SIEMENS

Insights Hub

Insights Hub Asset Health and Maintenance

System Manual 04/2024

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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

DANGER

indicates that death or severe personal injury will result if proper precautions are not taken.



WARNING

indicates that death or severe personal injury may result if proper precautions are not taken.



CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by personnel qualified for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:



▲ WARNING

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot quarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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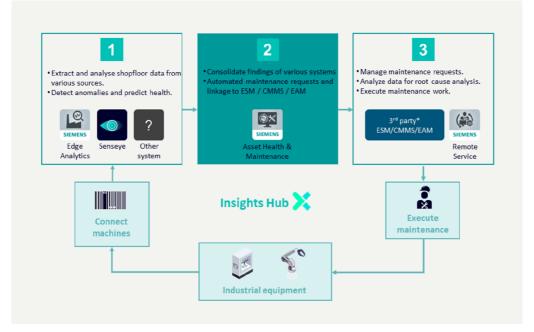
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Overview

1.1 Insights Hub Asset Health & Maintenance

Overview of a Connected Maintenance Framework

Insights Hub Asset Health & Maintenance is the core application of a connected maintenance framework. It enables an effective workflow for reactive, preventive, and predictive maintenance.



- Input from apps such as Senseye, Insights Hub Monitor, Insights Hub Edge Analytics, Sidrive IQ, Sitrans SCM IQ can be used.
- Please contact us to find out more about the currently supported systems.
 Currently Supported: SAP, IBM Maximo and other Systems who support REST API http request. For more information, refer to <u>Managing CMMS Integration</u>.

Benefits of Implementing the Connected Maintenance Framework

Implementing the connected maintenance framework helps the user in the following improvements:

• Reactive tasks can be performed more effectively when data and analytical skills can be used to analyze evidential data and determine root causes.

- Preventive maintenance becomes more cost-effective because actual equipment usage and condition data can be used to fine-tune the maintenance plan.
- Condition-based maintenance is enabled by using insights about asset health to trigger maintenance requests.

Functions and Capabilities of Insights Hub Asset Health & Maintenance:

Insights Hub Asset Health & Maintenance offers wide range of capabilities for:

- Merging and analyzing insights from diverse systems and asset types:
 - Monitoring and representation of the asset's health and maintenance needs.
 - Display the events that triggered the maintenance requests.
 - Display the evidence as time series data that triggered the maintenance requests.
 - Display the evidence as frequency spectra that triggered the maintenance requests.
- Streamlining the maintenance process and information flow.
- Feeding relevant insights to maintenance management systems:
 - Maintenance requests are prepared automatically and can be smoothly send to Maintenance Management Systems.

Roles

Insights Hub Asset Health and Maintenance has tailored views and capabilities depending on the role of the user and has the following roles. Documentation is also tailored according to these roles, please refer to the respective documentation using the links given below:

- <u>Team Lead</u> this role is used by the lead of maintenance team
- <u>Team Member</u> this role is used by the member of maintenance team
- Site Owner This role is for the main person for receiving maintenance support
- Administrator This role is for the IT expert responsible for the configuration of the app.

2.1 Introduction

Insights Hub Asset Health & Maintenance allows you to monitor, analyze, detect, and remotely service industrial assets such as production machines, rotating equipment, or other devices connected to Insights Hub. It combines various tools and capabilities in a single workbench. This enables service engineers to work effectively and efficiently to anticipate machine issues, identify root causes for these emerging issues and solve them remotely in many cases to have higher availability of the machines and reduce the machine downtime using predictive maintenance. Insights Hub Asset Health & Maintenance offers the following features:

- Condition Monitoring of an asset
- Remote Services for the issues detected
- Ticket management system to track the issues detected.



For information on data privacy polices, contact the environment owner.

Condition Monitoring

Condition monitoring involves early detection of the issues, alerting the issues, preprocess the data, perform root cause analysis and develop the required solution.

This solution allows service engineers to define rules for the notifications about the overshooting or undershooting of a defined threshold value (for example, measured vibration signal exceeding critical limits). This allows the services engineers to process the high or low-frequency data, correlate them, perform root cause analysis. Based on the analysis data, the services engineers can define and implement the solution strategies even before the machine fails and disrupts the operations. Insights Hub Asset Health & Maintenance access the analytical toolbox of Insights Hub Edge Analytics, an edge application to collect and preprocess high and low-frequency data, correlate them, and perform out-of-the-box analysis.

Insights Hub Asset Health & Maintenance offers the tools for the following:

- Signal analysis in the time domain:
 - RMS Acceleration
 - Peak-Peak Acceleration

- Zero-Peak Acceleration
- RMS Velocity
- Peak-Peak Velocity
- Zero-Peak Velocity
- Signal analysis in the frequency domain:
 - Spectrum Acceleration
 - Spectrum AccelerationEnvelope
 - Spectrum Velocity
- Calculate mathematical statistics:
 - Average
 - Minimum
 - Maximum
 - Peak-Peak
 - O Dynamic.

Apart from these signals, data from any of the sensors attached to the asset will be analyzed. The Frequency spectrum files are developed using "Insights Hub Edge Analytics". For more information, refer to "Insights Hub Edge Analytics".

Remote Services

Remote services provide efficient and low-cost support for machine tools and production equipment via the Internet. This service involves establishing the remote connection of the assets to implement the solution strategies developed for the issue detected.

Based on the root cause analysis, the service engineers identify the possible cause of the error and define and implement the solution strategies to keep the machines operational. Some of

these solution strategies can be implemented using the remote connection. Insights Hub Asset Health & Maintenance assists the service engineers to develop the remote connection using Remote Service, which allows them to service assets through a secure log-in mechanism. To achieve this, a secure tunnel to the affected asset is established once the machine owner / operator accepts the request for an incoming connection on either a desktop or a mobile application. Once the connection is established, the service engineer can make changes or updates on the asset as per the analysis performed.

For more information on Remote connection, refer to Remote Connection.

Ticket management system

2.2 User Rights

Insights Hub Asset Health & Maintenance also provides a ticket management system to enable the efficient working process of the service engineer. It allows the engineers to get an overview of all the tickets assigned to them, that requires to be investigated and solved as per the priority. The application also allows the lead engineers to administer Teams, Customers, and Employees.

2.2 User Rights

Insights Hub Asset Health & Maintenance adopts user rights from "Settings".

The user rights depend on the following user roles:

- Team Lead
- Team Member
- Admin
- Site Owner

The following table gives an overview of the permissions for different user roles:

Right	Role: Team Lead	Role: Team Member	Role: Admin	Role: Site Owner
Add rules	✓	√		
Edit rules	1	1		
Delete rules	√	✓		
Add Tickets	√	✓		
Edit Tickets	√	✓	1	
Delete Tickets			1	
Add Comments in Tickets	√	✓		
Edit own Comments in Tickets	1	√		
Edit Comments of Team Member's in Tickets	1			
Temporarily delete own Comments in Tickets	1	✓		
Temporarily delete Comments of Team Member's	1			

Right	Role: Team Lead	Role: Team Member	Role: Admin	Role: Site Owner
in Tickets				
Restore Temporarily deleted own Comments in	1	1		
Tickets				
Restore Comments of Team Members in Tickets	\ \			
Delete Comments in Tickets			1	
Add Teams	1		1	
Edit Teams	1		1	
Temporarily delete Teams	1			
Restore Temporarily deleted Teams			1	
Add Employees	1		1	
Edit Employees	/		1	
Temporarily delete Employees	1			
Restore Temporarily deleted Employees			1	
Delete Employees			1	
Add Customers	1		1	
Edit Customers	1		1	
Temporarily delete Customers	1			
Restore Temporarily deleted Customers			1	
Delete Customers			1	
Analyze asset data	1	✓		
Establish Remote Connection	1	√		

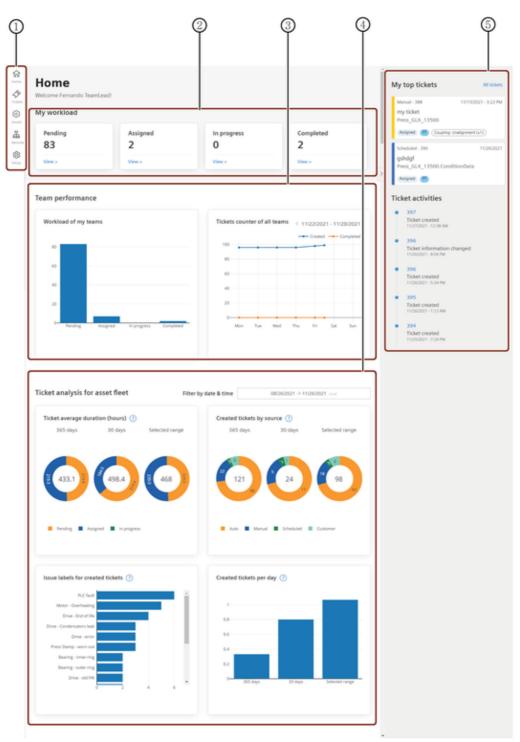
2.3 User Interface "Home"

Right	Role: Team Lead	Role: Team Member	Role: Admin	Role: Site Owner
Grant Remote Connection Access				1
Delete Remote Service Session			1	
Terminate Remote Connection	√	1		
Revoke Remote Connection Permission				/
General Settings				

2.3 User Interface "Home"

The "Home" screen provides a quick overview of all the tickets created in the Insights Hub Asset Health & Maintenance.

The Home screen of "Insights Hub Asset Health & Maintenance" is as shown below:



- ① Main Navigation with five tab-categories
- Home
- Tickets
- Assets
- Remote
- Setup
- ② Workload details
- 3 Overall team workload details

2.3 User Interface "Home"

- Ticket analysis details
- ⑤ Ticket activity details

Dashboard Charts

The Dashboard gives a quick overview of all the tickets assigned to you, your team and all the teams.



- ① Individual Workload details
- ② Workload details of your team
- 3 Workload details of all teams

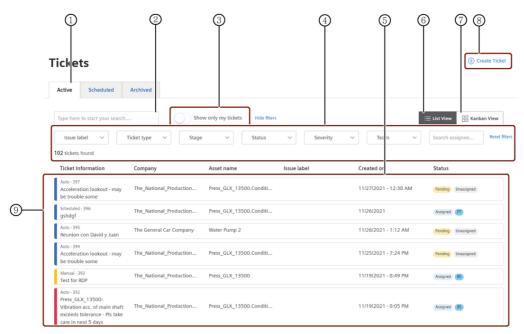
The below dashboard charts provides the overall details of the Tickets.



