



# **FR**eight **T**ransport **I**nformation Technology **S**olutions



**Intermodal  
Freight  
Terminal  
System  
IFT**





# FRETIS/IFT

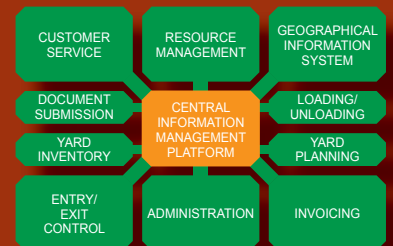
Presentation of the eleven interconnected and integrated modules of the FRETIS / IFT software package is given below and in the next pages.

Each module, or group of modules, can be installed and work independently thus allowing for maximum flexibility and expandability.

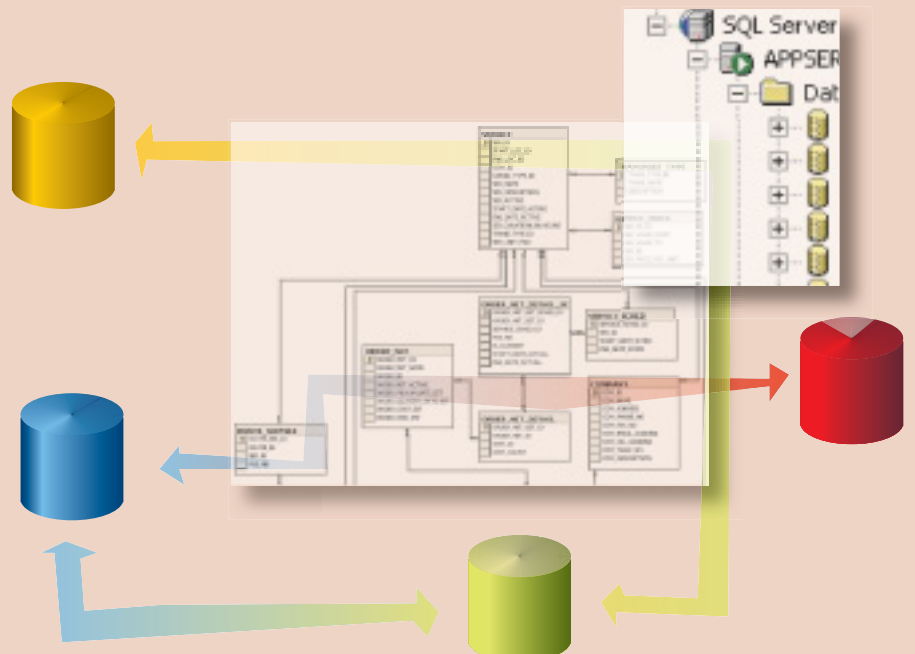


## MODULE 1

# Central Information Management Platform



A relational database management structure, coupled with appropriately developed interfaces, constitutes the backbone of the overall system and facilitates the dynamic integration of all applications. Using modular application environment technology, the peripheral subsystems are fully interoperable and interconnected, thus allowing the full integration of the various sections in the Container Terminal.



# Document Submission



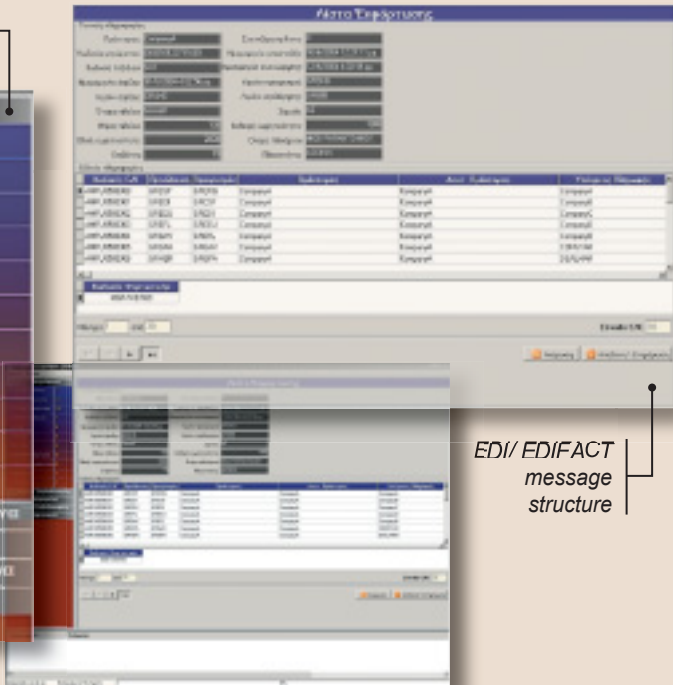
The electronic Document Submission is a robust document control mechanism eliminating much of the bureaucracy and paperwork. With a friendly, multi-functional interface and unlimited interoperability capabilities, it is an ideal point of contact between the port and its clients.

