



SooSL

General-purpose software for creating sign language dictionaries

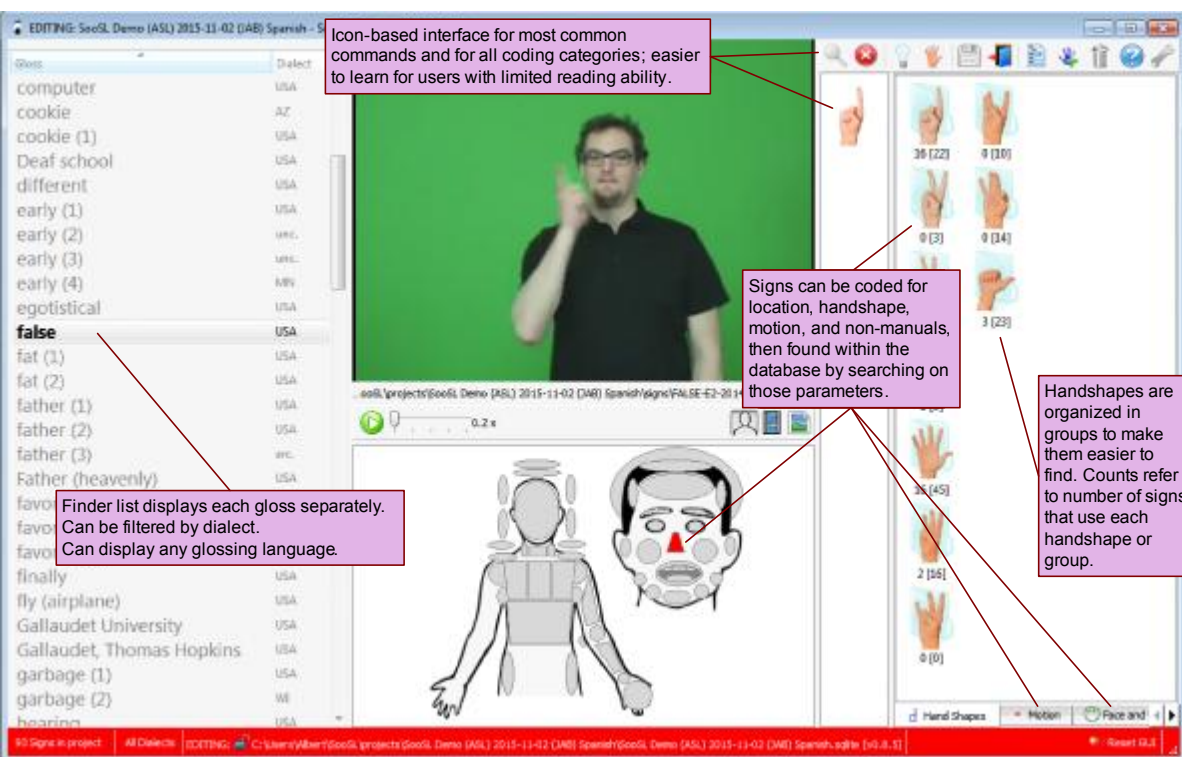
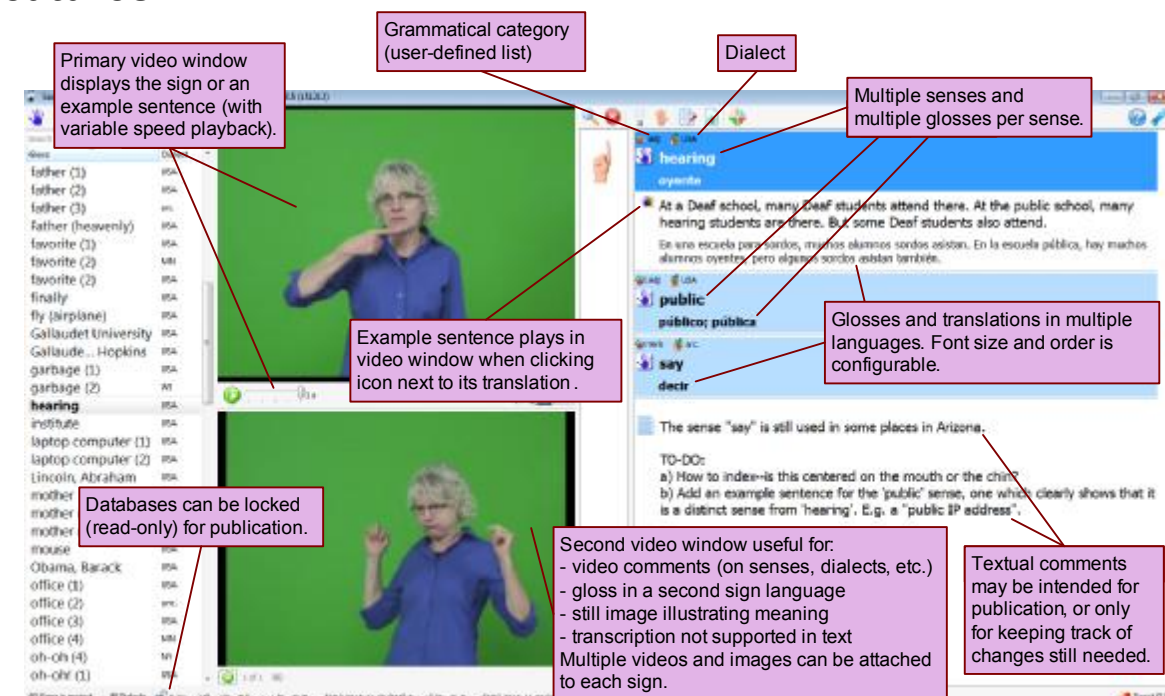
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Goals

