OMI glTF Working Group Meeting 8/18/2022 #102

robertlong started this conversation in **General**

robertlong on Aug 11, 2022 Maintainer edited

This meeting will be on 8/18/2022 at 10:30 PM (UTC) / 2:30 PM (PST) in the OMI Discord within the #omi-weekly-meeting channel. During the meeting, we will be using the #omi-gltf-extensions channel to manage a speaker queue, post links, and for any sidebar discussions.

To be notified of this meeting and others, subscribe to the OMI Meetings and Events Calendar or add yourself to the @omi-gltf-subgroup role in the #roles channel of the OMI Discord.

Agenda:

- Khronos Group presentation next Wednesday
- SIGGRAPH Update
- glTF Transform Updates
- KHR_audio Feedback
- OMI_collider
- OMI_id / OMI_ref
- Lightmap / baking / instancing
- Show and tell
- Create next weeks agenda

To propose another item for the agenda, comment below (preferably before the meeting).

↑ 1

3 comments Oldest Newest Top

robertlong on Aug 18, 2022 Maintainer Author edited

Notes

- Presenting KHR_audio to Khronos Group next Wednesday
- SIGGRAPH
  - Possible collaboration between VRM Consortium and Khronos through MSF to do technical review of the spec
- We should push on Khronos to merge the UnityGLTF branch from Needle Tools
- Alternate path is unity asset bundle loader https://gitlab.com/lox9973/uvw.js/
- glTF Transform
  - Working on extensions in ThirdRoom https://github.com/matrix-org/thirdroom/tree/gltf-transform-instancing/src/asset-pipeline

  - We should add a function for converting nodes named `_col` or `_collider` from OnCyber / Godot to `OMI_collider`
  - https://twitter.com/donrmccurdy/status/1559860087178641408
- UnityGLTF
  - Also working on UnityGLTF extensions for lightmaps, colliders, and audio
  - Will open source the Thirdroom UnityGLTF extension code
- Lightmap Extension should not remove lights it should add tags to signify whether they should be realtime, mixed, or baked. If the runtime doesn't support lightmaps it'll fall back to realtime lighting.

↑ 1 0 replies

futuristudios on Aug 18, 2022 Collaborator

video recording of call on ipfs.

