W@M Enterprise 04.07

Operating instructions

Engineering | Procurement | Operations

Endress+Hauser

People for Process Automation

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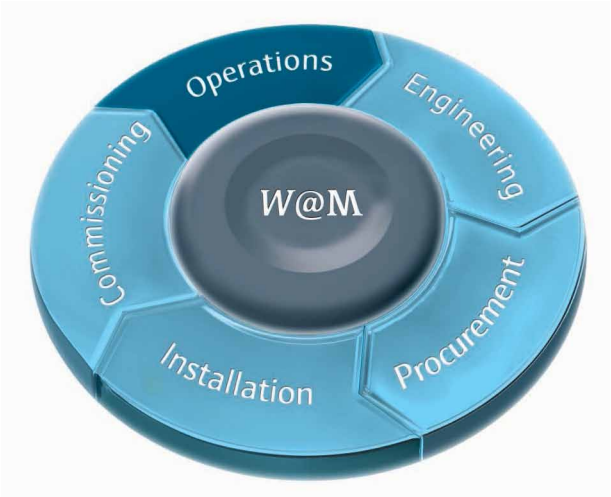
1. Introduction



Thank you for choosing W@M Enterprise! With W@M Enterprise you have acquired a powerful and easy to use asset management software for managing field instruments and devices such as, for example, pumps, valves, motors or heat exchangers.

W@M Enterprise is based on an innovative concept which links together locally installed software to suppliers' backend databases to continuously supply the end user with the latest information. We are sure that W@M Enterprise will help you to reduce time and costs for managing your Installed Base.

2. System requirements

W@M Enterprise is a local client/server installation. It can be connected to Endress+Hauser servers for data download. W@M Enterprise replicates with W@M Portal in this case: newly purchased instruments and events are added via the simple push of a button.

2.1. Hardware requirements

W@M Enterprise is a local client/server installation which requires following hardware conditions to run under adapted conditions.

- CPU: Dualcore 2 Ghz
- RAM: min. 8 GB RAM
- Disk space: 5 GB
- Monitor resolution: full HD 1024 x 768 pixels

2.2 Software requirements

W@M Enterprise client and/or server installation are web service applications that requires following software environment conditions.

Operating system:
Windows 2008 R2, Windows 2012 R2 64-Bit , Windows 7 64-Bit, Windows 8.1 Enterprise 64-Bit

Web browser:
Internet explorer 11 and older, Firefox 27 and older

NOTE: Other browsers may work but there is no guarantee or support.

Internet connection speed: min. 1 Mbps

NOTE: Depending on the size of the attachments a user wants to synchronize, faster connection speeds of course improve the user experience.

Proxy settings:
If your network requires a proxy to connect to the internet, please make sure you configure the proxy in the W@M Enterprise installation or later via the W@M Enterprise diagnostics in the Admin part of the application.

Firewall settings:
Installed as service: process tomcat6.exe must be able to connect to https://portal.endress.com and to http://www.endress.com via port 80
Not as service: process java.exe must be able to connect to https://portal.endress.com to http://www.endress.com via port 80

Please ensure that neither a desktop firewall installed on the server (e.g. the Windows Firewall) nor an external firewall in your network blocks this connections.

The W@M Enterprise server must be reachable by the client via the port you defined in the installation process (default: 8080) – please make sure that the server firewall accepts requests on this port.

NOTE: For more information on installation and configuration of W@M Enterprise, please refer to chapter 3.

3. Installation and configuration

3.1. Install W@M Enterprise

Endress+Hauser W@M Enterprise is delivered with a DVD installer and an installation guide. You will find all information you need on installation in the installation guide of W@M Enterprise.

3.2. Managing proxy settings

If you are operating W@M Enterprise in a network where you have to use a proxy server to access the internet then you will have to configure these settings, otherwise leave these fields blank. If you are not sure whether you use a proxy, you can check this in your Internet Explorer/browser under the menu “Tools” > “Internet options” > “Connections” > “LAN settings”.

1. In the Administration panel go to “Start W@M Enterprise diagnostics”
2. Under the “Proxy settings” sections click “edit”
3. Enter your proxy settings
4. Click “Save”

The information shown under the part “License information” are the details of the license you ordered for your W@M Enterprise. Here for example, we see a license for 5 users, expiring on 31.12.2099, supporting up to 5’000 devices as well as the applications available on the current license.

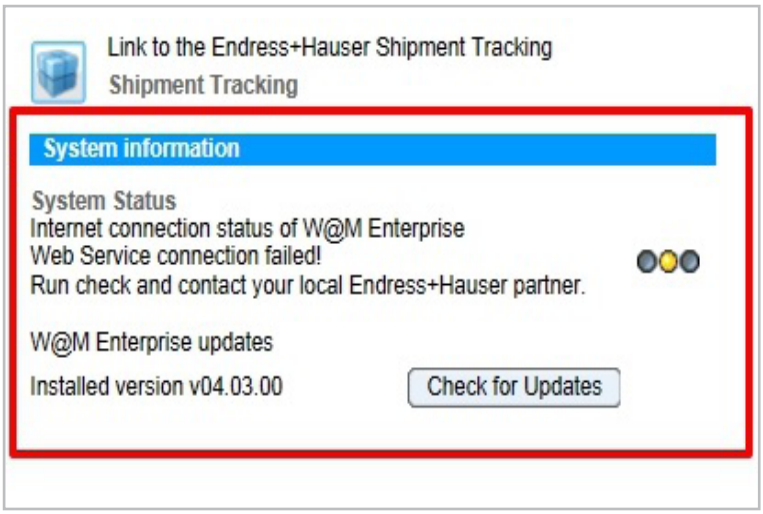
You can find more detailed information regarding the connection status under the System check tab.

The status of the connection is also shown on the home screen on the lower right hand side.

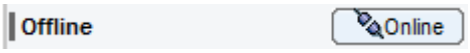
Green: the connection to internet is successfully configured. W@M Enterprise installation can get updates of the installed base from Endress+Hauser (e.g. attachments, product status, new devices, etc..)

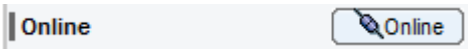
Orange: Communication is successful only for one of the two web service (Remote API, WAI). In this case, please contact your local Endress+Hauser partner.

Red: W@M Enterprise has no internet access for updates or no communication with webservice is established (Remote API, WAI). In this case, please contact your local Endress+Hauser partner.



You can check whether the settings are OK and W@M Enterprise has internet connection by clicking on the plug symbol in the upper part of the screen.

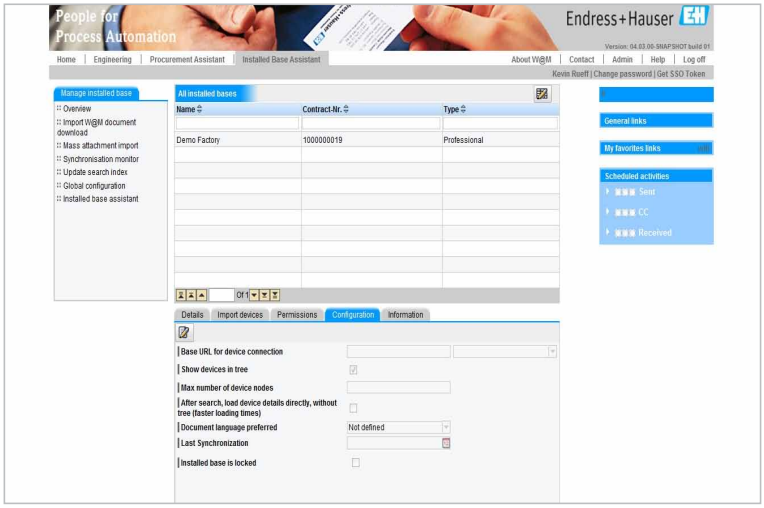




3.3. Settings of the Installed Base Assistant

3.3.1. Activating an Installed Base for Enterprise-to-Enterprise sync

Each Installed Base can be activated as a master for a sync function between two W@M Enterprise installations. To activate this function, you have to be logged in as administrator and navigate to the Installed Base administration located under the “Admin” link in the upper right. After marking the desired contract you can access additional configurations on the “configuration” tab.



NOTE: Why synchronizing W@M Enterprise with another W@M Enterprise?
It is possible to create a flexible solution for plant asset management by setting up a local W@M Enterprise server with multiple mobile W@M Enterprise clients on notebooks. The clients can be used independently in the field (e.g. in combination with FieldCare for device configuration), synchronizing their data periodically with the central server via the Intranet.

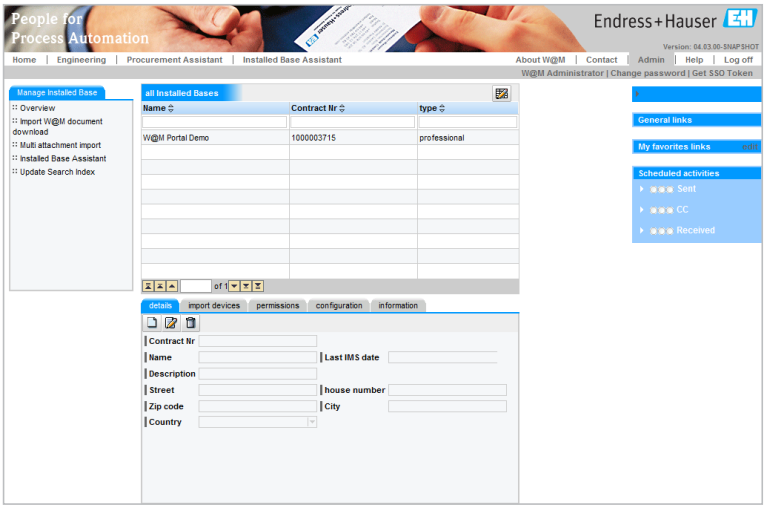
3.3.2. Changing between the offline and online

Spare Part Finding tool The Spare Part Finding Tool uses a local database to store and load the information about spare parts. It is also possible to change this to make W@M Enterprise always retrieve the spare part information directly from Endress+Hauser over the internet, guaranteeing up-to-date lists. For this change it is necessary that you add or edit a key in the Installed Base Assistant main program in the User Management.

Key: sparepartfinder
Value: online

3.4. Creating a new Installed Base

Log on as an administrator and go to the “Admin” section in the upper right hand corner. On the launch pads click on “Start administration of IBA” to get to the following screen:



To create a new Installed Base follow this procedure:

1. Click on “new”

2. Fill out the data fields:

a. Contract Nr.: Here you can fill in the W@M Portal contract number if you want to replicate this installed base with an existing W@M Portal account **(Please see NOTE)**. If not, you can fill in any number.
b. Name: Name of the database (e.g. Chocolate Company)
c. Last IMS data: The IMS data is the date when your Installed Base was last audited (= how old is the data you imported)
d. Description: Short description of the database
e. Address details: Fill out Street, house number, Zip code, City and select the Country

If an Installed Base export in XML format from W@M Portal is available it can be directly imported to fill the fields instead of typing the data in manually. It will also automatically bring all the other data like instruments, locations, applications and more.

3. Click “Save” to save your data

You now have successfully added an Installed Base. It will appear in the list above the fields you just filled out.

NOTE:
If you want to replicate a W@M Enterprise Installed Base with an Installed Base from a W@M Portal then this Contract number MUST MATCH the contract number of the W@M Portal. To be able to automatically download new instruments into an Installed Base in W@M Enterprise the following two conditions have to be fulfilled:

1. Contract number must match a contract number of a W@M Portal
2. Username of the W@M Enterprise should match user name of W@M Portal user

Only if the conditions are fulfilled, W@M Enterprise can connect to the W@M Portal and download new instruments.

For more information, please refer to chapter 9.

3.5. Importing devices and location hierarchies into the Installed Base Assistant

Once you have created an Installed Base you will have to import devices into it to start working. You have several options for doing so:

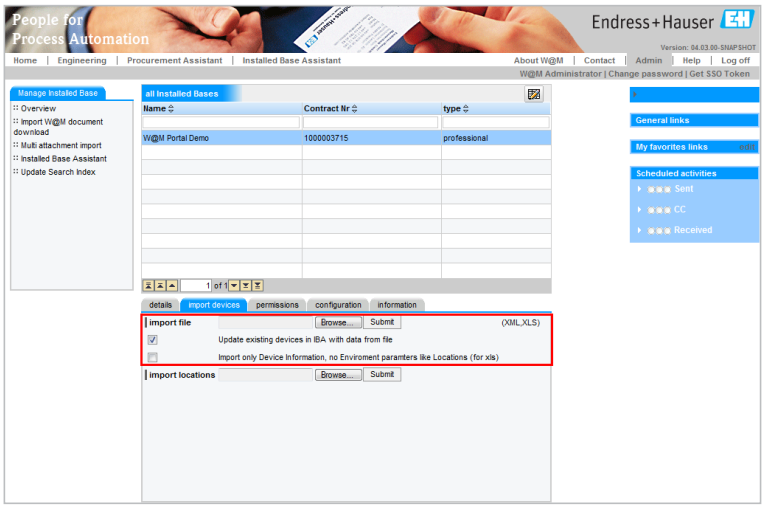
1. Importing an instrument file you received from Endress+Hauser (XML format)
2. Importing devices using an Excel template

Importing a list with devices step by step:

1. In the Administration panel go to “Start Administration of IBA”
2. Click on the Installed Base in the list where you want to import devices to
3. In the lower part of the screen click on the “import devices” tab
4. Browse for the correct file on your local hard drive
5. Click “upload” to start the import process

Depending on the number of devices in your import file the import process may take up to 5 minutes. It may be the case that your browser reports a timeout error. In that case simply log off and on again.

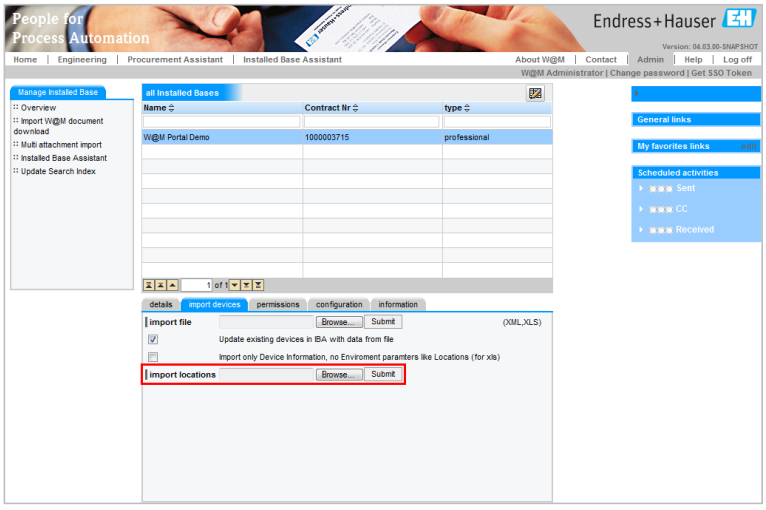
The device type of instruments cannot be modified via an Excel import.



NOTE: Only if the field “update existing devices in IBA with data from file” is ticked, W@M Enterprise will update already existing devices in the Installed Base with new parameters from the import file.

It is possible to import a text file in *.txt format to create the complete hierarchical tree structure for an Installed Base.

The file has to contain the locations separated by the “|” sign.
Example:
Plant 1|Floor 2|Boiler Room
Plant 1|Floor 2|Packaging Line
To import the file, click the “Browse …” button, select the file and confirm by clicking “Submit”.

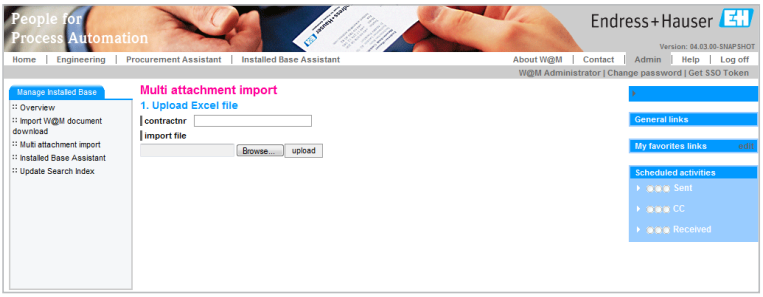


NOTE: Please make sure that the TXT file is always saved under the ANSI encoding. Using TXT files with a non-standard encoding might corrupt your Installed Base Assistant!

3.6. Mass attachment import

To import multiple device attachments at once you can use the template for Mass Attachment Import, which you can produce by exporting an Installed Base with the Export data option “For Mass Attachment Import”. The resulting Excel file allows you to set a description, category, version and language for attachments on a device, location, loop, bus and general Installed Base level. It is necessary to have the exact file name of the attachment in the “Filename” column.

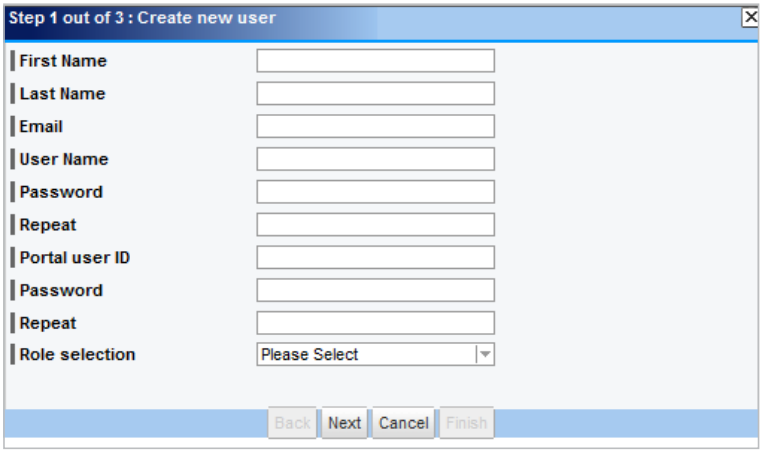
In the Admin section of the Installed Base Assistant you can enter the contract number and select the desired upload file under “Mass attachment import”. After this upload, the system will inform about which attachment links have been created. What is missing now is to place the actual files in the system. This can be done by using a file explorer to navigate the hard drive of the system W@M Enterprise is installed on. After navigating to the installation directory, path is node01\webapps\webdav and here a new folder has to be created with the W@M contract number as a name (e.g.: 1000003715) and the files to be copied into it. Now they are available in the Installed Base Assistant.