- ① Average Ticket duration details
- 2 Overall details of the labels issued for the tickets
- 3 Tickets created by different source
- Tickets created per day

2.4 Introduction

Ticket management system, an integral part of the Insights Hub Asset Health & Maintenance, is a transparent life cycle management of all the tickets recorded for the assets. Ticket Management system enables an efficient working process for the service engineer and helps them to analyze, investigate, and solve the tickets assigned to them as per the priority. In the Tickets window, all the tickets of different sources can be displayed in a list view or Kanban view. Additionally, filtering functionality helps to find the tickets you are interested in. The following screen describes the list view of Ticket Management system:



- ① The "Active" tab displaying active tickets
- ② Search box
- 3 Toggle button to display own tickets
- Filters the tickets
- 5 Ticket information of the environment
- 6 Displays the tickets in list view
- ② Displays the tickets in Kanban view
- ® Creates ticket
- Color code to display the severity of ticket

Types of Tickets

Based on the source of creation, the tickets are classified into the following types:

- Auto: Created automatically by the Rules.
- Manual: Created manually by the service engineers.
- Scheduled: Tickets created for future are classified as scheduled.
- Customers: Created manually by the site owners.

Severity of the Tickets

The tickets can be filtered based on the following severity:

- Low
- Medium
- High

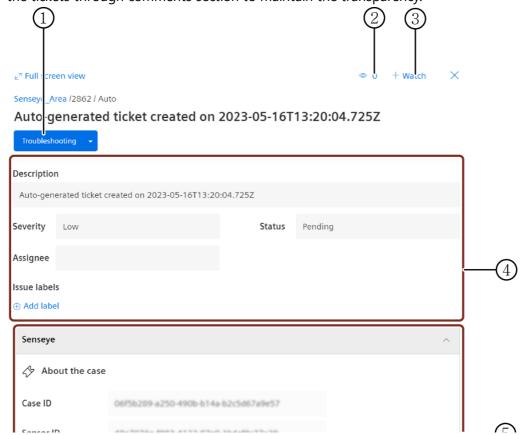
Life cycle of the Tickets

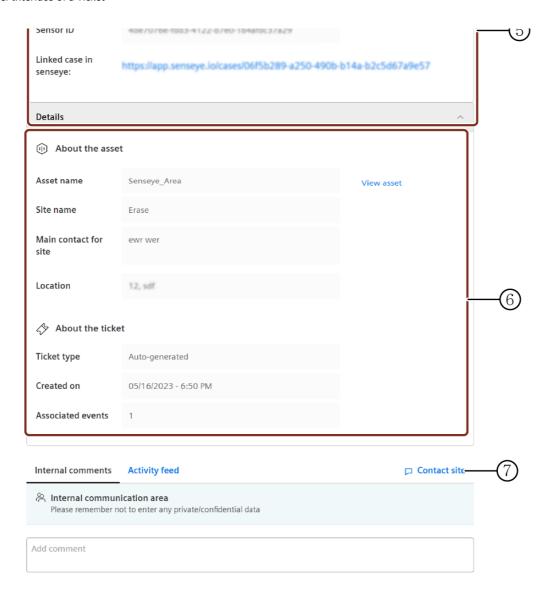
The tickets have the following stages in its life cycle:

- Pending
- Assigned
- In progress
 - Active
 - Flagged
 - Observation
 - Reporting
- Completed
- Archived

2.5 User Interface of a Ticket

Tickets are used to log and the track the incidents and issues related to asset. All the activities worked on the ticket are recorded. Also, it allows the service engineers to record their updates of the tickets through comments section to maintain the transparency.





- ① Allows to connect remotely or call with Microsoft Teams
- ② Number of viewers following the ticket
- 3 Follows and tracks the ticket activities
- Ticket management details with Severity Status Assignee Issue Labels
- ⑤ Displays the case details
- ⑥ Ticket type and Asset information
- ② Supports the customer communication

After completion of every stage, it is required to manually update the status of the tickets. To manually update the ticket status, open the ticket and select the appropriate status from the "Status" dropdown.

Contact Customer

To analyze and resolve the tickets, interaction with the customers is one of the primary requirements. The tickets allows the engineers to interact with the customers through "Contact customer" option. By clicking "Contact customer", the engineer can either chat or call the customer through Microsoft Teams.



- Only the users with admin role can set up Microsoft Teams account.
- The user is responsible for the set up, operation and usage of his Microsoft Teams, especially in regards to his data privacy policy.

2.6 Creating a new Ticket

Tickets are created to log the incidents or the issues of an asset resulting in the possible failure of an asset, while analyzing the conspicuous measuring points in the graph. These tickets are used to support and assist the service engineers to get an overview of all the incidents or issues recorded against an asset.

Tickets are created in the following ways:

- Automatic Tickets
- Manual Tickets
- Customer Tickets
- Scheduled Tickets

Creating a manual ticket

To create a ticket, proceed in the following ways:

- 1. In the "Tickets" tab, click "Create ticket".
- 2. Enter the required details.

Field	Description
Ticket Title	Title of the ticket. Note: Tick the check box, if you want this ticket to be scheduled for future
Asset Id	Identification of the asset. Note: Asset Id is selected automatically for the selected asset from the asset tree
Asset name	Name of the asset. Note: Tick the check box if the asset doesn't belong to cloud. Asset name is selected automatically from the asset tree
Severity	Severity of the ticket
Assignee	Receiver of the ticket

Field	Description
Labels	Common issues found in the asset are added as Labels
Description	Description of the incident
Customer	Name of the customer
-	Primary contact person. Note: To add a new contact, tick the check box

Field	Description
Ticket Title	Title of the ticket. Note: Tick the check box, if you want this ticket to be scheduled for future
Asset Id	Identification of the asset. Note: Asset Id is selected automatically for the selected asset from the asset tree
Asset name	Name of the asset. Note: Tick the check box if the asset doesn't belong to Insights Hub. Asset name is selected automatically from the asset tree
Severity	Severity of the ticket
Assignee	Receiver of the ticket
Labels	Common issues found in the asset are added as Labels
Description	Description of the incident
Customer	Name of the customer
Primary Contact for Ticket	Primary contact person. Note: To add a new contact, tick the check box



- Labels are used to categorize the tickets, the most commonly found issues in the assets are created as Labels. These labels can be added while creating the tickets, which helps the service engineers in analyzing the tickets.
- Only the users with the admin role can create the labels.

3.Click "Create Ticket".

Creating an Automatic Ticket

You can create automatic tickets using a rule. For more information, refer to Rules extension.



If there are multiple events created for an asset, these events are aggregated to a single unresolved ticket of an asset.

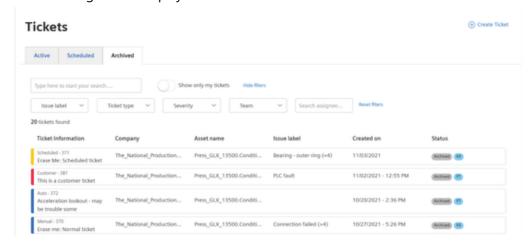
2.7 Scheduled Tickets

Scheduled Tickets are the tickets created for furture maintenance of the assets. The following screen displays the list view of the Scheduled tickets:



2.8 Archived Tickets

Once the tickets are resolved, they are set to archived state. The following screen displays the list view of the Archived tickets:



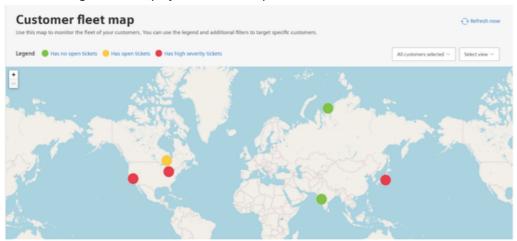
2.9 Fleet Map

Service engineers can use the Fleet maps to monitor the health and the service cases for the assets. The Fleet map displays the tickets assciated with the customers, which can used to

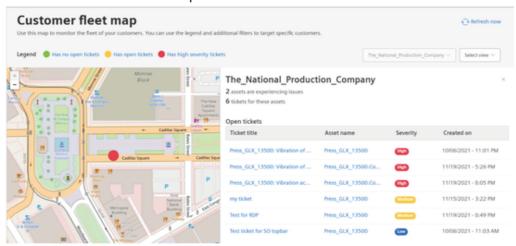
analyze the health status of the assets of the customers.

User Interface of the Fleet map

This following screen displays the Fleet map:



Click the asset on the fleet map to view overall information of the tickets for the selected asset.



2.10 Overview

An asset is a digital representation of a machine or an automation system with one or multiple automation units (for example PLC) connected to Industrial IoT. The data collection and data provisioning is based on assets (Virtual). This can be anything like a pump, motor, PLC, an entire tool machine, a production line, a robot, a crane, a car, a windmill and so on. The data of an asset is collected and sent to Insights Hub to make this data available for further processing and analytics.

You can create assets in Asset Manager. You can find additional information on creating and configuring your assets in the <u>Asset Manager</u> documentation.

Asset Manager configures the data structure and the data connection of the assets. The asset data is structured in what are referred to as "aspects". Aspects can contain several variables of

different data types. Aspects are combined, pre-configured data and form the context for the evaluation of industrial processes. Within the industry process, assets transfer the aspects as time-series data.

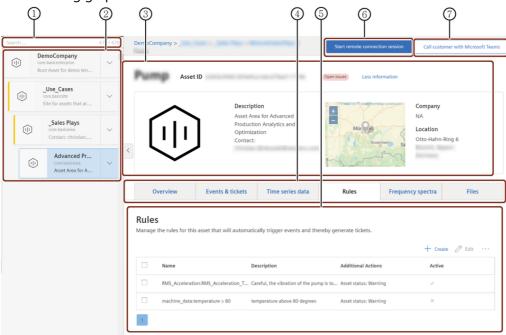
Insights Hub Asset Health & Maintenance uses assets, aspects, and variables as data model for its functions.

2.11 User Interface "Assets"

To access the assets, click the "Assets" tab from the navigation tab and select the asset of your choice.

It is also possible to access the assets from the "Tickets" tab. To access the asset, click "View asset details" in the selected ticket.

The following graphic shows the user interface of the Assets tab:

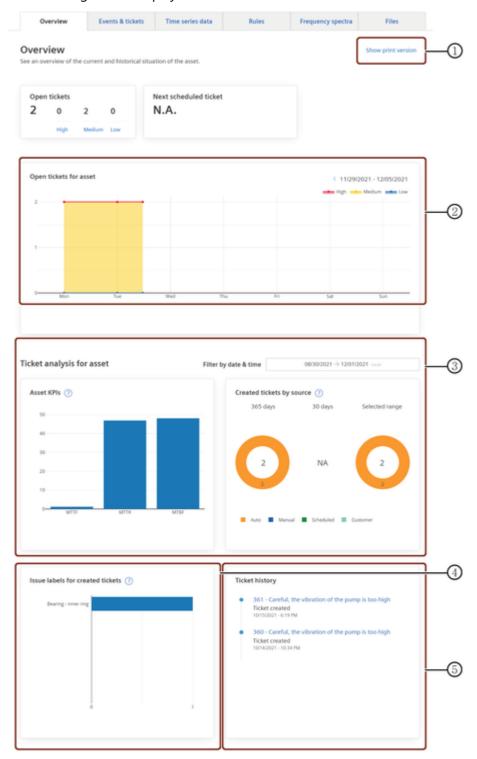


- ① Search box
- ② List of Assets
- 3 Basic Asset details
- 4 Shows the available extensions
- ⑤ Data visualization area of the asset
- **6** Initiates the remote connection to customer's asset
- ② Initiates Microsoft teams call with the customer

2.12 Overview

The "Overview" extension enables you to fetch the current and historical health and service information about an asset is displayed using common graphs and service KPIs to help service teams analyze the asset. This extension lists also allows you to get the printable version of the overview data of the asset. This reports can be used by the asset owners to predict and maintain the asset health.

