



iPROS

iPROS TOS (Terminal Operation Systems) is a **comprehensive** resource planning, operations and monitoring system that can be used in container terminals to generate plans for the **optimal use of resources** (such as Berth, Quay & Yard cranes, and manpower resources).

The system also facilitates real-time command and control of operations and resource usage at the container terminal. The system **can issue instructions** for several thousand container moves every day with **high level of accuracy and efficiency**.

iPROS TOS is complimented by a web-based portal called iCommunity that **provides integrated services** to the shipping lines, shipping agents, hauliers, freight companies & local government agencies. It links all these players of the port community together to enable point-to-point information exchange as well as to process transactions.

With direct and easy access to such a web-based network, the users of this portal at diverse locality can make **speedy, effective decisions** and track their vessels & cargoes on a 24-hour, paperless and **real-time basis**.

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iCOMMUNITY

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Other Sub Systems

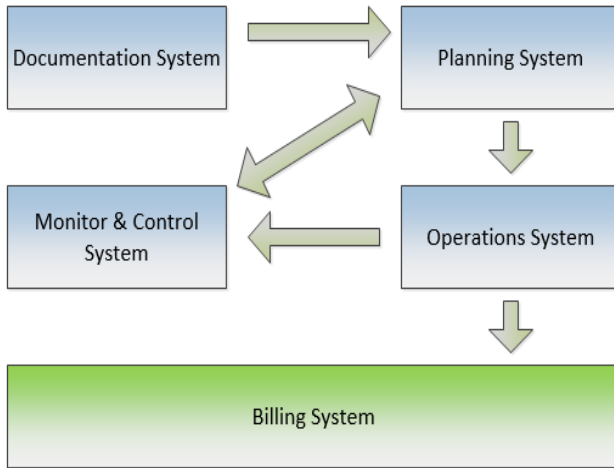
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iPROS Systems



The Terminal Operations begin with the work requests which are facilitated by the iCOMMUNITY.

The request details are passed on to the Planning systems for operation readiness.

Billing systems work in parallel with all actions.

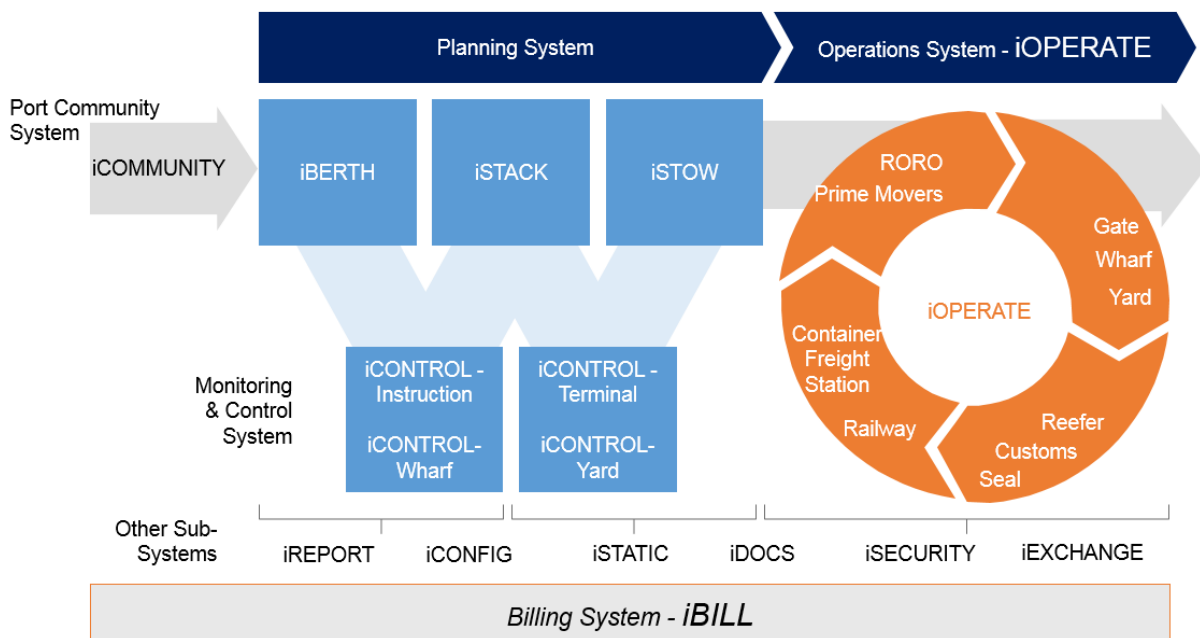
The requests are passed on to the Operation systems for actual work.

