CtrlAltStudioViewer

This Viewer is No Longer Being Maintained

The CtrlAltStudio Viewer was developed in order to try out and share a number of ideas, primarily Oculus Rift support and stereoscopic 3D display, but also variable walk & fly speed, Xbox 360 controller support, and Kinect for Windows control. It is based on the Firestorm Viewer and can be used with both OpenSim and Second Life.

Linden Lab's cashier update of 15 Jun 2016 is not supported. This means that you can no longer perform L$ transactions with the browser built into this viewer.

This viewer is no longer being maintained. The most recent release of this viewer is based on Firestorm 4.6.9 which was released in Dec 2014; there have been many improvements in Firestorm and other viewers since then that are not included in CtrlAltStudio Viewer. Unless you really need Oculus Rift or stereoscopic 3D support you should seriously consider using another viewer instead: either Linden Lab's viewer or one of the other third party viewers such as Firestorm.

1.2.6 Alpha

Downloads:
- Windows installer: 1.2.6.43412 Alpha, 18 Jul 2016.
- Mac OSX installer: *Not available*

Release notes.

Based on Firestorm 4.6.9 with hot fix. Built using Oculus Rift SDK 1.5.0.

Oculus Rift

This enables you to have a look around in Second Life and OpenSim with your Oculus Rift headset. Some UI capability is provided.

Use the viewer as normal to get to where you want to go, then toggle into "Riftlook" mode (Ctrl-Alt-3), and don your Rift headset. Move your head to look around and use the arrow or WASD keys to move about.

Setup and Usage:
- Oculus Runtime installed from https://www.oculus.com/ and your Rift (CV1 or DK2) set up.
- Oculus Rift output turned on: Preferences > Graphics > Display Output > Oculus Rift. And restart the viewer.

- To "zero" your orientation and positional tracking location press Ctrl+Spacebar.
- To exit Riftlook and move the viewer window back to your main display: Ctrl-Alt-3 again.
- To improve your frame rate, reduce your draw distance and/or tweak other display settings such as advanced lighting model, shadows, FOV, pixel density, etc.
- If you have a new, high performance graphics card but graphics preferences such as "Basic shaders" are disabled this means that your graphics card isn't recognized by the viewer; tick the "Enable All GPU Features" setting to enable the missing settings.

Tips:
- Make sure you don't have Preferences > Graphics > Rendering > Limit Framerate enabled.
- If you have configured Oculus Rift output for seated operation, "forwards" is the direction your Rift was pointing when you toggled into Riftlook.
- If you have configured Oculus Rift output for standing operation, "forwards" is the direction your Rift is pointing.
- If you want to strafe instead of turn in seated operation, or turn instead of strafe if you have the "strafe" option selected, use Shift-Left and Shift-Right.
- You can use keyboard shortcuts to show and hide dialog boxes such as the Conversations window (Ctrl-T), Inventory (Ctrl-I), e.g., if you want to select a landmark to teleport to, Ctrl-Shift-M to display the minimap, etc. Keyboard shortcuts are shown beside menu items.
- To display avatar toasts in the Rift — Preferences > Chat > General > Show chat in bubbles above avatars.
- With floating text you may want to adjust the distance the floating text fades at so that distant text is not so annoying in Riftlook: Preferences > Graphics > Rendering > Floating text fades.
- You can use voice chat and toggle your microphone on/off using the middle mouse button or other key you configure in Preferences > Sound & Media > Voice Settings.
- To get into 3rd person view, depending on your "Mouse moves cursor / view" setting, either scroll out with your mousewheel or press Alt and scroll out with your mousewheel. You can then orbit around points etc. with your mouse and Ctrl, Alt, and Shift keys as usual. Press Esc to get back into 1st person view.

Stereoscopic 3D

This uses OpenGL quad-buffered stereoscopic 3D. It works with NVIDIA GeForce and 3D Vision with driver 314.07 or later; should work with [GeForce GTS250 or better](). It should also work with [NVIDIA Quadro cards]() plus [AMD Radion HD 6000 or better]() and [FireGL V7600 or better]() with recent drivers.

