PRIME After Effects
User Guide
Version 5.3.0

January 2026

Chyron PRIME After Effects User Guide • 5.3 • January 2026 • This document is distributed by Chyron in online (electronic) form only, and is not available for purchase in printed form.

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Minimum Requirements

- PRIME 5.2.0+ with appropriate licensing
- Adobe After Effects 2025 Version 25.3.2 (Build 2) and higher
  - AE versions before 25.3.2 (Build2) are incompatible with Prime AE Exporter v2.0

Prime AE Exporter v2.0 is only compatible with PRIME 5.2.0+
Prime AE Exporter v1.0 is only compatible with PRIME 4.0.0 - 5.1.2

Introduction

Supported After Effect compositions can be imported into PRIME by utilizing the Prime AE Exporter v2.0. Please see the documentation below for supported AE objects.
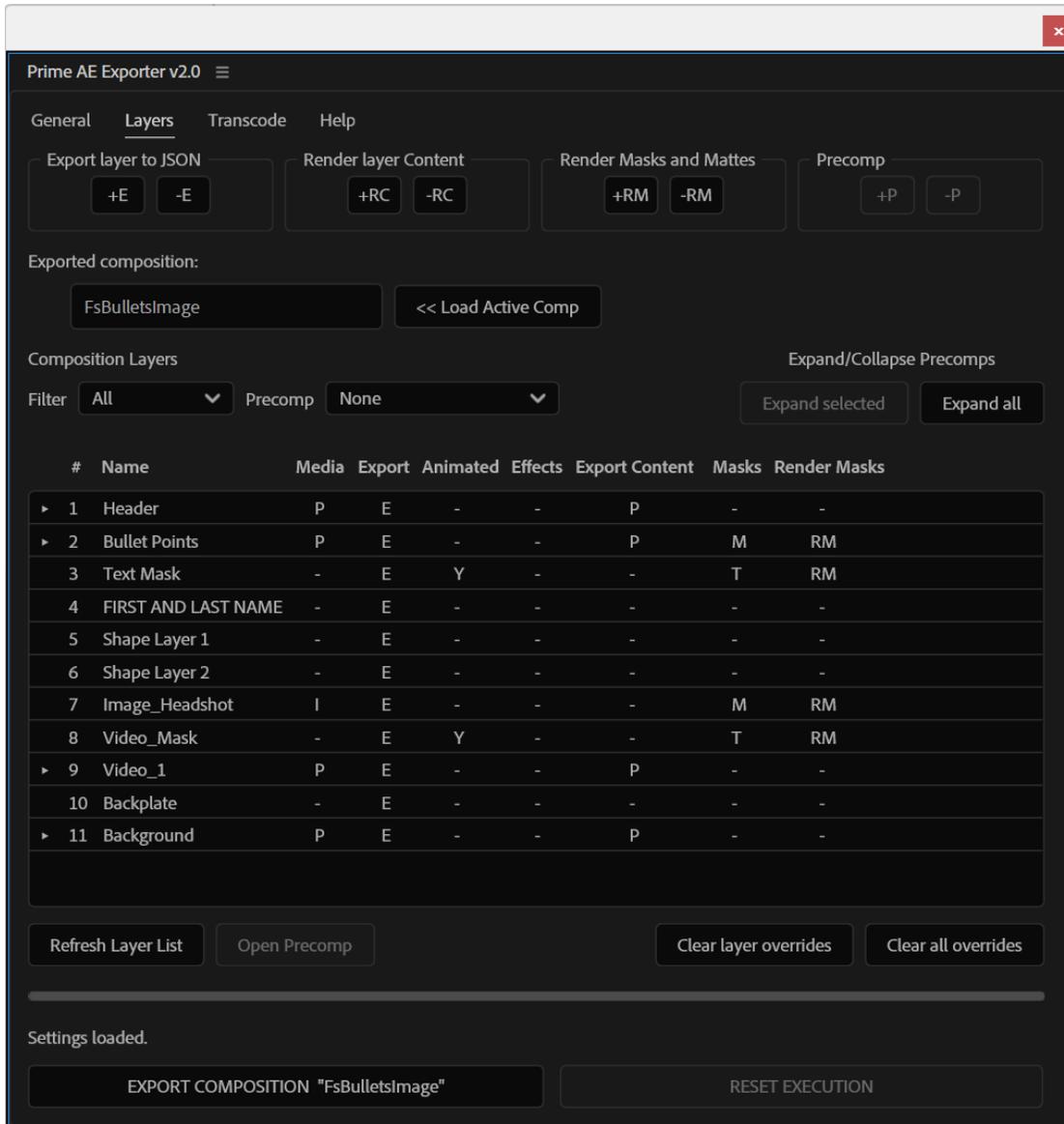
Obtaining Required Install Files

The After Effects exporter script and AE Output Module Template files can be obtained from within Prime Designer.

Launch PRIME 5.2.0+

- Open PRIME Scene Designer
- Select File > Import AE
- The Import AE JSON **dialog** will open
- Click on "Save AE Exporter Script" to save the script file "**Prime AE Exporter v2.0.jsxbin**"
- Click on "Save AE Output Module Templates" to save the template file "**AE Output Module Templates v2.0.aom**".
  - Once both files have been saved to your desired hard drive location, you can proceed to the next section of this document which covers installing the files within After Effects.
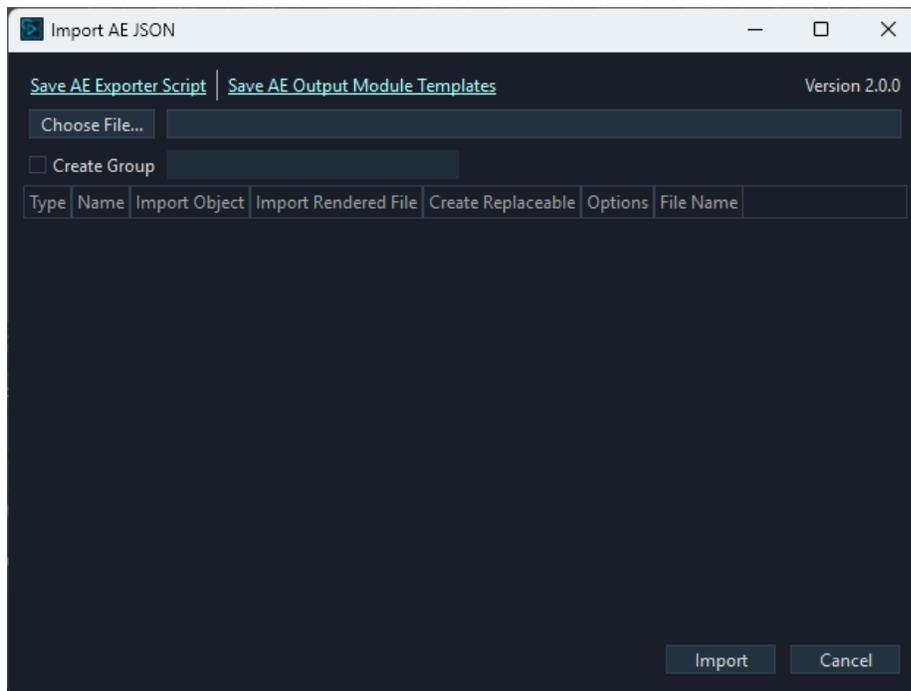
Install Prerequisite | AE Application Scripting Option

Prior to installing the PRIME AE Exporter Script, users must enable the AE Application Scripting option. If it is not enabled, users will be prompted with the following message when attempting to install the script.
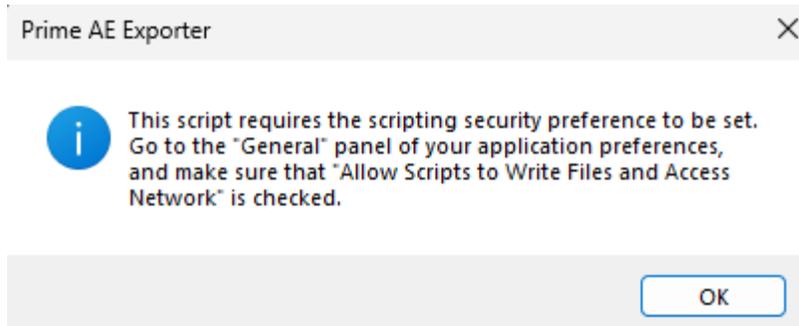
- Launch After Effects

- On the top title bar, click Edit -> Preferences -> Scripting & Expressions

- Enable (check) "**Allow Scripts to Write Files and Access Network**"

