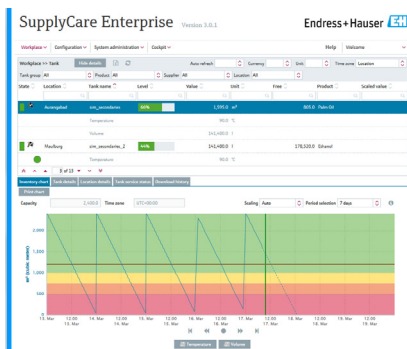# Technical Information
SupplyCare Enterprise
Enterprise inventory management platform for transparent information within the supply chain

Application

SupplyCare Enterprise is a web-based operating program for coordinating the flow of material and information along the supply chain.

SupplyCare Enterprise gives you complete transparency over inventory levels in tanks and silos, anytime, anywhere and even at remote locations.

Your benefits

- Improves demand planning and lowers your inventories
- Enables business processes such as Vendor and Supplier Managed Inventory (VMI, SMI)
- Complete solution from inventory measurement and data acquisition to integration in your business processes
- Complete inventory visibility 24 hours a day, 7 days a week, anywhere within your enterprise, even on mobile devices
- Based on Web Server technology your End Users can operate and visualize the inventory flow via a web browser independently of your Operating System
- Connectivity and data acquisition from a broad selection of Endress+Hauser Gateways as well as third party systems via OPC DA technology.
- Multi Language User Interface with 10 languages supported allowing worldwide collaboration using the same platform. Furthermore, auto detection of language and settings based on the Browser setting

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Table of contents

System description

Application

SupplyCare Enterprise is a web-based operating program for coordinating the flow of material and information along the supply chain. With SupplyCare you have a complete and clearly displayed overview over levels and product inventory in, e.g., tanks and silos, spread all over the world, anytime, anywhere.
Based on the measuring and transmission technology installed on site, the current inventories are recorded and transmitted to SupplyCare. With SupplyCare, you have a constant overview of all the current inventories. Critical levels are clearly indicated and you can also receive active information on these levels if required. Calculated prognosis gives additional security for replenishment planning.

SupplyCare Enterprise runs by default in an Apache Tomcat-environment on an application server as service under Microsoft Windows. The operators and administrators operate the application via web browser from theirs desks.

Indication of inventory data

The tank and silo inventories are regularly collected by SupplyCare. The current and previous inventory data can be indicated at any time.

Management of master data

With SupplyCare you can create and manage master data of locations, companies, tanks, products and users.

Reporting

With SupplyCare you can create flexible reports in formats like Excel, PDF, CSV and XML with the measured value history that can be reused by other systems.

Event management

An event management is integrated into SupplyCare. It shows events like the fall below safety stocks or plan points. Additionally, notification e-mails can be sent to predetermined users.
The monitoring of tanks by event management is comprehensively configurable. You can e.g. also set up to detect and notify distinctive level changes or the absence of level changes in defined time periods.

Alarm messages

Whenever there is a technical problem, e.g. connection problems, alarm messages are generated and alarm e-mails are sent to the System administrator and Local system administrator.

System Overview

**Retrieval of measured values via HTTP, Mobile communication or OPC DA connection**

Point of time and the interval are adjusted via a so-called "Scheduler", which enables SupplyCare to retrieve the measured values.

Gateways (Fieldgates)
- Endress+Hauser-measuring devices are retrieved by gateways.

OPC Connection
- Retrieving data from third party systems can be done by an OPC Connection. An OPC Bridge is required for the retrieval of OPC DA 1.0, 2.0 or 3.0 connections via COM. This bridge connects itself via COM with locally installed OPC Servers and provides an HTTP Service to respond to the SupplyCare Enterprise requests. This OPC Bridge is supplied together with the SupplyCare Enterprise-DVD.

