MITSUBISHI ELECTRIC

TECHNICAL BULLETIN

GOT-A-0288-A

How to Create Video Files for the GOT3000 Series

■Date of Issue

November 2026

■Relevant Models

GOT3000 Series (GT37 Models)

Thank you for your continued support of Mitsubishi Electric Graphic Operation Terminal (GOT).
The GOT3000 series (GT37 models) features a network camera recording and playback function. To use this function, video files must satisfy specific playback requirements.
General video creation tools (such as Clipchamp preinstalled on personal computers) may not allow users to configure detailed settings. As a result, videos created with these tools may not play on the GOT.
To ensure reliable operation on the GOT, create video files using the recommended tools and setting procedures described in this document.

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1 Overview

Due to the GOT's specifications, video files created with general video creation tools (such as Clipchamp preinstalled on personal computers) cannot be played back on the GOT as is.
This document describes how to create videos in a format that satisfies GOT's playback requirements.

1.1 Video file specifications

Video files must satisfy the following requirements.

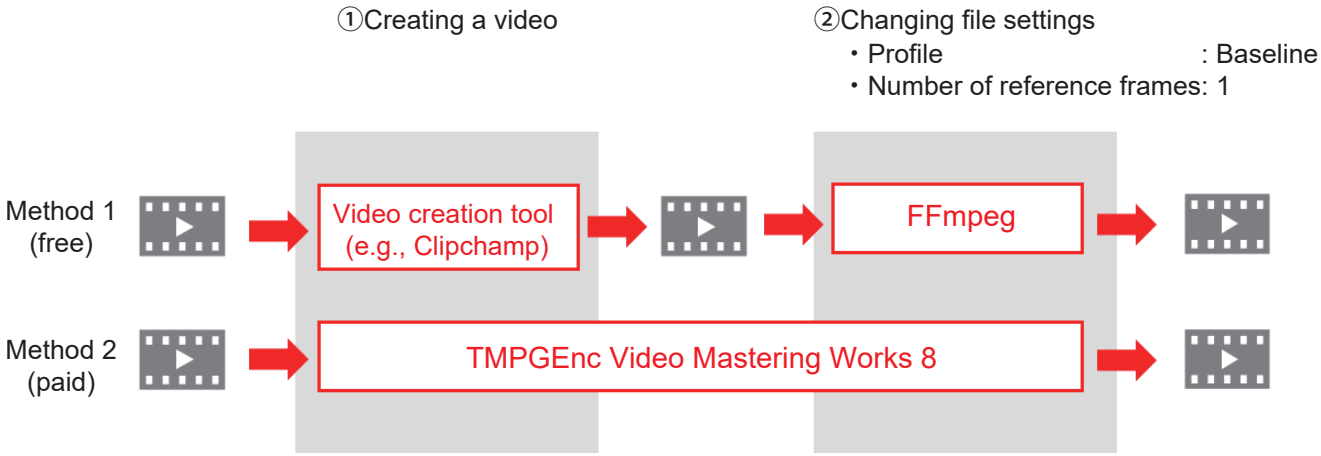
Item	Setting value
Resolution	Up to Full HD
File format	MP4
Video format	H.264 (Baseline profile)
Frame rate	Up to 30 fps
Bit rate	5 Mbps
Number of reference frames	1

1.2 Video file setting procedure

The GOT can play H.264 video encoded using the Baseline profile with up to one reference frame.
However, since Microsoft Clipchamp does not allow users to set the profile or the number of reference frames when creating a video file, the resulting file may not be playable on the GOT.
The following tools are recommended for setting the profile and the number of reference frames.

- FFmpeg (free)
- TMPGEnc Video Mastering Works 8 (paid)

Tool specifications are subject to change without notice at the manufacturer's discretion.
For details on the operation and settings of each product, be sure to refer to the manual provided by the manufacturer.



Validated version

- FFmpeg: version.8.0 2025-08-25
- TMPGEnc Video Mastering Works 8: version.8.0.10.11

Method 1: To convert a video created with a general video creation tool into a format that satisfies the GOT playback requirements, refer to the following.
☞ Page 3 How to convert a video created with a general video creation tool into a format that satisfies the GOT playback requirements using FFmpeg
Method 2: To create a video file using TMPGEnc Video Mastering Works 8, refer to the following.
☞ Page 9 How to create a video file using TMPGEnc Video Mastering Works 8

2 How to convert a video created with a general video creation tool into a format that satisfies the GOT playback requirements using FFmpeg