NOTE: Please be aware that it might be necessary to contact an IT administrator to bring the files to this folder.

3.7. Adding new users

Directly from the Home screen it is possible to run the user creation wizard to initialize new W@M Enterprise users. Just click on the link to bring up the mask:



Enter the necessary data into the field. If applicable and possible, please enter also the W@M Portal login data of the user.

The bottom drop down menu allows you to select if the new user will be another administrator or a regular user. If you choose “Customise” you can manually select the user’s roles. On the next screen you will see an overview of the settings for the user and confirm with the finish button.

Should you want to modify the roles of an existing user, this can be done easily via the User Management, found under Admin. Navigate there to the “User” navigation point and choose the desired user. Now it is possible in the lower part of the screen to switch to the role tab and add or remove roles.

The available roles are:

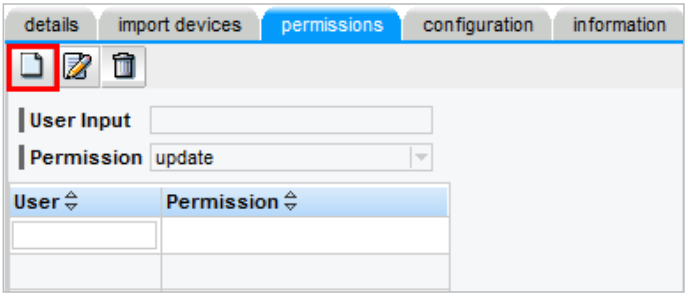
Scheduler-user – User can use the Task Scheduler
scheduler-admin - User has admin rights for Task Scheduler
Engineering-role – User can see the Engineering page
Procurement-role – User can see the Procurement page
User-creation – User can see the User Creation Wizard
User-admin – User can use the Administration part of the User management
Iba-admin – User can access the Administration part of the Installed Base Assistant
iba-createevent - User is capable to create events on the Logbook page
Toolset-admin – User can access the Administration part of W@M Enterprise
M-Portal-User – Mapping user, necessary for download and synchronisation
Role-WAI-Local-User – Necessary for local tool integrations
ROLE_WAI_PORTAL_USER – Necessary for connection with W@M Portal
Iba-user – User can use the Installed Base Assistant
Toolset-role – User can log in to W@M Enterprise
Sparepartfinder-role –User can use the Spare Part Finding tool

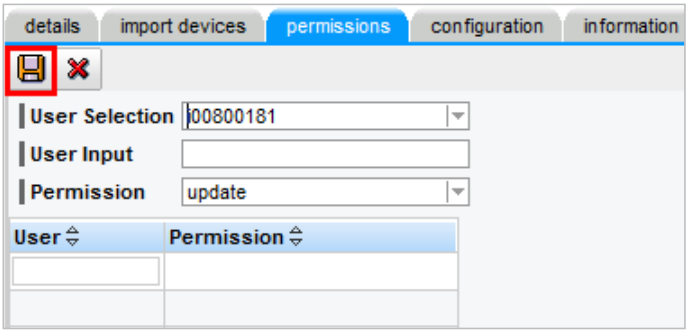
Deleting a user later on has no effect on the generated role group. Users can be deleted via the User Management link found in the Admin panel.

3.8. Managing user rights and access levels for an Installed Base

Users have to be assigned to an Installed Base in order to view or edit the data in it. To add or edit a user to an Installed Base follow this procedure (only already existing users can be added):

1. In the Administration panel go to “Start Administration of IBA”
2. Click on the Installed Base in the list where you want to change/add user rights
3. Click on the “permissions” tab
4. Now you can either edit user rights for existing users or add a new user to the Installed Base
5. To add a new user click “new”
6. From the drop down menus on the right hand side select the user under “User selection” or enter his/her user name manually in the field “User input”
7. Set this users access level under the “Permissions” dropdown menu, possible values are: Read, update, delete and Sync (Please find explanations of each permission level in the paragraph below)
8. Click on save and repeat step 5 to add new users





On W@M Enterprise, you have different user permission possibilities:

- Read: The user only has a read access to the database.
- Update: The user has the right to edit and/or create asset data but he can not delete information.
- Delete: The user can edit and/or create as well as delete asset data.
- Sync: The user is able to use the synchronization functionality of the software (please note that this permission can be combined with all other user permissions. This would also give you the possibility to adapt any user profile to their needs).

3.9. Importing a W@M Document Download into W@M Enterprise

With W@M Enterprise it is necessary to have an Internet connection to open document attachments of instruments which are automatically shown, e.g. calibration certificates, operation instructions, etc. By importing a W@M document download these attachments are stored locally and therefore eliminating the need for the online connection to open them (alternatively to using the online-based synchronization function).

A prerequisite is that the Installed Base and the W@M document download have absolutely identical data. This can be guaranteed by using a XML Installed Base import and W@M document download from the same date and time frame. If you need assistance in acquiring a W@M document download, please contact your Endress+Hauser representative.

To import the W@M document download please use the Admin launch pads to change to the “Administration of IBA”. On the right hand side you will find a link to “Import W@M document download”. After using the input field to select and upload the attachmentimport.xml included in the W@M document download ZIP archive the system will show you with on screen instructions how to proceed to deploy the attachments to a local folder. Depending on the version of browser and operating system, you can also handle this as follows:

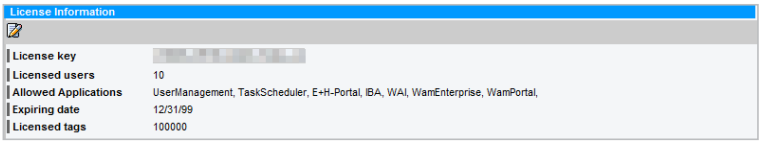
Use a file explorer to navigate the hard drive of the system W@M Enterprise is installed on. After navigating to the installation directory, path is node01\webapps\webdav and here a new folder has to be created with the W@M contract number as a name (e.g.: 1000003715) and the files to be copied into it. Now they are available in the Installed Base Assistant.

After these easy steps all attachments of the Installed Base are also available without an active Internet connection.

3.10. Checking your license information

You can verify or change your license key (if for example you have obtained a new license from Endress+Hauser).

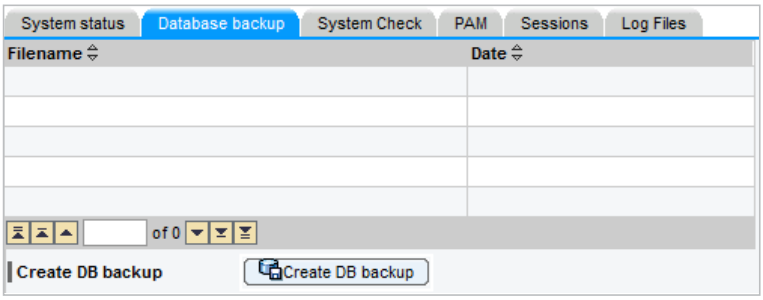
1. In the Administration panel go to “Start W@M Enterprise diagnostics”
2. Under the section “License Information” the current license can be checked
3. WARNING: By clicking on “edit” the license can be updated but also deleted



3.11. Performing a database backup

The entire database can be backed up for security reasons. This can be done by one simple click. It is recommended that after the backup the backup file is moved to another location.

1. In the Administration panel go to “Start W@M Enterprise diagnostics”
2. In the tab “Database backup” click on “Create DB backup”
3. The backup will be created (this may take some minutes) and the backup will appear in the backup list with a date stamp



The created database backup only contains the information of the Installed Base but not the document attachments.
Please back these up separately if necessary.
They can be found under /WamEnterprise/node01/webapps/webdav/”contract no.”/ .

3.12. Importing a database backup

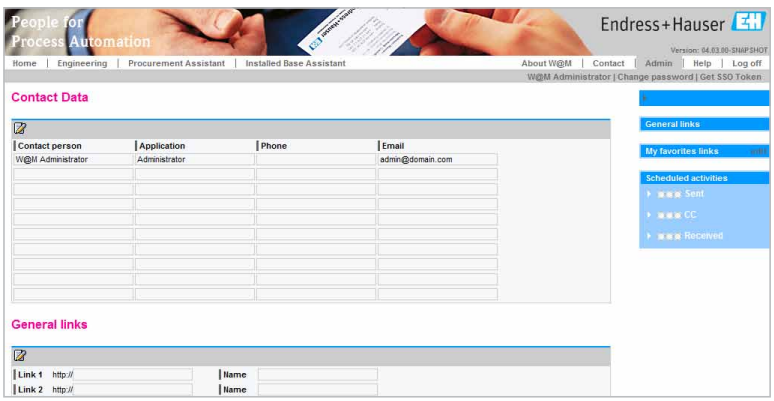
To use a backup of the W@M Enterprise database like created in step 3.10 of this manual you have to do as follows:

1. Shut down the W@M Enterprise server
2. Open the File Explorer of Windows
3. Navigate to the location that the backup is saved in (per default\WamEnterprise\data\dbbackup\) and go into the folder of the required folder
4. Copy the “wam” folder you find inside of it
5. Rename the folder \WamEnterprise\data\database\wam\ from “wam” to “wam_old” or something comparable
6. Paste the copied folder to \WamEnterprise\data\database\ to replace the folder that just has been renamed
7. Restart the W@M Enterprise server

3.13. Setting standard contact data and links for all users

1. In the Administration panel go to “Start contact and fixed links”
2. Click on “edit”
3. Fill out the fields required
4. Click “Save”

The links you enter in these fields will appear for all users in the column on the right hand side of the screen.



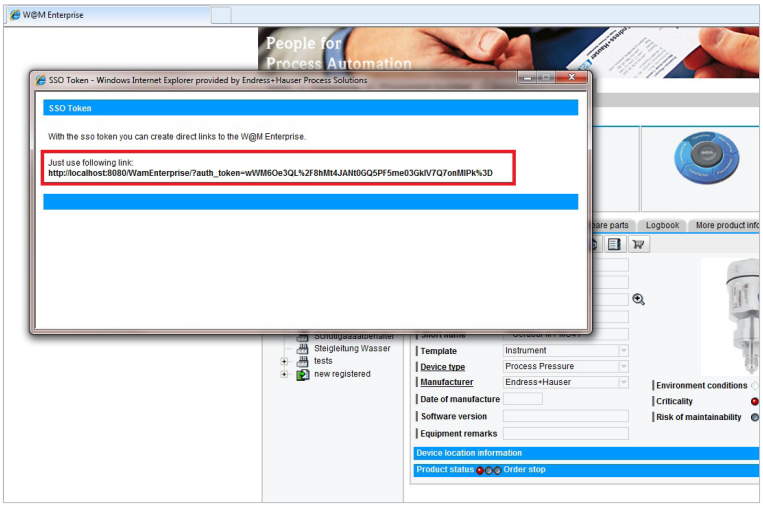
3.14. Updating the Spare Part Finding tool

The Spare Part Finding tool can be updated via the “Check for Updates” button in the W@M Enterprise diagnostics, found in the Admin section. To check for updates an internet connection is necessary.

3.15. Creating a single sign on link

Creating a single sign on link is very easy in W@M Enterprise. Just click the “Get SSO Token” link in the upper right of the Home screen. The shown link can be implemented e.g. on the Intranet for people to directly jump into W@M Enterprise.

This link can be used to produce QR Codes, barcodes or any other communication matrix codes.



NOTE: Please consider the user rights of the user creating the single sign on token!

3.16. The export file as an Excel for later import

W@M Enterprise is capable of exporting and importing data with a standardized Excel file when sticking to certain formatting rules. The fields available in the Excel export have increased with the change from W@M Enterprise 3 to W@M Enterprise 4. The import function is backward compatible and can use older import files.

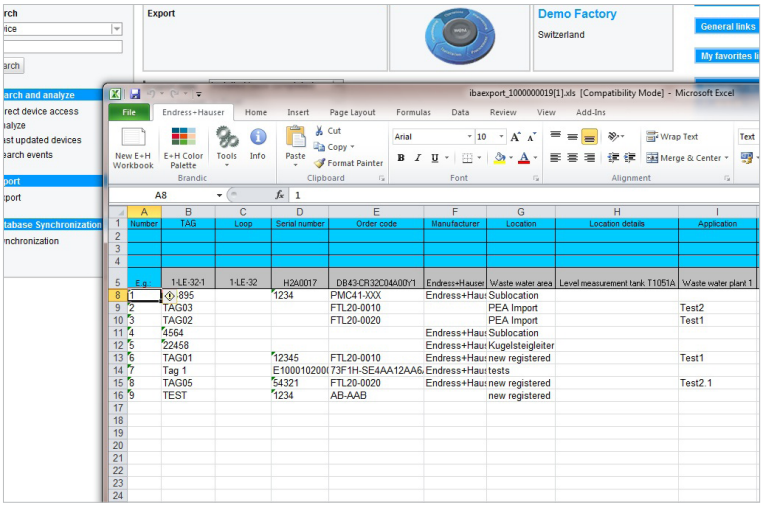
It is important not to change the header of the file, marked with blue and grey background.

Every row needs to have a unique number in front to be identified as a relevant row for the import. Please

do not number rows which do not contain data as these will be imported as assets with “null” in every mandatory field.

It is possible to export the template, modify the data and re-import it. The system will then update the database with the new information. It is not possible to change the manufacturer, serial number or order code in this way. Trying to do so will create duplicate entries in the database as the devices are not recognized as existing but as new input.

NOTE
It is possible to import back an excel export sheet after having done modification or having added new devices on it. This action needs to be handle with prudence as it will cause modifications on the installed base. Endress+Hauser can not prevent from a writing mistake on the Excel document. It is under the responsibility of the user to check and prevent possible mistakes before to import any document back. It is highly recommended to frequently save backup of the installed base before importing files.



The Excel Export document is exporting following information from the installed base:

Devices:
TAG, Loop, Serial number, Order code, Manufacturer, Location, Location details, Application, Process medium, Device type, Specific to equipment, Equipment remarks, Date of manufacture device. manufacturingdate.year, Remarks, Measuring task, Measuring range, Environment conditions, Criticality, Risk of maintainability, Special demands, Spare recommendation, Software version, Buss address, Maintenance activities, Environment parameters, Filter for analysis, Label 1, Label 2, Label 3, Label 4, Label 5, Label 6, Label 7, Label 8, Label 9, Label 10, Attachements, Safety relevant, Envrionment relevant, Quality relevant, Template, Order number, Operational range, Mode, Construction type, Label 6, Label 7, Label 8, Label 9, Label 10, Label 6, Label 7, Label 8, Label 9, Label 10, Label 6, Label 7, Label 8, Label 9, Label 10, Label 6, Label 7, Label 8, Label 9, Label 10, Bus.

Locations: Name, Description, Label 1, Label 2, Label 3, Label 4, Label 5.

Applications: Name, Description, Process medium, Process criticality, Label 1, Label 2, Label 3, Label 4, Label 5.

Loops: Application Name, Name, Description, Criticality, Label 1, Label 2, Label 3, Label 4, Label 5.

Buses: Name, Description, Label 1, Label 2, Label 3, Label 4, Label 5.

4. Getting access

4.1. The address of W@M Enterprise

After the successful installation of W@M Enterprise you should find a menu entry in your start menu which allows direct access to W@M Enterprise. By clicking on this menu entry the local W@M Enterprise server will be started which may take – depending on your computer's performance – up to 1 minute. After starting the server Microsoft Internet Explorer opens and displays the W@M Enterprise logon page. If Internet Explorer does not open automatically you can connect to the W@M Enterprise server manually by typing in the following address in the address bar:
http://localhost:8080/WamEnterprise
(Depending whether a different port was selected during the installation process, the number "8080" should be changed accordingly).

