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SayMore, a tool for Language Documentation Productivity

From SIL International

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1. INTRODUCTION. SayMore is an easy-to-learn software program designed to build well-annotated corpora of language documentation resources. Austin (2007:27) lists the tasks required to create a language documentation corpus: creating time-aligned transcription, multi-tiered annotations, translation into a language of wider communication, and gathering relevant metadata. SayMore combines basic tools to perform these tasks and has the potential to take it further by packaging the corpus for deposit in an archive. It provides a tool that is less complex and less powerful than programs such as ELAN or FLEx, but it is meant to complement these programs without attempting to replace them. There are a few minor flaws and one or two major deficiencies, but for a relatively new program (first released in 2010) it offers a remarkable range of tools in one little package. Its tools for transcription and translation are simple enough to be almost fun to use and I have found it essential for metadata creation and effective file management.

This review is based on the 2.1.160 (Beta) version. According to developers, this version is labeled Beta because of some known bugs when dealing with the wide variation in audio formats and because of problems when using it across a network LAN. I have not run into any problems with audio files, although I have noticed that image files occasionally refuse to display unless the program is restarted. However, this version is stable enough for use in a typical documentation project.

Between the final draft stage of this review and its publication, SIL released a Beta test of SayMore version 3. This version added three significant features. First, archive options now include support for the IMDI metadata standard. Second, users can choose from 'Access Protocols' employed by language archives; the chosen protocol presents a drop-down menu of access levels in each session. Third, a new 'Project' tab records corpus-level metadata.

2. GETTING STARTED. SayMore greatly simplifies data and file management. It can greatly reduce errors when dealing with a large number of files. No more copying and pasting, or renaming multiple files one by one.

SayMore is designed around the concept of 'sessions,' which are intended to bundle one original, or source, recording together with all its accompanying annotation and metadata files. Files of any kind can be added to a new session by downloading them from a recording device, copying them from another location on the computer, or recording them directly into SayMore. Once files are added to a session, SayMore makes file naming simple. All file names must begin with an uneditable session ID, but otherwise they are freely editable. When a session ID is changed, file names are automatically updated to match it. SayMore also supplies labels ('Source,' 'Careful Speech,' 'Oral Translation,' 'Transcrip-

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tion,' 'Written Translation,' and 'Informed Consent') that can be optionally added to file names. The program recognizes these labels and uses them to track which sessions are missing transcriptions, translations, record of informed consent, etc. Or, if the user chooses not to use these labels, progress can be manually tracked in the session's Status & Stages tab.

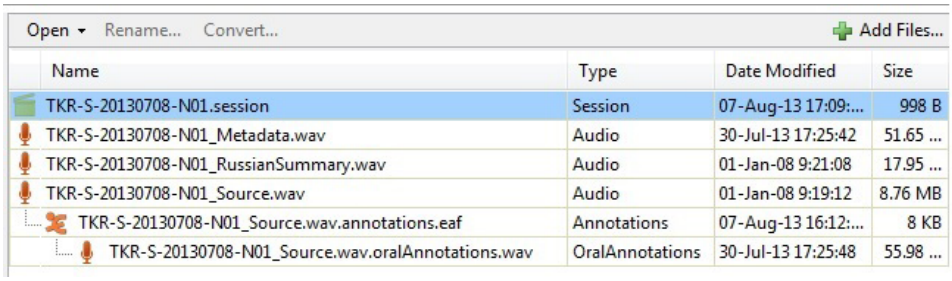

FIGURE 1. File Management

SayMore creates folders on the computer's directory where the language documentation corpus is stored, as shown in Figure 2. The 'Sessions' folder has corresponding subfolders with the same names as SayMore session IDs. Files added to a session in SayMore are copied into these subfolders. This makes SayMore a great tool for organizing all files and adding metadata, even if its other features are not used. Files can be accessed and edited with the computer's file manager, but it is much easier to work with files using SayMore.

