

# ScEnum for Unity

## An easier way to reference Scenes

*Version 1.0.0*

# Introduction

Thank you very much for purchasing ScEnum!

ScEnum (A short term for Scene Enum) was developed out of frustration with the way Unity manages scene assets in the inspector and scripts and tries to fix the most major issues with the SceneAsset system.

You can instead use simple strings to switch to a scene using the scene name, but this is a hassle and will break if you ever rename any of your scenes.

With ScEnum, you can pick scenes as script variables in the inspector, without them breaking the build of your standalone player due to the SceneAsset not being in the UnityEngine namespace.

ScEnum also makes sure that references to your scenes will not break when you rename them, making it much safer to use.

It will also make sure that you don't forget to include scenes that you reference to in your build settings – ScEnum will automatically ask you if you want to add a scene you're referencing to the build.

If you encounter any problems with ScEnum, or miss a feature that you think would be helpful, you can contact me via E-Mail: [martin@schwarzis.net](mailto:martin@schwarzis.net)

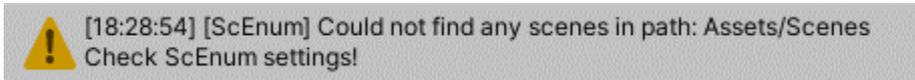
I hope that this package will help your game creation process and have fun creating!

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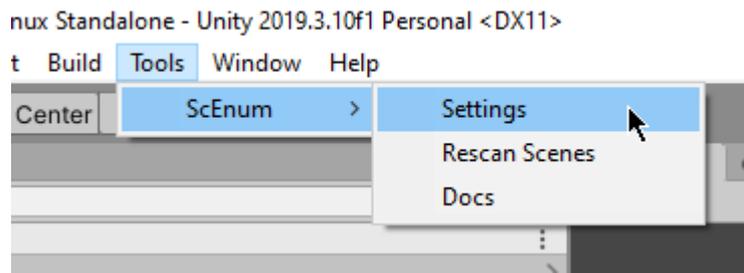
# Quickstart

After installing ScEnum, you might encounter the following message in the console:

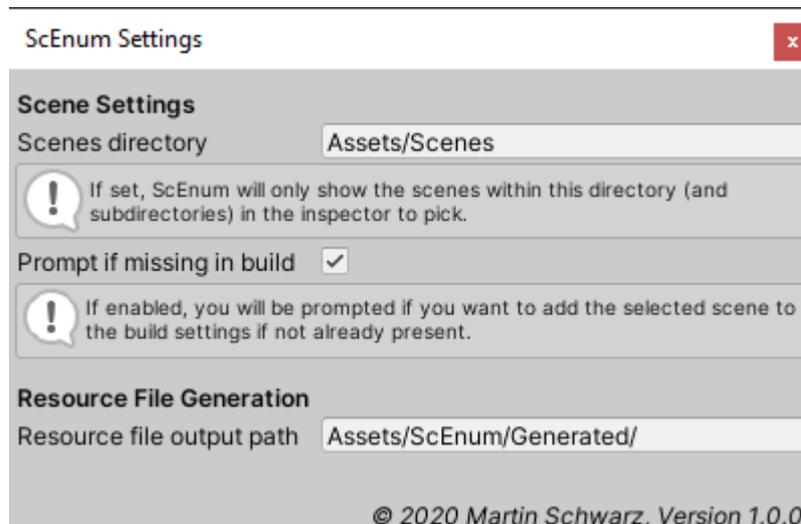


Don't worry, this is normal and just means that ScEnum requires some setup, which we will do now.

Open the ScEnum settings by clicking on *Tools > ScEnum > Settings* in the toolbar of the Unity Editor:



The following window should come up:



For the quick-start, we will only focus on the “Scenes directory”. This setting tells ScEnum where to look for scenes to manage. It is set to only manage scenes in the Assets/Scenes folder (and subfolders) by default. If you have your game scenes in a different folder, you can enter it here.

Alternatively, if you want ScEnum to manage all scenes in your project, you can leave the textbox empty.

Closing the settings window will automatically save the changes.

ScEnum is now ready to be used in scripts. We will alter an existing script that uses a SceneAsset variable to reference to a different scene in your project, which will cause build errors when you try to run it in the standalone player. This process is the same if you want to replace a simple string reference to a scene in your scripts.

