



User Manual

Team Frozen Strawberries

Lizbeth Areizaga, Jakin Chan, Nathan Kong



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1. Getting Started

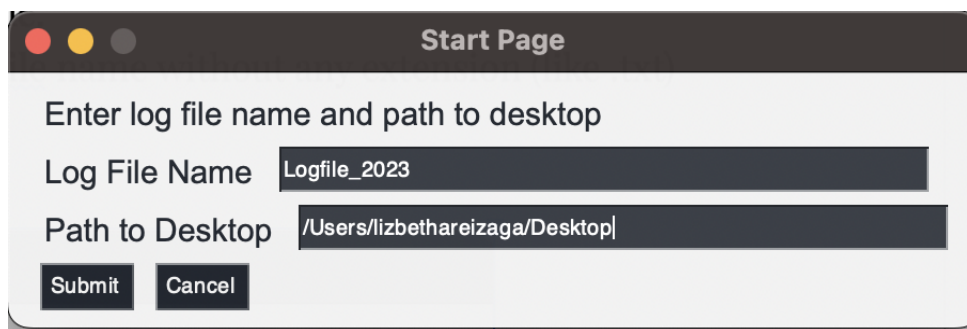
When the application starts, you must set up the software before it is used.

1. Install Python on your system. Guide can be found here:
<https://wiki.python.org/moin/BeginnersGuide/Download>
2. Open a terminal and run the command “pip install -r requirements.txt” in the directory the requirements.txt file is. This will install all required libraries.

2. How to Use

Starting the application

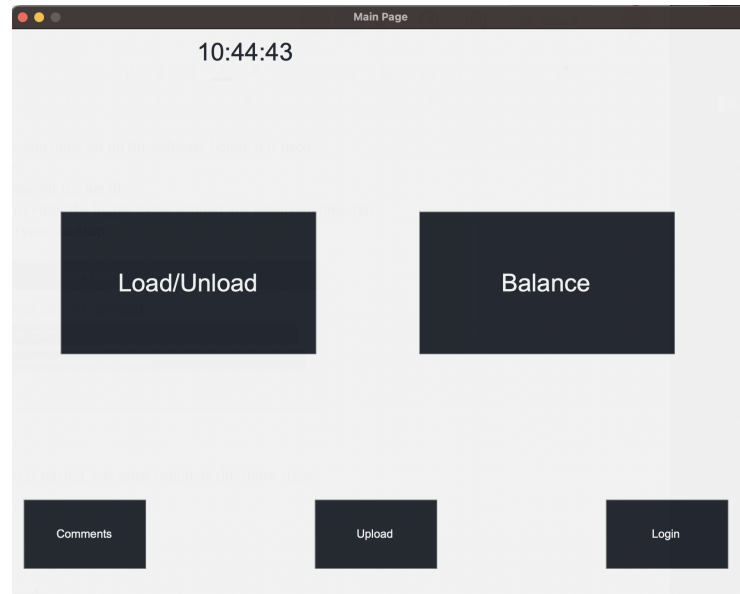
1. Open the application from the executable named Port Solver.
2. Enter the desired name for the log file.
 - a. Note: You must enter the log file name without any extension (like .txt)
3. Enter the file path to your desktop.



4. Click Submit.

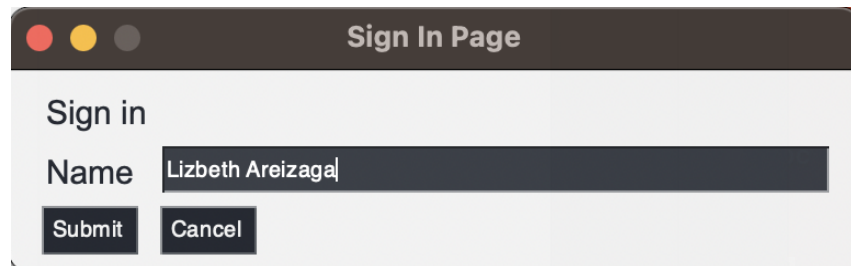
Every time the application is restarted, you must complete the above steps. The log file name and path to desktop cannot be changed unless the program is restarted. The cancel button exits the application.