If you are trying to access a W@M Enterprise Professional running on a server in your network it should already be running (when installed as a service it will always start up with the server, if not then the IT staff will have to execute the application). Open up your web browser and type in the address in the following format:
http://IP of the server:port/WamEnterprise/

If the server address would be 192.168.0.1 and the port 8080 it would look like this:
http://192.168.0.1:8080/WamEnterprise/

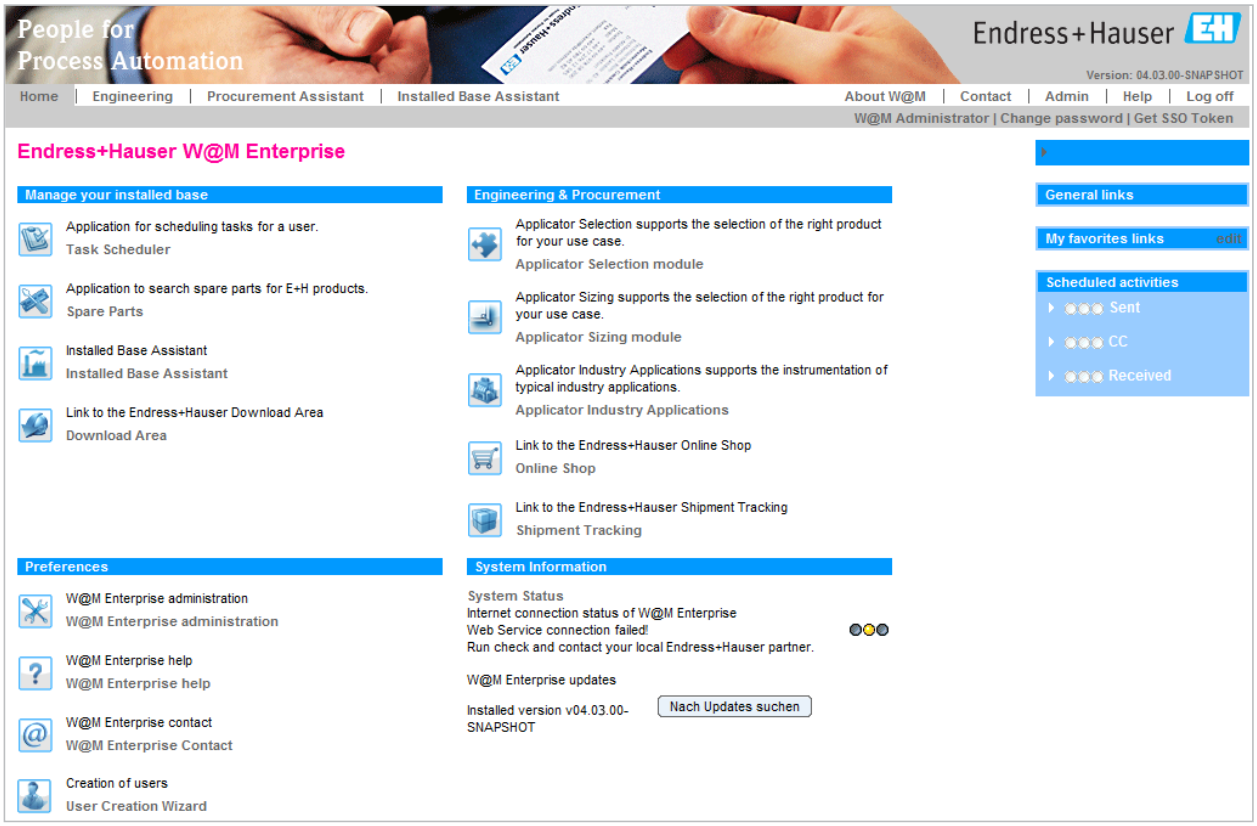
4.2. Logging in

The login screen will ask you for a username and password which you specified during setup (stand-alone version) or was issued by your system administrator (client server version).

Should you have forgotten your login information, please use the "Get support" link to create a secret code that can be mailed to your Endress+Hauser contact person to receive a new password.

NOTE: Once logged in if you leave a session inactive for 30 minutes or more you will be timed out.

5. Home



5.1. Manage your Installed Base

The launch pad in the upper left of the Home screen offers direct access to the most used features for the information necessary during the operation of an instrument.

A direct link takes you to the Task Scheduler where you can create and update activities around the maintenance, repair and calibration of the managed assets.

With the Spare parts link it is possible to find fitting spare part lists for the Endress+Hauser instruments but also to look up compatible instruments for a spare part by its material number.

The Installed Base Assistant is the heart of the W@M Enterprise, giving access to the database containing all the assets of the Installed Base.

In the Download Area, additional information, documents and software can be found via the Internet.

5.2. Engineering & Procurement

In the launch pad combining Engineering and Procurement functions, you can find the information needed to get from the need for measurement to the perfectly fitting instrument out of the Endress+Hauser portfolio.

Applicator Selection allows to find suggested instruments according to your process parameter (e.g. temperature, pressure, flow rate, etc.). The more parameter you enter, the clearer the picture becomes. For the sizing of flow meters, gamma measuring points, energy monitoring and diaphragm seals the Applicator offers modules to assist you. As a result of the sizing, you receive already a partial order code, helping to find the tailor made product for your application.

For certain industries you can have a look at the Applicator Industry Applications to find exemplary processes executed with Endress+Hauser devices, a good starting point for replacement of old or broken instruments.

Endress+Hauser offer the possibility to order via the Online Shop in selected countries. Here you can use the direct link into the system via the Internet.

5.3. Preferences

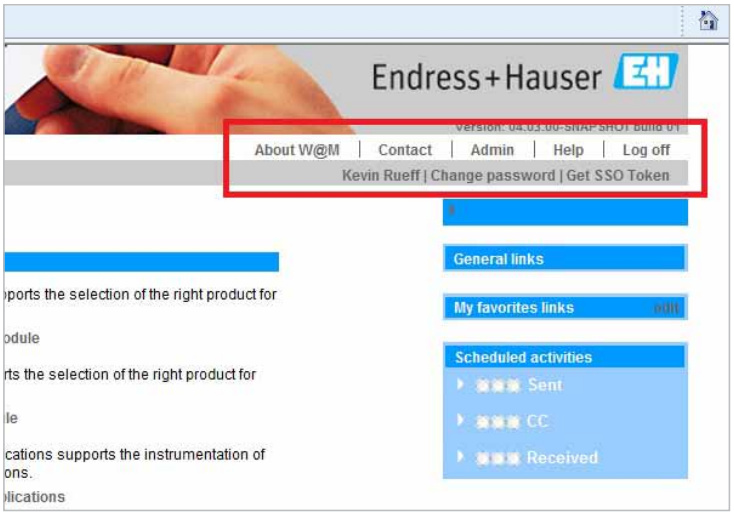
The Preferences launch pad gives direct access to the administration of W@M Enterprise just as the Admin link in the upper right.

You can also find this W@M Enterprise help documentation here directly in the tool.

Under W@M Enterprise contact, the information you to get in contact with the local administrator is shown.

This can be set manually via the administration of W@M Enterprise.

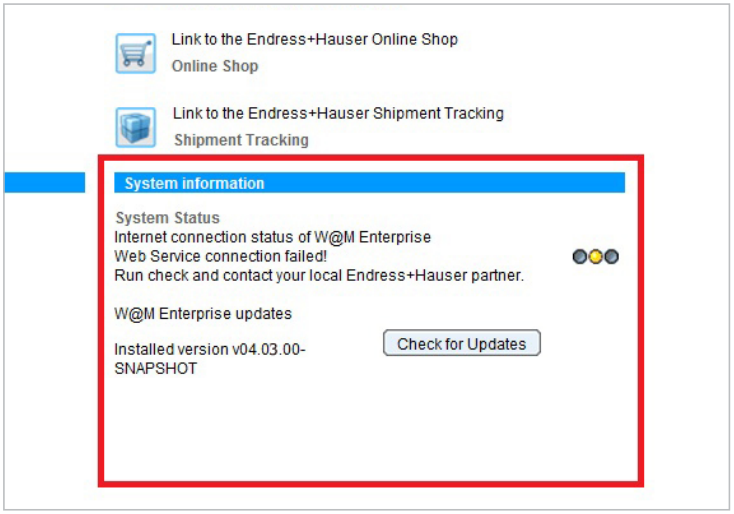
If the logged in user has access to the User Management module, a link will directly offer the wizard function for user creation.



5.4. System information

Under System information you can find the status of W@M Enterprise, showing if the connection to the W@M Portal has been established through the Internet and the web services are available (used for e.g. the download area).

In addition you can directly search for updates from here if you have the administrator rights for your user.

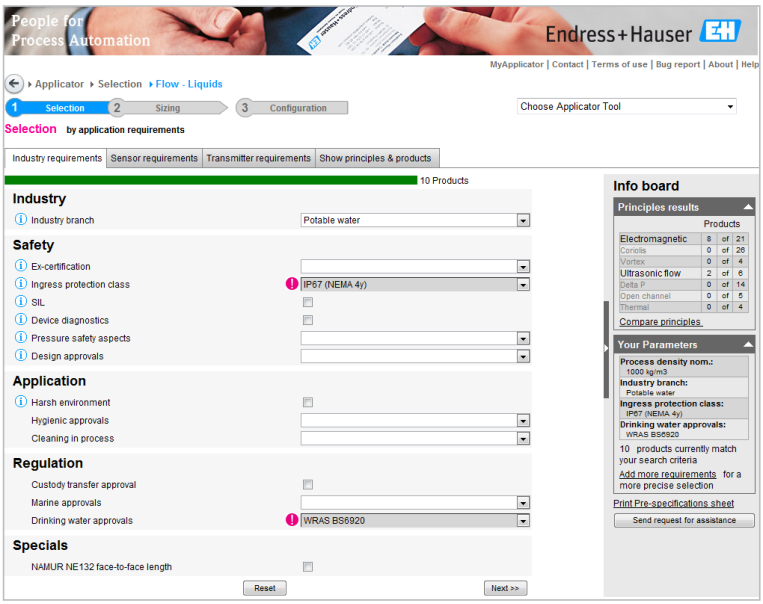


6. Engineering

6.1. Selecting fitting instruments for a process with Applicator

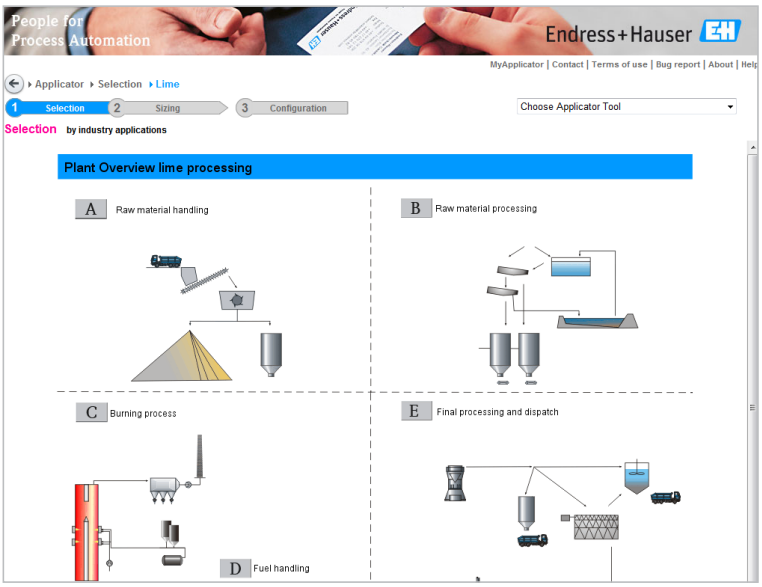
The Endress+Hauser Applicator is the tried and tested software for planning and selecting the correct instrument for your application. Menu-guided dialogue provides a range of suitable products and solutions for your application after you have entered your specific application parameters. Apart from its function as a selection guide, Applicator also offers more extensive documentation.

On the right hand side of the screen suitable products are displayed. By clicking on “Show products” these products are listed and can be compared in a tabular view. If you have access to the Endress+Hauser Online Shop you can jump directly to the Online Shop and start to configure the product for direct order via the Internet.



6.2. Selecting fitting instruments according to industries

The module Applicator Industry Applications offers samples of branch orientated solutions. Industry specific images and a tree-structured navigation geared to the application facilitate your product search in the Applicator module Applicator Industry Applications. By navigating in the tree structure of individual applications or the list of applications you can quickly call the Measuring Point Spreadsheets. The Measuring Point Spreadsheet is an overview of selected products for a measuring point. This overview displays possible products, the partly order code and a brief technical product description. Product information, certificates, documentation, an overview of the measuring principle, product details and technical information are available from Endress+Hauser.



6.3. Size instruments fitting to your process

6.3.1. Sizing Flow

Sizing Flow is the Applicator module to dimension Endress+Hauser flow meters. Before you start with Sizing Flow you should know the flow meter family which can be selected by using the “Product selection” module (see chapter 6.1). On several pages Sizing Flow supports the engineering process with useful and necessary functions to find the best suitable size of the flow meter, to calculate the fluid properties on process conditions and to check the meter and process connection on application’s requests. The fluid properties are calculated by the Applicator fluid and gas engine depending on the selected fluid and process conditions (flow, temperature, pressure).

6.3.2. Sizing Gamma

Sizing of a radiometric measuring point does not require any specific skills. However, the dimensions of the tank or the pipe are needed, including the respective wall thicknesses and density values. The measurement range is also required.
Using “Sizing Gamma” you will find radiometric solutions for level, limit and density applications.

The activity and control area of the measuring point are issued taking the geometry into consideration. The application calculates the optimum solution and pertaining devices and components in a list of materials including order numbers after the entry of your process parameters.

6.3.3. Sizing Energy

Sizing “Energy” is the applicator module to dimension energy measurement points with components from the product portfolio of Endress+Hauser and supports you to determine the required products. An energy measurement point consists of sensors to measure flow, temperature and pressure and a computer to calculate thermodynamic properties. The tools core functionality is the calculation of the mass and energy flow including the accuracy of measurement, which is an important, sometimes the most decisive factor for the quality of measurement. For the calculation of the overall accuracy (uncertainty) of the measurement point the uncertainty of each single component (sensors, calculator) in use will be determined, weighted and combined according ISO Guidelines (International Organization for Standardization).

6.3.4. Sizing Diaphragm Seal

The module Applicator Sizing “Diaphragm Seal” supports the product sizing of pressure instruments considering important application parameters. It not only takes into consideration how long capillaries are or with what kind of fluid they are filled but also information such as the material of the diaphragm seal. As a result it calculates expected accuracy, offsets and response times.

6.3.5. Sizing Electronic dp

Sizing Electronic dp is the Applicator module to dimension Electronic dp system. First the electronic system have to be selected; one single device with two cables to the process connection or two devices. Dependent on the level, the head pressure and the Density of the medium the measurement error is calculated.

6.3.6. Sizing Thermowell

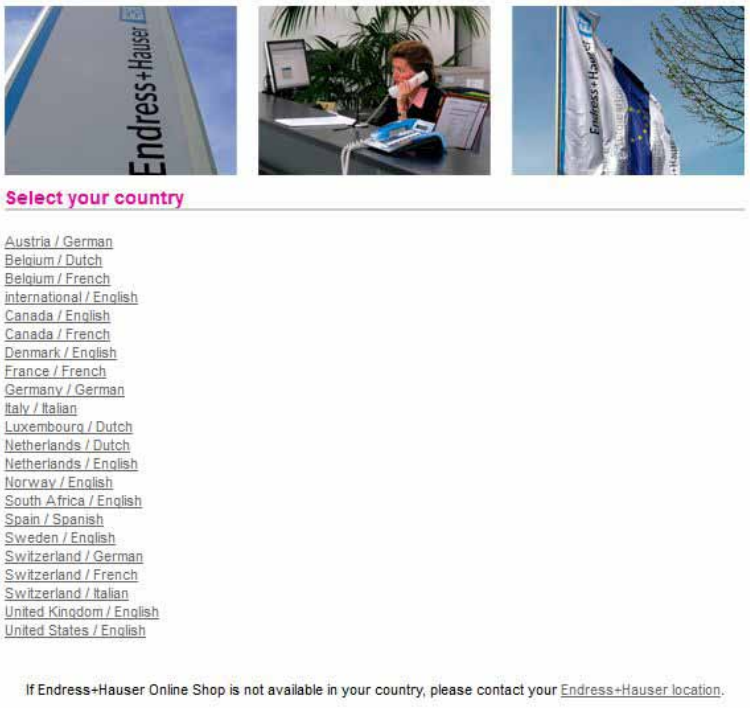
The Sizing Thermowell Module calculates the ability of a thermometer to withstand stresses under given process conditions. If the Thermowell is damaged the process medium can leak under high pressure and high temperatures and may lead to damages to persons and environment as well as to financial loss. A Thermowell calculation according to common calculation standards enables a safe dimensioning and is often the basis for the system acceptance by the certification body. The interface between the Project Engineering Assistant (PEA) and the Applicator serves for simultaneously calculating several Thermowells via batch processing and thus offers fast response times in the project business.

7. Procurement Assistant

7.1. The Endress+Hauser Online Shop

The Online Shop allows you – as a registered Online Shop customer – to search and configure instruments, save a shopping basket as a project, request for quotations and you can also refer back to your quote and order history for future repeat orders. Estimated production times and prices are also displayed when configuring instruments and of course the Online Shop calculates all prices according to your individual Endress+Hauser conditions.

When logged in as a guest, only a limited asset of features is available. These include possibilities such as configuring products but no product lists, no requests for quotes or orders. Depending on the location you are using the Online Shop for there can also be regional differences if prices and production times are shown for guests.
The Online can be opened by clicking on the Online shop link in the personal link list. After selection of your country, you will be asked to login with your user name and password.



Note: The Online Shop is not available in all countries, please check with your local Endress+Hauser representative

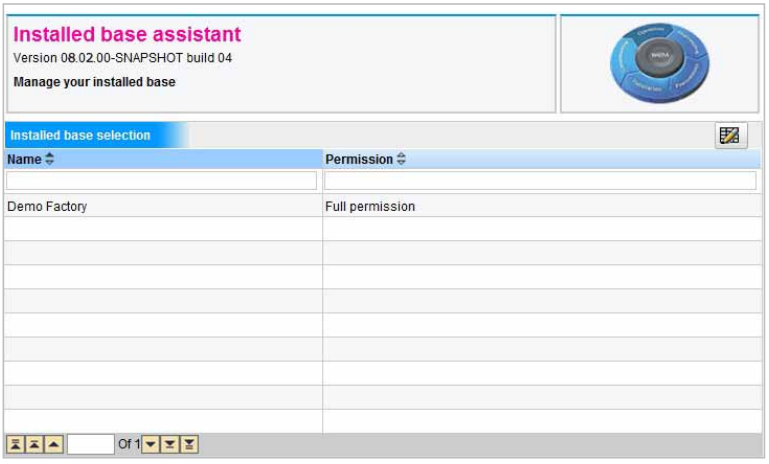
8. Installed Base Assistant

8.1. Selecting and opening an Installed Base

Once you have started the Installed Base Assistant the database Installed Base selection will be displayed. Besides the name and country the access level for the current user for each Installed Base is indicated in the last column. The access level can be changed in the administration section.