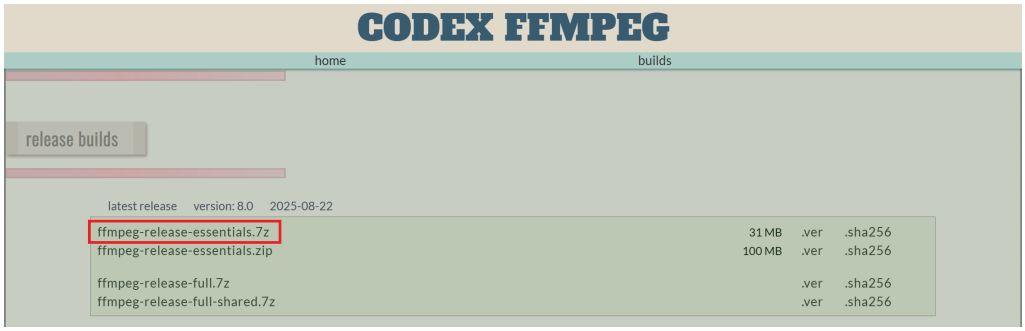
This section describes how to convert a video created with a general video creation tool into a format that satisfies the GOT playback requirements using FFmpeg.

2.1 Installation procedure

1. Access the official FFmpeg website.
https://ffmpeg.org/download.html

2. From the [Get packages & executable files] section, select [Windows builds from gyan.dev] or [BtbN's Ffmpeg Builds].

3. On the destination website, download the latest Windows build (e.g., release essentials or full build).



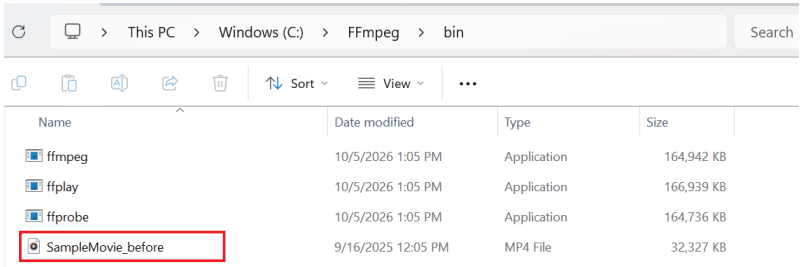
4. Unzip the downloaded 7z file.
7-Zip or other decompression software is required.

5. Move the unzipped folder to a location of your choice (e.g., C:\FFmpeg).

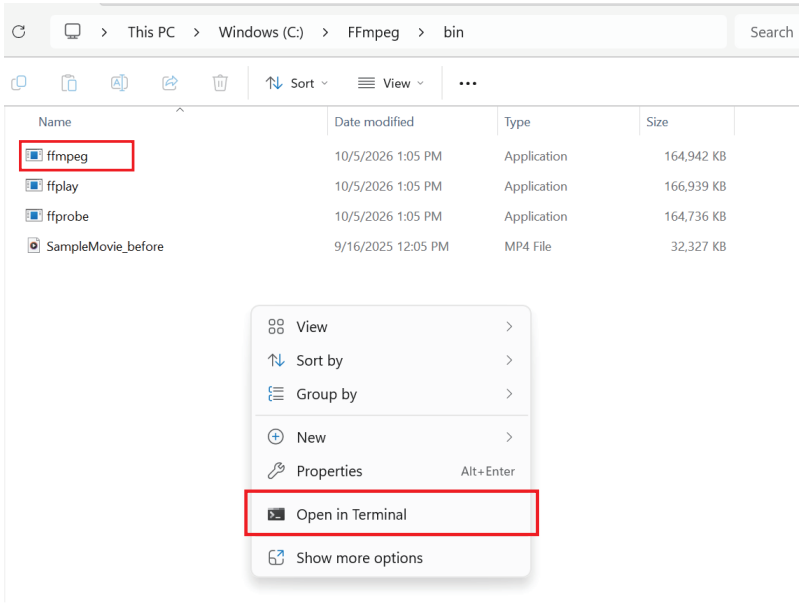
6. Add the path to the bin folder containing the FFmpeg executable file (e.g., C:\FFmpeg\bin) to the system PATH environment variable.

2.2 How to convert a video file

1. Place the video file to be converted in the same folder as ffmpeg.exe.



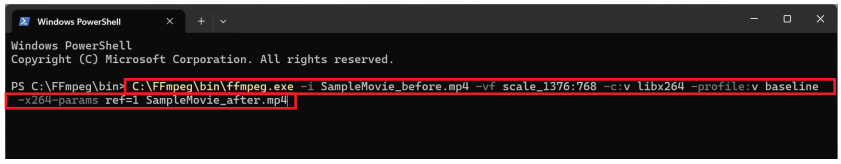
2. In the folder containing ffmpeg.exe, right-click and open Windows PowerShell.



