

# Scantrol AHC

*More uptime for your subsea operations*



# Scantrol AS

**Monitoring and Control – Marine & Offshore**

**Established in 1988**

**Head Office in Bergen, Norway**

**Design, sales, marketing and support**

**Export level 80%**

**Installations on 1052 vessels**

**International support network**

# We work here:

OSV



Maritime research



Fishery

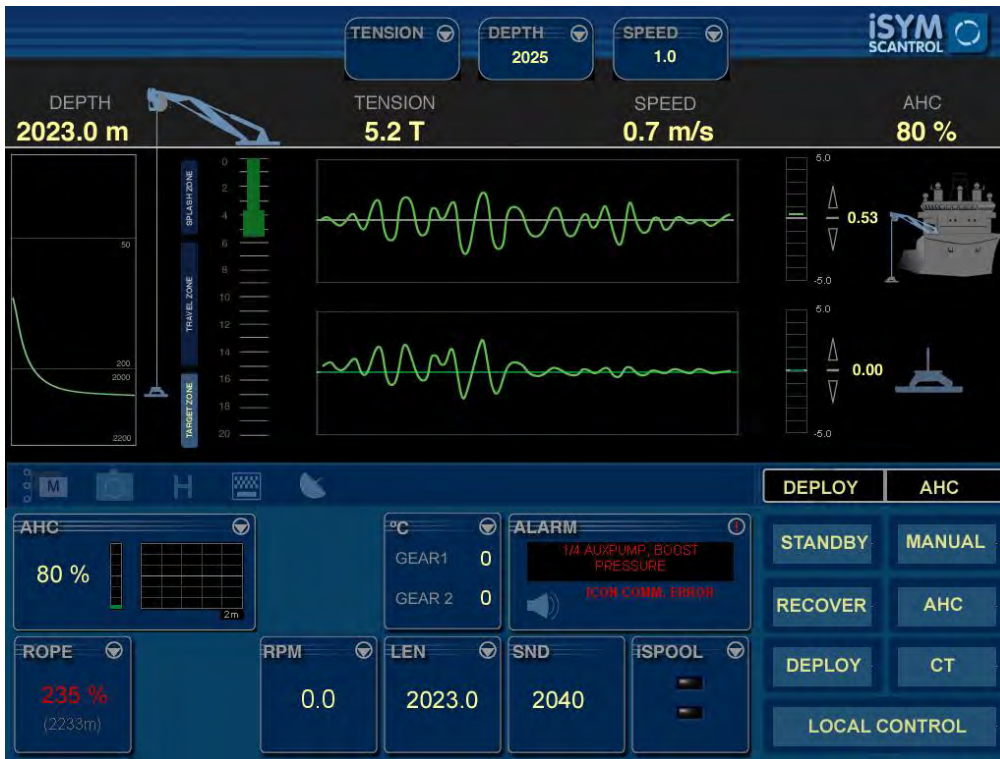


Seismic



