Arkio plugin for Unity

Version 1.3.0

Thanks for using Arkio, a collaborative spatial design tool for VR, desktop and mobile devices. This plugin allows users to share 3D scenes between Arkio and Unity using exported GLB files. The "Arkio" menu under "Tools" has all commands for importing and exporting your Unity scene to Arkio and back.

Using our Unity plugin you can easily import your Unity scene with all the visible GameObjects and Prefabs. You can edit, move or add new geometry on this scene from your Arkio on any device and invite others to join you. Once you are done with your changes the scene can be exported back to Unity to import the new geometry or update the original GameObjects and Prefabs to their new location/size.

Exports from Unity can be done to Arkio locally on your PC or to the cloud for easier uploads to mobile devices like the Quest or your phone. Once your Unity scenes are loaded in Arkio you can plan a meeting by inviting others and exploring designs with your team.

Importing models from and to Unity requires a Plus, Pro or Enterprise license of Arkio. You can learn more about our paid licenses on our website and can start a free trial from Arkio to try this feature.

1. Online help

Support page: https://support.arkio.is/hc/en-us/articles/4848060548113
Video tutorial: https://vimeo.com/manage/videos/677631487/b276565c55

2. Setup

The latest Arkio plugin for Unity can be downloaded and installed from the Unity Asset Store.
Once installed a Tools/Arkio menu will appear on the top Unity toolbar.

You can download Arkio for free on various devices on https://www.arkio.is/download and can
learn more about working with Arkio on https://www.arkio.is/learn and https://support.arkio.is

