



viaShipyard

shipyard management system



{🚢} *At what price did we buy this material before?*

{🚢} *Is my dock free for a day next week?*

{🚢} *Which ships will be around my shipyard?*

{🚢} *How long would the project delay if we postpone this month's payment of the propulsion set?*

{🚢} *We got two contractors for starboard and port side blasting, who will finish first?*

{🚢} *The main engine is going to arrive soon, when do we need to finish the foundations?*

{🚢} *Do we need new forklifts?*

{🚢} *Should we rent them or buy new?*

{🚢} *Is there life in space?*

There is *almost* no question that we cannot answer.

In order to deliver the best service possible to their clients, shipyards have very specific and varied requirements when it comes to finding a management system. Maximizing resource utilization, excellent project management and execution, and duly managing time and expenses are only some of viaShipyard capabilities that rise to these challenges.

Shipyard industry by nature is project centric as opposed to product centric. Historically, ERP systems were built to serve companies that designed, manufactured and that sold products. Shipyards that are trying to work with these systems have to distribute project information across system transactions through customizations. The complexity and workarounds involved do not support a shipyard to deliver great service.

ERP systems for shipyards therefore must be project-based and must allow a certain amount of flexibility. Shipyard executives also make the mistake of relying on employees more than relying on a system. Unfortunately, when that particular employee leaves the shipyard with his/her notebook, the shipyard also waves goodbye to trade practices and secrets that of course were not kept in a digital system.

viaShipyard was developed from ground only for shipyards with the goal of delivering a unique experience. viaShipyard is a shipyard management system that is fully integrated with all departments of your shipyard. It is designed to manage complex projects and to allow customizations. New cognitive capabilities like social, mobile, analytics and cloud are making a major impact on shipyard needs but these are the very same elements that make viaShipyard more powerful.

viaShipyard is designed and developed in shipyards with marine engineers and solely for shipyards. With this know-how, we created our modules accordingly with shipyards needs.

Modules

viaShipyard, with 17 highly specialized modules, is a shipyard management system that is fully integrated with all your departments. The system links finance, warehouse, production, procurement and human resources to create a cohesive back-end operation. On top of these adds a planning module to control interactions between these operations. Protects the quality of your work with quality control modules separate for new building and repair works. An integrated occupational health and safety module and scheduled maintenance module, ensures the protects your assets; employees and equipments respectively.



marketing strategies. The first module to take a look at is Marketing.

Marketing

Marketing module is your contact point with your customers. Customer satisfaction is a top priority in any business. Too often, though, customers are lost because of breakdowns in communication within a shipyard. Delivery delays, miscalculated dock availability levels, and errors in customer data may be common, but can wreak havoc on customer service levels.

As errors increase, customer loyalty drops—along with profits.

Repair Marketing Module

The “Vessel Track” is the central control screen of the marketing module. With vast information displayed on the screen, it can be customized according to your needs, as all parts of viaShipyard.

Vessel Track List (1410)

Ref No: loa:

Vessel Name: depth:

Imo No: Breadth:

Vessel Type: dwt:

Call Sign: gross:

 ETA Creation Date

| Ref No | Vessel Name | Project Type | Tender Status | Status |
|--------|-------------|--------------|---------------|---------------------|
| 2001 | Ref 2001001 | Haven 1 | Completed | Tank Washdown |
| 2002 | Ref 2001002 | Haven 2 | Completed | Regain Intermittent |
| 2003 | Ref 2001003 | Haven 2 | Start Offer | - |
| 2004 | Ref 2001004 | Haven 1 | Project | - |
| 2005 | Ref 2001005 | Haven 1 | Start Offer | - |
| 2006 | Ref 2001006 | Haven 1 | Start Offer | - |
| 2007 | Ref 2001007 | Haven 1 | Start Offer | - |
| 2008 | Ref 2001008 | Haven 1 | Start Offer | - |
| 2009 | Ref 2001009 | Haven 1 | Start Offer | - |
| 2010 | Ref 2001010 | Haven 1 | Start Offer | - |
| 2011 | Ref 2001011 | Haven 1 | Start Offer | - |
| 2012 | Ref 2001012 | Haven 1 | Start Offer | - |
| 2013 | Ref 2001013 | Haven 1 | Start Offer | - |
| 2014 | Ref 2001014 | Haven 1 | Start Offer | - |
| 2015 | Ref 2001015 | Haven 1 | Start Offer | - |
| 2016 | Ref 2001016 | Haven 1 | Start Offer | - |
| 2017 | Ref 2001017 | Haven 1 | Start Offer | - |
| 2018 | Ref 2001018 | Haven 1 | Start Offer | - |
| 2019 | Ref 2001019 | Haven 1 | Start Offer | - |
| 2020 | Ref 2001020 | Haven 1 | Start Offer | - |

Here, you can track vessels of interest, quotations given to them, color code according to which actions are taken on the vessel. You can filter the vessels with countless criteria, assign marketing engineers and even see vessels’ last position.

