

# **DotVinci**

## **Team 7 - Testing Plan**

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### Open Image:

- Open 001 - Open select image dialog (**Functional**)
  - Severity - 1
  - Module - GUI
  - Test Procedure
    - Click on “open image” button
  - Outcome
    - File explorer opens
- Open 002 - Load image into program. (**Functional**)
  - Severity - 1
  - Module - GUI
  - Test Procedure
    - Open 001
    - Select an image
    - Click “select”
  - Outcome
    - Image loads onto canvas
- Open 003 - Test for crash on large image size (**Functional**)
  - Severity - 3
  - Module - GUI
  - Test Procedure
    - Open 001
    - Select a high quality photo (something that would cause an out of memory error)
    - Click “select”
  - Outcome
    - Program should not crash when it exceeds memory. It should either render a lower quality version or ask the user for a lower quality version

### Save Image:

- Save 004 - Open save image dialog (**Functional**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Click on “save” image button
  - Outcome
    - File explorer opens
- Save 005- Save image onto device (**Functional**)
  - Severity - 2

- Module - GUI
- Test Procedure
  - Save 004
  - Select save location
  - Click “save”
- Outcome
  - Image gets saved at the selected location
- Save 006 - Test for saving over duplicate images (**Functional**)
  - Severity - 3
  - Module - GUI
  - Test Procedure
    - Save 004
    - Click on image of same name and file type
    - Click “save”
  - Outcome
    - User should be prompted to verify overwriting of file

#### **Shape options:**

- Shape 007 - Draw circles (**Functional and Equivalence class**)
  - Severity - 1
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Click circle
    - Press start
  - Outcome
    - Engine should draw circles as pixels
- Shape 008 - Draw squares (**Functional and Equivalence class**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Click square
    - Press start
  - Outcome
    - Engine should draw squares as pixels
- Shape 009 - Draw triangles (**Functional and Equivalence class**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure

- Open 002
  - Click triangle
  - Press start
- Outcome
  - Engine should draw triangles as pixels
- Shape 010 - Draw different sized shapes (**Functional**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Select shape size
    - Press start
  - Outcome
    - Engine should draw the points in the selected size

**Filter options:**

- Filter 011 - Draw normal image (**Functional and Equivalence class**)
  - Severity - 1
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Select normal filter
    - Press start
  - Outcome
    - Engine should draw pixels on the normal scale
- Filter 012 - Draw sepia image (**Functional and Equivalence class**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Select sepia filter
    - Press start
  - Outcome
    - Engine should draw pixels on the sepia scale
- Filter 013 - Draw grayscale image (**Functional and Equivalence class**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Select grayscale filter

- Press start
  - Outcome
    - Engine should draw pixels on the gray scale
- Filter 014 - Draw negative image (**Functional and Equivalence class**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Select negative filter
    - Press start
  - Outcome
    - Engine should draw pixels on the negative scale

#### **Speed options:**

- Speed 015 - Slider Check 1% (**Functional and Boundary Value**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Move slider all the way to the left end
  - Outcome
    - The text box below the slider should display “1%”
- Speed 016 - Slider Check 100% (**Functional and Boundary Value**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Move slider all the way to the right end
  - Outcome
    - The text box below the slider should display “100%”
- Speed 017 - Instant drawing (**Functional and Boundary Value**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Set render speed slider to “100%”
    - Press start
  - Outcome
    - Image should be rendered instantly
- Speed 018 - Slow Drawing (**Functional and Boundary Value**)
  - Severity - 2

- Module - GUI and Engine
- Test Procedure
  - Open 002
  - Set render speed slider to “1%”
  - Press start
- Outcome
  - Image should be rendered very slowly
- Speed 019 - Half Speed Drawing (**Functional**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Open 002
    - Set render speed slider to “50%”
    - Press start
  - Outcome
    - Image should be rendered at 50% of the max speed

#### **Sharing options:**

- Sharing 020 - Share image dialog (**Functional**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Click on “Share” button
  - Outcome
    - “Share image” dialog box should open up
- Sharing 021 - Share image through email with email addresses (**Functional**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Sharing 020
    - Enter sender’s email address
    - Enter receiver’s email address
    - Enter message
  - Outcome
    - Program should display a notification that the email was sent
    - An email containing the picture and the inputted message should be sent from the sender’s email address to the receiver’s email address
- Sharing 022 - Missing sender’s email address (**Functional**)
  - Severity - 2
  - Module - GUI

- Test Procedure
  - Sharing 020
  - Leave sender's email address as blank
  - Enter receiver's email address
  - Enter message
- Outcome
  - Program should display an error notification
- Sharing 023 - Missing receiver's email address (**Functional**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Sharing 020
    - Enter sender's email address
    - Leave receiver's email address as blank
    - Enter message
  - Outcome
    - Program should display an error notification
- Sharing 024 - Invalid sender's email address (**Functional**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Sharing 020
    - Enter an invalid sender's email address
    - Enter receiver's email address
    - Enter message
  - Outcome
    - Program should display an error notification
- Sharing 025 - Invalid receiver's email address (**Functional**)
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Sharing 020
    - Enter sender's email address
    - Enter an invalid receiver's email address
    - Enter message
  - Outcome
    - Program should display an error notification
- Sharing 026 - Share image without having an image open (**Functional**)
  - Severity - 2

- Module - GUI
- Test Procedure
  - Click on “Share” button
- Outcome
  - Program should display an error notification

#### **Region options:**

- Region 027 - Select region **(Functional)**
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Click on “Select Region” tool
    - Click and drag on the canvas
  - Outcome
    - A rectangular region should be selected
- Region 028 - Select region and start pointilizer **(Functional)**
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Region 027
    - Click “start”
  - Outcome
    - Engine should draw points in the selected region ONLY
- Region 029 - Select region larger than image **(Functional)**
  - Severity - 3
  - Module - GUI
  - Test Procedure
    - Click on “Select Region” tool
    - Click and drag to a size that is bigger than the image
  - Outcome
    - Region should not exceed boundaries of the image
- Region 030 - Deselect region **(Functional)**
  - Severity - 2
  - Module - GUI
  - Test Procedure
    - Region 027
    - Click on the canvas
  - Outcome
    - No region should be selected
- Region 031 - Select region again **(Functional)**



- Severity - 2
- Module - GUI
- Test Procedure
  - Region 027
  - Region 027
- Outcome
  - The first rectangular region should be deselected and the second rectangular region should be selected

#### **Pause Drawing:**

- Pause Drawing 032 - Start drawing and press pause (**Functional**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Speed 019
    - Wait for 5 seconds
    - Press “Pause”
  - Outcome
    - The engine should pause pointillizing the image
    - The canvas should contain the partially pointillized image
- Pause Drawing 033 - Resume the drawing after it's been paused (**Functional**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Pause Drawing 032
    - Press “Unpause”
  - Outcome
    - Image should continue to be rendered
- Pause Drawing 034 - Pause without starting to draw (**Functional**)
  - Severity - 2
  - Module - GUI and Engine
  - Test Procedure
    - Press “Pause”
  - Outcome
    - The program should display an error