Meeting Notes

15 minutes before the first operation we have all trucks available. So we can load/unload all trucks effectively from time 0

All the names of the containers being loaded to the ship are given from the very start.

Time in log files should be PST including daylight savings with military time.

Only one log file needs to exist. At the end of a year, you can assume the computer gets scrubbed. Similarly for manifest files, we don't need to save and view older ones.

Never duplicates something already on the ship.

Trucks won't come and then disappear later.

An example of what information will be expected: The plan will take x discrete moves. Move 1/x is: go to 05,08, grab that, put it on the truck. It will take 9 minutes.

The last move is returning the crane to its idle spot.

You can temporarily put containers up to two spaces above the legal height limit. You cannot sail with containers in that spot, but you can strategically place containers in those areas temporarily just for the sake of shifting containers around.

Is there any priority of trucks that need to get loaded? No. It can be done in any order.

Automatically create a new log file when none exists in the folder.

Assume operators will never make a mistake. No need to implement an undo or correction.

Feel free to implement cloud backups, but its entirely optional

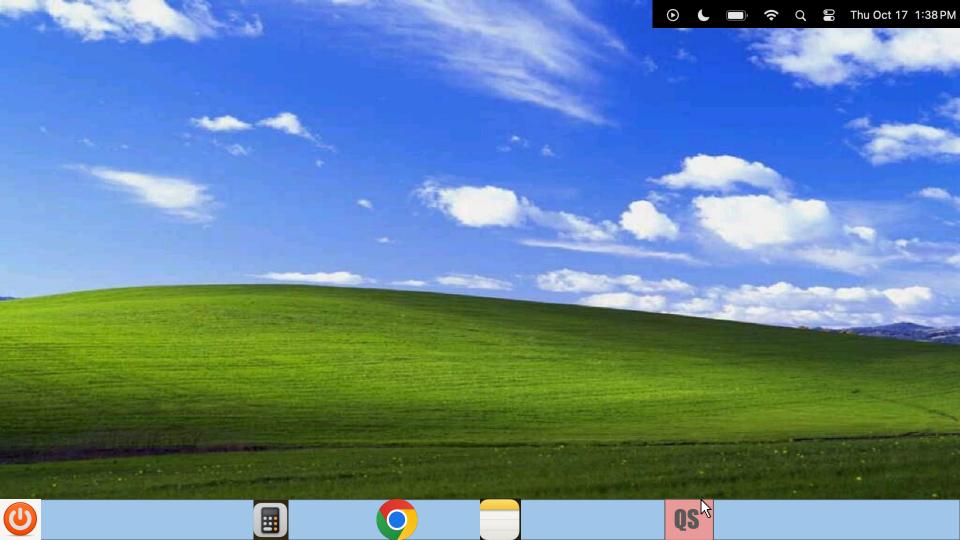
Two containers are identical if and only if their names are the same. So when the operator selects a container in a particular location, you can choose a cheaper equivalent at another spot.

Maximum container name length: 255 characters. Main ASCII 26 characters lower case upper case special characters and numbers.

Minimum one printable character for a container name. Spaces are allowed, but cannot the first character cannot be space.

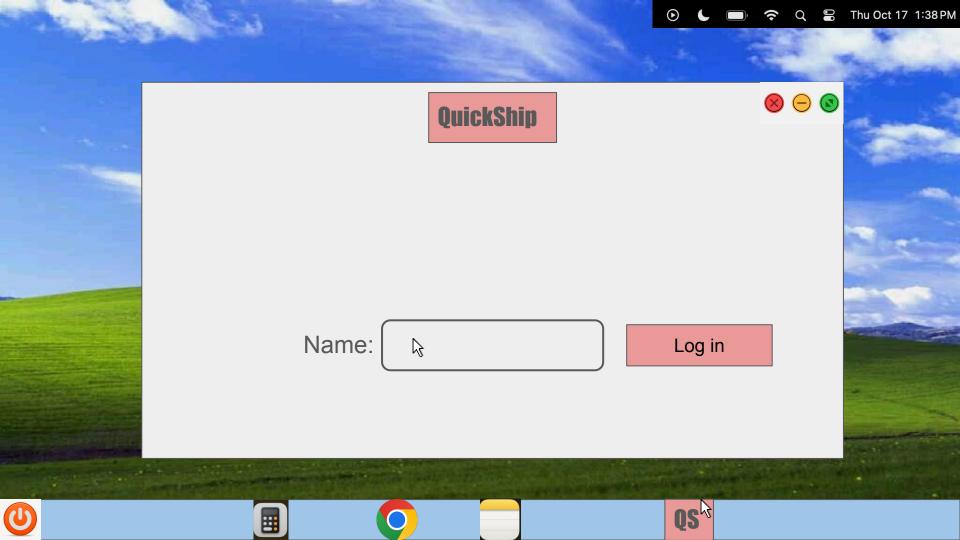
In an hour or less, convince mr keogh that you understand what he needs. Have a basic user flow and maintenance plan. We will deliver one big file, he will rarely look at code.

