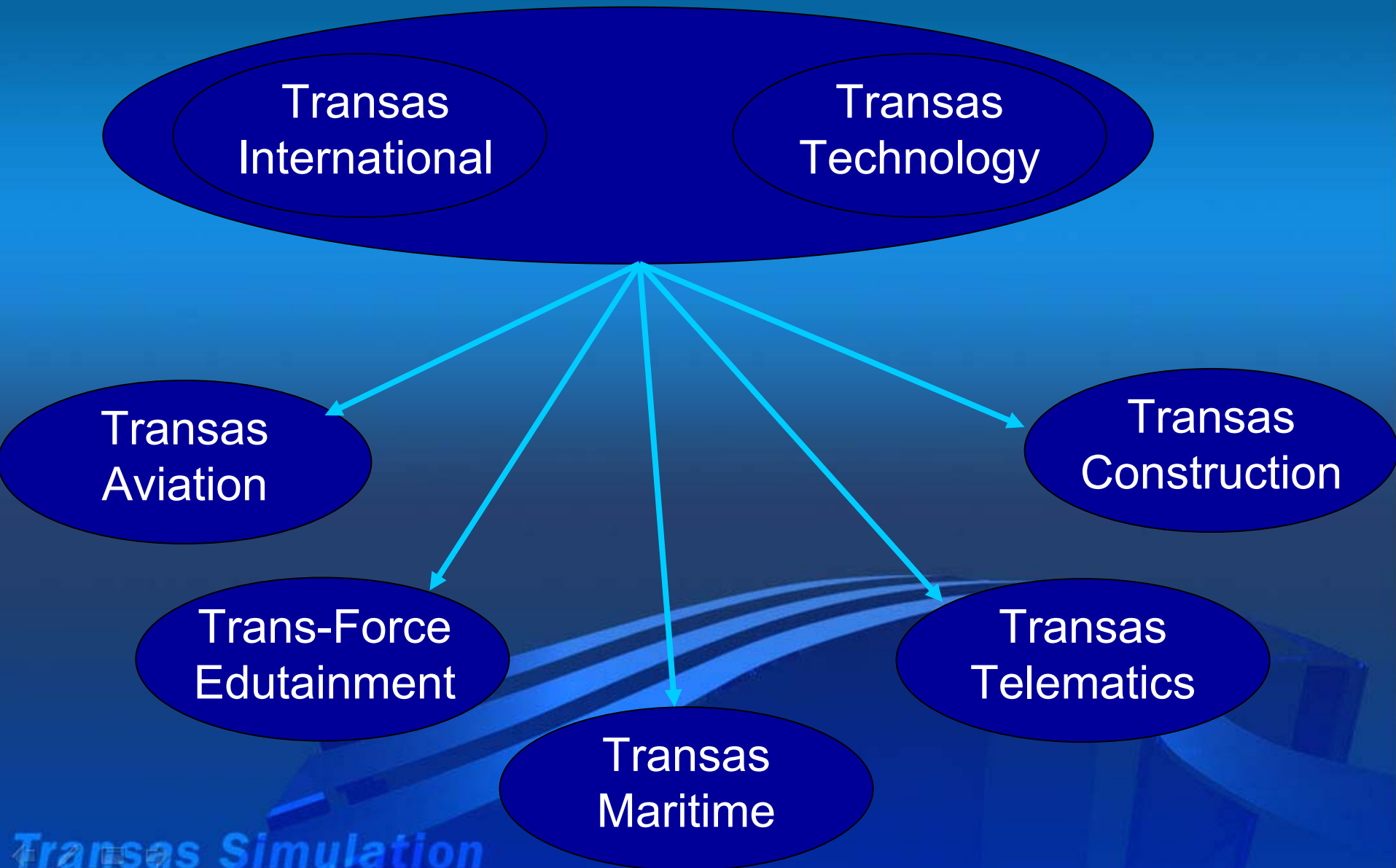


TRANSAS SIMULATION

Ove A Bentsen
Transas Norge AS



→ Avionics:

→ Flight simulators:

- Full Mission Flight Simulators,
- Fly- og prosedyre trener,
- Visuelle Systemer