Main Page



Login

1. Click the Login button.
2. Type your name in the gray text box.



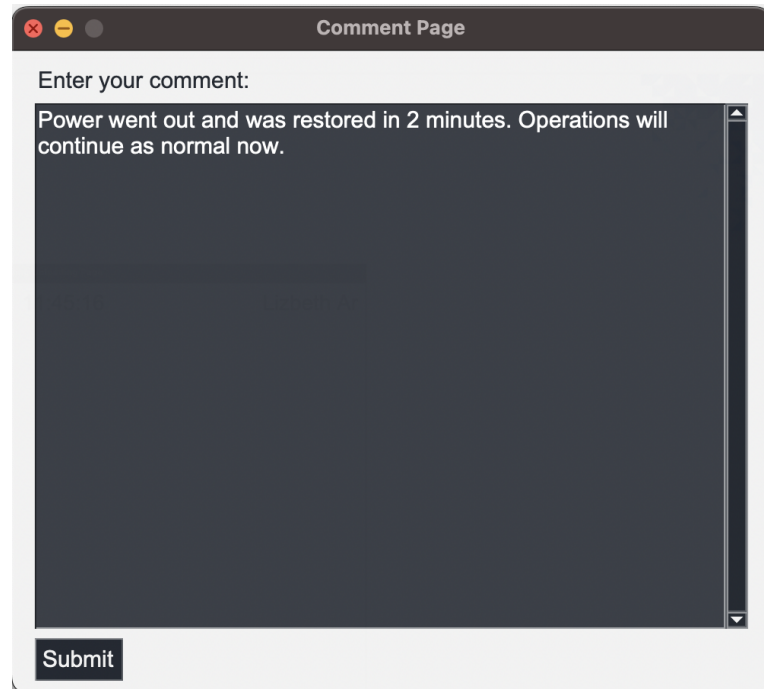
3. Click Submit.

To cancel this operation click the cancel button.

Making a comment

1. Click the Comments button.

2. Type in your desired comment.



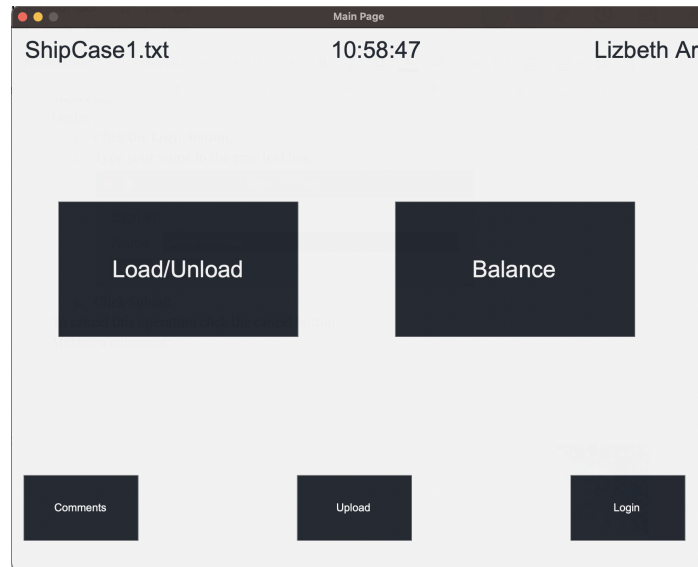
The screenshot shows a window titled "Comment Page" with a standard macOS-style title bar (red, yellow, and green buttons). Inside the window, there is a label "Enter your comment:" followed by a large text area. The text area contains the text "Power went out and was restored in 2 minutes. Operations will continue as normal now." and has a vertical scrollbar on the right side. At the bottom left of the window, there is a "Submit" button.

