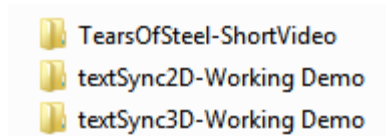# textSync2D/3D - Blender Video Subtitling

Here you will find some basic information about the textSync python code for Blender. The code is just a first version and there's room for improvement. Hopefully, it will prove of some interest to those wanting to work with text and video in Blender.

Although textSync was originally developed as a single piece of code (and is used in a more complete multi-language form in-house)... that version proved unwieldy to release, due to complications with Blender versions, and the ability to provide simple and predictable user instructions.

The general approach to using the code can be seen in this video:
https://www.youtube.com/watch?v=VaOCLHvosjc

In the textSync folder, you will find:

📁 TearsOfSteel-ShortVideo
📁 textSync2D-Working Demo
📁 textSync3D-Working Demo

*   The ***textSync2D-Working Demo*** folder. The blend file in this folder only works well with recent Blender development versions (blender-2.76-24f95a1-win64 at the time of writing). The download page for these can be found at: *https://builder.blender.org/download/*

*   The ***textSync3D-Working Demo*** folder. The blend file in this folder only works well with the current public release of Blender 2.76b. Download at: *https://www.blender.org/download/*

*   A short clip from the Blender Foundation's *Tears of Steel* open source movie provided for demonstration purposes.

*   A short section of the *Tears of Steel* subtitle (.srt) file.

Full versions of all *Tears of Steel* materials can be found at: *https://mango.blender.org/download/*

Loading the Script
To use the code, just load the relevant blend file, open a script window (or switch temporarily to the textSync-Scripting view) and run the textSync script. The script window can then be closed. If there are any file path issues, just directly load the supplied code, video and .srt files.

Again, this is just an early version, and the code is not thoroughly bug tested. Although there is some error checking, it is not comprehensive. Also, some of the development versions of Blender are unstable and, as the Blender download site itself says..... "These builds are not as stable as releases, use at your own risk". More specific information about the features available in each piece of code are given on the following pages.
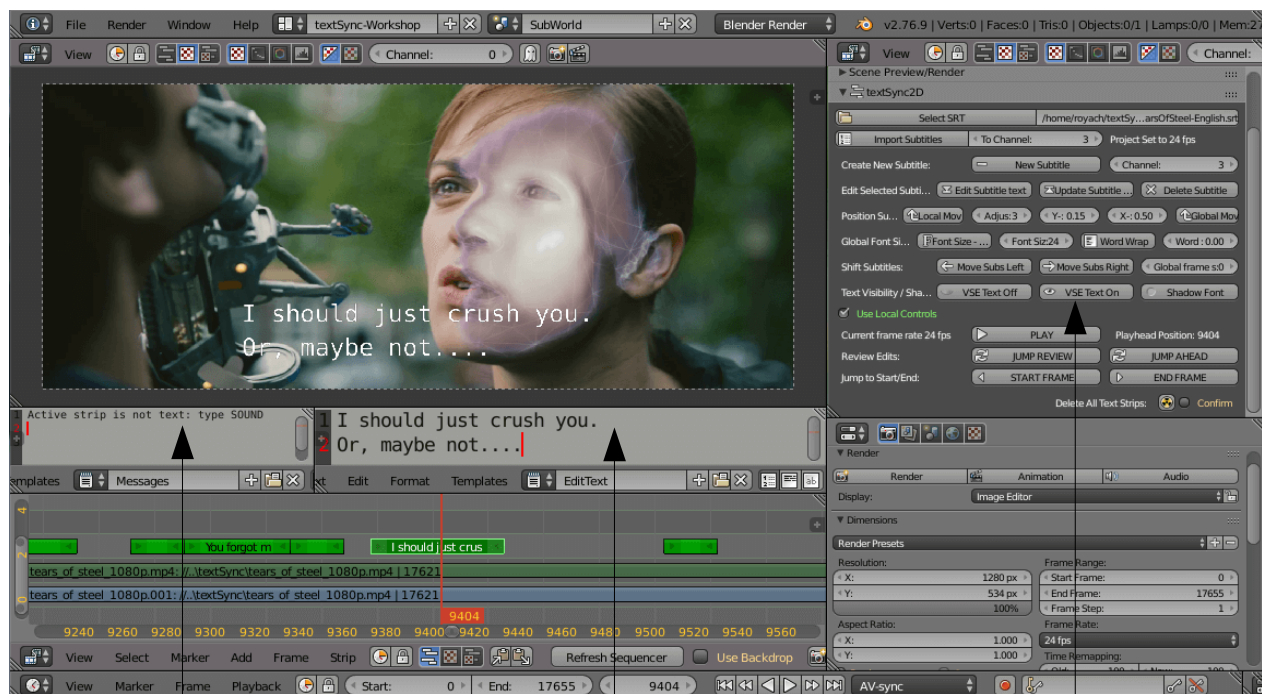
Text editing takes place in the **EditText** area

