# **SmartView 5.4**

1 — Last update: 15 March 2023

Berlinger & Co. AG

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## 1. Home

#### **SmartView Basic Business Logic**

#### **Shipment Monitoring**

Get detailed information about the temperature development during a shipment in

order to support decision taking if actions are required.

#### Key deliverables:

- · Creation of a shipment with comprehensive metadata
- Association of temperature devices to a shipment
- Upload of device data with e-mail notification highlighting number and details of excursions
- Device PDF document includes temperature graph with device alarms converted to
- SmartView excursions
- · Management of temperature excursions
- Download of shipment PDF report including important information such as metadata, graph,
- excursions, statistics, excursion management and measurements

# Create your Shipment

Manage
Excursions in SmartView

#### **Shipment Analysis and Attachment Upload**

Analyze multiple shipments in parallel to identify weak points and find levers to

improve shipment quality.

#### Key deliverables:

- Access to shipment dashboard with easy-to-read graphs and pie charts
- Customizable dashboards through the use of data filters
- Creation of shipment analysis to analyze selected shipments in detail
- · Downloadable dashboard content as digital images or PDF files
- · Downloadable shipment analysis as a PDF report
- Upload PDF files as attachments to shipments (limit on quantity)
- · Inclusion of a description for uploaded attachments
- · Deletion and replacement of attached documents

Analytics

Dashboards

with Downloads

**Upload Files** 

#### **Facility Monitoring**

Get notified a soon as temperature deviations occur in cold storage facilities so that

immediate actions can be taken.

#### Key deliverables:

- Creation of location with one or multiple sectors representing the storage facility
- · Association of devices to sectors
- Definition of an event profile with threshold for warnings and alarms triggering
- · notification and escalation notification recipients
- Definition of sector and device offline notification rules including notification recipients
- Notification recipients receive temperature graph, statistics, excursions and delivery
- · rates of the devices
- Visualization through temperature graph, statistics, excursions and delivery rates of the
- · devices
- Creation of a sector PDF report including graph, statistics and excursions

Event Profile with Thresholds for Warnings and Alarms

Associate Device to Sector

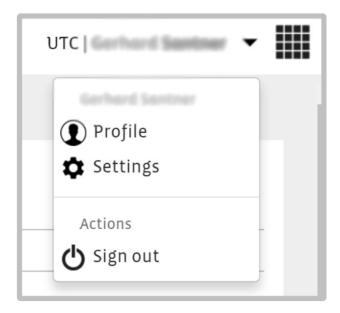
## 1.1. Overview

### **Dashboard**

The SmartView home page contains a dashboard with a quick overview of the system status, provided in four main sections for two different applications.

### **User Configuration**

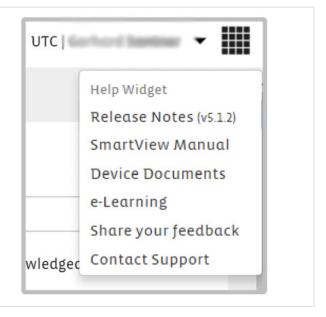
In the upper right corner, the dropdown menu can be found under the User Name, allowing you to configure your user account.



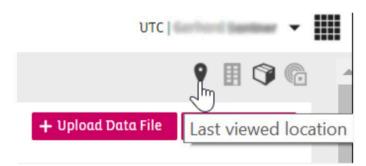
The option button in the upper right corner provides access to a number help widgets:

#### **Help Widget**

- Release Notes (v5.1.2)
- SmartView Manual
- · Device Documents
- eLearning
- Share your feedback
- Contact Support



### **Quick Navigation Buttons**



Four quick navigation buttons are added to the upper right corner of the smartview interface. The last visited Location, Sector, Shipment and Device can be retrieved with these buttons.

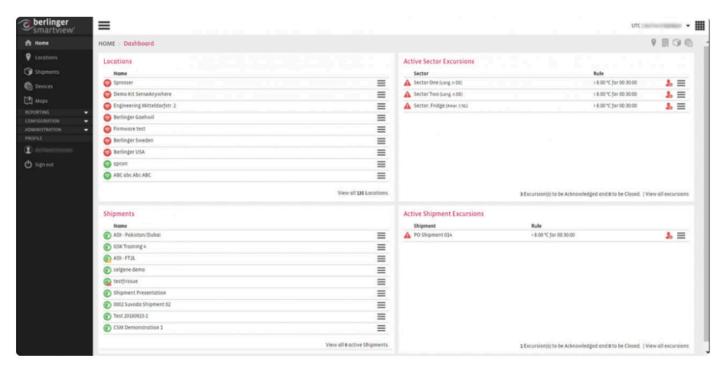
#### **Dashboard of smartview**

For Facility Monitoring the displayed sections will be:

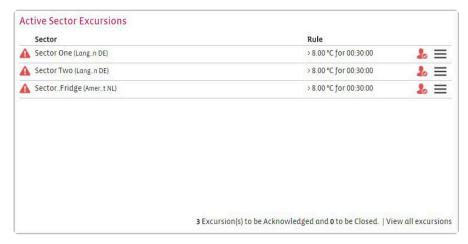
- Locations
- · Active Sector Excursions

For **Shipment Monitoring** the displayed sections will be:

- Shipments
- · Active Shipment Excursions



Note: The visibility depends on the application that SmartView is used for and on the user permission level.



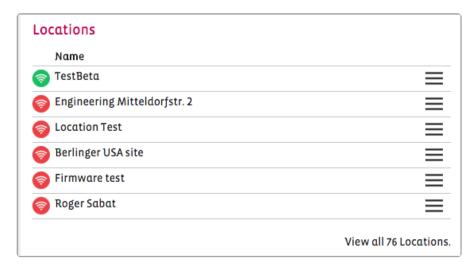
#### **Active Sector Excursions:**

The Sector Excursions box provides a short overview of all active excursions related to the defined sectors. These excursions indicate alert situation in a location, e.g. the temperature in a cold room has exceeded a user-defined threshold and is still ongoing. By clicking on an individual excursion, you can navigate to the screen to view additional detail information about the excursion.



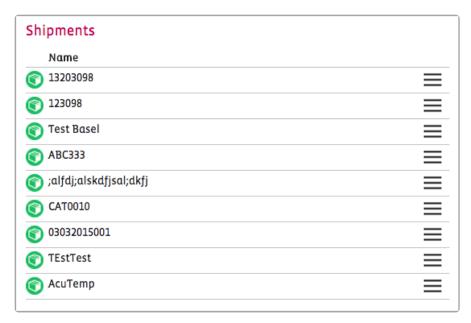
#### **Active Shipment Excursions:**

The Shipment Excursions box provides a quick overview of all active excursions related to shipments. These excursions indicate the alert situation during shipments, e.g. the temperature from a shipment has exceeded a user-defined threshold and is still ongoing. By clicking on an individual excursion, you can navigate to the screen to view additional detailed information about the excursion.



#### Locations:

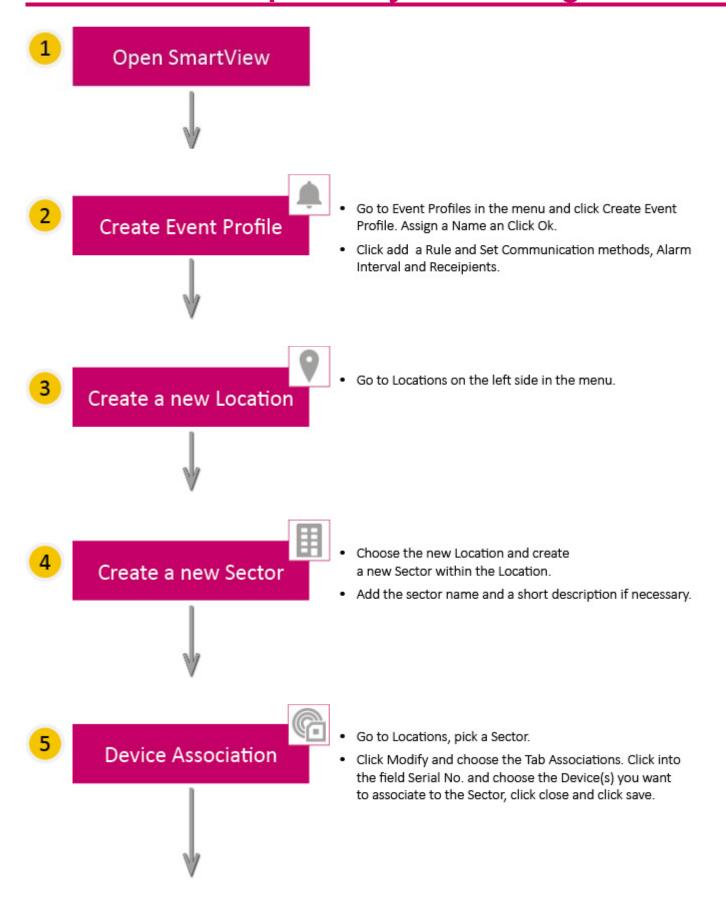
The Locations box provides a quick overview of the network locations that are included in the SmartView installation. The status of the location is provided by an icon. By clicking on an individual location, you can navigate to the detailed screen view of the location. By clicking on the "View all Locations" you will navigate to the Location Overview.



#### **Shipments:**

The Shipment box provides a quick overview of the latest active shipments. By clicking on an individual shipment, you can easily navigate to the screen to view detail information about the shipment.

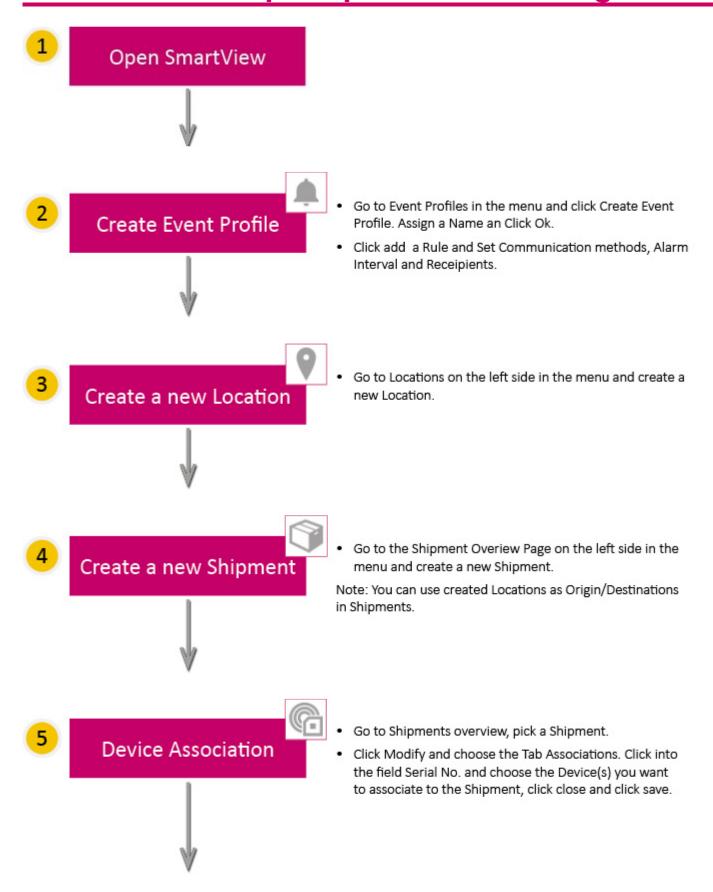
# 1.2. Quick Set Up Facility Monitoring





- Go to Locations, pick a Sector.
- Click Modify and choose the Tab Event. Enable Monitoring and select a predefined Event Profile.

# 1.3. Quick Set Up Shipment Monitoring





- Go to Shipments overview, pick a Shipment.
- Click Modify and choose the Tab Event. Enable Monitoring and select a predefined Event Profile.

# 2. Signing in

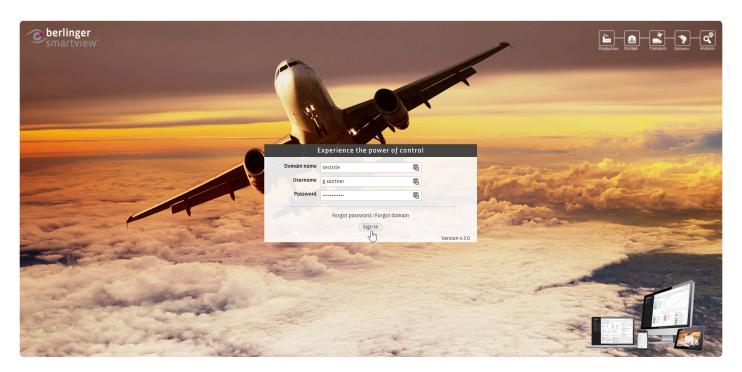
To access the smartview web-application please start your web browser, and enter the following URL or click directly on the link below:

#### https://smartview.berlinger.com

**Note**: it might be that the URL is different due to user customisation.

You will be redirected to the User Sign in page of smartview.

To sign in, enter the appropriate Domain (personalised for your company), your Username and Password to the according fields and press the 'Sign in' button.



### **Session Timeout:**

User will be automatically logged out of the system after 25 min. of inactivity.

**Note**: If you are accessing smartView via a different URL, it can be that the Domain field will not be visible due to the automatic detection by smartview based on a visited URL.

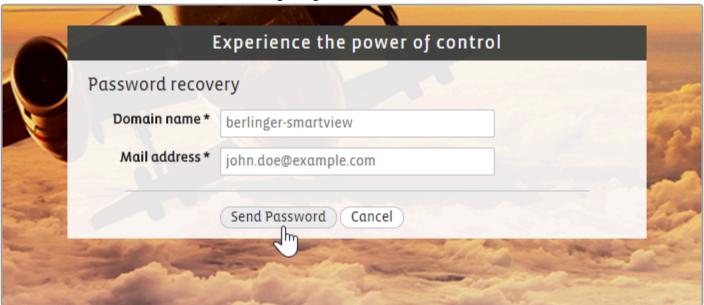
# 2.1. Forgot Password

You can recover your password using your email and domain (optional) in case you have forgotten your password.

A password-reset link will be sent to the your email address. You can use the link within 48 hours of period before it expires, to re-set his password.

If the smartview site is accessed via a private label (e.g. https://smartview.berlinger.com/login) then you do not need to provide domain information to recover the password.

Click on the **Forgot your password?** link on the login screen which will lead you to the **Forgot Your Password** screen as shown in the following image:



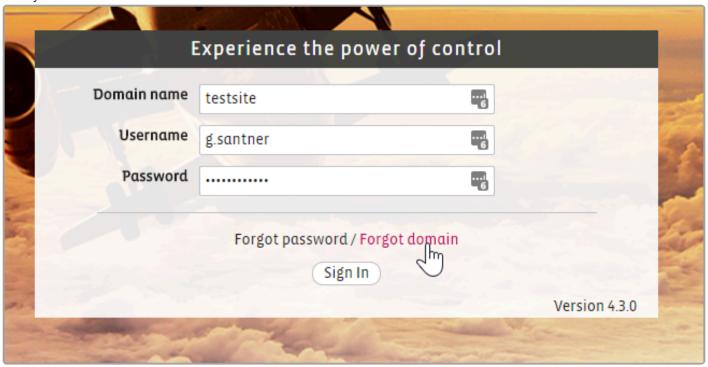
Click **Send Password** to recover your password again.

**Forgot Domain** 

# 2.2. Forgot Domain

In case you have forgotten your Domain name click on the **Forgot your domain?** link shown on the login screen above.

Your Email client opens and you can send an email to the Berlinger support team. You will then be provided with your domain name.



In order to recover your account, enter your E-mail address and Domain name and press the 'Recover Account' button. An email with the instructions to reset the password will be sent.

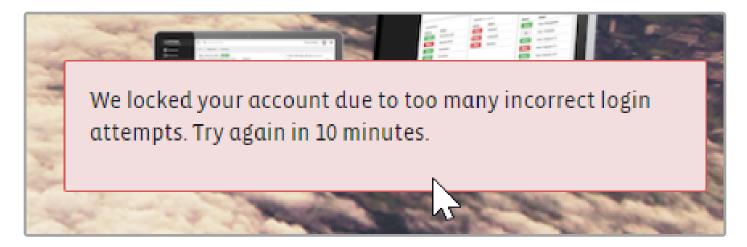
Follow the instructions in the e-mail to reset your password.

#### >> Failed Login Attempts

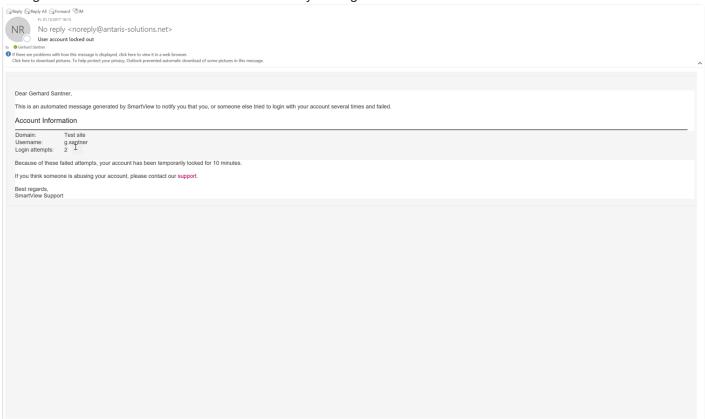
## 2.3. Failed Login Attempts

Your administrator hast set up the number of log in attempts for your account.

After the defined number of incorrect login attempts your account will be blocked for a certain time (between 5 and 60 min.).



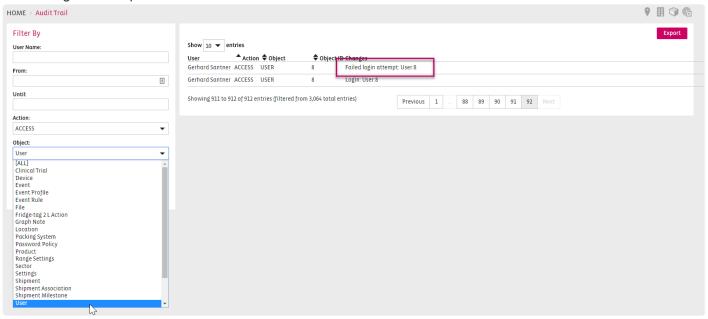
You get also an email with the notification that your login tries have failed several times.



If you have forgotten your password or your domain please refer to Forgot Password, Forgot Domain.

### Failed Log in Attempts documented in Audit Trail

Failed Log In Attempts will also be documented in the Audit Trail.

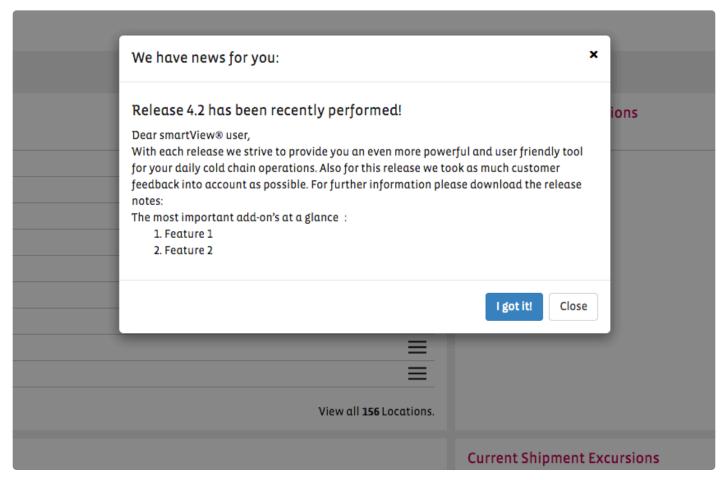


>> Information Window

## 2.4. Information Window

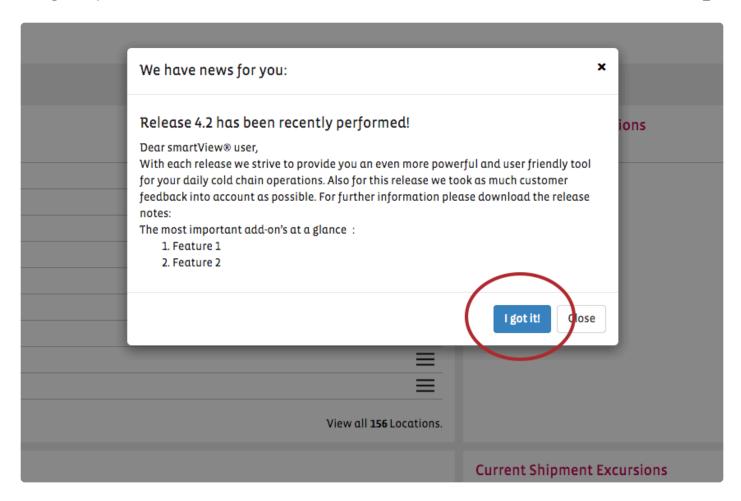
### Information about upcoming updates

Beside e-mail information the smartview user will be informed with a pop up window after successful log in about new releases and other important information.



By clicking the "I got it" button the window will dissapear and not come again when you log in again.

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If the window is just closed the information will come up again with your next log in.

>> Signing in

# 3. General

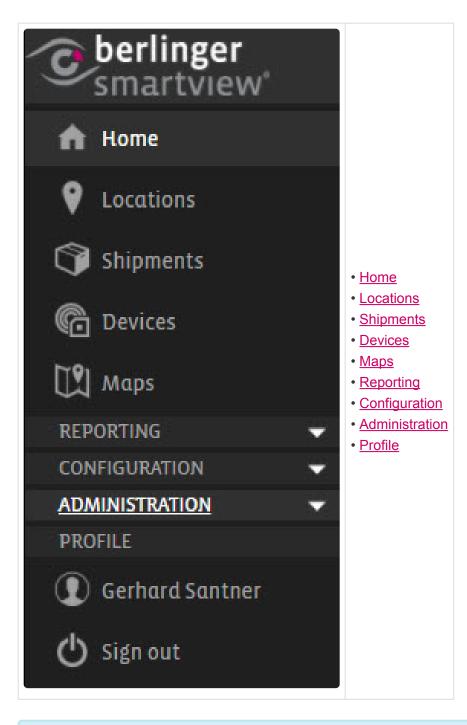
The topic General consits of the following content: 1

• The description of the smartview main menu, the use and meaning of icons and buttons.

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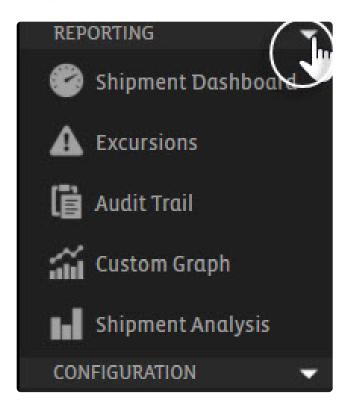
### 3.1. Main Menu

The following main menu items are available:



Not all menu options may be visible. The visibility depends on the user permission level.

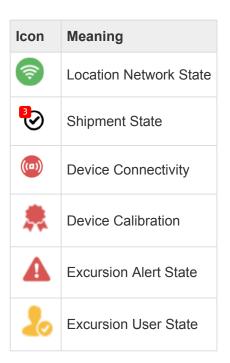
It is possible to hide/reveal some menu items which are not frequently used by users, by folding/unfolding the menu.



>> Use of Icons

# 3.2. Use of Icons

The following icons represent the major entities in the smartview application:



There are also a number of clickable icons to be identified in smartview:

Icon	Meaning	
=	Icon providing action options	
•	View more info icon	

#### >> Use of Buttons

# 3.3. Use of Buttons

The use of buttons in smartview, enables you to perform certain actions:

#### **Extract of examples for smartview buttos:**

Button	Meaning	Usability
Create	+ Create Shipment	The create buttons allow you to create a specific entity
Upload Data Files	+ Upload Data File	Enables you to upload one ore more data files
PDF	PDF	Generates the Shipment PDF report
Modify	✓ Modify	Enables you to modify the details of a specific entity
Delete	Delete	Enables you to delete an entity
Toggle filters	Toggle Filters	Reveals and hides the sorting and filtering options
More options	More Actions	Provides additional options for the page

#### >> Main Menu

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## 3.4. Glossary

**Shipment** The process of transferring a package from A to B can be stored in a shipment. You can think of transport by plane, truck, train, etc. During this transfer, the package will be monitored by multiple devices. The connection between devices and shipments can be made with ShipmentAssociations. A shipment can have an event profile assigned to monitor any discrepancies during transit.

**SubShipment** A sub-shipment is part of a larger shipment (master shipment) but can be used to split device monitoring/event profiling. You can, for example, have an "inside" and "outside" of a shipment, for monitoring inside a package and outside of a package.

**Device** A monitoring device which is capable of sampling temperature, humidity, light, shock or any other parameter. The data can be retrieved in multiple ways. This can either by pushed to our servers by the device itself or manually uploaded over API or through the SmartView portal.

**ShipmentAssociation** The link between a device and a shipment. This link contains information about the time this association was started and the time this associated ended. Any data that is coming in for that device during this period will be considered to belong to the related shipment.

**Milestone** A marker somewhere along the process that can indicate something special happening. (In case of a shipment it could mean that a shipment arrived at some stop-over station)

**Event Profile** A set of rules to monitor the data of the devices coming in. An event profile can be assigned to shipments and sectors. Any incoming data will be checked on the rules of the event profile. If it's exceeding any of those rules we will create an excursion and send an alarm (by email or SMS) to the configured users.

**Excursion** Whenever a violation of any of the defined event rules occurs we will create an excursion describing when a violation of that rule occurred. End users should take action based on these excursions by checking what is going on. After they checked they can either acknowledge or close an excursion by providing some information about what triggered this excursion and how it is resolved.

**Root Cause** A reason for why an excursion occurred. There can be various reasons why the excursion occurred, to streamline the way that excursions can be resolved we use root causes to determine what really triggered this excursion to happen.

**Product** A physical product that is being shipped. A product can have a set of stability rules containing alarm thresholds to determine if the product can still be used or not. This stability will be calculated against those rules, based on the samples of the connected devices (through shipment or sector associations). A product also can have storage conditions that should be met while transferring or storing this product. Those storage conditions should be seen as a global temperature range in which this product should be transferred/stored.

Storage Condition A range to define between which temperatures a product should be transferred or

stored. This range will be used in reports and graphs to indicate if a product has been outside of this 'safe' zone.

**Customer** This is the customer that a shipment is made for.

**Location** A physical location that is used to store packages. Each location consists of multiple sectors. Packages will mostly be stored for a longer time here.

**Sector** The actual place in the location where this package is stored. There can be sectors containing different storage conditions like a very cold fridge and a room with ambient temperature. All those different sectors will be capable of storing and monitoring a different kind of packages. Also, these packages will be monitored by an event profile to notify about any discrepancies.

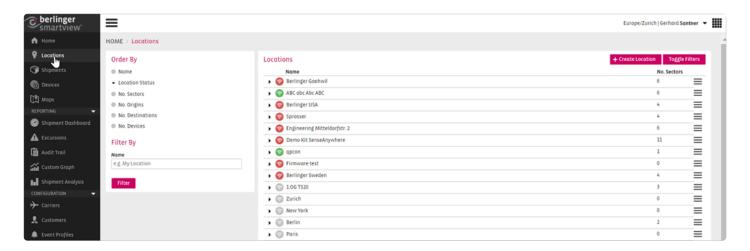
**SectorAssociation** To be able to monitor packages in a sector we will need devices being linked to a sector. That is where the SectorAssociation is used for. In a SectorAssociation, you can define the period a device is linked to a sector. All data from the device during this period will be used to monitor that specific sector.

### 4. Locations

The Locations screen provides an overview of all the Locations created in the system and indicates their network status (offline or online).