3. Click Submit.
 - a. Your comment is saved to the logfile.

Uploading a Manifest

1. Click the Upload button.
 - a. Your file explorer will be opened.
2. Select manifest file from your file explorer.

3. Now you can see the selected Manifest file name in the top left corner.



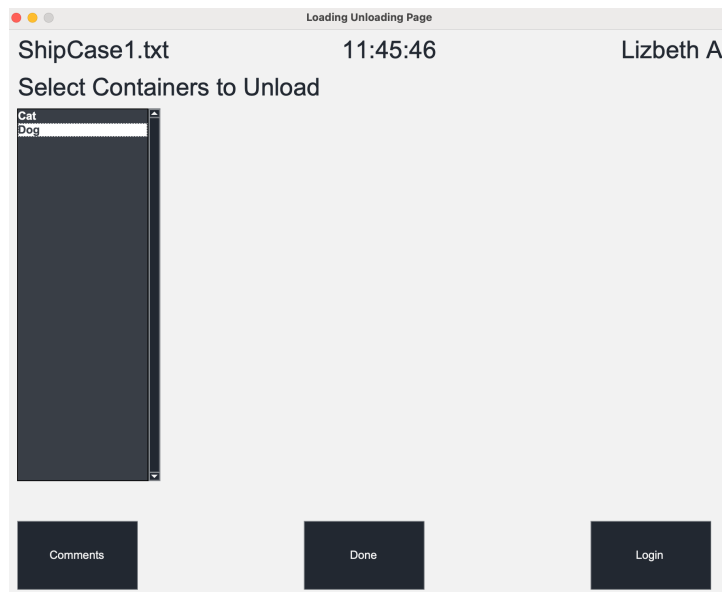
Load/Unload

Note: This button only works if there is a user logged in and there is a manifest file uploaded. You can check that these requirements are met if you see a manifest name on the top left and a user's name on the top right of the main page.

1. Click Load/Unload.

Unload Page

1. Select all the containers that must be unloaded from the ship.
 - a. Your selections of containers to unload will be highlighted in white.

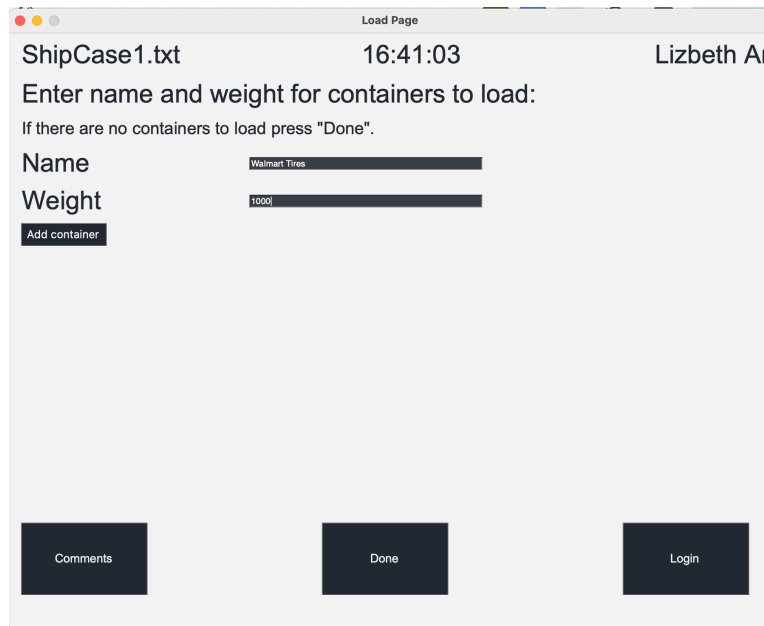


2. Click Done.

Load Page

1. Type the name and weight of one container you want to load.

2. Click Add Container.



The screenshot shows a web application window titled "Load Page". At the top, it displays "ShipCase1.txt", a timestamp "16:41:03", and a user name "Lizbeth A". The main content area has the heading "Enter name and weight for containers to load:" followed by the instruction "If there are no containers to load press 'Done'.". Below this, there are two input fields: "Name" with the value "Walmart Stores" and "Weight" with the value "1000". An "Add container" button is positioned below the weight field. At the bottom of the window, there are three buttons: "Comments", "Done", and "Login".

