



# Defining maturity in digital technology from a shipowner's perspective



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# Presentation contents

09:20 - Defining maturity in digital technology from a shipowner's perspective

Dimitris Lyras, director, Paralos Maritime and founder, Ulysses Systems

- Mature software supports people's situation awareness
- Mature software is designed to meet organisation's goals
- Mature software is future proof by being easy to adapt and integrate
- Mature software is easy for the IT department to manage
- Mature software can be made from reusable platform building blocks
- How this can be achieved

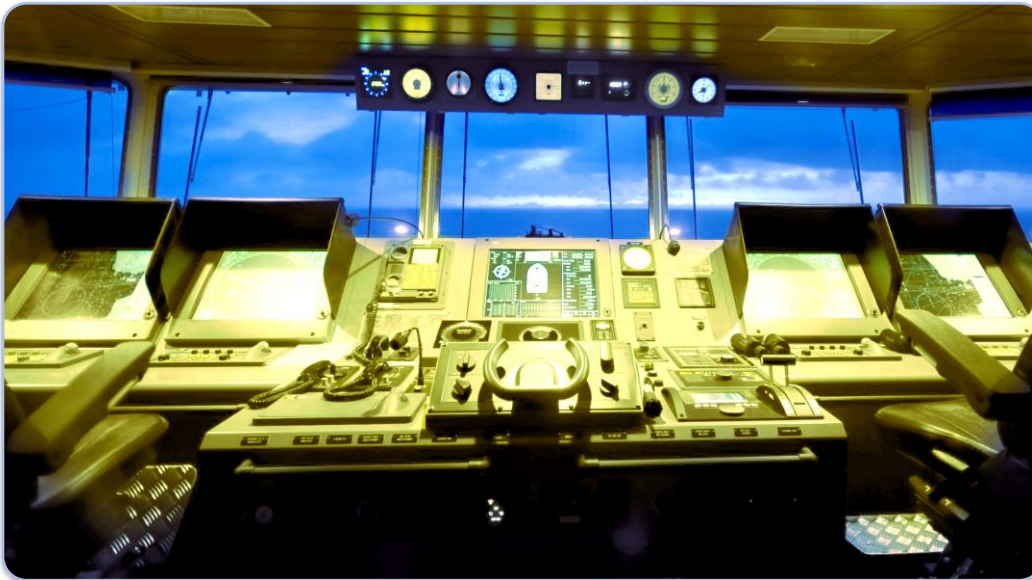
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# Situational Awareness & Granular Data management



# Situational Awareness



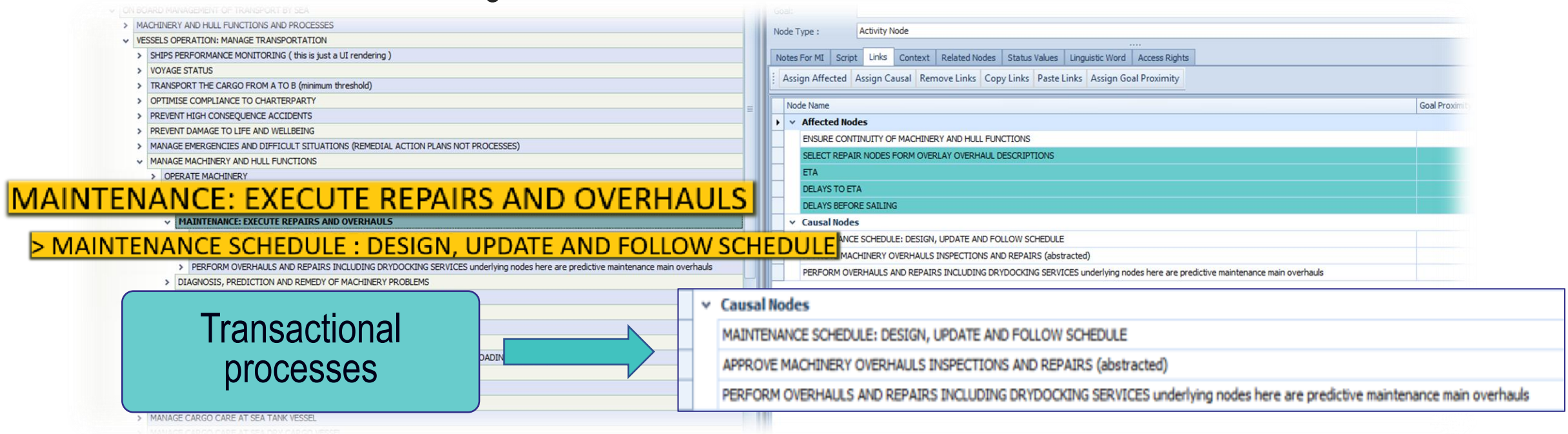
**Emails are the main instantiation of situational awareness in the marine enterprise covering significantly more departments and staff awareness than maritime ERP.**