#### A Location can be:

- An Origin Location for one/more <u>Shipments</u>
- A Destination Location for one/more **Shipments**
- A Location with a monitoring network containing one/more Sectors



You can expand the bar of each particular location by clicking on the ▼ arrow to see additional information:



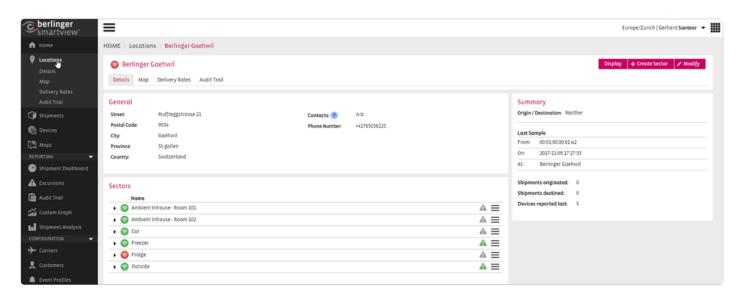
By clicking on the Location name, you will be redirected to the View page of that particular Location. In this screen, you will find the following information:

Address: address information that has been pre-defined for the Location.

**Sector Overview**: this sector overview provides a list of all the Sectors within the Location. The status is shown for each Sector, including the value and timestamp of the most recent measurement.

**Summary**: this section on the right side of the screen, displays the last measurement of a sensor from this location. It also shows information about the number of shipments originated/ destined to this location and

number of sensors reported from the location.

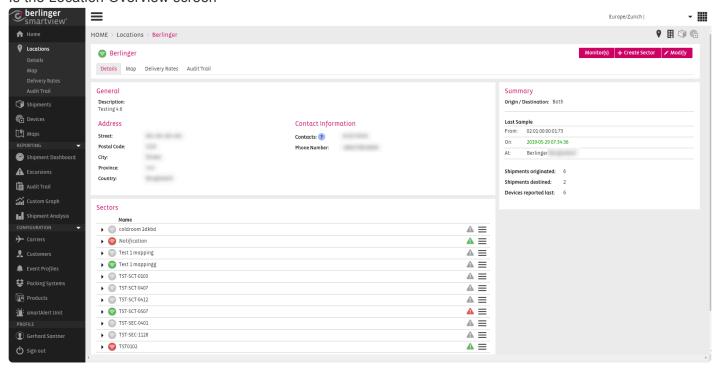


This page also provides a number of Tabs, which enable you to perform a number of actions:



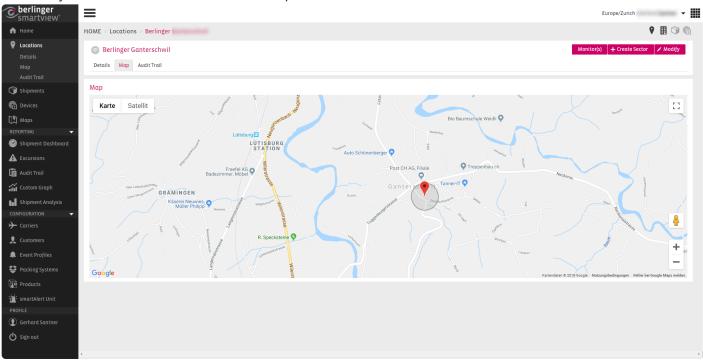
### **Details**

Is the Location Overview screen



### Map

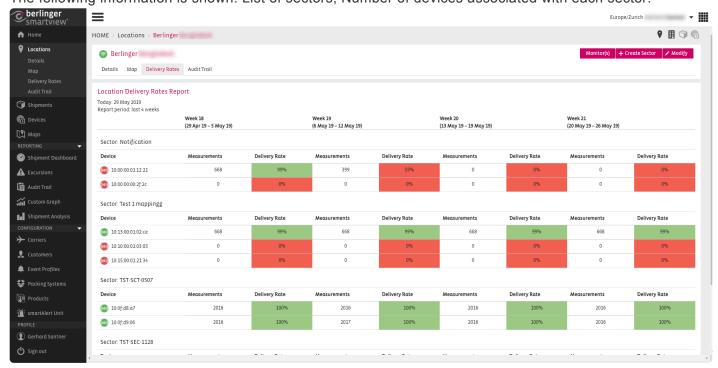
Enables you to view the Location on the Map.



### **Delivery Rates**

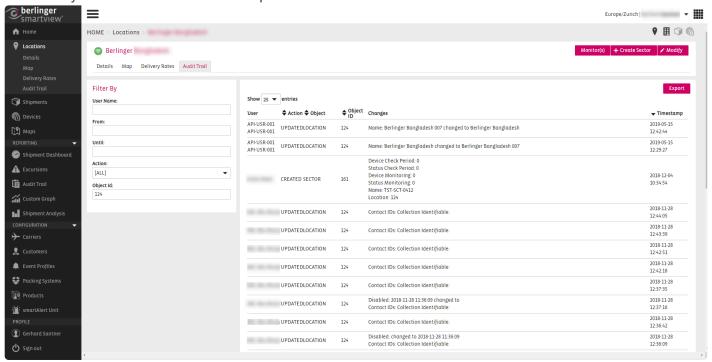
To monitor the performance of the wireless network a new Tab (Delivery Rates) to the location screen was added.

The following information is shown: List of sectors, Number of devices associated with each sector.



#### **Audit Trail**

Redirects you to the audit trail for this specific Location.



### Monitors(s)



Enables the overview of all the sectors and received values in a format which can be displayed on big screens.

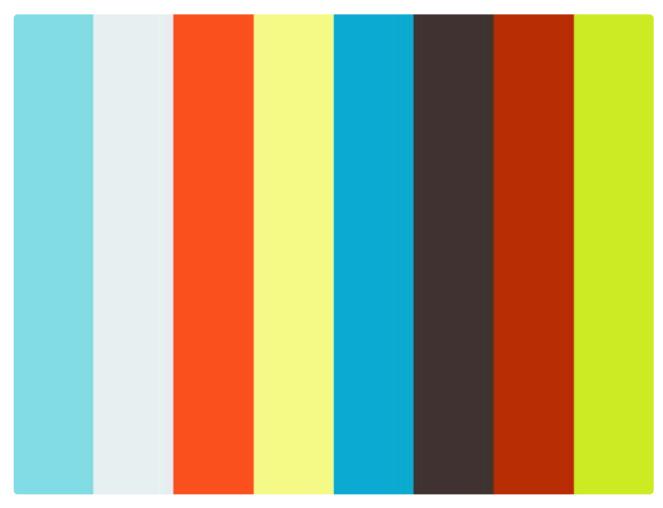
# 4.1. Location Icons

Icon	Meaning	Description	
िं	Not monitored	Location is not being monitored	
<b>?</b>	Online	Network at Location is on-line, which means that data is currently be received in SmartView.	
<b>?</b>	Offline	Network at Location is offline, which means no data received for at least one hour.	

# 4.2. Managing Locations

### **Create Location**

To create a Location, click on the Locations tab in the main menu. This button provides you with an overview of all the existing locations in smartview.



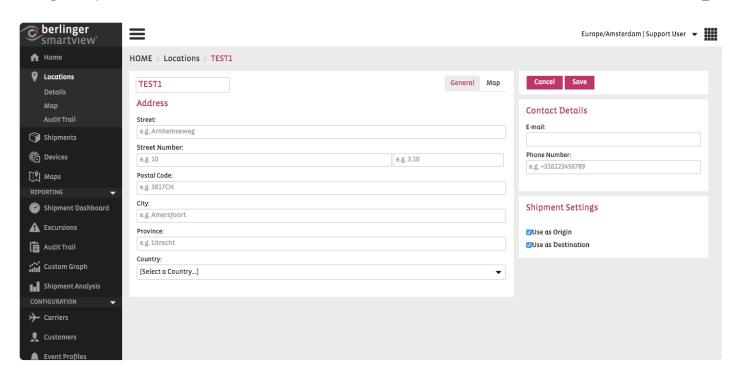
https://player.vimeo.com/video/178154041

Click on the

+ Create Location button and choose a name for your Location.

After creating a Location, you can define optional detailed information for it, such as address, email, contact and exact position (i.e. longitude and latitude information) of the Location. Further on, if you are using SmartView for shipment monitoring, then you have the option to configure a Location to be used as an Origin and/or Destination for shipments.

**Note**: Provide the email address of the person responsible for the Location (e.g Location Manager). If the Network Monitoring functionality is turned on for your site, the system will use the email address to notify you in case the network of the location is found offline for more than an hour.



If you are using the SmartView for Shipment Monitoring then you will see the Shipment Settings section in the Edit Location screen (as shown in the above image). This section allows you to mark a Location for the usage of Origin and/or Destination.

If you want a Location to be used as Origins of Shipment then check the box **Use as Origin**. If you want a Location to be used as Destinations of Shipment then check the box **Use as Destination**. To use a Location for Origins and Destinations then check both of the options.

### **Modify Location**

To modify a Location, click on the Modify button in the right corner.



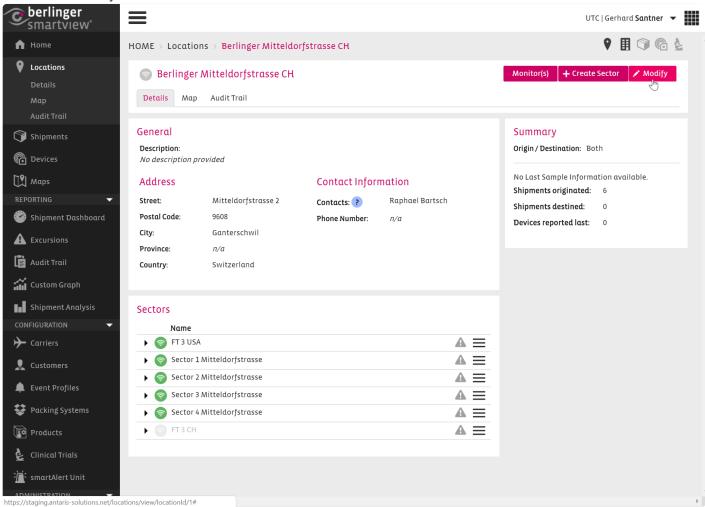
You can modify the following fields as shown on the screenshot.



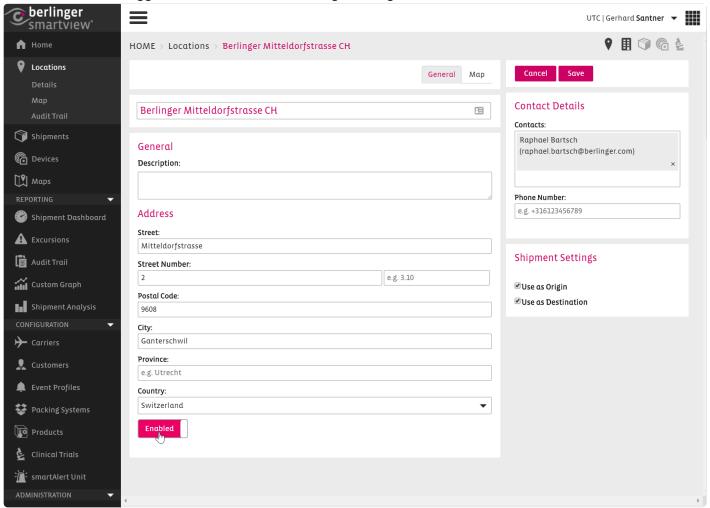
#### **Enable/Disable Location**

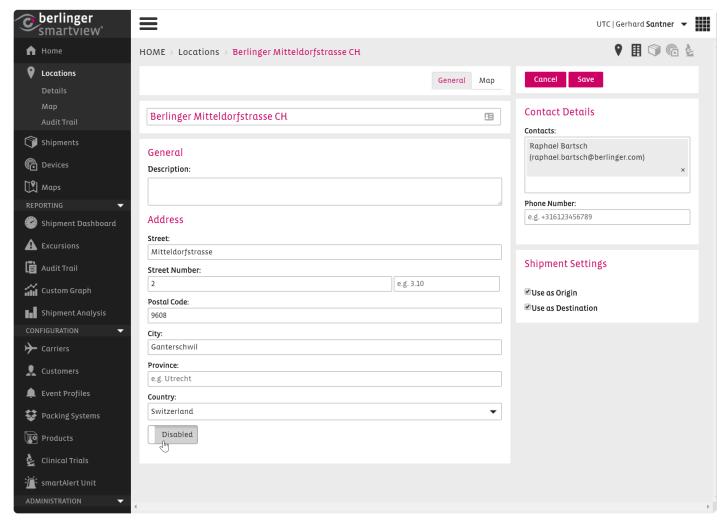
If you want to enable or disable a location use the toggle Enable/Disable on the bottom of the details tab in modify mode.

Choose to modify in the location tab.



Scroll down to the toggle Enable/Disable and change settings.





Click save to save your settings.

A Location cannot be deleted, only disabled.

# 4.3. Network Delivery Rate Report

To monitor the performance of the wireless network a new Tab (**Delivery Rates**) to the location screen was added.

#### The following information are shown:

- · List of sectors
- · Number of devices associacted to each sector



Per device the following information will be shown on a weekly basis for the last 4 weeks:

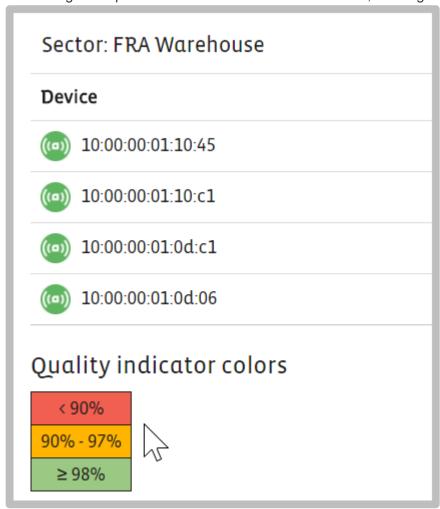
- · Number of messages received
- Delivery rate in percent (%)

#### **Measruements and Delivery rate**

Measurements	Delivery Rate
668	99%
661	98%
664	98%
664	98%

#### **Quality color indicators**

The background per cell in this table will be colour-code, either green, orange, or red.



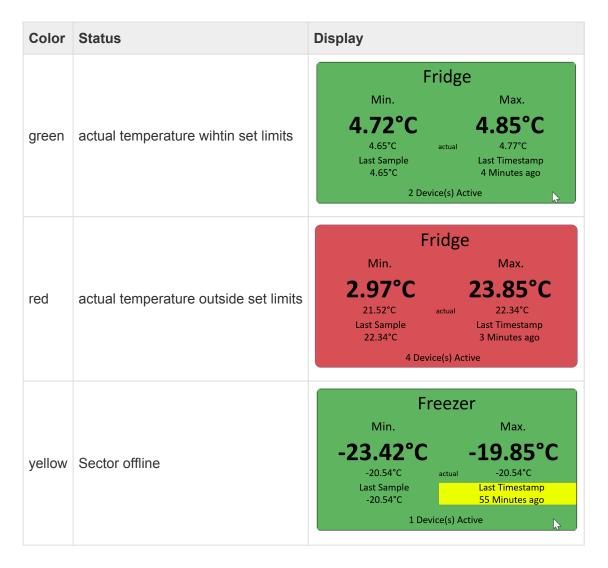


The functionality will only be available for Locations that are monitored with a network.

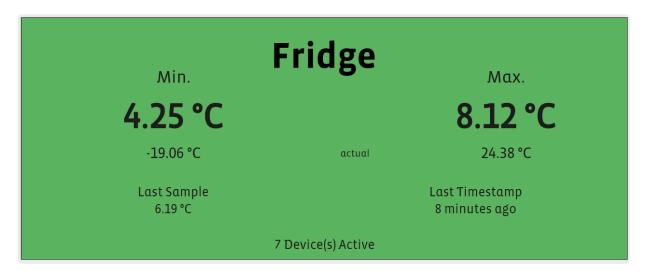
# 4.4. Monitor(s)

If you click on Monitor(s) you have a visual overview of all sectors within a location by color coding the individual tiles.

This view is opened in a separate window, that it can easily be shown on an external (second Screen) for monitoring purposes.



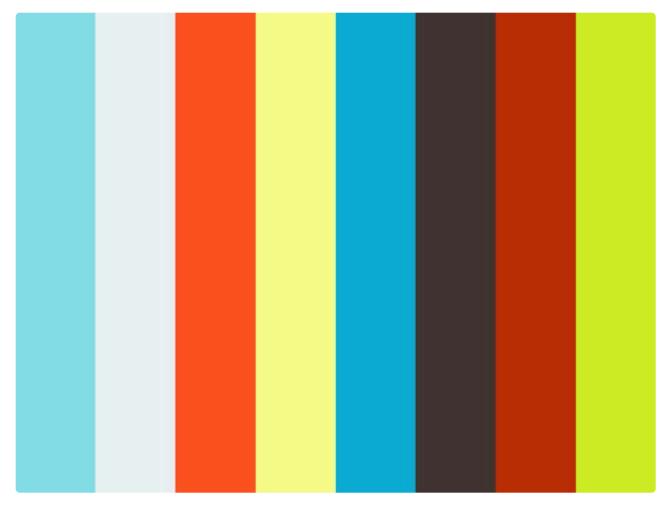
#### **Temperature Monitor Description**



- The figures of the big letters (in this example 4.25°C and 8.12°C) show the minimum and the maximum measured temperature over the last 24 hours.
- The small figures above (actual) show the minimum (4.24°C) and the maximum (8.12°C) measured temperature of the last timestamp.
- The last sample indication shows the temperature of the most recent device, which is in this example 6.19°C.

# 4.5. Defining a geofence for a location

You can specify a geofence for a Location. Specifying geofence for a Location will allow you to get notification emails for a Shipment if its associated GPS enabled sensor (e.g.Sendum) is found to be arrived within the geofence area of the Location. Thus this functionality allows you to receive notification about a Shipment Departure from a Location and Arrival in a Location.

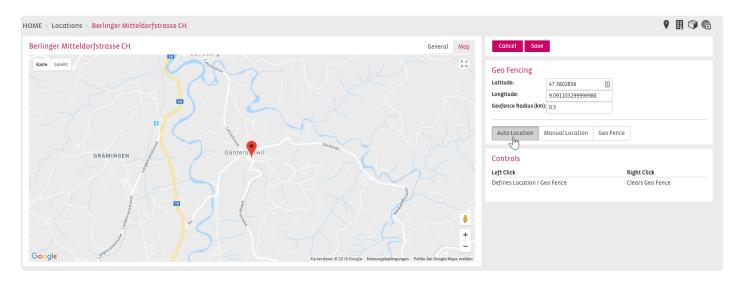


https://player.vimeo.com/video/176163701

To define the geofence for a location go to the Location menu item and click on the and then click on the Map tab.

Modify

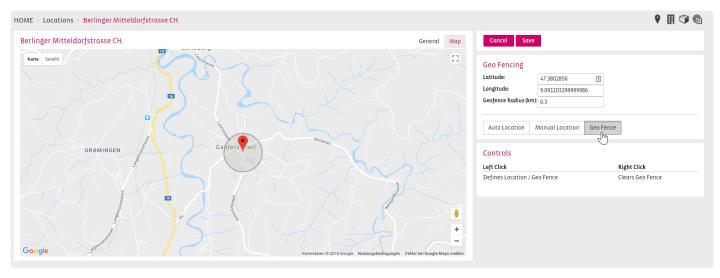
button





If you have defined your address already under the tab General the Latitude and Longitude will be filled out by clicking the Autolocation button.

Click on the Geofence button. The screen will show the map with location icon to which you can interact with to specify the geofence. You can define the geofence as a circular area around the location. Use the Left-click of the mouse to define the geofence in the map. As shown in the following image a circular geofence will be shown around the Location and radius of the circle will be shown in the Radius field.

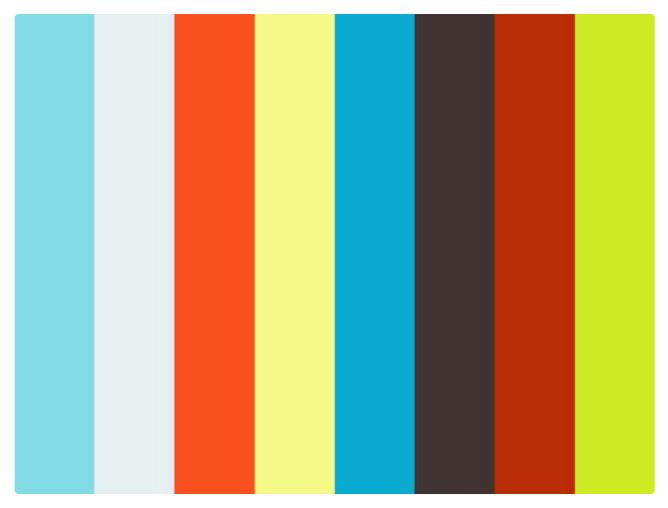


You can use the Right-click of the mouse to undefined the selected geofence and redefine the geofence. Once you have defined the right geofence click on the Save button to save the changes.

# 5. Sectors

# **Sectors for Devices**

### **Create a Sector**

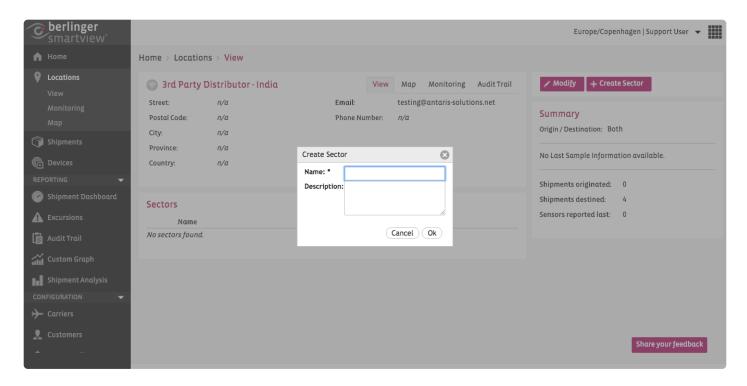


https://player.vimeo.com/video/177224532

To create a Sector, click on the Create Sector button in the Location:



Choose a name for your Sector and/or a description and click ok:



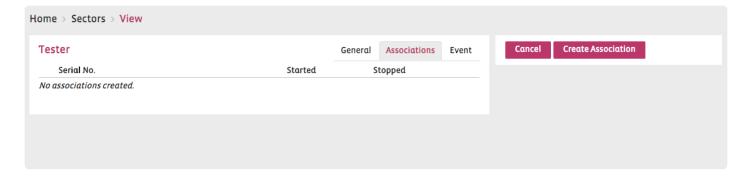
### **Modify Storage Conditions**

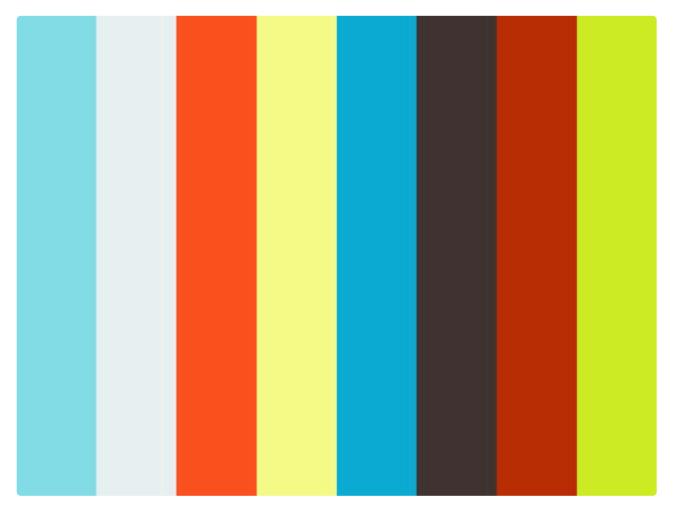


You can choose a Storage Condition for your sector which you have predefined under Site Settings / Storage Conditions.

#### Add a Device Association to a Sector

Choose the Sensors that you would like to Associate to the Sector, by clicking on the Associations Tab – then click on the Create Association button:



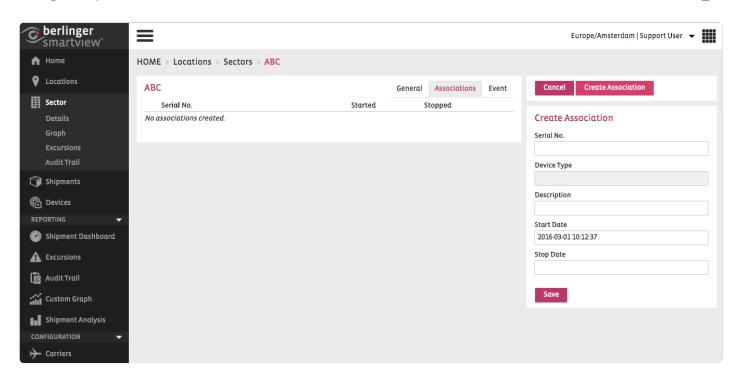


https://player.vimeo.com/video/178156803

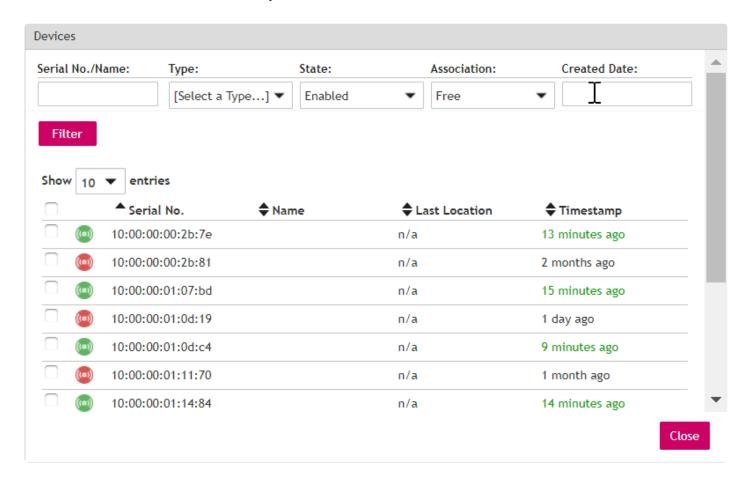
After <u>creating a sector</u>, you can associate a Device to it by clicking on the shown in the following image:

**Create Association** 

20



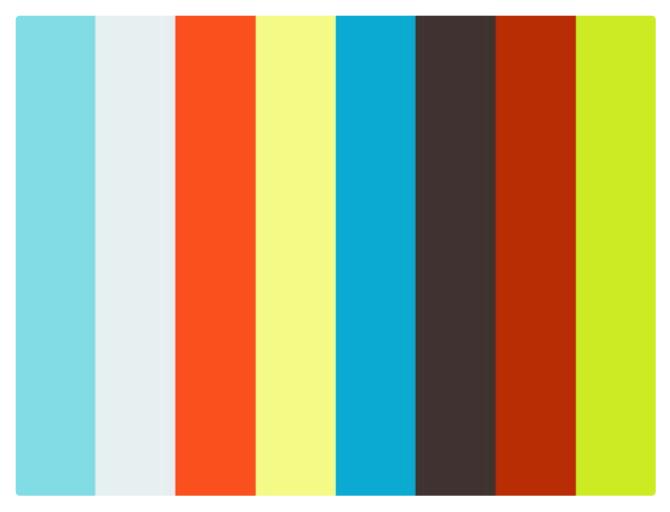
Click in the Serial No. field to choose your Device for the Sector.



Select or modify the Start Date and click on

You can repeat this process for as many Devices as you would like to add to your Sector.

