axes can be Global (Blender Global Reference); Local (Current Object Local Reference) or View (Current View reference). Remember that mirroring, like scaling, happens with respect to the current pivot point

ALT-M  
**merges selected vertices** at collective center or cursor depending on selection made on pop-up

CTRL-N  
**calculate normals outside**: normals from selected faces are recalculated and set in the same direction. An attempt is made to direct all normals `outward'

P  
this brings up the **separate dialog** box

CTRL-R  
**face loops are highlighted** starting from edge under mouse pointer. LMB finalizes, ESC exits

ALT-S  
whereas **SHIFT-S** scales in edit mode as it does in object mode, for edit mode an additional and useful further option exists. **ALT-S** moves each vertex in the direction of its **local normal**, effectively shrinking/fattening the mesh

CTRL-V  
**vertex menu**: displays options related to the selected vertices, including Merge, Rip, and Remove Doubles

W  
**special menu**: a popup menu offers the following options:

- **subdivide**: all selected edges are split in two.
- **subdivide fractal**: all selected edges are split in two and middle vertex displaced randomly.
- **subdivide smooth**: all selected edges are split in two and middle vertex displaced along the normal.
- **merge**: as ALT-M
- **remove doubles**: All selected vertices closer to each other than a given threshold (See EditMode Button Window) are merged **ALT-M**
- **hide**: as **H**
- **reveal**: as **ALT-H**
- **select swap**: Selected vertices become unselected and vice versa.
- **flip normals**: Normals of selected faces are flipped.
- **smooth**: Vertices are moved closer one to each other, getting a smoother object.
- **bevel**: Faces are reduced in size and the space between edges is filled with a smoothly curving bevel of the desired order.

Y  
**split**: this command splits the selected part of a mesh without deleting faces. The split parts are no longer bound by edges. You can use this command to control smoothing. Since the split parts have vertices at the same position, selection with **L** is recommended.

EditMode – Bezier and other curves

CTRL-LMB  
**adds control point** to curve when another point is selected

E  
**extend curve**: a vertex is added to the selected end of the curves. Grab mode is started immediately after this command is executed
V vector handle: the selected Bezier handles are converted to vector type

W the special menu for curves appears:
•  subdivide: subdivide the selected vertices.
•  switch direction: the direction of the selected curves is reversed. This is mainly for curves that are used as paths

M mirror: mirror selected control points exactly as for vertices in a mesh

SHIFT-R select row: starting with the last selected vertex, a complete row of vertices is selected in the `U' or `V' direction. Selecting Select Row a second time with the same vertex switches the `U' or `V' selection.

Note: there are many, many more hotkeys and everything can be customized. This can go as far as you want to take it.

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tips and tricks

The Control key constrains transformations to discrete steps. (Works on most transformations and buttons)

You can use Ctrl-C and Ctrl-V on sliders and buttons to copy and paste numbers, text, and colors.

By pressing "R" twice you can rotate in trackball mode.

most used hotkeys

G: Move
R: Rotate
S: Scale
A: Select/ Deselect all
Tab: Object/ Edit mode
X: Delete
LMB: Lasso

B: Border select
Z: Wire/solid
M: Move to layer
Z: Undo
S: Save
P: Make parent

Ctrl + Alt + Key