# Transactional ERP Processes are a small part of the overall enterprise information.

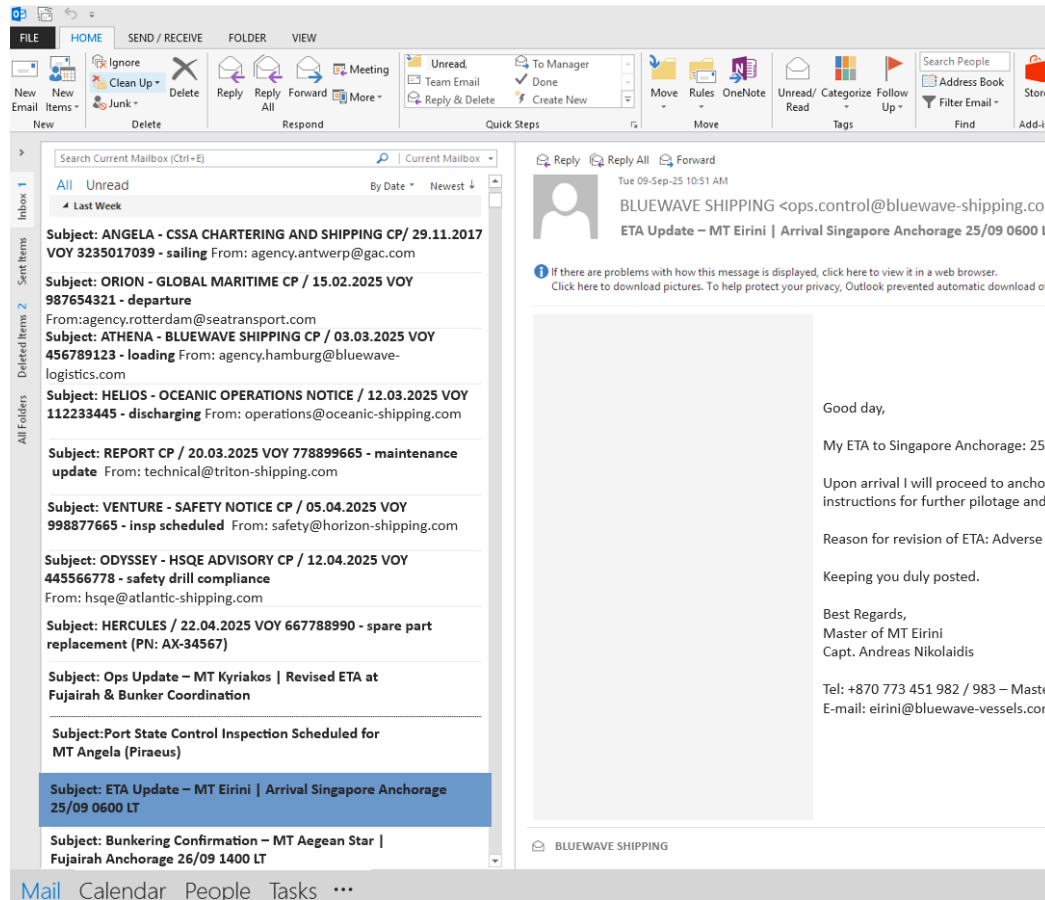
ERP needs to be developed to cover all maritime needs whereas e-mail is already there.

E-mail can be seen as the UI of a maritime organization since all staff at all levels including staff onboard, read e-mails before doing almost anything else.

This is the same in most organizations.

