Blender 2.40 Hotkeys Reference : 3D View, Object Mode

Legend : Key   Ctrl + Key   Shift + Key   Alt + Key   Ctrl+ Shift + Key   Ctrl+ Alt + Key

Function keys:
- Esc — Cancel Operation
- F1 Open
- F2 Save
- F3 Save Render
- F4 Logic Panel
- F5 Shading Panel
- F6 Texture Panel
- F7 Object Panel
- F8 World Panel
- F9 Editing Panel
- F10 Render Panel
- F11 Show Render
- F12 Render

Letter/key rows:
- Tab — Edit Mode / Weight Paint
- Q — Quit
- W — Boolean / Warp
- E — Edit Mode
- R — Rotate / Clr. Rot. / Rot.Widget
- T — Tex Space / Track / Clr Track
- Y — Redo
- U — Sing. User / Save Sett. / History
- I — Insert Key
- O — Open Last / Subsurf
- P — Play Game / Parent / Clr Parent
- A — Desel. / Sel. All.
- S — Scale
- D — Draw Mode / Duplicate / Linked Dup.
- G — Move / Sel. Group / Clr Loc.
- H — (—)
- J — Join Meshes
- K — Sel.All Keys / Make Skel.
- L — Make Local / Make Links / Sel. Linked
- Z — Wire / Solid / Undo
- X — Delete / Delete All
- C — Center View / Copy Attr. / View All
- V — Vertex Paint
- B — Border Sel. / 3D Clip
- N — Transform Panel
- M — M. to Layer / Mirror
- Space — Quick Menu / Manipulator / Maximize Window / Manipulator Orientation

Details

A
- Sel/Deselect All
- Apply Size and Rotation
- Add Menu
- Play Anim
- Apply Transformation
- Solidify Duplicates

S
- Scale
- Save
- Snap
- Clear Size
- To Sphere
- Scale Widget

D
- Draw Mode
- Show Alpha
- Duplicate
- Linked Duplicate

G
- Move
- Select Group
- Clear Location
- Move Widget

Z
- Wire / Solid
- Undo
- Wire / Shaded
- Wire / Textured
- Redo

Tips & Tricks

Ctrl key constrains transformations to discrete steps
Shift key makes transformations more precise
(Works on most transforms and buttons.)

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

If you press "R" twice, you can rotate in trackball mode

Most Used Hotkeys

- G : Move
- R : Rotate
- S : Scale
- A : Deselect All
- Tab : Edit Mode
- X : Delete
- LMB : Lasso
- B : Border Select
- Z : Wire / Solid
- Z : Undo
- S : Save
- P : Make Parent
- M : Move to layer

Numpad / mouse:
- Num Lk / * - Zoom Out
- 7 View Top
- 8 Rot View Up
- 4 Rot View Left
- 5 Ortho / Persp.
- 6 Rot View Right
- 1 View Front
- 2 Rot View Down
- 3 View Side
- 0 View Camera / Set Default camera / Fit camera to view
- Zoom In

Mouse:
- Gesture / Set Cursor / Lasso Select / Rotate View / Accept Operation
- Rotate View / Scroll Header / Zoom / Pan View
- Select / Select Multiple / Cancel Operation
- Zoom / Pan Horizontal / Pan Vertical

Blender 2.40 Hotkeys Reference : 3D View, Mesh Edit Mode

Legend : Key   Ctrl + Key   Shift + Key   Alt + Key   Ctrl+ Shift + Key   Ctrl+ Alt + Key

Function keys:
- Esc — Cancel Operation
- F1 Open
- F2 Save
- F3 Save Render
- F4 Logic Panel
- F5 Shading Panel
- F6 Texture Panel
- F7 Object Panel
- F8 World Panel
- F9 Editing Panel
- F10 Render Panel
- F11 Show Render
- F12 Render

Letter/key rows:
- Tab — Object Mode / Select Mode
- Q — Quit
- W — Specials / Warp
- E — Extrude / Edge Tools / Crease
- R — Rotate / Loop Sub. / Clr. Rot.
- T — Quad To Tris
- Y — Split / Redo
- U — Undo / Save Sett. / History
- I — Insert Key
- O — Proportional Editing / Open Last
- P — Separate / Parent / Push
- A — Sel. All. / Add / Play Anim
- S — Scale
- D — Draw Mode / Duplicate / Linked Dup.
- F — Add Face / Flip Tris
- G — Move / Sel. Group / Clr Loc.
- H — Hide Sel. / Reveal All
- J — Tris to Quads
- K — Cut Menu / Edge Cut
- L — Select Linked
- Z — Wire / Solid / Undo
- X — Delete / Delete All
- C — Center View / Copy Attr. / View All
- V — Rip / Align View
- B — Border Sel. / 3D Clip
- N — Transf. Panel / Recalc Nor.
- M — Mirror / Merge
- Space — Quick Menu / Manipulator / Maximize Window / Manipulator Orientation

