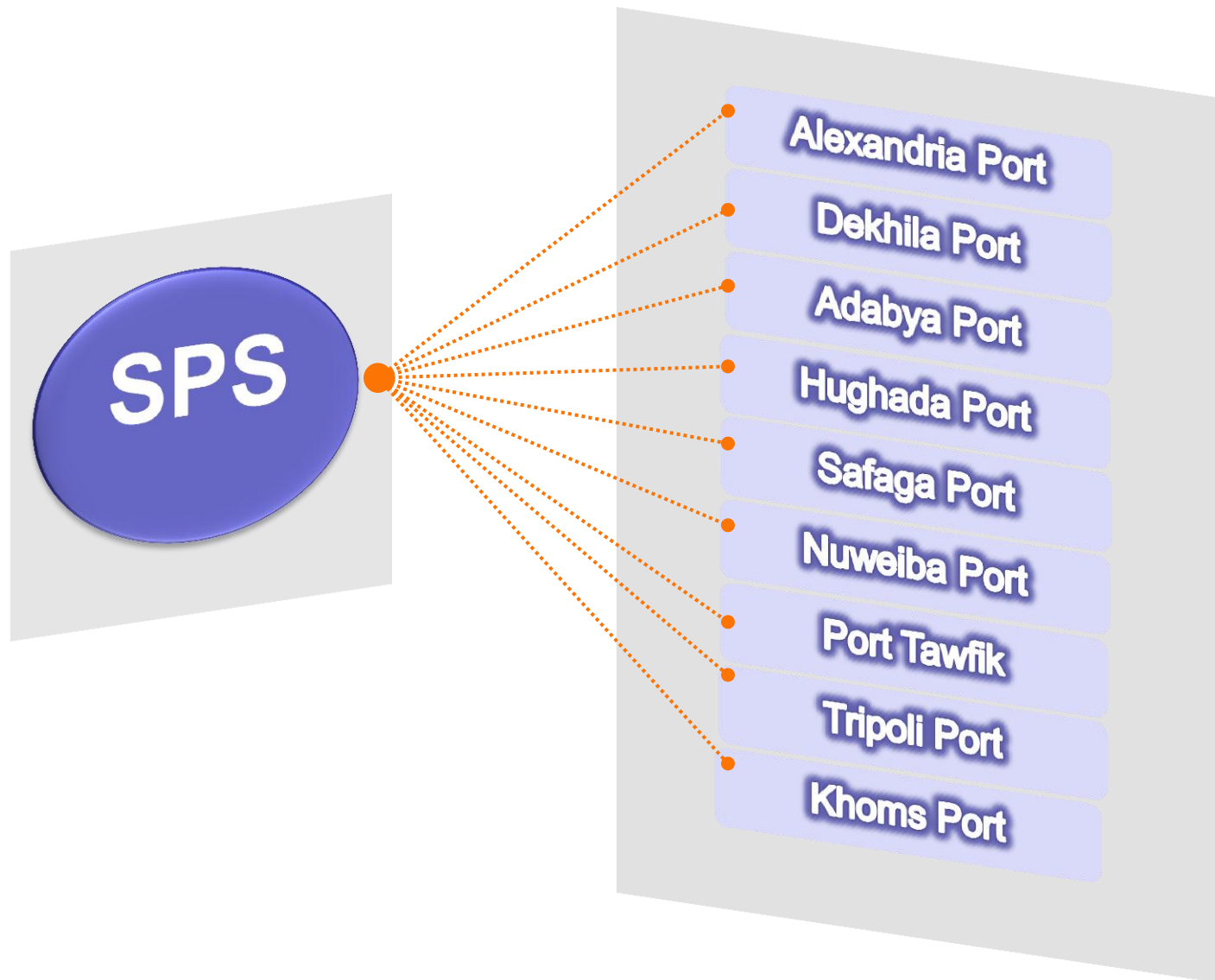


# Smart Port Solution





**“Supports management in achieving ports Operational Objectives by utilizing its resources in an efficient and effective way through Planning future operations, Executing, Monitoring and Controlling current operations”**



