Ship handling simulator at the BAW Karlsruhe

Development concept

BoWave 2D

HYDRAULIC DATABASE

ENVIRONMENTAL Forces DATABASE

WIND

CURRENT

WAVES

HYDRAULIC BATHYMETRY

PeTra 2D

Ship impact

Ship impact at a bank

Geotechnical soil under impact load

Ship impact at vertical wall

specific different sliding operations

Primary ACTUATORS

Propeller Thrust

Rudder Lift/Drag

Transversal Thrust

Secondary ACTUATORS

Manoeuvring Aids

Steering System

Propulsion System

Added Masses

Inertias

Nayir

Mechanical Interaction

Force Moments

Aerodynamics

Hydrodynamics

Military Interaction

Traffic Ships

Tugs

Nautical track (PeTra 2D)

Autopilot

OUTPUT

Visual Scenery/Motion System/Indicators

16th - 18th May 2011 · contact: Thorsten Dettmann · Hydraulic Engineering · Tel.: +49 (0) 721 9726-0 · thorsten.dettmann@baw.de

Design of the scenery, e.g., Rhine, Neckar
Construction of validated ship models, e.g., Vigla