A Simple Process for Creating Annotated Line Drawings and Photographs of Sign Language

E. William Clymer, PEN-International, NTID/RIT, USA
 Tang Wei Lan, Chinese University Hong Kong, Centre for Sign Linguistics and Deaf Studies
 James Woodward, Project Director, Dong Nai Deaf Education Project, Viet Nam

October 10, 2006 Asia-Pacific Congress on Deaf Education Tokyo, Japan

Objective

 Describe digital photographic, image manipulation and reproduction technologies to improve the reproduction of sign language drawings and photographs.





Sign Language Project

- Dr. Tang & Dr.
 Woodward are working to Develop Sign
 Language Dictionaries
 by Local Deaf
 Individuals in Viet
 Nam, Hong Kong, and
 Philippines
- Supported by the Nippon Foundation of Japan





Difficult to Document Sign Language

- Clear, notated images required to accurately show signs
- Most drawings/photos show annotation and many show initial and terminal position
- Most systems require artistic and technical skills
- Reproduction cost a significant issue

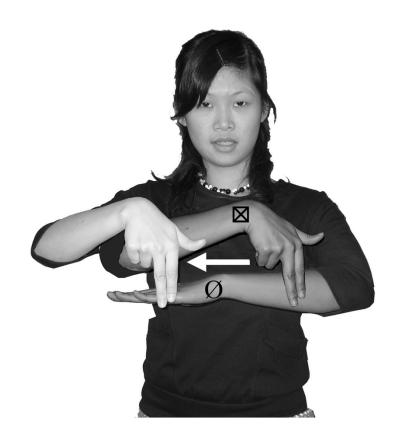
The Plan

- PEN-International to Work with Viet Nam and Hong Kong Centers
 - Review Existing Materials, find Ideal Format
 - Develop Processes, then Training for Both Locations
 - Present at APCD, then In-depth Training



Hong Kong Dictionary

- Sophisticated Image Manipulation in PhotoShop!
- Extremely High Quality Images
- Complex Photoshop Procedures





Viet Nam Dictionary

- Digital Photographs
- In PhotoShop
 - Convert to "Photocopy"
 - Erase
 - Draw Redraw Lines
- Basis for Suggested Procedure
 - Subtractive Technique





Photograph on Green Background





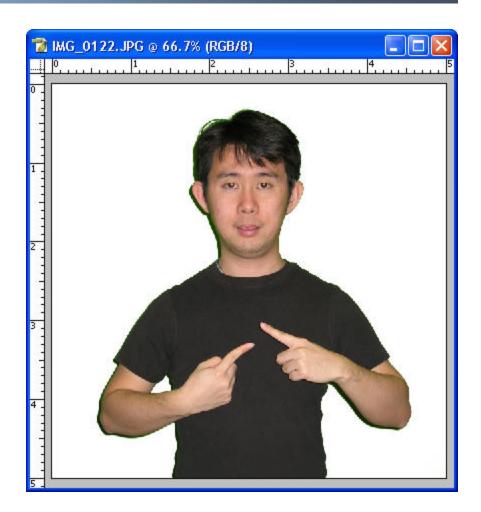
Set Image Size







- Set Image Size
- RemoveBackground



- Set Image Size
- RemoveBackground
- Filter to Photocopy





- Set Image Size
- RemoveBackground
- Filter to Photocopy
- Erase/Add

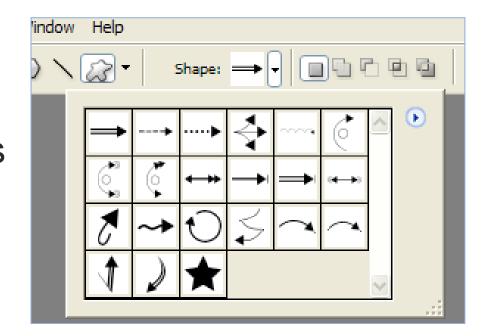




R-I-T NTID

Added Notation System

- Custom Shapes from College of St. Benilde, Philippines
- Based on Thai Notation Marks

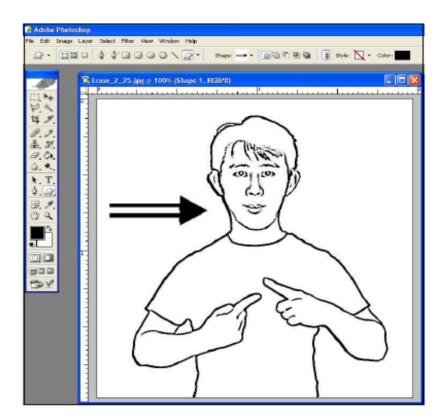






Added Notation System

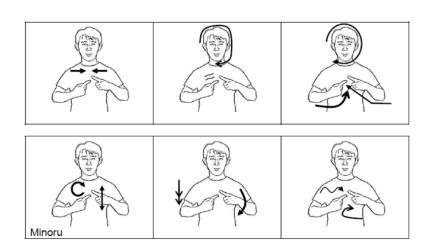
Simple to Add Critical Notation to Images





Produce Dictionaries in Word

- Word is Best Program for Producing Dictionaries
- Use Tables to Contain Images
- Autofit into Window



Future Work

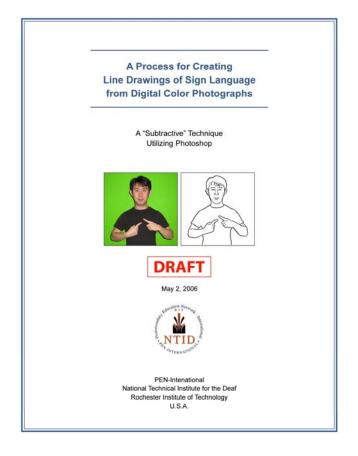
- Share proposed system with experts for review
- Refine procedure for line drawings
- Begin review for photographic manipulation
- Offer training to members of the project team



Draft of Training Materials

http://www.pen.ntid.rit.edu/pdf/ALL_Sign_Final.pdf

Entire Technique Available for Download



A Simple Process for Creating Annotated Line Drawings and Photographs of Sign Language

E. William Clymer, PEN-International, NTID/RIT, USA

Tang Wei Lan, Chinese University Hong Kong, Centre for Sign Linguistics and Deaf Studies

James Woodward, Project Director, Dong Nai Deaf Education Project, Viet Nam

October 10, 2006 Asia-Pacific Congress on Deaf Education Tokyo, Japan