On the left-hand side of the screen you can search for different parameters (TAG, location, application, loop or bus) across all available databases.

By clicking on a database in the overview page the corresponding Installed Base is loaded. The loading time is determined by the size of the database.



Why do I not see a database?
- Your user has no access rights for the database
  → the administrator has to change your right in the administration section (see setup manual)
- The database has not been imported

8.2. Overview over the Installed Base

Once the database has been loaded the overview page will be displayed. The overview page contains several sub sections which are described in the following chapters.

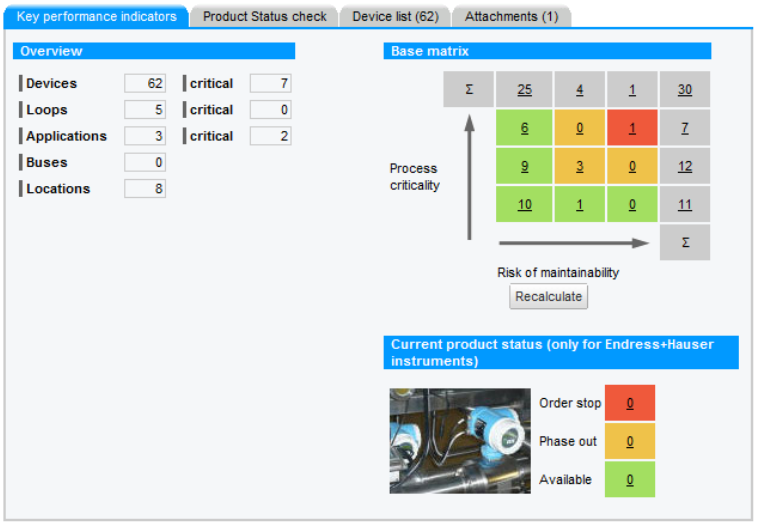
8.2.1. Key indicators

The Key performance tab contains three parts: a basic overview, a base matrix and a product status overview.

Overview:
The overview displays the number of devices/assets, loops, applications, buses and locations available in the current Installed Base.

Base matrix:
The base matrix consists of two axes – Risk of maintainability and Process criticality:
The risk of maintainability for Endress+Hauser devices is calculated automatically following this rule:
HIGH - For devices that are in phase out for more than 4 years, for devices with less than a year of spare parts availability, for devices with less than a year of service offering.
MEDIUM - For devices that are in phase out since 2.5 to 4 years, for devices with less than 2 years of spare parts availability.
LOW - For devices with more than 2 years of spare parts availability and phase out not reached or less than 2.5 years.

For 3rd party devices and assets, this information can be set manually. The process criticality is defined by the severity of a total failure of a device/assets and how high the impact on the process itself would be. This information has to be entered manually.



With help of the Base matrix a quick overview of the overall condition of an Installed Base can be gained. By clicking on the numbers inside the matrix the corresponding instruments are displayed in a table view.

Current product status:
The current product status shows an easy to understand overview of the product status of all Endress+Hauser instruments in the Installed Base.

NOTE: Only instruments with both the risk of maintainability and the process criticality filled out are shown in the base matrix. After populating this instrument data manually in the database, clicking the recalculate button below the matrix initializes its update.

8.2.2. Checking the product status

The product status check works only with Endress+Hauser instruments. The Product status check analyzes all devices in an Installed Base and categorizes them into four groups:

Endress+Hauser follows a strategy of stepwise approach when a product reaches the end of its life cycle. First a phase out is announced, informing customers about the time frames remaining for certain support services. After typically 1 to 2 years, the product is then not available anymore for order. Another approximately 4 to 6 years later, no spare parts or repair are offered anymore.

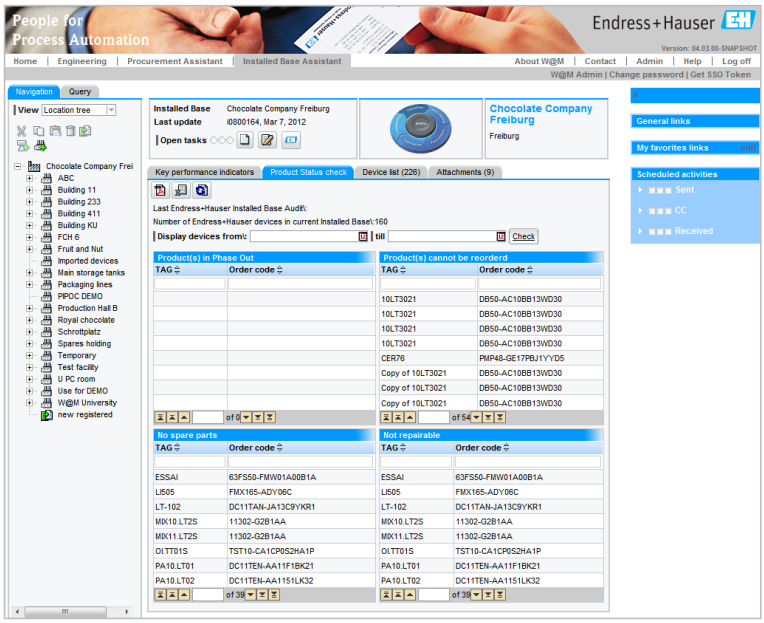
Products in Phase out:
For those products Endress+Hauser has announced a product phase out. Order stop dates and successor products have been defined.

Products cannot be reordered:
This product cannot be ordered anymore, please check the successor product.

No maintenance:
Endress+Hauser offers no maintenance for this instrument anymore.

No spare parts:
Endress+Hauser offers no spare parts for this instrument anymore.

To check the product status for an entire Installed Base, simply click “Check”. You can also narrow your search by entering a time frame in the fields. The results can be exported directly into PDF or Microsoft® Excel by clicking on the corresponding icons on the upper left-hand side.



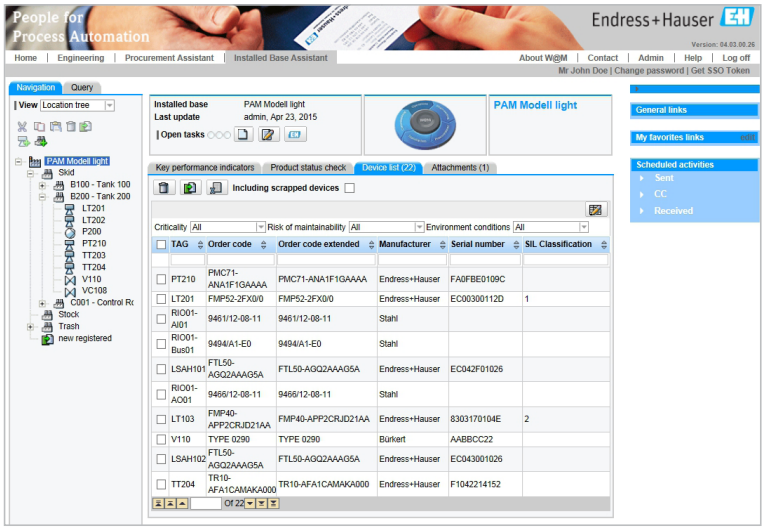
8.2.3. Complete assigned instrumentation

The tab “Device list” contains a table of all devices/ assets in the current Installed Base.

There are three standard filters which can be applied to this view:
- Criticality (for the process)
- Risk of maintainability
- Environment conditions

Additionally it is possible to search for TAG, Order code, Manufacturer, Serial number or via a “Free field” which can be defined in the instrument details.

NOTE: The table can be enhanced with additionnal devices information by clicking on the logo on the top right.



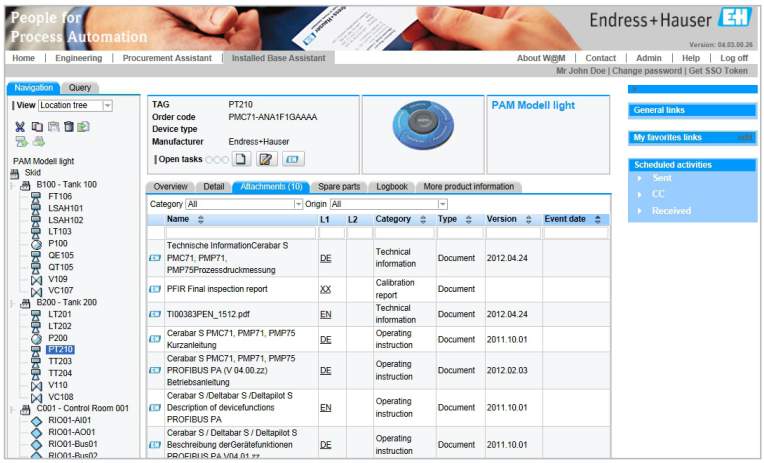
8.2.4. Attachments

With the attachments tab users have the possibility to upload general documents or files related to an Installed Base (e.g. drawings, SOPs or any other file type).

To add new attachments simply click the “Add new attachment” button on the upper left-hand corner.

After you have filled out the attachment details and selected a file from your local file system simply click “Attach” to save the file to the current Installed Base.

NOTE: For a complete description of the functionalities of the attachments tab, see chapter 8.4.7

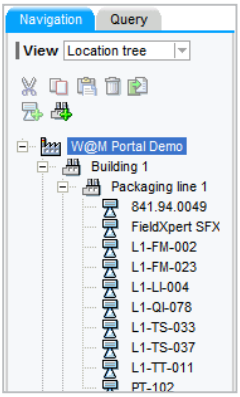


8.3. Navigation

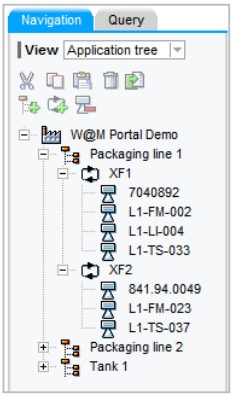
8.3.1. Supported navigation types

The tree view navigation helps you to easily locate assets or devices. The tree view can be changed depending on the way you prefer to browse for devices/assets. Depending on the information you stored in the system some views might not display any information. The following views are available:

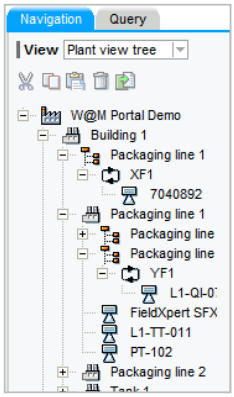
Location tree
The location tree gives you the opportunity to classify the devices of your installed base through locations and sub-locations of your plant.



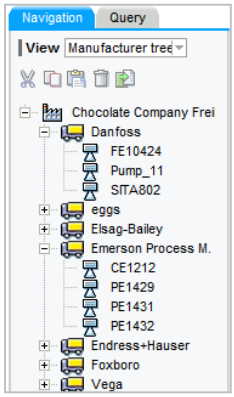
Application tree
You might also be interested to order your devices per applications and loops (sub-applications), this is possible under the application tree.



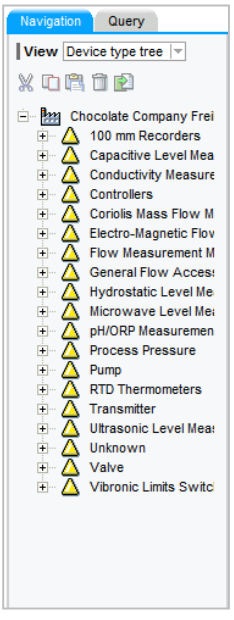
Plant view tree
The plant view tree is the combination of the location tree and application tree. It shows you devices per location and per application. Depending on your activities, it becomes easier for you to reach a specific population of devices.



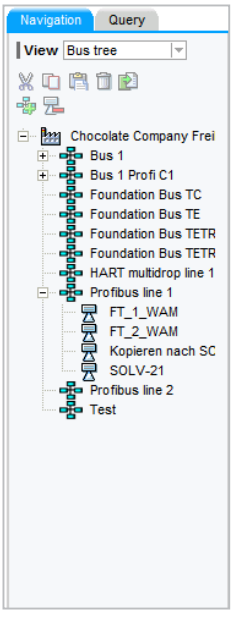
Manufacturer tree
With the manufacturer tree you can browse through on your Installed Base by manufacturer.



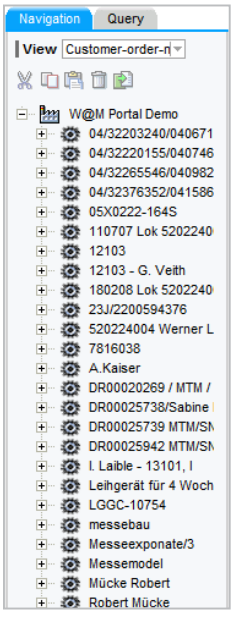
Device type tree
The possibility to show the devices per devide type is also possible with the Device type tree.



Bus tree
You can browse by different bus types
such as HART® or PROFIBUS®



Customer order number tree
You can also find a device through its customer order number with this tree. It gathers all devices you ordered on the same order number.

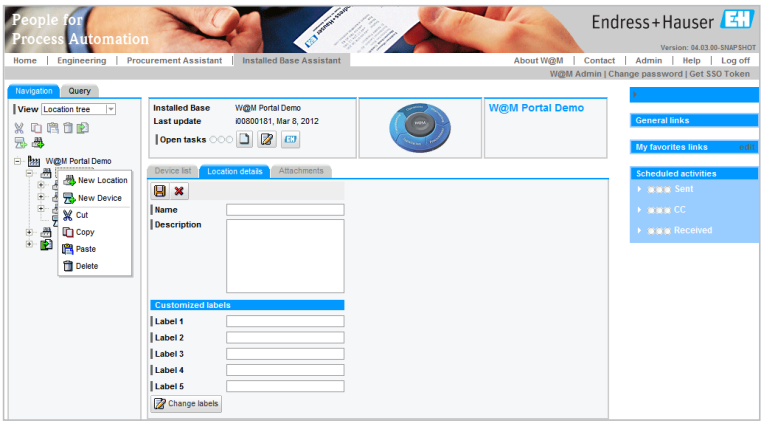


8.3.2. Adding locations

You can add locations and sub-locations to an Installed Base. To add a location or sub-location follow these steps:

1. Switch view to “location view”
2. Select the existing location where you want to create a new location/sub-location
3. Click on “New location”
4. Fill out the “Name” field (mandatory). Additionally you can fill out the description field
5. Click “Save”

The location can have attachments in its attachment tab. The function is 100 % analog to the function on the Installed Base level.



NOTE: Name of location have to be unique in order to ensure a good working of export and import functionalities.

8.3.3. Adding applications and loops

To add an application, sub-application or loop, follow these steps:

1. Switch view to the “Application view”
2. Select the existing application where you want to create a new application or loop. If you want to add the application on the first level, click on the site. **(Please see NOTE)**
3. Click on “New Loop” or “New Application”
4. Fill out the “Name” field (mandatory). Additionally you can fill out the description field
5. Select the criticality of the application/loop in relation to the complete process
6. Click “Save”

Loops and applications can now again have attachments in the corresponding tab in a similar way to the Installed Base and locations.

NOTE: Name of application/loop have to be unique in order to ensure a good working of export and import functionalities.

NOTE: Loops need an application and cannot be added directly to a site.

8.3.4. Deleting locations, applications or loops

Navigation nodes first have to be emptied before they can be deleted. Please allocate all assets to different nodes first. Now you can use the little trash can button on the navigation tree to delete the navigation point.

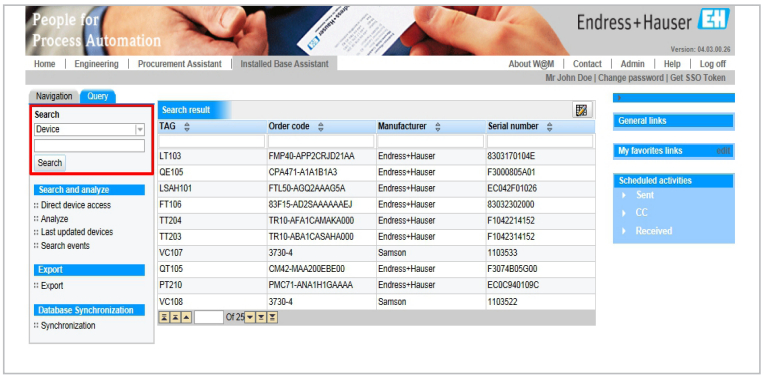
Confirm the pop up window with “Ok” and the node is deleted. Please keep in mind that there is no possibility to undo the deletion.

NOTE**:** A delete action can only be performed by a user with delete permission (described on page 10).

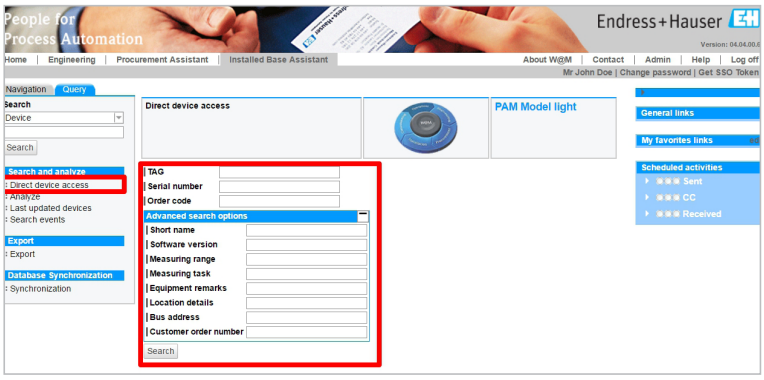
8.3.5. Searching inside of the Installed Base

With the Query tab you are able to perform several Installed Base analyzes, create spare part lists or export data. Click on “Query” to access the database query tab.