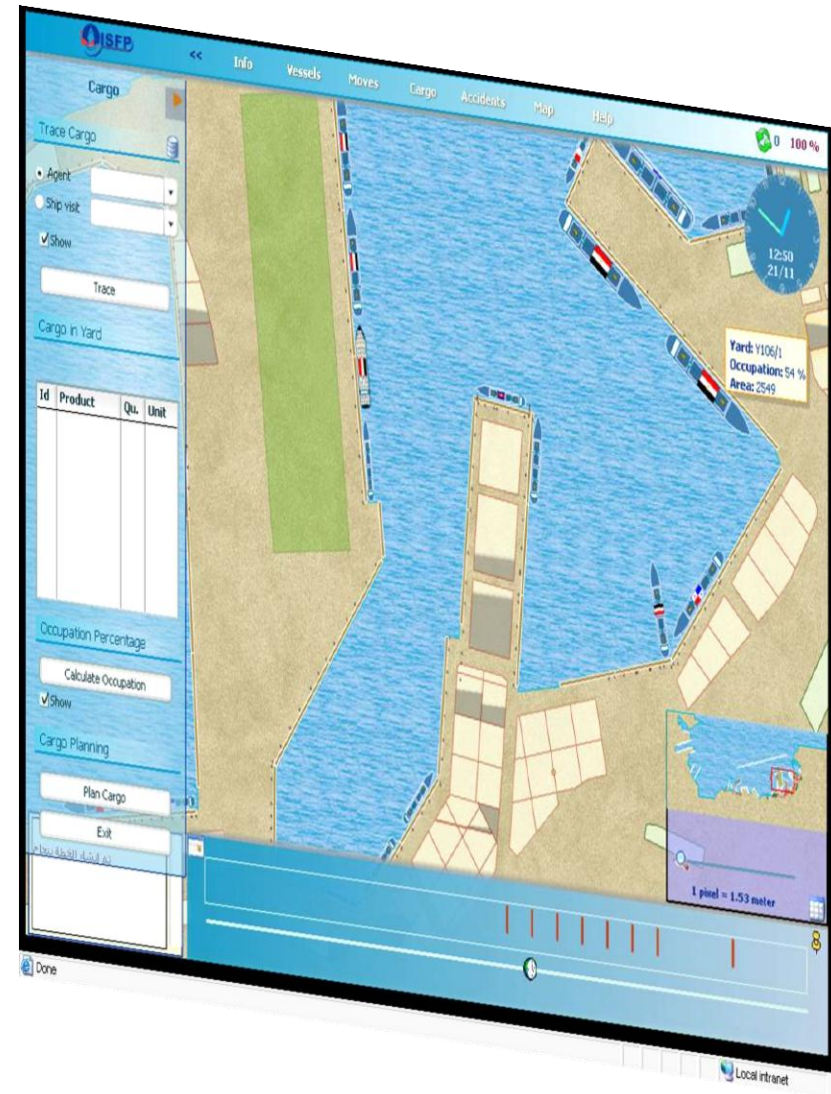
# Port Simulator

## Functionality

- ✓ visual presentation of Port
- ✓ Berths & yards allocation
- ✓ Time navigation line

## Value

- ✓ Monitor berths and yards current allocation visually.
- ✓ The ability to visually show berths and yards status at previous time
- ✓ The ability to visually show berths and yards status at future time based on planning data
- ✓ Assists in Berths and yards Planning





# ❑ Vessel Management System

## ❑ Functionality

- ✓ Berth planning
- ✓ Marine services planning
- ✓ Vessel moves
- ✓ Marine accidents and pollution
- ✓ Vessel departure.
- ✓ Integrates with other port community systems.
- ✓ Supports RDT

## ❑ Value

- ✓ Ease, speed and accuracy in issuing vessel related invoices
- ✓ Ease, speed and accuracy in extracting vessel related statistics

The image displays two overlapping screenshots of the Vessel Management System (VMS) interface. The top screenshot, titled 'Expected Arrivals', shows a table with columns for Route No, Vessel's Name, IMO, Ship Type, Nationality, Shipping Agent, Initial of Station, ETA, Type of Operation, Cargo, From Port, and To Port. The bottom screenshot, titled 'Ship Movement', shows a form for entering ship data and movement details. It includes fields for Port, Route No, Ship Name, IMO, Call Sign, and various movement options like From Berth, To Berth, From Anchorage, and To Anchorage. It also has sections for Invoicing Category, Type of Operation, and dates for the visit.

Route No	Vessel's Name	IMO	Ship Type	Nationality	Shipping Agent	Initial of Station	ETA	Type of Operation	Cargo	From Port	To Port
51001	FM SPIROON	7300992	Livestock carrier	TOGO	إيداع مار شينج		00/11/2016	discharge 2000	مخازن	Rasa	Rasa
50404	KAPAZI	8215007	Livestock	SIERRA	إيداع مار شينج		00/11/2016	discharge 2500	مخازن	Nikolayev	Nikolayev

**Ship Movement**

Ship data  
\* Port: Alexandria  
Route No: [ ]  
The Ship: Vessel's Name [ ] IMO [ ] Call Sign [ ]  
View [ ]

Moves  
From : Berth [01] To : Berth [01]  
From Anchorage Berthing Type [Anchors fixed external (waiting area)] To Anchorage Waiting [Anchors fixed external (waiting area)]  
Hold [ ] Port Authorities [ ]  
Invoicing Category [On the customer's account] The Visit [ ]  
Type of Operation [Running]  
\* From Date(date/ hour) [ ] \* To : Date(date/ hour) [ ]  
Save cancel

# ❑ Cargo Handling System

## ❑ Functionality

- ✓ Deals with all cargo documents
- ✓ Monitor stevedoring operations
- ✓ Calculates actual stevedoring rates
- ✓ Analyze the reasons for any deviation