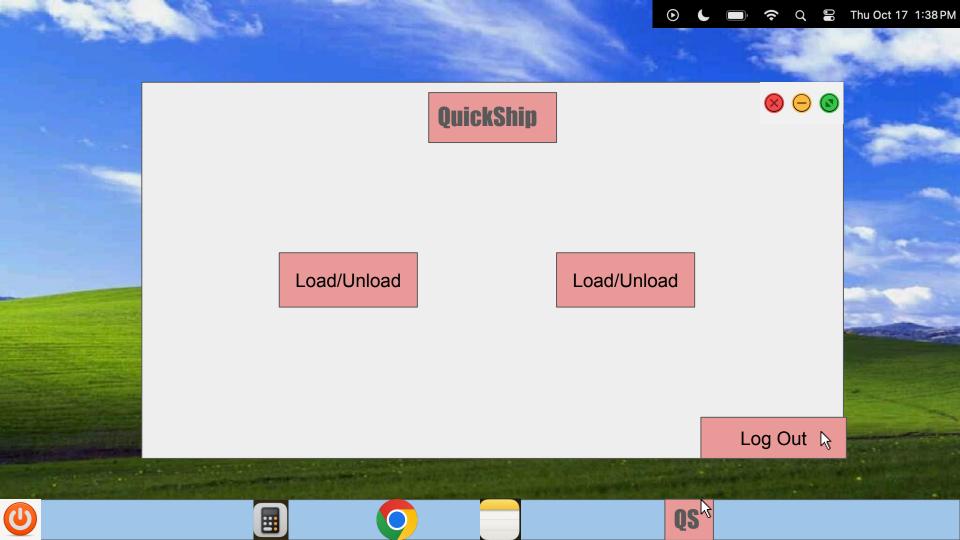
QuickShip Elicitation Interview

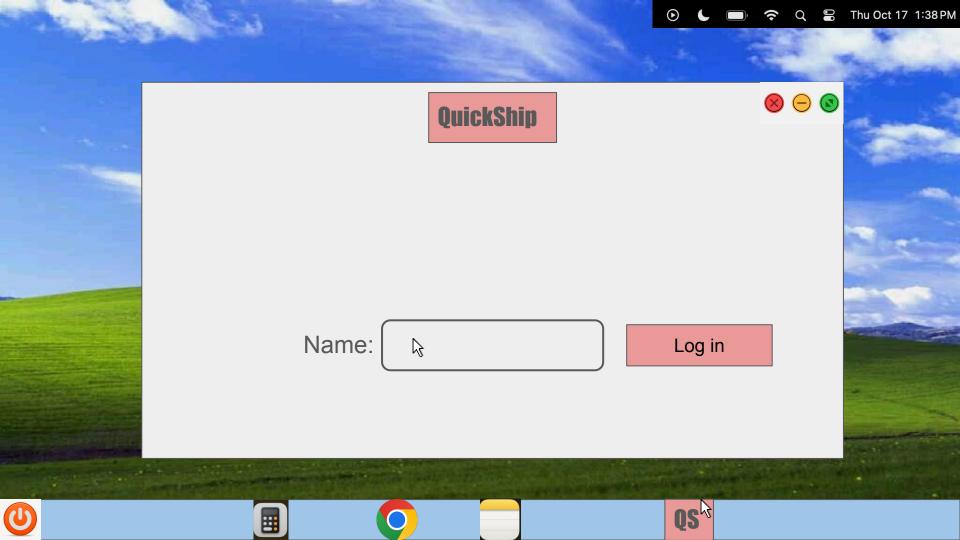


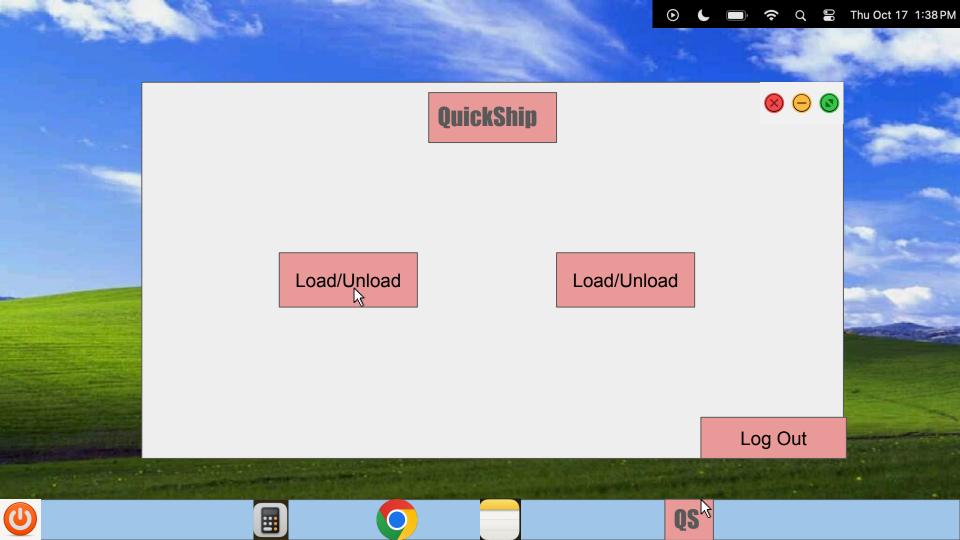
Interface

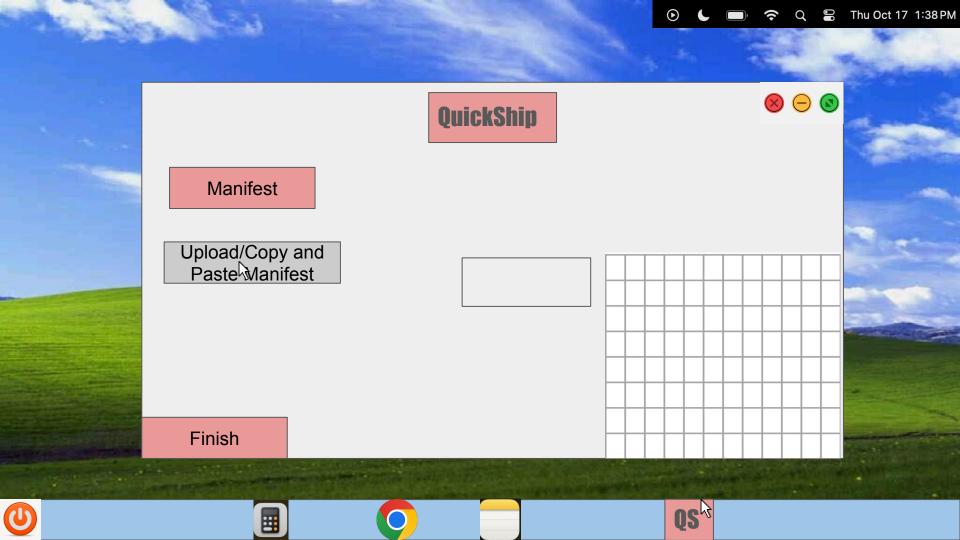
Would you like to access QuickShip as an app, website, or some other way?