3. Repeat steps 1-2, for every container you want to load.
4. Once there are no more containers to load, click Done.
 - a. Note: You must click Add Container if you have a name and weight typed before clicking Done.

Balance

Note: This button only works if there is a user logged in and there is a manifest file uploaded. You can check that these requirements are met if you see a manifest name on the top left and a user's name on the top right of the main page.

1. Click Balance.
2. Wait for the balance calculations to finish.



Estimated Time Page

1. The estimated time for the entire operation displays in hours and minutes.

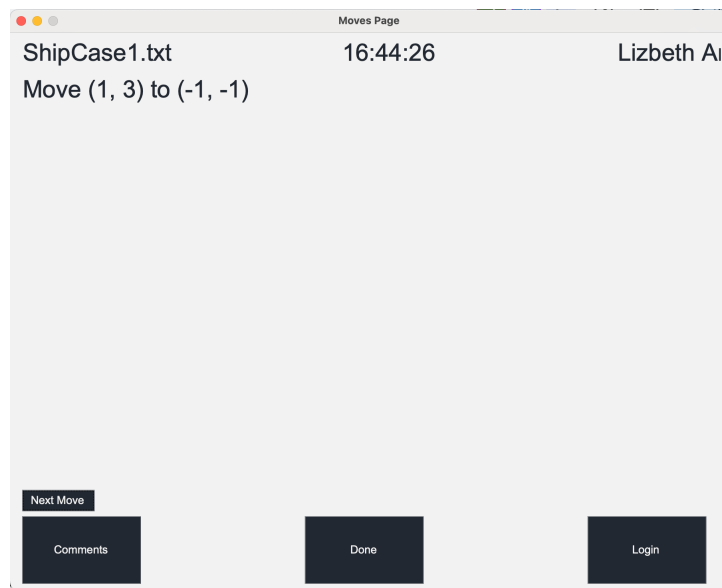
The screenshot shows a web application window titled "Loading Unloading Page". At the top, it displays "ShipCase1.txt", a timestamp "11:45:16", and a user name "Lizbeth Ar". Below this, the text "Estimated Time (At Most):" is followed by "0 hours 32 minutes". There is a large, faint, light-blue rectangular area in the center of the page. At the bottom, there are three dark blue buttons labeled "Comments", "Done", and "Login".

The screenshot shows a web application window titled "Balancing Page". At the top, it displays "ShipCase1.txt", a timestamp "17:10:10", and a user name "Ash". Below this, the text "Estimated Time (At Most):" is followed by "0 hours 30 minutes". There is a large, faint, light-blue rectangular area in the center of the page. At the bottom, there are three dark blue buttons labeled "Comments", "Done", and "Login".

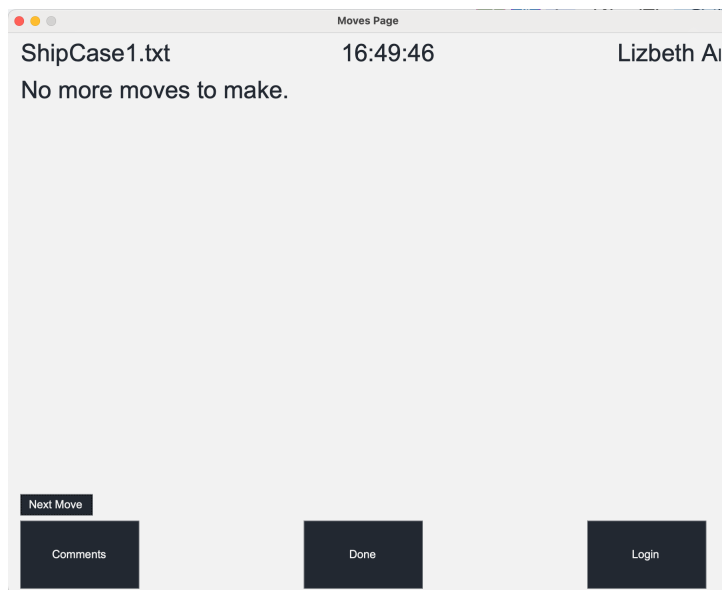
2. Click Done when you are ready to start making moves.

