

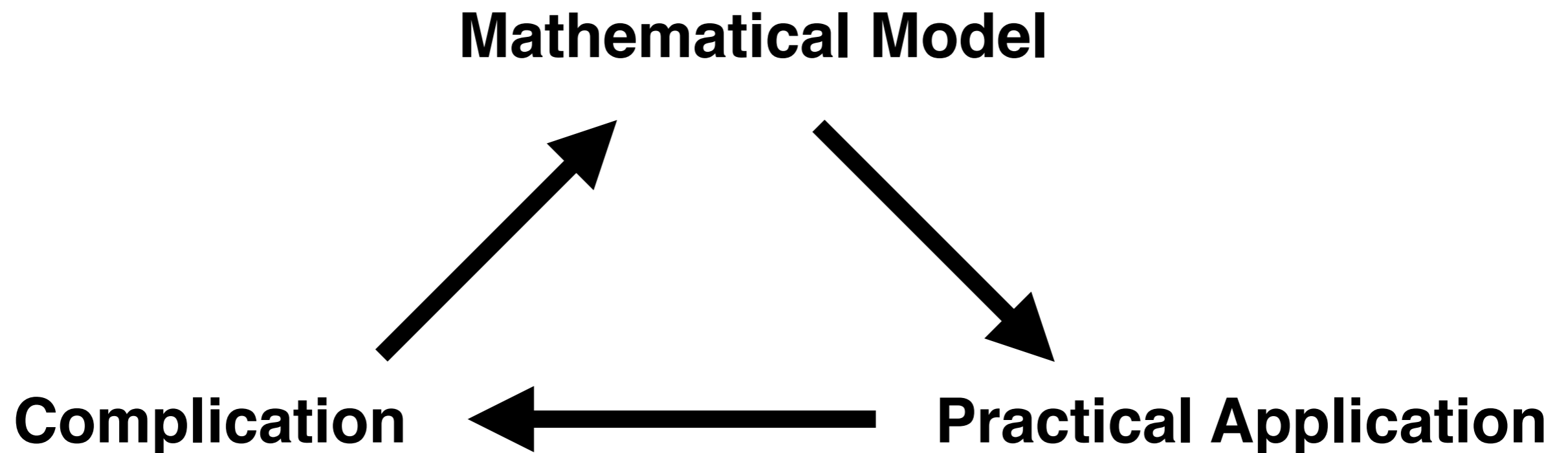
The SignPuddle Standard for SignWriting Text

presented by Stephen E Slevinski Jr

in association with the Center for Sutton Movement Writing

discussing draft-slevinski-signwriting-text-03

How do we encode the SignWriting Script?



Outline

1. Background of SignWriting Text
2. Benefits of SignWriting Text
3. Elements of SignWriting Text
4. Extending the standard

1. Background

- My background
- Historical foundation
- SignPuddle Beginnings
- Naming the signs

My Background

- Math major
- Love of literacy
- Raised children with sign language
- Deaf friends in Pittsburgh, PA
- 10 year collaboration with Valerie Sutton

