



AUTOMATED TRANSPORT

MAX AGV product overview up to 10 ton

AUTOMATED TRANSPORT





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MAX AGV Heavy 20-200 ton



MAX AGV HTF-80



MAX AGV HTP-30



MAX AGV HTC-50



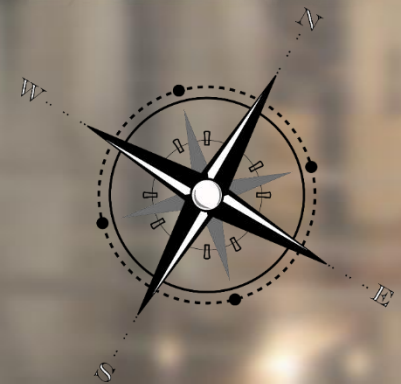
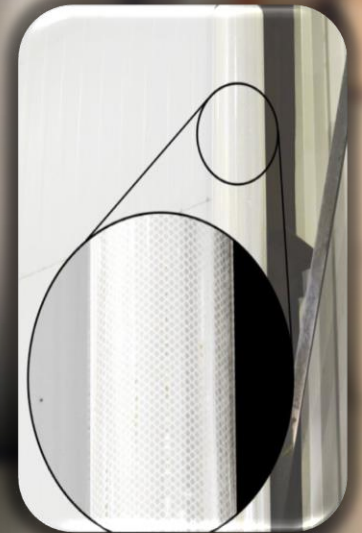
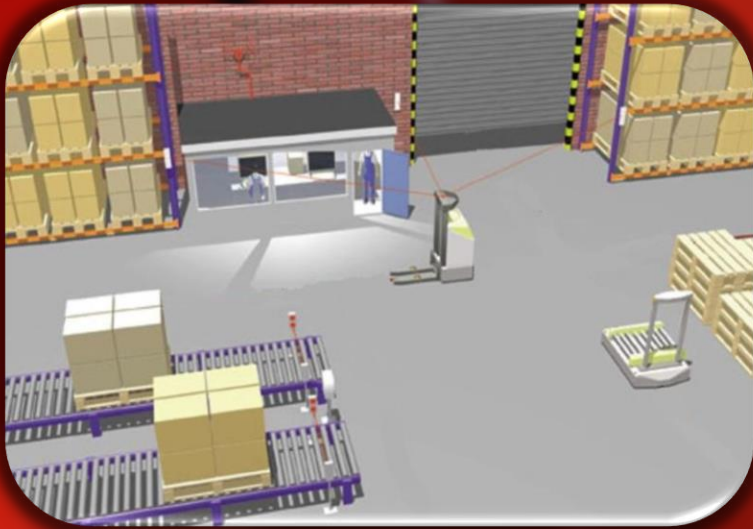
MAX AGV HTC-30



AUTOMATED TRANSPORT

Navigation

We offer different types of Guidance methods but Laser guidance is our standard.





AUTOMATED TRANSPORT

Safety

Several built in safety systems on the AGV:

- Slow down & stop zones
- Emergency stop buttons
- SICK laser bumper
- Electro-mechanical switches and bumpers
- Floor point and DeZone (options)