A highly detailed “Vessel Card” defines all information necessary about the vessel. All information like vessel particulars can be shared with the planning department.

Ref No *

MMSI No

Imo No *

Name *

Call Sign

Type *

IACS *

Flag *

Vessel - Update (1403)

Ship Manager:

Agency:

Contact Person:

Estimator:

spec

specArrdate:

Tender Date:

Offer Deadline:

Estimated Arrival Date

ETA:

Tentative ETA

Tent. ETA Begin: August End: Month

3St Week Week

Durations In Quotation

Docking Duration: days

Price Info

Discount Amount: Extra Discount:

Commission:

Estimated Budget:

Grace Period:

Penalty Deduction:

Payment Terms:

(Payment Terms-separateWithComma)

Details

Notes:

criticalWorks:

files

shipInfoFile

Pending Confirmation

firmOrderFormFile

Pending Confirmation

otherFiles

If a specific information like main engines and generators, cranes, shaft type, etc. is added later on, it will be shared with the marketing department. Also, sensitive information like commission fees, grace period, budget and payment terms are kept here. Of course, you get to choose who sees what. An extensive eta system and total dock/berth days provides an estimate to the “Dock Planning” pages.



| | | | | | | |
|---|-----------|------------|-----------------|------------|-------------|---------------|
| Tender Info | Ship Info | Price Info | File Management | Sea Trials | Workmanship | Steel & Pipes |
| <p>Ship Steel Weight (net, est.): 500 kg</p> <p>Ship Holland Profile Weight (net, est.): 500 kg</p> <p>Ship Steel Weight (brut, est.): 500 kg</p> <p>Ship Holland Profile Weight (brut, est.): 500 kg</p> | | | | | | |
| Steel Plates | | | | | | |
| Estimated Weight: 500 kg | | | | | | |
| Estimated Surface: 500 m ² | | | | | | |
| Estimated unit Price: 500 \$/m ² | | | | | | |
| Total Cost: 500 \$ | | | | | | |
| Holland Profiles | | | | | | |
| Estimated Weight: 500 kg | | | | | | |
| Stainless Steel Material | | | | | | |
| Estimated Weight: 500 kg | | | | | | |
| Estimated unit Price (see equip.): 500 \$/kg | | | | | | |
| Total Cost: 500 \$ | | | | | | |
| Stainless Steel Pipes & Flanges | | | | | | |
| Estimated Weight: 500 kg | | | | | | |
| Estimated unit Price (see equip.): 500 \$/kg | | | | | | |
| Total Cost: 500 \$ | | | | | | |
| Steel Pipes | | | | | | |
| Estimated Weight (not to be galvanized): 500 kg | | | | | | |
| Estimated Weight (to be galvanized) (see equip.): 500 kg | | | | | | |

Details of a vessel are inserted in the appropriate fields. Steel weights, profiles, pipes, surface calculations, paint calculations are done on the fly. Workmanship costs is divided to categories and added to the sum. Sea trial, commission and consulting services, trainings, delivery and transportation, insurance, warranty, classification and all similar costs have their own

sections.

“Vessel Equipment Tender” is a system that allows marketing engineer to collect tenders for all parts of the “Vessel Quotation”, and to create alternate quotations to customers. It also creates a database of tenders, so when you go back on a previous tender, you will have the ability to compare differences between the two. This way, you will have more flexibility than just comparing power, rpm or fuel types.

You will exactly know if the previous main engine quotation has ht. cooler included, or whether or not it has silencer included on the exhaust system, or whether the control monitor equipment was in the bridge or in the engine room.

The “Vessel Budget” helps you to create milestones for your quotation and it facilitates your financial outlook. Payment terms are matched with delivery terms, cross rates are entered for worldwide projects. Information such as annual ship cap, general costs, financial costs and total ship amounts to be build is observed and calculated from here. Crucial information like “ships average workmanship price per weight”, “parallel body price to ship’ average” and many more reports are also part of this system.