# Products

## Scantrol LARS Control



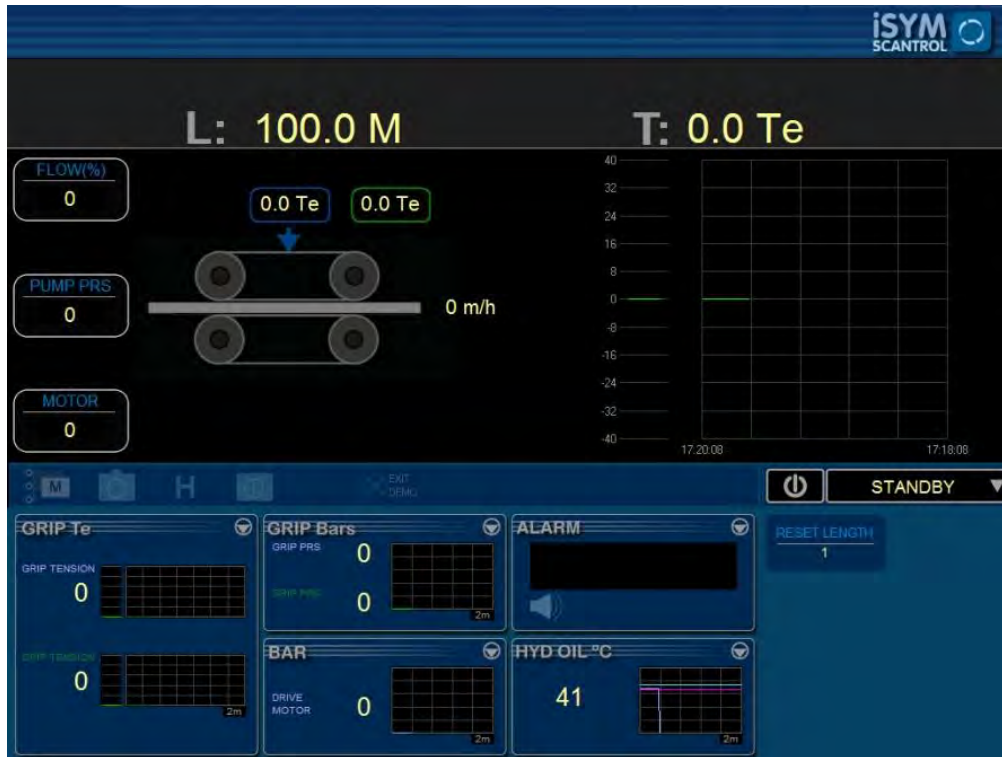
# Products

## Scantrol Towing Winch Control



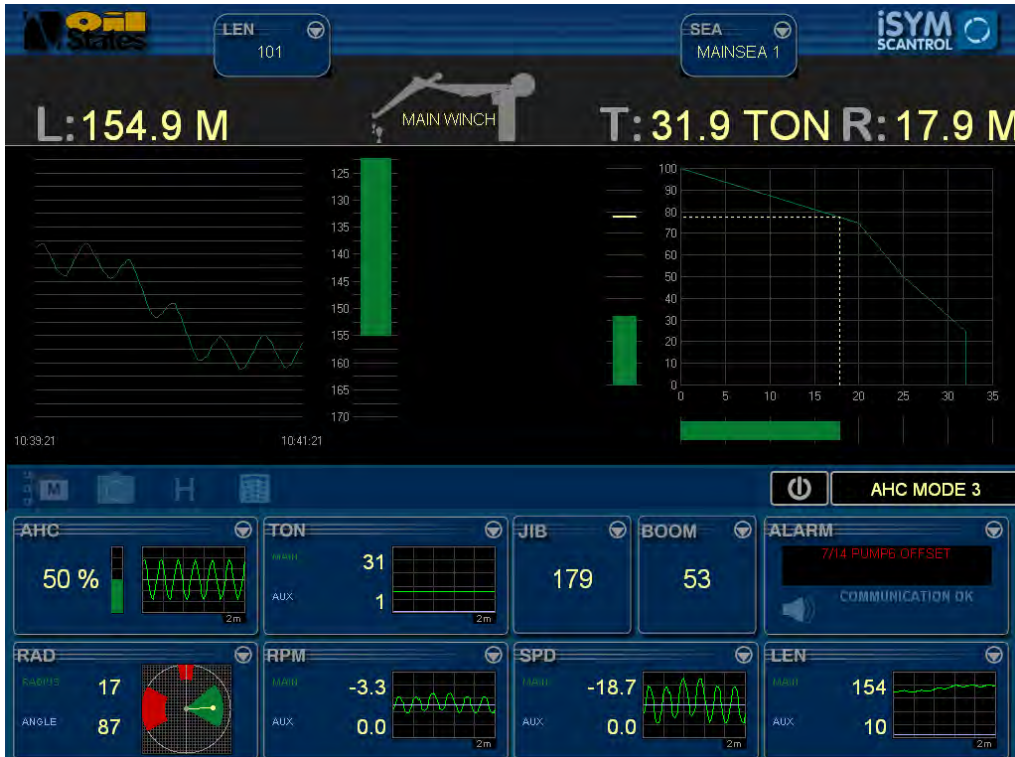
# Products

## Scantrol Tensioner Control



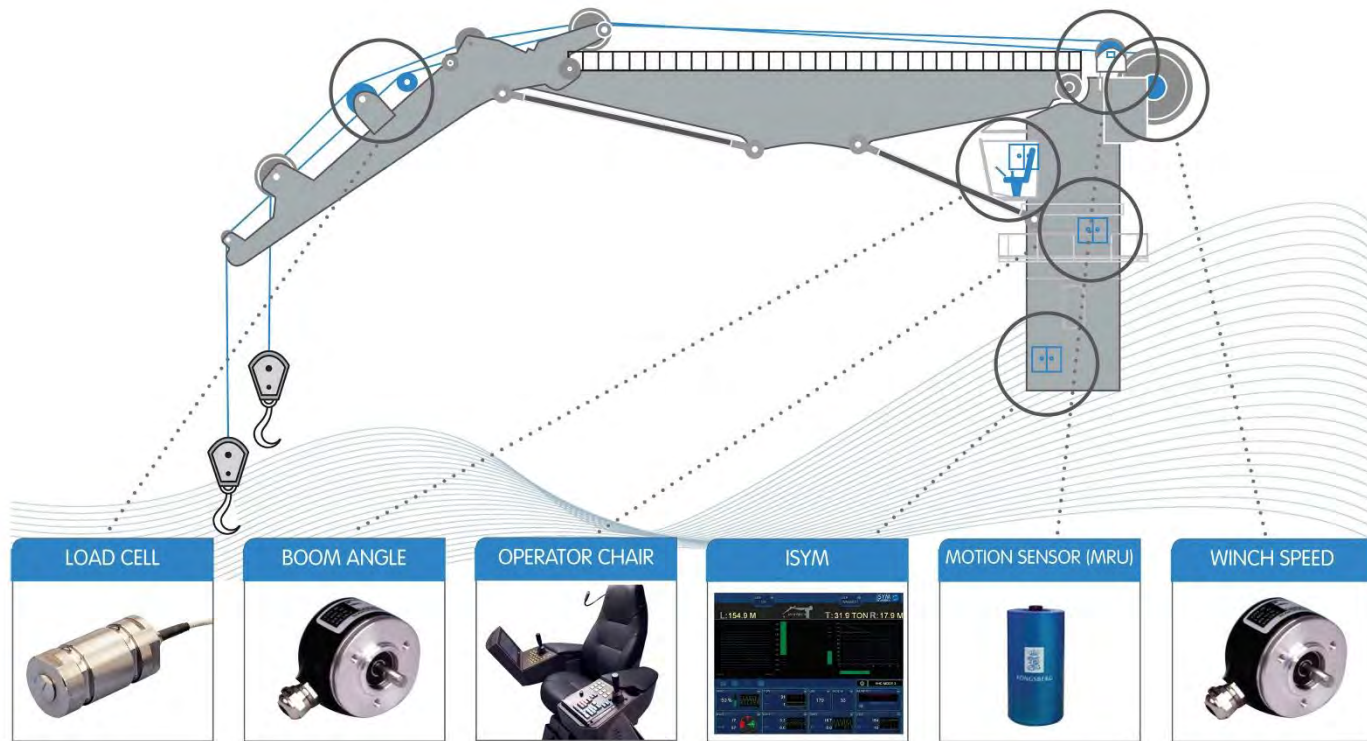
# Products

## Scantrol Crane Control



# Products

## Complete Control Solutions



# Products

## OEM Solutions



# Products

Proven control solutions for winches and cranes:

- Standard hardware platform
- Standard software platform
