



## **Peel Ports case study:**

# **Delivering performance improvements with process automation**

**Speaker: Richard Lambert**



## Contents

- **The terminal**
- **The reasons for change**
- **The technology**
- **Key operational outcomes**



Peel Ports, Liverpool



## The terminal

- Around 800,000 TEU PA
- Capacity of 1M TEU PA
- 34 Straddle Carriers
- 7 STS Cranes
- Second Terminal planned





The reasons for change

# Reasons for change



## The reasons for change

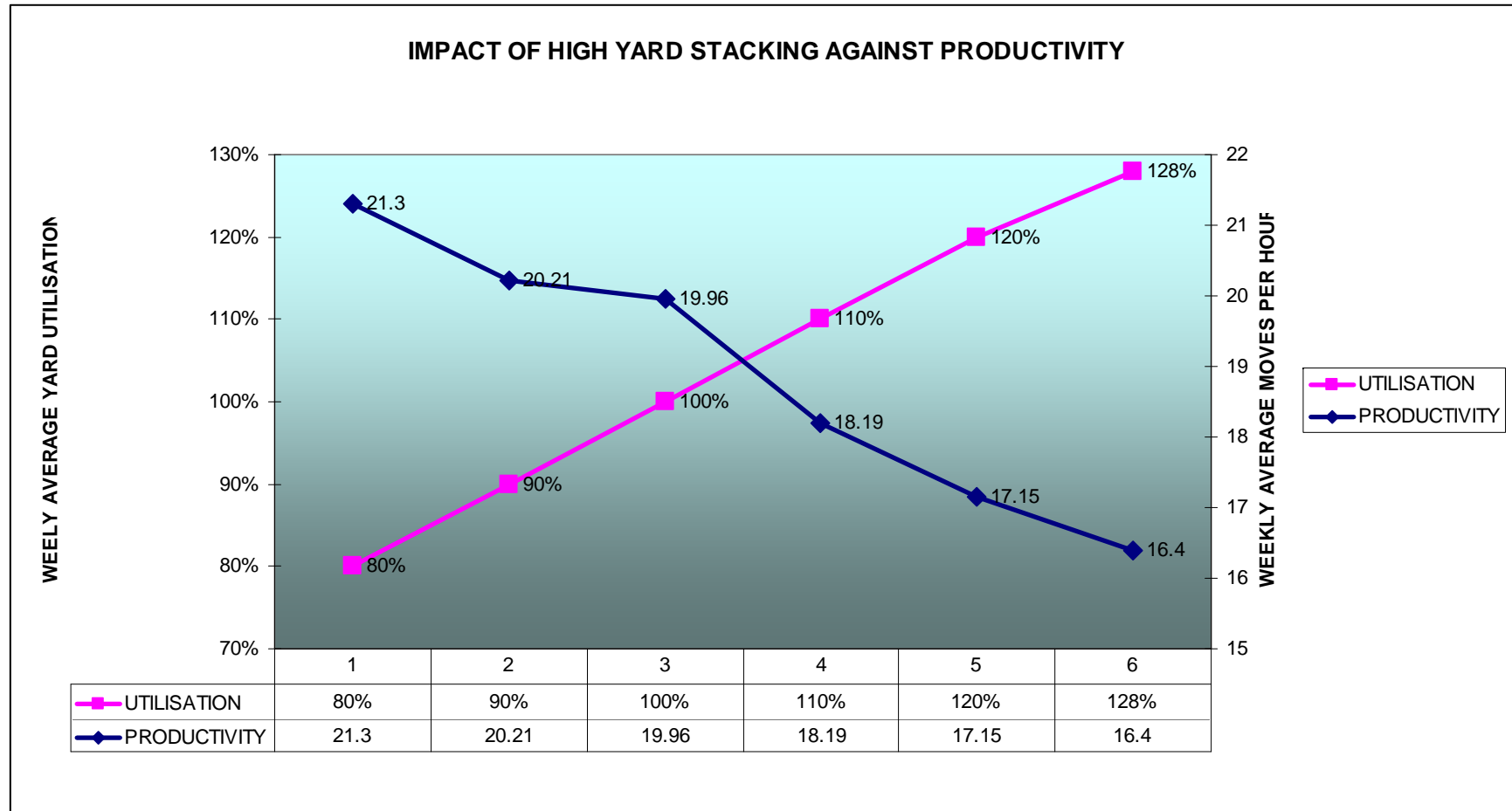
### WHY CHANGE?