This module can send and receive electronic documents in multiple ways, ensuring total business flexibility. XML versions of all standard container based EDIFACT messages are used for commercial transactions. This offers generic compatibility and capability for integration with client software of any format and ICT capacity.

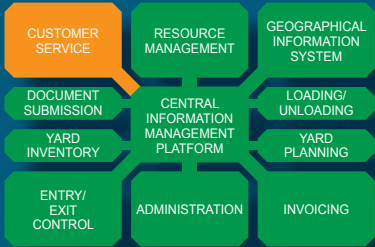
As an alternative, it also contains web forms of all standard EDIFACT messages, allowing customers to submit electronic documentation via the Internet. This service is particularly favorable with smaller customers for easy/low cost access to the Document Submission System.

Full XML/ EDIFACT compatibility

Container Type	Count
CDPRAR Ανάσκη	7
CDPRAR Φόρτωσι	27
CDPRAR Εξφόρτωσι	25
CDREOR Ανάσκη	7
CALINF	0
CDHADR	3
COSTOR	3
CDPRAR Φόρτωσι	5
CDPRAR Εξφόρτωσι	4
CDHADR	1
COSTOR	1



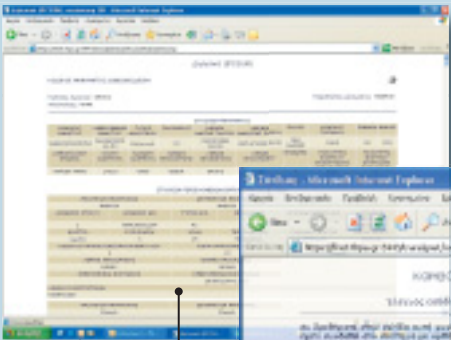
EDI/ EDIFACT message structure



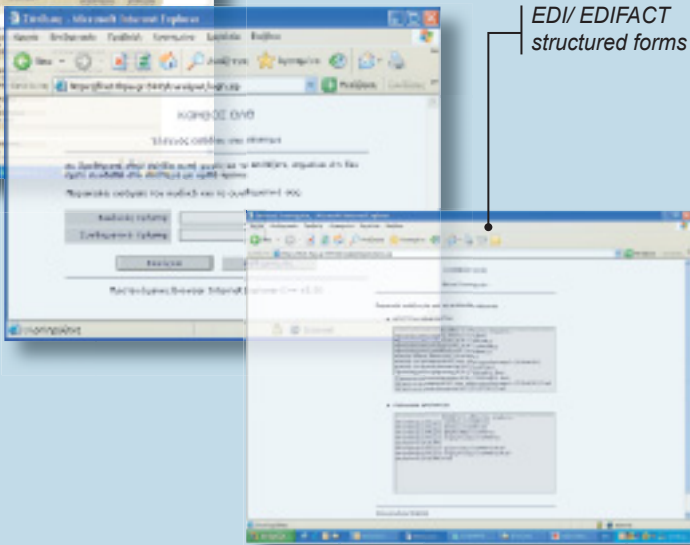
# Customer Service

The Customer Service module offers an interactive web-based/M2M application, providing accurate and real time information to the port customers through the Internet.

This Information Dissemination enables the port clients to monitor the cargo status as it progresses through the operational /administrative in port activities chain. It also enhances the port into an added value service provider. The web-client has been designed with the most advanced Internet tools, offering maximum security and robustness and delivering messages in XML format that can be further processed in the Customers MIS systems, printed etc.