Transas
Aviation





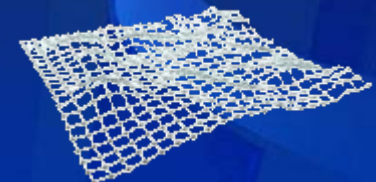
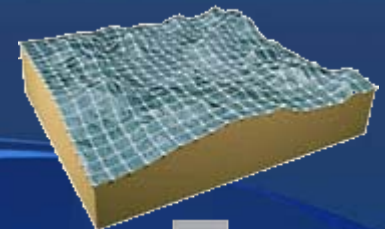
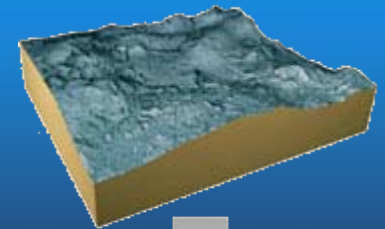
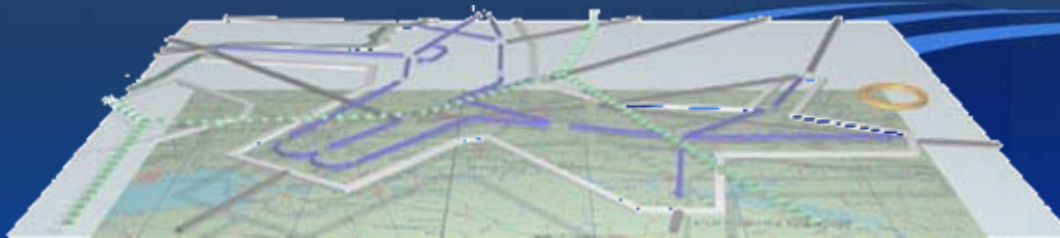
Avionics:

Flight simulators:

Aeronautical Support:

- Digital Elevation Model Databases,
- Visual Systems Databases
- Topographic and Aeronautical Support,
- Aeronautical Maps

Transas
Aviation



Trans-Force Edutainment har tatt ideen om å benytte teknologien i det profesjonelle simulator markedet til utdanning og fornøyelse markedet.



www.trans-force.com



- Internet asset tracking solutions,
- Ship Security Alert System meeting all requirements of the ISPS Code in a simple lightweight package,
- Complete software packages for fleet management operations

Transas
Telematics

Architectural design, structural design, special part of the project development, general planner functions