- Click OK

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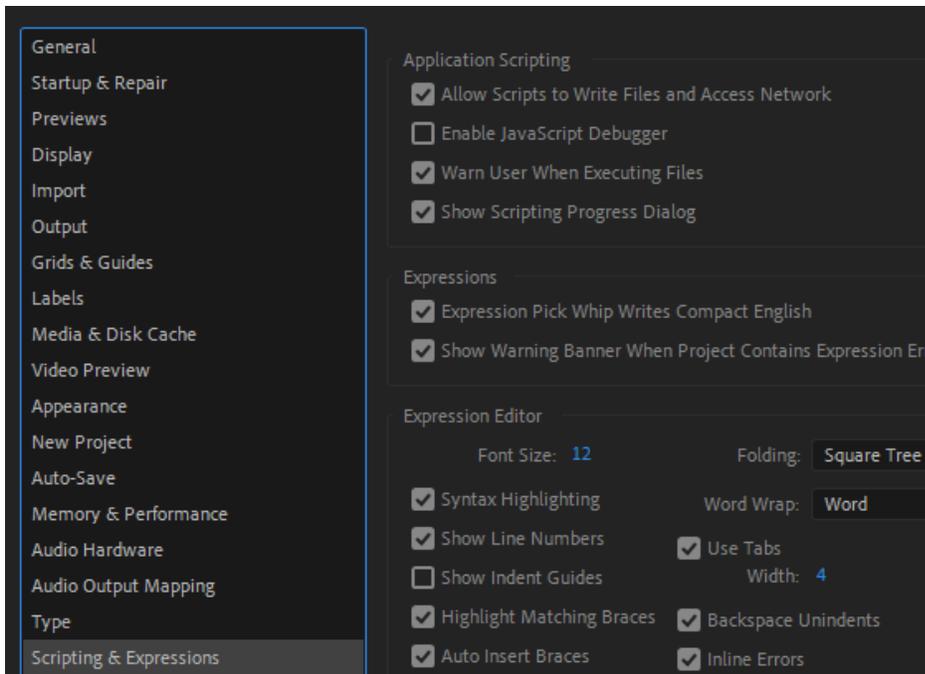
Installing vs. Running the Converter Script in AE

There are two ways to execute the script from AE

1. Install the Script file via ScriptUI (this will install it as part of AE user interface for access anytime) ***This is the recommended method as it provides best results**

2. Run the script file

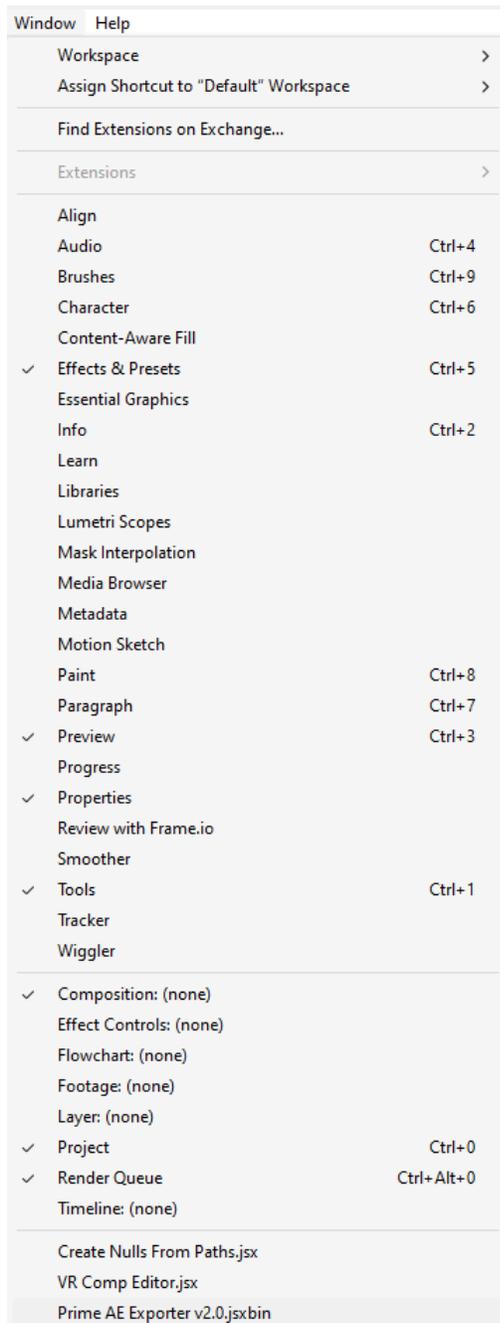## Install Method 1 | Installing the Script file *Recommended Method

File > Scripts > Install ScriptUI Panel
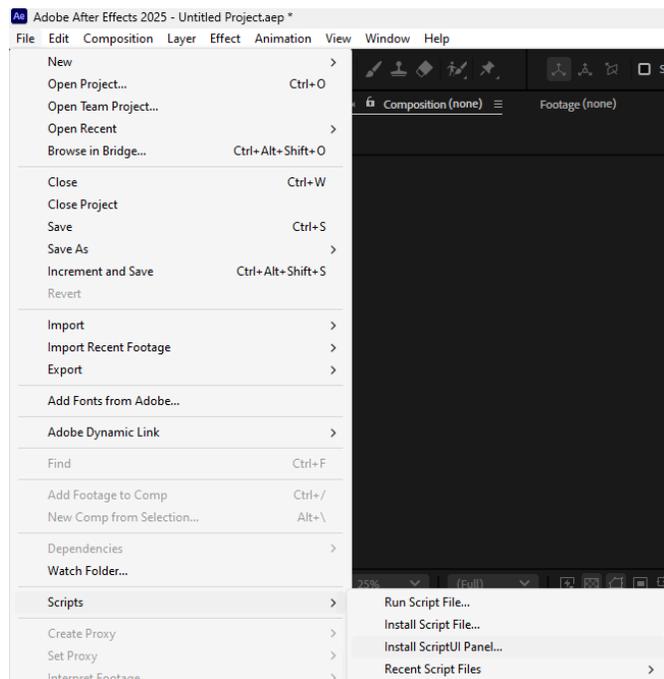
You must restart the Adobe After Effects application after installing the Script in order for it to run properly.

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After restarting After Effects, navigate to the Window menu and select
Prime AE Exporter v2.0.jsxbin at the bottom of the menu.

Install Method 2 | Running the Script file

File > Scripts > Run Script file
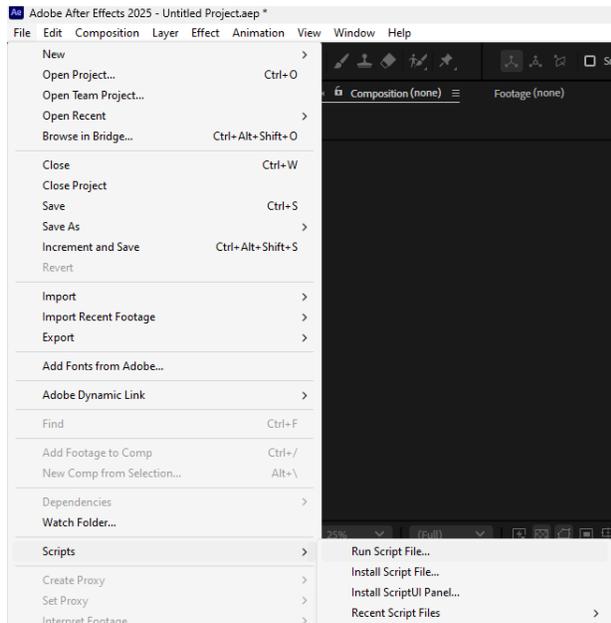
Navigate to the script file "**Prime AE Exporter v2.0.jsxbin**"
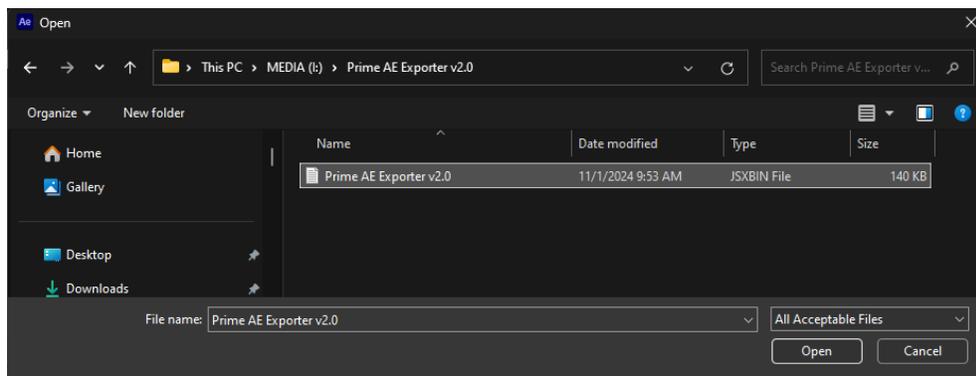
1. Click Open
2. PRIME Comp Export Dialog opens (see Exporting from After Effects below)

