Cyclops Asset Options

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Introduction

There are two different options to get assets into Cyclops:

1. FBX/OBJ Import
2. Cyclops native DLC files.

This document is to help explain the differences between the two options.

Before we get to that, it is important to understand that there are two different "asset types" that Cyclops can load:
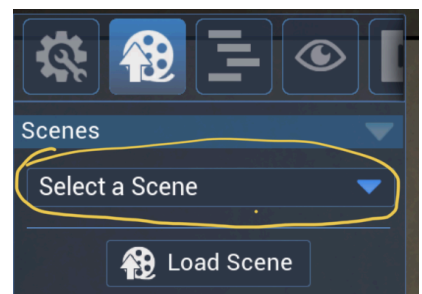
Placeable Assets

These are any assets that you want to "place" into the world/scene/shot in Cyclops and then move or manipulate around in the real-world. Placeable Assets can include characters, creatures, vehicles, props, and set-dec. Placeable Assets show up in the Asset pull-down menu in Cyclops and are added to the world with the Place Asset tool. You can add as many Placeable assets as you like. FBX/OBJ Import and DLC files both support Placeable assets. Placable Assets can be loaded/placed in all Modes in Cyclops.
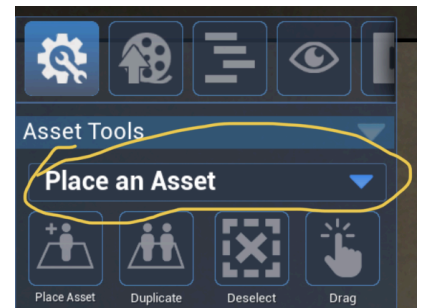
Scene Assets

Cyclops Scene Assets are usually an entire scene or shot with multiple models, animation, lighting & FX. Scenes are used when you want to do set top-ups, set extensions, bluescreen replacements, animation that needs to be confined to a set, Virtual Camera previs scenes, or virtual scouting. You can only have 1 scene loaded at a time. Scene Assets show up in the Scene pull-down and are loaded with the Load Scene tool. Scene Assets can only be loaded from DLC files. Scene assets can not be loaded when you are in Asset Mode in Cyclops.

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FBX/OBJ Import

Cyclops has a simple FBX/OBJ Import feature. This feature will allow users to import simple OBJ or FBX polygon models into Cyclops and use them as placeable assets. While this feature works well for simple models, it has limitations and does not handle large, complicated, or animated files.   The models can be added to the world using the **Place an Asset** tool in the main Asset Tool Tab.

The FBX/OBJ Import feature works well in **Asset Mode** in Cyclops. This is where you are placing a few individual assets into the real world. Assets can be things like characters, creatures, vehicles, ships, buildings, etc. They don't work very well for environments with multiple polygon objects. FBX/OBJ file with multiple polygon objects will be combined into a single object in Cyclops.

The FBX/OBJ Import feature does not work well for entire "scenes" consisting of multiple objects. FBX/OBJ Import only supports polygon models. It does not support animation, joints, lights, or cameras. The polygons in your model need to be fairly clean.
Please consult this guide for more information
https://cyclops.thethirdfloorinc.com/wp-content/uploads/2022/11/Cyclops-Model-Import-Complete-Guide.pdf

Great for individual objects.
Pros:

- You can do it yourself with Blender/Maya or any other 3D software that can export OBJ or FBX
- fast
- easy
- cheap
- works best if all the geo is combined into a single mesh object before importing

Cons:

- No animation
- No skeletons (rigged characters)
- No Blendshapes
- No Lights
- No FX
- Limited material support
- No alpha channels on textures
- Triangle max: 750k (depends on hardware)
- Texture size max: 1k
- Cyclops might be unhappy with your FBX.
- It is not great for environments consisting of many separate FBX object
- Should be a single polygon model

DLC files

Cyclops can also load native assets/scenes as DLC files. DLC files are exported from Unreal using our proprietary UE Plugin. Native Cyclops DLC files can support many more features and be higher quality than models imported directly into Cyclops. As mentioned above DLCs can support both Placeable Assets and Scene Assets.

Placeable Assets in DLCs can support many more features compared to FBX/OBJ imported models. DLC Placeable Assets can have joints, animation, FX, transparency, & blendshapes. They have a higher max polygon limit.   They can support a wide range of materials including translucent, PBR textures, and higher-resolution texture files. In Unreal terms, Placeables can be any Actor type including Static Mesh, Skeletal Mesh, and Blueprint Actor class. While a Placeable asset can made up of multiple objects in UE, when Placeables are Placed into a scene in Cyclops they are treated as a single object.

Only DLC files can support Scene Assets in Cyclops.   Scene Assets, as their name suggests, are an entire scene file as opposed to a single "actor".   Scene Assets can consist of many hundreds of individual models/assets. These are all treated separately when loaded into Cyclops. In Unreal terms, Scene Assets are Levels/Maps. They can include layers, sub-levels, & sequencer animation. Most everything that can be added to a Level in Unreal will work in Cyclops.

Great for individual objects & environments.
Pros:

- Animation
- Skeletons
- Blendshapes
- Lights
- FX, UE Niagra & Cascade
- supports nearly all UE material functions
- Triangle max (Scene): 8million (depends on hardware)
- Triangle max (Placeable): 1 million (depends on hardware)
- Texture size max: 4k
- supports, UE Blueprints
- Great for Envs. Lights, fog, PPV
- Supports scenes with many individual assets.

Cons:

- generally takes longer to get into Cyclops (more steps and more options)
- Requires our Unreal Plugin to export the Cyclops DLC files OR you can send us your 3D assets and we can deliver the DLC files back to you.
- Not as cheap as FBX/OBJ

Please consult this guide for more information on DLC files and Scene Assets.
https://cyclops.thethirdfloorinc.com/wp-content/uploads/2022/11/Cyclops-DLC-Asset-Guidelines.pdf

Creating DLC files:
Our Unreal Cyclops Plugin is required to create Cyclops DLC files. There are two options for this:
1. Send us the 3D assets and we can send you back the DLC files that you can load into Cyclops
2. Get a license to use our Unreal "Cooker" Project to create your own DLC files.

We offer the Cyclops Cooker as a monthly license. If you are interested, we'd be happy to discuss the pricing options with you.

Choosing the best method

As you can see from the above, DLCs are technically far superior to FBX/OBJ imports. However, they come with a monetary cost.

The best option will depend on your needs and budget. If you are simply looking to add a couple of models to the real world and are comfortable with creating 3D assets then FBX/OBJ Import can work very well for you. If you are looking to do something more complex then you should really be using DLC files.

We have built Cyclops for VFX professionals working on medium to large-budget productions.   For users on micro to small productions, the cost of our services and/or the Cooker License may be prohibitive. For those users, we have the FBX/OBJ import option.

Cyclops App Pricing:
While in Beta, you can basically use Cyclops for free, However, early next year, the Cyclops app will be available in the Apple App Store on a subscription basis. While we have not made any final decisions on costs, there will be multiple feature tiers and multiple subscription lengths.

That all being said we are always very interested in hearing feedback on our product options and pricing structure. We appreciate that there may be a segment of the market that we are missing. Any feedback is greatly appreciated.