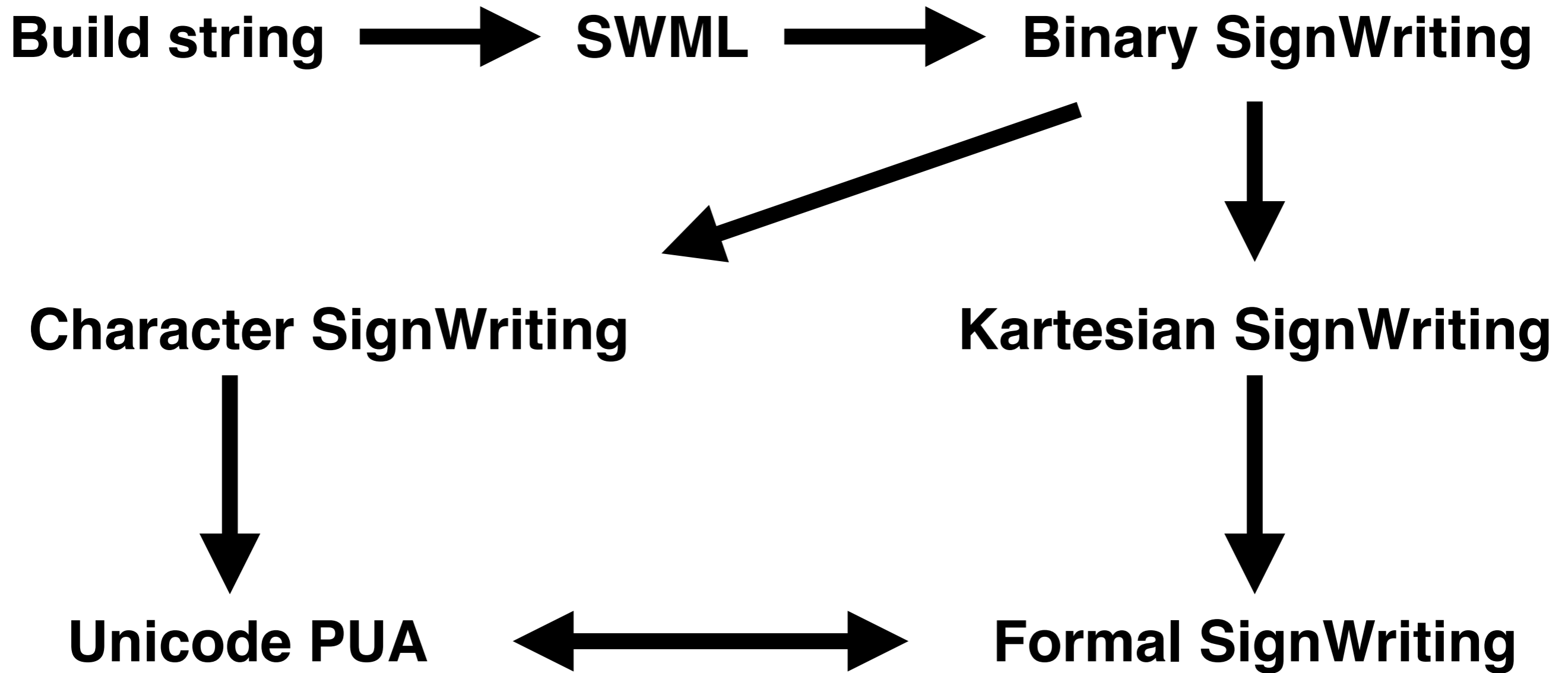
Historical Foundation

- SignWriting invented in 1974
- Computerization began in 1984
- SignWriter Dos created by Richard Gleaves
- Standardized symbol sets in 1999, 2002, and 2004

SignPuddle Beginnings

- Screen captures of sign images
- Gloss file names
- Drag & drop construction

Naming the signs



2. Benefits of the standard

- Universal for all sign languages
- Beautiful images
- Real sign language text
- Efficient sorting
- Powerful searching
- Growing body of work

