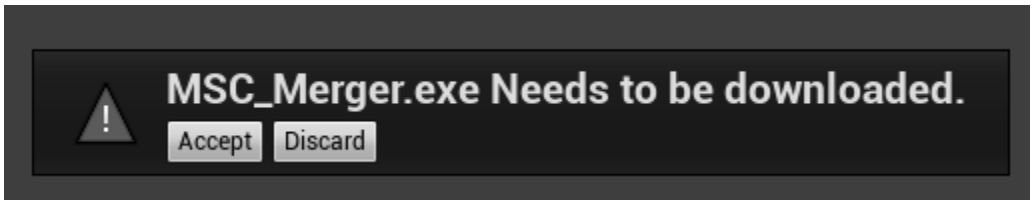
MSC Screen Recorder

Hello, in this documentation we are going to cover everything you need to know about the MSC Screen & Camera Recorder plugin to use it in the best way possible, so here we go.

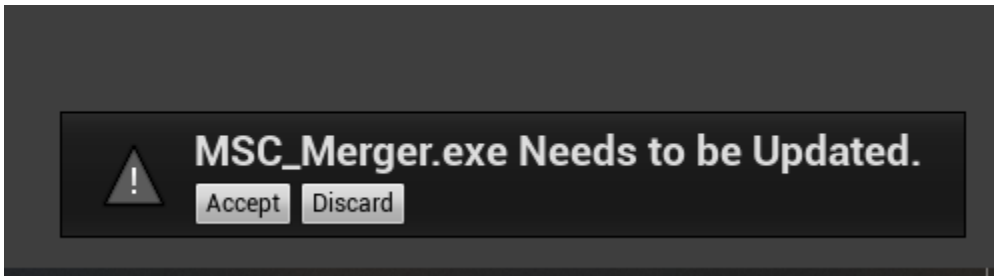
For starters, make sure you download MSC_Merger, it automatically asks to be downloaded on the first engine startup with the plugin.



if it is not possible to download automatically you can download manually here and put it in:

[Engine version]\Engine\Plugins\Marketplace\MSC_Record\AppMerger\

In the future it is possible that it will be necessary to update it so that it continues to work correctly, so keep an eye on the notifications of updates.



Done, the plugin will be ready to use.

Currently we have 3 types of capture, **Screen Recorder**, **Viewport Recorder** and **Camera Manager Recorder**

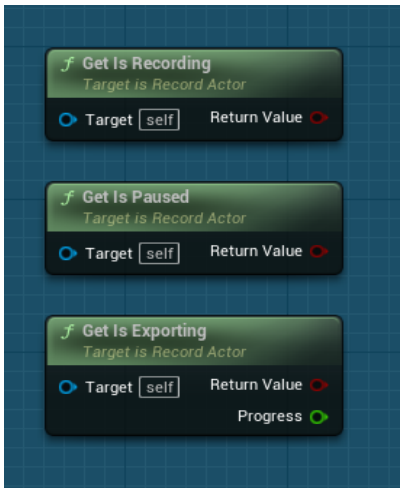
- **Screen Recorder** records the entire screen of the application so **avoid changing the resolution**, it has the least impact on performance at 1280x720 and the fastest export time. It now **works in Shipping Builds** as well: there it automatically records an image sequence and merges it like the other recorders (the instant Separate Audio and Video output is only available in Development).
- **Viewport Recorder** records from the viewport and may or may not record the interface, it can record resolutions different from those used in the application, it has great performance recording at 1920x1080 although it does not deal well with a lot of camera movement, it also has a longer export time.
- **Camera Manager Recorder** can be used to record different points of view from a single system, being able to record the audio according to the point of view or not, the recordings can be both **in 2D (flat)** and **in 360** with **Sequencer support** , at runtime the export time can be long. It also provides a Capture a 360 Image node to save a single 360 (equirectangular) photo.

Before packaging the project, click on **File->Prepare MSC for packaging** to make sure everything is ready to be packaged. The recording system works in both Development and Shipping builds.

Recording nodes

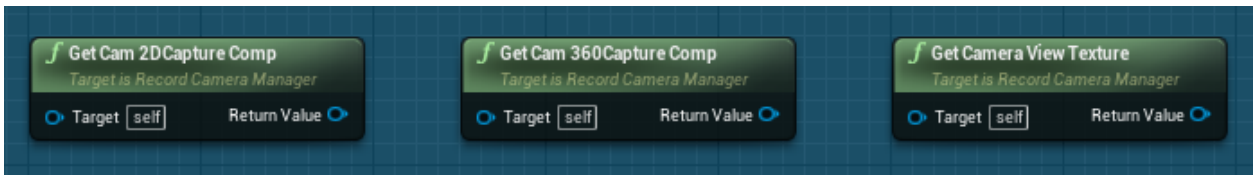
- **Start Capture -** Starts the screen capture according to the current resolution, a recording can only be started if none is active, paused or exporting, returns True if the capture started successfully.
- **Pause Capture -** Pause an active capture, a recording can only be paused if it has already been started and if it is not already paused, returns True if the recording was successfully paused.
- **Resume Capture -** Resumes a paused recording, only resumes recordings that have already started and are paused, returns True if the recording was resumed successfully.
- **Finish Capture -** Ends an active capture and if Separate Audio and video is false, starts the merge and export process using the defined parameters (only works if MSC_Merger.exe is in the MSC_Record/AppMerger folder), returns True if the recording ended successfully.