The operations are performed in collaboration with monitoring and control systems and as per instructions from the planning systems.

Additional subsystems help coordinate activities in terms of user management, security and static data.

“In all subsystems of the iPROS Terminal Operations System, readily retrievable Reports are facilitated on Real Time basis and the same can be customized and filtered as required by the user.”

iPROS System



Port Community System: iCOMMUNITY is an E-Commerce portal that provides integrated services to shipping lines, hauliers, freight forwarders and government agencies.

Planning System: Consists of Berth Planning, Container yard Planning and Vessel Stowage Planning. The three subsystems, with the available plan and occupancy information allows the user to plan for the optimized operations accordingly.

Operations System: Comprises the actual subsystems that interact with equipment and complete the instruction messages assigned for corresponding operations.

Monitoring & Control System: iCONTROL segment deals with monitoring and control operations in the Yard, Terminal, Wharf areas and Instruction coordination. Continuous information monitoring and operator interventions are facilitated by these subsystems for effective handling of operations and removal of bottlenecks.

Other Sub Systems: Includes systems that manages user authentication, profile creation, report summaries, configuration settings, procedural documentation for the entire set of operations and security features.

Billing System: Featured with deposit calculation, confirmation and invoicing capabilities and can be readily interfaced with common financial legacy systems.

iCOMMUNITY

iCOMMUNITY is an E-Commerce portal that provides integrated services to shipping lines, hauliers, freight forwarders and government agencies.

Leveraging on a combination of valuable shipping experience and high-speed data exchange, the system links various aspects of the shipping business together to provide a point-to-point information exchange; greatly simplifying the operating process of port users.



Request Operations

Request in the iCOMMUNITY module is one of the origin points of operations. Requests raised here widely cover all the Port operations like Delivery, Container Stuffing/Unstuffing, Customs inspection and Truck operations. The Delivery Requests deal with the movement of Containers outside the port where the submitted Delivery request information will serve as checklist for the port Gate out. CFS Requests are similar where the Container is taken out and brought in for stuffing/unstuffing operations.

Haulier & Train Services

Requests are registered in this section for movement of Containers using Hauliers and Trains.

The Transporters are assigned for new requests and the assignation can also be modified as required for existing requests until the operation is initiated.

Reports

Readily extractible real time Reports are facilitated in iCOMMUNITY. The best part is that the reports can be customized and filtered as per user needs and generated accordingly.

Customs Reports, Container Report, Operation, Billing and other miscellaneous reports are available in customized manner.

Vessel Schedule & Berth

Shipping agents can schedule Vessel Arrivals and Departures with the Vessel Schedule option. Static information can be filled in advance on the Vessel Name, Type and Flag.

The Service routes can also be defined in advance. This will enable auto population of fields when the Vessel name is chosen.

Berth Applications can be placed and the existing requests can be enquired and updated/deleted as required by the user. The Berth Application Information takes in all the comprehensive details of the Vessels from Water supply mode, Anchorage, Dangerous classification, Hatch Cover details and more. This enables the port to plan according to the information declared by the vessel.