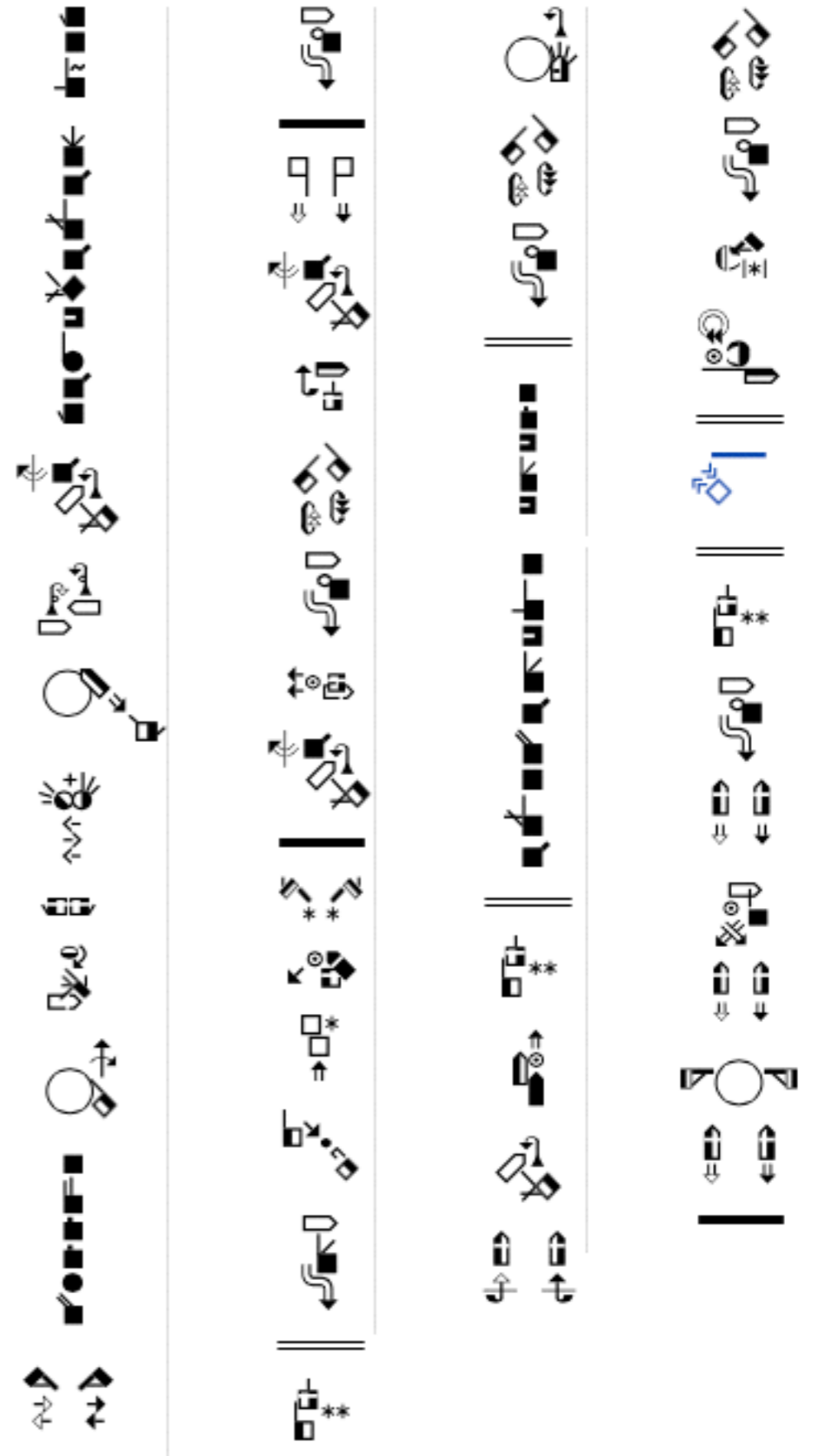