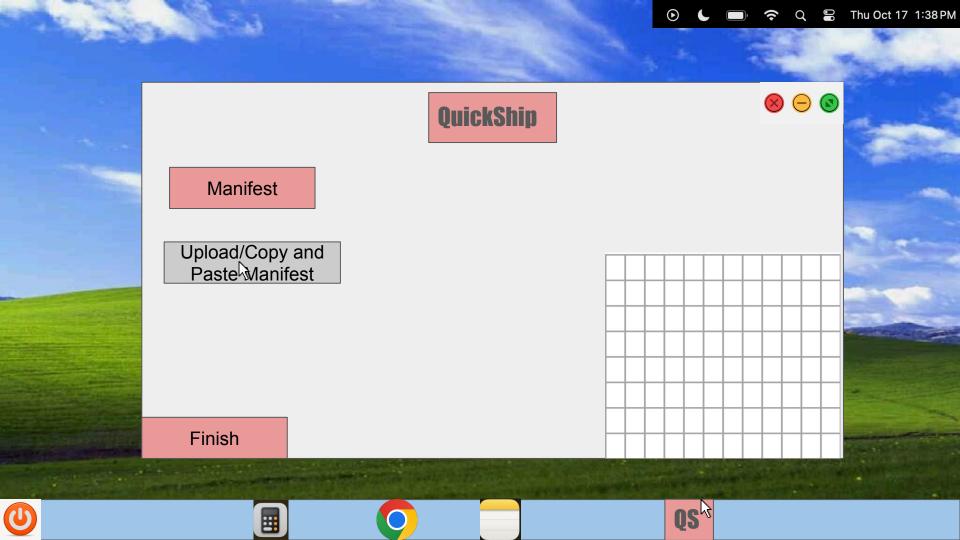










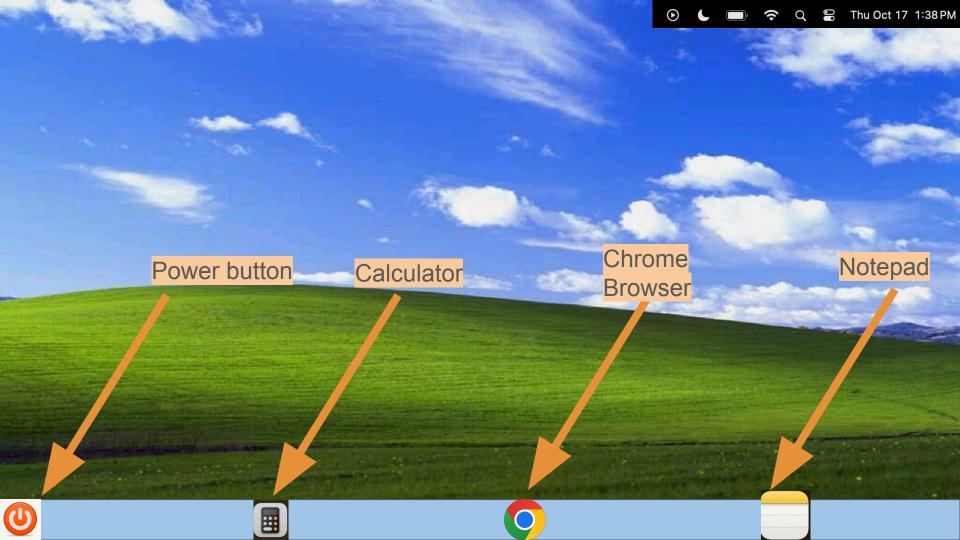


Before we begin

Let's call the system "Quickship" (QS).

QuickShip

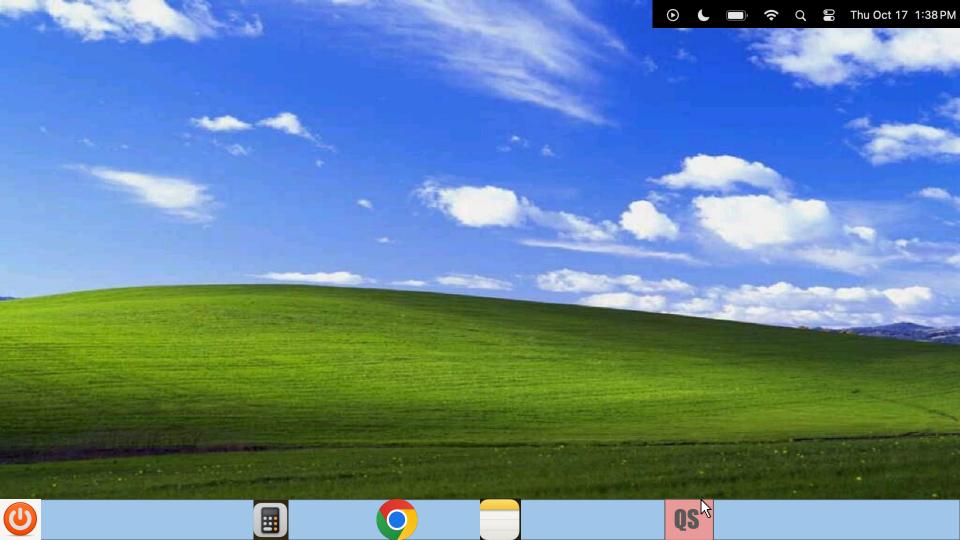




Operator's PC

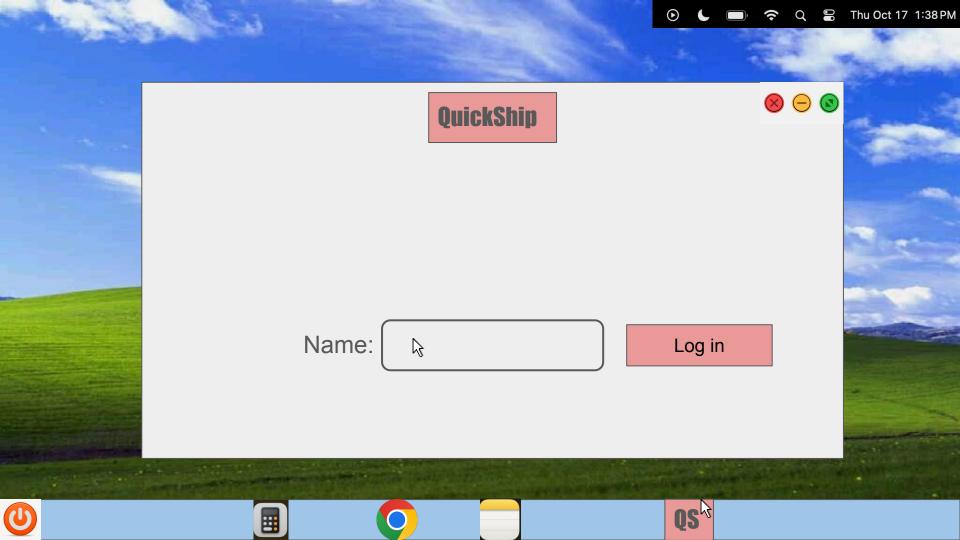
1) Does the PC have touchscreen? If so, would you prefer a touchscreen interactive system over a mouse-based system?