With the search function TAGs, locations, applications, loops or buses can be found across the current database. The wildcard “*” can be used as a placeholder to widen the search. A list of possible results will be displayed in the search result table (if there is only one possible match, the asset/device will be displayed immediately).



It is also possible to search a device under the function “Direct device access”. Here additional fields like measuring range, short name or location details can be used as filter for searching.



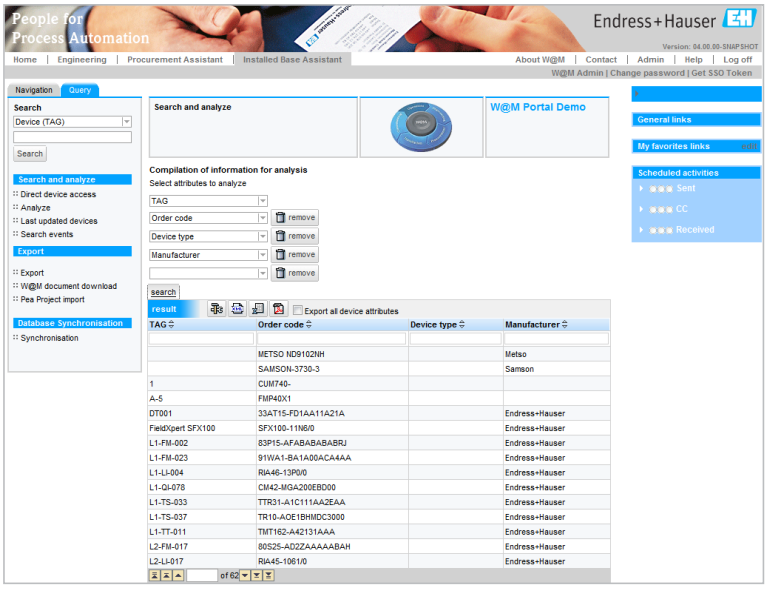
8.3.6. Analyzing the Installed Base

The analyze module can be used to create specific asset/device lists. A set of criteria can be selected via drop down menus. The criteria include custom labels which can be defined by the user within each Installed Base.

Click “search” to run your customized query and the result table will be displayed:

The result table contains all devices/assets currently installed shown by the search criteria selected before. In the filter row (first row) any search strings can be entered to specify the parameters even more.

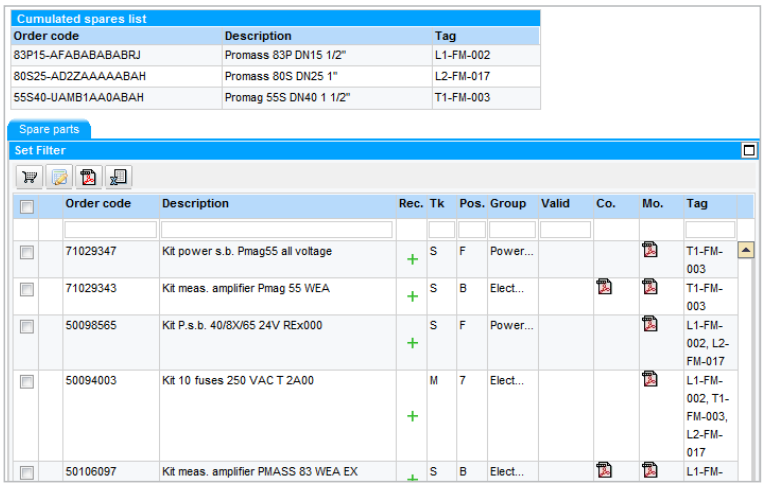
Using the function buttons above, the list information can be processed further. By clicking on “Export all device attributes” and then selecting either the XML, Excel or PDF export button the information for the selected devices/assets can be exported.



8.3.7. Creating cumulated spare part lists

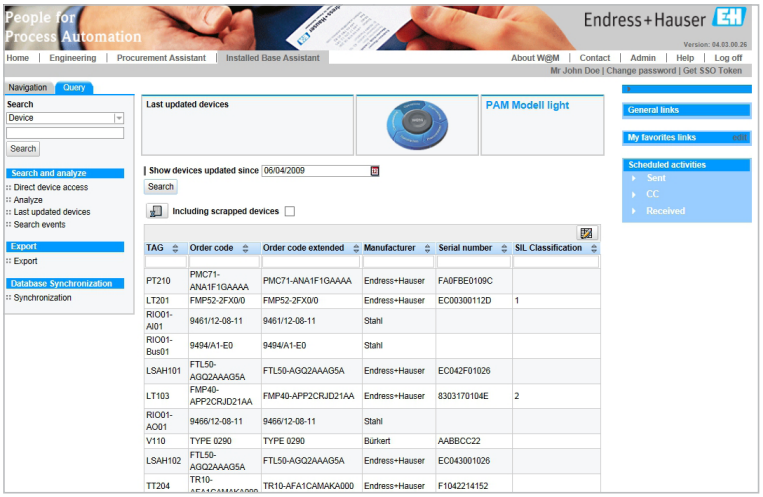
By clicking on “Get spare part lists for E+H devices” a spare part list for the selected Endress+Hauser devices can be generated automatically. The creation of the spare part list can take several minutes depending on the number of instruments selected. The spare part analysis will automatically detect if a spare part fits into several instruments so that it only has to be kept in stock once.

Further the list will indicate recommended spare parts (RSP) which should be kept on stock and – where applicable – give mounting and/or compatibility advices. With help of the drawing number it is easy to identify the correct parts in the exploded view drawings available for every device. Of course all the information can be exported to Excel.



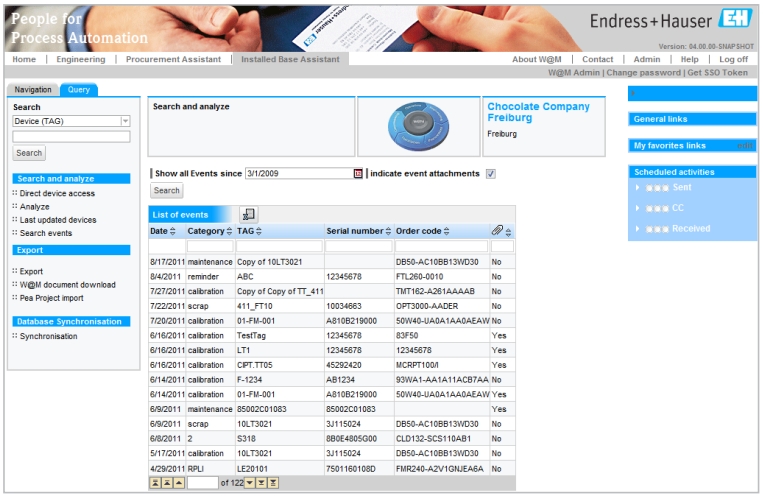
8.3.8. Get an overview on the last updates

Under the link “Last updated devices”, it is possible to check the last updates done in the installed base. By selecting a start date, the application will list all updates saved from this period.



8.3.9. Searching for events across the complete Installed Base

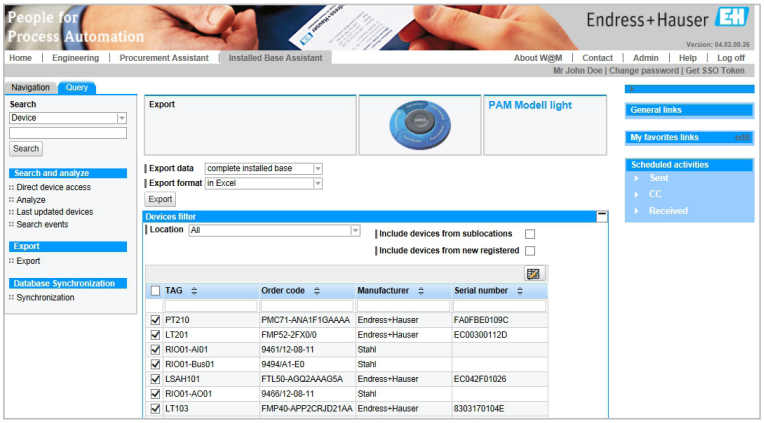
The ‘Query’ tab also offers a link to ‘Search Events’ – this feature allows you to see the latest activities for your devices such as calibration, repairs, maintenance etc. Simply search by date and if you select the box ‘indicate event attachments’ then any attachments that have been added to this event will also be shown:



8.3.10. Exporting the Installed Base

Every user (even without administrator rights) can export the complete database. After selecting what to export (“Devices” or “complete Installed Base”) three different export formats are available: Excel, PDF or XML. After expanding the “Filter devices” bar it is even possible to do partial exports of defined collections of locations or devices.

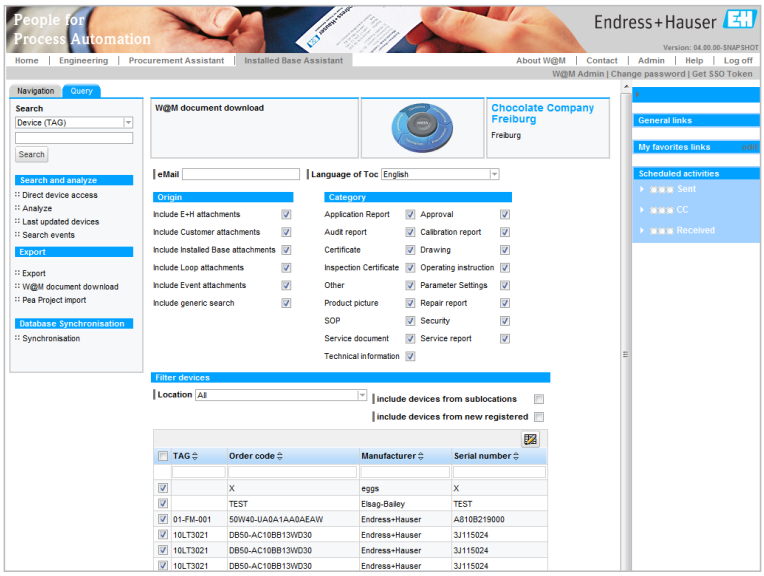
An excel export can also be extracted on each device list present on the software.



Note: Only the structure of the Installed Base (Locations, applications, etc) and device details are exported, attachments and pictures are not. Should you wish to backup these files, contact your Endress+Hauser W@M Enterprise support contact.

8.3.11. Mass export of documentation

You can also download all documentation (or a selection of documentation) using the W@M Document Download function, available in the "Query" module. This feature outlines all documentation available for the Installed Base.

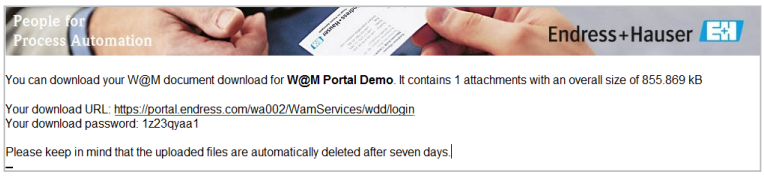


First select which documentation is required by selecting the appropriate categories:

Once the documentation has been defined, scroll to the bottom of the page and select "Request document download".

The documentation is sent via email therefore make sure that the correct "eMail" address and "Language" are entered.

A while later – depending on the size of the document download - an email will be sent to the defined email address which will look like this:
All the documentation can be downloaded by clicking on the link. Once the file has been downloaded a zip folder containing the following content is available.



This file contains all the documentation under the "attachments" folder. However it is also possible to display this documentation in a location tree, just like the Installed Base Assistant location tree. Click on the "autorun.exe" to start.

It is then possible to find and open all documentation by its location in the Installed Base, comparable to using the Installed Base Assistant in the W@M Enterprise.

8.4. Asset functions

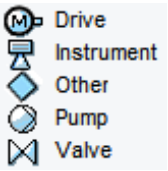
8.4.1. Adding devices

Adding devices is easily done in the Installed Base Assistant, independent of the supplier.

Note: Devices can only be added in the Location view

After clicking on a location node, the “New Device” button will become active. Clicking this button brings up the mask to input device data. The fields can easily be filled manually. Make sure to fill the “Order number” field if you want to find the instrument in the Customer Order Number navigation tree view.

With the Template field you can choose if you want to create a measuring instrument, pump, valve, drive motor or other asset. Different asset types are also symbolized with different icons in the navigation.



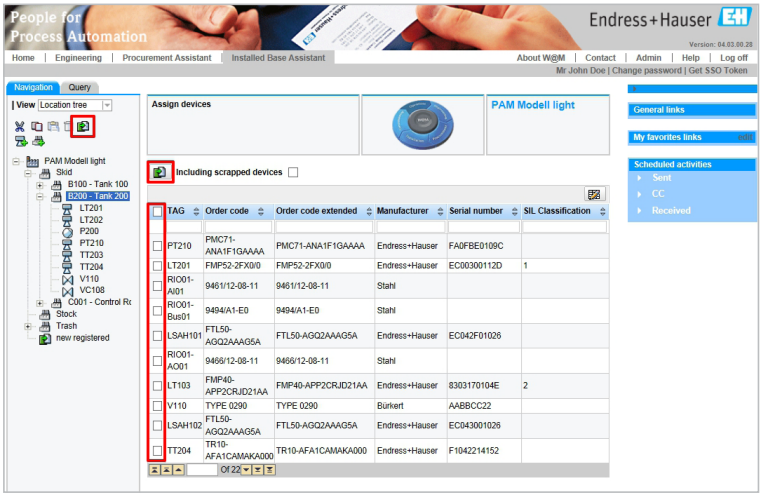
If you want to enter an Endress+Hauser product manually, please make sure that the order code and serial number are 100% correct or you will not receive the data from the back end database.

After adding the data, please press the save button to save the input.

8.4.2. Assigning devices to locations, applications and loops

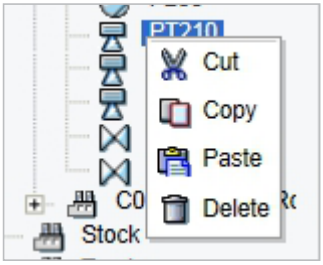
After you have created different locations, applications or loops in addition to devices you might want to allocate instruments to them. With the help of the “assign devices” function you can easily move devices between different locations or application:

1. Select location or application view
2. Locate the application or location you want to assign devices to
3. Click on assign devices button
4. Now select the devices you want to add to the location/ application by ticking them. You can use search filters to filter the devices (e.g. by TAG)
5. Now click “Move selected devices to target”



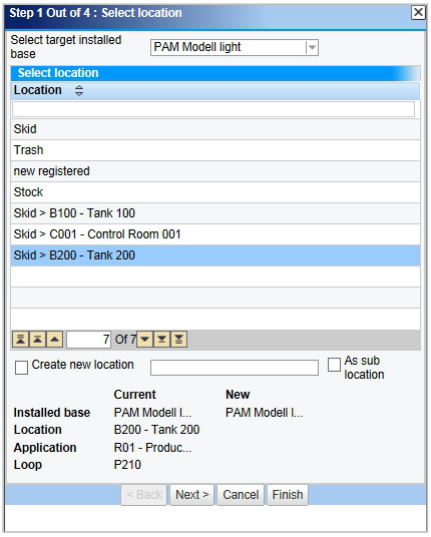
To move single devices/assets from one location to another you can also use the copy/cut and paste function:

1. Click on the device you want to move or copy
2. Click on “Cut” or “Copy”
3. Navigate to the destination location
4. Click on paste to insert the device/asset to the new location



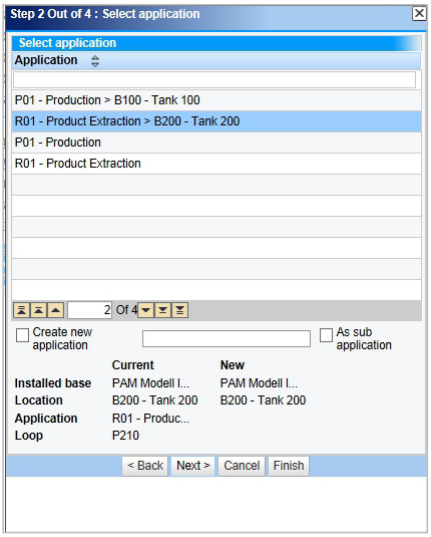
Another way to assign assets is to use the “Assign device” wizard found in the button bar of the asset.

Once this has been selected, a pop-up window appears asking to define where the device should be moved to – either to an entirely new Installed Base or to a new location within the same Installed Base. To remain in the same Installed Base, select the new location it should be moved to, then click “Next”:



Then select the new application it should be moved to. It is also possible to create a new application by checking the “Create new application” box, and then give it a name. If you click “Next” without selecting an application, the wizard will directly jump to the final mask.

Then select the appropriate Loop and continue by clicking “Next”.



As a final step, it must be decided how the device should be exchanged and if so what should be done with the old device and in some cases the old information:

1. Exchange with an existing device in a loop
2. It is also possible to assign that the old conditions and criticality get assigned to the new device
3. Scrap old device
4. Or move old device to another location
5. Comments can also be added for reference of the activity

Once these have been defined, the device will be moved to the new location. If “scrap old device” is selected a red line will be struck through the old device in the tree navigation and a red bin will be placed beside it in the device overview page:

8.4.3. Scrapping a device

When deleting a device via the trash can icon, the system offers the choice to delete or to scrap the item. When choosing scrap, the asset stays in the database and its logo is crossed with a red bar.
The asset is still shown on the navigation and can appear on device list if the box “including scrapped devices” is checked. Scrapped devices are excluded from the KPI dashboard in order to provide valuable overviews on the current installed base.

