What's new in SignStream® 3.1.0 ?

Carol Neidle

Boston University, Boston, MA

Report No. 16

American Sign Language

Linguistic Research Project

http://www.bu.edu/asllrp/

© May 2018

This document describes changes for version 3.1.0 from what is described in ***A User's Guide to SignStream® 3*** (C. Neidle, Report No. 15 American Sign Language Linguistic Research Project, 2017).

1 Introduction and Overview

We are pleased to be releasing SignStream® version 3.1, which has quite a few bug fixes and enhancements (see the ReadMe file distributed with the software, and see also Section 4). Most notably, there is now a way to update the software from within the application.

2 New features

2.1 Improved Interface and Expanded Functionality of the Sign Bank Search

2.1.1 Improved User Interface

There have been improvements to the appearance and functionality of the Search Sign Bank window, shown in Figure 1.

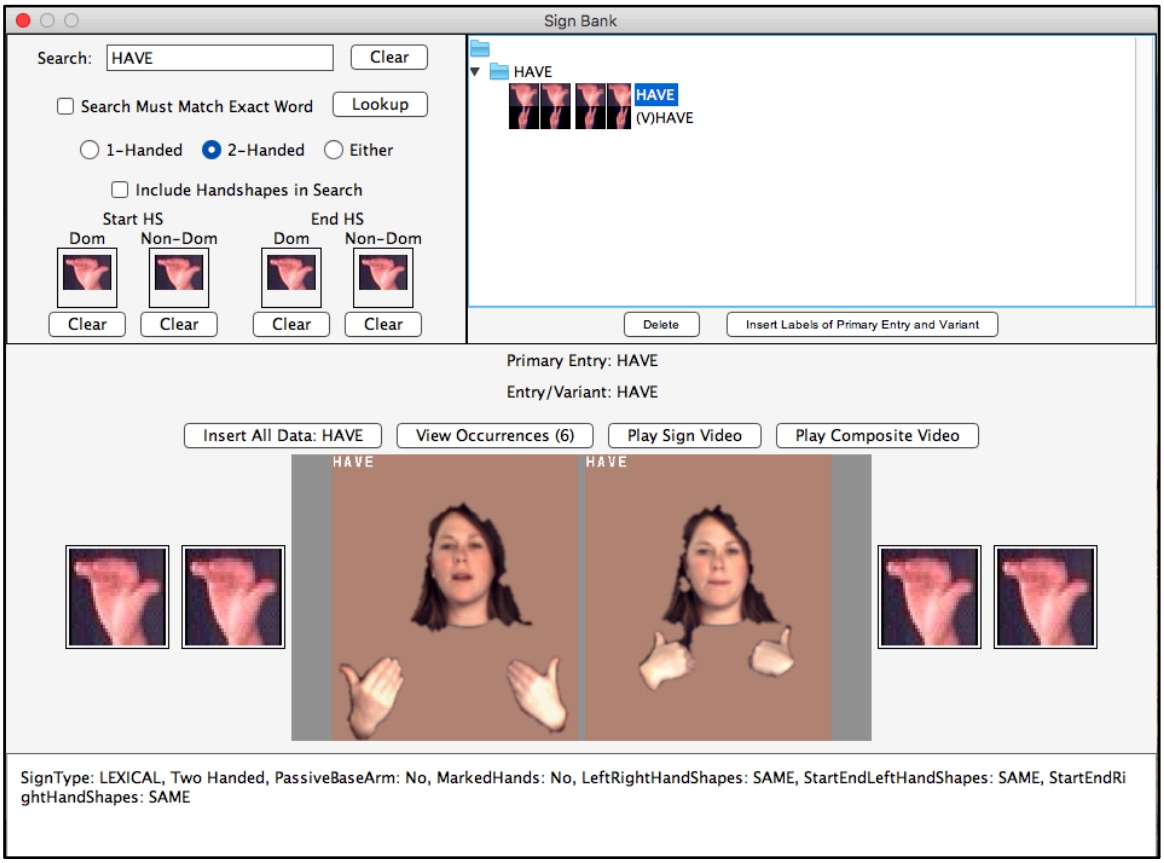

Figure 1. Search Sign Bank Window

2.1.2 Connection to the online ASLLRP Sign Bank through DAI 2

It is now possible to click on the "View Occurrences" button to see all of the existing examples of that sign; the number is listed in parentheses (6 for the sign HAVE in Figure 1). The button will open a browser window and connect to the DAI 2 Sign Bank [2], which allows the user to view the occurrences of that sign from both our **ASLLVD** (citation-form sign) **corpus** [3] and from our new

ASLLRP SignStream® 3 Corpus of continuous signing, as shown in Figure 2. For the latter, it is also possible to play the utterance containing the sign in question.