- Configurable hardware and software
- Includes standard winch and crane control functions

# Scantrol AHC Strategy

Scantrol aims to be a market leading supplier of AHC control systems for applications within offshore cranes, winches, LARS systems, drilling systems, and other applications where the AHC technology can contribute to increased operation time of offshore, subsea, and marine operations

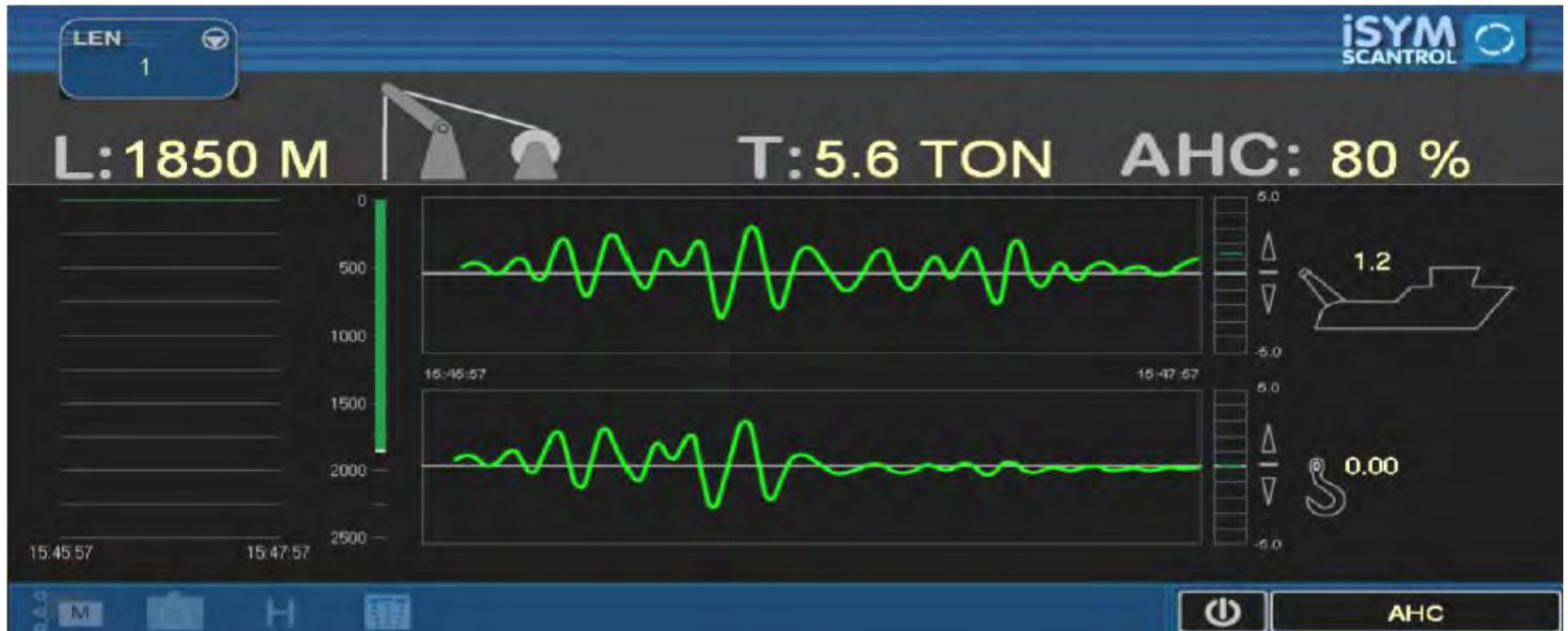
# What is AHC ?

