PRODUCT INTRODUCTION

ATLAS-SCM™: CYMS

Container Yard Management System

A web-based yard management tool for better visibility, accuracy and measurable operating efficiency.



Autoscan Technologies Pte Ltd

AGENDA

Six parts, from introduction to Q&A

01

Introduction

What CYMS is and what it helps operators achieve

02

How the yard works

Storing order, gate in, storage, packing and gate out

03

Modules and capabilities

Core modules, capability map, mobility, billing, reports and setup

04

Features and benefits

Platform features, and benefits for industry and yard users

05

Implementation

Five phases from process mapping to production and support

06

Questions

Q&A and contact details

01 · INTRODUCTION

A web-based yard tool for better visibility, accuracy and efficiency

ATLAS Container Yard Management System (CYMS) is a cutting-edge, web-based yard management tool. It is designed to help container yard operators achieve better visibility, accuracy and measurable operating efficiency.

Visibility

Real-time inventory visibility, with a bird's-eye view and an accurate 3D position of each container

Accuracy

Automatic container identification during put-away and pick-up, and put-away strategies that avoid storage errors

Measurable efficiency

Operational reports and KPIs, such as yard occupancy and driver performance

Overview


In Bound
Storing Order
Gate-In
Plan Yard
M&R
Yard Processes
Packing
Allocate
Vehicle Jobs
Weighing
Out Bound
Delivery Order
Picking
Gate-Out
Billing
REPORTS (Internal, External, Custom)

01 · INTRODUCTION

Four areas of yard control in one system

Real-time inventory visibility

- Bird’s-eye graphical view of container inventory
- Accurate 3D position of each container
- Supports planning and execution of yard operations

Order management

- Automated yard storage order management
- Automated delivery order management
- Automatic gate check-in and check-out to speed up processing

Automated put-away

- Put-away strategies that avoid storage errors
- Containers identified automatically during put-away and pick-up

Maintenance and repair

- Control the entire M&R process quickly and easily
- Complete transparency across all phases
- Integrated flow from repair estimate to invoicing and statistics

3D YARD VIEW



02 · HOW THE YARD WORKS

Yard work runs in three connected flows

Inbound

- Storing order
- Gate in
- Plan yard
- M&R

Yard processes

- Packing
- Allocate
- Vehicle jobs
- Weighing

Outbound

- Delivery order
- Picking
- Gate out

Billing Runs alongside the inbound, yard and outbound flows

Reports Internal, external and custom reports

02 · HOW THE YARD WORKS

Every container starts with a storing order

Storing order is created by

- **Manual entry**
- **EDI**

1

Order header

Order number, BL number, booking reference, carrier, shipper and more

2

Leg and trip info

From and to locations

3

Container information

Container number, size and type, and on-ground or on-trailer storage

4

Products

Products inside the container

02 · HOW THE YARD WORKS

Gate in: from arriving container to put-away

1

Verify the order

Retrieve the storing order details for the arriving container and verify them

2

Automatic put-away

System-assisted automatic put-away, with lift off

3

Fire yard jobs

Fire jobs to yard vehicles (reach stacker, RTG) for lift on and lift off to the yard

4

Driver put-away

Driver views the movement job on the VMT and performs the put-away

Put-away strategies

- **Based on vessel and voyage**
- **Based on customer**
- **Based on storing type**
- **Manual put-away**

Gate check-in is automatic, and containers are identified automatically during put-away and pick-up.

02 · HOW THE YARD WORKS

Storage and LOLO moves keep the yard organized

Storage

- Long-time storage (hubbing)
- Temporary storage (transit)
- Ageing monitoring
- 3D view of yard storage

LOLO moves (lift on, lift off)

- To and from temporary holding area
- To and from hubbing area
- To and from packing or unpacking bay
- Mobile-assisted LOLO

02 · HOW THE YARD WORKS

Packing and unpacking runs through bays in the yard

1

Initiate

Start packing or unpacking

2

Lift on, lift off

Move containers to bays in the yard

3

Fire yard jobs

Fire jobs to yard vehicles (RTG, reach stacker) to carry containers to the bay

Ground-type bay

Yard jobs are fired for a ground-type bay, based on the bay type set during configuration

RAMP-type bay

Yard jobs are fired for a RAMP-type bay, based on the bay type set during configuration

02 · HOW THE YARD WORKS

Gate out: from delivery order to verified pick-up

1

Verify

Retrieve delivery order details for the container to pick, and verify

2

Pick list

Automatic FIFO or LIFO picking

3

Fire yard jobs

Fire jobs to yard vehicles (reach stacker, RTG) for picking

4

Container-based

Container-based picking

5

VMT-assisted

VMT-assisted picking

Pick lists are sequenced automatically by FIFO or LIFO, and picks are supported on the VMT.