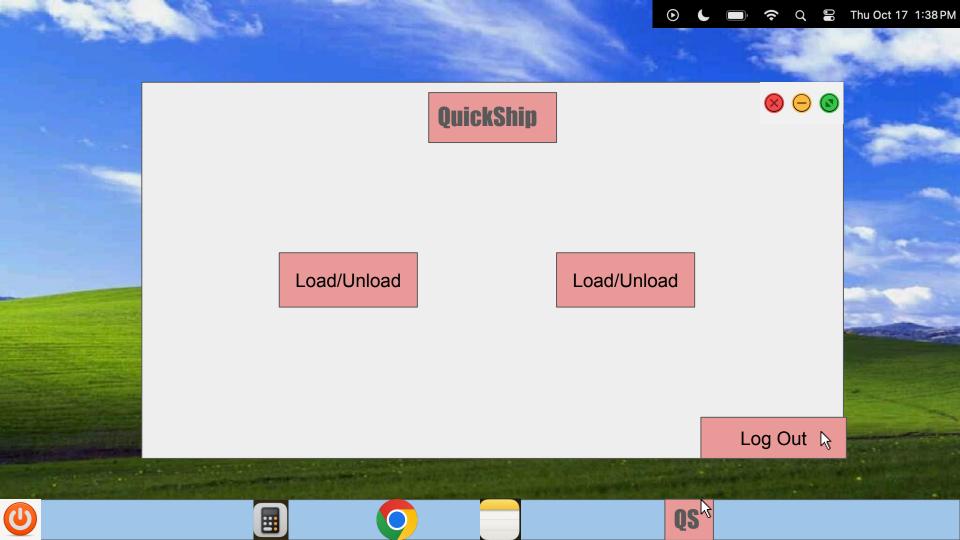
2) What are the PC's dimensions?