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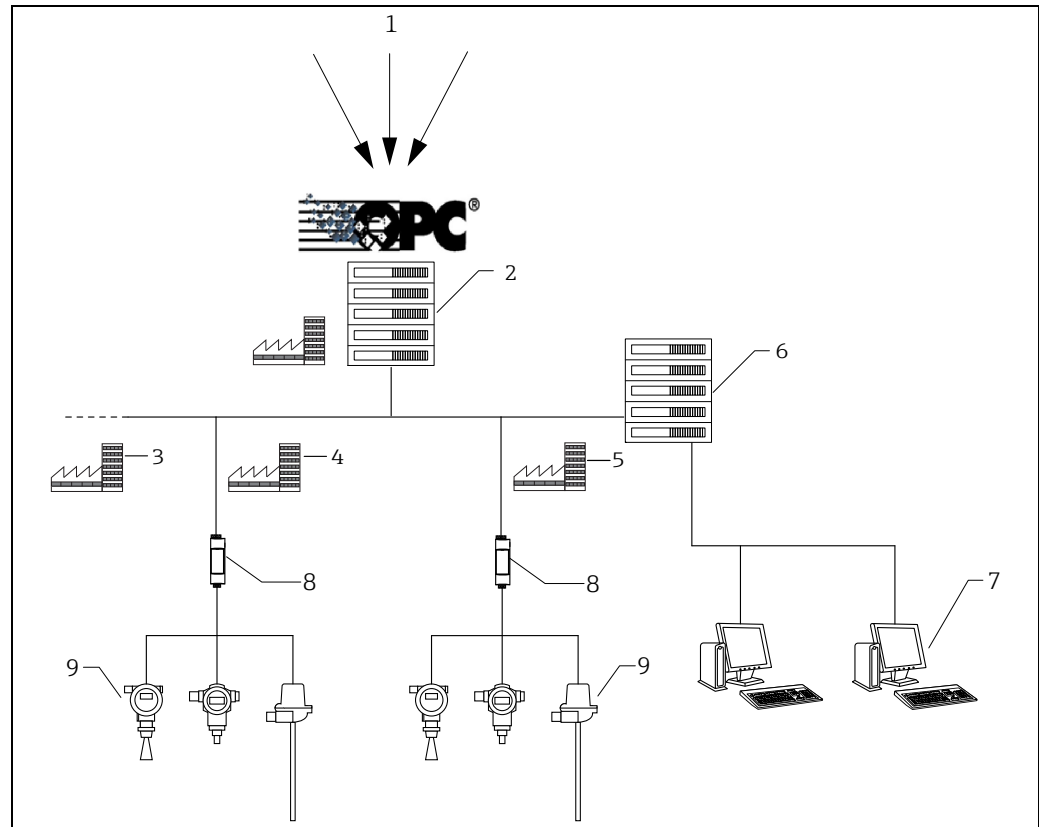
1   Third party data source
2   OPC Server and E+H OPC Bridge at company location
3   Tank location "n"
4   Tank location
5   Tank location
6   SupplyCare Enterprise application server
7   SupplyCare workplace
8   Endress+Hauser Gateways
9   Endress+Hauser measurement devices (level, pressure, ...) at tank location