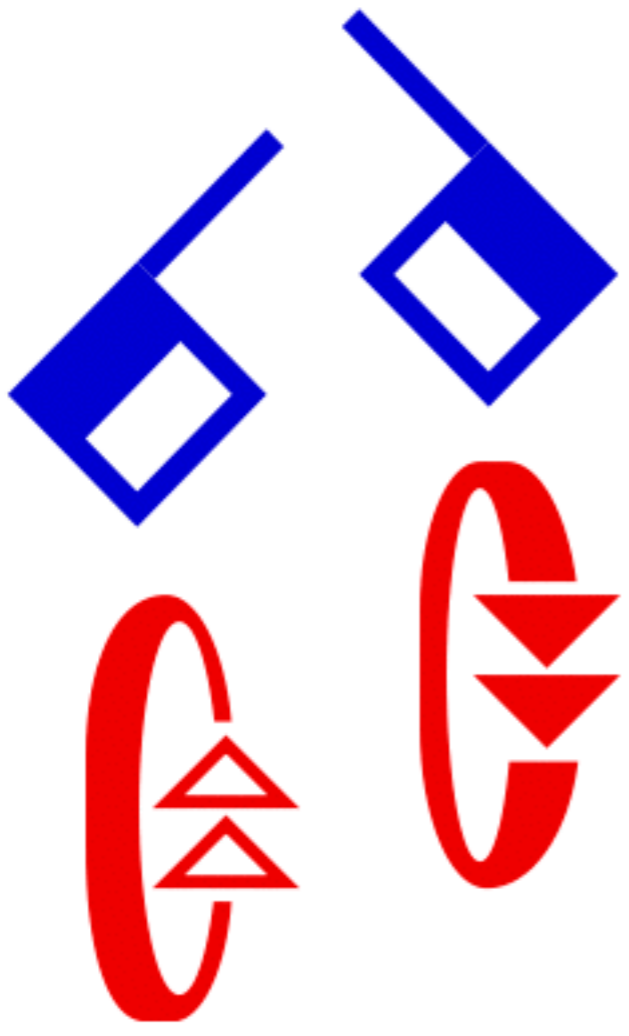
SignWriting is Universal

