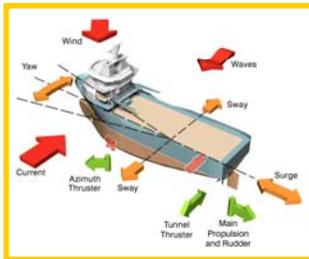




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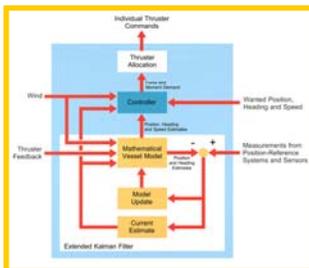
Basic Dynamic Positioning Principles



Forces & Motions



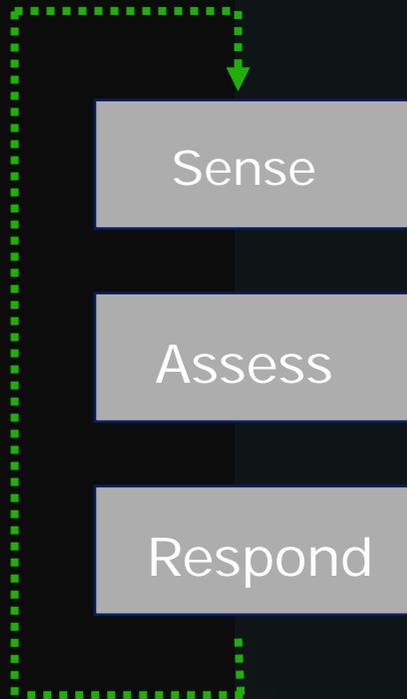
Measurements



DP Control



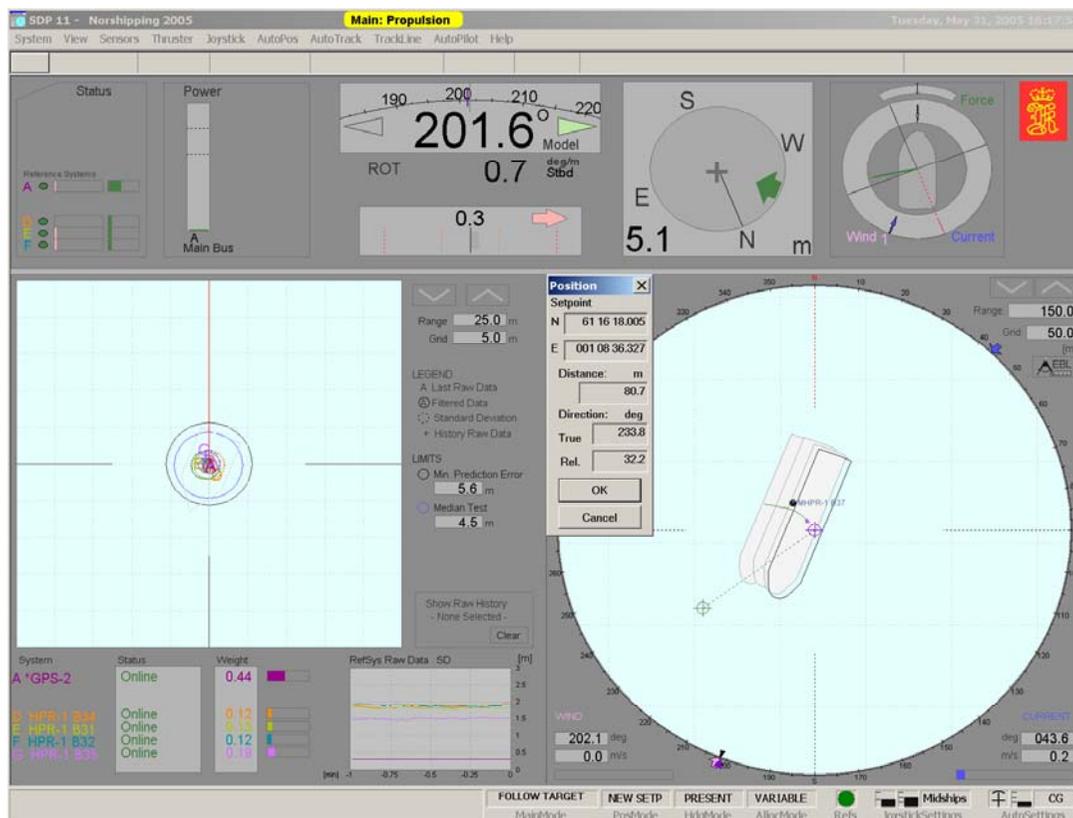
Dynamic Positioning



Dynamic Positioning



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Computerized control of position and heading