Retrieval of measured values about incoming e-mails from the gateways

Another possibility is to receive the measured values from the incoming e-mails from the gateways. There, the measured values are embedded in the gateway e-mails and sent to a separate e-mail server. SupplyCare Enterprise collects these e-mails from the e-mail server and processes the included measured values. The e-mail server is not part of the standard scope of delivery.
SupplyCare offers an elegant method to create gateways. As soon as a new gateway is linked to the measurement chain and sends e-mails, this gateway is automatically listed as a new gateway.
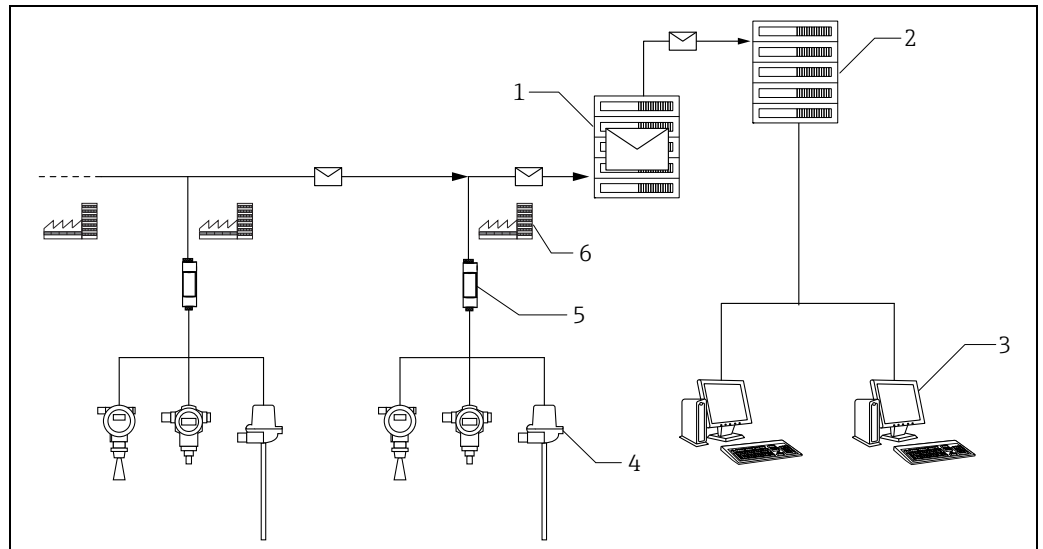
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1 E-mail-server
2 SupplyCare Enterprise application server
3 SupplyCare workplace
4 Endress+Hauser measurement devices (level, pressure, …) at tank location
5 Endress+Hauser Gateway
6 Tank location

System requirements

Recommended specifications

Internet browser:
- Microsoft® Edge 93 (or later)
- Mozilla Firefox 92 (or later)
- Google Chrome™ 93 (or later)

Mobile devices:
- Apple® iPhone® with Safari® on iOS 15 (or later)
- Apple® iPad® with Safari® on iOS 15 (or later)

Browser configuration:
- Active Scripting enabled
- JavaScript enabled
- Allow cookies

These are the official supported browsers that we recommend to use our SupplyCare Enterprise application. The use of any other browser version or technology may lead to limited functionality and display.

Operating systems

- Microsoft® Windows® 10 (Enterprise)
- Microsoft® Windows® 11 (Enterprise)
- Microsoft® Windows Server® 2016 (Standard)
- Microsoft® Windows Server® 2019 (Standard)
- Microsoft® Windows Server® 2022 (Standard)

SupplyCare Enterprise runs by default in an Apache Tomcat-environment on an application server as service under Microsoft Windows. The operators and administrators operate the application via web browser from theirs desks.

Hardware

- Processor type: 4 cores, 3 GHz or better
- Main memory (RAM): 8 GB (free memory)
- Hard-disk (HDD) capacity: 50 GB for full installation, depending on database size.
- Monitor resolution, display: 1280 x 800

Installation

Installation and scope of delivery

A PC connected to the Internet or Intranet is needed to use SupplyCare Enterprise software.

Scope of delivery:
- 1 DVD-ROM
- Getting Started

Note

Updating the application server and the Java environment which are part of the delivery is within customer's responsibility. Contacting Endress+Hauser for questions regarding the compatibility of the SupplyCare Enterprise versions is possible.

Performance

The application's performance depends from factors like server properties, infrastructure and the amount of data for storage. The following table displays 2 possible hardware configurations and the corresponding performance.

Number of measurement values	CPUs	RAM	Hard disk drives
5 million	4	8 GB	50 GB; Standard*
20 million	4	16 GB	100 GB; Standard*
*Recommendation: Use SSD and RAID technology to build data storage systems.			

