Business Requirement Document

Phoenix Yacht Management – IQ

Version 2.0 || 18/08/25

Changes made from the last version based on feedback and discussions has been highlighted with yellow.

Executive Summary & Overall Solution

Executive Summary:

Phoenix Yacht Management delivers end-to-end services to yacht owners, ensuring their vessels remain in pristine condition by managing different aspects like Operational Management, Technical Management, Financial & Accounting Management & Crew Management etc. PYM's current operational processes are fragmented, with data scattered across multiple tools and manual entries causing inefficiencies and manual rework.

We're building an application specifically for Phoenix Yacht Management to help them manage their day-to-day operations more easily. This app will bring together key areas like inventory tracking, managing jobs and tasks, handling tickets, keeping work logs, processing purchase orders, and managing budgets — all in one place. The goal is to make their workflow simpler, faster, and more organized.

By creating this solution, Phoenix Yacht Management will be able to keep better track of what's happening on each yacht, prioritize work more effectively, and stay on top of their finances. This will help them continue delivering the high-quality service their clients expect, while making their own internal processes smoother and less time-consuming.

Business Objective:

The PYM-IQ system aims to streamline PYM's operational processes by:

- Consolidating modules into a unified interface
- Reducing manual entries through ERP integration
- Improving crew response time via real-time alerts
- Allowing offline data entry and later synchronization
- Enabling mobile and desktop access for all users

Current System (Pain Points):

- The system doesn't have integration with the ERP, which means a lot of manual work and repeating the same tasks repeatedly.
- Different modules of the system are spread across several applications, making it confusing and time-consuming to manage and keep track of everything.

- Because of these separate applications, the same data often gets entered multiple times, leading to errors and extra work.
- Although the system tries to be easy to use, the interface isn't very user-friendly or simple to navigate, which makes it harder for users to get things done quickly.
- There are no notifications to alert users, so important updates or tasks can be missed or delayed.
- There's no mobile app available, so users can't easily access the system when they're away from their desks.

Outcome (To-Be State):

- Integrated platform for real-time task, inventory, and maintenance tracking
- ERP synced data model to prevent duplication and manual rework
- Automated notification system
- Mobile and offline capabilities to serve crew on-board
- Centralized dashboard for easy tracking / management of different vessels

Overall Solution:

PYM-IQ consists of two applications: Central IQ & Vessel IQ.

Central IQ gives the central management team complete visibility across the entire fleet, offering capabilities like tickets management, purchase orders approval, monitor vessel connectivity, vessel management, user management, role management and track critical activities like overdue and ongoing jobs.

Vessel IQ is tailored for individual vessels, helping crew members and users (based on permissions) handle day to day operations, monitor budgets and track open / critical tasks. There is also a dedicated **mobile app** for IQ application users (both central & vessel users), ensuring that crew can access and update information from anywhere in the vessel. Offline sync is also part of Vessel IQ such that the users can perform operations over tickets, jobs & VWL jobs without internet connectivity and once their connectivity resumes the changes will be synced with the application.

The solution brings together several important modules that are associated with each other, saving the manual rework of the users. These modules are as following:

- **User Management**
- **Vessel Management**
- **Role Management**

- **Ticket Module**
- **Maintenance Module:** Consists of both types of jobs: One-time jobs (OTJ) as well as Planned Maintenance Jobs (PMJ)
- **VWL (Vessel Work List)**
- **Budget Module:** Allows the budget tracking
- **Inventory Management:** Ensures items are tracked and alerts issued for low stock
- **Purchase Module:** Streamlines everything from RFQs to approval and supplier management.
- **Components:** keeps jobs, items, and tickets organized under different components via SFI codes

Together, these applications form a connected, efficient system that reduces manual work, supports clear communication, and helps teams manage the jobs as well as tickets in a more efficient manner.

Functional Architecture Map:

Login & Authentication

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Visual Design can be referred here: Login VD

Description:

This module ensures that every user has a secure way to access the system based on their role. It includes login, logout, and password recovery features. Depending upon the roles and permissions of the user, they will see only those modules of the application as well as the vessel data to which they have access to.

Key Capabilities:

- Secure login using username and password
- Role-based access to different vessels, modules and features

Dependencies:

- User must be onboarded in the application
- User must be mapped to required role & vessel
- For Vessel Users, the user & the vessel to which the user is assigned should not be archived.

Assumptions:

- Users have unique usernames

Data Fields:

Field	Description	Mandatory
Username	Valid usernames, must be unique	Yes
Password	Authentication key	Yes

User Onboarding

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First Time Password Reset:

Visual Design can be referred here: User Onboarding VD

Description:

This module ensures that users update their system-generated / default password upon first login to enhance account security. When a user logs in with a default password for the first time, they are automatically redirected to the password reset screen. Users are required to create a new password that complies with the defined password policy before gaining access to application features. No other actions can be performed until the reset process is completed successfully.

Key Capabilities:

- Automatic redirection to password reset screen on first login using the system-generated password.
- New password must meet the application’s password policy.

Dependencies:

- User must be onboarded in the application.
- User role and vessel mapping should be active.

Assumptions:

- All users have a valid and unique username.
- Password policy parameters are configured and enforced at the application level.
- Users will not be able to bypass the reset process by refreshing or navigating away from the reset screen.

Password Policy:

- Minimum length: 8 characters
- Must include:
- At least one uppercase letter
- At least one lowercase letter

- At least one number
- At least one special character
- Cannot reuse the last password

Data Fields:

Field	Description	Mandatory
New Password	Alphanumeric & special characters, must meet password policy	Yes
Confirm Password	Must match the New Password exactly	Yes

Forgot Password:

Visual Design can be referred here: Link

Description:
This module allows users to securely reset their password in case they have forgotten their current credentials. The process is initiated from the login screen via the *"Forgot Password"* option. It involves username verification, OTP-based identity confirmation via the registered email, and enforcing the application's password policy during password creation. This ensures that only authorized users regain access to the system, while maintaining high security standards.

Key Capabilities:

- Initiation of password reset process via “Forgot Password” button on login screen.
- Username validation with immediate feedback on invalid or inactive accounts.
- OTP-based verification using registered email address:
- Resend OTP functionality (available after expiry of previous code; invalidates previous OTP).
- New password creation and confirmation with compliance to password policy.
- Navigation controls to move backwards through steps where applicable.

Dependencies:

- User must have a valid registered email address linked to their account.

Assumptions:

- All usernames are unique within the system.
- Only one active OTP per user is allowed at a time: requesting a new OTP invalidates the previous one.
- Internet connectivity is required to complete the process.

Password Policy:

- Minimum length: 8 characters
- Must include:
- At least 1 uppercase letter
- At least 1 lowercase letter
- At least 1 number
- At least 1 special character
- Must not be the same as the last two previously used passwords.

Data Fields:

Field	**Description**	**Mandatory**
Username	User's unique identifier, alphanumeric & special characters allowed	Yes
OTP Code	6-digit numeric code sent to registered email	Yes
New Password	Must meet password policy and differ from last two passwords	Yes
Confirm Password	Must exactly match the New Password	Yes

Vessel Management

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Visual Design can be referred here: Vessel Management VD

Description:

This module will be accessible only to System Admins and is responsible for managing vessel records within the system. Project details will be shared from the ERP, and System Admins will associate the vessels with the project code.

The module also allows the admin to define whether a vessel can exceed its allocated budget through an over-budget spending setting. Additionally, admins can configure purchase approval workflows for each vessel. These workflows will be fixed for departments and depend on selected price ranges, the number of approvers required, and designated user roles involved in approvals. In case a purchase order which has multiple budget codes of different departments, then approval will be done by the operational manager.

System admin users will also be able to create new vessels. Vessels can also be marked as disabled. Cloning a vessel will copy all the jobs, tickets and VWLs.

Key Capabilities:

- Display list of vessels, as well as the list of projects
- Define whether a vessel is permitted to exceed its assigned budget or not
- View and manage vessel details within the application
- Configure purchase order approval workflows per vessel, fixed by department, with rules based on price ranges, number of approvers, and user roles selected
- Automatically escalate to Operational Manager for approval when there are multiple budget codes of different departments or departments which does not exist in a purchase order
- Create vessels within the application
- Cloning a vessel will also copy the data of the old vessel to the new vessel like jobs, tickets and VWLs etc.
- Filtering and sorting will be available on the vessel listing. Additionally, users will have the option to choose which columns are displayed and rearrange their order using drag-and-drop.

Dependencies:

- ERP system integration to push project details
- Budget over-spending controls will align with the Purchase and Budget module
- Approval workflow engine for managing purchase order workflows at vessel and department level, tied to price ranges, approver counts, and user roles

Assumptions:

- Each department will have only one approval workflow associated with it
- Cloning a vessel will not move the users from the old vessel to the new vessel.