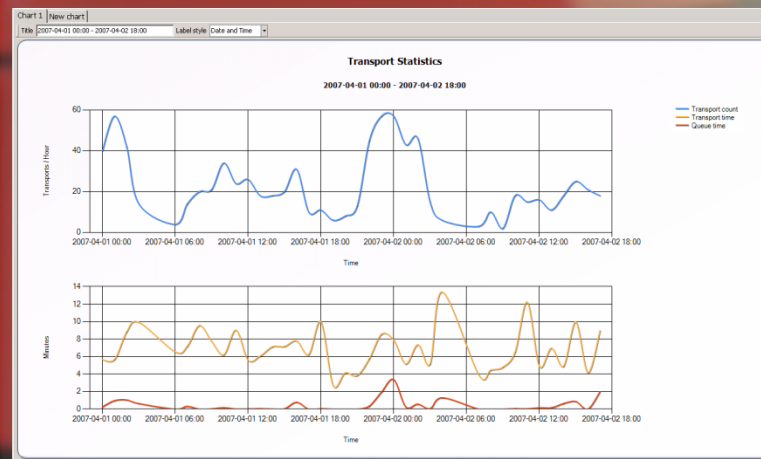
AUTOMATED TRANSPORT

Max Management for transport and store



MAX Transport Management System

- Intelligent Transport System for full control
- Handling all type of loads
- Optimising traffic, route and transport control
- Assembly line, point to point or sequential transports
- Transport creation by client, push button or from host
- MAX Client for full overview of system functionality
- 3D visualization off equipment, loads and stations
- Windows gadget, mobile apps, e-mail and sms
- Reports/statistics for utilisation, faults, transport flow

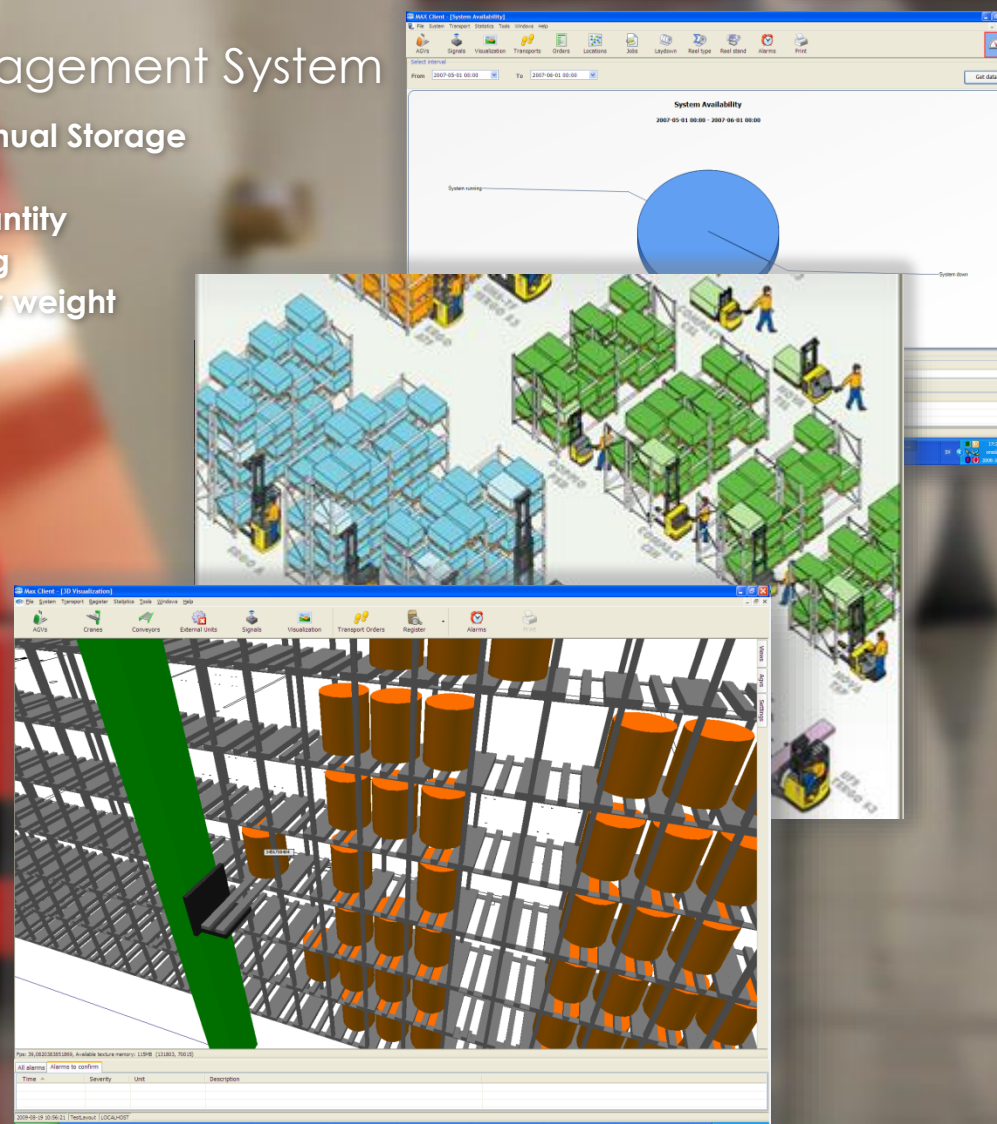




AUTOMATED TRANSPORT

MAX Order and Warehouse Management System

- Powerful WMS system for automatic and manual Storage
- Interface to all known host system
- Handles Loads with multiple articles and quantity
- Load registration, picking, filling and tracking
- Optimised location selection by zone, size or weight
- 3D warehouse visualization
- Standard and configurable reports
- Scheduler for time control functions