Error Info appears in the **Messages** area

All textSync2D options are available in this panel. **Local Controls** box shows/hides player and delete text buttons.

textSync2D Panel Options

Important things to consider:
* Requires at least a Blender development build from Jan 25, 2016 (https://builder.blender.org/download/)
* You need to have a properly formatted simple .srt file for import to work.
* Make sure that a text strip is currently selected before proceeding with edits.
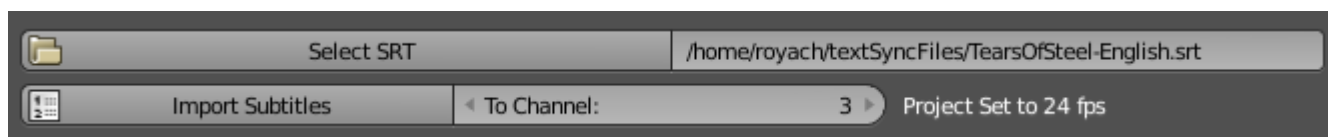
Importing SRT file
Select SRT file with file select button. Set the Channel where the subtitles will be placed (default is Channel 3). It is best to keep all subtitles in one channel. Click Import Subtitles. For now, a folder called *textSync-LogInfo* is created in the same location as the current Blend file (make sure folder permissions allow this). Keeping each subtitle project (Blend file and the textSync folder) together in a single folder will help avoid problems.
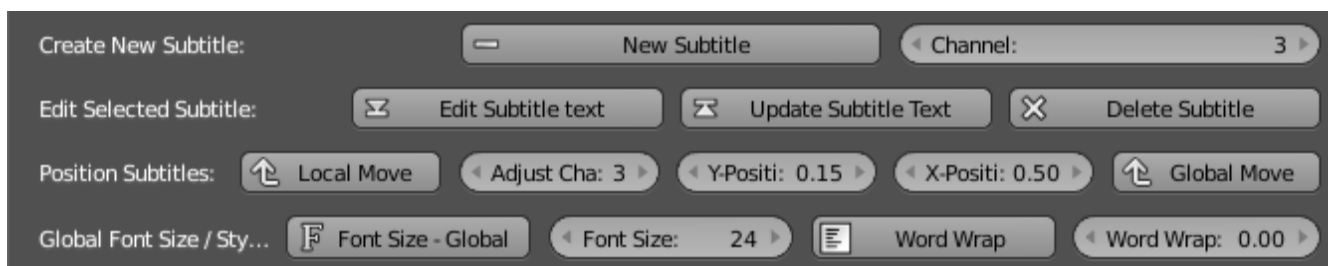
Editing Subtitles
First select a single subtitle to work with. Use any of the Add/Edit/Update/Delete buttons to make your changes. The standard Blender Undo should provide the ability to retrace most of your edit steps if required. Local Move acts on the active subtitle, while Global move acts on all subtitle strips. Font Size changes fonts globally. Word Wrap changes only the currently selected subtitle.

