SrtPlus script specification version 2

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The information in this document assumes that you are familiar with the terms and concepts used by SrtPlus. All documents and a conversion program [windows] are published at GitHub. The repository is: https://github.com/BertKerkhof/SrtPlus. The conversion program also functions as subtitle format validator, so can be used to test your subtitle script.

General syntax

	1	**Scripts are plain text files.** This means they can be "manually" edited using any text editor that can save a file in unicode, such as Notepad.
	2	**The script is divided into sections like in ini files** The sections are named: "[SrtPlus v2 script[", "[Styles]" and "[Events]". They should appear in this order. No other sections should interfere. Optionally the script ends with an [End of script].
	3	**Words in each line are separated by spaces** So don't use commas or dots and the like. Numbers are allowed in style names and also the underscore character '_'.
	4	**Lines in the Script and Style sections cannot be split.** Each entry contains all its information in a single line.
	5	**Incorrectly formatted lines are ignored** SrtPlus v2 will discard bad formatted lines, sometimes without warning.
	6	**Unknown styles used in the script** For example: if lines have been pasted in from another script, without the corresponding style information, an informative error message is displayed and further processing stops.
	7	**The SrtPlus v2 script format is different from version 1** Version 1 is less than a week old and the userbase is small. So version 1 scripts may not process without some handwork. The change in the script format is intended to allow more future information in the script header, apart from the styles.

[SrtPlus v2 script]

This section contains comment lines and an optional title. Comment lines start with a semicolon. The title is specified after the keyword 'Title'. The keyword has to start at the beginning of a line.

Script lines		
;		Semicolon. The semicolon must be the first character in the line. Any text can follow. Use comment lines to document who the author is and the translator. Use as much comment lines as you need. Each should start with a semicolon. The comment is used in the script file only. Comment is not visible when you play the subtitle script together with the video.
	Title	The title refers to the video for which the subtitles are made. The keyword has to start at the beginning of a line.

[Styles]

Styles define the appearance and position of subtitles. All styles used in the event section, are defined by a style in the script section. Any of the settings in the style, (except shadow/outline) can be overridden by inline layout codes, these are marks in the subtitle text. The inline control are documented in the last paragraph of this document.

A style is named by a single word written in characters and digits. An underscore character can be a part of the name. Comma's and dots in the name are not supported. Style names are not case-sensitive.

Each style definition starts with the style name at the start of a line, followed by the '=' character and subsequently a style definition. The style definition is a series of keywords and values, all separated by spaces.

Basic keywords for style attributes		
	Font	The font name as used by the video player. Case-sensitive.
	Size	The size of the font, measured in 'pixel equivalents'. A pixel equivalent is defined as 1/720 of the display screen height. So when you have a video with a height of 720pixel, this is the same as one pixel. For a 360pixel video, pixel equivalent is equal to half a point.
	Colour	This is the colour that a subtitle will normally appear in. Colour is stated as a hexadecimal number, preceded by the hash character '#'. Several formats are supported, with and without trailing hexadecimal number(s) for the alpha channel. To specify colour in #RGB format, three digits will do. Each digit represents an amount of colour: '0' means black and 'F' is maximum intensity. With opacity, a background shows up. At maximum opacity 'F', a background colour covers the video behind the font. To state the opacity, add a fourth digit.