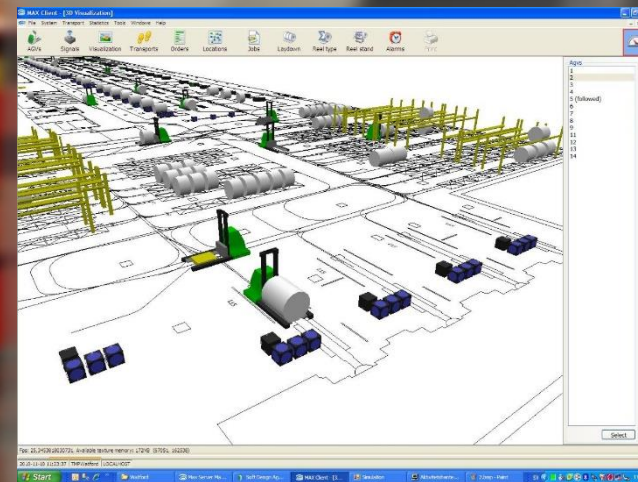
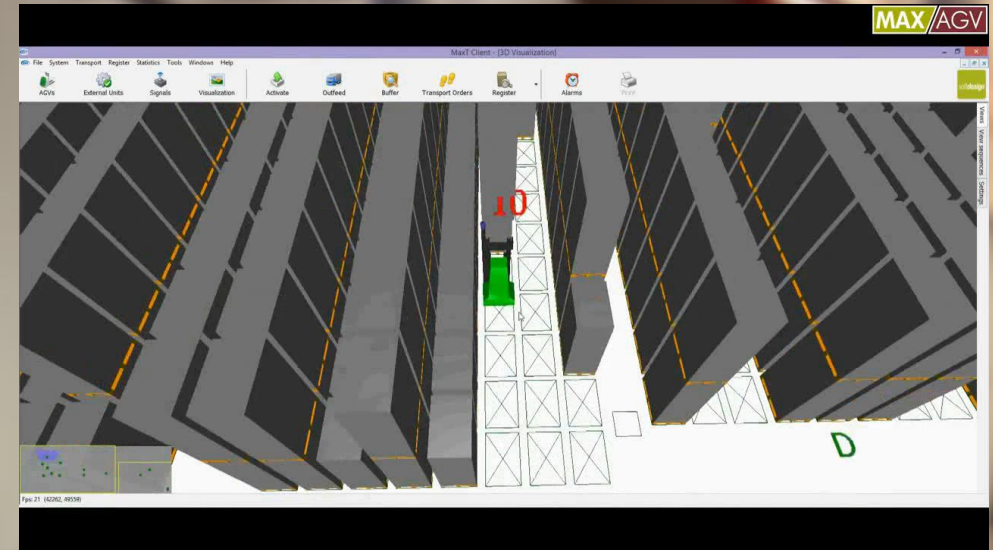
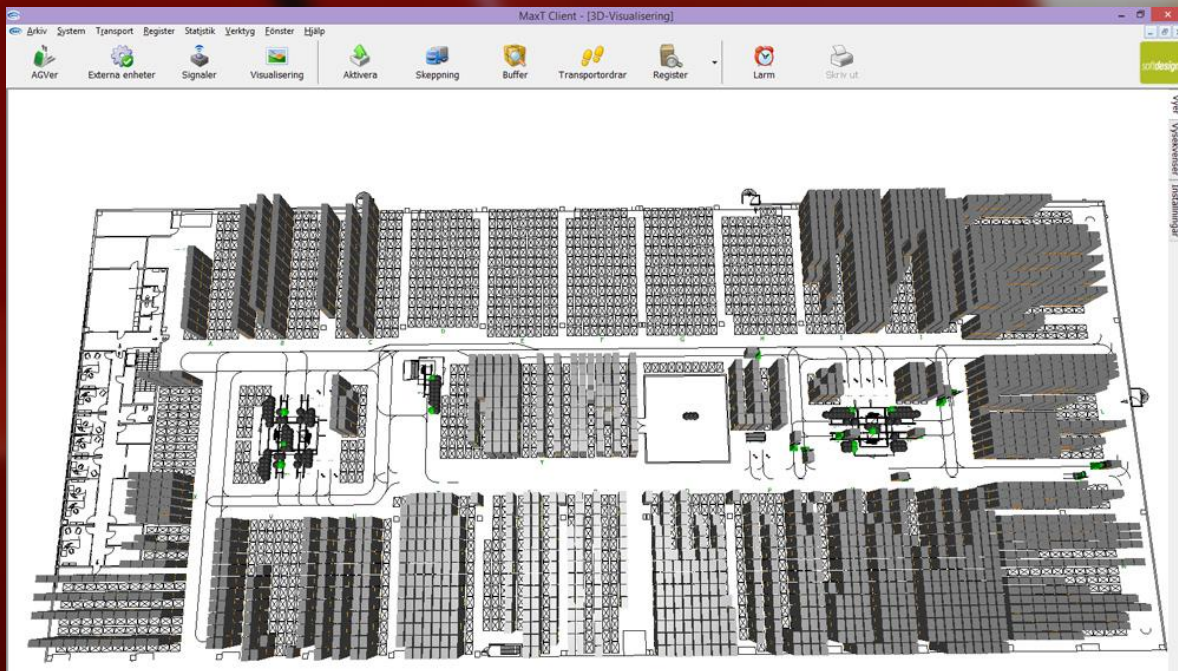


