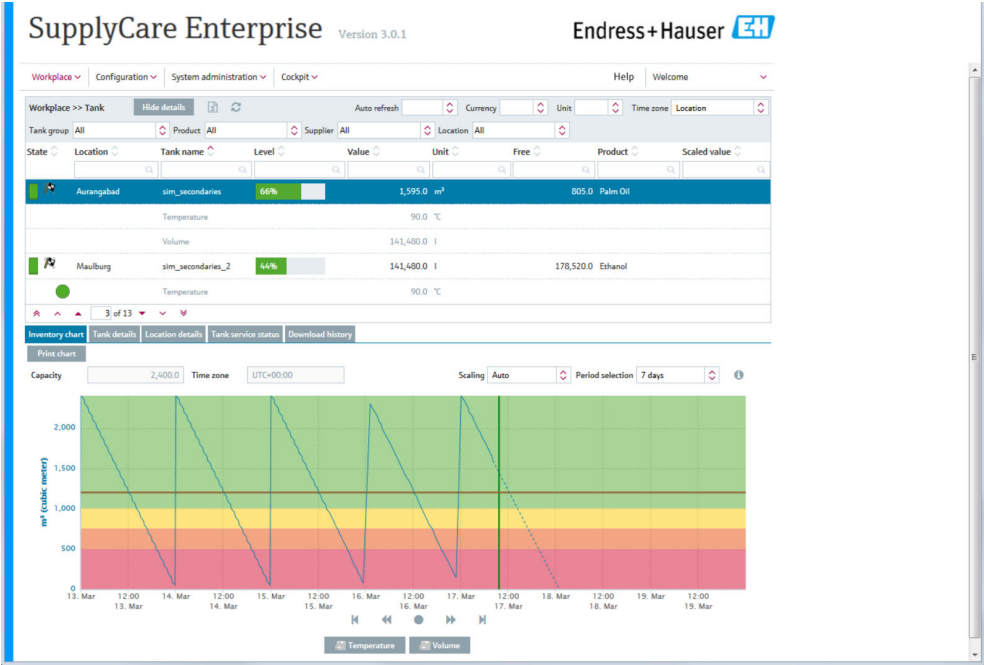


Operating Instructions

SupplyCare Enterprise SCE30B

Supplement to the Operating Instructions



Revision history

BA02532S/01.25-00

- Valid for software version: 3.6.xx
- Changes/comments: Description of tank limits (symbols for tanks, silos, and objects), removal of “Extending trial period”, web browser updated

BA02532S/02.26-00

- Valid for software version: 3.7.xx
- Changes/comments: System requirements (operating systems), replacement of certificates for Fieldgate NXA80, minor changes

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1 About this document

1.1 Document function

This document is intended to supplement the Operating Instructions BA00055S for SupplyCare Enterprise.

This document describes only the changes that apply to software version 3.6.xx or higher. All information on configuring and operating SupplyCare Enterprise is provided in the Operating Instructions BA00055S.

1.2 Target group

Apart from basic knowledge of PC operation, no special training is required to carry out the administrative functions of the Supply Chain Management software. Nevertheless it is recommended to receive training from Endress+Hauser on this system.

1.3 Symbols

1.3.1 Safety symbols

DANGER

This symbol alerts you to a dangerous situation. Failure to avoid this situation will result in serious or fatal injury.

WARNING

This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in serious or fatal injury.

CAUTION

This symbol alerts you to a dangerous situation. Failure to avoid this situation can result in minor or medium injury.

NOTICE

This symbol contains information on procedures and other facts which do not result in personal injury.

1.3.2 Symbols for certain types of information

Tip

Indicates additional information



Reference to documentation



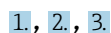
Reference to page



Reference to graphic



Notice or individual step to be observed



Series of steps



Result of a step

1.3.3 Symbols in graphics

1, 2, 3, ...

Item numbers

A, B, C, ...

Views

1.3.4 Conventions used in this manual

To make the content of this manual clear and to highlight important information, typographic highlights and symbols are used.

