

# Multi-Format Auto Converter<sup>™</sup>

## SAFARI Montage<sup>®</sup>

---

These instructions explain how to configure and use the SAFARI Montage Multi-Format Auto Converter Module. The H.264 Auto Converter is a software module designed to convert SAFARI Montage CreationStation<sup>®</sup> video formats to the SAFARI Montage Managed Home Access (MHA) standard.

**Requirements:**

- These instructions are for SAFARI Montage version 4.3.x or greater operating on FreeBSD<sup>®</sup> 7.2 or greater platform.
- The SAFARI Montage Multi-Format Auto Converter Module must be active on the server.

**Notes:**

- Contact SAFARI Montage Technical Support with questions pertaining to these instructions. SAFARI Montage Technical Support is available Monday - Friday from 8 a.m. to 6 p.m. Eastern Time, and they may be contacted by telephone at 800-782-7230 or online via <http://www.safarimontage.com/support>.

## Configuration:

1. Navigate to **Admin > Auto-Converter > Settings** the **Settings** page for the Auto Converter.

The screenshot displays the 'Auto-Converter Settings' page in the Safari Montage Admin interface. The left sidebar shows a navigation menu with 'Auto-Converter' expanded to 'Settings'. The main content area is titled 'Auto-Converter Settings' and contains the following configuration options:

- Enable:**
- Manually Add To Queue:**  (Turns off automatically adding to queue during creation upload)
- Prioritization:** Default (Last In, First Out) [v]
- Supported Video Source Codecs:** WMV, H.264, MPEG1  
The source format will be converted to hinted H.264 video w/ AAC audio for all resolutions below.
- Adaptive Bitrate Streaming (ABR):**  Enables conversion to Adaptive Bitrate (ABR) formats
- Convert to H.264 MP4s:**  Enables conversion to H.264 MP4 formats in addition to ABR to maintain HTML5 playback compatibility with legacy devices, including Internet Explorer 11 on Windows 7 and Classroom Media Controllers

Notes:  
- When ABR conversion is enabled, re-conversion will remove all previously converted formats.  
- Internet Explorer 11 HTML5 video playback requires Frame Size of 1920x1080 or lower (Windows 8 or earlier).

The page is divided into three resolution sections:

- Low Resolution:**
  - Enable:
  - Audio Bitrate: 128k
  - Audio Frequency: 44100 Hz
  - Frame Size: vga, 640x480 (recommended) [v]
  - Bitrate: 500k
  - Profile: Baseline
  - Level: 3.1
- Medium Resolution:**
  - Enable:
  - Audio Bitrate: 128k
  - Audio Frequency: 44100 Hz
  - Frame Size: hd480, 854x480 (recommended) [v]
  - Bitrate: 800k (recommended) [v]
  - Profile: Baseline
  - Level: 3.1
- High Resolution:**
  - Enable:
  - Audio Bitrate: 128k
  - Audio Frequency: 44100 Hz
  - Frame Size: hd1080, 1920x1080 (recommended) [v]
  - Bitrate: 3000k (recommended) [v] Note: An additional 1600 kbps (1.6 Mbps) ABR format will be converted when a value higher than 1600k is selected.
  - Profile: Main
  - Level: 4.0

An 'Update' button is located at the bottom of the settings page.

2. Configure the converter settings. Below is a list of configurable settings and a description of each setting.

Setting	Condition	Description
Enable	Enabled (checked) Disabled (unchecked)	Enables or disables the converter module. The default condition is set to Enabled.
Manually Add To Queue	Enabled (checked) Disabled (unchecked)	Enables or disables the manual queuing of uploaded video files for conversion. The default condition is set to disabled, and video files will be automatically queued as they are uploaded into SAFARI Montage CreationStation.
Prioritization	Default (Last In, First Out) First In, First Out School News VIEWPath Alerts	Sets the priority options in the conversion queue. By default the last item added to the conversion queue is the first item too be converted. School News forces items labeled as ‘School News’ to be converted before anything else, and then continues with the Last In, First Out. VIEWPath Alerts forces items recorded from a VIEWPath Alert to be converted before anything else, and then continues with Last In, First Out.
Adaptive Bitrate Streaming (ABR)	Enabled (checked) Disabled (unchecked)	Enables or disables conversion to Adaptive Bitrate (ABR) formats
Convert to H.264 MP4s	Enabled (check) Disabled (unchecked)	Enables conversion to H.264 MP4 formats in addition to ABR to maintain HTML5 playback compatibility with legacy devices, including Internet Explorer 11 on Windows 7 and Classroom Media Controllers

3. Configure the resolution settings. Below is a list of configurable settings and a description of each setting. The settings below are for all resolutions, Low, Medium and High.