Installing the Prime AE Output Module Templates

Within After Effects, navigate to Edit > Templates > Output Module
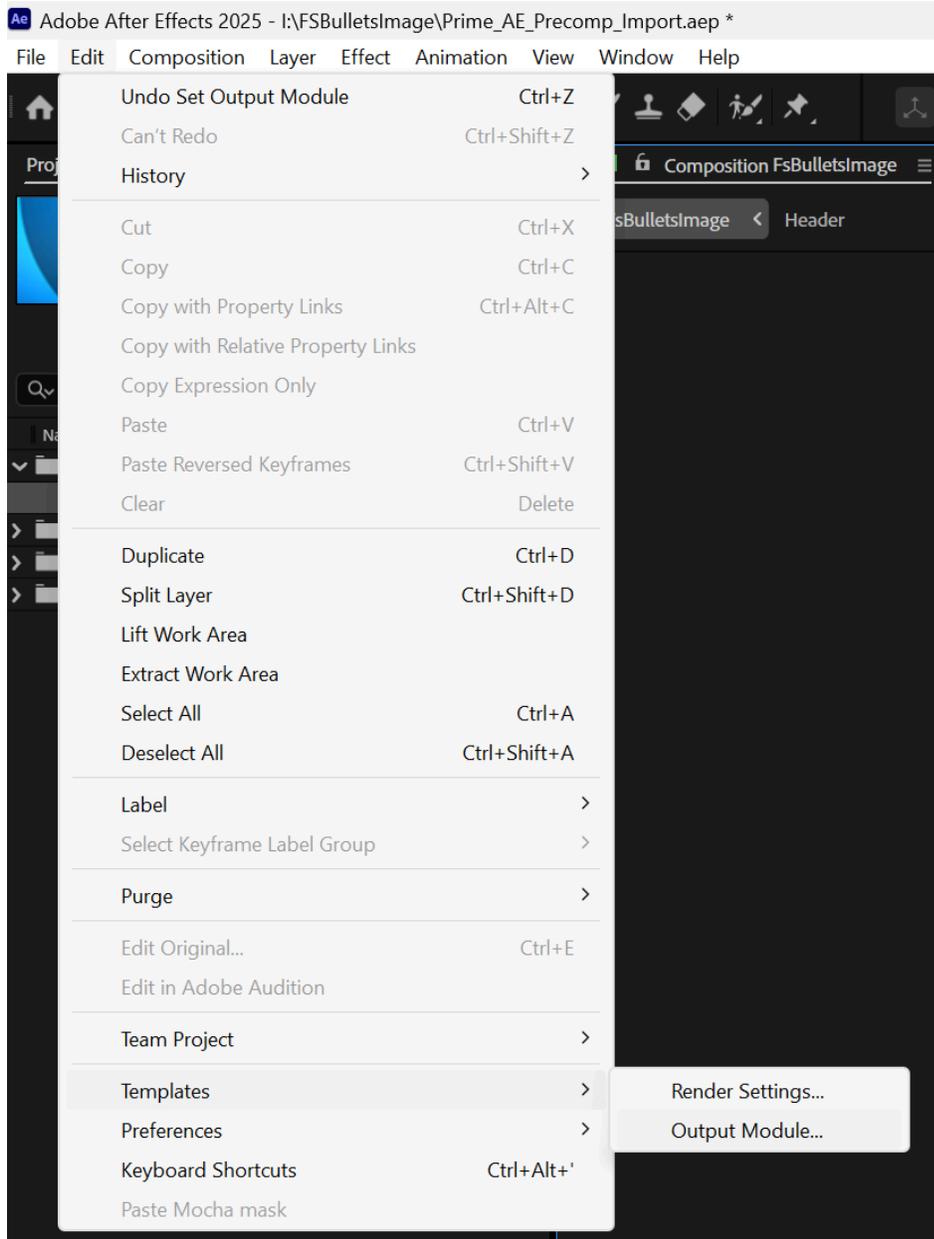
Selecting Output Module will bring up the following Output Module Templates Window
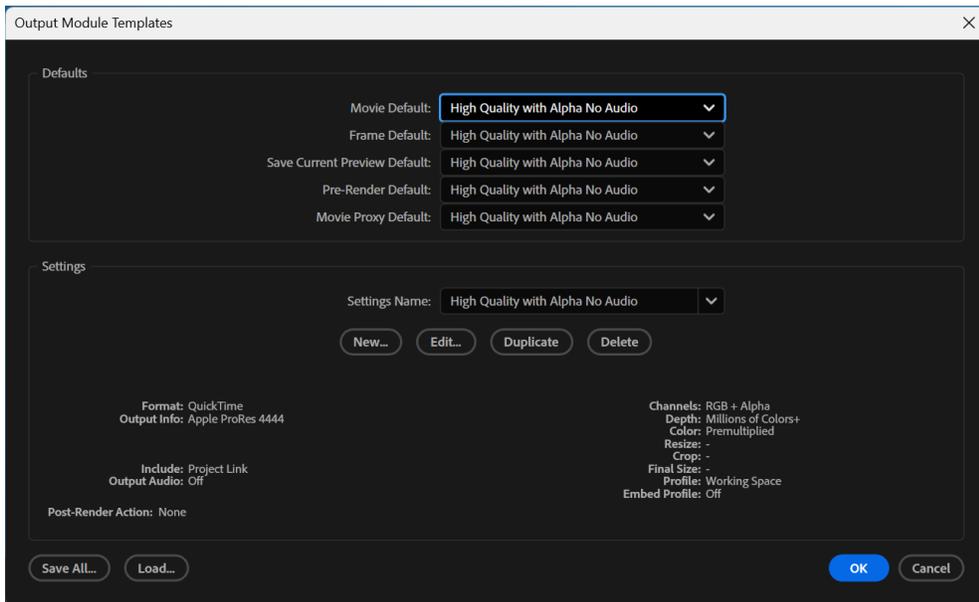
Next, select **Load** in the bottom left and open the **Prime AE Exporter v2.0 Output Module Templates.aom** file in the location you saved it.

The **Prime AE Exporter v2.0 Output Module Templates.aom** file contains 3 templates which have been custom created for video clips and audio files to work as intended within PRIME 5.2.0+

- **High Quality with Alpha No Audio**
  - QuickTime Apple ProRes 4444
  - RGB+Alpha
  - Millions of Colors+
  - Premultipled
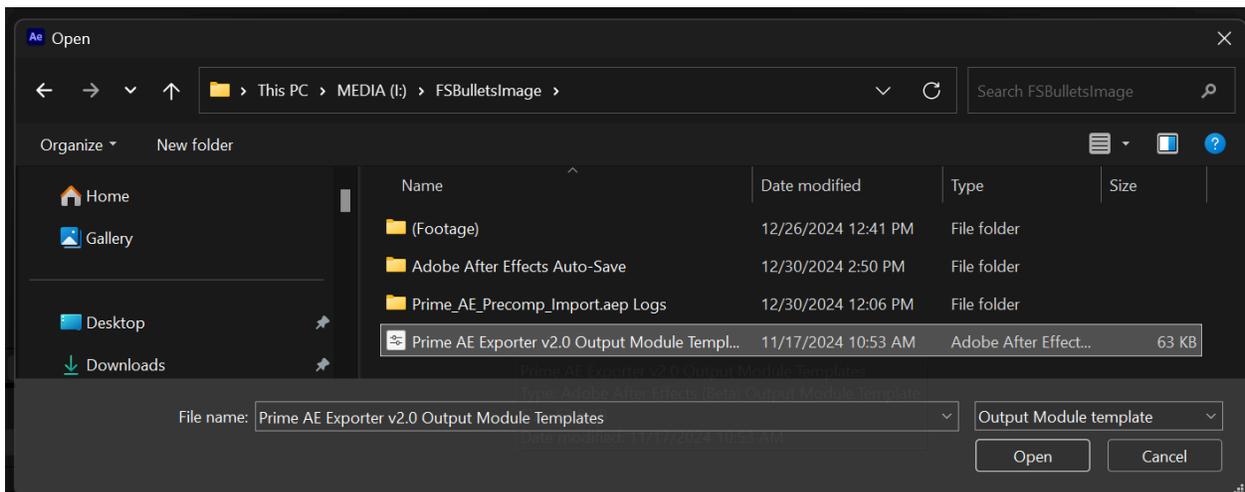 - Output Audio = Off

- **High Quality without Alpha No Audio**
  - QuickTime Apple ProRes 422 HQ
  - RGB (Fill Only)
  - Millions of Colors+
  - Premultipled
  - Output Audio = Off

- **WAV**
  - Wav files for audio mixdown use

Users are more than welcome to create and set their own custom made templates using After Effect's Output Module Template Dialogue to use within the Transcode section of the exporter. These Output Module Templates have been provided to give users a quick and easy setup.

Please see the Transcode Tab Section below for information on how to set Transcode settings prior to exporting from AE.

*Please Note - The WAV Output Template is Required in order for the Audio mixdown to work properly. This template must be named WAV in order to work and function properly with the exporter.

Saving AE Prime Exporter Settings

Saving your AE Project will also save the Exporter settings and any overrides a user has set per project. If a user fails to save the AE project, those selections will be lost.

PRIME Supported AE Objects

|	
Images Videos	● File Format (All PRIME supported file formats) ● Size
Audio	● .WAV files 　○ PRIME only supports .wav audio files 　○ Designers will need to manually import .wav files into PRIME using the Audio Resource or Effect 　○ *Please see the audio section for further details
Timelines	● Main and Secondary (Precomp) Compositions Only
Precomps	● Supported (Only the first child precomp is supported) 　○ *Please see the Precomps section for further details
Animations	● Linear ● Ease *Bezier with simple Influence are converted to Eases
Text	● Font ● FontSize ● FillColor - Color ● boxText - WordWrap ● boxTextSize (Size if boxText is enabled) ● boxTextPos (Pivot/Position if boxText is enabled) ● Leading
Camera	● Not supported
Lights	● Not supported
Expressions	● Not supported
Masks	*Support Varies ● Rectangle Mask ● Track Matte ● Set Matte Effect *Rectangle and Matte Effects are converted to 4 clip planes in PRIME maintaining animation *Feathered and unsupported masks must be converted to Images or Video files
Shapes	● Rectangle 　○ Fill 　○ *Please see the Shapes section for further details
Groups	● Child Objects

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Parent & Link	● Support will vary - Linked layers import with Prime's Transform Effect with baked keyframes
AE Layer Attributes	● Enabled ● Transform ● Scale ● Anchor Point ● Opacity
AE Solid	● Size ● Color

Recommended Building Practices

- Ensure the output resolution and frame rates are the same in both PRIME and AE.

