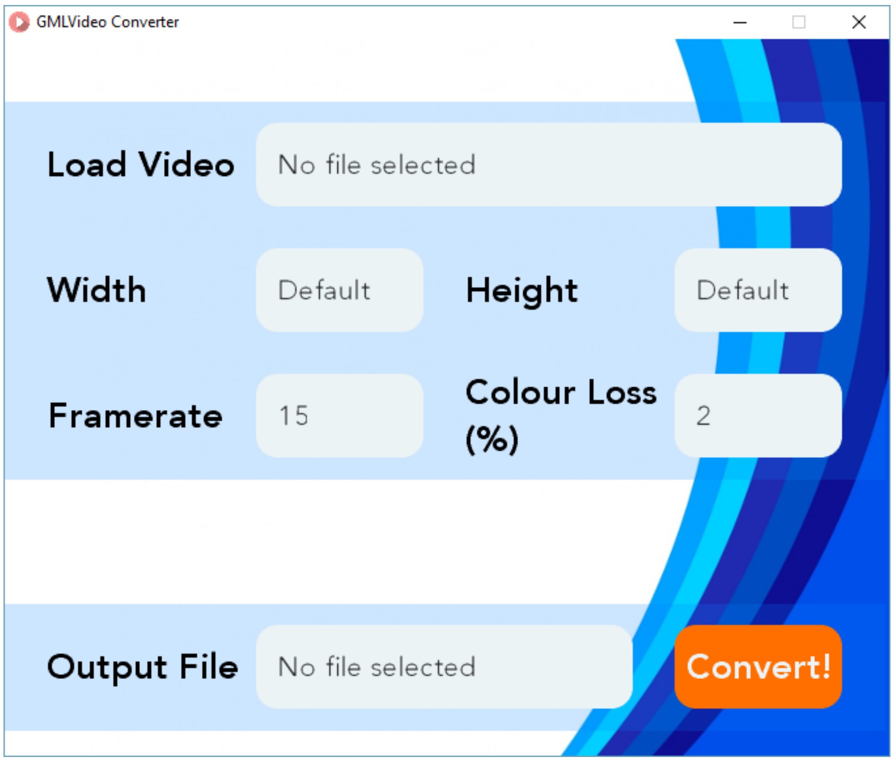
# GMLVideo

Reference guide V1.0

## 1 Converter

To display video files in Gamemaker, a converter must be used to generate a file that is readable by the GMLVideo Gamemaker system. There is a tool provided with this asset to generate such files.

There are a few key things to know about the converter before getting started to get an optimal result. The main priority is to keep video sizes down, and having a framerate that is as small as possible goes a long way. 15 frames per second on some types of video is fairly passable. Keeping the resolutions of the video's small is also a major factor. As a sidenote, if you leave both width and height as default they will carry the video's native resolution over. If you fill in one and leave the other as default, the video will be resized with the correct aspect ratio. The colour loss field represents from 0 to 100 how much colour the video will lose whilst being compressed. A value of 2 is essentially unnoticeable and a good starting point, but the value should be as high as possible and might take some experimenting with. For cartoon-style videos it can generally be higher.



Load Video: No file selected

Width: Default

Height: Default

Framerate: 15

Colour Loss (%): 2

Output File: No file selected

The conversion process does take a long time (3 seconds per frame on most test machine's), so I recommend to make a very short, few second-long version of your video to test different quality values with first before doing the whole thing.

For anyone who is interested; the frames take obscenely long to compress because the converter is written in Gamemaker and has to do many slow iterations with a big compression calculation in it.

Once you have your video file output (.vid format), drag it into Gamemaker and have it as an included file, and use the functions in the following section to play it back.

# 2 Gamemaker Implementation

## 2.1 Management system

| gmlvideo_flushcache() |
|---|
| To speed things up, videos are cached on the user's device. In development mode however this is not usually something you want as you will update the video, so call this at the start of the game to clear out the cache. |

| gmlvideo_step() |
|---|
| This function must be called every step to update the videos. |

## 2.2 Loading a video

| gmlvideo_load(filename[,settings]) | |
|---|---|
| **filename** (string) | Location of the file included with the game |
| **settings** (Map, Optional) | A map with key value pair settings relating to the video. This is optional and the map will be destroyed by the function. Some options include:<br>- "*autoplay*": If the video starts playing by itself. Default: true |
| **returns** GMLVideo instance | A GMLVideo instance that must be passed to other functions to control it |

| gmlvideo_destroy(gmlvideo) | |
|---|---|
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| Frees the memory held by a GML Video when it is no longer required. | |

## 2.3 Playback

| gmlvideo_video_play(gmlvideo[,play]) | |
|---|---|
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| **play** (optional) | True or false if the video should play. If omitted will toggle the player's state |
| Play or pause a video. | |

| gmlvideo_video_seekto(gmlvideo,seconds) | |
|---|---|
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| **seconds** | Seconds to seek into the video |
| Jump to a specific time in the video. | |
| gmlvideo_video_speed(gmlvideo,speed) | |
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| **speed** | Real number, speed of video. |
| Changes the speed of the video. 1 = normal, 2 = double, 0.5 = half speed etc. | |

| gmlvideo_video_volume(gmlvideo[,volume]) | |
|---|---|
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| **volume** (optional) | Number between 0 and 1, 0 being muted and 1 being full volume. |
| Changes the volume of the soundtrack. If the volume parameter is omitted it will toggle between being muted and unmuted. | |

| gmlvideo_video_stop(gmlvideo) | |
|---|---|
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| Stops a video from playing indefinitely. | |

## 2.4 Displaying video

| gmlvideo_video_draw(gmlvideo,x,y[,w,h]) | |
|---|---|
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| **x** | X position to draw the video |
| **y** | Y position to draw the video |
| **w** (optional) | Width of the video. If ignored will draw at video's native resolution. |
| **h** (optional) | As above. |
| Quickly draws the video at the given height and dimensions. | |

| gmlvideo_video_getsurface(gmlvideo) | |
|---|---|
| **gmlvideo** | GMLVideo instance created with gmlvideo_load() |
| **returns** | Returns a surface that you can handle and manipulate drawing yourself. You should always check that surfaces exist with surface_exists() before using them. |
| The size of the surface returned here will be its original dimensions. | |