
FireVR Documentation

Release

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CHAPTER 1

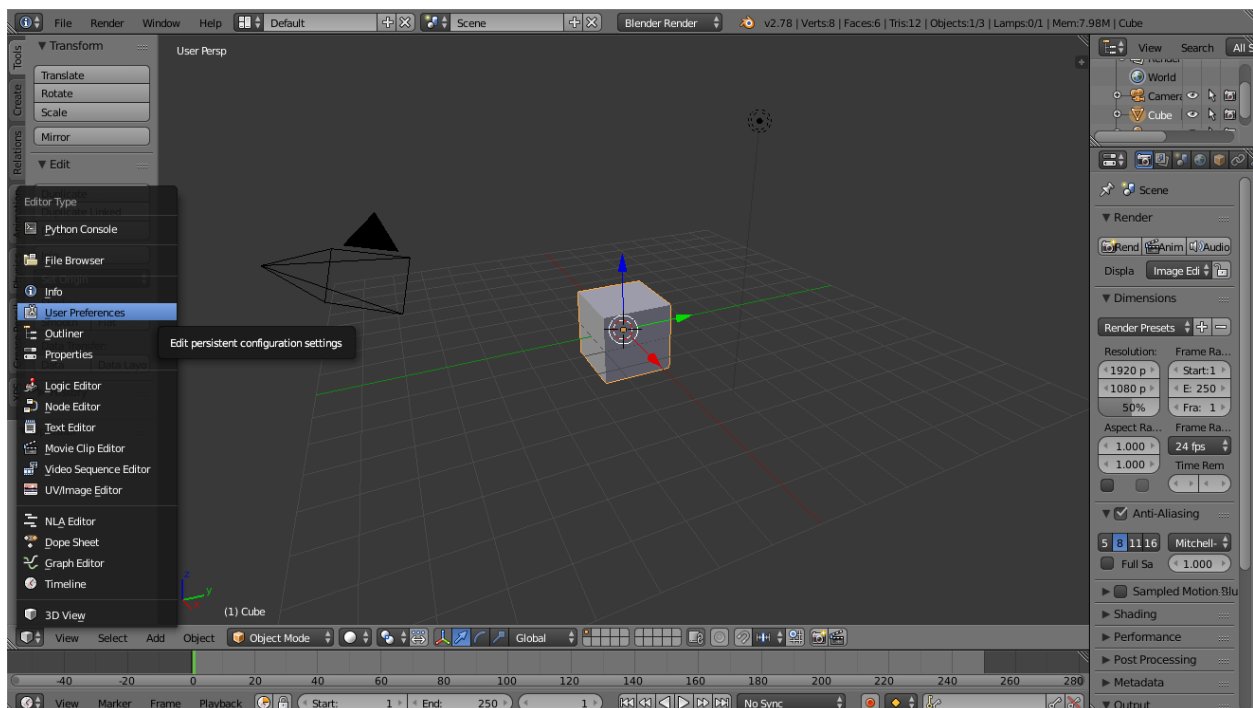
Installation

Use this link to download FireVR:

<https://github.com/void4/FireVR/archive/master.zip>

Or go to <https://github.com/void4/FireVR> and select the green “Clone or download” button at the top right, then “Download ZIP”.