### **Add an Event Profile to Sector**



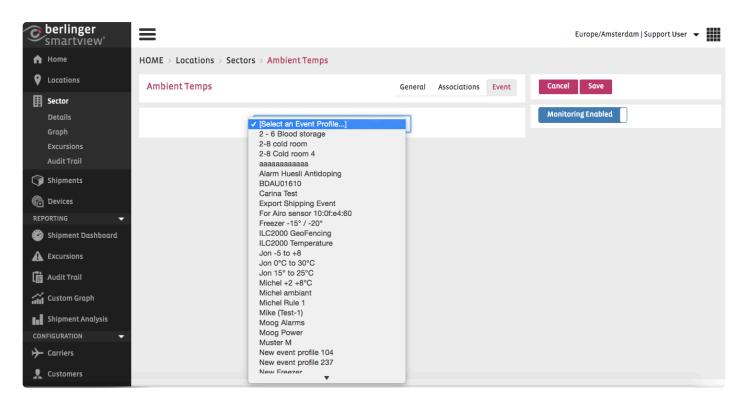
https://player.vimeo.com/video/177236014

Before adding an Event Profile to the sector, make sure you have <u>created a profile</u> with appropriate event rules.

Adding an Event Profile to a Sector can be done from the Modify screen of the Sector. Click on the "Event" tab in the Modify screen:



Click on the Monitoring button to enable Event Monitoring and select "created": Event Profile from the dropdown list:



Click on to save your changes.

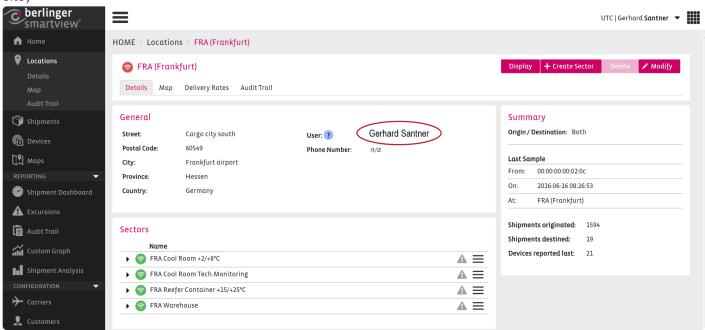
### Notification if the network is offline

The Customer (Site Contact) will receive a notification in any case if the network is offline for more than 60 minutes.

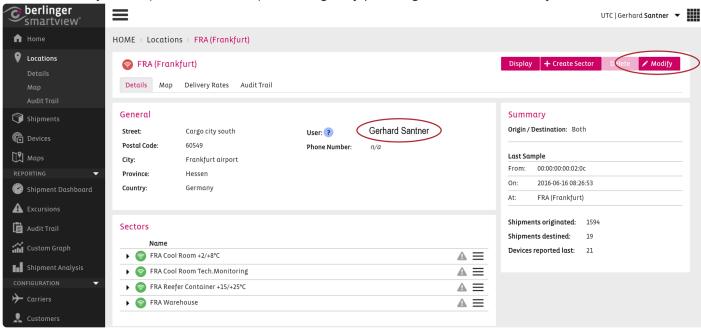
If the notification is turned on by default it cannot be changed in the backend of SmartView. Please contact support@berlinger.com if you want to turn OFF/ON network notification at all.

#### Add a Notification for a Location

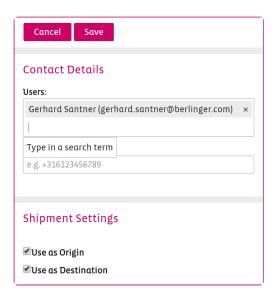
If a Sector of a Location is offline the contact person of the location will be notified per Mail (eg. people on site)



You can modify users (add and remove) on the right by pressing the button to modify.

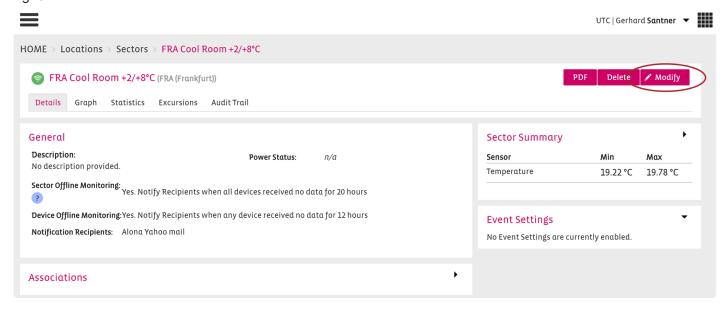


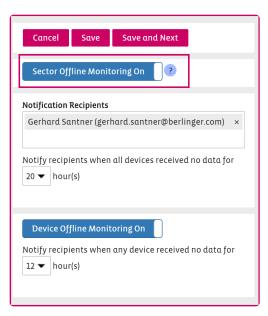
Add or remove Users from the notification list



#### Notification for a sector

When sector offline monitoring is enabled SmartView will send e-mail notifications to SmartView users. This functionality can be configured for each sector, including time interval and recipients. Press Modify on the right.

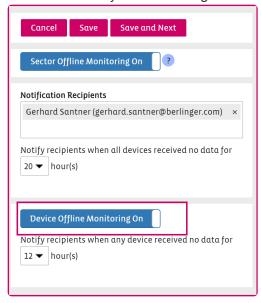




NOTE: Users have to set up these notifications for their Sectors to benefit from this functionality.

#### Notification for a device

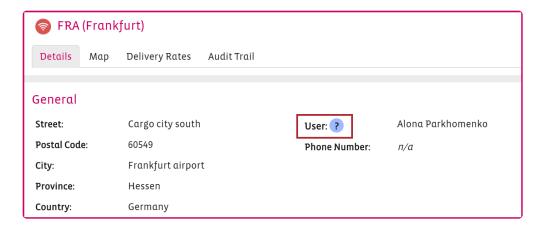
When no device measurements are received from the sector for the user-defined period. This functionality can be configured for each sector, including time interval and recipients.



The notification for devices can be set ON or OFF.

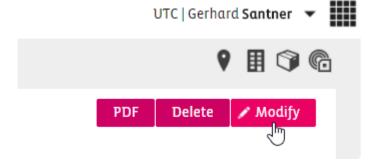
If it is ON the notification will be sent to the user-defined above within the notification recipients.

Location User question mark – This user(s) will be used for the location offline/online notifications.

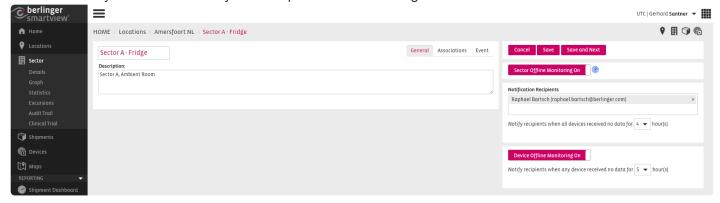


### **Modify a Sector**

If you want to change entries in a Sector, click Modify on the right side.



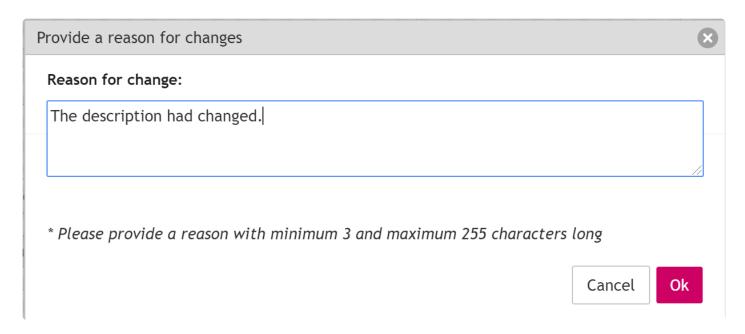
You can modify all entries which you have put in when creating the Sector.



## Reason for change

If the "Reason for Change" has been enabled by the Admin in the site settings then all changes made to sectors will require the user to provide the reason for the change.

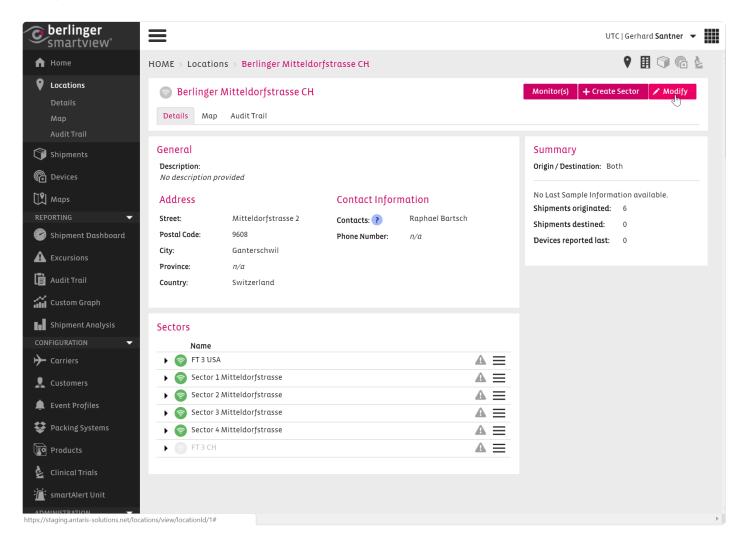
This information will be visible in the Audit Trail.



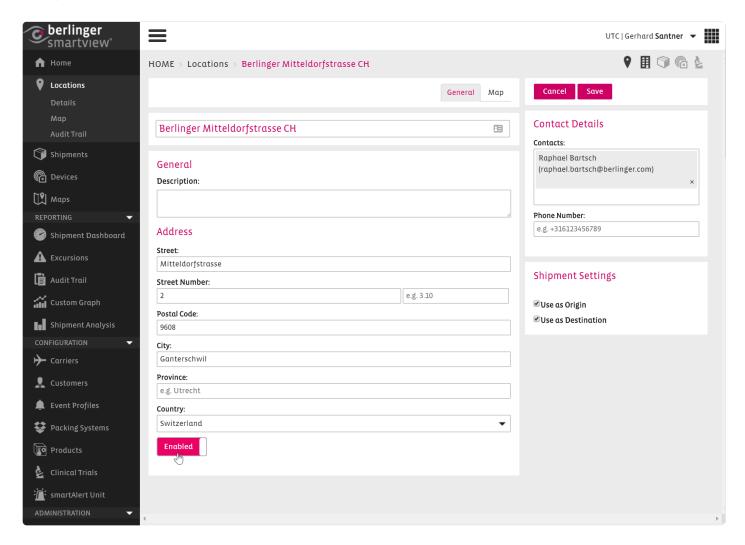
### **Enable/Disable a Sector**

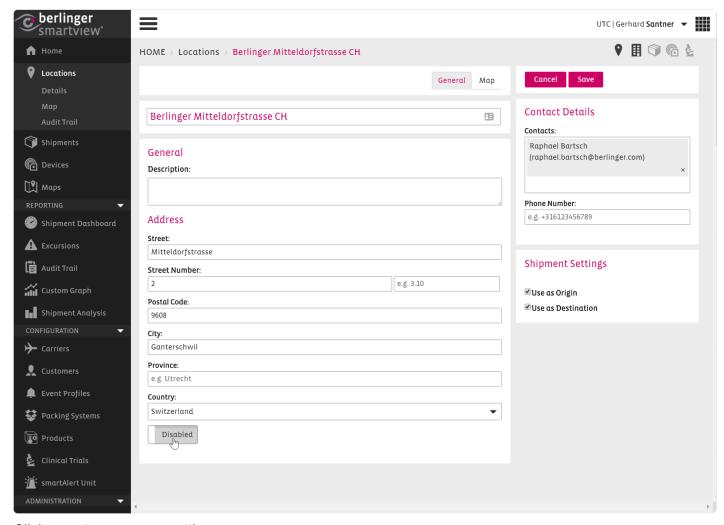
If you want to enable or disable a sector use the toggle Enable/Disable on the bottom of the details tab in modify mode.

Choose to modify in the sector tab



Scroll down to the toggle Enable/Disable and change settings.





Click save to save your settings.

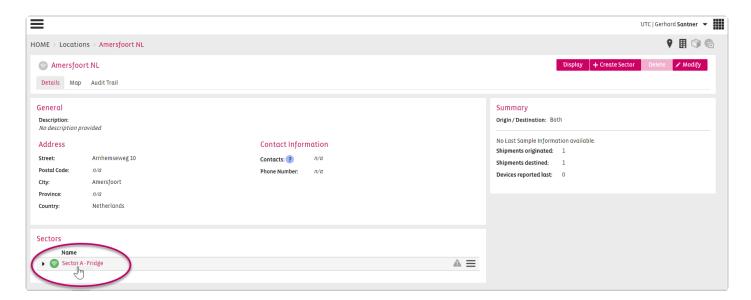
A Sector cannot be deleted, only disabled.

# **5.1. Icons**

lcon	Meaning	Description
िं	Not monitored	Sector has no active Associations.
ि	Online	Network at Sector is online, which means that data is currently being received in SmartView.
<b>₹</b>	Offline	Network at Sector is offline, which means no data received for at least one hour.
A	No Monitoring	Sector currently has Event Monitoring enable.
A	OK	Sector currently has no active excursion or warning.
A	Warning	Sector has an active Warning, but no Excursion.
A	Excursion	Sector has at least an active Excursion.

## 5.2. Details

The following overview of information and buttons is shown when you navigate to the Sector Details Page. You can reach the Sector of a Location by clicking on a Location and then **choose a defined Sector** of a Location.



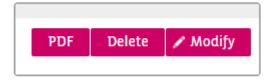
### Tabs and buttons on the Sector Details page

The overview of the Sector Detials page contains the following tabs.

Details, Graph, Statistics, Excursions, Audit Trail, Clilnic Trial (optional)



On the right side following buttons are available:



## Displayed information on the Sector Details page:

#### General

· Description of the Sector

- · Sector Offline Monitioring: Yes/NBo
- · Power Status: n/a

#### **Associations**

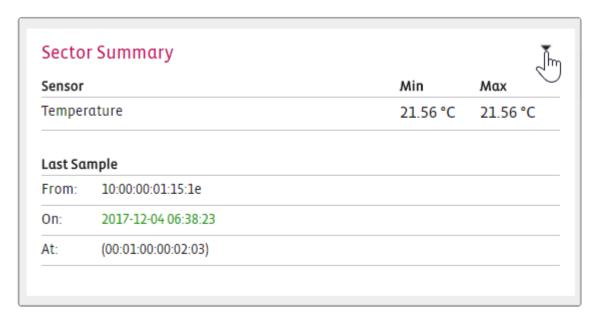
Which Device has been associated to the Sector.

- · Started on:
- · Stopped at:

With a click on the triangle you gather information of the associated device:



#### **Sector Summary**

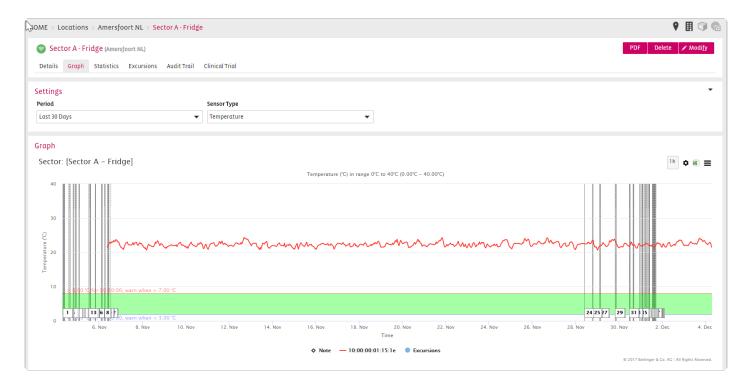


#### **Event Settings**



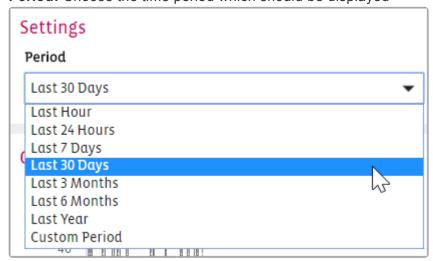
# **5.3. Graph**

#### **Overview**



## **Settings**

Period: Choose the time period which should be displayed



Sensor Type: Choose the tyepe of sensor which should be shown on the graph if available



## **Graph**

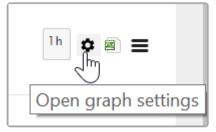
Displays the graph with the following settings:

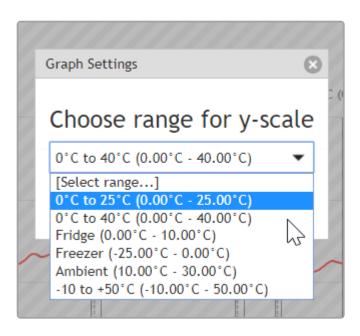


Show the Behavior of the last hour on the graph



Choose a temperature range for the y-scale graph view

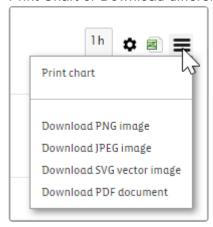




#### Export CSV File

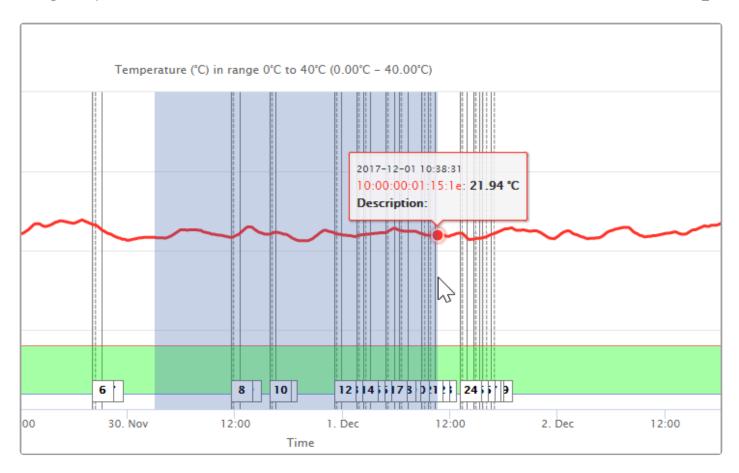


Print Chart or Download different images types for presentations



Choose (mark) x-scale of graph view

By cklicking in to the graph, holding down the left mouse button, dragging along the x-scale and releasing the mouse button you can zoom in into the part you have choosen.



#### Press the Reset zoom button to get back to the initial position

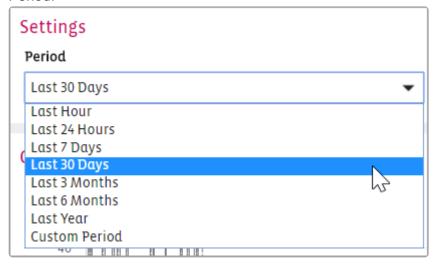


# 5.4. Statistics

Sector statistics are available for temperature and humidity (if data logger is available to measure humidity)

## **Settings**

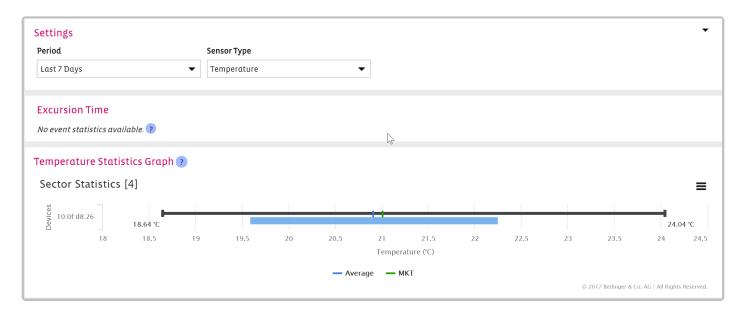
Period:



### **Excursion Time**



## **Sector Statistics Temperature**



## **Sector Statistics Humidity**



# **Temperature Statistics**



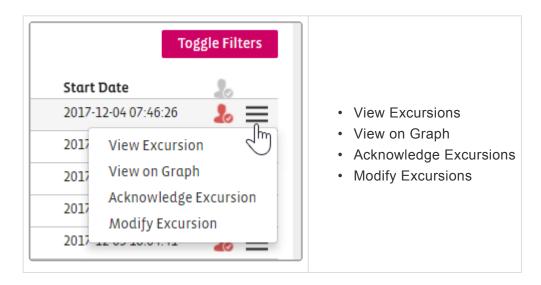
# 5.5. Excursions

#### **Excursions**

Sector ID, Type, Name, Event Rule, Root Cause, Action, Start, End, The User state of an excursion

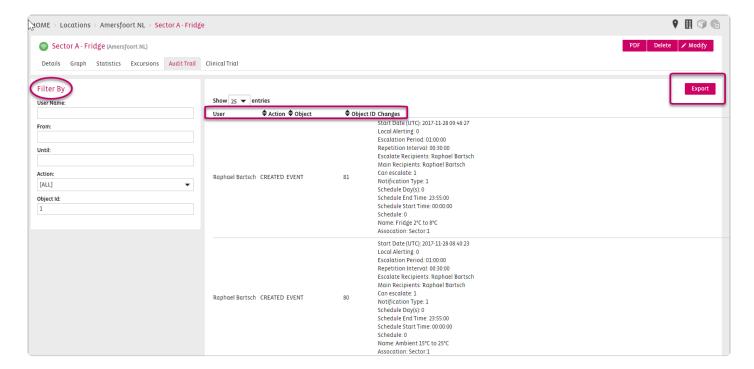


On the right side behind the tribar button you can directly:



# 5.6. Audit Trail

Audit Trails can be **filtered** on the left side and be **exported** with the button on the right side. In between you can see the information: **User**, **Action**, **Object**, **Object ID**, **Changes** 

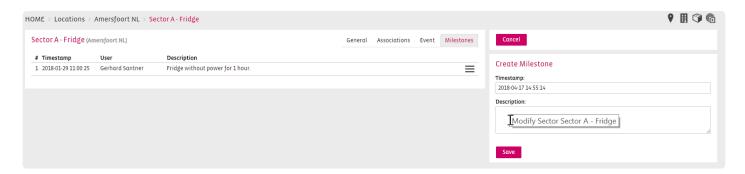


# **5.7. + Milestone for Sectors**

SmartView allows a user to document a useful information related to a specific sector by allowing the user to add a milestone to the sector.

For example, to document an event of a sector (eg. sector offline) a user can add a milestone "Fridge without power for one hour".

To create a milestone go to the Sector and click on the all the milestones related to this sector that have already been defined or add new Milestones if necessary.



- · Select the date and time of the milestone in the Date field
- Provide a short description for the milestone and click the button.

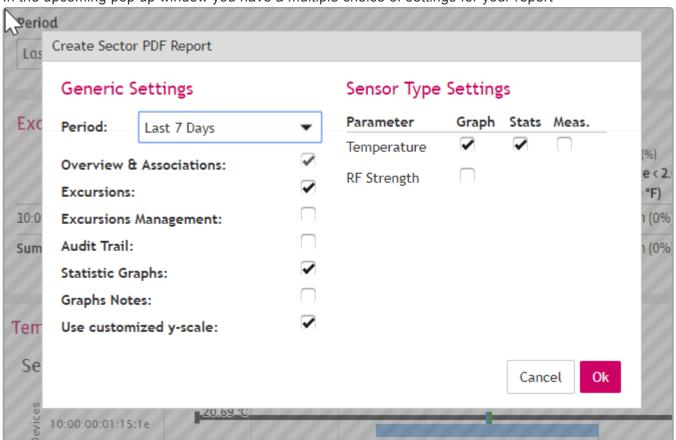
You can visualise your milestones both on the Sector Graph and on the Sector PDF report.

# **5.8. PDF Report for Sectors**

To create a customized Sector Report click on the PDF button on the right



In the upcoming pop up window you have a multiple choice of settings for your report



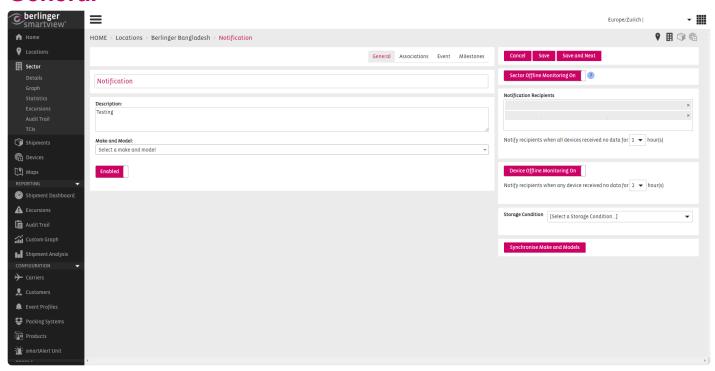
The Period will be automatically taken from the time period setting in Graph or Statistics tab. In this case 7 days.

# 5.9. Modify a Sector

You can modify the following settings in a sector:

- General
- Associations
- Event
- Milestones

#### General



When sector offline monitoring is enabled, SmartView will send an email notification when no device measurements have been received from the sector for the user-defined period. Sector offline monitoring is independent of the device association start date.

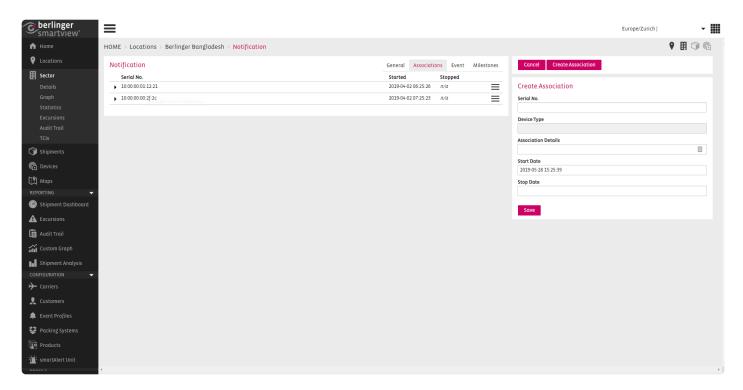
Device offline monitoring means that even if a single device appears offline, a notification is sent. Who will be notified? The Users defined in the notification recipients will receive an e-mail notification.

When will the notification be sent? Users will receive the email notification within one hour after SmartView has detected that the sector is offline. Another notification will be sent once SmartView detects that the Sector is online again.

#### **Associations**

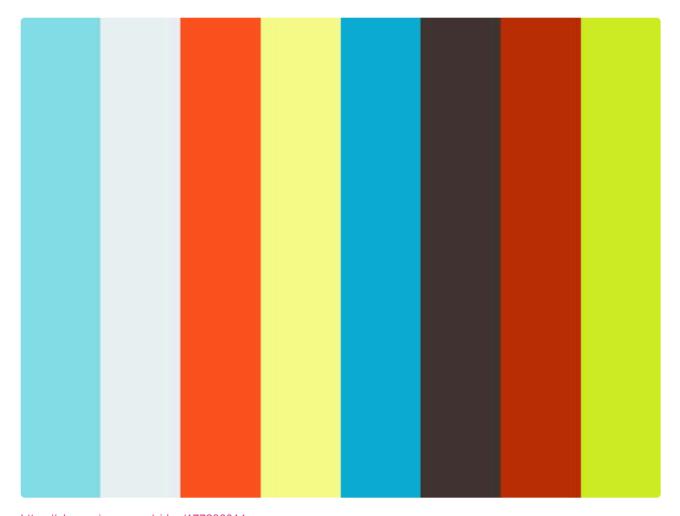
Click into the field Serial No. and a Pop-Up window with all your devices will occur. Select the devices you want to associate to your Sector.

Click close in the Pop-Up window and then click save to add the device(s) to the list.



