

## **EUROGATE optimises terminals using ViTO**

In various projects the increase in productivity and the implementation of new Terminal Operating Systems (TOS) for the container terminals of the EUROGATE group is evaluated. For this purpose the EUROGATE IT Services GmbH has purchased the simulation based planning and emulation tool ViTO - Virtual Terminal Optimization.

ViTO is based on the worldwide distributed simulation system SCUSY (Simulation of Container Unit Handling System), developed by the Institute of Shipping Economics and Logistics. ISL's competence centre "Optimisation and Simulation" is working in the area of simulation in the maritime sector for some 20 years. In this field ISL is working in consultancy projects and is developing individual tools for terminal planner and -operators. Since actually most simulation systems are used for planning purposes ViTO may - due to the coupling to the TOS - also be used during the implementation phase as well as in daily operation.

EUROGATE will use ViTO during the whole planning and implementation process. ViTO's simulation module will help evaluating new strategies or layout variations as well as studying the impacts for new technologies and new types of equipment. The project team may change layout variations and device usage by their own. As a result the amount of equipment needed, the total of all unproductive times (waiting for equipment, waiting for job, etc.), the utilisation of each device and the productivity of each area of the terminal will be given for each alternative. In a cost based comparison these variants may be evaluated and so the decision for the best variant will be supported.

In a next step the models of the planning phase may be reused during the implementation and start up phase of new terminal operation systems (or new releases of the TOS) This may be done for quality reasons as well as for the fine tuning of the strategies used. Coupling the simulation models of the equipment to the TOS guarantees, that exactly the strategies will be tested, which will be in use at the terminal. This kind of coupling with simulation models is also called emulation. Due to the fact that the terminals of the EUROGATE group will use various TOS it is very important to use a flexible business connector between simulation and TOS. Furthermore EUROGATE needs a system, where they may change the layout as well as the amount and the parameters of the equipment used by their own, because they plan to use the system within their organisation.

The main reasons of the decision for the collaboration with ISL have been their experiences in simulation as well as in terminal operation and in maritime logistics (see the statistical yearbooks and worldwide forecasts). Furthermore ISL is independent from any manufacturer of equipment and operating systems. Last but not least the opportunity to change the ViTO models has been important to EUROGATE.

Contact:

Dr.-Ing. Holger Schütt  
Institute of Shipping Economics and Logistics  
Department Information Logistics  
Competence Center Optimization and Simulation  
Barkhausenstrasse 2  
D 27568 Bremerhaven  
GERMANY

[Simulation@isl.org](mailto:Simulation@isl.org)



