

CGoutset.com

ToOptimize Tools

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How to Install

Just install the zip file through Blender preferences panel

Where it will be after installation?

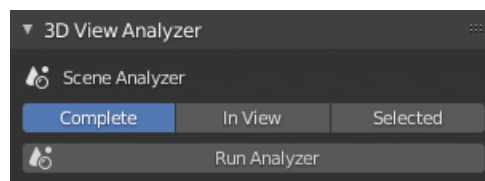
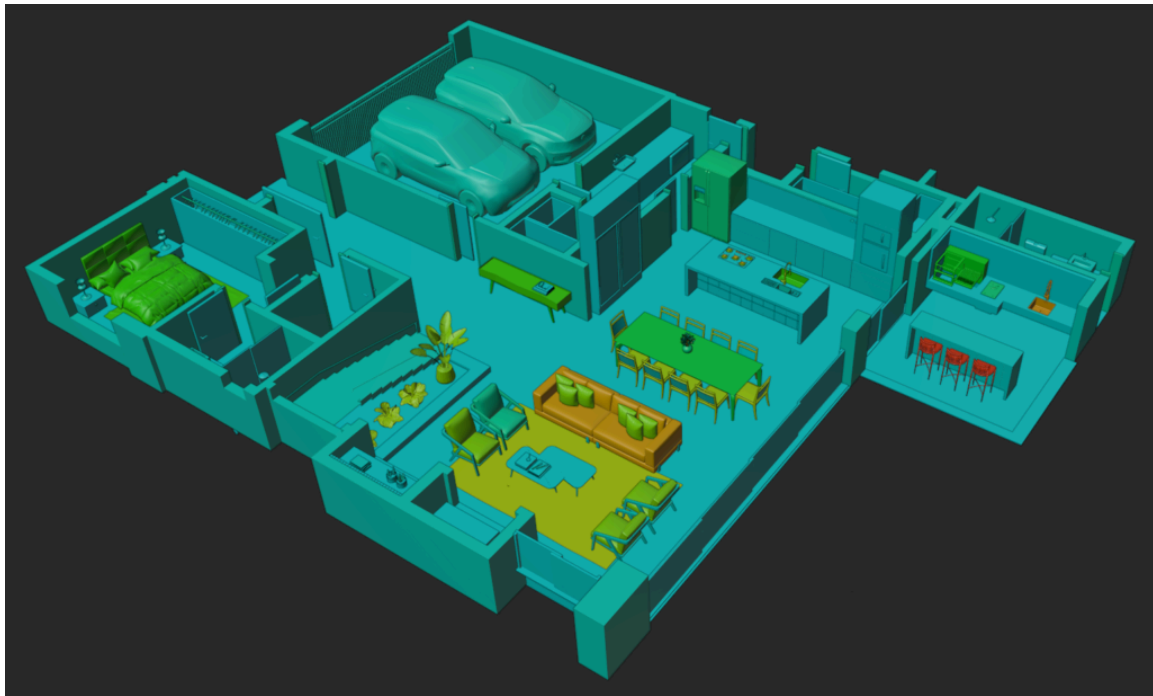
The Addon Tab will be in the sidebar of your 3D Viewport

How to Use

In the next topics, you will understand how to use each feature of the add-on.

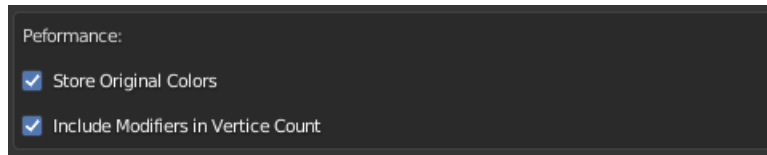
3D View Analyzer

The 3D View Analyzer will change the color of each object (only in the viewport) depending on its polycount. the color difference will be in a gradient way, with blue meaning low polycount, and red meaning high polycount.



Run/Clear – Toggle On/Off the Scene Analyzer

Addon Preferences



Store Original Colors

Store the original color of each object in the scene before using the Scene Analyzer Tool. (If enabled, may impact performance when using the tool, enable it only if you need this feature)

Include Modifiers in Vertice Count

By Default, Blender Object Data does not store vertices with non-applied modifiers. By Enabling this option, the addon will use another method to get the vertice count of objects with modifiers. (If enabled, may impact performance when using the tool, enable it only if you need this feature)

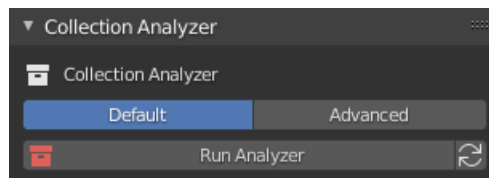
Collection Analyzer

The Collection Analyzer will add colors and percentages to each collection in your scene, red means that this collection is very heavy, and blue means that the collection is not heavy in your scene. the colors and percentages don't update automatically, you have to click on the Run/Update button to update the information.