## **Event**

To add an Event Rule to your sector, click Monitoring Enabled first. Then you can choose the predefined Event Rule from the list:



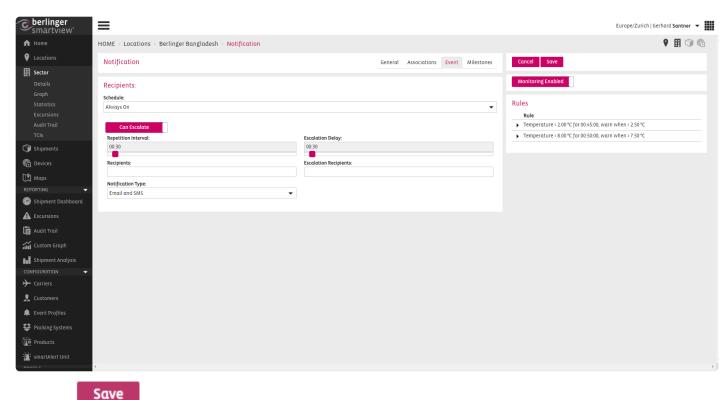
https://player.vimeo.com/video/177236014

https://player.vimeo.com/video/177236014

Before adding an Event Profile to the sector, make sure you have <u>create an Event Profile</u> with appropriate event rules.

Adding an Event Profile to a Sector can be done from the Modify screen of the Sector. Click on the "Event" tab in the Modify screen:

Click on the Monitoring button to enable Event Monitoring and select a <u>created</u> Event Profile from the dropdown list:

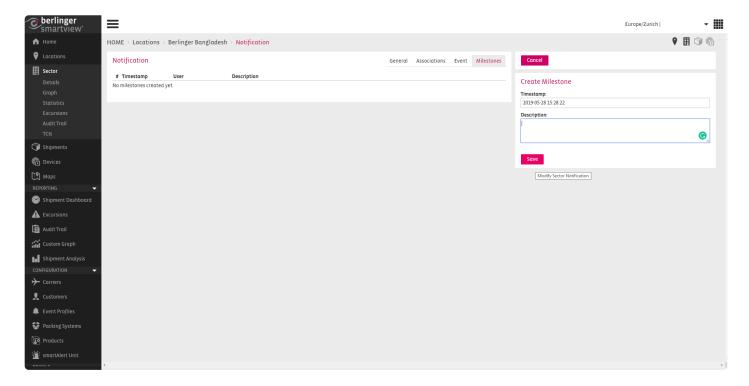


Click on

to save your changes.

#### **Milestones**

Creating a Milestone for the Sector if an important issue happened can be put in here:



# 5.10. Network Offline Notifications

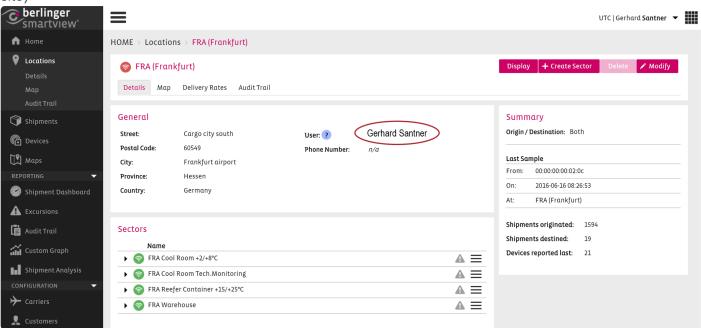
#### Notification if the network is offline

The Customer (Site Contact) will receive a notification in any case if the network is offline for more than 60 minutes.

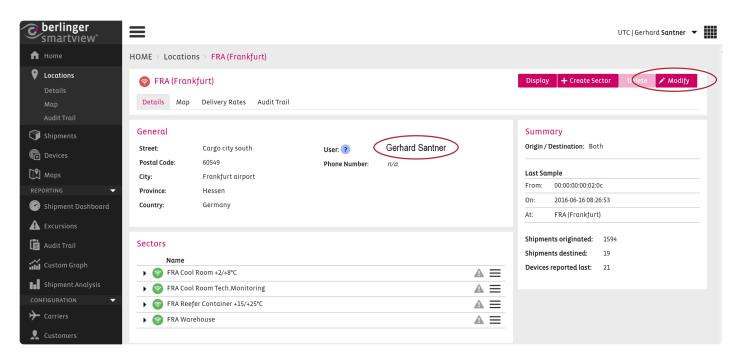
If the notification is turned on by default it cannot be changed in the backend of smartview. Please contact support@berlinger.com if you want to turn OFF/ON network notification at all.

#### **Notification for a location**

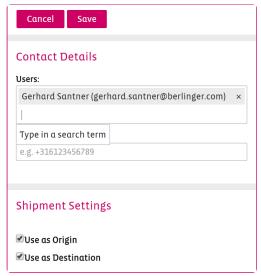
If a Sector of a Location is offline the contact person of the location will be notfied per Mail (eg. people on site)



You can modify users (add and remove) on the right by pressing the button modify.

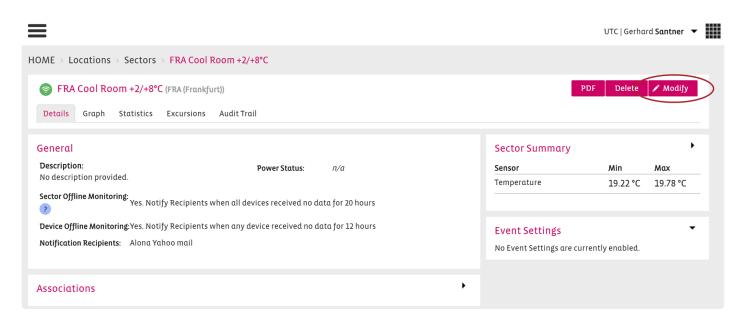


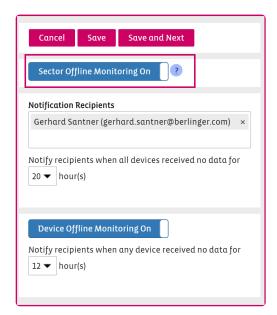
Add or remove Users from the notification list



# Notification for a sector

When sector offline monitoring is enabled smartview will send e-mail notifications to smartview users. This functionality can be configured for each sector, including time interval and recipients. Press Modify on the right.

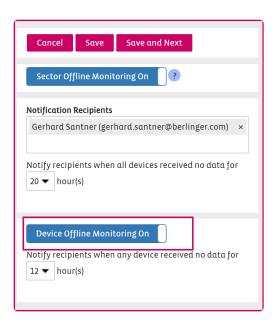




NOTE: Users have to set up these notifications for their Sectors to benefit from this functionality.

## Notification for a device

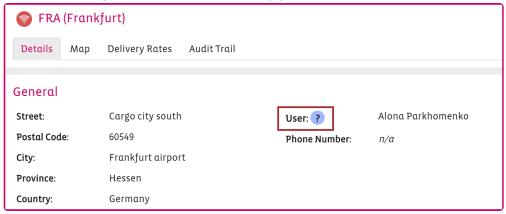
When no device measurements are received from the sector for the user-defined period. This functionality can be configured for each sector, including time interval and recipients.



The notification for devices can be set ON or OFF.

If it is ON the notification will be sentd to the user defined above within the notification recipients.

Location User question mark – This user(s) will be used for the location offline/online notifications.



# 5.11. Sectors for Manual Data

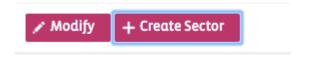
#### **Create a Sector Manual Data**

1

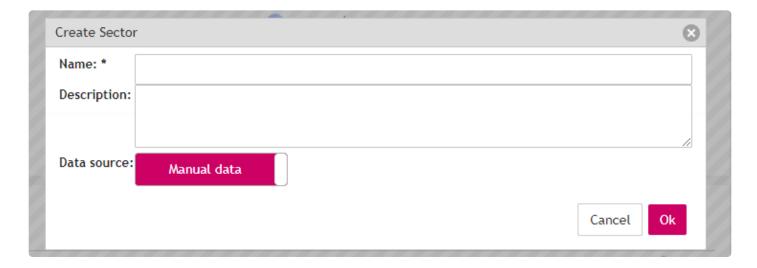
Setting up the sector for Manual Data entries can not be undone

Enter the Location in which you which you wish to create a new sector. There on the top right corner the Create Sector button can be found.

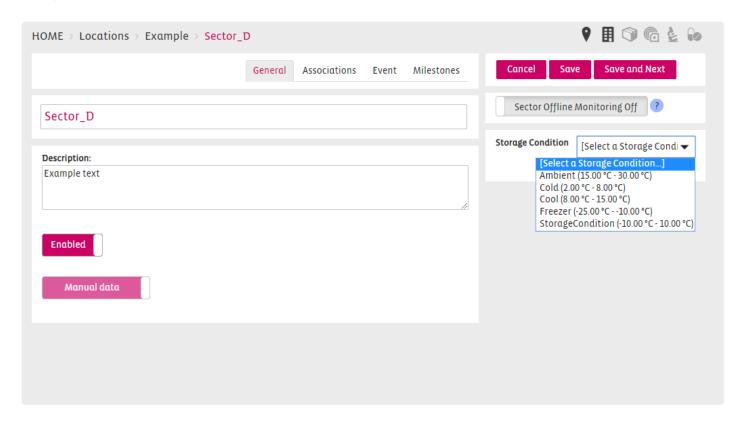
To create a Sector, click on the Create Sector button:



Choose a name for your Sector, a description(optional) and select Manual Data, then click ok:



# **Modify Storage Conditions**



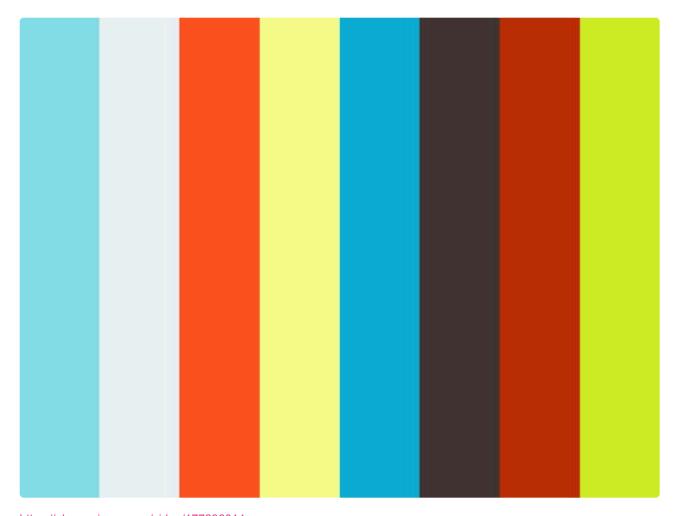
You can choose a Storage Condition for your sector which you have predefined under Site Settings / Storage Conditions.

#### Associations to a Sector

The system will automatically generate a virtual device for the sector. It's not possible to conduct any changes in the associations tab of the sector settings.



#### **Add an Event Profile to Sector**



https://player.vimeo.com/video/177236014

https://player.vimeo.com/video/177236014

https://player.vimeo.com/video/177236014

Before adding an Event Profile to the sector, make sure you have <u>created a profile</u> with appropriate event rules.

Adding an Event Profile to a Sector can be done from the Modify screen of the Sector. Click on the "Event" tab in the Modify screen:



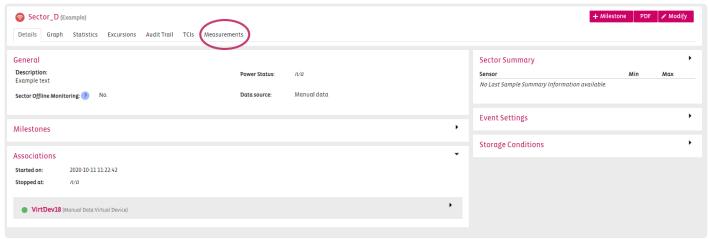
Click on the Monitoring button to enable Event Monitoring and select "created": Event Profile from the dropdown list:



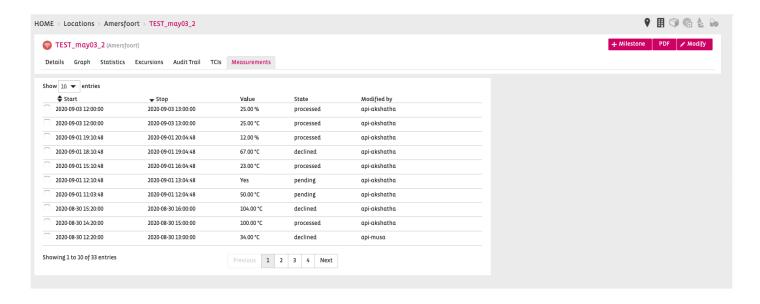
Click on to save your changes.

## General view of the sector

For the manual data sector a new tab will be visible with the name measurements.



In this tab the manual added data will be listed in a table with one of 3 different states.



The 3 different states are as follow:

Berlinger & amp; Co. AG SmartView 5.4 - 1 en

State	Meaning
Pending	Data was entered
Approved/declined	Data was peer reviewed
Processed	Data handled by Smartview

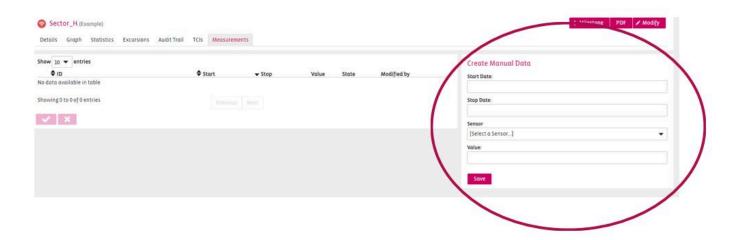
Also visible in the table is the user responsible for the last change of state. Information of all changes with the responsible users can be found in the PDF report for the sector.



Items are marked per default as pending data and have to be approved before the system can handle them. Only approved data is processed.

## **Adding manual data**

A Manual data entry can be created on the right side of the measurement window

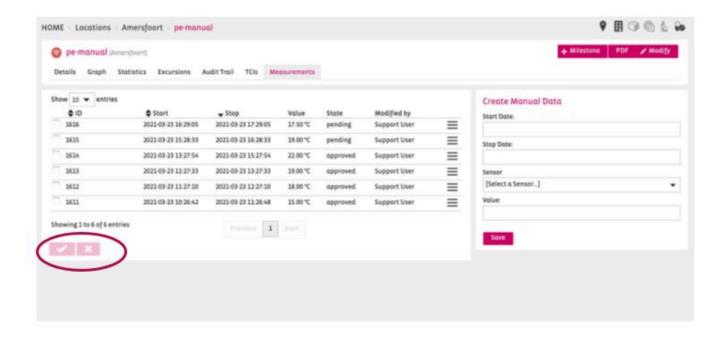


# **Approving/declining Data**

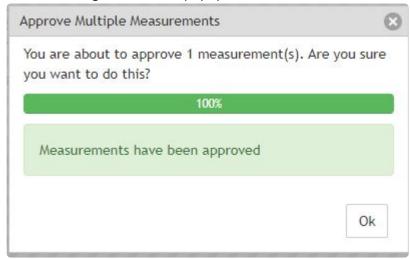
The approval of the data has to be done in chronological order.

The data has to be approved before it can be used by the system.

The entered data can be approved on the bottom left side of the measurement window.



After selecting the action a popup will confirm if the action as successful



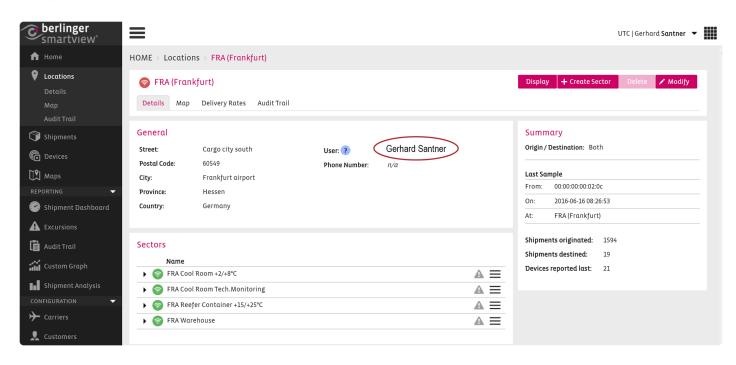
#### Notification if the network is offline

The Customer (Site Contact) will receive a notification in any case if the network is offline for more than 60 minutes.

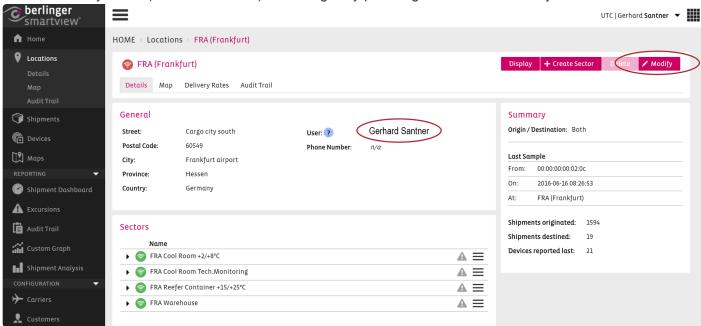
If the notification is turned on by default it cannot be changed in the back-end of SmartView. Please contact support@berlinger.com if you want to turn OFF/ON network notification at all.

#### Add a Notification for a Location

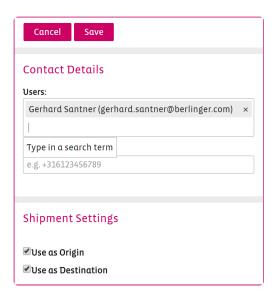
If a Sector of a Location is offline the contact person of the location will be notified per Mail (eg. people on site)



You can modify users (add and remove) on the right by pressing the button to modify.

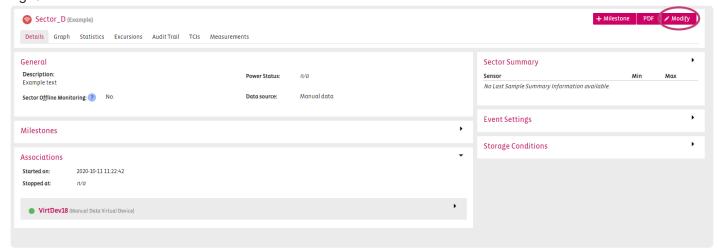


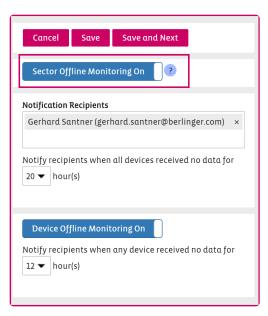
Add or remove Users from the notification list



## Notification for a sector

When sector offline monitoring is enabled SmartView will send e-mail notifications to SmartView users. This functionality can be configured for each sector, including time interval and recipients. Press Modify on the right.

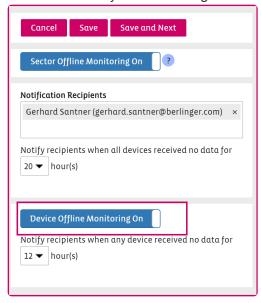




NOTE: Users have to set up these notifications for their Sectors to benefit from this functionality.

#### Notification for a device

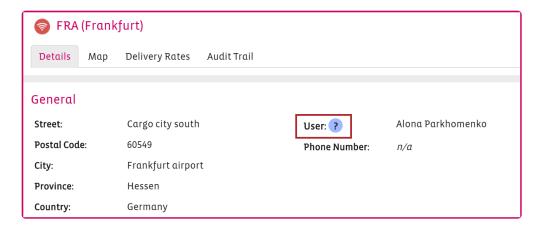
When no device measurements are received from the sector for the user-defined period. This functionality can be configured for each sector, including time interval and recipients.



The notification for devices can be set ON or OFF.

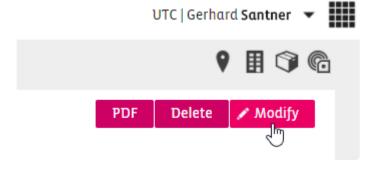
If it is ON the notification will be sent to the user-defined above within the notification recipients.

Location User question mark – This user(s) will be used for the location offline/online notifications.

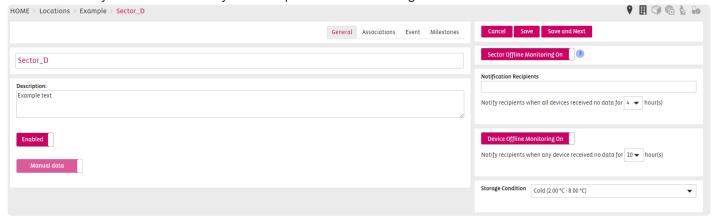


# **Modify a Sector**

If you want to change entries in a Sector, click Modify on the right side.



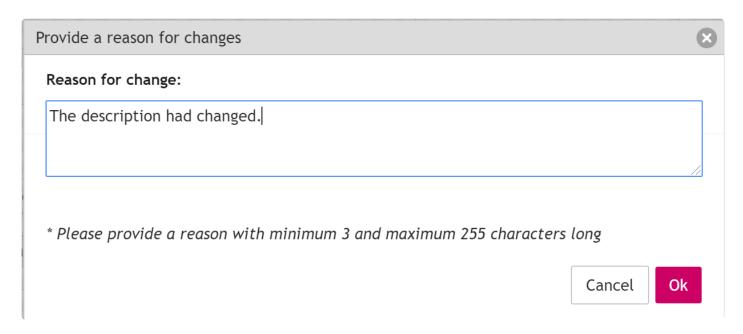
You can modify all entries which you have put in when creating the Sector.



# Reason for change

If the "Reason for Change" has been enabled by the Admin in the site settings then all changes made to sectors will require the user to provide the reason for the change.

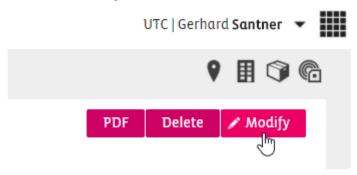
This information will be visible in the Audit Trail.



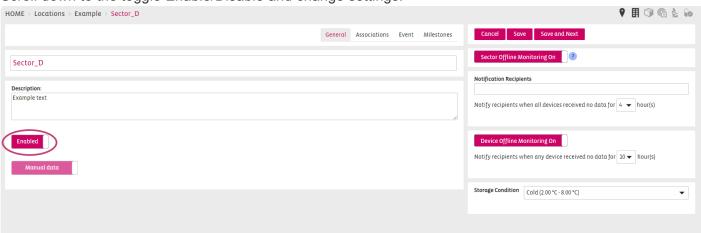
#### **Enable/Disable a Sector**

If you want to enable or disable a sector use the toggle Enable/Disable on the bottom of the details tab in modify mode.

Choose to modify in the sector tab



Scroll down to the toggle Enable/Disable and change settings.



Click save to save your settings.

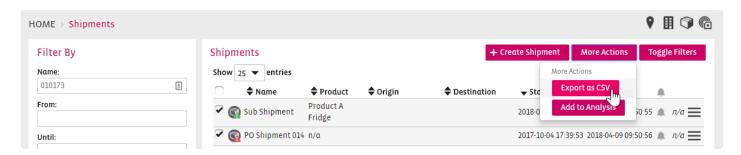
1

A Sector cannot be deleted, only disabled.

# 6. Shipments

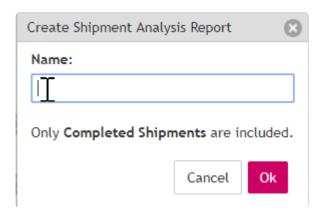
The Shipments page provides an overview of all the Shipments is SmartView: active, pending, idle or completed.

The Overview list also contains details about the Shipment, such as Shipment ID, Product, Origin, Destination, etc.)



You can "create a shipment" and take "More Actions" like export the list to CSV or Add to Analysis (one or more Shipments must be selected)

#### **Create a Shipment Analysis Report:**



#### **Shipment Filters**

Go to Shipment overview and choose AIR as a transport method and the following list will appear:

# ਯੇHOME → Shipments Filter By Name: 010173 $\blacksquare$ From: Until: Transport Method: Air Carrier: [Select a Carrier...] Flight Code: GTI606 Flight Date: Once Flight Date is set, From and Until filters will be ignored. State: [AII] Product: [Select a Product...]

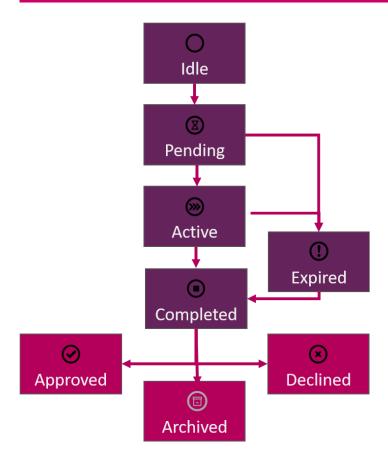
Clinical Trial:

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Their are two additional filters like Flight Code and Flight Date, compared to all other transport methods.

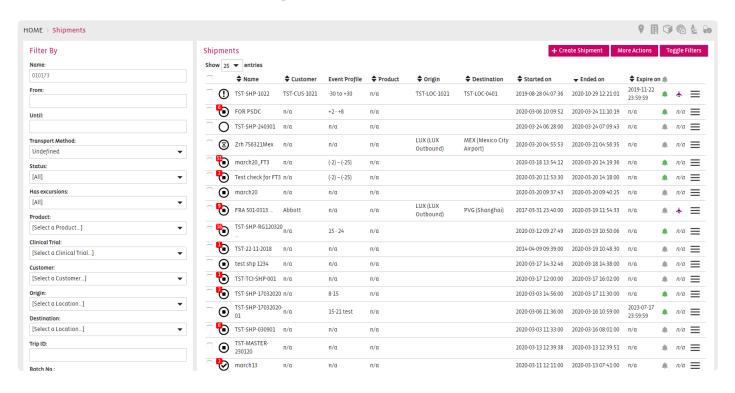
# 6.1. Shipment Icons



0	Idle	Newly created shipments
<b>(2)</b>	Pending	Shipments with associations waiting for data
<b>⊗</b>	Active	Shipments with (partial data)
•	Completed	Shipments with all data accounted for
①	Expired	Shipments that did not send in all data in time
0	Approved	Manually approved shipment
$\otimes$	Declined	Manually declined shipments
▣	Archived	Manually archived shipments

# 6.2. Managing Shipments

# **Shipment Overview Page**



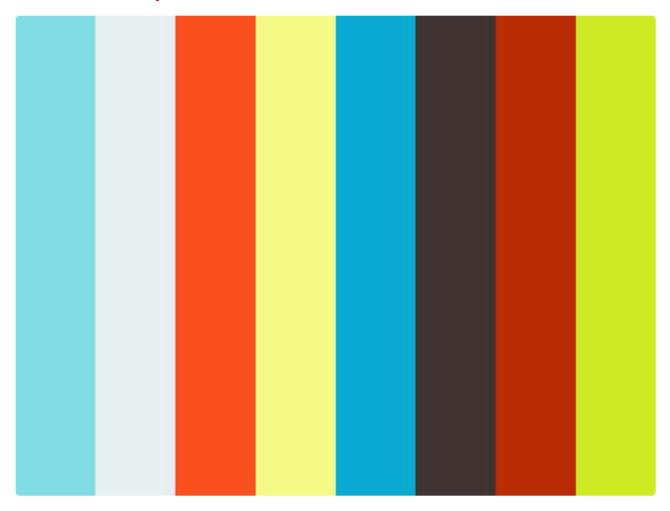
# Filter By

Batch No.:

010173
From:
Until:
Transport Method:
Undefined ▼
Status:
[AII]
Has excursions:
[AII]
Product:
[Select a Product]
Clinical Trial:
[Select a Clinical Trial]
Customer:
[Select a Customer]
Origin:
[Select a Location]
Destination:
[Select a Location]
Trip ID:

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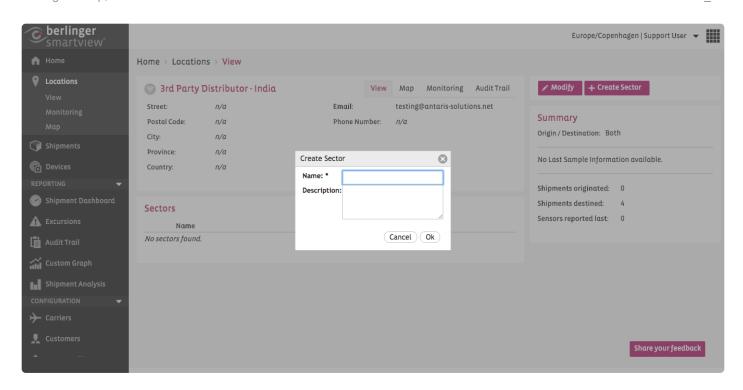
# **Create a Shipment**



https://player.vimeo.com/video/175370241

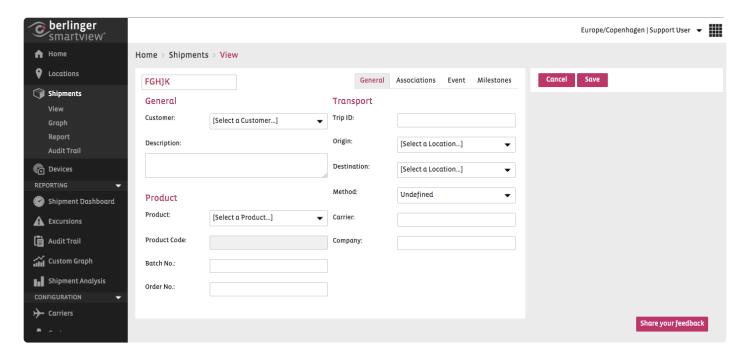
From the Shipment Overview page, click on to add your Shipment.

