

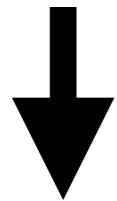
Constructing a TrueType Font
for the SignWriting Script
with Unicode Characters
using the Graphite Rendering System

presented by Stephen E Slevinski Jr

in association with the Center for Sutton Movement Writing

Is it possible to have a client side TrueType Font for SignWriting?

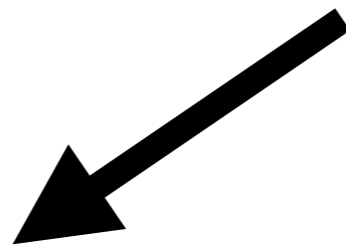
SignWriting Script



Symbol Font



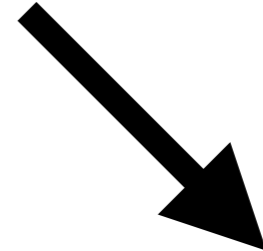
SignWriting Text



Unicode



Font Forge



Graphite



Outline

1. Background
2. Motivation
3. Quality
4. Future

1. Background

- Symbol Font
- Unicode Private Use Area
- FontForge
- Graphite

Symbol Font

International SignWriting Alphabet

- 37,811 symbols
- Combined Character Sequence
- 674 Characters

ISWA 2010 HTML Reference

<http://signbank.org/iswa/>

Unicode Private Use Area

- Characters for symbols
- Characters for structural markers
- Number characters

FontForge Import

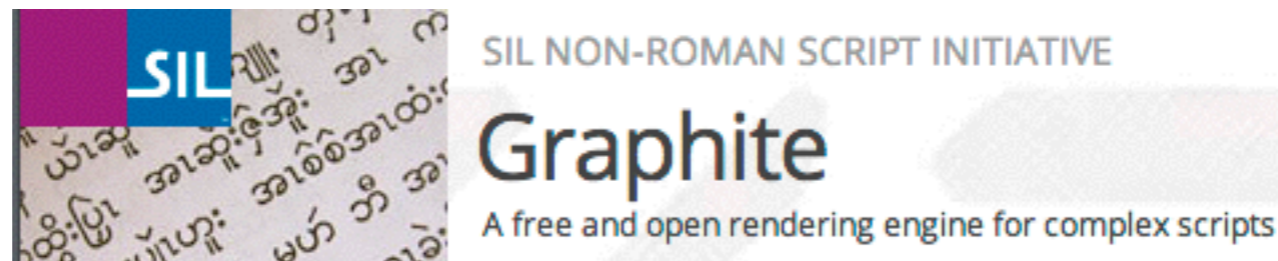
- Naming Convention: u1D800_u1DA8C_u1DA92.svg
- Martin Hosken's symbol import prototype
- Eduardo Trápani's symbol import and space control



<http://fontforge.org/>

Graphite

- Smart Font Technology
- Graphite Description Language (GDL)
- Coordinate Characters



<http://graphite.sil.org/>

2. Motivation

- Client Side - download font and install
- No Server Required
- Complex Script
- User Arrangement

Client Side

download font and install

- iswa.ttf, 6.1 MB
- Enable Graphite in Firefox
- Github Source

ISWA 2010 Font Reference

<http://signpuddle.net/iswa/>

No Server Required

- SVG Images from Server
- Wikimedia Labs Project
- Github Source



<http://swis.wmflabs.org>

Complex Script

- 2-Dimensional Positioning
- Unpredictable Placement
- Coordinate Characters

User Arrangement

- Exact positioning
- Any sign is possible
- No gatekeepers
- No waiting

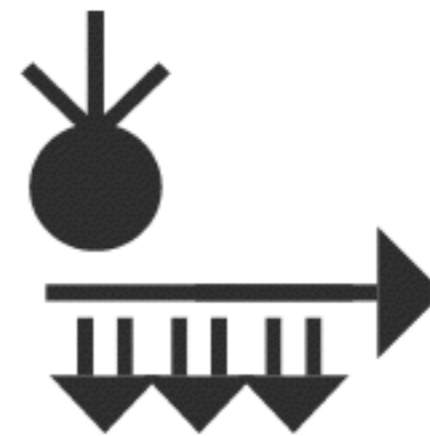
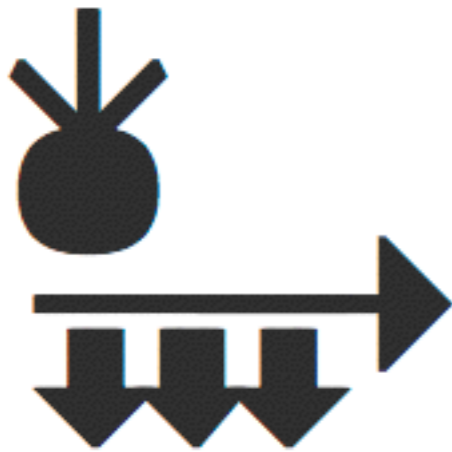
3. Quality