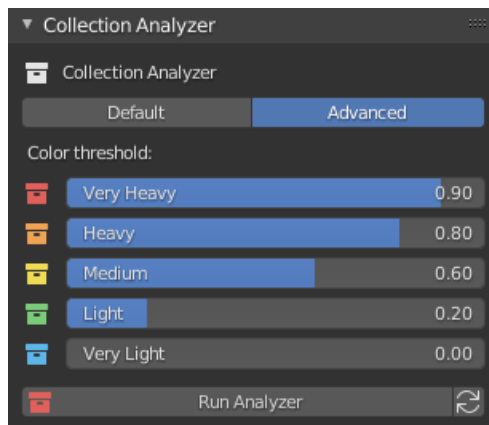
The percentage works in a very simple way, if your scene has 1000 vertices, a collection with 900 vertices will have a 90% on the right side of its name, meaning that 90% of vertices in the scene are in this collection.



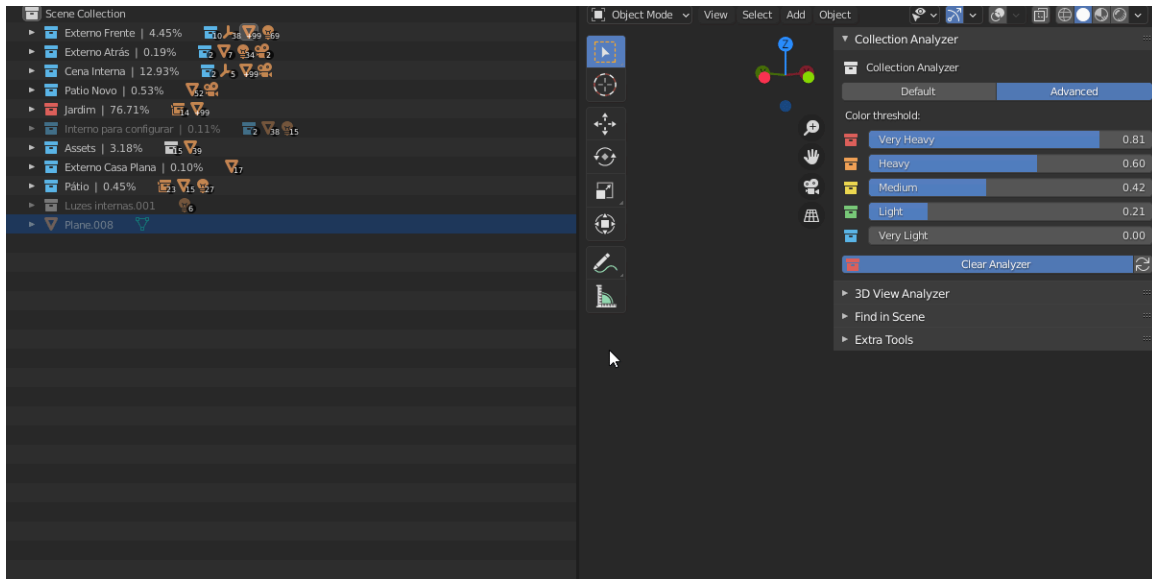
Default



Advanced

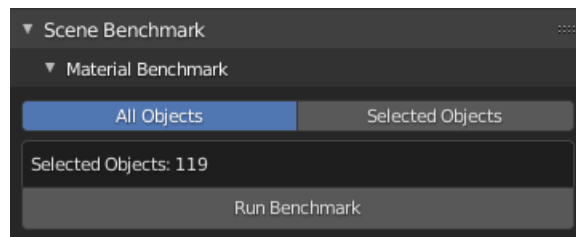


Color threshold – Here you will be able to change the threshold of each color in the collection Analyzer, like this example:



Material Benchmark

Your first benchmark



Here is how you should see the panel before running the benchmark.

You can select between All objects in the scene, or selected objects only.