This will open a pop up as illustrated below, allowing you to choose a Shipment ID for your Shipment:



**Note**: If you have created similar Shipments in the past, you also have the option to choose a template for your new Shipment out of the existing ones.

Once you have chosen the Shipment ID, click OK and you will be redirected to the screen, allowing you to choose the detailed information for your Shipment.



Note: Alternatively, you can add information at a later stage by clicking on the Modify button of a shipment.

You can add following information to the shipment:

General settings about the shipment: In this section you can edit the Name (i.e. Unique Shipment

Identifier) of the Shipment and optionally can add a descriptive note to the Shipment. You can also define the Customer of the Shipment by selecting one from a drop-down list. .

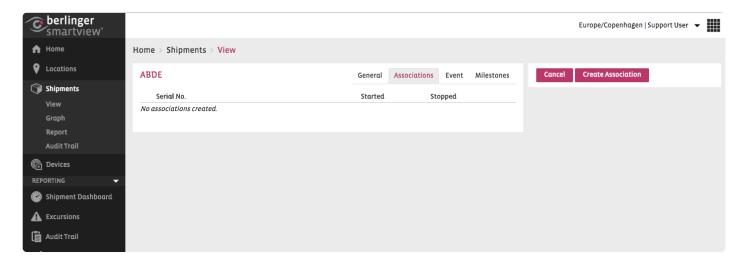
**Transportation information of the shipment**: In this section you can define origin, destination, trip ID, transport Method, transportation Company and Carrier of the shipment. Origin, destination and transport Method need to be selected from their drop-down lists. If Method is selected as Air then Carrier field will show a drop-down list with Air Carrier subset list that is already defined in the system. For other transport Method (e.g. Road) Carrier field will become a free-text field and will allow you to type the name of the carrier.

**Product information for the shipment**: In this section you can choose the predefined product for the shipment. If a Product Code is defined for the product, then selecting the product, will populate the Product Code filled in the screen. Optionally you can define related Batch Number and Order number.

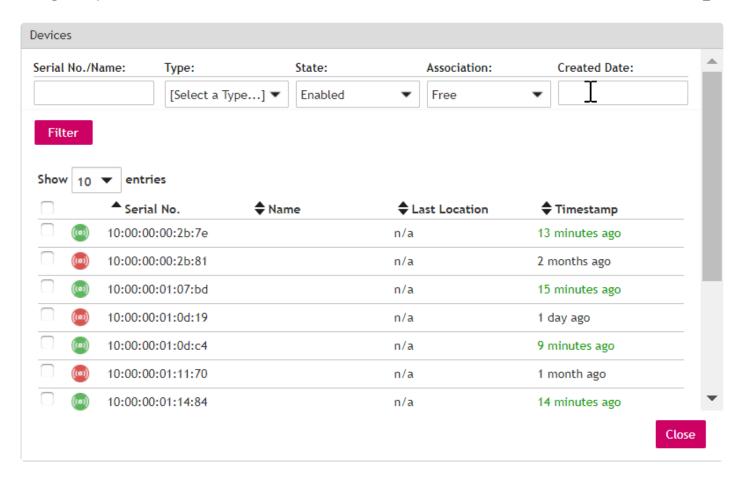
**Note**: Before you start creating a Shipment and defining its detailed information, make sure you have already defined and/ or configured the following information

- Customer
- <u>Location</u> (to be defined as Origin / Destination)
- Product
- · Air Carrier subset list
- Also note that you may not be able to delete an item (e.g. customer or product) if it has once used with a Shipment.

After defining the General Information for your Shipment, you need to associate the necessary devices to the Shipment:



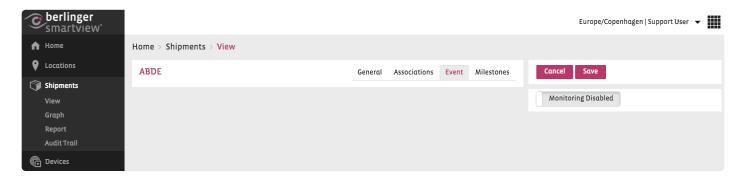
Click in the Serial No. field to choose your Device for the Sector.



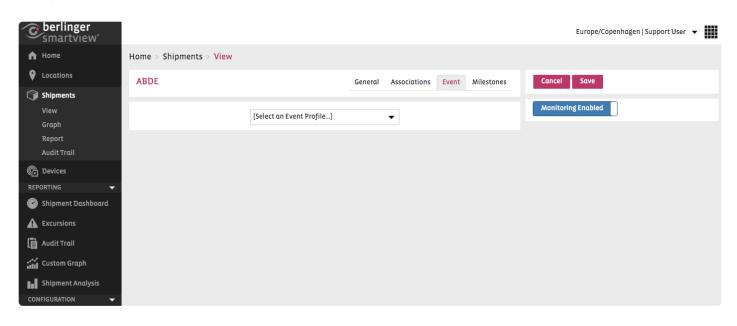
Select or modify the Start Date and click on

Save

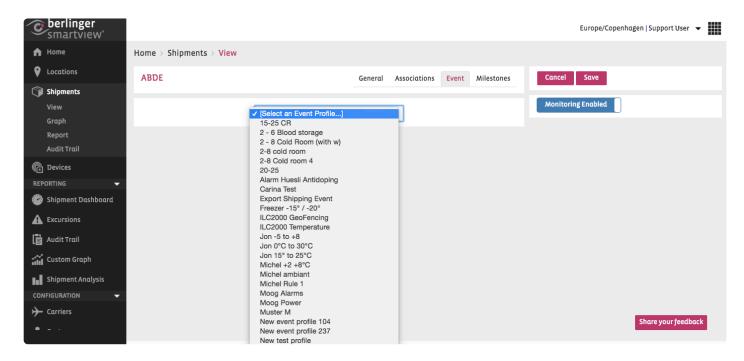
After associating the devices, you need to enable the Event monitoring for the Shipment by choosing an existing Event Profile. This will enable SmartView to apply the appropriate rules, and notify you in case of an excursion event. You can access the Event page by clicking on the Event tab:



Click on the Monitoring button, to enable the Event Monitoring:

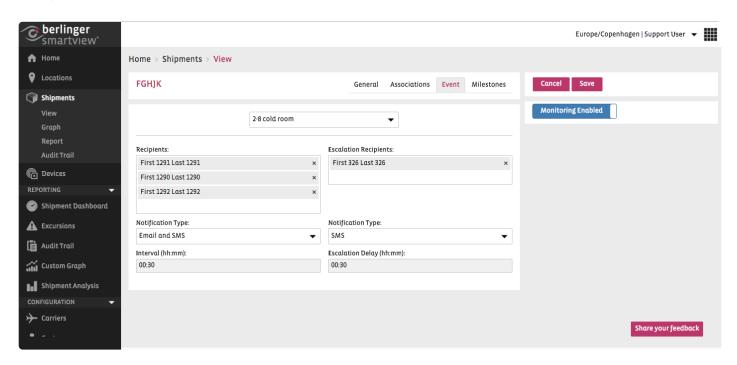


Once this has been enabled, you can choose the appropriate Event Profile from the drop down list:



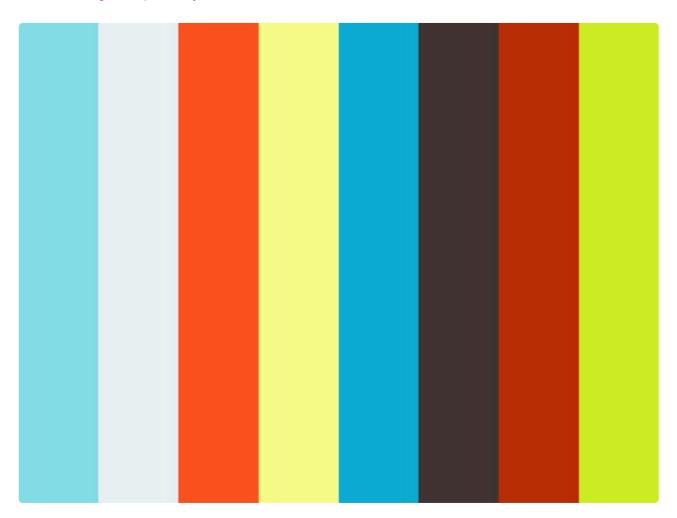
**Note**: If you cannot find the necessary Event Profile in the list, you can define a new Event Profile by following the steps in chapter <u>Event Profiles</u>.

By selecting the Event Profile in the drop down list, the Event Profile will be applied to your Shipment. Click on Save to save your changes.



#### Add a Device Association to a Shipment

After <u>creating a Shipment</u>, you need to associate one/more devices to it.



#### https://player.vimeo.com/video/176303737

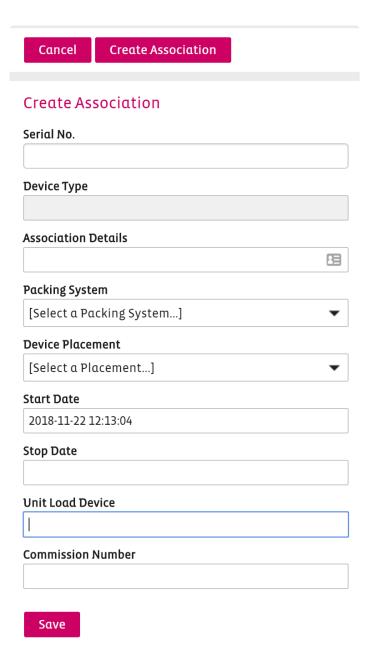
You can also add devices to an existing Shipment which has not been started yet.

#### **Unit Load Device**

You can add one or multiple unit load device ids to the device association.

#### **Commisson Number**

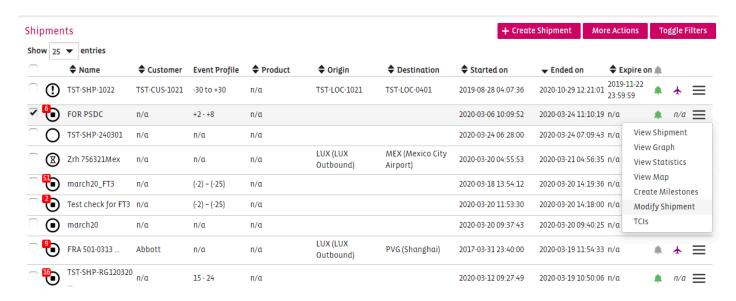
You can add one or more commisson numbers to the device association.



# **Modify a Shipment**

The Modify Shipment screen can be accessed in two ways:

1. From the Options button in the Shipment Overview page, choose Modify Shipment.

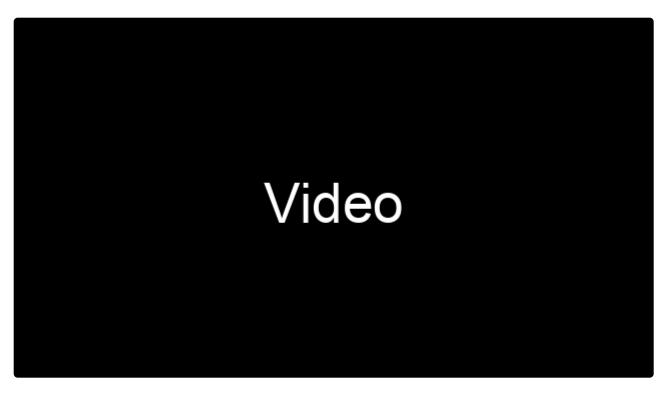


1. By clicking on a Shipment in the Shipment Overview page, you will be redirected to the View Shipment page.

Click on Modify button to add an Association.

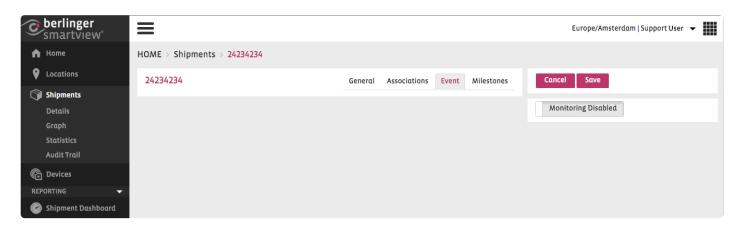


#### Add an Event Profile to a Shipment

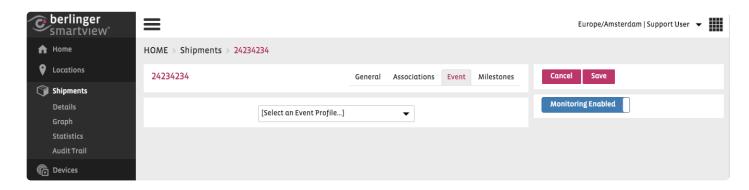


https://player.vimeo.com/video/175365680

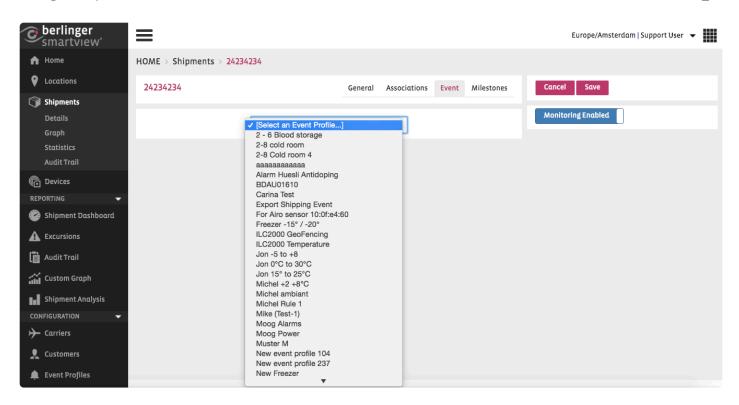
To add an Event Profile to the Shipment, click on the "Event" tab in the Modify screen of the Shipment:



Click on the Monitoring button, to enable the Event Monitoring:



From the dropdown list, select the Event Profile which you have created.

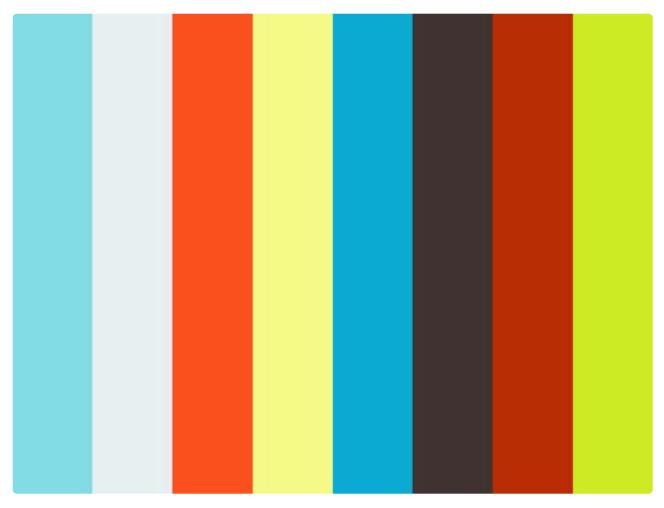


Click on to save your Event Profile to this Shipment.

#### Add a Milestone to a Shipment

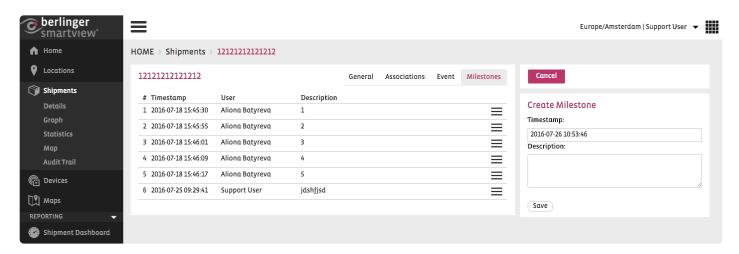
SmartView allows a user to document a useful information related to a specific shipment by allowing the user to add a milestone to the shipment.

For example, to document the arrival of a shipment to a location, a user can add a milestone "Shipment arrived at location X" with the time stamp of the arrival.



https://player.vimeo.com/video/176302328

To create a milestone go to the Shipment and click on the see all the milestones related to this shipment that have already been defined or add new Milestones if necessary.



· Select the date and time of the milestone in the Date field

• Provide a short description for the milestone and click the



You can visualise your milestones both on the Shipment Graph and on the Shipment PDF report.

# **Delete a Shipment**

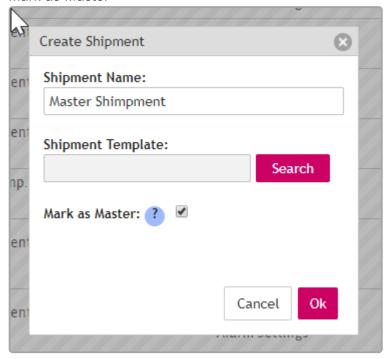
You cannot delete a shipment!

# 6.2.1. Create a Master Shipment with 2 Subshipments

Click Create Shipment on the Shipments overview page.



A pop up window appears. Fill out with the Shipment Name, choose a Shipment Template (if available), click Mark as Master



After that you will come to the Shimpment Details Page and see that 2 Sub Shipments have been created:

### **Sub Shimpments**



Change the name of the Sub Shipments which have been created automatically for you.

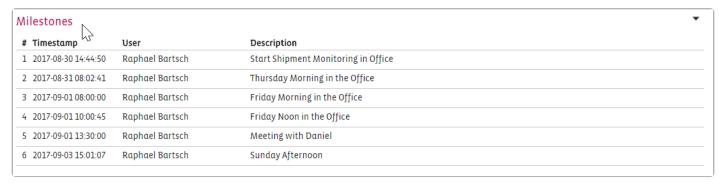
#### **General**



# **Shipment Results**

Shipment Ro	esul	ts				•
Started on:	7	2017-08-30 14:29:40	Shipment A   ins	side		
Stopped at:	topped at: 2017-09-11 10:27:00	Sensor	Minimum	Maximum 24.38 °C		
Duration:		Temperature	20.00 °C			
buration.		11 days 15.57.20	RF Strength	-80.00 dBm	-55.00 dBm	_
			Shipment A   ou			
			Sensor	Minimum	Maximum	
			Temperature	19.94 °C	29.90 °C	
			RF Strength	-74.00 dBm	-65.00 dBm	
						_

#### **Milestones**

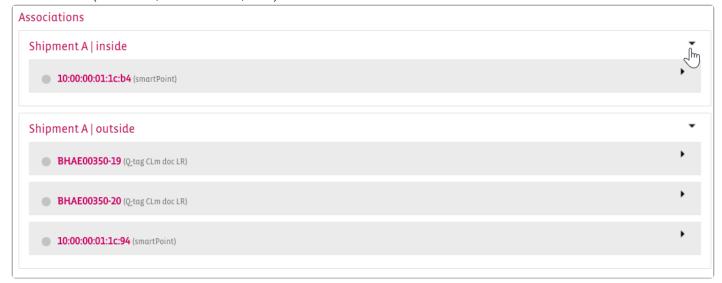


#### **Associations**

The difference to "Creating a normal Shipment" is that you have to assign at least 2 devices to the shipment. In each Subshipment must be at least one assigned device.

It is possible to have more devices assigned as you can see in the example above and you can combine/

#### mix devices (CLm doc, smartPoints, etc.)



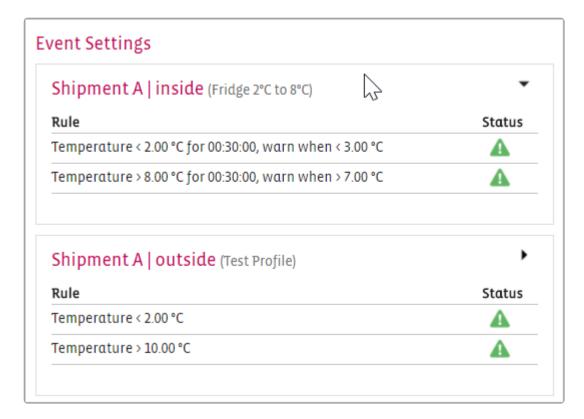
#### **Notes**

Specific notes to a graph for analysis.



# **Event Settings**

You also have to assign to each Sub Shipment an Event Setting. One for inside and one for outside.

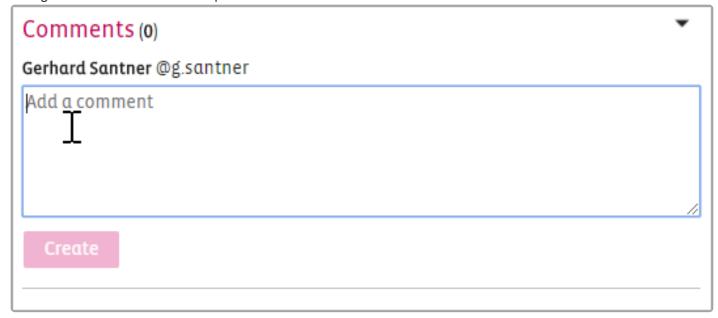


# **Recipients**

More Details you will find on **Shipment Excursions** 

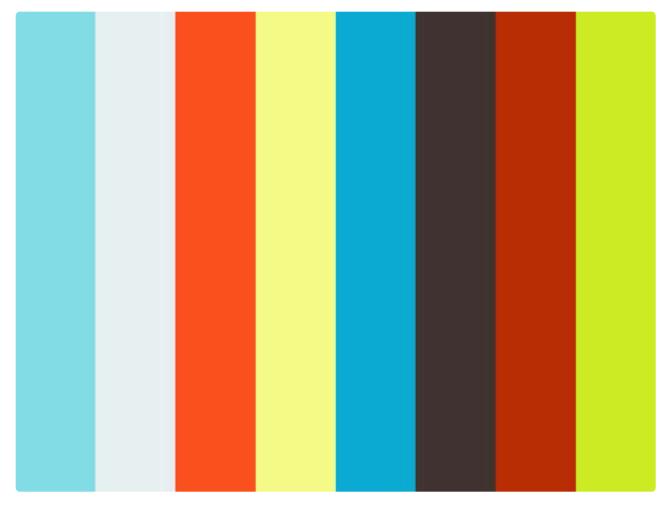
### **Comments**

Add general comments to a Shipment



# 6.2.2. Shipment Details

Details about a shipment can be viewed by clicking on the corresponding shipment identification number or name.

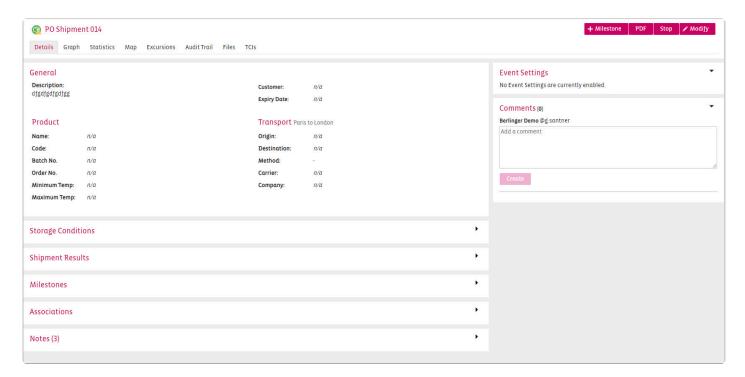


https://player.vimeo.com/video/178006895

This screen displays additional shipment information, along with the trip information, event profile summary, milestones of the shipment, associated smart sensors.

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# The overview of the Shipments Details page.



# **General | Product | Transport**

Description of your Shipment and information about the shipped product and the method of transport.





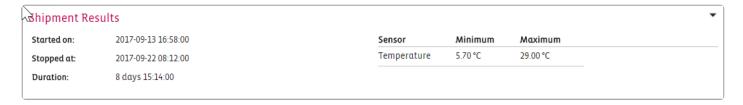
For each shipment an expiry date can be defined. If the date is reached and the shipment is not in state "Completed with or without Excursions", a notification will be sent out to a recipient list. Up to 5 recipients for the expiry notification can be defined.

# **Storage Conditions**



Storage conditions can be defined in the **Admin settings** and used for multiple purposes.

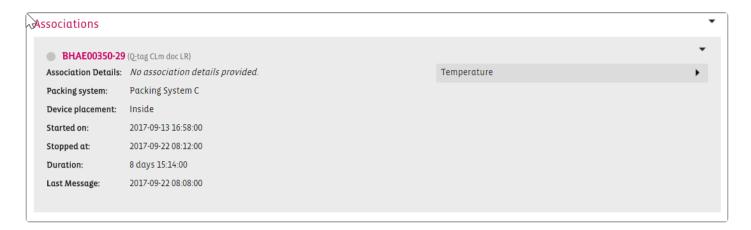
# **Shipment Results**



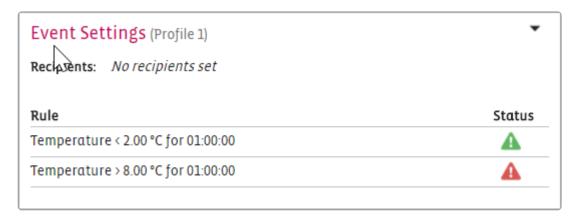
#### **Milestones**



### **Associations**



### **Event Settings**



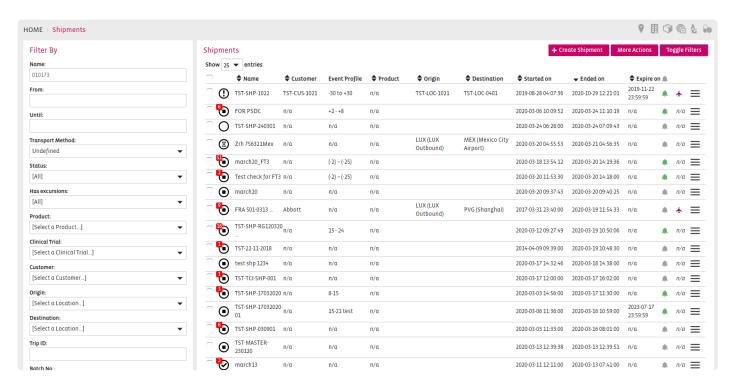
#### **Comments**

Add general comments to a Shipment



# **Final Closing of Shipments**

- · New shipment state engine
- Archived shipments will be hidden from the shipment overview (unless searched for)
- · All states after completed will become immutable
- · Archived, Approved and Declined shipments can be re-opened
- Disabled devices do not count towards states anymore (broken devices)
- Expire notice will now work with any shipments that is pending or active (also logger shipments)\*\*\*



# 6.2.3. Shipment Graph

# **Graph**



All information about displaying a graph can be found here: Graph View

# **Creating a PDF**

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Download Shipment PDF					
Generic Settings		Sensor Type Set	tings		
Overview & Associations:	✓	Parameter	Grapl	n Stat	s Meas.
Excursions:	$\checkmark$	Temperature	<b>✓</b>	~	
Excursions Management:		Temperature Probe	~	•	
TCIs:		Humidity		•	
Milestones:	<b>✓</b>	Air Pressure			
Map:	$\checkmark$	Battery Voltage			
Comments:	✓				
Audit Trail:		Battery percentage			
Statistic Graphs:	<b>✓</b>	Light intensity			
Graphs Notes:		RF Strength			
Use customized y-scale:		Tilt			
			***************************************	Cance	Ok



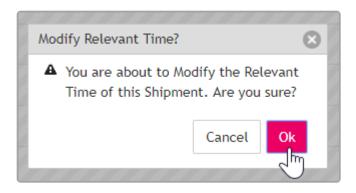
Maps can be included in the shipment PDF report if GPS coordinates are available for tracking.

