*Florida International University*

*School of Computing and Information Sciences*

CIS 4911 - Senior Capstone Project

Software Engineering Focus

Feature Document

User Story #562

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# **User Story – Create Triangle Shape**

* As a User I would like to draw a predefined triangle shape so my triangles are smooth and normal looking.

## **Use Case - Draw Triangle**

Use Case

Create a Triangle Shape

Details:

Actor: User

Pre-conditions:

Touch screen working.

‘Enable Triangle mode’ (key ‘p’)

Program Running.

Description:

Use case begins when a user presses a key (p, Temporary until design philosophy is completed). This will alter the touch screen to draw triangles instead of lines.The user story ends when the user successfully draws a triangle and lets go.

Post-conditions:

Triangle will be drawn on the touchscreen

Can be filled triangles if filled mode is on.

Decision Support:

Frequency: Very High. Drawing smooth triangles are very useful.

Criticality: High. Enables more ways to paint on the canvas smoothly.

Risk: low. Team member needs to learn to use the triangle shape specifically.

Constraints:

Usability:

Just need to learn the proper keybinding.

Reliability: Very Reliable.

Mean time to Failure – Should only fail in extreme conditions. (Keyboard input overloads etc).

Availability – Always available (may change at a future date).

Performance:

Triangles should be drawn smoothly when we drag your finger.

Supportability:

Must work with ACER Multitouch.

Modification History:

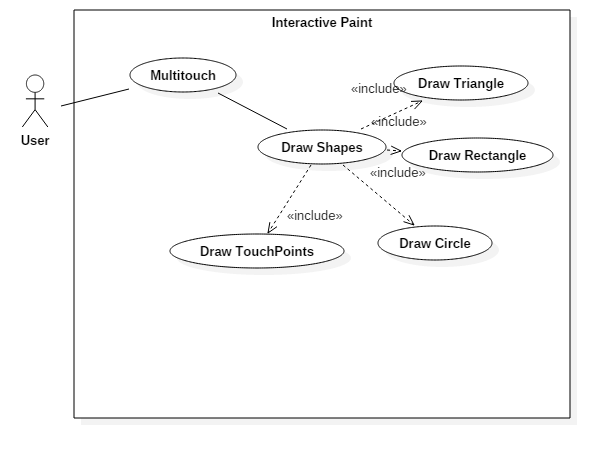
Owner: Andrew Mitchell

Initiation date: 02/5/2016

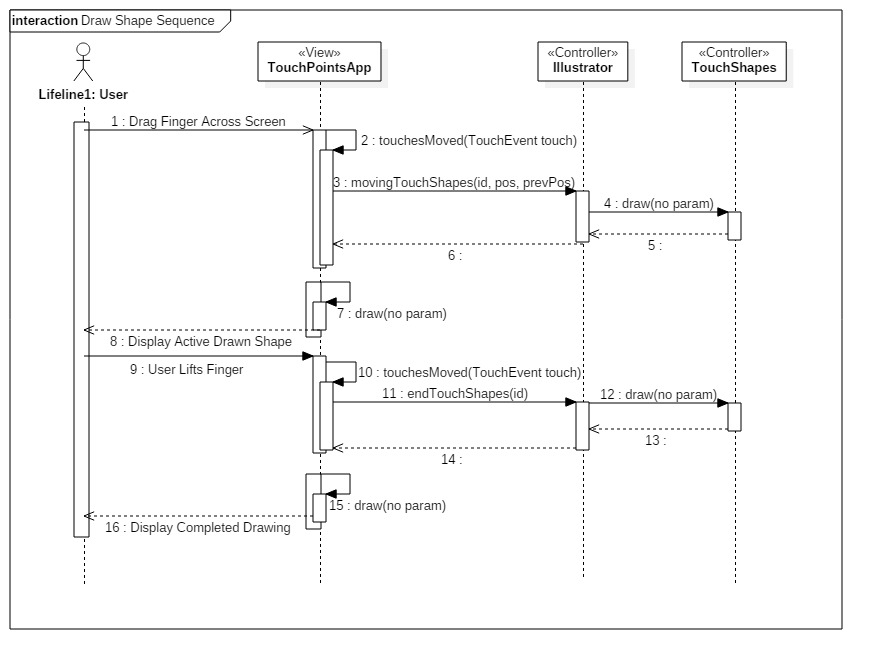
Date last modified: 02/14/2016

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## **Use Case Diagram**



## **Sequence Diagram**



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## **Class Diagram**

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## **Unit Test**

Sunny Day Tests

Test Case: Draw a Triangle

Test Purpose:

Ensure we can draw a Triangle shape

Test Setup:

1. Press the shapes button at the top left
2. Press the Triangle button
3. Drag finger across multitouch

Test Output:

After dragging finger across multitouch we drew a Triangle

Expected Output:

Dragging your finger should create a Triangle.