- Convert text imported from a PSD file into editable text in After Effects. Select the PSD text on the AE timeline, right click, and select Create > Convert to Editable Text. This ensures the text imports as editable text in PRIME.

- **Video Clips in PRIME**
  Please keep in mind that Chyron PRIME is a Real-time Platform unlike Adobe After Effects. Due to this, too many video clips will have a major impact on PRIME's Real-time performance capabilities. This also includes any PRIME Base Scenes with video clips that are being referenced in the primary PRIME Scene (.pbx). Heavy clip usage may require tweaking Advanced Clip Settings within PRIME. Results will vary depending on your computer's capabilities.
  - **Please take note -** Existing PRIME scenes with clips should be closed in PRIME before another AE export is executed to the same folder. If PRIME is reading from the same clips you are trying to re-export, the render will fail since the computer is accessing those files in PRIME, Prime Engine, or another application.

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Docking the Exporter within After Effects

The Exporter can be a docked window within After Effects but only if a user installs it using the ScriptUI (Method 1). Running the Script (Method 2) does not support docking and will always present as a floating window.
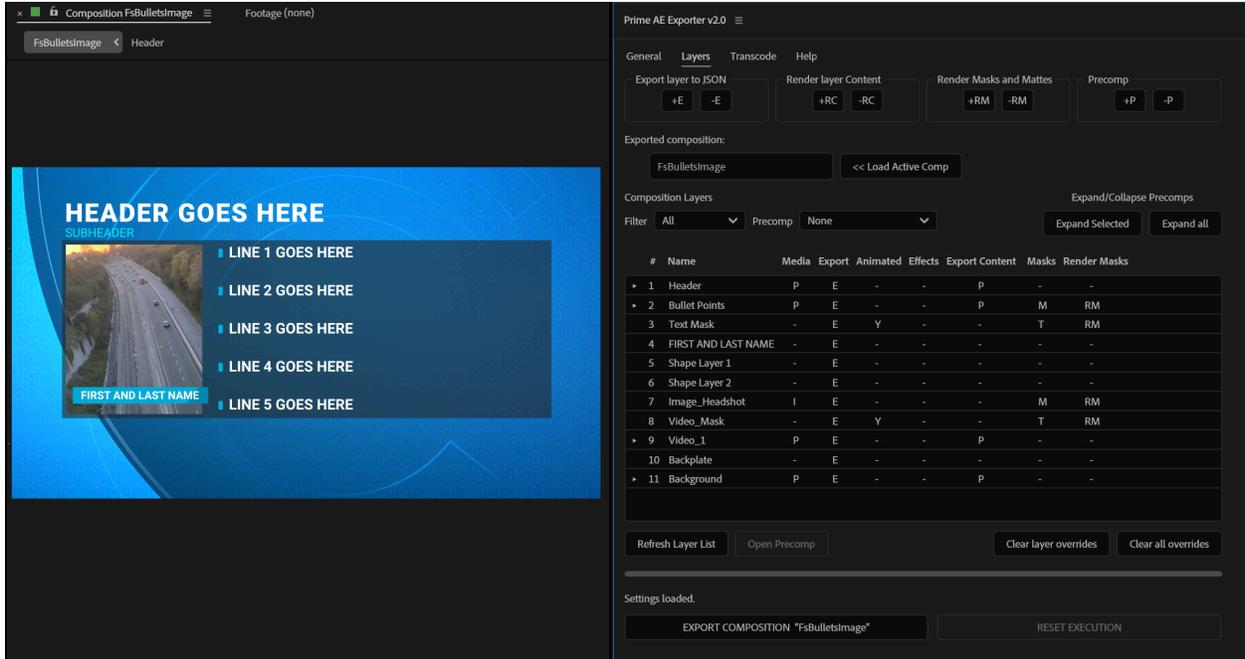
Operating the Prime AE Exporter v2.0 Script

The Prime AE Exporter has four primary tabs and various options to choose from within each. The details below cover each to allow for best results and easiest user experience.

General Tab
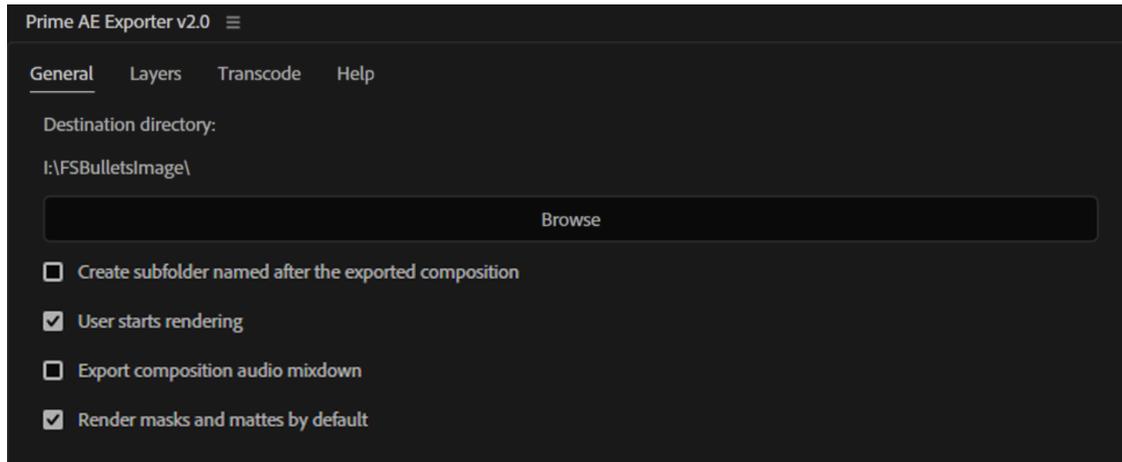
Destination directory: Save location for JSON and rendered files from Render Queue

Create a subfolder named after the exported composition: Automatically creates and stores all exported files into a subfolder within the selected destination folder. Subfolders will inherit the primary exported composition's name.

User starts rendering: Enables manual user interaction of executing the Render Queue export and creating the .JSON export file. ***Recommended export method and is enabled by default***

Export Composition Mixdown: Mixes all Audio tracks into a single .wav file

Render masks and mattes by default: Always renders all mask layers as a clip. When unchecked, masks will only be rendered if they are set to RM or +RM under the Mask Column per layer.

Layers Tab

The Layers tab displays many options as well as your selected composition's layers within the composition layers section.

Layer properties determine what will be exported to the JSON file and what layers will be rendered out as separate files (the format preferences for rendered content is set in the Transcode tab section).

Users can override the default settings by using the + or - buttons at the top of the Layers Top. Overridden settings are indicated (!)

Unsupported After Effects layers, objects, elements, effects, etc. can be rendered as movie files which can then be imported into PRIME. Please see the Supported Objects section for more details.

Export layer to JSON

(+E) Exports the layer and includes it within the JSON file to be imported into PRIME

(-E) Excludes the layer and will not be imported into PRIME

Render layer Content

(+RC) Renders the layer as a video clip or image (only an image if the layer is not animated). Anytime +RC or RC is labelled under the Export Content column, that layer will be rendered as a video clip using AE's Render Queue and will use the Transcode settings. Please see the Transcode Tab for further details.

(-RC) Prevents or reverses the layer from being rendered as a clip.
Needed in circumstances where a video clip, precomp, or other layers are automatically set to RC (!). Invoking the (-) or (-!) states under the Exporter Content column will result in the same behavior as -RC.

Render Masks and Mattes

(+RM) Renders the Mask or Track Matte as a video clip

(-RM) Prevents the Mask or Track Matte from being rendered as a video clip

Precomp

(+P) Sets the Precomp layer to Import into PRIME as a Base Scene

(-P) Sets the Precomp layer to (+RC) thus Rendering the Precomp as a video clip

Exported composition
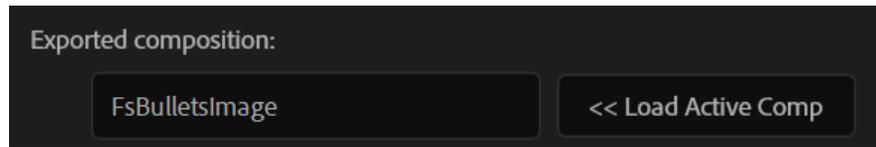
Displays the Primary (Master) Composition the user intends to Export out of AE and Import into Chyron PRIME. If a composition is not present, please select the desired composition from the AE Project Bin, and click **<< Load Active Comp** to load the composition into the Export Script.

Overrides

Overrides can be cleared or reset back to the default setting anytime using the 'Clear all overrides" button for the entire composition or select the desired layer/s and hit "Clear layer overrides"
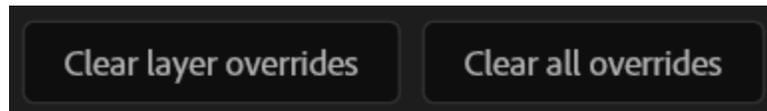
Precomps

Precomps (P), can be exported out of AE and imported into Prime 5.2+ as a Base Scene or Rendered Content. Media and Export Content must be labeled P in order for the Base Scene to be generated in PRIME upon import. If a Precomp (P) Media Type has its Export Content set to (+RC), the Precomp will be rendered and imported as a video clip into Prime. Please make sure your transcode settings are set properly before rendering content.