AUTOMATED STORE

MAX client – 3D visualisation

MAX 3D

- AGVs & Cranes
- Loads
- Stations
- Signals



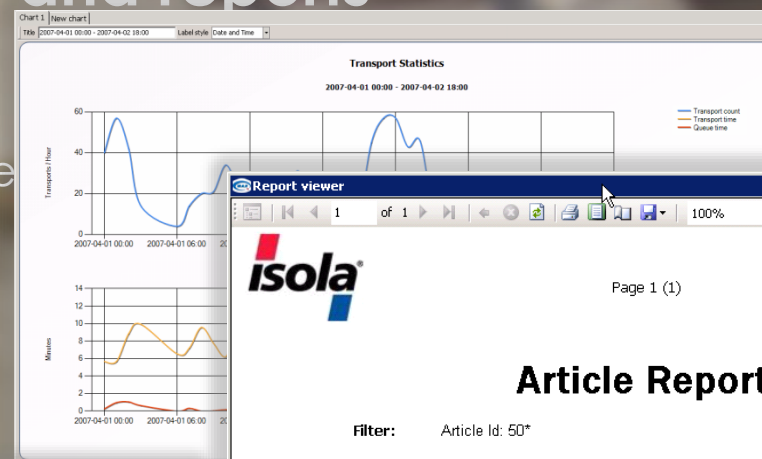


AUTOMATED STORE

MAX client – Statistics and reports

MAX

- Flow: transports per station, period, equipment
- Store contents: filling level, amount, articles
- Utilisation: transporting, waiting, charging...
- Load Tracking
- Faults: Who, where, what