On-line Cargo Manifest



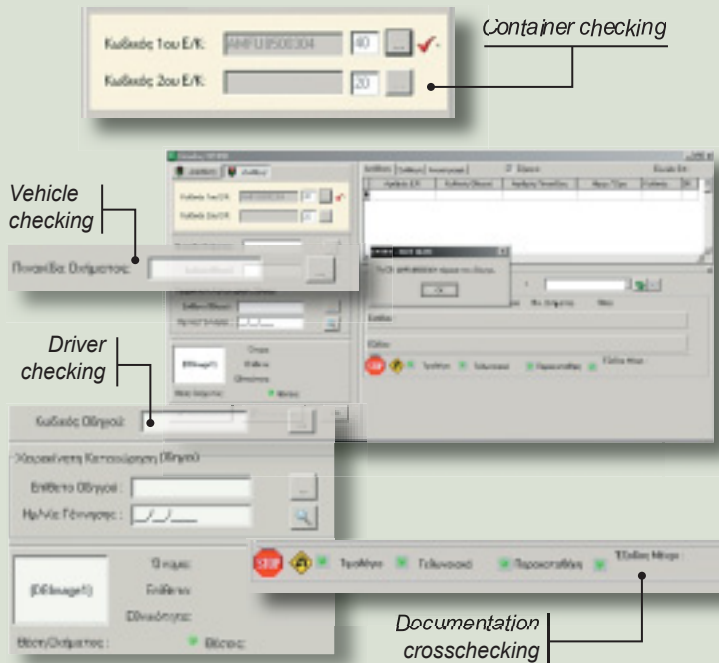
EDI/ EDIFACT structured forms





# Entry/Exit Control

MODULE 4



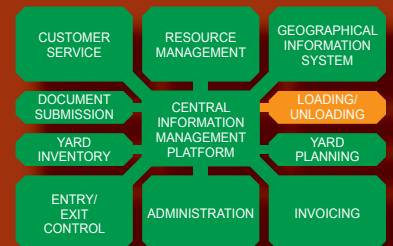
The automatic control of the container movements from the landside is carried out through the Integrated Entry/Exit Control module for containers, vehicles and drivers entering through the land gates of the Container Terminal. A reliable mechanism identifies the container and vehicle IDs through the installation of an Optical Character Recognition (OCR) system while the automatic identification of the driver is performed through the "smart card" identification system. The expected arrivals/departures are compared with the actual ones and the result is stored in the main database. An automatic barrier and traffic lights system undertakes the required physical control of the gate towards the inner area of the terminal, while the entries/exits are also presented on the GIS.

It is fully integrated with the Resource Management Application, also providing automatic vehicle guidance and parking control. At the gate, the operator provides to each driver a printed message regarding the exact position/slot within the parking area. This information is also made available to the yard management for the collection/delivery of the containers to/from the stowage area.

Entry/Exit control is ideal for minimizing vehicles waiting time and congestion at terminals and exercising a high degree of security on inbound/outbound flows of containers, vehicles and drivers.

MODULE 5

# Loading/Unloading Control

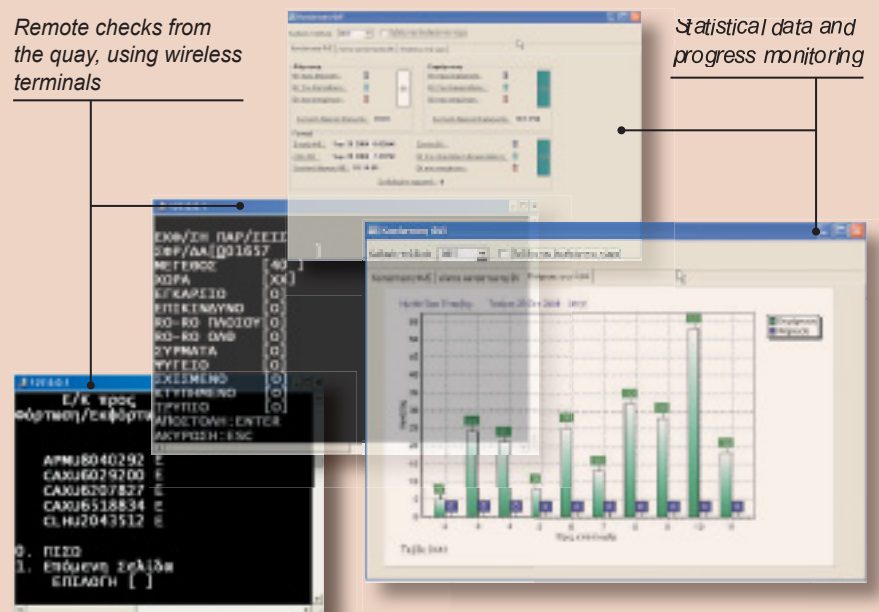


The Loading/ Unloading Control module handles the control and electronic storage of data relating to the loading and unloading of either ships or trains. It comprises a set of client-server applications, which check loading/ unloading rights and track all relevant activities.