# **Relevant Time**

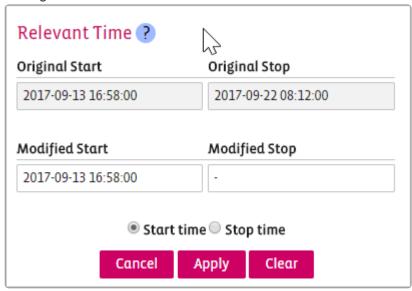
You can modify (not delete or change) the relevant time of your shipment, so that in the graph only the relevant information is shown.

Example: If your sending arrived at the arrivald destination and the data logger was taken off the product and carried into an office, but someone forgot to stop the device.

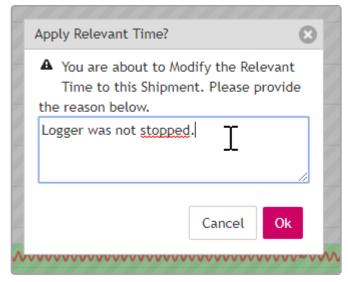
Now it can happen that an excursion has been generated. If that is not relevant for your report anymore you can change the Relevant Time, so that only the useful information is available.



Change the Relevant Time.



If you modify the relevant time you always have to comment it and it will be displayed in the "Audit Trail" as well.



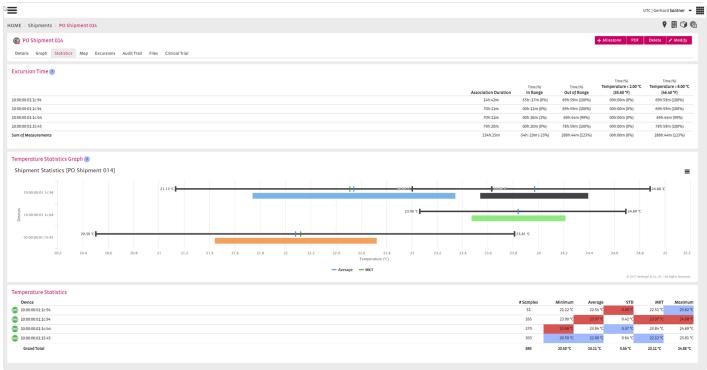
# **Excursion Legend**



More information needed: **Excursions** 

# 6.2.4. Shipment Statistics

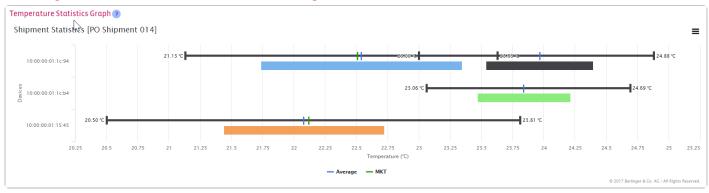
#### Overiew of the Shipment Statistics



### **Excursion Time**

Excursion Time ?	Association Duration	Time (%) <b>In Range</b>	Time (%) Out of Range	Time (%) Temperature < 2.00 °C (35.60 °F)	Time (%) Temperature > 8.00 °C (46.40 °F)
10:00:00:11:e94	14h:42m	-55h:-17m (0%)	69h:59m (100%)	00h:00m (0%)	69h:59m (100%)
10:00:00:01:1c:94	70h:11m	00h:11m (0%)	69h:59m (100%)	00h:00m (0%)	69h:59m (100%)
10:00:00:01:1c:b4	70h:11m	00h:26m (1%)	69h:44m (99%)	00h:00m (0%)	69h:44m (99%)
10:00:00:01:15:45	79h:20m	00h:20m (0%)	78h:59m (100%)	00h:00m (0%)	78h:59m (100%)
Sum of Measurements	234h:25m	-54h:-19m (-23%)	288h:44m (123%)	00h:00m (0%)	288h:44m (123%)

# **Temperature Statistics Graph**

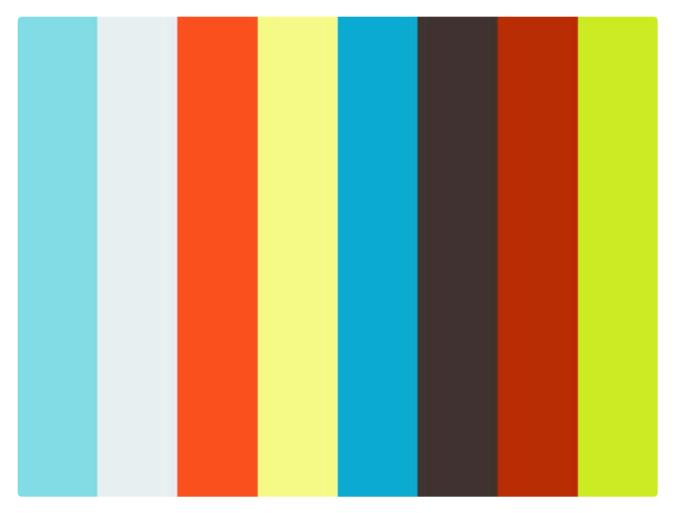


# **Temperature Statistics**

Temperature Statistics						
Device (2)	# Samples	Minimum	Average	STD	MKT	Maximum
(iii) 10:00:00:01:1c:94	51	21.12 °C	22.54 °C	0.80 °C	22.51°C	23.62 °C
(iii) 10.00:00:01:1c:94	265	23.00 °C	23.97 °C	0.42°C	23.97 °C	24.88 °C
(iii) 10:00:00:01:1c:b4	270	23.06 °C	23.84 °C	0.37 °C	23.84 °C	24.69 °C
(iii) 10:00:00:01:15:45	303	20.50 °C	22.08 °C	0.64 °C	22.12 °C	23.81 °C
Grand Total	889	20.50 °C	23.11 °C	0.56 °C	23.11 °C	24.88 °C

# 6.2.5. Shipment Report

The **Shipment Report** is a document containing shipment and sensor information and is available for every shipment, which is monitored with SmartView. This report includes the temperature graph of the shipment, the temperature excursion information and potentially milestones.



https://player.vimeo.com/video/178014742

The **Shipment Report** for a particular shipment is generated automatically by SmartView into a PDF report which can be optionally saved to the computer and analyzed accordingly. The Shipment Report can be easily personalised by choosing the information that is relevant for each shipment analysis and that should be displayed in the graph.

# **Personalisation of PDF Report**

Download Shipment PDF					
Generic Settings		Sensor Type S	Setting	s	
Overview & Associations:	✓	Parameter	Graph	Stats	Meas.
Excursions:	$\checkmark$	Temperature	✓	✓	
Excursions Management:					
Milestones:	✓				
Comments:	✓				
Audit Trail:	Mm.				
Statistic Graphs:					
Graphs Notes:					
Use customized y-scale:					
				Cano	el Ok

# **Shipment PDF report (5 Pages)**



#### Shipment Report: PO Shipment 002

(Completed with Excursions)

Overview

Shipment: PO Shipment 002 Timezone: UTC

Customer: Customer B Metrics: Temperature

No. Devices:01Description:No description providedTrip ID:n/aDuration:0 days 18:20:00

Started on: 2016-11-13 14:28:00 Stopped on: 2016-11-14 08:48:00

Transport (Air)

Origin: Langenargen DE Destination: London

Company: n/a Carrier: British Airways - (BA)

Flight Code: n/a Flight Date: n/a

Product

Name: Product B Ambient Code: Controlled Ambient

Batch Number: n/a Order Number: n/a

Temperature Range: 15.00 °C | 25.00 °C ATOR: 00:00 (hh:mm)

Clinical Trial

External ID: n/a

Associations (1)

Device Description Start Stop

BCAB00014 No description provided 2016-11-13 14:28:00 2016-11-14 08:48:00

Packing System: n/a Placement: Inside

#### Statistical Analysis (Temperature)

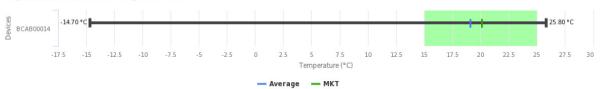
#### **Excursion Time**

No event statistics available.

#### Statistics

Device	No. Samples	Minimum	A∨erage	STD	MKT	Maximum
BCAB00014	106	-14.70 °C	19.10 °C	- °C	20.10 °C	25.80 °C
Grand Total	106	-14.70 °C	19 10 °C	- °C	20 10 °C	25.80 °C

#### Shipment Statistics [PO Shipment 002]



The temperature statistics graph can include two elements:

- The line illustrates the total temperature range from minimum to maximum temperature, with indicators for average and MKT.
- The colored bar indicates the temperature stability, as measured from the average standard deviation to average + standard deviation.

#### Comments (0)

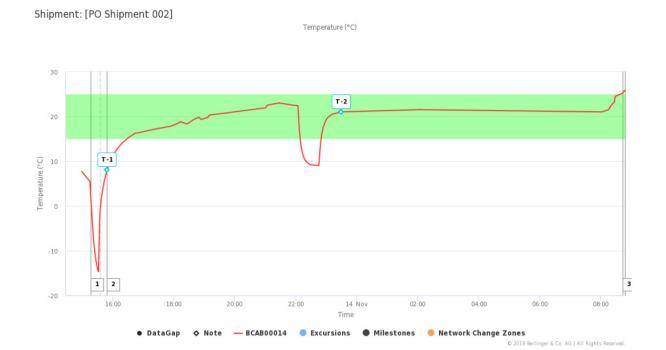
# User Timestamp Description

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#### Shipment Report: PO Shipment 002

(Completed with Excursions)



#### Notes (4)

T-1 Sensor Type: Temperature

Author: Raphael Bartsch Created on: 2017-08-25 09:48:43 Updated on: 2017-08-25 09:50:13

Author: Raphael Bartsch Created on: 2017-08-25 09:48:46 Time: 2016-11-13 15:49:00

sdfsdfsdf

sdfsdfsdf

T-2 Sensor Type: Temperature

Author: Raphael Bartsch Created on: 2017-08-11 15:29:57 Updated on: 2017-08-11 15:30:17

Author: Raphael Bartsch Created on: 2017-08-11 15:29:59 Time: 2016-11-13 23:29:00

sdfsdf

sdfsdfsdf

#### Milestones (0)

No Milestones have been added



### Shipment Report: PO Shipment 002

(Completed with Excursions)

#### Excursions (3)

No.	ID	Rule	Start	Stop	Root Cause
1	3	Temperature < 0.00 °C (32.00 °F) for 00:0	2016-11-13 15:18:00	2016-11-13 15:36:00	Storage area loading/ unloading
					operations
2	2	Temperature > 8.00 °C (46.40 °F) for 01:0	2016-11-13 15:49:00	2016-11-14 08:49:00	n/a
3	1	Temperature > 25.00 °C (77.00 °F) for 00:	2016-11-14 08:43:00	2016-11-14 08:49:00	n/a

Only the first 3 single excursions for each Q-tag are displayed. The actual number may be higher! Please consult the graph for more details.

#### Excursion Management

1D 3	User Partock	Activity	Date
3	Danhaal Bartaah		Date
	Raphael Bartsch	Closed Excursion	2017-08-06 08:23:24
	Raphael Bartsch	Acknowledged Excursion	2017-08-06 08:23:12
	Carina Tillo	added Action: 'Talk to forwarder'	2017-04-13 14:09:58
	Carina Tillo	added Root cause: 'Storage area loading/ unloading operations'	2017-04-13 14:09:58
2	Raphael Bartsch	Closed Excursion	2017-08-06 08:23:24
	Raphael Bartsch	Acknowledged Excursion	2017-08-06 08:23:12
1	Raphael Bartsch	Closed Excursion	2017-08-06 08:23:00
	Raphael Bartsch	Acknowledged Excursion	2017-08-06 08:22:28



#### Shipment Report: PO Shipment 002

(Completed with Excursions)

#### Measurements (Temperature)

wedearemer	ito (Temperatare)		
Device	Timestamp	Temperature Position	
BCAB00014	2016-11-13 14:59:00	7.70 °C	
BCAB00014	2016-11-13 15:06:00	6.70 °C	
BCAB00014	2016-11-13 15:15:00	5.50 °C	
BCAB00014	2016-11-13 15:16:00	3.40 °C	
BCAB00014	2016-11-13 15:17:00	1.30 °C	
BCAB00014	2016-11-13 15:18:00	-0.50 °C	
BCAB00014	2016-11-13 15:19:00	-2.30 °C	
BCAB00014	2016-11-13 15:20:00	-4.10 °C	
BCAB00014	2016-11-13 15:21:00	-5.80 °C	
BCAB00014	2016-11-13 15:22:00	-7.20 °C	
BCAB00014	2016-11-13 15:23:00	-8.50 °C	
BCAB00014	2016-11-13 15:24:00	-9.60 °C	
BCAB00014	2016-11-13 15:25:00	-10.60 °C	
BCAB00014	2016-11-13 15:26:00	-11.40 °C	
BCAB00014	2016-11-13 15:27:00	-12.30 °C	
BCAB00014	2016-11-13 15:28:00	-12.90 °C	
BCAB00014	2016-11-13 15:29:00	-13.60 °C	
BCAB00014	2016-11-13 15:30:00	-14.10 °C	
BCAB00014	2016-11-13 15:31:00	-14.60 °C	
BCAB00014	2016-11-13 15:32:00	-14.70 °C	
BCAB00014	2016-11-13 15:33:00	-8.90 °C	
BCAB00014	2016-11-13 15:34:00	-3.90 °C	
BCAB00014	2016-11-13 15:35:00	-1.30 °C	
BCAB00014	2016-11-13 15:36:00	0.10 °C	
BCAB00014	2016-11-13 15:37:00	1.20 °C	
BCAB00014	2016-11-13 15:39:00	2.80 °C	
BCAB00014	2016-11-13 15:41:00	4.20 °C	
BCAB00014	2016-11-13 15:43:00	5.40 °C	
BCAB00014	2016-11-13 15:45:00	6.40 °C	
BCAB00014	2016-11-13 15:48:00	7.70 °C	
BCAB00014	2016-11-13 15:49:00	8.10 °C	
BCAB00014	2016-11-13 15:51:00	8.80 °C	
BCAB00014	2016-11-13 15:53:00	9.40 °C	
BCAB00014	2016-11-13 15:55:00	10.00 °C	
BCAB00014	2016-11-13 15:57:00	10.50 °C	4
BCAB00014	2016-11-13 16:00:00	11.20 °C	
BCAB00014	2016-11-13 16:03:00	11.80 °C	
BCAB00014	2016-11-13 16:06:00	12.30 °C	
BCAB00014	2016-11-13 16:09:00	12.80 °C	
BCAB00014	2016-11-13 16:13:00	13.30 °C	
BCAB00014	2016-11-13 16:16:00	13.80 °C	
BCAB00014	2016-11-13 16:21:00	14.30 °C	
BCAB00014	2016-11-13 16:26:00	14.80 °C	
BCAB00014	2016-11-13 16:31:00	15.30 °C	
BCAB00014	2016-11-13 16:38:00	15.80 °C	
BCAB00014	2016-11-13 16:45:00	16.30 °C	
BCAB00014	2016-11-13 16:49:00	16.30 °C	
BCAB00014	2016-11-13 17:08:00	16.80 °C	
BCAB00014	2016-11-13 17:30:00	17.30 °C	
BCAB00014	2016-11-13 17:54:00	17.80 °C	
BCAB00014	2016-11-13 18:05:00	18.30 °C	
BCAB00014	2016-11-13 18:13:00	18.80 °C	
BCAB00014	2016-11-13 18:26:00	18.30 °C	
BCAB00014	2016-11-13 18:33:00	18.80 °C	
BCAB00014	2016-11-13 18:39:00	19.30 °C	
BCAB00014	2016-11-13 18:49:00	19.80 °C	
BCAB00014	2016-11-13 18:54:00	19.30 °C	
BCAB00014	2016-11-13 19:07:00	19.80 °C	
BCAB00014	2016-11-13 19:10:00	20.30 °C	



### Shipment Report: PO Shipment 002

(Completed with Excursions)

	The state of the s		
DO 4 D0004 4	0040 44 40 40 40 00	00.00.00	
BCAB00014	2016-11-13 19:46:00	20.80 °C	
BCAB00014	2016-11-13 20:19:00	21.30 °C	
BCAB00014	2016-11-13 21:00:00	21.90 °C	
BCAB00014	2016-11-13 21:04:00	22.50 °C	
BCAB00014	2016-11-13 21:27:00	23.00 °C	
BCAB00014	2016-11-13 21:54:00	22.50 °C	
BCAB00014	2016-11-13 22:04:00	22.40 °C	
BCAB00014	2016-11-13 22:05:00	20.30 °C	
BCAB00014	2016-11-13 22:06:00	18.30 °C	
BCAB00014	2016-11-13 22:07:00	16.70 °C	
BCAB00014	2016-11-13 22:08:00	15.40 °C	
BCAB00014	2016-11-13 22:09:00	14.30 °C	
BCAB00014	2016-11-13 22:10:00	13.50 °C	
BCAB00014	2016-11-13 22:11:00	12.80 °C	
BCAB00014	2016-11-13 22:12:00	12.20 °C	
BCAB00014	2016-11-13 22:14:00	11.30 °C	
BCAB00014	2016-11-13 22:16:00	10.70 °C	
BCAB00014	2016-11-13 22:18:00	10.20 °C	
BCAB00014	2016-11-13 22:22:00	9.70 °C	
BCAB00014	2016-11-13 22:28:00	9.20 °C	
BCAB00014	2016-11-13 22:45:00	9.00 °C	
BCAB00014	2016-11-13 22:46:00	10.30 °C	
BCAB00014	2016-11-13 22:47:00	12.10 °C	
BCAB00014	2016-11-13 22:48:00	13.50 °C	
BCAB00014	2016-11-13 22:49:00	14.50 °C	
BCAB00014	2016-11-13 22:50:00	15.40 °C	
BCAB00014	2016-11-13 22:51:00	16.20 °C	
BCAB00014	2016-11-13 22:52:00	16.70 °C	
BCAB00014	2016-11-13 22:53:00	17.20 °C	
BCAB00014	2016-11-13 22:54:00	17.70 °C	
BCAB00014	2016-11-13 22:56:00	18.30 °C	
BCAB00014	2016-11-13 22:58:00	18.90 °C	
BCAB00014	2016-11-13 23:01:00	19.50 °C	
BCAB00014	2016-11-13 23:05:00	20.00 °C	
BCAB00014	2016-11-13 23:12:00	20.50 °C	
BCAB00014	2016-11-13 23:29:00	21.00 °C	
BCAB00014	2016-11-14 02:04:00	21.50 °C	
BCAB00014	2016-11-14 08:02:00	21.00 °C	
BCAB00014	2016-11-14 08:15:00	21.50 °C	
BCAB00014	2016-11-14 08:17:00	22.00 °C	
BCAB00014	2016-11-14 08:20:00	22.50 °C	
BCAB00014	2016-11-14 08:26:00	23.20 °C	
BCAB00014	2016-11-14 08:27:00	24.00 °C	
BCAB00014	2016-11-14 08:28:00	24.50 °C	
BCAB00014	2016-11-14 08:43:00	25.20 °C	
BCAB00014	2016-11-14 08:46:00	25.80 °C	
BCAB00014	2016-11-14 08:48:00	25.60 °C	
20, (2000 14	2010 11-14 00.40.00	20.00 0	

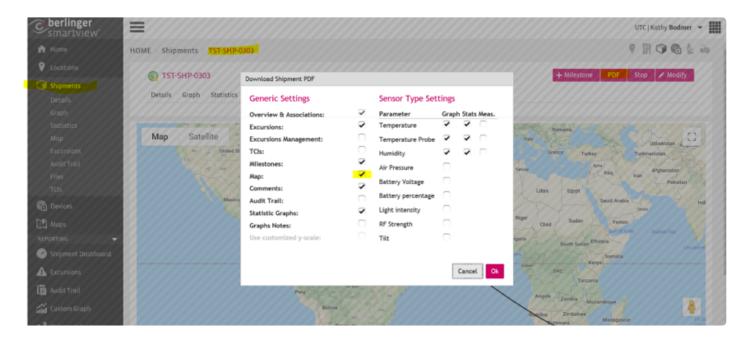
#### References:

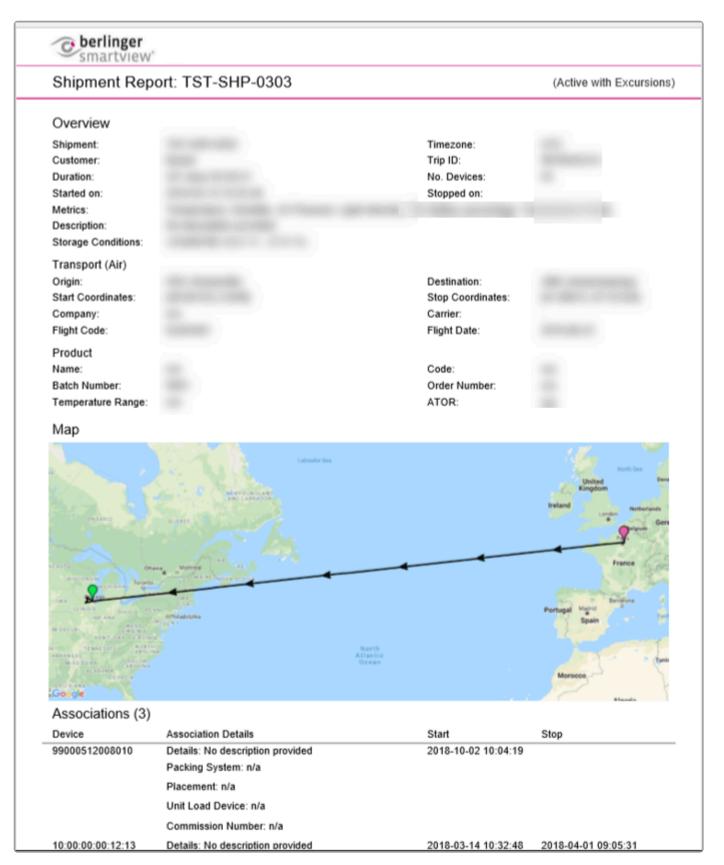
(1) - MKT is calculated using the algorithm as recommended in the Pharmacopeia using Activation Energy 83.144.

(2) - MKT for a Q-tag CLm doc is not calculated by SmartView but retrieved from its corresponding CSV file.

# **Shipment Report with Map**

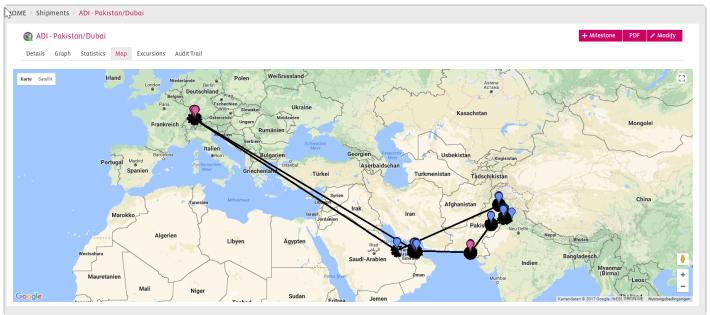
If you have a device with GPRS you can choose to include the Map in the Shipment Report.



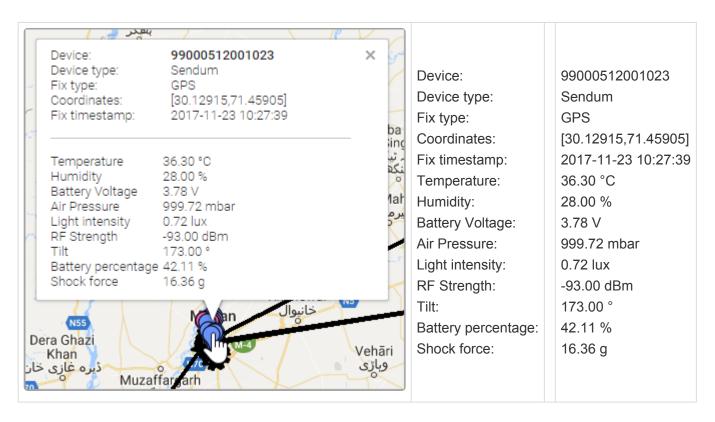


# 6.2.6. Shipment Map

The Shipment Map documents the route of your transported goods. You can use the ILC 2000 and Sendum PT300 within smartview.



If you put your cursor over a red or blue "flag" the you will get the following detailed infomartion:

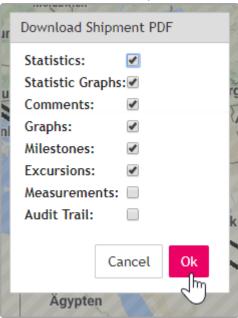


# **PDF Report**

Export the route of your goods/device in a PDF file.



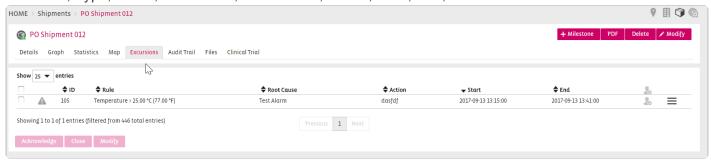
After clicking the PDF button a pop up window opens with the following options to add or to exclude information from the report.



# 6.2.7. Shipment Excursions

#### **Excursions**

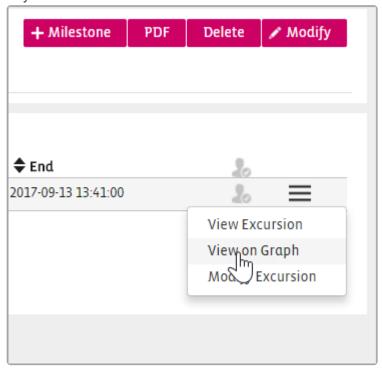
Sector ID, Type, Name, Event Rule, Root Cause, Action, Start, End, The User state of an excursion



On the right side behind the tribar button you can directly:



If an excursion has already been acknowledged the menu field "Acknowledge Excursion" is not available anymore.



· View Excursion

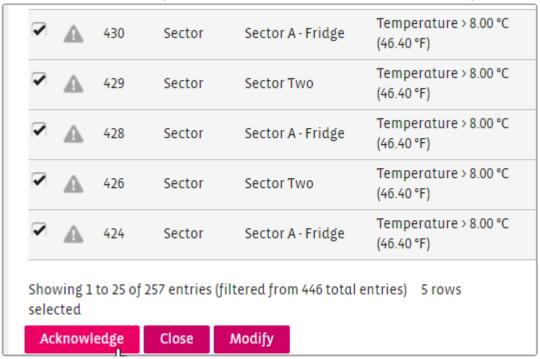
- · View on Graph
- · Modify Excursion



Before an Excursion can be closed the Exursion must have been acknowledged first!

