

(1) Elicitation Questions

Stakeholders:

- We have listed people/groups who we believe are stakeholders in this product. We would like to check with you and please let us know if we are missing anyone that you consider a stakeholder or if someone who shouldn't be on this list is on it?
- Mr. Keogh - the port owner responsible for overseeing all port operations
- Ship owners - they bring the cargo to the port, and any missing items will be tracked and reported through the system
- Crane Operators – The workers who handle the cranes, responsible for moving cargo. Are there any additional education requirements/language requirements for the crane operators apart from what we have below?
 - Have a high school education at least
 - Speak/read basic english
- Truck Drivers - They are responsible for bringing the truck and picking up the containers once they are off the ship
- Customs officials - Anything unusual that the crane operator sees from the outside of the container can be reported through the system, and sent to the customs office.

Compliance:

- Are there any regulations or restrictions that we need to be aware of as far as offloading of the containers goes?
- Can a crate be sent for inspection before being picked up by the truck? If so, what are the additional costs for doing this?
- Do we need to keep records of inspections or regulatory checks for legal auditing purposes, and if so, how long should this data be retained?
- Are there any legal requirements for maintaining logs of system activities, such as cargo movement or operations performed by employees, for audit trails?

Logistics:

"We work 24/7, three shifts 12 to 8, 8 to 4, 4 to 12" - pg. 14 of Problem Overview by Mr. Keogh

- You mentioned that there is someone in the cabin 24/7 however you also mentioned that there are three shifts from 12 to 8, 8 to 4, and 4 to 12
 - During the transition between shifts with workers, are there any special conditions that we need to know? For example, if a job is in progress at 8 during the end of the first shift and start of the second shift, will the

operator need the previous information that was sent to the operator working during the first shift?

- Furthermore, we wanted to clarify if the port is open 365 days of the year. You mentioned 24/7 but will there be any holiday closures - for example: Christmas, Thanksgiving, Veteran's Day, etc..
- In the event of an emergency, what should be done in terms of the packing?
 - For example: if an earthquake or tsunami occurs in the middle of a transfer, what do you want the program to do? Do we automatically pause the program and will the workers evacuate the premises?
- In the event a container falls in the water due to a hardware malfunction or operator error, how should the program proceed? Will the worker mark it as lost and write a note or will they save the container and tell the program to halt until further notice?
- In the event the manifest is unable to be sent to the port due to technical difficulties such as the email service being temporarily unavailable or a lack of a stable internet connection, what should be done?

Slide 18



- Here the ship has containers going for a height of 6 however if it were a height of 8 would that not obscure the view of the captain maneuvering the ship. Is there a max height to the containers that are allowed on a ship?
- You mentioned that if they have issues with the vehicle then it will be unable to unload what is on the ship, however if the issue is never reported how much time is given to the truck for when it is expected to be at a loading dock?
- Can the manifest have commas in the name of the company? The images we have seen do not have it
- Is there a length limit for the container description? Similarly, is there a length limit for the log message that the operator enters manually?
- Are all the containers supposed to be offloaded or only some from the ship?
 - For example, based on our understanding of the manifest, it is a document that details everything that is on the ship. From this document, say there is a container that is not supposed to be offloaded at your port. How do we receive that information? Or are all the containers on the ship being offloaded?

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File Edit Format View Help
[01,01], {00000}, NAN
[01,02], {00000}, NAN
[01,03], {00000}, UNUSED
[01,04], {00000}, UNUSED
[01,05], {00000}, UNUSED
[01,06], {00000}, John Deere Parts (call Sue at Ohio office)
[01,07], {00000}, UNUSED
[01,08], {00000}, UNUSED
[01,09], {00000}, UNUSED
[01,10], {00000}, UNUSED
[01,11], {00000}, NAN
[01,12], {00000}, NAN
[02,01], {00000}, UNUSED

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Software:

- In your slides, you mentioned that for some users English might not be their first language, should we include an option to switch to another language or is it fine to stick to English?
- You also mentioned that the operator can choose which slot to unload from the ship-grid. Can the operator choose multiple slots? Say the operator would like to unload 2 containers at once? Or can the operator only unload one container at a time?

- What is the initial position of the crane? Is it always over the ship or over the truck? Or is it always over the ship at the start of the day, and we store the last position of the crane?
 - An issue with storing the last position, what if the operator moves the crane without updating the software?
 - Leads to another question, is the position of the crane given as an input to the program automatically? Or can the operator manually enter the position of the crane?

- Do you want a search feature where the operator can search for a container instead of manually hovering over all the slots in the grid? The search feature would work something like this:
 - A text bar where operator will type in the name of the container or which company it is for
 - The software will automatically search and highlight the spots that match the text entered
 - Follow-up questions: We are thinking of matching the text character to character for our search feature so “John” is not the same as “john”
 - What color would you like the highlighting of the slots to be in?