Should the number of measurement values for storage exceed these values, please contact Endress+Hauser. It can then be decided, wether it is the database that influences the performance of the application or not. If necessary, a tailor-made database solution for the application can be compiled. Deployment of a tailor-made database solution can lead to additional cost. The number of measurement values for storage is composed according to the following formula:
Measurement points x measurements per day x data retention time in days

User Interface and functions

User Interface

The user interface supports the following 10 languages:
- German (DE)
- English (EN)
- French (FR)
- Italian (IT)
- Japanese (JA)
- Portuguese (PT)
- Russian (RU)
- Spanish (ES)
- Turkish (TR)
- Chinese (ZH)

SupplyCare Enterprise takes advantage of the intuitive nature of Windows based Graphical User Interfaces (GUIs) and multi-tasking, allowing multiple Windows to be opened simultaneously and allowing the use of other third party applications such as Microsoft Office suite to be run simultaneously.
Displays are loaded very quickly, can be scaled, minimized, maximized and moved around so that the operator can set the desktop as required.

Main Page – Portal window

The first Graphical User Interface is the Portal window, which displays the **Workplace Tank**.
This page provides an overview of all tanks in tabular form and displays details if a tank is selected.
The Portal window is the centre console from which all other functions can be quickly and easily accessed.
Navigation through the different screens is simplified through the use of toolbars, menus and short-cut links. Tanks can be filtered on the using the features available.

- **Overview**: The users or data are listed in tabular form in the overview.
- **Detailed view**: Detailed information on the line selected in the table is displayed in the lower section.
- **Tabs**: Using the tabs, you can create, change and delete new objects. Forms or tables are displayed in the tab.
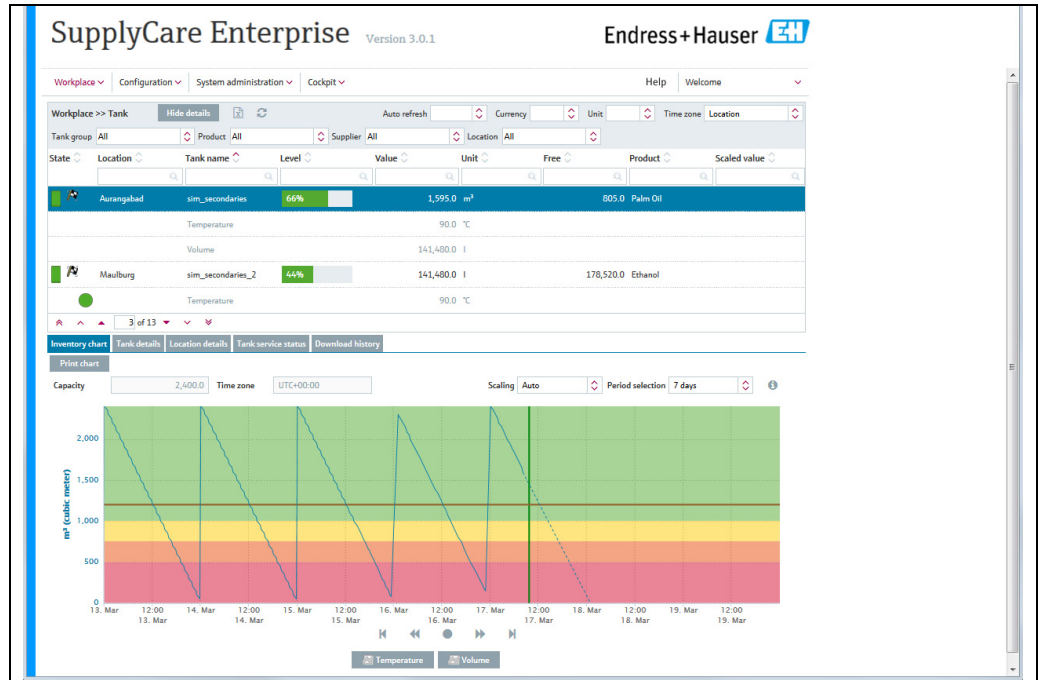
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Monitoring tanks

The **Tank workplace** offers the following information and functions:
- **Tank details**: tank name, tank status, capacity, optimum, location, time zone, time stamp, level, unit, data sources, products, supplier, buyer, plan point, ship point and safety stock.
- **Inventory chart**: displays the historic and expected pattern for inventory control.
- **Event details**: displays details on the currently applicable event, e.g "safety stock reached".
- **Download history**: displays measured value history for one tank selected in the overview in a diagram.
- **Secondary values**: A range of measuring devices allows additional measured variables (secondary) to be recorded in addition to the primary variable. A maximum of one primary value and eight secondary values can be assigned to a tank.