American Sign Language, Arabian Sign Languages, Australian Sign Language, Bolivian Sign Language, Brazilian Sign Language, British Sign Language, Catalan Sign Language, Colombian Sign Language, Czech Sign Language, Danish Sign Language, Dutch Sign Language, Ethiopian Sign Language, Finnish Sign Language, Flemish Sign Language, French-Belgian Sign Language, French Sign Language, German Sign Language, Greek Sign Language, Irish Sign Language, Italian Sign Language, Japanese Sign Language, Malawi Sign Language, Malaysian Sign Language, Maltese Sign Language, Mexican Sign Language, Nepalese Sign Language, New Zealand Sign Language, Nicaraguan Sign Language, Norwegian Sign Language, Peruvian Sign Language, Philippines Sign Language, Polish Sign Language, Portuguese Sign Language, Quebec Sign Language, South African Sign Language, Spanish Sign Language, Swedish Sign Language, Swiss Sign Language, Taiwanese Sign Language, Tunisian Sign Language, and more...

<http://www.signwriting.org/about/who/>

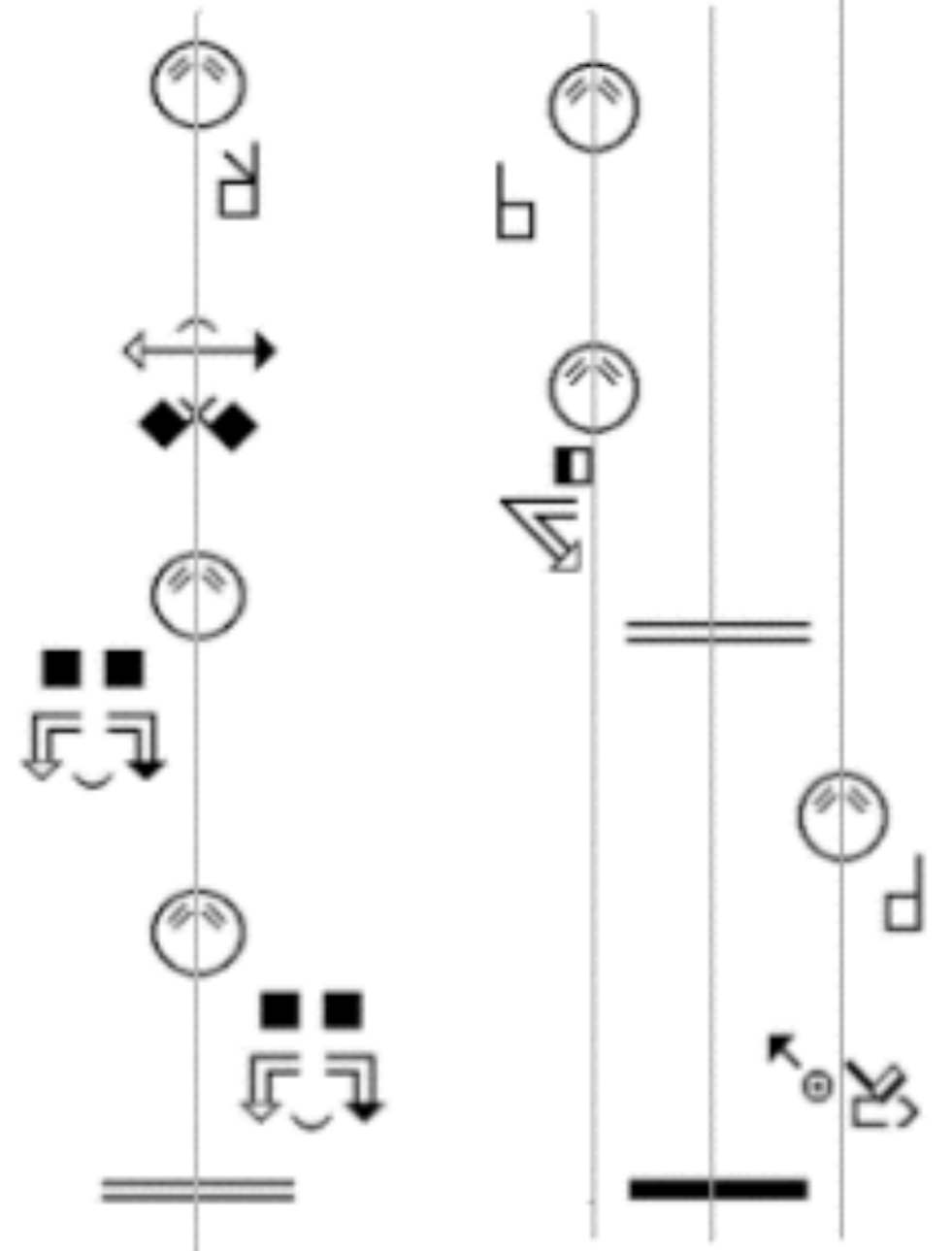
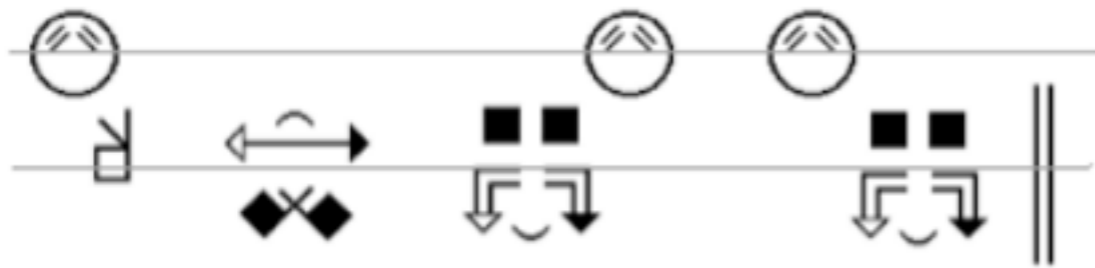
Beautiful Images

