# Embroid-It Briefing 8

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# User Stories/Application Requirements (Activity Pool)

GUI Library Integration

Mid Project Reflection

- Looked over what we currently have, and compiled a list of stories and requirements that need to be focused on.
- Currently breaks down into 3 rough categories.

**GUI Integration Overview (What do we need to do?)**

Show outlines for shapes while they are being drawn for visual reference.

- Thin or dotted lines (Maybe marching ants if possible?)

Shape selection mode:

- Shapes selectable by mouse click
- Moveable
- Resizeable
- Update properties panel on shape changes.

When a shape is created

- Create a wrapper from it's default properties
- Store the wrapper in the hash with the shape as the key (In EmbPattern)
- Populate shape properties panel with shape information

GUI Buttons/Menus:

- Visual cue when they are selected. (such as a color change)
- Buttons/Menu options greyed out and unselectable when not available
- Add missing menu functions
  - Undo/Redo
  - New/Import/Export
  - Getting Started/About
- Shortcut keys for all menu functions

Stitch Layer

- On switch to stitch layer draw line lists for each shape wrapper. (Relevant functions documented in EmbPattern)
  - For each shape in shape list
  - Get shape wrapper
  - Get shape wrapper line list
  - Draw line list

**Reference/Update SRS use cases to ensure correct design and implementation.**

Visual Design and Documentation

**GUI Visual Design / Documentation**

Buttons/Icons:

- Update graphics (bigger, easier to see images).
- Create icons for stitch and shape layer buttons.

Any other graphical improvements

- GUI Colors, size, shape, etc. (Use your imagination)

Other

- Create user instructions for getting started and printed user manual.
- Update SRS documentation whenever requirements change.

Library/Other

**Library**

Exporting: **(In Progress)**

- Determine how to configure stitch type (maybe distance based?)
- Group blocks of stitches by color and type to avoid thrashing on embroidery machine.
- Develop stitch writing functions for output using correct encoding.
- Test exporting by re-importing and verifying an identical pattern.

Pattern/Shape Wrappers:

- Finish breaking line segments down into lists of stitches **(In Progress)**
- Add stitch count function to embPattern
- Look into border stitching for shape outlines. (make toggleable?)

**GUI Dialog Information**

About: (Help Section)

- Version Number
- Developers
- Relevant Links

Getting Started: (Help Section)

- Basic instructions for user interaction
  - How to draw shapes
  - How to edit shapes
  - How to render stitches (Layer Swap)
  - Anything else we decide (likely from/for the user manual)

(Record Keeping)
Who Is Working On What?

Current Activities For:

**Name**

**Story Group:** **1**

**Sprint (14)**

**Task 1: Create activity template**

**Desc/Requirements: Optional template to help track a person's current activities and their progress with them.**

**# of Sprints: (1)**

**Notes/Progress: Finished. This makes it easier to see at a glance who is doing what. Models the relevant information in the individual reports for easy copy and paste transfer.**

**Task 2: Create Time sheet**

**Desc/Requirements: Optional template to help track work hours and daily notes.**

**# of Sprints: (1)**

**Notes/Progress: Finished. Up to this point I (Chris) have been keeping track of my work hours and notes in a plain text document. These templates improve that system and make it available to the team if they choose to use it.**

**Task 3:**

**Desc/Requirements:**

**# of Sprints: (##)**

**Notes/Progress:**

| Name: Name | Sprint: | ## | Total Hours: | ## |
|---|---|---|---|---|

| Saturday | Notes: <Comments on current work go here> | Wednesday | Notes: <Comments on current work go here> |
|---|---|---|---|
| Hours: # | | Hours: # | |
| **Sunday** | Notes: <Comments on current work go here> | **Thursday** | Notes: <Comments on current work go here> |
| Hours: # | | Hours: # | |
| **Monday** | Notes: <Comments on current work go here> | **Friday** | Notes: <Comments on current work go here> |
| Hours: # | | Hours: # | |
| **Tuesday** | Notes: <Comments on current work go here> | | |
| Hours: # | | | |

# FXML With Scene Builder

Current Progress:

GUI reconstruction in Scene Builder fxml

- GUI visual design recreated in Scene Builder.
- Began connecting event listeners/handlers to Scene Builder nodes.

