

HOW TO CONSTRUCT NEW HAND SYMBOLS

Using The International SignWriting Alphabet (ISWA)

by Valerie Sutton, March 1st, 2011

Part 1

There are 261 officially-constructed hand symbols in the ISWA 2010, but there are actually hundreds of other shapes and positions of the hand that are not included in the official 261. The human hand has many variations and possible combinations. Fingers can be bent in incrementally-different degrees of bending. A finger can be contacted by another finger, in incrementally-different degrees of contact-placement, and these minute differences can be combined with other fingers to create hundreds more hand symbols. And some of these minute differences of finger placement and bending hold linguistically-important information for some sign languages, but in other sign languages, the same position can be meaningless.

Therefore, the ISWA is VERY flexible. It includes 261 pre-constructed hand symbols, that are the most commonly-used in documents around the world, based on documents and dictionaries in SignPuddle, as of January 2010. Before constructing a new hand symbol, search for and use the “pre-constructed” hand symbols if at all possible. If you cannot find the hand symbol you need, then follow these guidelines:

HOW TO CONSTRUCT NEW HAND SYMBOLS USING THE ISWA

1. FIND THE ROOTSHAPE

The Rootshape is the foundation of the hand symbol. Read the definitions of Rootshapes below:

Rootshapes

Like roots to a tree, Rootshapes provide the foundation for all hand symbols in the International SignWriting Alphabet (ISWA 2010). There are 13 Rootshapes.

Rootshapes are determined by the shape of the LOWEST finger in the hand-shape. For example, a square for a TIGHT Fist must have at least one finger touching the palm of the hand. A circle for an OPEN fist, has at least one finger close to the palm of the hand, but not touching the palm of the hand.



Rootshape 01: Tight Fist

Tight Fist: At least 1 finger touches palm



Rootshape 02: Fist Thumb Under

Tight Fist: At least 1 finger touches palm with thumb under it



Rootshape 03: Fist Thumb Across

Tight Fist: At least 1 finger rests on top of thumb across palm



Rootshape 04: Circle

At least 1 fingertip touches thumbtip in a curve or...
At least 1 curved finger is close to palm of hand



Rootshape 05: Curlicue

At least 1 fingertip touches inside middle of thumb



Rootshape 06: Claw

At least 1 finger is bent at Middle Joint & Tip Joint



Rootshape 07: Hook

At least 1 finger is bent at Middle Joint, touching thumb tip



Rootshape 08: Cup

At least 1 finger is curved at the Middle Joint & Tip Joint.
There is NO bend or curve at the Knuckle Joint.



Rootshape 09: Oval

At least 1 finger is curved at all three joints: Knuckle Joint,
Middle Joint and Tip Joint.



Rootshape 10: Hinge

At least 1 finger bends at the Knuckle Joint, while
the Middle Joint and Tip Joint lock completely straight.



Rootshape 11: Angle

The Hinge, with fingertips and thumb tip touching



Rootshape 12: Flat Thumb Across

Thumb across palm, four fingers straight up with no bends



Rootshape 13: Flat

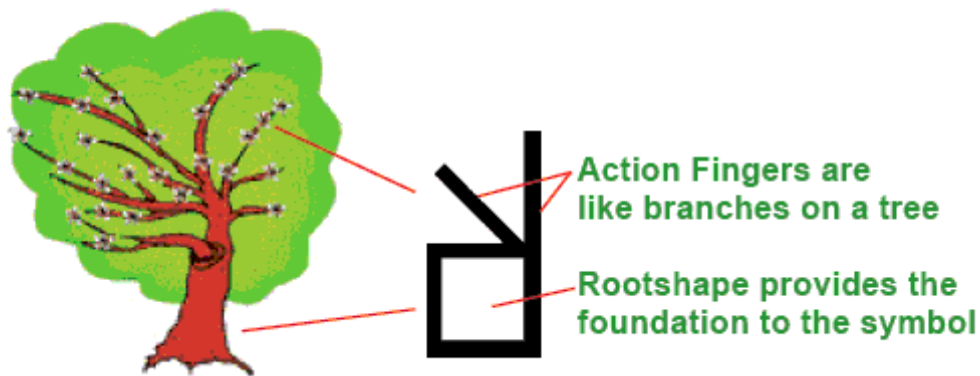
Five fingers straight up with no bends

2. ATTACH THE ACTION FINGERS

The Action Fingers are like the branches of a tree:

Action Fingers

Once the Rootshape is established, the lines for the fingers are attached. The finger lines are called Action Fingers. They extend from the root of the hand like branches on a tree. Action Fingers are more important than the Rootshape, because they are looked at first, just as observers look at the branches of a tree first. Readers focus on Action Fingers first, since they give meaning to the handshape.