- Entire ISWA 2010
- Real 2-dimensional placement
- Fuzzy depending on setup
- Fill issues
- Crashing

Font Comparisons

TrueType Font

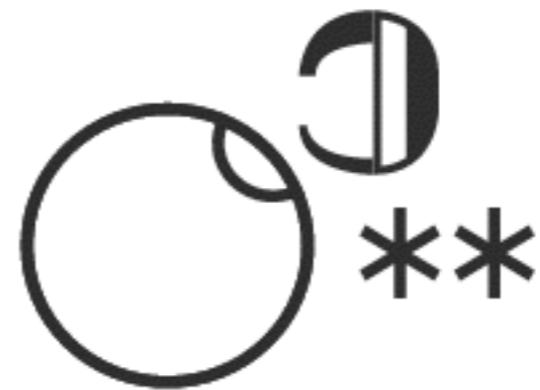
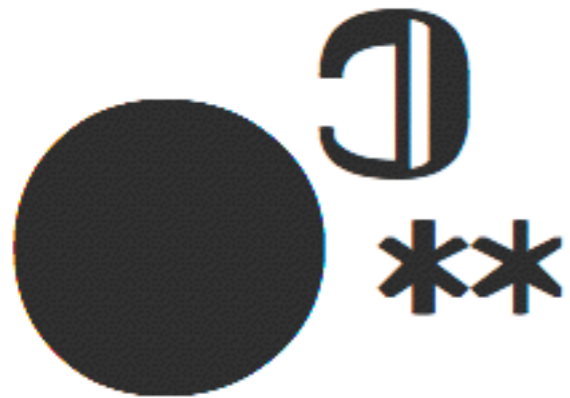
SVG



Font Comparisons

TrueType Font

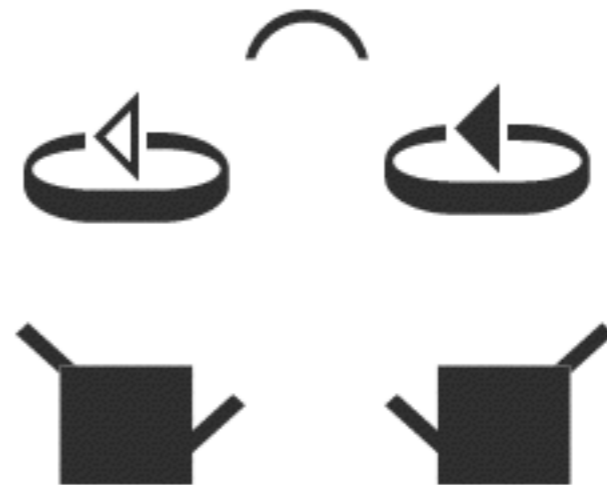
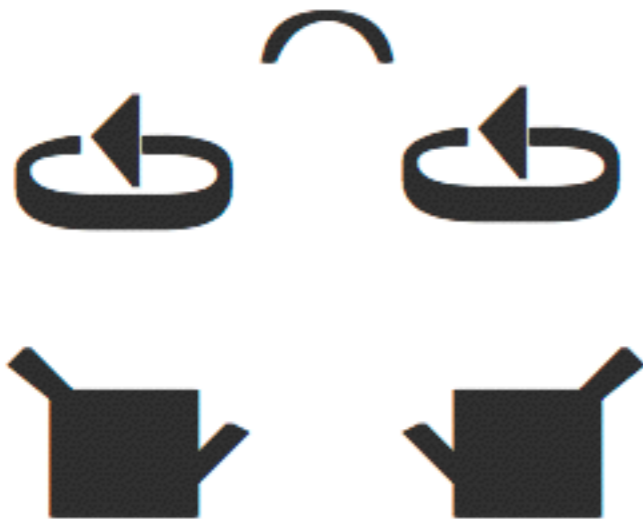
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Font Comparisons

