

13th Intermodal Africa



Frans Jol CEO International Offices , SOLVO EUROPE



TOS Solution at any location in the shipping and intermodal cycle.

Who we are:

SOLVO Ltd. is the leading Russian provider of high-end supply chain execution solutions to help optimize warehouse logistics and general cargo handling.

Year founded:

1995

Number of employees:

150+

Number of completed projects:

> 200

Current project geography:

From Baltic sea to the Pacific ocean including Russia, Ukraine, Belarus, Armenia, Estonia, Latvia, Kazakhstan, Uzbekistan and more

Offices:

Saint-Petersburg + Moscow, Russia , Kiev Ukraine, The Hague The Netherlands (SOLVO EUROPE)
Dubai Emirates (SOLVO MIDDE EAST – 2016)

Agency Offices (Commercial):

Nairobi Kenya , Bologna Italy , Accra Ghana , Tunis Tunisia.

Implementation and support partners:

Saudi Arabia, The Netherlands , Morocco , Malaysia , Indonesia.



Comprehensive management solutions for ports and terminals

Cost-effective and customizable terminal operating systems (TOS). An ultimate set of solutions for managing just any type of cargo: container, break bulk, Ro-Ro, multi-purpose.

Supply chain execution solutions for warehouse logistics

Leading software provider for food and beverage supply chain in Russia and CIS. Solutions range from WMS to WCS, Yard, Billing, KPI and more.

A trusted partner in scanning and mobility

In partnership with all major vendors of scanning and mobility devices such as Honeywell, Data-logic and Motorola we can deliver the most comprehensive solution on the market at an affordable price.

Solvo. TOS

A family of multi-faceted and cost-effective terminal operating systems for any kind of terminal

- Solvo.TOS.Container
- Solvo.TOS.Cargo
- Solvo.TOS.Ro-Ro
- Solvo.TOS.Inland

Services:

- Software development and adaptation
- Consultancy in logistics
- Systems integration
- Hardware supply and maintenance



SOLVO SOLUTIONS

SOLVO.TOS

Container terminals

SOLVO.TOS

Container terminal operating
and document management subsystem

Reefer
management

EDI

KPI

Document
management

Resource
planning

Vessel and
berth planning

Equipment
dispatch

Gate planning
and
processing

Rail planning
and
processing

Yard planning
and
optimization

CFS

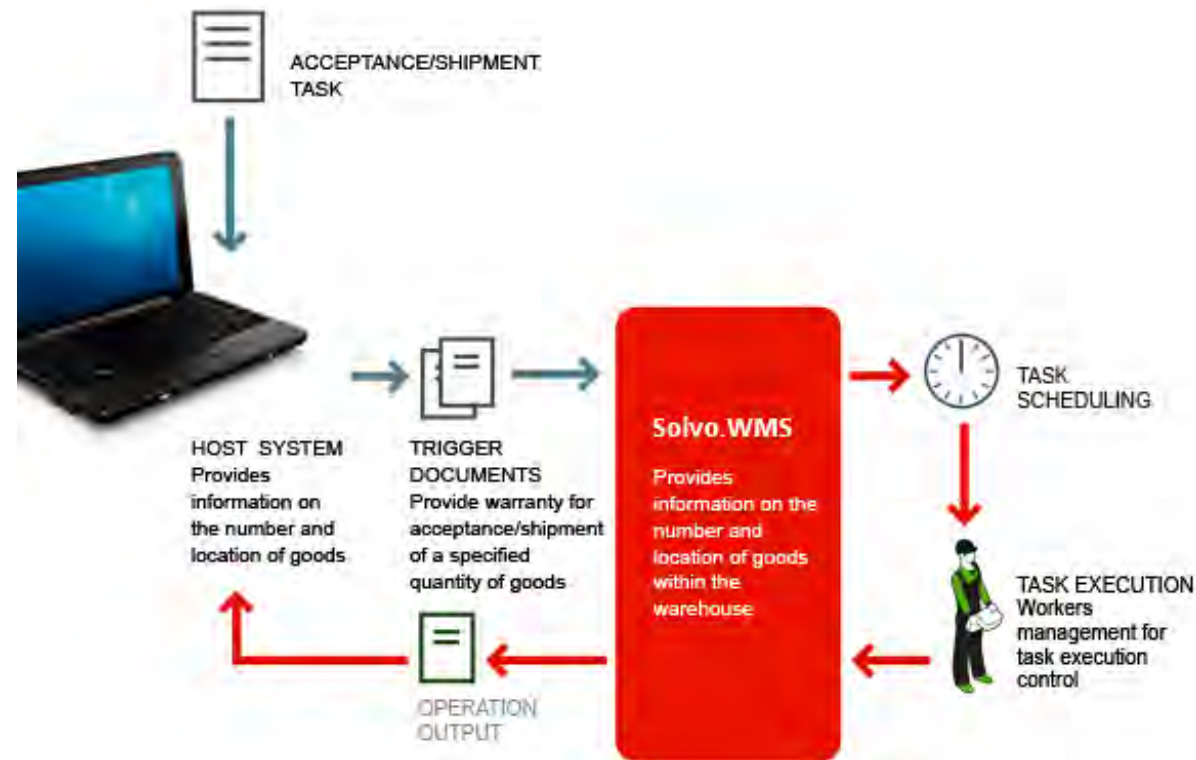
Billing

Web

Customs
compliance

Advanced
reporting

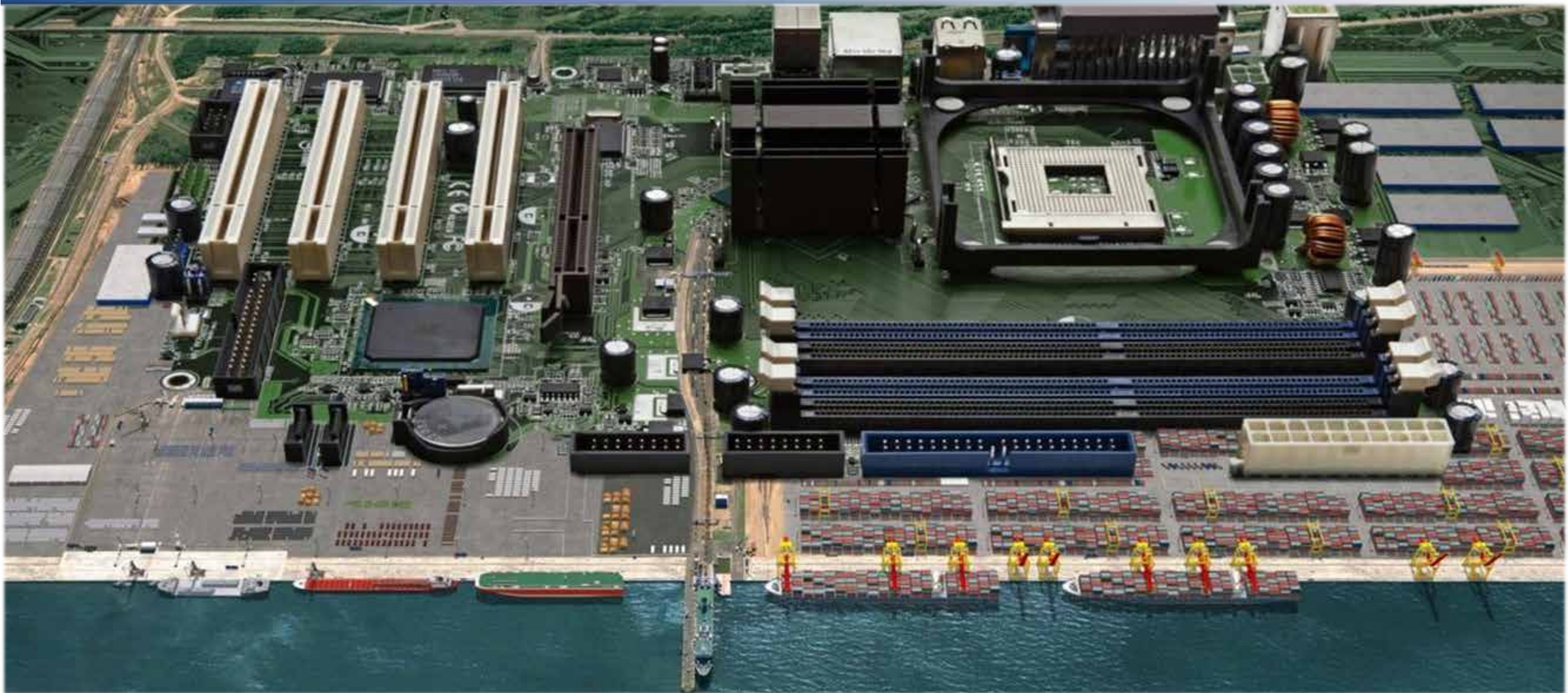
SOLVO.WMS and SOLVO.TOS provide integration features to interface it with ERP systems, such as, AX, Microsoft Dynamics AX and NAV, Scala, JD Edwards, Oracle E-Business suite, SAP R3 and more.