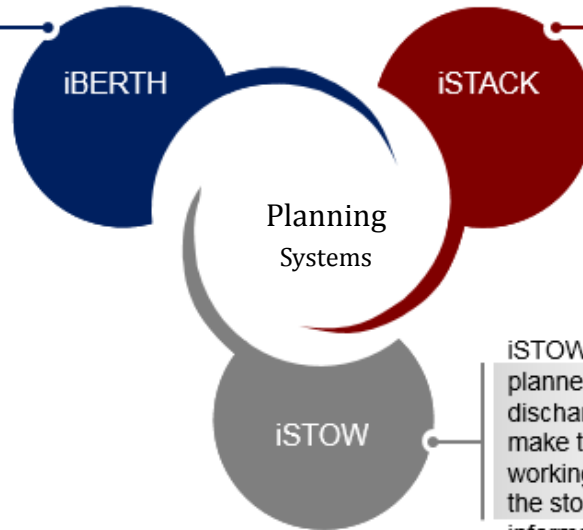
Container EDI Services

EDI is a format where data can be fed into the system and the system can understand it and record information as required. The data can be manually fed in the iCOMMUNITY application through proper templates and the same will be converted by the system into EDI formats.

iCOMMUNITY can also receive information from external systems in this format and record information for further operations. Information like stowage planning, containers for loading, discharge, storage can be fed into the system in the EDI section under relevant menu.

iPROS Planning Systems

iBERTH offers Real Time Berth Resource Management in Port - administering resources at the Berth, imposing restricted areas, attending to the Vessel Calls, setting preferences

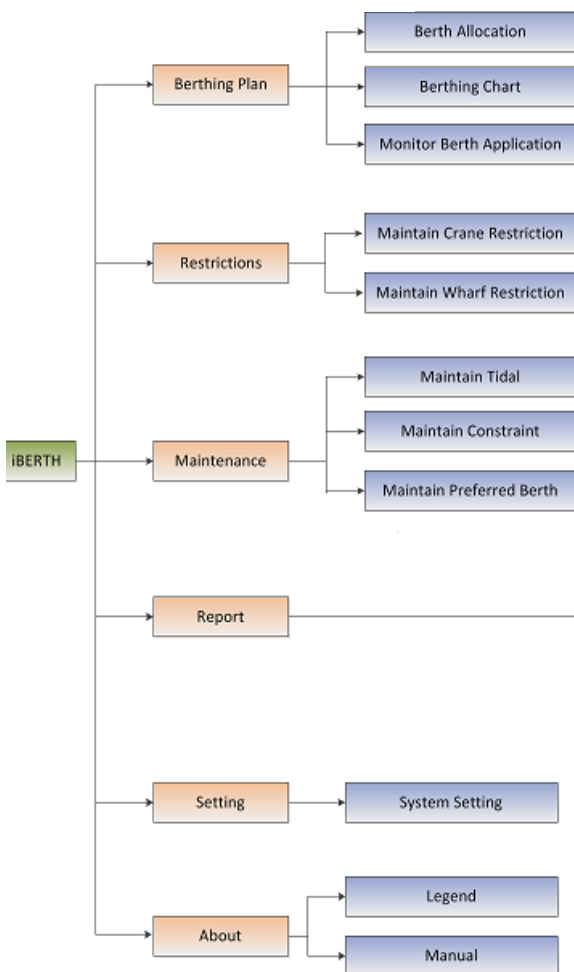


iSTACK assists the yard planner to manage the container yard - reduces yard shifting, improves equipment/yard utilization and eventually improves vessel turnaround

iSTOW supports ship planner to mark discharge/load stowage & make the plan of QC working sequence based on the stowage & container information.

“iBERTH offers a user friendly Graphic User Interface model with exclusive and segregated Berth resource management functions.”

iBERTH Features



iBERTH

iBERTH is a Real Time Berth Resource Management module in Port – Allocation of Berth, maintenance, administering resources at the Berth, imposing restricted areas and relieving of restrictions, attending to the Vessel Calls, setting preferences and recording Tidal values, generating reports as required.

iBERTH offers a user friendly Graphic User Interface (GUI) with exclusive and segregated Berth resource management functions.

Berthing Chart: Displays the Berths of the Port, the occupied areas, the restricted places and helps mapping the Vessels to appropriate Berth based on Crane & spacing availabilities.

Berthing Plan: Shows and facilitates the placement of Vessel in the allotted Berths of the Port.