The following screen displays the "Overview" extension of the assets:



- ① Generates the print version of the asset data
- ② Open ticket details of the asset
- ③ KPI details and ticket source details of the asset

- 4 Labels assigned for created tickets for the asset
- ⑤ Ticket history details of the asset

Asset Health and Service report

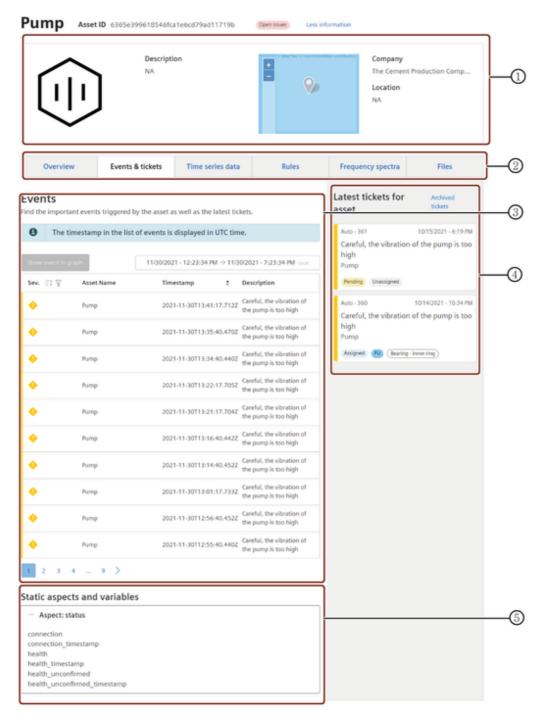
The "Overview" extension allows you to generate the print version for local storage and sharing it to the customers.

To generate the reports, proceed with the following steps:

- 1. Click "show print version" to generate the print version of the file, and click "print" to save the report.
- 2. In the destination section of print preview, select "Save as PDF" and click "Save".

2.13 Info

The "Info" extension enables you to fetch events and data variables information for your assets. This extension lists all the events created automatically while monitoring time series data of your asset via the rules engine. This extension also displays the static aspect details of an asset.



- ① Asset details
- ② Shows the available extensions
- 3 List of all the events of this asset
- 4 Shows the latest tickets of this asset
- Shows the aspects and variables of this asset

Events

Events are the incidents created to trigger the variation in the asset data. These events are automatically created while monitoring your time series data via the rules engine. The event provides the following properties:

Property	Description
Severity	Describes the severity of the event. For more information, refer to the below table.
Timestamp	The timestamp where this event occurred.
Description	A description what happened at this event.
Source	The source of the event - like "Rules" or another application or device.
Acknowledged	A Boolean value which indicates the state of this event, if a user has already acknowledged this event, or if this is a new event. - New events have acknowledged state "false" - Acknowledged events have state "true"

The severity is an integer value with the following meaning:

Icon	Description	Number
A	Error	20
•	Warning	30
0	Information	40

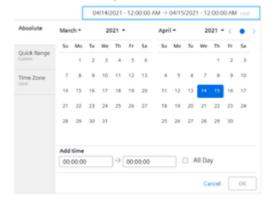
It is also possible to visualize the asset data of the recorded event. To view the asset data of the selected event for the specific time period, select the event from the list and click "Show event in graph". In the "Time series data" extension, select the graph of your choice to visualize the signal. For more information, refer to "Time series data" chapter.

2.14 Timepicker

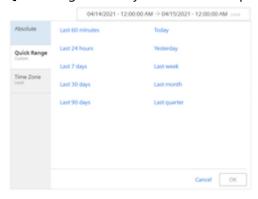
The graph shows the set time period in the Time selection panel.

Time selection panel offers you to select the required time range in the following ways:

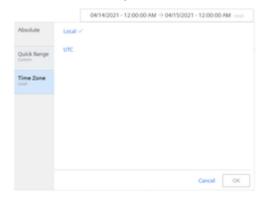
• Absolute: Allows you to select the time range between the "From" date to "To" date.



• Quick Range: Allows you to select the predefined quick time range.

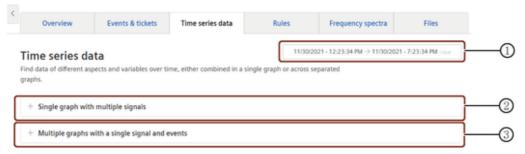


• Time Zone: Allows you select the time zone.



2.15 Time series data

"Time series data" extension allows you to visualize the signal data based on time in order to analyze the possible cause impacting the machine downtime. The "Time series data" extension supports the datatypes which have been defined for this asset type for the visualization of the variables of each aspects. The data of the signals are displayed in the chart view as line diagrams.



- ① Timepicker: Selection and specification of the time zone and the time period of the visualization
- 2 Visualizes the multiple signals in single graph
- ③ Visualizes the individual signal in multiple graphs

This extension supports the visualization of the signal data of the assets for the configured variables in the following ways:

- Single graph with multiple signals
- Multiple graphs with a single signal and events

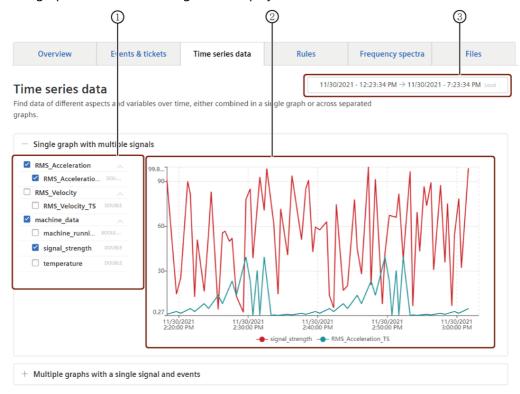
Visualizing multiple signals in a single graph

Time series data extension allows you to visualize the signal data of all the variables configured for the asset in a single graph to compare the variations at once.

To visualize the data, proceed as follows:

- 1. In the "Time series data" extension, click "Single Graph with multiple signals".
- 2. Select the variables to be visualized.
- 3. Select the required time period from the timestamp.

The graph for the selected signals is displayed.



- List of variables of this asset
- 2 Data visualization area
- 3 Timepicker: Selection and specification of the time zone and the time period

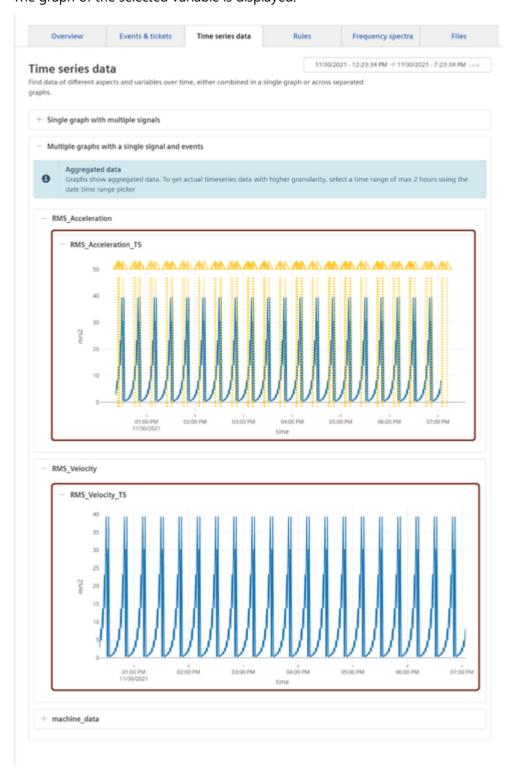
Visualizing Individual signal and events in multiple graphs

"Time series data" extension also allows you to visualize the signal data or events of the individual variables separately.

To visualize the data, proceed as follows:

1. In the "Time series data" extension, click "Multiple graphs with a single signal and events".

- 2. Select the variable to be visualized under the aspect of your choice.
- 3. Select the required time period from the timestamp. The graph of the selected variable is displayed.

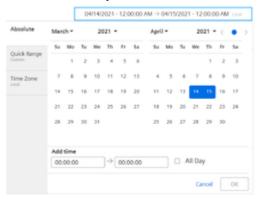


2.16 Timepicker

The graph shows the set time period in the Time selection panel.

Time selection panel offers you to select the required time range in the following ways:

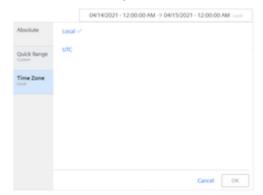
• Absolute: Allows you to select the time range between the "From" date to "To" date.



• Quick Range: Allows you to select the predefined quick time range.



• Time Zone: Allows you select the time zone.

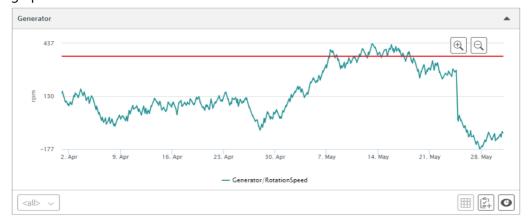


2.17 Rules

A rule automatically triggers events or tickets to notify about the possible failure of an asset. It detects the overshooting or undershooting of a defined threshold value and creates an event and ticket. You can define the exact threshold value in the rule configuration. The rule automatically logs each deviation with an event.

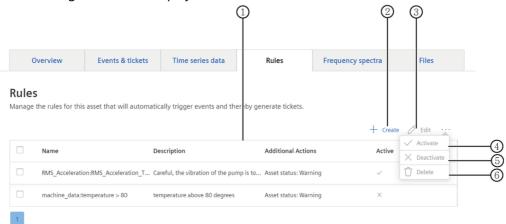
Rules are created in the "Rules" extension.

This following graphic illustrates an example of the threshold value of a rule as a red line in the graph:



User Interface of Rules

The following screenshot displays the "Rules" extension:



- 1 Lists all the rules in this asset
- ② Creates a new rule
- 3 Edits the selected rules
- Activates a deactivated rule
- ⑤ Deactivates an active rule
- 6 Deletes the selected rule

Parameters of the "Rules" extension

The "Rules" user interface contains the following parameters:

Parameter	Description
Name	Name of the rule.
Description	Shows the description of the rule.