↑ 1 👍 1 0 replies

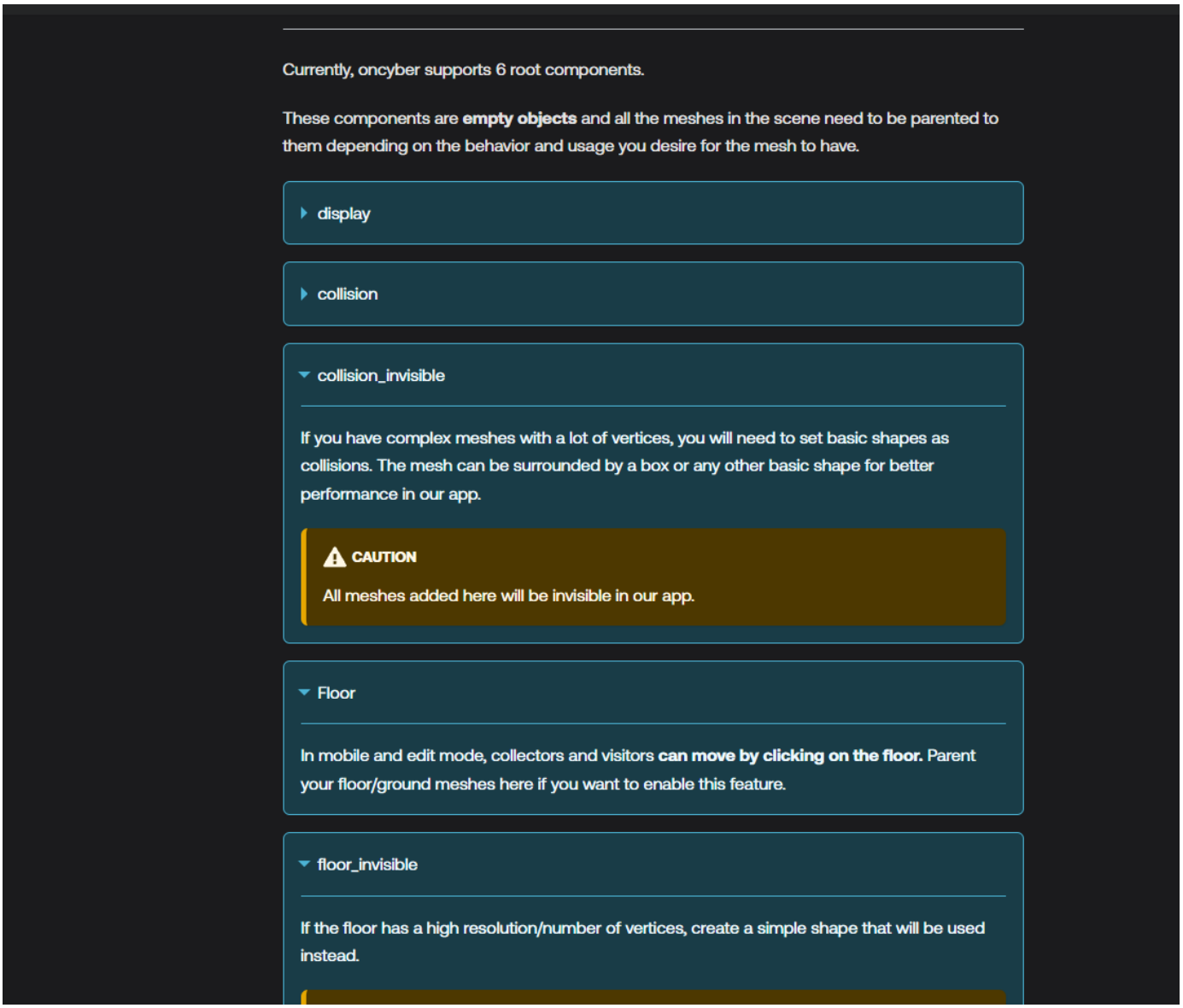
madjin on Aug 19, 2022 Collaborator

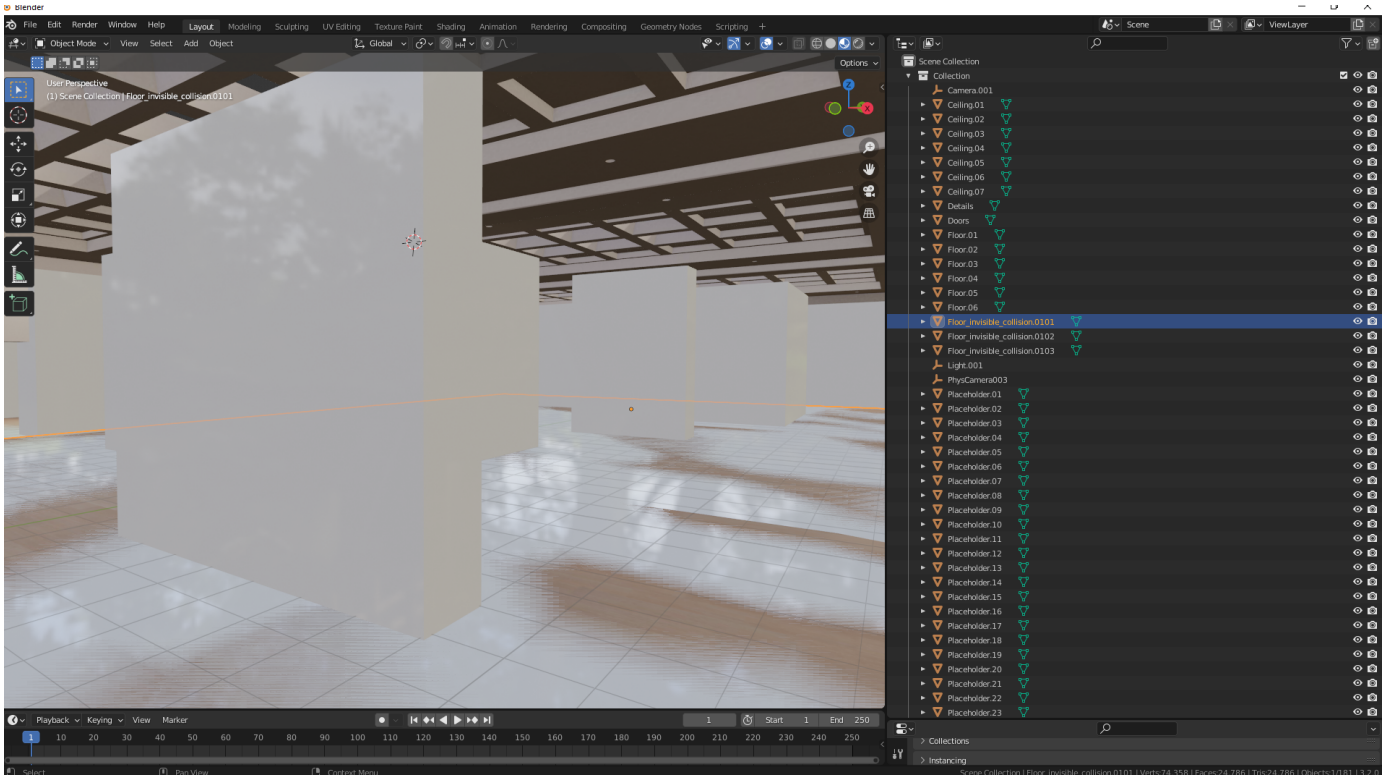
While disscussing OMI_collider we started chatting about name schemes, oncyber and hyperfy are currently using such for worlds, Godot has special names like -col