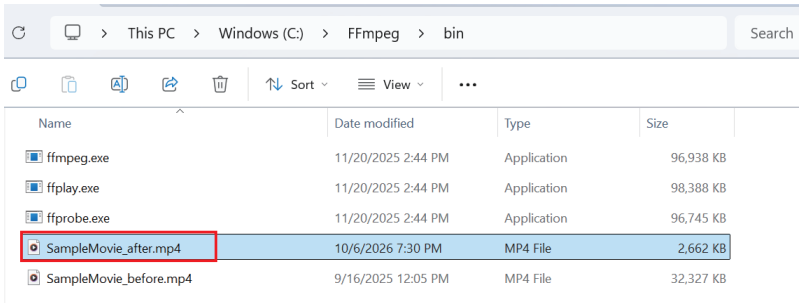
3. Enter the command and press Enter.

For details on the command, refer to the following.

☞ Page 5 Video conversion command



A video file is created.



2.3 Video conversion command

The following command can be used to convert a video file into a format that satisfies the specifications.

Command

[path]\ffmpeg.exe -i [input file name] [resolution] [encoding profile] [profile] [number of reference frames] [output file name]

Ex.

C:\FFmpeg\bin\ffmpeg.exe -i SampleMovie_before.mp4 -vf scale=1376:768 -c:v libx264 -profile:v baseline -x264-params ref=1 SampleMovie_after.mp4

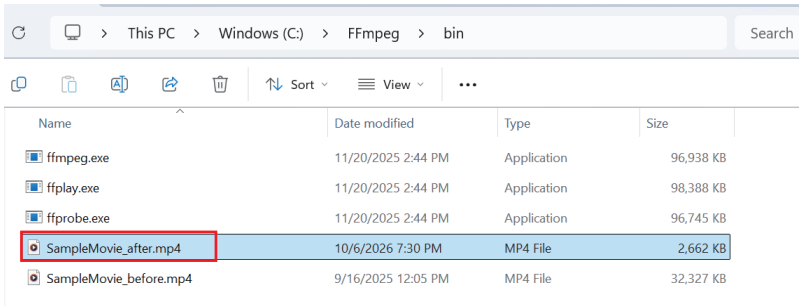
Change the text shown in red as needed.

Option	Description
C:\FFmpeg\bin\ffmpeg.exe	Path to ffmpeg.exe
SampleMovie_before.mp4	Input video file name
-vf scale=1376:768	Changes the resolution to 1376 × 768 (multiples of 16).
-c:v libx264	Encodes using H.264 (x264).
-profile:v baseline	Uses the H.264 Baseline profile.
-x264-params ref=1	Sets the number of reference frames to 1.
SampleMovie_after.mp4	Output video file name

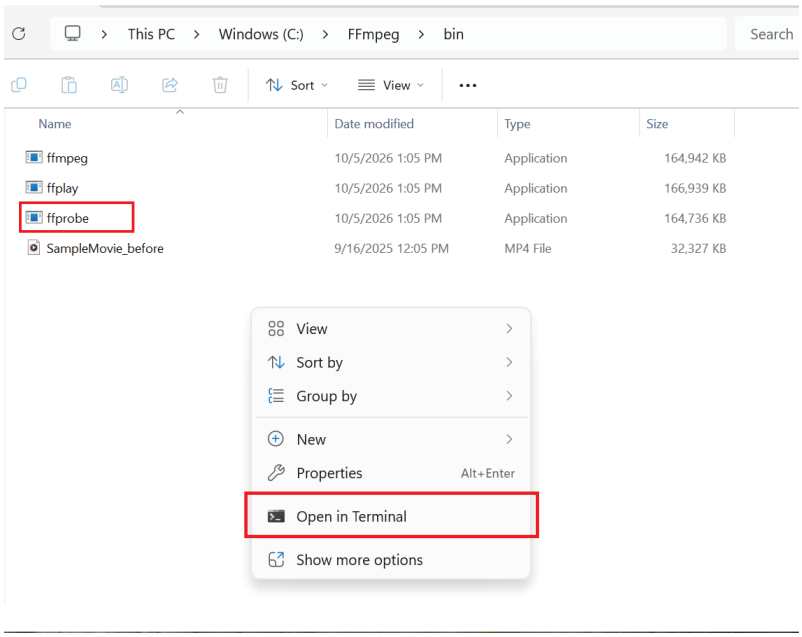
2.4 Checking the video profile

The following command can be used to check whether the video file satisfies the specifications.

