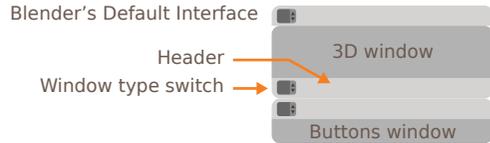


## 1. Blender's Interface

Blender's interface consists of one workspace divided into multiple windows. Each window displays a part of your scene's data. The type of data that a window displays is indicated in the window's header.



You can change the type of a window at any time by clicking the header's left button.

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

You can resize your windows by grabbing a window separator.

You can access preferences by pulling down the top header.

You can set the current layout as default with **Ctrl-U**.

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

Hotkeys and actions are always relative to the active window, which is the one under your cursor.

## 2. Navigating 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 a MMB, you can use **Alt+LMB** instead.

The numpad also allows to navigate the 3D View:

- **7, 1, 3** set the view to Top, Front, Side;
- **8, 2** rotate Up, Down;
- **4, 6** rotate Left, Right;
- **5** switches between Orthogonal and Perspective views.

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

## 3. Navigating the Button 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 categorie also has subcategories.

You can scroll panels with **Shift+Mousewheel**, zoom panels with **Ctrl+Mousewheel**, organize panels with drag & drop and align panels vertically with **RMB**

## 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 select/deselect all with **A**.

To move those objects, click with **LMB** on the 3D Widget. You can change the widget mode to rotate/scale/move by activating the corresponding icons in the 3D View header.

Also, you can use **G** (grab/move), **R** (rotate) and **S** (scale) to modify objects.

Each object has a little dot that represents it's center. You can change the center position in the object properties (Object buttons).

The red and white cross is the 3D Cursor. It's 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-duplicated with **Alt+D**.



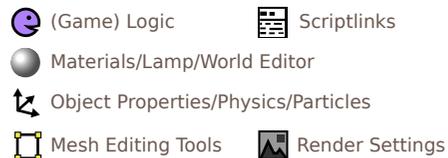
## 5. Editing 3D Objects

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.



The default is Object Mode. It allows to select different objects and move 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 and modify other objects, you must escape Edit Mode and go back to Object Mode. You cycle between Object and Edit modes with **Tab**.



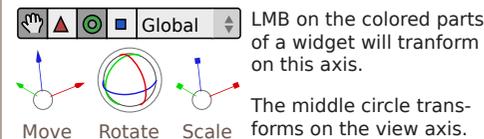
## 6. Mesh Modelling

To model a mesh object, you need 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:

- Move (**G**), Rotate (**R**), Scale (**S**)
- Extrude any selection with **E**
- Delete the selection with **X**
- Apply various tools from the **W** and **Ctrl+E** menus
- Subdivide loops with **Ctrl+R**
- Duplicate selections with **Shift+D**

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



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 Materials buttons. Check the official documentation for details.

## 8. Layers

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

You can show or hide 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.



## 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 **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 subsection.

To change the render settings, go to the Render buttons. 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 black, check that there is light in your scene and that they aren't in a hidden layer.

To save a rendered picture, press **F3**. Be careful to add the file extension to the filename.

## 10. Final Words

The QuickStart covers only the most basic features. We very strongly recommend that you read the complete documentation. You can find it on:

<http://wiki.blender.org>.

As you may have noticed, Blender is mostly hotkey oriented. Once you get the hang of these, you will find your experience on Blender much more enjoyable and productive than a icon-based interface.

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.

You can also check the hotkey and mouse action reference available in Blender's 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.elysiun.com>, or on the #blenderchat channel on the freenode.net IRC network.

If Blender's interface seems impossible to understand, keep in mind that while many may not like it at first try, many end up loving it after a while.

Good luck and Blend on!

-The Blender Team