3. Unity to Arkio on PC

Export your current Unity scene with all visible GameObjects & Prefabs using
"Tools > Arkio > Export to Arkio PC"
A dialog will show asking to save the scene to store element ID's for later updates.
The scene can now be loaded to [Arkio for Windows](#) following our in-app tutorials.
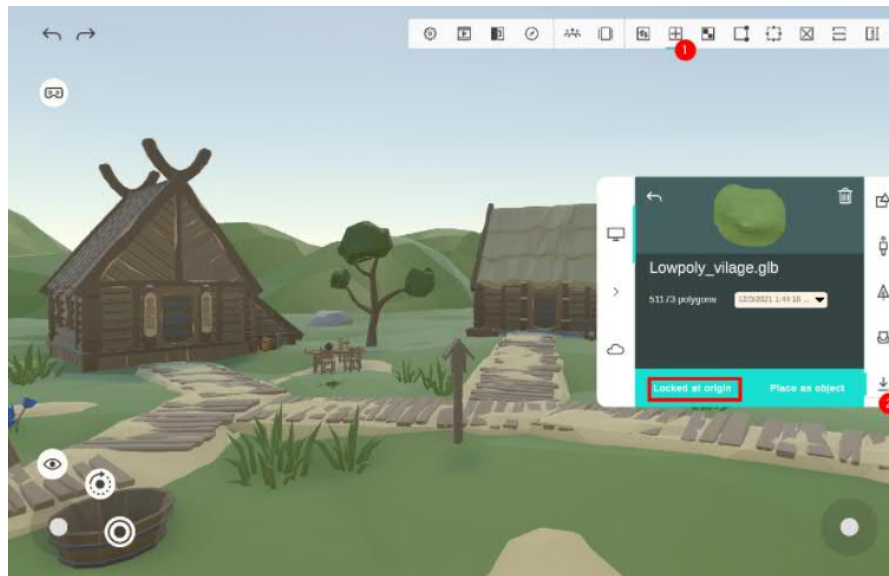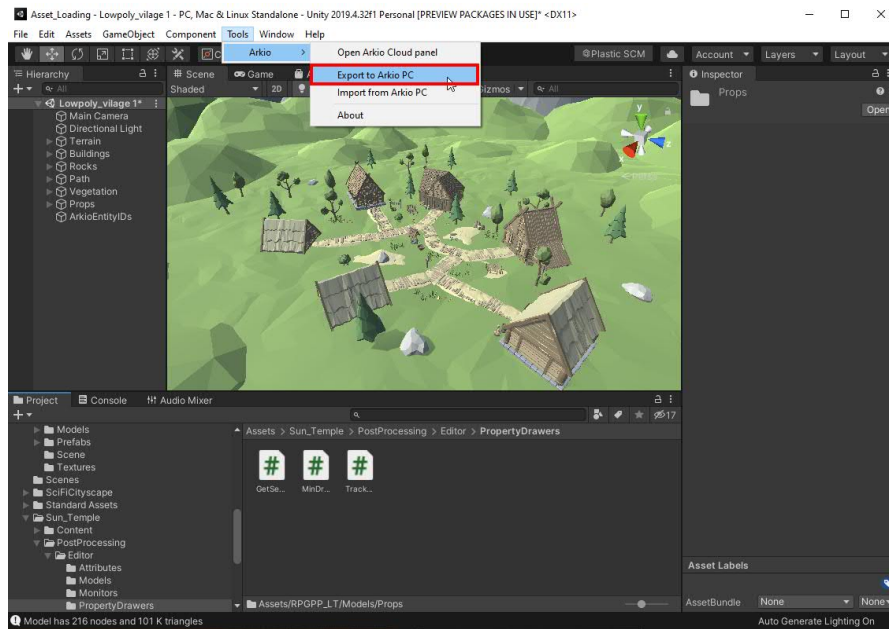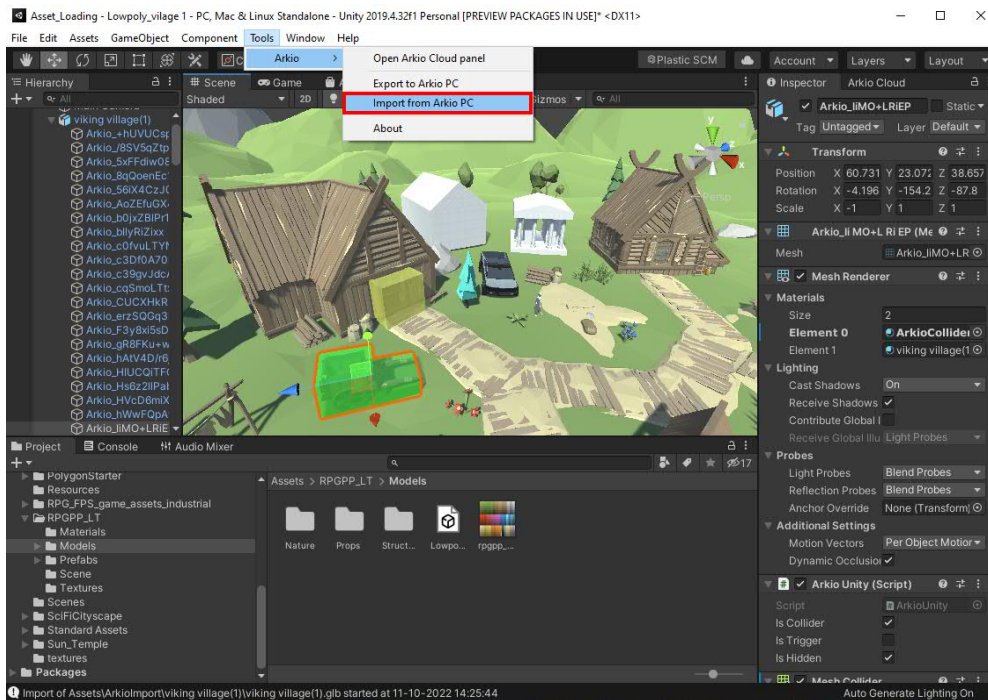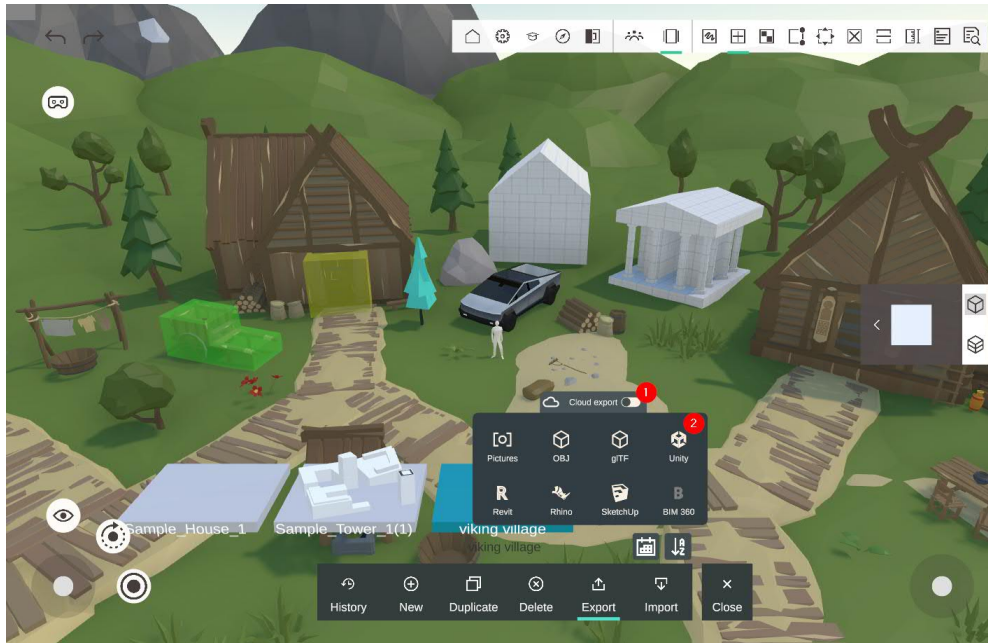
4. Arkio to Unity on PC