- AHC is a system that filters away the vessels motion from the load related to subsea crane- or winch operations

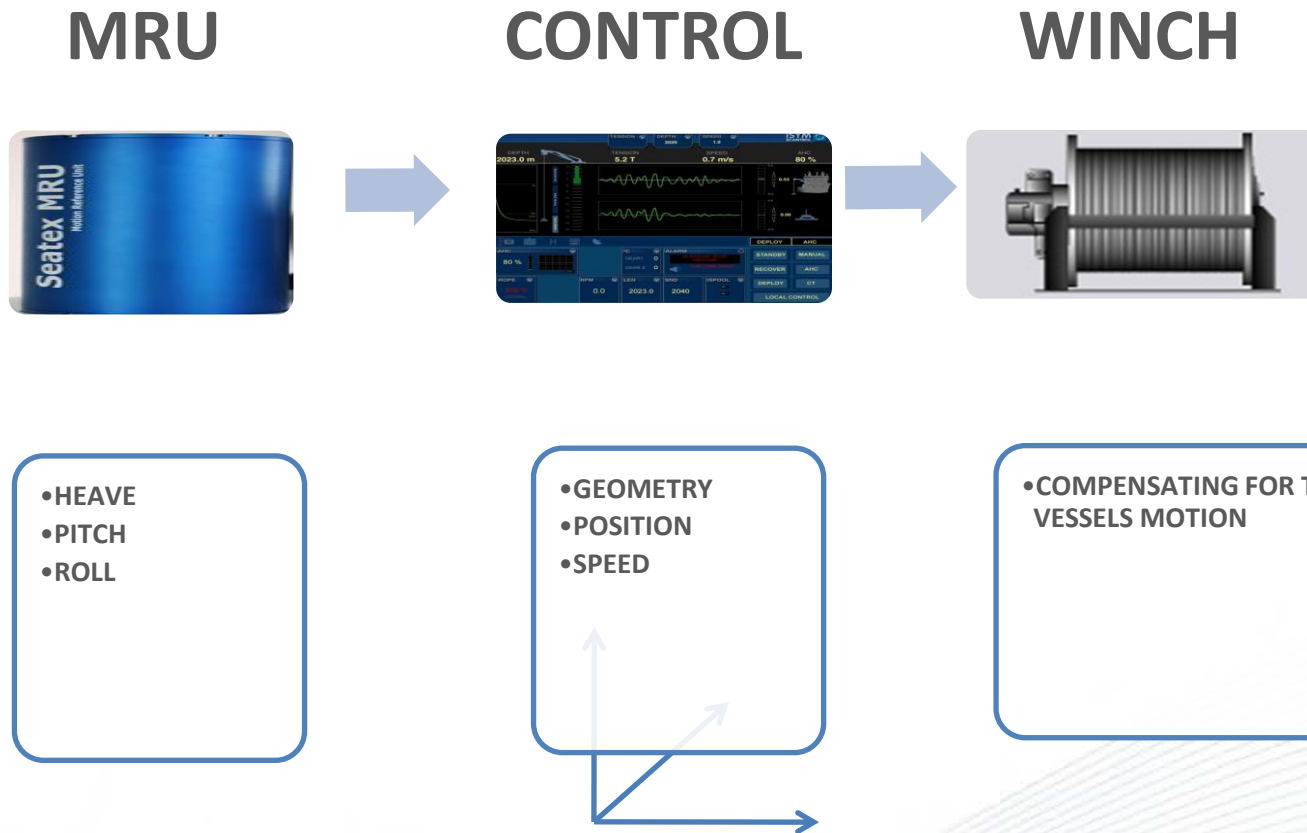
## Why AHC ?