Parameter	Description	
Additional actions	Shows the actions that are to follow the violation of the rule.	
IACTIVA	A check shows an active ruleA cross shows a deactivated rule.	

2.18 Creating a Rule

For an instance of an asset, you can create a rule.

To create a rule, open "Assets" and select "Rules" plugin. Click the "Create" button. The rule query enables you to create a new rule and enter the individual parameters.

Parameter overview of rule query

The following table describes the parameters for defining rules:

Parameter	Value	Meaning
Variable	Defined variable within an aspect.	Defines the variable within an aspect for which the rule is created.
Condition	- greater than > Input of digits less than > The digit range depends on the selected tag - greater than or equal to - less than or equal to - equal to - not equal to - on change - in range - out of range	Defines the trigger of the rule based on the limit violation of the threshold value. The debounce time sets the period for the tolerance of a short-term threshold overrun or undershoot in which no event is sent.
Severity	- Error - Warning - Information	Corresponds to the severity of the events. For more information on the severity of events, see section Events.
Description	Text input A maximum of 200 characters may be used.	Allows you to enter a description.

Parameter	Value	Meaning
	Limiting of the number of events over time.	Limits the number of events for a particular time period.
Additional actions	- Set asset state - Send an email	Describes the action that is to follow the violation of the rule. You can select the asset state that is set when the rule is violated. Asset navigation takes on the asset state color of the rule violation that has the highest severity level. Following a rule violation, an email is automatically sent to the specified email address.
Rule name	Text input. A maximum of 256 characters may be used.	Name of the rule.

After entering all the required parameters, click "Save".

2.19 Frequency spectra

Frequency Spectra extension allows you to visualize the signal data based on frequency in order to analyze the possible cause impacting the machine downtime. The "Frequency Spectra" extension supports the datatypes which have been defined for this asset type for the visualization of the frequency signals.

The analysis package "Frequency Spectra" extension analyzes the frequency signals by calculating selected spectral quantities (Fast Fourier Transformation) such as frequency-based acceleration, acceleration envelope and velocity spectra. These quantities can be used to evaluate the spectral composition of the given input signal considering a fixed frequency range (speed independent) and allows an early detection of mechanical fault of rotating equipment. The service engineers can compare this frequency graph with the reference graphs to predict the possible fault resulting in the possible machine downtime.

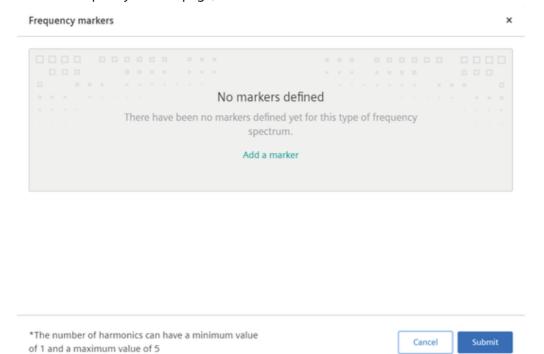
Frequency Markers

While visualizing the frequency data, if you identify any critical frequency, add a marker for future reference. This Frequency markers allows the user to compare the current spectrum with preconfigured critical frequencies and their harmonics. This comparison further helps the engineers in performing the basic analysis.

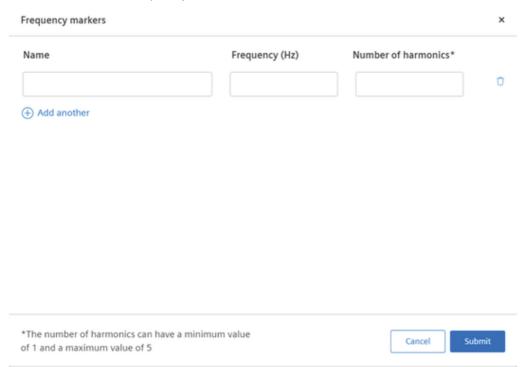
To add a Frequency marker, proceed with the following steps:

1. In the Frequency spectrum extension, select the file and click "Create a Marker".

2. In the frequency marker page, click Add a marker.



3. Enter the Name, Frequency and Number of harmonics.





- Number of harmonics refer to the number of times the markers repeat as per the defined frequency.
- Maximum number of harmonics is limited to 5.

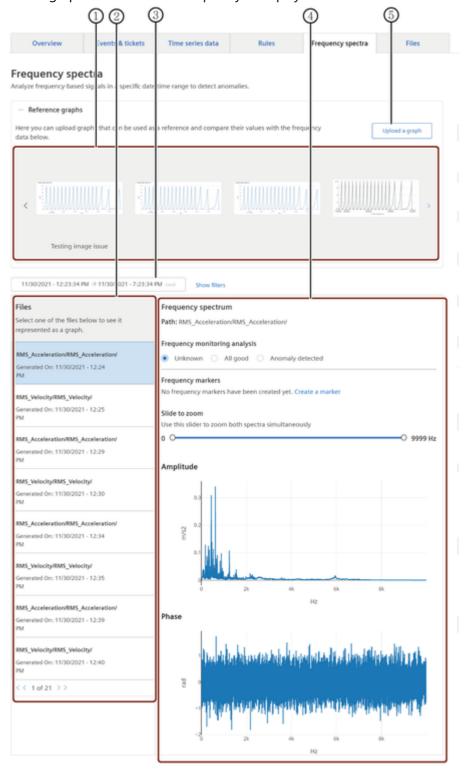
Visualizing Frequency Signal data

To visualize the frequency data, proceed as follows:

- 1. In the "Frequency spectra" extension, select the required date and time range.
- 2. Click "Apply".

Select the spectrum from the "Files" list.

3. The graph of the selected frequency is displayed.



- ① Reference graphs: To compare and predict the cause of failure
- 2 List of available spectra files
- ③ Timepicker: Selection and specification of the time zone and the time period of the visualization
- Data visualization area
- ⑤ Uploads the reference graph
- 4. Add the Frequency marker for comparing the signal data.

Compare the frequency data with the available reference graphs and the frequency markers

5. to detect the possible faults in the asset.

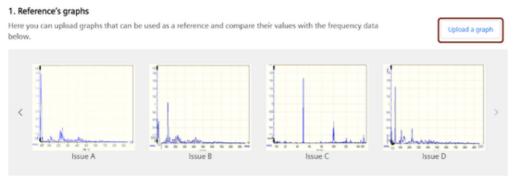
2.20 Reference Graphs

The reference graphs are the general graphs with the similar frequency data resulting in same errors for the similar set of assets, which are used to compare and predict the possible errors in the assets.

Uploading Reference graph

To upload the reference graph, proceed as follows:

1. Click "Upload a graph".



- 2. Select the graph from the local files and click "Next".
- 3. Crop the image as per the requirement.
- 4. Enter the description.
- 5. Click "Save".

Deleting Reference graph

To delete the reference graph, proceed as follows:

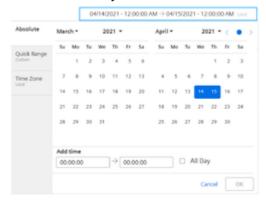
- 1. Select the graph from the list.
- 2. Click "Delete".
- 3. In the confirmation dialog box, click "Proceed".

2.21 Timepicker

The graph shows the set time period in the Time selection panel.

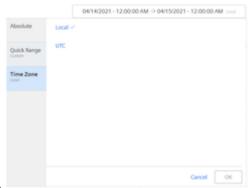
Time selection panel offers you to select the required time range in the following ways:

• Absolute: Allows you to select the time range between the "From" date to "To" date.



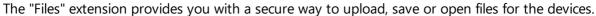
• Quick Range: Allows you to select the predefined quick time range.

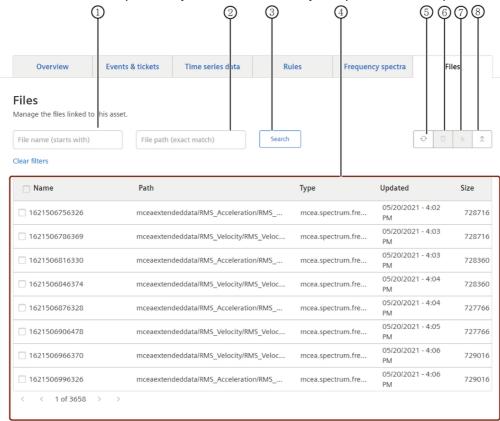




• Time Zone: Allows you select the time zone.

2.22 Files





- Search option with file name
- ② Search option with file path
- 3 Search option
- 4 List of all the files of this asset
- ⑤ Refreshes the files list
- 6 Deletes the selected file
- ① Uploads the file
- ® Downloads the selected file

The "Files" extension offers you the following functions:

- Upload, download and delete files for your assets
- Upload and manage files
- Search and sort files

Uploading files to the "Files" extension consumes space in your environment, even if it is done by another user.

2.23 Overview

Remote services provide efficient and low-cost support for machine tools and production equipment via the Internet. In the event of a fault, the service organization of the machine manufacturer has fast access to important control data and diagnostic functions. In that way, the machine manufacturer or maintenance department can immediately analyze the current condition of the machine tool in which a fault occurred.

Remote Sessions (remote access) is a secure login mechanism, which helps you avoid time-consuming on-site service assignments and prepare them better. Machine manufacturers can reduce their warranty costs while providing more efficient service support.



The feature is available only for Region Europe 1.

2.24 Establishing Remote connection

Service Engineers requires a secure remote connection to establish the connection with the asset to resolve the identified error. In order to achieve secure remote connection, the machine owner / operator has to accept the request permission initiated by the service engineers. Once the machine owner / operator grants the permission, service engineers establishes the connection with the asset to make the necessary changes or updates on the asset as per the analysis performed. The secure remote connection is achieved through a secure tunnel to the affected asset after accepting the request for an incoming connection on either a desktop or a mobile application.



This feature is available only for Region Europe 1.

User Interface of Remote Service

The following screen displays all the active and finalized remote connection sessions:



- ① Lists all the active sessions
- ② Lists all the finalized sessions
- 3 All the active connection sessions

Request Permission

Service Engineer has to initiate the remote connection by raising the permission request. Service Engineer raises the permission request to the machine owner / operator asking for accessing to the asset.

To submit the request permission, proceed as follows:

- 1. In the "Assets" tab, select the asset linked to the ticket.
- 2. Click "Start remote connection session" button.
- 3. Select your ticket for which the solution is being implemented.
- 4. If required, select a remote connection protocol by clicking on the arrow at the button "Connect remotely using ...".
- 5. Click on the "Connect remotely using ..." button.
- 6. Click "Request Permission".

Request permission to My Car Com...



Select one of the tickets that is related to this connection request and add a message to share any useful information with the customer.

The associated customer's contacts will be then notified via email and asked to grant you access. Once the customer grants permission, you can establish a remote connection in this same sidepanel.