Only the first level nested precomps are supported as PRIME Base Scenes. Second level nested Precomps will automatically be set to Rendered Content (RC) for Precomps inside Precomps and rendered as video clips to be imported into PRIME.
Users can not see beyond the 2nd level of Precomps and only the 1st level of Precomp will display all layers like the primary export composition within the Prime AE Exporter Script.

	#	Name	Media	Export	Animated	Effects	Export Content	Masks	Render Masks
	1	Text Mask	-	E	Y	-	-	T	RM
	2	FIRST AND LAST NAME	-	E	-	fx	-	-	-
▼	3	1st Precomp	P	E	-	-	P	-	-
	1	2nd Precomp	P	E	-	-	RC	-	-
	2	Bar_Top	-	E	-	-	-	-	-
	3	Bar_Bottom	-	E	-	-	-	-	-

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Navigating Precomps

There are two ways to navigate through Precomps within Prime AE Exporter v2.0

Method 1
Double click a layer labeled P under Media that also shows a dropdown arrow next to the layer number..
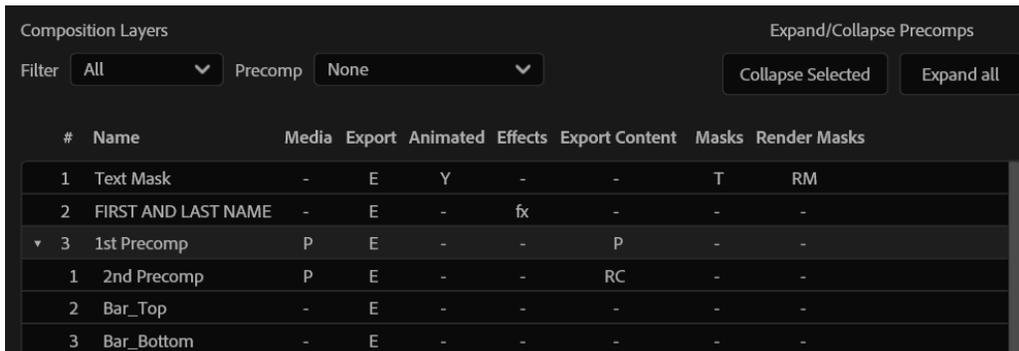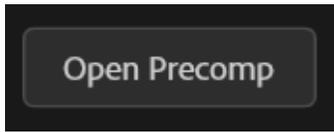

Doing so will drop down the layer contents within that Precomp.

Method 2

Select the Precomp within the Layers you wish to open and click the Open Precomp button located towards the bottom of the Exporter.

Selecting Open Precomp will isolate the Precomp which allows users easier navigation and focuses on just that Precomp and its contents. Users can set all the same options like in the primary Export Composition. Precomp settings will be saved when users go back and forth between precomps and the main export composition. Please make sure to save your AE project to retain Exporter layer selections.
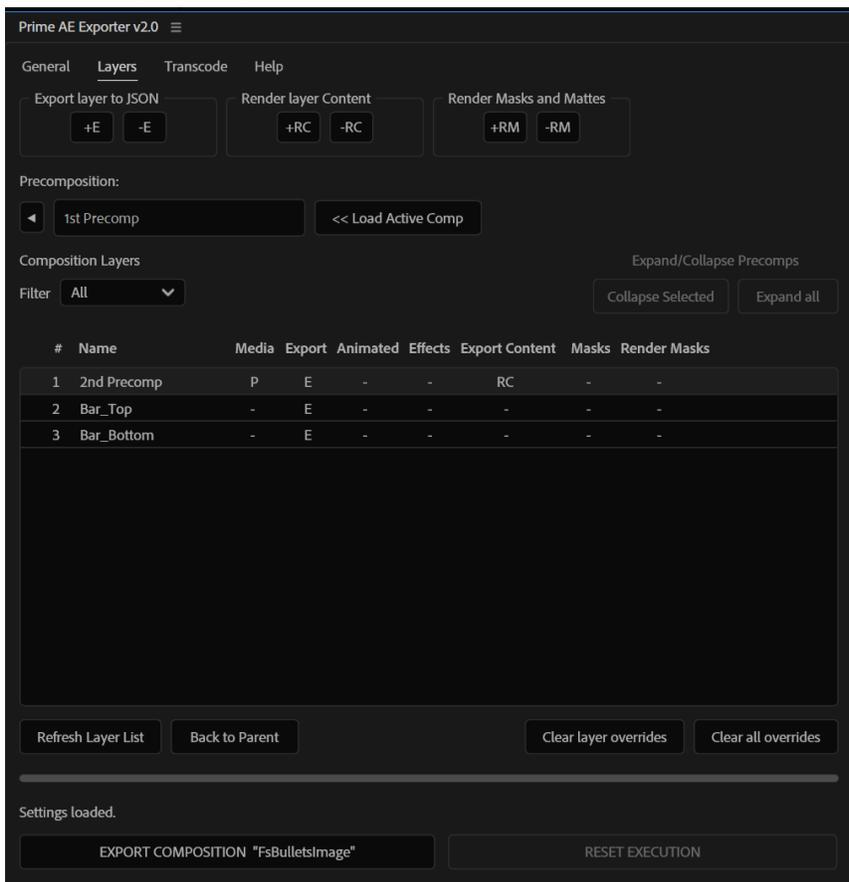
To return to the primary parent export composition, please select one of the following buttons, Back or Back to Parent.

    or
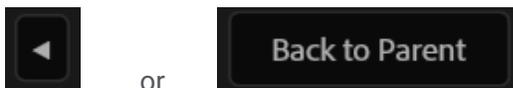
Masks

Masks can be automatically rendered out as a separate additional file by default, either as a still file or animated as required. Please see the General Tab Section for more information about the Render masks and mattes by default option.

Basic rectangular shaped masks (including the animation) can be imported natively into PRIME. Override this default setting when exporting if desired. PRIME re-creates the mask using the different methods below.

The following Masks are supported:

- Rectangle Mask (Clip Plane Effect in PRIME)
- Track Matte (Mask Effect in PRIME)
- Set Matte Effect (Clip Plane Effect in PRIME)

*Rectangle and Set Matte Effect are converted to 4 clip planes in PRIME maintaining animation
*Feathered and unsupported masks must be converted to Images or Video files. The Mask Effect will be used in Prime. Please make sure these layers are set to +RM.

Set Matte Effect requires the use of a solid layer with a mask applied on the solid layer like in the photo here.
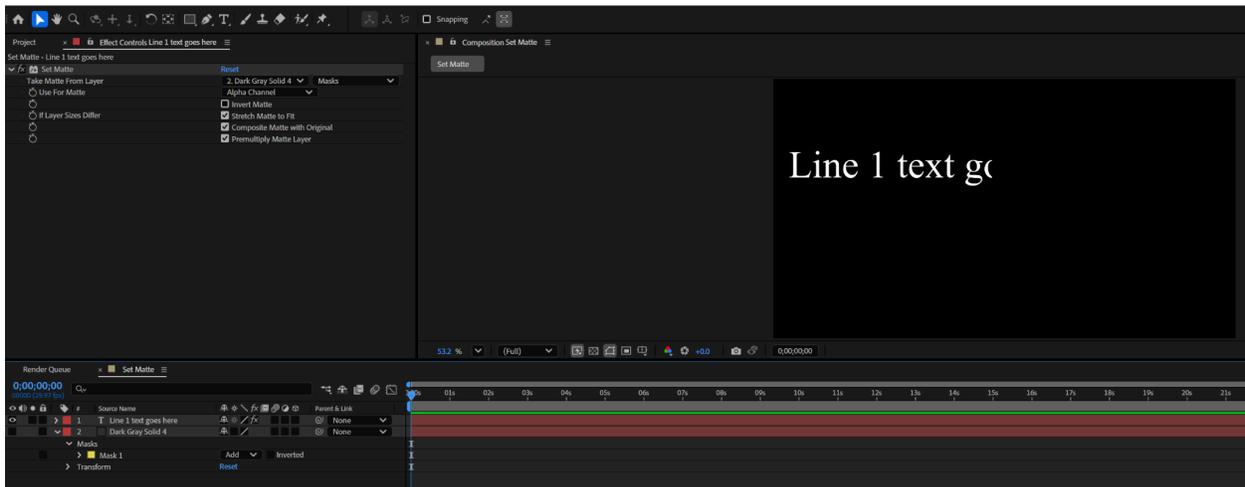
*Please Note - AE to Prime mask compatibility / import results can and will heavily vary depending on AE composition complexity and setup.

Mask Column
- **(M) Mask**
    - Clip Plane Effect in Prime will be applied to the object if the object is also fully supported. Otherwise, users are encouraged to mark this layer as +RM to render the mask as a clip.

- **(T) Track Matte**
   - Mask Effect in Prime will be applied to the object if the object is also fully supported. Otherwise, users are encouraged to mark this layer as +RM to render the mask as a clip.