- Only 25 of the 34 carriers installed with PDS
- Legacy system restricting operational development
- Lack of business visibility
- Lost containers 3% (not in correct block)
- Misplaced units 15% (wrong slot in block)
- Export re-handles 10% (prior to loading)



## The reasons for change

### Impact on productivity prior to change





## The reasons for change

### THE BENEFITS OF CHANGE

- Realisable operational efficiencies
- Foundation for future operational developments
- Get best value from TOS software
- Increase optimal yard capacity
- Future proof systems and long term reliability



Technology

# The technology (overview)



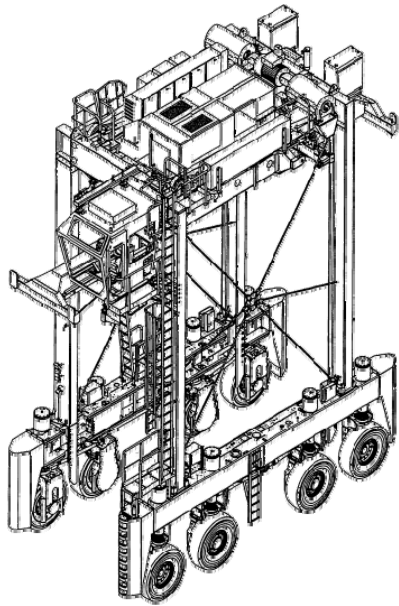
Technology