Current Direction:

Add event handler references to GUI FXML

- Continue connecting all node function listeners and handlers.

Integrate Scene Builder FXML

- Merge FXML GUI into project.

Continue Visual Design

- Improve images, colors, container layouts, button sizes, etc.

```
<VBox id="leftContainer" alignment="TOP_CENTER" prefHeight="650.0" prefWidth="100.0" style=
"-fx-background-color: C8C8C8;" BorderPane.alignment="CENTER">
   <children>
      <Button id="drawButton" contentDisplay="GRAPHIC_ONLY" maxHeight="-Infinity" maxWidth=
      "-Infinity" minHeight="-Infinity" minWidth="-Infinity" mnemonicParsing="false" prefHeight=
      "70.0" prefWidth="70.0" style="-fx-background-image: DrawButton.png;" text="Draw">
         <graphic>
            <ImageView fitHeight="40.0" fitWidth="40.0" pickOnBounds="true" preserveRatio="true">
```

Embroid-It.fxml

File Edit View Insert Modify Arrange Preview Window Help

Library

Containers
- Accordion

Controls
Menu
Miscellaneous
Shapes
Charts
3D

Document

Hierarchy
- BorderPane
  - VBox
  - VBox
  - Pane
  - VBox
  - VBox

Controller

BorderPane

Open Save

STITCH SHAPE

Inspector

Properties : BorderPane

Node

Disable
Opacity 1
Node Orientation INHERIT
Visible
Focus Traversable
Cache Shape
Center Shape
Scale Shape
Opaque Insets 0 0 0 0
Cursor Inherited (Default)
Effect +

JavaFX CSS

Style
Style Class
Stylesheets +

Layout : BorderPane
Code : BorderPane

# GUI Integration

Current Progress:

Menus
- Save file dialog created.
- Import Linked to FileManager.

Stitch Fill Integration
- Rectangle stitch fills integrated. Switching to the stitch layer renders fill stitches at that location.