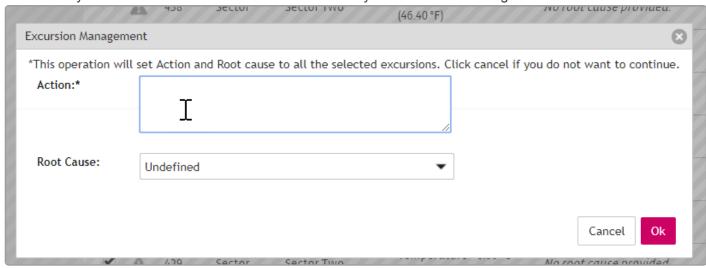
### **Mass edit Shipment Excursions**

A user can mass edit Shipment excursions and can select/deselect multiple excursions.



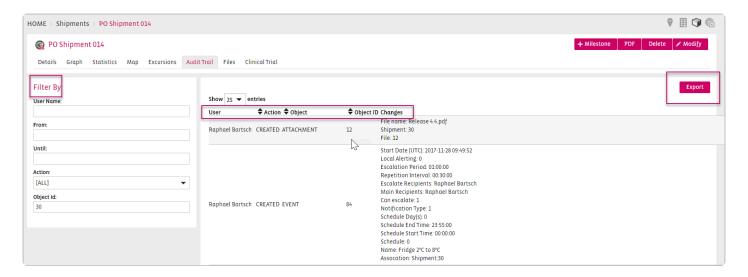
User with the appropriate rights could acknowledge/close/modify multiple selected excursions.

Click Modify to take Action and define a Root Cause of your Excursion Management



# 6.2.8. Shipment Audit Trail

Audit Trails can be **filtered** on the left side and be **exported** with the button on the right side. In between you can see the information: **User**, **Action**, **Object**, **Object ID**, **Changes** 



# 6.2.9. Modify Shipments

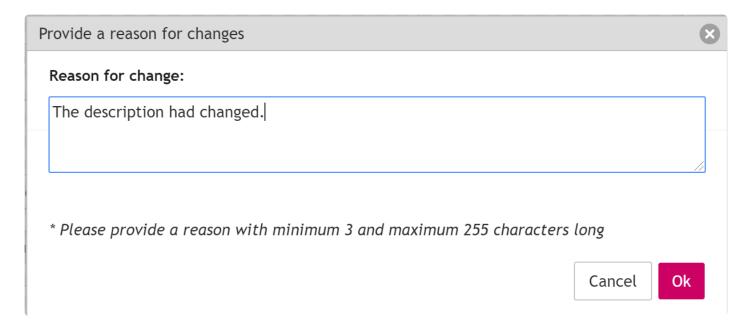
Click on the right side within your Shipment to chance the following fields which you have set up when creating a Shipment:



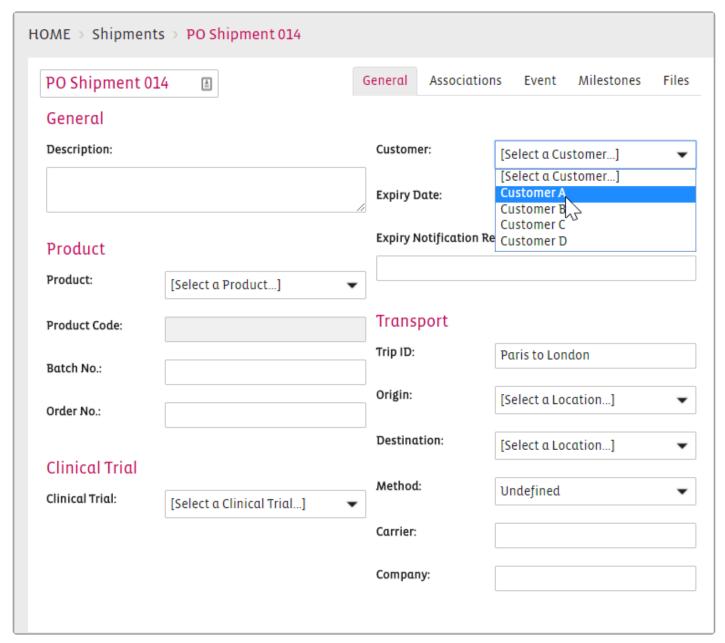
# Reason for change

If the "Reason for Change" has been enabled by the Admin in the site settings then all changes made to shipments will require the user to provide the reason for the change.

This information will be visible in the Audit Trail.



#### **General**



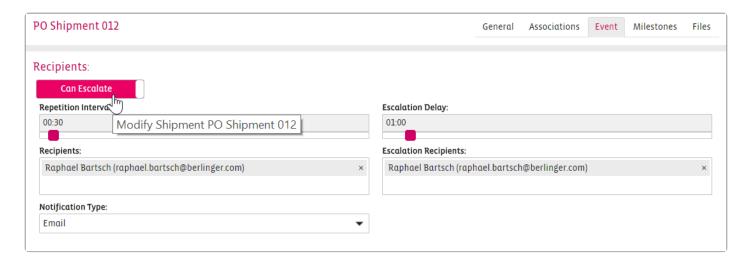
Change the customer, Add a description, Select an other Product, etc.

#### **Associations**



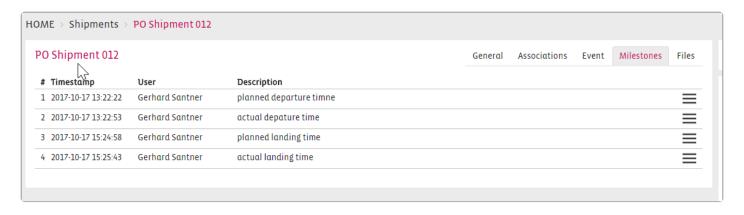
You can View the Device Modify or Delete the Association to a Shipment

#### **Event**



Change the behavior of your Event if it Can Escalate or Cannot Escalte, the Repetition Interval, the Escalation Delay, Receipients and Escalation Recipients and the Notification Type, either per Email or Email and SMS.

### **Milestones**

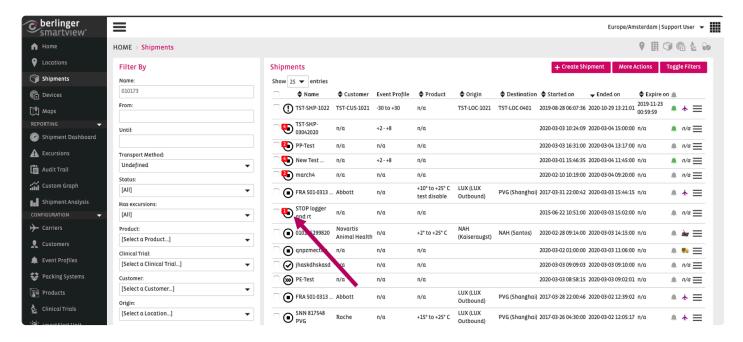


You can change predefined milestones because of changes.

# 6.2.10. Final Closing of Shipments

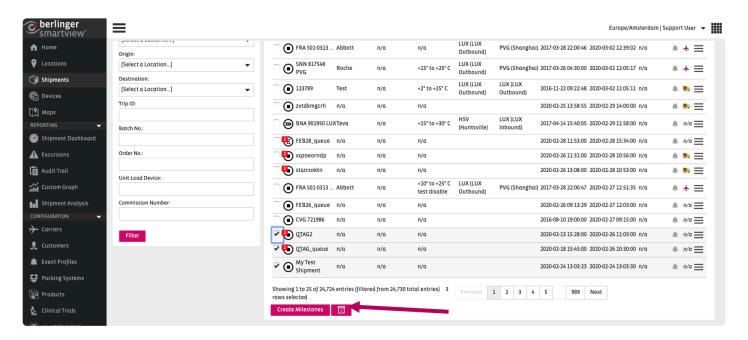
#### **Overview**

- · New shipment state engine
- Archived shipments will be hidden from the shipment overview (unless searched for)
- · All states after completed will become immutable
- Archived, Approved and Declined shipments can be re-opened
- Disabled devices do not count towards states anymore (broken devices)
- Expire notice will now work with any shipments that is pending or active (also logger shipments!)



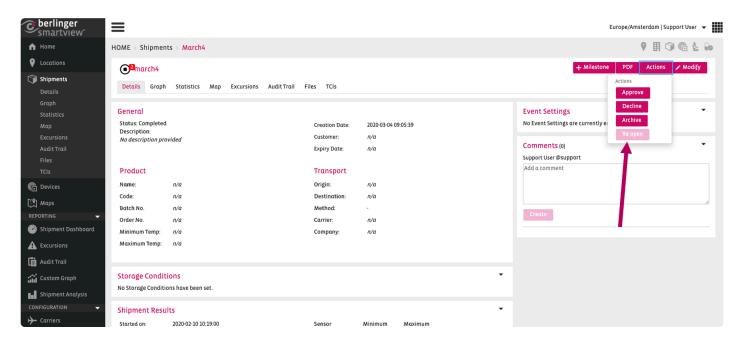
Red balloon shows the number of excursions (total) New

#### **Archive**



Bulk archive

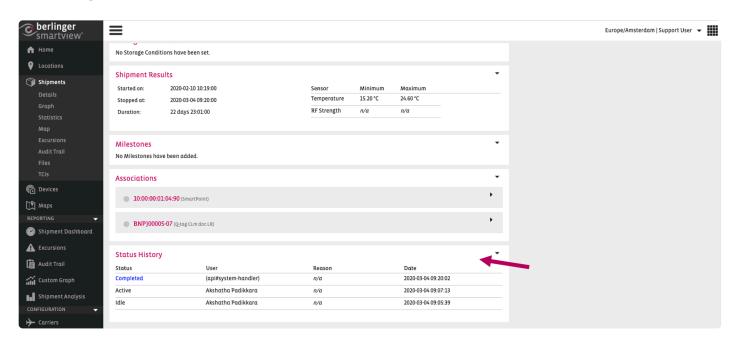
### Manually approve, decline or archive



Options to manually approve, decline or archive the current shipment.

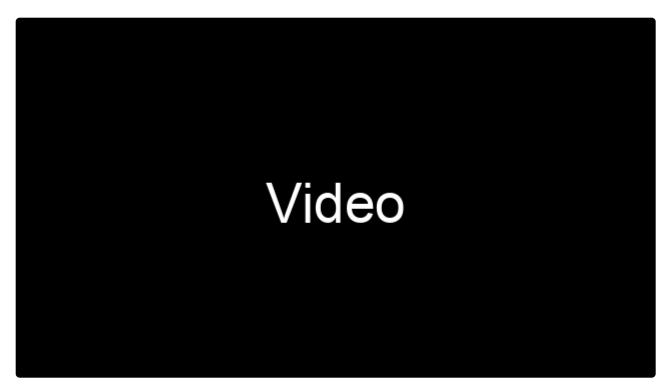
(Re-open becomes available once it has been manually changed)

## **History**



History of state changes and who triggered it (if automatic it will show it is done by the system "user")

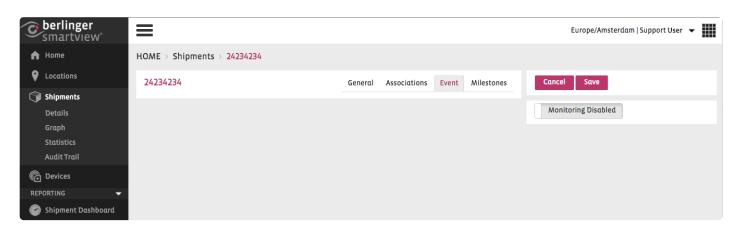
# 6.3. Add an Event Profile to Shipment



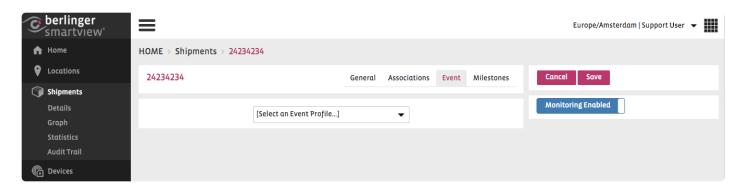
https://player.vimeo.com/video/175365680

https://player.vimeo.com/video/175365680

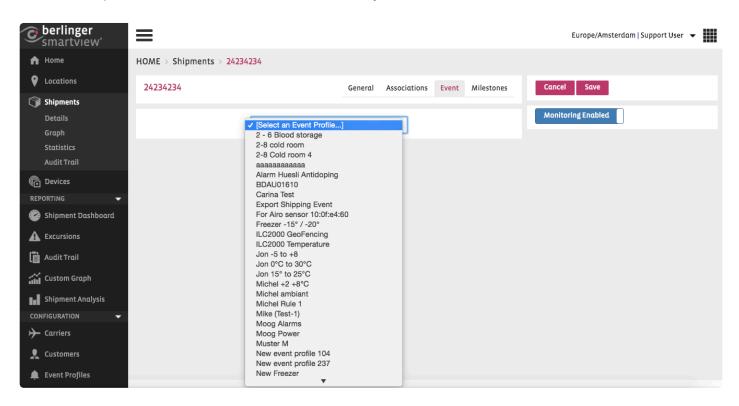
To add an Event Profile to the Shipment, click on the "Event" tab in the Modify screen of the Shipment:



Click on the Monitoring button, to enable the Event Monitoring:



From the dropdown list, select the Event Profile which you have created.



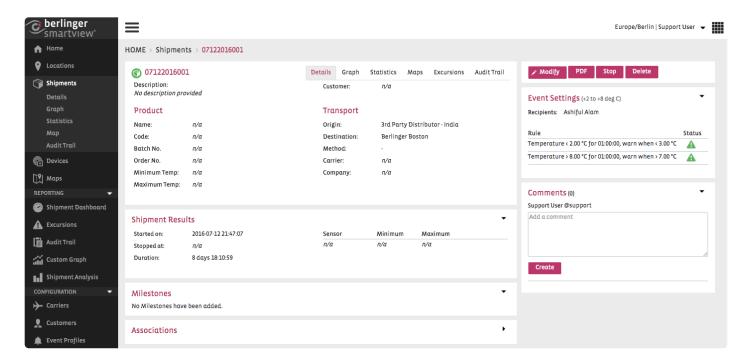
Click on to save your Event Profile to this Shipment.

# 6.4. Stopping a shipment

A shipment that is monitored by wireless sensors should be stopped in order to make use only of the relevant data related to the shipment. Stopping a shipment automatically disassociates all Smart Sensors from a shipment and also creates the final shipment report.

**Note**: Stopping a shipment is not possible for shipments with an associated Q-tag. As the start time and stop time of such shipments is determined based on the start and stop time of the associated Q-tag data files uploaded by the user, it is not possible for a user to define the start and stop for such a shipment. The information will be derived automatically from the devices.

The shipment can be stopped from the View screen of the individual shipment, by clicking on the button.



The shipment is stopped in two steps:

Enter the stop time (this indicates the moment that the wireless devices or GPS/GPRS devices are removed from the shipment).

Press the OK button.

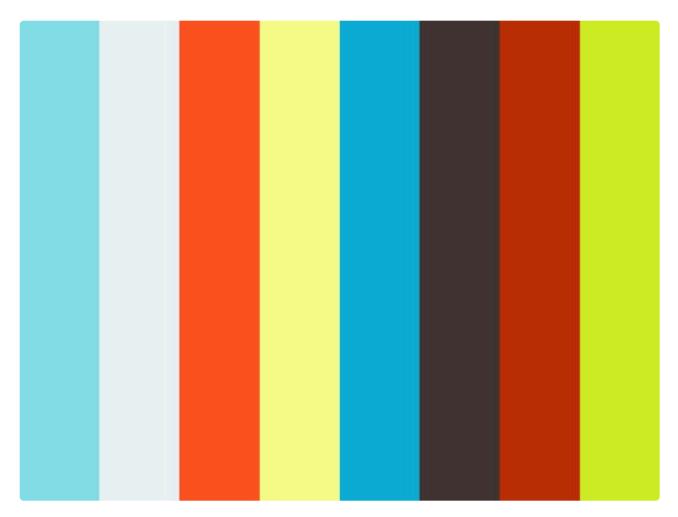
**Note**: To support the reliability of this procedure, the system only allows a stop-time that is close to the current system time (based on a user-defined allowed time frame).

Note: Idle shipments can be stopped.

# 6.5. Creating a Milestone for Shipments

SmartView allows a user to document a useful information related to a specific shipment by allowing the user to add a milestone to the shipment.

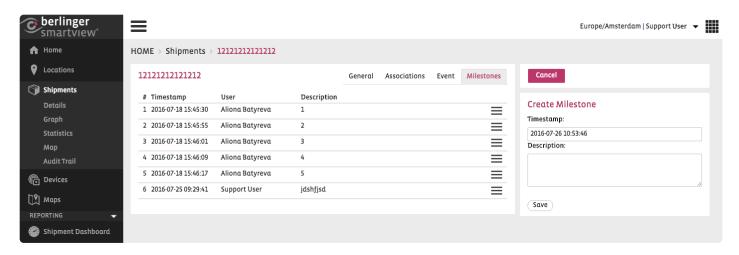
For example, to document the arrival of a shipment to a location, a user can add a milestone "Shipment arrived at location X" with the time stamp of the arrival.



https://player.vimeo.com/video/176302328

https://player.vimeo.com/video/176302328

To create a milestone go to the Shipment and click on the button. Under this tab you can see all the milestones related to this shipment that have already been defined or add new Milestones if necessary.

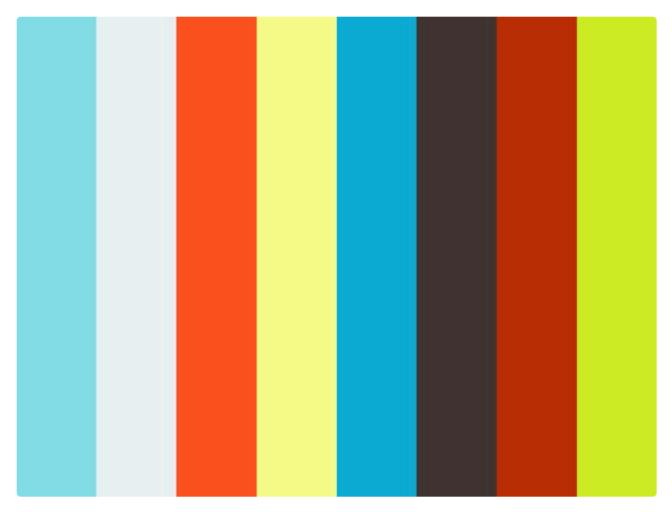


- · Select the date and time of the milestone in the Date field
- Provide a short description for the milestone and click the button.

You can visualise your milestones both on the Shipment Graph and on the Shipment PDF report.

# 6.6. Shipment Relevant Time

In certain cases you may want to modify the relevant time of a Shipment. This may be, due to fact that one or more associated sensors were started earlier or stopped later than the actual **start** or **stop time** of a shipment. Rather than modifying each of the sensor timestamp, SmartView allows you to define the correct time by setting a relevant time to the Shipment.



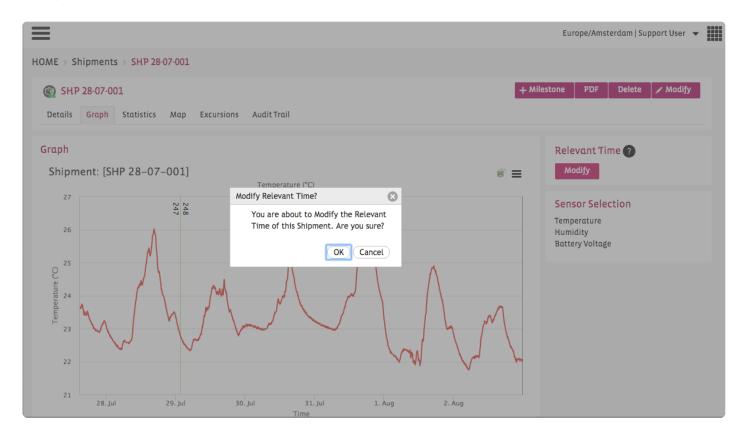
https://player.vimeo.com/video/178443573

#### **Modify Relevant Time**



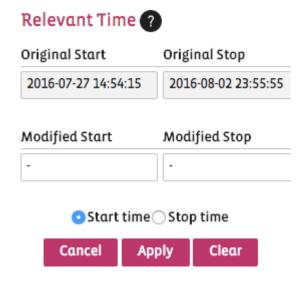
This option can be accessed by clicking on in the Shipment Graph. As shown in the following screen, you will asked to confirm your action to access the option to modify the relevant time of the Shipment.

Modify



Click on OK to continue access to modify the Shipment relevant time and follow the following steps:

<u>Select Modified Time</u>: Click Start time or Stop time button for the time that you want to modify. You can define the time in the Modified time box. You can select the modified time for both Start and Stop time or for either of them. After you have chosen the time, like shown in the following image, the screen will show grey coloured background for the trimmed part of the data due to the modification.



You can click on the Clear button to deselect the chosen modified time and reselect the time again. If you do not wish to modify the time click on the Cancel button and you will return to original graph screen.

**Note:** When modifying relevant time may affect the excursion information.

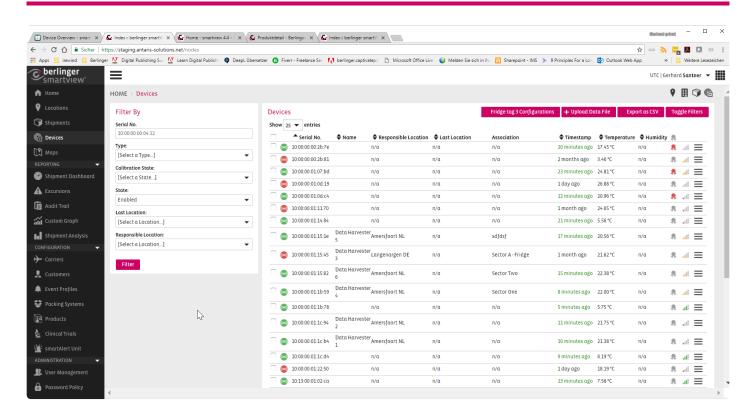
## 7. Devices

#### The type of devices supported by SmartView:

 Wireless active RFID sensors. The SmartPoints and the AiroSensors can be employed as wireless sensors for static monitoring and can be used for RF Data Logging applications.
 These sensors use wireless networks to automatically forward data to the SmartView application.

- Q-tag CLm Doc family. Users can utilize the Q-tag CLm Doc to log temperature measurements during a shipment. The SmartView system supports different types of Q-tag devices like Dry Ice (D), Logger (L) and Reusable ®. When the Q-tag data file is uploaded into the SmartView system, users can use SmartView to view detailed information regarding the measurements of the shipment. In addition, users can benefit from the reporting and analysis functionalities of SmartView.
- Fridge-tag family. Users can utilize the Fridge-tag 2 L to log temperature measurements at different locations or during a shipment. The SmartView system supports the Fridge-tag 2 L. When the data file is uploaded into the smartview system, users can use smartview to view detailed information regarding the measurements of the monitored goods. In addition, users can benefit from the reporting and analysis functionalities of SmartView. By integrating our Fridge-tag 3 devices into SmartView we offer the best of two worlds: Having a stand alone device which is sending out alarms by SMS directly to defined recipients, and in parallel reporting to SmartView providing access to all relevant functionality of our data management software.
- Fridge-tag 2 L
- Fridge-tag 3
- GPS/GPRS monitoring devices. Sendum PT300 is a GPRS monitoring device that can be placed
  either on packages during shipments in order to create real-time in-transit visibility or in temperaturecontrolled transportation vehicles.
- Sendum PT300

# 7.1. Device Overview



The device overview shows all devices in use with their current information.

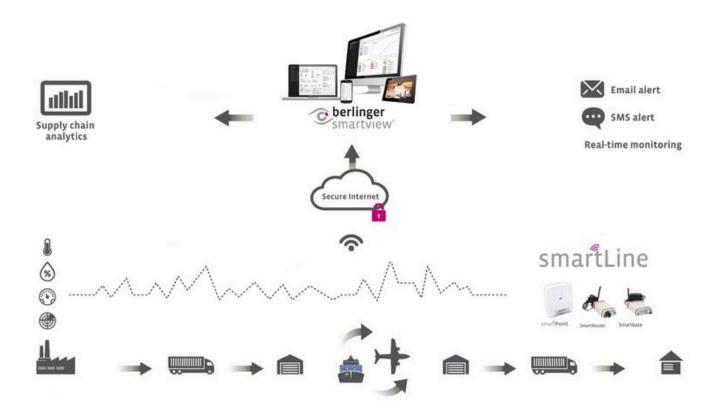
## 7.1.1. SmartPoints

#### **Data transmission**

SmartPoints wirelessly communicate with a wireless network consisting of a SmartGate and SmartRouters that extend the range of the communication.

### Logging and flushing

In range of a wireless network, SmartPoints provide real-time information. Outside a wireless network, SmartPoints log their measurements, and automatically download this log upon arrival in a wireless network. From the SmartGate, the sensor measurements are securely communicated to the central Berlinger SmartView web application. This provides an integrated real-time view on shipments and storage facilities.



#### **Features**

SmartPoints are small, battery-operated, intelligent wireless sensing devices with 2MB on board data storage, advanced logging & flushing technology, and low energy consumption. SmartPoints have an accurate internal temperature and humidity sensor, ideal for any application where relative humidity must be monitored and EN12830 compliance is required. With a magnetic reed switch for triggering behaviour, and a LED for visual inspection. Both sensors can be calibrated based on ISO/IEC 17025 standards.

# 7.1.2. CLm Doc family

Supported Devices by SmartView are:

- · Q-tag CLm doc
- Q-tag CLm doc L (Logger)
- Q-tag CLm doc LR (Reusable)
- Q-tag CLm doc Ice (Logger)
- Q-tag CLm doc Ice R (Reusable)
- Q-tag CLm doc D (Dry Ice)

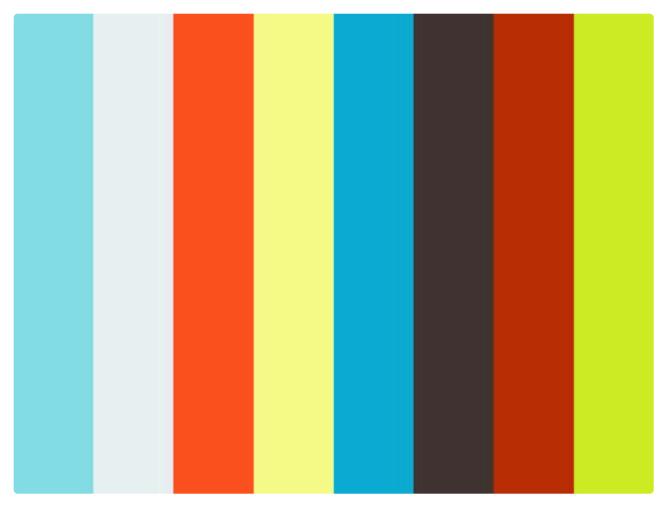
### **Uploading CLm doc data files**

**Note**: Before you upload a CLm doc data file make sure the CLm doc device is already registered for your site. If the device has not been registered to your site you cannot upload the data file.