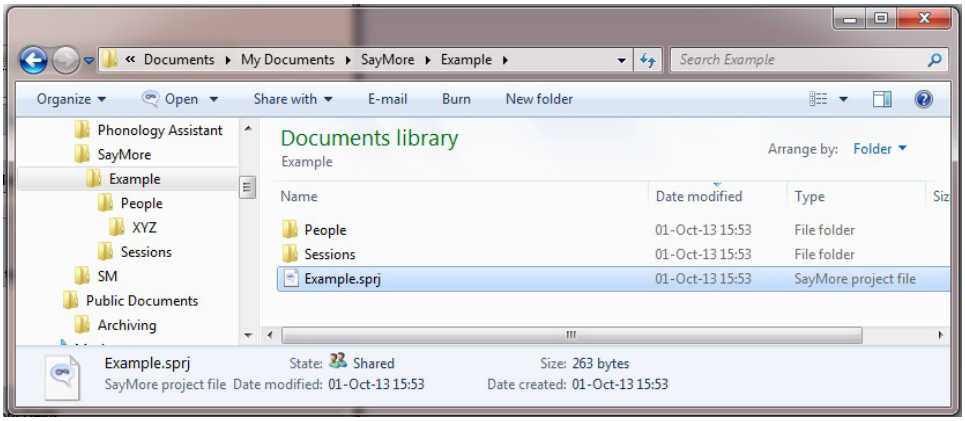

FIGURE 2. SayMore Folder in My Documents

3. ANNOTATING. SayMore's annotation tools combine the basic functionalities of ELAN, Audacity, and Transcriber. These tools produce oral and written transcriptions and translations. Our team found that SayMore significantly reduced the time estimated to create annotations. With a little practice, a native speaker and an undergraduate intern were able to segment a one-minute text into phrases, record a careful speech version, an oral free translation, and type a written transcription and translation in approximately one hour.

When they finished, all the files they had created, along with metadata files and information about the participants, were nicely bundled in one session folder.

The first step is to split the source recording into segments. SayMore's Manual Segmenter allows the user to place segment boundaries by simply hitting 'Enter' while the audio plays in real time. A segment that is not placed correctly can be adjusted by clicking and dragging. There is also an experimental automatic segmenter, which seems to work quite successfully with wordlists. For those doing the BOLD method (Reiman 2010), there is a tool for making time-aligned 'oral annotations' (careful speech). Another tool makes time-aligned oral translations. These tools generate an audio file with three channels. When this file is played back the listener hears each segment of the original text, followed by the careful speech version, followed by the oral translation.

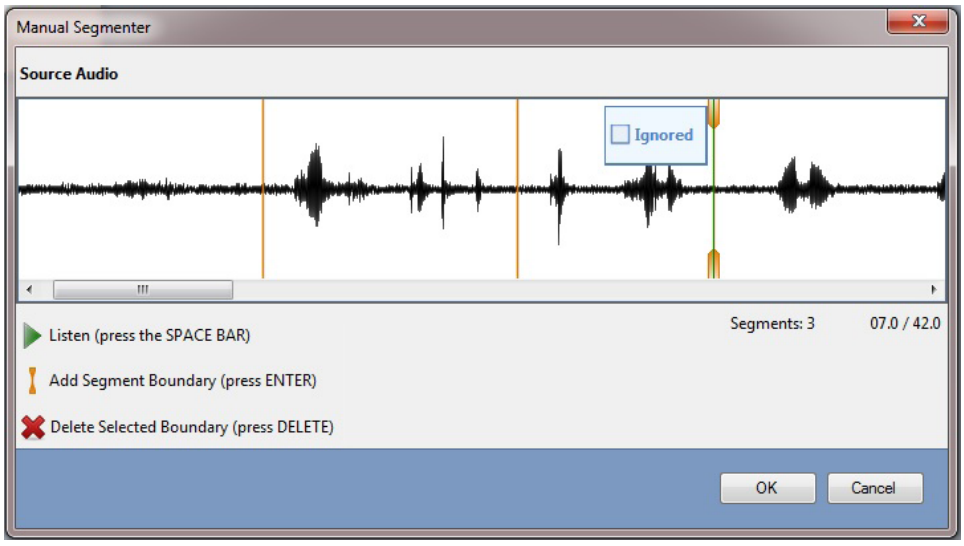

FIGURE 3. Manual Segmenter

The user may use both the oral and written annotation tools to enrich data, or skip the oral annotation tools and use the segmented audio for the written annotation tools only. The written annotation tools display a grid, partially shown in Figure 4. When a transcriber or translator clicks on a segment to begin typing, the audio segment plays back several times at a speed chosen by the transcriber. If oral annotations have been produced, then the user can choose to hear the careful speech version when typing written transcriptions and the oral translation when typing translations.