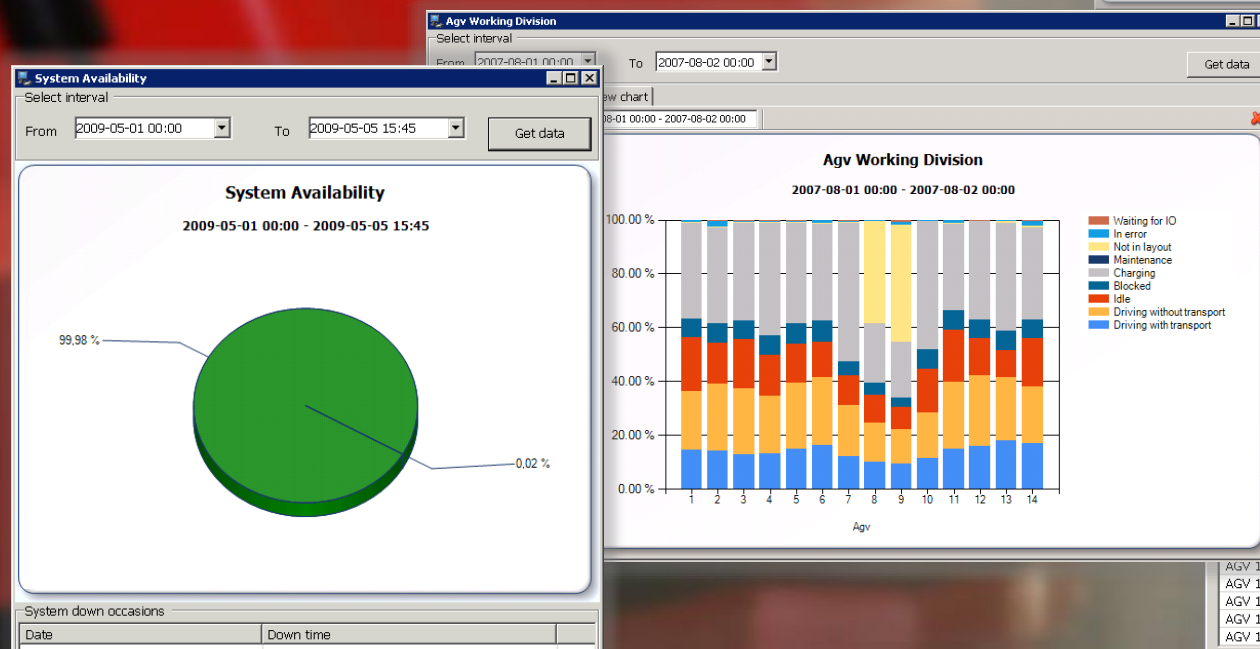
Report viewer

Page 1 (1) Printed 2009-06-16 15:02

Article Report

Filter: Article Id: 50*

| Article Id | Article Name | # of Pallets | # of Units |
|------------|------------------------|--------------|------------|
| 501001 | Takshingel S Skifergrå | 78 | 3042 |
| 501013 | Takshingel S Sort | 488 | 19032 |
| 501024 | Takshingel S Tealrød | 52 | 2028 |