Transas
Construction

VTMS tower, Sestriero, Gulf of Finland

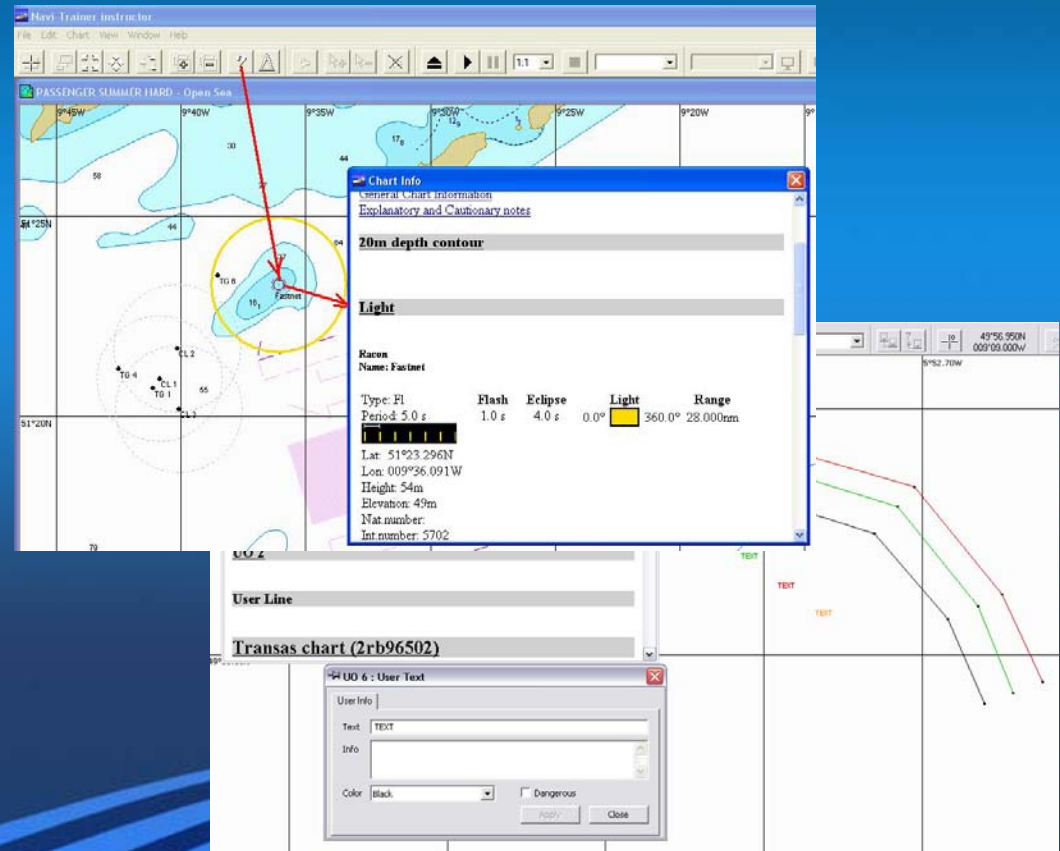
Transas
Maritime

Ombord
Systemer

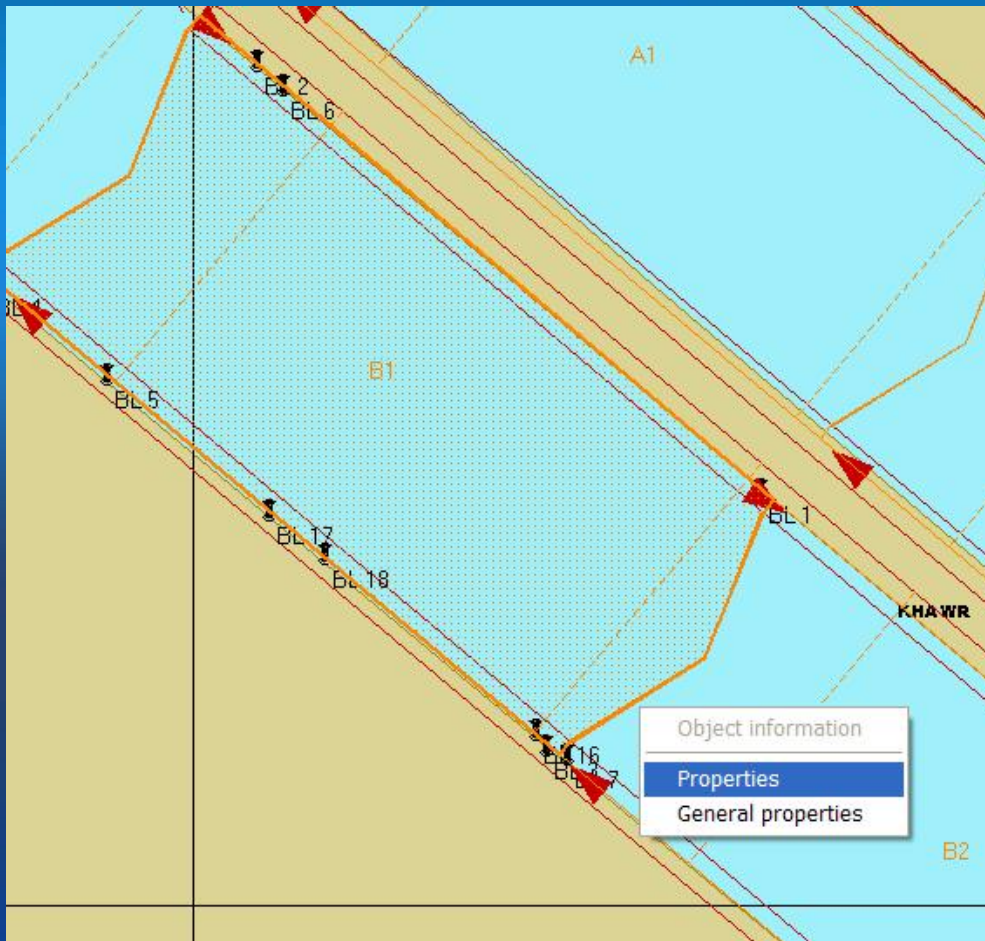


Instruktør stasjonen og øvelser:

- Implementering av “route” som en uavhengig øvelse insidens.
- Kart informasjon funksjonalitet.



Multilevel locks' modeling: Instruktør kontroll.