		To state a colour more precise, the #RRGGBB format is available. If you want this together with opacity, add the alpha level in two digits as #RRGGBBAA.
.	SecundaryColour	This colour may be used instead of the Primary colour when a subtitle is automatically shifted to prevent an onscreen collision, to distinguish the different subtitles.
	OutlineColour	This colour may be used instead of the Primary or Secondary colour when a subtitle is automatically shifted to prevent an onscreen collision, to distinguish the different subtitles.
	BackColour	Colour of the subtitle outline or shadow, if these are used.
	Bold	Defines whether text is bold (-1) or not (0). This is independent of the Italic attribute. You can have text which is both bold and italic. The Bold keyword used without a trailing value means Bold.
	Italic	Defines whether text is italic (-1) or not (0). The Italic keyword used without trailing value means Italic.
	Underline	Defines whether text is underlined (-1) or not (0). The Italic keyword used without trailing value means underlined.
	StrikeOut	Defines whether text is StrikeOut (-1) or not (0). The Italic keyword used without trailing value means StrikeOut.
	ScaleX	Modifies the width of the font. In percent.
	ScaleY	Modifies the height of the font. In percent.
	Spacing	Extra space between characters. In pixel equivalents. A pixel equivalent in SrtPlus is defined as 1/720 of the display screen height.
	Angle	Rotation of the subtitle. In degrees.
	BorderStyle	Defines whether text is displayed with outline and dropshadow (1) or in an opaque box (3).
	Outline	If BorderStyle is 1, then Outline specifies the width of the outline around the text. In pixel equivalents. A pixel equivalent is 1/720 of the display screen height.
	Shadow	If BorderStyle is 1, then Shadow specifies the amount of drop shadow behind text. In pixel equivalents. Values may be 0, 1, 2, 3 or 4. Drop shadow is always used in addition to an outline. An outline of 1 pixel equivalent will be forced if no outline width is given. A pixel equivalent is 1/720 of the display screen height.
	Align	This sets how text is justified within the onscreen margins. Values may be 1=Left, 2=Centered, 3=Right. Add 3 to the value for a "Mid title". Add 6 to the value for a "Top title. For example: 7 = Left-justified Top title

	MarginL	Defines the left margin in pixel equivalents. It is the distance from the left-hand edge of the screen. This defines the area in which the subtitle text will be displayed. A pixel equivalent is 1/720 of the display screen height.
	MarginR	Defines the right margin in pixel equivalents. It is the distance from the right-hand edge of the screen. This defines the area in which the subtitle text will be displayed. A pixel equivalent is 1/720 of the display screen height.
	MarginV	Defines the vertical Margin in pixel equivalents. For a subtitle, it is the distance from the bottom of the screen. For a toptitle, it is the distance from the top of the screen. For a midtitle, the value is ignored - the text will be vertically centered A pixel equivalent is 1/720 of the display screen height.
	Encoding	Not used in V2. SrtPlus is based on unicode.
	Layer	Normally zero. A non-zero value means the viewer can optionally choose to display subtitles that are styled in that layer.
	Name	Character name. This is the name of the character who speaks the dialogue. For information only, to make the script easier to follow when editing/timing.
	Effect	Transition Effect. Either empty, or contains information for one of the three transition effects implemented in SrtPlus. The effect names are case sensitive and must appear exactly as shown. The effect names do not have quote marks around them. "**Karaoke**" means that the text will be successively highlighted one word at a time. "**Scroll up;y1;y2;delay[;fadeawayheight]**" means that the text/picture will scroll up the screen. The parameters after the words "Scroll up" are separated by semicolons. 　The y1 and y2 values define a vertical region on the screen in which the text will scroll. The values are in pixels, and it doesn't matter which value (top or bottom) comes first. If the values are zeroes then the text will scroll up the full height of the screen. 　The delay value can be a number from 1 to 100, and it slows down the speed of the scrolling - zero means no delay and the scrolling will be as fast as possible. "**Banner;delay**" means that text will be forced into a single line, regardless of length, and scrolled from right to left across the screen. 　The delay value can be a number from 1 to 100, and it slows down the speed of the scrolling - zero means no delay and the scrolling will be as fast as possible. "**Scroll down;y1;y2;delay[;fadeawayheight]**" "**Banner;delay[;lefttoright;fadeawaywidth]**"

		lefttoright 0 or 1. This field is optional. Default value is 0 to make it backwards compatible.
		When delay is greater than 0, moving one pixel will take (1000/delay) second.
		(WARNING: Avery Lee's "subtitler" plugin reads the "Scroll up" effect parameters as delay;y1;y2)
		fadeawayheight and fadeawaywidth parameters can be used to make the scrolling text at the sides transparent.