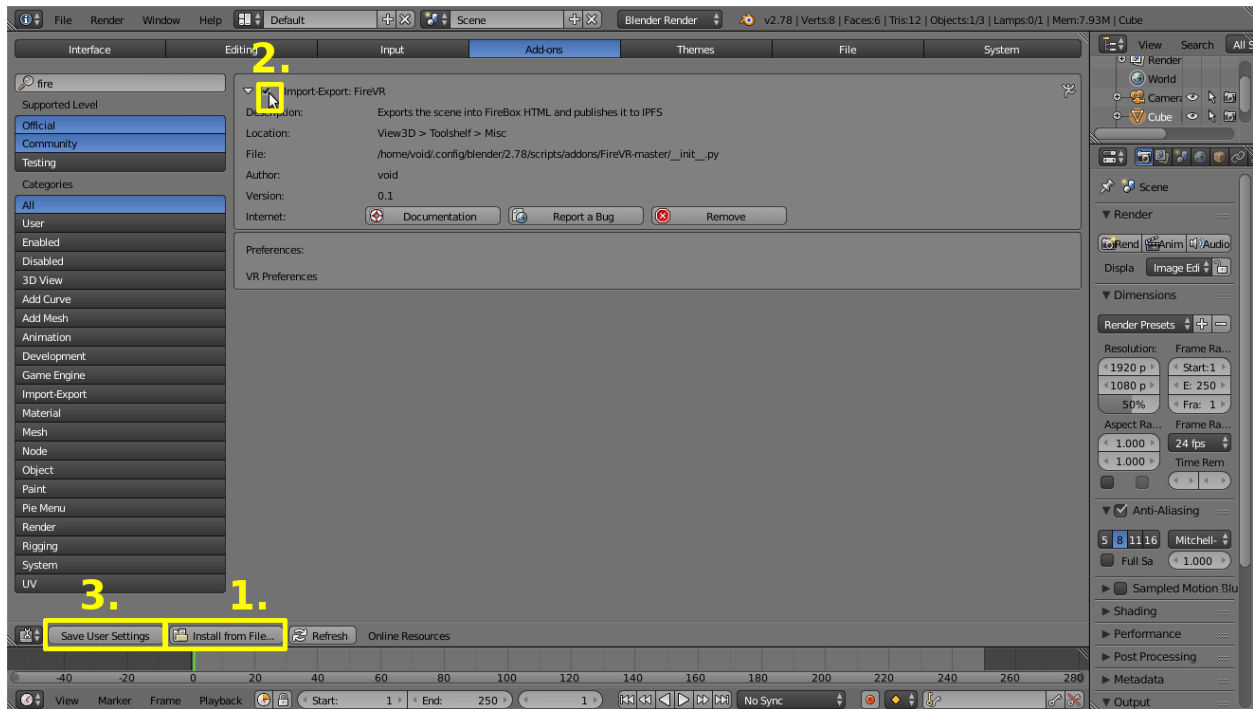
Make sure you have the latest Blender version (currently: 2.78a). Next, start Blender and enter the User Preferences.