Setting	Condition	Description
Enable	Enabled (checked) Disabled (unchecked)	Enables or disables the particular resolution and settings to be used when performing an auto conversion. The default condition is set to Enabled.
Frame Size	Original Vga, 6480x480 Hd480, 852x480 Hd720, 1280x720 Hd1080, 1920x1080	Set the frames size of the video files being converted. The default setting is set to Original. <b>Note:</b> The Original setting will retain the resolution of the source video used for conversion.
Bitrate	500 kb/s (for Low Resolution) 600-1200 kb/s (for Medium Resolution) 1600-5000 kb/s (for High Resolution)	Set the bitrate (bandwidth) of the converted video file. <b>Note:</b> The higher the setting, the better the video quality; however, this will increase bandwidth requirements.

4. Click on the **Update** button to save the changes.

### Using (Manually Add to Queue Disabled):

**Note:** This method will automatically queue uploaded video files for conversion.

1. Upload an eligible video file format into SAFARI Montage CreationStation. Eligible video file formats are as follows:

- WMV (Microsoft® Windows® Media Video)
- H.264(MPEG-4 Part 10 / H.264)
- MPEG-1

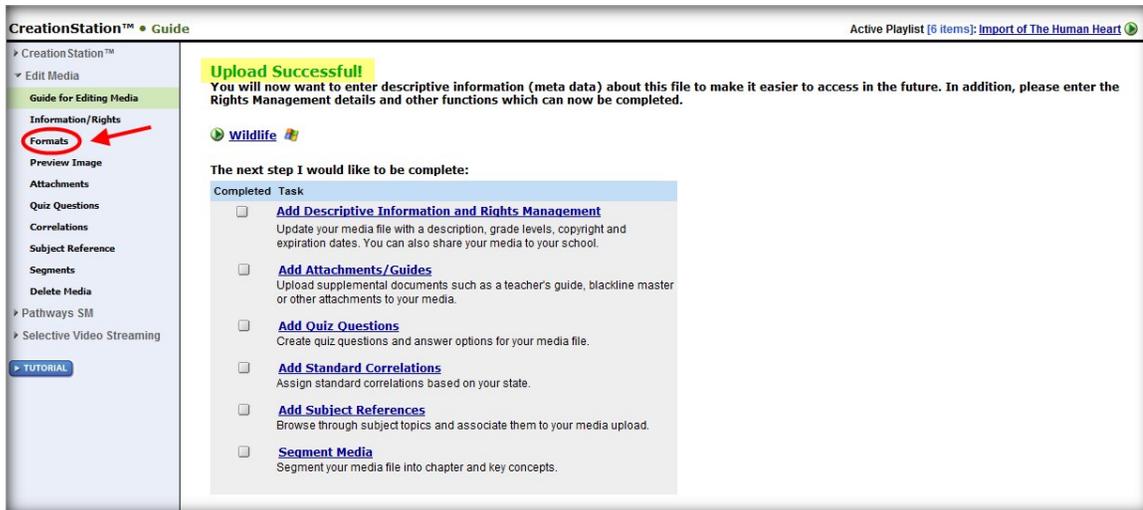
File conversion will begin once the upload is complete. Use the Convert Queue to check the status of the file conversion. More information about the Convert Queue is available under **Convert Queue** of this document.