Data Fields:

Field Name	Mandatory / Optional	Type of Field	Comments
Vessel Name	Mandatory	Free Text Field	
Email	Mandatory	Free text field with email validations	
Currency Code	Mandatory	Dropdown	Currency List (EUR will be selected by admin only, but complete currency list is to be shown)
Picture	Optional		link to image file
Last Online		Automatic	Last HealthCheck Date Time
Yard	Optional	Free text field	
Build Year	Optional	Numeric Input field	
IMO No	Optional	Numeric Input field	
MMSI	Optional	Numeric Input field	
Call Sign	Optional	Free text field	
Class	Optional	Free text field with special characters	

Classification society	Optional	Free Text field	
Flag	Optional	Free Text field	
Port of registry	Optional	Free Text field	
Registry Date	Optional	Date Input field	
Registry Number	Optional	Numeric Input field	
Gross tonnage	Optional	Numeric input field	
Length	Optional	Numeric (Float) input field	
Breadth	Optional	Numeric (Float) input field	
Default Invoice Address	Optional	Free Text Field	To be shown in the orders by default but is editable
Default Delivery Address	Optional	Free Text Field	To be shown in the orders by default but is editable
Vessel Code	Mandatory	Free text field	
Disabled	Optional	Checkbox	This will archive the vessel.
Project Code	Mandatory	Dropdown	Selection from the Projects table
GA image	Optional	Upload Image	
Enable budget overspending control	Optional	Checkbox	
Order Number Format	Optional	CTA	
Order Running Number	Optional		
Ticket Number Format	Optional	CTA	

Ticket Running Number	Optional		
System IP	Optional	Free text field with IP validations	
Port Number	Optional	Free text field	
Attachments	Optional	Image, Doc & PDF upload	
Vessel Logo	Optional	Image Upload	This image will be used for reporting.

Role Management

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Visual Design can be referred here: https://idctechnologies-team-whghr6bf.atlassian.net/wiki/spaces/~7120206232845081634bfea86c0aca5943dd30/pages/2785290/Role+Management+VD?atlOrigin=eyJpIjoiY2JmMzM0ZDZmNDhlNGEwNzk1OGJmNzZhNTMxODZiZTgiLCJwIjoiYyJ9 Request access

Description:

The Role Management module is visible only to System Admins. This module defines and manages the roles that control user access across all modules of the application. When a new user is approved in the User Management module, the admin assigns a role that determines what the user can see and do within the system. Roles ensure that users have access only to the modules and features appropriate to their responsibilities.

Roles can be mapped with the crew types, shared by the ERP.

There will be an additional checkbox for granting all access to the application which will enable all accesses of the modules for the selected role.

Key Capabilities:

- Create and edit / modify user roles
- Define module-level access rights and permissions per role
- Mapping of roles with crew types
- Assign roles to users during approval in User Management
- Maintain a record of all roles and their associated permission
- Filtering and sorting will be available on the roles listing

Dependencies:

- Integration with User Management module for role assignment during user approval
- System-wide role-permission mapping to enforce access controls

Assumptions:

- Only System Admins can create or modify roles
- Roles will be customizable, and permissions will be fixed

- Updating a role will update the access of the users with the same role immediately.
- Users can be mapped to one or more vessels with multiple roles per vessel

List of Permissions (Will be updated during the BRD finalization):

Modules	Permissions
Tickets	View Tickets
	Create Tickets
	Update Tickets of User's Dept
	Update All Tickets
	Assign Closed Status to ticket
	Reopen ticket
	Delete Attached picture
	Delete Attached Document
	Create OTJ
	Download Tickets Report
Maintenance	View Maintenance Module
	Create New Job
	Update any Job assigned to User's Dept
	Update any Job
	Sign out job assigned to User's Dept
	Sign out any job
	Generate Maintenance Report
VWL	View VWL
	Link Job to VWL
	Create New VWL Group
	Update VWL Jobs Details

	Update VWL Jobs Prices and Costs
	Update VWL Jobs Link Orders
	Delete Attached picture
	Delete Attached Document
	Sign Out VWL Jobs
	Reopen VWL Jobs
	Cancel VWL Jobs
	Transfer VWL Jobs
	Select Suppliers for VWL
	Generate VWL Reports
Components	View Component Module
	Create Component
	Edit Component Details
	Edit Component Code
	Change component's price
	Create Component Items Group
	Edit Component Items Group
	Change Running Hour Counters
	Add PMJ
	Scrap Component
	Delete Component
Inventory	View Inventory Module
	Add Items
	Edit Items Details
	Assign Critical Status

	Change Item's Price
	Delete Items
	Add stock
	Withdraw Stock
	Change Item's Location
	Delete Attached picture
	Delete Attached Document
	Export Inventory Report
	Import Items
Purchase	View Purchase Module
	Create PO
	Update PO
	Delete PO
	Cancel PO
	Change Status
	Allow OverBudget
	Mark as Received
	Generate Purchase Report
	Create Suppliers Invoice
	Sent for payment (Transfer the invoice to ERP)
	Approve Purchase
	View Budget Module - Only User's dept Budget Codes
Budget	View Budget Module - All budget codes
	Generate Budget Report

Document	View Document Module
	Add Document
	Change Documents details
	Download Document
	View NDAs
	Add NDAs
	Download NDA

User Management

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Visual Design can be referred here: User Management VD

Description:

This module will be accessed only by System admin users. System Admins have access to all users across the system, including those at both the vessel and central level. The module displays a list of all existing users in the system. In cases where a new user is pushed from the ERP system, the System Admin must approve the user before they can access the application. During the approval process, the System Admin will assign vessels and roles (for the selected vessel) to the user. A user can have multiple roles for a single vessel and can also be associated with multiple vessels as well.

Once a user is approved, link with access credentials will be shared to the user's email such that they will be required to reset their password on first login.

System Admins can view the user's details. Admin will also be able to mark a user as inactive. Inactive users will not be able to access the application. Admin users will be able to view inactive users via filters on the user list.

Admin will also have the capability to reset the password for the user or ask the user to change their password.

Key Capabilities:

- Display all existing users and their roles across vessels
- Allow System Admins to view and approve the users shared by ERP
- Approve ERP-synced users before granting application access
- Assign appropriate roles and vessels during the approval process which can be multiple for a single user
- Send credentials link upon approval with first login password update enforcement
- Mark users as inactive and filter user listings to show active / inactive users
- Filters, Column Selection & Sorting will be applicable on the Users listing

Dependencies:

- ERP system integration to fetch new user data

- Defined role and vessel master data to assign roles/vessels upon approval
- Role-based access control to differentiate between Vessel users, Office users and System Admin permissions
- Email service for sending login credentials (username & random generated password) on link

Assumptions:

- Only System Admins will have the authority to approve new users
- Roles will be predefined and mapped to relevant permissions within the system, role-based access to different modules and features.
- Each user will maintain an active status unless manually deactivated by admin
- Users must reset their password upon first login to activate access
- Password recovery through OTP-based verification
- User can have multiple roles & vessels association

Data Fields:

Field Name	Mandatory / Optional	Type of Field	Comments
Username	Mandatory	Alphanumeric with special characters	
First Name	Mandatory	Free text field	
Middle Name	Optional	Free text field	
Last Name	Optional	Free text field	
Email ID	Optional	Free text field with email validations	
Mobile Number	Optional	Numeric Input Field	
Notifications	Mandatory	Checkbox	Yes and no, such that notifications being triggered to the user are allowed or not

Last Login	Auto-generated	Date & Time (Prefilled)	Will display the last logged in date & time for the user.
Inactive	Optional	Checkbox	User marked as inactive will not be able to access the application.
Mark as Super Admin	Optional	Checkbox	Will allow admin access to the user
User Type	Mandatory if super admin check box is not selected	CTA Buttons	Two Options: Central IQ and Vessel IQ
Vessel	Mandatory if super admin check box is not selected	Dropdown (List of Vessels)	List of Vessels
Role	Mandatory if super admin check box is not selected	Multiselect Dropdown (List of roles)	Against each vessel selected at least one Role is required

Tickets

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Visual Design can be referred here: Ticket VD

Description:

This module allows users to report and manage issues which can be maintenance requests, safety concerns, equipment related or guest-related incidents. Furthermore, jobs (OTJs, PMJs & VWL jobs) can be associated with the ticket such that either the user can link an existing job or create a new job from the ticket only, except for VWL job, for the creation of VWL Job the user will have to go to respective VWL.

Along with this, departments and the user roles will be assigned the tickets, so that only the assigned users can pick and work upon the raised ticket, i.e. Tickets will be visible to the other department users based on their role permissions. The selected department's TPA will be notified as well. Also, until the associated jobs (not in case of PMJs) of the tickets are not closed, the ticket will not be closed. Users can also filter tickets by their own department, but the ability to edit ticket details may be further restricted and depends on the user's assigned permissions. All the changes made / updates being performed on the ticket will be tracked & displayed.

All users of the application must be able to create, view and update tickets based on the permissions assigned to their role.

Attachments can also be attached to the tickets, comprising images and documents. Tickets will also have priority mapped to them, allowing for better prioritization. Location can also be marked on tickets via a 2D ship diagram image i.e. GA, such that an identifier will be shown displaying the location affected by the ticket, along with this user will also have the capability to select an area for the purpose of marking the location. The tickets can also be filtered based on the GA view, such that when the GA image is zoomed then the tickets list will also be rendered based on the locations post zooming of the GA image, along with this the points shown in the GA view will be based on the ticket's priority.