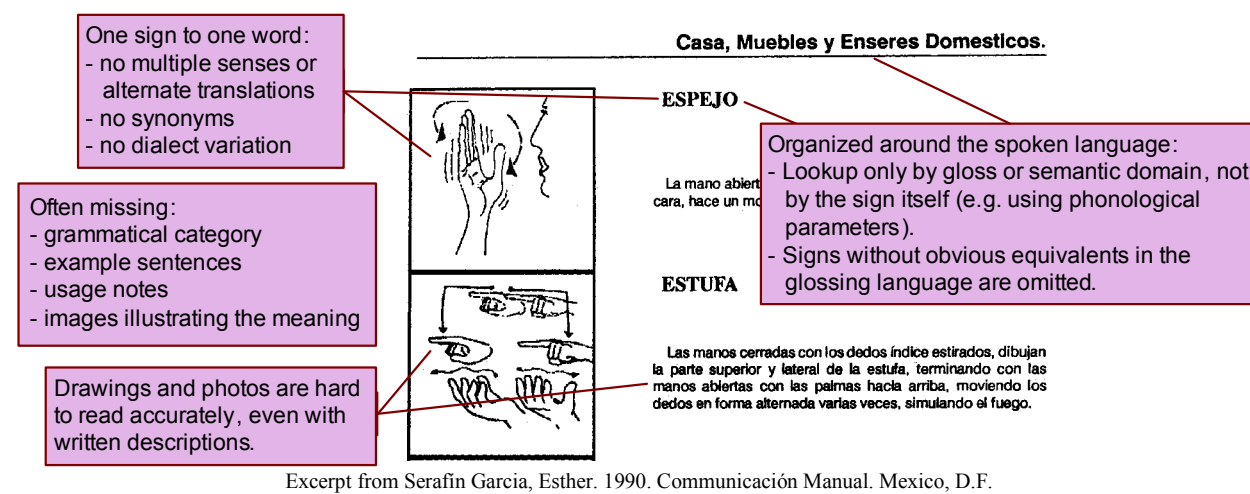
- Dictionary software for sign languages, comparable to what is available for spoken languages:
 - Any sign language, structured around the sign language lexicon
 - Glosses and translations in one or more languages (spoken or signed)
 - A true dictionary, not just a wordlist
- Support community members (and linguists) in developing dictionaries
 - Easy to learn and use; minimal background in linguistics required
 - Self-contained and portable
 - Free of charge
- Multi-platform: Windows and Mac OS X

Features



Why another dictionary program?