- **(T/M) Track Matte + Mask on the same layer**
    - Supported objects will attempt to use the M and/or T Prime supported mask features above. If you are having difficulties with T/M, we recommend only using one supported mask type at a time per mask layer setup. Another option is to render T/M masks out as a mask clip (+RM) in order to import your masks into PRIME.

*Please Note - Compositions and Precomps can have a mix of Masks and Track Mattes. Too many masks or mask clips in Prime can and will cause real-time performance issues.

Transcode Tab
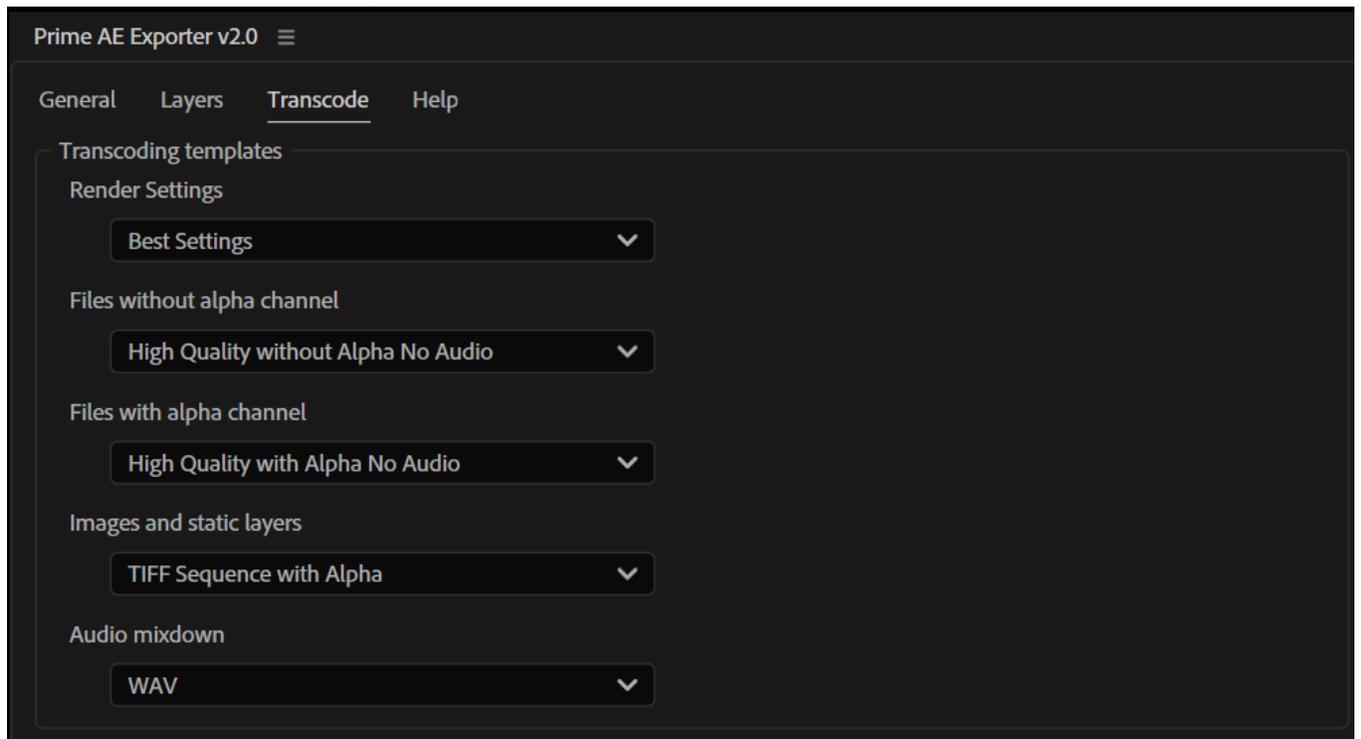
Please select the preferred templates for all file types

- *Please see the Prime AE Output Module Templates Section of this guide to install and/or create your own output templates.*

*Please Note - Confirming the proper Transcode preset and settings are set is required prior to exporting your AE Composition. Transcode presets and settings can vary greatly and we recommend always checking these settings before exporting.

Render Settings

- Best Settings is the default and preferred Render Settings for the Exporter

Files with and without alpha channels (Video Clips)

- Several preset options available
  - **High Quality with Alpha No Audio** and **High Quality without Alpha No Audio** Output Templates work well with PRIME.
    - QuickTime ProRes Clips in PRIME especially if the video requires an Alpha Channel.
  - H.264 (.mp4) files are also very performant but do not allow for alpha.

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*Please Note (audio with rendered clips) - if you select a Template which allows the audio to be rendered with your video clips, any and all enabled audio in the composition's tree will be included within each and every video clip rendered. The provided Output Templates are specifically configured to not export the audio.

Images and static layers

- PNG
  - Makes all images and static layers individual .png files **(Recommended)**
- TIFF Sequence with Alpha
  - Makes all images and static layers individual .tiff files
- Photoshop
 - Makes all images and static layers individual .psd files

Audio Mixdown

- WAV
  - Currently, PRIME only supports .wav files
    - The Audio Mixdown template must be named WAV in order to work and function properly. Please use the provided WAV Output Template

If you are experiencing Prime performance issues - please reduce the number of clips being used at once or use different PRIME supported codecs within your Prime Scene and Base Scenes.

Help Tab

Provides users with the Legend and a Quick Help Guide if needed while using the Exporter
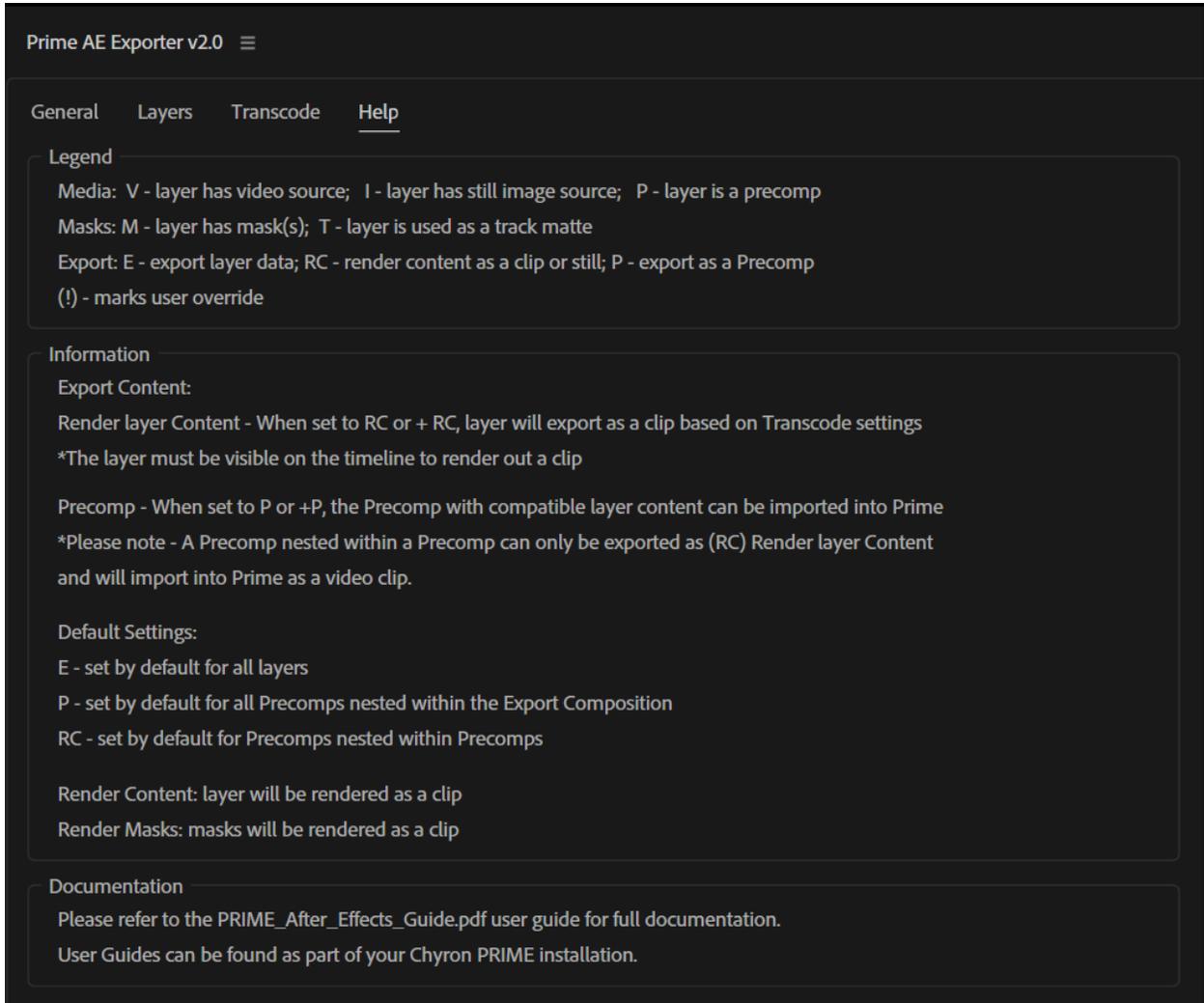
Prime AE Exporter v2.0 ≡

General   Layers   Transcode   **Help**

Legend
    Media: V - layer has video source;   I - layer has still image source;   P - layer is a precomp
    Masks: M - layer has mask(s); T - layer is used as a track matte
    Export: E - export layer data; RC - render content as a clip or still; P - export as a Precomp
    (!) - marks user override

Information
    Export Content:
    Render layer Content - When set to RC or + RC, layer will export as a clip based on Transcode settings
    *The layer must be visible on the timeline to render out a clip

    Precomp - When set to P or +P, the Precomp with compatible layer content can be imported into Prime
    *Please note - A Precomp nested within a Precomp can only be exported as (RC) Render layer Content
    and will import into Prime as a video clip.

