

!!! MAKE SURE QUESTION IS NOT ALREADY ANSWERED ON THE SLIDE !!!

Stakeholders: Think of a shipping port and think of anyone loosely affected.

- Ship Staff (can probably break down this one more)
- Truck Drivers
- Head office
- Delivery recipients (can probably break down more. Think supply chain)
- Customers (using goods from any crate) (ex. my amazon package is probably on a ship)
- Investors
- Regulatory Agencies (government agencies who make sure oversee goods satisfy regulations)
- Community Residents (noise may interrupt the residents or port transports may cause traffic issues)

Questions: We can integrate them into our slides

1. ~~Do you agree with our list of stakeholders?~~
2. ~~Did we miss any stakeholders?~~
3. ~~If the manifest and the crane measure different weights, should we decline the order, or update the manifest?~~
4. ~~Should we avoid complex english / support multiple languages for the operation list?~~
5. ~~What will workers do if the power goes off?~~
6. ~~Do we need a color blind mode for color blind employees?~~
7. ~~Do the crane and the computer run on the same power source?~~
8. ~~If the computer malfunctions, will the worker keep moving crates?~~
9. ~~Will we know if power cuts are coming ahead of time?~~
10. ~~Can we assume ships always show up on time?~~
11. ~~What if a ship shows up early/late?~~
12. ~~What if a ship is absent?~~
13. ~~It's mentioned that the program will determine which route should the containers be moved and move them, but does the operator move the crane or the software moves the crane?~~
14. ~~How much time do workers have for training? (combine with Q27)~~
15. ~~Is the crane controlled manually or are its operations pre-automated? (Q13?)~~
16. ~~Since operations take minutes, is it ok if our logging is only precise to the minute?~~
17. ~~Can there be a scenario where items from the transfer list are not present in the harbor or on the ship? (W2slide21)~~
18. ~~If the ship is full and there are still items on the transfer list to move to the ship, how should the program proceed?~~
19. ~~Can we assume the manifest we're given is always correct? (W2slide21)~~
20. ~~Could crates have shifted around the ship, leading to an incorrect manifest? (W2slide21)~~
21. ~~What is the upper limit on how long our program should take to find the optimal solution? (I don't think this one is very good) (pitch slide31)~~
22. ~~Should our program note power outages or any other malfunctions?~~
23. ~~We believe the events and times we log are as follows. Did we miss anything?~~

- a. Employee sign ins
 - b. Opening a manifest file
 - c. Unloading or loading a crate
 - d. Any edits to the manifest
 - e. Finalization of the ship's manifest
24. Can the crane ever be misaligned or malfunction (say in some extreme weather conditions)?
25. What sort of logging and reporting mechanisms would you like in place for when unexpected events, such as power cuts or errors, occur?
26. Is the system expected to scale to support more cranes or terminals over time? If so, do we need to worry about the extensionality of the crane in terms of loading time?
27. ~~What kind of training do you expect operators to undergo? Does the system need to provide in-depth user guides? (combine with Q14)~~
28. Will different users (e.g., operators, supervisors, administrators) require distinct access levels or permissions within the system?
29. Is it only the crane operator, or are there others who may interact with the system?
30. Do you have any preferences regarding what type of environment the software is on? (ex. Web browser or desktop application)
31. Can we assume that we will always be sent an email with the manifest?
32. On slide 49 on Oct 7 slides we know that the employees signing in implicitly mean others are signing out, but would you want a system that each employee has their own account/sign in option?
33. Should we assume that the cost to move the crane when it isn't carrying anything still 1 minute per cell?
34. Due to your computers having limited space on a cheap all-in-one PC, do you want our system to save all of the logs, or delete them after a certain amount of time?
35. Do your employees have any disabilities that we would need to take into account to make the software more accessible to them?
36. ~~When showing the animation of the order of operations list to the operator, would it be better to show all the animations at once, or prompt the operator with a next button when he is ready for the next step?~~
37. ~~If the operator accidentally skips a step, should there be a feature that can go to the previous step?~~
38. Do we also need to take into account how high we should stack the containers relative to the other containers?
 - For example if the ship sways a lot while sailing the containers could slide off, etc
39. Should we assume that there will never be empty vertical space between containers? (floating containers)
40. Should we assume that every container is the same 1 cell size?
41. Is there a weight limit for the ship that the software needs to consider during operations?
42. Are there any restrictions regarding where containers need to be put onto the ship?
 - For example, if a certain container needs to be at the very top, or a container cannot be at the bottom of the ship

43. In the case of multiple optimal solutions, are there any other secondary factors that we need to consider?

- For example, if a ship is going to another dock where they are going to unload a certain container, we would choose the solution that has that container on top.