## ❑ Value

- ✓ Instant monitoring of actual stevedoring rates
- ✓ Availability of Stevedoring Statistics
- ✓ Ease, speed and accuracy in issuing related invoices

**Actaul Stevedoring**

port

Route . No

From port

Type of operation

☒ actual ☐ Plan

the ship Vessel's Name  IMO  Call Sign

Route . No

\*From  \*to  visit

Show

2016

12 13 14 15 16 17 18 19 20 21 22 23 0 1 2 3 4 5 6 7 8 9 10 11

Stevedoring Company

AL MINUFYAH - الشركة العربية المتحددة للشحن والتفريغ

S HACIBEKIROGLU - شركة تضامن اية - اس - عود

NIZAR - شركة النجاشي للشحن والتفريغ

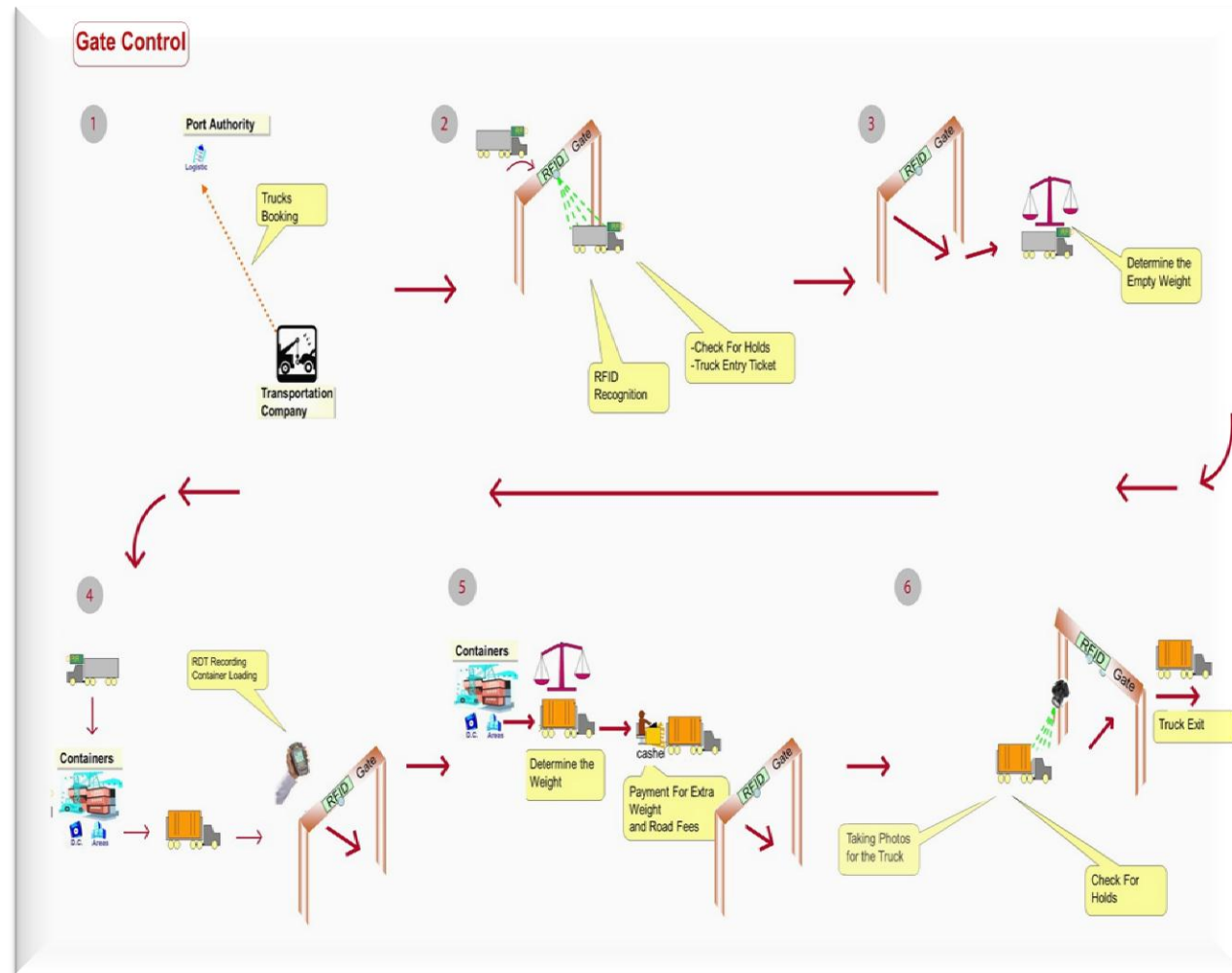
NAUTICAL ALICE - الشركة المصرية الامريكانيه لدولة الصليب (بنشاي للصلاب)

# ❑ Gates Control System

## ❑ Functionality

Handles **Truck Visit** inside the port through

- ✓ Booking module
- ✓ Entry module
- ✓ Weighbridge module
- ✓ Load / Discharge module
- ✓ Cashier module
- ✓ Gate holds module
- ✓ Exit module





# □ Gates Control System

## □ Value

- ✓ Monitor and control trucks & cargo entry to port
- ✓ Monitor and control trucks & cargo exit from port
- ✓ Ease, speed and accuracy in calculating Cashier and weighbridges fees
- ✓ Ability to extract the Gates related statistics

The screenshot displays two overlapping windows from the ISFP Gates Control System.

