

## What is StructuredSignSpelling?

When someone writes everyday SignWriting, a human being reads it. Not everything needs to be explicit because human beings can figure out what is missing. The writer doesn't always have to put in locations, or the order in which the hands move (sequence), or whether the right hand or left hand is involved. The reader figures this out from where the hands are and where the symbols are put on the page.

SignTyp, unlike everyday SignWriting, is intended for research use. So we need to add information about locations, sequence and handedness, and there are a few special rules about writing signs.

The new StructuredSignSpelling screen looks like this:

SignWriting Symbol	Symbol Type	Articulator	SuperSyllable Sequence	Sequence within SuperSyllable
ⓘ	Location	Right	1	1
■	Handshape	Right	1	1
*	Action	Right	1	1
↑	Action	Right	1	1

(You can see this sign at <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=26&sid=3> .)

Notice that there are four columns that can be filled in for each symbol. In each case, the software assigns a default value that is usually correct.

The symbols types can be: *action*, *handshape*, and *location*.

The articulator can be: *right*, *left*, *both* or *nonmanual*.

The SuperSyllable sequence can be any number starting with 1.

If there is a sequence within the SuperSyllable, such as two right handshapes, the Sequence within SuperSyllable can be changed from the default value of 1 to a higher number.

In this sign, only the right hand was involved. The right hand contacted the nose location on the face with a thumb extended fist. There were two actions which can be considered as occurring at the same time: contact and upward movement.

An important point: **If the writer writes the handshapes and locations first and enters the actions last within a SuperSyllable, then most of the time (though not always), the default values will be correct, and nothing will have to be changed manually.**

## Assumptions that can simplify the writing:

### Actions

If the action on both hands is the same, it is not necessary to include the action symbol for symmetrical action.

If there is contact at two locations on the body, and the movement between the locations is a simple straight/slight curve action it doesn't need to be written, because it is just what is needed to get the hand to the next location. Examples in ASL: DEAF, WOMAN.

### Locations

If the location(s) for a sign are in neutral space and the right hand stays on the right hand side and the left hand stays on the left hand side (that is the hands are in ipsilateral space), then the neutral space location(s) do not have to be written.

Remembering these assumptions can save the writer some time, but if the writer chooses to explicitly include the actions or locations, that is also fine. If there is any doubt about clarity, please include whatever symbols are needed to make the signwriting clear.

## SuperSyllables

StructuredSignSpelling uses the notion of **SuperSyllable**, which is roughly equivalent to a single gesture or to a repeated gesture. This usually means that there is: 1) an action or actions that can be described with one symbol OR 2) all of the actions occur at the same time. OR 3) the actions alternate. Examples:

The hands open and the hands move up at the same time.

The fingers wriggle and the hand moves toward the chin at the same time.

One hand rotates to palm down and the other hand rotates to palm up at the same time.

One hand moves up and the other hand moves down repeatedly.

Some online examples of one SuperSyllable signs:

COW: <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=26&sid=1>

COW (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=80>

PIG: <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=26&sid=3>

SHEEP: <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=26&sid=4>

CAT (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=10>

HORSE (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=30>

ELEPHANT (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=60>

Some online examples of multiple SuperSyllables signs:

DOG (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=20>

CAMEL (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=50>

GOAT (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=90>

PIG (ISN): <http://signtyp.uconn.edu/signpuddle/canvas.php?ui=1&sgn=13&sid=100>

## Examples

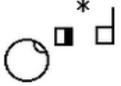
This section describes some examples to show how the SuperSyllables and Sequence within SuperSyllables are used:

These examples use mostly imaginary signs to show similar signs with handshapes, locations and actions in different orders.

### Example 1

In the first example, the fist hand contacts the forehead and changes to an index hand. The handshapes and location are entered first, and then the action. The StructuredSignSpelling screen will look like this:

fisttoindex



SignWriting Symbol	Symbol Type	Articulator	SuperSyllable Sequence	Sequence within SuperSyllable
	Location	Right	1	1
	Handshape	Right	1	1
	Handshape	Right	1	2
	Action	Right	1	1

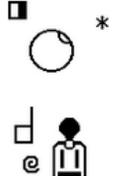
Submit

The writer clicks Submit and everything will be correctly ordered. The Sequence within SuperSyllable is **1** except for the second handshape, the index, which is **2**. This tells us that the fist changes to index (not index changing to fist).

The location on the head and the action are listed as “right articulator” because it is the right hand that contacts this location and performs the action.

### Example 2: Two SuperSyllables

In this example, the fist hand contacts the forehead, changes to an index hand and moves down to rub the neck. These are two separate gestures and will need two SuperSyllables. The fist handshape and the forehead location should be entered first, followed by the contact action. Then the index handshape and the neck location are entered, followed by the rubbing action. This will create the correct StructuredSignSpelling defaults. The StructuredSignSpelling screen will look like this:



SignWriting Symbol	Symbol Type	Articulator	SuperSyllable Sequence	Sequence within SuperSyllable
■	Handshape	Right	1	1
○	Location	Right	1	1
*	Action	Right	1	1
☞	Handshape	Right	2	1
👤	Location	Right	2	1
@	Action	Right	2	1

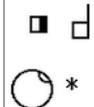
Submit

The writer can click Submit and everything will be correctly ordered. Note that the Sequence within SuperSyllable is 1 for all symbols because there is only one value for location, handshape and action within each SuperSyllable.

### Example 3: Making corrections to the StructuredSignSpelling screen

Suppose that the writer accidentally enters the handshapes, then the action, and then the location for the sign in Example 1.

The StructuredSignSpelling screen will look like this:



SignWriting Symbol	Symbol Type	Articulator	SuperSyllable Sequence	Sequence within SuperSyllable
■	Handshape	Right	1	1
☞	Handshape	Right	1	2
*	Action	Right	1	1
○	Location	Right	2	1

Submit

This is incorrect, because the location should be in the same SuperSyllable. Correct the number to 1 and then click submit:

fisttoindex



SignWriting Symbol	Symbol Type	Articulator	SuperSyllable Sequence	Sequence within SuperSyllable
■	Handshape	Right	1	1
┘	Handshape	Right	1	2
*	Action	Right	1	1
○	Location	Right	1	1

Submit

There are also some occasions when the default values will not be correct even if the writer enters everything in the correct order.

For example in the ASL sign *SHOW*, the left hand acts as a location for the right hand. Usually when this happens, the left hand stays still and the right hand moves. But *SHOW* is an exception – both hands move. The software will produce the wrong value for the action Articulator and will need manual correction to *both* instead of *right*:

show



SignWriting Symbol	Symbol Type	Articulator	SuperSyllable Sequence	Sequence within SuperSyllable
┘	Handshape	Right	1	1
┘	Handshape	Left	1	1
○	Location	Right	1	1
↑	Action	Right	1	1

Submit

The corrected screen will look like this:

show



SignWriting Symbol	Symbol Type	Articulator	SuperSyllable Sequence	Sequence within SuperSyllable
	Handshape	Right	1	1
	Handshape	Left	1	1
	Location	Right	1	1
	Action	Both	1	1

Submit

### A note about Articulators

For SignTyp, writers will be looking at videos and writing expressively what they see in the video. Writers will need to pay attention to which hand is at which location and which hand performs which action in order to fill out the StructuredSignSpelling screen correctly. For this project, we are not concerned with the notions of dominant/nondominant or strong/weak hands. We want to write what the video shows.

### Questions?

If you have any questions, please email us at [rchannon1@verizon.net](mailto:rchannon1@verizon.net) and we will start a FAQ to answer them.