Figure 2. "Show Occurrences" online, from the DAI 2 Sign Bank

Note that the radio button shows the example that is used in the Sign Bank as the canonical version.

2.1.3 Compounds

Data entry in SignStream® for compounds requires that the glosses for the parts be entered, annotated, and time-aligned separately, and then the parts are combined to form a compound. See Section 7.6.6 of [1]. So what you will see listed in the Sign Bank accessible from within SignStream are the component parts of the compound listed separately, with an * at the beginning and/or end, marking the place where it joins with another gloss as part of a compound. In parentheses, you will see the entire compound, and this is what you will see when you choose to "Play Sign Video". Likewise, "View Occurrences" will display the occurrences of the full compound, as in Figure 3.

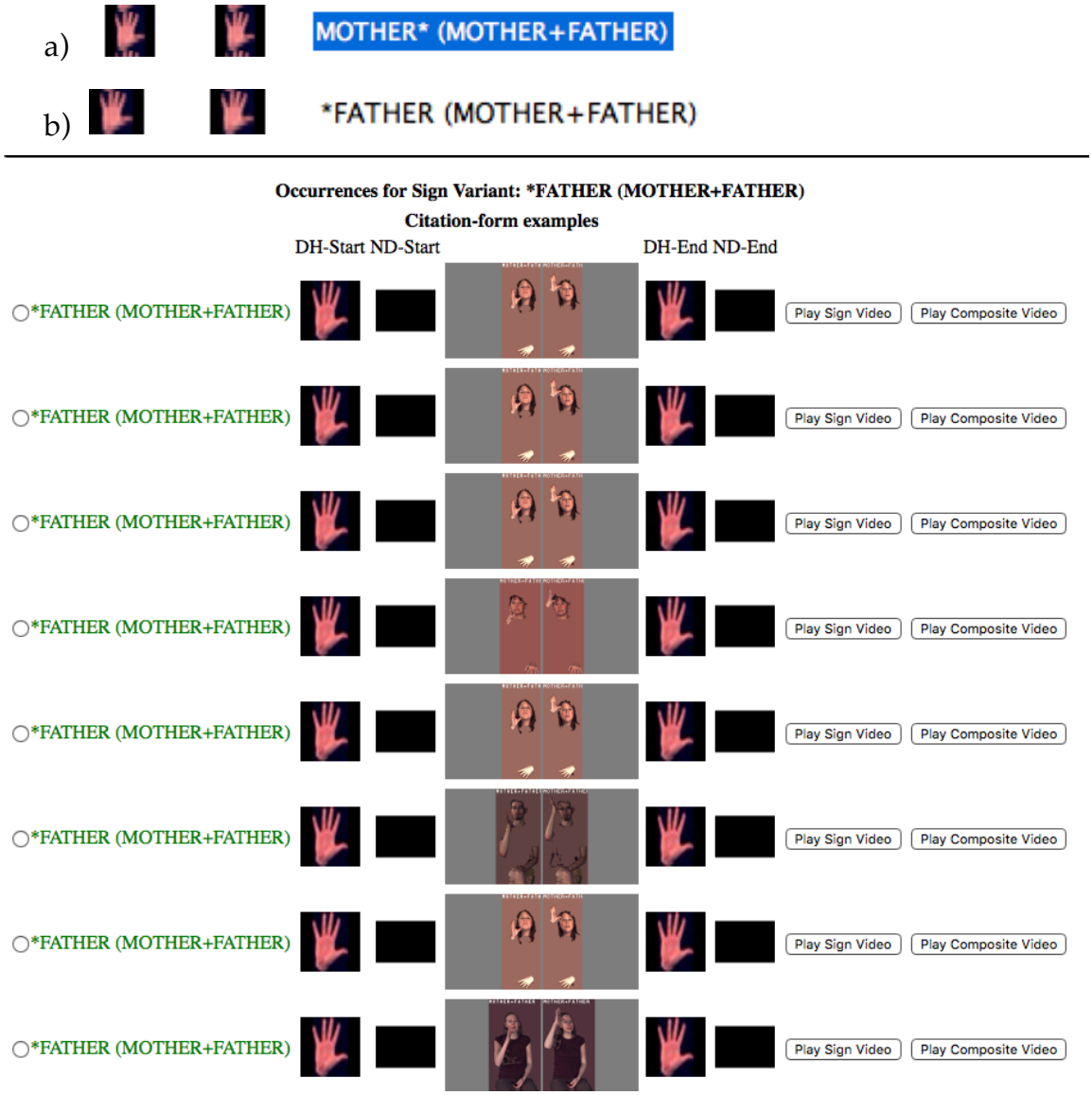

Figure 3. Sign Bank listing of component parts of compounds

2.2 New Upgrade Mechanism

2.2.1 Update SignStream®

Options to update the SignStream® application, and the Sign Bank, are available under the Help menu, as shown in Figure 4