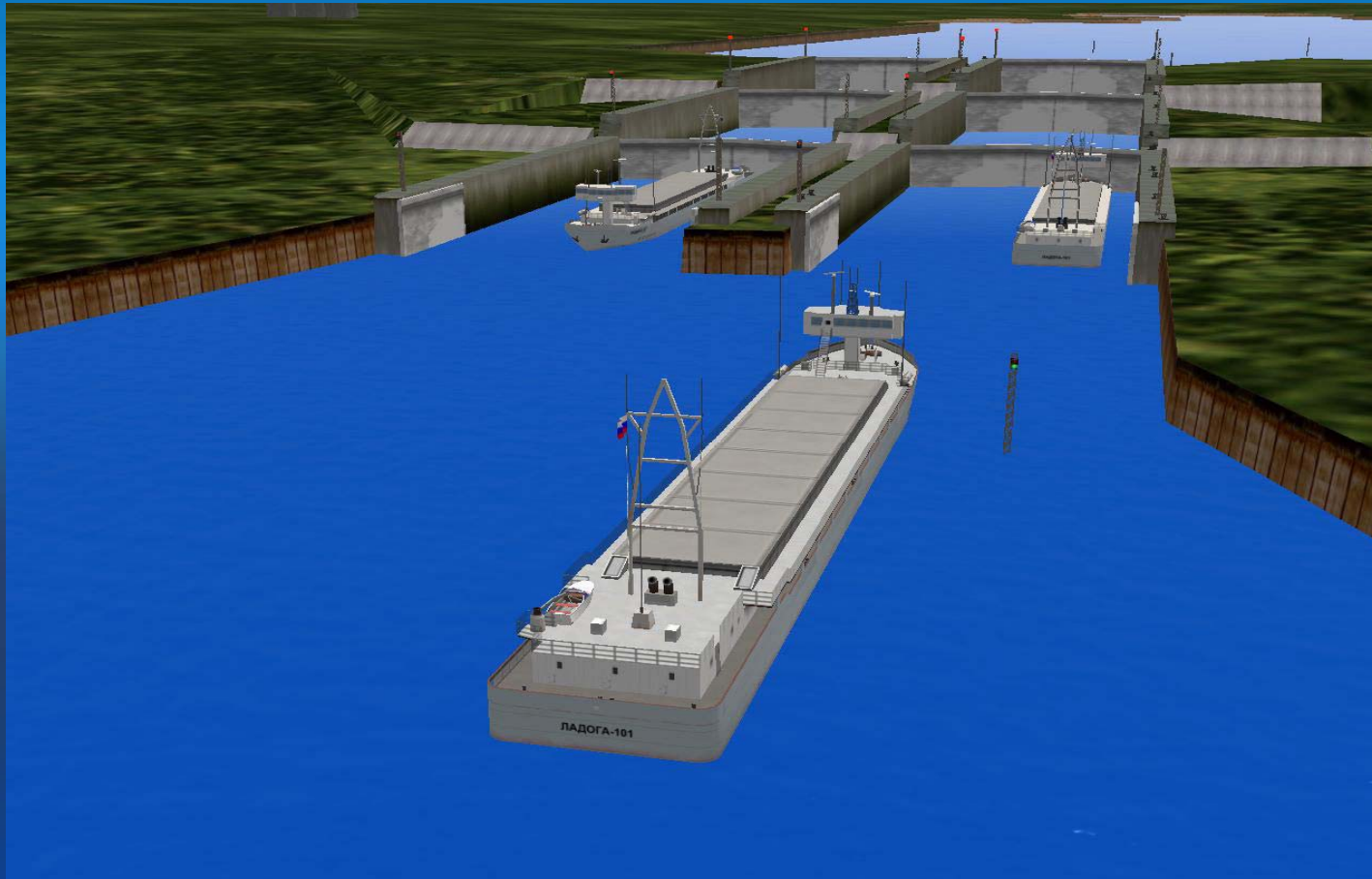
- Åpne og lukking av “Gates”
- Kontroll av vann nivå

Lock : Scene lock : Chamber B1

Lock chamber

Lower gate	Chamber	Upper gate
Water level: 0.0 m	Water level: 0.0 m	Water level: 3.0 m
<input type="button" value="Open"/> <input type="button" value="Stop"/> <input type="button" value="Close"/>	<input type="button" value="Drain"/> <input type="button" value="Stop"/> <input type="button" value="Fill"/>	<input type="button" value="Open"/> <input type="button" value="Stop"/> <input type="button" value="Close"/>
<input type="text" value="Closed"/>	<input type="text" value="Drained"/>	<input type="text" value="Closed"/>
High <input type="text" value="3.0 m"/>	High <input type="text" value="3.0 m"/>	Gate <input type="text" value="Near"/> <input type="text" value="Far"/>
Low <input type="text" value="0.0 m"/>	Low <input type="text" value="0.0 m"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Multilevel locks' modeling: Visuell presentasjon.