Arbeitsplatz_Tank_BA00050SEN_30_TI

My tank view

The **My tank view workplace** is a personalized tank view that shows you the tanks that you selected in your user profile. Several filter functions allow you to display only tanks of a special tank group, product, supplier, location, unit or time zone.

Arbeitsplatz_Tankuebersicht_BA00050SEN_30

Editing events – Event workplace

An event is triggered if a limit value is undershot (Plan point, Ship point, Safety stock) or unexpected level changes occur. The weighting is derived from the limit value, i.e. reaching the plan point is categorized as not critical (low) while reaching the safety stock level is regarded as very critical (high). Once an event has been generated, the user can change the status to **Acknowledged** or **In process**. To make it easier to track events later, the change is stored with a time stamp and user name.
If a critical limit is reached, determined by another measurement, the status of the event is set to **Open**. If an inventory that is above the plan point is detected for standard tanks, and if an inventory that is below the plan point is detected for recycling tanks, the event assumes the status **Done** and no other activities are required.
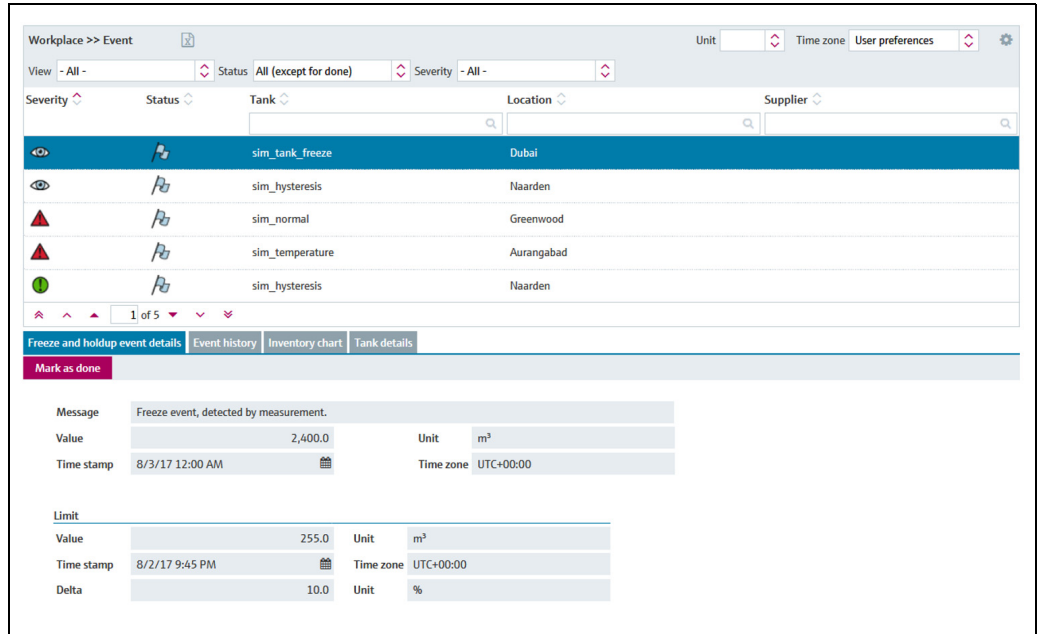
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Planning delivery and disposal – Scheduling workplace