Sign language communities often want dictionaries for their language, but may not know how to make one. The result is often very limited—basically just a wordlist.



Excerpt from Serafin Garcia, Esther. 1990. Comunicación Manual. Mexico, D.F.

More sophisticated dictionaries (DVD, websites) generally have practical limitations:

- Designed for one specific sign language; not easily adapted to others
- Require special technical skills to develop
- Necessary resources (DVD players or adequate internet bandwidth) are not readily available in some countries

Sophisticated, general-purpose dictionary software has existed since at least the 1990's, such as Shoebox/Toolbox, FLEx, WeSay, LexiquePro, and TshwanaLex. However, these programs are designed for spoken languages; they do not work well for sign languages.

- Require text-based transcription for signs and example sentences
- Limited or no support for video

Lookup by phonological parameters needs broad categories

Key design principle: *Coding signs for lookup is not transcription—less is more.*

For finding signs in a dictionary, we *don't* want to code for every contrastive detail (unlike what might be needed for transcription or analysis).

- For the user, coding (or “indexing”, as it is referred to in SooSL) based on broad categories makes signs easier to find.
 - With narrow categories, users may look for a sign using some category other than what the compiler chose, due to variations in how the sign is produced or different understanding of the category.
 - It is better to search too broadly, and have to sift through several results, than to search too narrowly and not find the sign at all.
- For the compiler, who must provide the codes for each sign, a simpler coding system with a smaller number of broad categories is easier to use.

Nonmanuals

Previously, we offered 110 different categories for non-manuals (many different configurations of eyebrows, eyes, nose, mouth, etc.). We simplified that (version 0.8.4 and later) to just eight, since most signs are not *lexically* specified for nonmanuals.

Categories available for coding lexical nonmanuals			
	Forehead and eyebrows	Nose	
	Eyelids and eyes	Mouth (esp. mouth gestures)	
	Cheeks	Chin and jaw	
	Head tilt, rotation, etc.	Body (anything other than face/head/arms)	

Motion

Currently 250 categories, to be reduced to about 30 starting in version 0.8.6. These can be combined as needed.

- Sign type: 1-handed, 2-handed (only strong hand moves), 2-handed (both hands move in parallel), 2-handed (both hands move alternating), 2-handed (both hands move while touching, as one unit), no hands (non-manuals only)
- Arm-internal movements: fingers, wrist, forearm
- Larger arm/hand movements: none, or any combination of the following five subcategories:
 - Shape: straight, curved, circular, complex
 - Direction: toward body, away from body, other
 - Repetition: 1x, 2+
 - Dynamics: fast, slow, tense, relaxed
 - Contact: touch, strike, brush, rub, grasp, near (almost touch)

Location

We plan to merge or eliminate several of the categories shown in the screenshot. For example, we will eliminate the contact/near distinction under Location, handling it instead under Motion (Contact type), and will add a location for neutral space.

Handshape

We currently offer about 250 handshapes, to be reduced to about 200 by eliminating certain fine distinctions.

Future development planned

Currently in beta testing. Enhancements planned for version 1.0:

- Finish broadening the categories in the phonological coding system
- Training materials in English and at least one sign language
- Demonstration database that illustrates good lexicographic practice

Other possible features beyond version 1.0:

- Interface and training materials in languages other than English
- More options for searching, e.g. by dialect, grammatical category, user-defined categories, and fuzzy searches (e.g. for any of several similar handshapes)
- Cross-reference between entries (e.g. synonyms)
- Output to HTML for web pages and other distribution formats
- Collaboration features

Website for download and contact information

Current version (version 0.8.5, Windows XP and later, OS X 10.6.8 and later) and a sample database are available online:

<http://www.soosl.net>

contact@soosl.net

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