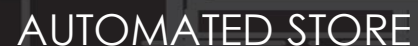
Location Error Statistics

Interval type: ☒ None ☐ Hour ☐ Day ☐ Month ☐ Year

Group by: ☒ AGV ☒ Error type

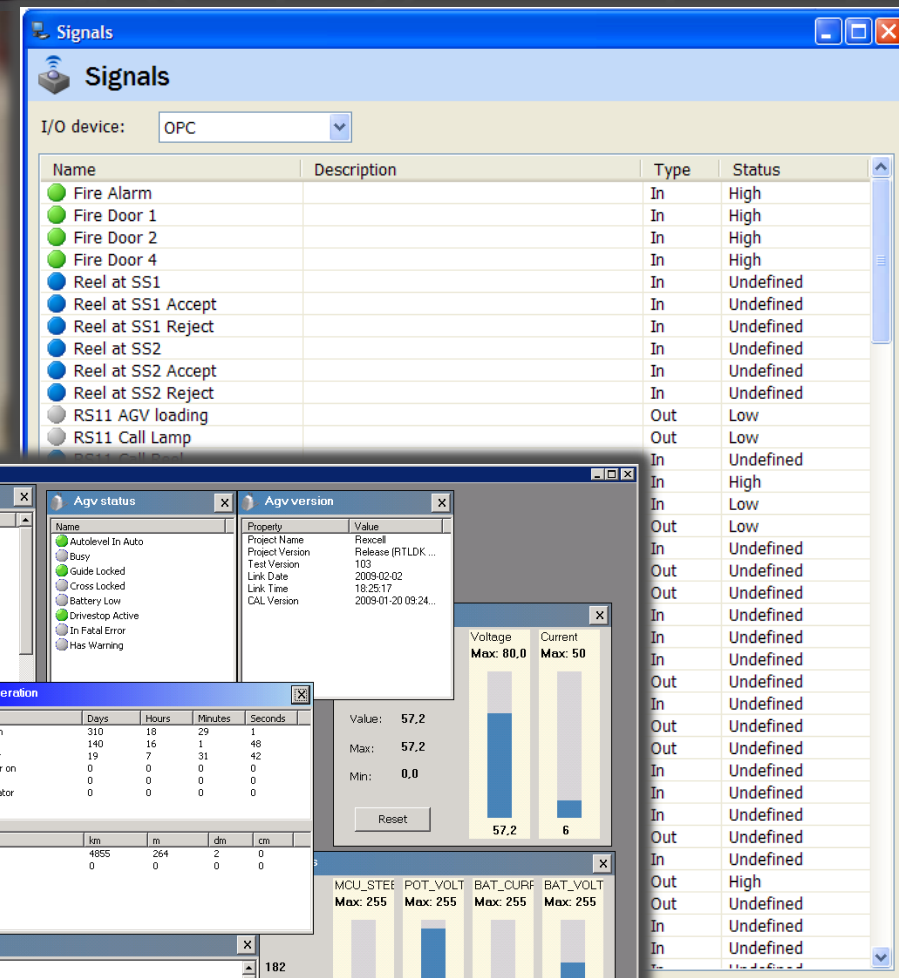
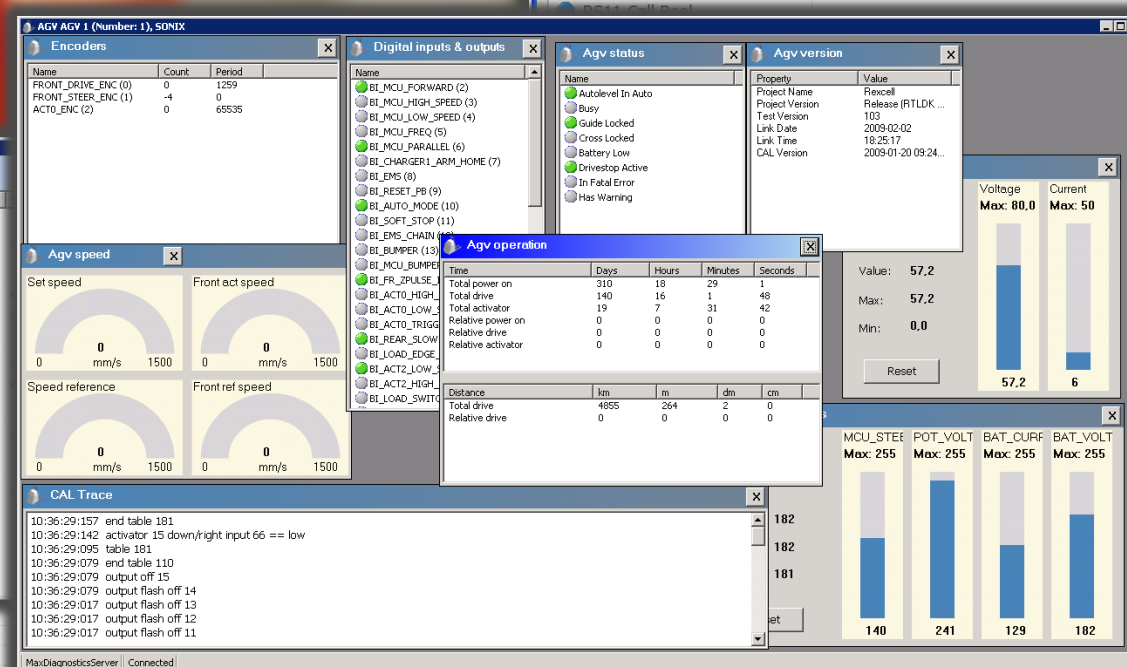
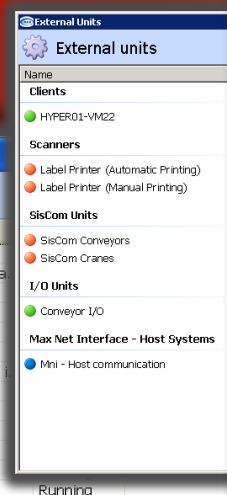
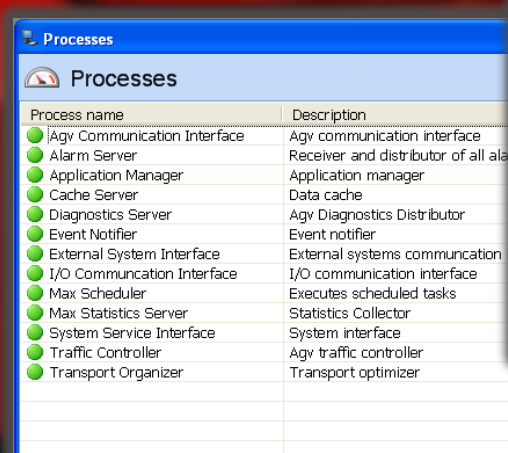
Write average values