TrueType Font

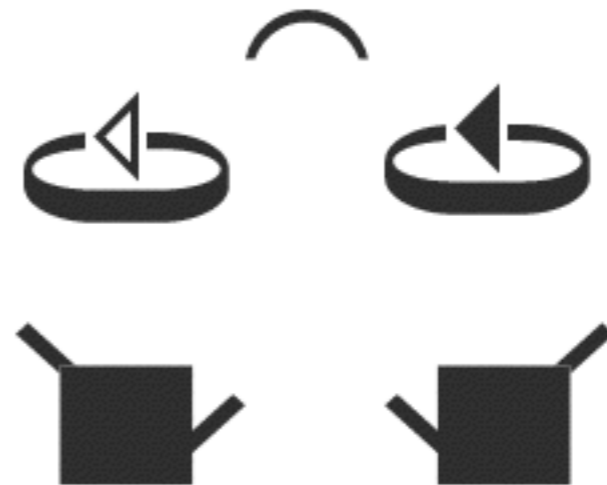
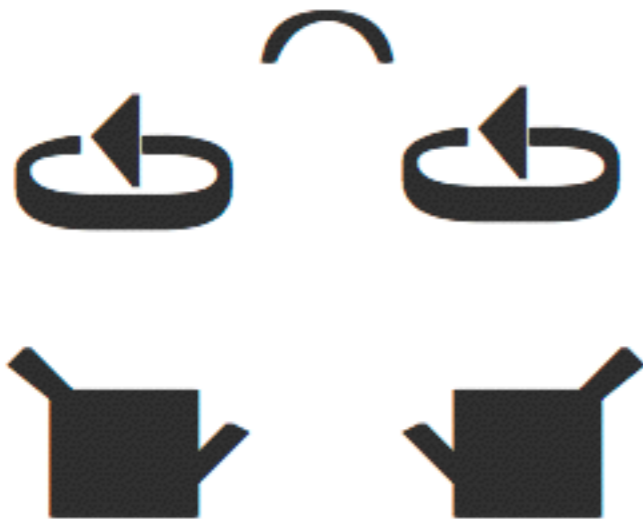
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Font Comparisons

TrueType Font

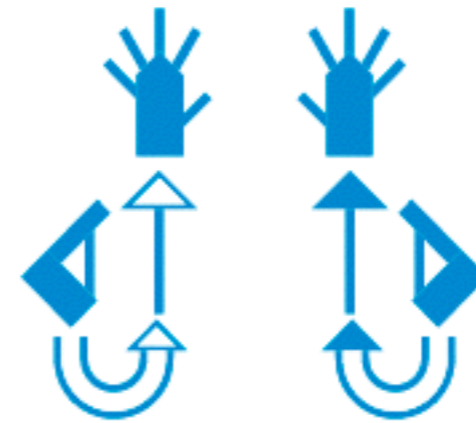
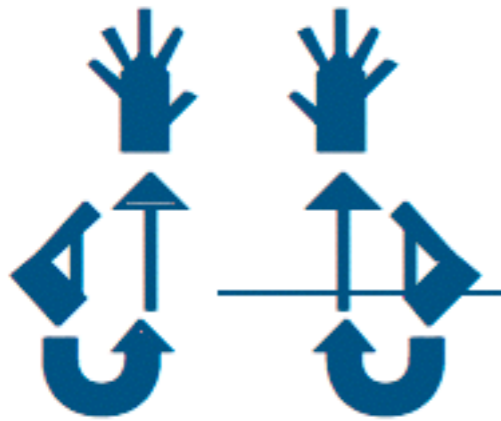
SVG



Font Comparisons

TrueType Font

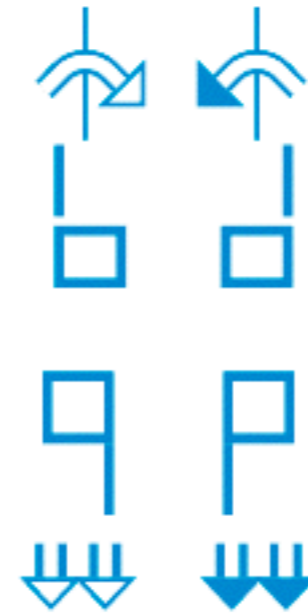
SVG



Font Comparisons

TrueType Font

SVG



4. Future

Further font development

- Symbol Quality
- 2-Color Font
- Margin Issues