Moves Page

1. Make the atomic move indicated on the screen.
 - a. Each pair of numbers in the parenthesis represents a position, with the first position representing the row, and the second representing the column.
 - b. The rows and columns start at 1, from bottom to top, left to right.
 - c. The first pair of numbers represent the position of the container you need to move, and the second pair represents the final position.
 - d. If the row and the column are "-1", this represents the truck.



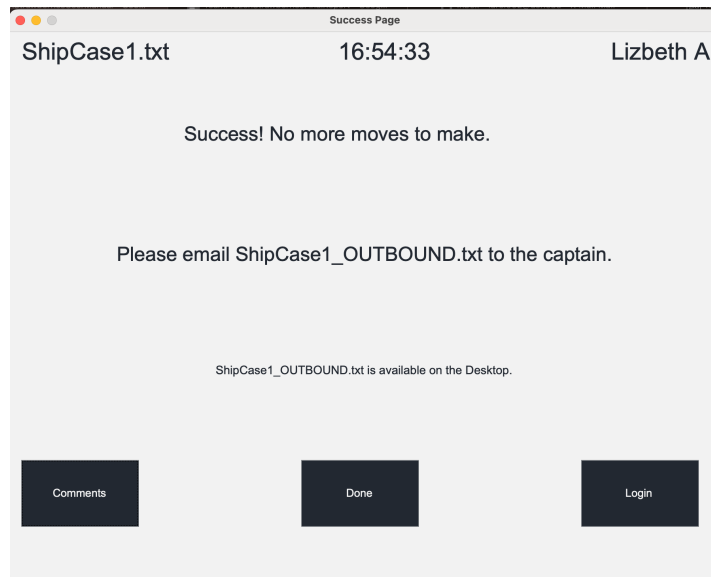
2. Click Next Move when you are ready for the next atomic move.
3. Repeat Steps 1-2 until you reach "No more moves".



4. Click Done.

Success page

1. Reminder screen to email outbound manifest to captain opens up.
 - a. Outbound manifest is available on your desktop.




2. Click Done.
 - a. You will be returned to the Main page where you will need to update a new manifest for your next operation.

5. Scenario Run-Through

Balance

1. Ash starts the program and sees the [Start Page](#)
 - a. Ash **enters** the log file name and the path to the desktop
 - b. Ash **Clicks Submit**
2. Ash sees the [Main Page](#)
 - a. Ash **Clicks Login**
3. Ash sees the [Login Page](#)
 - a. Ash **enters** their name
 - b. Ash **Clicks Submit**
4. Ash sees the [Main Page](#)
 - a. Ash **Clicks Upload**
 - b. Ash chooses the manifest file from the Desktop
5. Ash sees the modified [Main Page](#) with their name and file name at the top of the page
 - a. Ash **Clicks Balance**
 - b. Ash waits for the page to complete loading
6. Ash sees the [Estimated Times Page](#)

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- a. Ash **Clicks Done**
 7. Ash sees the [Moves Page](#)
 - a. Ash completes the move indicated on the page
 - b. Ash **Next Move**
 - c. Ash repeats steps a and b 2 times
 - d. Ash reads “No more moves to make.”
 - e. Ash **Clicks Done**
 8. Ash sees the [Success Page](#)
 - a. Ash emails the outbound manifest found on the desktop to the captain.
 - b. Ash **Clicks Done**
 9. Ash sees the [Main Page](#)

