

Keeping the shore and the vessels in sync - NRS

Norddeutsche Reederei is currently installing a standardised software system across its fleet of ships, that it hopes will improve the flow of information around the organisation. Silke Einsfeld, NRS, spoke to *Digital Ship*

Shipowner Norddeutsche Reederei H. Schuldt (NRS) is currently close to half way through an expansive network system overhaul across its fleet, with the company aiming to standardise its software set-up through the introduction of a single fleet management solution to cover particular functions for its vessels and offices.

The aim of this project is to make the most of the centralised network infrastructure the company already has in place, making data and information available across different ships in the fleet while also allowing management to keep a close eye on performance.

In pursuance of that the company is in the process of installing two new software modules from the mespasR5 fleet management system developed by Swiss provider Mespas – a planned maintenance system (PMS) module, and a procurement module with stock control.

NRS currently has 14 vessels using the Mespas system, and intends to roll this out to 50 by the time the project is completed, a project that, hopes will improve efficiency across the fleet.

"The ongoing development of the vessels using higher technologies for the technical monitoring of data requires faster data handling and availability for the daily work of the Superintendents ashore. Most of the areas are affected by enhancements," explains Silke Einsfeld, junior Superintendent with NRS and the person in charge of the software implementation.

"We, as ship owners, are using server based solutions in the office as well as on most of our vessels, with a focus on the advantages which arise out of its use. In detail, officers on board have access from every computer which is connected to the server and thus they are no longer depending on one single computer."

Ms Einsfeld says that she is looking to create a standard for the whole fleet through this project, that will allow for greater usability through increased familiarity with the software, faster transfer and availability of data at the office, and historical data entries that are unchangeable.

"The vessels' software is only a user application, without administrator rights to change settings or upload new maintenance cards," she said. "Administrator rights reside only with the respective users in the office ashore."

"We have the possibility to design 'company-own' maintenance cards for internal use. These standardised maintenance cards all over the fleet means easier handling of mespasR5 on different types of ships.

"All Superintendents and junior Superintendents have their own tailored user role for independent use and work with Mespas. The Superintendents can have overlapping access to the vessels in the other fleet management groups by changing the profile selection in the software."

Synchronisation and training

The introduction of this standardised software system has also meant that the company has had to adopt a synchronisation process that will enable the systems on the vessels and ashore to work from the same data set.

"(NRS) is using Satcom F (Inmarsat Fleet) for e-mail communication, as well as for the data exchange (synchronisation) of mespasR5," Ms Einsfeld explained.

"For the moment all Masters of the vessels are advised to carry out the synchronisation every 3 days. This avoids the need for any additional efforts of transferring data to a CD and making a shipment via ship's mail."

"In future it might be essential to carry out synchronisation every day, as we may make extensive use of mespasR5 as a 'Reporting Tool' for all class required jobs / items, and for planned data extraction for further analysis, creating of trends and benchmarking of ships' performance."

Keeping this system running smoothly will therefore depend on the crews' use of the software applications, a factor which NRS is keenly aware of and has resulted in specific training schedules being introduced in line with the software roll-out.

"Keeping high training standards for our crew is one of our tasks to ensure efficient and comfortable work conditions," said Ms Einsfeld.

"To achieve this we do individual trainings with all Masters and Chief Engineers during their briefings in our office. Furthermore, all officers get individual training on board, where one of the NRS company-internal administrators joins the vessel at the next port and gives the crew the possibility to learn about the handling of mespasR5 and to ask afterwards if some questions come up."

"The second opportunity we offer our crew is a demo version of the system, which can be used for self training and for detailed explanations during officers' handover."

Continuous improvement

With the implementation phase still not even halfway completed Ms Einsfeld is already looking to the future and contemplating new ways in which the software set-up could be customised and enhanced.

"We fully intend to collaborate with Mespas in jointly meeting actual marine requirements or tendencies in the market," she told us.