The background window, titled "Booking cargo trucks", contains the following fields and options:

- \* port: Alexandria
- \* Booking point: booking27
- Carrier: AYL Australasian Intercoastal
- Types of booking: Import (selected), Export, Dray in, Export Returns, Import -No. manifest
- document No.: [ ] - [ ] - [ ] 2017

The foreground window, titled "Trucks inside the port", features a search form and a data table.

Search form fields:

- truck Char. [ ] No. [ ] City /Color [ ]
- Trailer Char. [ ] No. [ ] City /Color [ ]
- Buttons: Search, Cancel

Data table: "The number of rows 5"

Truck	Trailer	Time of Entry	Time Cashier	Entry Weight	Exit Weight	Booking Type	Custom Declaration
8237 الدقهلية	4128 دهر - أحمر	19/02/2008 14:01					
111122 أسوان		05/03/2016 05:27		20.96	70.44	General cargo	
36645 المنوفية	30932 المنوفية	11/04/2015 19:56		0		Book Ward	imag
				0	0	No document	
						Book Ward	
						No document	

# □ Licensing Management System

## □ Functionality

- ✓ Handles the process of authorizing companies to work in certain activity inside the port
- ✓ Handles the process bidding for renting ports assets
- ✓ Handles delivery and violation reports
- ✓ Handles trucks periodical port entry subscription

## □ Value

- ✓ Monitors and record rental violations
- ✓ Ease, speed and accuracy in issuing related invoices
- ✓ Better service to parties dealing with port
- ✓ Better utilization of ports resources

The image displays two overlapping screenshots of the ISFP software interface. The top screenshot, titled "Add / Edit Application for renting", shows a form with fields for "Ports" (set to Alexandria), "Serial", "date of application", "Type of Request" (set to إيجار حديق), "Tenant" (غيريل و هكتور عمار), and radio buttons for "Yards", "Buildings", "Units", and "Pipes". The bottom screenshot, titled "Units Rent", shows a form with fields for "Ports" (set to Alexandria), "Serial", "Sectors", "Financial year" (set to 2016/2017), "Number" (set to 22), "Start Date" (set to 01/01/2017), "No. of Months" (set to 1), "Length of the boat", "Date of trip", "Exp. date" (set to 31/01/2017), "Unit Type" (set to وحدة), "Tenant" (غيريل و هكتور عمار), "Vessel's Name", "Message Type", and a "Calculate Rental Months" button. Both screenshots have "Save", "Delete", and "Close" buttons at the bottom.

# ❑ Warehousing Management System

## ❑ Functionality

- ✓ Plans cargo storage and movement and generates relevant work orders
- ✓ Handles work orders execution supported with RDT
- ✓ Records storage services for goods
- ✓ Handles damaged/lost cargo reports
- ✓ Handles neglected cargo process

## ❑ Value

- ✓ Monitor stored quantities for best utilization
- ✓ Ease, speed and accuracy in issuing related invoices
- ✓ Statistical cargo reports for decision support

The image displays two overlapping software interface windows for a Warehousing Management System.

The top window, titled "Yard Entry", features a "Storage Companies" section with radio buttons for "Import" (selected), "Export", and "Dray in". Below this are input fields for "Storage .No", "Storage Date From", and "To". A "Ship Visit" section includes a "Route .No / D" field and a "Vessel's Nat" field. At the bottom, there are "Search" and "Cancel" buttons, and a "Route .No / Dray In" field.

The bottom window, titled "Work Orders Execution", features a "Storage Company" section. Below this are input fields for "Order Date" (with "From" and "to" labels), "Order Type" (with a dropdown menu showing "All"), and "Order No.". At the bottom, there are "Search" and "cancel" buttons.

## ❑ Functionality

Enables Container Terminal to manage their operational work

- ✓ Handles ship visits data
- ✓ Handles load/ discharge operations (ship/truck) with RDT support
- ✓ Handles lash operations, container shifts and vessel moves with RDT support
- ✓ BAPLIE message support
- ✓ Handles container load list and empty list
- ✓ Handles FCL, LCL empty containers
- ✓ Handles hazard and reefer containers
- ✓ Provides yard management capability with RDT support
  - Storage services for containers/goods
  - Damaged/lost container reports
  - neglected containers process
  - Stiffing and staffing processes
- ✓ Manages terminal Gates control
- ✓ Integrates with automatic truck/container identification solutions (OCR, RFID, etc.,...)