Confirming/Unconfirming the Berth plan, confirming the Berthing in Batches, shifting and movement of Vessels can be done using this function.

iSTACK

iSTACK assists the Yard Planner in reducing Yard shifting, improving equipment and Yard utilization and eventually improving the vessel turn around.

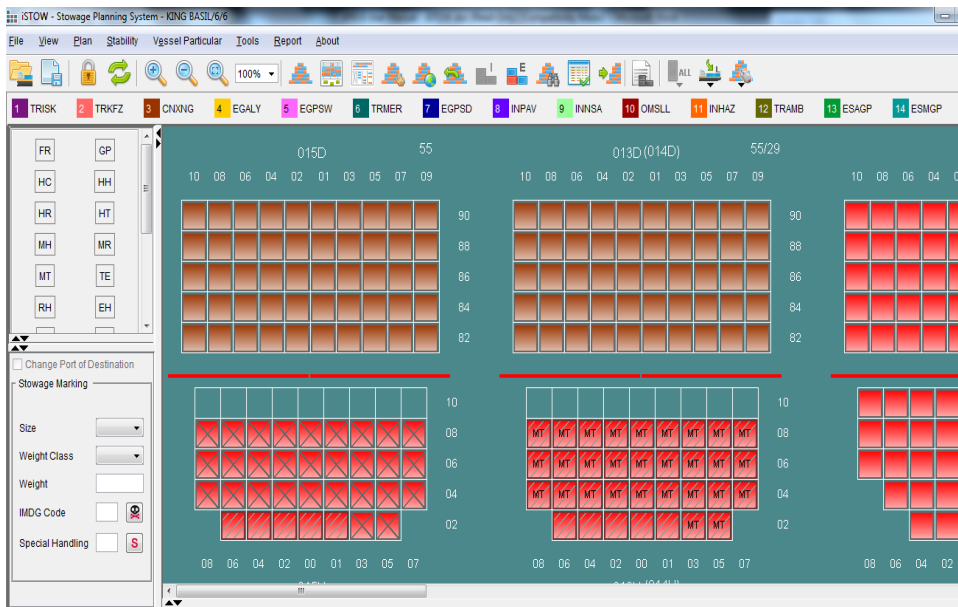
iSTACK features Yard Profile, Yard Planning, exception management and Reports.



- Container Size Display, Breakdown, Stack Rules
- Cluster Safety Range
- Yard Operation Templates
- Insufficient Yard Plan Alter
- LOCA
- Physical Yard Block
- Logical Yard Block
- Unavailable Region
- Slot Capacity
- Macro Plan
- Micro Plan
- Depot Plan
- Commit Micro Plan
- Import/Export/Transshipment /Land/Reship Yard Ranges
- Import/Export Cluster Summary, Stack Location
- Container Information
- Yard Utilization

iSTACK Features

“iSTACK Yard Profiling option displays Physical (corresponds to an actual yard block that has physical boundary) & logical yard blocks (slot-wise segments of physical blocks).”



iSTOW

The iSTOW supports ship planner to mark discharge/load stowage, and make the plan of QC working sequence based on the stowage and container information. It also supports to calculate vessel trim & stability in order to verify that the loading/discharging plan meets vessel safety criteria.

iSTOW home screen is shown on the left.

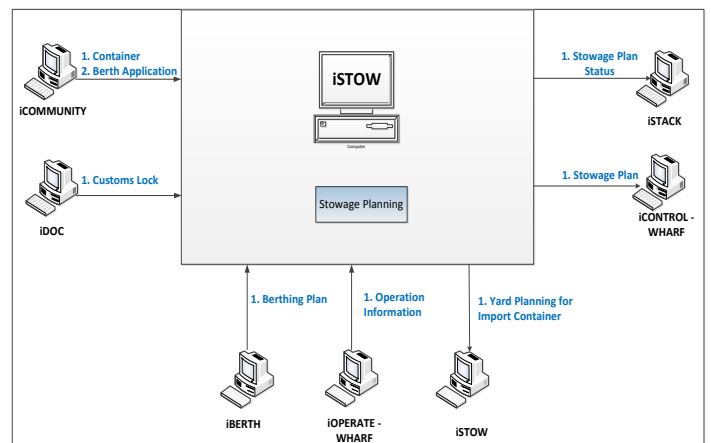
iSTOW: Pre-Plan

- Load Vessel Plan
- Define Job Duration
- Define Bay Operation Pattern
- Define Port Rotation
- Define Stowage Weight Class
- Configure Parameter