44. Will there be ships that will need to be balanced after loading/unloading?

45. Will there be containers that contain non-English characters (ex. Chinese, Spanish, etc)

Inputs

1. Does the software require a visual representation for choosing what to load/unload? Or can the operator just choose based on a given list?
2. Suppose there is a situation where there are two containers that have the same names but the capitalization between them are different. Should we consider these duplicates?
3. Is there a maximum character count needed for when the operator writes to the log?
4. ~~Should we assume that the manifest is formatted exactly like in slide 33 of the Powerpoint on Oct 7th ([01,01], [00000], NAN)? Or is the formatting different for each manifest?~~

Outputs

1. Is there a maximum size (character count) that is needed for each yearly log?



Where your journey **begins**

Pier Point Shipping Inc : Elicitation

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Malfunctions**

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01

Stakeholders

- 1. Thoughts with our List of Stakeholders?**
- 2. Did we miss any stakeholders?**

- Ship Staff
- Crane operators
- Truck drivers
- Head Office
- Delivery supply chain
- Customers
- Investors
- Regulatory Agencies
 - Government agencies who make sure oversee goods satisfy regulations
- Community Residents
 - Noise may interrupt the residents or port transportsations may cause traffic issues





02

Malfunctions

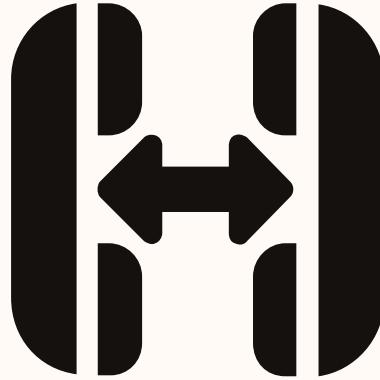
What will the workers do if the power goes off?

Aside from saving progress, is there anything
should be under our consideration?



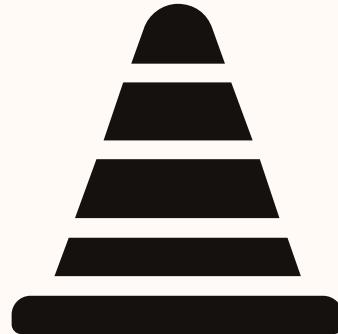
Do the crane and the computer run on same power source?

To make sure if there's a need to monitor the movement of crane, if either source ran out separately



**If computer
malfunctions, will
worker continue or
stop the crane?**

Do the worker took a break, continue until system back on, or do we need to provide a solution?



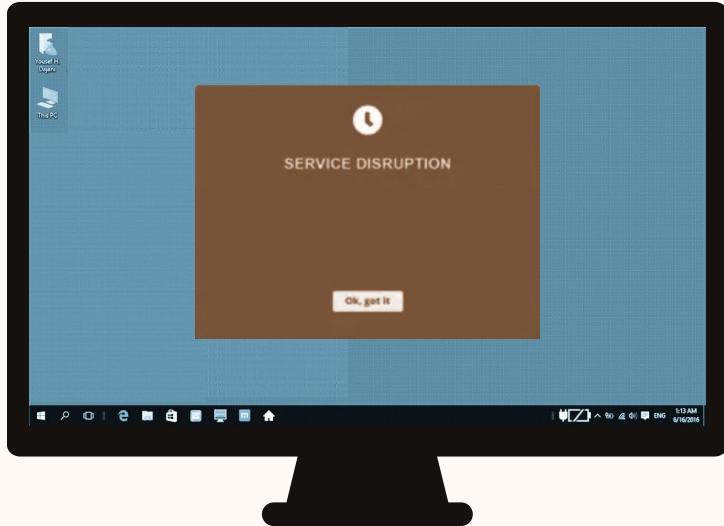
**Will we know if
power cuts are
coming ahead of
time?**

To prevent and save progress ahead



Should our program note / log power outages, or any other malfunctions?

Pop-up windows in the interface / more details
provided in the log?



**Do we need to
consider if the crane
is ever misaligned or
malfunction?**

Extreme weather conditions, maintenance issue,
etc.





03

Inconsistent Data



**If the manifest and
the crane measure
different weights,
what to do?**

Decline the order, update the manifest, etc?



04

Timeliness

Can we assume ships always shows on time?

If not, should our system take that into account?



Follow up

What if a ship ends up showing early / late?

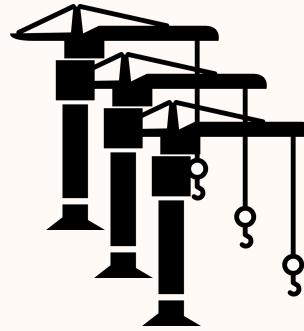
Should our system take into account, or is this up to human labor?

Follow up **What if a ship is absent?**

Should our system take into account, or is this up to human labor?

In the future, is the system expected to support more cranes / terminals?

If so, do we need to prepare for the extensibility of the crane's software in terms of loading time?





05

Logging



We believe the events and times we log are as follows.
Did we miss anything?