After that, just press “Run Benchmark”, and the process will start.

If you have this option active in the addon preferences:



You should see the console window with the benchmark progress.

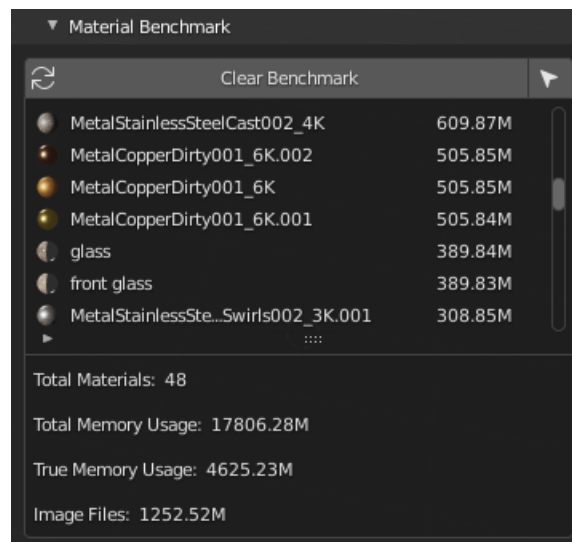
```

-----RUNNING BENCHMARK-----
Blueprint - Time:00:00.05 Memory:5.95M
PlasticDamaged001_6K - Time:00:00.48 Memory:901.84M
tire - Time:00:00.50 Memory:836.51M
BLACK PLASTIC BASIC - Time:00:00.52 Memory:896.03M
Metal Por Cima - Time:00:00.49 Memory:721.93M
MetalCopperDirty001_6K - Time:00:00.46 Memory:505.85M
Material 6 of 48

```

Benchmark Result

After finished, the benchmark will show you some results:



Total Materials

Total tested materials

Total Memory Usage

Total memory usage in each material tested

True Memory Usage

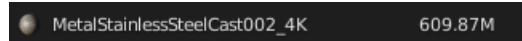
Total memory usage when running all materials at the same time

Image Files

Total image files in MB in all tested materials

Why two different pieces of information in memory?

The benchmark process in each material individually, and this memory usage will be returned on the right side of each material



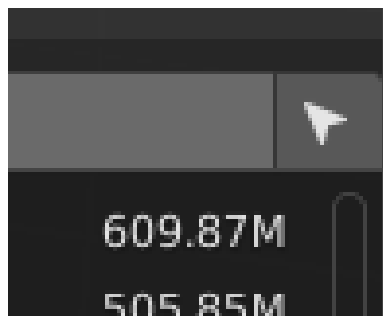
In “Total Memory Usage”, the addon will return the sum of each memory value of each tested material, and it will result in a higher number.

But when you render a scene with a lot of different materials, sometimes these materials use the same image files, meaning that the blender will load these images one time only, and this same image file loaded in memory will be used multiple times.

that is why we have added the “True Memory Usage”. This value will be the result of all materials tested simultaneously, meaning that this is the true memory usage of all tested materials when rendering your scene.

Select Materials

You can easily select in viewport objects with the selected material in the list, by clicking on the cursor button

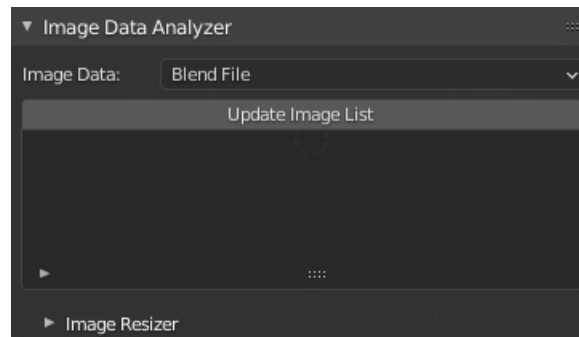


Just select one material in the benchmark list, and press this button. All materials with this material will be selected in the viewport.

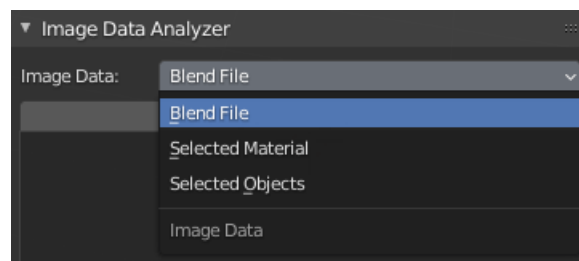
Warning

By default, the addon will autosave your blend file before each benchmark process, to make sure that all materials are correctly loaded.