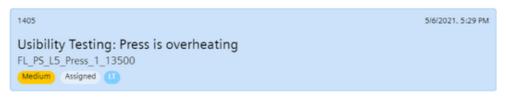
Add a message to your request (optional)

Here you can include useful information you'd like to share with the customer related to your request. The message will also be included in the email that the customer will receive.



Pick a ticket you'd like to work on

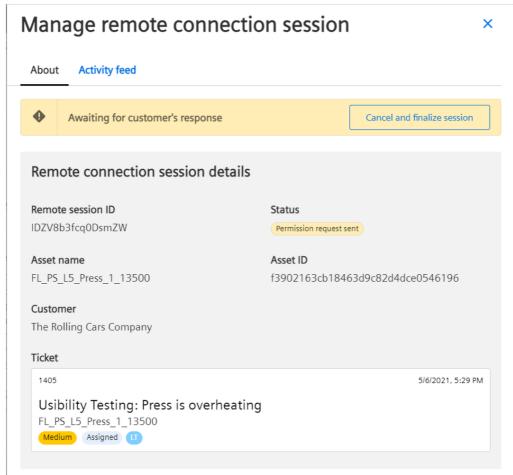
There might be several open tickets assigned to you for this machine, please select the one you'd like to work on.





Once the request is submitted, the Machine owner/ operator is notified through the mail. The machine owner / operator can accept or deny the request. To establish the secure connection,

the machine operator has to accept the request.



Until the machine owner / operator grants the permission, remote connection session is set to pending state and can be tracked under the "Active" sessions of the "Remote" tab.

Establishing Connection

Once the machine owner / operator grants the permission for secure remote connection, The site engineers has to establish the remote connection to access the machine owner's / operator's asset for making the necessary updates.

To establish the secure connection, proceed as follows:

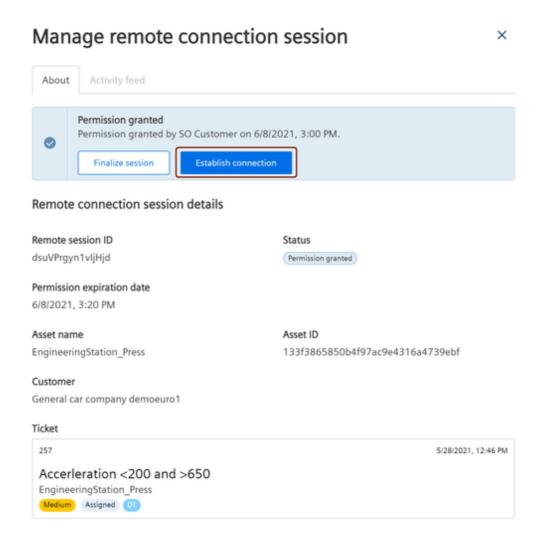
1. In the "Remote" tab, select the remote connection session with the "Permission granted" status. Or

In the asset, click "Manage remote connection session".



It is also possible to access the active remote connection session from the notification tile displayed on the top of the screen.

2.Click "Establish connection".



3.Enter the security credentials in the security key dialog. Remote connection to the asset is successfully established.

The connection established can be stopped at any point and can be re-established before finalizing the active session.

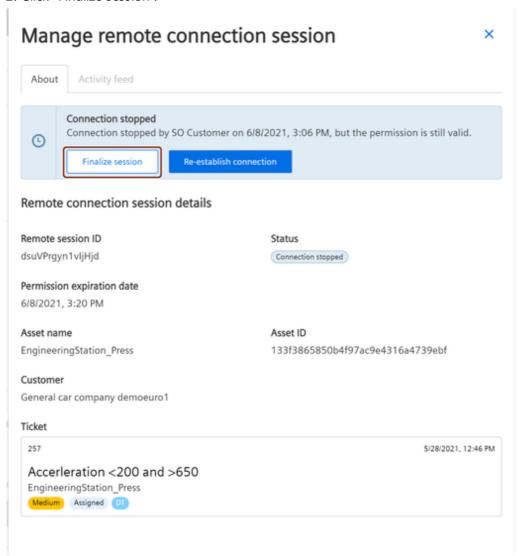
2.25 Finalize Remote Connection

After implementing the necessary updates to the machine owner / operator asset, the established emote connection has to be finalized.

Procedure

To finalize the remote connection, proceed as follows:

- 1. Click "Stop connection" in the "Manage remote connection session". It is also possible to reestablish the stopped connection before finalizing the active session.
- 2. Click "Finalize session".



3. In the confirmation dialog box, click "Ok".

Result

Remote Connection is successfully finalized.

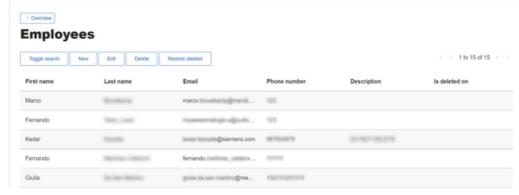
After successful implementation of the solution, enter the appropriate comment in the ticket and change the status of the ticket to "Completed".

2.26 Overview

Using "Setup" tab, users with the team lead role can monitor, manage, and track employees, teams and customers details of the organization.

2.27 Managing Employees

In this section, the team lead can add, track, and edit the employee details of the organization.



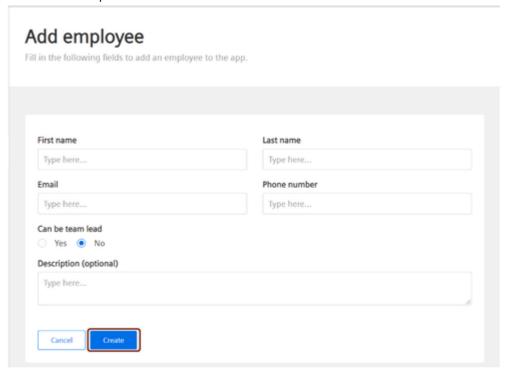
- ① Search box
- ② List of all the Employees
- 3 Adds an employee

Adding an Employee

To add an employee, proceed as follows:

- 1. In the "Setup" tab, click "Employees".
- 2. Click "Add Employee".

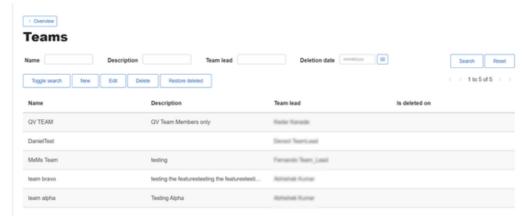
3. Enter the required details.



4. Click "Create".

2.28 Managing Teams

This section enables the team lead to add, track, and edit the team details of the organization.



- ① Search box
- ② List of all the teams
- ③ Creates a new team

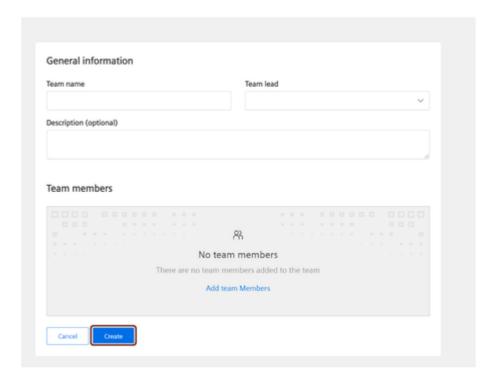
Adding a Team

To add a team, proceed as follows:

- 1. In the "Setup" tab, click "Teams".
- 2. Click "Add Team".
- 3. Enter the required details.

Create team

Fill in the following fields to create a team.



4. Click "Create".

2.29 Managing Customers

This section enables the team lead to add, track, and edit the customer details of the organization. Customer details includes basic information of the customer, contact person details and assets listed for the customer.



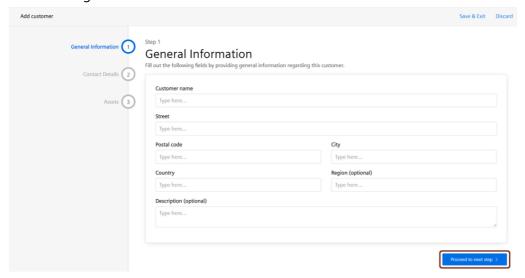
- ① Search box
- ② List of all the customers

3 Adds a customer

Adding a Customer

To add a customer, proceed as follows:

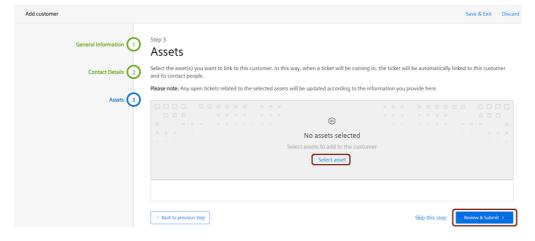
- 1. In the "Setup" tab, click "Customers".
- 2. Click "Add Customer".
- 3. Enter the general Information of the customer and click "Next".



- 4. Enter the contact details of the customer and click "Next". This is not a mandatory step, but the customer contact details is important to establish the remote connection.
- 5. In the assets details, click "Select asset".

Select the asset from the assets configured for this environment.

Click "Add asset", Or If the asset contains child assets, click "Add this and Child assets".





An asset can only be linked to one customer.

6.Click "Review & Submit".

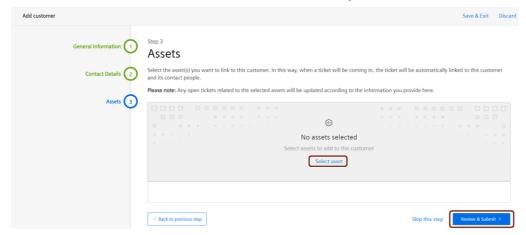
7. Verify the details and click "Submit".

Adding an asset to an existing customer

It is also possible to add an asset for an existing customer.

To add an asset for the existing customer, proceed as follows:

- 1. In the "Setup" tab, click "Customers".
- 2. Select the customer and click "View more".
- 3. In the "Assets" tab, click "Add assets".
- 4. Click "Select asset".
- 5. Select the asset from the assets configured for this environment.
- 6. Click "Add asset". Or If the asset contains child assets, click "Add this and Child assets".





An asset can only be linked to one customer.

7.Click "Save changes".

Admin 3

3.1 Introduction

Insights Hub Asset Health & Maintenance allows you to monitor the industrial assets such as production machines, rotating equipment or other devices. In addition, it allows the administrator to monitor and manage the following:

Managing tickets Managing teams Managing employees Managing customers Managing remote connection settings

3.2 Managing assets

Monitored assets in Insights Hub can be mapped to some external assets.

To get an overview of those mappings, click "Administer assets" in the "Admin" tab.

Within this application, it is possible to inspect the list of monitored assets as well as its mapped external ids.