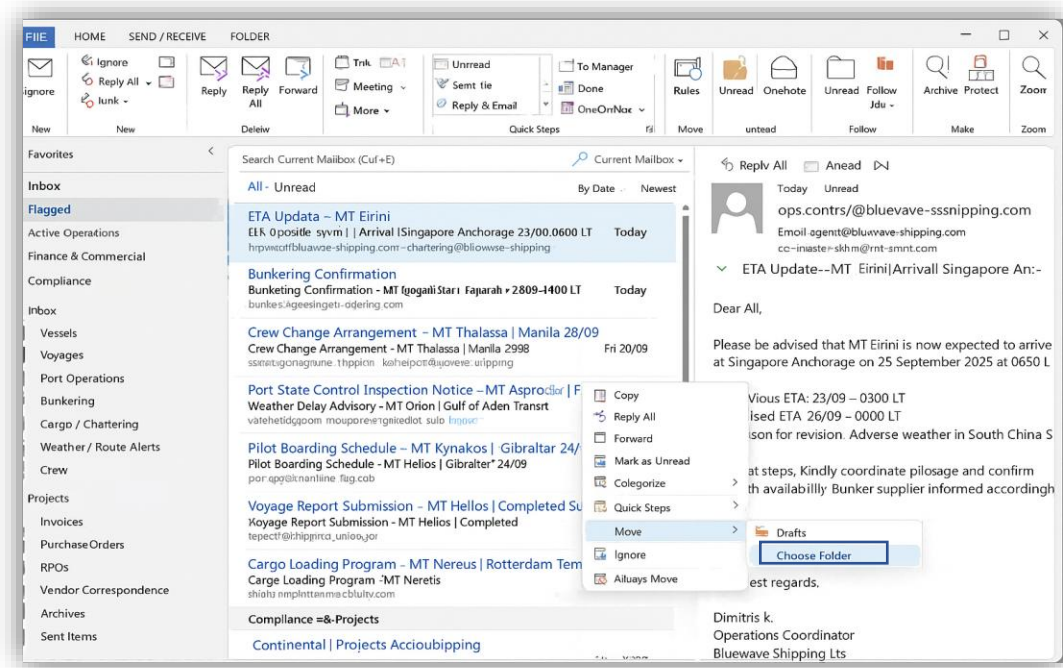


# Emails play an important role



E-mails are one of the most important situational awareness related human computer interface in today's enterprises.

# Email filing happens perhaps 100 times per user daily



**E-mails and messages are often the first to bring information about the current situation in the enterprise. But they are so many that they need to be organized!**

Emails Assigned To Processes means your system looks at all e mails and documents and assigns them to your regular responsibilities and interpose application tasks.

The screenshot displays the TASK ASSISTANT interface, which is used for managing tasks and emails. On the left, a list of tasks is shown under the heading "Domain Model". Two tasks are highlighted with boxes and arrows pointing to specific emails on the right.

**Task 1:** **MANAGE READINESS TO TENDER NOR** (checked). This task is linked to the email: **RE\_ MV ALTHEA\_ 1431590 \_ YANBU - Loading FO - NOR Re- tendered** (Mon 08-Sep-25 1... 163 KB). The email content includes: "\*\*\*\*\* External Sender - Please do not click on links or open attachments from senders you do not trust! \*\*\*\*\* Hi Pantelis, I hope you're".

**Task 2:** **URGENT REQUIREMENT FOR SPARES REQUISITION** (checked). This task is linked to the email: **M\_V Kyriakos \_ VOY 10 \_ Urgent Requisition Steering Gear spares and Cylinder Oil** (Tue 02-Sep-25 10... 28 KB). The email content includes: "\*\*\*\*\* External Sender - Please do not click on links or open attachments from senders you do not trust! \*\*\*\*\* Dear Nikos, I am Soroush".

Other visible tasks in the list include: MANAGE INSPECTION COST #, MANAGE WAREHOUSE INVENTORY, MANAGE STEAM GENERATION AND POW, JOB SAFETY ACTIVITIES AND MANAGEMENT, OBTAIN BERTHING AND CARGO HANDLING DETAILS ..., WEATHER CONDITIONS REQUIRE ENGINE TO RUN TO ..., ETA, CO-ORDINATE SPARES PROCUREMENT DECISIONS INCLUDING PART..., SELECT SPARES SUPPLIER, OBTAIN QUOTES FOR SPARE PARTS, CHOOSE SPARES SUPPLIER FROM QUOTATION COMPARISON, TIMING CONSIDERATIONS TO SUPPLY SPARES, and INVENTORY STATUS OF SPARES.

Other visible emails in the list include: **RE\_ Kyriakos \_ VOY #1431617 \_ NOR \_STS Suez** (Thu 04-Sep-25 4... 94 KB), **ETA Confirmation & NOR Tender – MT Kyriakos | Gibraltar 24/09** (Thu 04-Sep-25 4... 94 KB), **MV LEGACY \_ NOR RE TENDERED AT ZONA COMUN** (Thu 04-Sep-25 10... 29 KB), **ETA Revision & NOR Submission – MT Mardian | Galveston 17/09 2200 LT** (Thu 04-Sep-25 10... 29 KB), and **FW\_ RE\_ RE\_ MV ANON \_V49 - requisition 25-0714 - Urgent** (Tue 02-Sep-25 12... 31 KB).

## Software that meets organisational goals

Software that meets organisational goals is about:

- Avoiding omissions
- Reducing preoccupation wherever the software can assist
- Increasing productivity
- Maturity of the thought process going into every use case.

## **The factors of software refinement**

Situational awareness  
and relevance

are the main factors within a shipping organization  
which constitute the foundation  
of software ease of use and refinement

## Factors of software generated cost saving; Avoiding omissions.

Omissions can involve huge expenses.

Assisting with **avoiding** omissions and the ensuing costs is the main cost saving offered by maritime software.

In addition, the effort to avoid process omissions also enables important co-ordination, and **cost savings in time and preoccupation** which we will describe here.