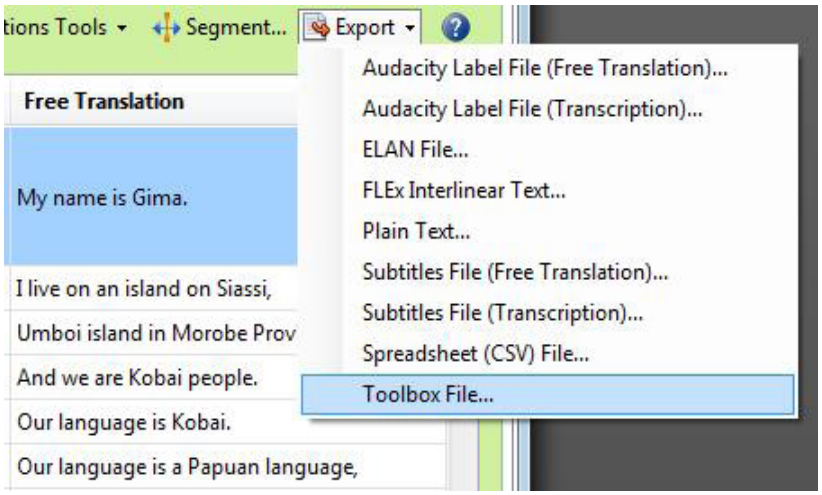

FIGURE 4. Written Annotation Tool with Export Options

SayMore does not handle transcription for multiple speakers, translation into multiple languages, or interlinearization. Instead, it borrows ELAN's file format, so that after one tier of transcription and one tier of translation are completed, a double-click opens ELAN for further annotation.[1] In order to do interlinearization, SayMore gives several export options that format files for Toolbox, FLEx, or other options, as shown in Figure 4.

In future versions, it would be nice to see a function to trim audio or video. Unwanted artifacts can be ignored during segmentation, but to delete them completely requires opening the media files in another program.

4. METADATA AND ARCHIVE SUPPORT. SayMore creates a metadata file for each session and each media file. Several pre-defined metadata fields are displayed, but the user can also create custom fields to fit his or her project. With the exception of two fields ('situation' and 'setting'), the labels make the purpose of the pre-defined fields transparent for first-time users. After I had imported my colleagues' older files into SayMore, they were able to quickly find gaps in annotations and metadata and immediately supply the missing data.

SayMore has the potential to perform virtually seamless archiving for documentary linguists by preparing packages of sessions ready for deposit in a digital archive. However, the major deficiency of SayMore is the lack of support for any archives other than SIL's organizational repository. Also, because it was first made compatible with the SIL depositing tool RAMP, which packages files on the session level, the program does not have any place to enter project (corpus) level information such as who funded the project, who the researchers are affiliated with, etc.[2] However, in response to users' requests, SIL developers

[1] While ELAN can open any transcription file produced by SayMore, the reverse is not true. If you want to use SayMore's transcription tools, your ELAN files must be set up in a particular way.
[2] This is remedied in version 3 by the new 'Project' tab.

expect to provide archiving support for IMDI standard archives in early 2014.[3],[4] Hopefully, as users increase, more archive options will appear to accommodate the preferences of all major language archives.