oncyber

> These components are empty objects and all the meshes in the scene need to be parented to them depending on the behavior and usage you desire for the mesh to have.

https://docs.oncyber.io/architects/getting-started
https://oncyber.io/uploader
https://gltf-viewer.donmccurdy.com/


Currently, oncyber supports 6 root components.
These components are **empty objects** and all the meshes in the scene need to be parented to them depending on the behavior and usage you desire for the mesh to have.
display
collision
collision_invisible
If you have complex meshes with a lot of vertices, you will need to set basic shapes as collisions. The mesh can be surrounded by a box or any other basic shape for better performance in our app.
CAUTION
All meshes added here will be invisible in our app.
Floor
In mobile and edit mode, collectors and visitors **can move by clicking on the floor.** Parent your floor/ground meshes here if you want to enable this feature.
floor_invisible
If the floor has a high resolution/number of vertices, create a simple shape that will be used instead.


File Edit Render Window Help
Layout Modeling Sculpting UV Editing Texture Paint Shading Animation Rendering Compositing Geometry Nodes Scripting
Object Mode View Select Add Object
Global
Options
User Perspective
(1) Scene Collection | Floor_invisible_collision.0101
Scene
ViewLayer
Scene Collection
Collection
Camera.001
Ceiling.01
Ceiling.02
Ceiling.03
Ceiling.04
Ceiling.05
Ceiling.06
Ceiling.07
Details
Doors
Floor.01
Floor.02
Floor.03
Floor.04
Floor.05
Floor.06
Floor_invisible_collision.0101
Floor_invisible_collision.0102
Floor_invisible_collision.0103
Light.001
PhysCamera003
Placeholder.01
Placeholder.02
Placeholder.03
Placeholder.04
Placeholder.05
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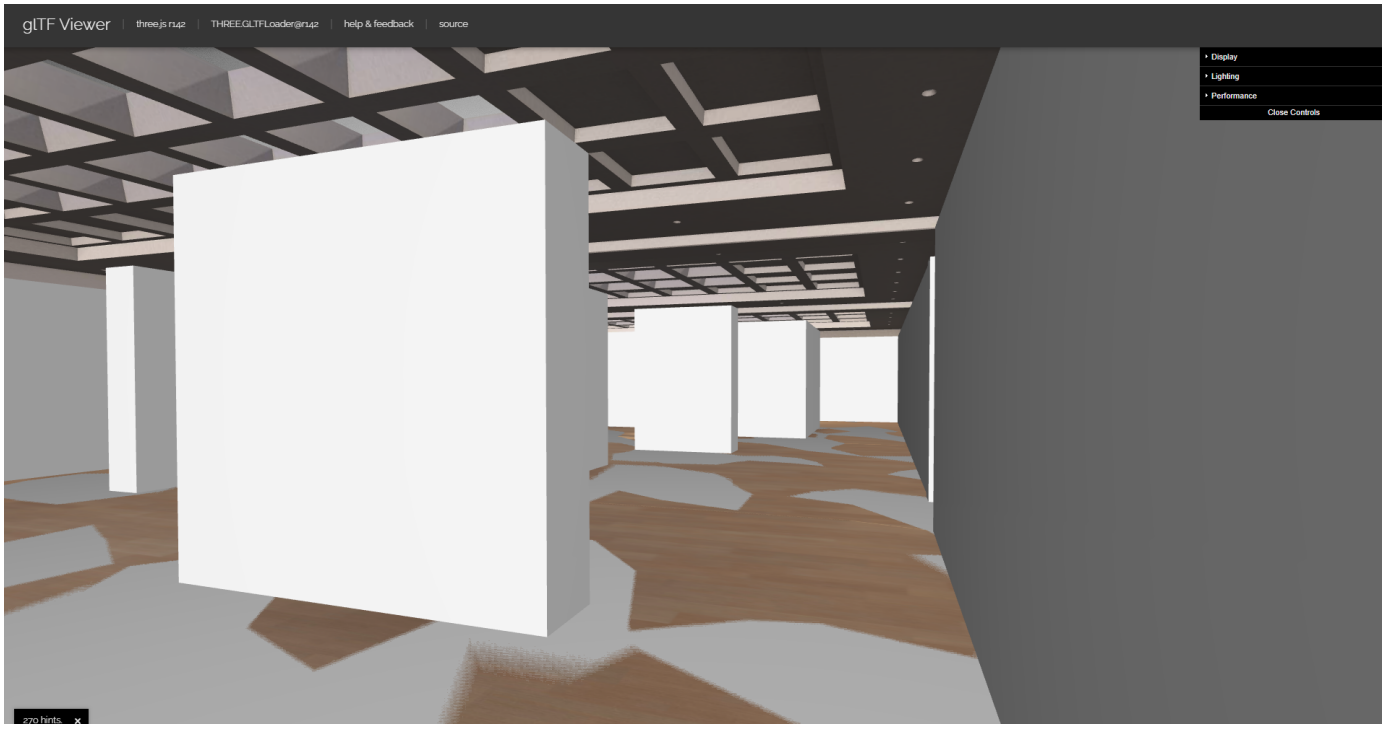
Placeholder.21
Placeholder.22
Placeholder.23
Collections
Instancing
Playback Keying View Marker
Start 1 End 250


glTF Viewer
three.js r142
THREE.GLTFLoader@r142
help & feedback
source
Display
Lighting
Performance
Close Controls
220 hints

hyperfy

https://docs.hyperfy.io/3d-models#how-do-i-add-colliders

How do I add colliders?

By default your meshes will not be collidable and you will walk (or fall) right through them.

To add colliders, there are two options depending on the kind of mesh you have:

1. If you add `_collider` to the name of your mesh, it will also be used as a convex collider.
2. If you add `_xcollider` to the name of your mesh, it will only be used as a convex collider (it wont be rendered).

NOTE: Apply your transforms! If your colliders show up in the wrong place inside Hyperfy you likely scaled them. Click `Object -> Apply -> All Transforms` to reset them.

The following examples demonstrate when to use one or the other:

- If your mesh is a simple cube then it is already low-poly and convex, so you can just append `_collider` to the name of your mesh and voila!
- If your mesh is a curved wall then it won't be convex, so you'll need to create a few convex shapes to follow the curve of the wall and label them with `_xcollider` so that they aren't rendered.
- If your mesh is an entire house then you'll need to place some extra cubes in the scene in the same position as each wall or floor etc, and label them with `_xcollider` so they don't get rendered.

When using `_xcollider` meshes, its worth going to `Object Properties -> Viewport Display` and setting `Display As` to `Wire` so that they don't get in the way in blender. You could also add all your invisible colliders to a Collection to easily show/hide them all at once.

↑ 1 0 replies

Category

General

Labels

None yet

3 participants