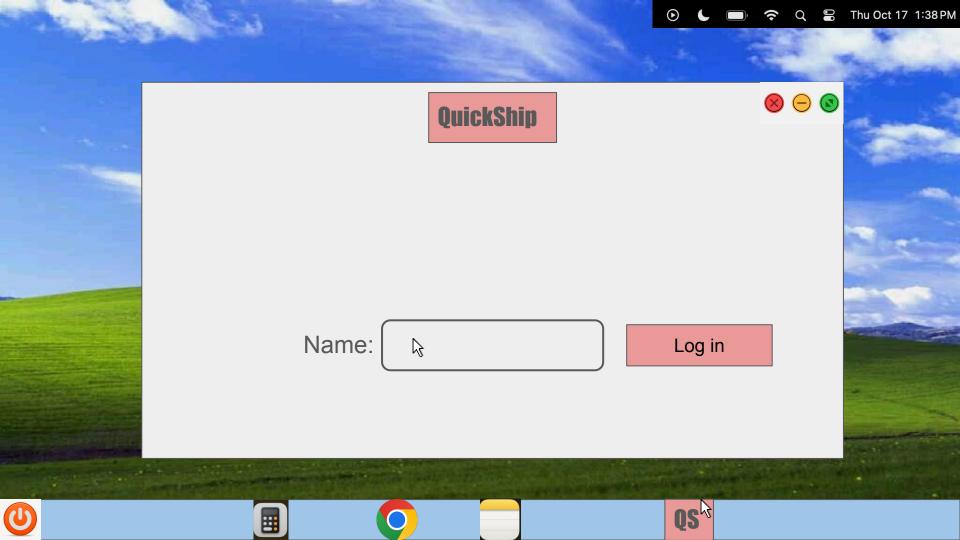


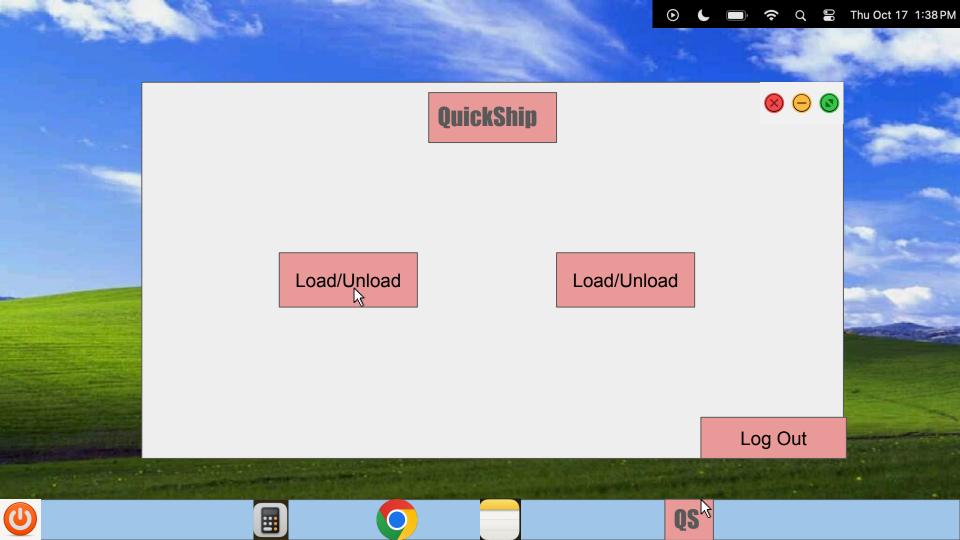
Interface

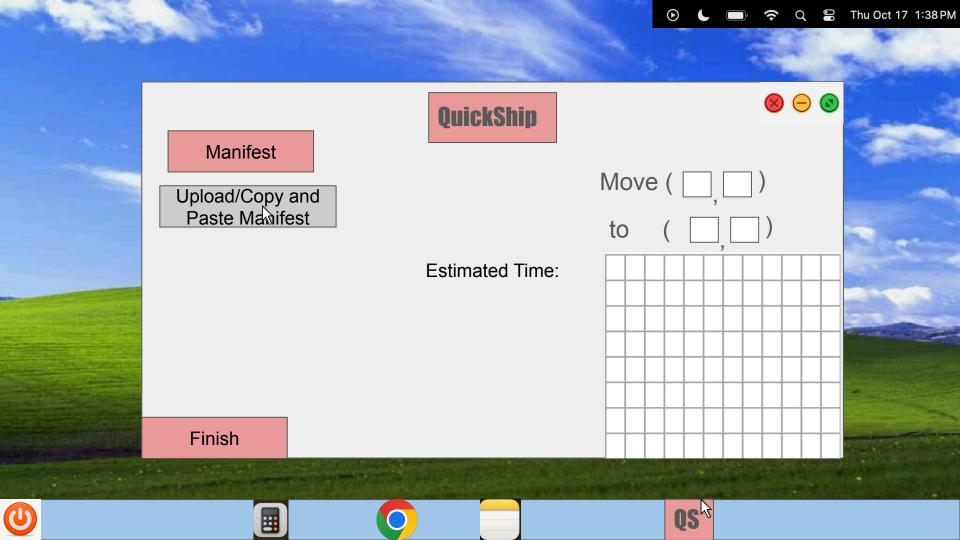
Would you like to access QuickShip as an app, website, or some other way?

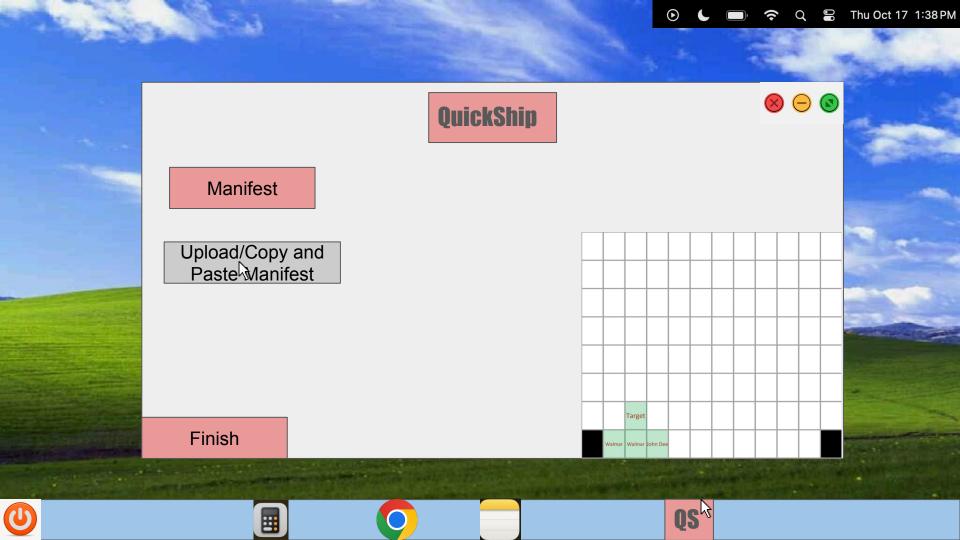












Stakeholders

- **Operator:** The system must function efficiency and correctly for them to perform your ship services to the highest level.
- Truck Drivers: They may have a tight schedule, so the better the system, the faster they can manage their time.
- Ship captain: Correctness of manifest and speed of loading/unloading as well as being balanced affects their profits.
- Other ports: Wrongly updated manifest slows down everyone else.
- Coast Guard: They need to make sure outbound ships comply with maritime law.
- Retail companies: Rely on shipments being on time.
- **Software Maintainers:** The simpler to maintain, the cheaper it will be to support.
- Crane Maintenance: If crane movements are optimized, the crane may have to be maintained less frequently.
- **Dock security:** Need to be more active while the ships/trucks are at the dock.
- Investors: Directly affected by how well the dock does financially.
- Surrounding Neighborhoods: May be annoyed by noise caused by trucks, ships, and crane movements.
- Are we missing any stakeholders?