For active shutter glass display using an NVIDIA GeForce graphics card and NVIDIA 3D Vision on Windows you need:
- GeForce driver 314.07 or later.
- Graphics configured to display at 120Hz.
- Monitor configured to display at 120Hz.
- Stereoscopic 3D enabled in the NVIDIA Control Panel.
- 3D Vision set up and working. *
- Viewer configured to run full screen — Preferences > Graphics > General.
- Viewer configured for stereoscopic 3D output — Preferences > Graphics > Display Output.

Press Ctrl+Alt+3 or click the "3D" button on the toolbar to toggle stereoscopic 3D on/off.

There's an option to set the display output to 120Hz for stereoscopic 3D. This is useful if you have shutter glasses and want to only display at 120Hz when you use the viewer.

If you have a 144Hz monitor you may need to set one or both of your graphics and monitor to 60Hz so that the 3D Vision driver automatically doubles things to 120Hz.

If you have a passive 3D display or are using a 3DTV, you don't need to and in fact normally shouldn't set things to 120Hz; instead, configure things per the requirements of your system.

* Note, however, that it doesn't work with 3D Vision Discover anaglyph.

Variable Walking and Flying Speed

This enables you to walk and fly at speeds slower than normal and, if using an Xbox controller or Kinect to control movement, walk and fly at varying speeds up to your configured maximum. Works best in Second Life; works reasonably well in in OpenSim 0.8.0; in OpenSim 0.7.6, walking is always at normal speed and flying is stuttery at slower speeds.

- Configure "Walk speed" in Preferences > Move & View > Movement.
- You can also use Ctrl-PgUp and Ctrl-PgDn to increase and decrease your walk speed.
- When using an Xbox controller, speed depends on how much you move the stick.
- When using a SpaceNavigator, speed depends on how much pressure you apply to its knob.
- At slower walk speeds you may want to disable "Turn avatar around when walking backwards".

Xbox Controller
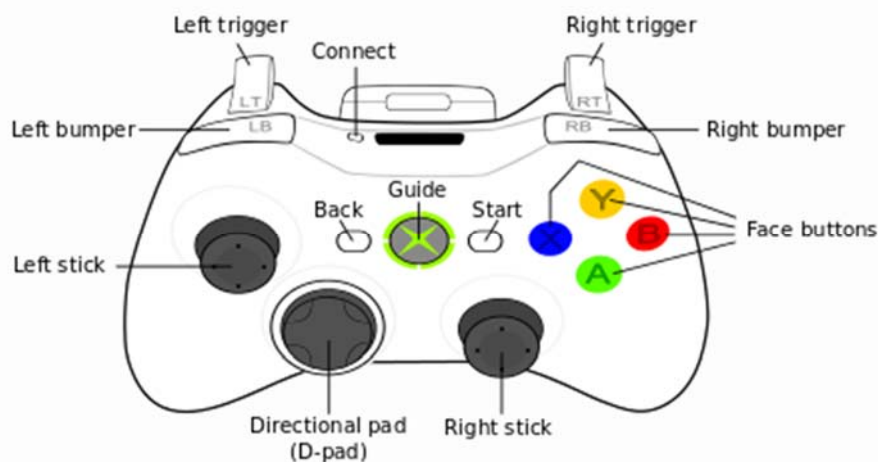
[By Alphathon (Own work) [CC-BY-SA-3.0 or GFDL], via Wikimedia Commons]

Xbox One and 360 controllers can be used with the following control scheme:

- **Back**: Toggle flycam on/off.
- **Start**: Toggle between moving avatar and moving cursor.
- **Back + Start**: Toggle Rift or 3D stereoscopic 3D on/off.
- In avatar movement mode:
    - **Left stick**: Move forwards / backwards and left / right.
    - **Right stick**: Change camera pitch and yaw.
    - **Left & right triggers**: Fly down / up.
- In cursor movement mode:
    - **Left stick**: Move cursor up / down and left / right.
    - **Right stick**: Scroll mouse wheel forwards / backwards (i.e., zoom view).
    - **Left & right triggers**: No action.
- **Left stick click**: Jump up / stop flying.
- **Right stick click**: Toggle 1st person view.
- **Left bumper**: Left or right mouse click. *
- **Right bumper**: Right or left mouse click. *
- **Y key**: Escape
- **X key**: Control
- **A key**: Alt
- **B key**: Shift
- **D-pad**: Not used

* There's a preferences option to swap bumper buttons.