Load/Unload

1. Elizabeth sees the [Main Page](#)
 - a. Elizabeth reads her co-worker’s name on the top right of the screen
 - b. Elizabeth **Clicks Login**
2. Elizabeth sees the [Login Page](#)
 - a. Elizabeth **enters** their name
 - b. Elizabeth **Clicks Submit**
3. Elizabeth sees the [Main Page](#)
 - a. Elizabeth **Clicks Upload**
 - b. Elizabeth chooses the manifest file from the Desktop
4. Elizabeth sees the modified [Main Page](#) with their name and file name on the top
 - a. Elizabeth **Clicks Load/Unload**
 - b. Elizabeth **Clicks** the name of the three containers that need to be unloaded
 - c. Elizabeth sees that the containers that need to be unloaded are highlighted in white
 - d. Elizabeth **Clicks Done**
5. Elizabeth sees the [Loading Unloading Page](#)
 - a. Elizabeth **enters** the name and weight of a container to load
 - b. Elizabeth **Clicks Add container**
 - c. Elizabeth repeats steps a and b two times until all containers to load are added
 - d. Elizabeth **Clicks Done**
 - e. Elizabeth waits for the page to complete loading
6. Elizabeth sees the [Estimated Times Page](#)
 - a. Elizabeth **Clicks Done**


7. Elizabeth sees the [Moves Page](#)
- Elizabeth moves the first container with the crane to its designated position
 - Elizabeth **Clicks Next Move**



8. Jakout takes over and **Clicks Login**
- Jakout **enters** their name
 - Jakout **Clicks Submit**



9. Jakout sees the [Moves Page](#) where Elizabeth left off
- Jakout moves the second container with the crane to its designated position
 - Jakout **Clicks Next Move**
 - Jakout repeats steps a and b four times
 - Jakout reads "No more moves to make."
 - Jakout **Clicks Done**

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10. Jakout sees the [Success Page](#)
 - a. Jakout emails the outbound manifest found on the desktop to the captain.
 - b. Jakout **Clicks Done**
 11. Jakout sees the [Main Page](#)

Balance

1. Ari starts the program and sees the [Start Page](#)
 - a. Ari **enters** the log file name and the path to the desktop
 - b. Ari **Clicks Submit**
2. Ari sees the [Main Page](#)
 - a. Ari **Clicks Login**
3. Ari sees the [Login Page](#)
 - a. Ari **enters** their name
 - b. Ari **Clicks Submit**
4. Ari sees the [Main Page](#)
 - a. Ari **Clicks Upload**
 - b. Ari chooses the manifest file from the Desktop
5. Ari sees the modified [Main Page](#) with their name and file name at the top of the page
 - a. Ari **Clicks Balance**
 - b. Ari waits for the page to complete loading
6. Ari sees the [Estimated Times Page](#)
 - a. Ari **Clicks Done**
7. Ari sees the [Moves Page](#)
 - a. Ari completes the move indicated on the page
 - b. Ari **Clicks Next Move**
 - c. A power outage occurs
 - d. Ari **Clicks Comment**
8. Ari sees the [Comment Page](#)
 - a. Ari enters a comment indicating a power outage has occurred
 - b. Ari **Clicks Submit**
9. Ari sees the [Moves Page](#)
 - a. Ari waits until backpower resumes
 - b. Ari continues completing moves indicated on the page
 - c. Ari **Clicks Next Move**
 - d. Ari continues performing moves until they read “No more moves to make.”



- e. Ari **Clicks Done**
- 10. Ari sees the [Success Page](#)
 - a. Ari emails the outbound manifest found on the desktop to the captain.
 - b. Ari **Clicks Done**
- 11. Ari sees the [Main Page](#)