Scalar Vector Graphics



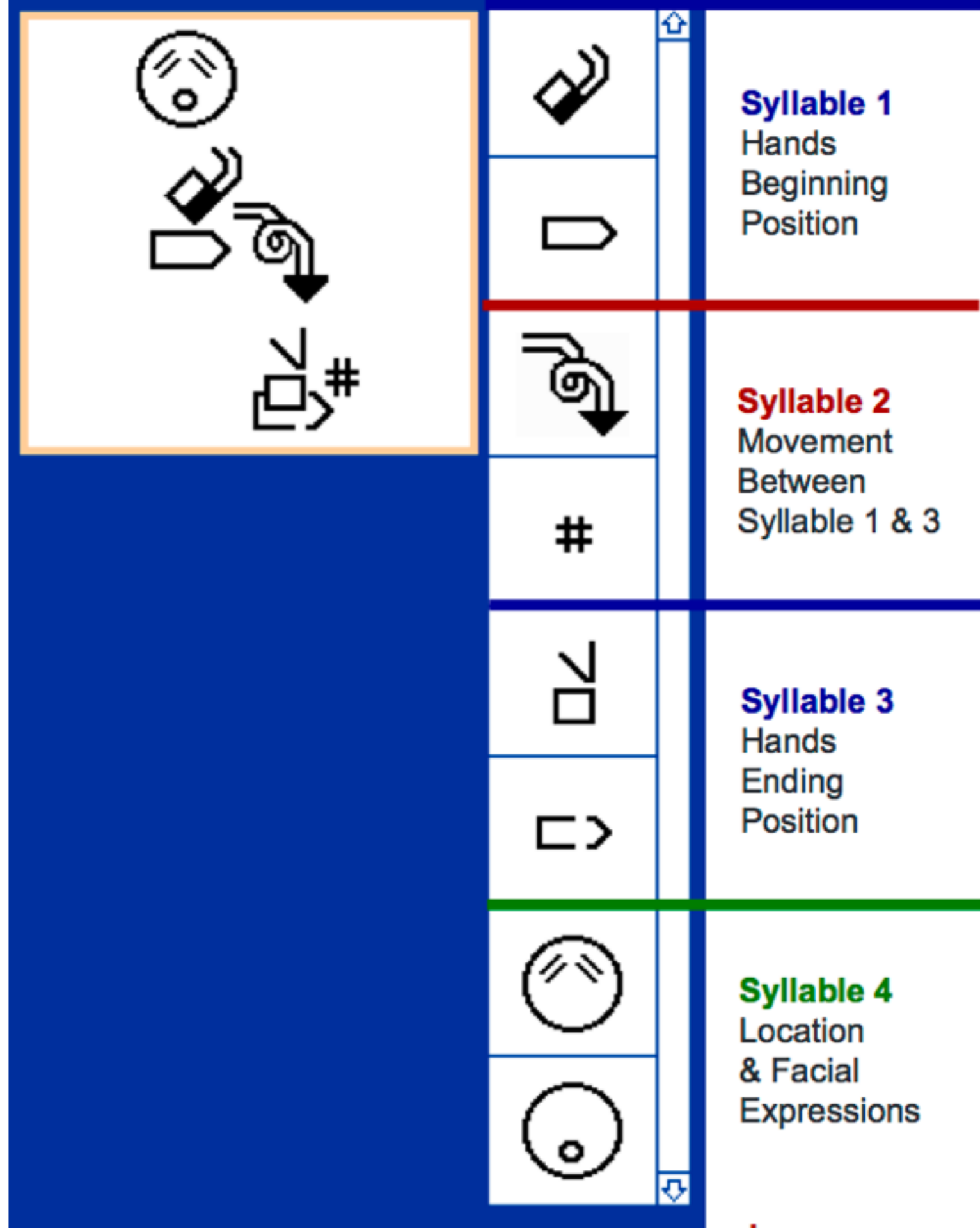
Real sign language text

grammatically correct



Efficient Sorting






Supports multiple theories

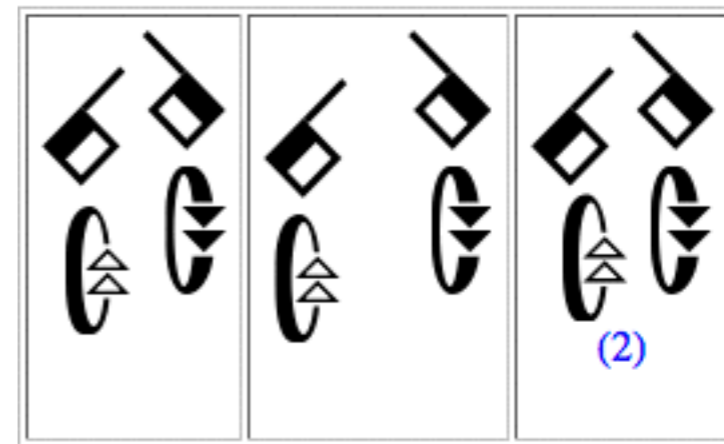


by
Valerie Sutton

Powerful Searching

- Find exact symbols
- Find general symbols
- Find symbol ranges
- Ignore location
- Use approximate location

Approximate location	Symbol List
 Remove Location Criteria...	 - Exact Match  - Exact Match  - Exact Match  - Exact Match



Growing body of work



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




























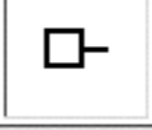


3. Elements of the Standard

- International SignWriting Alphabet 2010
- Writer control and flexibility
- Visual Image
- Mathematical Name
- Regular Expressions
- 2 Years of Stability

International SignWriting Alphabet

ISWA 2010

- Grapheme
- Symbol
- Hierarchy
- Encoding

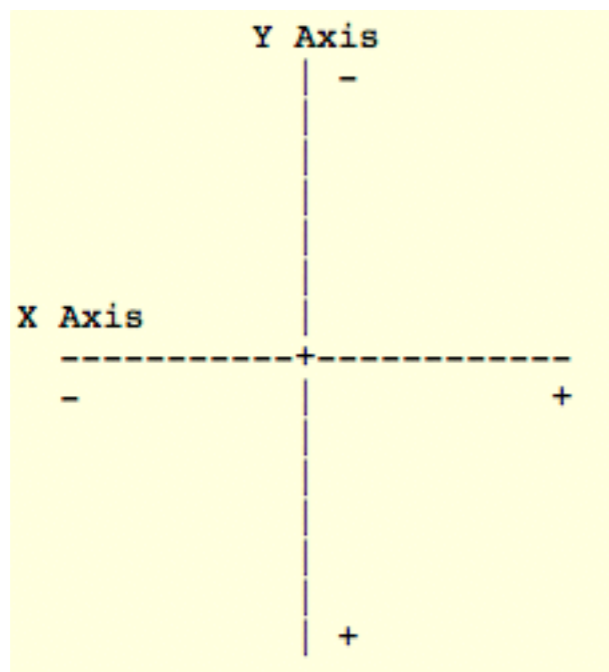
Writer Control and Flexibility

Symbol selection, placement, and order

- No limitations
- No gatekeepers
- No waiting

Visual Image

2-Dimensional Order



- PNG
- SVG
- TrueType

Mathematical Name

- Plain text string of characters
- Structured with tokens
- 2-dimensional space
- Optional 1-dimensional order

Regular Expressions

- Pattern matching
- Efficient processing
- Automatic conversion

2 Years of Stability

- January 12th, 2012
- ASCII based
- Unicode - Private Use Area

4. Extending the Standard

- Embrace the standard
- Maintain compatibility
- Experiment and try something new

Embrace the Standard

- SignTyp
- SignWriter Studio
- DELEGS Online
- Wikimedia Incubator
- TrueType Font development

Maintain Compatibility

- SWIFT
- Alternate ISWA 2010 fonts

Experiment and Try Something New

- Other symbol sets
- Other coordinate system
- Other internal structure
- Other character sets
- Other input methods