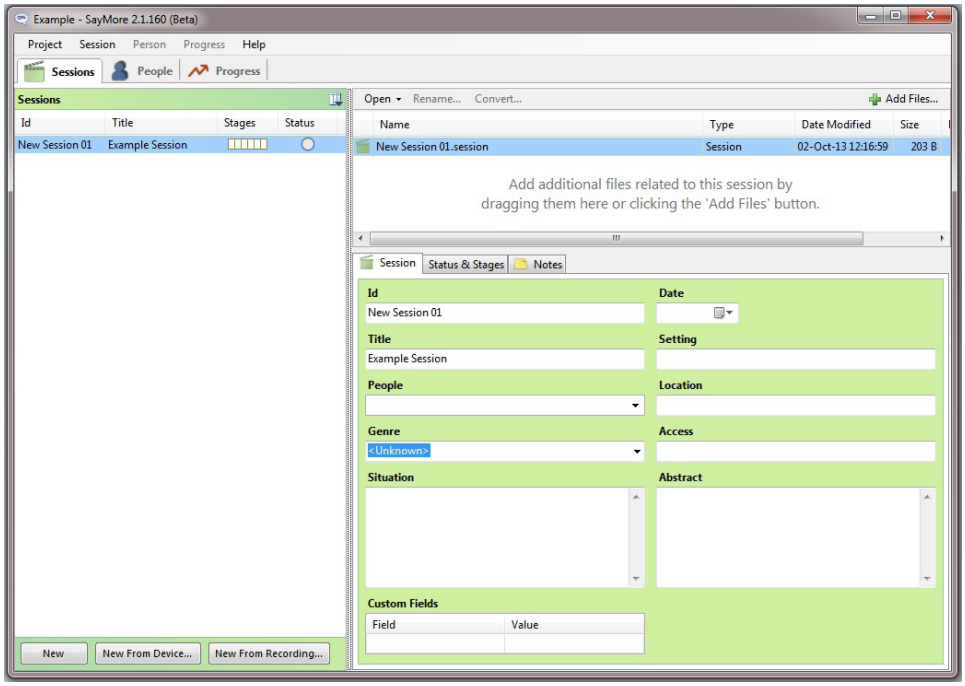

FIGURE 5. A New Session with Metadata Fields

5. PEOPLE. In the People tab, photos and data about participants are bundled together. A 'New Person' has the look and feel of a social media profile. Pre-defined metadata fields include places to enter the participant's name, age, gender, education, and contact information. The participant's primary language can be singled out, and up to four languages that he or she speaks can be listed, with icons to represent which languages are the primary language of the person's mother and father. However, the program lacks a pre-defined field for an individual's dialect. Also, my colleagues and I found that we need to record in which languages an individual received his education. Custom fields can be created, but this information seems increasingly important in language documentation and the developers may want to consider creating pre-defined fields that reflect multilingual situations.

The People tab also keeps track of informed consent records. When a file is renamed with the 'Informed Consent' label, a yellow warning icon is replaced by another icon that indicates whether the informed consent is in written or audio format (see Figure 6). Once a person profile is created, it can be linked to any session where the individual is a participant. The session's Status & Stages tab is automatically updated when an informed consent

[3] http://www.mpi.nl/imdi/

[4] This archiving support has been added to version 3.

file is found in the linked profile. In addition, a person profile can be linked to individual media files. Media files have a 'Contributors' tag where the linked participants can be also be assigned a specific role, e.g. speaker, transcriber, etc.