Key Capabilities:

- Users can create a new ticket with issue details and attachments
- Tickets can be categorized and prioritized (e.g., safety-critical)

- Department heads can assign and update ticket status
- History of all actions on the ticket will be logged and will consist of the change that is being done along with the name of the user making the change
- Multiple Jobs (PMJ, OTJs & VWL Jobs) can be associated with the tickets
- Until the associated jobs are not completed, the ticket cannot be closed (Except for PMJs)
- Users can associate jobs with the ticket either by selecting an existing job or creating a new job. (For VWL jobs, new VWL job creation can only be done from VWL module)
- Filters & sorting can be applied to the listing of tickets, filters will be applicable on all the attributes of the ticket
- The selection of columns that are to be displayed in the list will be selectable for the users; this selection will be saved for the users, along with this the users will also be able to rearrange the order of the columns via drag and drop.
- Notification to be triggered to the users (of the assigned user roles) once a ticket is assigned to them.
- Notification updates to be shared to the user who created the ticket as well as all the other users associated with the ticket
- Assign location to the ticket via the vessel's GA image along with the capability to select area on the map as well.
- GA view will display the tickets based on their locations / areas selected, such that if the GA image is zoomed then the ticket's list will also be rendered to match the locations in the zoomed in GA image.

Dependencies:

- Requires access to Departments & Users, Maintenance module, VWL Module and notification triggers
- GA vessel's image is required

Assumptions:

- Tickets can be linked to all types of jobs i.e. OTJs, PMJs & VWL Jobs
- Multiple jobs can be assigned to a ticket
- Ticket will only be editable to the user who created the ticket, the user to which the ticket is assigned, and other users based on their permissions
- Maintain logs (history) of the tickets which will be non-editable

Data Fields:

Field Name	Description	Type of Field	Values (If dropdown / checkbox)
Ticket Title	Name of the ticket being generated	Free text field	
Ticked ID	Auto generated system id, this will be non-editable. Based on the ticket number format in the vessel's attribute.	System generated template	
Critical	Criticality status of the ticket being created	Checkbox	
Priority	Defines the priority of the ticket	Dropdown	High, Medium, Low
Status	Status of the ticket, Open by default at the time of creation which will be non-editable at the time of generation of the new ticket	Dropdown	Open (By Default), In progress, on hold, completed, cancelled
Category	Defines the category for which the ticket is being generated	Searchable Dropdown	Safety related, Guest Related, Equipment Related, Paint Related (managed via Master Data Management)
Tags	Based on the selected category, the tags dropdown values will be displayed which will be associated with the type of category selected	Searchable Dropdown	**Safety Related:** Minor Defect, Major Defect, Critical Failure, Technical and Operational **Guest Related:**

			Tenders and Toys, Guest Comments, Damages, Service, Housekeeping, Technical and Operation **Equipment Related:** Electrical, Safety, Propulsion, Power Generation, Fresh Water and Wastewater **Paint Related:** External, Internal, Hull, Tenders, Crew, External Contractor (managed via Master Data Management)
Department	Department who will be responsible for the fixation of the ticket	Searchable Dropdown	Engineering, Interior, Deck (managed via Master Data Management)
Assigned To	User role to which the ticket is assigned	Searchable Dropdown	List of all the existing roles (which are further mapped to crew types) in the system
Description	Description of the ticket being generated	Free text field	
Component	Defines the component to which the ticket being	Searchable Dropdown with Component Structure	All the components (not scrapped) existing in the system

	generated is associated with		will be shown in a dropdown
Location	Based on the selected category, colored points to be placed on the image. Can be multiple	Marking on the GA Image	
Attachment	Photos & Docs	Uploading file	
Submitted by	User's name	Non editable	
Submitted at	Time of the submission of the case	Non editable	
Safety Critical		Checkbox	
Cause		Free Text Field	
Last Updated	Displays the last edit made on the ticket & the user who made the edit	Non editable	

Inventory

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Visual Design can be referred here: Inventory VD

Description:

The Inventory Management module allows users to add, manage and track all items required for operational items aboard the vessel—such as tools, spare parts, safety equipment, and consumables.

Items will be associated with the component as well as the stock location. Single item can be associated with multiple components and locations. (In Component, Items can also be grouped together in form of item groups).

Inventory items are used across various modules, like the Maintenance and Vessel Work List (VWL). Users select the items during job creation or updates, and actual stock deduction is done only when the job is closed, ensuring inventory reflects only completed consumption.

The system helps ensure adequate stock availability, sends alerts when items quantity becomes equal to the minimum thresholds defined, and maintains an audit trail of inventory usage per job. Items can also be associated with jobs and grouped into VWLs.

In the inventory module, the items will be listed based on components as well as the stock locations.

Items can be added using the import functionality in which the items will be added directly via an excel file to the inventory.

Inventory can be updated in two ways: manually (i.e. the user can update the item's details and quantity by Add Stock / Withdraw Stock) and when an invoice is marked as received or if the item is marked as received.

Capability of multiple actions over the list of items can be performed as well which are: Generating an RFQ (New RFQ or add to existing RFQ in draft status) and connect to component / disconnect from component.

Key Capabilities:

- Maintain a centralized inventory of items categorized by type, quantity, price and unit
- In Component module, Items can be grouped together but not in inventory

- One item can be associated with multiple components as well as multiple locations
- Associate items with Maintenance Jobs and VWL Jobs
- Deduct inventory only after job closure to reflect actual consumption
- Send alerts for low inventory based on minimum thresholds
- Inventory updates manually or when an invoice is marked as received or if the item is marked as received
- Support attachment of inventory usage records to relevant jobs
- Generating new RFQ for multiple items (or adding the items to an existing RFQ)
- Adding items directly via Import
- Listing of items based on components and stock locations as well.
- Moving items from one stock location to another via Drag / Drop
- GA view of the stock locations as well for identifying different stock locations on the GA image.
- Maintain history and audit trails for all item additions, deductions, and updates
- Filtering and sorting will be available on the items listing. Additionally, users will have the option to choose columns which are to be displayed and rearrange their order using drag-and-drop.

Dependencies:

- Integration with Maintenance and VWL modules to link and track item usage
- Notification service for low stock and update confirmations

Assumptions:

- Items selected in jobs will not reduce stock until job completion is confirmed
- Only authorized personnel can initiate or approve inventory changes
- Automatic deduction of stock upon job completion (Maintenance, VWL)
- Alerts for low inventory based on defined thresholds
- Item linkage to specific components, job groups, and tickets
- Integration with job and VWL modules for item consumption tracking

Data Fields:

Field Name	Description	Mandatory / Optional	Type of Field	Values (If dropdown / checkbox)
Item Name	Name of the item being added	Mandatory	Free text field	
Manufacturer	Manufacturer of the item	Optional	Dropdown	
Manufacturer Part No		Optional	Free text field	
Manufacturer Type/Serie		Optional	Free Text Field	
Department	Defines the department of the item being added. In case an item is being assigned to a component then the department of component will be assigned to the item. For existing items, if the item's department is different than assigning component's	Mandatory	Dropdown	Engineering, Deck, AVIT, Interior (managed via Master Data Management)

	department, a pop up confirming the department will be displayed.			
Component	Defines the component to which the item is associated with, item can be associated with multiple components	Optional	Searchable Dropdown with Component Structure	All the components (not scrapped) existing in the system will be shown in a dropdown
Safety Critical		Optional	Checkbox	
Guest Related		Optional	Checkbox	
Description	Additional details required for the item	Optional	Free text field	
Image	Can be multiple, one default image selection as well	Optional	Upload Image	
Currency Code		Optional	Dropdown	

Price	Amount of the item in Euros only	Optional	Numeric input field / Fetched from the latest completed order	
Price (In Vessel's Currency)		Auto-calculated		Currency to be shown
Total Stock	No. of units of the item (Based on stock history data, at the time of creation it will be 0)		Auto calculated	
Stock UOM	Unit of the item that is being added		Dropdown	Pieces, Kilos, Liters (managed via Master Data Management)
Min Stock	Minimum threshold limit, which when once crossed will trigger the notification to inventory head		Numeric input field	

On order	Based on open orders data	Auto-calculated		
Weight	Weight of the item in kgs	Optional	Numeric Input Field	
Stock Location	Locations of the item with their quantities, along with the selection of default stock location	Optional		
Document		Optional	Upload File	

Components

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Visual Design can be referred here: Component VD

Description:

The Components module provides a structured way to manage all operational elements by grouping jobs, inventory items, and tickets under specific components. Each component is named and organized based on SFI codes, supporting hierarchical relationships—i.e., a component can have further components mapped to it.

All components will be listed for easy accessibility for the users. Further selection of any component will show the components associated with along with other details: Component Details, Jobs, Job History, Items, Tickets, and documents etc. These modules will also allow the addition of the respective entity, on which the component will be pre-filled. Components will also be pointed to the GA image of the vessel.

Users can create jobs, associate tickets, and link inventory items directly within a component. These elements are accessible through a folder-like interface, which displays all records related to a selected component.

New components can be added either manually or by cloning from other vessels (provided the user has the required access). When creating a component from scratch, users must enter all relevant details.

