1. Introduction

Subtitler is a separate program written (by MRL Software to be a DLL that is integrated into to 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	Туре	Function	Comments	
Title	Display	Displays Information	Shows State (Running/Paused) and SRT File	
Line			Loaded	
Items witl	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	Overloads Any Current Data	
		Туре		

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 t	he right of	SRT File Processing Optic	l ons
Display	Text	Displays SRT Status	Output is SRT Start, Video Current, SRT Stop
Display	Boxes	Displays Sill Status	of the item (This is either time of frames as selected)
Display	Text	Displays the current	SRT File Text for above time(s)
	Вох	text	
Time	Button	Sets display to Time	Toggles Name between Frame/Time
New	Button	Activates Item Editing	Uses Stop time of previous item and Start
		Screen (Below) for a new item	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 bo	ottom of S	creen	
Video	Image	Displays FFPLAY	Supports Entry of FFPlay keys (when window
		Output	is activates. Keys include
			q, ESC quit
			f toggle full screen
			p, SPC pause(Returns control to Subtitler)
			a cycle audio channel in the current
			program
			v cycle video channel
			t cycle subtitle channel in the
			current program
			c cycle program
			w cycle video filters or show modes
			s activate frame-step mode
			left/right seek backward/forward 10 seconds
			down/up seek backward/forward 1 minute
			page down/page up seek backward/forward
			10 minutes

4. SRT Editing Screen

Displays All Items in File for the user to process.

00:02:45 -> 00:02:47

00:02:48 -> 00:02:49

00:02:55 --> 00:02:56

00:02:58 --> 00:02:59

00:02:59 --> 00:03:01

28

29

30

31

🖳 Editing Items from file:Avengers.Infinity.War.2018.1080p.BluRay.x264-[YTS.AM] - Copy.srt Item Start Time --> Stop Time Text Use Frames 00:00:26 -> 00:00:30 This is the Asgardian refugee vessel Statesman. 3 00:00:33 --> 00:00:36 We are under assault. I repeat, we are under assault. Order Adjust Compute 4 00:00:37 --> 00:00:40 The engines are dead, life support failing. 5 00:00:40 --> 00:00:43 Requesting aid from any vessel within range. Item 6 00:00:43 --> 00:00:46 We are 22 jump points out of Asgard. 00:00:48 --> 00:00:50 Our crew is made up of Asgardian families. Start Time 8 00:00:50 --> 00:00:52 We have very few soldiers here. 9 00:00:52 --> 00:00:56 This is not a warcraft. I repeat, this is not a warcraft. Stop Time 10 00:01:09 --> 00:01:12 Hear me and rejoice. 11 00:01:16 --> 00:01:21 You have had the privilege of being saved by the Great Titan. 12 00:01:24 -> 00:01:26 You may think this is suffering. 13 00:01:27 -> 00:01:28 No. New Fdit 14 00:01:29 -> 00:01:32 It is salvation. Universal scales tip toward balance because of your sacrifice. 15 00:01:36 -> 00:01:41 16 00:01:43 -> 00:01:44 Smile. 17 00:01:45 -> 00:01:50 For even in death, you have become Children of Thanos. 18 00:02:06 --> 00:02:08 I know what it's like to lose. 19 00:02:10 -> 00:02:13 To feel so desperately that you're right... 20 00:02:14 --> 00:02:16 yet to fail, nonetheless. 21 00:02:24 -> 00:02:26 It's frightening. 22 00:02:27 --> 00:02:29 Tums the legs to jelly. 23 00:02:31 -> 00:02:34 But I ask you, to what end? 24 00:02:35 --> 00:02:38 Dread it, run from it... 25 00:02:39 -> 00:02:41 destiny arrives all the same. 26 27 00:02:42 --> 00:02:44 And now, it's here.

Done

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

Or should I say ...

The Tesseract.

You talk too much.

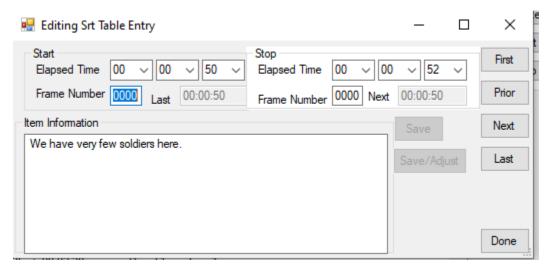
Or your brother's head.

Lam

Adjust Stop	Button	Recalculates Stop	Each Stop Time is one more than prior
Time		Time	end time. Stop times are adjusted to
			keep internal the same,
Compute	Edit	Selects Value	User value for Frames Per Second
Frames Per	Box		
Sec			
Compute	Button	Recomputes frame	
Frames		number from	
		Start/Stop Time and	
		FPS	
Compute	Button	Recomputes	
Time		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	User must Save File on Main Screen if
		Processing Screen	updates are to be retained

5. Item Editing Screen

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



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

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

6. Tips