    Default Settings:
    E - set by default for all layers
    P - set by default for all Precomps nested within the Export Composition
   RC - set by default for Precomps nested within Precomps

    Render Content: layer will be rendered as a clip
    Render Masks: masks will be rendered as a clip

Documentation
    Please refer to the PRIME_After_Effects_Guide.pdf user guide for full documentation.
    User Guides can be found as part of your Chyron PRIME installation.

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Exporting your Composition

Once you are finished with creating and optimizing your AE to PRIME project and you have confirmed and applied all General, Layer and Transcode selections / preferences, please navigate to the Layers tab and select EXPORT COMPOSITION. The composition name loaded into the Exported Composition within the script will display itself so users know which primary composition they are exporting. This is the composition that will be imported as a .pbx into PRIME.
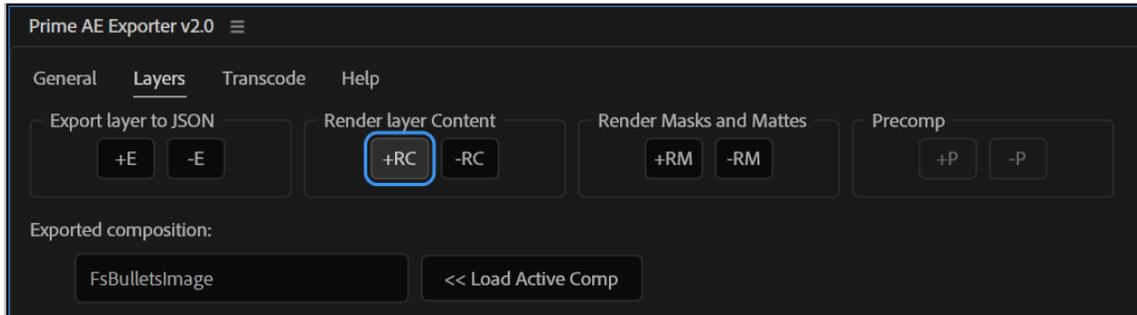
Clicking the EXPORT COMPOSITION button will immediately queue up any videos that need to be rendered into the After Effects render queue. If the AE render queue already has files pending to be rendered, a prompt will appear to confirm the queue can be cleared. Once all videos have completed rendering, the exporter will generate the JSON file. Please see the two different export methods below for step-by-step instructions.


Export Methods

There are two different Export workflows a user can utilize with the Prime AE Exporter v2.0 Script. Under the General Tab you will find an option named, User starts rendering.
This is enabled by default and at this time we recommend keeping this enabled for the best experience. Saving your project will save any and all user defined settings to the Prime AE Exporter. The "Automatic Mode" sub-section below outlines why we do not recommend users use this as their workflow experience at this time.

User starts rendering (Checked by Default)

*Highly Recommended Method

User starts rendering will enable a manual export process requiring users to interact with the AE UI/UX during the export process. Users will be required to start the Render Queue and export the .JSON file manually.

1. **Confirm User starts rendering is checked under the General Tab**
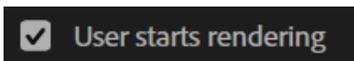

2. **Select Export Composition**

3. The After Effects Render Queue will be focused and any rendered content (video clips, images, and audio) will automatically be added to the render queue based on your layer selections. Each queued render will use the appropriate Transcode Tab settings users set up at the beginning of this document. The following message will pop up informing you to click Render in the Render Queue.
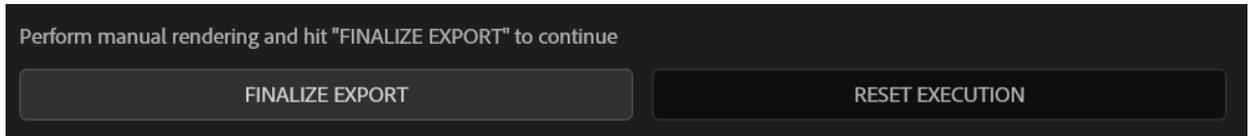
   a. Click OK
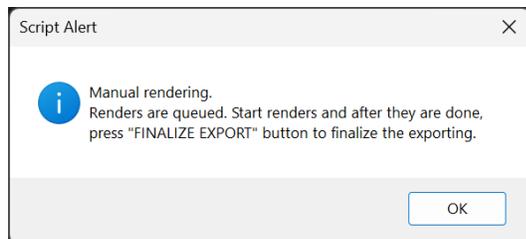
   b. Select Render in the AE Render Queue.
      This will begin rendering your video and audio files to the destination folder set under the General Tab.
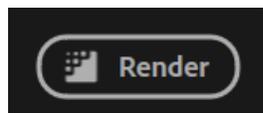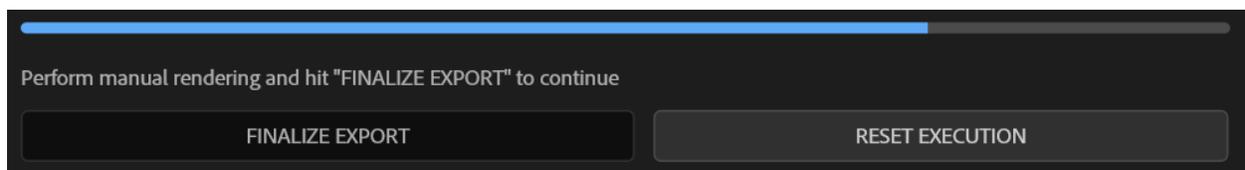
4. Once Rendering is complete, Select Finalize Export to generate the .JSON file

5. If Successful, the JSON file will have been written to the specified destination folder under the General Tab and the following prompts will appear.
Hit OK.

6. Please see the Importing to PRIME section below to continue next steps.
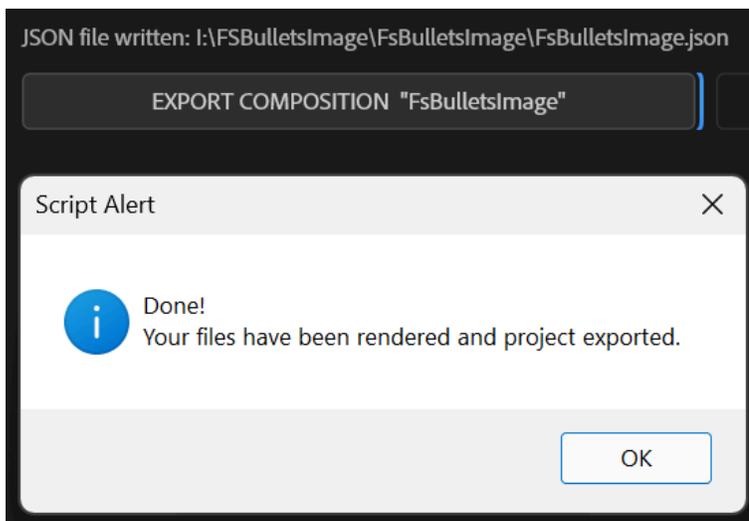
Reset Execution

If you encounter an issue prior to Finalizing the Export, please select Reset Execution to start the Export process over.

User starts rendering

(Unchecked \ Automatic Mode)

When User starts rendering is Unchecked in the General Tab, this enables the automatic exporter workflow which was the default experience previously in the original 1.0 version of the AE Comp Exporter.

Automatic Mode will automatically queue up and render the video\audio files setup within your Layers Tab and then export the .json file once rendering has completed.

The Exporter will display a Rendering… status during export
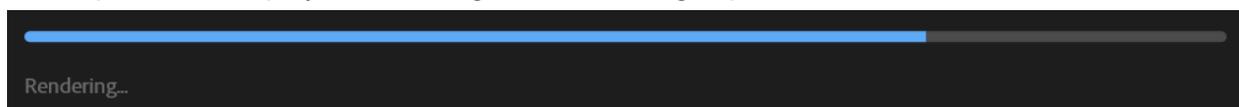
However, There are two known issues with this workflow which Chyron is working with Adobe to fix at a later time. This is why we highly recommend using the Manual (checked mode) at this time.