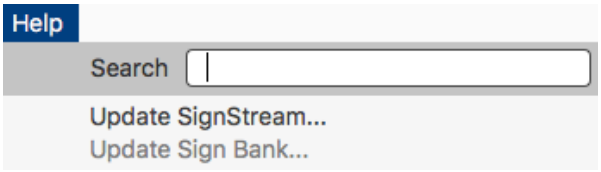

Figure 4. New Option to Upgrade from within SignStream®

The new "Update" function will close the application and replace the contents of the SignStream folder (specifically, the folder containing the application that had been launched) with the latest version of the application and the necessary ancillary files. However, it will not overwrite the "local" files, which contain information that has been added locally about participants, annotators, and additions to the Sign Bank.

2.2.2 Update Sign Bank

The feature to update the Sign Bank automatically from within SignStream has not yet been implemented. To download the latest SignBank, the user should open the SignStream folder and 1) double click on the DisableQuarantine.scpt and run it by clicking on the triangle, as shown in Figure 5:

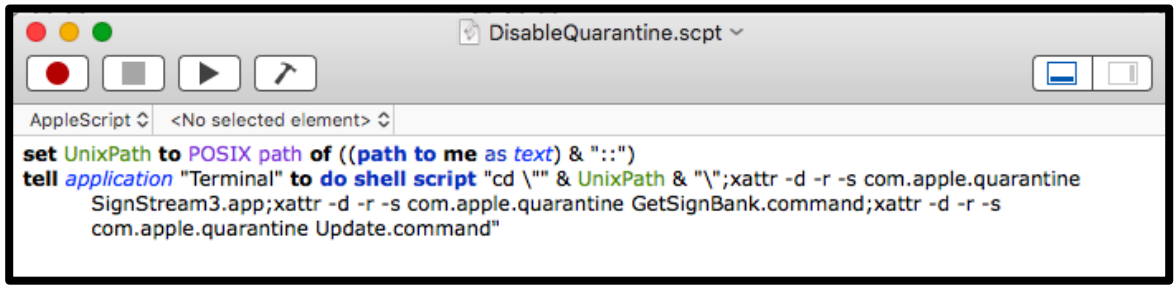

Figure 5. Run "DisableQuarantine" script

And then click on "GetSignBank.command" in the same folder. You will need to agree to the terms of use, after which the latest version of the GlobalSignBank file will be installed.

New versions of the Sign Bank may be released in the future. The installed version of the Sign Bank is shown in the version.txt file within the signbank subfolder within the main SignStream folder. The latest version of the Sign Bank will be indicated at http://www.bu.edu/asllrp/SignStream/3/ .

3 Overall Interface Improvements

3.1 Participants

There is now more robust Participant selection and creation, and display of labels in the Utterance window.

3.2 Optimization of user's ability to resize portions of the window in several of the displays

For many of the windows within SignStream® (Database View, Utterance View, and Search panel windows) it is now possible to resize the sections within the window using draggable dividers. For example, see Figure 6: it is possible to click and drag the lines separating the various portions of the screen to resize them.

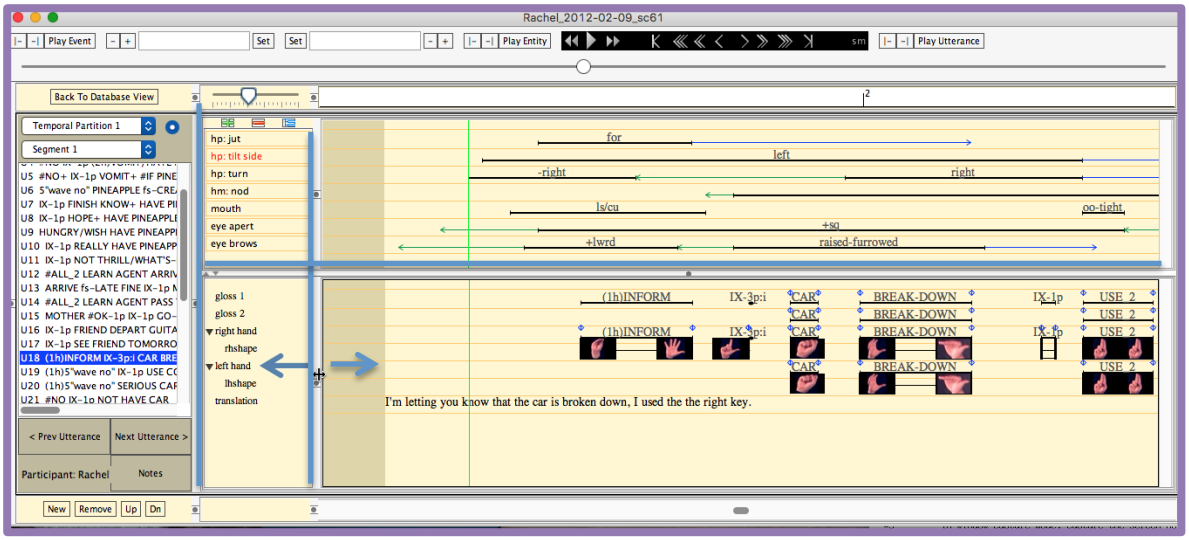

Figure 6. Resizable parts of windowså

3.3 Navigation in the Utterance Window

3.3.1 Arrow keyså

The arrow keys can now be used to move from one utterance to the preceding or following utterance in the left-most pane of the window shown in Figure 6.