Key Capabilities:

- Create components manually or by cloning from other vessels (In case of cloning components from one vessel to another, only the component details are to be cloned and not the linked data. Also if the components are cloned within vessel than the items will also be mapped with the new component)
- Organize components using SFI-based naming and structure
- Link jobs, tickets, VWL, documents and inventory items under specific components
- System components will be highlighted using bold font in the components listing
- Mapping the component on GA image of the vessel
- Display and manage components in a folder structure interface

- Running hour components will also be displayed in a pop up consisting of Components with running hours and their current counter values. Also, there will be an option to update running hours directly from a file via import functionality.
- Removing the running hour from a component with existing running hours will require a mandatory reason from the user.
- Support nested components (component-to-component mapping)
- Marking a component as scrapped, which will remove it from the listing but can be viewed using Filters and can also be restored
- View associated records for each component
- Running Hour Components will also be displayed consisting of their current counters, from which the users can update the running hour of the components (in which the Automatic Updated Tag is selected) directly via a file.
- Filters, Sorting and Column selection will be applicable on listing of components
- Certificates from the Document Registry module which are mapped to the selected component will also be displayed in the attachments.
- Logs will be to displayed consisting of the changes performed on the attributes along with the users info as well as the date & time action performed.

Linked Sections:

Following sections will be linked with Components:

- Jobs (Scheduled) & Job History (Completed Jobs)
- Items
- Tickets
- Attachments

Dependencies:

- SFI-based component naming standards must be defined and enforced
- Integration with Ticket, Maintenance, and Inventory modules
- Permissions for vessel-based access and cross-vessel cloning

Assumptions:

- Users have permission to manage components only for their assigned vessel unless granted broader access
- All component-related records (jobs, tickets, items) must be managed from both components as well as their respective modules.

- Cloned components will replicate structure and component details but not linked data.

Data Fields:

Field Name	Description	Mandatory / Optional	Type of Field	Values (If dropdown / checkbox)
Code	SFI Code	Mandatory	Nested numeric	
Name	Name of the component being added	Mandatory	Free text field	
Parent Component	Component to which the component being created is associated to	Optional	Searchable dropdown	
Department	Department to which the component is associated to	Mandatory	Searchable Dropdown	Engineering, Deck, Interior (managed via Master Data Management)
Safety Critical		Optional	Checkbox	
Guest Essential		Optional	Checkbox	
System Component		Optional	Checkbox	

Manufacturer		Optional	Free text field	
Manufacturer Type/Serie		Optional	Free text field	
Serial Number		Optional	Free text field	
Price	Amount of the item in Euros only	Optional	Numeric input field	
Currency Code		Optional	Searchable Dropdown	
Installation Date		Optional	Calendar	
Warranty Date		Optional	Calendar	
Component has running hours		Optional	Checkbox	
Running Hours	Current state of running hours of the component The attribute should be auto-calculated and based on Running Hours history	Optional	Numeric field	
Automatic Update Tag		Optional	Checkbox & Input field	

			for tag	
Running hour master		Optional	Dropdown	From parent component with Master counter
Adjustment		Optional	Numeric Input Field	
Location	Select the location for the component	Optional	Select on 2D image	
Attachment	Photos & Docs	Optional	Uploading file	

Documents

APPROVED

Visual Design can be referred here: Documents VD

Description:

The Document Registry module allows users to upload and manage documents against vessels, components, and suppliers. Documents are organized under user-defined file groups, enabling structured storage.

Users can create file groups and upload multiple files into them, ensuring easy retrieval and organization. Uploaded files can be viewed and managed by users with appropriate access rights.

The documents module manages 3 types of documents: Documents, NDAs & Certificates.

NDAs include role-based access control, so only users with specific roles can view or manage NDAs as permitted.

Certificates have renewal and expiry management features:

- Users can renew certificates once they expire and set up a renewal window as needed.
- Expired certificates are highlighted in red within the document listing to ensure they are easily identified.
- Certificates can be linked to vessels, components, or specific users, supporting full traceability.

Key Capabilities:

- Create and manage file groups for vessels
- Upload documents into specific file groups
- View and manage uploaded documents for each vessel
- Maintain structured and organized storage for vessel documents
- Manage three document types: Documents, NDAs, and Certificates
- Apply role-based access control specifically for NDAs
- Track expiry, renewal status, and renewal windows for certificates
- Validity management based on the renewal & expiry dates

- Link certificates to vessels, components, and users
- Change log will also be managed for all documents
- Filters, Sorting and Column selection will be applicable on listing of documents
- Certificate Timeline will display the certificates in form of Gantt chart, such that the users can view certificates renewal timelines based on the owner selected (Components, Vessels, Users). The left menu pane of Certificate timeline will consist of Components for Component Certificates and Users for user certificates.

Dependencies:

- Role-based access control to ensure only authorized users can upload or manage documents
- Storage system to securely retain uploaded files

Assumptions:

- Users will create meaningful file groups for proper organization
- Uploaded documents will comply with system size and format restrictions
- Vessel-level access controls will govern visibility and management of documents

Data Fields:

Field Name	Mandatory/ Optional	Type of Field	Applicability	Comments
Name	Mandatory	Free Text Field	All Documents	
Certificate ID	Optional	Free Text Field	Certificates	
Owner	Mandatory for NDAs & Certificates	Searchable dropdown	All Documents	
Issued Date	Mandatory for NDAs & Certificates	Date (Calendar)	All Documents	
Issued By	Optional	Searchable dropdown	All Documents	managed via Master Data Management

Issued Place	Optional	Free Text Field	All Documents	
Issued Country	Optional	Free Text Field	All Documents	
Comment	Optional	Free Text Field	All Documents	
Renewal Date	Optional	Calendar	Certificates only	
Renewal Window From & To	Optional	Calendar	Certificates only	
Expiry Interval	Optional	Numeric Input Field	Certificates only	
Renewal Expiry Interval Type	Optional	Dropdown (Days, Weeks, Months, Years)	Certificates only	
Renewal Last Renewal	Auto-calculated		Certificates only	Auto-calculated (from history records)
Annual Expiry Date	Optional	Calendar	Certificates only	
Annual Renewal Window From & To	Optional	Calendar	Certificates only	
Annual Expiry Interval	Optional	Numeric Input Field	Certificates only	

Annual Expiry Interval Type	Optional	Dropdown (Days, Weeks, Months, Years)	Certificates only	
Annual Last Renewal	Auto-calculated		Certificates only	Auto-calculated (from history records)
Intermediate Expiry Date	Optional	Calendar	Certificates only	
Intermediate Renewal Window From & To	Optional	Calendar	Certificates only	
Intermediate Expiry Interval	Optional	Numeric Input Field	Certificates only	
Intermediate Expiry Interval Type	Optional	Dropdown (Days, Weeks, Months, Years)	Certificates only	
Intermediate Last Renewal	Auto-calculated		Certificates only	Auto-calculated (from history records)

My Profile

APPROVED

Visual Design can be referred here: My Profile VD

Description:
The My Profile module enables logged-in users to view and manage certain aspects of their own profile. Users can update their mobile number and profile picture, and they have the ability to change their password by providing their current password, a new password, and confirmation of the new password—all of which must adhere to the defined password policy. Admin users have extended access and can also edit additional personal details, including first name, middle name, last name, and email address.

Key Capabilities:

- View profile details
- Users can update their own mobile number and profile picture
- Users can change their password by entering current password, new password, and confirming the new password (with full password policy enforcement)
- Admins can edit user details: first name, middle name, last name, mobile number, profile picture and email address

Dependencies:

- Role-based access logic (admin/user) must be enforced
- Image upload and storage functionality for profile pictures

Assumptions:

- Users enter only valid information with appropriate field validation (e.g., correct email format, numeric phone numbers, valid image files)
- Password policy enforced on password changes
- Profile edits update immediately in the user account record

Data Fields:

Field Name	Edit Access	Type of Field

Username	Non-Editable	Display only
First Name	Admin can edit	Free text field
Middle Name	Admin can edit	Free text field
Last Name	Admin can edit	Free text field
Email ID	Admin can edit	Free text field with email validation
Mobile Number	Editable for all users	Numeric input field
Role	Non-Editable	Display only
Profile Picture	Editable for all users	Image upload

Purchase Orders

Visual Designs can be referred here: Link

Description:

The Purchase module manages all procurement-related processes for the vessel, covering both service orders (linked to jobs) and purchase orders (linked to inventory items & components). The purchase cycle begins with a Request for Quotation (RFQ), which can be shared via email with selected suppliers. Each supplier can respond directly using the link provided post verification, or the vessel user can input the response on their behalf.

Once supplier quotations are received, one supplier is selected, and a purchase order (PO) is generated. This PO undergoes an approval workflow based on the department as well as total order amount and relevant user roles. Following final approval, the PO is sent to the supplier for confirmation.

Invoices can then be raised against the approved PO. Multiple invoices can be associated with one PO and may cover partial amounts. These invoices are shared with the Navision ERP system. Once the invoice has been marked as paid (Either by user or from NAV ERP), the approved invoice amount is deducted from the budget approved.

In case the total invoice amount of all the invoices is greater than the approved purchase order amount, then the purchase order will be shared again, for approval along with the invoice details.