- Increasing the vessels operational time

# How does AHC work?



# How does AHC work?



# System Configuration

## UTILITIES

### AHC MONITOR



### DATA RECORDER



### REMOTE SUPPORT



### CONFIG TOOLS



## BASIC SYSTEM

### ENCODER



### AHC CONTROLLER



### MRU



## CONTROL OF ALL WINCHES AND CRANES

### ELECTRIC WINCHES



### HYDRAULIC WINCHES



### CYLINDERS



# Applications

Offshore cranes



# Applications

LARS Systems  
(Launch And  
Recovery  
Systems)



# Applications

Well  
Intervention



# Applications

## Drill Systems



# Applications

Subsea  
trencher and  
other special  
machines



# Applications

## Marine Research



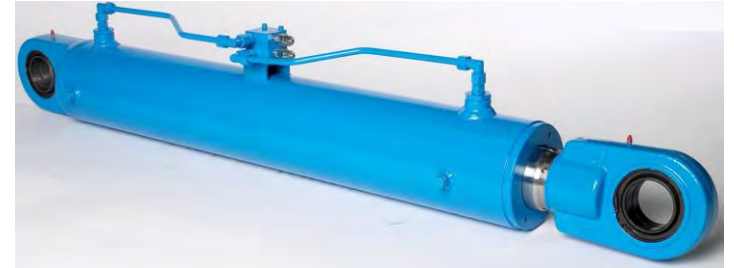
# Applications

Electric and  
Hydraulic  
Subsea  
Support  
Winches



# Applications

AHC for  
cylinders and  
booms



# Scantrol AHC

Scantrol's ambition is to make subsea operations more efficient by making AHC systems also for small winches and cranes

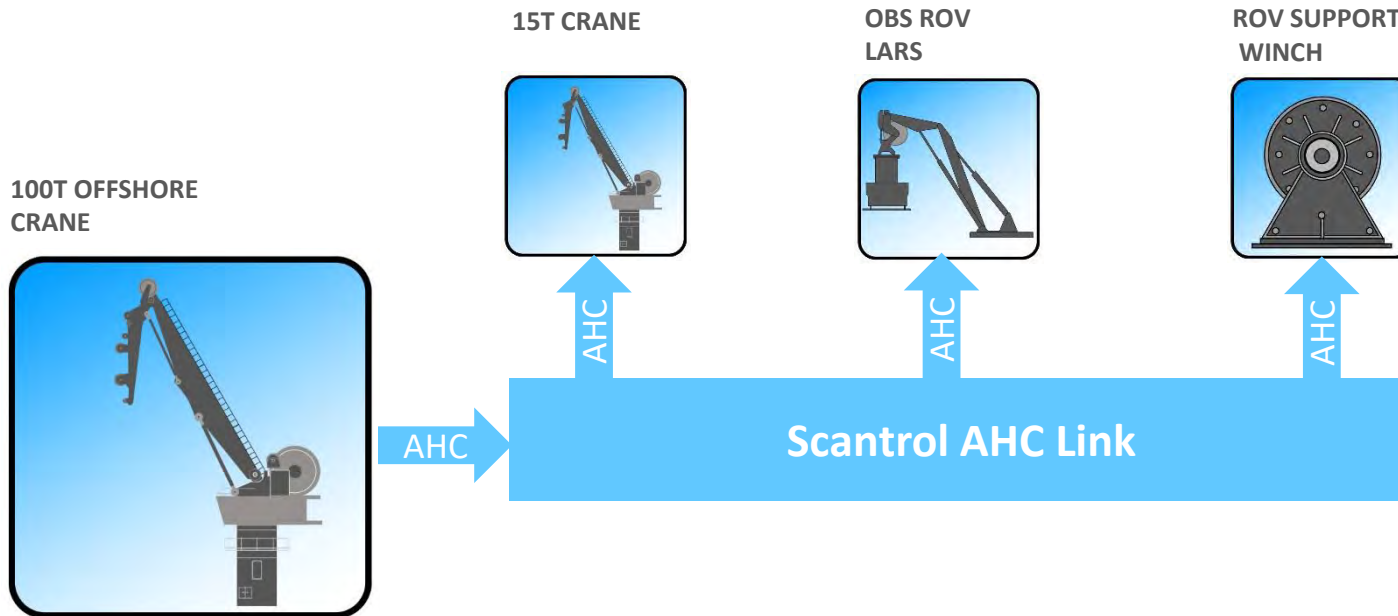
This is achieved by :

- Standardized solutions
- Increased volume
- Efficient design and commissioning
- Lower cost