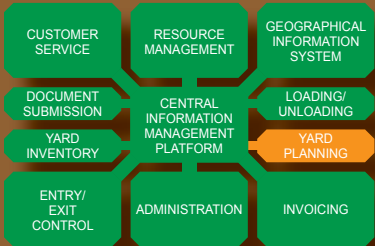
The Loading/Unloading Control is also equipped with a user-friendly application for real-time monitoring of the loading/ unloading process. This enables the terminal manager to organize efficiently the distribution of human and mechanical resources, monitor productivity either in real-time or through cumulative statistical projections and provide clients with estimates about the process completion time.

Integrated with other applications of the MIS package, it checks for outstanding administrative or financial liabilities associated with containers, communicates with the resource management module for the transfer of containers to/ from the stacking area and projects every container moves on the Geographical Information System.

Remote checks from the quay, using wireless terminals



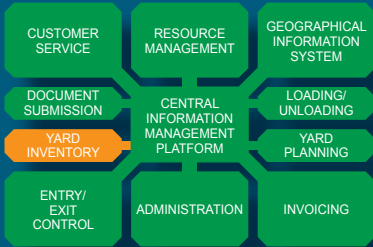
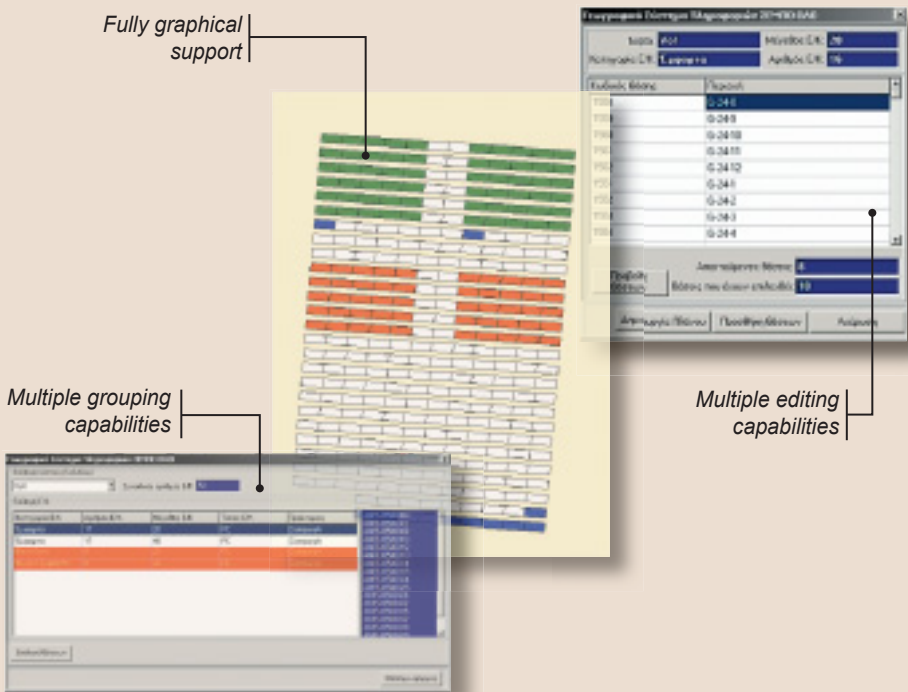
# Yard Planning



The Yard Planning module offers effective yard utilization and minimizes the lead time associated with the stacking activities. It also has an advanced housekeeping function, which maximizes the available space by concentrating sparse containers.

With the Yard Planning, container placement decisions are made quickly and easily using a Geographical Information System as a user interface. A variety of planning rules and controls, support the execution of the port terminal operational objectives.