Text highlights

The following text highlights are used:

Bold

Meaning: Keyboard input, button, tab, menu item, elements in graphics

Examples:

- Select the **Event details** tab.
- Click the **Event** menu item.

1.3.5 Figures

The screen views contained in this manual are sample representations and may differ from personal screen views. The screen views depend on personal browser settings, the device used, and the application.

1.4 Documentation

BA00055S

- Product: SupplyCare Enterprise
- Document type: Operating Instructions

KA01579S

- Product: SupplyCare Enterprise
- Document type: Short introduction

1.5 Registered trademarks

The following trademarks are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries:

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2 Basic safety requirements

2.1 Requirements for the personnel

The personnel for installation, commissioning, diagnostics and maintenance must fulfill the following requirements:

- ▶ Trained, qualified specialists must have a relevant qualification for this specific function and task.
- ▶ Are authorized by the plant owner/operator.
- ▶ Are familiar with federal/national regulations.
- ▶ Before starting work, read and understand the instructions in the manual and supplementary documentation as well as the certificates (depending on the application).
- ▶ Follow instructions and comply with basic conditions.

The operating personnel must fulfill the following requirements:

- ▶ Are instructed and authorized according to the requirements of the task by the facility's owner-operator.
- ▶ Follow the instructions in this manual.

2.2 Intended use

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

SupplyCare Enterprise provides users with complete transparency over inventory levels in tanks and silos at any time and from any location - even at remote sites.

Based on the measuring and transmission technology installed onsite, the current inventory data are collected and sent to SupplyCare. Through SupplyCare, users always have an overview of all current inventory levels. Critical inventory levels are clearly identified, and users can actively receive alerts about them if desired. Calculated forecasts provide additional reliability for replenishment planning.

2.3 IT security

The manufacturer warranty is valid only if the product is installed and used as described in the Operating Instructions. The product is equipped with security mechanisms to protect it against any inadvertent changes to the settings.

IT security measures, which provide additional protection for the product and associated data transfer, must be implemented by the operators themselves in line with their security standards.

2.4 Technical improvements

Endress+Hauser reserves the right to make technical improvements to the hardware and software without prior notification. Where such improvements have no impact on the software's operating functions, they are not documented. If the improvements have a noticeable impact on operation, a new version of the Operating Instructions is issued. See the revision history in this manual for details.

3 Identification

3.1 System requirements

Browser for desktop:

- Microsoft® Edge 149 (or higher)
- Mozilla Firefox 150 (or higher)
- Google Chrome™ 149 (or higher)

Browser for mobile devices:

- Google Chrome™ 149 (or higher)
- Safari® on iOS 26 (or higher)

Browser configuration:

- Active Scripting enabled
- JavaScript enabled
- Allow cookies

These are the officially supported browsers recommended by Endress+Hauser for the SupplyCare Enterprise application. Using a different browser version or technology may lead to limited functionality and display issues.

3.1.1 Operating systems

- Microsoft® Windows® 10 (Enterprise)
- Microsoft® Windows® 11 (Enterprise)
- Microsoft® Windows Server® 2022 (Standard)
- Microsoft® Windows Server® 2025 (Standard)

4 User interface

4.1 Symbols

4.1.1 Symbols for tanks, silos or objects

SupplyCare allows users to choose the user interface from the template types "Tank", "Silo", and "Object". The functionality of these template types is identical. However, depending on the selection, the designations used in the menu, in the overview, and in the detailed view will differ - as will the symbols and tooltips displayed when hovering the mouse over a symbol.

 The following tables list the symbols for tanks, silos, and objects. The designations that differ between types are described in the following section (see "Designations" section).

Note: The template type "Tank" is used in all remaining sections of these Operating Instructions.