- You mentioned that there is always someone in the cab 24/7 however when working 8hr shifts the state of California requires one 30-minute unpaid meal break and 2 paid 10-minute breaks. Can operators leave in the middle of unloading a ship and will their shift be covered? If so, how would you like for us to handle this?
 - Authentication
 - operator needs to log in and log out everytime
 - When a new operator takes over, the previous state is stored. So state of unloading the ship is not mapped to the operators account
 - But authentication will be required to continue using the product
 - Or the operator just waits till the process is finished and then leaves

- You mentioned that the software should provide an estimate of how long the process will take. Is there a specific format this needs to be in?
 - Suggestions:
 - Would you like the time in PST?
 - Say John selects a container to unload from the ship
 - The software will show an estimate of the time required to do that

- Next it will guide John using an animation of the steps, and it will label each step such as step 1/26 and an estimate of the time for that step to complete.
 - Anything else you want in this feature?
- A scale for the mapping of the animation of the steps to the actual real-life distance of containers
- You mentioned that the software should be a visual representation of the manifest. You expressed interest on Oct. 7 in a feature that when the cursor hovers over a container on the grid then the container's location, weight, and name be displayed? If so, is there any other additional information that would be helpful to also be displayed?
- To our understanding, on slide 25 it states that the software will not read the transfer list, however it will be given information from the person in the cabin about what is expected to be loaded and unloaded. It also states on slide 27 that the operator has the ability to choose which slot to unload. To clarify, will the software be receiving input from the operator of what is being offloaded and loaded onto the ship and provide a visual of the best format, while also allowing a feature for the operator to manipulate the updated manifest. This will all be done before submitting the manifest of course.

When CanardII arrives (about 3pm Wednesday),
Offload all Walmart deliveries, and a container labeled "Ford truck parts".
Load, Empty container from John Deere I, Empty container from John Deere II, Raw sugar Hawaii farms 723736

- Just to clarify, do all the containers on these ships share the same dimensions or do some of the containers take up more vertical or horizontal space on the ship than others?
- Should we include a help button for the user of the app to get help? If yes, do you want it to open a documentation/manual page, or should it call someone in our customer support directly?

Wants larger fonts and contrast colors. The terminal is only like regular characters so is he referring to the animation idk.

- To clarify what is expected from the program...
 - Load/Unload
 - Operations List:
 - Provides a list of operations necessary to optimally load/unload the containers
 - Animation:
 - Output of a grid displaying the updated placement of the containers
 - Estimate time:
 - Provide an estimated amount of time for the entire load/unload instructions to complete
 - Updated manifest:
 - Write new manifest to the disk
- Balance
 - Operations List:
 - Provides a list of operations necessary to optimally load/unload the containers
 - Animation:
 - Output of a grid displaying the updated placement of the containers
 - Estimate time:
 - Provide an estimated amount of time for the entire load/unload instructions to complete

Logs

- Provides information like:
 - Who signs out/in to the system
 - When a ship manifest is opened and the amount of containers on the ship
 - What has been offloaded
 - What has been loaded
 - When new Manifest is completed
 - When an operator writes a message to the system

- Format: Date - Time - Message
- Do we mark when there is a balance to the ship? Is there anything we are missing?

Notes:

Stakeholders:

- Unions
- Government regulations require log
- FBI
- Insurance Company
 - subpoena log file in correct format to determine if drug smuggling
- Software doesn't know if truck isn't there, operator does all work for special truck
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Trucks:

- Assume all trucks take less time than container movement
- Containers not inspected
- Log files records every atomic event (person signing in, item moving from A to B), open closes manifest. Log file starts with starting line to tell if new or if there was a crash
- No other holidays
- Weather never an issue
 - No need to stop system (ignore)
- Buffer can be used for balancing, but is expensive
- Put containers up to 2 blocks above 8 blocks high, but must be moved back before sailing. Can be 9 or 10 high
- Crane must move vertical/horizontal
- Containers can be moved left/right even against floor
- Software doesn't know about hardware issues
- 100% manifest will be delivered and correct
- Doesn't matter when manifest is edited
- Name of manifest on screen at all times
- 2d design
- Show source and target
- Safety protocols not relevant
- Trucks can only take a single container
- Crane right purple

- Add when there is a power outage to log, include all balance messages
- Lookup readable fonts
- 1 person in person first day, month instant support
- Do not have select to unload multiple containers
- When cursor over the container then run the name of the item in the container over it
- Check log file location if not there assume new year
 - During power outage looks into log file location if log there then retrieve
- 15 minutes to compute solution

(2) DockerTechCo. Elicitation slides:

<https://drive.google.com/file/d/186qttW0O7Zh6-7GaS69O4Di1A6Q9c7bH/view?usp=sharing>

(3) Meeting Times:

- a. 10/15, 3pm - 5pm
- b. 10/16, 12pm - 1pm
- c. 10/17, 8pm - 10pm
- d. Collaborated periodically on Google Doc. 10/14-10/17