

The Book of Blender Gotchas

Over 100 solutions to Blender's most common
and frustrating problems

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SAMPLE

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Book of Gotchas - Sample content

Blender is a very powerful 3D design and animation piece of software and can help make your dreams a reality be it film animation; architectural visualization, games or 3D printing.

However, for people who are new to the world of 3D software the learning curve can seem immense as there is a world of jargon and concepts to learn.

Additionally, with all software, users can inadvertently do something and not understand why the program is not acting as expected. As Blender is a large and complex program this can even happen to experienced users.

This guide will take you through the most commonly encountered (in my experience) problems and how to avoid them. Broadly they fall into four categories:

- Quirks;
- Accidents;
- Side-effects of an earlier decision; and
- User assumptions.

The book is organised loosely around the different editors, modes and areas to help try to find problems quickly.

If you read the book it will help you understand Blender and avoid the traps and pitfalls that can ruin your productivity when you get sucked into problem solving instead of creating.

If this book saves you just an hour of frustration searching Blender, the web or asking questions on Blender forums then it will be worth it!

Below are three examples of the 100+ solutions to problems that you will find in the Blender Book of Gotchas.

I hope you gain some value from this sample and if so, then please consider purchasing my book. If you have any comments please email gotcha@blendertraining.com

Andrew BATTERY

April, 2014

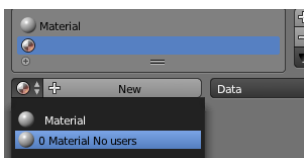
When I reopen my file some materials/meshes/animation have disappeared

When you create things such as particle settings, materials or other items the information is stored in a *datablock*. The datablock is then associated with a User that references that data. For example when a material datablock is assigned to an object, then the object is a User of the material. More than one object can use the same material by referencing the same material datablock. So when you change the material all objects that using the same material will change.

The problem occurs when you create a datablock but do not assign it to any users when you next open the file the datablock will have disappeared.

For the rest of this problem we will use the object/material example but the explanation below applies to most datablocks and users.

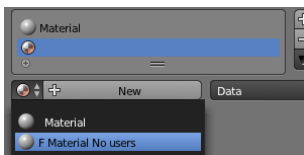
Materials with no users assigned are discarded on closing



Material with no users is denoted with a zero next to the name



Enabling a fake user (the F is enabled)



Material is attached to a fake users as it is denoted with an "F"

When Blender saves to a file, any materials that are not assigned to an object are not saved to the hard drive. However, they will still be held in the memory of the computer during the session and will not be discarded until you close the blend by quitting or starting a new file.

You can tell if a material will be discarded as it will have a zero next to its name in the materials dropdown. Even if you have Quit Prompt on, Blender will not warn that it is discarding unused materials (or other unused datablocks).

If you want materials to be persistent across saves even if they are not used by any object then click the F button next to the material name. The F stands for "fake user" and as a result the material is saved even though no objects use it.

The fake user concept is used for more than materials as other types of Blender datablocks can be saved even though they are not attached to an object.

Fake users can also be used for many things in Blender. Examples are, but not limited to:

- Meshes;
- Textures;
- Particle Settings (note - not particle systems);
- World settings; and
- Actions (i.e. Animation data)

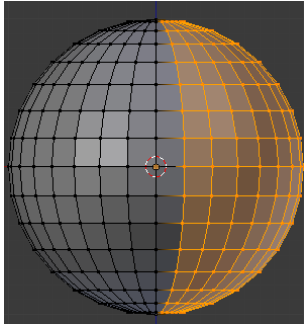


I have read on some sites that Action datablock is a special case and get saved even if the datablock has no users. I have tested v2.70 and this is not the case. If it has no users the datablock will be discarded.

Only half the vertices I expected to be selected are...

This is more an annoyance than a gotcha as the result is usually very obvious. When more than one vertex is sitting on the same location (be it X, Y, Z or combination) when viewed from the side there will appear to be only one vertex. If you use an area selection tool such as bounding box or circle, Blender will only select the closest vertex.

Limit to Visible selection option turned on

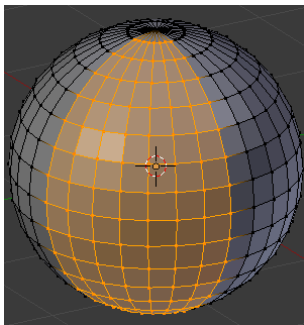


The front view after bounding box selection

When in Edit mode, by default Blender starts with Limit to Visible turned on. As the name explains only the vertices, edges or faces that are visible in the 3D View covered by the selection tool will be selected.

Most times you actually want to select all vertices that are under the tool, especially when starting a new modelling task, adding basic shapes and then deleting unnecessary geometry e.g. a sphere that you plan to mirror on an axis.

The solution is to toggle the Limit to Visible selection button in the 3D View Header.



Only the visible vertices were selected leaving the back half unselected

A more permanent solution is to change your start up to have this toggled off when Blender opens or a new scene (Ctrl+N) is started.

For information on how to modify your Blender start up scene see this video: <http://blendertraining.com/customising-your-start-up-to-save-time/>



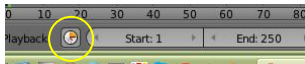
The Limit to Visible button is enabled by default

I can't change my render range!

The render range can be set a number of ways – by adjusting the values in the Render panel in the Render tab, the Start and End values in the Timeline header or using the S and E keys in the Timeline to set start and end frames.

When you play an animation it plays back between the render start and end frame. However you can have a situation where the animation range and the render range don't line up and making changes to the timeline aren't reflected in the render panel...

Accidentally changed into Preview Range mode



The Preview Range button in the Timeline header

There is a minimally documented feature, which is really great but very few know about called Preview Range. The button next to the Timeline start end frames will trigger this mode.

When this is turned on the range displayed in the Timeline and played back when you hit Alt-A is the Preview Range.

Once you turn on Preview Range, all hotkeys and frame start and end fields in the Timeline only change the preview range. No change will occur to the Render Range in the Render panel.

To turn preview range off toggle the button on the Timeline or use Alt-P.



You can set preview range in any timeline style editor e.g. dopesheet, graph, etc... using the hotkey P but be aware that the on/off toggle is only available on the Timeline header.

More information on the Preview Range feature can be found here:

<http://blendertraining.com/using-preview-range-feature/>

About the Author



Andrew Buttery is the principle trainer and owner of Blender Training.

Based in Melbourne, Australia, he has spent eight years in the video games industry where he undertook 3D work, programming and testing. During that time he learnt a variety of skills including 3D and 2D techniques, programming and project management.

Andrew has been using Blender for five years and has explored many of the different areas of the program.

He is one of the key organisers of the Melbourne Blender Society (MBS) and he is currently project managing their community short film code named Project Charcoal.

Andrew holds a Masters in eBuisness, a Certificate IV in Project Management and a Certificate IV in Training and Assessment.