Ro-Ro
SOLVO.TOS Ro-Ro

Bulk, break-bulk
and multi-purpose
SOLVO.TOS CARGO

Container terminals
SOLVO.TOS CONTAINER



Reference projects in ports and terminals



First Container Terminal
St. Petersburg, Russia

Logistica-Terminal
St. Petersburg, Russia

Ust-Luga Container Terminal
Ust-Luga, Russia

Aktau Sea Merchant Port
Aktau, Kazakhstan

Novorossiysk Commercial Sea Port
Novorossiysk, Russia

Novoroslesexport
Novorossiysk, Russia

Baltic Stevedoring Company
Baltiysk, Russia

Riga Container Terminal
Riga, Latvia

Ilyichevsk Container Terminal
Ilyichevsk, Ukraine



Muuga Container Terminal
Tallinn, Estonia

Vostochny Stevedoring Company
Nakhodka, Russia

Modul
St. Petersburg, Russia

Container Terminal St. Petersburg
St. Petersburg, Russia

Bronka Port
St. Petersburg, Russia

Transinvestservice
Odessa, Ukraine

Brooklyn-Kiev Port Company
Odessa, Ukraine

Ust-Luga Commercial Sea Port
Ust-Luga, Russia

Korsakov Commercial Sea Port
Korsakov, Russia

Modular framework

Select only the functions you require and don't pay extra

Multi-lingual

By default supports many languages

Easily-adjustable

The architecture allows extensive parameterization and customization

EDI and simple integration

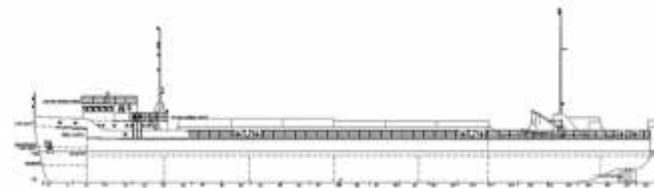
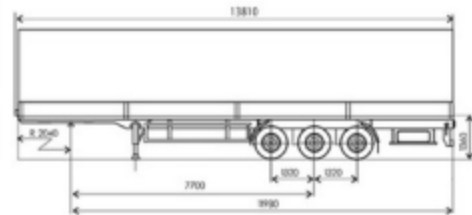
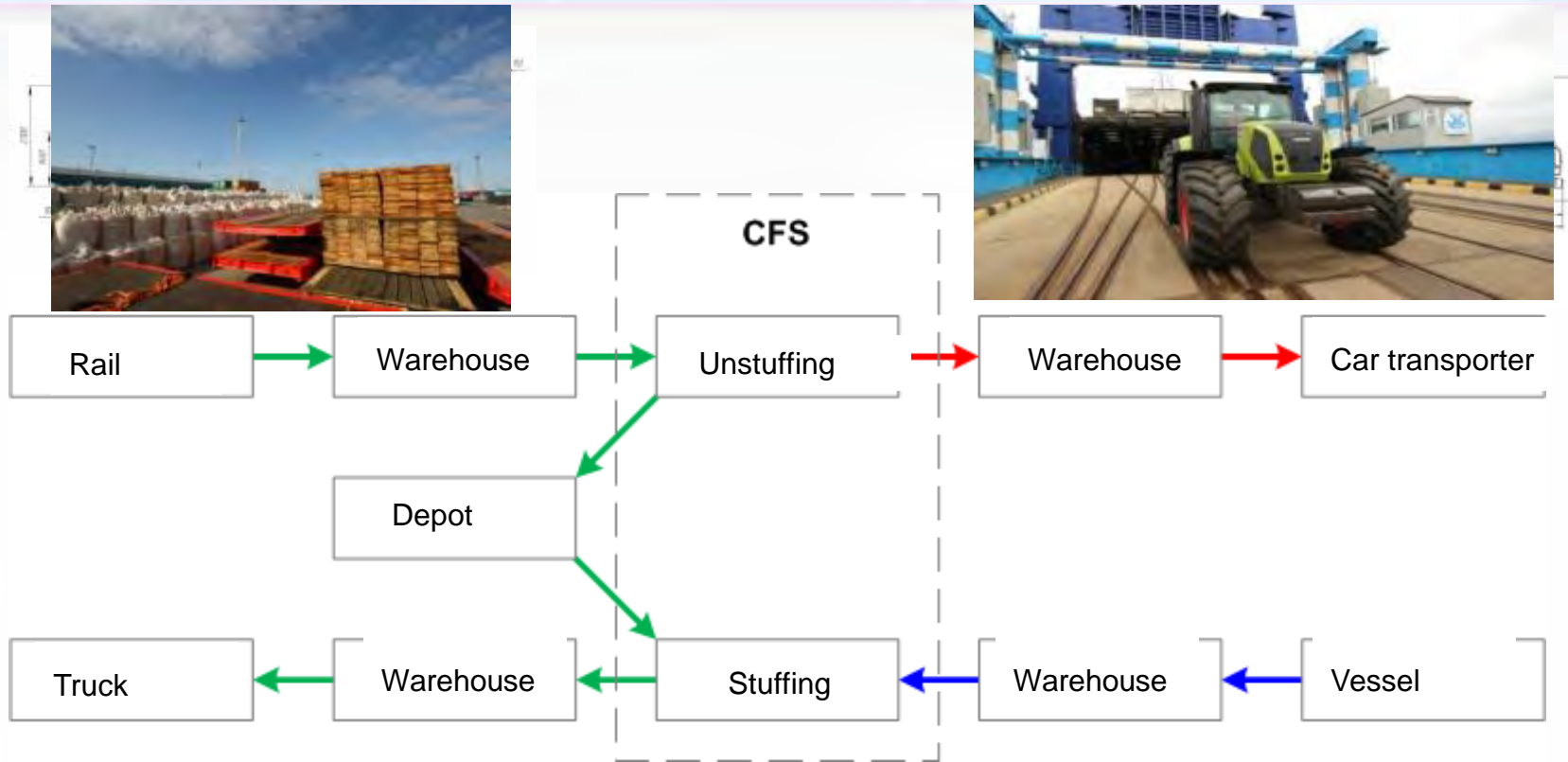
Can easily be integrated with any ERP, TMS or other special software

Single database

The latest version uses a single db both for process management and document automation

GUI

The application has a graphic, simple, comfortable, fast-and-friendly user interface which facilitates rapid learning



Truck visit
registration via
WEB

Electronic queue of
truck drivers

Truck scheduling
Time slotting

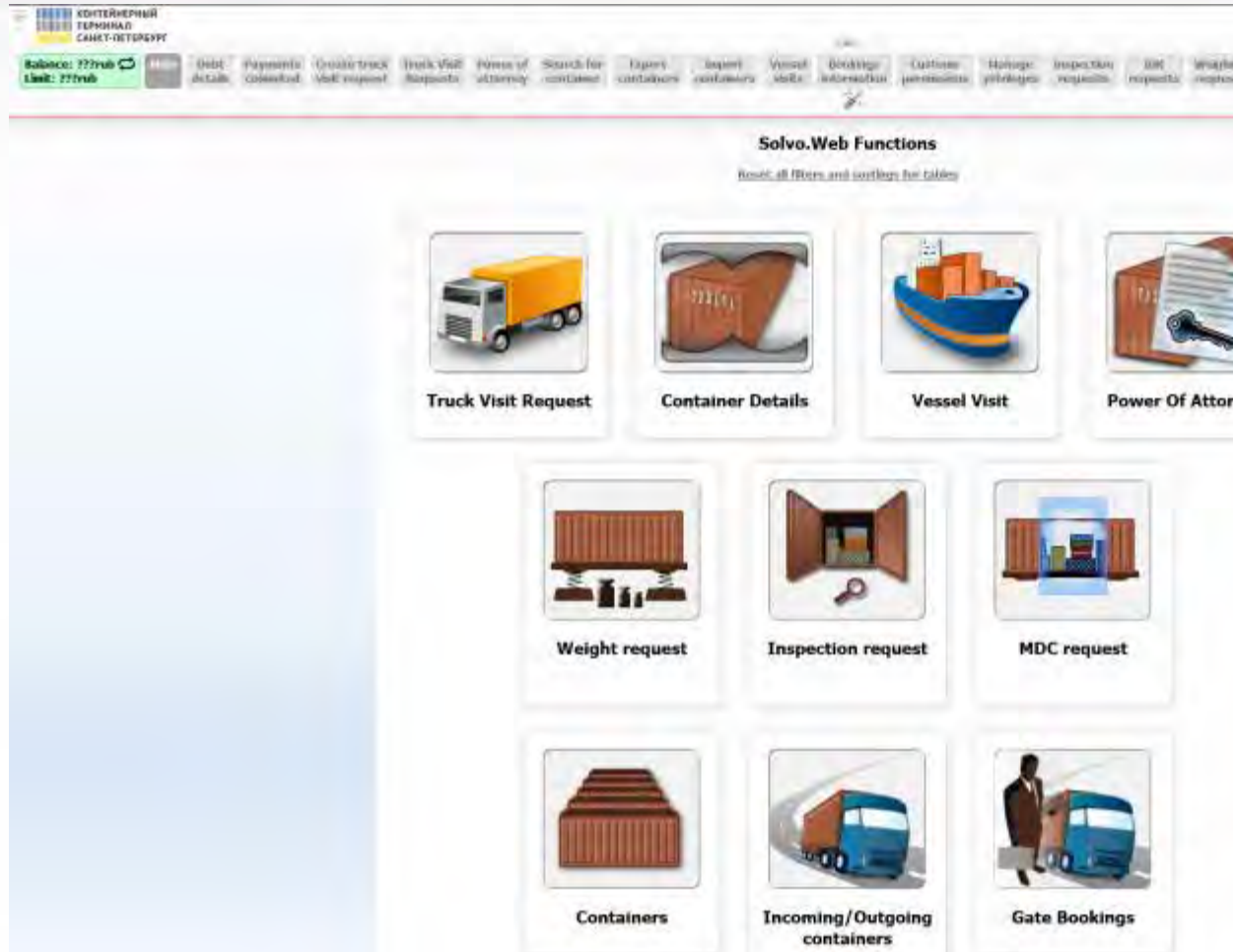
Automated job
assignment and
sms-notification

Gate security

OCR and ACS
integration
automatic identification
of vehicles and containers

E-signature
support

Truck-visit requests via WEB



The remote access allows to grant remote access to the System via the Internet (or local terminal network) e.g. for viewing reference information about terminal operations/orders/vessel calls, etc. and is available to the shipping line agents and forwarders.



Solvo.TOS can be seamlessly integrated with OCR and AMCS systems from all major vendors as well as self-service kiosks for automatic and real-time inspection of vehicles at the gate.

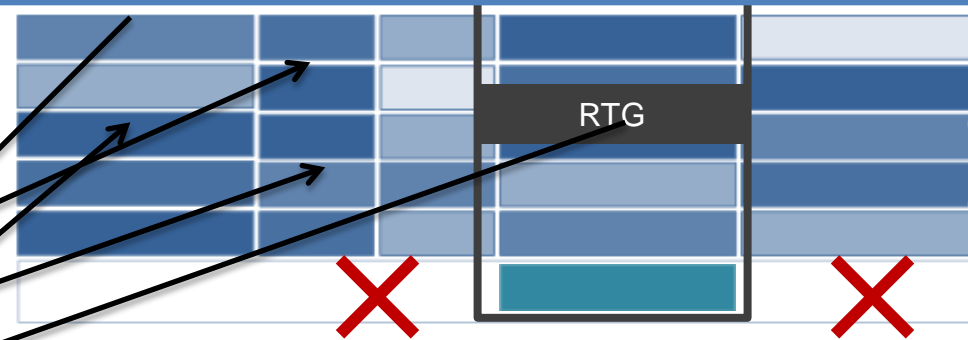


Truck processing in the Yard



Truck processing priorities are calculated automatically based on various parameters, including the minimization of RTG moves.

The system sends an SMS-message to a truck driver to occupy the required cell under the stack. Adjacent cells are blocked automatically.



Trucks are guided to the required cells. Processing the trucks is carried out according to the truck priorities generated in the system.

Solvo.TOS automatically instructs an RTG operator to load the container onto a truck, and at the same time guides the next truck driver to the stack cell to minimize RTG downtime.



