

CMPT 371- Team 3 Triage Report

Post-Bug-Party Triage Summary

Conducted on April 3rd, 2017

Introduction

This report has been conducted for the end of Incremental Deliverable 5 to summarize the status of all outstanding issues and create a prioritized list of tasks for the continuation of the project after the bug party conducted on April 2. We will also note the overall status of our issue tracking and solutions for the logged issues.

Outstanding Issues

Below is a listing of outstanding issues as of the end of ID5, in order from highest to lowest priority as tasks for the continuation of this project. The number represents the order in which they were logged in the Issue Tracking for Git Hub.

- **#139 Dashboard buttons randomly resizing on click**
 - This is an annoying issue for the user.
 - May be difficult to fix, need to investigate cause more thoroughly
- **#127 Send object has no receiver for unpressed button**
 - This error could be preventing functionality in the application
 - Simple fix can be implemented
- **#117 Restore and close need a confirmation**
 - The restore and close functionality can be frustrating when accidentally pressed as it can cause lost work
 - This is a minor fix as we can simply add a confirmation dialogue
- **#141 Tray images are not properly spaced**

- The images in the tray overlap causing difficulty in creating copies
- This may be a difficult fix
- Crucial to usability

#122 Scroll buttons on tray have 0 thickness

- This causes the buttons to flash annoyingly
- Simple fix, minor severity

• **#136 Loading a directory multiple times overlaps images in tray**

- This is likely related to issue #141
- May be fixed with issue #141
- Possibility to prevent usability

• **#121 Error thrown when filebrowser attempts to move past the root directory**

- This can cause problems such as being unable to get back to any directory
- Critical severity

• **#137 Loading a directory for the first time doesn't let you scroll the tray**

- This can cause images to be lost in the workspace
- Difficult fix, but important to usability

• **#131 Images that fail to load still try to load DICOM info**

- This can prevent usability and cause confusion
- Critical, difficult to fix

• **#129 Need try/catch for DICOM values as they may not exist**

- This can cause errors if a user loads an image that is missing information
- Critical
- Simple fix

• **#125 First image in tray is always highlighted**

- This can cause confusion
- Should be a simple fix

• **#154 Can modify selected images while a different unselected image is grabbed**

- This issue is replicated when the user grabs an image while another image is selected
 - This can cause undesired behaviour when the user accidentally edits the selected image
- **#128 The user can close and restore copies while grabbing**
 - Can cause confusion if buttons are pressed while moving an image
 - Can cause unexpected behaviour
 - Moderate difficulty, Major severity
- **#148 Copies are not minimized on load click**
 - Only the filebrowser should be visible when loading files
 - The copies should also be disabled to prevent accidental edits
 - Important for usability, relatively simple fix
- **#138 Clicking invert and then resizing does not work**
 - This is preventing functionality
 - Should be a simple fix
- **#146 Loading a file toggles minimization**
 - When loading a file, the workspace is maximized, even on failure
 - This can be confusing
 - Simple fix
- **#132 Can maximize the dashboard while in the filebrowser**
 - This can cause confusion and usability problems
 - Simple to fix
- **#142 Can load images multiple times in an instance**
 - The user can spam the directory icons and load a file in multiple times
 - This is unintended behaviour and can occasionally have adverse effects
- **#150 Limit on files shown is not working properly**
 - The filebrowser currently displays all files in the current directory, rather than limiting them.
 - This clutters the workspace

- **#153 Hard to tell what directory you are currently in**
 - When the user is navigating the filesystem, it is difficult to tell what the current directory is
 - Simple fix to display the current directory in the workspace
- **#120 Text from files and directories bleed over into each other**
 - This can be unpleasant and cause confusion
 - Moderate difficulty to fix
- **#124 No feedback on load success/failure**
 - This can cause confusion to the user when loading files
 - Simple to fix
- **#116 Grabbing images that are small and closely grouped together need fine tuning**
 - This issue occurs when the user resizes images to their smallest size
 - This may be difficult to fix, but is an annoyance and should have a higher priority
- **#126 Images get stuck between thumb and fingers**
 - This can be replicated in a specific situation involving hand collision
 - Major issue, Very difficult to fix
- **#119 Rotate zoom and filter do nothing**
 - This issue is due to predicted functionality that has not yet been implemented
 - The Rotate, Zoom, and Filter functions will likely not be implemented for the end of ID5, making this a trivial fix.
 - Just remove the buttons
- **#144 Display images need a min and max size**
 - The display images currently are larger than the room
 - Simple fix, does not prevent functionality
- **#140 Refactor file browser code**
 - The code for the file browser can be optimized

- Does not prevent functionality, but important for best practice
- **#71 Need instructions/tutorial image for ceiling**
 - This is a trivial fix related to providing a quick reference for controls to the user
- **#145 Need seizure warning for users**
 - This is a health risk to users
 - Trivial fix
- **#143 Ideal work environment not identified**
 - This should be noted so that the user can set up a comfortable work space
 - Does not prevent functionality
 - Simple to fix
- **#133 I/O exception when accessing a file that is being used**
 - This can prevent functionality
 - Difficult to fix, Crucial, but rare
- **#152 Access Denied when trying to use the same directory**
 - When the user loads a directory that is being used by another process, an Access Denied error is given
 - This is a severe issue, but will be rare as there should be few applications running in the background on the VR machine
- **#147 The workspace needs to be forward from center**
 - This can cause the user to be near the edges of their Oculus Rift 'playspace'
- **#52 Warnings in Cloud Build compilation**
 - These are various warnings that have come up during the project
 - Should be looked at
- **#54 Unable to parse error YAML in Unity**
 - This issue is related to metadata in unity
 - Should be a trivial fix