# ❑ Terminal Operating System

## ❑ Value

- ✓ Better control for containers flow inside the terminal
- ✓ Monitor current stored containers and occupancy rate
- ✓ Ease, speed and accuracy in issuing related invoices
- ✓ Ability to analyze data for decision support concerning bottlenecks, best utilization for terminal resources and enhancing operational objectives

The image displays two overlapping software forms from a Terminal Operating System. The top form, titled "Container Ships Visit", includes fields for "Route . No", "E.T.A", "A.T.A", and "the ship". It also features a section for "Vessel's Name", "IMO", and "Call Sign", with an "Identifying visit" button. Below this is a table with columns for "Add", "Revise movements", "Revise work", "delete", and "Review data". To the right of the table is a "The number of rows" dropdown set to 5, and a "planning" button. The bottom form, titled "discharge", contains fields for "\*containers number", "\*Discharge type" (set to CRANE), "Letters", "numbers", "City", "\*Container case" (set to Filled), "Equipment Code", "Vessel's Name", "Position Yard", "Accounts" (checked), "Route . No", and "Notes". It also includes an "inquiry" button and a "discharge" button at the bottom right.



# ❑ Billing System

## ❑ Functionality

- ✓ Provides a dynamic engine for defining different invoices with their related variables, conditions, calculation methods and categories.
- ✓ Provides a flexible definition for different fees
- ✓ Provides a flexible definition for invoice serial
- ✓ Handles taxes and discounts for all invoices
- ✓ Handles invoice generation with its business process including the necessary reviews and approval cycles
- ✓ Handles debit/credit notes
- ✓ Integrates with other systems for invoice payment

## ❑ Value

- ✓ Ease, speed and accuracy in issuing all invoices
- ✓ Enhance receivables cycle by quick and accurate issuing of invoices and continuous follow up for payments
- ✓ Better service management for customers

The screenshot displays the ISFP Billing System interface. The top section is titled 'Invoice Types' and contains a 'Master Data Search' form with fields for 'port' (set to 'Alexandria'), 'Authorities' (set to 'الهيئة العامة للغذاء والدواء المصرية'), and 'Departments' (set to 'الإدارة التجارية - حركة السفن'). Below this is a section titled 'Totals for the bill items properties' which includes another 'Master Data Search' form with fields for 'port' (set to 'Alexandria'), 'Departments' (set to 'الحاويات الدولية'), 'Invoice type' (set to ' '), and 'Group' (set to ' '). This section also has 'Search' and 'cancel' buttons. At the bottom, there are three sections: 'Condition variables', 'Method of calculation variables', and 'The official working hours', each with a 'save' button.

# Port Mobile Applications

**Mobile applications** provide port customers with innovative tools that help them work more efficiently.

## Container/ cargo stakeholder

Provide notifications and queries related to container/cargo availability information in real time and invoice status

## Shipping agents

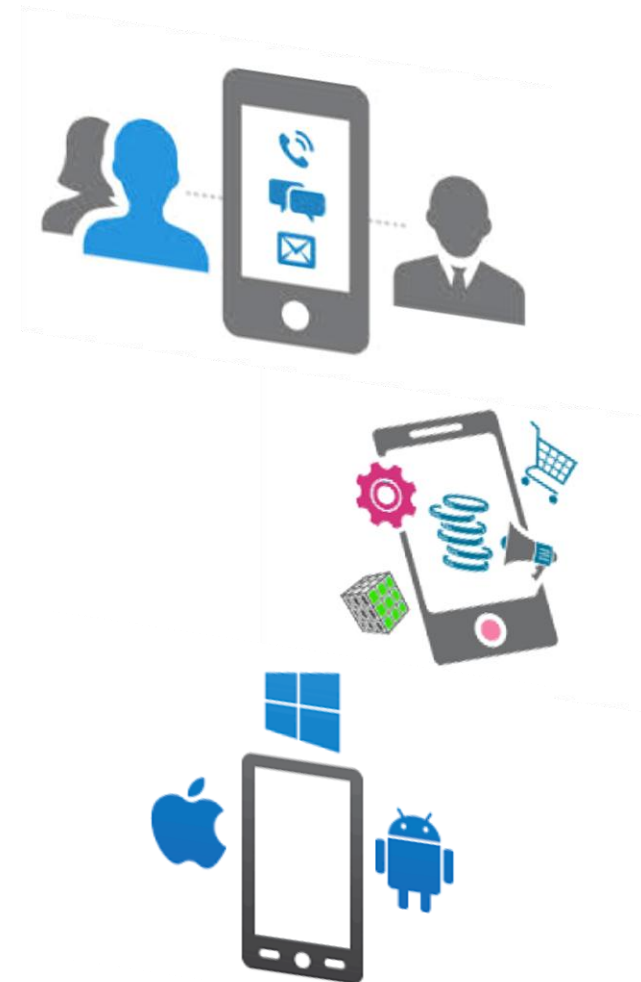
Provide notifications and queries related to vessel arrival, moves, start/end stevedoring operations, holds, departure and invoice status.