| INPUT DATA | COST CALCULATION |
|--|---|
| Estimated Ship Price: 2000000 \$ | Steel & Profiles: 100000000 \$ |
| Ship's Steel Plates Weight: 100000 ton | Equipments & Machinery: 5000000 \$ |
| Ship's Holland Profiles Weight: 200000 ton | Paint (inc. Shop priming): 5000000 \$ |
| Ship's HP+Steel Weight: 3000000 kg | All Workmanships (inc. painting): 1000000000 \$ |
| Number of Cargo Tanks: 10 pcs. | Design: 5000000 \$ |
| Ship Building Time: 20 month | Classification Costs: 5000000 \$ |
| Monthly General Costs: 50000 \$ | Sea Trials: 500000 \$ |
| Annual Financial Costs: 5000000 % | Customs Costs: 100000000 \$ |
| | Insurance Costs: 100000000 \$ |
| | Transport Costs: 100000000 \$ |
| | General Costs: 100000000 \$ |
| | Other Undefined Costs: 100000000000 \$ |
| | TOTAL COSTS: 1000000000000 \$ |
| | Financial Costs: 1000000000000 \$ |
| | Undefined Operational Costs: 1000000000000 \$ |
| | TOTAL COST: 1000000000000000 \$ |



Planning

Ask any employee in any department if they have any “transfer of information” issues, and you will know that you are part of the vast majority of shipyards that have the same problem (this experiment requires a truly honest employee).

Efficiently moving contract details, plans and specs, and all pertinent data from marketing, design, and estimating to production poses challenges. No matter how good you plan, develop, create numbers and specs, it will seem that you cannot keep up with all the information needed for production to start or finish the job, on time, within the estimated budget.

All confirmed quotations in marketing are handed down to planning with attached vessel information, order form, active quotation and other relevant documents. This creates a new “project” in planning module. The process is a two-way street, so when the project evolves in planning it will also change in marketing.

Repair Planning

The “Project List” shows all the active projects on the shipyard and helps planning engineers maintain a

| Project Code | Project | Status | Type | Est. Start Date | Est. Finish Date | Start Date | Finish Date | projectClosureDate | Project Manager | Project Engineer |
|--------------|---------|--------|--------|-----------------|------------------|------------|-------------|--------------------|-----------------|------------------|
| 0008 | ARIZONA | Active | Repair | 12-28-2018 | 07-28-2019 | 12-28-2018 | 08-28-2018 | | FRANK SCALIC | |
| 0009 | ARIZONA | Active | Repair | 12-27-2018 | 12-27-2018 | 12-27-2018 | 12-27-2018 | | FRANK SCALIC | |
| 0010 | ARIZONA | Active | Repair | 08-28-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0011 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0012 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0013 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0014 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0015 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0016 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0017 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0018 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0019 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0020 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0021 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0022 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0023 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0024 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0025 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0026 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0027 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0028 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0029 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0030 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0031 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0032 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0033 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0034 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0035 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0036 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0037 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0038 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0039 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0040 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0041 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0042 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0043 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0044 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0045 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0046 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0047 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0048 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0049 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |
| 0050 | ARIZONA | Active | Repair | 08-27-2018 | 03-28-2019 | | | | FRANK SCALIC | |

general view of the shipyard. How many projects are active, where are their current locations, what is the next planned maneuver on them, what is the estimated finish date are some of the questions that are answered here.

Project list is shared with all departments, however within their permissions, so when a project is “active” all departments

can interact on it.

viaShipyards works on the principle of “work-orders”, every action that is to be take on the ship is a work order. Work orders are created and timed, budgeted, attached resources to and closed, which in return corresponds to the project.

For every job that is to be done on the vessel, a work order is created. viaShipyards ensures that you will never miss a job, or payment in that matter.



Design, Production & Quality Control Modules

Repair Design

Processes the CAD files created by the technical measurements within the ship. Pipe, structural steel and painting calculations are processed within this module. All pricing such as Primer, Full Coat and Touch Up are calculated. All costs related to the material and the subcontractor are shown, thus providing the opportunity for the offers to the ship-owners. Demands of the materials according to the projects of the produce and the place of the work are done within the structural steel calculations.

New Building Design

Bill of materials, equipment tree and detailed design are created and followed within this module. Drawings and material lists are connected to work orders. Class approved designs are remarked and tracked here. Design versions are kept and print out counts are maintained. Upon request connections to design software such as Nupas, Tribon, Foran are established. Detailed material requests are imported from such software.

Repair Production

In light of the information acquired from the planning module, all operational procedures of repair and conversion projects are processed within this module. Contractor timings and worker overtime are entered to the system. Orders of materials are processed and the management of the repair is conducted. This module foresees the completion of the work orders.

New Building Production

All information received from planning and design is used on the production process. This module is mainly designed to monitor day-to-day production progress with progress-man forms. On completion of any work order, information will be passed on to planning and quality control modules. Contractor work progress is supervised, and detailed timings are kept in here. All drawings, procedures, materials, equipment and services are received with connection to related modules.