When a new delivery/disposal is created, the system checks whether the delivery/disposal is planned too early or too late. The forecast data determined by SupplyCare are used to check the information. The user can either reschedule the delivery/disposal which is too late/early or confirm this as an early or late delivery/disposal.
SupplyCare monitors the deliveries and disposals daily. If it detects an early or late delivery/disposal, this delivery/disposal can be confirmed. If it detects a missing delivery/disposal, this delivery/disposal can be marked as fulfilled.
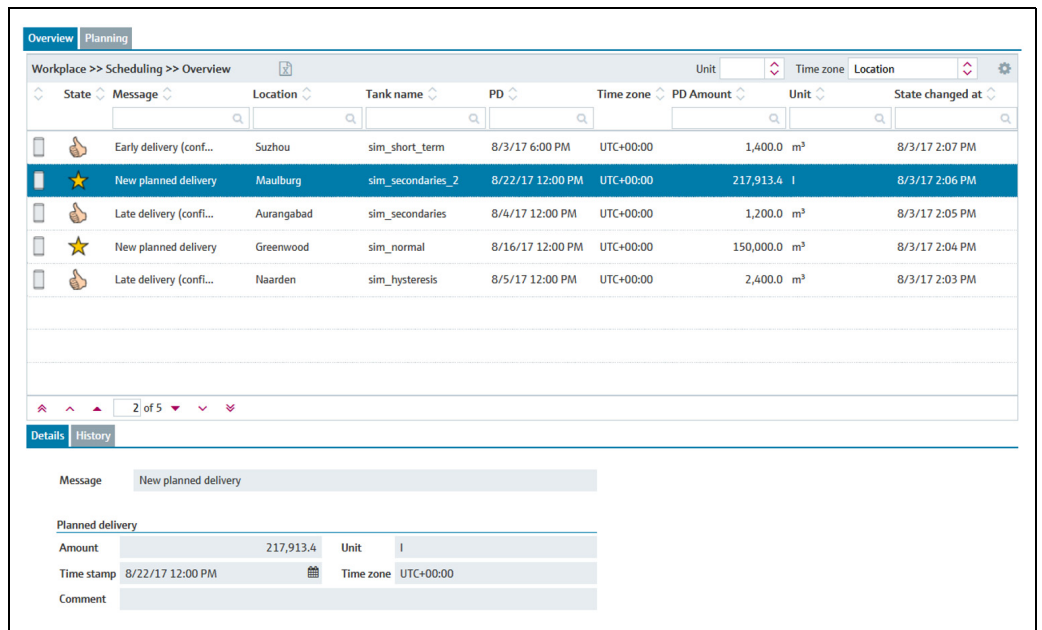
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Totaling and managing templates – Totaling workplace

The **Totaling workplace** allows you to add up values, e.g free capacity. The totalized **Level** is then represented graphically. The values of standard tanks can be totaled in the **Standard tanks** tab and the values of recycling tanks in the **Recycling tanks** tab. Tanks and aggregated tanks can be included in a calculation.

In the **Totaling workplace** you can also save a particular selection as template, create new templates, change, overwrite or delete existing templates.

Summierung_uebersicht_BA00050SEN_30

Viewing analysis – Analysis workplace

The **Analysis workplace** allows the user to view important indicators for the inflow and outflow of the individual tanks as data and charts. You can use these data and charts to analyze past cycle patterns and use them as the basis for future planning. You can export all the information to an Excel spreadsheet. In addition, it is also possible to print out the charts.

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Viewing tank locations on the map – Map workplace

