

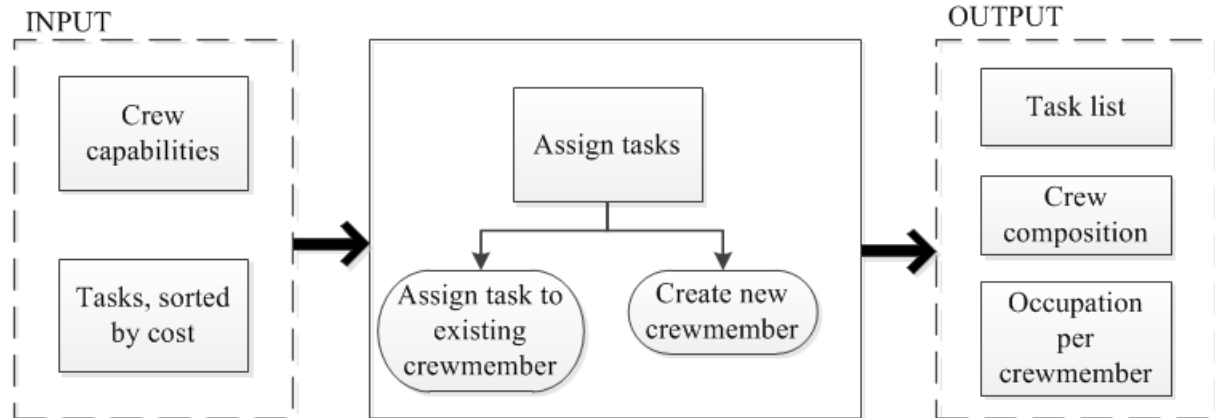
Economisch haalbare laag bemande scheepsconcepten



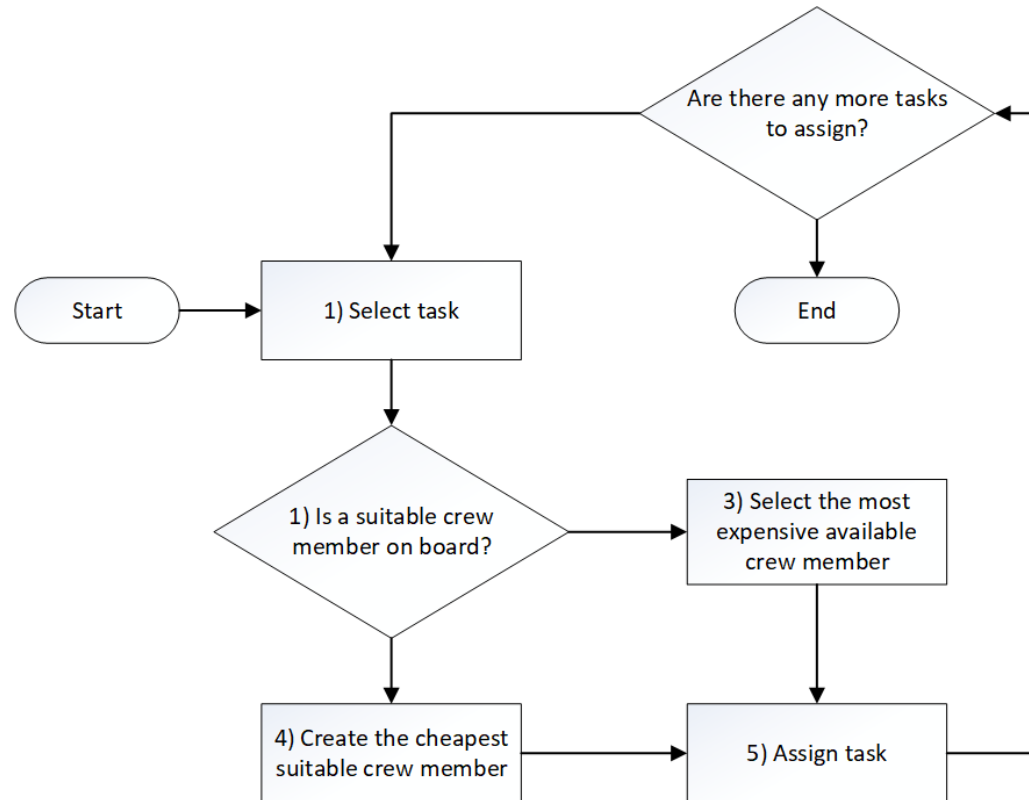
Onderzoek naar onbemand varen



Het effect van automatiseren

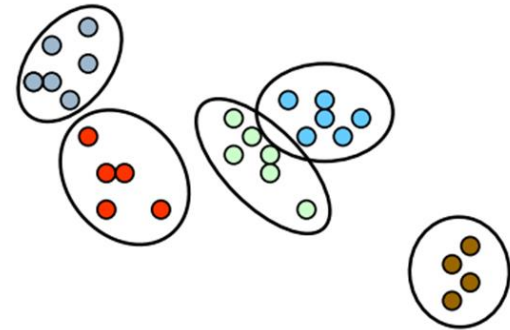


Greedy Algorithm



Clusters

- Maintenance on deck
- Maintenance in the engine room
- Bunkering
- Administration
- Crew support
- Port supervision
- Responsibility
- Mooring
- Navigation
- Cargo conditioning