The above diagrams are taken from the textbook: “SignWriting Hand Symbols”, which is available for download on: SignWriting Lessons: www.signwriting.org/lessons.

HOW TO CONSTRUCT NEW HAND SYMBOLS In The International SignWriting Alphabet (ISWA) by Valerie Sutton, March 1st, 2011

Part 2: AN EXAMPLE OF CONSTRUCTING A HAND SYMBOL

Let us imagine we wish to write this handshape. It is part of a sign describing a hoop or circle and is a very slightly bent L shape, or a wide wide curve for only the Index and Thumb, with the other fingers in a fist:



What to do?

1. Go to SignPuddle Online:

SignPuddle Online:
<http://www.signbank.org/signpuddle/>

and open a file, such as the ASL Dictionary puddle:

ASL Dictionary puddle
<http://www.signbank.org/SignPuddle1.5/index.php?ui=1&sgn=4>

2. Open SignMaker, by clicking on the SignMaker icon on the left of the screen:



3. In SignMaker, search first to see if the symbol already exists. Since the Action Fingers are Index and Thumb, you know to search in Hand Group 9:

**3. Click on Group 9
Index Finger &
Thumb**

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	•			
	↑			
	⇧			
	↑			
	↶			
	↷			
	↶			
	↷			

Symbol Group List Previous Add To SignPuddle
Copy Symbol Delete Symbol Clear All
Variation Mirror Symbol Fill Symbol
Place Over Rotate 1 Rotate 2
Select Next Color 1 Color 2

4. In Group 9, there are three hand symbols that are similar, but none of them are quite what you need:

Home SignPuddle™ SignMaker Dictionary US

4. Hmmm....
Three hand symbols are close, but not quite what you need...

Symbol Group List Previous Add To SignPuddle
Copy Symbol Delete Symbol Clear All
Variation Mirror Symbol Fill Symbol
Place Over Rotate 1 Rotate 2
Select Next Color 1 Color 2

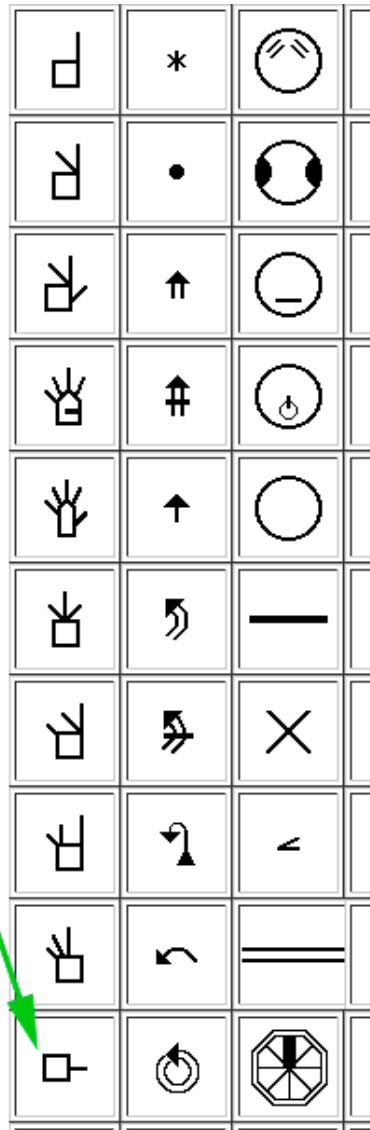
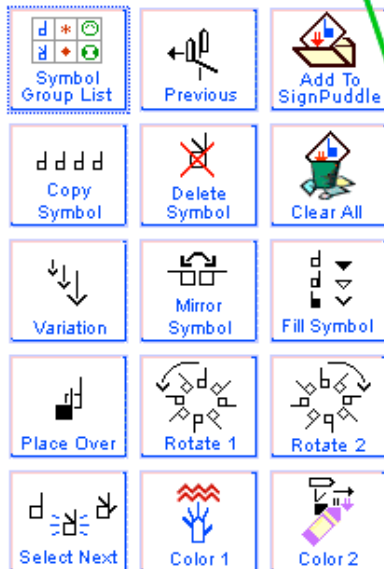
Now you know you need to construct the hand symbol. How do you do that?

5. First, what is the Rootshape? It is a Fist, because the lowest finger in the Rootshape is touching the palm of the hand.

So first, you must place the Rootshape of the new hand symbol in SignMaker, so you can construct the hand symbol.