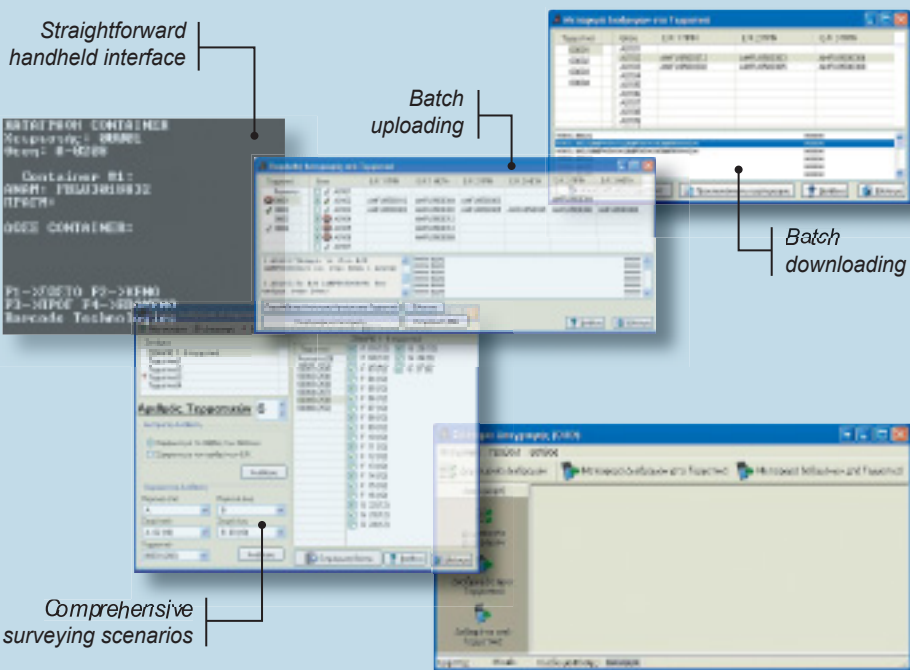
For full and user friendly control, it comes as an internal module in the Geographical Information System giving full graphical flexibility.



# Yard Inventory Control

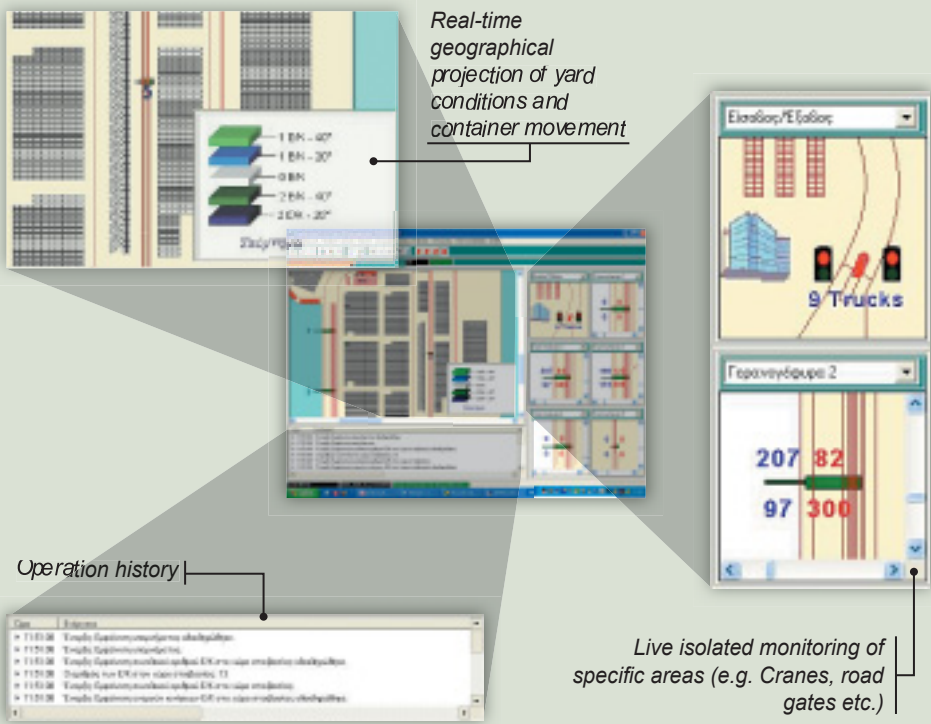
The Yard Inventory module is the ultimate tool for ensuring 100% accuracy in recording the yard status. It provides the ability to “walk the yard” collecting electronic data, thus eliminating all previous human errors.

It comprises a GIS based central management application and a batch application for handheld terminals. Yard Inventory Functionality provides the flexibility to determine which areas to survey, frequency and resources application.