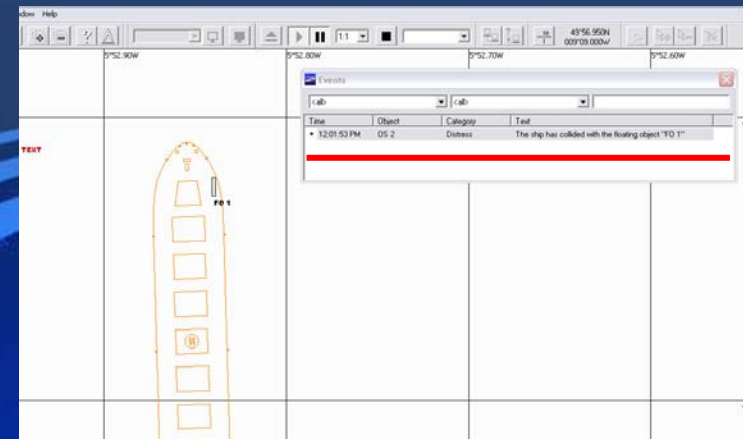


Nye senario objekter



- Bruker satt kurs og fart eller drift iht øvelse setting.
- Definert radar detection range.

Kollisjon med objektene blir registrert i “event log”.



Dedicated engineering solution of simulator bridge equipment considering specifics of tug control

Universal tug bridge with two-level visualization on plasma or LCD monitors (360 degrees).

Hardware includes most widespread controls of tugs propulsion.

Can be configured with removable panels.



Dedicated engineering solution of simulator bridge equipment considering specifics of tugs control

Tug bridge layout based on a real ship bridge: additional visualization channels of the rear view based on LCD or plasma screens.

Example shows the bridge of a marine tug with Z-drive propulsion type, equipped with Dynamic Position system.





Twin-screw conventional tugs 21,
32, 46, 50 t.



Mono-screw conventional tug 29t.



Mono-screw conventional tug-
pusher with flanking rudders, 31 t.



Tugs with Z-drive propulsion type,
39, 53 t.

Tugs with Voith Schneider propulsion
type, 26, 55 t.



Ice class tug with azimuth
propulsion type.



Math. Modelling: Winch Ropes

Applied traction effort on the towing line results in visible angle of roll and trim difference in 6DOF tug model.