3.3.2 Dealing with selections in multiple segment tiers

There are now radio buttons to determine which segment tier is active, when more than one are displayed. The selected utterance in the *active* segment tier is the one that determines related actions (e.g., Play Utterance will play that one).

3.4 Display Non-empty

The button will now display all fields that contain data (i.e., are non-empty) for the entire selected utterance, as well as for anything else that is currently visible in the window.

3.5 Items Not Yet Implemented

Items that have not yet been implemented are now grayed out, so that the user will not attempt to take actions involving functionalities that have not yet been incorporated into the program. See the Readme file in the SignStream folder for some of the main features that are yet to be incorporated.

4 Bug fixes

4.1 File Saving

4.1.1 File names

A problem with saving files with a name that includes the file extension has been eliminated.

4.1.2 Macro Unit Window

Attempting to save the collection while the Macro Unit window was still open previously resulted in an error. This is now fixed.

4.1.3 Warning about Saving Data

In some cases, the user is now warned about losing data before a window is closed without saving changes.

4.2 Within the Database View window

The time scale is now displayed properly.

4.3 Within the Utterance View window

4.3.1 Previous and Next Utterance Buttons

These now work properly.

4.3.2 Keeping current frame in view when scrolling in utterance window

Scrolling behavior has been improved, so as to prevent scrolling past what is visible in the window.

4.3.3 Green video alignment indicator

The green video alignment indicator now works properly with scrolling.

4.3.4 Gloss labels with "

A problem in retaining the quotation marks in glosses (such as "WHAT" or gestures or classifiers) has been eliminated.

4.3.5 Translation Field

A bug that prevented translations from appearing in some cases has been fixed.

4.3.6 Selected Utterance

The buttons at the top of the window now apply properly to the Selected Utterance in the lefthand Utterance Index pane.

4.3.7 Go to Beginning of Event button

This now works properly (previously having the functionality of Go to Beginning of Entity). See also Section 3.3.2.

4.3.8 Play Utterance

This now works properly, ending at the last frame of the utterance, rather than one frame beyond. The former behavior also had the unfortunate consequence of deselecting the utterance once it had been played; this problem no longer occurs

4.4 Within the Morph-Phon Info Window

Previously, a dialog box appeared asking about saving changes, regardless of whether information had been changed. This was fixed. Also, the proper defaults now appear for two-handed entries.

4.5 Within the Search Sign Bank Window

The "Clear" button now works properly within the Search Window, and the Search function now correctly returns both main entries and sign variants that match the query. A bug that allowed deletion of Global Sign Bank entries has now also been fixed.

In addition, now when a gloss item that contains a + suffix (indicating reduplication) or an affixed * (indicating that the item is part of a compound) are entered from the Search Sign Bank window into the Morph-phon Info window, those diacritics are not copied over. The user can add +'s as needed to mark reduplication for the given example.

5 Additional Information: Requirements for Video File Formats

Video codecs that work with the application; if your video is in a different format, you should first convert it to one of these:

- H.264 (.mov)
- MPEG-4 (.mov)
- MPEG-4 (.mp4)
- H.264 (.mp4)
- AVC1 (.mp4)

6 References

[1] Neidle, Carol. 2017. A User's Guide to SignStream® 3. Boston, MA: American Sign Language Linguistic Research Project Report No. 16, Boston University.

[2] Neidle, Carol, Opoku, Augustine, Dimitriadis, Gregory, and Metaxas, Dimitris. 2018. NEW Shared & Interconnected ASL Resources: SignStream® 3 Software; DAI 2 for Web Access to Linguistically Annotated Video Corpora; and a Sign Bank. Proceedings of the *8th Workshop on the Representation and Processing of Sign Languages: Involving the Language Community. LREC 2018, Miyagawa, Japan. May 2018.*

[3] Neidle, Carol, Thangali, Ashwin, and Sclaroff, Stan. 2012. Challenges in Development of the American Sign Language Lexicon Video Dataset (ASLLVD) Corpus. Proceedings of the *5th Workshop on the Representation and Processing of Sign Languages: Interactions between Corpus and Lexicon. LREC 2012, Istanbul, Turkey. May 2012.*