

1. Introduction

Subtitler is a separate program written (by MRL Software) to be a DLL that is integrated into the MRLControl software Capability. Its purpose is to allow for management of files that display textual information within FFMPeg (or VLC). It processes and creates two file formats- 1) a .txt file that contains a single line text items capable of being processed by MRLControl/FFMPeg to each line to be processed as a set of user parameters to a FFMPeg command (See MRLControl documentation) or 2) a .srt file. SRT (.srt) stands for "SubRip Subtitle" file, and it's the most common subtitle/caption file format. It is a text format that originated in the DVD-ripping software SubRip, hence the name. Both files contain numerous individual items consisting of a sequential item number, Start information (either/or Time/Frames), Stop information (either/or Time/Frames) and a set of text to be displayed for the designated video interval.

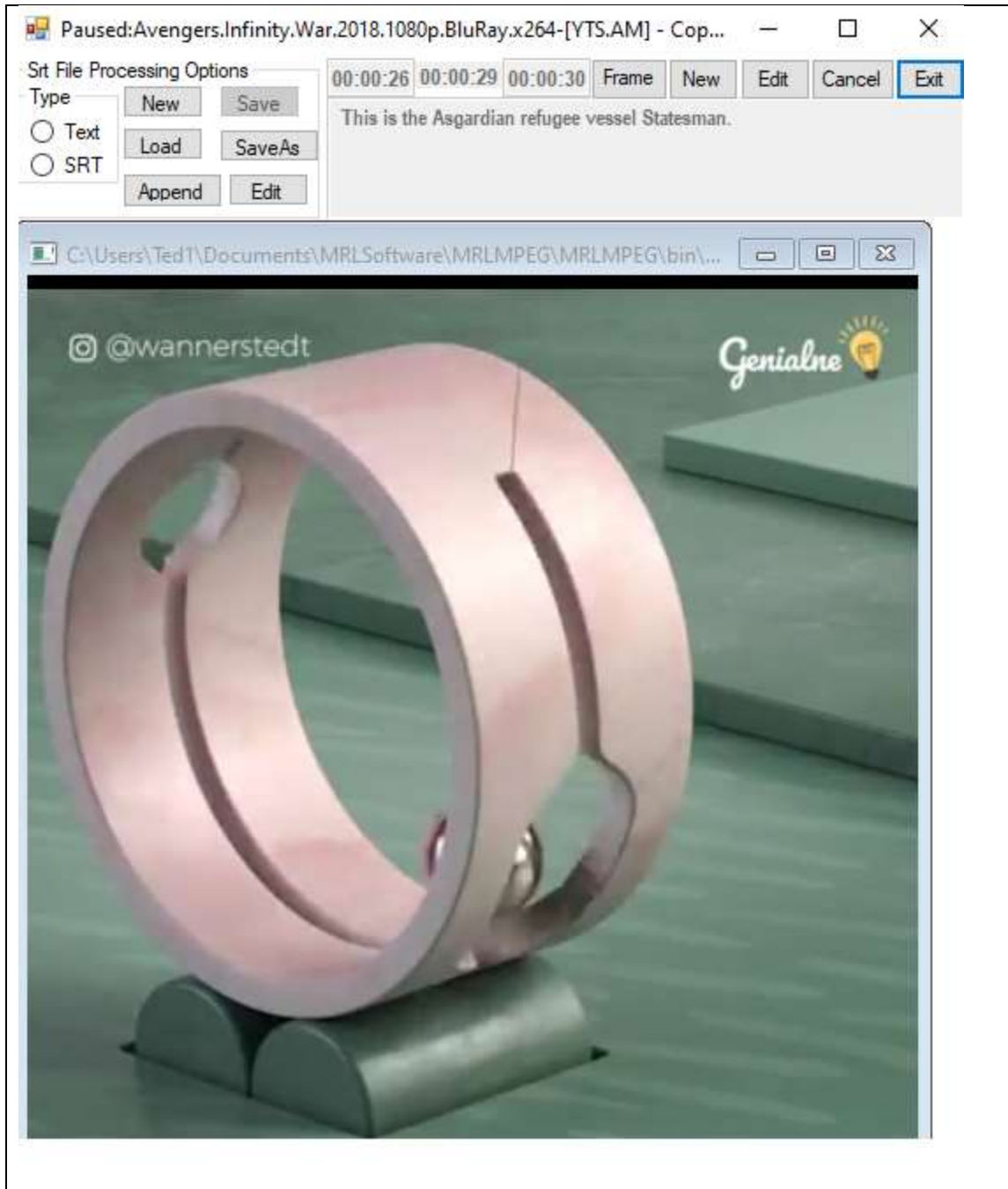
The software allows the User to create/process these files while displaying/controlling the video.

