

Embroidery Editor

CS488 Team 5

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Client: Ken Farr

Preliminary user stories/Application requirements

Project Description

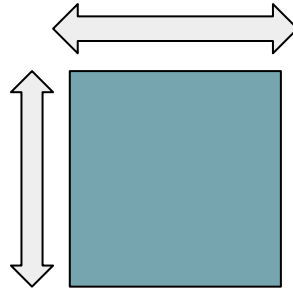
The Embroidery editor will allow for the easy creation and editing of embroidery stitch files for use on home machines. With emphasis on ease of use, and support for Brother PES format files.

Freehand Creation

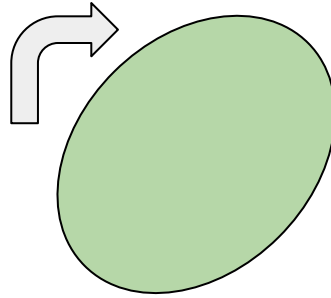
A user should be able to freehand draw outline designs using single stitches and shapes. All pieces of a design should be group selectable for easy editing of large chunks.

Shapes

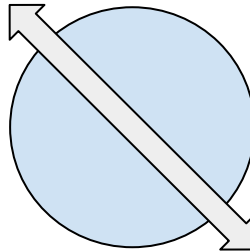
- Represented as collections of points
- Scalable
- Rotatable
- Independent Height Width Adjustment



Height/Width



Rotation

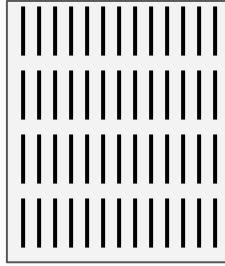


Scale

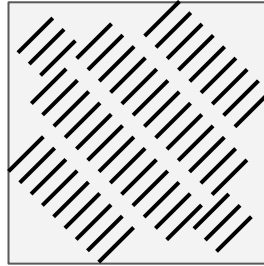
Stitch Fill

Customizeable fill patterns

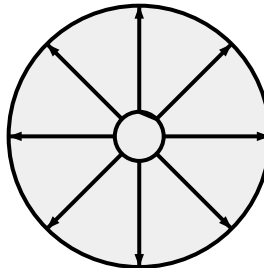
- Parallel lines
- Radiating from a central point
- Small patterns and presets
- Length and angle adjustment of individual stitches