Symbols

	Tank/silo
	Aggregated tank/aggregated silo
	Object
	Aggregated object

Status indicator

		OK (GREEN) Standard tank/silo/object: The current (last measured) inventory level of the corresponding container is above the plan point/observance limit. Recycling tank/silo/object: The current (last measured) inventory level of the corresponding container is below the plan point/observance limit.
		OK (GREEN) Aggregated standard tanks/silos/objects: The current (last measured) inventory level of the corresponding aggregated container is above the plan point/observance limit. Aggregated recycling tanks/silos/objects: The current (last measured) inventory level of the corresponding aggregated container is below the plan point/observance limit.
		Plan point - observance limit reached (YELLOW) Standard tank/silo/object: The current (last measured) inventory level of the corresponding container is the same as or below the plan point/observance limit. Recycling tank/silo/object: The current (last measured) inventory level of the corresponding container is the same as or above the plan point/observance limit.
		Plan point - observance limit reached (YELLOW) Aggregated standard tanks/silos/objects: The current (last measured) inventory level of the corresponding aggregated container is the same as or below the plan point/observance limit. Aggregated recycling tanks/silos/objects: The current (last measured) inventory level of the corresponding container is the same as or above the plan point/observance limit.
		Ship point - point of action reached (ORANGE) Standard tank/silo/object: The current (last measured) inventory level of the corresponding container is the same as or below the ship point/point of action.
		Ship point - point of action reached (ORANGE) Aggregated standard tanks/silos/objects: The current (last measured) inventory level of the corresponding container is the same as or below the ship point/point of action.

		Safety stock - critical limit reached (RED) Standard tank/silo/object: The current (last measured) inventory level of the corresponding container is the same as or below the safety stock/critical limit. Recycling tank/silo/object: The current (last measured) inventory level of the corresponding container is the same as or above the safety stock/critical limit.
		Safety stock - critical limit reached (RED) Aggregated standard tanks/silos/objects: The current (last measured) inventory level of the corresponding container is the same as or below the safety stock/critical limit. Aggregated recycling tanks/silos/objects: The current (last measured) inventory level of the corresponding container is the same as or above the safety stock/critical limit.
		Bad measurement (s) – communication error No measured data is available for the tank/silo or the object. The status is also displayed when secondary data is shown, provided the container is not out of service.
		Bad measurement (s) – communication error No measurement data is available for the aggregated tank/silo or aggregated object.
		Out of service The tank/silo or object is not available (e.g. due to overhauling). In the inventory chart, the period during which the container is out of service is shown with a gray background.
		Out of service The aggregated tank/aggregated silo or aggregated object is not available (e.g. due to overhauling). In the inventory chart, the period during which the corresponding container is out of service is shown with a gray background.
		Overfill The measured value is higher than the capacity of the tank/silo or the maximum of the object.
		Overfill The measured value is higher than the capacity of the aggregated tank/silo or the maximum of the aggregated object.
		Negative value The measured value is lower than the zero point of the tank/silo/object.
		Negative value The measured value is lower than the zero point of the aggregated tank/silo/object.

5 Extending license and searching for updates

5.1 Extend trial period

Section deleted.

6 Managing the gateways – "Gateway Configuration" menu



Only users with the **System administrator** or **Local system administrator** role can create, configure and replace gateways.

6.1 Creating a new Fieldgate NXA80 gateway

SupplyCare Enterprise can receive measured data from the new Fieldgate NXA80 gateway type. Communication takes place via the Internet (HTTP) or e-mail.

1. To create the Fieldgate NXA80 gateway, see BA00055S, "Creating new gateways" section.
2. In the **Type** field, select **NXA80 – Endress+Hauser** as the gateway and save.
3. Configure the gateway as described in BA00055S, "Configuring gateways" section.
 - ↳ The Fieldgate NXA80 gateway type is configured in the same way as the Fieldgate FXA42 gateway type.

7 Managing certificates in SupplyCare Enterprise

 Only administrators of the system on which SupplyCare Enterprise is installed can manage certificates.

