Some notes from my research on subtitling for SayMore.

When we want to produce a file that people without saymore can watch videos, we apparently have 2 choices:

1. Combine the subtitle file with the video into “Matroska ([mkv](http://en.wikipedia.org/wiki/Matroska))” package. Think of it as a zip file (though it’s not). This is fast, and conceptually pleasing. It’s up the player at runtime to decide wither to show the subtitles, come up with the fonts, etc.

[Mkvmerge](http://www.bunkus.org/videotools/mkvtoolnix/doc/mkvmerge.html) (part of Mkvtoolnix) does this. Super fast. Cost: 8Megs. Result works with Media Player, VLC.

WebM (sponsored by google) uses Matroska along with royalty-free formats… might be nice in the future.

Note: <jquery.srt.js> could be used to produce a single html file with embedded SRT in the htm, which plays in html5 browsers.

1. Actually re-render the video with the subtitles. I fear this is done by rending image overlays. Slow. Mencoder does this. Cost: 13Megs.

TODO: how do you embed more than one subtitle file, so that you have 1 for vernacular, and another for translation, in either method?

**MKVMerge**

My experiment is just to use the mp4 that SayMore Convert makes:

mkvmerge.exe -o bine1.mkv Bine1.mp4 Bine1.srt

I could watch this with MPlayer (but not with a full file path) & VLC Media Player, but not Windows Media Player. When I embedded it in html, chrome showed the video but not the subtitle: <!DOCTYPE html><html><body><video src="bine1.mkv"></video></body></html>

**MPlayer**

We can play the mkv file created by MKVMerge with mplayer:

mplayer -ass -ass-color ffffff00 -ass-force-style FontName=Arial bine1.mkv

**Mencoder**

http://www.mplayerhq.hu/DOCS/man/en/mplayer.1.html Mencoder docs: <https://wiki.archlinux.org/index.php/MEncoder#Adding_SubRip_subtitles_to_a_file>

This kinda works, with lots of nasty warnings (also reduces size from 32m to 9m). Here the input was mp2 video with mp1 audio

mencoder -sub childNaming.srt -oac copy -ovc lavc -lavcopts vcodec=mpeg4 -o c2.mpg childNaming.mpg

This worked better: Here the input is mp4 video/aac audio:

mencoder -sub childNaming.srt -oac pcm -ovc lavc -lavcopts vcodec=mpeg4 -o c3.mpg childNaming.mp4

whereas just using “–ovc copy” seemed to work but windows media player just played audio, and vlc had no subtitle!

This one is pretty slow even using up all 4 cores… takes a lot longer than the original video:

mencoder -sub childNaming.srt -oac pcm -ovc x264 -o c4.mpg childNaming.mp4

Some things on the web indicate the most recent version of ffmpeg can do it; I couldn’t get the version we ship in saymore to do it.

SPUMUX would only be 3 megs, but it really didn’t like the mpegs I was giving it (output from the Convert feature of SayMore)

spumux -P -v 0 config.txt <childNaming\_01.mpg >childSub.mpg

where config.txt =

<subpictures>

<stream>

<textsub filename="childnaming.srt" characterset="UTF-8"

fontsize="28.0" font="arial.ttf" horizontal-alignment="left"

vertical-alignment="bottom" left-margin="60" right-margin="60"

top-margin="20" bottom-margin="30"

force="yes"

/>

</stream>

</subpictures>

**Towards burning a VCD/DVD**

Avi2DVD will take an mkv or mp4 & srt. It’s AWFUL. Steps to making it work:

1. You have to install it twice. I’m not joking.
2. You may have to set its compatibility mode to xp (I did, but my files were at c:\mytest, so maybe that’s why)
3. The HCEnc seemed to have the least problems
4. Once I saw it give me the option of utf8 in subtiles, but now I can’t figure it out
5. I don’t remember if it actually just used the bundled srt in the mkv or not.

It won’t actually burn dvds. Nero has a free burner, but the version I got is BIZARRE. Basically punishment for asking for something for free. I got it to work by mounting the .bin file produced by Avi2dvd using VirtualCLone Drive, then pointing Nero at that. Apparently there are other versions, including a “micro” version <http://www.afterdawn.com/software/cd_dvd/burning/nero.cfm>