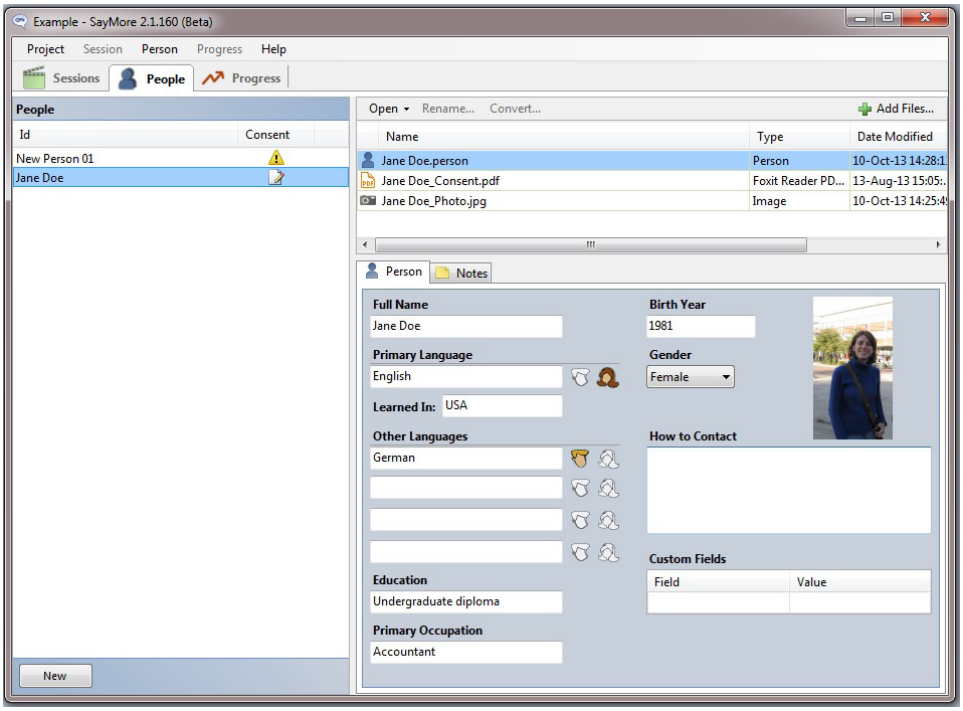

FIGURE 6. A New 'Person' with Picture and Informed Consent

I have found the method of linking the session to person profiles to be a mixed blessing. Unfortunately, if the spelling of a name needs to be corrected in the profile, the link between the profile and session is lost and must be re-established in each and every session.[5] On the other hand, it is convenient that the session metadata continues to display the no-longer available name, so that if a person profile is accidentally changed or even deleted, the participant's name is preserved in the session metadata.

One significant flaw in SayMore is that it lacks a view or filter that lists all the sessions to which a person profile is linked to. Currently, to discover all sessions to which a specific person is linked, the user must click through and examine the metadata of each and every session.[6]

[5] In version 3 new metadata fields, which were designed to honor participants' requests for anonymity, may offer a solution by allowing the participant to be linked to sessions with an ID instead of with a possibly misspelled name.

[6] Version 3 does list all sessions that the person is linked to, but a filter or search function is still lacking.

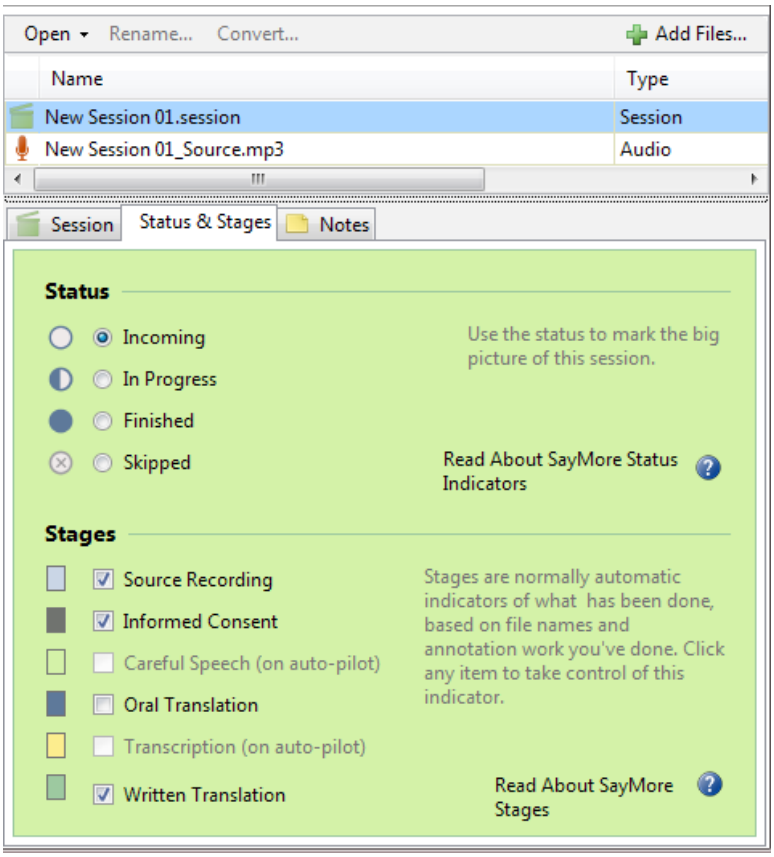

FIGURE 7. Status & Stages Tab

6. PROGRESS TRACKING. The Progress tab[7] provides a one-page overview of a SayMore project. The size of the corpus is given in bytes and in minutes. The Stages chart can serve as a quick measure of missing annotations. The Genres chart shows how many sessions and how many minutes of recordings have been recorded in each genre, helping the documentary linguist aim for a diverse range of genres and contexts.