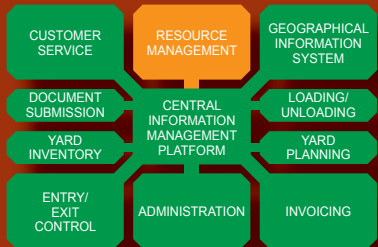
# Geographical Information System



The Geographical Information System (GIS) is the user's ultimate monitoring tool in FRETIS - IFT. All activity taking place in the Terminal is projected in real-time, while many functions are activated through this system. Information such as space occupancy, container sizes, types and registration numbers are made available at the press of a button.

The GIS provides the user with a graphical environment capable of managing the stacking area and coordinating all activities required for supporting the terminal's operation.

# Resource Management



The Resource Management module performs the automated organizing, delegating and monitoring of all container transfer activities within the terminal. With a user-friendly interface and an array of intelligent tools, container carriers are distributed according to the operational needs. Using a wireless local area network (WLAN), it exchanges messages and commands in real-time with the equipment operators.

The Resource Management Application allows for better utilization of existing equipment for minimum carrier idle time. It also contributes to reductions in operating costs and improvement in performance level.



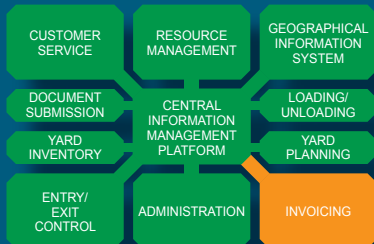
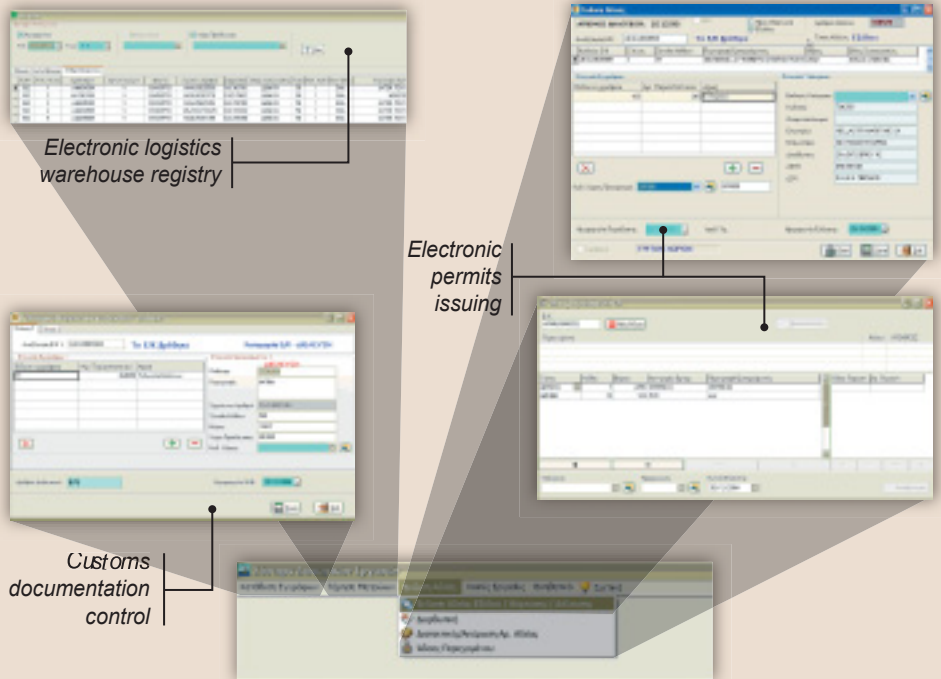