2. Configuring

The Subtitler software is included in the MRLControl release. The source is available in the SubTitles subdirectory of the Common/Analysis path. The run-time includes the SubTitler.dll file in the Debug sub-directory. The remaining files are in the media sub-directory and include SubTitler.txt) that contains the configuration data. Sample data files (see Avengers files). To associate the software with an FFMPeg command, select the Subtitler under the Analysis Combo Box. A sample to use this is provided as the Play item ManageSRT. This displays a file and activates the software.

3. Main Screen

The software is activated when the FFMPeg command line is started, captures the display for the Video file. The user interacts with the video by using the FFPlay commands in the following table. When the video is paused (p key), the Subtitler buttons are activated. These and the display fields are shown in the second table. The SRT entries are updated based on the position of the video. The user should use the down arrow and pause (p) key to sync the video and srt display when starting. The screen is shown in Pause mode. When the video is running only the Exit button is enabled.

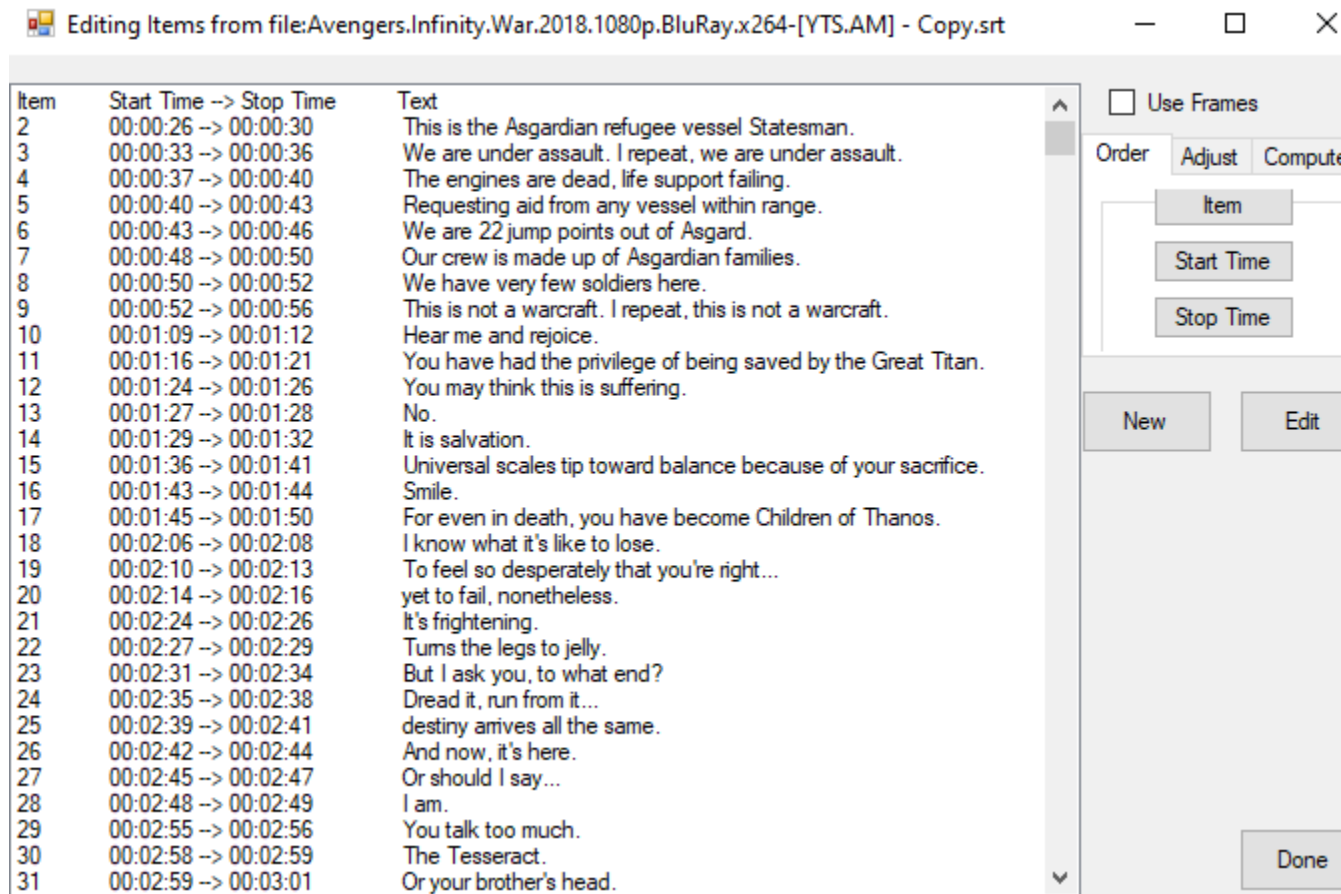


Item	Type	Function	Comments
Title Line	Display	Displays Information	Shows State (Running/Paused) and SRT File Loaded
Items within the SRT File Processing Options			
Type	Select	File Type	Specifies type of Output to Save (TXT or SRT)
Load	Button	Loads Input file of Type	Overloads Any Current Data