iSTOW: Planning

- Data Downloading
- Mark Stowage
- Segregation
- Indicate Planning Mode
- Crane Assignment
- Sequencing
- Amend Crane Sequence
- Yard Profile
- Exclude Containers
- Yard Split
- Clear Slot Plan
- Manual/Auto Slot

iSTOW Interfaces



iOPERATE

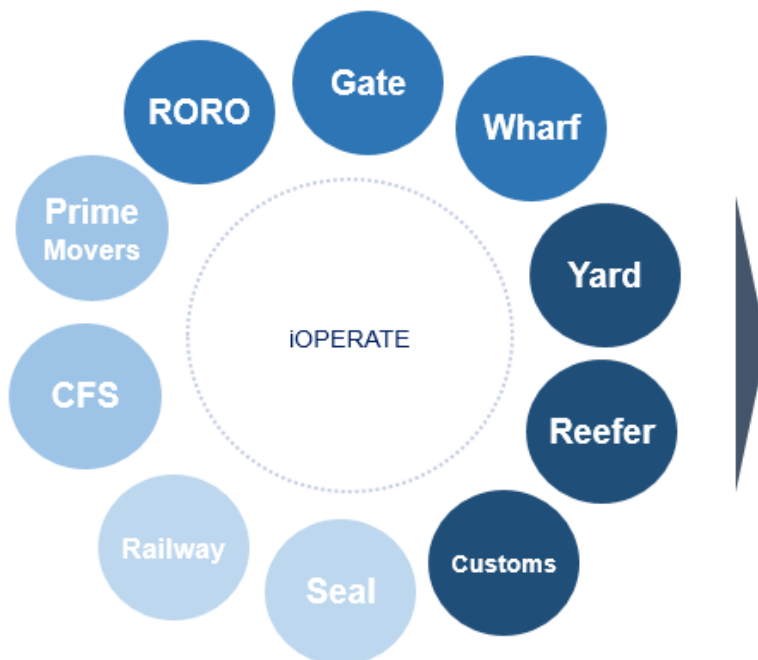
The iOPERATE consists of subsystems that work on Real time basis, interacting with various other subsystems in receiving instructions and performing the operations with accuracy.

The subsystems are handled by different expertise groups on specific operations as briefly explained in this section.

iOPERATE - Yard

User friendly Graphical User Interface system designed to assist yard operator in expediting mount or offload containers according to plan.

iOPERATE Yard covers operations like those of Gate – Yard offloading/Mounting, Shifting – Yard offloading/Mounting, Ship – Yard offloading/Mounting, Move, updation of equipment locations, work ranges, status and more.



“iOPERATE – Gate integrates with Container Number Recognition System (CNRS) & Vehicle Number Recognition System (VNRS) for automatic Gate In/Out operations.”

iOPERATE - Gate

Both manual and Automatic Gate In requests are supported and performed by the iOPERATE – Gate subsystem. iOPERATE also integrates with number recognition system to facilitate Automatic gate operations. Provides various reports – Gate Daily, Container Gate Operation, and Cargo Gate Operation History.

Gate: Assists gate operators to manage the gate in/out, cancel gate operation, outside yard gate business and more.

Wharf: Assists wharfside operators in expediting discharge or load containers according to plan.

Reefer: Helps to manage and operate the Reefer Containers.

Customs: Supports customs check operations from X-Ray, Weight to Lift off Ground. Executes the operations.

Seal: Used to perform operations on checking seal information and allow units to pass through in the gate.