1. Place the video file to be checked in the same folder as ffprobe.exe.



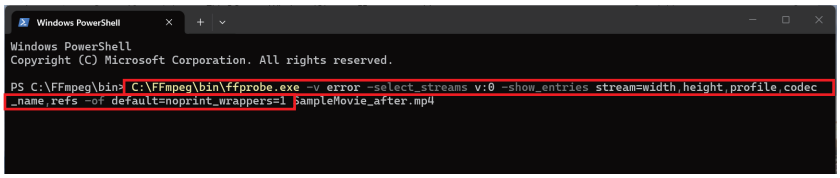
2. In the folder containing ffprobe.exe, right-click and open Windows PowerShell.



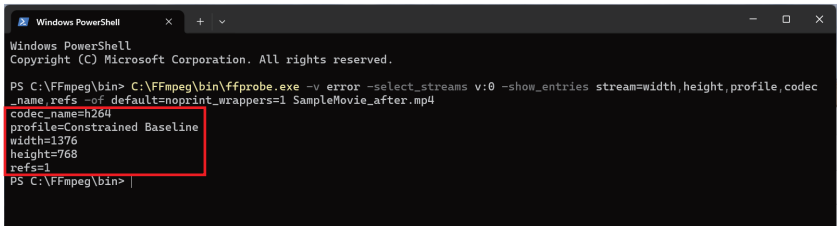
3. Enter the command and press Enter.

For details on the command, refer to the following.

☞ Page 8 Video profile check command



The profile is output.



Item	Description	Example
width/height	Resolution	1920x1080
profile	H.264 profile	Baseline / Main / High etc.
refs	Number of reference frames	1 or 2

2.5 Video profile check command

The following command can be used to check whether the video file satisfies the specifications.

Command

[path]\ffprobe.exe -v [log level] [video stream No.] [output item] [output format specification] [name of the video file to be checked]

Ex.

C:\FFmpeg\bin\ffprobe.exe -v error -select_streams v:0 -show_entries stream=width,height,profile,codec_name,refs -of default=noprint_wrappers=1 SampleMovie_after.mp4

Change the text shown in red as needed.

Sample command prompt output

```
codec_name=h264
profile=Constrained Baseline
width=1376
height=768
refs=1
```

Option	Description
C:\FFmpeg\bin\ffprobe.exe	Path to ffprobe.exe
-v error	Sets the log level to error. Suppresses non-error messages, such as info and warning, to keep the output clean.
-select_streams v:0	Selects stream 0 (the first video stream). Ignores audio and subtitle streams.
-show_entries stream=	Output item
width	Width (pixels)
height	Height (pixels)
profile	Codec profile (e.g., Baseline, Main, High)
codec_name	Codec name (e.g., h264, hevc)
refs	Number of reference frames (ref_frame_count)
-of default=noprint_wrappers=1	Specifies the output format. ・For noprint_wrappers=1 width=1920 ・・・ refs=1 ・For noprint_wrappers=0 [STREAM] width=1920 ・・・ refs=1 [/STREAM]
SampleMovie_after.mp4	Name of the video file to be checked

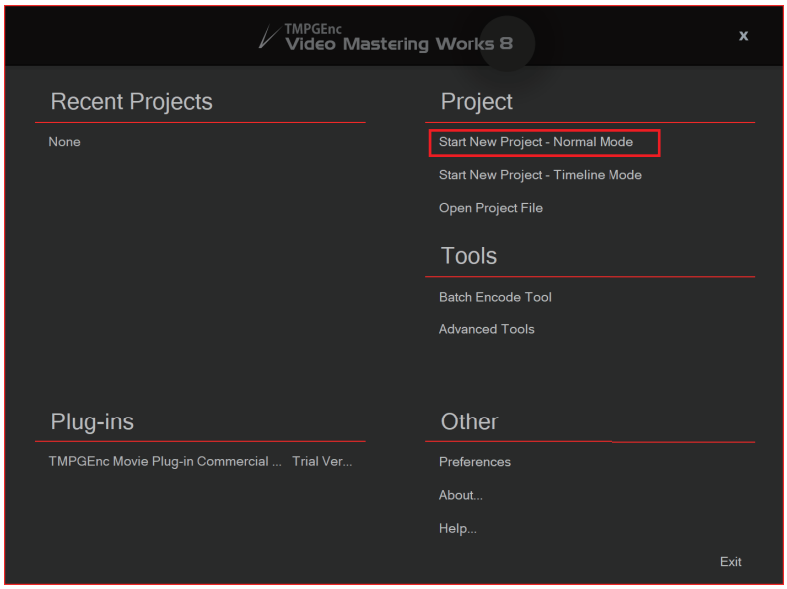
3 How to create a video file using TMPGEnc Video Mastering Works 8

This section describes how to create a video file using TMPGEnc Video Mastering Works 8.