Shift Subtitles

This is a simple way to shift all subtitles left/right a specific number of frames without having to select them all first. Click to make the first subtitle in the sequence active. Set the number of frames to shift. Click Move Subs Left/Move Subs Right.
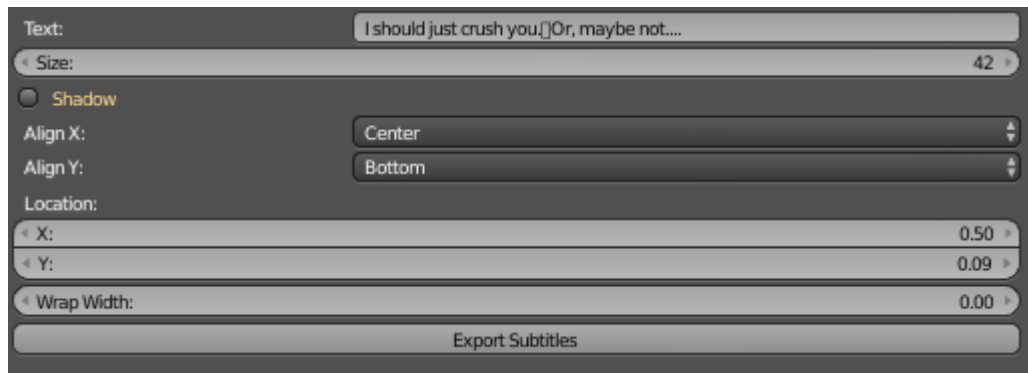

Text Visibility

Click buttons to mute/unmute subtitle text visibility globally. Shadow Font adds black shadow to all text.

Local Controls

These local UI buttons provide a convenient way to play/stop and review subtitle timings. Once confirmed, the Delete All Text Strips option does exactly what it says.

Export Subtitles

This is the standard Blender export feature. It saves the subtitle text in .srt file format.
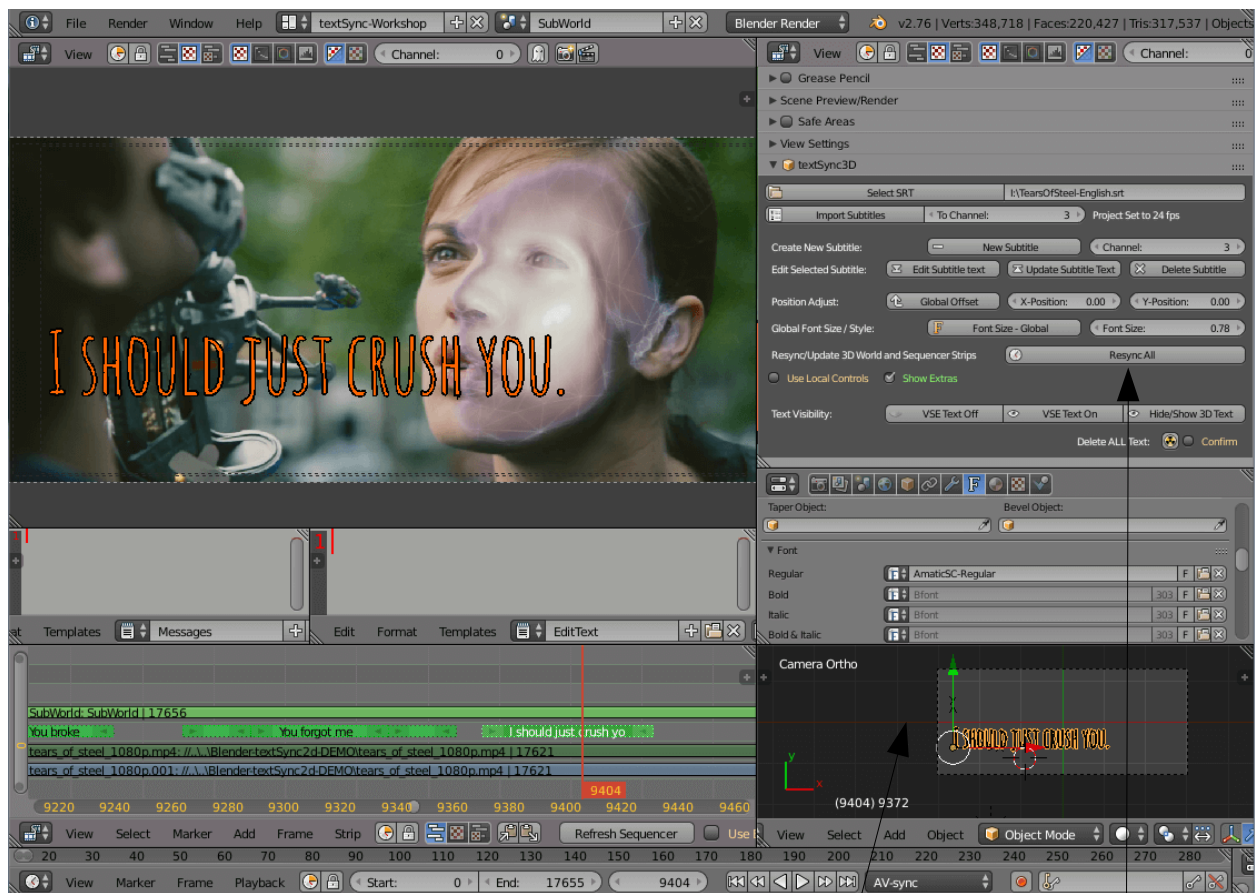
Camera view shows 3D text.