# G-POS

Modular System

## Installed on the carrier



Computer



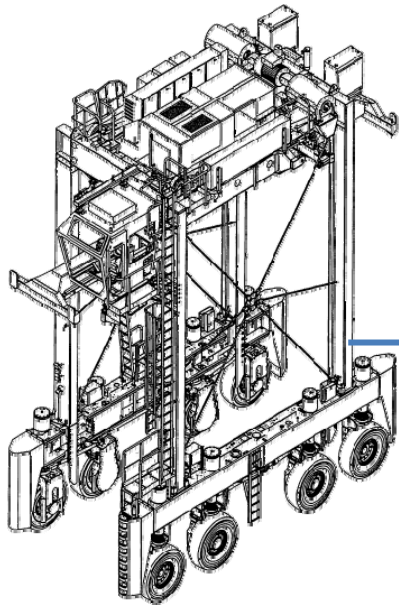
Touch display  
and card reader



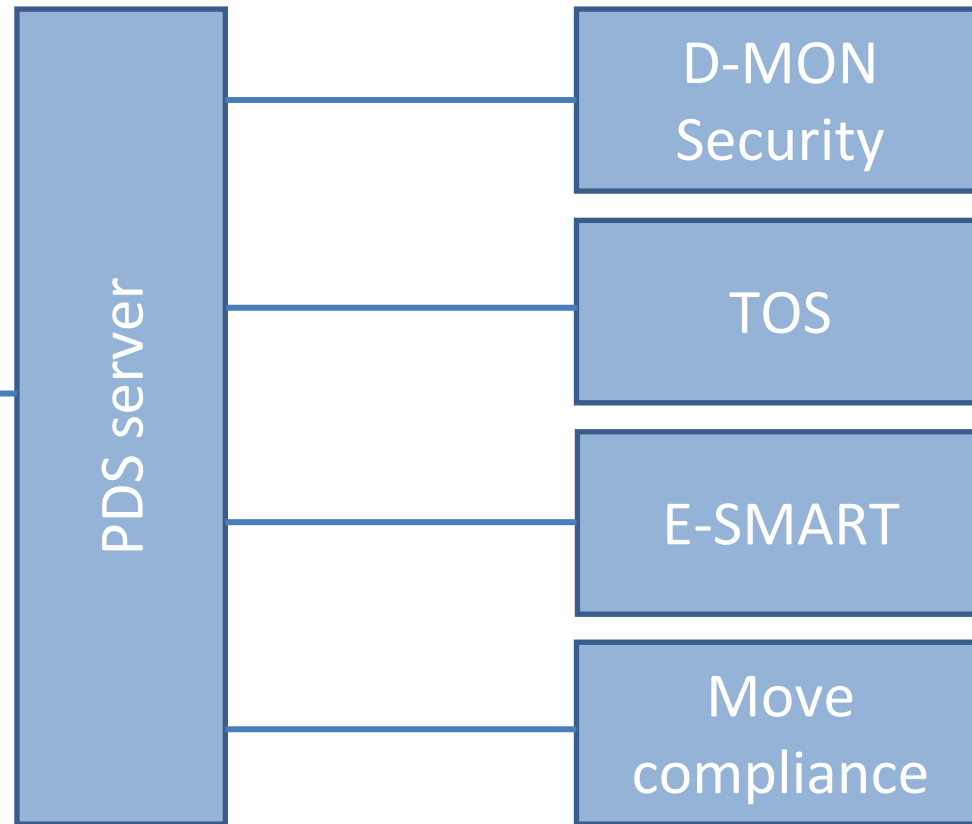
Technology

# G-POS

Modular System



# Installed infrastructure





Technology

# The technology (basic functionality)



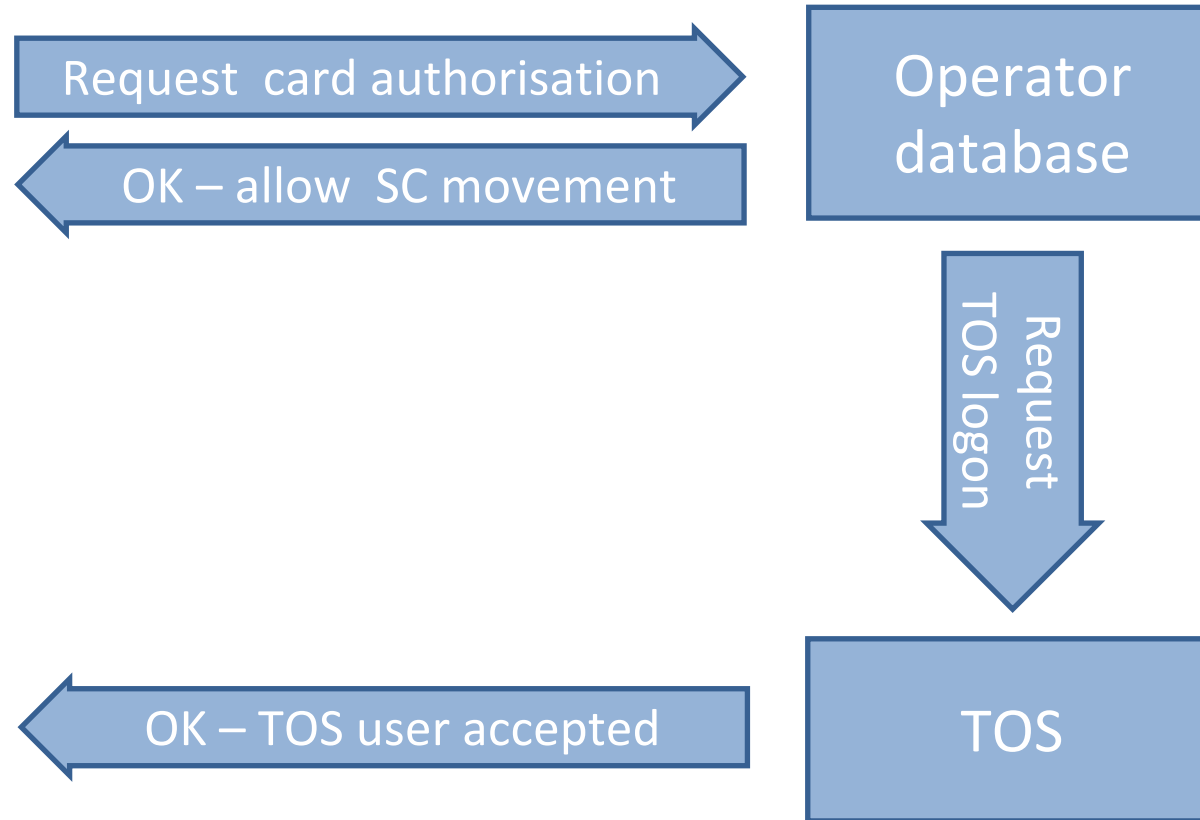
Technology