Thus you can walk your avatar, fly your avatar, use mouselook, use flycam, orbit about points in 3rd person view, click on objects, and use objects' context menus … with normal, stereoscopic 3D, or Oculus Rift display output.

With your Xbox controller connected — wired or wireless — enable it in Preferences > Move & View > Movement. Then you can adjust its configuration using the associated Joystick Configuration button. Xbox-specific defaults are provided. You should also calibrate your controller, e.g., using the device's properties provided via Windows' Devices and Printers folder.

Kinect for Windows

On a Windows PC* with a [Kinect for Windows](#) sensor installed, this enables you to nominate the physical spot you are standing on to be "home". Then you move off this spot to control the direction your avatar walks or flies, turn your shoulders to turn your avatar, and use gestures to fly up and down.

* Does not work on Mac OSX.

"Home" Move Turn Fly up Fly down Stop
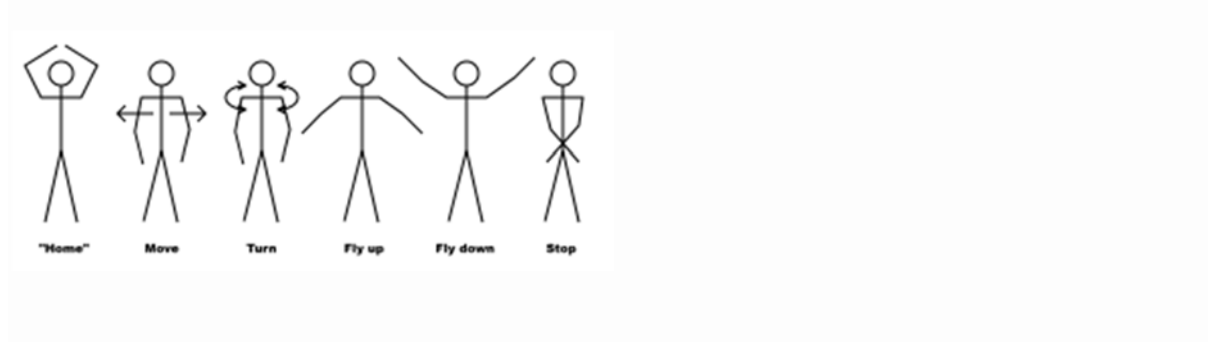
- Install either the [Kinect runtime](#) or the [Kinect SDK](#).
- Enable and configure in Preferences > Move & View > Movement.

Miscellaneous

- Uses the Second Life login screen instead of the Firestorm one if logging into Second Life.
- CtrlAltStudio Viewer skin and colours.
- Minimum draw distance reduced to 8m.
- Maximum bandwidth increased to 10,000kbps.

Limitations

- Rift direct mode is not supported.
- The menu bars and toolbar aren't displayed in Riftlook.
- Right-clicking on objects in Riftlook always displays the context menu in list form rather than pie form, even if "Use Pie Menu" is configured in the preferences.
- Left- and right-clicking objects in Riftlook display works best with the cursor in the left eye's view.
- Improper display during teleport while in Riftlook.
- Flickering objects at the edge of the Riftlook screen.
- With variable walk / fly speeds in OpenSim 0.7.6, walking is always at full speed and flying at slow speeds is stuttery.
- Variable walk / fly speeds can be a bit jerky at slower speeds, and the avatar doesn't necessarily animate smoothly.
- Kinect for Windows control is available only when running on Windows.
- So that it can be used with both Second Life and OpenSim, this viewer is compiled without the HAVOK library. This means that certain advanced features are not available when used with Second Life: visual display of the pathfinding navmesh and rigged mesh upload support.
- No crash log reporting: Crash logs are not sent to anybody.

Previous Versions

For previous versions, see the [list of release notes](#).

Acknowledgments

Many thanks the [Firestorm viewer](#) team for providing the codebase for building the CtrlAltStudio Viewer upon and to [Cinder Roxley](#) for providing the Mac OSX installers. Thanks also to other contributors per the viewer's Help > About.

Source Code

ctrlaltstudioviewer.codeplex.com

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