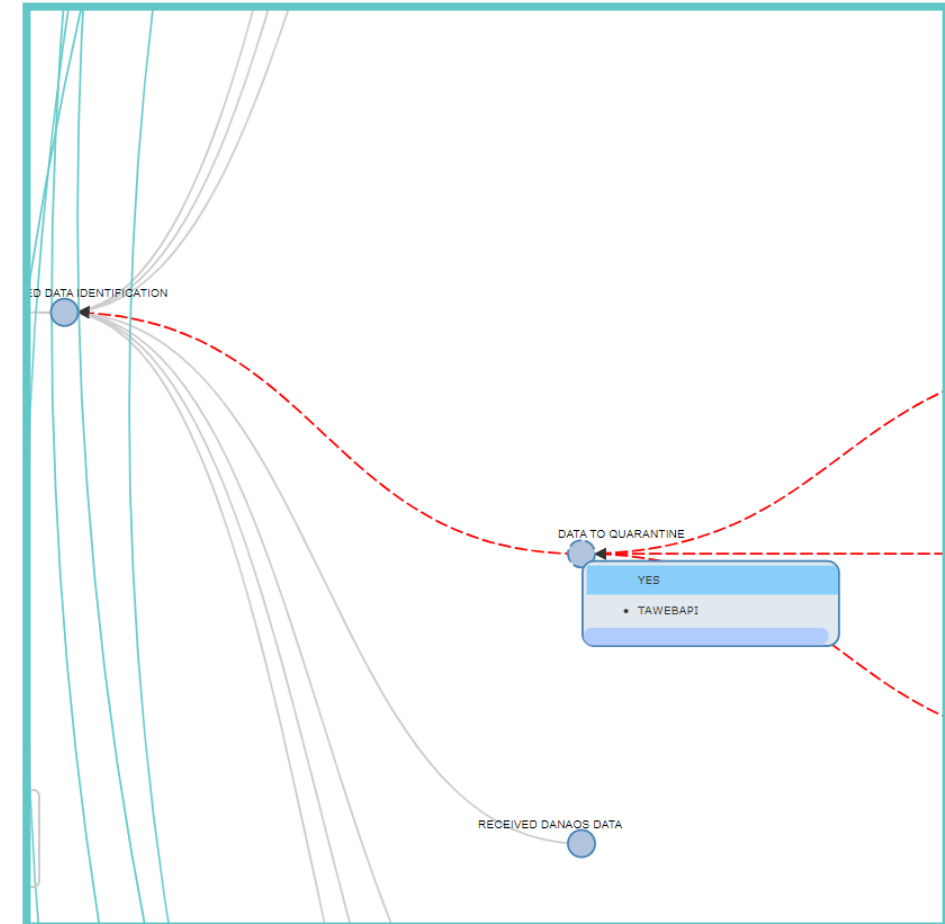
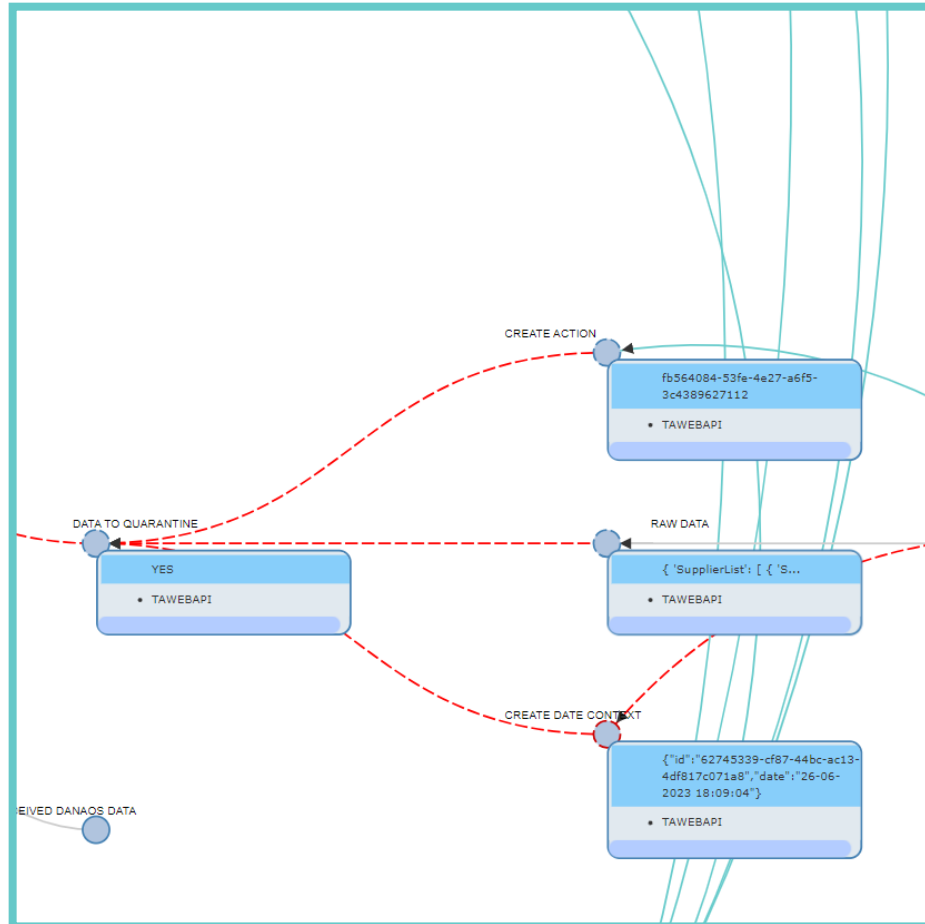
## Factors of software refinement: focus on co-ordination and avoiding user distraction

- **Data driven decisions.** This is a by-product of a richly linked software system.
- **The cost of Co-ordination,** in terms of the most stressful non-emergency activities in any enterprise. Co-ordination requires very carefully designed use cases with very flexible platform features.
- **The cost of distraction** when the use case of the software is not complete, and a user has to stop and search for the follow-on steps in the interaction. This is extremely disruptive to productivity. Especially to multi-tasking users who are having to focus on situational awareness and less on transactional steps and are flooded with distractions both from the enterprise and beyond.