## Transportation companies

Provide notifications and queries related to entry, truck load/discharge operations, net cargo weight, truck holds and cashier bills.

## Companies working inside the port

Provide notifications and queries related to activity authorization, yard rental approval and invoice status



# Port KPIs

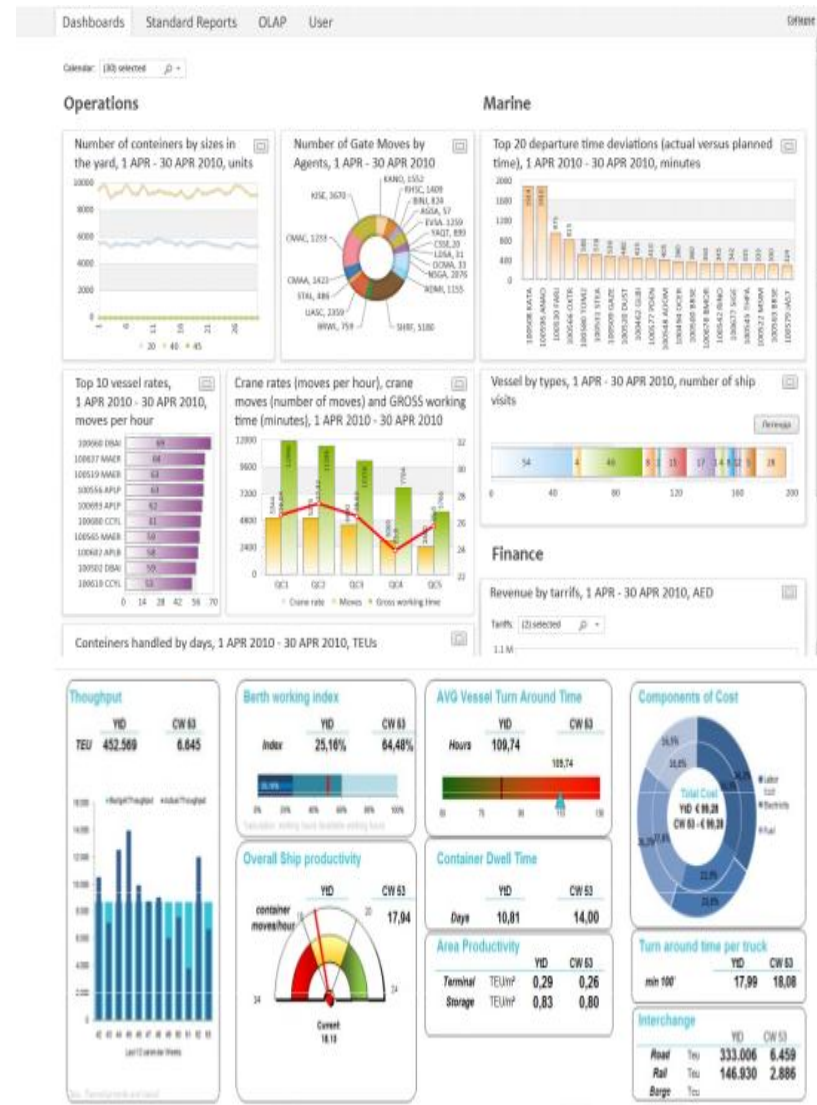
Port Performance indicators provide insight to port management into the operation of key areas.

Port KPIs are mainly used to:

- ✓ Improve port operations
- ✓ Provide appropriate basis for planning future port development

Business Intelligence software tools are used to handle port KPIs

- ✓ Collect data from multiple data sources (Databases, XML, email, excel, ..)
- ✓ Prepare Data for analysis
- ✓ Develop and run queries against the data
- ✓ Generate reports
- ✓ Build interactive dashboards



Port KPIs are categorized into:

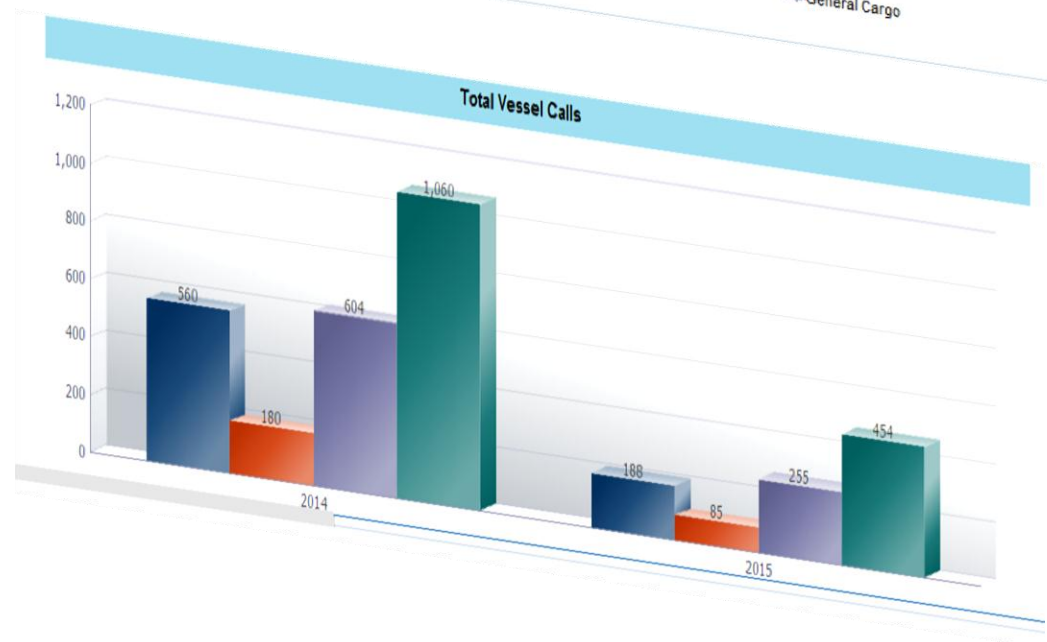
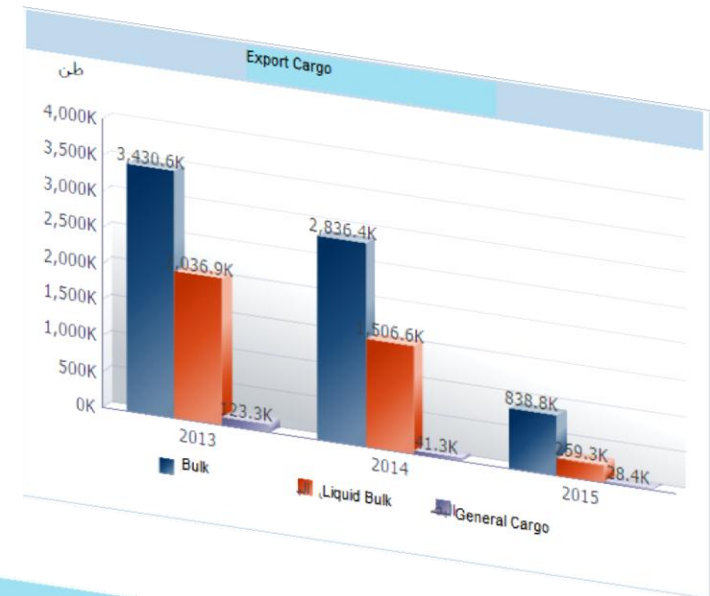
- ✓ Measures Of Production
- ✓ Measures Of Productivity
- ✓ Measures Of Utilization
- ✓ Measures Of Service

## Measures Of Production

Are measures of the level of activity of the business (Traffic)

### Indicators

- Total Vessel Calls per year
- Total General Cargo per year
- Total Bulk per year
- Total TEUs per year