# AHC for all subsea handling systems

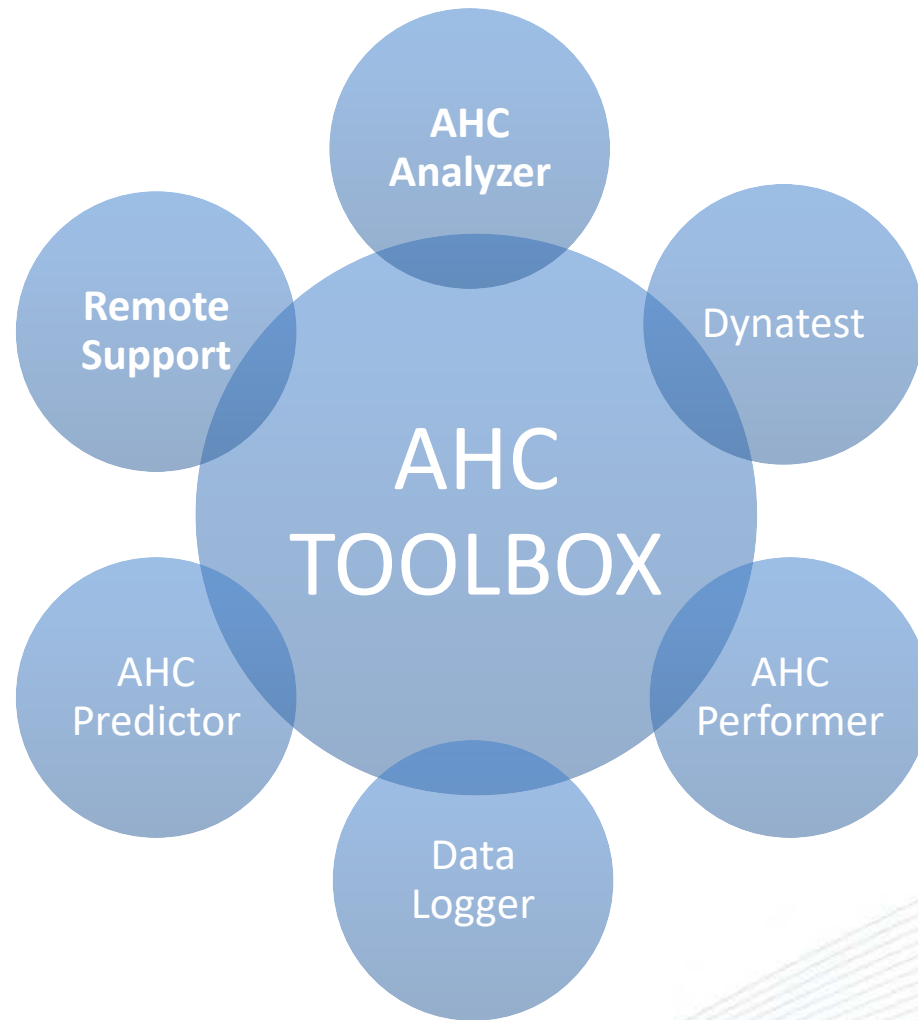


# Sharing AHC resources



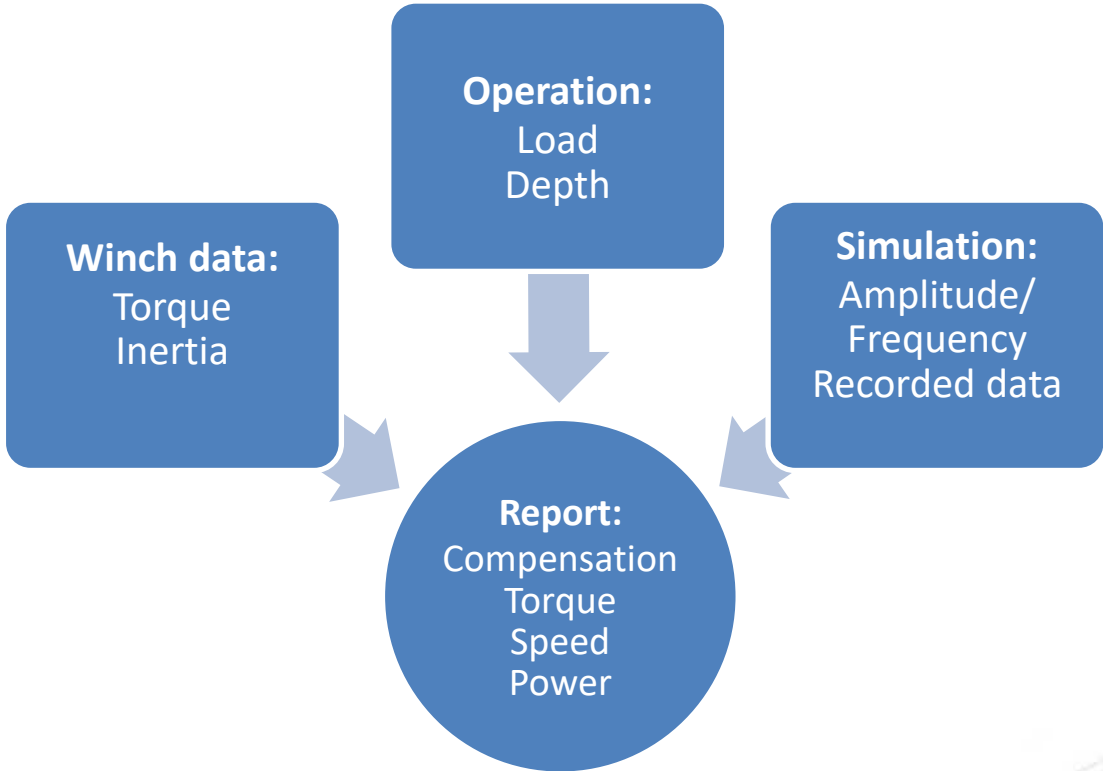
# Scantrol's AHC Approach

- Analyze
- Design
- Test
- Operate





# AHC Analyzer



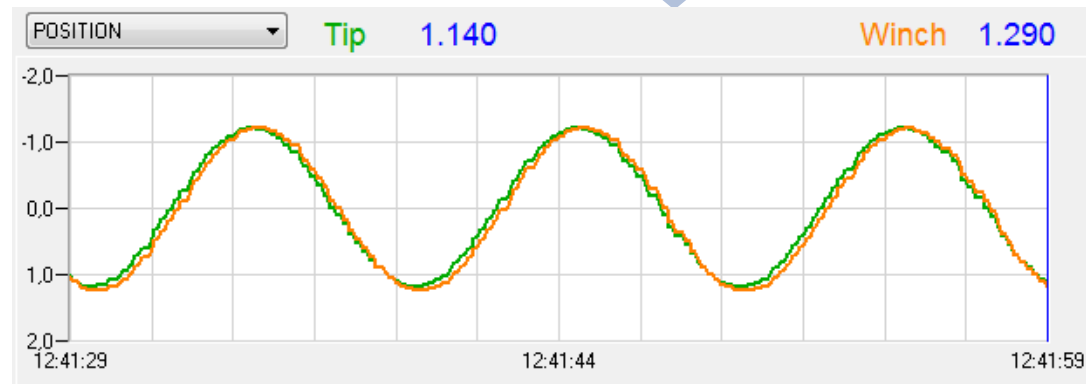
Dynatest

# Dynatest

**Simulation:**  
Amplitude/  
Frequency  
Recorded data



**Data logger**  
Response  
Torque  
Speed  
Power

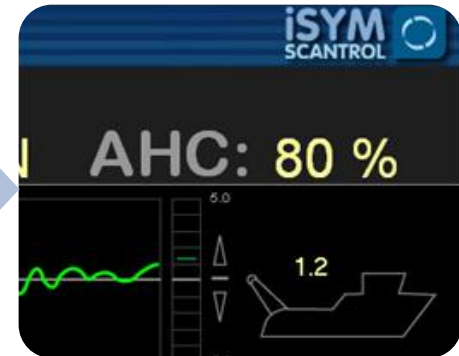


AHC  
Performer

# AHC Performer



**Monitoring**  
Motion  
Speed  
Torque  
Power

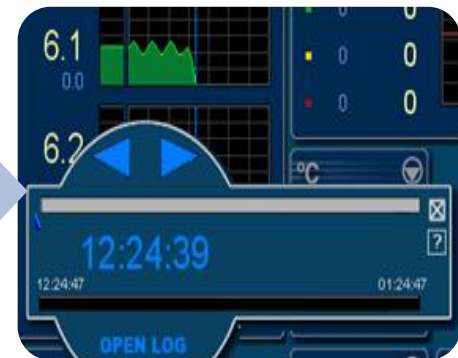


Data  
Logger

# Data Logger



**Logging**  
Sensor data  
Regulation  
Operator input





# AHC Predictor

**Measured values:**  
Motion

**Operator input:**  
Load  
Depth

**Calculation:**  
Compensation  
Capacity

Remote  
Support

# Remote Support



**External access:**  
Troubleshooting  
Data logging  
Upgrades

# Specifying AHC Capacity

## Position on vessel

Operating  
area

		Moon pool		Starboard aft	
		Operation time		Operation time	
Area	Period	80 %	95 %	80 %	95 %
Gulf of Mexico	8.3 s	2.3 m	3.1 m	4.9 m	6.6 m
North Sea	8.6 s	2.5 m	4.1 m	5.3 m	8.8 m
West Africa	9.7 s	2.4 m	3.1 m	6.4 m	8.6 m
North Brazil	9.9 s	2.4 m	3.2 m	6.5 m	8.6 m
<p><i>This table shows required compensation level to achieve 80% or 95% operation time in 4 areas. Simulations are based on an 80 m l.o.a. 19.2 m beam offshore service vessel, and Global Wave Statistics (British Maritime Technology Ltd, 1986)</i></p>					