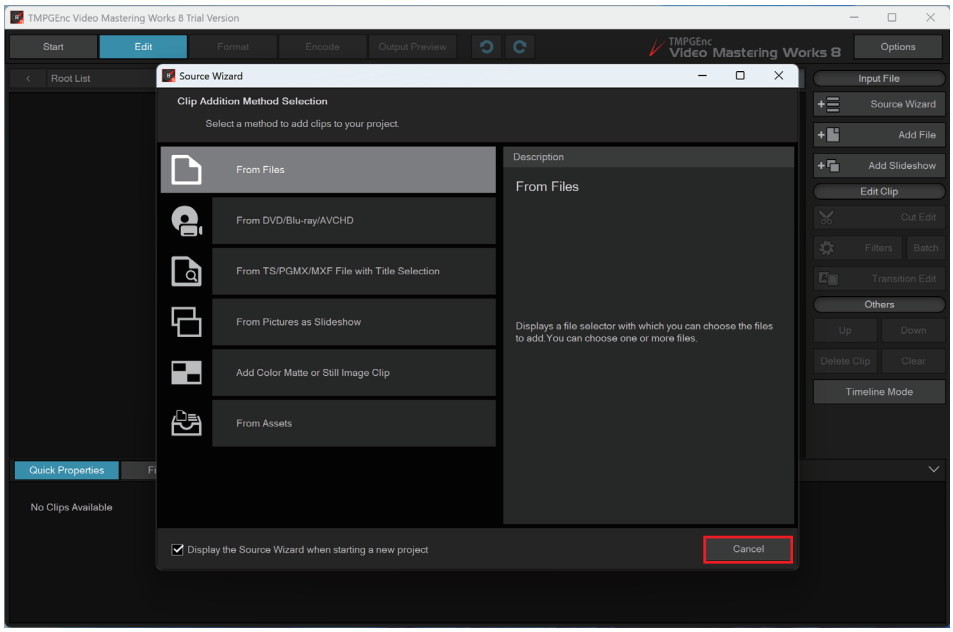
3.1 How to convert a video file

1. Start TMPGEnc Video Mastering Works 8.

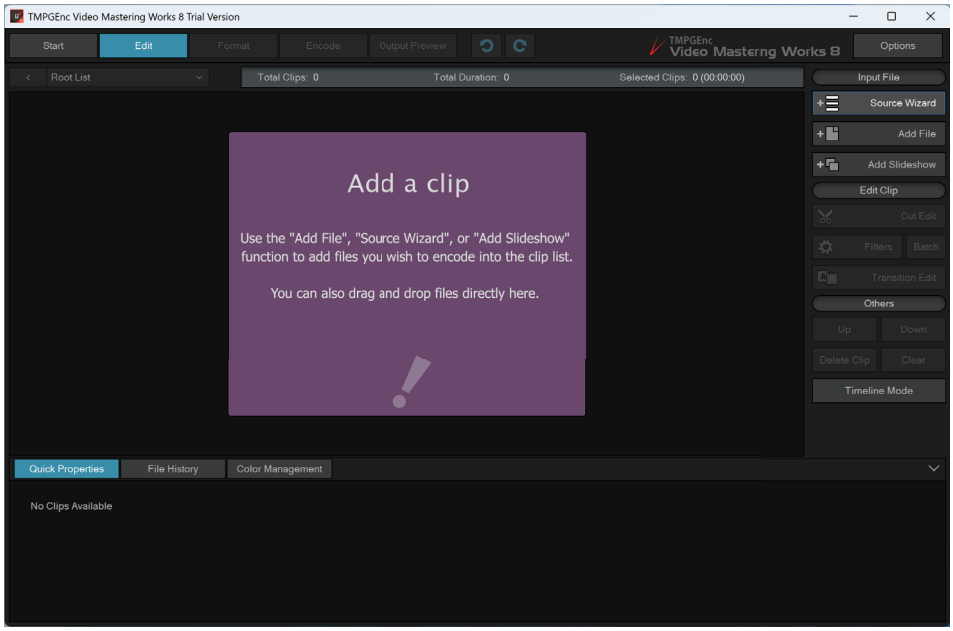
Select [Start New Project - Normal Mode].