Users can also add a new supplier, such that this supplier's details will be shared with Navision for approval. Meanwhile, RFQs and the PO process continue as usual. If the supplier is approved in Navision, they are added to the approved supplier list; otherwise, they are rejected. Users will also be able to change the details of the supplier post which the supplier will be reshared for approval from Nav ERP.

Items, Jobs or Components will be linked via the order line section of the order in which the user can select from existing order line or add new order line.

The Supplier section will manage the supplier associated with the order or add a new supplier. This section will also allow the user to select supplier for the order from different suppliers associated with the order. Users will also be able to raise invoices for the orders which are approved, which will be managed via the Raised Invoices section.

Change log will also be managed for the orders. Attachments can also be linked to purchase orders.

Supplier module will allow the management of suppliers such that allowing user to view the list of existing (Approved) suppliers as well as add new suppliers & share them for the approval from the FinERP. If the details of the Suppliers are edited, then the supplier will again be shared for approval.

Key Capabilities:

- Raise RFQs for service and purchase orders, linking them to jobs, inventory items or vessel components
- List orders in different tabs based on their status, also a “All” tab consisting of all orders.
- Linking order lines to the orders in which either the user can select from existing items or add free order line.
- Identifier on the listing to identify whether the order is a purchase order or service order.
- Budget Analysis section to be displayed consisting of the budget codes summary based on the different budget codes selected for order lines.
- Approval workflow of the orders will be based on the department selected for the order; this workflow is defined for the departments on the vessel management module
- Share RFQ links with suppliers via email or vessel user can fill the quotation on behalf of Supplier
- Linking suppliers to the Order, Comparison of supplier’s quotations Manage supplier quotation submissions and selection of supplier
- Generate purchase orders and follow approval workflow defined on the Vessel level based on the department, total price and user role
- Splitting the order based on different suppliers.
- Raise multiple invoices against a single purchase order
- Integrate invoice status with Navision or manually updated by user to deduct from budget
- Manage supplier approval flow from NAV Erp for new suppliers or if the supplier details are edited
- Email notifications for each stage (RFQ, PO, Invoice)
- Change log management to maintain audit trail

Statuses:

- Status for the order: Draft, Approved at Vessel, Supplier Chosen, Approved in Office, Order Placed, Order Confirmed, Partly Received, Completely Received. Cancelled, On Hold
- Statuses for the payment: Outstanding, Invoice Received, Submitted for Payment, X% Paid (Will be computed based on the Invoices Paid), Paid and Rejected
- Statuses for Invoice: Open, For Confirmation, Rejected, Holded, For Payment, Cancelled, New, Paid, Partly Paid

Dependencies:

- Integration with Maintenance and Inventory modules to link relevant jobs/items
- ERP (Navision) integration for invoice status and supplier validation
- Predefined approval workflows based on departments, PO amount and user roles
- Suppliers contact database for RFQ communication

Assumptions:

- Users will follow a consistent RFQ-to-PO workflow
- Approval workflows are defined and mapped to user roles in advance
- Supplier quotations will be submitted via email link or entered by vessel users
- Invoices are not auto approved; They are marked as paid either manually or based on the payment status received from the NAV Erp
- Budget deductions are made only after the Invoice status is changed to paid or based on the user confirmation.
- New supplier entries are subject to external approval but do not block purchase flow

Data Fields (Orders):

Field Name	Mandatory / Optional	Field Type	Comments
Order No	Auto-generated		Based on template and running number (From Vessel Details)
Status	Auto-populated		
Order Type	Mandatory	Dropdown	Purchase Order/Service Order

Name	Mandatory	Free Text Field	
Department	Mandatory	Dropdown	Managed via Master Data Management
Budget	Mandatory	Dropdown	List of budgets with linked Sub-project code and Name on Actual date
Budget Code	Mandatory	Based on Budget Selected	Default for the order
Month	Auto-populated		Based on selected budget and actual date
Year	Auto-populated		Based on selected budget and actual date
Manual	Optional	Checkbox	Allow adjust budget month; in case of different year user should re-select the budget
Currency	Mandatory	Dropdown	EUR for phase 1
Exchange Rate	Auto-populated		
Total Price	Auto-calculated		Sum of all order line's prices
Total Price (Vessel Currency)	Auto-calculated		
Approved Price	Auto-populated		Fixes Total Price when the order

			gets status Approved
Total Paid	Auto-calculated		The sum of paid invoices.
Purchaser Ref	Auto-populated		Name Surname of a user. Editable
Invoice Address	Auto-populated		From Vessel settings; Remains Editable
Delivery Address	Auto-populated		From Vessel settings; Remains Editable

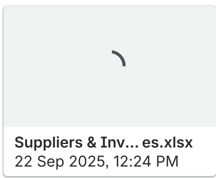
Data Fields (Order Lines):

Field Name	**Mandatory / Optional**	**Field Type**	**Comments**
Name	Mandatory	Free Text Field	
Quantity	Mandatory	Numeric Input Field	
UOM	Optional	Dropdown	Managed via Master Data Management
Budget Code	Auto-populated		Auto-populated from Order Header; editable
Price	Optional	Numeric Input Field	If item was selected from Inventory, price should be auto

			populated from the Item's price but remain editable
Currency	Auto-populated	EUR (Fixed for Phase 1)	From Order Header for Order line; From Quotation for Quoted Line
Discount	Optional	Numeric Input Field	Percent, the user can input the price then this field will be auto calculated & vice versa.
Discounted Price	Optional		Price in numeric value or the user can input the percent then this field will be auto calculated & vice versa.
VAT	Optional	Numeric Input Field	Percent, the user can input the price then this field will be auto calculated & vice versa.
VAT Price	Auto-calculated		Price in numeric value or the user can input the percent then this field will be auto calculated & vice versa.

Total	Auto-calculated		
Total in Vessel's Currency	Auto-calculated		
Add to Inventory	Optional	Checkbox	New order line will be added to the item
Manufacturer	Auto-populated	Free text field	Auto populated in case of selection from the Inventory list otherwise free text field
Manufacturer's Part No.	Auto-populated	Free text field	Auto populated in case of selection from the Inventory list otherwise free text field
Manufacturer's Type/Serie	Auto-populated	Free text field	Auto populated in case of selection from the Inventory list otherwise free text field

Data Fields Supplier & Invoices:



Budget

APPROVED

Visual Designs can be referred here: Link

Description:

The Budget management module allows users with appropriate access to view the budgets for each vessel being shared by NAV Erp. This budget is set against the project associated with the vessel. Each vessel will be associated with one project only. This project will be further associated with sub projects which can be multiple. Against each sub project, data will be shared by the NAV.

Budgets will be listed yearly; each year will further have periods displaying the budget for each month. Budget for each month will be defined for each budget code, showing both the budget code at the code level and the item level. Purchases made for these items will automatically be deducted from the approved budget. Users will also be able view & track purchases made against specific budget code items to monitor spending accurately.

Key Capabilities:

- Define and allocate budgets to vessels and departments
- View yearly and monthly budget breakdowns received from NAV for each vessel
- Listing of budget based annual figure, when expanded this will show the Month wise budget details of the selected budget code
- By default, the present year will be selected for the budget however users will be able to switch between past years as well
- Budget details will also display the linked orders of the budget code.
- Automatically deduct approved purchase amounts from item-level monthly budgets
- Integrate with Purchase and Vessel Management modules to reflect the details of the budget; budget, budget spent, budget committed and Budget remaining.
- Support over-budget spending control with configurable settings per vessel
- Allow users to view purchases against budget code items for better visibility

Dependencies:

- NAV ERP integration for initial budget allocation and updates
- Purchase module integration for syncing approved spending data
- Budget code and item mapping for linking purchases to the appropriate budget lines
- Vessel Management integration for over-budget settings

Assumptions:

- ERP will provide accurate and timely budget data
- Each vessel is linked to only one project, however multiple sub projects will be associated with one project
- Budget rules and over-budget permissions are configured by Central Admins and adhered to by users
- All spending must be linked to approved purchase processes

Data Fields:

Field Name	Remarks
Month	Multiselect allowed
Year	Present year by default
Currency Code	EUR (Fixed for Phase 1)
Budget Code	Auto-populated
Budget	Auto-calculated
Spent	Auto-calculated
Committed	Auto-calculated
Remaining (Budget - Spent - Committed)	Auto-calculated

Maintenance (Jobs)

APPROVED

Visual Designs can be referred here: Link

Description:

This module is used to schedule, monitor, and complete maintenance jobs. Jobs can either be One Time Jobs (for specific issues) or Planned Maintenance Jobs (recurring as part of planned maintenance).

Each job will have a department, user role assigned, and component assigned to it so that the users with selected user role can pick up the jobs and work on them. Inventory items that are used in the job are also to be selected by the user; however, the inventory will only be updated on the closure of the job.

Attachments can also be attached to the jobs, comprising images and documents. Jobs will also have priority mapped to them, allowing for better prioritization. A job can be associated with tickets as well.