To import scenes from Arkio back to Unity select "Tools > Arkio > Import from Arkio PC"
A file dialog lets you browse the desired exported file from Arkio.
On import, new Arkio geometry will be loaded in the scene and existing Unity geometry will be updated to their new position.

See the workflow chapter for more details on the update procedure.

5. Unity to Arkio via cloud

Cloud exports allow access to your files directly from Arkio on mobile devices like the Meta Quest or your phone and tablet. You can link the Arkio plugin using a 6-digit invite code generated on https://cloud.arkio.is/ that can be filled on "Tools>Arkio>Open Akio Cloud panel"
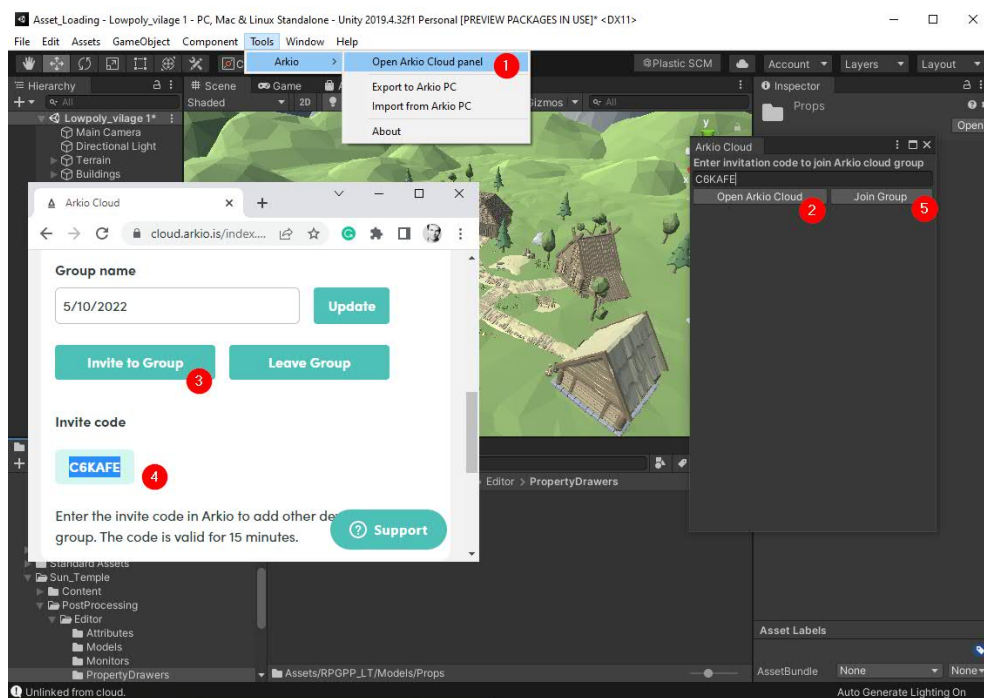

After linking, you can export your current Unity scene using the "Upload active scene to Arkio Cloud" button on the Arkio cloud Unity panel.