All textSync3D options are available in this panel. **Local Controls** box shows/hides player buttons. **Show Extras** displays VSE text visibility and delete buttons.

textSync3D Panel Options

Important things to consider are:
* textSync3D only currently works well with the 2.76b public release version of Blender
  (https://www.blender.org/download/)
* textSync3D is still very experimental and animating many 3D text objects requires a *lot* of processing power if Blender is to work reasonably well. Start small and simple.
* Compressing source video and/or additionally using video proxies, and turning off all unecessary features will make things much more interactive. If necessary, a project could be even be split up into small chunks and combined later.

Resync All (effect on text items)

Whenever you move/resize video text strips on the timeline, they are no longer synched with their 3D world equivalent. Clicking **Resync All** re-establishes the correct timing between the two (it actually resyncs all text).

Resync All (effect on 3D text location)
The position of text in the 3D world is set based on the xy location of an empty, named "onStage1" (the off-camera equivalent is named "parkIt"). If onStage1 has been moved from its intial xy creation point, **Resync All** will update all text to now appear at the new location. Since onStage1 needs to be selectable, there's a chance it might get accidentally deleted. If this happens, just add an empty with the same name.
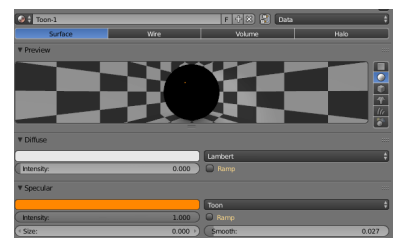

Delete All Text
In textSync3D, the **Delete ALL Text** button deletes all sequencer and 3D text.
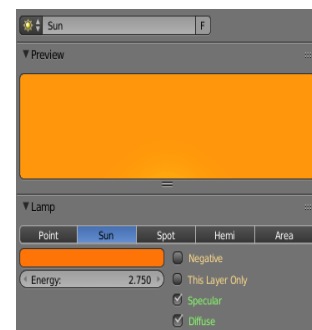
3D Font Color (illumination only)
The 3D world text is actually plain 2d textcurves, and not any kind of mesh. To give the 3D text color, just simply add a Sun object and alter its color and power to your liking. Adding a bevel to the text object will result in a darker outline.

3D Font Color (material)
In addition to the Sun illumination, you can add a material to the 3D text objects for more control over appearance. Keep in mind this will further slow things down, especially if Scene Preview/Render settings are set to Material or Rendered.