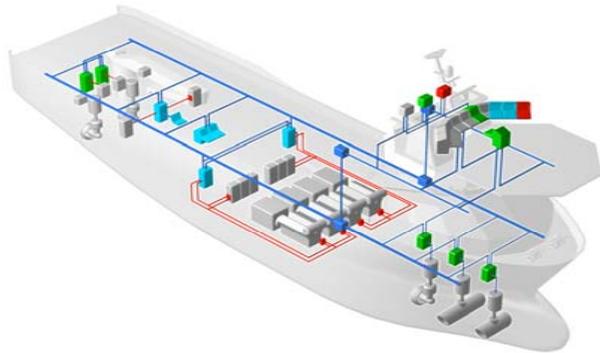
A tool for efficient and safe offshore operation



Dynamic Positioning System Components



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DP Control system

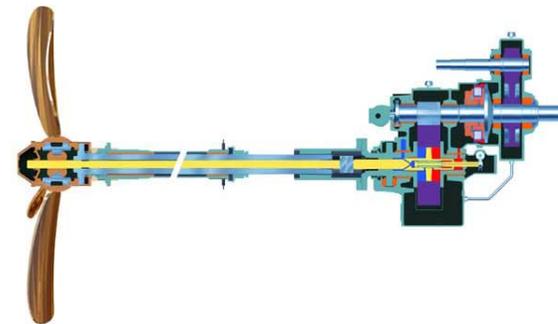
- Automatic control system
- Independent joystick system
- Sensors
- Position Reference Systems

Electrical Power Plant

- Power generation
- Power distribution

Propulsion and Thruster System

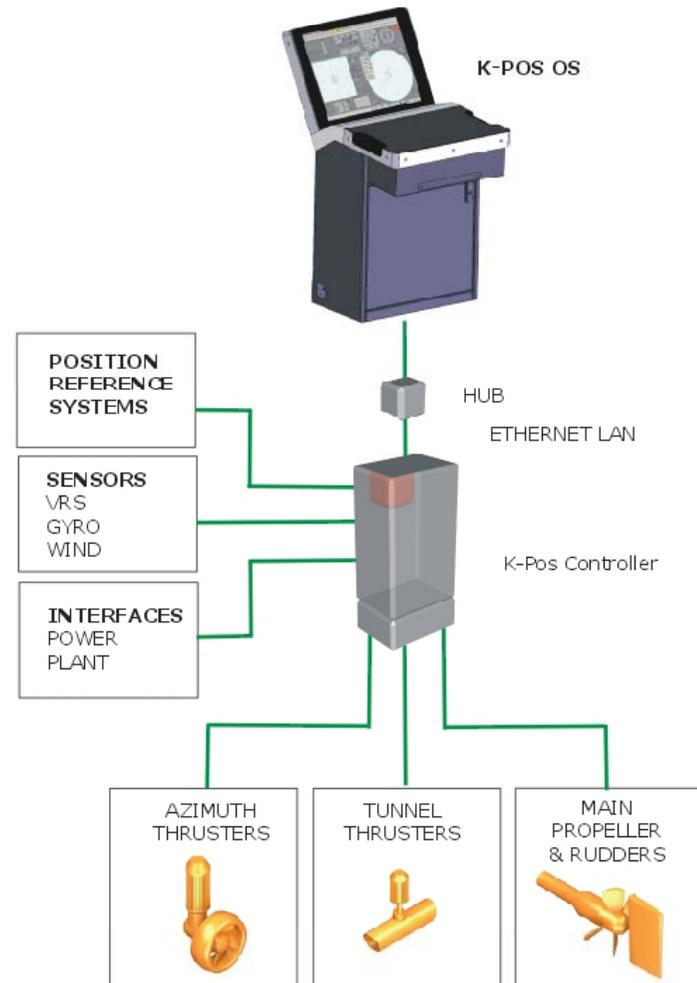
- Engines / Drives
- Propellers, Thrusters, Rudders