You can fill in the 6-digit group Invite code in Arkio in the Create>Cloud>Arkio Cloud tab. After Linking your latest uploaded scenes from Unity should automatically download and can be placed in the scene. More on this can be found on our Cloud import & export page

6. Arkio to Unity via cloud

You can export the Arkio scene to Unity from any device by linking both Unity and your device to the same cloud group (if not already done) And then export from the Scene overview with the Cloud export toggle on the top turned on.
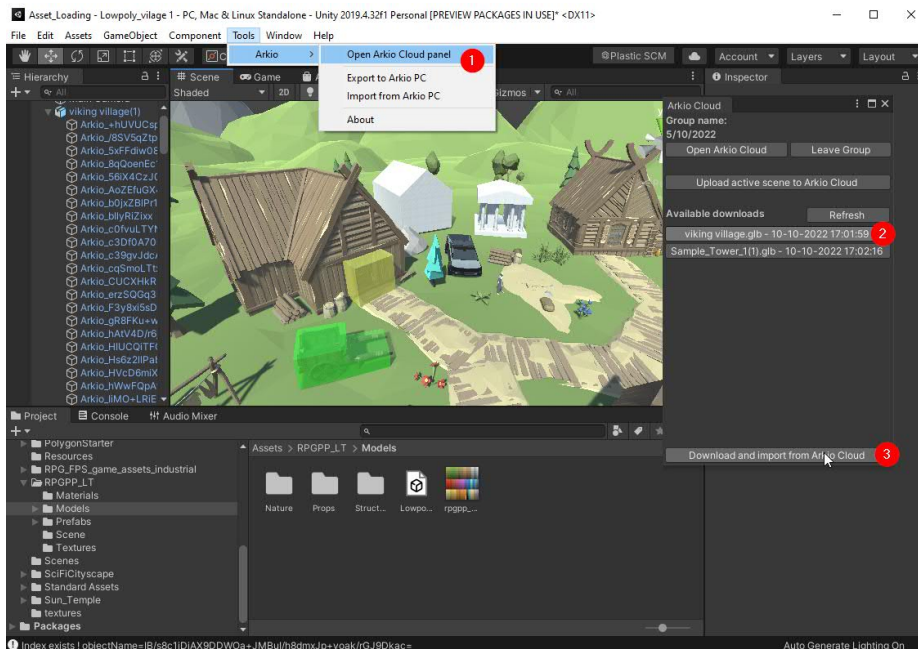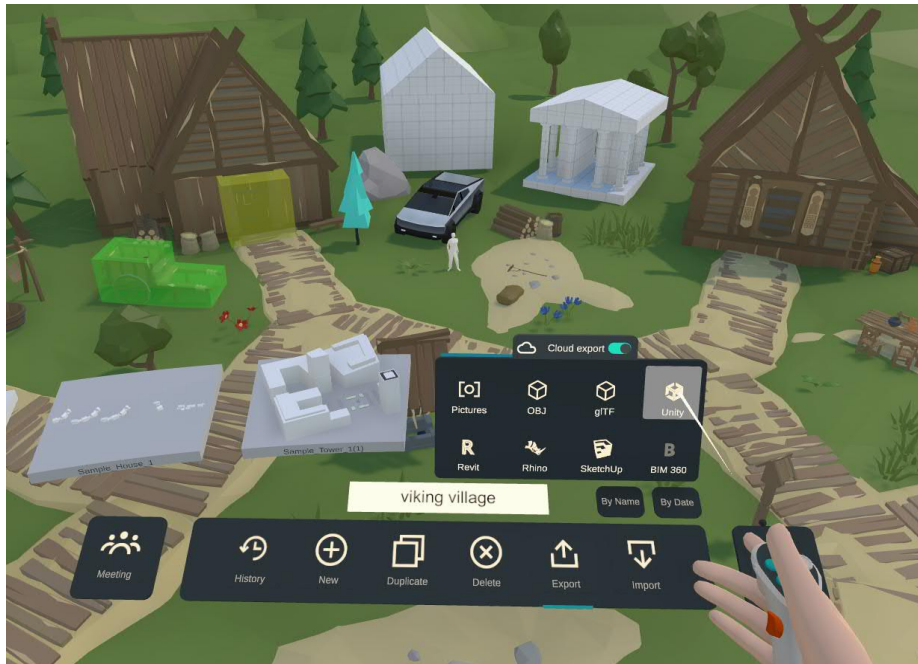
7. Workflow

All visible meshes in your Unity scene will be exported to a GLB file that will be used as the intermediate exchange file between Arkio and Unity.