- Employee **sign ins**
- **Opening** a manifest file
- **Unloading** or **loading** a crate
- Any **edits** to the manifest
- **Finalization** of the ship's manifest



What sort of logging and reporting mechanisms would you like in place when unexpected events occur?

such as **power cuts, crane dysfunction, errors, etc.**



Since operations take minutes,
is it ok if logging is precise to the minutes?



**Will different users require
distinct access / permission to the system?**

such as **operators, supervisors, administrators**

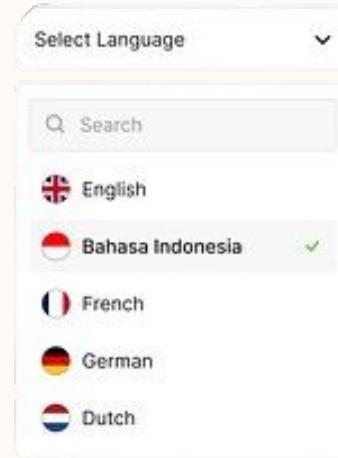


06

Program Display

Should we avoid complex english / support multi- language?

Considering the workers' diversity



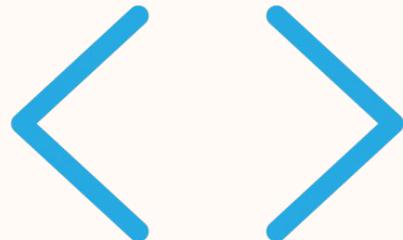
Do we need a color blind mode?

Considering the workers' diversity



Should all animations be shown at once or do we use a "next" button for each step?

Problem Overview Slides (slide 24)



**Will there be
containers that
contain non-English
characters?**

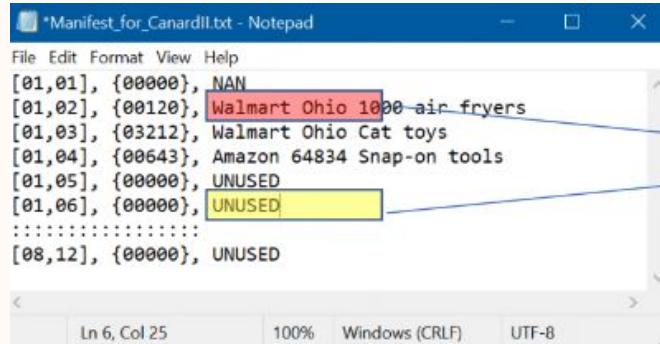
Ex. Chinese, Spanish





07

Clarification



```
*Manifest_for_CanardII.txt - Notepad
File Edit Format View Help
[01,01], {00000}, NAN
[01,02], {00120}, Walmart Ohio 100-air fryers
[01,03], {03212}, Walmart Ohio Cat toys
[01,04], {00643}, Amazon 64834 Snap-on tools
[01,05], {00000}, UNUSED
[01,06], {00000}, UNUSED
::::::::::::::::::
[08,12], {00000}, UNUSED

Ln 6, Col 25 100% Windows (CRLF) UTF-8
```

Do all manifests have similar formats?

Are all manifests like the example in slide 33 of your Problem Overview slides?



Does the operator, or the software move the crane?

It's mentioned that the program will determine which route should the containers be moved. Further details needed.



What user guides / training sessions need to be designed?

Such as first time user guide, training hours required, expected operations to learn, etc.



If the ship is full, how should the program proceed?

Such as when there are still items on the transfer list unexpectedly



Do you have any questions?

Feel free to email us any time!

Thanks!

Elicitation notes

1. Stakeholders
2. no investors
3. Find unions, think about it
4. Insurance company
5. Residency is nice, no residency
6. power outage
7. negotiation
8. Thought, continuously 11 1/2 months
 - o Log file - KEOUGH PORT YEAR, program thought of a power cut and recover
9. Different power source
10. don't know about the crane, irrelevant, only know what happened
11. Need to have a function to make ANNOTATION with TIME STAMP
12. Computer malfunction, paper and pencil
13. Power cuts known?
14. unknown event
15. log
16. every atomic events (start of the program, user request load unload, ship name, balance require, program closed once for a year, closing down and push the log file)

Weight

1. Manifest and crane weight difference
2. 1-2% okay, but weird different, push to the log file

Time

1. Ship no on time, BALANCE / LOAD UNLOAD button. 15 minutes of free time to compute
2. Possible updates, inconceivable, next 10 years

Log file

1. Log file more?
2. Minutes? Kept to minutes
3. FLAT HIERARCHY, but only owner can get the log file

Software

1. Simple English
2. Color blind mode, assume every one is okay
3. Animation, visualization, SIMPLE, same color, TARGET MORE COLOR
4. Non English container, not important
5. Case sensitive?

Clarification

1. Manifest format? EXACT, container NAME ONLY < 255
2. operator/software, LEGALLY only person move
3. Make a software, include USER GUIDE, fast and simple training, checklist to problem solving. HELP BUTTON
4. full ship and more?

20 USERS PITCH

1. Convince him we know what to do
2. Convince him we know how to extend