# Administration

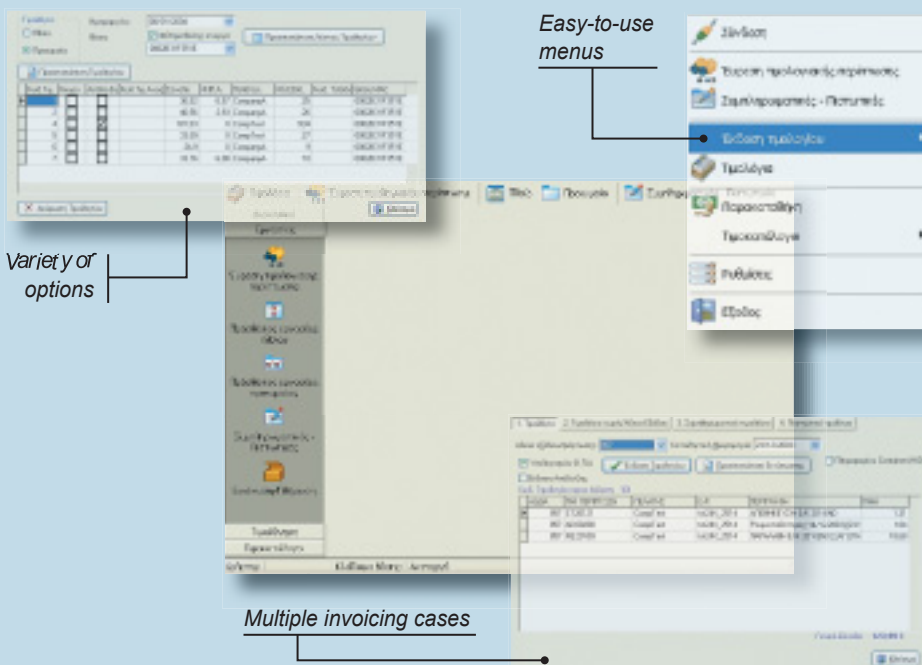


The electronic Administration reduces the volume of the paper work required for the distribution of containers through the terminal. Crucial administrative operations such as issuing transfer/ cargo permits, maintaining logistics warehousing records, electronic storing of customs documents and several more, are carried out through a user-friendly environment. The migration of administrative works to an electronic environment ensures quick and accurate execution.

All of the functions allow manual intervention, previewing and printing, allowing for paper and electronic environments to be combined in the most optimum way.



# Invoicing



Container terminals have to implement complex pricing policies, resulting in numerous combinations of invoicing cases. TREDIT's Invoicing Application is fully integrated with the IFT and allows for timely and automatic calculation of the clients' financial obligations to the terminal. It covers both ship and quay services, as well as those related to stuffing, stripping and shifting of containers within the terminal.

It also offers easy-to-use menus, print preview functionality and a variety of invoicing capabilities based on the client's requirements.

The Invoicing module can be easily integrated with the terminal's existing Accounting System.



**FRETIS** is a unique state-of-the-art software package that provides the user with a complete and comprehensive tool for the management of freight transport operations in a fully intermodal environment.

By using advanced Information Technologies, FRETIS provides the most cost effective solution for the management and control of all Intermodal Freight Transport related operations either in Terminals or along the physical transport chain.

It is the optimum in user friendliness – efficiency – expandability.

Total  
automation  
Graphical  
representation  
Full  
integration  
Cutting-edge  
technologies  
Modular  
applications  
Interoperable  
solutions

For more info:  
[www.tredit.gr](http://www.tredit.gr)

or contact



The full FRETIS suite consists of the following systems:

- **IFT**, the **I**ntermodal **F**reight **T**erminal system. This provides full control of intermodal terminal operations (i.e. Freight Terminals, Freight villages, Port Terminals, Rail Terminals and so on). It has a set of 11 interconnected, interoperable and integrated modules, which can be installed and work independently or in groups for maximum flexibility and cost effectiveness.
- **ICM**, the **I**ntermodal **C**hain **M**anagement system. This set of modules gives full control of the intermodal freight transport chain operations providing the intermediate (i.e. Freight Integrators) users a tool for chain planning and control while all supply chain actors with dynamic information on the transport progress concerning both the cargo and transport means.
- **FPC**, the **F**leet **P**lanning and **C**ontrol system. This system is the ultimate tool for managing fleets of road trucks. By using the appropriate on-board equipment, GPRS or other communication for linking the vehicle to a control center and INTERNET for backend applications, the carrier can plan, control, redirect and manage on-line the road transport operations of any fleet of vehicles.
- **RTM**, the **R**ail **T**ransport **M**anagement system. RTM is used for planning and monitoring (Tracking and Tracing) the transport procedure of cargo, wagons and complete trains along a rail corridor. By getting information from any of the available types of recognition and communication technologies the system enables the full and user friendly monitoring of the position of train and cargo along their route.
- **e-DOCS**, the **e**lectronic **DOC**ument **S**ubmission system. This application allows the exchange of formal and business documents for all actors of the supply chain. It supports a wide variety of data and communication protocols, thus facilitating the involvement of all the transport users with various levels of ICT capacity. E-DOCS is supported by an advanced communication platform functioning as a state of the art broker for electronic transactions over INTERNET.

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