What is Blender?

Blender is free and open source 3D creation suite. It supports the entirety of the 3D pipeline—modeling, rigging, animation, simulation, rendering, compositing and motion tracking, even video editing and game creation. Advanced users employ Blender's API for Python scripting to customize the application and write specialized tools; often these are included in Blender's future releases. Blender is well suited to individuals and small studios who benefit from its unified pipeline and responsive development process.

Blender is cross-platform and runs equally well on Linux, Windows, and Macintosh computers. Its interface uses OpenGL to provide a consistent experience.

As a community-driven project under the <u>GNU General Public License (GPL)</u>, the public is empowered to make small and large changes to the code base, which leads to new features, responsive bug fixes, and better usability.

Shortcuts for viewport

Shift + Middle mouse: move around the scene.

Middle mouse is used to rotate around the scene.

Numpad 0: enters into camera view.

Ctrl + D: duplicates object.

Scroll wheel to zoom in or out

Shortcuts for interface

Shift + A: opens scene menu

In this section it is described how the mouse provides easy and fast access when modifying values.

Select & Transform

Control + Left mouse: unselects specified object

A: toggles select all or none.

G: selects and moves object all around the scene

G + X / G + Y / G + Z: is used to move objects along the respective axis

R: rotates the object

Α	Toggle select all/none
Alt+A	Play animation in view
Shift+A	Show Add menu
С	Circle (Brush) select
Shift+D	Duplicate
Alt+D	Linked duplicate
E (edit mode)	Extrude
F (edit mode)	Create face/edge
G	Grab/move
Alt+G	Clear location
Н	Hide selected
Alt+H	Reveal all

1	Insert keyframe
Ctrl+J	Join selected objects
L (edit mode)	Select linked vertices
Shift+L (edit mode)	Deselect linked vertices
M	Move selection to layer
Ctrl+M	Mirror selection
N	Show Properties region
Ctrl+N	New Blender session
Ctrl+N (edit mode)	Calculate normals outside
O (edit mode)	Enable proportional editing
P (edit mode)	Separate to new object
Ctrl+P	Make parent
Alt+P	Clear parent

R	Rotate
Alt+R	Clear rotation
S	Scale
Alt+S	Clear scale
U (edit mode)	Unwrap mesh
V	Toggle Vertex Paint mode
W (edit mode)	Specials menu
Ctrl+S	Save file
X	Delete selection
Ctrl+Z	Undo
Ctrl+Shift+Z	Redo
Spacebar	Show search menu
Shift+Spacebar	Maximize editor area

Ctrl+Spacebar	Toggle manipulator
Alt+Spacebar	Change manipulator orientation
Tab	Toggle Edit mode
Shift+Tab	Toggle snapping