"We need to keep the focus on comfortable and flexible analysis of all available ships' data, and the implementation of photos on maintenance cards as an important part of the reporting."

"Also very important is the extraction of data to compare single vessels with each other or analysis of the whole fleet data for better planning of maintenance overhauls, or for preplanning of ships' dry-docking periods."



The roll-out will create a software standard for all NRS vessels

NRS would also like to update its synchronisation systems to remove the need for manual intervention on ship.

"Another issue which would be recommended from our (customer) side is a condition-based synchronisation," she said.

"It's also absolutely essential that we have implementation of a multi-user login for the vessels' software, as well as different log-ins for every individual user on board of vessels, with the latest IP networks."

Ms Einsfeld also notes that she would like to have the ability to change processes in the application.

"From our experience, we would highly appreciate if software updates could be supplied on a regular basis, for example every 3 months to make sure that everything is working at the optimum level," she said.

"This would make it more efficient and more comfortable for the crews to use the software application, and would help with any bug fixing or corrective actions."

Support

Mespas' part in the software implementation has included a range of work in creating databases and refining the software settings to match the requirements of NRS.

This has necessitated the transfer of a large amount of data between the companies. For the PMS, for example, this includes long lists of the product types, brands, and serial numbers used on the vessels.

"Typically, customers hadn't had a structured system in place before they decided for mespas R5," explains Christa Thoma, marketing manager at Mespas. "Thus the process of collecting the data from various sources may take some time."

"Mespas currently features around 3,000 brands, 30,000 product types, 807,000 parts, and 15,000 documents within the database (among many other master data). This means, most of the time, we already have the particular part in our database, we only need to link it to the client."

"If it's not in the database, we insert it based on OEM (manufacturer) data, with the correct description, which is particularly important with our procurement module."

With the data in place and built into the software structure, the next step is to

apply the required settings to the PMS.

"Based on the settings, the system triggers jobs or maintenance work to be carried out. In the past, this happened very ad hoc," she said.

"Take a pump, for example. Even though there are many comparable or similar pumps out in the market, manufacturers suggest different maintenance intervals or maintenance work to be carried out. In addition, depending on the fleet manager, such work was carried out according to the manufacturer's recommendations, or according to the fleet manager's own experience."

"Mespas suggests that customers find a common denominator so that planned maintenance (jobs, maintenance cards etc.) can be set up. Apart from the obvious benefits of planned maintenance, having a common denominator facilitates reporting and ensures, that all equipment is maintained in the same fashion across the company."

Having a single authoritative point of contact in the software implementation process, such as Ms Einsfeld in the case of NRS, can be of great benefit in getting things done efficiently, notes Ms Thoma.

"Having Ms Einsfeld as the dedicated person in charge of gathering information and ensuring that the right settings are selected, has proven to be very helpful," she said.

"The implementation phase, with all its data collection and definition of settings, pays within a short period of time. Once the client is fully set up, working with the software modules is easy, the data is accurate and there is very little additional work to be carried out by the system's users."

"Upon synchronisation, all users within the company benefit from the same level of information, and there are strict rules regarding the rights of altering information."

Ms Thoma notes that, in a situation where the required data is readily available to begin the process, installation can be completed relatively quickly.

"If all data (for the PMS, mentioned above), would be available at once, the setup could be done within a few days or weeks, depending on what modules the customer purchased," she said.

"Updates of the software are easier still. Since we work with a central database, users who log onto the system receive all updates, new data, module enhancements and so on, upon log-in. Mespas manages all relevant data (master-data, software, business data) on a highly secure central server. Distribution of updates thus is very quick and easy."

NRS will be hopeful that, with the continued hard work of its staff, that the roll-out of the system on to the last of its vessels can proceed this smoothly – even though Ms Einsfeld notes it may never truly be finished.

"We would like to give the following comment to all shipping owners or future user of a Planned Maintenance System – it is a living system, which will never reach the status 'done'," she said.