Truck scheduling and truck visit requests

Balance: 40741.00rub
Limit: -100000.00rub

Time slots for period 25.08.14 12:41 - 26.08.14 00:41

Hours from current date: 12

Append to request

| Date from | Date to | Direction | Profile | Cost city/State |
|-------------|-------------|-----------|---------|-----------------|
| 25.08 11:00 | 25.08 13:00 | Inbound | ДПНО | 19 |
| | | Inbound | Экспорт | 14 |
| | | Outbound | ДПНО | 5 |
| | | Outbound | Импорт | 20 |
| 25.08 13:30 | 25.08 15:30 | Inbound | ДПНО | 19 |
| | | Inbound | Экспорт | 14 |
| | | Outbound | ДПНО | 5 |
| | | Outbound | Импорт | 24 |
| 25.08 15:30 | 25.08 18:00 | Inbound | ДПНО | 20 |
| | | Inbound | Экспорт | 40 |
| | | Outbound | ДПНО | 5 |
| | | Outbound | Импорт | 55 |
| 25.08 18:00 | 25.08 20:30 | Inbound | ДПНО | 20 |
| | | Inbound | Экспорт | 50 |
| | | Outbound | ДПНО | 5 |
| | | Outbound | Импорт | 64 |

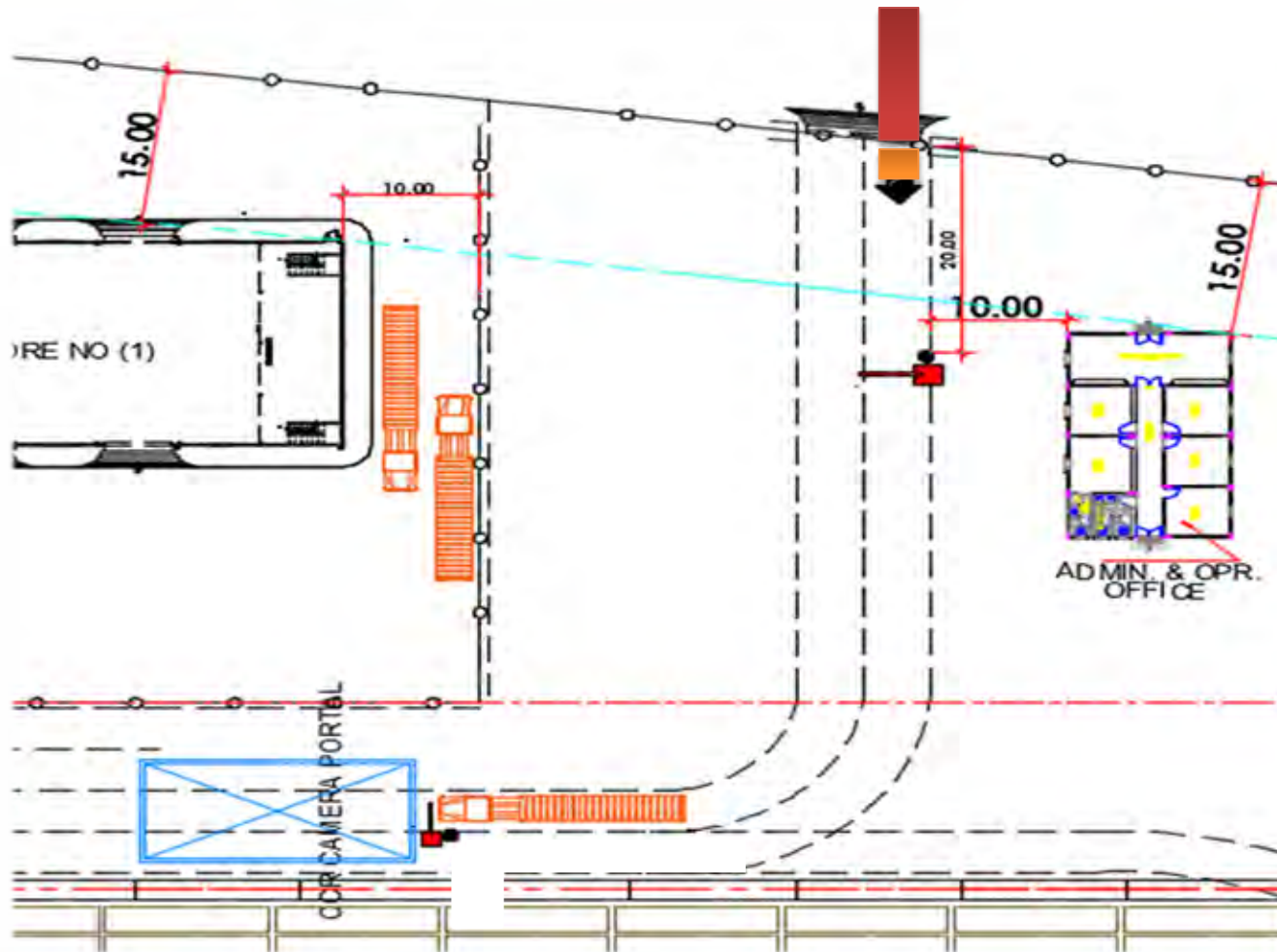
The remote access allows to grant remote access to the System via the Internet (or local terminal network) e.g. for viewing reference information about terminal operations/ orders/vessel calls, etc. and is available to the shipping line agents and forwarders.

Solvo.Web Functions

- Truck Visit
- Container Details
- Vessel Visit
- Containers for Export
- Containers for Import
- Power Of Attorney
- Account Management

- Numerous trucks assigned to the same time-slot arrive at the terminal;
- Truck driver/vehicle must issue a permit to access the terminal;
- Truck driver registers his visit using a self-service kiosk or via a clerk in the service center;
- The system automatically creates an electronic queue of drivers based on rules and strategies used to minimize reshuffles and re-handlings;
- At this point the plate number is recognized by the OCR and automatically registered in the TOS





A container-carrying truck arrives at the terminal.
The driver swipes his permit.
The truck passes through the OCR camera portal.

The container and vehicle numbers are transmitted from OCR to Solvo.TOS

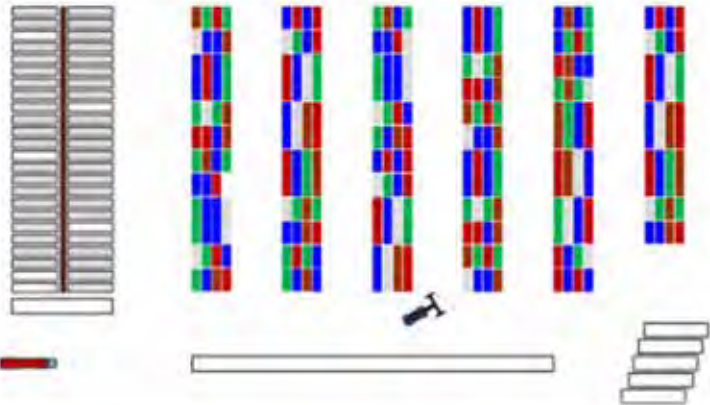
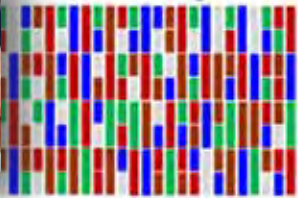




STS-crane operator's workstation

Installed at the mounted terminal in the STS crane's cabin. Allows real-time confirmation of all container moves during loading discharging





Containers with the use of DGPS and container pick-up sensors.



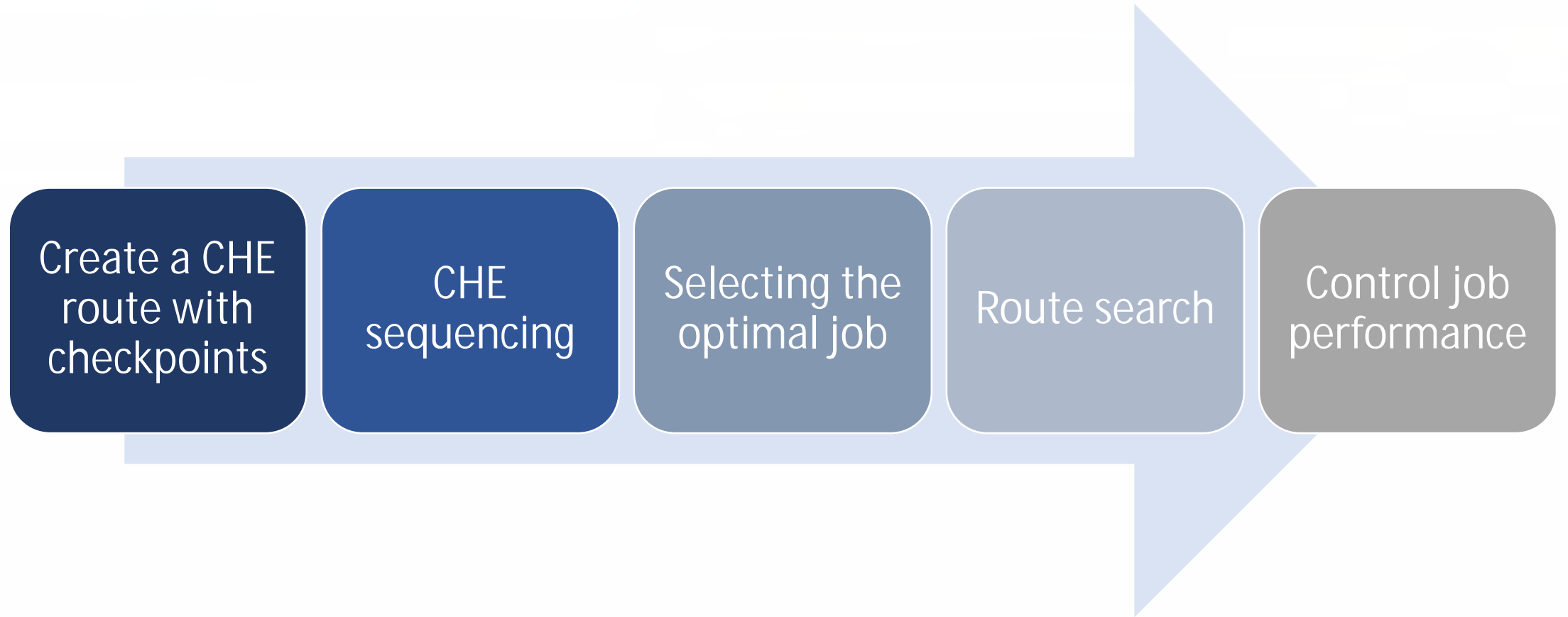
Types of equipment

The system supports all types of reloading equipment used at the terminal.