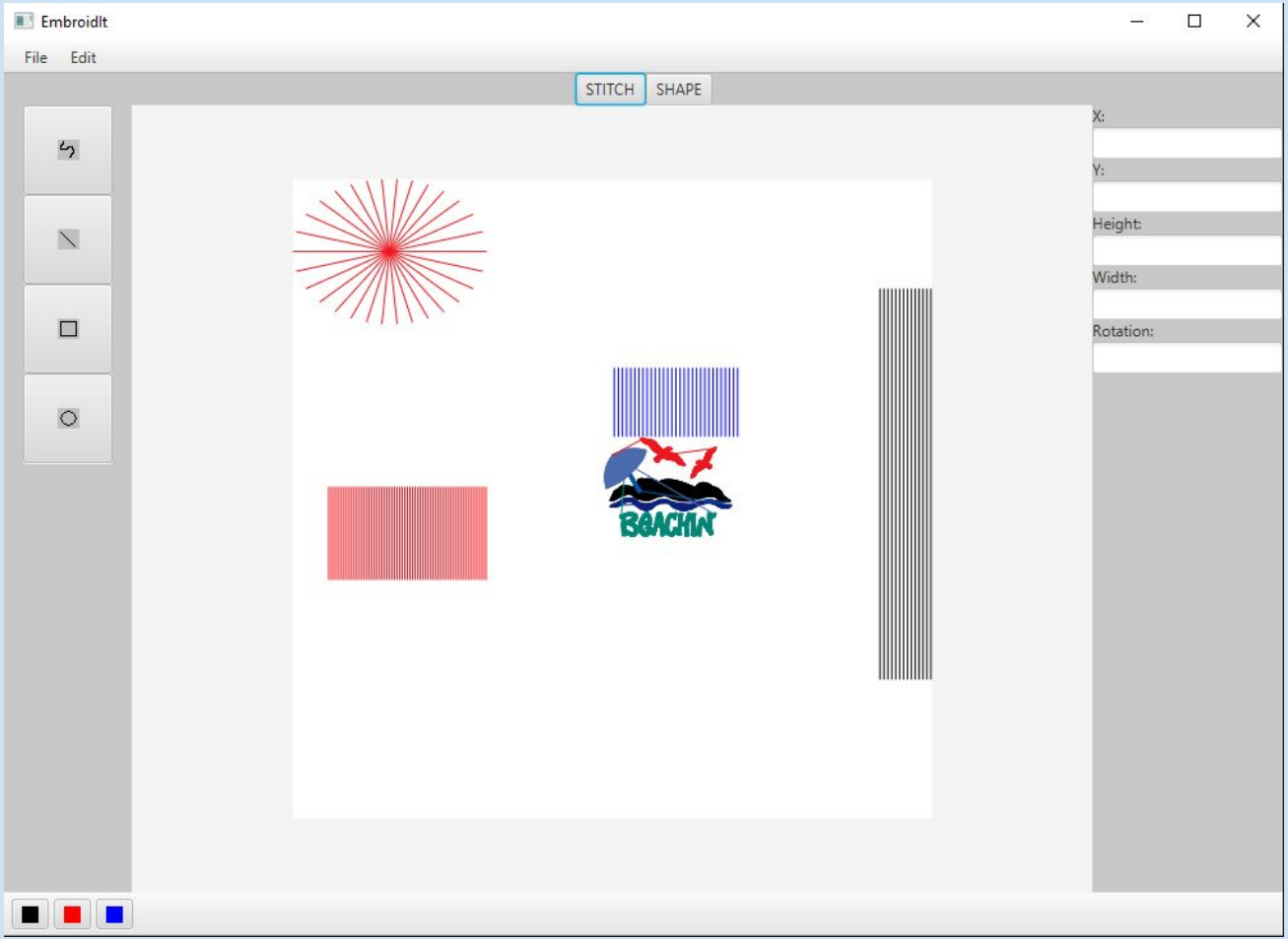
Current Direction:

Fill Shapes in GUI
- Bug: Ellipse fills are always up and left of drawn shape. (Chris looking into this so Trae can focus on Shape draw preview)

Shape Draw Preview
- Visual outline reference for drawing methods in real time.

Implement Stitch Colors
- Add thread color choices commonly available in PES format files.

Fills and imports side by side inside the GUI



Library

Current Progress:

Pattern Refactor
- Imported stitches are contained separately from from Shape fill stitch data which are contained in wrappers. Shapes and their Wrappers don't need to know about imported stitches. Corresponding methods refactored accordingly.

Stitch Subdivision
- Created functions to adjust and interact with default/minimum stitch length variables for use in user controlled fill stitch breakdown.

Stitch Export and Encoding R&D
- Color value variables added to shape wrappers in preparation for exporting and fill color manipulation.

Shape Wrappers
- Added Line Wrapper to Wrapper classes to handle individually drawn line segment properties.
- Refactoring and overloading of shape wrapper constructors to allow shape creation given varying numbers of default parameters.

Activities and Documentation
- Compiled user stories/requirements list for team activity pool.
- Briefing prep.

Current Direction:

Continue Export R&D
- Determine how to encode stitch types correctly for shape drawn fill stitches.
- Create method of grouping shape fills by color to cut down on manual color changes (thrashing) and to reduce number of Jump/Stop stitches.

Stitch Subdivision Continued
- Create algorithm that breaks fill stitch line segments down into smaller fill stitches (Subdivisions)