| Location | Error type | No of errors |
|-------------------|----------------------------|--------------|
| Station Laddplats | Radio communication error. | 1 |
| Station Laddplats | No communication link. | 1 |
| Station Laddplats | No communication link. | 1 |
| Segment 153 | Bumper stop | 1 |
| Segment 165 | Bumper stop | 1 |
| Segment 22 | Bumper stop | 1 |
| Segment 23 | Bumper stop | 1 |
| Segment 29 | Bumper stop | 1 |
| Segment 30 | Bumper stop | 1 |
| Segment 398 | Bumper stop | 15 |
| Segment 420 | Bumper stop | 1 |
| Segment 421 | Bumper stop | 1 |
| Segment 422 | Bumper stop | 1 |
| Segment 436 | Bumper stop | 2 |
| Segment 440 | Bumper stop | 1 |



MAX

- Equipment diagnostics
- Signals
- External equipment
- Processes
- Alarms
- Issue report





Mobile Application & Desk Top Gadget Diagnostics



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6 in Auto






1 in Error



1 Alarm(s)



13 Transport(s)

| Name | Loaded | Mode | Area | Information |
|---|--------|-------|----------|---|
|  AGV 1 | Yes | Auto | CH 6-7 | Blocked by AGV 5. Waiting for Segment 146 (3288) (Deposit at TIPPER |
|  AGV 2 | | Auto | PREFORMS | Pickup at PREFORM LN8 A |
|  AGV 3 | Yes | Auto | PREFORMS | Waiting for unload |
|  AGV 4 | Yes | Auto | CH 6-7 | Blocked by AGV 6. Waiting for Segment 142 (144) (Deposit at PREFOR |
|  AGV 5 | Yes | Error | PREFORMS | Emergency stop |
|  AGV 6 | | Auto | CH 6-7 | Blocked by AGV 1. Waiting for Segment 145 (3286) (Pickup at PREFOR |
|  AGV 7 | Yes | Auto | TIPPERS | Deposit at 03120303 |

Soft Design's MaxT (Logoplaste)

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6 in Auto



1 in Error



1 Alarm(s)

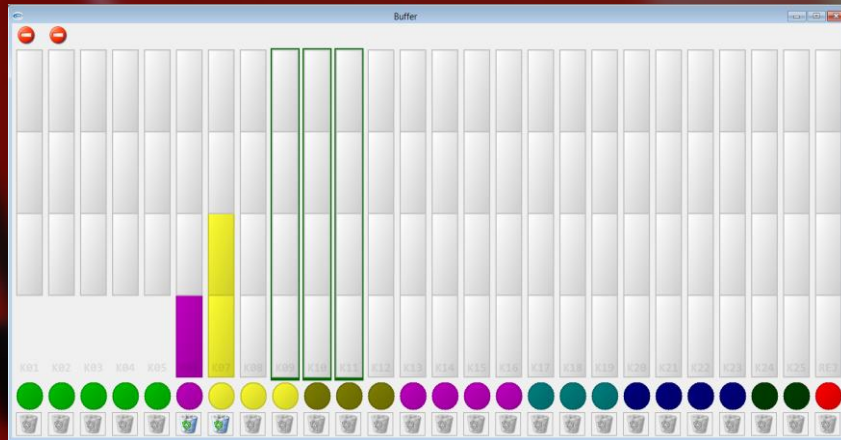


10 Transport(s)



AUTOMATED STORE

MAX client – customised



The Tetrainers of With Best Before Date screen displays a list of products and their best before dates. The products are listed in a table with columns for SKU, TE, and Product Name. The dates are listed in a table with columns for Date and Time. The screen also includes a calendar and a clock.