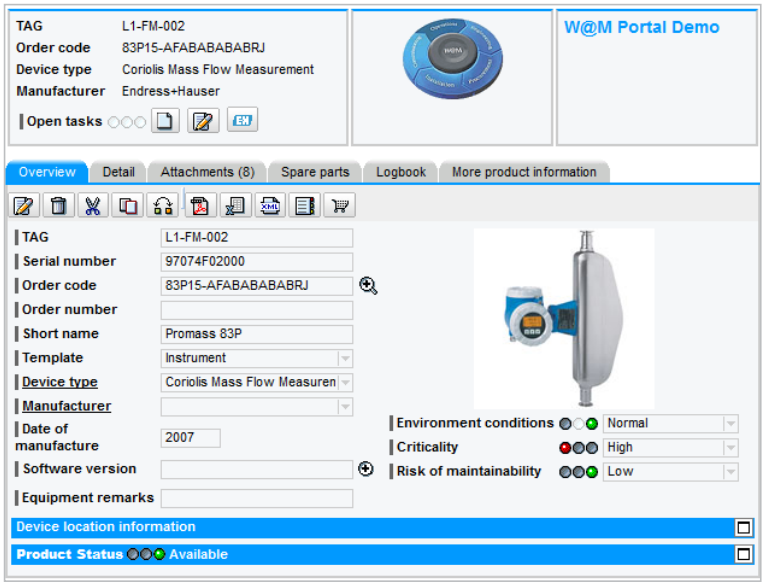
8.4.4. Asset details

By clicking on a device in the tree navigation on the left-hand side the device details are loaded in the main screen. The device/ asset details screen consists of several tabs with subsections.

Most of the data for Endress+Hauser devices is filled out automatically, for non Endress+Hauser products the information can be edited manually or imported via Excel or XML (see the Setup guide for W@M Enterprise) or contact your local Endress+Hauser representative (for W@M Enterprise).

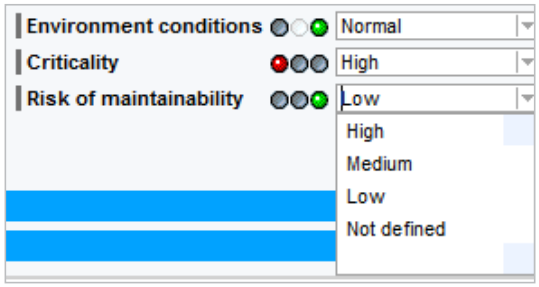
8.4.5. Tab: Overview

The “Overview” tab is divided in three sections: a general section with basic device data, a section with device location information and a section with product status information. The different fields are explained in this section.



Overview section

- **TAG:** The customer’s device TAG reference. If the customer ordered his device at Endress+Hauser with TAG information this field will be filled out automatically.
- **Serial number:** The original manufacturer serial number (automatically filled in for Endress+Hauser products).
- **Order number:** Free text field where customer can add his internal ordered number.
- **Order code:** Original manufacture order code, specifies the configuration of a product and is used for reordering products (automatically filled in for Endress+Hauser products). Clicking on the magnifying glass beside the order code explains its meaning.
- **Short name:** Name of the product (automatically filled in for Endress+Hauser products).
- **Template:** The asset type template used
- **Device type:** Specifies the type of the asset/device (automatically filled in for Endress+Hauser products). By clicking on Device type new types can be added.
- **Manufacturer:** Supplier/manufacturer of the device (automatically filled in for Endress+Hauser products).
- **Date of manufacture:** Date when the device has been produced (automatically filled in for Endress+Hauser products).
- **Software version:** Version of the device software (automatically filled in for Endress+Hauser products).
- **Equipment remarks:** General remark/notice for a device/asset
- **Measuring range:** Measuring range of the unit, e.g. “1 to 14 pH” or “0 to 4500 kg/h”
- **Measuring task:** What is the device’s task/function within the process
- **Environment conditions:** Normal or heavy condition in which the device is operated (e.g. hot temperatures or acid steam)
- **Process criticality:** Criticality of the device inside the process: low, medium or high, says something about the “what would happen if the device fails”
- **Risk of maintainability:** Low, normal or high risk of maintainability depending on the products availability from the supplier and the spare part situation (generally high for older devices)



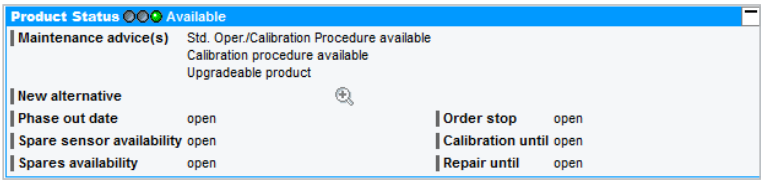
Device location information section

- **Location:** Specifies the location (building, room, floor, etc) where the device is installed
- **Location details:** Specifies detailed location for the device (e.g. “on top of tank” or “behind heat exchanger”)
- **Application:** Specifies the application in which the device/ asset is installed (e.g. “CIP” or “unloading station 3b”)
- **Loop:** Specifies the process loop in which the device/asset is installed
- **Bus:** Specifies the bus to which the device/asset is connected (e.g. “HART®” or “PROFIBUS line 3”)
- **Bus address:** Specifies the bus address of the device/asset (e.g. “HART® channel 12”)

Product status section

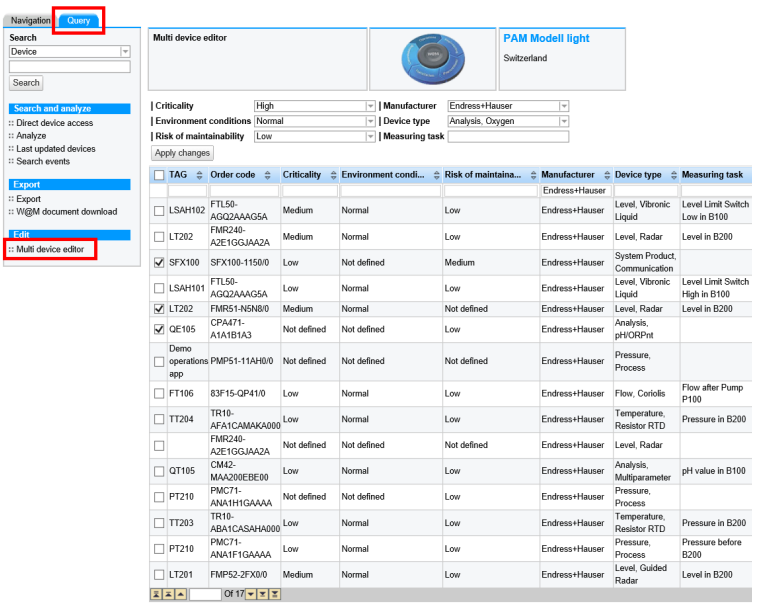
The product status section is displayed only for Endress+Hauser devices and informs the user about the general availability of the product, possible phase out dates, spare part availability and successor information.

- **Maintenance advice(s):** Advice for maintenance and replacement planning
- **New alternative:** Product that will replace this one. By clicking on the magnifying glass all alternatives, and in cases where it applies, successors of successors will be displayed.
- **Phase out date:** Notice of product withdrawal by Endress+Hauser
- **Spare sensor availability:** Date until spare sensors are available
- **Spares availability:** Date until spares are available
- **Order stop:** Date of last order possibility for this product
- **Calibration until:** Date until when calibration is guaranteed, calibration after that date might still be available
- **Repair until:** Date until when repair is guaranteed



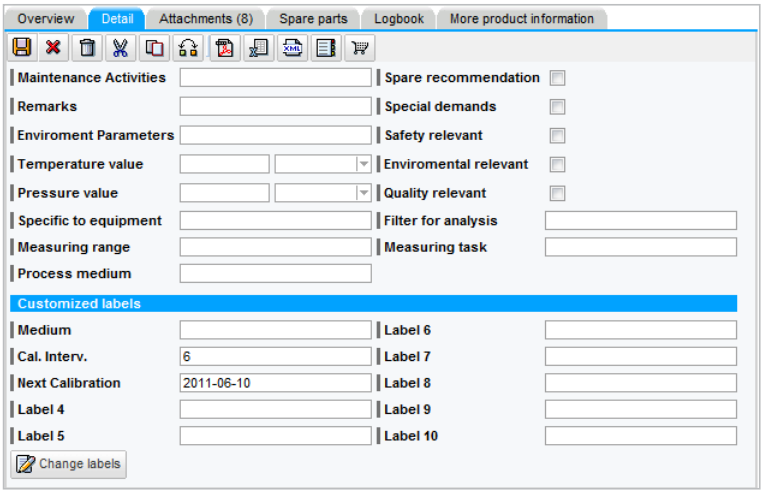
8.4.6. Multi device editor

The multi device editor helps the user to edit several devices simultaneously.
Following values can be updated: Criticality, environment conditions, risk of maintainability, manufacturer, device type and measuring task.
Manufacturer and device type information are fixed for Endress+Hauser devices and remain unchanged after an update.



8.4.7. Tab: Details

For each device/asset the section “Details” is available which consists of two sections: Endress+Hauser Installed Base Audit data and “Customized labels”. The upper part is mainly used for storing information which was collected during an Installed Base Audit performed by Endress+Hauser. The Installed Base Audit is an assessment service for any kind of customers and captures the current status of an entire Installed Base. Of course customers can add, modify or edit the information in this section.

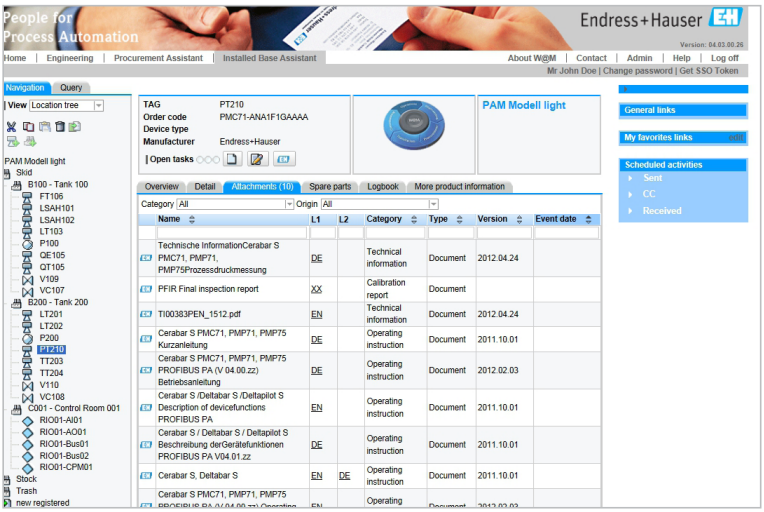


Some of the fields available on this page change depending on the selected template for the asset, e.g. instruments have different fields available than valves.

The “Customized labels” section allows the user to define ten criteria for his devices/assets which then are valid for all device/ asset. By clicking on “Change labels” the labels can be defined and saved and will then be shown for all devices/assets in this Installed Base. In the fields behind the labels information for each individual device/asset can be stored.

The first field will also be shown in the view “Related devices”. Using the Analyze function in the Query mode an Installed Base can be assessed for the first five customized labels. The search does not cover the labels from 6 to 10.

8.4.8. Tab: Attachments

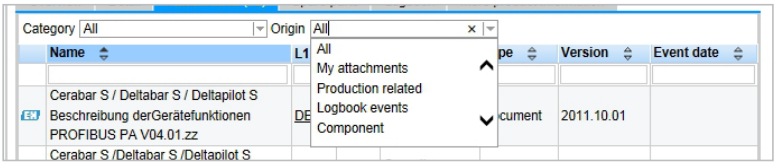


All documents associated to the device are to be found under the Device attachments tab. In this section, calibration and material certificates or maintenance and service reports can be found for Endress+Hauser devices. For Endress+Hauser devices, these documents will be available automatically (depending on the production date of the device, it might be possible that the device is not registered in our database. In this case, no documentation will be delivered automatically on this device).The page also allows the attachment of individual documents (e.g. customer specific). The “More Product Information” tab which contains extra documents to download as .pdf such as certificates, operating instructions, technical information can offer additional generic information.

The attachments are opened by a double-click on the XX or language link (EN, DE etc.) in the L1 column.

Attachments marked with a E+H Logo are documents coming from Endress+Hauser database. It is not possible to edit or delete them from the attachment tab.

Search for attachments

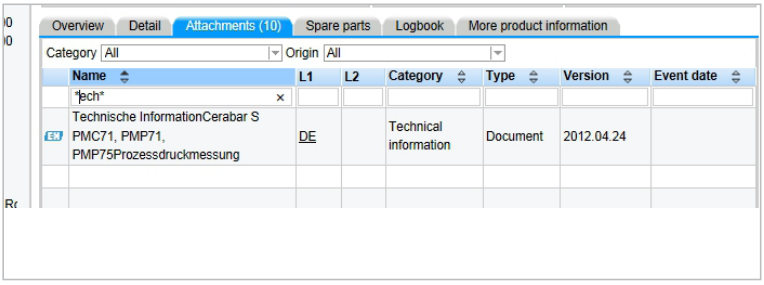


If the attachment section contains a large amount of documentation, then it is also possible to filter this list. For this, use the “Category” drop down menu to select the appropriate category for the attachment you are looking for.

Or select the “Origin” drop down menu to find documentation by its initial source which can be one of these following:

- My attachments: documentation that has been added manually by a user
- Production related: documentation created on production of a device
- Logbook events: documentation that has been uploaded due to an event (e.g. maintenance, repair, calibration etc)
- Component: documentation that is related to child-devices

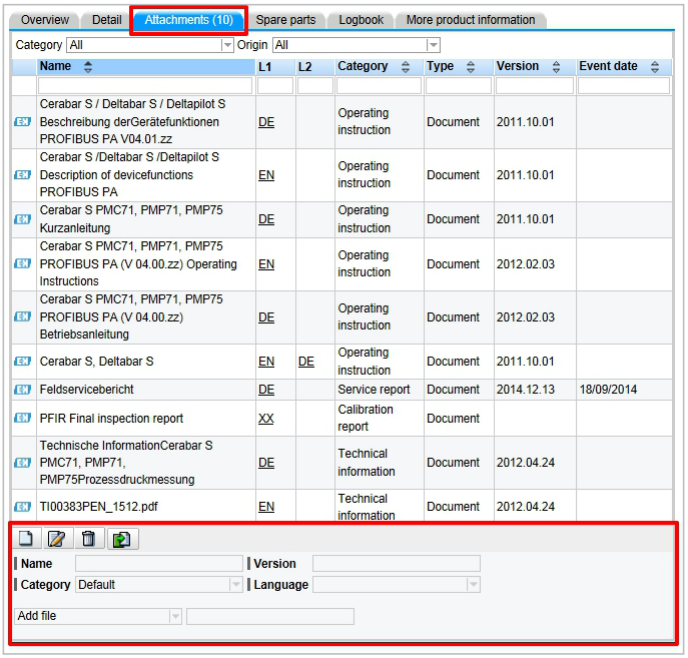
A search by name is also possible under the title line from the table by writing the text required in the text free blank space.



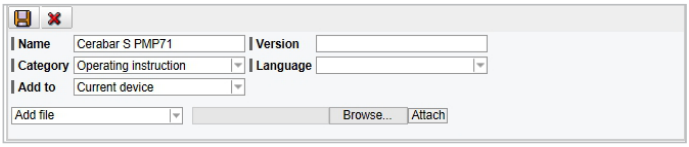
Add attachments

Under the attachments list, users are able to store their own files or documents.

1. Click on the **Attachement tab** to open the attachements page



2. To add a new attachement:
   - Click on the **New button**
     - Fill in the details of the document
     - Click **Browse...** select and open the file or enter a URL
     - Click on **Attach** and select from the list
   - Or click on the **Attach existing documents** button and select from the list

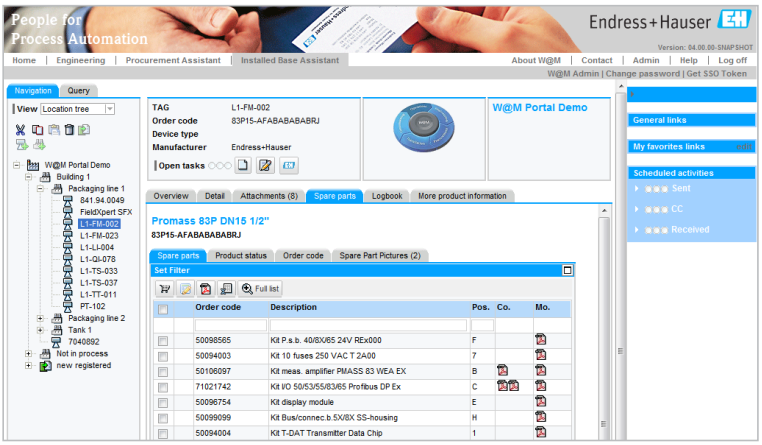


By using the drop down menu “Add to” the file can be attached automatically to the following options:
- Current device
- All devices with same device type
- All devices with same device type and manufacturer
- All devices with same ordercode
- All devices with same product id (root)

3. Click on the **Save** button to save your changes
   - The file is copied into the attachement folder
   - The document appears in the attachement list
   - One product picture can be attached, wich will be displayed on the overview page

8.4.9. Tab: Spare parts

The Spare part tab is only available for Endress+Hauser devices. As soon as W@M Enterprise detects an Endress+Hauser order code and device a complete spare part list for this specific device is compiled. Using the order code W@M Enterprise searches automatically for all spare parts which fit to this specific order code, spare parts not fitting to this order code (e.g. HART® communication module for a PROFIBUS® device) are filtered automatically. An exploded drawing helps to identify the correct spare part.