### Using (Manually Add to Queue Enabled):

1. Upload an eligible video file format into SAFARI Montage CreationStation. Eligible video file formats are as follows:

- WMV (Microsoft® Windows® Media Video)
- H.264(MPEG-4 Part 10 / H.264)
- MPEG-1

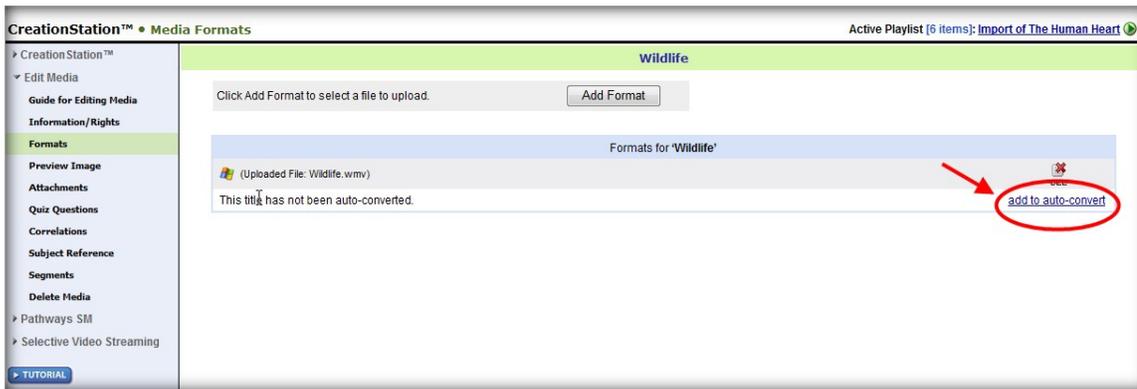
2. Upon “Upload Successful,” click on **Formats** from the left-hand navigation.



The screenshot shows the SAFARI Montage CreationStation interface. At the top, it says "CreationStation™ • Guide" and "Active Playlist [6 items]: Import of The Human Heart". The left-hand navigation menu includes "Creation Station™", "Edit Media", "Guide for Editing Media", "Information/Rights", "Formats" (highlighted with a red circle and arrow), "Preview Image", "Attachments", "Quiz Questions", "Correlations", "Subject Reference", "Segments", "Delete Media", "Pathways SM", and "Selective Video Streaming". The main content area displays a green "Upload Successful!" message: "You will now want to enter descriptive information (meta data) about this file to make it easier to access in the future. In addition, please enter the Rights Management details and other functions which can now be completed." Below this is a "Wildlife" icon and a section titled "The next step I would like to be complete:" with a table of tasks:

Completed	Task
<input type="checkbox"/>	<b>Add Descriptive Information and Rights Management</b> Update your media file with a description, grade levels, copyright and expiration dates. You can also share your media to your school.
<input type="checkbox"/>	<b>Add Attachments/Guides</b> Upload supplemental documents such as a teacher's guide, blackline master or other attachments to your media.
<input type="checkbox"/>	<b>Add Quiz Questions</b> Create quiz questions and answer options for your media file.
<input type="checkbox"/>	<b>Add Standard Correlations</b> Assign standard correlations based on your state.
<input type="checkbox"/>	<b>Add Subject References</b> Browse through subject topics and associate them to your media upload.
<input type="checkbox"/>	<b>Segment Media</b> Segment your media file into chapter and key concepts.

3. Click on the “add to auto-convert” link located under the **Delete** icon.



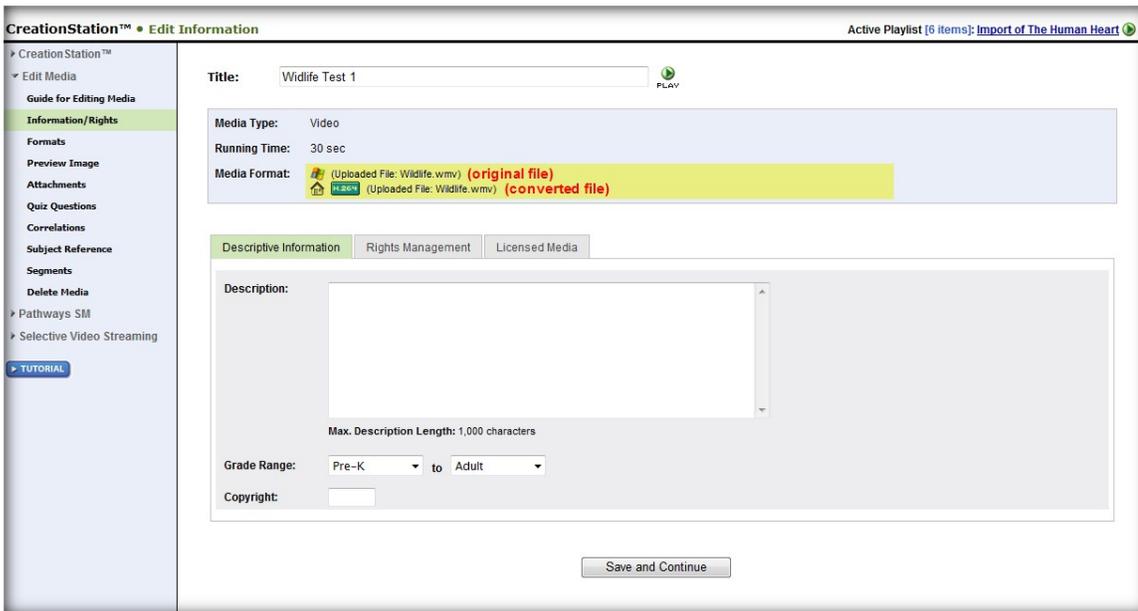
The video title is added to the Convert Queue for file conversion. Use the Convert Queue to check the status of the file conversion. More information about the Convert Queue is available under the **Convert Queue** heading of this document.