Status nodes

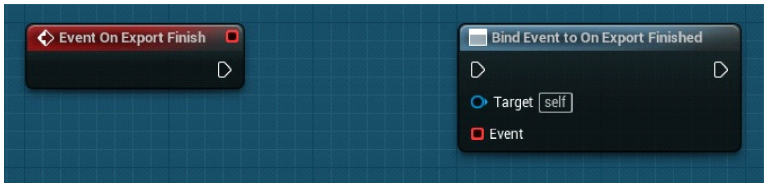


- **Get Is Recording -** Returns True if recording is active.
- **Get Is Paused -** Returns True if an active recording is paused.
- **Get Is Exporting -** Returns True if a finished recording is being exported, Progress returns the progress of the export (0.5 = 50% and 1.0 = 100%). You can also bind the On Export Progress event to receive these updates without polling. While the merger runs, its output now appears in the Unreal Output Log (lines prefixed with [MSC_Merger]) to help diagnose export problems.

in case of Viewport Recorder and Camera Manager Recorder, there may be extra nodes



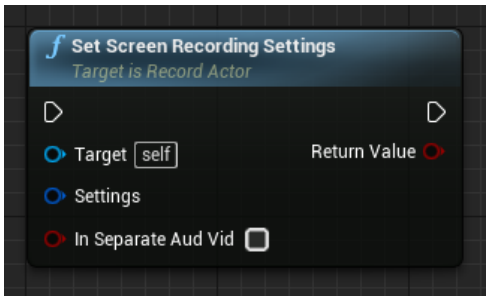
Export Finish Events



- It is called at the end of the recording export process.
- It can be bind to a custom event.

Set Recording Settings Node

- Changing recording settings can be done by this node.
- Changes can only be applied if not recording or exporting.
- Returns true if changes are successfully applied.
- Now there is a specific one for each capture type, with additional parameters.







MSC Recording Settings

- **File Name -** Output file name, tokens like {world} can be added (recording time will be added to the title in hh.mm.ss format).
- **Frame Rate -** Frame rate of the output video, increasing it too much can cause freezes if the local disk doesn't have the proper recording speed.
- **Output Directory -** Output directory of the final video, if the recording is interrupted the video will be in the folder [Project Name]/Saved/VideoCaptures/. Non-ASCII paths (for example, Cyrillic user names) are supported.
- **Use Compression -** Using image compression will decrease the size of the final video but will reduce the image quality.
- **Compression Quality -** Sets the output image quality using compression. (100% for best quality).
- **Separate Audio and Video -** It exports the video separate from the audio, and without the need to merge the export is practically instantaneous.
- **Output Format -** Output format, AVI for a better quality (larger size), WEBM for a smaller size (lower quality) and MP4 for a balance.
- **Compression Speed -** Compression speed sets the time it can take to compress, Veryslow for a smaller size and Ultrafast for faster export.
- **Submix to Record -** Allows recording of a specific audio submix, leave null to record everything.

Recording in Preview Mode
When running in the editor, the recording system will work in **preview mode**, in preview mode the recording **does not capture UI**, it **records at 30fps**, in **MP4 format** and without applying **compression settings.**

Possible doubts or problems

- **Sudden drop in fps after a few seconds of recording -** If the recording starts to have abrupt recordings shortly after starting to record, it may be that the recording speed of the local disk is not being enough to record the frames in the selected quality, frame rate and resolution, to avoid this, check the resolution (Recommended 1280x720), use of image compression (75% recommended) and Frame rate (Recommended between 24 and 30).
- **Resolution questions -** Video resolution will follow the screen resolution, avoid resolution changes when using RecordActor and using very high resolutions for recording may cause instability and crashes (Tested and recommended resolution: 1280x720).
- **Screen Recorder in Shipping Builds -** In Shipping builds the engine's AVI writer is not available, so Screen Recorder automatically falls back to recording an image sequence and merging it (like the Viewport and Camera Manager recorders). Recording works in Shipping; only the instant Separate Audio and Video (AVI) output is unavailable there.