Railway: Assists railway operator in confirming the operation of rail container operations.

Container Freight Station: Assists freight station operator in confirming the operation of stuffing or unstuffing of containers.

Prime Movers: Provides real time notification to the Prime mover drivers on where to go for dispatch operations.

RORO: Manages Roll on Roll off Container Operations – Loading, Discharge & Delivery.

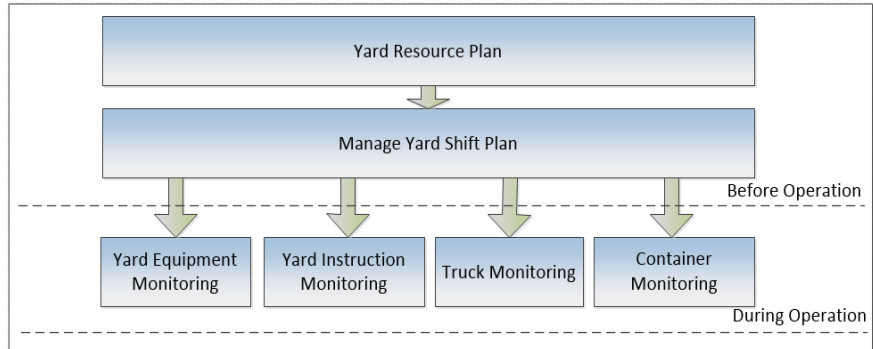
iCONTROL

iPROS Control and Maintenance segment consists of four subsystems – Yard, Wharf, Instruction and Terminal.

Provides functions to assist control center staff to manage the operations real-time. It can distribute the equipment in accordance with the actual operations by types.

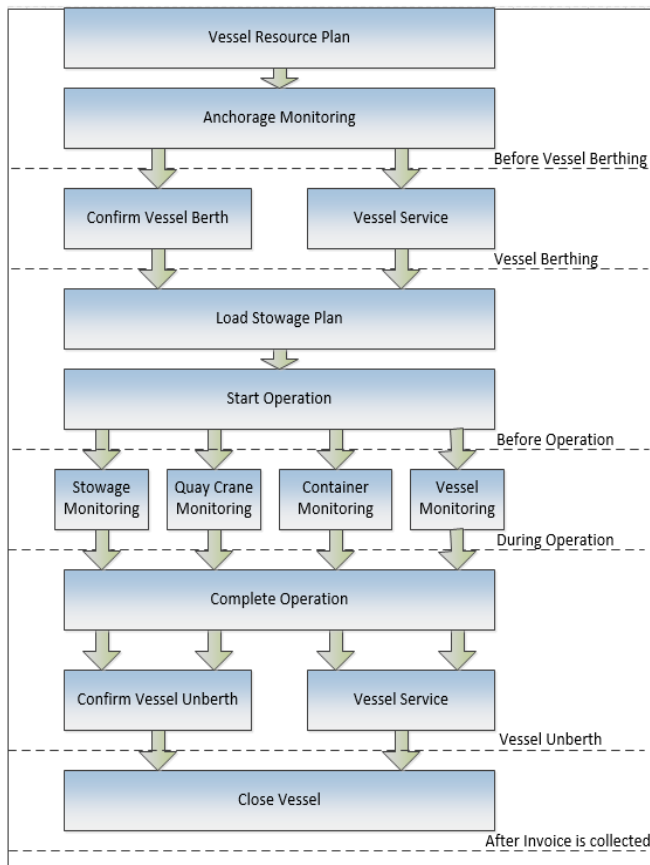
Control center staff can timely know the operations of the yard by exception active supervision and the thoroughness of observation and in-depth functional vision inspection. With it, control center staff can regulate the problems and bottlenecks of the operations.

iCONTROL – Yard (Workflow)



“The Yard map in iCONTROL – Yard can receive real time updates of changes in operations, yard crane position and status. It also gets auto refreshed to show latest information.”

iCONTROL – Wharf (Workflow)



iCONTROL – Terminal: Maintains Yard Profile and Vessel list. Facilitates the view of operations at vessel/yard side and shows the balance. The yard block is represented in rectangle with an overview of workload. The Color of yard block real-time reflects the operations for the corresponding vessel in same color.