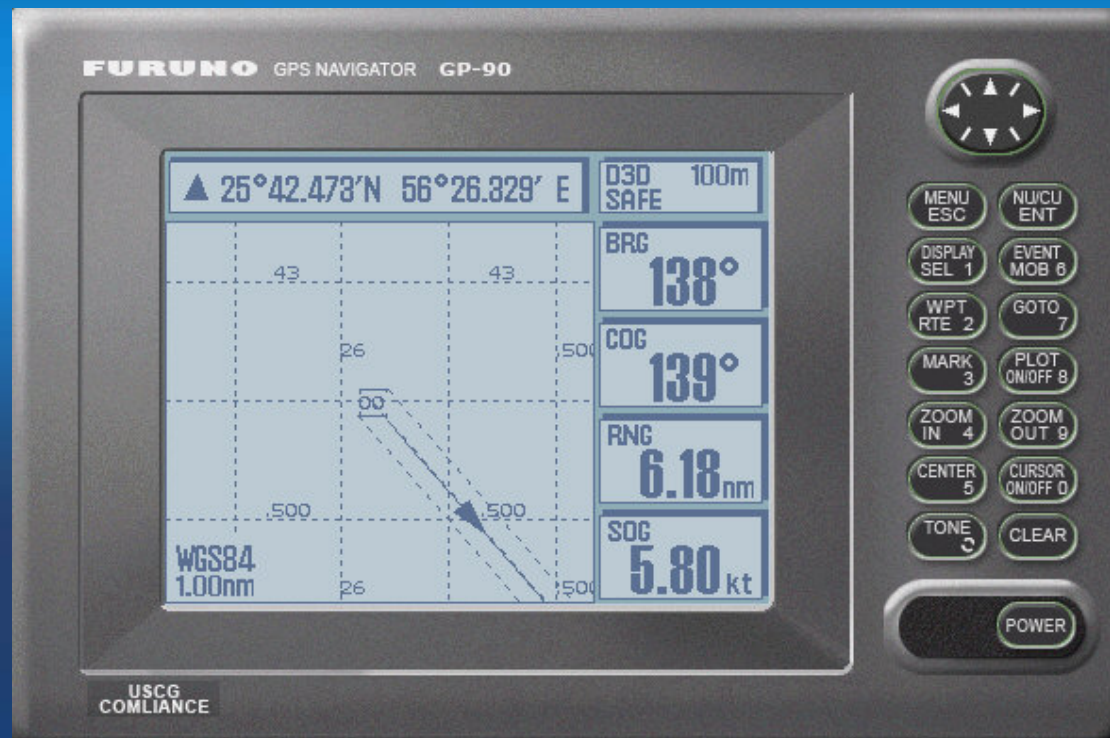


Providing of complex scenario for towing operations with commercial ships using remote internet-connection of NTPRO simulators

An example of joint simulator centers training: the first centre specializes in tug captains training and the other in training of ocean-going commercial vessel crew. The common scenario of towing operation provides the ideal opportunity for joint training by connecting through the internet.