# Software that is easy to adapt and integrate



# Integration that happens at the data and code level



Integrating processes is about carrying out complex resolutions

# Process Integration: coordinated event management as an example

Shipping requires process integration that ensures coordination

Co-ordinate extensive collaborative efforts. For example, address audits from start to completion



# Coordinated Event Management requires process integration

In one project plan:

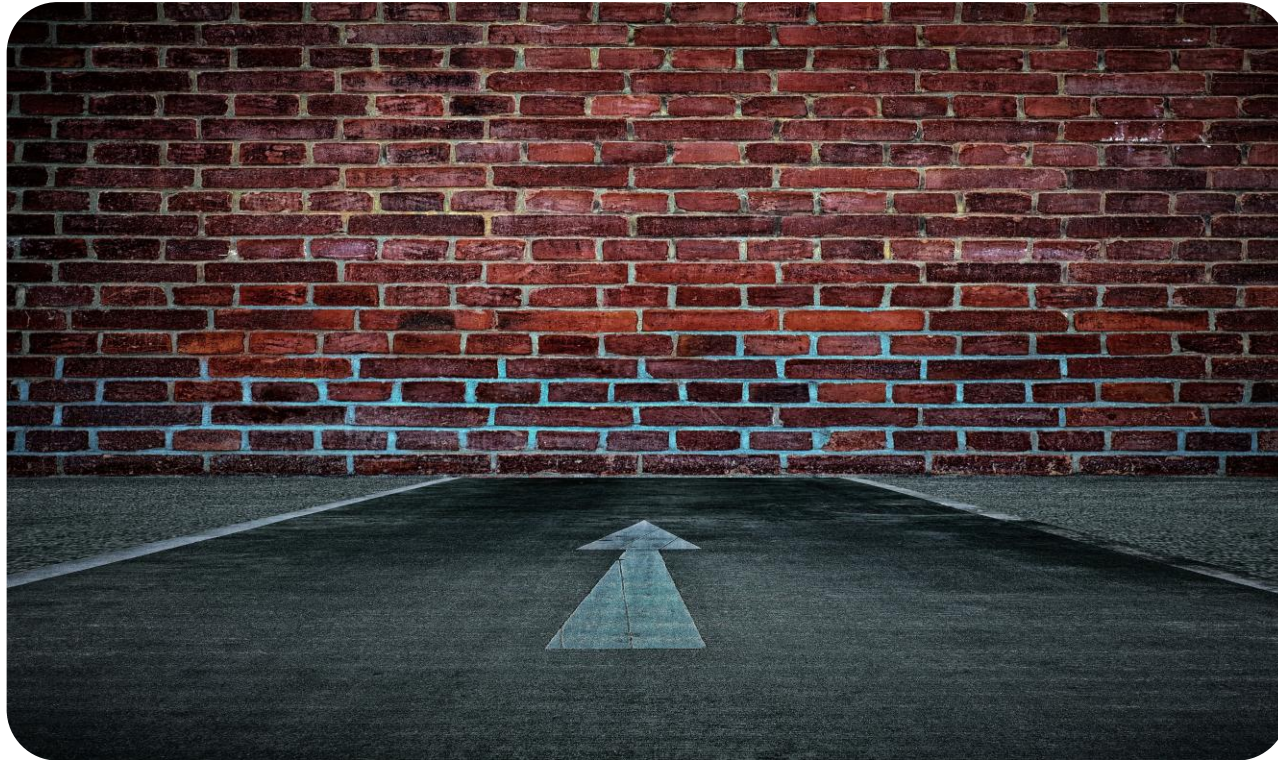
Task Assistant® combines involvement and effort analysis from people with different roles, in different locations and departments, each person working with their own software.