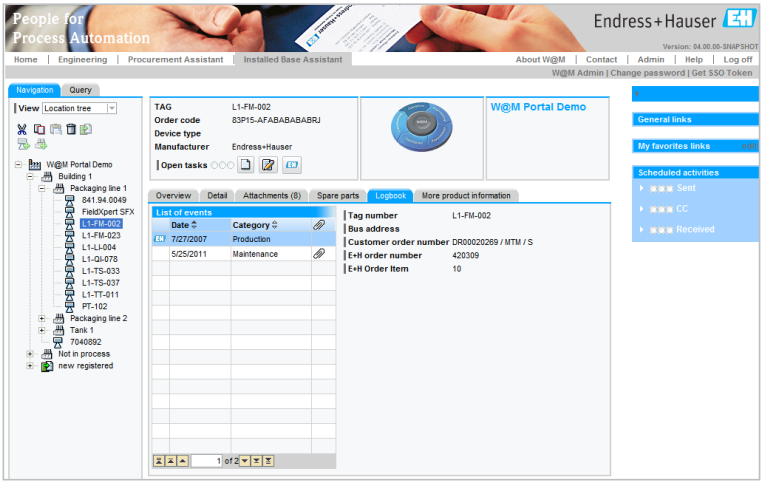


Note: Generating the spare part list may take a few seconds.

8.4.10. Tab: Logbook

The Logbook is a function that can record all events for a specific asset. This feature is available for both, Endress+Hauser and 3rd party device. For Endress+Hauser devices some Logbook entries are automatically created (e.g. production and shipment events). Furthermore, if Endress+Hauser is servicing or calibrating devices these events are automatically recorded and displayed in the Logbook.

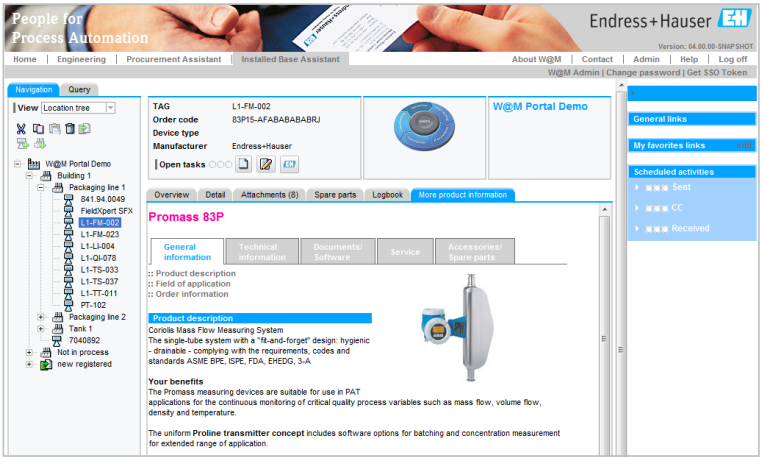
If you are using the Task Scheduler function events or tasks managed by the Task Scheduler are recorded in the Logbook as well. For some even events attachments are stored when manually added into the system. These files are linked automatically in the Logbook view and can be accessed by clicking on the attachment link in the last column of a corresponding event.



8.4.11. Tab: More product information

The “more product information” section is only available for Endress+Hauser devices. Here the user will find more documents, drivers, drawings, certificates and software to download.

Additionally complete spare part lists for the selected product type are available (unlike the spare part section these spare part lists are not device specific)

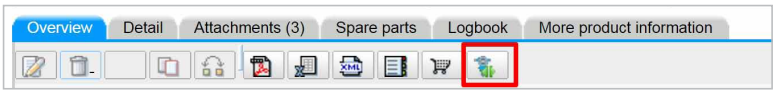


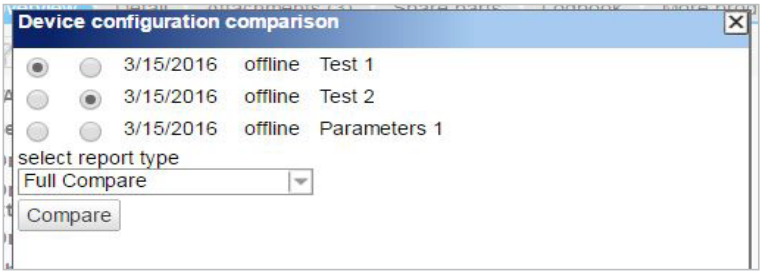
8.4.12. Comparing configuration reports

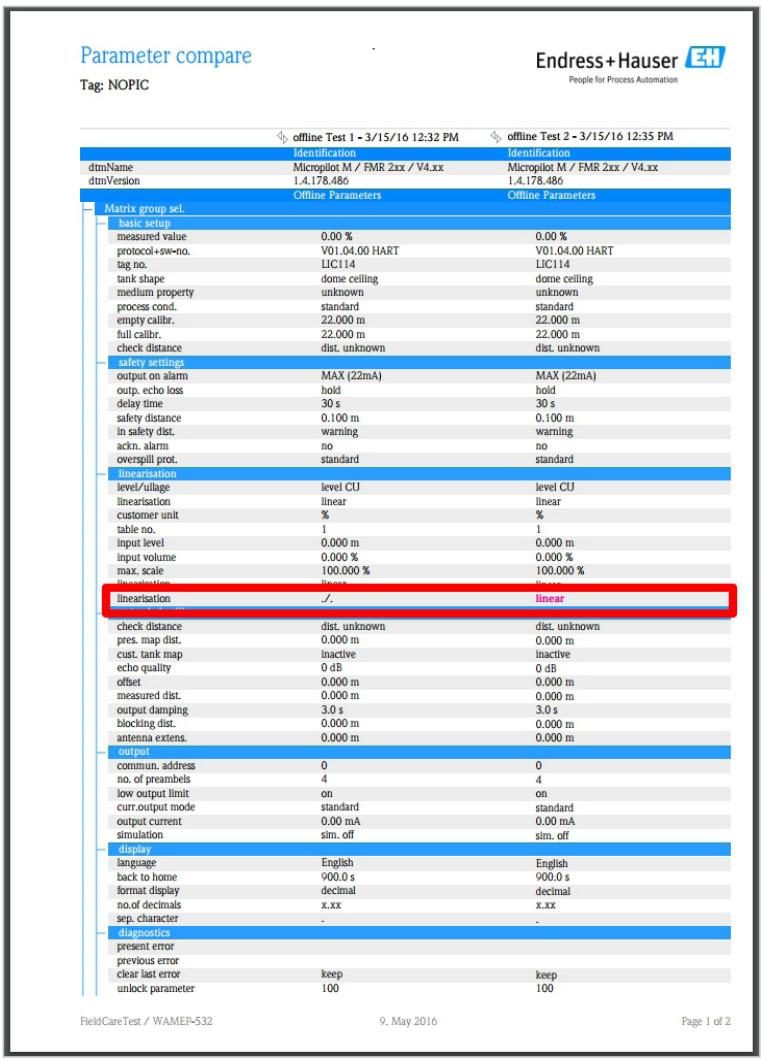
W@M Enterprise can be linked with FieldCare (more information on chapter 10. Interfacing W@M Enterprise with other tools).
In that case, FieldCare is uploading configuration reports from device into the W@M Enterprise database.

From W@M Enterprise installation, it is possible to check these reports but also compare them together. For example, a maintenance employee making a maintenance activity on a device might be interested to compare the config of the device before and after the maintenance.

When the device is having comparible reports as attachments, the following logo is shown on the menu bar from the product page (see picture 1, top).
Click on it will open a dialog page asking the user to choose the two reports to compare (see picture 2, in the middle). When the comparison is done, the results are shown on a pdf reports where all differences are highlighted in magenta (see picture 3).







Parameter compare

Tag: NOPIC

Endress+Hauser

People for Process Automation

	offline Test 1 - 3/15/16 12:32 PM	offline Test 2 - 3/15/16 12:35 PM
	Identification	Identification
dtmName	Micropilot M / FMR 2xx / V4.xx	Micropilot M / FMR 2xx / V4.xx
dtmVersion	1.4.178.486	1.4.178.486
	Offline Parameters	Offline Parameters
Matrix group sel.		
basic setup		
measured value	0.00 %	0.00 %
protocol+sw-no.	V01.04.00 HART	V01.04.00 HART
tag no.	LIC114	LIC114
tank shape	dome ceiling	dome ceiling
medium property	unknown	unknown
process cond.	standard	standard
empty calibr.	22.000 m	22.000 m
full calibr.	22.000 m	22.000 m
check distance	dist. unknown	dist. unknown
safety settings		
output on alarm	MAX (22mA)	MAX (22mA)
outp. echo loss	hold	hold
delay time	30 s	30 s
safety distance	0.100 m	0.100 m
in safety dist.	warning	warning
ackn. alarm	no	no
overspill prot.	standard	standard
linearisation		
level/ullage	level CU	level CU
linearisation	linear	linear
customer unit	%	%
table no.	1	1
input level	0.000 m	0.000 m
input volume	0.000 %	0.000 %
max. scale	100.000 %	100.000 %
linearisation	./.	linear
check distance	dist. unknown	dist. unknown
pres. map dist.	0.000 m	0.000 m
cust. tank map	inactive	inactive
echo quality	0 dB	0 dB
offset	0.000 m	0.000 m
measured dist.	0.000 m	0.000 m
output damping	3.0 s	3.0 s
blocking dist.	0.000 m	0.000 m
antenna extens.	0.000 m	0.000 m
output		
commun. address	0	0
no. of preambels	4	4
low output limit	on	on
curr.output mode	standard	standard
output current	0.00 mA	0.00 mA
simulation	sim. off	sim. off
display		
language	English	English
back to home	900.0 s	900.0 s
format display	decimal	decimal
no.of decimals	x.xx	x.xx
sep. character	.	.
diagnostics		
present error		
previous error		
clear last error	keep	keep
unlock parameter	100	100

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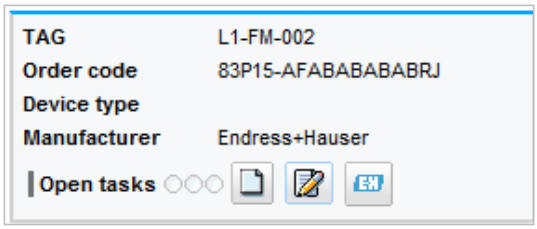
8.5. The Task Scheduler

The Task Scheduler helps the user to manage his/her maintenance activities for an Installed Base. It can record scheduled, open and closed tasks and has an inbuilt user management which allows the assignment of users to a task

Note: The Task Scheduler is not a Computerized Maintenance Management system or a calibration management software, though it can be used to schedule and manage simple activities. Endress+Hauser also offers a special calibration software solution CompuCal™ which is CFR21 part 11 compliant. Please contact your local Endress+Hauser representative for more information.

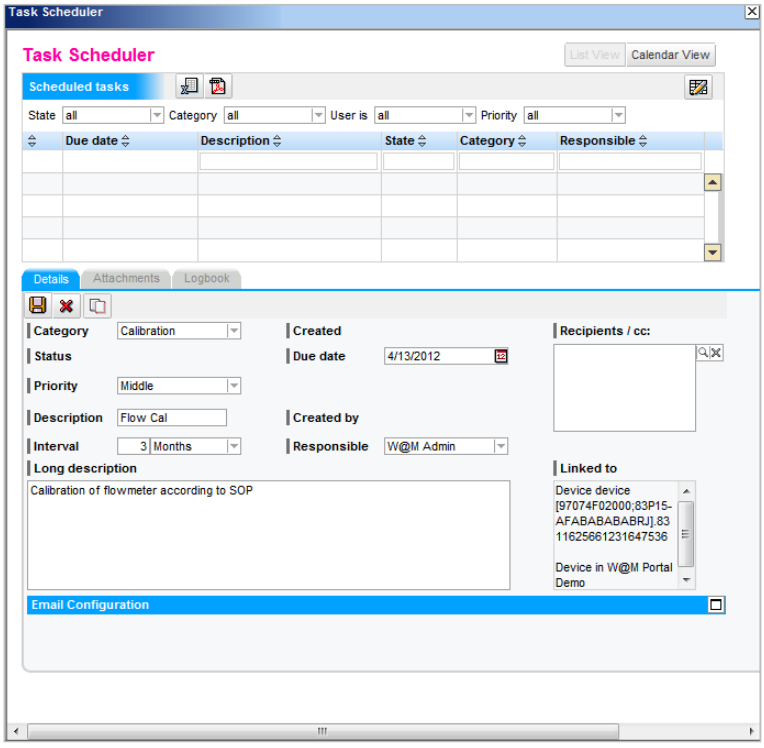
8.5.1. Starting the Task Scheduler

The Task Scheduler can be accessed directly from the main navigation “Home”. Alternatively the Task Scheduler can be accessed from the Installed Base Assistant by selecting a device/asset from the navigation tree and then clicking on the corresponding icon in the upper part of the screen:



8.5.2. Creating new activities

To create a new task for a device/asset the most convenient way is to select the device (for which a task should be created) from the tree view navigation and click on “Create a new task”. A new window will open to enter data and create the task. The following fields are available in the three tabs (“Details”, “Attachments” and “Logbook”).

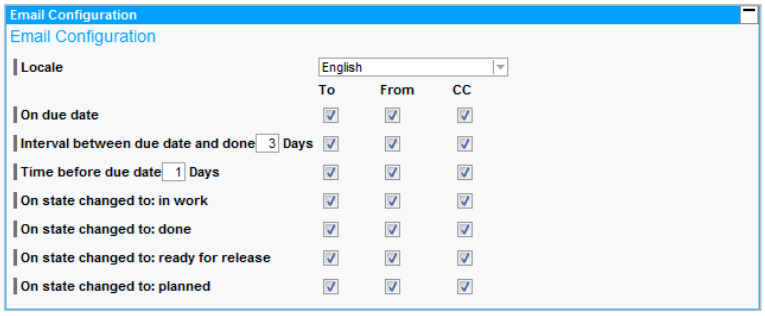


Details

- **Category:** Here you can choose the type of task (e.g. Repair or Calibration)
- **Priority:** Options from Low over Middle to High
- **Description:** Here you can enter a short description
- **Interval:** It is possible to set an interval for reoccurring tasks
- **Due date:** The date by which the task should be completed
- **Responsible:** Choose the person who should fulfill the task
- **Recipients:** People who should be informed about the task
- **Long description:** A free text field for a comprehensive description of the task

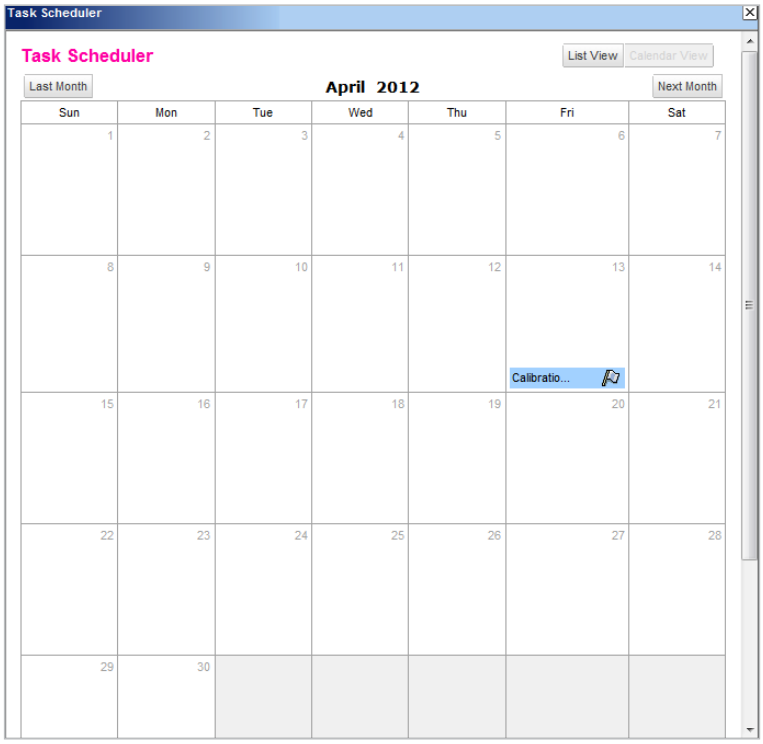
Note: You can only choose people as responsible and recipients if they have W@M Enterprise user accounts.

With the email configuration you can customize when and to whom information mails will be sent out by the Task Scheduler.



8.5.3. Show the Task Scheduler as a calendar and integrate it into your calendar

The Task Scheduler brings a calendar view which can be activated via the “Calendar View” button in the upper right.
If desired, this calendar can be linked in your existing calendar (e.g. Microsoft Outlook or Lotus Notes) with the iCal URL found on the bottom of the calendar.
For information on how to add an iCal URL to your calendar, please refer to your calendar software’s user manual.



