Emerald Object Library | MSFS 2024
v25.9.2 | September 2, 2025

Product Information

Emerald Object Library (EOL, for short) is a collection of models produced by Emerald Scenery Design. This library is designed for and primarily intended to be used with Emerald Scenery Design addons!

However, as of June 10, 2021, these libraries may now be referenced by other developers in their **freeware** addons! Developers, please read the terms of use!

Installation

If downloaded from a website

Unzip the downloaded **.zip** archive.

Make sure that Microsoft Flight Simulator 2024 is not running! Once unzipped, the included "**esd-modellib-eolib**" folder should be placed into your MSFS 2024 "Packages\Community" folder. The library will load the next time you start the sim!

If downloaded from Marketplace

Once the addon has finished installing, you may need to restart Microsoft Flight Simulator 2024 in order for the scenery to load and display correctly!

This is the case for *every* addon downloaded through Marketplace, whether you are on PC or Xbox.

Distribution

Emerald Object Library is only available to download at emeraldscenerydesign.com, flightsim.to, and on MSFS Marketplace. If you find this addon uploaded anywhere else other than these three sources, please report it on Discord or through the following form. Redistribution of this addon is forbidden!

Dynamic SimObjects

Emerald Object Library contains SimObjects that may only be visible if certain conditions are met. This section lists these objects and their conditions for your reference.

See list on next page.

Fauna

Alligator (WorldScript)

Will react to the user aircraft if you get too close!

Bears (WorldScript)

Black & Grizzly Bears are only visible when the ambient temperature is above 32°F (0°C).

Butterflies

Alaska

Alaska Butterflies are only visible from May through September and will not show up during Rain or Snow.

United Kingdom

UK butterflies show from April through October, however each variation has it's own time-frame:

Red Admiral: April-October
White Admiral: July-August
Large Blue (Rare): June-July
Painted Lady: March-October

Frog

Appears when Rain has been reported in the area.

Fox (WorldScript)

Plays a call roughly every 6 minutes.

Wolf (WorldScript)

Changes to a winter coat when the ambient temperature is below 32°F (0°C).

VFX

Chimney Smoke/Campfires

Chimney Smoke and Campfire VFX are only visible once temperatures fall to 50°F (10°C) or less.

SFX (Wwise)

***Dev Note:** All require "ESD_CTRL_Dynamic" WorldScript!*

Downy Woodpecker

Audible from Dawn to Dusk, but not when Rain or Snow is reported. Randomly switches between call and drumming sounds.

Great Horned Owl

Audible at Night, but not when Rain or Snow is reported.

Junco & Fox Sparrow

Audible from Dawn to Dusk, but not when Rain or Snow is reported.

Cicadas

Audible during the Day, from May through July, but not while Raining or Snowing.

Environmental

Morel Mushrooms

Only visible from May through July.

Snow Berms

Appear when snow depth has been reported on the ground. ***Dev Note:** Requires "ESD_CTRL_Dynamic" WorldScript!*

Water Puddles

Appear when Rain has been reported in the area.

ESD_CTRL_Dynamic (WorldScript)

Developers must place this WorldScript in their project when using some of the dynamic features listed above. This bypasses some limitations imposed by the SimObject and Wwise XMLs. Without it, features will not act as they should.

Deprecated/Depreciated Assets

Deprecated = These assets are not used internally and are not planned to be updated in the future. If currently used, they should be considered for replacement. They will likely be removed in the future.

Depreciated = These assets are being phased out internally because they have been replaced with a better alternative. This mostly applies to Emerald Object Library for MSFS 2024, where some assets are better replaced with default sim assets due to either quality or functionality. These assets will likely not be removed from the library, but it is encouraged to not use them.

Deprecated (2024)

- Anm_Cow_Black_White
- Anm_Cow_Brown_White
- Veg_Grass1_2_Legacy
- Veg_Grass1_Group_Legacy
- Veg_Grass1_Legacy
- Veg_Grass2_2_Legacy
- Veg_Grass2_Legacy
- Veg_Grass3_2_Legacy
- Veg_Grass3_Legacy
- Veg_Pinecone1
- Veg_Pinecone2
- Veg_Plant_Tropical_01
- Veg_Plant_Tropical_02
- Veg_Plant_Tropical_03
- Veg_Plant_Tropical_04
- Veg_Plant_Tropical_05
- Veg_Plant_Tropical_06
- Veg_Plant_Tropical_07
- Veg_Plant_Tropical_08
- Veg_Plant_Tropical_09
- Veg_Plant_Tropical_10
- Veg_Plant_Tropical_11
- Veg_Plant_Tropical_12
- Veg_Plant_Tropical_13
- Veg_Plant_Tropical_14
- Veg_Plant_Tropical_15
- Veg_Plant_Tropical_16
- Veg_Plant_Tropical_Group
- Veg_Tree01
- Veg_Tree_Pine_Birch_Group
- Veg_Tree_Pine_Group
- Veg_Tree_Pine_Group2

Credits & Acknowledgments

Emerald Object Library created by Chris "Rotornut44" of Emerald Scenery Design.