## Convert Queue

Administrators may check the status of a file conversion by navigating to **Admin > Auto-Converter > Convert Queue**. The Convert Queue will list all the video files to be converted. Individual video files can be removed from the queue by clicking on the **clear** link. In addition, the complete queue can be cleared by clicking on the **Clear Queue** link located at the top of the queue.

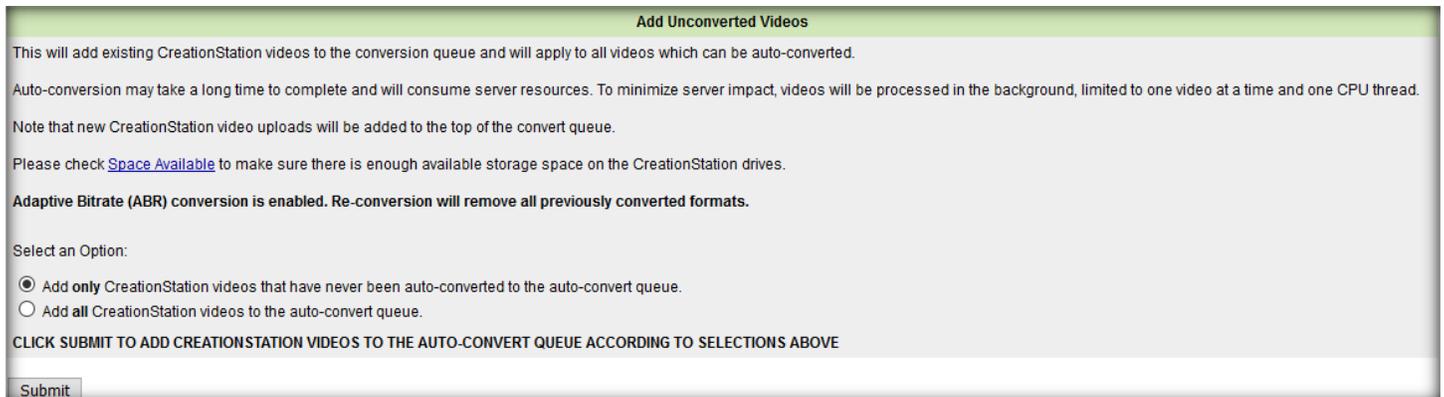
<a href="#">Clear Queue</a>   <a href="#">Add Unconverted Videos</a>						
Results 1 to 4 of 4						
	Title	Size	Assigned	Resolutions	Status	Queued
	4K Sample 02 [Administrator (Default)]	6.27 GB		Current Settings	converting: High Resolution: 5000k	April 20, 2016 09:44:32 AM <a href="#">clear</a>
	SAFARI Montage Kickoff Video [Administrator (Default)]	---		Current Settings		April 20, 2016 10:00:44 AM <a href="#">clear</a>
	Wildlife [Administrator (Default)]	61.75 MB		Current Settings		April 20, 2016 10:00:40 AM <a href="#">clear</a>
	4K Sample 01 [Administrator (Default)]	604.07 MB		Current Settings		April 20, 2016 09:44:29 AM <a href="#">clear</a>

Once conversion is complete, the queue entry will be removed, and a new MHA ready video will be available for use. The new video format is listed on the file information page of the original video file.



## Add Unconverted Videos

The Add Unconverted Videos function allows administrators to convert all eligible videos already on the server at once. To perform this action, navigate to **Admin > Auto-Converter > Convert Queue** and click on the **Add Unconverted Videos** link, located at the top of the queue.



Select one of the two options for converting CreationStation videos.

**Note:** This operation will use server resources and take time to complete. It is recommended that this operation be performed during off hours so not to disrupt server performance.