Required  
uptime

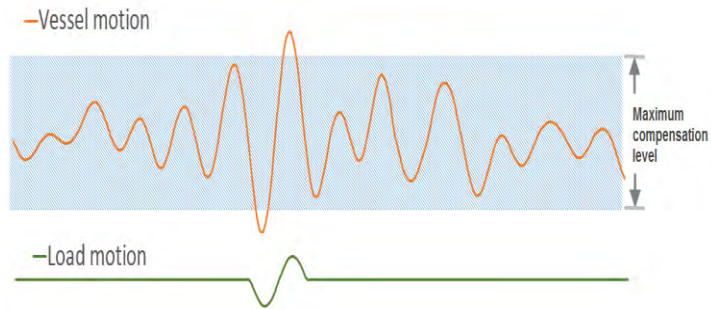
# Specifying winch capacity

Select winch capacity based on optimum cost – benefit considerations

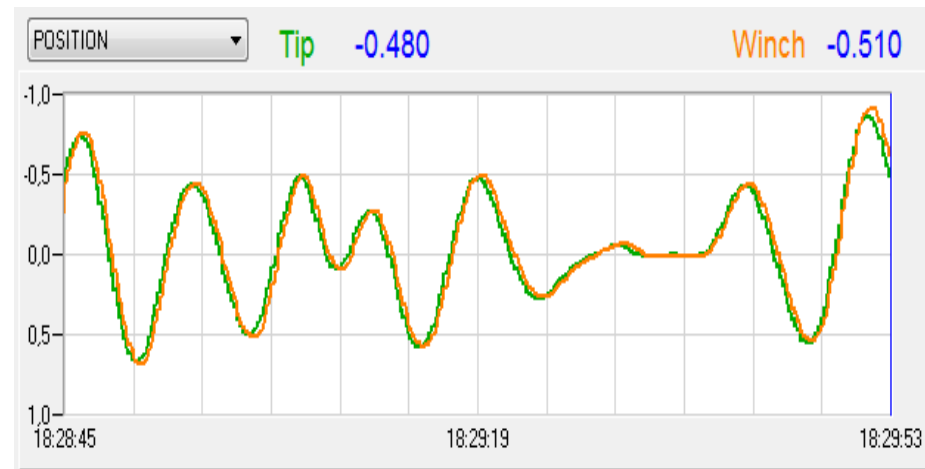
Compensation level	Period	
	8 sec	10 sec
8 m	3.1 m/s	2.5 m/s
7 m	2.7 m/s	2.2 m/s
6 m	2.4 m/s	1.9 m/s
5 m	2.0 m/s	1.6 m/s
4 m	1.6 m/s	1.3 m/s
3 m	1.2 m/s	0.9 m/s
2 m	0.8 m/s	0.6 m/s
1 m	0.4 m/s	0.3 m/s
	Maximum Wire Speed	
<i>This table shows relation between compensation level, vessel period, and required winch speed. The green area indicates what will normally give the best cost – benefit solution</i>		

# Verify AHC Performance

## By simulation



## At sea



# Scantrol provide training

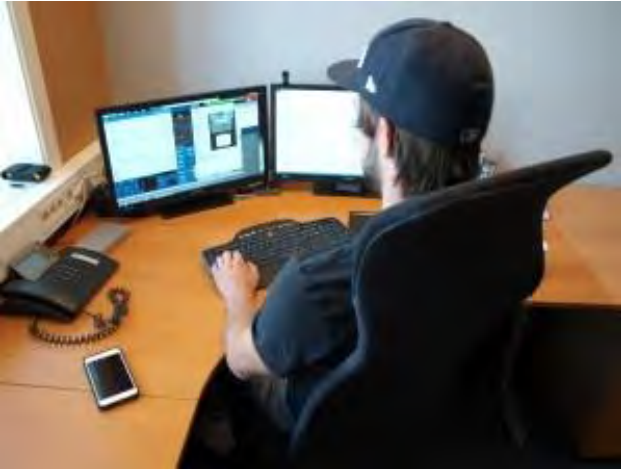


Winch Designers



Service Engineers

# Scantrol provide remote support



Experienced team of engineers



Efficient, reliable and cost saving support and commissioning

# Why choose Scantrol AHC

## Reduced commissioning cost

- Commissioning by winch service engineers
- Complete testing at shore
- Reduced time for sea trial – no tuning at sea
- Remote Assistance if required

# Why choose Scantrol AHC

## Safe and reliable control solution

- Standardized and configurable systems
- Proven solution – installed on 1052 vessels
- World wide support network

**Scantrol – your AHC partner for the future**