A well-designed event coordination management tool cuts costs

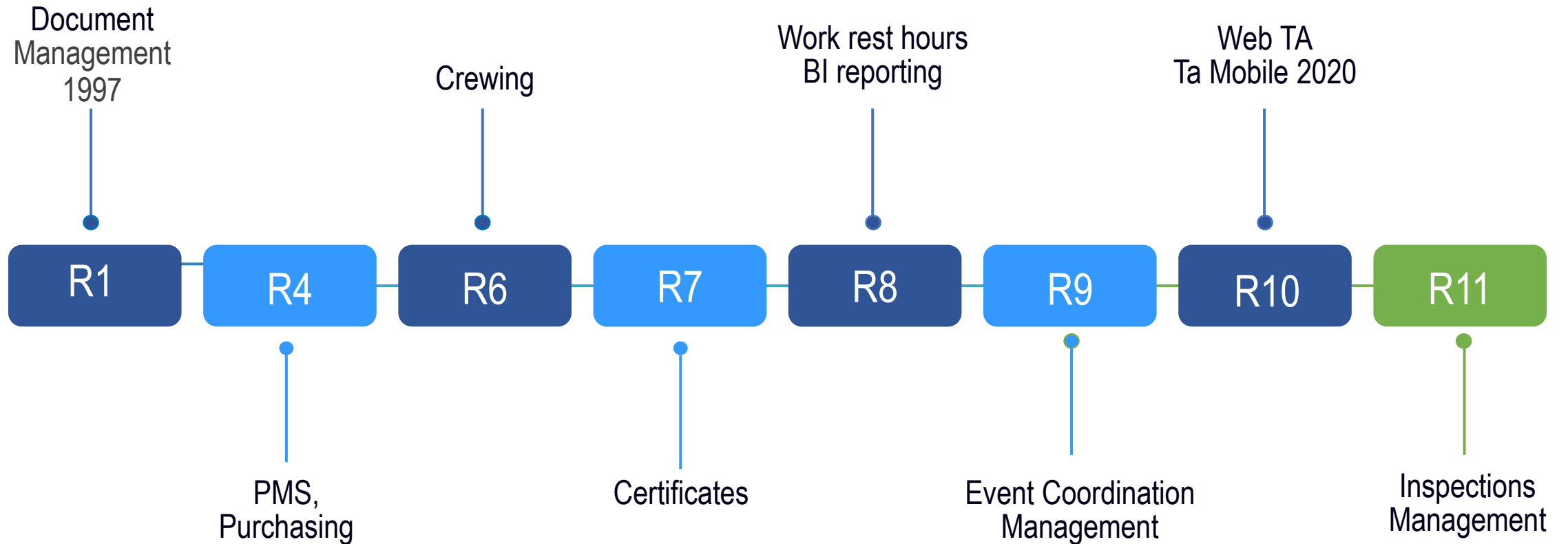
# Upgrades

**Upgrades** are hugely important just as training and familiarisation are.



The IT department needs to manage the software easily.

# Task Assistant® Historic Releases



# Do you have a productivity officer in your company?

Time and cost of using software are about **3 x the out-of-pocket cost of the software**.  
This is for the best of breed software.

But for software that covers the functionality like a tick box or has not been improved for years, this can be three times higher, so **9 x the out-of-pocket lifecycle**

## **Cost of the software.**

The calculations are quite simple. How long do people spend on each application per day? The chief engineers the superintendents and the purchasing specialists?

You will find that that cost in labour is about 3 to 9 times higher than the cost of the software spread over the lifecycle, including every out-of-pocket payment you make for the software.

