

Between the Lines

New multilingual subtitling software enters the digital age.

by Corinne Imhauser

Last year, *Language International* asked a number of industry luminaries to share their personal language-technology wish list. Not surprisingly, many desired breakthroughs in software-localization tools, speech-to-text tools, machine translation, or translation memory.

One wish, however, dealt with a field less often mentioned in the specialized press, i.e., subtitling. What was requested was a subtitling tool that would allow automatic synchronization of subtitles and frames, cutting translation time in half.

Those of us who work in the field of subtitling know that "spotting"—or cueing in time codes to allow subtitles to appear and disappear at the appropriate moment—is indeed time-consuming. Many translators who have not received adequate training therefore tend to discard spotting as being simply a mechanical activity that can be performed by a secretary or, ideally, by a machine. Yet this step is of paramount importance, as it not only gives the viewer enough time to read the subtitles, but also enables the translator to turn subtitling into a real art form—adding, for example, nonverbal dimensions to subtitles such as rhythm and emphasis.

Faced with increasing pressure from broadcasters seeking significant price reductions, many subtitling companies argue that cost-effectiveness is incompatible with such subtle considerations. Demand is

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rising dramatically, deadlines are tighter than ever, and time is money.

Does this mean that spotting must be taken out of adaptors' hands, or can we find other ways to save time? More generally, are quality standards bound to go down, or can we do something to cope with the situation?

This question was raised in Berlin in October 1998 at the 2nd International Conference on Quality Standards in Audiovisual Language Transfers, where professionals, academics, and media representatives discussed possible action. There was general agreement that proper training should become widespread to improve quality standards, and that industry leaders, with support from professional bodies, should take advantage of recent technological advances to develop new tools, allowing subtitlers to work faster and better.

In terms of training, there have been positive developments over the past three or four years as an increasing number of educational institutions have set up courses in subtitling. At ISTI (Institut Supérieur de Traducteurs et Interprètes, Brussels) a subtitling module was set up in 1995.

Like most other institutions, however, we have faced two major problems: time and money. Indeed, many currently available professional subtitling units still rely on analog technology. This means that VHS tapes must be manipulated, copied, stored,

and tracked. During subtitling, time is also lost trying to locate the beginning or end of a sequence. And when teachers wish to discuss spotting or translation problems in specific subtitles, they waste precious time trying to find the frames linked to the subtitle in question.

Most professional subtitling units are extremely expensive. Accordingly, many institutions have only a few of them and training is less efficient, because students have limited access to the subtitling units for practice. Further, as a VCR must be connected to the computer where the subtitling software has been installed, the computers must be put in a special subtitling room and often cannot be used for other purposes. Return on investment is therefore low.

Faced with such obstacles at ISTI, we decided to develop a new user-friendly, cost-effective software program that would allow students to practice all routines involved in subtitling (viewing, spotting, entering subtitles, simulating, proof-reading, printing), while saving time.

Another criterion of this new software was that it take advantage of our intranet.

I partnered up with an ISTI programmer who was as equally enthusiastic and curious about the possibilities of a new software program. As for myself, having been in subtitling since those prehistoric times when we used electric typewriters, I had a fairly clear view of adaptors' needs and was therefore able to give the programmer specific and accurate instructions.

Given the enormous potential of digital technology, we knew from the outset that it was going to solve most of our problems; even so, it remained very expensive until two years ago when economical digitization cards appeared on the market.

At that point we were in a position to develop software that met our needs and efficiently performed subtitling routines. The following is a description of the solution we designed.

Accessing Video via Intranet

To get the most out of our intranet, we digitized video excerpts and fed them into a server connected to our intranet. Each student could then download a video clip of his/her choice on any computer connected to the intranet, equipped with subtitling software. Headsets allow them to practice all subtitling routines individually without disturbing other students performing other tasks. ISTI's intranet allows easy access to in-house information sources and to the Internet.

There are now as many subtitling units as there are computers connected to the intranet, with no additional expenses in terms of VCRs or extra computers.

A Premium on Usability

The screen was designed to be as simple and explicit as possible to save time on technicalities, allowing the user to concentrate on course content.

When starting the program students see a split-screen with three windows: one for future subtitles, another for viewing the video sequence, and a third containing a set of command buttons similar to those in a VCR, but enhanced with a "TC File" (time code) and a "video" button.

The upper part of the screen contains the subtitles and time codes linked to the video sequence. They appear in a separate column, but each time code is on the same line as the corresponding subtitle. Subtitles can be typed directly in the "text" column.

Time codes can be entered manually in the TC column or inserted automatically by clicking on a TC button.

There is a special notes column next to the text column for comments by the teacher or student. Comments or corrections are therefore immediately visible on screen when students start the program. They also appear in a different color in the printout.

Point-and-Click Subtitling

Students wishing to subtitle a new video sequence can simply click on the Video button and choose among available clips. If they want to finish some ongoing subtitling, they click on the TC File button, which will give them immediate access to their individual files that contain the time-codes they cued in and linked subtitles. The corresponding video sequence will also appear automatically on the screen.

Extreme accuracy in spotting is made possible through frame-by-frame forward and backward buttons. A slide bar makes it possible to scroll quickly through the whole video sequence.

Once time codes and subtitles have been recorded, students can go back to any subtitle by clicking on the corresponding time code. The frame where the subtitle appears will then be displayed instantly. Subtitles can be browsed quickly by using a lateral slide bar similar to that on a Word screen.

Once students have finished their adaptations, a subtitled VHS copy can be made if necessary. Digitized video sequences can be stored on CD-ROMs for use on an individual computer not connected to the intranet, or save server space (given the large size of the files).

Conclusion

The software was tested for six months at Canal+Belgium. A simple interface was created to match time codes generated at ISTI and those used in the editing room at Canal+Belgium. The results were overwhelmingly positive.

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