Moreover, it is possible to configure ticket autogeneration rules for each particular asset. To accomplish that, click on an asset row and select event severities and types for which a ticket should automatically be generated. It is also possible to switch autogeneration mechanism on or off.



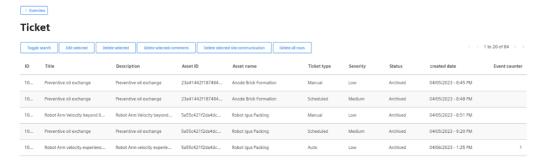
3.3 Managing tickets

Tickets are used to log and the track the incidents and issues related to asset. The tickets are used to support and assist the service engineers to get an overview of all the incidents or issues recorded against an asset.

To manage the tickets created by the Service engineer, click "Administer tickets" in the "Admin" tab.

The following actions are possible:

- To search for a specific ticket, click "Toggle search" in the "Administer tickets" screen. It is possible to search for a ticket based on the following parameters:
 - Title
 - Asset ID
 - Ticket type: Manual or Auto generated
 - Description
 - o Severity: Low, Medium or High
 - Stage: Pending, Assigned, In progress, Completed, Archived
 - Status: Pending, Assigned, In progress- Active, In progress- Flagged, In progress-Observation, In progress-Reporting, Completed, Archived
- To select a ticket, click on the respective row. To select several tickets, press and hold the Control button and click the rows one after the other.
- To edit a ticket, click on the required ticket and click "Edit selected". Update the ticket as required and click "Save".
- To delete selected tickets permanently, select the tickets and click "Delete selected". In the confirmation dialog, click Proceed". This operation cannot be undone, which means that the deleted ticket cannot be restored.
- To delete the comments associated with a ticket, select the ticket and click "Delete selected comments". In the confirmation dialog, click "Proceed". This operation deletes all the comments in the selected ticket.
- To delete the customer communication associated with the ticket, select the ticket and click "Delete selected customer communication". In the confirmation dialog, click "Proceed". This operation deletes all the communication with the customer in the selected ticket.
- To delete all tickets, click "Delete all rows". In the confirmation dialog, click "Proceed". This operation deletes all the tickets. If a search is applied, then only the filtered tickets are deleted. The deleted tickets cannot be restored.



3.4 Managing ticket autogeneration filters

Tickets can automatically be generated by events created on assets.

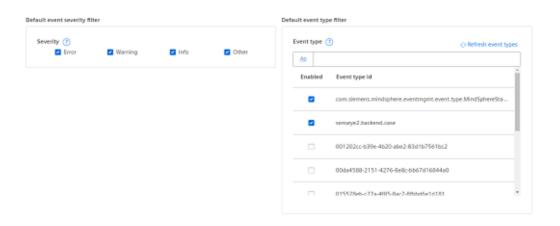
To manage the way how the tickets are created from events, click "Administer ticket autogeneration filters" in the "Admin" tab.

Within this application, it is possible to configure severities and types of events for which the tickets should be generated. If the severity level and type are selected, an according event triggers creation of a ticket. If the severity level or type is not selected, the event of that severity/type does not create any ticket automatically.

The option Other corresponds to all non-standard severity codes.

Ticket autogeneration filters

lickets are created on an event basis. Only events which match filters defined below will be considered.



3.5 Managing teams

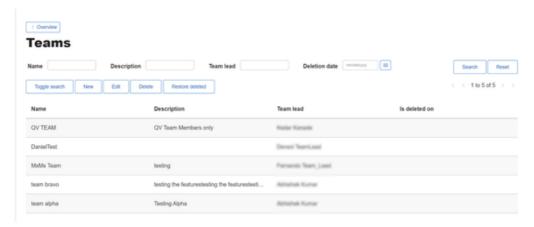
A team consists of a team lead and the respective team members. A team can be created by a team lead and an admin. In addition to creating a team, the admin can also monitor or manage the team. To manage the teams created, click "Administer teams" in the "Admin" tab.

The following actions are possible:

- To search for a specific team, click the "Toggle search" in the "Administer teams" screen in the "Admin" tab. It is possible to search for a specific team based on the following:
 - Name
 - Description
 - o Team Lead
 - Deletion date
- To create a new team, click "New". Enter the name for the team, the description. Select the Team Lead from the dropdown. Add the required team members to the team by clicking "Add

more members". Select the team members from the list and click "Add". Then click "Save".

- To edit a specific team, select the team from the list and click "Edit". Update the details as required and click "Save".
- To delete a team, select the team from the list and click "Delete". In the confirmation dialog, click "Proceed". This action deletes the team permanently and cannot be undone.
- To restore the deleted team, click on the team. The "Is deleted on" field gives information on when the team was deleted. Click "Restore deleted". In the confirmation dialog, click "Proceed".



3.6 Managing employees

Within this application, it is possible to add the employee details. The employee details might be necessary to create a team for future use.

The employee can be added by a Team Lead and also by the Admin. In addition to adding the employee, the admin can also manage or monitor the employees. To manage the employees, click "Administer employees" in the "Admin" tab.

The following actions are possible:

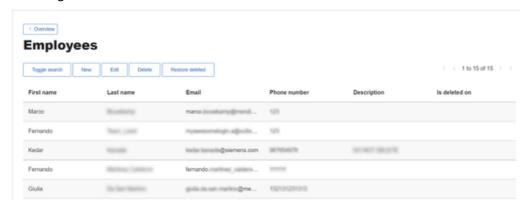
To search for a specific employee, click the "Toggle search" in the "Administer employees" screen in the "Admin" tab. It is possible to search for a specific employee based on the

- following:
 - First name
 - Last name
 - o Email
 - Phone number
 - Description
- To create a new employee, click "New". Enter the following details:
 - First name

- Last name
- o Can be team lead: Yes or No
- o Email
- Phone number
- Description

Click "Save".

- To edit a specific employee details, select the employee from the list and click "Edit". Update the details as required and click "Save".
- To delete an employee, select the employee from the list and click "Delete". In the confirmation dialog, click "Proceed". This action deletes the employee permanently and cannot be undone.
- To restore the deleted employee, click on the employee. The "Is deleted on" field gives information on when the employee was deleted. Click "Restore deleted". In the confirmation dialog, click "Proceed".



3.7 Managing customers

Within this application, it is possible to add the customer details. The customer details might be necessary for future use.

The customer can be added by a Team Lead and also by the Admin. In addition to adding the customer, the admin can also manage or monitor the customers. To manage the customers, click "Administer customers" in the "Admin" tab.

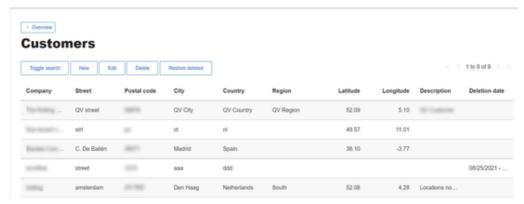
The following actions are possible:

- To search for a specific customer, click the "Toggle search" in the "Administer customers" screen in the "Admin" tab. It is possible to search for a specific customer based on the following:
 - Name
 - Street
 - Postal code

- City
- Country
- o Region
- Description
- Deletion date
- To create a new customer, click "New". Enter the following details:
 - o Customer name: Name of the customer
 - o Street, Postal code, City, Country, Region: Address of the customer
 - o Description: Description about the customer
 - First name and Last name: Full name of the customer
 - o Email: Email ID of the customer
 - Phone number: Contact number of the customer
 - Notes: Additional description
 - Notification settings: Check this box if the person is responsible for accepting remote connections

Click "Create".

- To edit a specific customer details, select the customer from the list and click "Edit". Update the details as required and click "Save".
- To delete a customer, select the customer from the list and click "Delete". In the confirmation dialog, click "Proceed". This action deletes the customer permanently and cannot be undone.
- To restore the deleted customer, click on the customer. The "Is deleted on" field gives information on when the customer was deleted. Click "Restore deleted". In the confirmation dialog, click "Proceed".



3.8 Managing remote connections

When the Service engineer identifies an issue in an asset, the connection can be established to that asset to resolve the issue.

The remote connection can be initiated by Team lead and the team member. The admin can only delete the remote connections.

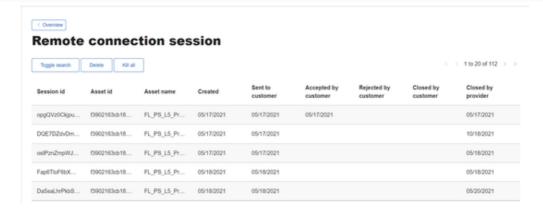
To delete a remote connection, in the "Admin" tab, click "Administer remote connections". Select the remote connection from the list and click "Delete". In the confirmation dialog, click "Proceed". This deletes the remote connection permanently and cannot be undone.

The specific remote connection can also be searched based on the following:

- Session id
- Asset id
- Asset name
- Created
- Sent to customer
- Accepted by customer
- Rejected by customer
- Closed by customer
- Closed by provider



The feature is only available for Region Europe 1.



3.9 Managing Customer Contacts

Within the application, it is possible to track the contact details of the customer. The customer details might be necessary for future use.

The following actions are possible:

To search for a specific customer, click the "Toggle search" in the "Administer customer contacts" screen in the "Admin" tab. It is possible to search for a specific customer based

- on the following:
 - Full Name
 - Email
 - Phone number
 - Deletion date
 - Company

To edit a specific customer details, select the customer from the list and click "Edit".

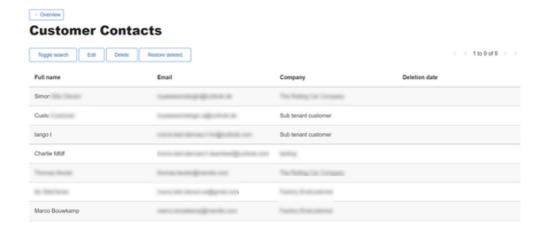
Update the details as required and click "Save".

To delete a customer, select the customer from the list and click "Delete". In the confirmation dialog, click "Proceed". This action deletes the customer permanently and

• cannot be undone.

To restore the deleted customer, click on the customer. The "Is deleted on" field gives information on when the customer was deleted. Click "Restore deleted". In the

• confirmation dialog, click "Proceed".



3.10 Managing issue labels

Within this application, it is possible to add the labels for the most commonly found issues in the assets. This labels will help the engineers to analyze and resolve the assets issues.

The issue label can only be added by the Admin. In addition to adding the issue label, the admin can also manage or monitor the issue labels. To manage the issue labels, click "Administer issue labels" in the "Admin" tab.

The following actions are possible:

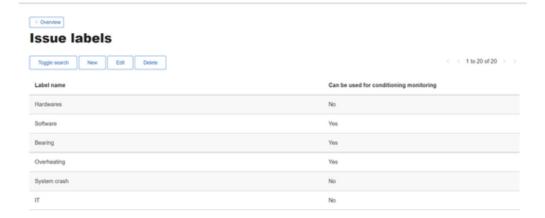
- To search for a specific issue label, click the "Toggle search" in the "Administer issue labels" screen in the "Admin" tab. It is possible to search for a specific issue labels based on the following:
 - Name
- To create a new issue label, click "New". Enter the following details:
 - Label name: Name of the label
 - Select yes or no in the section "Can be used for conditioning monitoring"
 - o Click "Create".