SrtPlus is has extra build-in styles. They give words to values, more easy to memorize:

	Style name	Definition
	Left	Xpos 1
	Center	Xpos 2
	Right	Xpos 3
	Bottom	Ypos 1
	Mid	Ypos 2
	Top	Ypos 3
	Opaque	Borderstyle 3
	Transparent	Borderstyle 1
	White	Colour #FFFFFF00
	Black	Colour #00000000
	Red	Colour #FF000000
	Green	Colour #00FF0000
	Blue	Colour #0000FF00
	Cyan	Colour #00FFFF00
	Yellow	Colour #FFFF0000
	Purple	Colour #FF00FF00

[Events]

This section contains all the events for the script. Each event starts with a time-stamp. The start time is in 00:00:00,00 format. It stands for Hours:Minutess:Seconds:hundreds. This is the time elapsed during script playback at which the text will appear onscreen. Note that there are two digits for the hours. V2 provides an end time stamp in the same format. Between the two stamps are the following characters: ' --> ' just like in the popular subrip subtitle format.

On the same line the time stamps can be followed by a single style name. which defines how the event is displayed. Each style refers to a predefined style in the style section. Note that only one style name per event is allowed. If no style is specified, then the default style is used. The default style used by the script author is stored in the script.

Next lines contain the text of the event, like in the subrib (srt) subtitles format. Each event ends with a blank line.

Inline layout codes

The intention of SrtPlus is to generate the layout per event, to prevent from cumbersome tasks. However in some parts of a subtitle, one wants a more detailed layout. This is not at all impossible with SrtPlus. In fact, today's video players such as VLC and Media Player Classic and also modern television devices support more layout than yet is contained in styles. This paragraph may be useful for those of you who wish to learn the inline style override codes, so you can type them in manually. It may be the route to design new styles to apply with events. Please report your findings and send in your developed styles!

All Override codes appear within braces { } except the newline \n and \N codes.
All override codes are always preceded by a backslash \
Several overrides can be used within one set of braces.

Each override affects all text following the override. To apply an override only to selected text, you need a second "cancelling" override after the selected text, to "undo" the effect of the first override.

Some overrides automatically apply to ALL the text - currently this is just alignment overrides, but more may be added later (for example shadow/outline overrides).

Override code	Parameters	Description
n		Soft line break - the line *may* break here.
N		Hard / forced line break
h		Non-breaking space
b i u s	0 1	Bold / italic / underline / strikethrough off (0) or on (1)
bord	width	Border
shad	depth	Shadow
be	blur amount	Outline blur ("blur edges")
fn	Font name	Changes the font.
fs	size	Font size
fscx fscy	Percent	Font scaling
fsp	pixels	Font spacing
fr/frz frx fry	degrees	Rotation around the x/y/z-axes.
fe	charset	Encoding number
c/1c 2c 3c 4c	colour	Primary / secondary / outline / shadow colour
alpha/1a 2a 3a 4a	alpha value	Primary / secondary / outline / shadow transparency
an	alignment code	Alignment
k kf/K ko	duration (x0.01s)	The duration of time, in centiseconds, the succeeding text will be displayed, until the end of the line or the next k override code. This creates a karaoke effect.
q	integer	Wrapping style

r	[style]	Resets all previous override styles, applying the default style. To apply a different style, put it as a parameter.
t	([<start>, <end>,][<accel>,]<styles>)	Applies a transition animation to the line. The start and end times are in milliseconds, and the styles can be any combination of the available animatable styles.
pos	(x,y)	Sets the position of the subtitle anchor, where 0,0 is the top-left corner. Note that the subtitle anchor also depends on the line's alignment.
move	(x1,y1,x2,y2[,t1, t2])	Animates the subtitle position at the specified time or at the entirety of the subtitle time from point 1 to point 2. Time is in milliseconds, relative to the beginning of the subtitle. The subtitle anchor depends on the line's alignment.
org	(x,y)	Relocates the rotation origin of the subtitle. By default, the subtitle rotates about its anchor.
fade	a1,a2,t1,t2,t3,t4	Creates a three-part fade animation.
fad	fade in duration, fade out duration	Sets a fade-in and fade-out duration. 0 will effectively disable the effect.
clip	x1,y1,x2,y2	Clips a subtitle inside a rectangle.
clip	[scale,] drawing	Clips a subtitle inside a drawing.

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