# Reusable platform building blocks

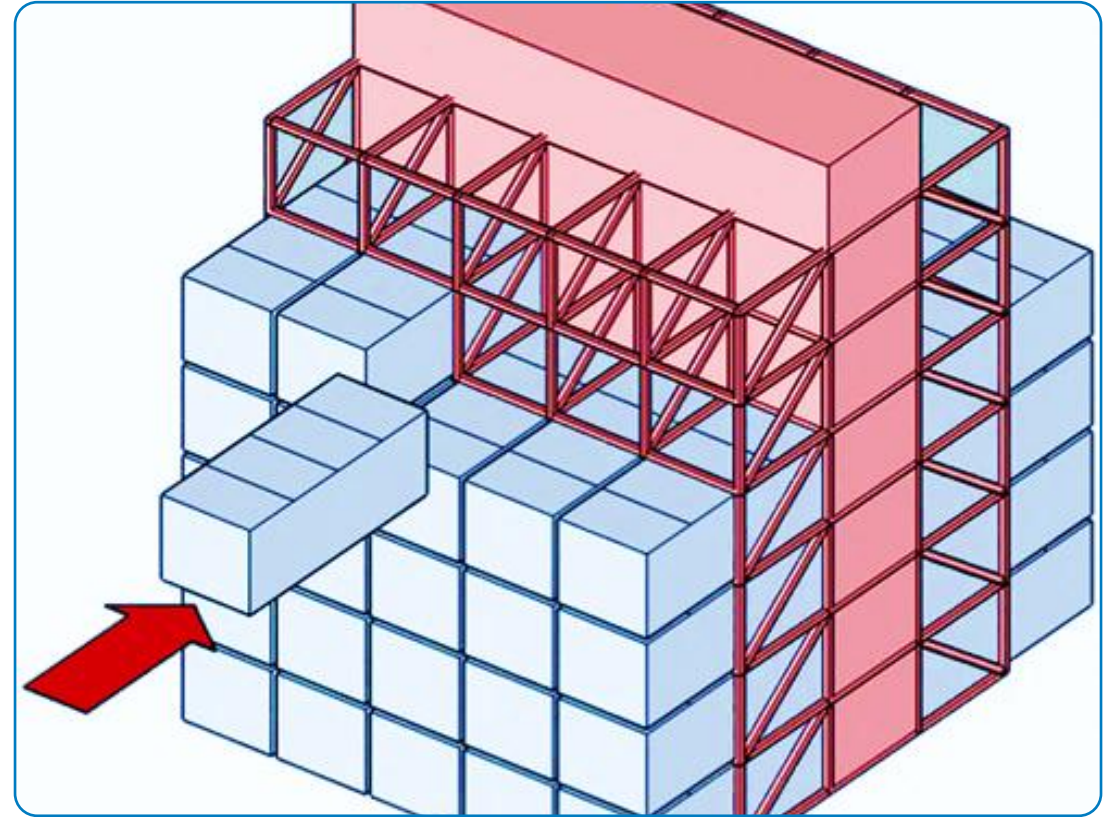
## Platforms

- UI platforms that can be used for any new feature,
- Workflow platform,
- Forms platform,
- Development platforms that assist in handheld software development
- Inspection platforms
- Co-ordination platforms for events Integration platforms here we show data integration as well as ERP integration with e -mail.
- QR code hosting platform
- Software development and integration platform

# Future-proof software requires reusable platform facilities

## Top Priorities for future-proof software:

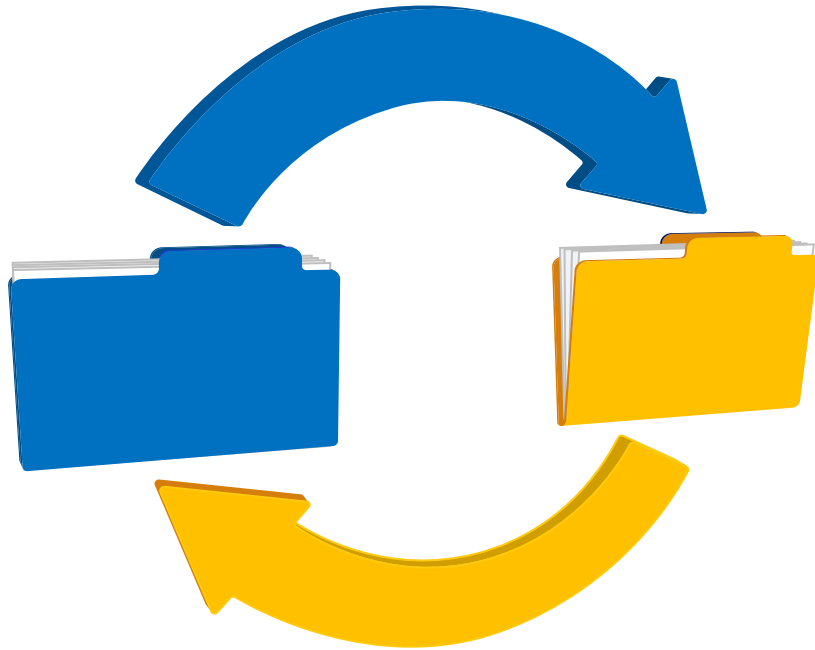
- The vendor with the most up to date and configurable and changeable components that are the same across his client base.
- A configurable business model that requires no client specific customizations.
- The ability to add improvements to existing components with minimal effort



Every task is a dashboard  
and uses the same building blocks whatever the application



Filing. You should never have to file any document or spend time retrieving a document; You should be getting just-in-time information in your applications without you looking for any documents.