Append	Button	Loads Input file of Type	Appends Input to current Data (Must be Merged)
New	Button	Creates a new Set of data	All Current data will be removed
Save	Button	Saves the current data	Overwrites existing file
SaveAs	Button	Saves the current data	Creates a New File
Edit	Button	Activates the SRT Editing Screen (Below)	Within the SRT File Processing Box
Items to the right of SRT File Processing Options			
Display	Text Boxes	Displays SRT Status	Output is SRT Start, Video Current, SRT Stop of the item (This is either time of frames as selected)
Display	Text Box	Displays the current text	SRT File Text for above time(s)
Time	Button	Sets display to Time	Toggles Name between Frame/Time
New	Button	Activates Item Editing Screen (Below) for a new item	Uses Stop time of previous item and Start Time of next Item
Edit	Button	Activates Item Editing Screen (Below) to edit this item	
Cancel	Button	Returns control to the Video Display	
Exit	Button	Stops processing of the SRT File and FFPLAY command	
Item at bottom of Screen			
Video	Image	Displays FFPLAY Output	<p>Supports Entry of FFPlay keys (when window is activates. Keys include</p> <p>q, ESC quit</p> <p>f toggle full screen</p> <p>p, SPC pause(Returns control to Subtitler)</p> <p>a cycle audio channel in the current program</p> <p>v cycle video channel</p> <p>t cycle subtitle channel in the current program</p> <p>c cycle program</p> <p>w cycle video filters or show modes</p> <p>s activate frame-step mode</p> <p>left/right seek backward/forward 10 seconds</p> <p>down/up seek backward/forward 1 minute</p> <p>page down/page up seek backward/forward 10 minutes</p>

4. SRT Editing Screen

Displays All Items in File for the user to process.



Item	Type	Function	Comments
Title Line	Display	Displays Information	Shows File being Edited
Items	List Box	Display All Items for Selection	Shows Item, Start/Stop (either Time or Frames) and Text
Use Frames	Check Box	Selects Time or Frames	Check indicates Frames
Items on Tabs			
Order Item	Button	Orders All Items by Item	Orders All Items by Item
Order Start Time	Button	Orders All Items by Item	Orders All Items by Start
Order Stop Time	Button	Orders All Items by Item	Orders All Items by Stop
Adjust Item	Button	Renumbers All Items	Each Item has the item field calculated as one more than Last Item
Adjust Start Time	Button	Recalculates Start Time	Each Start Time is one more than prior Stop time. Stop times are adjusted to keep internal the same,

Adjust Stop Time	Button	Recalculates Stop Time	Each Stop Time is one more than prior end time. Stop times are adjusted to keep internal the same,
Compute Frames Per Sec	Edit Box	Selects Value	User value for Frames Per Second
Compute Frames	Button	Recomputes frame number from Start/Stop Time and FPS	
Compute Time	Button	Recomputes Start/Stop Time from frame number and FPS	
New	Button	Activates Item Editing Screen (Below) for a new item	
Edit	Button	Activates Item Editing Screen (Below) to edit selected item	
Done	Button	Exits SRT Item Processing Screen	User must Save File on Main Screen if updates are to be retained

5. Item Editing Screen

This screen edits an individual SRT item using actions in table below.

Item	Type	Function	Comments
Title Line	Display	Displays Information	
Start Elapsed Time	Combo Boxes	Edit Start Time	Allows User to Select Hours, Minutes and Seconds

Start frame number	Edit Box	Edit Start Frame	Allows User to edit Frames
Start Last	Text Box	Shows Stop Time of Last Item	Information Only
Stop Elapsed Time	Combo Boxes	Edit Stop Time	Allows User to Select Hours, Minutes and Seconds
Stop frame number	Edit Box	Edit Stop Frame	Allows User to edit Frames
Stop Next	Text Box	Shows Start Time of next Item	Information Only
Save	Button	Saves Item and Exits	Item is not synced with any other item
Save/Adjust	Button	Recalculates Stop Time	All affected items are adjusted to keep times consistent
First	Button	Closes Item and displays First Item	
Prior	Button	Closes Item and displays Prior Item	Wraps to bottom if necessary
Next	Button	Closes Item and displays Next Item	Wraps to top if necessary
Last	Button	Closes Item and displays Last Item	
Done	Button	Closes Item and exits	

6. Tips