Details

E
- Extrude
- Edge Specials
- Crease
- Object Mode

O
- Proportional
- Editing on/off
- Open Last
- Prop. Algorithm
- Connected

S
- Scale
- Shear
- Snap
- Shrink/Fatten
- To Sphere

F
- Make Edge/Face
- Flip Tris
- Fill
- Beauty Fill

Z
- Wire / Solid
- Undo
- Wire / Shaded
- Wire / Textured
- Redo

Menus

Specials (W)
- Subdivide
- Subdivide Multi
- Subdivide Multi Fractal
- Subdivide Smooth
- Merge
- Remove Doubles
- Hide
- Reveal
- Select Swap
- Flip Normals
- Smooth
- Bevel
- Set Smooth
- Set Solid

Edge Specials (E)
- Mark Seam
- Clear Seam
- Rotate Edge CW
- Rotate Edge CCW
- Loopcut
- Edge Slide

Loop/Cut (K)
- Loop Cut
- Knife (Exact)
- Knife (Midpoints)
- Knife (Multicut)

Most Used Hotkeys

- G : Move
- R : Rotate
- S : Scale
- A : Deselect All
- Tab : Object Mode
- X : Delete
- Z : Wire / Solid
- LMB : Lasso
- B : Border Select
- R : Loopcut
- E : Edge Specials.
- S : Save
- E : Extrude
- F : Make Face/Edge
- W : Specials
- V : Rip
- O : Proportional Edit
- RMB : Loop Select
- RMB : Ring Select

Numpad / mouse:
- Num Lk / * - Zoom Out
- 7 View Top
- 8 Rot View Up
- 4 Rot View Left
- 5 Ortho / Persp.
- 6 Rot View Right
- 1 View Front
- 2 Rot View Down
- 3 View Side
- 0 View Camera
- Zoom In

Mouse:
- Gesture / Set Cursor / Lasso Select / Extrude / Rotate View / Accept Operation
- Rotate View / Constraint Transform / Zoom / Pan View
- Select / Select Multiple / Cancel Operation / Loop Select / Ring Select
- Zoom / Pan Horizontal / Pan Vertical

1. Blender's Interface

Blender's interface consists of an arbitrary number of workspaces with multiple window each. Each window displays a part of your scene's data. The type of data that a window displays is indicated in the header.

Blender's default interface
Header
Window type switch
3D window
Buttons window
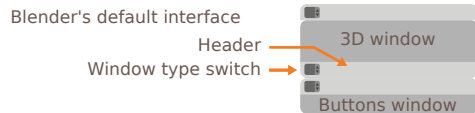
You can change the type of a window at any time by clicking the header.

To add or delete windows, right-click on edge of a window.

Resize windows by grabbing a window edge.

You can access the preferences by pulling down the top header or by opening an User Preferences window.

To set (and save) the current layout as the default, press **Ctrl·U**. It will override previous default layout.

Tools and actions relative to a window are always available in the window's header.

Hotkeys and actions are context sensitive meaning that they work based on the location of mouse cursor.

2. Navigating in the 3D View

You can rotate the 3D View with the **Middle Mouse Button** (**MMB**).

Panning is accomplished with **Shift·MMB**.
To zoom, use the mouse wheel or **Ctrl·MMB**. If you don't have an MMB, you can use **Alt·LMB** instead

The numpad allows to navigate in the 3D View as well:
7, **1**, **3** set the view to Top, Front, Right; use **Ctrl-7**, **Ctrl-1**, **Ctrl-3** to view Bottom, Back, Left
8, **2** rotate Up, Down; **Shift-8**, **Shift-2** pan
4, **6** rotate Left, Right; **Shift-4**, **Shift-6** pan
5 flips between Orthogonal and Perspective view

All those controls and more are also available in the view menu located in the 3D View header.

3. The Buttons Window

You can access different button categories with the icons along the Button window's header. Each category regroups buttons that share the same use.
Each button category also has subcategories.

You can scroll panels with **Shift·Mousewheel**, zoom panels with **Ctrl·Mousewheel**, organise panels with drag & drop and align panels vertically with **RMB**.

(Game) Logic
Materials/Lamp/World Editor
Object Properties/Physics/Particles
(Game) Logic

Scriptlinks

Scriptlinks

4. Managing 3D Objects

The default scene is composed of a cube, a lamp and a camera, You can select any of these objects with **RMB**, select multiple objects with **Shift·RMB** and se-lect/deselect all with **A**.

To move these objects, click with **LMB** on the 3D Wid-get. You can change the widget mode to **R**o-tate/**S**cale/**G**rab by activating the corresponding icons in the 3D View header. Note that you can do the same thing with the bolded hotkeys.