7.1 Purpose

Importing certificates into SupplyCare Enterprise enables trusted, secure, and encrypted communication in the following applications:

- HTTPS connectivity (UI): Between the web browser and the SupplyCare Enterprise user interface
- Device communication: For unique verification of the identity of connected devices (e.g. Fieldgate NXA80)
- Secure connection to external services (e.g. FTP, e-mail or web services via TLS)

Administrators can also use this function to import their own certificates.

7.2 General rules for handling certificates

The person responsible for administrating the SupplyCare infrastructure must ensure that all necessary certificates are available and valid.

All certificates in the certificate chain (e.g. root certificates and intermediate certificates) must be imported where required.

Missing, outdated or inconsistent certificates result in communication failures, including:

- TLS connection errors
- Errors when retrieving data

7.3 Extracting certificates

If the certificates are not already available, then can be extracted using OpenSSL, for example.

A general extraction procedure is described below.

1. Run the following command `openssl s_client -connect <host>:<port> -showcerts`.
2. Identify the required certificate in the output.
3. Copy the content between "-----BEGIN CERTIFICATE-----" and "-----END CERTIFICATE-----" including the start and end markers.
4. Save the content as a file with the .cer extension (e.g. *mycert.cer*).

7.4 Importing a certificate into the Java Truststore

Certificates must be imported into the Java Truststore of SupplyCare Enterprise using the following command:

```
<Installation path>/jre/bin/keytool -import -noprompt -storepass changeit -alias  
<unique name> -cacerts -file path/to/mycert.cer
```

Restrictions:

- The default password (`-storepass`) is **changeit**, unless it has been changed.
- The alias must be unique, for example:
 - SCE_GUI-cert
 - NXA80-root_cert

7.5 Secure connectivity

7.5.1 SupplyCare Enterprise and Fieldgate NXA80

SupplyCare Enterprise is supplied by default with an integrated public certificate (root certificate) for Fieldgate NXA80. This certificate enables secure communication through the retrieval of measured values.

If the certificate for Fieldgate NXA80 is not accepted, e.g. if another device certificate or customer-specific certificate is being used, a manual certificate update must be performed. To do this, a valid public certificate of the device must be imported into the Java truststore.



Recommendation from Endress+Hauser:

- Use the root certificate since it can be used for multiple devices of the same generation.
- If customer-specific certificates are used, SupplyCare Enterprise and Fieldgate NXA80 must trust the same certificate chain.
- Use the certificate export and import procedures described above.



Certificate management for Fieldgate NXA80 is described in the "Integrating certificates" section of Operating Instructions BA02575S.

7.5.2 SupplyCare Enterprise and external services

The Java Truststore of SupplyCare Enterprise contains a copy of the standard Java certificates by default.

If customer-specific certificates are to be imported, proceed as described in the section "Importing a certificate into the Java Truststore".

Examples of typical services:

- FTP server
- Email server

7.5.3 SupplyCare Enterprise and HTTPS browser

SupplyCare Enterprise is supplied by default with a self-signed certificate in the Java truststore.

If customer-specific certificates are to be imported, proceed as described in the section "Importing a certificate into the Java Truststore".

If additional changes to the server configuration are required, perform the following steps:

1. Stop the SupplyCare service.
2. Navigate to the **<Installation path>/node01/conf** directory.
3. Check the *server.xml* file and modify it if necessary.

Example of a default configuration:

```
<Connector port="8443"
  protocol="org.apache.coyote.http11.Http11NioProtocol"
  SSLEnabled="true"
  scheme="https"
  secure="true"
  connectionTimeout="20000"
  maxThreads="200"
  URIEncoding="UTF-8">
  <SSLHostConfig protocols="TLSv1.2">
    <Certificate certificateKeystoreFile="conf/tomcat_jks.keystore"
      certificateKeystorePassword="tomcatstorepwd"
      type="RSA" />
  </SSLHostConfig>
</Connector>
```

4. Restart the SupplyCare service.
5. Connect to SupplyCare Enterprise via HTTPS.
`https://<Server-IP>:8443/SupplyCareEnterpriseGUI`



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