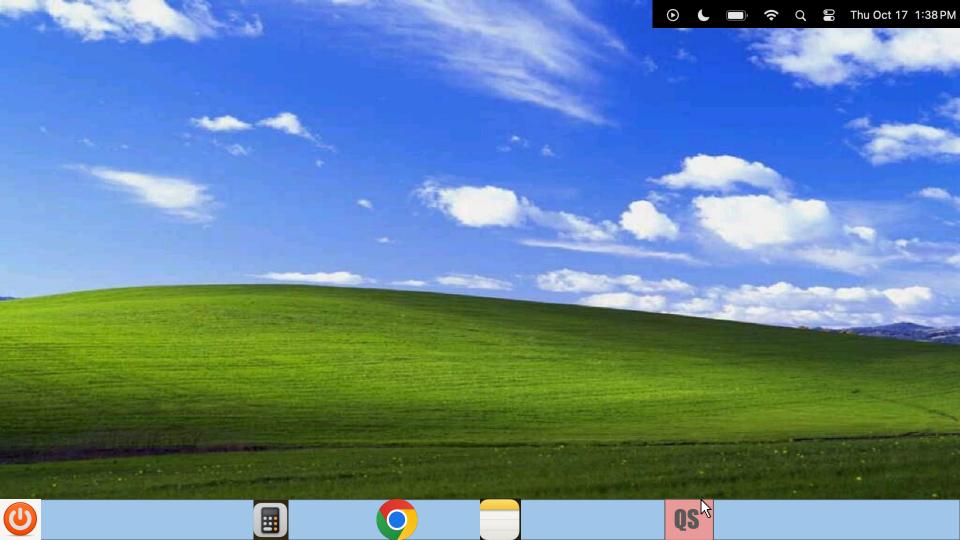
Users

- Will any of the users have issues with their vision?
- Are there any conditions (like photosensitive epilepsy) an operator or user of the system has that makes them sensitive to flashing lights or patterns?
- If any are colorblind, what type of colorblindness do they have?

Hardware Details

We want to know more about your cheapest all in one PC at Costco.

- Does your PC have a touchscreen? If so, do you prefer a system controlled using a touchscreen?
- What is the approximate size of the PC?
- We assume the PC's input is a mouse and keyboard. Is this true?



Interface

How do you want the operator to navigate between the system's load/unload and balance function?

Idea: Main menu prompting operator to upload (or copy paste) manifest

And if you want this main menu idea, how would you prefer your operators entering the manifest into the system (upload, copy paste, etc)?

QuickShip

Upload/Copy and Paste Manifest

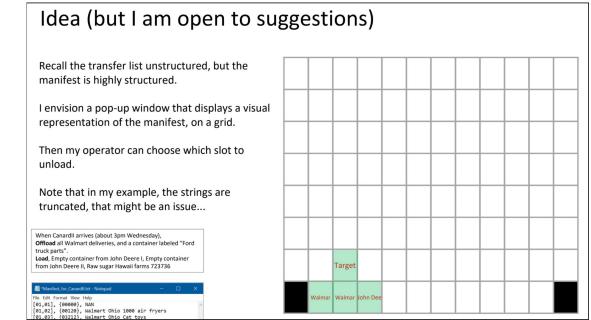
QuickShip

Load/Unload

Balance

Interface continued

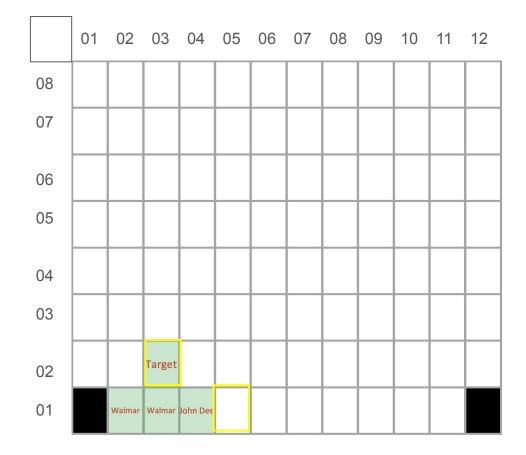
Would you prefer that the operator visually select which containers to unload for improved usability, even if this could potentially risk more user errors (i.e., misclicks)?