Rainy Day Tests

Test Case: Return to line draw

Test Purpose:

Ensure we can change back to drawing lines

Test Setup:

1. Press Shapes buttons at the top left
2. Press Triangle button
3. Press line button
4. Drag finger across multitouch

Test Output:

Drew a line

Expected Output:

Should draw a line, not a Triangle.

## **Integration Test**

Currently works with all color implementations.

Currently works with Leap Motion device.

Currently works with Real Sense Draw.

Currently works with Multitouch draw.

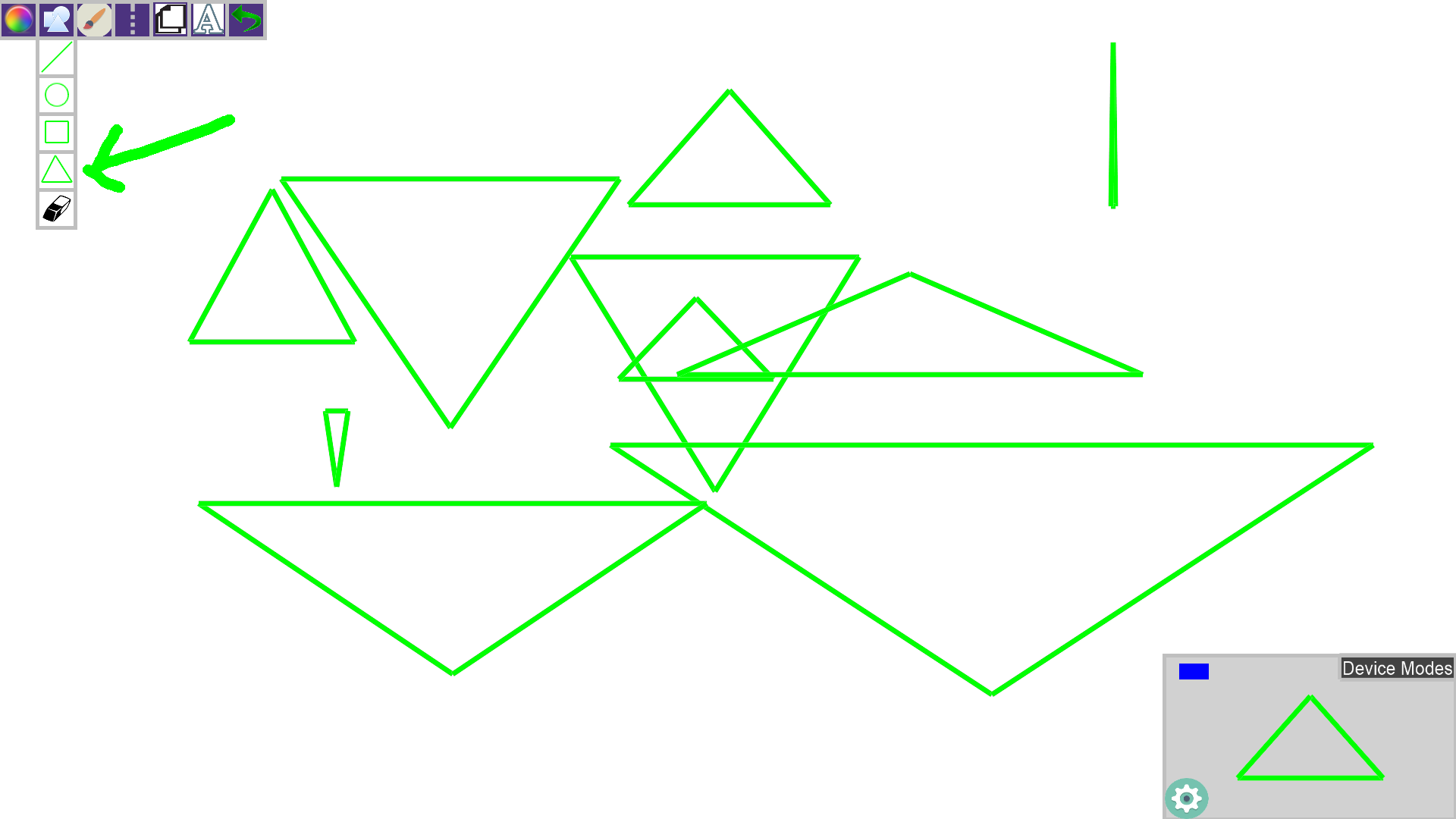
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## **User Guide**

Press the shapes button at the top left.

Proceed to press the ‘Triangle’ Button

Drag your finger across the multitouch surface to draw a triangle!



**Glossary**

TouchTriangle – Triangle shape that can be used by our Illustrator