2. Click [Cancel].

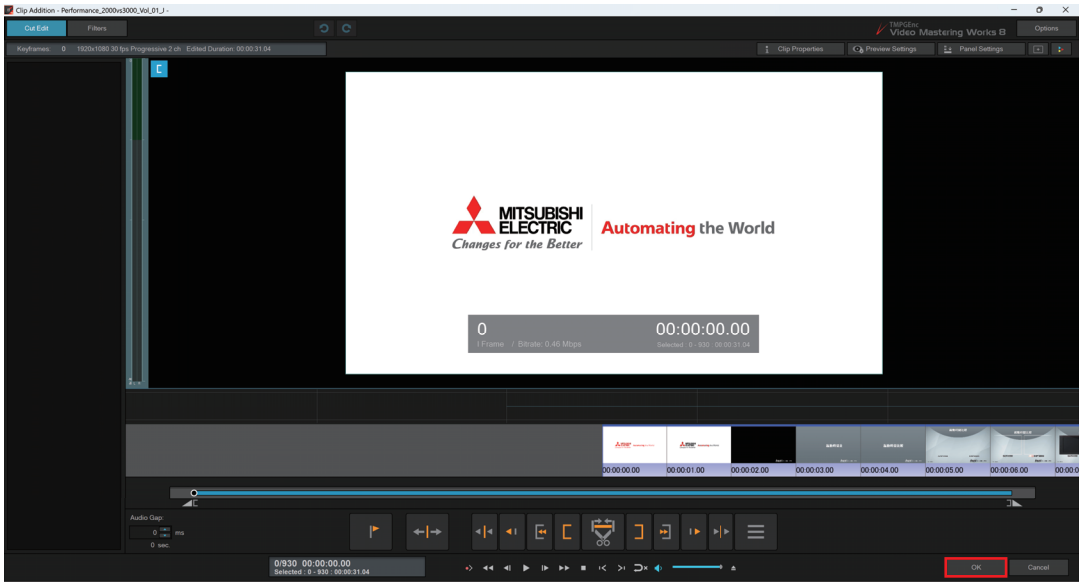


3. Drag and drop the video file for editing.



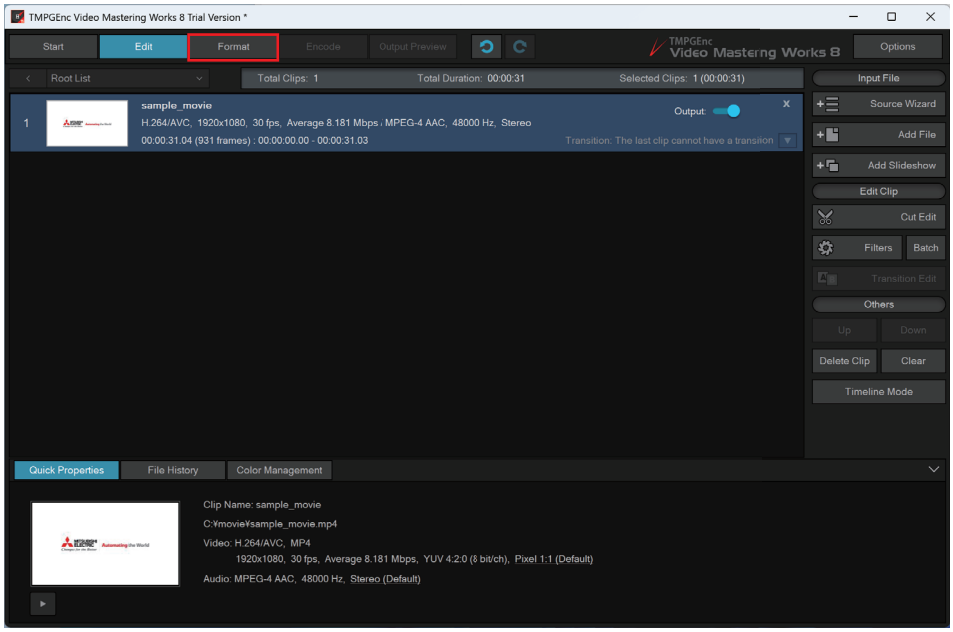
4. Edit the content.

After editing is complete, click [OK].

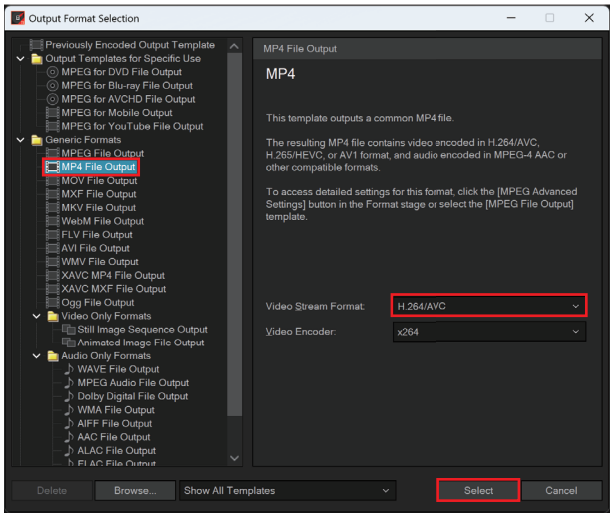


5. Click [Format].

After editing is complete, click [OK].