Upcoming Planned jobs and One-time jobs will be displayed separately (on the Job Scheduled tab), and the completed jobs will be shown in a separate tab (on Job History). Creation of both OTJs & PMJs can be done via single form as both have common fields apart from the interval which is specific in PMJ only. Jobs can also be postponed & disabled, on which some mandatory fields are to be filled by the user. A postponed job's postponement can also be cancelled in which case the due date will be restored which was there before postponement.

There will be a separate tab for the standard jobs in the maintenance module, in which the central users will be able to view and add standard jobs, but vessel users will only be able to view and clone from the standard jobs, they will not have edit access of the standard jobs. Standard jobs edit / add access will be managed via Roles & Permissions module.

Key Capabilities:

- For PMJs, maintain logs of past & upcoming occurrences
- Unified job creation form for both OTJs and PMJs
- Assign jobs to departments and restrict edit access of jobs accordingly
- Attach relevant files (images, documents) to jobs

- Jobs can be cloned from Standard jobs, and standard jobs edit / add access will be managed via Roles & Permissions
- Link jobs to tickets for traceability
- Select inventory items used in a job, with inventory deducted upon closure
- Job closure and postponement require mandatory user inputs, post which a history record will be created accordingly.
- A postponed job can also be cancelled, in which they will retain their due date
- Only the latest job history record can be cancelled
- Jobs can be marked as disabled as well
- RFQs can also be generated against a job
- Prewarning window will be displayed on the listing based on the Prewarning interval
- Visual segregation of upcoming and completed jobs in the UI
- PMJs and OTJs can also be linked to VWL jobs
- The history of all actions on the jobs will be logged and will consist of the change that is being made along with the name of the user making the change and the time at which the change is made.
- Recurring job support with interval settings (for PMJ)
- In the job listing following keys to be highlighted: Item Linked to Job, One time job, Overdue when postponed, Postponed, Critical Component, Disable Job
- Additional Filter: Due Date, Prewarning, Hour Prewarning, Interval Type, Additional (Postponed, Safety Critical, Disabled Jobs, Batch Jobs, Guest Related)
- Job History Record will also consist of Service Report & Comment for Next job occurrence along with other fields captured via Job Sign Out Pop up.

Dependencies:

- Notification system for job assignment or reminders
- Inventory sync for stock deduction after job closure

Assumptions:

- All jobs will be assigned to a department to control access
- Only users with appropriate permissions can act on the job
- Inventory to be updated only at the closure of jobs.

- PMJs are configured based on calendar intervals or running hours such that once the PMJ is completed, the next occurrence based on interval will be based on the date on which the last PMJ was completed.
- Create new jobs and assign them to crew based on role
- Define due dates, required components, and documents
- Maintain logs (history) of jobs which will be non-editable
- If a VWL job is linked to OTJ or PMJ, then until the VWL job is not closed, the respective OTJ or PMJ cannot be closed.

Data Fields (Jobs):

Field Name	**Description**	**Type of Field**	**Values (If dropdown / checkbox)**
Job Name	Name / Title of the job being generated	Free text field	
Clone from Standard jobs	This will allow the user to clone a new job from the list of standard jobs	CTA	
Select	OTJ or PMJ	CTA	
Job No	Auto-Generated		
Job Type	List of job types	Searchable Dropdown	Managed via Master Data Management
Department	Department who will be working on the job	Searchable Dropdown	Engineering, Deck, Interior (Managed via Master Data Management)

Assigned To	User role that will be responsible for the fixation of the job	Searchable Dropdown	List of all job roles of the selected department
Category (& Origin)	List of categories based on which job is being generated	Searchable Dropdown (multiselect)	Charter Requirement, Class Requirement, Warranty Claim Class Related, Company Requirements, VWL, Drill / Exercise, General Maintenance, Licensing & Subscription, Safety Equipment, Statutory Requirement (Managed via Master Data Management)
Status	Status of the job, Open by default at the time of creation which will be non-editable at the time of generation of the new job	Dropdown	Open (By Default), on hold, completed, cancelled, postponed, completion progress in percentage

Priority	Defines the priority of the job being generated	Dropdown (multiselect)	High, Medium, Low, Critical
Component	Defines the component to which the job being generated is associated with	Searchable Dropdown with Component Structure	All the components existing in the system will be shown in a dropdown with structure
Next Due Date	Date before which job is to be closed	Date	
Next Due Hour		Numeric Input Field	
Interval (PMJ Only)	Time duration post which another instance of PMJ is to be generated	Hours / Days / Weeks / Months	
Prewarning	Time duration on which the job will start appearing on the due list	Hours / Days / Weeks / Months	
Fixed Interval	Interval will be fixed and cannot be updated by the user	Checkbox	
Job Description	Description of the job being generated	Free text field	
Items	Items that will be required for	Pop up (Add Item)	List of items (fetched from

	performing the work upon the job		inventory)
VWL Jobs	Linked VWL Jobs with the job	Pop up (Link VWL Job)	
Associated Tickets	Tickets associated with the job	Pop up (Add ticket)	
Documents & Images	Photos & Docs	Uploading file	
Work Permit	This will be an optional field	Dropdown	Yes, No
Safety Critical	Compliance	Checkbox	
Guest Essential	Additional	Checkbox	

Data Fields (Standard Jobs):

Field Name	**Description**	**Type of Field**	**Values (If dropdown / checkbox)**
Name	Name / Title of the job being generated	Free text field	
Assigned To	User role that will be responsible for the fixation of the job	Dropdown	List of all user roles
Department	Department of the standard job being created	Dropdown	Managed via Master Data Management

Job Type	Type of the job being created	Dropdown	
Category (& Origin)	List of categories based on which job is being generated	Dropdown (multiselect)	Charter Requirement, Class Requirement, Warranty Claim Class Related, Company Requirements, VWL, Drill / Exercise, General Maintenance, Licensing & Subscription, Safety Equipment, Statutory Requirement (Managed via Master Data Management)
Priority	Defines the priority of the job being generated	Dropdown (multiselect)	High, Medium, Low, Critical
Job Description	Description of the job being generated	Free text field	

VWL

Visual Designs can be referred here: VWL VD

Description:

Vessel Work Log (VWL) is a group of jobs that cannot be completed as part of routine operations. These jobs typically require extra resources—such as external support, additional budgeting (Post approval), or unavailable inventory—and are thus scheduled to be executed together during a dedicated period.

A VWL consists of Job Groups, which further holds its own details, associated jobs, tickets, and inventory items. Attachments such as images or documents can also be uploaded for each job within a VWL for documentation and reference purposes.

Users can create a new VWL from scratch or by using an existing VWL's template. Users can switch between different VWLs on the same vessel to monitor or compare their statuses.

OTJs & PMJs can be linked to a VWL job, along with this RFQ can also be generated against a VWL job. Users will also be able to select the price details for a VWL job.

Key Capabilities:

- VWL overview based on the statuses of the VWL projects
- Create a VWL from a template or manually from scratch
- Include multiple job groups under a VWL, each with its own details
- Associate tickets, jobs and inventory items with VWL job groups and VWL jobs
- Link / generate order for VWL jobs
- VWL Job Sign out capability will allow the user to update the progress of the VWL job
- VWL Job Name & its priority to be displayed in all the linked sections
- Attach documents and images to VWL-level jobs
- Associate price and cost details to VWL job
- Cost Details will comprise of manually raise costs as well as the approved orders
- Supplier Comparison section to compare suppliers against VWL project by segregating suppliers into groups and then further these groups will also be segregated into suppliers

Dependencies:

- Templates for existing VWL's structure must be created and maintained
- Inventory, Job and Ticket modules must be integrated

Assumptions:

- Jobs under a VWL follow the same creation and closure logic as other job modules
- Inventory items used within VWL jobs are deducted only on job closure
- Users will maintain proper associations between VWL, jobs, and tickets
- VWL cannot be closed until all the VWL jobs are completed

VWL Project Data Fields:

Field Name	Description	Type of Field	Values (If dropdown / checkbox)
VWL Project Name	Name of the VWL project name being created	Free text field	
Start Date	Start time of VWL project	Date & Time	
End Date	End time of VWL project	Date & Time	
Duration	Computed based on Start Date & End Date	Days	
Status	Status of the VWL project, Open by default at the time of creation which will be non-editable at the time of generation of the	Dropdown	Draft, Work List Complete, Seeking Quotation, Contractor Confirmed, In Progress, Work Complete,

	new VWL Project		Finished, Cancelled
Description	Description of the VWL project being generated	RTF Field	
Currency		Dropdown	
Total Estimate		Auto calculated	
Total Budget		Auto calculated	
Total Cost		Auto calculated	
Total Quote		Auto calculated	

VWL Job Group Data Fields:

Field Name	**Description**	**Type of Field**	**Values (If dropdown / checkbox)**
VWL Job Group Name	Name of the VWL job group being created	Free text field	
Code	Code	Numeric Input	
Total Estimated		Auto calculated	
Total Approved		Auto calculated	
Total Quoted		Auto calculated	
Total Cost		Auto calculated	
Description	Description of the VWL job group being generated	RTF field	

VWL Job Data Fields:

Field Name	Description	Type of Field	Values (If dropdown / checkbox)
VWL Job Name	Name of the VWL job name being created	Free text field	
Code	VWL Job code	Numeric Input field	
Start Date	Start time of VWL job	Date & Time	
End Date	End time of VWL job	Date & Time	
Duration	Computed based on Start Date & End Date	Days	
Status	Status of the VWL job, Open by default at the time of creation which will be non-editable at the time of generation of the new VWL job	Dropdown	Open (By Default), In progress, on hold, completed, cancelled
Budget Code		Dropdown	List of existing budget codes
Performed By	People who will be responsible for working upon the VWL job	Dropdown	External Service, Shipyard, Yacht Crew (Managed via Master Data Management)

Priority (Cost Code)		Dropdown	Guest Related, High, Medium, Low, Compulsory, Cancelled, Warranty (Managed via Master Data Management)
Description	Description of the VWL job being generated	RTF field	
Assigned To		Dropdown	List of user roles
Progress Details		Free Text Field	
Depends On		Dropdown	List of other VWL jobs of the same VWL project
To be included		Checkbox (Multiselect)	As shown in VD
To be surveyed by		Checkbox (Multiselect)	As shown in VD
Materials	Type of materials being used in the VWL job	Checkbox (Multiselect)	Yards Supply, Owners Supply, 3rd Party Contractor, Class Material Certification, Other Acknowledged Certification, M.E.D. Approval / Certification,

			Manufactures Instructions, Packing Gaskets, Fasteners, Insulation, Consumables, Spare Parts
Component	Defines the component to which the VWL job being generated is associated with	Dropdown	All the components existing in the system will be shown in a dropdown
Component Jobs	Jobs Based on the selected component	Dropdown	All component jobs based on selected component will be shown
Comment		Free Text Field	
Attachments	Photos & Docs (Separate sections)	Uploading file	

Dashboards (Vessel & Central)

Visual Designs can be referred here: Dashboard VD

Vessel IQ Dashboard:

Description:

The Vessel IQ Dashboard module provides vessel users with a unified, real-time overview of operational performance, safety compliance, inventory risks, VWL project progress, and account security metrics. The dashboard aggregates KPIs from various modules—including Orders, Jobs, Tickets, Inventory, VWL Projects, and Account Details—tailored based on user access and organizational roles.

The Vessel IQ Dashboard is designed to provide vessel-specific users with a quick and actionable overview of ongoing operations.

The dashboard also includes a high-level budget summary section, showing the allocated versus spent budget figures to help users monitor budget data based on budget codes.

Key Capabilities:

- Display counts of key KPIs defined in the table below
- Inclusion of Pie chart for displaying above sections
- Display budget summary with allocated and spent budget figures of budget codes using bar charts
- Role-Based KPI Display: Shows only the metrics relevant to the user's access and department.
- Vessel-specific view with restricted access based on user role
- Captain will have the visibility to all the departments for all the KPI's defined below in the table.

Dependencies:

- Integration with Ticket, Maintenance, Inventory, Order, and Budget modules
- Tags/flags to identify safety and guest-related jobs must be marked

Assumptions:

- Dashboard data is refreshed periodically or in real-time as needed
- Users have access rights only for their assigned vessel's data

Key KPIs for Vessel Dashboard:

Module	Item	Description
Orders	Open Orders	Number of open orders for the current vessel
	Orders Pending My Approval	Number of orders pending approval of the logged in user
	My Approved Orders	Number of orders created by the logged in user which are approved
	Unpaid Orders	Number of orders created by the logged in user which are approved but unpaid
Jobs	Overdue Critical Jobs	Count of the Critical overdue jobs of my department which are overdue
	Overdue Jobs	Count of the overdue jobs of all department which are overdue
	Safety Critical Overdue Jobs	Count of Safety Critical Overdue jobs of my department
	Guest Related Overdue Jobs	Count of Guest Related Overdue jobs of my department

	Assigned to Department Overdue Jobs	Jobs assigned to the logged in user role's department
Tickets	Safety Critical Open Tickets	Count of Safety Critical Open Tickets of my department
	Guest Related Open Tickets	Count of Safety Critical Open Tickets of my department
	Open Tickets (All Department)	Count of the open tickets of all departments which are open
	My Department Open Tickets	Tickets assigned to the logged in user role's department
Inventory	Safety Critical Items Below Minimum Stock	Count of Safety Critical Items Below Minimum Stock
	Guest Related Items Below Minimum Stock	Count of Guest Related Items below minimum stock
	Items Below Minimum Stock	Count of Items below Minimum Stock
	Items at Minimum Stock	Count of Items at Minimum Stock
VWL	Open VWL Projects	Count of Open VWL Projects
	Ongoing VWL project's progress	Percentage of the total VWL jobs completed of the ongoing VWL

Account Details	Last Password Changed	Type of Password Change: Manual or Forced (from Admin)
		Date & Time of the password changed

Central IQ Dashboard:

Description:

The Central IQ Dashboard module serves as a centralized “fleet-level” dashboard for office users and system admins who oversee and manage multiple vessels. It provides a consolidated list of all vessels the user has access to, presenting high-level KPI metrics for each vessel and supporting streamlined monitoring, comparison, and early escalation of operational and compliance concerns across the fleet.

Along with the fleet level overview, the users will also be able to view a vessel specific data by clicking on a vessel from the list which will redirect them to the selected vessel’s dashboard (Vessel IQ Dashboard).

Key Capabilities:

- Vessel List View: Displays a list/grid of accessible vessels, each as a separate row or card based on Vessels associated with the user.
- High-Level KPI Snapshots: For each vessel, presents select KPIs as mentioned in the table below (Key KPIs)
- Role-Based Visibility: Vessel list and metric data are filtered based on user’s role and granted vessel permissions.
- Vessel Drill-Down Navigation: Each vessel name or identifier is clickable, providing seamless redirection to the full Vessel IQ Dashboard for that vessel.

Dependencies:

- Integration with Ticket, Maintenance, Inventory, Order, and Budget modules
- User & Roles Management: Ensures proper vessel visibility and data filtering on the dashboard as per the permissions defined for the user role

Assumptions:

- Central IQ Dashboard access is limited to Central IQ users & System admins only
- All required data is available and updated in near-real-time based on the connectivity of vessels

Key KPIs for Central Dashboard:

- Vessel Name (Clickable): redirects to the selected vessel's dashboard
- Safety Critical Overdue Jobs
- Guest Related Overdue Jobs
- Safety Critical Open Tickets
- Guest Related Open Tickets
- Safety Critical Items Below Minimum Stock
- Guest Related Items Below Minimum Stock
- Ongoing VWL Progress (Percentage)
- Orders pending my Approval

Change Log

APPROVED

Visual Designs can be referred here: Change Log VD

Description:

The Change Log module provides a comprehensive, chronological audit trail of all modifications made across various modules related to a specific vessel. It serves as a critical transparency and traceability tool, helping users track who made changes, what was changed, and when those changes occurred.

Key Capabilities:

- Comprehensive Change Tracking: Logs changes made to any module associated with the vessel including Orders, Jobs, Tickets, Inventory, Purchase, Budget, VWL Projects, and Account actions.
- Detailed Change Records: Each log entry captures the specific change made, reference ID, the module impacted, the user who made the change, and the exact timestamp.
- Displays change records into a concise, sortable, and searchable list for ease of review.
- Filter and Search: Users can filter logs by module, reference id, user, date range, or type of change.

Dependencies:

- Source Modules: All vessel-related modules generating change data (Orders, Jobs, Tickets, Inventory, Purchase, Budget, VWL, Account).
- Centralized system for capturing and storing change records in a structured format.

Data Fields:

Field Name	Description
Module	The system module in which change occurred (e.g., Jobs, Tickets)

Reference ID	Identifier from the module. Ex: Ticket's ID, Component's name & Code etc.
SFI Code & Component Name	Component Name & SFI Code if the change is linked to the component's entities otherwise will be blank
Change Description	Description or summary of the change
Reason	Mandatory comments required from the user at the time of making changes. Ex: Postpone Job etc.
Done By	User who performed the change
Done Date & Time	Date and time when the change was made

Additional Items BRD

Login Image & Text Configuration

APPROVED

Visual Designs can be referred here: Login Image & Text Configuration VD

Description:

This module allows the system admin to customize the login page of Vessel IQ. Specifically, they can update the login page image and the application name shown on the login screen (Example: "CORE"). These attributes are defined within that vessel's details.

In addition, there will be a separate attribute called Vessel Logo within the vessel details attributes, which will be used for generating reports related to that vessel.

Key Capabilities

- Admins can upload and update the login page image specific to each vessel.
- Admins can set or change the application name displayed on the login page for each vessel.
- The Login Image and Application Name are stored as attributes within the vessel profile.
- A separate Vessel Logo attribute is maintained for each vessel, used exclusively in vessel reports.
- Changes to these attributes should be immediately reflected where applicable.

Dependencies

- Access to vessel attribute management modules for storing and retrieving images and text.
- User interface for admins to upload images and update text data.
- Reporting modules that use the Vessel Logo attribute in report generation.