- Does not impede functionality of the system
- **#72 Quit button to ceiling/out of the way location**
 - This is a trivial fix
 - User-preference-based
- **#46 Change positions of instantiated Copy Objects in Display.cs to prevent overlap**
 - This is a feature that would make managing copies much easier for the user
 - Not critical, but could improve the system
- **#130 The user can hide copies in the ground**
 - Must be done intentionally
 - Does not prevent functionality
 - Moderate difficulty to fix
- **#151 Patient name/info uses ^ for spaces**
 - This is a simple fix, and does not affect the functionality of the system
- **#135 Buttons cannot be pressed rapidly**
 - The cooldown on buttons is too long
 - Simple variable tweaking
- **#134 Load has a long cooldown**
 - Loading a new file has a long cooldown
 - Simple variable tweaking
- **#123 The tray is a parallelogram**
 - This does not prevent functionality or usability
 - Moderate difficulty to fix
- **#76 Selector shows through tray**
 - This issue is a rendering setting with unity
 - Given the time, some changes may be made to the shaders involved
 - This is a minor issue, and will require a lot of time to fix

- **#99 Assertion failed on compare to approximate**
 - This appears to be an issue with one of the Oculus workstations
 - This has high severity, but low priority as it is not related to the functionality of the project
- **#90 Quaternion to matrix conversion Error**
 - This is another workstation-specific issue and thus receives a low priority
- **#101 App ID Error**
 - The Oculus Rift has not been registered to one account (due to multiple student users)
 - This is trivial and does not affect functionality
- **#114 Project comes up as “Default Company” in appdata**
 - This issue is related to the metadata in the project and has no effect on functionality
 - Receives a low priority because this will likely be changed by Luxsonic when they acquire the project
- **#81 Error “Blender not found”**
 - This issue is fixable by installing Blender on the machine, which is not a fix we can implement
 - This is specific to Unity, and has no effect on the functionality of the system
- **#82 Buttons clickable from behind**
 - This issue will not be fixed as it is unlikely to happen and has no adverse effects on the functionality of the system
 - Also, it’s really difficult to fix
- **#149 Resize with gestures contains bugs**
 - The implementation of resizing with gestures contains many bugs and should be thoroughly looked over before integrating with the main branch.

Overall Issue Status

For the bug party on April 2nd, two teams were formed. Team A found 30 bugs, and Team B found 28 bugs. Of these bugs, 20 were found by both teams. We can get an estimate of how many bugs have been undetected:

$$\text{Unique Bugs} = 30 + 28 - 20 = 38$$

$$\text{Total Bugs} = \frac{30 * 28}{20} \approx 42 \text{ Undetected Bugs}$$

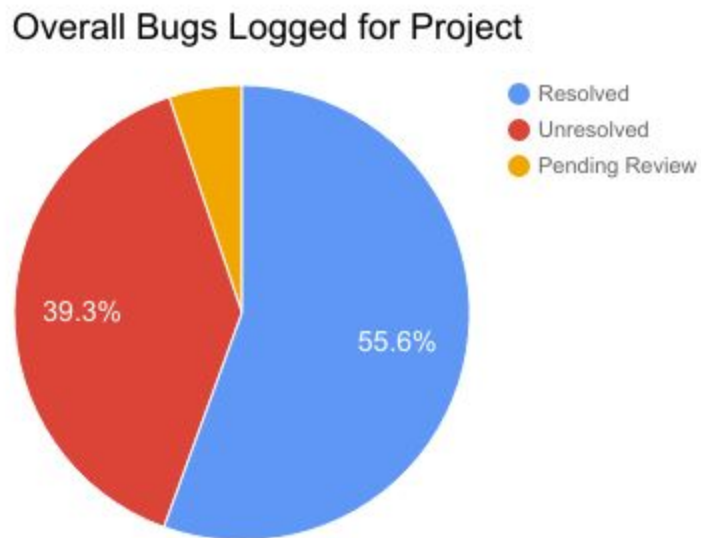


Fig 1: Since the beginning of the project we have logged 136 issues, 75 of which have been resolved, 7 Pending Review, and 53 unresolved.

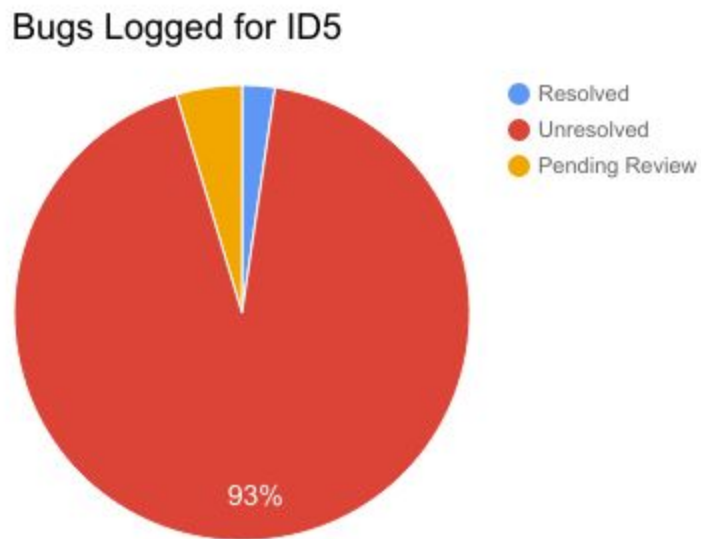


Fig2: *Since the beginning of ID5 we have logged 43 issues, 1 of which have been resolved, 2 Pending Review, and 40 Unresolved.*