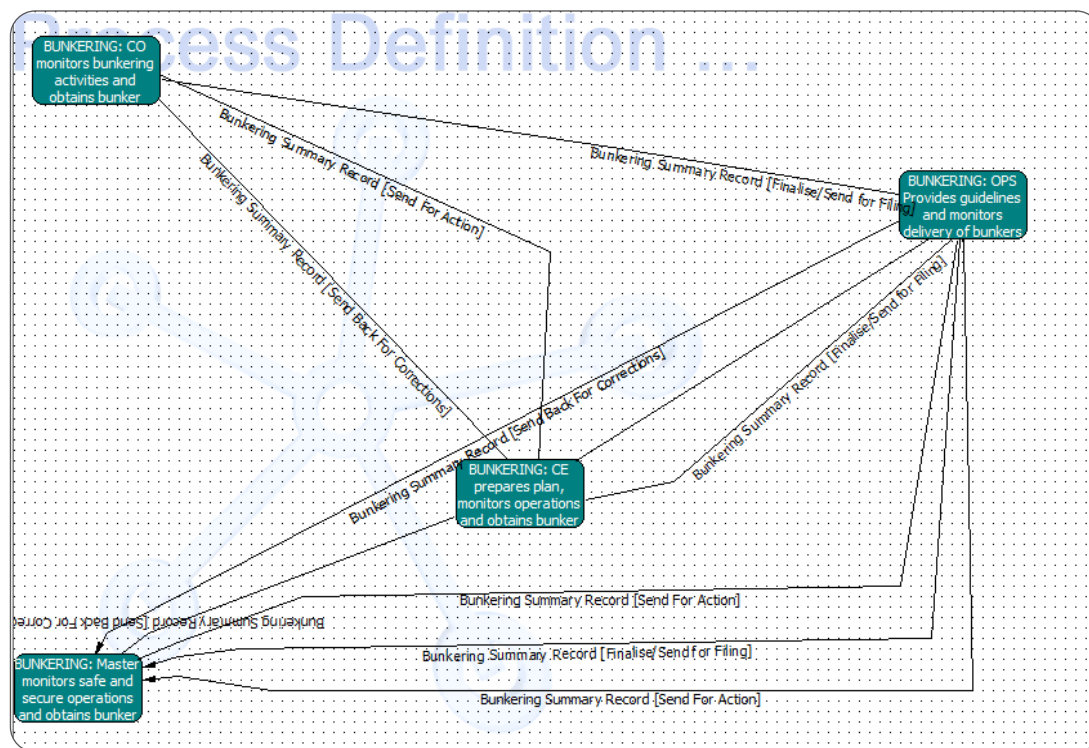
No user should ever needs to be concerned about filing. Create your form, or, if it is in a workflow, edit it and save. Everything else is taken care of.

Filing is the result of saving your work in your role/task folder.  
The system knows the folders you need for your task.

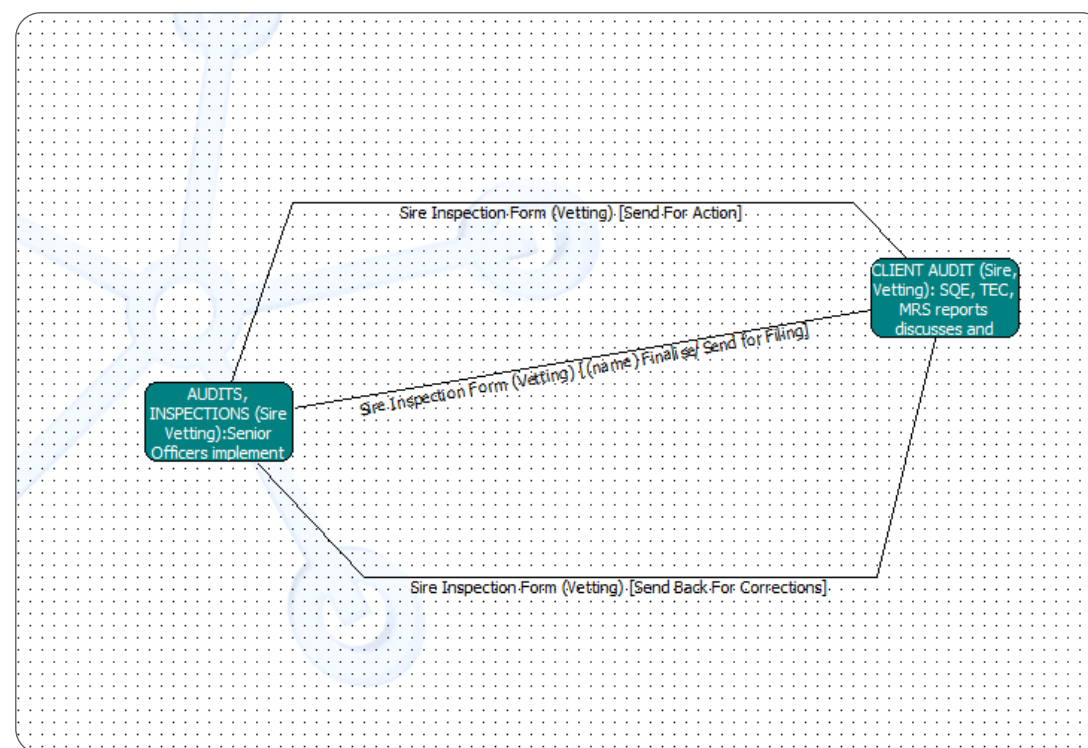
# Workflow with a difference

## Configurable workflows requiring no help from developers

### Bunkering Summary workflow



### Sire Inspection workflow



My Targets and Pitfalls Checklist



Why Shouldn't Your Software  
Be Future Proof?





Since 1996, Ulysses Systems has provided management solutions to ship-owners and ship managers. Its award winning software, Task Assistant® enables both office and seagoing personnel to work intuitively, efficiently and effectively. Task Assistant® is designed to require minimal training. Managers should expect a fast return on total software lifecycle cost from reliable and mature process optimization and minimization of information gaps. Ulysses is class certified by DNV, Bureau Veritas and ClassNK. With presence in the UK, Greece and India, Ulysses Systems is a leader in software innovation for the Maritime Industry.

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