Image Resizer



This is how the Image Data Analyzer Panel should be in a new blend file, before updating the image list, select what images would you like to see:



After that, just press “update image list”

And now you should see a list of all images in your object/file.

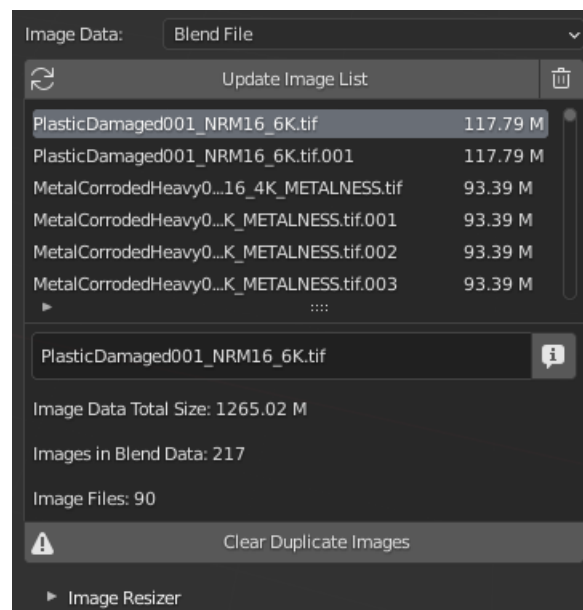


Image Data Total Size

Total used memory in MB

Images in Blend Data

Here you will be able to check all images in your blend file, including duplicates (images loaded multiple times from the same image files)

Image Files

Here you will be able to check the count of image files used in your blend file

What is the difference between images in blend data, and image files?

The value **Images in Blend Data** will include duplicate images. and the value **Image Files** will include only original image files

The **Images in Blend Data** value usually will be higher or equal to the **Image Files** Value, because it's very common to load the same image multiple times, causing your image blend file data to be like (Image.001, Image.002, Image.003)

Image Data Analyzer Tools

PLEASE ALWAYS MAKE SURE THAT YOU HAVE A BACKUP FILE OF YOUR PROJECT BEFORE USING ANY OF THESE TOOLS

It's very important because if you would like to get back to your original blend file data, you have this backup file.

Clear Duplicate Images

It is a very useful tool to clean your blend file data that is full of duplicate images. this tool will remove all duplicate images and replace them with the original ones.

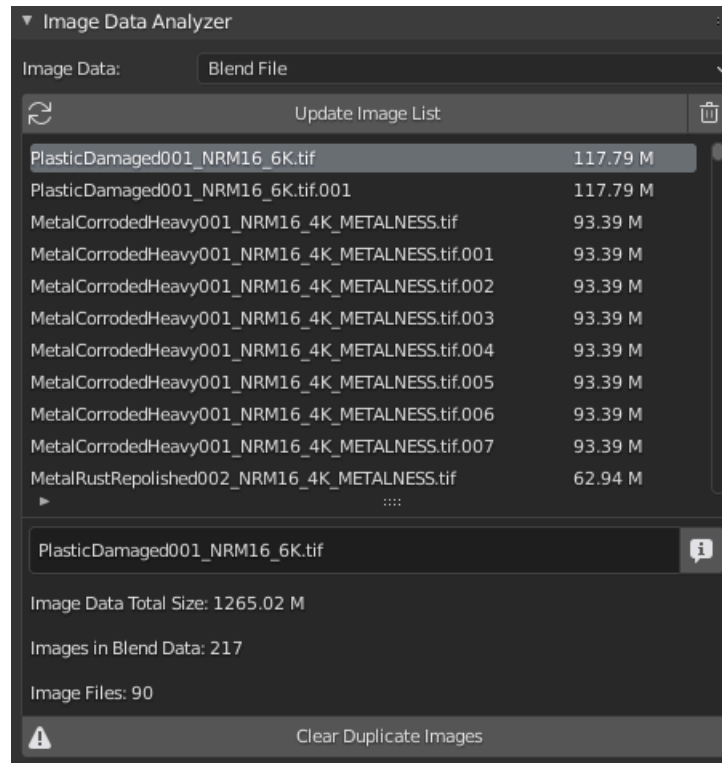
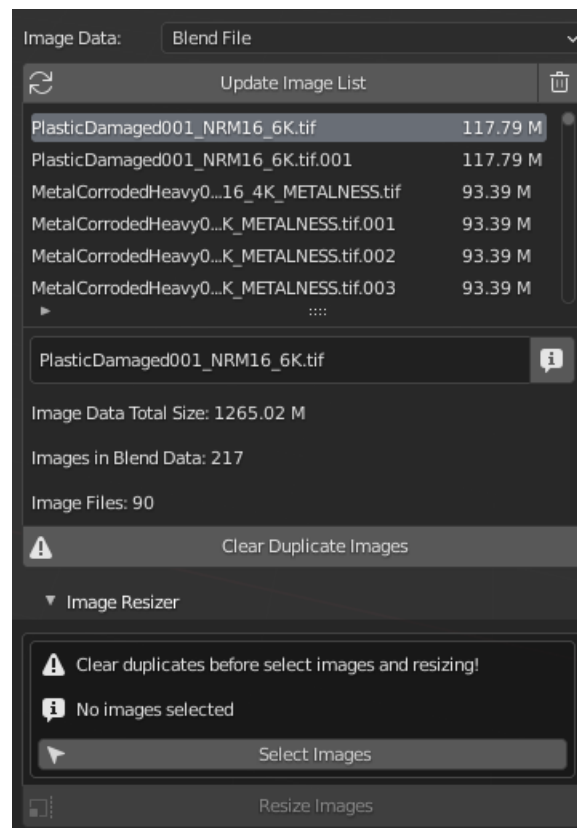


