



The New TOS  
for Optimized Terminal Operation

Realtime Business Solutions

**TOPX** Expert





# TOPX Expert

Based on the consolidated feedback from clients and terminals, own experience and new ideas, RBS has developed the latest version of the TOPS Expert TOS application. The new TOPX Expert, built on a solid system architecture, offers a true real-time TOS, with new functionalities and smart features that will be necessary to move to the next level for manual and automated terminals.

## Customers Perspective

In summary, terminals are important in the global logistic chain. Terminals need efficient and reliable processes to meet and exceed customer demands and stay competitive; TOPX Expert optimizes terminal operation before the vessel arrives, during all planning phases, the execution, up to the reporting and invoicing. TOPX Expert enables terminals to deliver, in the shortest time possible and at optimal cost. Every second of the day, in real time.

Shipping line consolidation and bigger vessels coming, the key is to handle even peak-time traffic in an efficient way. Whether you automate your equipment or you automate the processes, availability and accessibility of information combined with smart decision support are the key.

RBS enables a terminal to use BIG DATA as a vital part of the day-to-day operations and management of a terminal. The smart solutions in TOPX Expert increase customer service, using resources more efficiently, increasing revenue and contributing to the environment.

## Decision support

Take operational decisions with a better support from the TOS and better quality of information. Consolidated view and smart features will support operational decisions.

## Automation ready!

TOPX Expert is fully automation ready and manages automated equipment and optimize the movement on an automated terminal.

## Increasing Customer Service

TOPX Expert offers the best, most capable and user-friendly tools to enable terminal operators to satisfy customer requirements and allow to manage bigger vessels and higher volume.

## More Efficiency, increasing Profit

TOPX Expert introduces a new and holistic optimization approach with smart algorithms for the entire terminal, analyzing all available data on a true real-time basis.

Introducing the new TOPX Expert resource optimization and reverse engineering techniques results in significant cost savings for the terminal operator, and thus a way to increase profit.

## New look and feel

TOPS Expert brings a completely new design of the screens, easy to use, and presenting the most relevant information in a more concentrated and easy to read layout. TOPS Expert comes with a new comprehensive and valuable search function, which considers all available sources of information and delivers results faster than ever.

In a blink of an eye, the user finds what he/she needs.

## Integrated Smart Automated Berth Planning and Optimization

The automated berth planning will allow the terminal to plan a complete berthing scenario for a week using operational parameters like service priority or driving distance in less than a minute. The advantage of information accessibility allows the terminal to play scenarios and take decisions on a high quality of information.

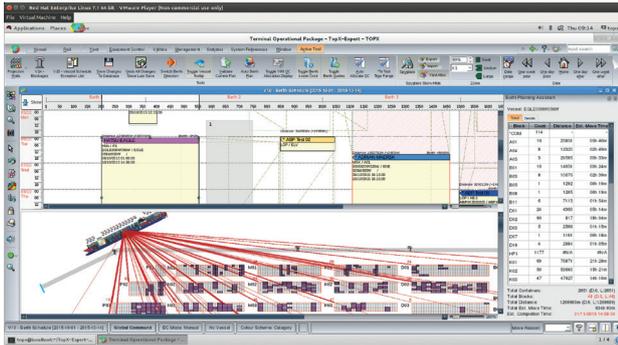
In details the automated berth planning:

- Forecasts costs of resources (CHEs/labors) and operational time/costs at the time of berth planning
- Foresee work flows in relation to a vessels operation



# Automation Needs to be More than Robotization of the Execution!

- Achieve more accurate ETA/ETD of vessel by taking priorities, operational factors and other vessels into consideration
- Save fuel/energy cost by optimizing travel distances and avoiding idle travel time
- Using heuristic smart algorithm to optimize berth planning and provide scenarios based on operational parameters



## Integrated Automatic Crane Scheduling and Vessel Planning

Integrated solution for crane planning and real-time automated vessel planning gaining all information from previous process steps.

- Automatic generation of the quay crane sequence based on available information
- Accurate planning by time for streamlined operations and minimized exception handling during operations
- Converts planning into equipment assignment and dispatching sequence
- Real-time monitor of the quay crane operations and allows adjustment for quay crane work load balance
- Realtime automated vessel planning that reconsiders the plan based on new information over time

## Reverse Engineering to Manage the Yard Strategy

TOPX Expert has an integrated yard management allowing the terminal to have a good overview about how to manage the container flow on the terminal. In a build-in semi-3D view the user can easily filter and view required information.