| SKU | TE | Product Name | Date | Time |
|-----------|------------|--------------|-------------|-------|
| SKU 29232 | TE WH MLK | 35x1PT | 12 JUN 2011 | 00:57 |
| SKU 29274 | TE SK MLK | 35x1PT | 13 JUN 2011 | 22:16 |
| SKU 37744 | TE WSK MLK | 35x2PT | 21 JUN 2011 | 05:09 |
| SKU 29240 | TE SS MLK | 35x1PT | 19 JUN 2011 | 18:51 |
| SKU 37743 | TE WH MLK | 35x2PT | 1 JUL 2011 | 13:40 |

The INPALLAR screen displays a grid of 10 boxes representing different units. The boxes are color-coded: yellow for INPALL 1 and HP2-IN, and grey for INPALL 2, INPALL 3, HP1-IN, HP3-IN, HP4-IN, and HP5-IN. The screen also includes a logo for Skapa Transport.

The Clear Outfeed Lanes screen displays a grid of 16 boxes representing different units. The boxes are color-coded: grey for D0301, D0302, D0303, and D0304, and white for the other units. The screen also includes a 'Clear All' button.

References



Ferrari, Maranello, Italy, assembly line for engine, 36 AGVs



Porsche, Bratislava, Slovakia, assembly line Porsche chassie, 27 AGVs



Shell Oil, Stanlow England, Oil products transport, 15 AGVs



LG Display (Korea), transport of Glass & Display units, 6+2 AGVs



Daily Mirror, Watford, Oldham and Glasgow, 14, 15 and 10 AGVs



De Persgroep, Eindhoven, Netherlands, 8 AGVs



Nedcar Mitsubishi, Assembly line Mitsubishi Outlander, 70 AGVs



Sandvik Coromant/Gimo Sweden and Westminster USA, 10 and 3 AGVs



BMW, Rover Birmingham, retrofit, Motor assembly, 1+3 AGVs



DIAB, Laholm, Sweden, transport of Divinycell, 2 AGVs



Orthex Group, Tingsryd, Sweden, transport of plastic boxes, 2 AGVs



Logoplast, Coleford UK, transport of boxes, Warehouse 2000 locations, 7 AGVs



Volvo, Olofström, Sweden, transport of car parts, 35 AGVs



Astra Zenica, Södertälje, Sweden, transports of Medical Supplies, 10 AGVs



MSD, Newcastle, UK transport of Medical supplies, 3 AGVs



London Taxi, UK, transport of taxis chassis at assembly line, 10 AGVs

BAE Systems, UK, transport of stillage's, 2 AGVs



IKEA, Lithuania, transport of boxes, 1 AGV



Sentury Tyre, Thailand & China, transport of pallets for tyre production 41+2 AGVs



Wavin, Netherlands, transport of boxes, 4 AGVs



Heinz, Netherlands, transport of boxes for ketchup production, 7 AGV s

Fresenius-Kabi, Sweden, pharmaceutical, 3 AGVs



NLP, Norway, transport of pallets, 9 AGVs



Svenska Retursystem, Sweden, transport of pallets, 14 + 11 AGVs



Kimberly Clark, UK, Transport of paper reels, 2 AGVs



Indorama, Thailand, 2 AGVs



Essity, Sweden, transport of paper roll, 2 + 5 AGVs



Jaguar Landrover, Halewood, 33 AGVs



Wilhelmsen Chemicals, Norway, 1 + 4 AGVr



Riho, Netherlands, 2 AGVs

Working closely with our customers

- Together we customise the functionality
- Introduction, education and training of systems on site
- We build long term working relationships
- We value and realise your input and wishes

Support contract

- From regular office time to 24/7 support
- VPN remote support, guaranteed response time
- Yearly visits to secure customer satisfaction