The screenshot shows a software interface with a table of equipment. A dropdown menu is open, showing the following options:

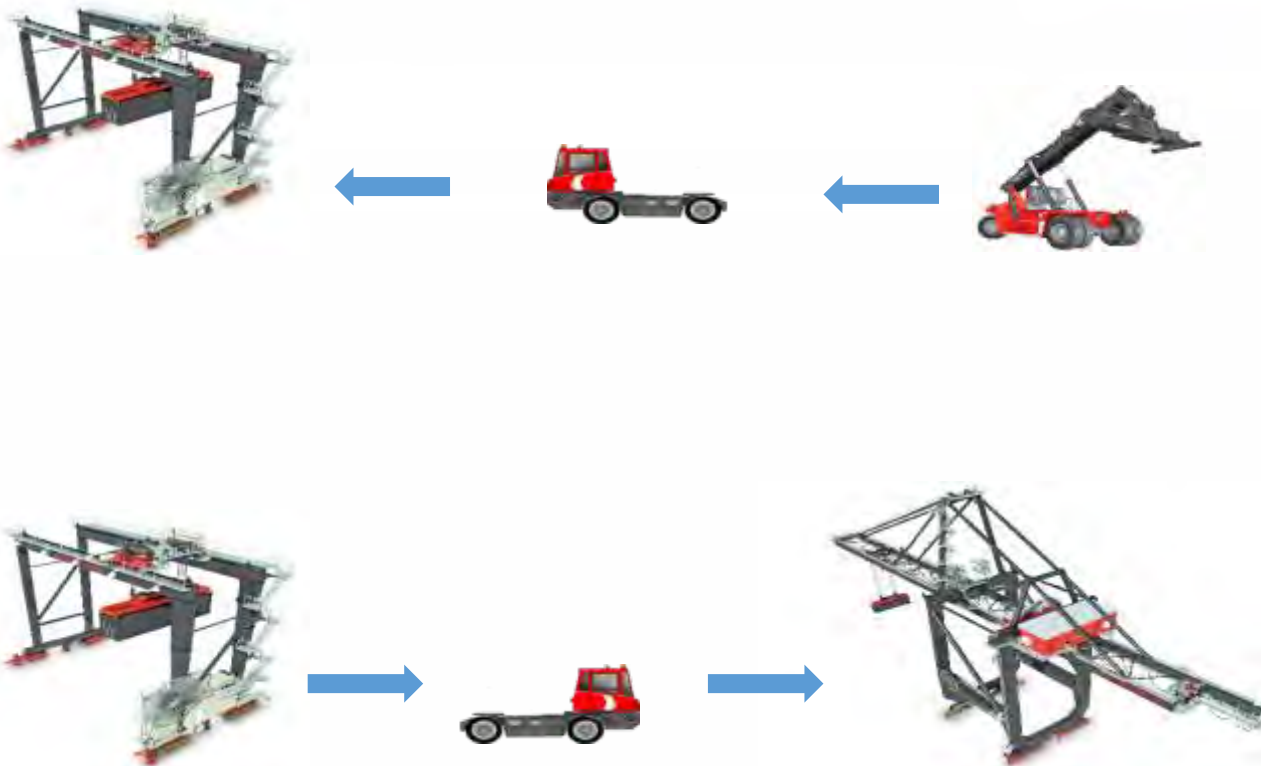
- Name: LB
- Type: RS
- Work Type: SC
- Location: SC
- RDT: Cart car
- RTG: RTG crane
- STS crane: RTG crane
- Railway crane: RTG crane







- The system analyzes the available data about the road network of the terminal and builds the optimal route for a CHE
- The entry of road data is carried out through the roads editor function - part of the Real-time terminal layout viewer and editor.
- The user defines the key check-points, permitted turns and delays.
- The user can also then set the availability of a stack for processing from a selected road.



The system determines the CHE sequence for processing containers.

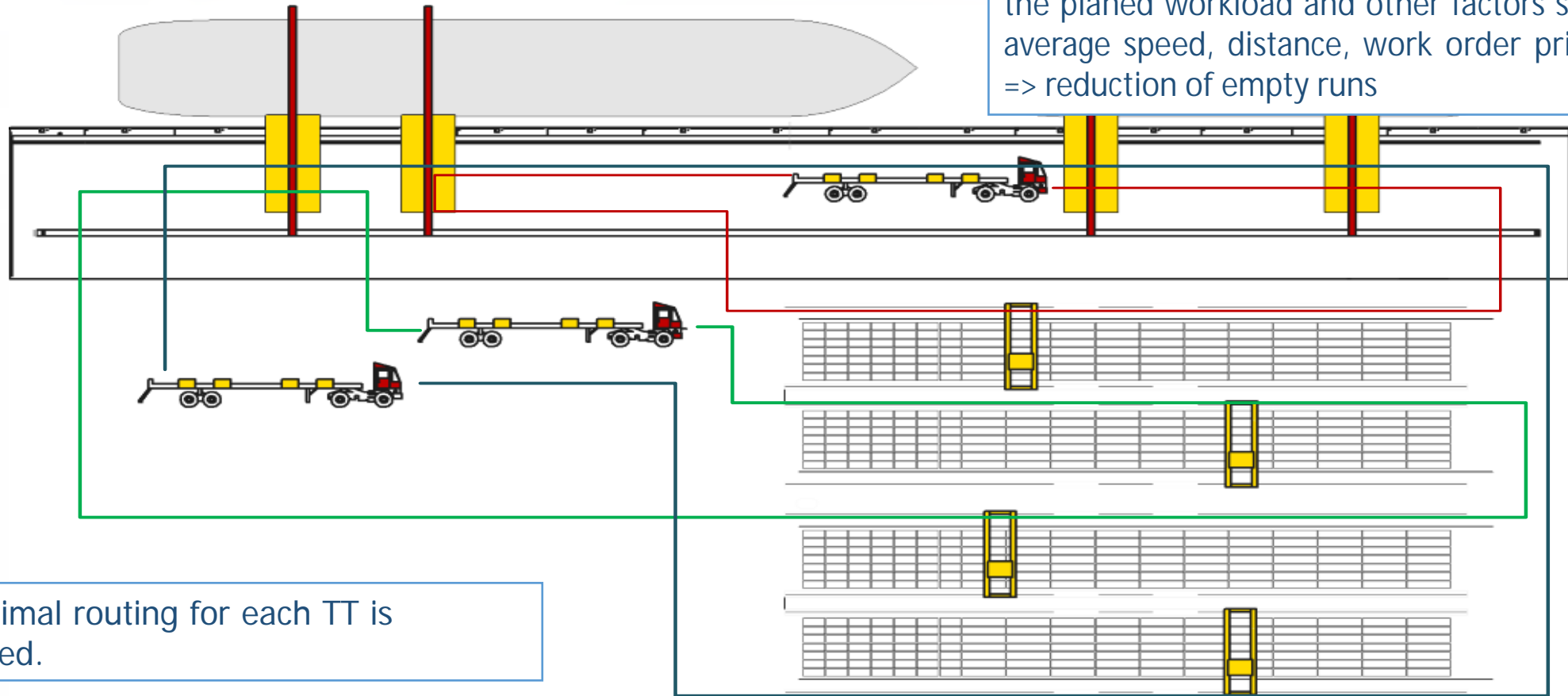
Sets the rules the next job in the sequence is given

Создать деталь

| | |
|---|--|
| Позиция | 2 |
| Действие | - |
| Зона | |
| <input type="checkbox"/> Признак транзита | |
| Тип техники | RTG |
| Статус работы при создании | Готова |
| Алгоритм зависимости | |
| Начальное условие | |
| Конечное условие | <ul style="list-style-type: none"> Предыдущая работа "Выполнение" Предыдущая работа "Закончена" Работа перед предыдущей "Выполнение" Работа перед предыдущей "Закончена" |

Advanced TT management

The system creates routes with checkpoints for TTs across the terminal fronts depending on the planned workload and other factors such as average speed, distance, work order priorities => reduction of empty runs



The optimal routing for each TT is calculated.

SOLVO.TOS General & Bulk Cargo





Containers



Break-bulk, bulk and Ro-Ro



Product Warehousing



Maritime cargo

Packed
General Cargo

Unpacked
Bulk Cargo

Break Bulk Cargo

Neo Bulk Cargo

Unitized Cargo

Liquid Bulk

Dry Bulk

Bags
Barrels
Rolls
Pallets
Crates
Cages

Timber
Paper
Metal
Vehicles
Trailers

Containers

Petrol
Petroleum
products
LNG
Chemicals
Juices

Coal
Grain
Pellets
Ore
Cement



Barge and
ferry
operations

Bar-coding

Multi-
parameter
freight-train
planning

Real-time
monitoring of
operations

2D port map

Day-shift
planning

Work orders

Monthly
planning

CFS

Reporting,
analytics and
KPIs

Billing

EDI

Processing of
additional
services at the
terminal

Customs
operation
processing

Cost
accounting

Web-portal



Multi-parameter
registration

Automatic,
semi-automatic
and manual
planning

Grouping
strategies
for rail cars

Mount AIDC
devices for CHE

Effectively control all the
CHE and minimize their
empty runs

Automatic waybill
registration

Planning Parameters:

- Railcar owner
- Destination station
- Load capacity of railcars
- Hazard class compatibility
- Weight compatibility

Planning optimization:

- FIFO by waybill date
- Railcar stuffing by weight

Manual planning mode

The system automatically performs container load planning, after which the dispatcher can interfere and manually edit and change the plan if necessary using a handy GUI.

The screenshot displays the Solvo.CTMS Rail Planning software interface. It features a main window with a table of train records and a detailed view of the rail tracks.

