Interacting with 3D Models

Intro

Hi, Welcome to the iSee tutorial series.

In this tutorial we will go through all the ways you can create and interact with 3D models in iSee.

Different Model types

There are three types of interactive 3D models in iSee; universal models, zone-specific models, and custom or imported models.

The 3D Models menu is located in the top right of the iSee window.

Here you will see a tab for each of the types of models, as well as a couple of other tabs, which we will cover later in this video.

There is a small library of universal models that come with iSee. You can add these models anywhere without any loading time and they will appear for everyone else instantaneously.

Zone-specific models are custom models that come with the zone you are in, and may be updated or added to at any time by the zone developers. This cuts out the load time of these models, and allows a certain amount of optimization of the model in iSee.

Custom models are models that have been imported from a file by a participant. These models take a moment to download and unpack when you enter a zone before they are displayed, so you may see a loading placeholder model as they do this.

Any custom models you have come across or imported in the session will be placed in the “Custom for Session” section of the 3D Models menu. You can place them in the environment without having to import or download them again.

Placing a model

To create a model, either select one from one of the first three tabs and click Confirm, or double click the model. You can also Import a custom model from the Import Model tab, which we will cover in the next section.

This will create a placeholder of the model at your cursor so you can preview it before it is placed in the environment. Note that the preview is not visible to other people.

The placeholder will stick to surfaces and orient itself depending on the angle of the surface. If you can't get the placement exactly right, just place it close enough as you can modify it after.

You can place the model by left clicking. If you click and hold while placing, you can rotate the model before it is placed. Once you release left click, the model is placed for everyone to see!

You can cancel placing a model at any time by right clicking anywhere.

Importing

To import your own 3D model, go to the Import Model tab of the 3D models menu.

First select whether you would like to make the imported model solid or not. A solid model will interact with the physics of the environment, making it so you can jump on it like a platform and prevent you walking through it like a wall. A non-solid model is like a hologram.

Select the model file you wish to import. iSee supports common file types like FBX, OBJ and GLB. These cover most of the models you will find on 3D model websites and models created in applications such as Microsoft Paint 3D, Tinker CAD and Blender. You can see a full list of supported files in our technical guide to models which will be linked in the description.

Once the file has been imported and packaged, it will be displayed in the model preview. Note that there are various size limits placed on custom models to reduce the performance impact of larger models for all participants.

If your model exceeds these limits then you will not be able to import the model. The technical guide mentioned earlier contains these limits and some guides on how you can reduce your model size.

Now that you have imported the model, click Confirm to place it in the environment as described in the previous section. Note that an imported model isn't synchronized until it is placed, so you will see a loading model placeholder while it is synchronized.

Cloning

If you want to quickly create a copy of a model that is already in the environment without going through the 3D objects menu, you can do so by cloning the model.

To clone a model, you can either; right click a model and select Clone, or select a model and press Control + C on the keyboard.

This will create a placeholder of the cloned model at the cursor, ready to be placed as described in an earlier section.

Moving and Modifying

Once a model is placed in the environment, it can be moved and modified to better suit your needs. Start by selecting the model you want to modify by left clicking on it, which will display the selection frame.

You can move a selected model in two different ways:

Click and drag on any part of the selection frame other than the shapes to move the model in snap mode. This is the same sort of movement as when the model was placed.

The second method is by clicking and dragging the Free move square in the middle of each face of the selection frame. This will move the model in any direction along the plane of the face you are dragging.

You can resize a model by clicking and dragging the resize cube on each corner of the selection frame. This will scale the model larger or smaller in relation to the direction you are dragging.

You can rotate a model by clicking and dragging the spheres located on each edge of the selection frame. This will rotate the model around the axis of the edge you selected, in the direction you drag the mouse.

All movements and modifications to a model are synchronised with others when you have released the mouse click. They won't see any changes until then.

Deleting

To remove a model from the environment, you can either select the model and press delete on the keyboard, or right click a model and select delete.

If you delete a model accidently, simply add it back from the universal, zone specific or custom for session tabs before leaving the session.

Host Controls

There are a few controls available for users with the appropriate permissions for the session. These can be found in the Host Controls tab of the 3D models menu.

Here you can delete all models from the current zone, delete all the models across all zones in the session, and freeze all models.

The freeze all models control freezes and unfreezes the creation, modification and deletion of all models in the session, for all users. The only exception to this is the two delete controls in the host controls tab, which will still delete all models even when models are frozen.

The freeze all models control has a persistent state. This means that you can enter a session, place some models, freeze them, and then leave. When you or anyone else enters the session, all the models in that session will still be frozen, and no-one will be able to add any more, until someone with host access unfreezes them.

Outro

This concludes the "Interacting with 3D Objects" tutorial. In the next tutorial, "Advanced controls for session hosts", we will cover some of the more advanced controls for interacting with, and managing other participants in your session.