Parallel



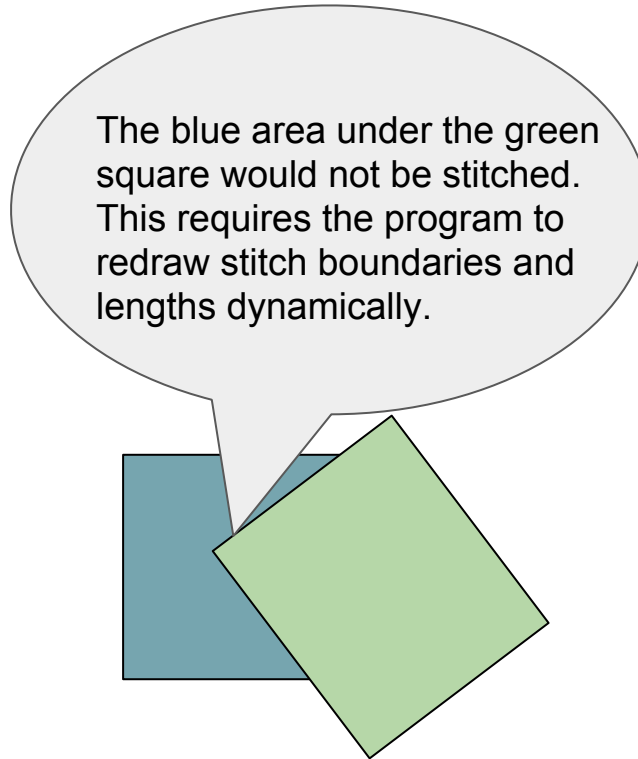
Parallel
Angled



Radial

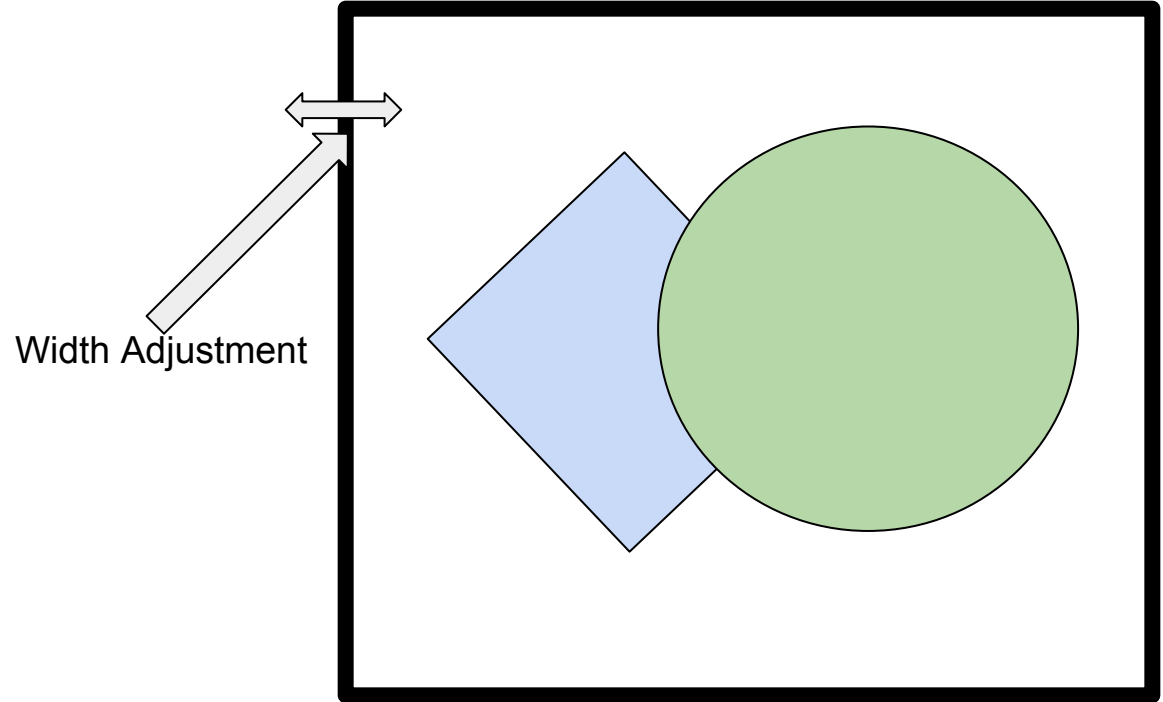
Pattern Layering

- Undersides of overlapping layers should be removed to avoid raised stitching



Borders

- Applique borders with variable thickness to encase designs.

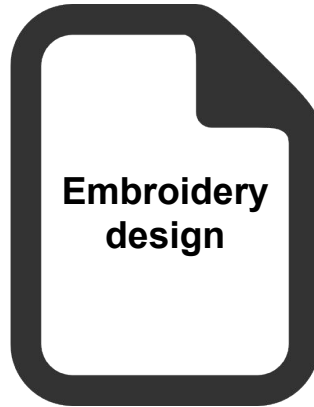
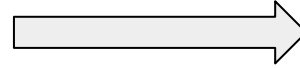


Saving and importing

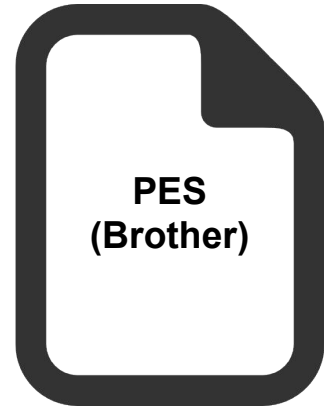
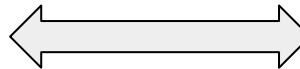
- Import image and select prominent edges to create an outline for a design.
- Load and save files in PES format for use by Brother embroidery machines.