To edit a specific issue label details, select the label from the list and click "Edit". Update the details as required and click "Save".

To delete a label, select the label from the list and click "Delete". In the confirmation dialog, click "Proceed". This action deletes the label permanently and cannot be undone.



It is only possible to add a maximum number of 50 Labels.



3.11 Managing Microsoft Teams

Within the application, it is now possible to interact with the customer using the Microsoft Teams. This helps the engineers to provide the comprehensive assistance to the customers. Functionalities such as screen sharing and webcam streaming make the service process very user-friendly and flexible. The Microsoft Teams account can only be configured by the admin. Establishing the Microsoft Teams account is done in the three stages:

- 1. Set up Azure AD for your application
- 2. Configure the Teams with your application
- 3. Authorize the Teams account with Microsoft



The feature is only available for Region Europe 1.

Set up Azure AD for your application

To set up the Azure AD for your application, ensure this Azure environment should be part of the customer's environment, so the organization where the engineers work at and proceed with the following steps:

- 1. Sign in to the Azure Portal.
- 2. Go to the Azure Active Directory page and navigate to App Registrations. Add a new App registration or edit an existing one if it is already registerd.
- 3. In the overview tab, you will find a number of important/essential ID's, such as the Application (client) ID and the Directory (environment) ID. You will need these to set up the integration in the your application.
- 4. Go to Certificates & Secrets and create a new Client Secret. Save this secret, as you will only be able to view it in the Azure portal once. This secret is also needed for the integration in your application.
- 5. Go to Authentication and add a new Redirect URL. Choose the type Web and for the value, add the base URL of the app + '/oauth/v2/callback_azure'.
- For localhost: Local host.

Configure the Teams with your application



Teams has to configured to every environment that we deploy.

To configure the Teams account, proceed with the following steps:

- 1. Click Administer Microsoft Teams in the "Admin" screen and navigate to 'Set up Microsoft Graph'. Add a new authentication and enter the details, as described below.
- 2. Enter the display name of your choice. Recommendation would be 'AH&SH Dev' or something similar.
- 3. For the Application (client) ID, enter the key you find on the overview tab of your appregistration in the Azure portal (refer to 3rd step in Set up Azure AD of your application).
- 4. For the Directory (environment) ID, enter the key you find on the overview tab of your appregistration in the Azure portal (refer to 3rd step in Set up Azure AD of your application).

- 5. For the Client Secret, enter the key you stored in a safe place after generating it in the Azure portal (refer to 4th step in Set up Azure AD of your application).
- 6. At the bottom of the page, you will find the '+ Metadata' button. Click it to expand the metadata and scroll down to the section of Supported Scopes. Add a New Scope and call it 'OnlineMeetings.ReadWrite'.
- 7. In the Selected Scopes section of the main form, select the OnlineMeetings. ReadWrite scope you just created. This will make sure that the MS Graph integration requests the correct permissions in order to create MS Teams meetings on the user's behalf. Also, select the scope 'offline_access', which is needed to successfully get and use refresh tokens.
- 8. Select code in the Selected Response Type section.
- 9. Select querry in the Selected Response Mode section.
- 10. Select consent in the Prompt section.
- 11. Select the radio button "Yes" for "Is active".
- 12. Click the 'Get Authorization as a User' button and authorize your own user account with Microsoft Graph.

Authorize the Teams account with Microsoft

Every user that wants to create a Microsoft Teams meeting from the Insights Hub Asset Health & Maintenance application has to authorize his account with Microsoft. To do it, proceed with the following steps:

- 1. Sign in as a Team Member or Team Lead role. Navigate to a Ticket or Assets tab, from which a Microsoft Teams call can be started. Click "Call customer with Micosoft Teams" button. When there is no active authorization found, a pop-up will be displayed. This pop-up also includes a button to provide the required authorization.
- 2. When starting the authorization, you will be redirected to a Microsoft page. This page will ask you to sign in with your Microsoft account. Make sure to sign in with an account that is part of the Azure AD that the integration is configured with. For now, this will be your developer account with the format "xxx@ahshdev.onmicrosoft.com". Sign in with the account and then accept the requested permissions. By doing this, you authorize the Insights Hub Asset Health & Maintenance application to create a Microsoft Teams meeting in your name.



Every developer has been granted an account with the format "firstname@ahshdev.onmicrosoft.com" and the password Welcome1!

3. You will be redirected to the Insights Hub Asset Health & Maintenance application and now have an active authorization with Microsoft. Try creating a Microsoft Teams meeting again and

you will now be taken into the main flow for this.

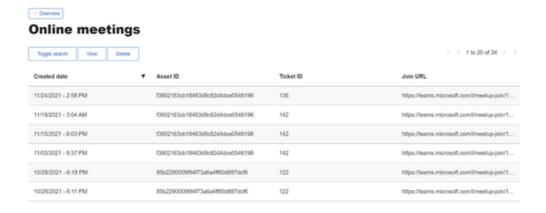
3.12 Managing online meetings

By default the application stores the information about the online meetings conducted. This information can be used in the future for tracking. In the "Administer online meetings" screen, the following actions are possible:

- To search for a specific meeting, click the "Toggle search" in the "Administer online meetings" screen in the "Admin" tab. It is possible to search for a specific online meeting based on the following:
 - Asset ID
 - o Ticket ID
 - Join URL
- To view the specific meeting details, select the meeting from the list and click View. To delete a meeting, select the meeting from the list and click "Delete". In the confirmation dialog, click "Proceed". This action deletes the meeting record permanently and cannot be undone.



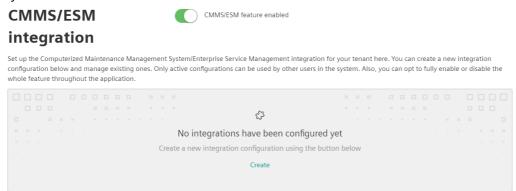
The feature is only available for Region Europe 1.



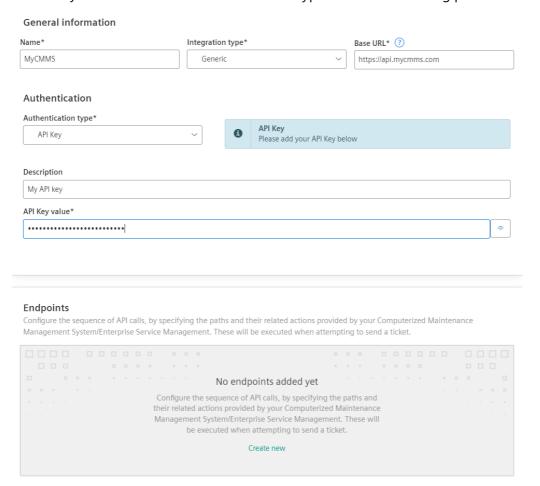
3.13 Managing CMMS integration

If a user wants to send an information about an issue to an external system in order to trigger follow-up actions like ordering inspection, then an interface to that system, e.g. SAP PM can be configured and a ticket can be forwarded.

To configure the interface to the external CMMS system, in the "Admin" tab, click "Administer CMMS integration". Click "Create" button. The integration supports the HTTP REST interface, so the goal is to construct an API call that will create an entity with ticket properties in the external system.

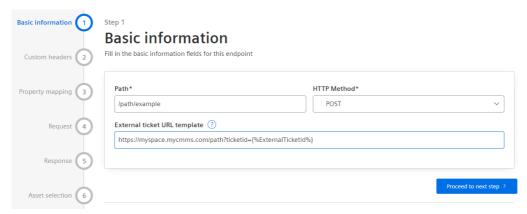


In the appearing dialog, enter a name, select the integration type and configure a host of the external system. Then select an authentication type and enter according parameters.

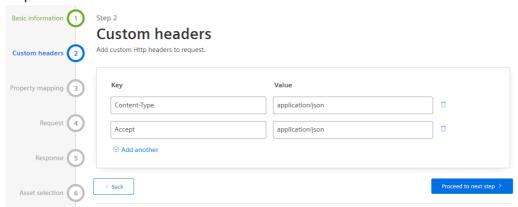


Add a new endpoint by clicking "Create new" in the Endpoints section. A wizard consisting of six steps appears.

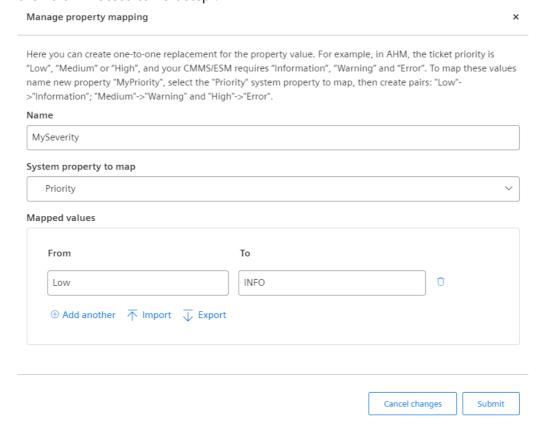
At the first step configure an endpoint path, HTTP method and an external ticket URL template (optional). The ticket URL template allows extraction of an id of a ticket created in the CMM system. This id is displayed at the forwarded Asset Health and Maintenance ticket. Click "Proceed to next step".



At the second step configure custom headers added to the HTTP request. Click "Proceed to next step".

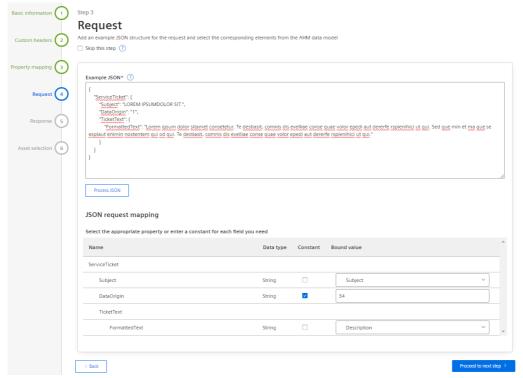


At the third step it is possible to configure and map custom properties. For example, if a CMMS ticket has different values describing priority, then here it is possible to create such a property and map the ticket severities to CMMS priorities. If it is not required or the configuration is done, then click "Proceed to next step".



At the fourth step insert a sample request body as a JSON and click "Process JSON". The JSON properties appear in the table below. Then map those properties to the according ones of a ticket or set them to constants. When a ticket is forwarded, values of the mapped ticket properties are used in the API call.

Click "Proceed to next step".