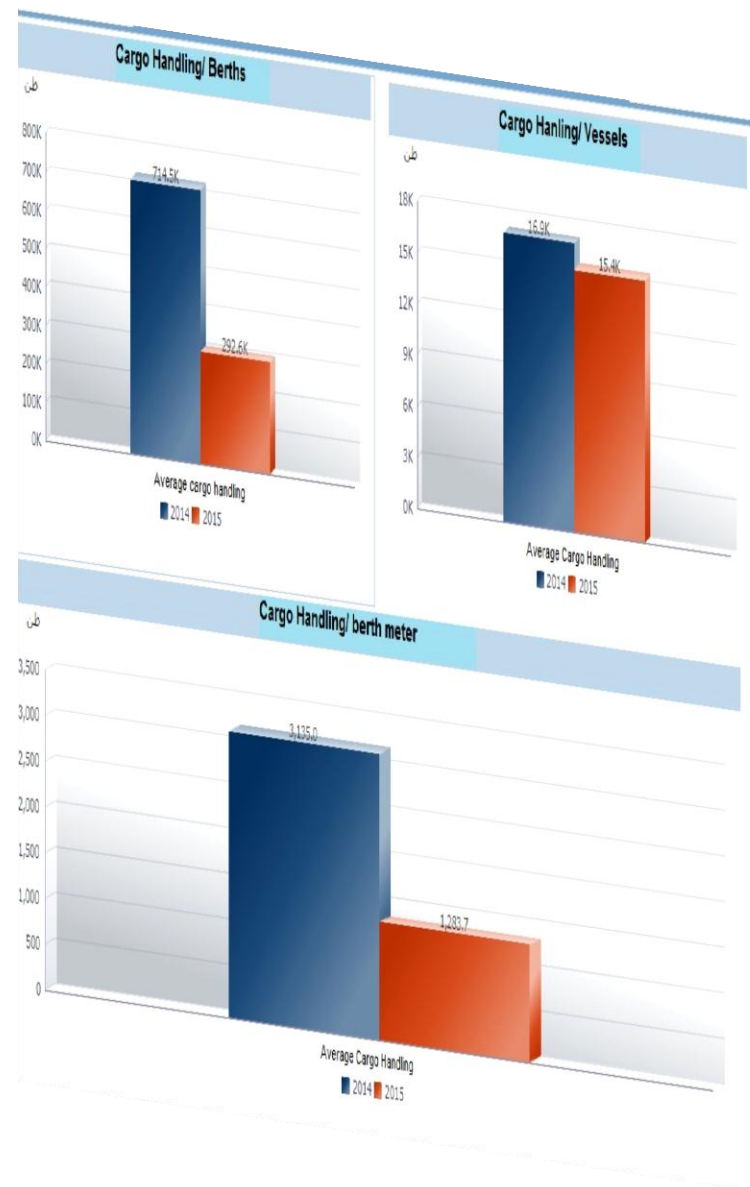


## Measures Of Productivity

Determine the efficiency of port operations in terms of the ratio of output to input.

### Indicators

- Average Throughput per linear meter of berths
- Tonnage handled per vessel a day
- TEUs per crane (hook) hour
- Cargo tonnage per crane (hook) hour
- Berth throughput
- Dwell Time

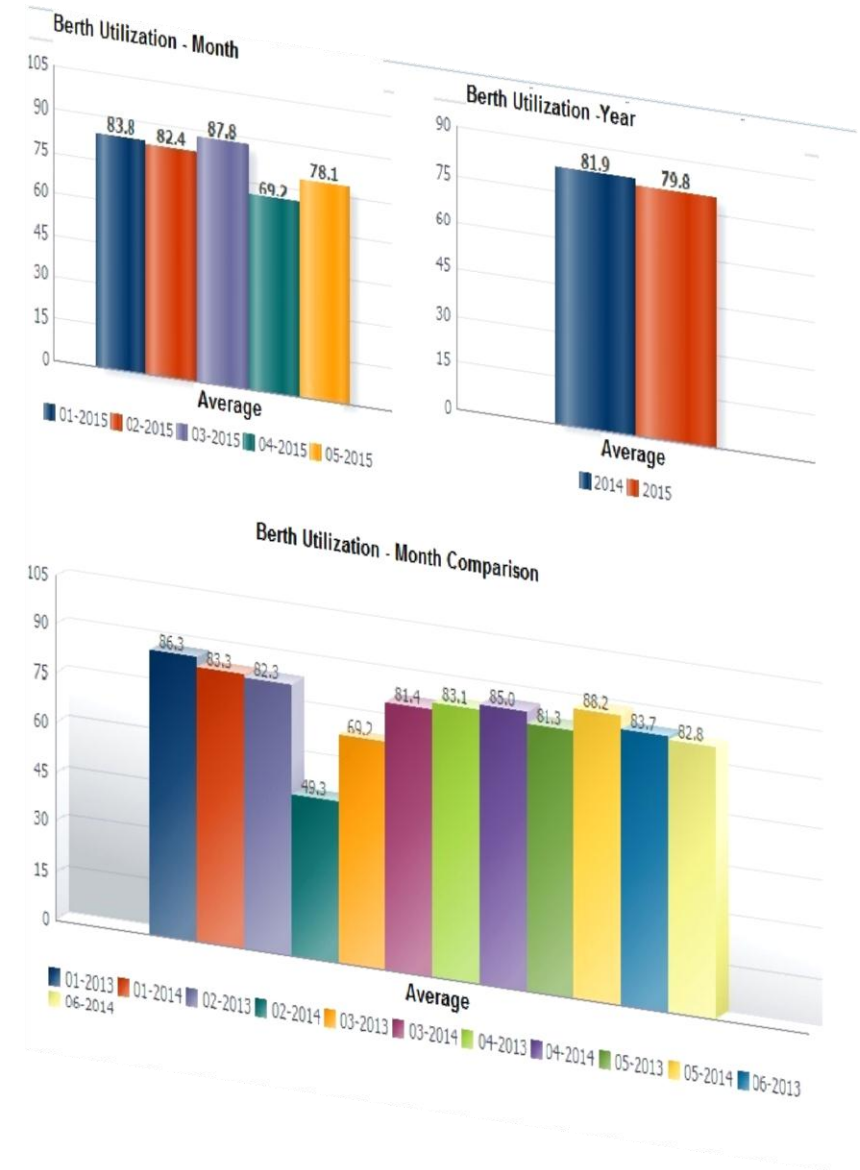


## Measures Of Utilization

indicating how intensively resources are used. They are usually expressed as a ratio between the actual use of a resource and the maximum possible use of that resource over a particular period of time

### Indicators

- Berth utilization rate
- Berth occupancy rate
- Yard Utilization rate
- Equipment utilization rate



## Measures Of Service

indicate the quality of service to the customers

### Indicators

- Average ship turn-round time
- Average vessel time at berth
- Average vessel time outside
- Average waiting
- Average truck turn-round time
- Average Rail turn-round time