Yard Operation overview, Vessel operation, movement and operation performance reports are also published in the iCONTROL – Terminal subsystem.


iCONTROL – Instruction: Helps in instruction management, operation correction, cancel unberth operations. Undo operations on Discharging, ship mounting, loading are also supported.



iPROS Other Subsystems

iDOCS
iSECURITY
iCONFIG
iEXCHANGE
iSTATIC
iREPORT

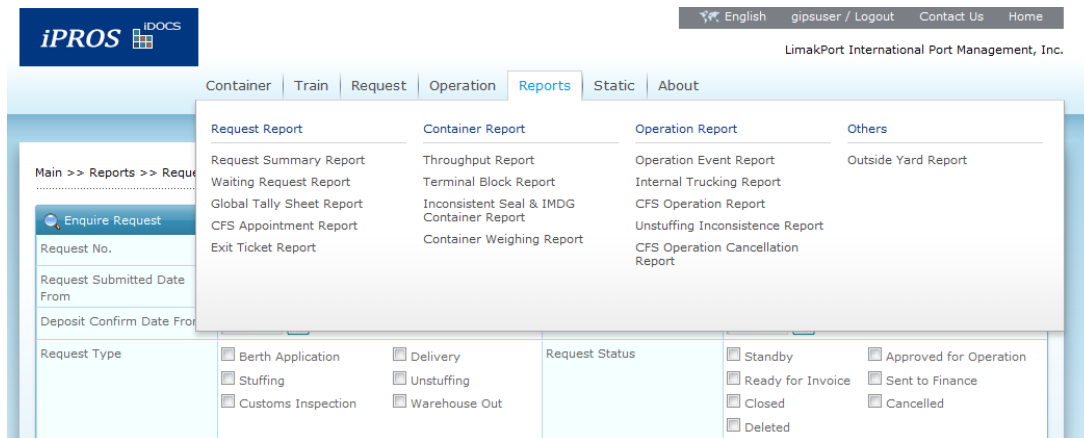
iDOCS - Enquire Container

window 

iDOCS

Serves as a one stop shop for Documentation - Deals with all Container management requests – Creation and enquiry, Promoting Requests to next operational stages, Train Call management, Container operation management, various reporting and coordination with other modules of iPROS system.

| Enquire Container | | | |
|--|--|-----------------------|---|
| Discharge Vessel/Voyage | <input type="text"/> | Loading Vessel/Voyage | <input type="text"/> |
| Operator | <input type="text"/> | Container Agent | <input type="text"/> |
| B/L No. | <input type="text"/> | Container No. | <input type="text"/> |
| Request No. | <input type="text"/> | Documentation Status | <input type="checkbox"/> Provisional <input type="checkbox"/> Confirmed |
| Status | <input type="checkbox"/> Empty <input type="checkbox"/> FCL <input type="checkbox"/> LCL | Shipping Status | <input type="checkbox"/> Import <input type="checkbox"/> Transhipment |
| Trade | <input type="checkbox"/> Domestic <input type="checkbox"/> Foreign <input type="checkbox"/> Transit | | <input type="checkbox"/> Overland <input type="checkbox"/> ROB |
| Port Status | <input type="checkbox"/> Not Arrive <input type="checkbox"/> In Port <input type="checkbox"/> Exited | | <input type="checkbox"/> Land <input type="checkbox"/> Restow |
| Outside Yard | <input type="checkbox"/> | | <input type="checkbox"/> Shortland <input type="checkbox"/> Export |
| Damage | <input type="checkbox"/> | | <input type="checkbox"/> Reexport <input type="checkbox"/> Reship |
| | | | <input type="checkbox"/> Shutout <input type="checkbox"/> Storage |
| <input type="button" value="Enquire"/> <input type="button" value="Create"/> | | | |