Image Resizer



The Image resizer tab will not be expanded by default, and you have to make two small steps to be able to resize your images

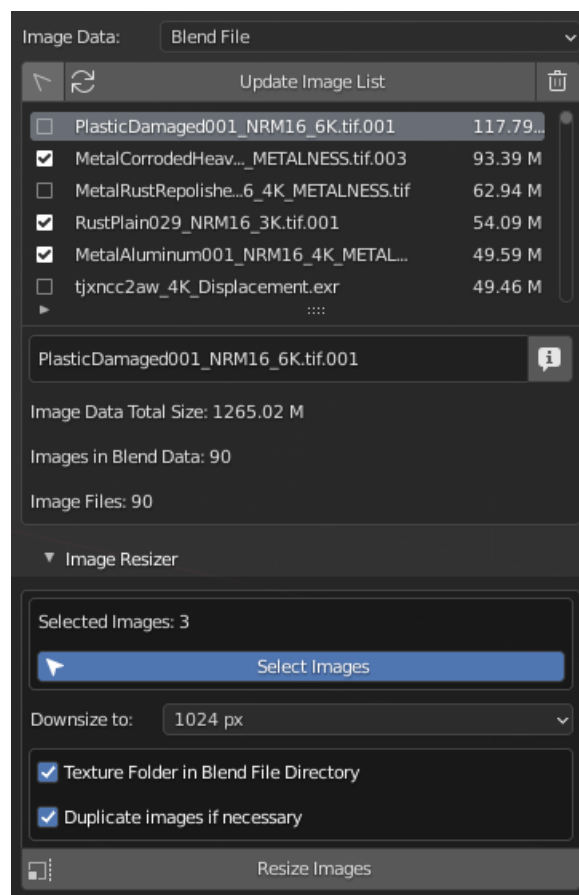
1- Clear Duplicates

it's not mandatory, but you always should clear duplicate images before starting the resizing process. if you want to resize all images in your blend file including duplicates, you will be creating new image files that are the same, but each one will count in memory usage. So always do this step!

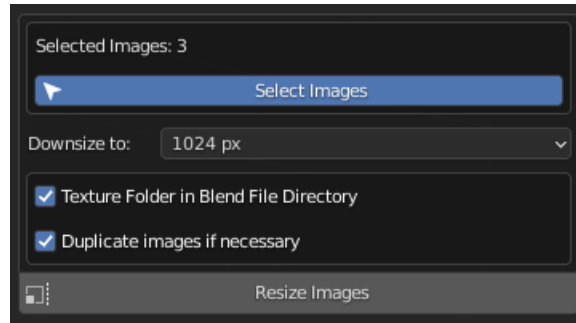
- You always will be recommended to do this step every time you update your image list, if you already made this step, just ignore it

2- Select Images

Just press the “Select Images” button, and select the images you want to resize in the image list. when “Select Images” is toggled on, checkboxes will appear on the left side of each image in the list.