A very special thanks to Mykrode and the Got Friends team for their knowledge and contributions in making these libraries and accompanying projects the best they can be!

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https://emeraldscenerydesign.com/support/

Additionally, Emerald Scenery Design would like to thank the following artists for allowing their creations to be included in Emerald Object Library:

The following objects are licensed under Creative Commons Attribution (http://creativecommons.org/licenses/by/4.0/).

- **"Cow"** (https://skfb.ly/DTQH) by Josué Boisvert.
- **"cow"** (https://skfb.ly/6RZ7s) by rocket95.
- **"Forklift low poly"** (https://skfb.ly/onxDM) by Ricardo Sanchez.
- **"Tent"** (https://skfb.ly/6UypT) by alexxx_xarchenko.
- **"Tent"** (https://skfb.ly/6CqqL) by Tactical_Gamer.
- **"Tent"** (https://skfb.ly/6UyAW) by marsh_tt.
- **"Shack"** (https://skfb.ly/SszN) by Scott Rafferty.
- **"Propane Tank"** (https://skfb.ly/6AWtA) by Oliver Triplett.
- **"Furniture Pack For Summer Caffe Free"** (https://skfb.ly/o7Kw6) by Kozlov Maksim.
- **"Tractor"** (https://skfb.ly/6GuHP) by selfie 3D scan.
- **"area 9 golf cart"** (https://skfb.ly/6XWt6) by maxdragonn.
- **"Small Trees"** (https://skfb.ly/oxyMt) by BazukaliKartal.
- **"ﾄﾉｻﾏｶﾞｴﾙ ♀ Pond Frog, Pelophylax nigromaculatus"** (https://skfb.ly/ooPSH) by ffish.asia / floraZia.com.
- **"DOZER0"** (https://skfb.ly/6Zoxs) by raulpatrone
- **"Canoe"** (https://skfb.ly/6XAtM) by EmilyCossette
- **"Alligator"** (https://skfb.ly/oF8MO) by all of life
- **"Low Poly Palms Pack"** (https://skfb.ly/6AZQA) by Rusoski
- **"Piper Pa 28 Cadet"** (https://skfb.ly/LZwT) by helijah
- **"Cirrus SR 22"** (https://skfb.ly/BDCL) by helijah
- **"Piper Pa 18"** (https://skfb.ly/NvEt) by helijah
- **"FK9-Mk2"** (https://skfb.ly/RQwW) by helijah
- **"Socata ST 10 Diplomate"** (https://skfb.ly/B9Kw) by helijah
- **"Modern Hatchback - Low Poly model"** (https://skfb.ly/6WUzy) by Daniel Zhabotinsky

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- **"Pump Jack"** (https://skfb.ly/YJK7) by Renafox.

All models have been altered in some form, be it optimization, changes to the mesh, or new UVs and PBR textures. None of these altered items are to be distributed outside of this pack without written permission.

Change Log

v25.9.2 | September 2, 2025
- Added new materials: Asphalt_Rough.
- Added new models: WaterTank (5 variations), GardenHose (3 variations), TrashCan (4 variations).
- Adjusted volume of Horse Wwise sounds (lowered).
- Adjusted walk speed of Wild Boar to better match animations.
- Fixed Alligator sliding when not placed on level ground.
- Fixed rainbow colors on last LOD of Firewood_Shelter, Shed_Medium, & Shed_Medium2.
- Fixed WaterCalm Wwise SFX only playing interior sound. Adjusted attenuation distance.
- Fixed Wwise sounds being highly dominant in one ear depending on where the emitter is located in 3D space (hard panning).
- Improved LODs: FlowerPot.
- Removed deprecated DistanceToNotAnimate tag in SimObjects.

v25.3.21 | March 21, 2025
This is the initial native release for Microsoft Flight Simulator 2024. It is not backwards compatible with MSFS 2020. You can download that version here!
- Added new models: Grapevine_06m, Cone02, Cone03.
- Added new vertex paint material to give metal roofs of Cabin, Cement, & House building models better reflectivity and shading for a less noticeable LOD transition.
- Adjusted LOD minsizes to switch further from the camera: Bulldozer, Roller, Loader, Excavators, Oak01-08, OakDead01-08.
- Adjusted Palm Tree vertex colors for a less noticeable LOD transition at a distance.
- Adjusted roughness of Tires vertex material for a less noticeable LOD transition at a distance.
- Fixed incorrect wood grain direction on stairs of Cabin08. Also adjusted door glass grunge.
- Fixed inverted normals on light fixture of OutHouse03.
- Fixed Log_Group01-05_2 final LOD vertex color matching.
- Fixed missing grunge on roof of Cement building and Silo_Tall.
- Fixed missing metallic on various roof parts (caps, edges) of Cabin01-07, House01-04, & Cover01.
- Fixed Snow Berm final LOD vertex color being too dark due to misconfigured metallic value.

