

Provide tools for researchers

Should Do

(1) As a researcher, I need the app to be free and open-source, so that I can modify and improve it

Must Do

(40) As a researcher, I need to programmatically modify and query the data, so that I can run simulations and perform data analysis.

Could Do

(?) As a researcher, I need the operators to record the reasons for change, so that I can analyse the reasons for inefficiency.

+ Add a card

Create & view a schedule

Must Do

(30) As a vessel planner, I want to be able to see a schedule visualisation as a time-key graph, because it is easier to follow naturally.

Must Do

(3) As a vessel planner, I want to modify the schedule by filling in a form, so that I can be precise with my modification.

Must Do

(5) As a vessel planner, I want to be able to preview changes before committing to them, so that I don't accidentally ruin the schedule.

Must Do

(2) As a vessel planner, I want to create vessel information, so that I can easily update the database if a new vessel is in the port.

Must Do

(13) As a vessel planner, I want to detect infeasibilities, so that I can be sure to deliver a feasible schedule.

Must Do

(3) As a vessel planner, I want to modify vessel information, so that I can adapt the scenario to changing real-life conditions.

Must Do

(13) As the port authority, I want to create & edit a custom port layout to use the application with, so that I can use it for my own port

Must Do

(20) As a vessel planner, I want to drag and drop vessels to modify a schedule, so that I can easily change the scheduling of vessels.

Should Do

(13) As a vessel planner, I want to undo recent scheduling changes, so that I can go back to the old solution if the scheduling change makes it infeasible (or for some other reason)

Should Do

(13) As a vessel planner, I want to redo the scheduling changes, so that I can easily compare the two solutions.

Could Do

(8) As a terminal manager, I want to create a PDF version of the solution so that I can easily store and share the report to other parties.

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Optimise & evaluate a schedule

Must Do

(8) As a port manager, I want to be able to see certain performance metrics (which?) of the solution, so that I can see how good of a solution the P created.

Must Do

(?) As the port authority, I want to detect congestion, so that the solution doesn't cause ships to collide when leaving/entering the port.

Should Do

(8) As the port authority, I want to see the performance metric of the port, so that I can see how well the system is doing.

Could Do

(100) As a vessel planner, I want to generate a feasible solution if the current solution is not feasible, so that I can deliver a feasible schedule.

Could Do

(0.5) As a researcher, I want to use my own scheduling algorithm in the application, so that I can evaluate its performance by the performance metrics of the app.

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Be able to authenticate

Must Do

(40) As the port authority, I want everybody to be authenticated before they can use the system, so that I can limit who can see and manage what.

+ Add a card

Release 1

Release 2

Release 3