Repair Quality Control

During the operational procedures of the repair and conversion projects, all quality control processes are followed within this module. Standards provided by Total Quality Management, Quality Life Cycle and all related remarks are followed within this module. This is the module where the work is delivered to the customer. Work orders are finally closed in this module. A remark folder is created and every remark is added with photos. These remarks are closed with the consent of the customer or class. Welding procedures (WPQR / WPS), welder's certificates, steel certificates are maintained to be used on relevant work orders.

New Building Quality Control

Quality control forms are created within viaShipyards and these forms can contain images, measurements and other specifications. Each QC form is connected to a work order and issued with the work order. After a form is filled, an extensive integrated remark management is issued. When a work order is completed by the production module, QC modules takes over and delivers to the customer.



Common Modules

Purchasing Module

Materials, services and equipment can be requested from all departments. These are maintained in purchase request forms. These forms are converted into purchase tenders. Each purchase tender can have multiple request lines from different purchase requests. A tender is the medium of gathering offers from suppliers. These offers are evaluated and can be compared with each other via the following criteria but not limited to; pricing, payment plan, delivery date, and score of suppliers.

After a supplier tender is selected, it is then converted into a purchase order. All material, service and equipment transactions are later followed by the PO.

All steps in purchasing module, proceeds to the next with the permissions and approvals stated in the workflow module. The processes of identifying potential suppliers, Supplier Evaluation, Supplier Quote Evaluation, awarding purchase order to the supplier, and billing processes are automated in this module.

Warehouse and Stock Control Module

Received materials and equipment, regardless whether for stock or for a project, are handled with the appropriate PO and added to stock. Integrated barcoding system assures that the materials received are stored and kept for their projects to be later picked up by contractors or workers. To take out materials from warehouse, a project and a work order form must be filled. ID cards can be used to take out materials, so that the system knows for sure what the user can pick up. If there are materials listed on a work order, then only those materials can be taken out.

This module is integrated with all other modules, and produced reports can be viewed from all modules. Materials in the project and the stock costs can be calculated with either FIFO, LIFO or the average cost system. There is an integrated stock count system which can be done with barcodes. All processes regarding waybills, goods-in goods-out info are also within this module.

HR Module

For each employee, a detailed card is created and managed. All aspects of the employees like personal information, education, previous experiences are kept in these cards. Certificates, documentation and training information is maintained and notifications on validity dates are issued in this module. Employee cards are later provided to all necessary modules, creating a single, centralized system for workforce management and payroll processes.

All workforce-related processes and data are consolidated in a single platform. This helps to analyze your organizational and reporting structures and giving your workforce more ways to access the data, applications, and analytics tools they need to perform as efficiently as possible.

This module is well-integrated like other modules, shipyards can improve productivity by automating paper-based HR processes and empower employees to manage events with HR self-services, such as leave and absence management. Employee questionnaires boost employee satisfaction with personalized and accurate information and provide managers with an intuitive portal for accomplishing key tasks.



Accounting and Finance Module

All documents related to accounting and finance can be prepared and followed. PO's and goods received are converted into purchase invoices automatically and once the real invoice is received there is no need of reentering same information twice.

Financial information about vessels built and repaired are gathered in this module and final invoices are converted into sale invoices. All payments made and received are entered and maintained according to local laws. This module provides compliance with international accounting systems and the industrial standard complies with major software thanks to the integration module. Accounting codes and changes can be followed in detail with the necessary foreign currency. A payment plan and income plan is maintained here.

All financial data is gathered from other modules and reports such as ledgers, trail balance data, overall balance sheets and quarterly financial statements are generated.

Technical Services and Scheduled Maintenance Module

Planned preventive maintenance (PPM), more commonly referred to as planned maintenance (PM) or scheduled maintenance module focuses on calibration, scheduled maintenance, spare part tracking of shipyard equipment. Damage reports, new work order request forms for internal shipyard usage is created here.

Planning department of the user creates a project plan with this core information. Other departments such as finance, human resources, purchasing, storage and production are also included. This provides a good project to complete the shipbuilding with optimum costs taking all necessary information into account.

Occupational Health and Safety Module

With the help of this module, shipyards can cost-effectively comply with complex health and safety regulations. In return can drive continuous safety and HS performance improvement across your operations, and proactively assess risk and prevent adverse events with operational controls.

Corrective and preventive action (CAPA) forms, Near-miss and Accident, Incident, Event Forms are integrated into the module and help capture, investigate, and learn from safety observations, near-misses, and incidents. With Root Reason Analysis forms shipyard can launch effective programs for occupational health, industrial hygiene, and similar subjects. These in return can be reported in Management Review Meetings.

Administrative Affairs and IMS Module

Integrated Management System Policy, Quality Management System, Environment Administration System, Job Health and Safety Administration System, Client Administration, Data Security Management System, Food Safety Administration System goals and ISO 9001, ISO 14001, OHSAS 18001 Job Health and Safety documents are followed within.