Supplier View: Orders

IN-REVIEW

Visual Designs can be referred here:

Description

When a quote is requested for an order, the system will send the supplier an email containing a secure link to access a quote submission form. After verifying their email identity, the supplier will be provided limited access to the respective order. The order details will be displayed, but most fields will remain non-editable. Only the order lines will be editable, allowing the supplier to provide the quantity and price for each line item. Upon submission, the supplier's inputs will be recorded against the order within the system, tagged to that supplier for evaluation and approval.

Key Capabilities

- Email is automatically sent to the supplier when a quote is requested for an order.
- Email contains a secure link to access the quote submission form.
- Supplier email verification is required before granting access to the order.
- Order details are displayed to suppliers in a read-only state, except order lines.
- Suppliers can input quantity and price at the order line level.
- Submission of details will update the order with the supplier's provided values.
- The recorded data is stored against the supplier and available for internal review and comparison with other supplier quotes.

Assumptions & Dependencies

- Supplier emails are already maintained in the system and linked to the supplier accounts.
- Internal users will have the ability to view, add, and compare multiple supplier quotes for the same order.

Configurable Integration (On/Off)

IN-REVIEW

Visual Designs can be referred here: Configurable Integration (On/Off) VD

Description

This feature gives system admin the flexibility to turn the integration with the ERP system on or off as needed. The system supports two modes: standalone (integration off) and integrated (integration on). Depending on the mode, the behavior of key processes like user creation, supplier approvals, and invoice status changes accordingly.

Integration On/Off will be applicable for Vessel IQ as well as Central IQ.

Key Capabilities

- Enable/Disable Integration: System Admins can switch the ERP integration on or off through a simple radio button.
- Standalone Mode (Integration OFF):
  - All operations such as user creation, Supplier creation and invoices are handled manually within the system:
    - New User Creation enabled
    - Users with permissions will be able to add & approve suppliers directly to the list of suppliers
    - Invoice will be marked as paid / on hold / rejected etc manually
    - Invoices will not be shared to ERP
    - No user details, vessel data or project details etc, will be fetched from the ERP
  - No data sync with ERP.
- Integrated Mode (Integration ON):
  - Data synchronizes automatically between the system and ERP.
  - Suppliers can be added by the users who have permission enabled for their role for adding the supplier, approval will still be required from Fin ERP.
  - Processes like supplier approvals and invoice status updates happen via the ERP system.
  - Manual invoice update in the system is disabled.

    - Data sync with ERP is carried out for different details like user details, vessel details, project details, supplier details etc.

Assumptions:

- Only system admin has the necessary permissions to enable or disable the ERP integration at any time.
- When integration is off, all processes including user creation, supplier creation, and invoice handling are manually managed within the Vessel IQ system without ERP interaction.

Dependencies

- Role and permission management system to enforce access controls and overrides on sync and manual operations.

VWL Timeline

IN-REVIEW

Visual Designs can be referred here: VWL Timeline VD

Description:

The VWL Timeline module will provide users with a Gantt chart view of VWL Jobs under selected VWL Projects. This feature enables users to visualize the start and end dates, duration, and progress of jobs, with the ability to switch between different VWL Projects. The timeline can be viewed in either days or months scale, updating the chart accordingly. Each VWL Job will be represented as a progress bar on the Gantt chart, with bar colors indicating the job's current progress status. Clicking on a job's bar will redirect the user to the job's detail page for further information and actions.

Key Capabilities

- Display VWL Jobs in a Gantt chart format with their start and end dates (duration).
- Show progress of each job visually on the Gantt bar using color-based status indicators.
- Ability to switch between VWL Projects, which updates the displayed Gantt chart to show jobs from the selected project.
- Allow users to toggle between day view and month view for the timeline scale.
- Clicking a job's bar in the chart will navigate the user to the associated VWL Job detail page.
- Ensure Gantt chart dynamically updates with project/job data changes in the system.

Assumptions

- Color codes for various progress statuses will be pre-defined.

Master Data Management

IN-REVIEW

Visual Designs can be referred here: Master Data Management VD

Description:

The Master Data Management (MDM) module provides a centralized platform for managing data attributes that are being used across various core system modules, including Tickets, Jobs, Components, Orders, Items, Order Lines, and Document Registry.

This module allows system admins to control the order and values presented to users in forms, dropdowns, and search fields.

Key Capabilities

- Centralized Management of Master Data Attributes:
  Administrators can add, edit or arrange values for attributes as mentioned in the master data fields table below.
- Ordering and Display Control:
  Users may define the presentation order of values within lists and dropdowns for each associated module, ensuring relevant values appear prominently.
- Audit Trail and Change Tracking:
  All modifications to master data values and orderings are logged with detailed information about the user, timestamp, and nature of changes.
- Validation and Dependency Checks:
  The system prevents deletion or disabling of values currently in use to maintain data consistency and prevent orphan records.

Assumptions

- Access to master data management is restricted to system admins.
- Changes take effect immediately across the platform without manual refresh requirements.

Dependencies

- User Role and Permission System:
  Integration with existing authentication mechanisms to restrict and audit access.

- System Modules Integration:
  Dependent modules must support dynamic updates from MDM for consistent operation.

Master Data Fields:

Master Data Attributes	**Modules**			
Category	Tickets			
Tags	Tickets			
Department	Tickets	Jobs	Components	Orders
Category (Jobs)	Jobs	Standard Jobs		
Performed By	VWL			
Priority	VWL			
Category	Items			
Unit	Items			
Currency	Orders			
UOM	Order Lines			
Issued By	Document Registry			

Grouping (For Listings)

IN-REVIEW

Visual Designs can be referred here: Grouping (For Listings) VD

Description:

The Grouping feature lets users organize rows in listings by grouping them based on selected columns. You can group by one column first, then nest additional groups inside it by choosing other columns. This makes it easier to analyze and understand the data, especially when working with large lists. Users will be able to quickly see related records grouped together following the grouping hierarchy based on the selected columns.

Key Capabilities

- Users can group listing rows by dragging and dropping columns into a grouping area.
- Multiple levels of grouping are supported — for example, in tickets grouping first by department, then by category.
- The grouped data will be shown in collapsible sections so users can expand or collapse groups as needed.
- This will work across many key modules as mentioned in the table below.

Modules Applicable:

- Tickets Listing
- Vessels Listing
- Roles Listing
- Users Listing
- Maintenance:
  - Job Scheduled
  - Job History
  - Standard Jobs
- Inventory:
  - Items Listing (Components)
  - Items Listing (Stock Location)
- VWL:

    - VWL Jobs
    - VWL Items
    - Price
    - Cost
    - Linked Tickets
    - Attachments
- Components:
    - All Components Listing
    - Component Jobs
    - Component Job History
    - Component Items
    - Component Linked Tickets
    - Component Linked VWL Jobs
    - Component Attachments
- Orders Listing
- Budget Listing
- Document Registry

Batch Jobs

IN-REVIEW

Visual Designs can be referred here: Batch Jobs VD

Description

The Batch Jobs functionality will allow users to create and manage jobs that are distinct from regular maintenance jobs. Unlike standard maintenance jobs which are typically tied to a single component, batch jobs enable users to associate multiple components during job creation.

Upon saving, the system will automatically generate individual job records against each assigned component. This functionality streamlines the process of creating jobs for multiple components by consolidating them into a single batch creation workflow while ensuring detailed tracking at the component level. Batch jobs will also be integrated into the filters of the Jobs Due List for better tracking and management.

Key Capabilities

- Create a new Batch Job with the ability to assign multiple components in a single workflow.
- On saving a batch job, the system will generate individual job records for each component selected.
- Jobs created through batch processing will inherit common job attributes (e.g., description, due date, priority) but remain component-specific in execution.
- Batch Jobs will be available in the Jobs Due List filters as a separate filter option.

Assumptions & Dependencies

- Each generated job record must maintain traceability to the parent batch job

QR Code Generation (Items)

IN-REVIEW

Description

The QR Code Generation functionality will allow users within the Inventory Module to generate QR codes for one or multiple selected items. Each item will have its own unique QR code associated with it. The system will compile the generated QR codes into pdf files.

Key Capabilities

- Users can select one or multiple items from the inventory module.
- For each selected item, the system will generate an individual QR code.
- The generated QR codes will be compiled into files.
- The download will occur directly on the user's device immediately after generation.
- Each QR code should be unique to the item and contain core item identifiers (e.g., Item Location, Item Name, or other fixed keys).

Assumptions & Dependencies

- QR codes will be generated based on predefined item attributes.
- Users have the required access rights within the inventory module to select items and generate QR codes.

Reports

Reports which are to be generated:

1. **Items (Inventory)**

- Stock with Images and price group by Location
- Stock with Images and price group by SFI

2. **Components**

- Inventory of Components
- Critical Components and Spare parts
- Item Min / Max Report

3. **Documents**

- NDA Tracker

4. **User Management**

- Crew List with photos

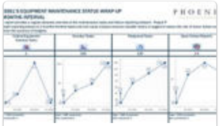
5. **VWL**

- VWL Financial Report
- VWL Financial Report along with progress
- VWL Work & Specification Report
- VWL's Order List
- VWL's Tickets Report

6. **Tickets**

- Tickets Report (Failure Report)

Reports shared by PYM Team:



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29 Oct 2025, 01:24 PM

10 Project P_Or... -03.pdf
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