And after finishing these two steps, you will be able to resize all selected images.

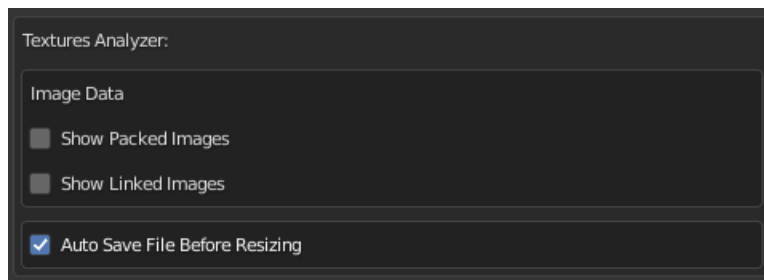


Just select the size you want all selected images to be resized, select the output folder and it's done, just click on "Resize Images".

All Selected images will be resized and will be saved in the selected output folder, and all old images in this file will be replaced with the resized ones!

Addon preferences

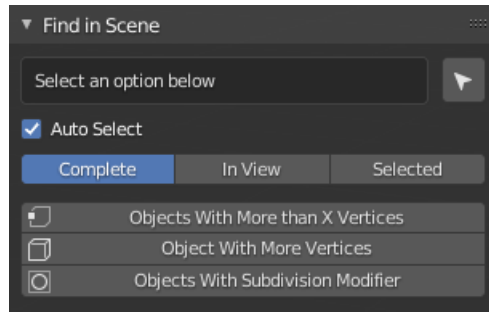
In the Addon Preferences, you will be able to change some properties of these image data tools



By default, the addon will not show Packed and Linked images, but you can enable it any time.

Note that we do not recommend resizing linked images! that's why it's off by default. And Show Packed Images is off by default because sometimes, Blender will not be able to find the original image file path.

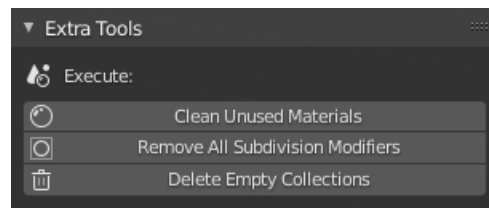
Find in Scene



Auto Select – Automatically select found objects

Select Objects – Select found objects in the list

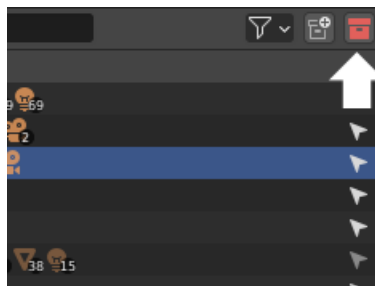
Extra Tools



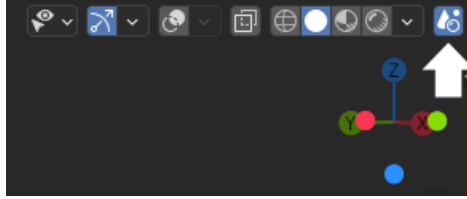
Toggle Buttons

In version 1.1, we added toggle buttons in the outliner and 3D View headers for fast access!

Collection Analyzer



Scene Analyzer



Update Log

V1.2.4

- Fixed “Clean Unused Materials” Error

V1.2.3

- Added Support to Blender 3.1

V1.2.1

- Small Fix in “Clean Unused Materials” Operator

V1.2

- Bug Fixes
- Material Benchmark Tool
- Image Resize Tool
- Image Data Analyzer
- New UI panels

V1.1

- New UI
- Addon now supports objects with non-applied modifiers
- Bug Fixes
- Code Optimization
- New Collection Analyzer System
- New Scene Analyzer System
- Addon now can store original viewport colors of each object in the scene
- Addon now stores the last UI type of the user before using the Scene Analyzer
- Added advance settings for the Collections Analyzer
- New Scene Analyzer option “In View”
- New options for Find in the Scene Tool
- Added toggle button in the outline header for fast access to Collection Analyzer
- Added toggle button in the 3D View header for fast access to Scene Analyzer

- Added a panel showing objects found in Find in Scene Tool
- Added a new operator in the Find in Scene Tool
- Addon Preferences Added

V1.0

- First Release

Limitations

- The Addon will not get particles vertices information
- The Collection Analyzer Feature only works in Blender Version 2.91 or above
- Linked Material Memory Usage will not count in the final benchmark result