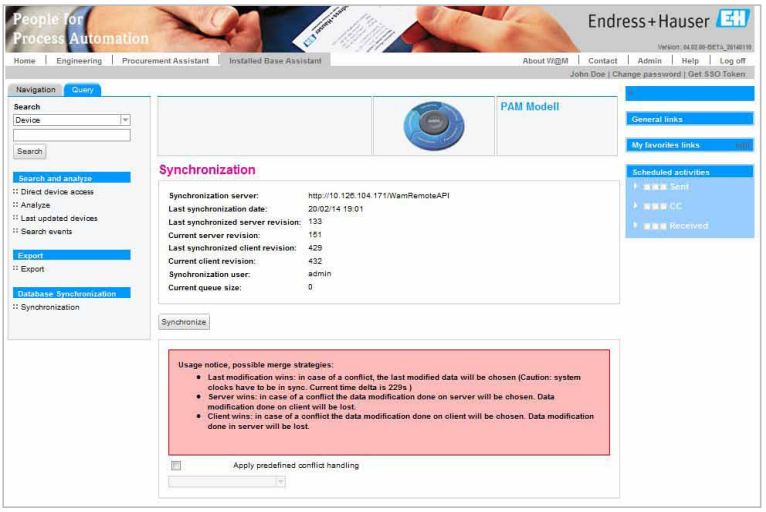
9. Synchronizing with W@M Portal or another W@M Enterprise installation

W@M Enterprise is a web service application providing the functionality to synchronize or download information / documentation from another application (W@M Portal or W@M Enterprise installation) working on a server/client topology concept. This ability allows users to choose between different architecture possibilities.

9.1. Synchronizing with a W@M Portal account

9.1.1. Principle

W@M Enterprise is a web based application to be installed at customer's site. Users get access to W@M Enterprise through the enterprises local area network (LAN).To provide up to date device information to W@M Enterprise users it is possible to update Endress+Hauser device information over the internet. To get these information updates W@M Enterprise connects to the customer's W@M Portal contract hosted at Endress+Hauser's data center in Weil am Rhein/Germany.



It is also possible to not only get information updates from W@M Portal but also to push all collected operation data from W@M Enterprise to the customers W@M Portal contract. This way, a complete synchronization of device data between customer's W@M Portal and W@M Enterprise is proceeded.

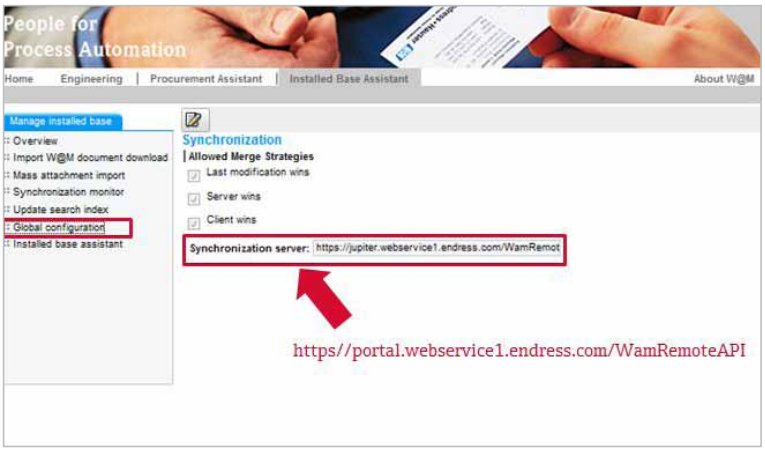
In each update and synchronization process, there are always two parties involved. The one called server and another called client. In synchronization between W@M Portal and W@M Enterprise, W@M Portal plays the server role while W@M Enterprise is on the client position.

Here, you have two synchronization possibilities which are the followings:

- Update: Data on client installed base (W@M Enterprise) is updated with current data from server installed base (W@M Portal). The interest of this action is only to get the updated Endress+Hauser device data from the server (W@M Portal) to the client (W@M Enterprise).
- Synchronization: Data on client installed base (W@M Enterprise) and server installed base (W@M Portal) are synchronized. The expected result after synchronization is to have the same data on both sides.

9.1.2 Prerequisites & Configuration

To perform a successful synchronization between W@M Portal and a W@M Enterprise, the following parameter needs to be equal on both sides: user ID, password and contract number. In addition, the user must have the sync permission to be able to perform this action. Please refer to page 10 for more details on user permissions.



The synchronization action is always triggered by the client (W@M Enterprise in that case) and must be configured on client side. For this, you go to "global configuration" on "Installed Base Assistant Administration" where you need to enter the URL below. This configuration will define the link between W@M Enterprise and W@M Portal for your future synchronizations.

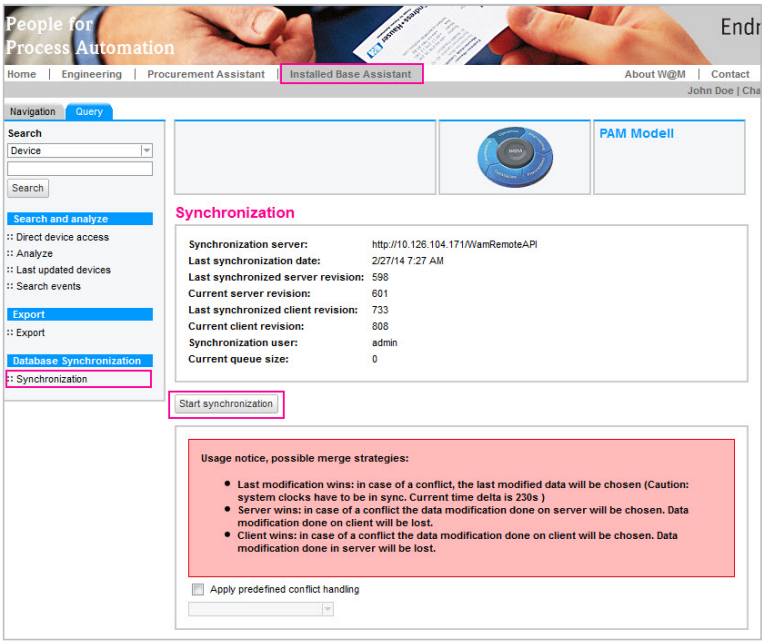
Under "Installed Base Assistant":

1. Click on "Global configuration"
2. Click on the button "Edit"
3. Enter the following URL:
   https://portal.webservice1.endress.com/WamRemoteAPI
4. Click on button "Save"

9.1.3 How to synchronize

To perform synchronization between W@M Enterprise and W@M Portal, you simply need to follow these steps:

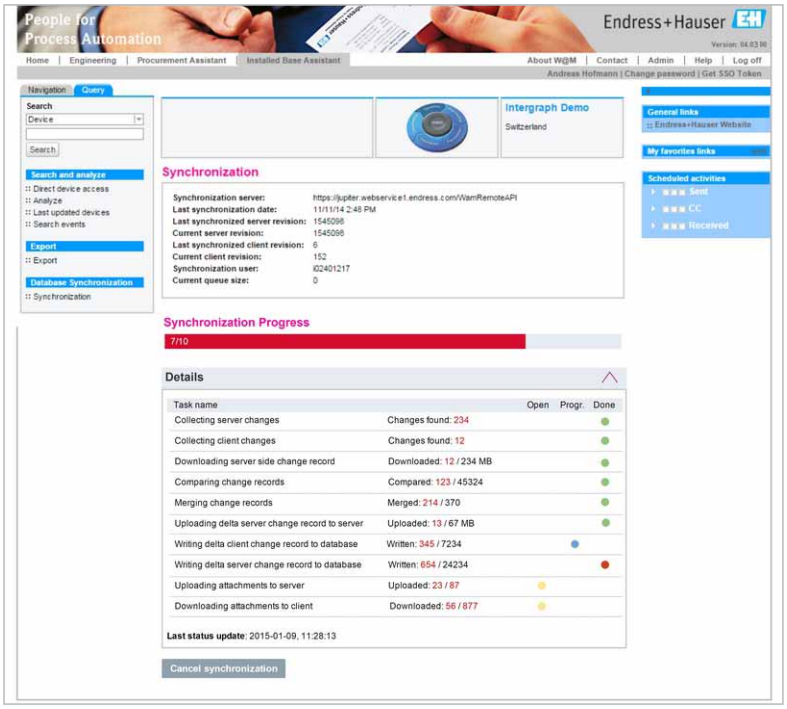
1. In W@M Enterprise select the Installed Base you would like to synchronize
2. Click on the tab "Query"
3. Next click on the button "Synchronization" to open the synchronization page
4. Optionally and not recommended you have the possibility to predefine a strategy for conflict handling during merge conflicts (same data field edited on both sides) by selecting one of the following conflict strategy:
   - Last modification wins: the Installed base which has the latest modification saved will automatically win in case of a conflict. Note: both synchronization parties have to have a system date/time that is in sync.
   - Server wins: in case of a merge conflict, data edited on server side will automatically be chosen to overwrite data edited on client.
   - Client wins: in case of a merge conflict, data edited on client side will automatically be chosen to overwrite data edited on server.
5. Click on button "Start synchronization" to perform the synchronization



6. Synchronization progress will start and a page will appear showing the current status of the synchronization (progress bar). It is possible to get more details on the actions by clicking on the link “Details”. The status of the different phases will be shown in details.
Status traffic light description:

- Yellow: the task is open
- Blue: the task is in progress
- Green: the task has been successfully achieved
- Red: the task has failed and a error message will appear

It is possible to cancel a synchronization running by clicking on the button “cancel” located below the progress bar. Cancelling a synchronization result in stopping the process. It means that data that would have already been synchronized will stay. Endress+Hauser strongly recommend to save a backup of the system before to proceed a synchronization.

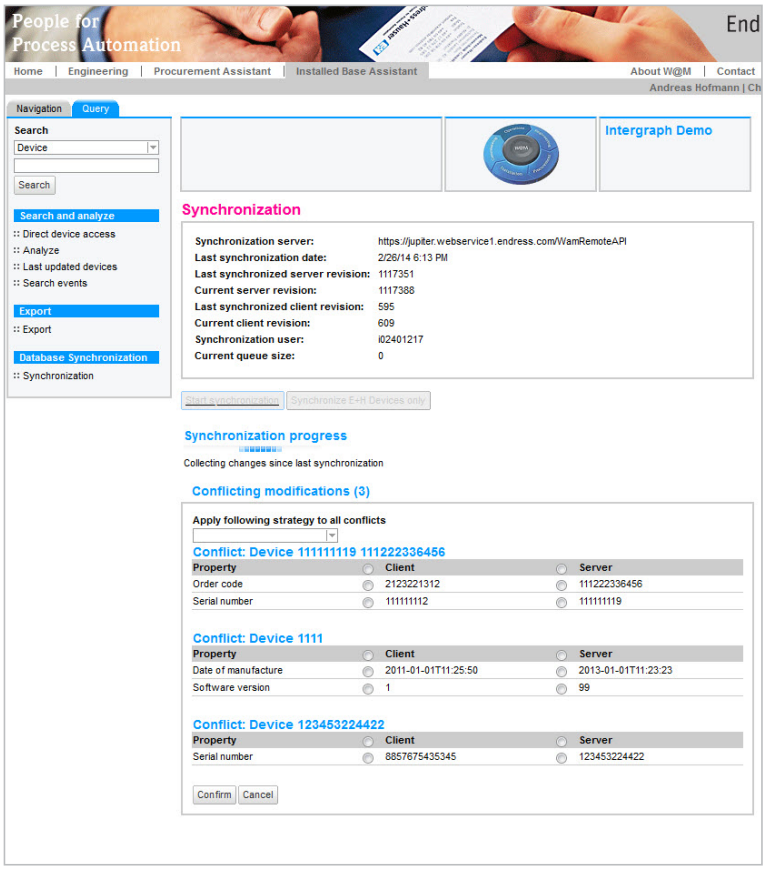


Picture legend:

- Synchronization server: URL to the configured synchronization server (W@M Portal or another W@M Enterprise in server role).
- Last synchronization date: date of the last synchronization performed.
- Last synchronization server revision: shows server’s data revision client last synchronized with.
- Current server revision: shows server’s current data revision. If different than “Last synchronization server revision” data changed on server since last synchronization and a need for synchronization is given.
- Last synchronize client revision: show client’s data revision client last synchronized with the server.
- Current client revision: shows client’s current data revision. If different than “Last synchronize client revision” data changed on client since last synchronization and a need for synchronization is given.
- Synchronization user: shows the user ID which is used for synchronization. This user must own user rights to synchronize on server.
- Current queue size: shows running synchronization processes on server side. If queue size is not zero, your synchronization request will be pushed on queue and you have wait until your synchronization request starts.

9.1.4. Managing synchronization conflicts

A conflict during synchronization appears, when a modification of the identical property has been done on a device, a location, an application or a bus on both side (client and server). As an example: a device's serial number was edited on client and on server. When conflicts are appearing, the user will get noticed about in the list "Conflicting modifications". There decisions are required to choose the data to keep (as shown on the following picture).



Note: To avoid synchronization conflicts, we strongly recommend performing synchronizations as often as possible. This would lower the probability of having work done twice and information modified on both sides.

9.2. Synchronization with another W@M Enterprise installation

9.2.1. Principle

Using W@M Enterprise, you might have the need to have the software installed on several workstations or laptops. You might also want to have a server running to house all your data and work on with a client installation. W@M Enterprise has the possibility to work as a client as well as a server.

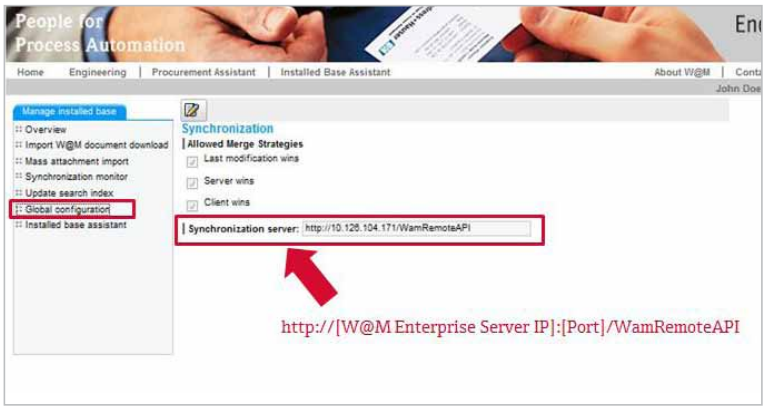
9.2.2. Prerequisites & Configuration

As for synchronization with W@M Portal, there are some prerequisites and configurations to perform in order to be able to synchronize. The prerequisites are exactly the same seen in the previous case:

1. Identical user ID, password and contract number on server and on client.
2. Sync permission for the user on both W@M Enterprise installations. Please refer to page 10 for more details about user permissions.

The synchronization action is always triggered by the client and must be configured on client side. For this, you go to “Global configuration” on “Installed Base Assistant Administration” where you need to enter the URL below. This configuration will define the link between W@M Enterprise server and W@M Enterprise client for your future synchronizations.

Under “Installed Base Assistant”:
1. Click on “Global configuration”
2. Click on the button “Edit”
3. Enter the following URL: https// http://[W@M Enterprise Server IP]:[Port]/WamRemoteAPI
4. Click on button “Save”



9.2.3. How to synchronize

The synchronization procedure is identical with the synchronization with W@M Portal explained in the previous chapter. For more information, please refer to chapter 9.1.3.

9.2.4. Manage synchronization conflicts

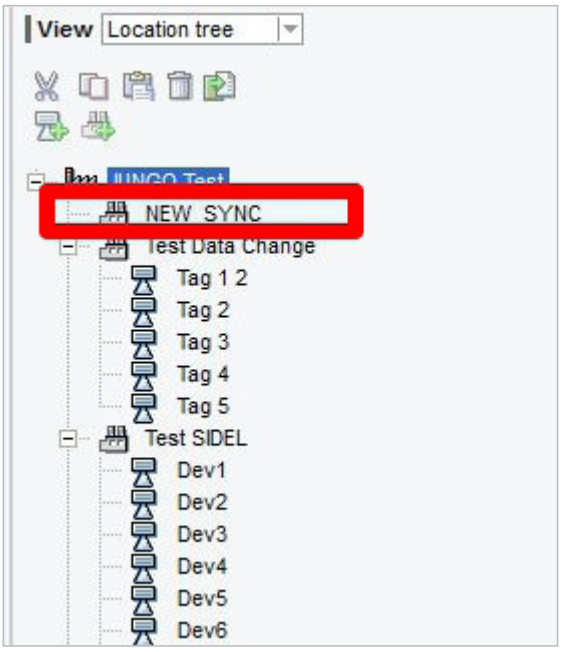
The way to manage the synchronization conflicts is identical with the synchronization with W@M Portal explained in the previous chapter. For more information, please refer to chapter 9.1.4.

Note: To avoid synchronization conflicts, we strongly recommend performing synchronizations as often as possible. This would lower the probability of having work done twice and information modified on both sides.

9.3 Broken synchronization

Synchronization activites (between two W@M Enterprise installations or between a W@M Enterprise installation and a W@M Portal contract) can sometimes break and affect the database as shown on the picture on the right (devices under name NEW_SYNC, NEW_OBJECT, UNKOWN, etc. can appear).

In this situation, we recommend to restart a new synchronization. The system will analyze, proceed again and correct the mistakes. If the result does not change after a new try, please contact your local Endress+Hauser contact.



10. Interfacing W@M Enterprise with other tools

It is possible to configure an linking between W@M Enterprise and FieldCare. This linking allow the user to upload parameter protocols from FieldCare into W@M Enterprise (also available for W@M Portal). It is also possible to compare to protocols from FieldCare on W@M Enterprise.

CompuCal™, Endress+Hauser's powerful calibration management software, can also be linked with W@M Enterprise, allowing the upload of calibration reports directly into the device's logbook in W@M Enterprise.

By simply adding the W@M Enterprise address as well as login settings, Memobase is capable of a jump out into the Installed Base, delivering additional information.

If you want more information about these possible integrations, please contact your local Endress+Hauser office to receive additional information and documentation.

Note: FieldCare is the software for device configuration of Endress+Hauser.
CompuCal is a calibration management software provided by Endress+Hauser.

Notes

Notes

www.addresses.endress.com

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