# Writing Sign Language on Your Computer

"SignBank brings written sign language to deaf and hearing signers." by Valerie Sutton

FileMaker Pro is an award-winning database software for Windows and Macintosh computers, developed by FileMaker Corporation (www.filemaker.com). As one of the world's most popular database programs, FileMaker is used by millions of small businesses to create databases that manage projects, assets, medical records, inventory, bookkeeping and payroll. But, don't let the friendly visual user interface fool you! FileMaker is exceptionally powerful, equaling, if not surpassing, the capabilities of competing software.

Now, in 2006, FileMaker is being used in deaf education, linguistic research and sign language courses around the world because of an ingenious new program, SignBank (*www.signbank.org*), which provides multilingual sign language databases built inside the FileMaker engine.

## **Writing Signs**

The brainchild of SignWriting (www.signwriting.org) inventor Valerie Sutton, SignBank brings written sign language to deaf and hearing signers using SignWriting, a visual way to write the hand shapes, movements and facial expressions of any sign language in the world.

Contrary to popular belief, sign languages are not international. They are rich, unique languages with large vocabularies and sophisticated grammar structures that differ from culture to culture, just as spoken languages differ from country to country. SignWriting is becoming the written form for sign languages worldwide. Thousands of deaf people, educators and researchers are using SignWriting daily to write their signed languages.

In the past, signers believed that their language could not be written. But, that is no longer true. Not all signers realize that thousands of people are writing sign language every day by hand, with pencil and paper. And, those skilled writers require a way to type signs by computer, as well. SignWriting is providing the writing system and the related SignWriting software to make it possible for signers to compose sign language literature directly in the movements and facial expressions of signing.

#### SignBank and FileMaker Pro

Supplying the signing deaf with a written form for their native sign language is believed, by some educators, to be the key to literacy in spoken languages for some deaf children and adults. And SignBank, built in FileMaker Pro 8.0, is a computer program tailored to test this educational theory, giving researchers study tools and deaf people a dictionary and database that is visual and easy to use.

In SignBank, written signs are stored and sorted by the visual hand shapes, movement arrows and facial expressions of SignWriting. This sequence of symbols is called Sutton's Sign-Symbol-Sequence (SSS).

To program FileMaker Pro to sort dictionaries by SSS was no easy task for FileMaker Pro programmer Todd Duell of Formulations Pro in Del Mar, California. Todd succeeded in stretching FileMaker Pro's capabilities, working to make a successful SSS look-up system.

SignWriting symbols are easy to read for those who use sign language. Some profoundly deaf people have trouble learning to read spoken languages because sounding out words is hard for those who have never heard sounds. But Sutton's American Sign Language-English Dictionary, which is prepared and printed using SignBank software, is providing a tool bilingual education needs to teach reading and writing to the signing deaf.

### SignPuddle: Sign Language Databases on the Web

SignPuddle (www.signpuddle.org) is a popular Web-based program for writing signs and literature in SignWriting and includes sign language dictionaries from 40 countries.

When you visit the SignPuddle site, click on a flag to view each country's Web dictionary. Some classrooms with deaf students spend hours of classroom time writing signs in SignWriting directly on the Web on the SignPuddle site. Designed and programmed by Stephen Slevinski, SignPuddle includes SignText, a program for preparing sign language literature; and SignMail, a way to send e-mail written in SignWriting.

Thousands of signers are benefiting from this amazing new breakthrough, free and open on the Web. There is even a way to write English phrases and translate them to SignWriting!

### SignPuddle Data Flowing Into SignBank 8.0

Recently, SignBank was restructured to work inside a new version of FileMaker Pro 8.0, which will, in turn, accept the data from SignPuddle with a form of XML called SWML (SignWriting markup language). Data entered on the Web in SignPuddle will be able to flow into SignBank.

SignPuddle is used to write the signs and documents directly in SignWriting symbols, but SignBank 8.0 will then make it possible to publish this data in printed book form and in large, multilingual, Webster-style dictionary formats. SignBank also includes entries of video clips, animation, children's illustrations, a library of lessons and literature, a SymbolBank archive, and a way to search the database by sign/symbols.

You can download a free version of SignBank 6.0 on the Web that does not require owning FileMaker Pro: www.signbank.org/downloads.

The new SignBank 8.0, which coordinates with SignPuddle, will be available in late 2006.

#### **Contact Information**

For more information, contact Stephen Slevinski, SignPuddle developer, at *slevin@signpuddle.net*, or visit *www.signpuddle.org*.

Todd Duell of Formulations Pro (the FileMaker developer) can be contacted via www.formulationspro.com.

Valerie Sutton, inventor of SignWriting (and the author of this article), can be contacted at *sutton@signwriting.org*, or visit *www.signwriting.org* or *www.signbank.org*.

The Center for Sutton Movement Writing and The Deaf Action Committee for SignWriting can be reached at P. O. Box 517, La Jolla, CA 92038. Or, call 858-456-0098 or fax 858-456-0020.

Need SignWriting tech support? Join the SignWriting list by visiting signwriting.org/forums/swlist.