# G-POS

Modular System



## Driver authentication





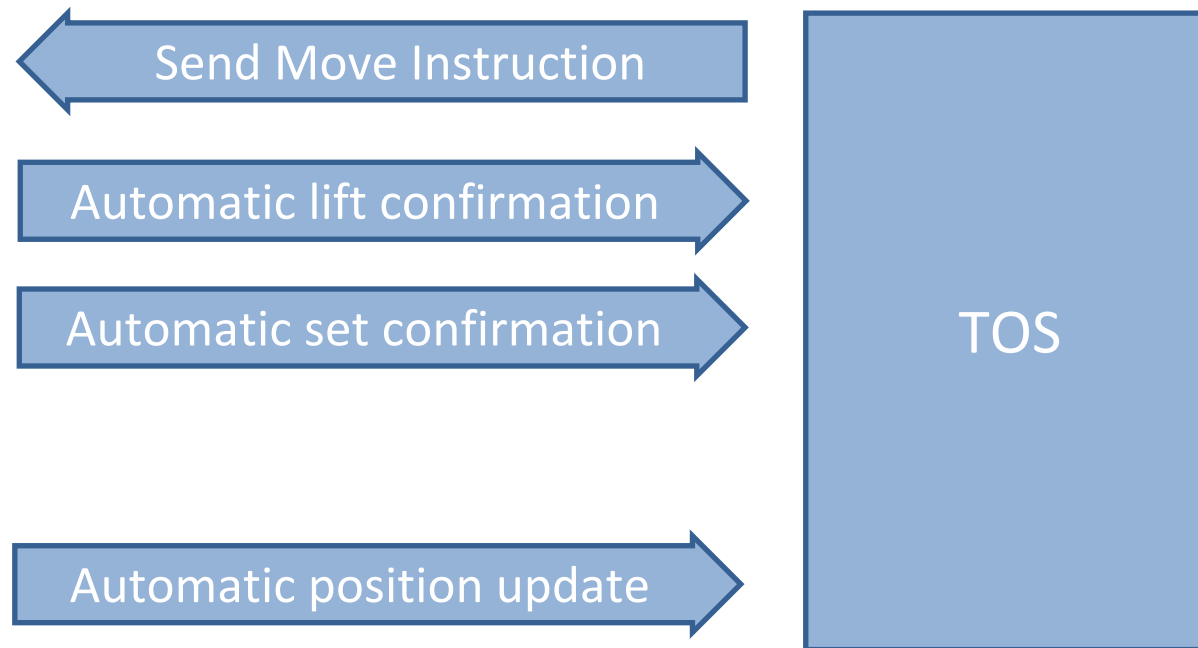
Technology

## G-POS

Modular System



## Basic PDS reporting



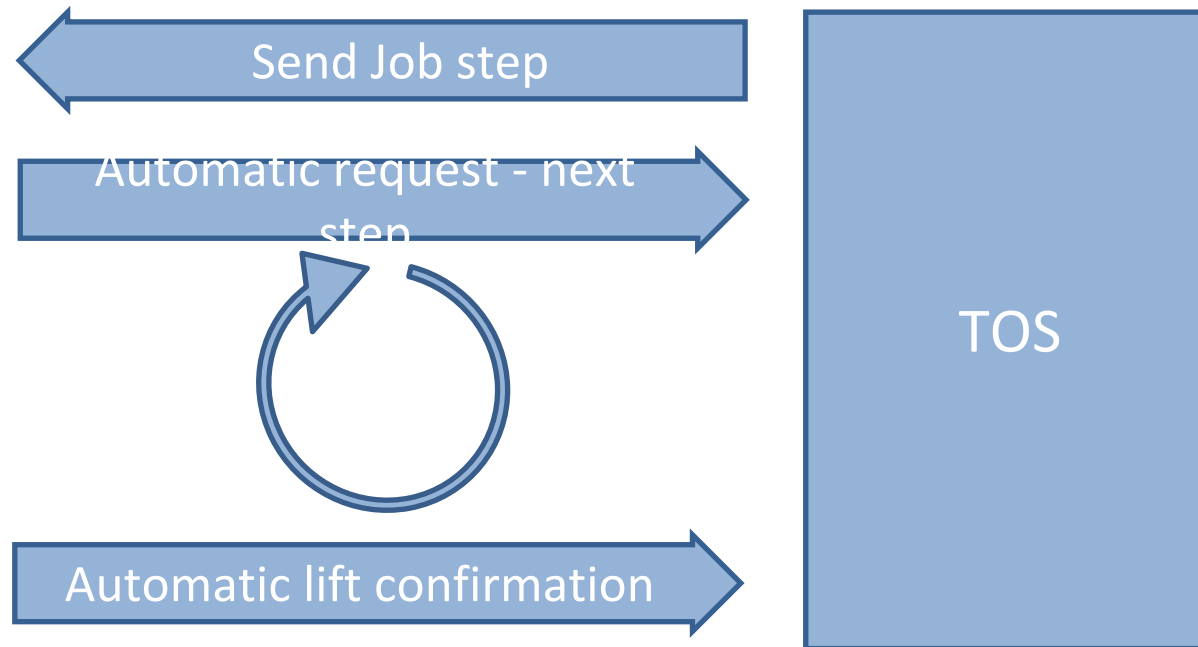


Technology

# G-POS

Modular System

## Automatic job steps



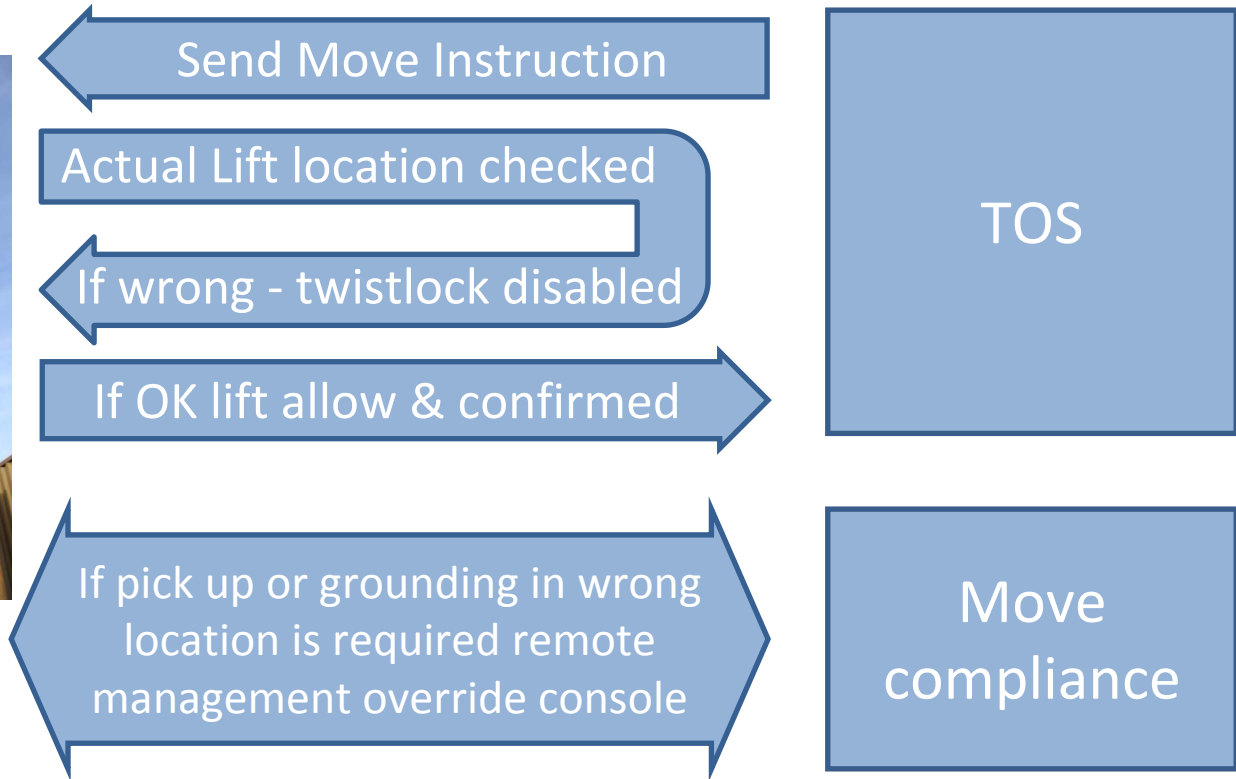
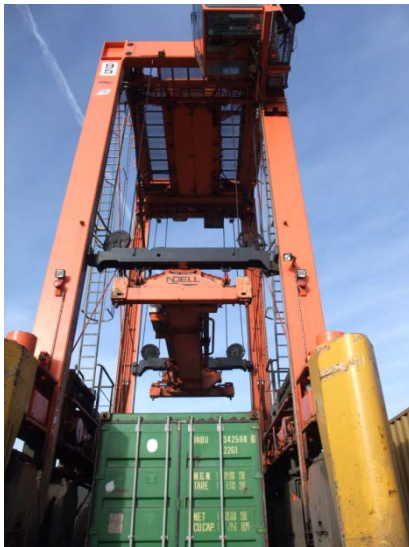