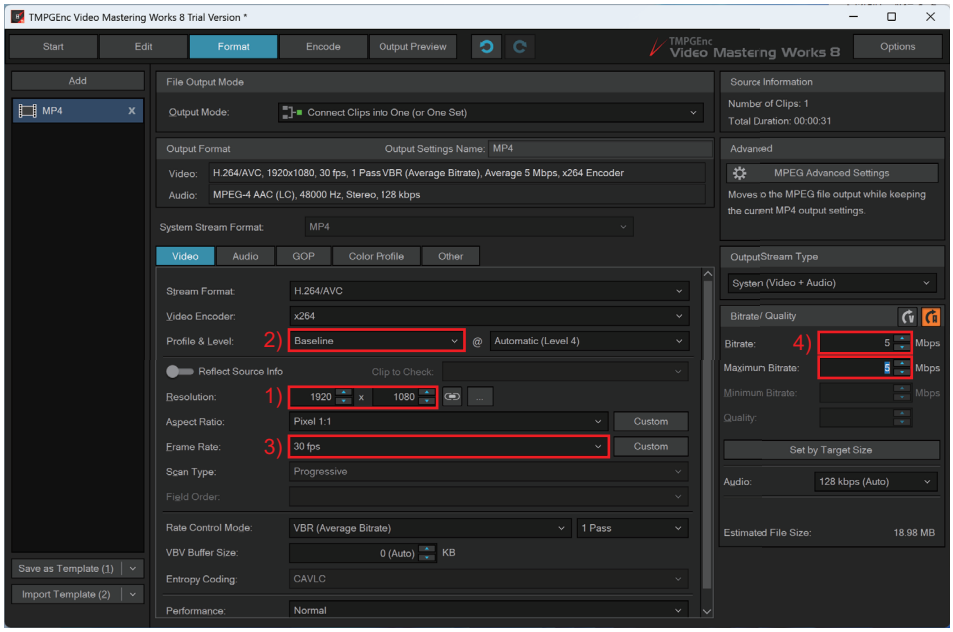


6. Select [H.264/AVC] in [MP4 File Output] and click [Select].



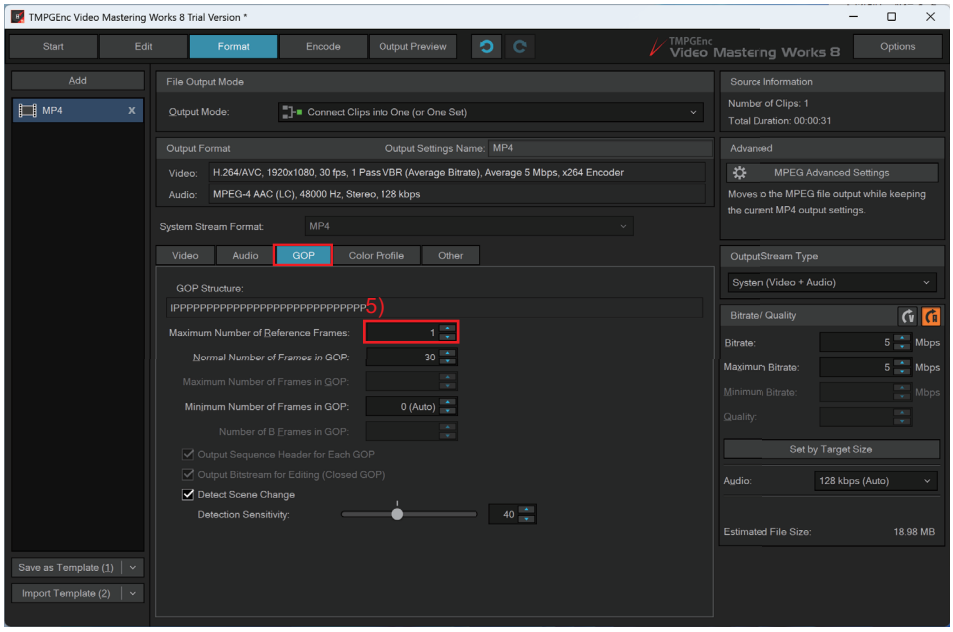
7. Set the parameters on the [Video] tab.