03 · MODULES AND CAPABILITIES

Five modules cover tracking, mobile work, billing and reports

Container tracking

- Gate in and gate out
- Storage billing
- Haulier services
- Location tracking

Mobile module

- Container LOLO jobs dispatched on vehicle-mounted terminals
- Mobile module for yard drivers

RF extension

- Track using RFID
- Survey using handheld terminals (HHT)
- Online photo taking
- Real-time data collection using VMT

Billing and integration

- LOLO charges
- Storage charges
- Alert contractor
- Invoice data to finance

Reports

- Container ageing
- Container movement
- Yard utilization
- Yard occupancy
- Outstanding jobs
- Charge report
- Dashboards

03 · MODULES AND CAPABILITIES

The full capability map, by function

Basic functions

- Yard setup
- Customer setup
- Inbound processing
- Outbound processing
- Product and container inventory
- Transaction reversal

Secondary functions

- Work order
- Packing and unpacking
- Billing
- Security and audit

Integration and online access

- CTMS EDI
- Customer online access
- Customs online access

Mobility and automation

- VMT module
- Movements and jobs management

Reports

- Operations forms and reports
- Planning
- Performance review
- Customer reports
- Statistics and trend dashboard

03 · MODULES AND CAPABILITIES

Mobile and RF tools capture yard data in real time

Vehicle-mounted terminals (VMT)

- LOLO jobs dispatched to vehicles
- Movement and shuffling jobs
- 3D container search and enquiry
- Real-time data collection

RF devices and handheld terminals

- Track containers using RFID
- Survey using handheld terminals (HHT)
- Online photo taking
- Mobile module for yard drivers

RFID tags on containers give immediate tracking and real-time location information.

03 · MODULES AND CAPABILITIES

Users, equipment and partners connect to one system

Users

User master, roles and activities

Yard equipment

Reach stackers and rubber tyre gantry cranes (RTG)

Containers

RFID tags for immediate tracking

ATLAS-SCM™: CYMS

Web-based container yard management

Customers

Balance, inventory and movement views, plus customer reports

Customs

Online balance, inventory and movement views

EDI partners

Configurable EDI messages with external systems

Finance and contractors

Invoice data to finance; alerts to contractors

03 · MODULES AND CAPABILITIES

Maintenance and repair flows from estimate to statistics

1. **Repair estimate**
2. **Survey** (mobile-assisted)
3. **Work order** with approval workflow
4. **Repair status**
5. **Labor cost** (man-hours and pricing)
6. **Invoicing**
7. **Statistics**

Charge setup Part of the M&R module

Full transparency Across all phases of the M&R process

Billing covers storage, LOLO and detention charges by customer

What is charged

- LOLO charges
- Storage charges
- Free storage days
- Detention charges
- Demurrage charges

How billing works

- Billing template per customer and order type
- Charges separated for customer and container owner
- Detention and demurrage charges incorporated, with detention highlighted
- Rates and rate templates assigned to storing, delivery and work orders
- Process billing, and re-generate billing when needed
- Invoice data sent to finance

Reports and dashboards show operations, performance and trends

Operations reports

- Gate in and gate out
- Container movements

Planning

- Daily, weekly and monthly planning

Performance review

- Driver performance
- Equipment
- Yard occupancy (KPI)

Customer reports

- Movements
- Inventory
- Occupancy
- Billing

Yard dashboards

- Container ageing and movement
- Yard utilization and occupancy
- Outstanding jobs
- Reminder dashboards

Report types

- Internal, external and custom
- User-definable reports for comprehensive data mining

Setup defines the yard, its equipment, users and bays

Yard setup

- Upload floor plan
- Create areas
- Yard types, such as DG and non-DG
- Constraint-based container stacking level for each area
- 3D view of the yard and its areas

Yard usage and put-away

- Put-away strategies by vessel and voyage, customer and storing type
- Manual put-away

Equipment and users

- Yard vehicles: reach stacker and rubber tyre gantry (RTG)
- Users: user master, roles and activities

Packing and unpacking bays

- Bay type: ground or RAMP

Platform features and their benefits (1 of 2)

Feature	Benefit
Allows multi-company, site and branch transactions	Single application infrastructure across different locations and offices
Supports all major RDBMS platforms	Cost-effective solution using freeware RDBMS for small to medium-size yards
Custom fields for most transaction modules	Configure required fields and minimize data entry
Configurable EDI messaging formats	Suite-specific customer needs to exchange messages with external systems
Multilingual support	Culture-oriented solution enhances user experience

Platform features and their benefits (2 of 2)

Feature	Benefit
Extends reach of the application to RF devices	Allows real-time data collection and reduces manual paperwork
Seamlessly integrates with most available RFID technology	Increases data accuracy and automates data collection
Extensive reporting through user-definable reports	Comprehensive data mining of available information
One-click yard view with stock information	Rich user experience through rendering of 3D graphics
Manage templates for standard transactions	Speeds up data entry and avoids keying repetitive information

04 · FEATURES AND BENEFITS

Benefits for the wider industry and for yard users

For the industry

- Cohesive collaboration between all players in the supply chain
- Increases total efficiency of the entire supply chain by 7%[1]
- Best practices followed throughout the industry
- Enhances port efficiency and container traffic
- Institutionalizes safe and secure commerce (maritime security) through RFID

For users

- Single point of command and control reduces overhead cost
- Pro-active shipment management improves total supply chain efficiency
- Ensures carrier, vendor and regulatory compliance
- Increases operational efficiency
- Reduces overhead costs such as detention, loss and damage

[1] Figure as stated in the source presentation; to be confirmed before external use.

05 · IMPLEMENTATION

Implementation runs in five phases, from process mapping to support

PHASE 1
Process mapping

PHASE 2
Configuration

PHASE 3
User training

PHASE 4
Production

PHASE 5
Maintenance and support

05 · QUESTIONS

Thank you

Q&A session

Autoscan Technology Pte Ltd

600 Sin Ming Avenue, M Floor, Citycab Building, Singapore 575733

Email: info@sg.autoscan.biz

Advanced transportation-logistics application service

ATLAS
a pleasant journey