Technology

# G-POS

Modular System

# Move compliance

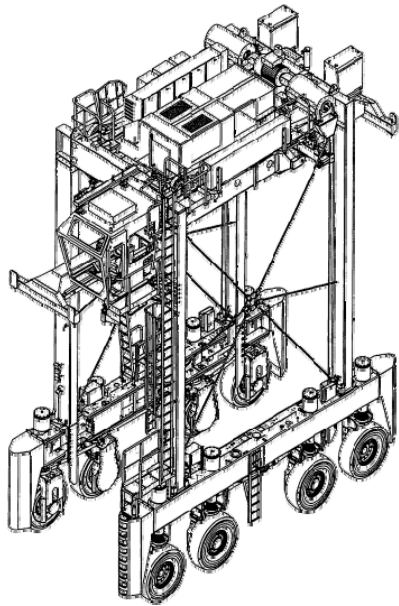




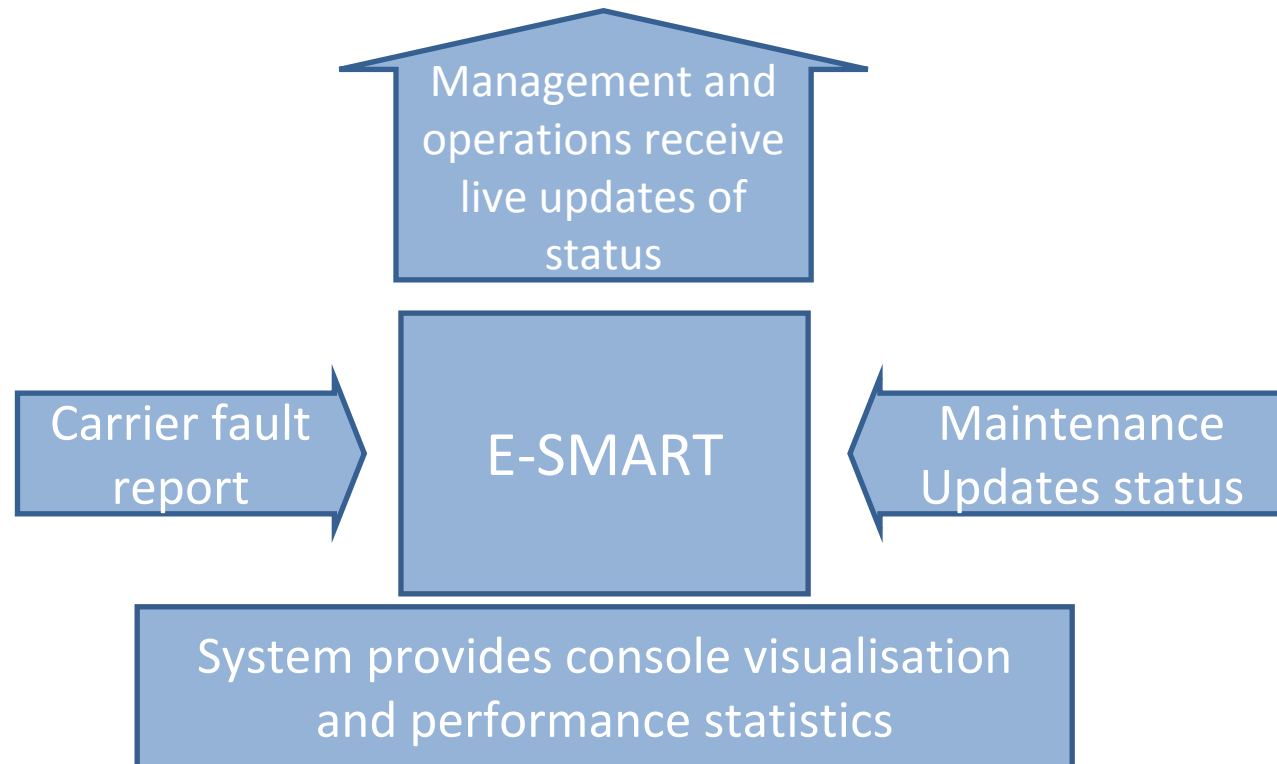
Technology

# G-POS

Modular System



# Equipment status monitoring





Technology

# The technology (Visualisation)



Technology



### Driver screens

Container length

Main Moves

Straddle Carrier <b>SC 95</b>	Job Step <b>Laden To Ship</b>	Current Location <b>QUAY</b>
Length : <b>20'</b>	Pickup Container : <b>ISFU2500266</b>	
	From : <b>6BSTOW</b>	
	Deliver To : <b>CC 6 (15B)</b>	