- Automatic yard management build-up by applying reversed engineering algorithm comparing current inventory with a new strategy in real-time

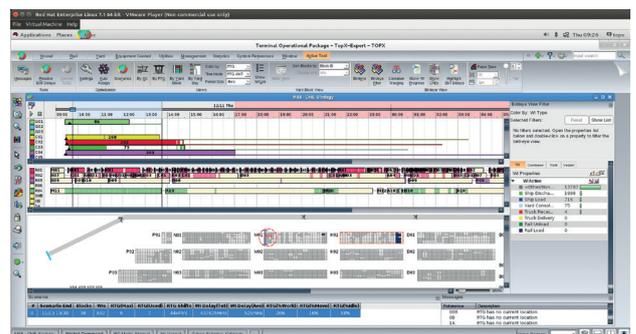
- Easy yard management from the top view and integrated information from all planning modules
- Yard views and decision support by accurate information and estimated move times for all planned moves
- Forecast of estimated container move times, gives management a view of staff performance
- Staff work more efficiently

Optimum yard management is reflected in the terminals overall performance and contributes to the terminals increased productivity and efficiency, this should enable the terminal to achieve an increase in its capacity and revenue.

## Full Integration of all Modules in Decision Support and Monitoring for Operational Resource Allocation

For operations preparation and monitoring TOPX Expert has a fully integrated cross-module resource allocation view. It integrates in true realtime information from berth, yard and equipment management. It allows the user to view and forecast the operation on the timeline comparing planned moves (EMT) with accrual possible execution considering berth, equipment driving speed, performance and distance across the whole terminal on one view.

- Forecasts number of CHEs required for operation at any given time
- Consolidated view on all equipment over the operational timeline for all vessels and operations
- Forecast and point out possible areas of trouble and congestion
- Forecast of estimated container move times and equipment travelling give staff time to act – not only react
- Real-time analytic processing on constantly changing data in motion and enable descriptive and predictive analytics to support real-time decisions
- Capture and analyses all data, all the time, just-in-time



## RBS – Container Handling Specialists

Realtime Business Solutions (RBS) specializes in solutions for the Container Handling Industry. The company has many years' experience in software development and implementation as well as project management and port consultancy and has worked exclusively in the Container Handling Industry since 1991. During this time RBS provided and implemented advanced and highly specific State of the Art Software and Control Systems for the Container Handling Industry.

RBS has carried out the installation of TOPS software to many Container Handling Terminals in Australia, Egypt, Germany, Indonesia, Italy, France, Lithuania, Brazil, Japan, New Zealand, Panama, Romania, Togo, Taiwan and Vietnam. In total the terminals are handling an overall volume of more than 28 million TEUs with TOPS.

Throughout many years, RBS was listening to its customers and has spent a lot of effort and investment in Research and Development to create the new TOPS Expert, in order to fulfil the customers growing demands and future requirements.



### Terminal Solutions Around the Globe

#### APM TERMINALS

APM Terminals Romania SRL, Romania  
APM Terminals Japan K.K., Japan

#### DP World and Surabaya Port Authority

TPS Terminal Petikemas, Indonesia

#### EUROGATE

CTH Container Terminal Hamburg, Germany

#### Evergreen Marine Corporation

Container Terminal No. 4, Taiwan  
Container Terminal No. 5, Taiwan  
TCT Taranto Container Terminal, Italy

#### Pacific National

MIST MacArthur Intermodal Shipping Terminal, Australia

#### Pelindo III

TTL Terminal Teluk Lamong, Indonesia  
PKS Terminal Petikemas Semarang, Indonesia

#### Saigon New Port (SNP)

Tan Cang – Cat Lai Terminal, Vietnam  
Tan Cang – Cai Mep Terminal 2, Vietnam  
Tan Cang – Cat Lai Terminal (Depot), Vietnam  
TCIT Tan Cang – Cai Mep International Terminal, Vietnam  
Tan Cang – Cai Mep Terminal 3, Vietnam

#### Terminal Investment Limited (TIL)

Klaipėdos Smelte, Lithuania  
Seayard Container Terminal, France  
BTP Brasil Terminal Portuario, Brasil  
LCT Lomé Container Terminal, Togo

... and many more.

**Excited to Learn how You will Benefit from our Solutions?  
Contact us!**

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