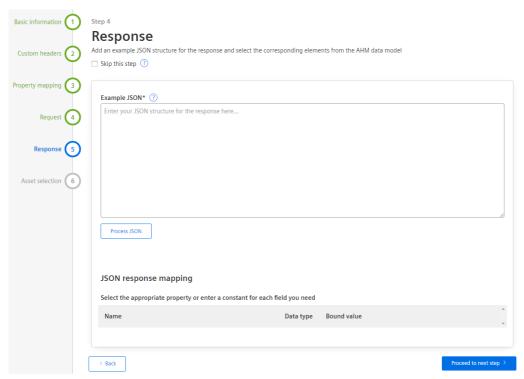


At the fifth step insert a sample response as a JSON and click "Process JSON". The JSON properties appear in the table below. Map those properties to outputs like ExternalTicketId so that this information is stored in the ticket. If no response mapping is required, select the checkbox "Skip this step".

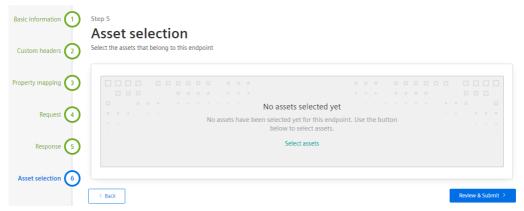
If the ticket should automatically be closed when an according CMMS ticket is processed, then deselect the checkbox "Skip this step" in the Ticket status update section and configure how often the status update is requested and the close status in CMMS. Also,

SecondaryExternalTicketId and ExternalStatus properties should be mapped in the JSON response.

Click "Proceed to next step".



At the sixth and final step select the assets for which forwarding of tickets will be enabled. Click "Review & Submit".



Review the whole endpoint configuration and click "Submit". Review the integration configuration and click "Save and go back". Verify, that the status of the configured integrations is "Active". Now, a ticket assigned to the configured asset can be send to the external CMMS system. Open the ticket and select the drop-down menu "Troubleshooting". Select the menu option "Send to" and the name of the CMMS configuration. Insert a description and click "Submit to ...".

Site Owners 4

4.1 Introduction

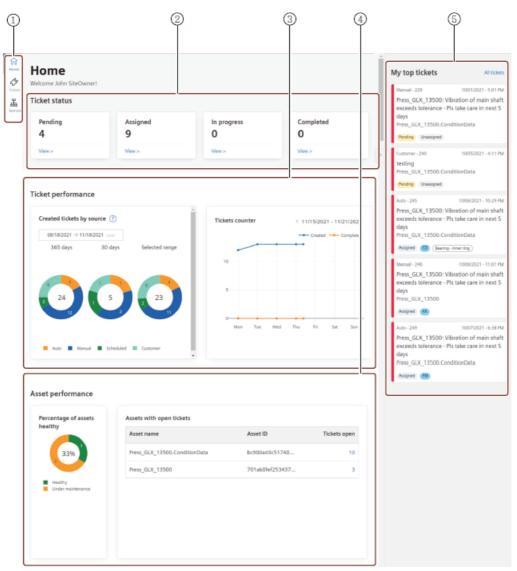
Insights Hub Asset Health & Maintenance solution enables you monitor, analyze, detect, and remotely repair the industrial assets such as production machines, rotating equipment or other devices before the machine damages or disrupts the operations.

This guide is intended for Site Owner.

4.2 User Interface "Home"

The "Home" screen provides a quick overview of all the tickets and asset performace in the Insights Hub Asset Health & Maintenance.

The Home screen of "Insights Hub Asset Health & Maintenance" is as shown below:

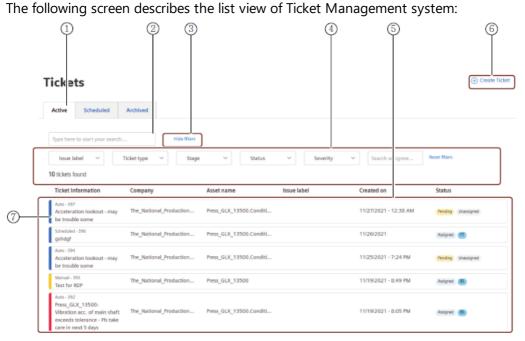


- ① Main Navigation with five tab-categories
- Home
- Tickets
- Remote
- ② Overall ticket status
- 3 Overall ticket performance
- 4 Overall asset performance
- ⑤ Top tickets list

4.3 Ticket Management System

Introduction

Ticket management system, an integral part of the Insights Hub Asset Health & Maintenance, is a transparent life cycle management of all the tickets recorded for the assets. Ticket Management system enables an efficient working process for the service engineer and helps them to analyze, investigate, and solve the tickets assigned to them as per the priority. In the Tickets window, all the tickets of different sources can be displayed in a list view or Kanban view. Additionally, filtering functionality helps to find the tickets you are interested in.

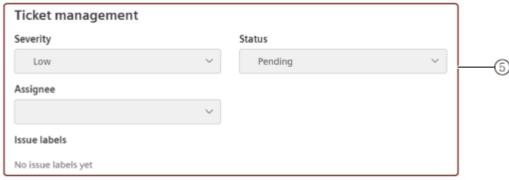


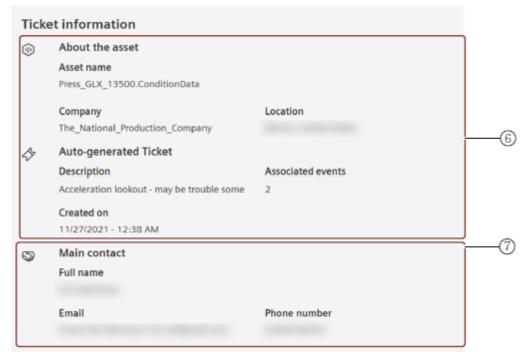
- ① The "Active" tab displaying active tickets
- ② Search box
- 3 Hides search filters
- Filters the tickets
- ⑤ Tickets listed for the asset
- © Creates ticket
- Ocolor code to display the severity of ticket

User Interface of Ticket

Tickets are used to log and the track the incidents and issues related to asset. All the activities worked on the ticket are recorded. Also, it allows the service engineers to record their updates of the tickets through comments section to maintain the transparency.







- ① Current status of the ticket
- ② Activity feed of the ticket
- 3 Helps to communicate with the service provider
- 4 Allows you to watch and track the ticket
- ⑤ Ticket management details
- ⑥ Details of the ticket
- ② Contact details of the service provider

Creating a new Ticket

4.4 Acknowledging connections request

Tickets are created to log the incidents or the issues of an asset resulting in the possible failure of an asset, while analyzing the conspicuous measuring points in the graph. These tickets are used to support and assist the service engineers to get an overview of all the incidents or issues recorded against an asset.

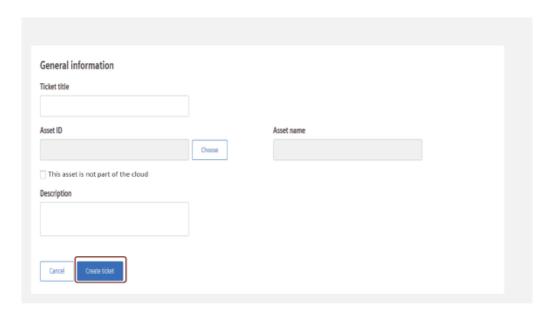
Creating a new Ticket

To create a ticket, proceed in the following ways:

- 1. In the "Tickets" tab, click "Create ticket".
- 2. Enter the below details.

Create ticket

Fill in the following fields to add a ticket manually.



Field	Description
Ticket Title	Title of the ticket
IAsset Id	Identification of the asset. Note: Asset Id is selected automatically for the selected asset from the asset tree
Asset	Name of the asset Note: Tick the check box if the asset doesn't belong to cloud. Asset name is selected automatically from the asset tree
Description	Description of the incident

3.Click "Create ticket".

4.4 Acknowledging connections request

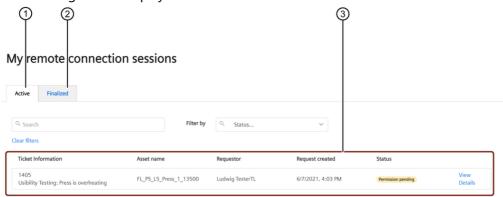
This section describes the procedure for acknowledging a remote connection request received from a Service engineer.



The feature is only available for Region Europe 1.

When the Service engineer identifies an issue in an asset, the connection can be established to that asset to resolve the issue. It is then required for the customer to acknowledge the connection request.

The following screen displays all the active and finalized remote connection sessions:



- Lists all the active sessions
- ② Lists all the finalized sessions
- 3 All the active connection sessions

Prerequisites

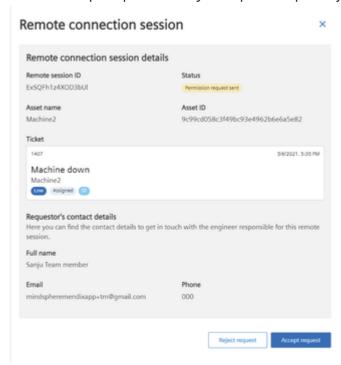
- A user with siteowner role
- Configure your asset, for more information refer to Remote Connection.
- Permission request to establish a remote connection, already submitted by the Service engineer

Procedure

After the Service Engineer submits the permission request, the respective customer will be notified by email. Follow the instructions in the email and click the link provided to acknowledge the request.

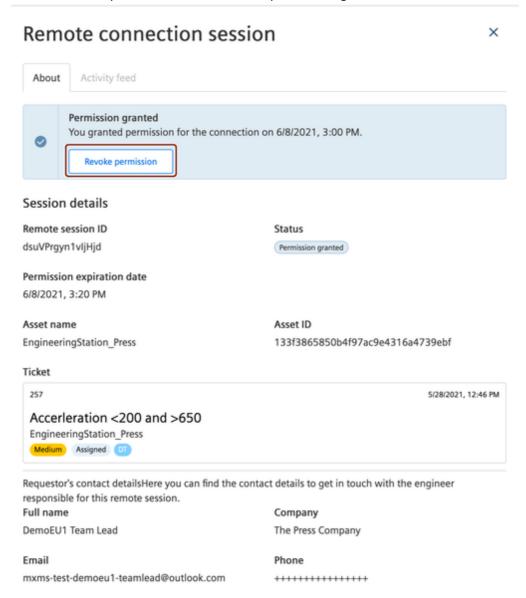
- 1. Log in to Launchpad.
- 2. In the "Remote" tab, select the connection session request submitted by the service engineer from the "Active" sessions tab.

3. Click "Accept request" or "Reject request" request by providing appropriate comments.



On clicking "Accept request", the connection to the asset can be established remotely by the Service engineer.

4. Click "Revoke permission" to revoke the permission granted.





- The site owner who granted the permission can only revoke the permission.
- All the activities that happened during the active session will be recorded in the "Activity feed" tab.