Exit   LOGOFF   Map View   Day   Night

Client Connected   Twistlocks Locked   GPS Comms OK    TWL    TWUL

Move info

Driver view options



Technology

## Driver screens - Job step

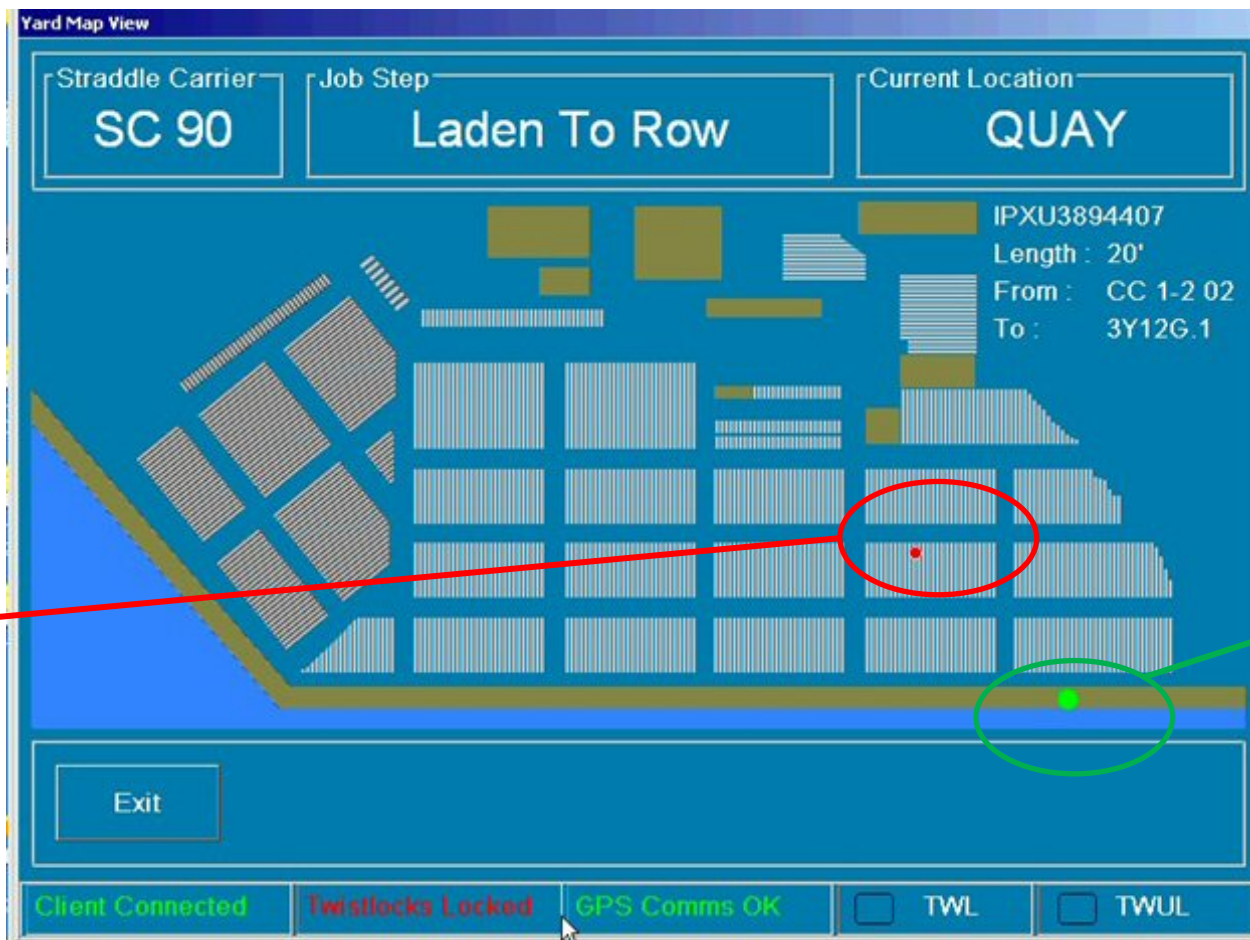
Main Moves

Straddle Carrier <b>SC 90</b>	Job Step <b>Empty To Ship</b>	Current Location <b>QUAY</b>		
Length : <b>40'</b>				
Go To : <b>Drive CC 1</b>				
Exit	LOGOFF	Map View	Day	Night
Client Connected	Twistlocks Open	GPS Comms OK	<input type="checkbox"/> TWL	<input type="checkbox"/> TWUL



Technology

## Driver screens - mapview





Technology

## Driver screens - night

Main Moves

Straddle Carrier <b>SC 85</b>	Job Step <b>CHE Is Idle</b>	Current Location <b>?????.2</b>
----------------------------------	--------------------------------	------------------------------------