- Improved Abandoned Cottage: Merged loose model parts, fixed model base elevation, reworked material, added LOD, added collision.
- Improved Airstream Camper: New model with much cleaner geometry.
- Improved Bathroom: Reworked LODs, improved shading, increased lights emissive bloom.
- Improved Bears: New custom model to get away from importing Asobo assets.
- Improved Buckets: Repacked UVs and baked textures, color variations now use vertex paint for reduced texture memory, reworked LODs, added collision.
- Improved Butterflies: New wing flap animation, increased path animation speed to better match wings animation, merged wing backface parts, instanced wing mesh.
- Improved Camper_5thWheel_1 & 2: Improved shading, fixed bake issues due to paint and final UVs being slightly different, reworked LODs.
- Improved Campfire VFX: New smoke texture, tweaked opacity and fade-out, tweaked fire spawn rate, tweaked smoke and heat velocity, fire and sparks are now affected by wind.
- Improved Chimney Smoke VFX: New smoke texture, tweaked opacity and fade-out.
- Improved Fence Divider Left & Right: Reworked LODs, added collision.
- Improved FlowerPot_Plant: Last two LODs now use only vertex paint, fixed XML typo that was causing one LOD to be skipped.
- Improved FuelTank & FuelTank_Extension: Now uses a single texture set, added LODs, added collision, rebaked textures.
- Improved Grapevine_20m: Merged model parts, removed unnecessary material, added LOD.
- Improved Hedges (5 & 20m): Reworked LODs, retextured with tiling textures (higher resolution, less texture memory).
- Improved Horses: New custom model to get away from importing Asobo assets. The White horse has been replaced with a Black variant (Updating the SimObject title would break compatibility with other 3rd party sceneries calling the model).
- Improved Log1: Retextured using tiling textures for better texel density, increased mesh resolution, reworked LODs, added collision.
- Improved Log Stack 1 & 2: Retextured using tiling textures for better texel density, improved shading, reworked LODs, added collision.
- Improved Old Wood House: Fixed model base elevation (floating), reworked material, added LOD, added collision.
- Improved Propane Large: Fixed shading, adjusted material roughness, cleaned up duplicate & stray verts, reworked LODs, added collision.
- Improved Pumpjack: Added LODs, fixed shading.
- Improved Railroad Bridge: Fixed shading, fixed incorrect normal map format, instanced geometry, reworked LODs, added collision.
- Improved StoragePod & StoragePod_Sign: New models with cleaner geometry and better packed UVs, overhauled textures.
- Improved Stump1: Retextured using tiling textures for better texel density, increased mesh resolution, improved shading, reworked LODs, added collision.

- Improved Stump2: Retextured using tiling textures for better texel density, fixed shading, reworked LODs, added collision.
- Improved Well Shack: Fixed missing shading for electric box panel lines, fixed wrong wood grain direction on some roof boards, reworked LODs.
- Removed BurnBarrel VFX: BurnBarrel now uses Campfire VFX.
- Replaced Road Cone with new Cone01 model.
- Reverted SimObjects to call needed templates directly instead of common.xml, as it was loading unnecessary templates.
- Reworked ESD_CTRL_Dynamic script to be more efficient.
- Reworked LODs for Campfire, BurnBarrel, Cabin02-06, Cabin10-15, House01-04, Outhouse03, Beaver, Brick Pile, Block Concrete, Cart Rusty, Doormat, Firewood Shelter, Light Globe, Light_Medium, Light_Tall, Portable, MobileHome01, Dog House, Shed_Medium, Shed_Metal01, Shed_Metal03, Shed_Rusty, Shed_Rusty_Derelict, Shed_Frame, Bld_Cement1-3, Bld_Metal1-2, Potash Tank, Silo Tall, Warehouse, Cart Wood, Bee Hives, Rusty Mustangs, Forklift, GolfCarts, Glider Trailer, Rock01-12, Birch01-04, Pine01-07, Bilberry1-6, BlackLocust1-6, DwarfBirch1-6, SilverDownyWillow1-6, Shrub_Group1-3, GreenAlder01-04, Silverberry01, Willow01-03, Palmetto Group 12m, Log2-4, Driftwood1-2.

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Please understand that the Emerald Object Library is primarily built for and intended to be used with Emerald Scenery Design products. I will add models as I create or acquire them for my projects.

Additionally, please be aware that objects may be updated or, in the worst-case scenario, removed altogether. I try to make these changes as seamless as possible by usually replacing objects rather than removing them. However, no notification of these changes will be published, except in the release change log. So, please give it a quick read after each update!

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