Image to Outline

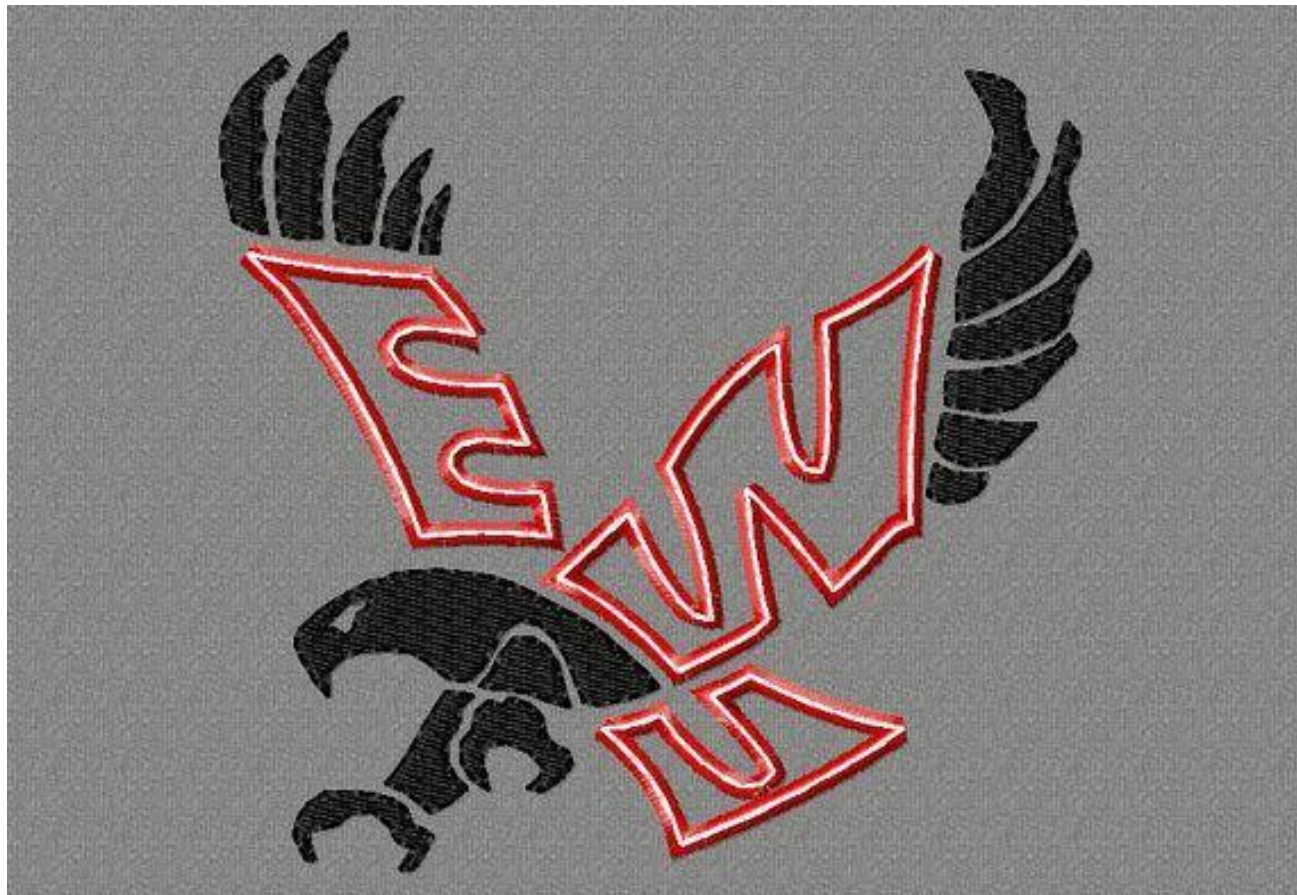


Import/Export



Design Preview

- View an image of what the finished product will look like.



Resources

- EmbroiderModder Library
- Prior PES file format research and documentation.

EmbroiderModder

<https://github.com/Embroidermodder/Embroidermodder>

PES format

<https://code.google.com/p/crazywire/wiki/PesFormat>

<http://www.achatina.de/sewing/main/TECHNICL.HTM>

Language

Java

Current Division of Labor

Trae - EmbroiderModder research

Nate - Gui/Shape research (JavaFX, Swing)

Chris - PES file research/decoding, Documentation