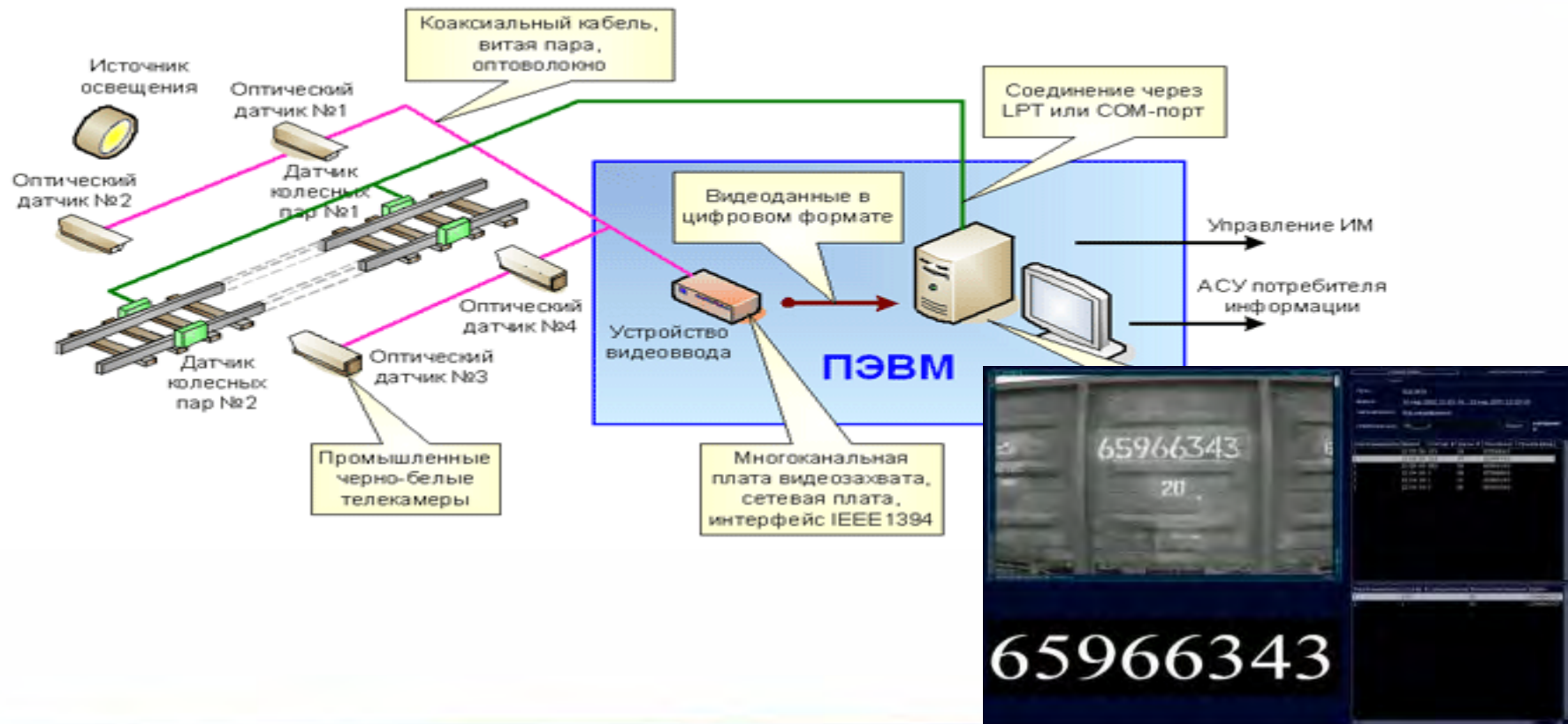
| # | Created | # SO | Train | Load Status | Unload Status | Track | Amount of Platf... | Description |
|-------|------------------|------|---------------|-------------|---------------|-------|--------------------|-------------|
| 98544 | 3/17/14 14:33:03 | 0 | H8H4YK | Arrived | Arrived | | | |
| 98546 | 3/17/14 14:56:08 | 0 | 32525 | Arrived | Arrived | | | |
| 98623 | 3/31/14 12:44:04 | 0 | ERE | Arrived | Process | | | |
| 98624 | 3/31/14 17:35:50 | 0 | TUJ_31 | Arrived | Arrived | | | |
| 98630 | 4/2/14 12:40:05 | 0 | 020414 | Arrived | Process | | | |
| 98638 | 4/3/14 14:29:04 | 0 | 30414 | Arrived | Process | | | |
| 98644 | 4/4/14 10:10:14 | 0 | TUJ_040414_00 | Arrived | Arrived | | | |
| 98655 | 4/4/14 14:08:25 | 0 | TUTUT_DP | Arrived | Arrived | | | |
| 98660 | 4/7/14 12:43:51 | 0 | 43525235 | Arrived | Arrived | | | |
| 98668 | 4/8/14 10:45:23 | 0 | 3535 | Arrived | Arrived | | | |
| 98676 | 4/9/14 11:18:16 | 0 | 123456 | Arrived | Process | | | |
| 98679 | 4/9/14 12:27:50 | 0 | 50123454 | Arrived | Process | | | |
| 98681 | 4/9/14 13:06:18 | 0 | 579520 | Arrived | Process | | | |
| 98761 | 4/10/14 17:23:47 | 0 | 2000 | Arrived | Process | | | |

Below the table is a 'Loading List' section with columns for Train #, Train, Loading status, Flatcar # in, Flatcar # in, and Flatcar. The list includes train numbers 2676, 2677, 2679, 2682, 2692, 2744, 2771, 2785, 2786, 2794, and 2797.

The main track layout shows multiple tracks with various colored blocks representing container loads. A legend at the bottom indicates: - Discharged (40) - Loaded (18).

At the bottom of the interface, there are status indicators: - Ready for loading (5) - Closed (1) - Registered by tallyman (3) - Delivered to rail (2).

Record-keeping of incoming/outgoing rail cars is performed in real time. The rail car number is recognized automatically using an integrated OCR system.



A vehicle or rail car is weighed prior to unloading/after loading to determine the payload.

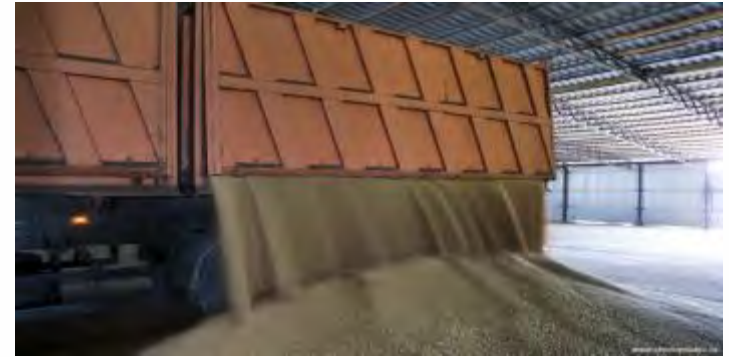


Data from the scales is obtained automatically in real time. The system supports various types of scales:

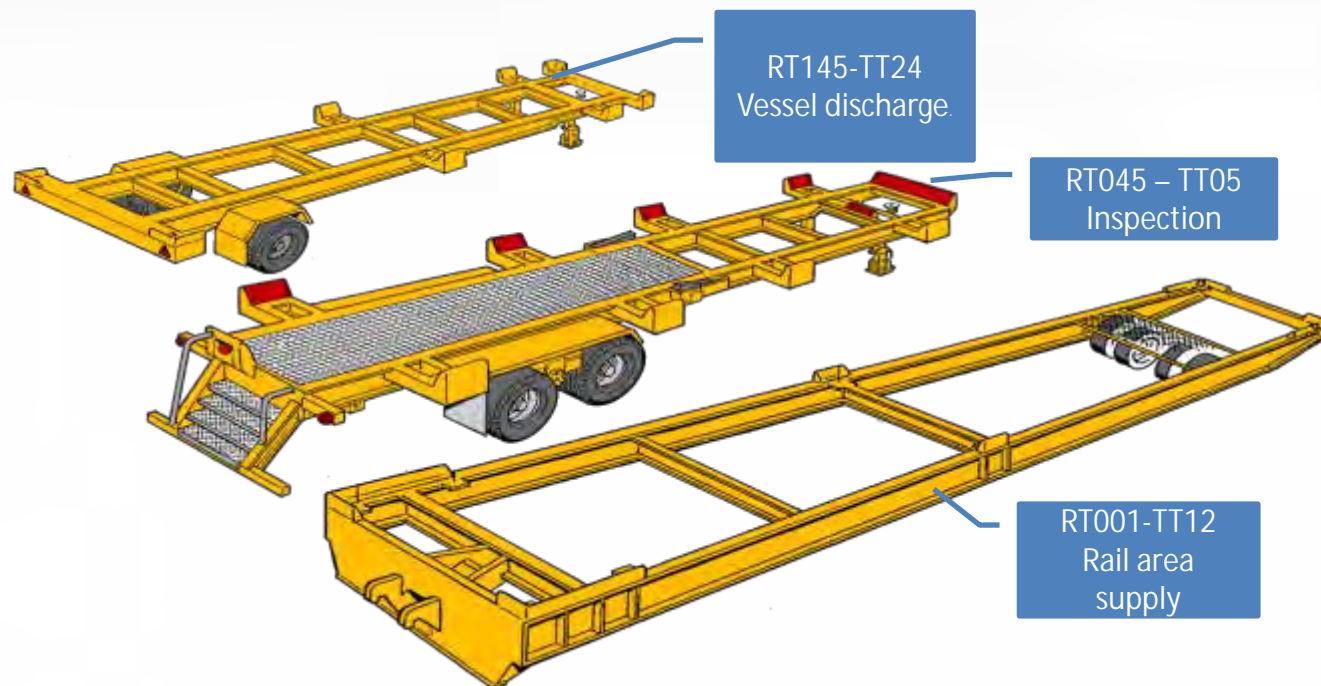
- Rail car
- Vehicle
- Conveyor
- Bunker
- Crane
- Clamshell-grab

Weighing could also be performed using vessel draught, geodesic surveying of stacks

Due to management system integration with various equipment, the operator can monitor loading/unloading operations in real time. Load information is automatically entered into the operations history log.



Trailer management



TOS generates a job for trailer hitching/unhitching and shows it on the TT operator's RDT screen.

The driver confirms the hitching operation

Further on the TT operator will only get jobs associated with the particular trailer attached to his TT

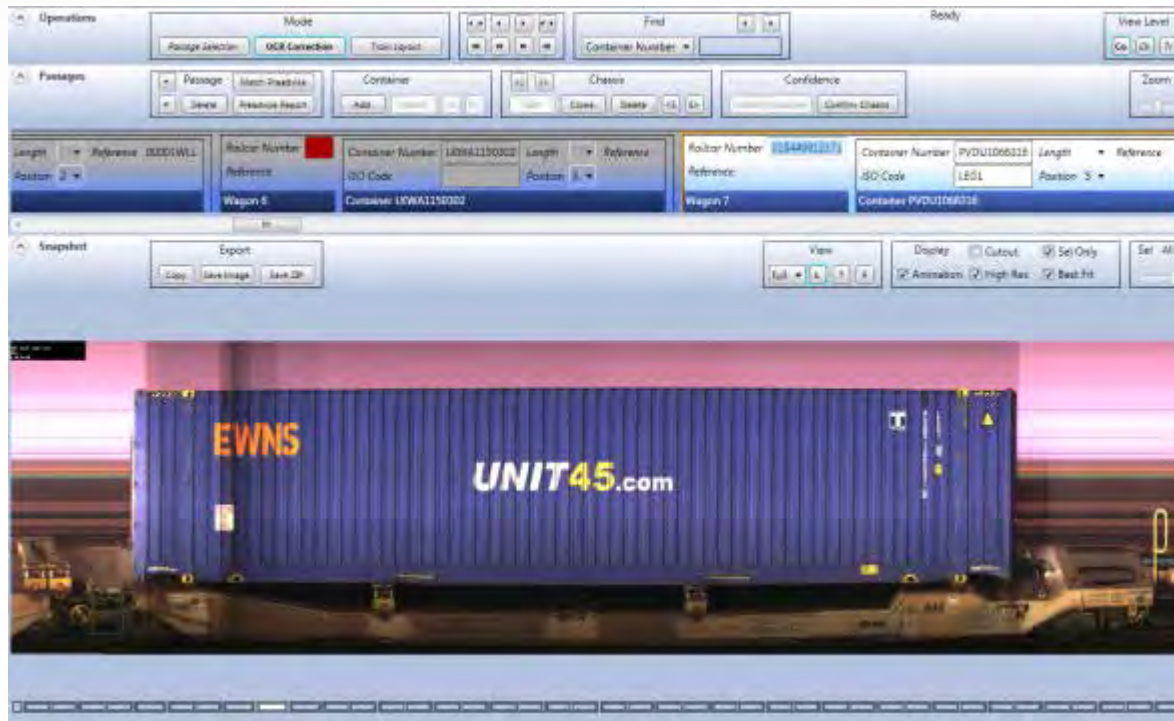
When weighing a container on a trailer the system automatically deducts the trailer's weight from the amount shown on the scales