- **Issue 1** - The Render Queue will not display the real-time render status or % while rendering
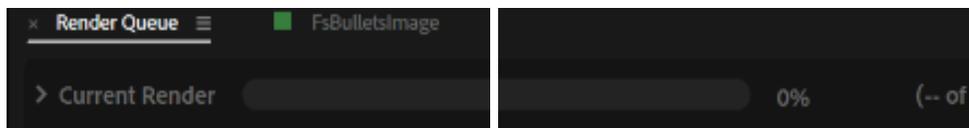
- **Issue 2** - AE might appear washed out with (Not Responding) in the Title Bar and appear like it is crashing. AE should not actually crash and is actually rendering the videos in the background.
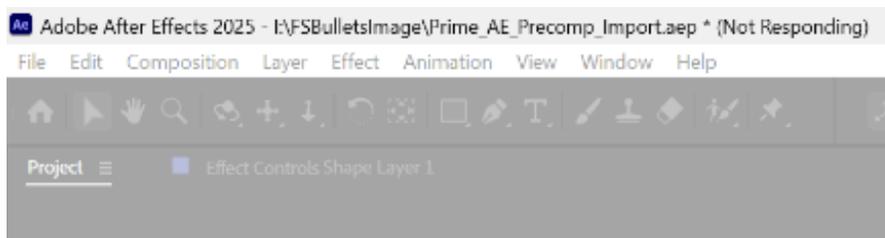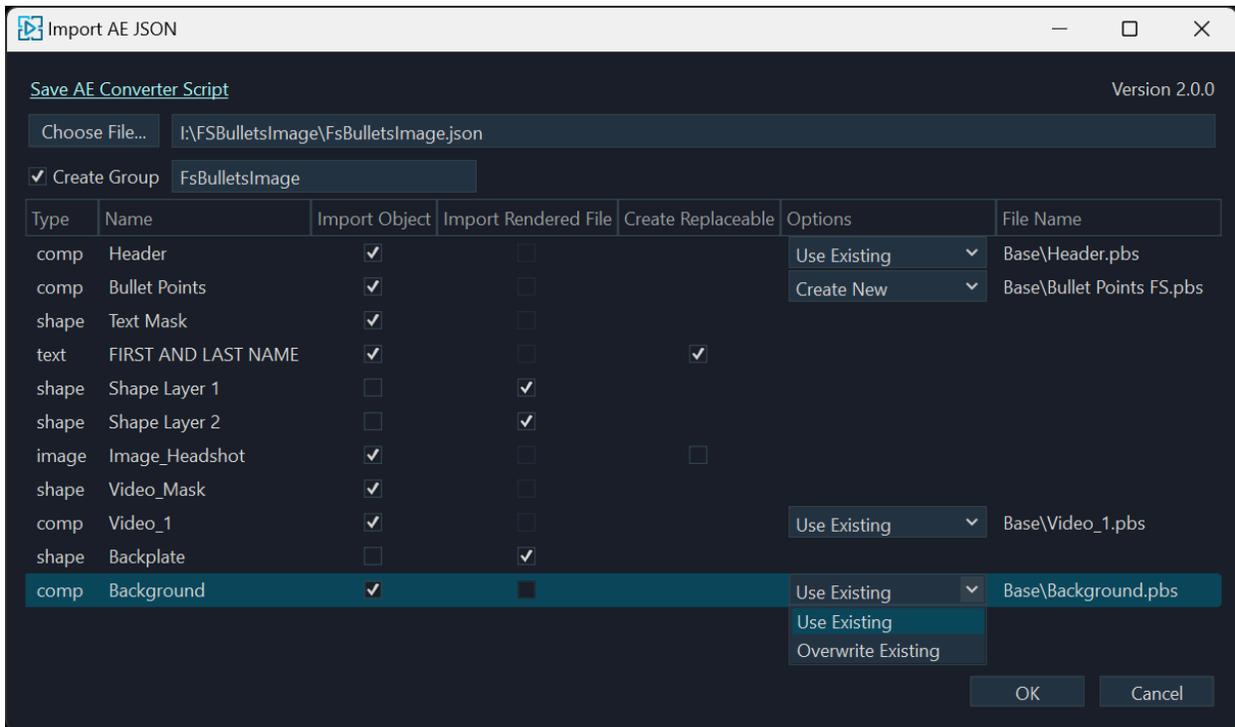

When using Automatic Mode, please be aware of these two issues. Even though AE looks unresponsive, your system should render the content and export the .JSON file.

Please give the system time to do its job depending on how many files you are rendering.

Importing into PRIME

Import options

File > Import AE

All objects appearing in the list for the associated selected JSON file. A user may select elements they wish to import as either an object or rendered file. If a layer was rendered to a clip by the AE exporter script, the Import Rendered File checkbox will be available for that layer. Unchecked layers are not imported.

Animations are imported into PRIME's Default Action for Prime and Base Scenes

Create Replaceable - Starting in Prime 5.0, users can now immediately create Prime replaceables for Text, Images, and Clips upon Import of an AE json project file.

Precomps will be labeled under Type as comp and will be imported either as a Rendered Video Clip or a Base Scene, depending on the options selected during the AE export process.

Three Base Scene options are available:
- **Create New**
  - Creates a brand new Base Scene that does not exist within the Project Folder
- **Use Existing**
  - Uses the existing Base Scene that is named the same and already exists within the Project Folder
- **Overwrite Existing**
  - Overwrite a Base Scene that already exists within the Project Folder

Unless Use Existing is selected, after importing - Base Scenes will automatically be saved to disk and then opened in Prime Scene Tabs. Please make sure to Save your Prime Scene after importing.

Turning a Base Scene with Existing or Overwrite Options into a New Base Scene upon Import
When importing your JSON file, if a Base Scene already exists with the same name which you are attempting to import, the Options dropdown will only display Use Existing or Overwrite Existing.

File Name Column file names are editable during import - double clicking the File Name itself per layer, designers can modify the name of the Base Scene and the importer will create a new Base Scene instead.
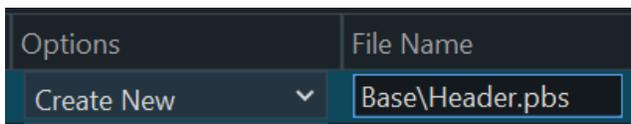
Sorting Layers

Users can click on the Column Headers to sort by ascending or descending order. This will not affect the PRIME Scene Tree layer order during import into PRIME.

| Type ▲	Name	Import Object
comp	Header	☑
comp	Bullet Points	☑
comp	Video_1	☑
comp	Background	☑
image	Image_Headshot	☑
shape	Text Mask	☑
shape	Shape Layer 1	☑
shape	Shape Layer 2	☑

Troubleshooting

- If any rendered content is not found in its destination folder, a pop up will appear informing you that it has not been rendered. This could also happen if Finalize Export was clicked before the render queue had time to complete.
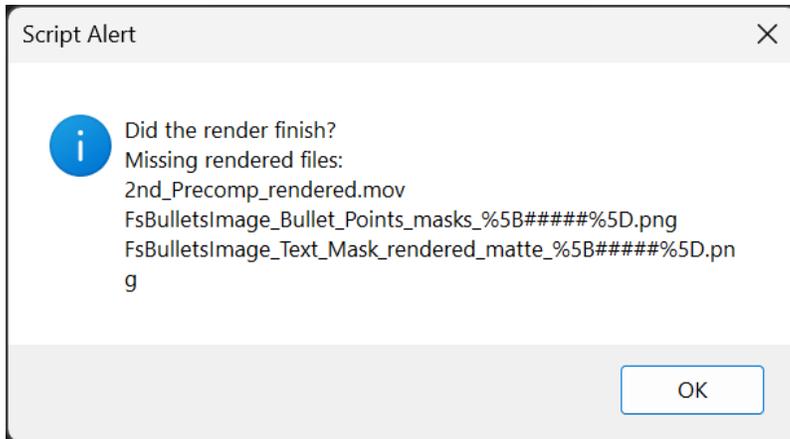
- If a rendered file already exists in the Destination directory, the following message will appear alerting the user.
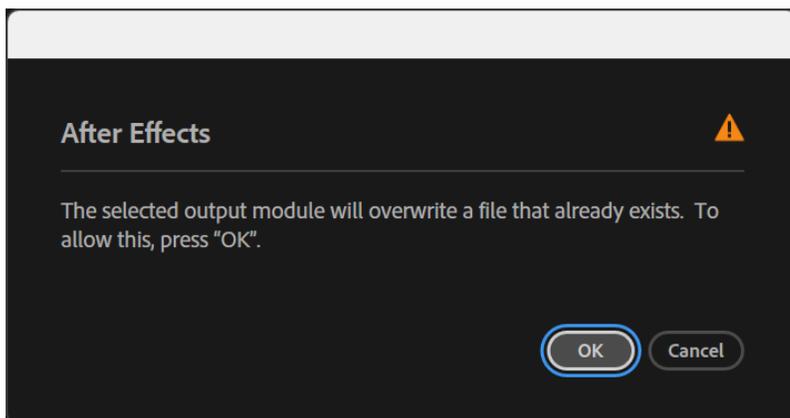
- If your AE Composition is having difficulty importing into PRIME, please see the PRIME Supported AE Objects section of this document. We recommend users simplify and optimize needed compositions made in After Effects in order to import into PRIME as well as to maintain best performance due to PRIME's Realtime Engine capabilities.

ABOUT US

Chyron is ushering in the next generation of storytelling in the digital age. Founded in 1966, the company pioneered broadcast titling and graphics systems. With a strong foundation built on over 50 years of innovation and efficiency, the name Chyron is synonymous with broadcast graphics. Chyron continues that legacy as a global leader focused on customer-centric broadcast solutions. Today, the company offers production professionals the industry's most comprehensive software portfolio for designing, sharing, and playing live graphics to air with ease. Chyron products are increasingly deployed to empower OTA & OTT workflows and deliver richer, more immersive experiences for audiences and sports fans in the arena, at home, or on the go.

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