Open the script containing your scene reference and look for the scene variable. It could look like this:

```
[Header("Teleport settings")]  
public SceneAsset sceneToGoTo;
```

Replace the SceneAsset (or string) type with SceneReference of the ScEnum namespace, and add the [SceneSelector] attribute before the variable:

```
[Header("Teleport settings")]  
[SceneSelector]  
public SceneReference sceneToGoTo;
```

Now, go to the part of your code that accesses the name of the scene. It might look like this:

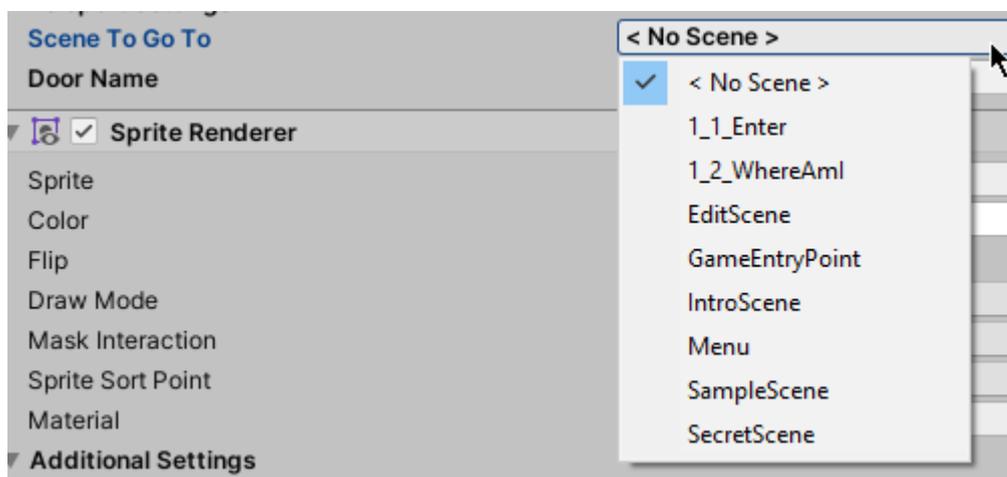
```
dTPDoor(sceneToGoTo.name, doo
```

And replace the variable accessor "name" with the function call "GetSceneName()":

```
Door(sceneToGoTo.GetSceneName(), doo
```

Note: It will still work if you don't change the variable accessor to this function call, however ScEnum will be unable to fix broken references, for example if you change the name of the scene, so it is highly recommended to not skip this step!

And that's it! If you now go to your inspector and look at your script, you will see a dropdown to select scenes for your variable:



# Settings

## Scenes directory

This is the folder that ScEnum will look for scenes in (including subfolders). If you want ScEnum to include all your project's scenes, leave this textbox blank.

## Prompt if missing in build

If you want to be asked if you want to add a referenced scene to the build settings in case it is not already included. Enabled by default.

## Resource file output path

If you want to move ScEnum into a different directory in your project, you can change the path of the R.cs-file that will be automatically generated here to point to the new *Generated*-folder (or any other folder you want to use). Points to *Assets/ScEnum/Generated/* by default. Make sure not to forget the trailing slash.

## FAQ

A scene is missing from the inspector drop-down.

Click on *Tools > ScEnum > Rescan Scenes* in the Unity Editor toolbar. This will force ScEnum to re-scan all managed scenes and update the list. If your scene is still missing, make sure you have set the correct “Scenes directory” in the ScEnum settings!

The console shows the error “Could not find any scenes in path: ...”

This means that either your “Scenes directory” setting is incorrect, or you simply have not created a scene yet. Create a scene in the proper directory and the message should not come up again.

An error dialog with “Invalid resource file path ...” comes up all the time.

This means that the directory for the auto-generated resource file is invalid. Check that the folder set in “Resource file output path” exists and don’t forget the trailing slash /. The default path is */Assets/ScEnum/Generated/* and should usually not be changed.

The console shows an error about some “R.cs”-file.

Click *Tools > ScEnum > Recreate Resource File* to recreate the file and fix possible issues.

While testing the game in the standalone player, I get the error *“Trying to get reference to a scene that is missing in the resource file!”*.

This means that a reference to a scene is invalid. It can happen if a scene is removed with scripts still pointing to it. Open the scene this error occurred in and check references to other scenes in your scripts. One or more scene references in the inspector will show “< Removed Scene >”. Change it to the appropriate scene and rebuild the game. If the issue persists, try clicking *Tools > ScEnum > Rescan Scenes*.

I miss a feature / encountered a bug.

Please contact me at [martin@schwarzis.net](mailto:martin@schwarzis.net)

# Changelog

V1.0.0

Initial release