- GameObjects will be imported as individual Arkio objects
- Geometry inside Prefabs will be combined into a single Arkio object
- For optimal performance make sure the scene isn't larger than 1000 GameObjects or 500K triangles

When exporting Arkio models back to Unity we pack all the geometry and imported meshes and textures into a GLB file that can be loaded back to Unity.

- Newly added Arkio geometry will get the name (Arkio_...) and existing Unity GameObjects/Prefabs that made a round trip from Unity>Arkio>Unity will be named (Unity_…)
- All the geometry from Arkio will be converted to meshes with the materials and textures embedded
- The existing Unity geometry in the scene will be compared and updated by transform, rotation and scale to the re-imported Unity (ghost) objects. After this update, the duplicated ghost objects will be hidden inside the GLB prefab to avoid duplicates.
- Arkio primitive shapes painted with the Unity collider and trigger materials will have a script attached that hides the shape on runtime and can be extended with your own custom behavior

8. Special Arkio Unity materials

Inside Arkio you can create special geometry that will create collider and trigger areas when imported back into Unity. You can find these in the "Special" tab in the materials drawer. The Unity collider material will convert the Arkio geometry to Unity colliders that could be used for various bounding volumes and the Unity trigger material could be used to draw trigger zones and shapes for Unity. The Unity materials can be applied to all arkio base geometry in the scene. You can also select this material then create new geometry using Arkio primitives.
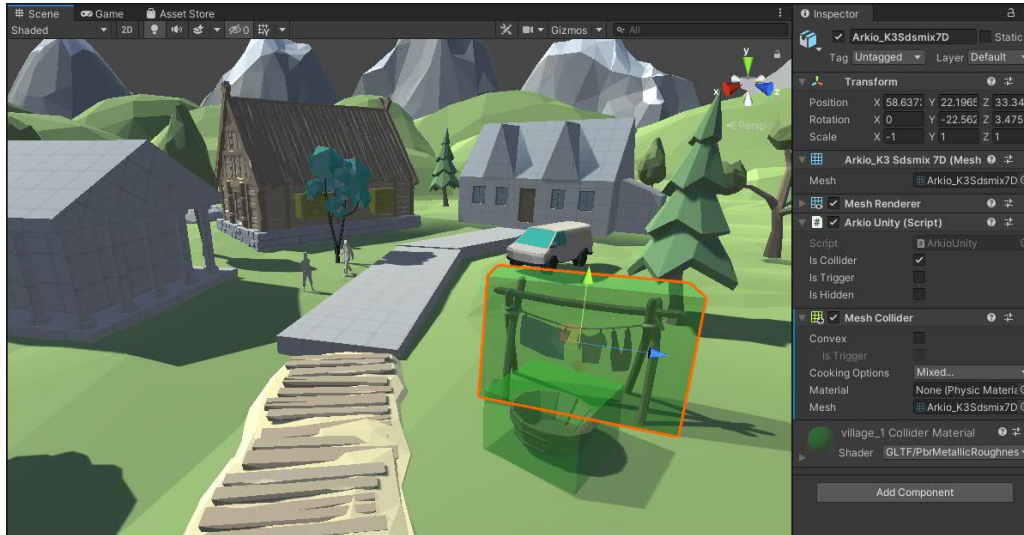
Any geometry tagged with this special material will be visible in the Unity editor but become invisible at runtime through the use of a script attached to the game object. You can customize the behavior of this material by editing this script for your own usage.

9. Known issues

- Export maximum set to 2000 GameObjects. Avoid exporting scenes larger than 1000 objects as it could lead to performance and loading issues in Arkio on mobile devices.
- Custom shaders may not translate correctly to Arkio, use standard Unity materials if your textures fail to import
- Unity terrain is not exported to Arkio (Warning is shown when exporting terrain)
- Unity>Arkio currently only supports exporting of uniform scaled game objects
- Round trips from Arkio>Unity>Arkio skip importing/updating Arkio originated solid geometry to prevent duplicates

10. Troubleshooting

If you are experiencing problems with the Unity imports taking too long it's likely caused by the complexity of your scene for your device. The files need to be manually removed from the Import folder and resources for Arkio's resource system to operate as expected again.

11. Contact

If you have any further questions don't hesitate to contact us: support@arkio.is

Regards
The Arkio team