Then

1. Install from File

2. Activate the addon by marking the checkbox
3. Save User Settings to make the installation permanent

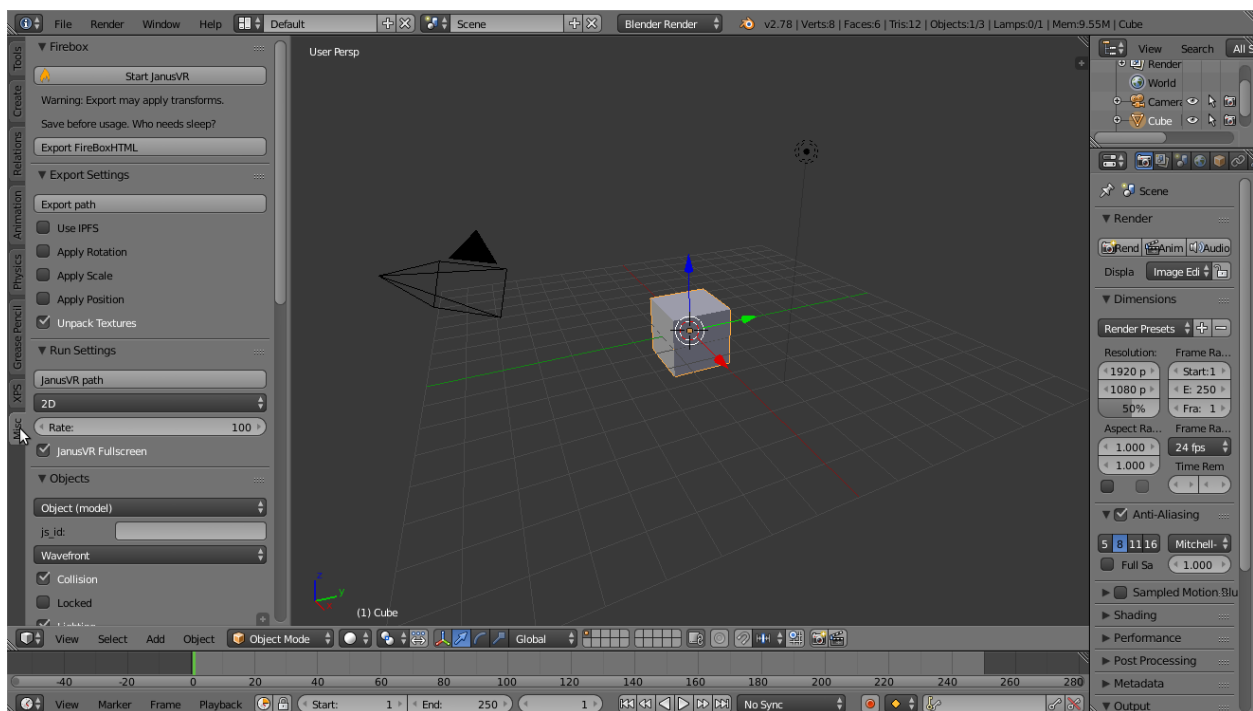


Done!

CHAPTER 2

Configuration

You can find FireVR in the Misc Tab in the Toolbar (key: t).



Now, two last things are necessary:

1. Set the Export Path in the Export settings (this is where all files will be saved).
2. Set the JanusVR path in the Run settings (select the Janus executable)

To test if the settings are correct, click “Start JanusVR” - you should now see the default cube floating in space.

To make the configuration permanent, save the user settings again.

Check the JanusVR docs for more details:

<http://www.janusvr.com/guide/markuplanguage/index.html>

3.1 Firebox

- **Start JanusVR** All-in-one button, exports room and launches Janus
- **Export FireBox** Only exports the objects and generates the room

3.2 Export Settings

- **Export path** The local directory where the rooms are exported to
- **Use IPFS** Check this to enable IPFS (requires IPFS installed and present in PATH)
 - **IPFS Gateway** Use the IPFS HTTP Gateway (<http://gateway.ipfs.io/>)
 - **IPNS** Use the IPNS nameserver / set name
- **Apply Rotation** Apply Current Scene Rotation to Objects
- **Apply Scale** Apply Current Scene Scale to Objects
- **Apply Position** Apply Current Scene Position to Objects
- **Unpack Textures** Unpack all textures when exporting

3.3 Run Settings

- **Janus VR path** The path to the JanusVR application

- **Display Mode** Select 2D, Rift, SBS, SBSR mode
- **Rate** Server update rate
- **JanusVR FullScreen** Starts JanusVR in fullscreen mode
- **Window Size** Launch JanusVR with the specified window dimensions

3.4 Objects

__*These attributes are all set on a per object basis__

Mesh Objects/Common

- **Object Type** For the most part, should be “Object (model)”. However, it can be used to allow making placeholder objects with meshes.
- **js_id** Specify js_id for object here, blank will give a default numeric id

Mesh Objects/Link

When making one of these, start off with a newly created Plane.

Don't go into edit mode to resize it - just use the transform (the exporter won't pick up on mesh resizing, the plane itself is just a placeholder)

With this, you should be able to semi-accurately place portals.

To check the orientation: Local Y should be up, Z should be facing outwards.

I'm not quite sure it works completely accurately, and if not what's responsible, but it's a start.

- **Link Name** The name displayed on the portal.
- **Link URL** Since (unlike the old “text as portal” system) link objects don't directly hold text, the URL is put here.
- **Active** If false, `active="false"` is set.

