Computerised rostering systems are being developed that could provide the optimum solution for terminal efficiency and cost reduction. **CM** *asked Steven Moore, CEO of Rostima which is at the forefront of developing such a system, to summarise current progress.*

Can the press of a button solve container terminal labour roster problems?

How did Rostima come about?

The company Rostima originated from the aviation sector and was registered in the UK in 2001. The company comprises a highly focused team of experts with a varied background in labour management and optimisation, from the maritime, aviation and logistics sectors.

Our solutions have been providing benefits to customers employing multi-skilled workforces in 24x7 working environments around the world for many years. Today, we are respected in the industry for being amongst the best labour optimisation solution providers.

Rostima has been working closely with a number of major terminal operators with a view to providing an Enterprise Workforce Management (EWM) solution that is designed specifically for the unique requirements of the stevedoring industry across the US, Europe, Middle East, Africa and Asian-Pacific employment legislation.

Today, our prime strategy is to be recognised as the industry standard for EWM solutions in the global maritime industry, enabling our customers to deliver leaner and more efficient terminal operations.

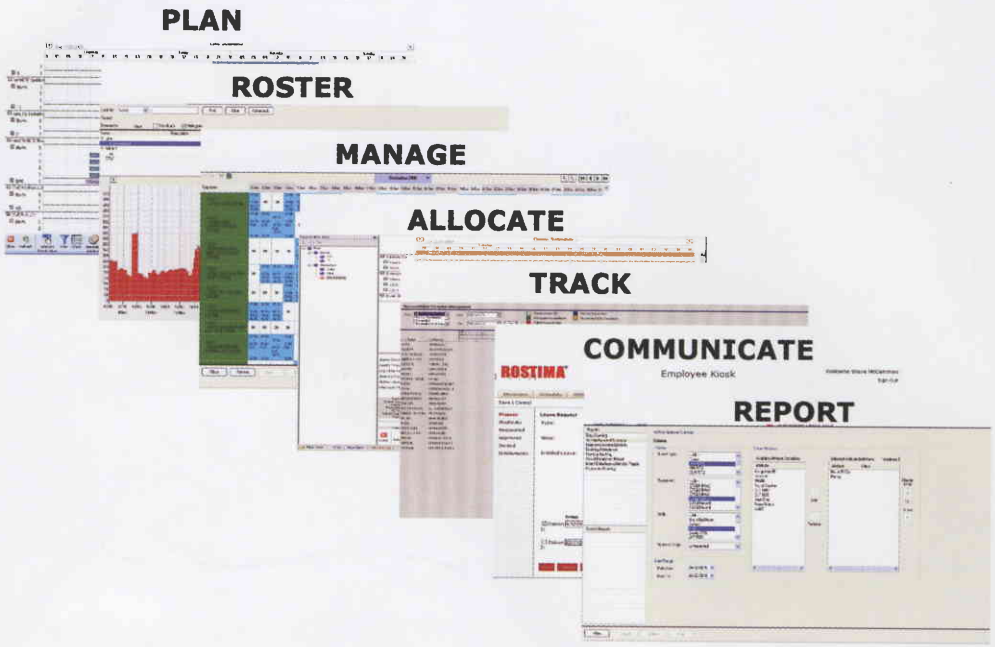
Interestingly, the same principles that apply in container and intermodal terminals also apply in airports, including capacity planning against flight schedules, roster generation against uneven peaks and troughs in workload demand, time and attendance and duty allocation based on real-time requirement changes, although container terminals have fewer vessels, steadier traffic flows and less cargo disparity.

Steven Moore, Rostima's CEO

What can the system do?

The system covers the whole spectrum from 'what-if' scenario planning of labour against vessel schedules, to operational scheduling, duty allocation and real-time attendance management. Its unique algorithms take account of labour cost, utilisation, skilling, working time rules and preferences, in determining the most effective schedules and work allocations for an operation.

Trying to work out staffing levels on any given day and how to avoid the under utilisation of equipment are major challenges that are constantly faced and which are exacerbated by vessel delays, bad weather and schedule alterations. Any or all of these factors can result in unexpected overtime and the deployment of extra staff to deal with the fluctuating workload. Such complexities almost demand a planning tool that can react immediately to changes, allowing better work planning in keeping with workplace regulations.



The Enterprise Workforce Management solution

With our software, once a pattern has been agreed, the system can, on a monthly, weekly or daily basis, efficiently allocate the best resources to tasks taking into account union agreements, fatigue rules, health and safety, operator skills and security matters. Work time and attendance can also be monitored by a variety of means including card and hand readers, thumbprints and linked swipe card/video cameras.

Equipment maintenance is a good example of how schedules can be factored into the system allowing for maximum efficiency, reduced running costs and minimal downtime.

Ensuring that terminal personnel are properly qualified for their respective task to use equipment, that they are complying with training and refresher courses, licence renewals and legal requirements for rest periods and terminal regulations, can be difficult and time-consuming to track. Our software handles all these variables efficiently and accurately in a graphical and easily understandable format that is intuitive. Just to give one example, the screen illustrated shows a comparison of vessel and equipment schedules, against resource requirements, that can be colour coded and configured to enable planners to make informed decisions about the deployment of the labour.

Rostima has an advanced relief algorithm that enables the planning of rest breaks and reliefs during the daily operation to be optimised to take account of all key rules and regulations. Typically, we have been able to demonstrate labour hour savings of between 5% and 10% through the application of our technology. In addition, the more flexible the working arrangements and the ability to change rostered work patterns, the greater the saving - up to 20% in some cases.

What is apparent today is that the global container industry is crying out for a solution to drive down labour costs and increase efficiency without causing industrial relations, legal and safety problems, and our product is the solution to these needs.

Is the system cost-effective for smaller terminals and at what size is it not cost-effective?

That is difficult to answer as a number of factors come into play to decide cost-effectiveness, including the number of personnel employed and the cost of labour at the facility. For example, a US west coast terminal with only 200 personnel but each earning US$100,000 a year would definitely find it cost-effective. Conversely, a terminal in India with 2,000 workers earning US$2,000 a year might not find it so cost-effective.

Each case has to be analysed on its merits and the myriad of variables involved, in order to decide how best the system fits the requirements and that is all part of the service we provide for potential users. What we do know is that if we cannot demonstrate in a 'Proof of Concept' exercise a potential payback in less than 24 months, clients will rarely proceed with a contract; therefore our product has to do what it says.

Is Rostima's system ready to be launched on the international market as tried and tested package?

It has taken seven years honing the technology and devising a system that is as universally applicable to given situations as possible and is now ready to be taken out of the box and configured for use in any terminal in the world.

We are privileged to be partnering with a number of major terminal operators to ensure that the solution meets these extensive demands of the stevedoring sector. Deployments to a number of strategic terminals around the world are well developed and we look forward to reporting these successes in the near future. ■