Each object has a little dot that represents its center. You can change the center position in Buttons Window/Editing/Mesh while in the Object Mode.

The red and white cross is the 3D cursor. Its position can be set with a simple **LMB** click in the viewport. This cursor is used as a reference point.

You can add new objects by pressing **Space** and then go to the Add menu.

Objects can be duplicated with **Shift·D** and link-du-plicated with **Alt·D**.

⊙ Object Center
⊹ 3D Cursor
☼ Lamp

⬡ Mesh
↝ Curve
▱ Camera

⟋ Armature/Bone

4. Managing 3D Objects

In Blender, editing the object position, and editing the object shape and properties are two different and separated tasks. For each type of modification, there is an associated "Mode". You are always in a certain mode. The current mode is indicated in the header.
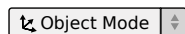
⇵ Object Mode

The default is Object Mode. It allows to select different objects and to manipulate them.

The Edit Mode allows you to model the selected object. You can modify only one object at a time. If you want to select or modify other objects, you must escape Edit Mode and go back to Object mode. You cycle between Object and Edit modes with **Tab**.
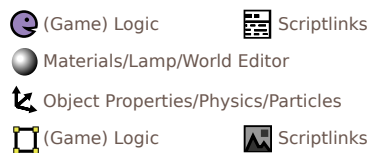
6. Mesh Modelling

To model a mesh object, you need to enter Edit Mode. In Edit Mode, you can select three kind of items: Vertices, Edges and Faces. To switch between different selection modes, use the buttons placed in the 3D View header or with **Ctrl·Tab**.

Once you have selected different elements, you can:
Grab, **R**otate, **S**cale;
Extrude any selection; **K**nife any selection
Delete the selection with **X** or **Delete**;
Apply various tools from the **W** and **Ctrl·E** menus;
Subdivide loops with **Ctrl·R**;
Se**P**arate selection; Duplicate selections with **Shift·D**.

Note that if you duplicate your object in the Edit Mode, the result will still count as one object, even if it looks like two duplicated objects. In the Edit Mode you can modify the object geometry as you like and it will still remain a unique object. If you want to duplicate your object and have two different objects as a result, do so in the Object Mode. (*See* §4)

LMB on the colored parts of a widget will tranform on this axis.

⟰ ▲ ◎ ■ Global ⇕

Move   Rotate   Scale

The middle circle transforms on the view axis.
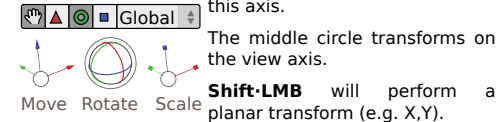
Shift·LMB will perform a planar transform (e.g. X,Y).

MMB during transform also allows you to constraint transform without using widgets.

7. Lamps and Materials

To tweak lamps settings, select a lamp and go to the Materials buttons. You can tweak all the lamp settings in the Lamp subsection. There you can also change between light types.

To change the color and look of an object, select it and go to the Material buttons. Check the official documentation for details.

8. Layers

Layers are used to easily show, hide and group different objects. Each object belongs to a layer or layers. To change the layer of an object, select it and press **M**ove.

You can then show different layers with the layers buttons available in the 3D Window header. To show multiple layers at the same time, use **Shift·LMB** on these layers.

Active layer
Unactive layer

9. Rendering

To render the view of a camera, you must first check that the desired camera is activated. To activate a camera, select it and press **Ctrl-Numpad 0**.

To change the camera settings, select it and go to the Edit buttons.

If you want to change the background of your scene, go to the Material buttons and then to the World sub-section.

To change the render settings, go to the Render but-tons. You can then select the size of your render, the anti-aliasing settings (OSA) and the output format.

To render your scene, press Render or **F12**.

If your scene renders as black, check that there is light in your scene and all needed layers are activated.

Save rendered image with **F3**. Remember to add the file extension to the filename.

10. Final Words

The QuickStart covers only the most basic features. To find out more information about modifier stack, fluid simulator, particle engine, animation features, video sequencer, node editor, game engine etc. we very strongly recommend that you read the complete docu-mentation. You can find it on:

http://mediawiki.blender.org.

As you may have noticed, Blender is mostly hotkey ori-ented. Once you get the hang of these, you will find your experience on Blender much more enjoyable and productive.

If you have difficulties to find the hotkey of a specific function, you can check if it is listed in the Space menu or in the window headers menus. They are also in the Help menu.

Finally, you can find a Hotkey Map available in the Blender wiki.

If you have further questions, ask them on the forum at **http://www.blenderartists.org**, or on the #blenderchat channel at the freenode IRC network.

Check **http://www.blendernation.com** for daily Blender news and **http://www.blenderart.org** to find a free Blender magazine.

Good luck and Blend on!   *-The Blender Team*