You can use the **Map workplace** to get an overview of the locations of the individual tanks on Google Maps. The tanks can be filtered by tank group, product, supplier and location. You can call up detailed information on every tank, such as level, planned delivery or disposal.
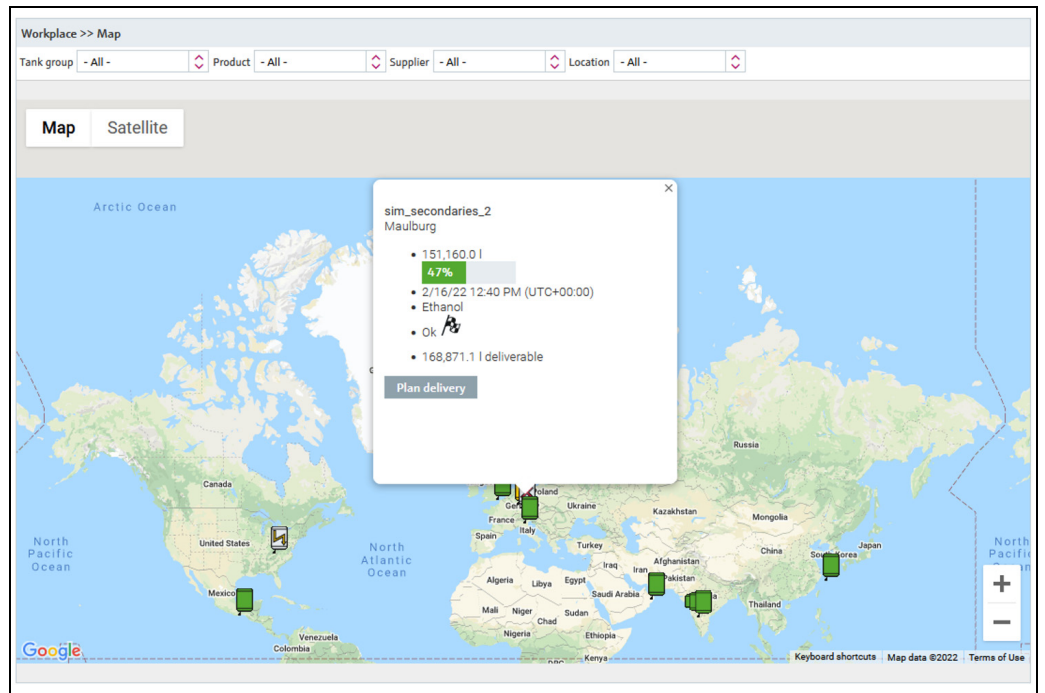
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User Management

User roles

The system allows access only with user name and password.
Users and their privileges are entered through the **User role** menu item. Every user role includes a couple of features and privileges. For each user you can determine their rights by setting the user role.
Access rights/user roles can be System administrator, Local system administrator, Master data, Operator, Read only, Scheduler, Product-Tank-Assignment.

Configuration

Configuration of master data

Master data is used to allocate, e.g. a product or a user a tank, and to create, change or delete users, tanks, aggregated tanks, tank types, tank groups, locations, companies, products, linearizations, units and reports.
Many of the settings are critical and access should normally be limited to certain personnel.

Configuration of reports

Using the Report wizard, you can create reports in several output formats:
- Excel file, text file, PDF file, CSV file or XML file.

Reports can be distributed by directory, by HTTP, by FTP/FTPS[1] or by e-mail.

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1)   Please notice: For FTPS, explicit and implicit SSL are supported for passive and active FTP modes.

Application packages

Modules

SupplyCare is modular in design.
The modules "Logistics" and "Monitoring" contain the following functions:

Module	Functions
Monitoring	- Configurable overview page - History and forecast - CSV download - System Alarm Notification (Admin) - Graphics - Event Management - Report configurator - Frozen Limits
Logistics	- Configurable overview page - History and forecast - CSV download - System Alarm Notification (Admin) - Graphics - Event Management - Report configurator - Frozen Limits - Scheduling - Totaling - Analysis - Geographical Visualization

SupplyCare Enterprise (64 bit)

In order to ensure the full and optimum compatibility with the Operating System, SupplyCare has a dedicated 64 bit OS installer.

OPC Bridge

Measuring devices of other companies can be retrieved by an OPC Connection. An OPC Bridge is required for the retrieval of OPC DA 1.0, 2.0 or 3.0 connections via COM. This bridge connects itself via COM with locally installed OPC Servers and provides an HTTP Service to respond to the SupplyCare Enterprise requests. This OPC Bridge is supplied together with the SupplyCare Enterprise-DVD.

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Product identification, order code and software type

Product identification

The following options are available for identification of the software:

- Order code with breakdown of the software features on the delivery note or the sticker on the packaging of the installation medium.

Order code and software type

To find out the exact type of your software, enter the order code in the search screen at the following address:
www.products.endress.com/order-ident
The order code is located on the sticker on the packaging of the installation medium.

Additional documentation

Operating instruction

Document	Valid for	Content
BA00055S	- SupplyCare Enterprise	Operating instructions Languages: - English - German
KA01579S	- SupplyCare Enterprise	Getting Started Languages: - English - German

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