TOS instructs to hitch/unhitch trailer when container is intended for inspection or stripping

On container damages, TOS instructs:

- Ok to place the container in a stack
- Place the container in the repair zone
- Forbid receiving of container





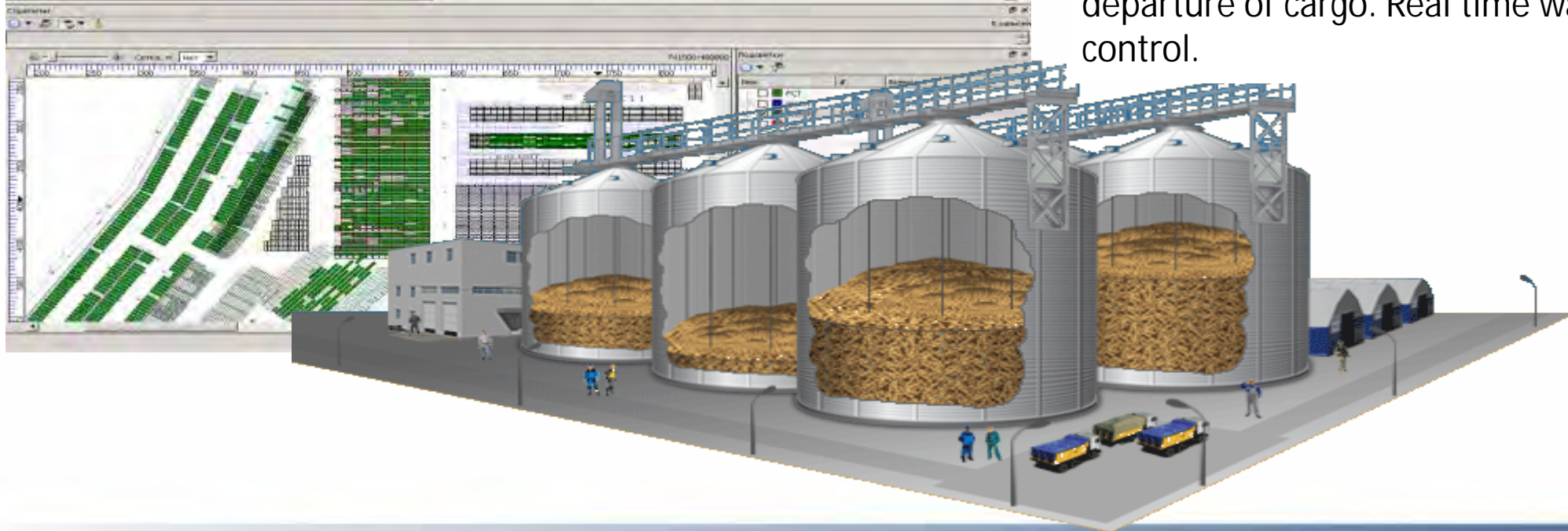
Management of inbound and outbound trains is performed in real time. The rail car number is recognized automatically using an integrated OCR system.

Warehouse management

WAREHOUSE (RU) - 15.1.2015 10:00:00

Список объектов: Склад, Оборудование

| № | Имя объекта | Наименование | Состояние | Действие | Склад | Тип объекта | Владелец |
|---------|-------------|--------------|-----------|----------|-------|-------------|----------|
| 2500402 | WTC | 06-0-1 | 100% | ✓ | DC 30 | Оборудован | ИМ |
| 2500406 | WTC | 05-1-1 | 100% | ✓ | DC 30 | Оборудован | СНВ ССН |
| 2500200 | WTC | 45-1 | 100% | ✓ | ИМ | ИМ | ИМ |
| 2502205 | WAREHOUSE | 29-20 | 100% | ✓ | DC 40 | Оборудован | ИМ |
| 2502207 | WAREHOUSE | 29-21 | 100% | ✓ | DC 40 | Оборудован | ИМ |
| 2502207 | WAREHOUSE | 29-22 | 100% | ✓ | DC 40 | Оборудован | ИМ |
| 2502208 | WAREHOUSE | 29-10 | 100% | ✓ | DC 40 | Оборудован | ИМ |
| 2502209 | WAREHOUSE | 29-0 | 100% | ✓ | DC 40 | Оборудован | ИМ |
| 2504903 | WAREHOUSE | 24-1 | 100% | ✓ | ИМ | Оборудован | ИМ |
| 15044 | WAREHOUSE | 24 | 100% | ✓ | ИМ | Оборудован | ИМ |
| 200448 | WTC | 22-1 | 100% | ✓ | ИМ | Оборудован | ИМ |
| 2004388 | WTC | 23-1 | 100% | ✓ | ИМ | Оборудован | ИМ |
| 2007090 | WAREHOUSE | 14-17 | 100% | ✓ | DC 40 | Оборудован | ИМ |
| 2007104 | WAREHOUSE | 14-17 | 100% | ✓ | DC 40 | Оборудован | ИМ |
| 2007206 | WAREHOUSE | 14-15 | 100% | ✓ | DC 30 | Оборудован | ИМ |
| 2007312 | WAREHOUSE | 14-15 | 100% | ✓ | DC 30 | Оборудован | ИМ |
| 2004480 | WTC | 24-14 | 100% | ✓ | ИМ | Оборудован | СНВ ССН |



Load arrives at the warehouse. The system keeps inventory of loads stored at outdoor and indoor warehouses in real time. Load inventory in tanks and silos. An account of load humidity and temperature, load tracking from warehouse to warehouse, arrival and departure of cargo. Real time warehouse stock control.

Weighing:

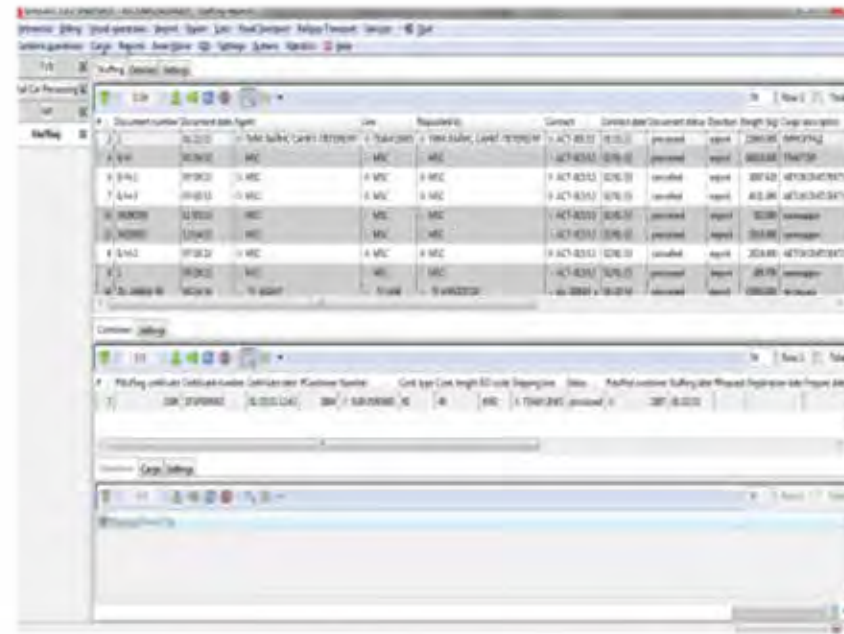
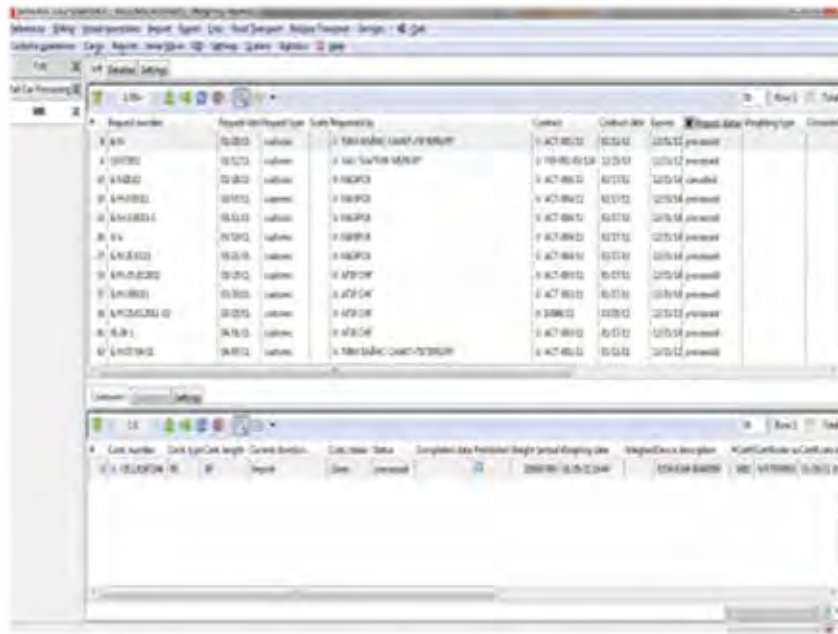
- Work orders;
- Automatic weighing

Customs:

- Container inspection;
- Screening;
- Work orders

Stuffing/unstuffing:

- Work orders;
- Container inspection



Tracking vessel operations

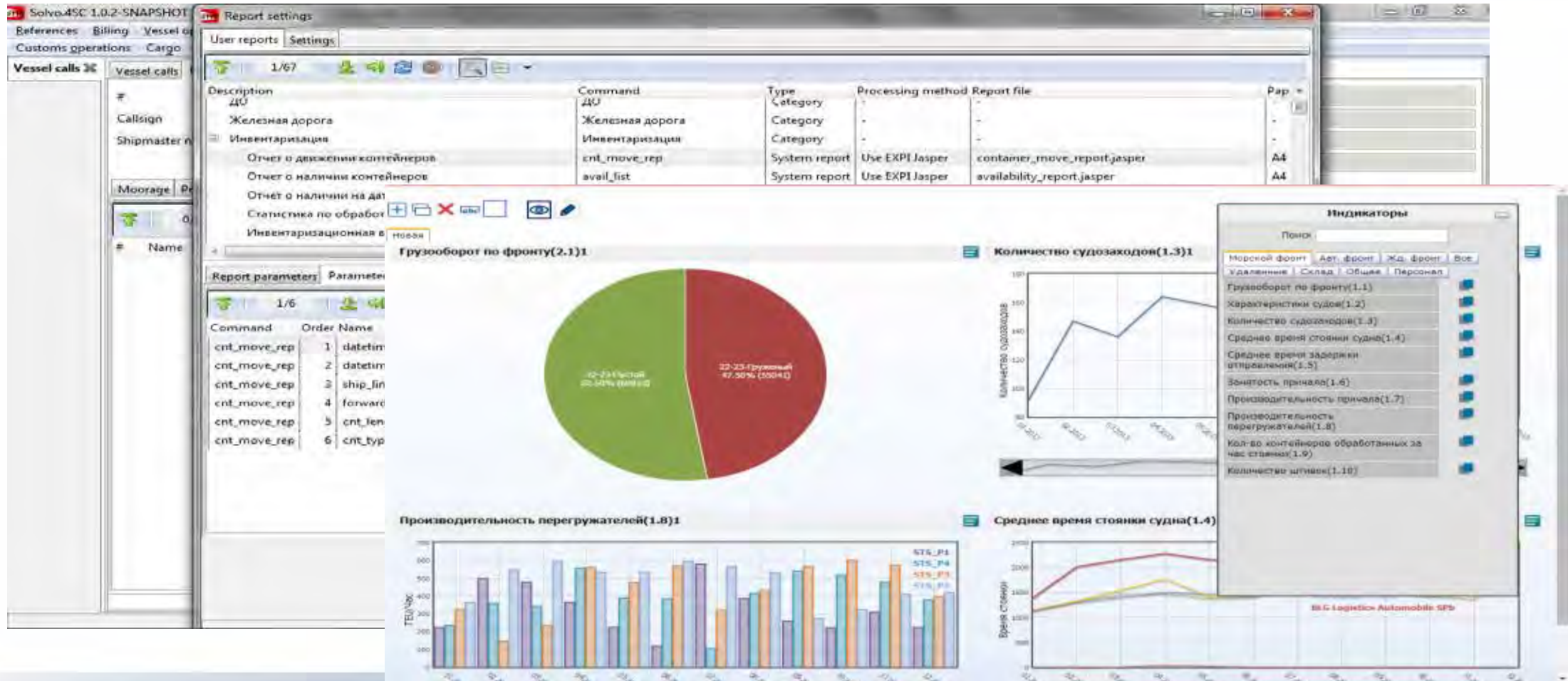
Each vessel operation is recorded and stored in the operations history log. The system can generate a time-sheet upon completion of vessel processing operations.

The screenshot displays two overlapping windows from the Solvo.CTMS software. The top window, titled 'Судокоды', shows a table of vessel statuses. The bottom window, titled 'Судовые операции', shows a detailed log of vessel operations.

| # | # в СД | Судно | Статус | Принал | Ориентация швартовки | Агент | Линия |
|--------|--------|----------------|-----------|-------------|----------------------|-------------------------|----------------------------------|
| 161528 | 851 | EAGLE SKY | Ожидается | NOT DEFINED | Правый борт | Силвер Хоуп | Косва Russian container services |
| 161910 | 853 | APL HIBISCUS | Ожидается | NOT DEFINED | Правый борт | Американ Президент Лайн | |
| 161919 | 854 | DA PING | Ожидается | NOT DEFINED | Левый борт | OCCA Ориентал шипинг | |
| 162232 | 856 | PLATINOSTON | Работает | Принал НР | Левый борт | | |
| 162690 | 860 | CARLEN MASLOW | Работает | Принал НР | Левый борт | | |
| 162902 | 858 | GOLDEN WING | Ожидается | NOT DEFINED | Левый борт | | |
| 163190 | 859 | HELMUTH RAMBOW | Ожидается | NOT DEFINED | Левый борт | | |
| 163388 | 860 | DA PING | Работает | Принал НР | Левый борт | | |

| # | Судно | Судовая линия | Страна | Адрес | Статус | Масштаб | Год/Линия | Созд. прибытие | Ожид. убытия | Входной # | Выходной # | Швартовка | План. начало | План. ок. |
|-----|-----------------|---------------|--------|--------------|-----------|---------|-----------|----------------|--------------|-----------|------------|-----------|----------------|-----------|
| 303 | MSC MARYLENA | ARKAS | DE | Рамс Колизей | всплывший | Август | 2011 | 21.02.11 17:46 | | 119A | 119A | | 16.03.11 17:46 | 14.03.11 |
| 504 | WANDA A | ARKAS | DE | | всплывший | Август | 2011 | 23.01.11 00:00 | | ERS0511 | ERS0611 | | 23.01.11 00:00 | 23.01.11 |
| 486 | MARTHA A | ARKAS | DE | | всплывший | Август | 2011 | 05.01.11 14:00 | | AKL24010 | AKL24010 | Принал 30 | 04.01.11 14:00 | 05.01.11 |
| 487 | TEOMAN A | ARKAS | DE | | всплывший | Август | 2011 | 31.12.10 12:00 | | CB502-10 | CB502-10 | | 31.12.10 12:00 | 01.01.11 |
| 480 | WANDA A | ARKAS | DE | | всплывший | Август | 2011 | 31.12.10 16:00 | | ERS02511 | ERS02511 | Принал 30 | 29.12.10 14:00 | 31.12.10 |
| 481 | DIANE A | ARKAS | DE | | всплывший | Август | 2011 | 30.12.10 00:00 | | CB503811 | CB503811 | Принал 30 | 04.01.11 00:00 | 10.03.11 |
| 492 | OCEAN PROTECTOR | MSC | DE | | всплывший | Август | 2011 | 28.12.10 02:00 | | 01A | 01A | Принал 30 | 28.12.10 02:00 | 31.01.11 |
| 486 | PACIFIC VOYAGER | MSC | DE | | всплывший | Август | 2011 | 07.01.11 02:00 | | 73A | 73A | Принал 30 | 07.01.11 02:00 | 08.03.11 |
| 503 | CLARET A | ARKAS | DE | | всплывший | Август | 2011 | 21.01.11 02:00 | | ERS05511 | ERS05511 | | 21.01.11 02:00 | 23.01.11 |
| 480 | OCEAN PROTECTOR | MSC | DE | | всплывший | Август | 2011 | 06.01.11 20:04 | | 02A | 02A | | 06.01.11 20:04 | 07.03.11 |
| 303 | WANDA A | ARKAS | DE | | всплывший | Август | 2011 | 24.07.10 16:45 | | ERS2210 | ERS2210 | | 24.07.10 16:45 | 27.07.10 |
| 456 | MSC UKRABE | MSC | DE | | всплывший | Август | 2011 | 11.12.10 00:00 | | 76A | 76A | | 09.12.10 00:00 | 11.12.10 |
| 499 | MSC FLUX | MSC | DE | | всплывший | Август | 2011 | 10.01.11 11:00 | | 12A | 12A | Принал 30 | 10.01.11 11:00 | 12.01.11 |
| 474 | MSC MARYLENA | MSC | DE | | всплывший | Август | 2011 | 04.01.11 12:00 | | 118A | 118A | Принал 30 | 03.01.11 13:00 | 04.01.11 |
| 475 | MSC CAITLEN | MSC | DE | | всплывший | Август | 2011 | 11.01.11 04:00 | | 132A | 132A | Принал 30 | 11.01.11 04:00 | 12.01.11 |
| 481 | JEAN PIERRE A | ARKAS | DE | | всплывший | Август | 2011 | 05.08.10 16:34 | | CB510410 | CB510410 | | 05.08.10 16:34 | 06.08.10 |
| 502 | FRESA WISMAR | MSC | DE | | всплывший | Август | 2011 | 15.01.11 22:00 | | 14A | 14A | | 15.01.11 22:00 | 17.01.11 |
| 500 | JEAN PIERRE A | ARKAS | DE | | всплывший | Август | 2011 | 13.01.11 14:00 | | ERS04511 | ERS04511 | | 13.01.11 14:00 | 14.01.11 |
| 462 | HILDE A | ARKAS | DE | | всплывший | Август | 2011 | 17.11.10 12:00 | | CB513510 | CB513510 | | 17.11.10 12:00 | 19.11.10 |
| 476 | FRESA WISMAR | MSC | DE | | всплывший | Август | 2011 | 01.12.10 00:00 | | 13A | 13A | Принал 30 | 01.12.10 00:00 | 31.12.10 |
| 477 | MSC MALAGA | MSC | DE | | всплывший | Август | 2011 | 30.12.10 00:00 | | 31A | 31A | | 01.12.10 00:00 | 31.12.10 |
| 505 | NATALIA A | ARKAS | DE | | всплывший | Август | 2011 | 14.03.11 10:46 | | 148 | 148 | | 14.03.11 10:46 | 17.01.11 |
| 506 | OCEAN PROTECTOR | MSC | DE | | всплывший | Август | 2011 | 27.01.11 10:47 | | 031 | 031 | Принал 29 | 19.01.11 12:47 | 20.01.11 |

A report can be generated for any time period based on the operations selected.



The screenshot displays the SOLVO4SC 1.0.2-SNAPSHOT software interface. The main window is titled "Report settings" and shows a list of reports with columns for Description, Command, Type, Category, Processing method, Report file, and Pap.