GPS Navigator Furuno GP-90



Radio Direction Finder Rhotheta RT-500-M



VHF&DSC SAILOR RT5022

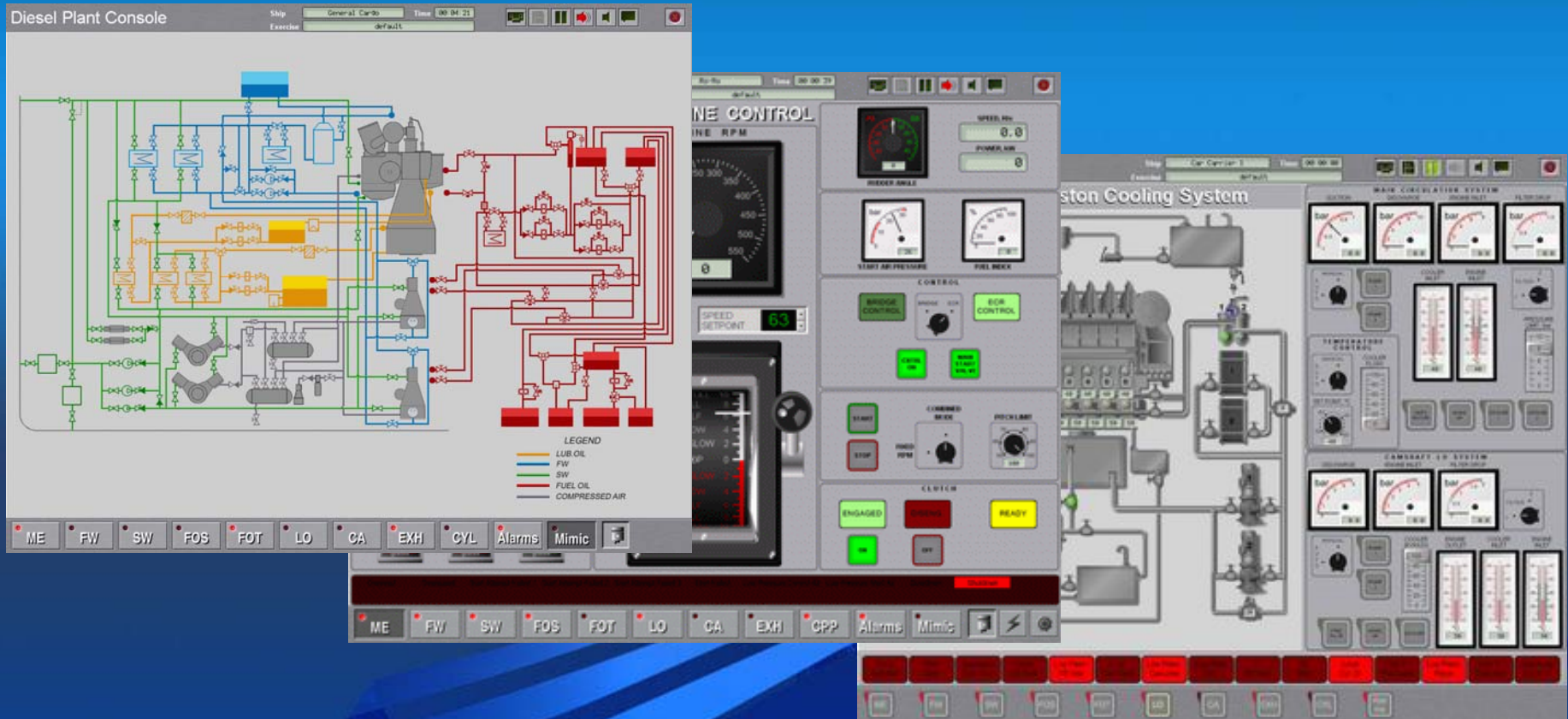


GMDSS Portable VHF SAILOR SP3300



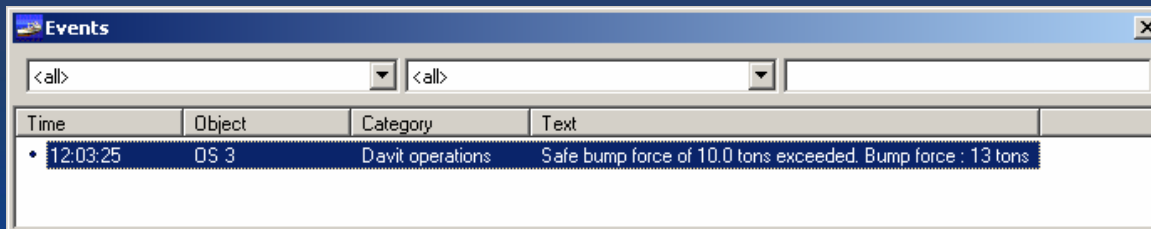
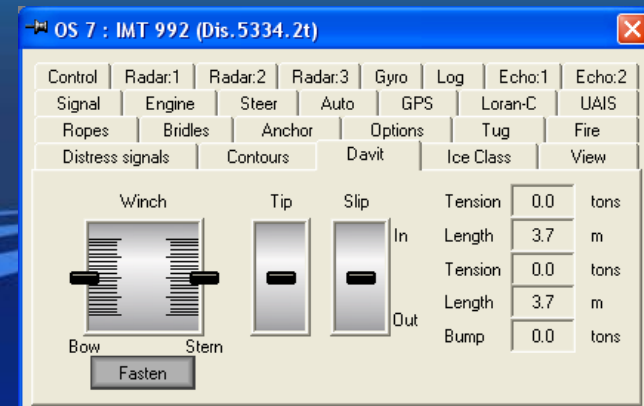
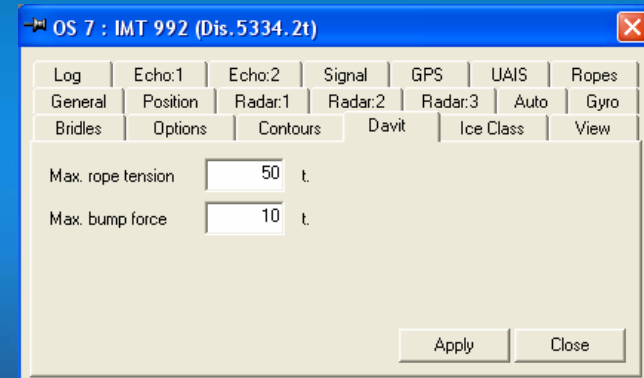
DIESEL PROPULSION PLANT

TRAINEE WORKSTATION: MODULES



SAR: launch and recovery of a rescue boat

- Davit Operator Bridge is represented by the instructor station. The following capabilities are included:
 - Setting critical bump and winch rope tension values;
 - Davit and winch control;
 - Attaching / detaching rescue boat;
 - Preview bump and winch rope tension values during the scenario run;
 - Saving critical events of exceeding bump and rope tension values into the scenario log.



**Visuell realisme 2005:
winch drum rotates at the correct speed/direction and the
rope is visually paid in/out.**



Visuell realisme 2006: SAR: launch and recovery of a rescue boat (video channel record)



Fleet Formation management

- Various types of line formations;
- Tactical display images;
- Wheeling and Corpen maneuvers;
- Maneuvering procedures compliant to **MULTINATIONAL MARITIME TACTICAL SIGNAL AND MANEUVERING BOOK (STANAG 1174)**;
- Bridge performance assessment;



Replenishment at Sea

- Connected replenishment alongside: **STREAM** - **Standard Tensioned RE**plenishment **A**longside **M**ethod;
- Various types of ships that are used for supply and receive fuel;
- Procedures of underway replenishment;
- Modeling of related hydrodynamic effects and mechanical forces.



