

# Tideworks outlines next platform

Last year Tideworks Technology announced a significant development with the launch of Mainsail Vanguard, the next step in the evolution of its Mainsail TOS.

The previous versions of Mainsail were developed using Oracle forms, but Mainsail Vanguard uses Adobe Flex, a Rich Internet Application (RIA) used for developing graphical user interfaces (GUIs) that can run on any platform.

Mainsail was first developed over a decade ago and has been expanded significantly over time as users requested new functionality. Tideworks made a strategic decision to move Mainsail to a new user interface that would allow much greater flexibility and a simplified, consolidated workspace.

## New GUI

Developer Thomas VanBuskirk said Mainsail Vanguard is a "customer-driven" development effort. Tideworks went out to see how terminals are working with

## Tideworks has launched Mainsail Vanguard, its next generation TOS based on Adobe Flex

Mainsail and what could be consolidated to make it easier to use.

The new user interface is designed to be more efficient, intuitive and productive, and is now configurable. Previously, changes to forms required Tideworks developers to write new code, but with Vanguard, users can configure features and functions and customise the user interface by job groups and at the individual user level.

The reporting functions can also be customised, allowing users to add and remove columns from standard reports.

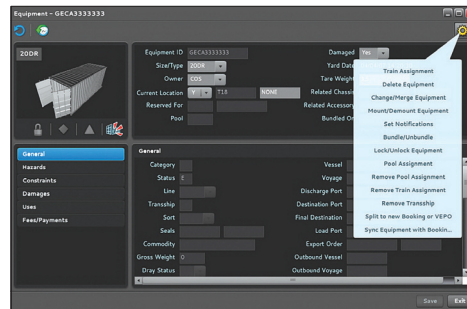
While the user interface is completely new, Tideworks was mindful to "put things in familiar places and use familiar names" to make the transition to Vanguard as easy as possible. A search panel is in the toolbar permanently, enabling the

user to quickly find the information they need from any screen. Vanguard is operating system and browser-neutral, so it looks the same in any environment.

## Data manipulation

With Mainsail Vanguard, users can access and manipulate data within the TOS more easily. This facilitates common tasks, such as analysing gate errors, by allowing the user to group errors using simple drag and drop manipulation. Advanced panels give options for getting more granularity on selected items and results can be consolidated and exported as a PDF.

Another useful tool is a recap function, which Tideworks has incorporated from its Spinnaker Planning Management System. This lets the user summarise in-



Tideworks' Mainsail Vanguard features a completely new user interface

formation, for instance all container moves on a particular vessel call, to gain instant visibility into the details of an event by broad level category.

More strategically, Tideworks has decided to include ro-ro and break bulk cargo within Vanguard. This is something TOS providers have been doing to varying degrees for some time, and some ter-

minals are asking for it in RFPs.

Tideworks also plans to include a consolidated CFS solution and comprehensive billing module in the future.

## Migrating path

How and when to migrate a TOS to the new platform is a key decision for TOS suppliers. Customers need to be satisfied that the new environment offers significant benefits, is properly tested and mature enough to minimise risks and disruption, but they also need to buy into the TOS supplier's vision for the new platform and how to migrate to it.

Adobe Flex is a well-known software development kit used in successful applications like YouTube, Facebook and the BBC iPlayer. Tideworks president and CEO Mike Schwank explains that Tideworks initially used Adobe Flex in developing its Digital Bridge performance monitoring tool before utilising it for Mainsail Vanguard. Tideworks then worked with MIT in Panama to deploy a beta version of Mainsail Vanguard and conduct testing.

To manage the transition, customers can run Mainsail Vanguard simultaneously with their existing version of Mainsail using the same data via a new "Tideworks portal." All the Tideworks applications can be accessed through a desktop icon and the user can switch between the two versions on the same desktop.

Enabling users to run both applications simultaneously means terminals can take advantage of the new platform without having to wait for all features and/or any particular customisation they have

to be migrated. It is important to note that Mainsail Vanguard is a code refactoring development (where the source code of existing functionality is rewritten) and much of the "development" work involves progressively moving the functionality from Mainsail to Mainsail Vanguard.

Tideworks customers can move to Vanguard within their existing licensing structure - there is no additional licensing fee. Schwank adds that the development cost was funded out of the ongoing maintenance fee of all licensed users pay. Customers can install the first version free of charge and continue to access upgraded versions just as they do now with Mainsail.

## Automation support

Tideworks is conscious that terminals looking to the future want to know how Mainsail will support automation. The company has developed the functionality required, but it is not included in Mainsail. It includes 3D visualisation tools and the Traffic Control module for the Spinnaker planning system.

MIT Panama is using Tideworks solutions to implement a position detection system (PDS) and zoning and pooling strategies to minimise equipment travel time.

Rather than looking for an "automated stacking crane" module, Swank says terminals should look harder at TOS suppliers' ability to manage all the integration.

With existing automated terminals, he adds, most are using several different applications outside of the core TOS for "automation". Tideworks has developed a middleware application, called the System Integration Module (SIM), that sits outside the core TOS application and interfaces with all the other systems. SIM can integrate gate systems, other data capture technologies and equipment control systems necessary for automation.

SIM will be first used at CSX Intermodal's new terminal in North West Ohio. CSX is using Tideworks' Intermodal Pro TOS and integrating it with a CSX mainframe, the Ship CSX customer system, Mi-Jack's MiStar GPS PDS, the crane PLCs and rail and gate OCR systems from APS Technology.

This will be a key reference for Tideworks as it includes a high level of process automation and an automated crane control system. □

## TOPS gets Advanced

Australia's Realtime Business Solutions (RBS) has implemented the new version of its TOPSTOS - TOPS-Advance - at APMT's Suez Canal Container Terminal (SSCT) in Port Said, Egypt.

TOPS-Advance is running on an SQL-based Relational Database System and includes a 64 bit architecture. This enables the system to scale "to handle virtually any container terminal size in the world with a single application server," said RBS managing director, Harry Nguyen.

RBS has long claimed one of the advantages of TOPS is true real time planning. When multiple planners are working on the system, any activity performed by one is immediately visible to all the others, but the system does not allow more than one planner to work on a single container at a time.

New features in TOPS-Advance include dual cycling capability during loading and discharge and enhanced equipment control to allow dynamic dispatch and more accurate forecasts to be sent to RTG drivers. The system au-

tomatically generates a crane schedule (with manual override) for cargo distribution across all cranes, giving operations personnel a more accurate view of vessel completion time.

In the yard, TOPS-Advance features enhanced management tools to improve space optimisation and new planning tools for visibility into "sub-sequence" operations. Control clerks can see the effect of actions such as shifting crane and trailer assignments on estimated move time.

SSCT has been using TOPS since opening in 2004. The facility is now handling 2.7M TEU annually and APMT claims productivity has averaged 36 moves per hour from start up.

The upgrade to TOPS-Advance was managed by Norbet Klettner from RBS's Hamburg Office (Eurogate is also using TOPS) and is now complete. SSCT has plans to expand capacity to 5.4M TEU/year by 2012 and the next step with TOPS is to implement a greater level of process automation, Nguyen said. □