DP Control System Configuration



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Basic Forces and Motion

Degrees of freedom

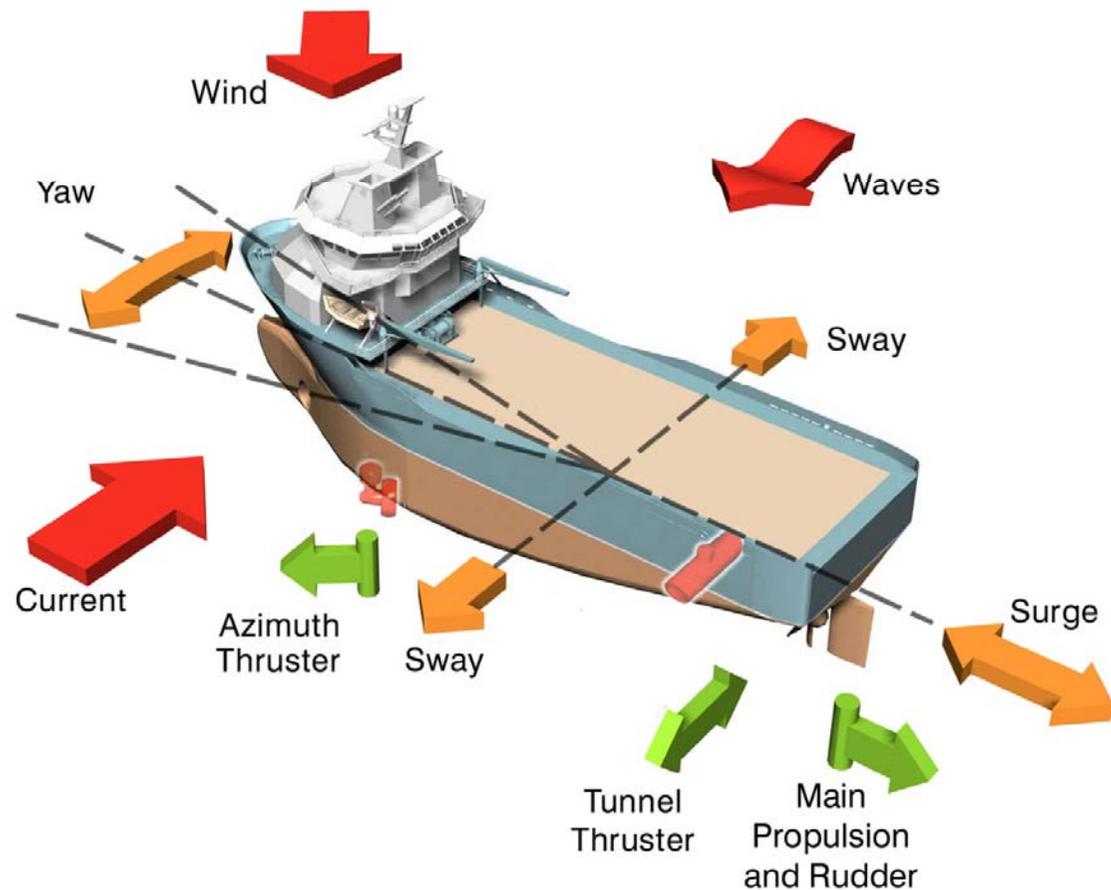
- Surge
- Sway
- Yaw

Environmental Forces

- Wind
- Waves
- Current

Thruster Forces

- Tunnel thrusters
- Azimuth Thrusters
- Propulsion/ Rudders





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Position Reference Systems and Sensors

Position Reference Systems

- Satellite Systems
- Laser Systems
- Radar Systems
- Radio Systems
- Acoustic Systems
- Taut Wire

Attitude Sensors

- Gyro Compass
- Motion Reference Sensor (MRU)



Input to the
Dynamic Positioning
System