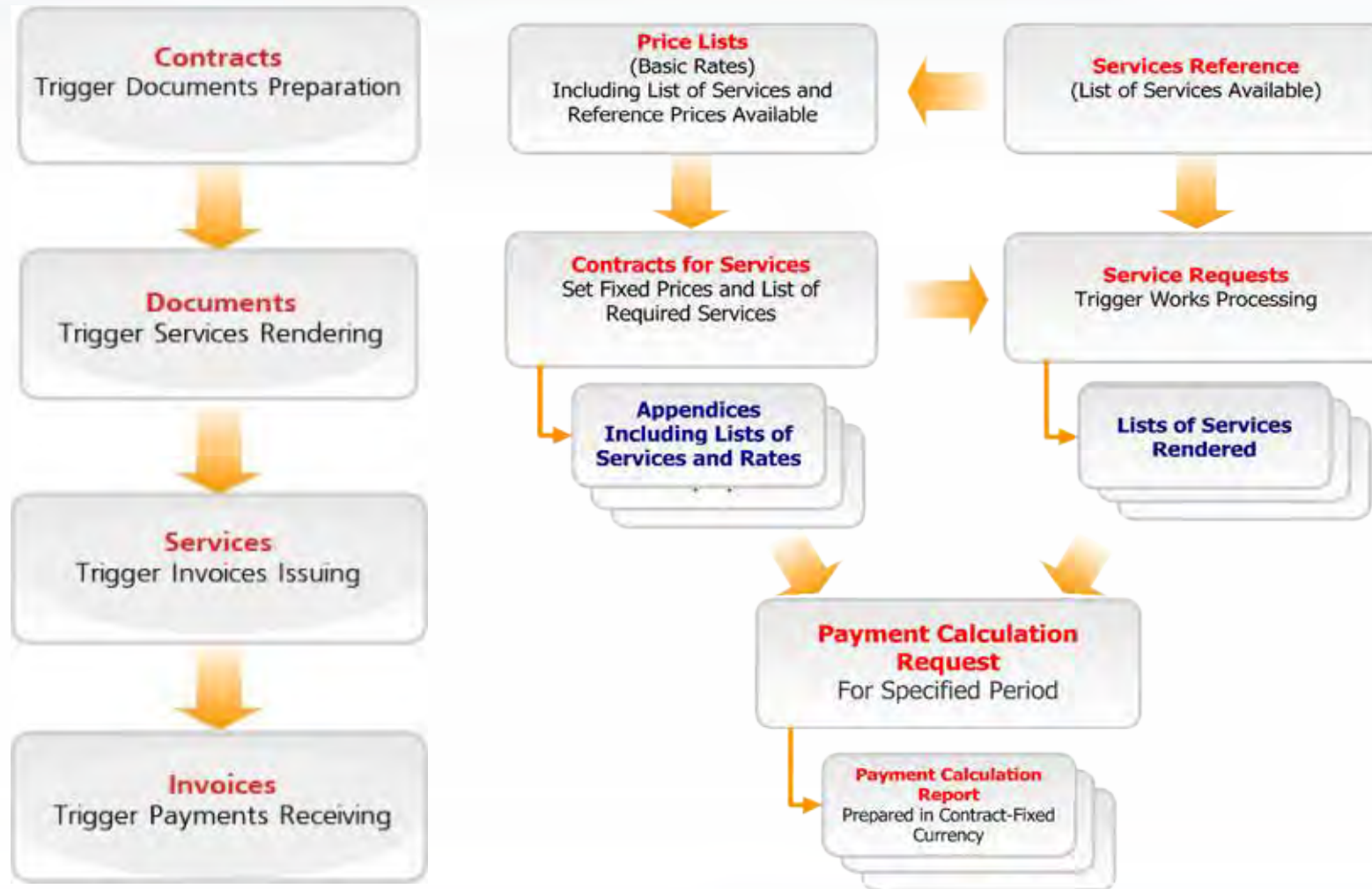
| Description | Command | Type | Category | Processing method | Report file | Pap |
|------------------------------|-----------------|---------------|-----------------|------------------------------|-------------|-----|
| Железная дорога | Железная дорога | Category | - | - | - | - |
| Инвентаризация | Инвентаризация | Category | - | - | - | - |
| Отчет о движении контейнеров | cnt_move_rep | System report | Use EXPI Jasper | container_move_report.jasper | A4 | |
| Отчет о наличии контейнеров | avail_list | System report | Use EXPI Jasper | availability_report.jasper | A4 | |
| Отчет о наличии на да | | | | | | |
| Статистика по обработ | | | | | | |
| Инвентаризационная в | | | | | | |

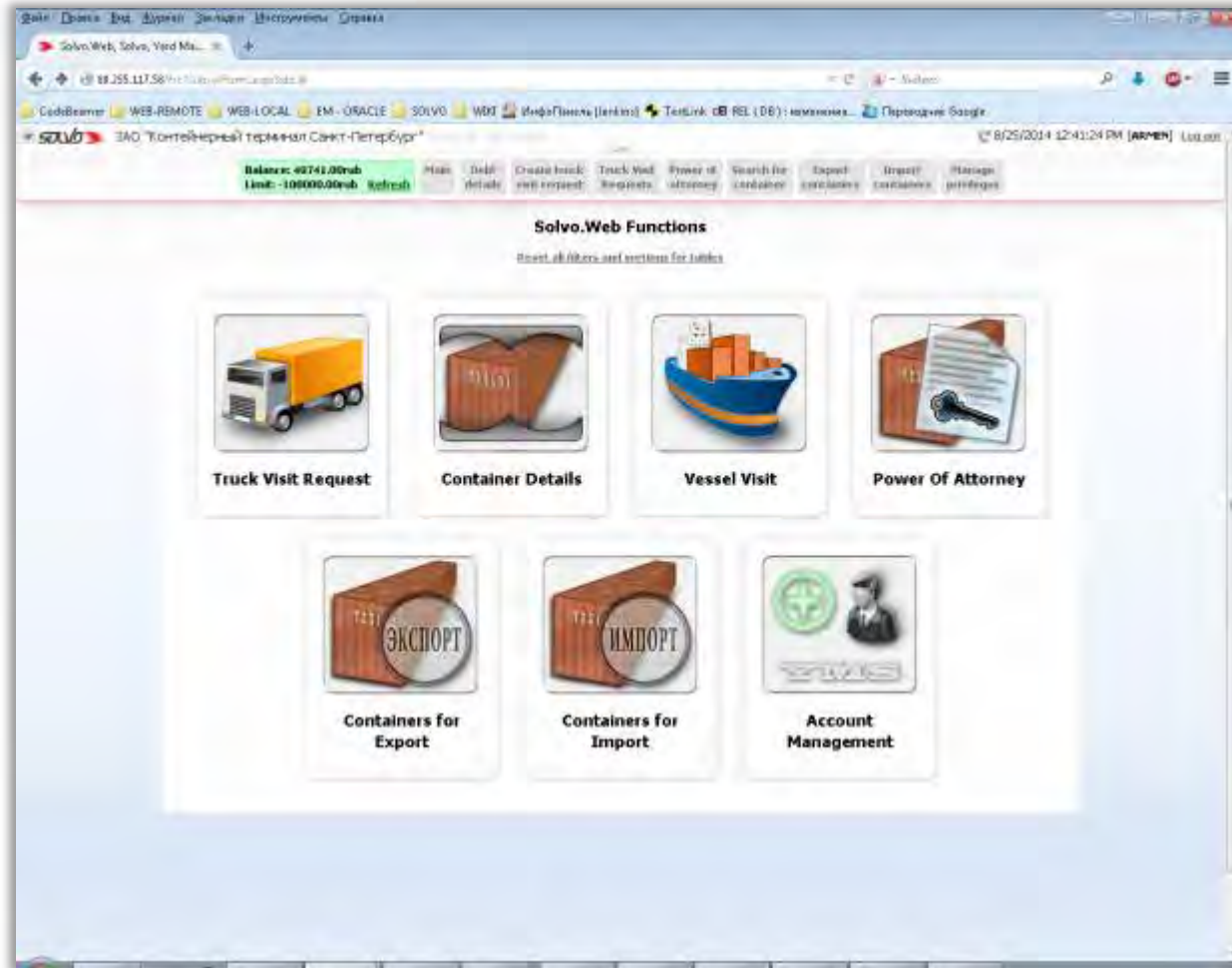
Below the table, there are several analytics charts:

- Грузооборот по фронту(2.1)1**: A pie chart showing two segments: 22-23 Февраль (20.54% (4004)) in green and 22-23 Февраль (47.56% (9504)) in red.
- Производительность перегружателей(1.8)1**: A bar chart showing TEU/hour for various dates from 01.01 to 31.01, with three data series: STS_P1 (blue), STS_P4 (orange), and STS_P3 (purple).
- Количество судозаходов(1.3)1**: A line chart showing the number of ship arrivals from 01.01 to 31.01.
- Среднее время стоянки судна(1.4)**: A line chart showing the average vessel stay time from 01.01 to 31.01.

On the right side, there is a "Индикаторы" (Indicators) panel with a search bar and a list of indicators with checkboxes:

- Морской фронт
- Авт. фронт
- Жд. фронт
- Все
- Удаленные
- Склад
- Общая
- Персонал
- Грузооборот по фронту(1.1)
- Характеристики судов(1.2)
- Количество судозаходов(1.3)
- Среднее время стоянки судна(1.4)
- Среднее время задержки отправления(1.5)
- Зачистка причала(1.6)
- Производительность причала(1.7)
- Производительность перегружателей(1.8)
- Кол-во контейнеров обработанных за час станком(1.9)
- Количество штирок(1.10)





EDI and notification module

Supports all types of EDIFACT messages for maritime industry and even more – xml, xls and other formats.

The planning department receives vessel call data through the notification module.

EDIFACT download - a line agent sends a message via e-mail in the form of a text file, which the service center technician downloads using his AWP.

Notification module – system process for creating report templates and documents, conversion to specific formats and distribution using email, files (folders), DB entries as well as issuing to print for specific recipients based on assigned events.

Bayplans and Stowage Instructions:

[BAPLIE 2.2 06/15 ST](#) [BAPLIE 3.1 06/15 ST](#)

[MOVINS 2.0.4 09/95 ST](#) [MOVINS 2.1.2 10/07 ST](#)

[BAPLIE for RAIL 0.1 02/09 TR](#) [MOVINS for RAIL 0.1 12/08 TR](#)

Bookings, Arrival and Departure notices, Confirmations of arrival and departure, Orders, etc.:

[COPRAR21-VGMST](#) [COARRI21-VGMST](#) [CODECO21-VGMST](#)

[COPARN21-VGMST](#) [COREOR 2.0 04/03 ST](#) [COPINO 2.0 04/03 ST](#)

[COEDOR 2.0 02/01 TR](#) [COSTOR 1.0 09/96 TR](#) [COSTCO 1.0 09/96 TR](#)

[COHAOR 1.0 09/96 TR](#)

Vessel Departure and Vessel Schedules:

[VESDEP 1.2 10/96 TR](#) [VESDEP 2.0 09/02 TR](#) [VESDEP 2.0 SEF](#)

[IFTSAI 2.0 05/04 TR](#) [IFTSAI SEF File 2.0 05/04 TR](#)





SOLVO Wins Tender to Build 'Intelligent Container Terminal' 19.09.2015

SOLVO has won a tender held this year by the largest Russian Intermodal container operator "TransContainer" for a project to build an "Intelligent Container Terminal" based on Solvo.TOS for rail container terminal "Kleshina" located just outside of Novosibirsk.

The new project will be carried out under Solvo.TOS, which will be integrated with other subsystems, providing a fully-fledged process automation complex at the terminal. SOLVO will serve as the general subcontractor to creating the "Intelligent Container Terminal."

The main goal of the "Intelligent Container Terminal" (ICT) is to increase efficiency of operations at the Kleshina terminal. The increase in performance will be achieved due to an increase in throughput via process automation as well as the reduction in labor-intensive operations related to planning, putaway, and routing as well as a decrease in time needed to process information from forwarders, search for a container and locations based on set criteria.

The main operations will involve planning (receiving, transfer, movement of transport, container allocation), formalization, inspection, search, storage, putaway, loading/unloading, and load checking. Furthermore, work related to planning/putaway/routing, processing of information from agents, searching for containers and locations is reduced to zero.

To increase the quality of service, it is recommended to evaluate the processes of automation:

Reduction in commercial defects during document processing;

Automatic notification and communication with agents;

Decrease in risk of errors when loading/unloading and storage;

Present information about container availability and movement;

Present ability to formalize and transfer documents to contract partners remotely (WEB-access);

Increase load security.

The goal of creating the ICT is to establish a comprehensive solution that would unify all existing information systems used at the terminal. This includes the automated system for planning and managing container terminal operations, document flow system, system for recognizing and registering incoming and outgoing cargo flows, system for optimizing management of rail and road transport, development, planning and construction of network infrastructure at the Kleshina terminal, including delivery and set up of server equipment, mobile and video equipment necessary to run these recognition and automation management system in tandem with SOLVO's partner, ISS.

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