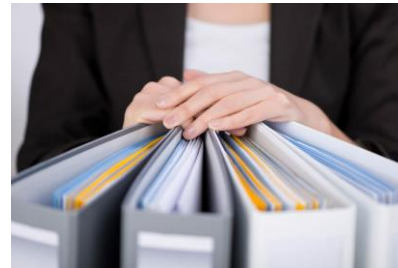
Technische oplossingen

- Maintenance in the engine room
- Mooring
- Navigation
- Cargo conditioning



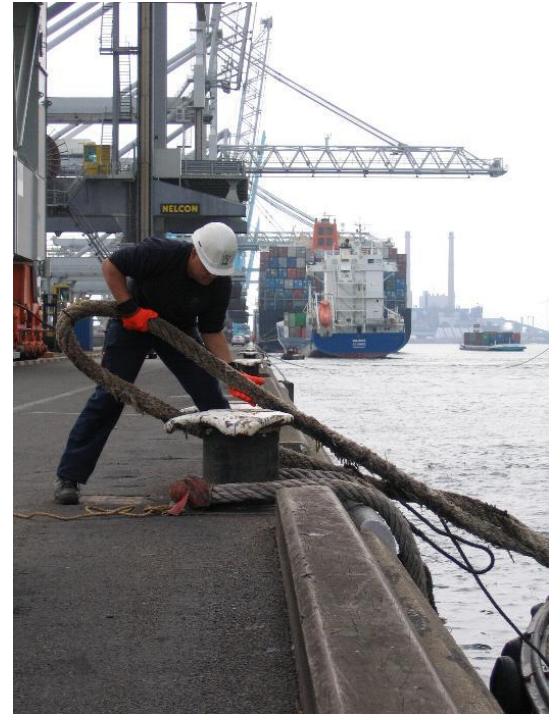
Reorganiseren

- Maintenance on deck
- Maintenance in the engine room
- Administration
- Port supervision
- Responsibility

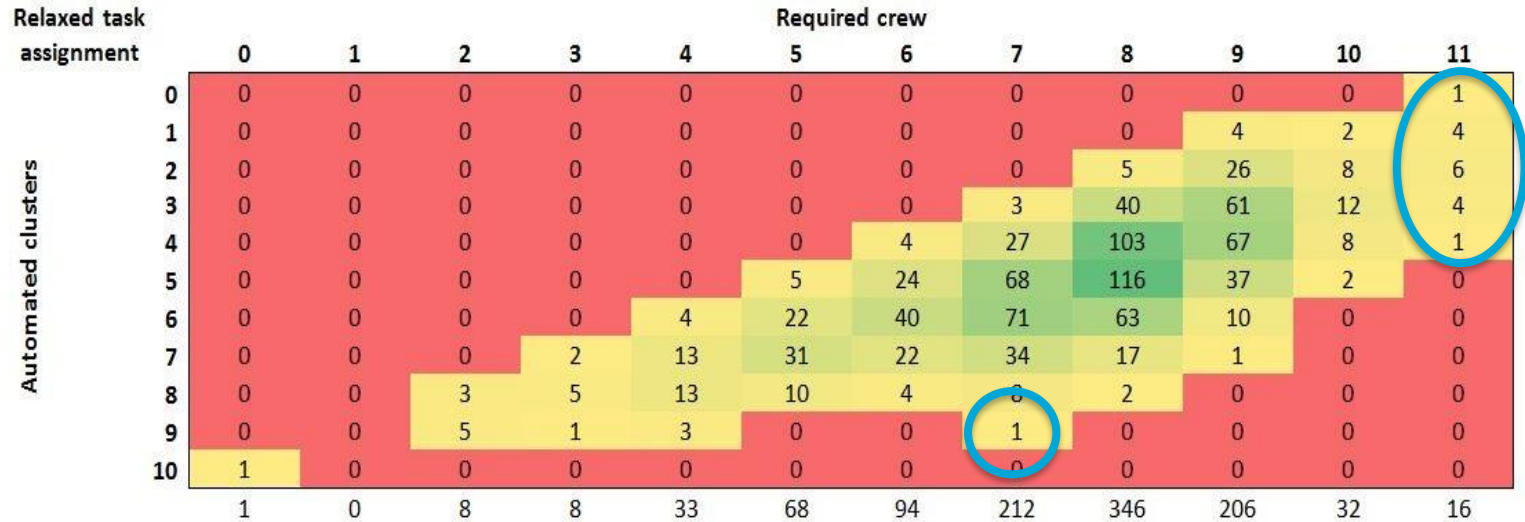


Gebruik van diensten

- Port supervision
- Responsibility
- Mooring

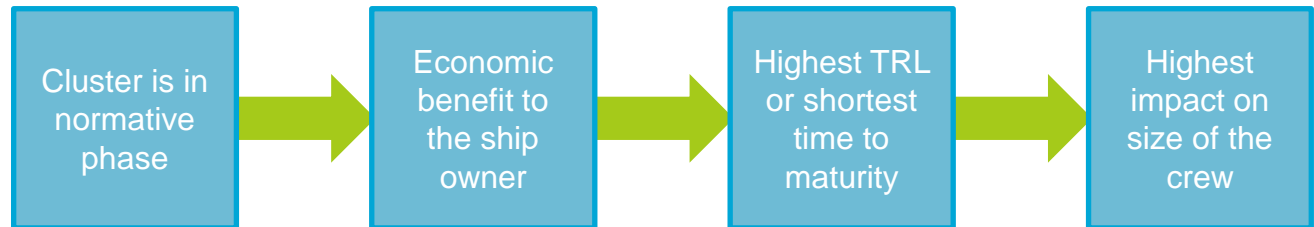


Identificatie van logische concepten



Identificatie van logische concepten

	Loading and unloading	Arrival and departure	Normal sailing	Cost reduction
Base case	9	9	11	0



Concept 1: Automate open water sailing



9 crew members

Concept 2: mooring, port supervision, cargo conditioning, administration, maintenance on deck



3 crew members

Concept 3: Near shore navigation



2 crew members

Concept 4: Maintenance in the engine room



0 crew members

Economisch haalbare laag bemande scheepsconcepten