Mesh Objects/Mesh

- **Export Format** Select Wavefront (.obj) or Collada (.dae) export format
- **Collision** Enable collision for this object
- **Locked** Lock this object
- **Visible** Draw this item in the Janus room (setting to false with collision set to true is useful for proxy collision geometry)
- **Set Color** Enable a Janus color value for this object
 - **Color** Select color value for this object
- **Websurface** Texture the current object with a Janus Websurface
 - **URL** Set URL for websurface
 - **Width&Height** Set pixel dimensions for websurface
- **Cull Face** Set desired face culling (back, front, none)
- **GLSL Shader** Set a custom GLSL Shader for this object
 - **Frag Shader** Set path to Fragment Shader (use absolute paths)
 - **Vertex Shader** Set path to Vertex Shader (use absolute paths)

Sound Objects (use speaker in Blender)

- **Sound** Set path to sound file (use absolute paths)
- **js_id** js_id for sound object
- **Distance** Distance at which sound plays at full volume
- **XY1** X and Z positions for first corner of trigger rectangle
- **XY2** X and Z positions for second corner of trigger rectangle
- **Loop** loop sound
- **Place once** play the sound only the first time triggered per user session

Text Objects

Text objects don't have any properties as such, but there are the following things to note:

1. Text is created for single-line, Paragraph for multi-line.
2. It seems JanusVR ignores the lines anyway, so this is fine.
3. The old "beginning with http creates link" behavior still exists - not exactly sublime.

3.5 Room

- **Room** Sets the room model (see the [FireBox docs](#) for further details).
- **Visible** If checked, makes the room visible
 - **Color** Sets the rooms color
- **Select Skybox Images** Sets custom skybox images for this room
 - **Skybox Left** Set path to Left Skybox Image (use absolute paths)
 - **Skybox Right** Set path to Right Skybox Image (use absolute paths)
 - **Skybox Front** Set path to Front Skybox Image (use absolute paths)
 - **Skybox Back** Set path to Back Skybox Image (use absolute paths)
 - **Skybox Up** Set path to Up Skybox Image (use absolute paths)
 - **Skybox Down** Set path to Down Skybox Image (use absolute paths)
- **Gravity** Sets the rooms gravity
- **Walk Speed** Sets the players walk speed
- **Run Speed** Sets the players run speed
- **Jump Velocity** Sets the players jump velocity
- **Clip Plane** Sets the near and far clip distances
- **Teleport Range** Sets the min and max teleport distances
- **Default Sounds** Use default sounds in room
- **Show Cursor** Show Cursor in room
- **Fog** Enable Fog effects
 - **Color** Set fog color

- **Fog Mode** Set fog mode (exp, exp2, linear)
 - * **Density** Set fog density (exp and exp2 modes)
 - * **Start & End** Set fog start and end dist (linear mode)
- **Asset Scripts** Enable JS scripts for room
 - **Script 1-4** Set path to Asset Scripts (use absolute paths, up to 4 scripts supported)
- **Global GLSL Shader** Set a global GLSL shader for the room
 - **Frag Shader** Set path to Fragment Shader (use absolute paths)
 - **Vertex Shader** Set path to Vertex Shader (use absolute paths)
- **Lock Room** Lock room from edits

3.6 Multiplayer Server

- **Default Server** Use the default server specified in Janus
- **Server** URL to the server
- **Port** Port of the server

3.7 Debug

- **JanusVR** enable debug mode

4.1 The texture doesn't load

Consider using the Wavefront .obj format for now. Currently, only textures with the Source: Single Image is supported.

4.2 The objects are loading slowly

Consider running IPFS locally, or disabling IPFS.

4.3 The objects are rotated incorrectly

Use Apply Rotation under export options

4.4 The objects are scaled incorrectly

Use Apply Scale under export options

4.5 I used it and it messed with all my rotations and scales

Turn off Apply Rotation and Apply Scale under export options

4.6 Getting errors about file paths

Always use absolute paths, either disable “use relative paths” under user preferences or unclick the relative path checkbox when selecting your file.

CHAPTER 5

Indices and tables

- `genindex`
- `modindex`
- `search`