Go To :  
**No Current Work Instruction**

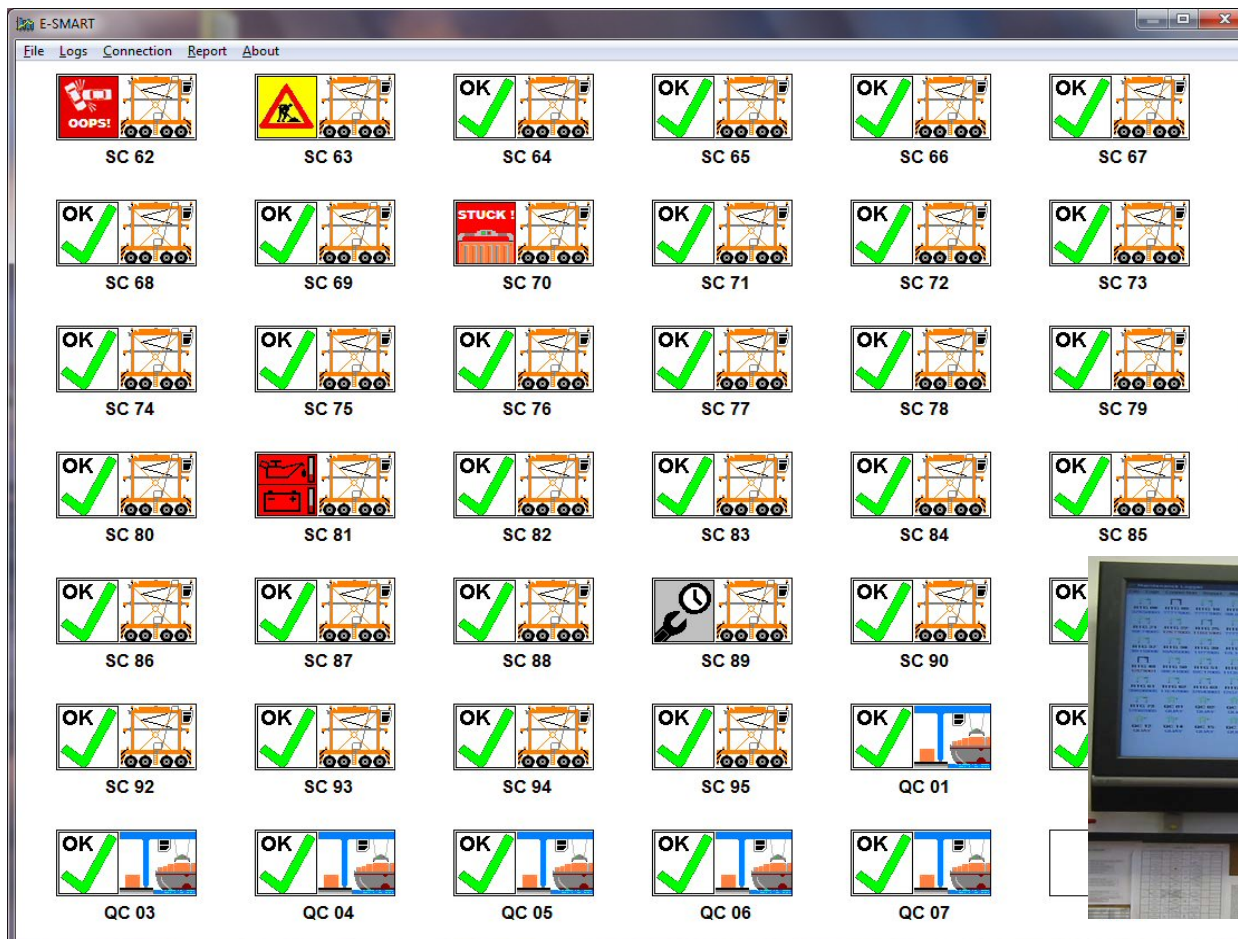
Exit	LOGOFF	Map View	Day	Night
------	--------	----------	-----	-------

Client Connected	Twistlocks Open	GPS Comms OK	TWL	TWUL
------------------	-----------------	--------------	-----	------



## Technology

### E-SMART console





Key operational outcomes

# Key operational outcomes



## Key operational outcomes

- Operates reliably in all weathers
- System availability 

Pre G-POS 34% typical  
G-POS go-live 99.98%
- Yard accuracy 

Pre G-POS 80% typical  
G-POS go-live 99.9+%



## Key operational outcomes - Source Peel Ports



22% increase in available stacking area



Productivity enhancements of up to 20%



95% of trucks serviced within 60 minutes

65% of trucks serviced within 30 minutes

30% improvement on previous performance