Helikopter operasjoner

- Flere visuelle helikopter modeller.
- Generisk helikopter kontroll



Nye visuelle modeller



Ka-27



Sea King type 2



Sea King type 1



Mi-24

Generisk kontroll

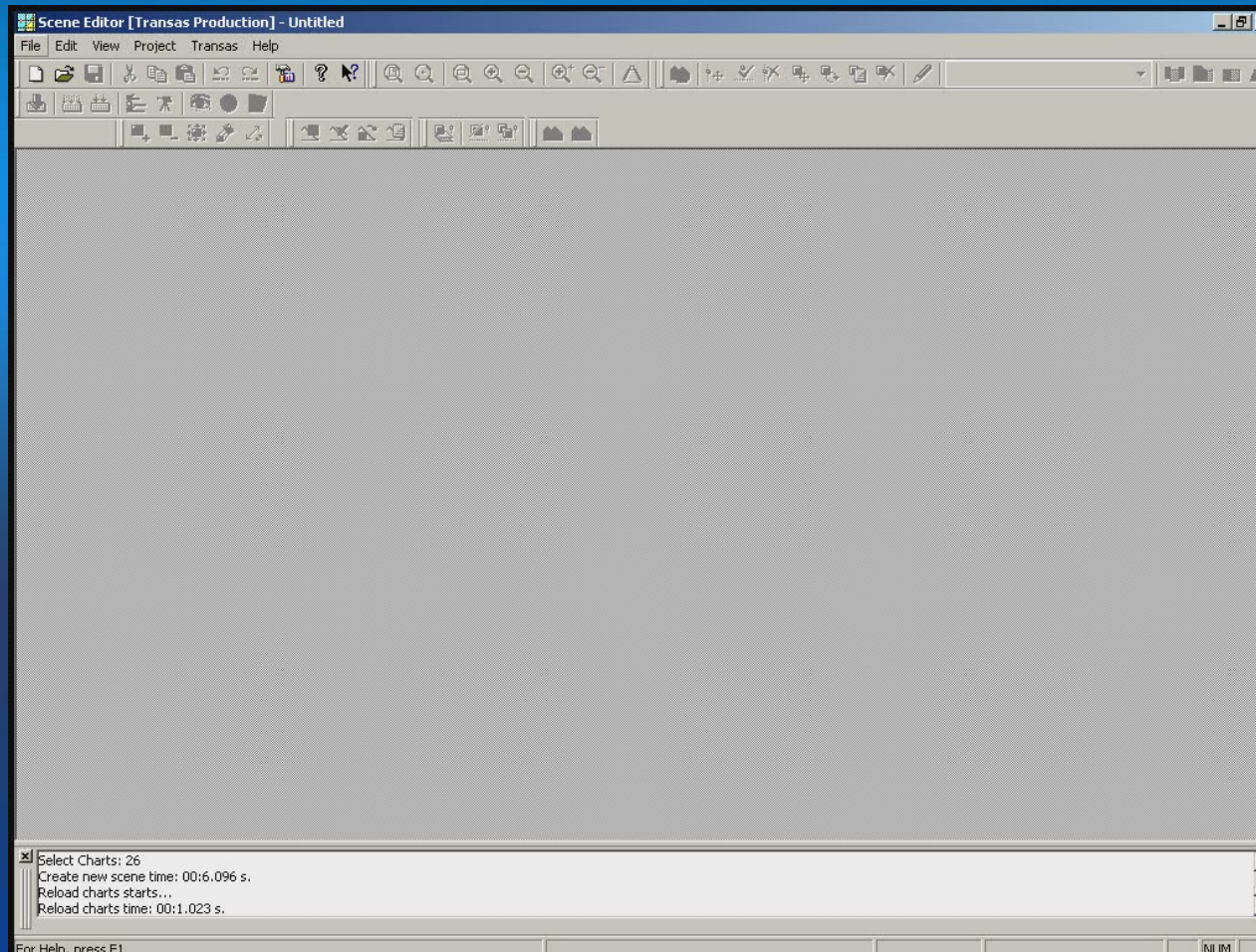
- Landing and Takeoff from a ship (in automated mode);
- Flying by predefined route;
- Following instructor commands as a “robot”;
- Joystick controlled flight.



Navi-Trainer 4.62 Release (February 2007):

- Integrasjon med TRANSAS INS
- Ny Autopilot
- SVDR (WarShip Data Recorder ?) Playback funksjonalitet
- Utvidelse av “Model keeper”

SVDR Playback funksjonalitet



**Thank you for your
attention!**