Animations

Move container Target (02,03) to (01,05)

Load Walmart (01,03) onto truck



Point/Click or enter a name



Log In

- In the case of a power cut, should the user have to sign in again?
- Just to make sure, the users have the option to sign out, but are not required to in order for the next user to sign in?

User Execution

- Should we consider how to deal with when the operator misreads QuickShip's order of operations list? e.g. Revert updated manifest to older version; manually change manifest; previous step button.
- If we assume all of the trucks are available at the start of a load/unload job, would you like the user to be able to add or remove trucks in the middle of a job? e.g. a new truck suddenly arrives.
- Upon being presented the optimal list of operations to perform, would you like the program to require that each step be confirmed one by one to ensure that they have been carried out?

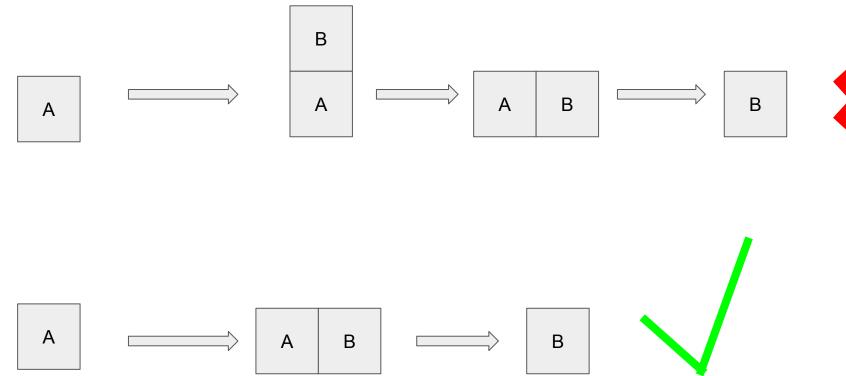
Sample Scenario

Is such a situation possible?

1) Before all containers are moved, the ship's captain

- Operator moving containers for ship 1 sends ship 1 away before moving all containers
- 2) Operator brings ship 2, moves all containers for ship 2, and sends ship 2 away
- 3) Operator brings ship 1 back to finish moving all containers

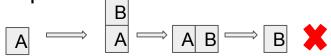
Sample Scenario for load/unload

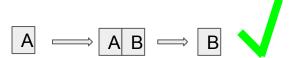


Sample Scenario for load/unload

Does an operator ever consider future containers they must move when thinking of the quickest way finish their tasks for a ship?

Does the operator think of the quickest way to move their current container, or the quickest way to move all necessary containers for the ship?





Clarification

• Up to how many ships should our system be able to handle and plan out container movement directions at a time?

Loading/Unloading Operations

- You mention that the time for a truck to reach the loading zone is effectively zero. Would you prefer our estimates to not factor in this time?
- Will we know ahead of time when trucks will arrive/will all trucks arrive before
 the ship does (with the exception of flat tire etc.)? If not, it will affect the time
 estimate reliability without that information.
- Is it possible for a truck to need to unload a container to the ship and also need to receive a container from that same ship?
- Is it possible for the transfer list to ask to load more containers than the ship has available spaces?

Manifest

- Can you explain more what you mean by writing the new manifest to the desktop? Did you want to keep the original manifest on the desktop in the first place for it to be edited, or should this new edited manifest be downloaded and sent to the desktop?
- Should users be able to reference past manifest files? Including the before/after for a job?
- You mentioned that the captain cannot legally leave without the up to date manifest file. If the operator were to become unavailable for an indefinite period of time during a session, would you expect the program to accommodate in some way? (i.e., automatically output the manifest)

Log Files

- What format for the date should the software use? The same as shown in the example log files in slides 45-49? e.g. June 1st 2023.
- For the time, is there a specific time zone that should be used? Local Time?
 UTC? Other? Should we account for Daylight Savings?
- Should the time stamp be in 12 hour or 24 hour time?
- How far back would you like saved logs to date? Indefinitely, 10 years, etc.

Data Security

- Would you like the software to save off-site backups of files in case the computer breaks/corrupts and files are lost?
- You mentioned that while there is no security concerns for bad actors/unauthorized access, would you prefer if we added security measures to prevent accidents? Such as making log files read only so they don't get accidentally edited?

Saving Progress

If for whatever reason, we must end load/unload and balancing a ship early (broken crane, medical emergency, natural disaster, captain must leave early, etc), how would you like the system to end its task?

Idea: Finish/cancel button. When pressed, the system stops showing an order of operations list and saves the most up-to-date manifest.

For Dr. Keogh

If a truck gets a flat tire and the operator needs to send someone out to pick up the container, how should the software represent this? Should it just increase that container's total duration to be loaded?