The screenshot shows the iPROS iDOCS Reports menu. The main navigation bar includes 'Container', 'Train', 'Request', 'Operation', 'Reports', 'Static', and 'About'. The 'Reports' menu is open, displaying a grid of report options:

- Request Report**
 - Request Summary Report
 - Waiting Request Report
 - Global Tally Sheet Report
 - CFS Appointment Report
 - Exit Ticket Report
- Container Report**
 - Throughput Report
 - Terminal Block Report
 - Inconsistent Seal & IMDG Container Report
 - Container Weighing Report
- Operation Report**
 - Operation Event Report
 - Internal Trucking Report
 - CFS Operation Report
 - Unstuffing Inconsistence Report
 - CFS Operation Cancellation Report
- Others**
 - Outside Yard Report

Below the report grid, there are sections for 'Request Type' (Berth Application, Stuffing, Customs Inspection, Delivery, Unstuffing, Warehouse Out) and 'Request Status' (Standby, Ready for Invoice, Closed, Deleted, Approved for Operation, Sent to Finance, Cancelled).

iDOCS –
Reports 

iSECURITY

iSECURITY application maintains the lists of all Company Profiles, Products and the various departments of the company. Accordingly, the users are created and given access to these profiles and products based on which the authorization is controlled by the administrator user. Also, the password maintenance, user group creation and maintenance, user access control reports, password policy are serviced to the entire iPROS system using this subsystem.



- Define Business Related Items
- Switch On/Off Validation Rules
- Maintain Interfaces and application logic

- Development of templates
- CFS Statistics, segregation
- Container Volume Reports
- Monthly Dwell Time Reports

- Quay Crane Maintenance
- Yard equipment Maintenance
- Prime mover Maintenance
- Gate Maintenance

- Define EDI Template
- EDI Process monitor
- Download and Archive file
- Template Export/Import

About Us

Global Integrated Port Systems (GIPS) is a Singapore registered IT company with a wholly-owned subsidiary located in China's north-eastern city of Dalian.

We engage in IT consultancy and Software Development services, particularly in the port-logistics domain. Our team in the China subsidiary has extensive experience in developing and maintaining port related systems for Singapore's PSA as well as for ports in other parts of the world.

With the experiences and deep domain knowledge acquired through the years of supporting this business, our team has not only been able to provide high-value IT services to port customers, but have also helped develop complex and customized Terminal Operations Systems (TOS) for a number of ports. In addition to that, we also have expertise and experience in developing systems to support the port engineering department.

iBILL

iBILL is a user friendly finance system arm of the iPROS Terminal Operations System. iBILL helps to drive the Port Operation requests with the Deposits and Invoices. It can also integrate easily with external finance systems like the SAP and Oracle ERP systems.

Deposits

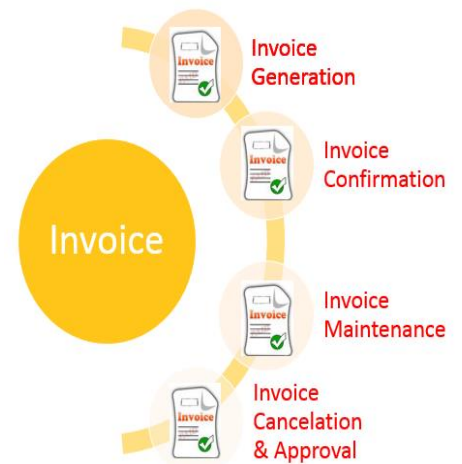
Based on the Operation request raised, the Deposit is calculated with detailed split of various service items involved. Multiple Currency options for each of the service item is supported and the equivalent amounts are tallied in the Summary.

A "Discount" section is available separately.

Invoice

Once the Operation is completed, the Request status is moved onto the next stage of 'Ready for invoice'. At this stage, the invoice is generated, confirmed and then sent to the downstream finance systems.

Invoice can be canceled and regenerated in cases required.



"The Tariff Rate maintenance section lets the user to setup Rates for each of the Tariff Codes. New Tariff codes can be defined along with the definition of rates and charges."



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