[7] In version 3, the Progress tab was replaced by a Project tab. Progress charts are now displayed under the Project tab.

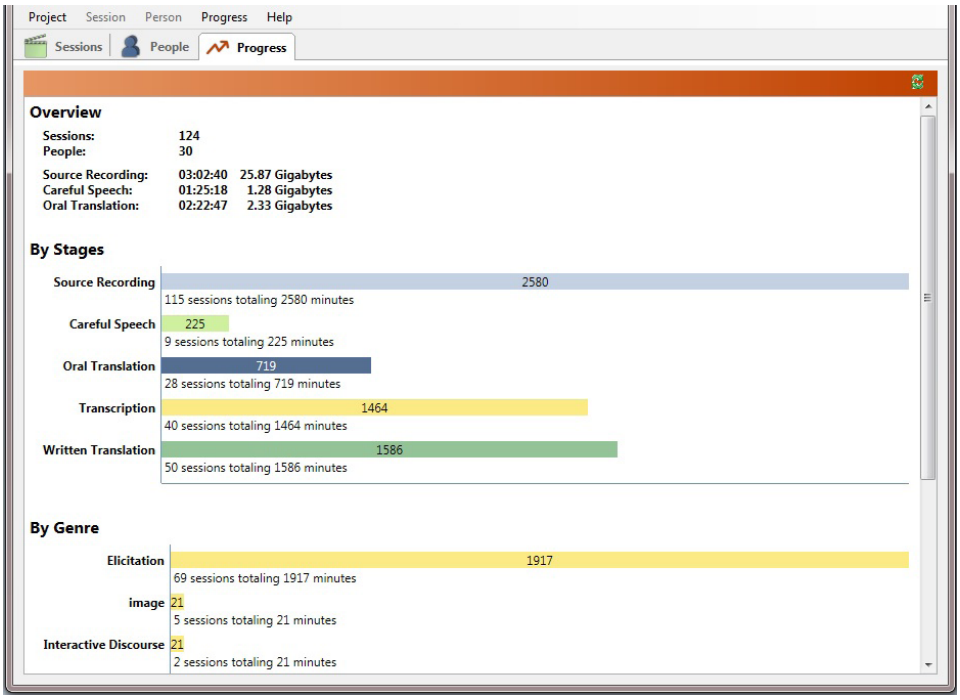

FIGURE 8. Progress Tab View

7. CONCLUSION. SayMore promises to become a central part of language documentation projects, taking the user through all basic tasks—audio recording, gathering metadata, file management, time-aligned transcription and translation, and packaging for an archive deposit—while providing easy export to tools that perform more advanced tasks. It requires minimal training for people with moderate computer literacy. However, it is not appropriate for people with little to no familiarity with technology, though some features, such as the annotation tools, are easier to learn than others. Even though the program is relatively easy to learn, some introductory or training videos would be helpful. The next best thing is a video recording (available on SayMore's download web page) of John Hatton's presentation (2013) at the 3rd International Conference on Language Documentation and Conservation (ICLDC).

Primary focus:	Gathering and organizing data files. Creating metadata. Performing basic annotations needed for analysis. Tracking progress and status of sessions. Packaging corpora for archiving.
Pros:	Easy to learn. Combines multiple tools in one program. An easy way to manage large collections of files.
Cons:	Archiving support limited to SIL repository tool RAMP.[8] Restricted to Windows.
Platforms:	Windows only
Open Source:	Yes, available at http://saymore.palaso.org/open-source/
Reviewed Version:	2.1.160 (Beta)
Application Size:	14.2MB
Documentation:	http://saymore.palaso.org/about/
Download from:	http://saymore.palaso.org/download/

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[8] In version 3, archiving support is expanded to the software tool Arbil which was developed by the The Language Archive.