1)	Resolution	Up to Full HD (1920 × 1080)
2)	Profile & Level	Baseline
3)	Frame Rate	Up to 30 fps
4)	Bitrate	5 Mbps



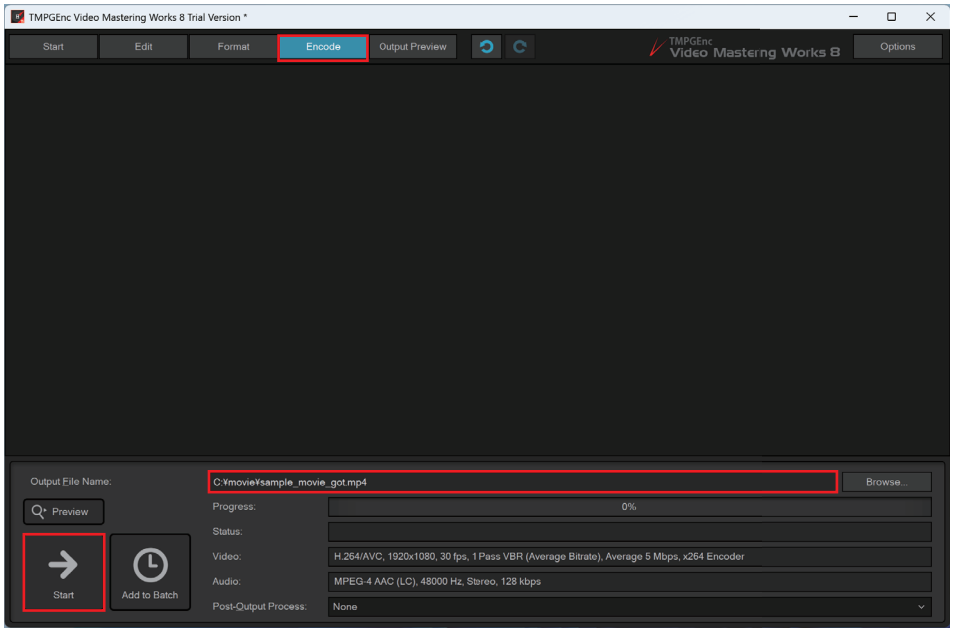
8. Set the parameters on the [GOP] tab.

5)	Maximum Number of Reference Frames	1



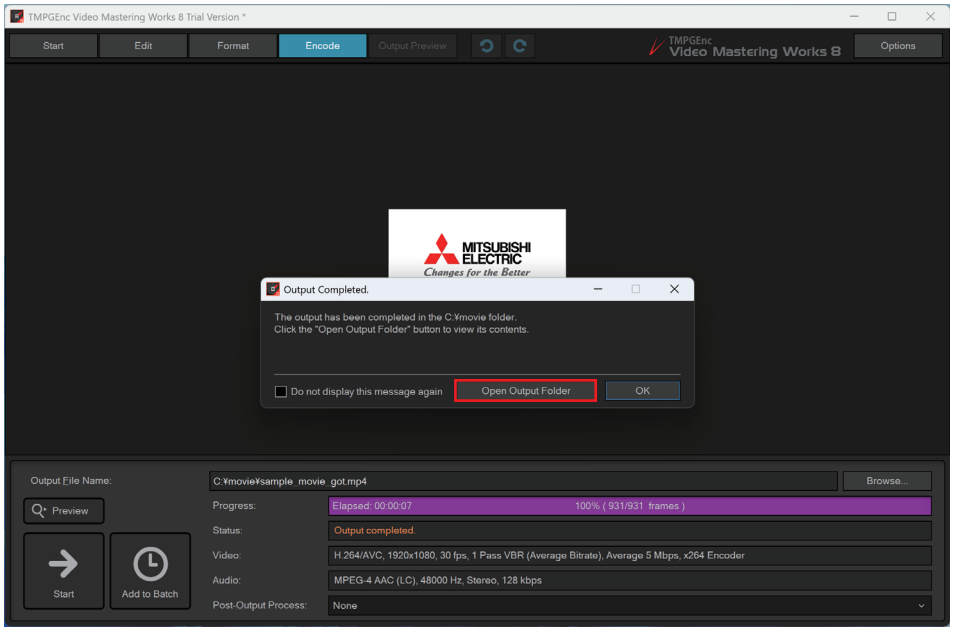
9. Select the [Encode] tab and click [Start].

Specify a destination path.



10. Click [Open Output Folder].

The folder containing the output video will be saved is displayed.



Revisions

Version	Issue date	Revision
A	November 2026	First edition

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