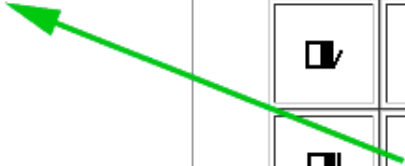

Where is the Fist symbol? It is located in Group 10. Click on Group 10:

**5. The Fist
Rootshape is
located in
Group 10 -
click on it**



6. Drag the Fist symbol over to the SignBox in SignMaker:

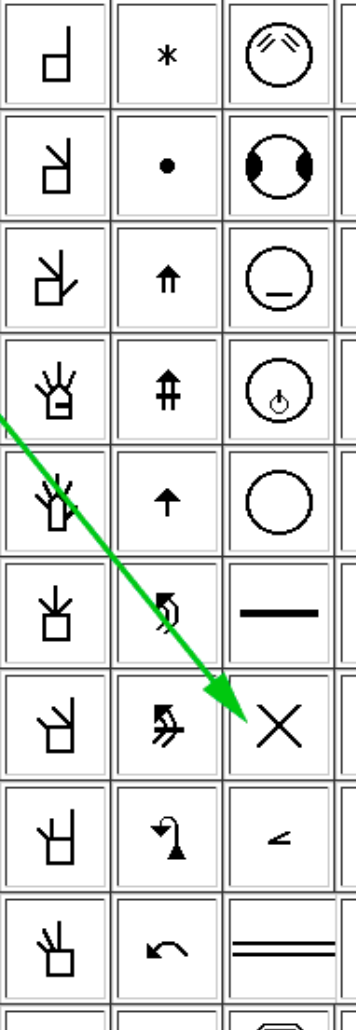
6. Drag the Fist to the SignBox

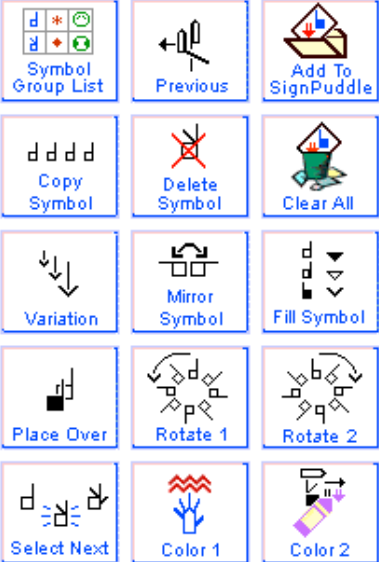


Symbol Group List	Previous	Add To SignPuddle
Copy Symbol	Delete Symbol	Clear All
Variation	Mirror Symbol	Fill Symbol
Place Over	Rotate 1	Rotate 2
Select Next	Color 1	Color 2

7. Now, the next job is to click on the Limbs Group...It is near the Shoulders and has two arms crossed:

7. Click on the Limb Group





- Symbol Group List
- Previous
- Add To SignPuzzle
- Copy Symbol
- Delete Symbol
- Clear All
- Variation
- Mirror Symbol
- Fill Symbol
- Place Over
- Rotate 1
- Rotate 2
- Select Next
- Color 1
- Color 2

8. Next, click on the Finger Pieces, used for constructing hand symbols:

8. Click on the Finger Pieces

X	
◻	
└	

Symbol Group List Previous Add To SignPuzzle

Copy Symbol Delete Symbol Clear All

Variation Mirror Symbol Fill Symbol

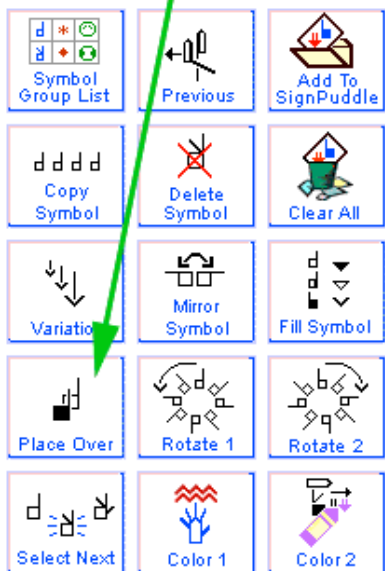
Place Over Rotate 1 Rotate 2

Select Next Color 1 Color 2

9. Drag the symbol pieces you need to the Fist symbol in the SignBox:

Sometimes you might have to push the Place Over Command Button to be sure the line is over & not under

9. Drag pieces to construct it



-	-	-	-	-	-
↙	<	↘	o	↻	↵
↳	L	↵	o	↻	↵
↘	↘	↘	o	↻	↵
↵	└	↳	o	↻	┘
↗	>	↗	o	↻	↶
┘	┘	┘	o	↻	┘
↗	^	↗	o	↻	↶
┘	┘	↳	o	↻	┘
↘	>	↘	o	↻	↶
┘	┘	↳	o	↻	┘
↘	↘	↘	o	↻	↶

Questions? Write to:

Valerie Sutton: Sutton@SignWriting.org

SignPuddle Online: www.signbank.org/signpuddle