To upload a new CLm doc data file in the system go to the menu item "Devices" and click on the

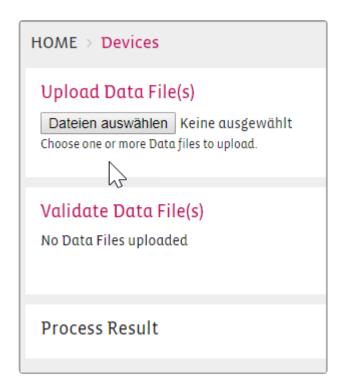


button.



https://player.vimeo.com/video/232785719

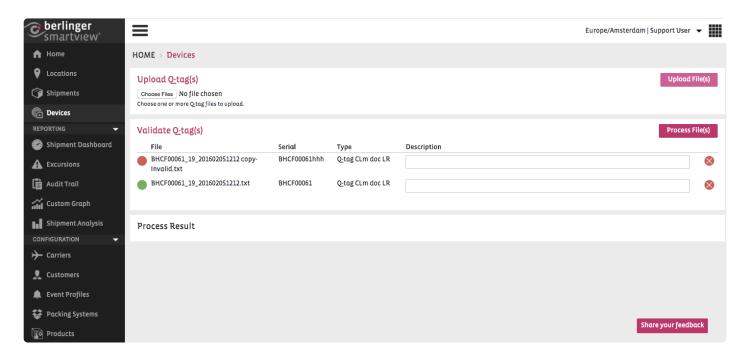
The following screen will appear, allowing you to choose the Clm doc files which you would like to upload:



### Uploading a CLm doc file is a three step process.

Step 1: Select File(s). Choose Q-tag file(s) and click the Upload File(s) button.

**Step 2: Check File(s)**. After the Q-tag data files are uploaded, in the second step the system will check the integrity of the files. You will be notified if any file is invalid or its integrity has been compromised or if the file has been uploaded to the system earlier.

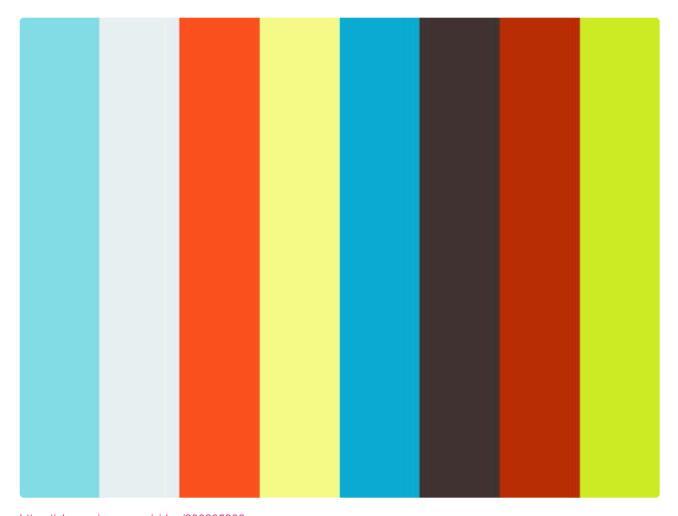


Step 3: Process Files. Finally click the button to store the Q-tag data into the system. If any Q-tag device ID does not exist in the system, this process will also ensure the inclusion of the Q-tag device ID in the system. If the Q-tag devices are already associated with any shipment, this process will also make an update in the shipment information such as filling the start time of the shipment.

After the files are processed, the results will be shown in the Results section. You will be notified about how many of the files have been processed and how many of them are ignored.

### CLm doc family e-mail data upload

Watch the video to see how the Clm doc family data files are sent by E-mail to smartview. The e-mail address for the e-mail data upload is **qtag-upload@smartview.berlinger.com**.



https://player.vimeo.com/video/206205338

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# 7.1.3. Fridge-tag family

### Supported Devices by SmartView are:

- · Fridge-tag 3
- Fridge-tag 2 L

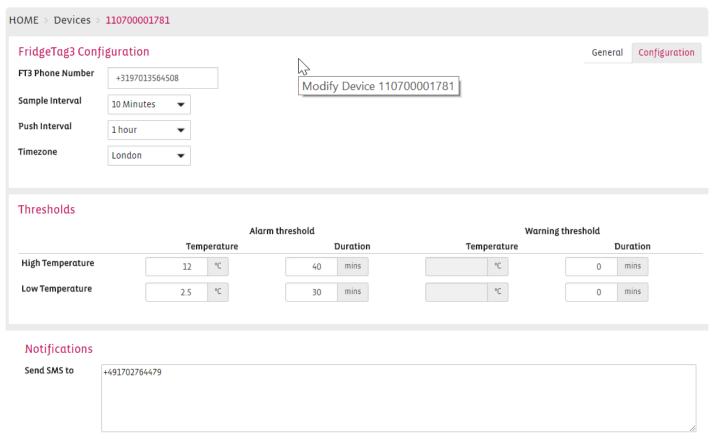
## Fridge-tag 3



### **Key-Features Fridge-tag 3**

- Temperature data is shown in a Graph
- Fridge-tag 3 devices can be associated to Sectors
- Temperature and non-temperature related events from the device are converted to Notifications in SmartView
- Daily Statistics are stored in SmartView and can be viewed and exported as PDF
- · Device Event notifications are stored in SmartView
- Two different Email Recipient lists are available: one for the temperature related Notifications and another one for non-temperature related Notifications
- Excursions from the device are converted to Excursions in SmartView when the device is associated to a Sector
- Sector and Device offline Notifications are supported when the Device is associated to a Sector
- Full support of the SmartView Excursion management and tracking
- Full support of the SmartView Audit Trail
- · Device can be configured in SmartView, allowing the user to change all relevant Settings
- Configurations can be saved as Templates for easy assignment to multiple Devices

## **Fridge-Tag 3 Configuration**



Add one number per line, with a maximum of 5.

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# **Fridge-Tag 3 General Information**

HOME > Devices > 110700001684



(m) 110700001684

Associations Configuration Email recipients Details Graph Events Statistics Audit Trail

#### General information

Firmware version: 3.1p0-pre4o - Dec 12 2017,18:08:56

GSM module version: 12.00.716

IMEI: 355857052319518

Mobile number: +15662610365 Mobile gateway: +12199999294

SIM ID: 89014104279625498183

Device model: FT-3 HW v4

Initial CID: 19

Timezone America/New\_York

- · Firmware version
- · GSM module version
- IMEI
- · Mobile number
- · Mobile gateway
- SIM ID
- · Device model
- · Initial CID
- Timezone

# Fridge-tag 2 L



### **Key-Features Fridge-tag 2 L**

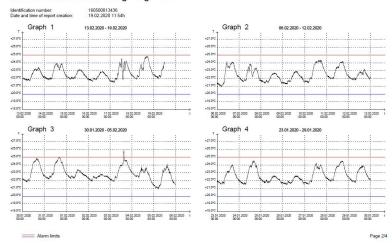
- · Log temperature measurements at different locations or during a shipment.
- Upload to SmartView manually
- · Status Checks of the device are shown in the column of the daily statistics
- · Device time zone is now integrated in PDF reports
- Data gaps are now shown in the PDF report as "-", when including the measurements

The Fridge-tag 2 L measures the ambient temperature. If one of the two alarm limits is exceeded or fallen below, an alarm will be triggered on the display and/or is audible as an audio signal. A quick decision and immediate action is thus possible. The PDF/A report, now also with a temperature curve, can be generated without additional software. The Fridge-tag 2 L is optionally available with an external temperature sensor (measures till -40°C / -40°F)

easurement in ogging interval														
		5mi	n (fixed) n											
		Lower alarm limit					Upper alarm limit				Ext. sensor connection error			٦
vo. Date (dd.MM.yyyy)	Events <sup>2)</sup>	Average temp.	Status	Min. temp.	Cumulative daily time below the limit	Alarm trigger time	Status	Max. temp.	Cumulative daily time above the limit	Alarm trigger time	Status	Duration	Alarm trigger time	Signature / note Action taken
9 22.01.2020		+22.6°C	ok	+21.5°C	Omin	_	ok	+24.1°C	Omin		ok	Omin	_	
0 21.01.2020	,	+22.8°C	ok	+21.6°C	0min		ok	+24.1°C	Omin		ok	Omin		
1 20.01.2020		+22.8°C	ok	+21.3°C	Omin		ok	+24.4°C	Omin		ok	Omin		
2 19.01.2020		+21.9°C	ok	+21.5°C			ok	+22.4°C	Omin		ok	Omin		
3 18.01.2020		+22.3°C	ok	+21.7°C			ok	+22.7°C	Omin		ok	Omin		
4 17.01.2020		+23.2°C	ok	+22.0°C			ok				ok	0min		
5 16.01.2020		+23.2°C	ok	+21.9°C			ok	+25.0°C			ok	0min		
6 15.01.2020	2	+22.8°C	ok	+21.6°C			ok	+24.1°C			ok	Omin		
7 14.01.2020		+22.6°C	ok	+21.5°C	Omin		ok	+23.9°C			ok	Omin		
8 13.01.2020		+22.6°C	ok	+21.3°C			ok	+24.1°C			ok	Omin		
9 12.01.2020		+21.9°C	ok	+21.5°C			ok	+22.6°C	Omin		ok	0min		
0 11.01.2020	1	+22.4°C	ok	+21.8°C			ok	+22.8°C			ok	Omin		
1 10.01.2020	a,09:41	+23.1°C	ok	+21.9°C			ok	+24.3°C	Omin		ok	Omin		
2 09.01.2020		+22.9°C	ok	+21.8°C			ok	+24.2°C			ok	Omin		
3  08.01.2020		+22.5°C	ok	+21.7°C			ok	+23.8°C			ok	0min		
4 07.01.2020		+22.4°C	ok	+21.0°C			ok	+24.9°C			ok	0min		
5 06.01.2020	13:44	+22.4°C	ok	+21.2°C	0min		ok	+24.9°C	0min		ok	4min		
6 05.01.2020	-	+21.8°C	ok	+20.4°C			ok	+22.5°C	Omin		ALARM	11min	17:17h	
7 04.01.2020	ģ.	+21.9°C	ok	+21.5°C			ok	+22.2°C	Omin		ok	Omin		
8 03.01.2020		+21.8°C	ok	+21.1°C			ok	+22.6°C	Omin		ok	Omin		
9 02.01.2020		+21.5°C	ok	+21.1°C			ok	+22.2°C	Omin		ok	Omin	1	
0 01.01.2020		+21.5°C	ok	+21.2°C			ok	+21.9°C			ok	Omin		
1 31.12.2019		+21.6°C	ok		Omin		ok	+22.4°C	Omin		ok	Omin		
2 30.12.2019		+21.6°C	ok		Omin		ok	+22.1°C			ok	Omin		
3 29.12.2019		+21.6°C	ok	+21.1°C		1	ok	+22.3°C	Omin		ok	Omin		
4 28.12.2019		+21.5°C	ok	+20.7°C		1	ok	+22.1°C	Omin		ok	0min	_	
5 27.12.2019		+20.8°C	ALARM		2h	09:32h	ok	+21.8°C	Omin		ALARM	9h 31min	00:00h	
6 26.12.2019		+20.0°C	ALARM	+19.4°C	6h 9min	07:17h	ok	+21.0°C	Omin		ALARM	11h 14min	12:58h	

#### PDF document of the Fridge-tag® 2 L

PDF document of the Fridge-tag® 2 L

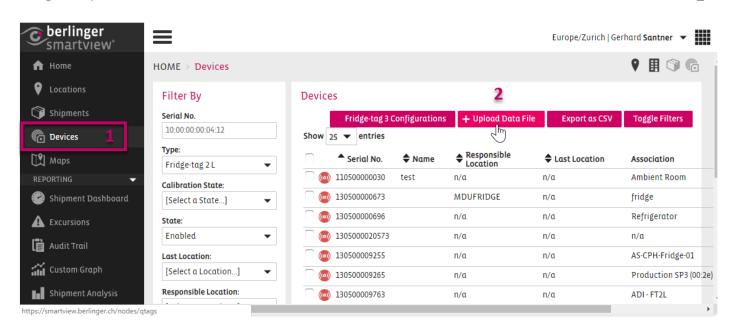


### **Uploading Fridge-tag 2 L data files**

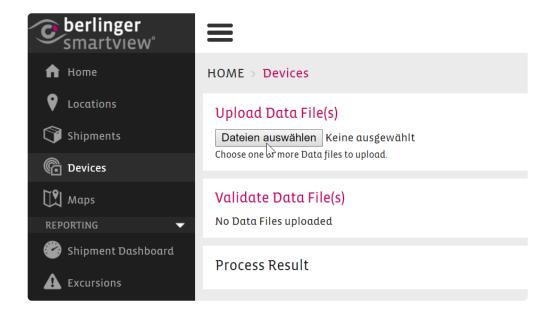
**Note**: Before you upload a Fridge-tag 2 L data file make sure the Fridge-tag 2 L is already registered for your site. If the device has not been registered to your site you cannot upload the Fridge-tag 2 L data file.

To upload a new Fridge-tag 2 L data file in the system go to the menu item "Devices" and click on the



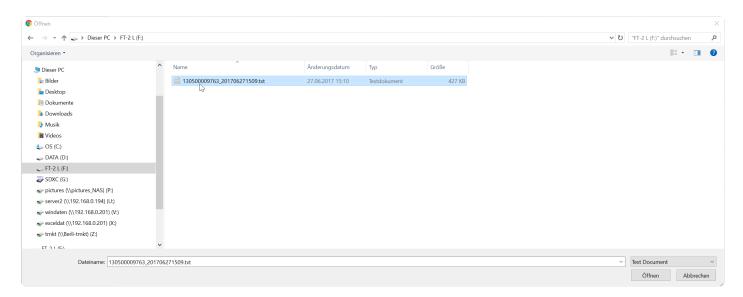


The following screen will appear, allowing you to choose the Fridge-tag 2 L files which you would like to upload:

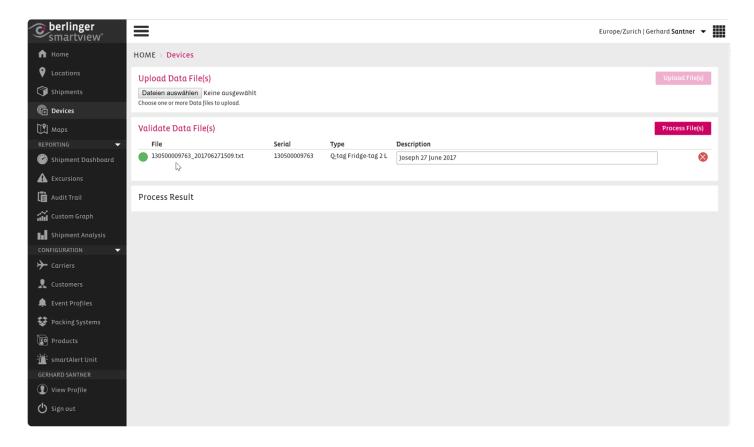


Uploading a Fridge-tag 2 L file is a four step process.

**Step 1: Select File(s).** Choose Fridge-tag 2 L file(s) and click the Upload File(s) button. You can upload serveral files at one time, but only one file per device.



**Step 2: Check File(s)**. After the Fridge-tag 2 L data files are uploaded, in the second step the system will check the integrity of the files. You will be notified if any file is invalid or its integrity has been compromised or if the file has been uploaded to the system earlier.



Step 3: Process Files. Finally click the system. If any Fridge-tag 2 L device ID does not exist in the system, this process will also ensure the inclusion of the Fridge-tag 2 L device ID in the system. If the Fridge-tag 2 L devices are already associated with any shipment, this process will also make an update in the shipment information such as filling the start time of the shipment.

After the files are processed, the results will be shown in the results section. You will be notified about how many of the files have been processed and how many of them are ignored.

**Step 4: Select Timezone**. The timezone can be selected when uploading the file. Last setting will be stored as a default, no need to choose the timezone everytime when uploading. To be sure that you have chosen the right timezone you have to confirm the timezone with "ok".



# 7.1.4. Sendum PT 300

#### The Sendum PT300



#### **Functions**

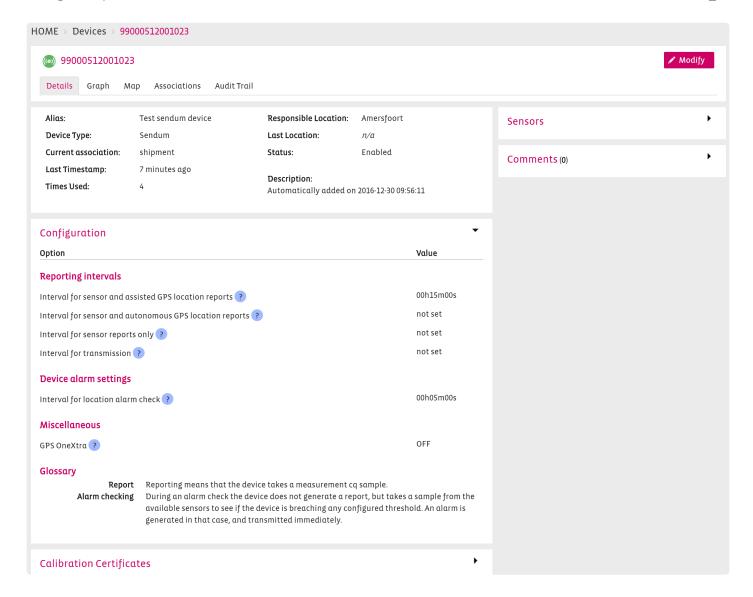
With the Sendum the following measurements can be tracked in smartview:

#### Sensors

- Temperature
- Humidity
- Battery Voltage
- Air Pressure
- Light intensity
- RF Strength
- Tilt
- Battery percentage
- Shock force

Sensor	Value	Timestamp
Γemperαture	23.90 °C	2017-03-02 13:57:24
Humidity	27.00 %	2017-03-02 13:57:24
Battery Voltage	3.99 V	2017-03-02 13:57:24
Air Pressure	1007.85 mbar	2017-03-02 13:57:24
ight intensity	379.95 lux	2017-03-02 13:57:24
F Strength	-66.00 dBm	2017-03-02 13:57:24
ilt	3.00°	2017-03-02 13:57:24
Battery percentage	80.21 %	2017-03-02 13:57:24
Shock force	35.19 g	2017-01-27 10:16:06

### **Configuration Settings**





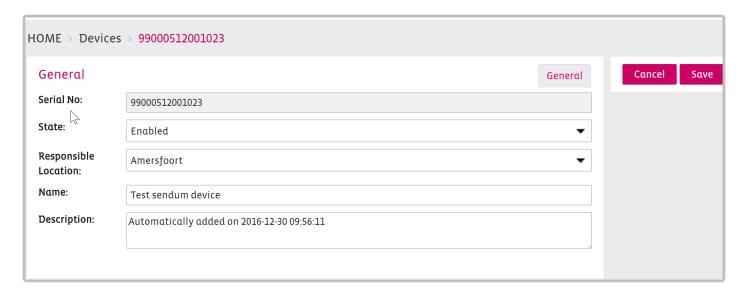
You can see all configuration settings of the Sendum in SmartView. Changes in the configuration can not be made within SmartView.

Please contact our support team <a href="mailto:support@berlinger.com">support@berlinger.com</a> to help you configuring the Sendum in the right way.

#### **Modifications in SmartView**

#### Modification can be made for:

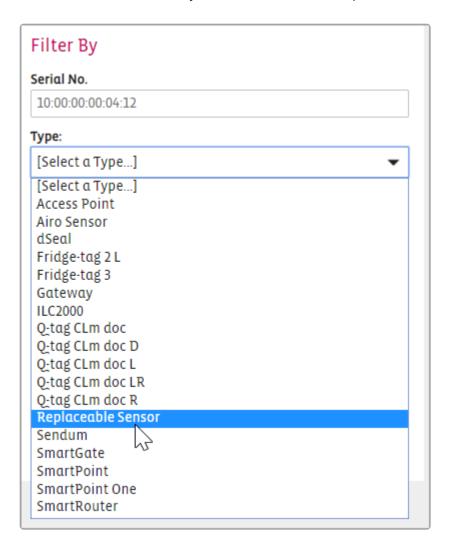
- · State: enabled or disabled
- · Responsible Location: e.g. Amersfoort (This is the home base of the device)
- · Name of the Device: for e.g. Sendum #1
- · Description: e.g. when was the device added to the system

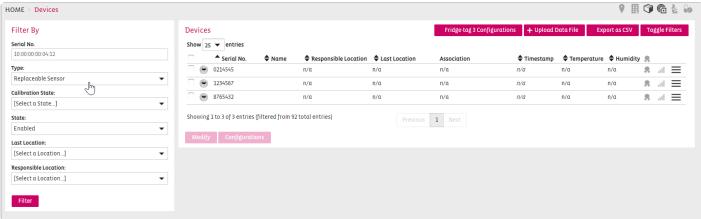


# 7.1.5. Replaceable Sensor

Quick and easy viewing of replaceable sensor information.

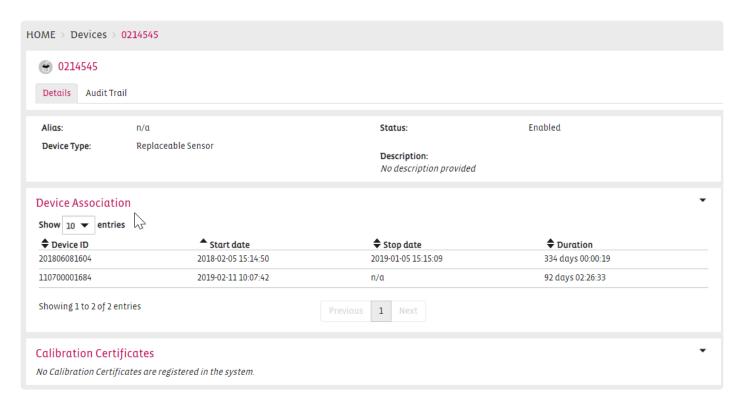
Go to Devices and Filter by Device and choose "Replaceable Sensor"





Replaceable sensor associations can be viewed on the device detail page.

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The replaceable sensors are included in the shipment or sector pdf / csv reports. Association history of a replaceable sensor is available. The sensor association history will be tracked in the association tab.

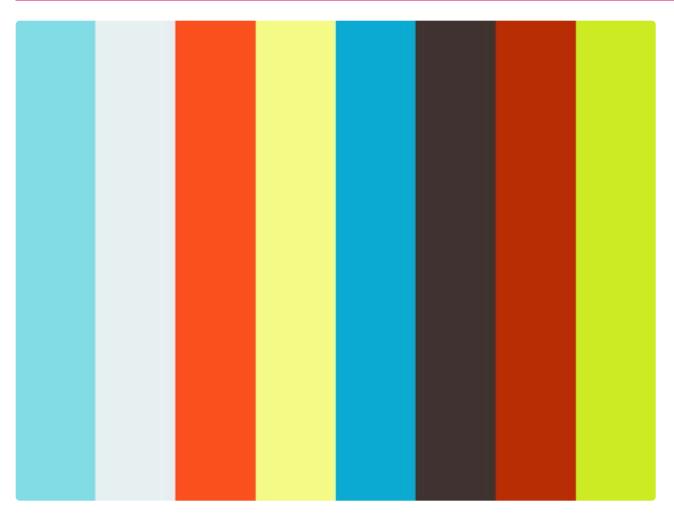
# 7.2. Device Icons

Icon	Meaning	Description
€	Q-Tag device	No log files have been uploaded yet.
€	Q-Tag device	The log files have been uploaded.
((a))	Wireless device	The device has reported within the last hour.
(10)	Wireless device	The device has reported within the last 24 hours.
((a))	Wireless device	The device has not reported in more than 24 hours.
<b>®</b>	GPS/GPRS device	The device has reported in the last hour.
<b>®</b>	GPS/GPRS device	The device has reported within the last 24 hours.
<b>®</b>	GPS/GPRS device	The device has not reported in more than 24 hours.

# 7.3. Calibration Icons

Icon	Description
*	Calibration certificate available.
*	Calibration certificate is about to expire.
*	Calibration has expired.
*	No calibration certificate available.

# 7.4. Manage and modify devices



https://player.vimeo.com/video/178596638

The modify screen of a device, enables you to edit certain settings of a specific sensor:

- · State: enabled, disabled or out of service
- Responsible location.
- Name: a meaningful description that can be used to identify the sensor device.
- Description



#### Changing the state of a sensor

Devices have a default status of 'Enabled'. The status can be changed to 'Disabled' or to 'Out of Service'.

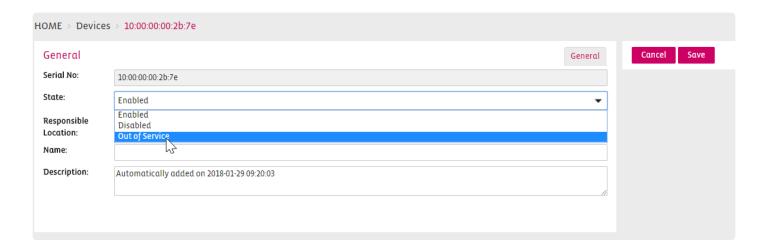
\*Status disabled:\*\* This supports situations where sensors should not be used temporarily in sectors or shipments anymore., Incoming data will still be processed and is available on the device level. For example assumed malfunctioning or expired calibration certification. The status can be switched back to enable at any time.

To disable a device simply click on the device, then click on

to change the state.

\*Status out of service for SmartPoint devices only:\*\* With this state, the device is no longer assigned to the site, incoming data will be rejected. All existing data of the device is still available. This is useful if a device is lost or shouldn't be used anymore. By setting the state to Out of Service the device is no longer considered for the invoicing accordingly to the SLA agreement. This process cannot be reversed.

Status "Out of Service" for SmartPoint devices only



## **Assigning a Responsible Location**

A Responsible Location is a location within a corporate organization that bears the responsibility for a specific device. The location may be a location with a wireless network, but may also be a location where shipments originate, but no wireless network is available. To improve the management of a pool of devices within a corporate organisation, it is possible to assign the responsible location. To assign a responsible location, access the modify page of the device and select the Responsible Location from the list.

**Note**: the Responsible Location will be automatically overwritten by the system with the current network location, when the device starts to report from a network location that is different from the manually assigned location.

#### **Choosing a Name**

Assigning a name to a device, helps the user recognise it easier in the system. The name will appear throughout the system and its changes are also reflected throughout the system. Define the Name in the Name field and click 'Save' to save the change.

## Assigning a descriptive note

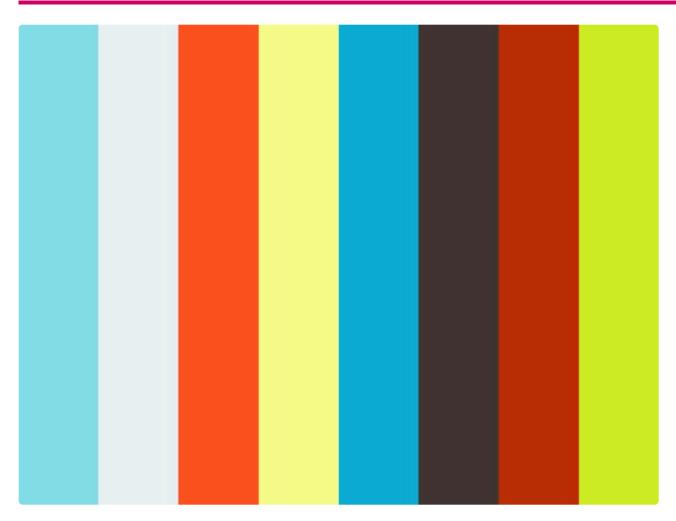
Besides the alias, you can also define a descriptive note for a device.

# 7.5. Device Association

To monitor a sector or a shipment, the specific devices need to be associated accordingly. Therefore you can:

- 1. Add an Association to a Shipment
- 2. Add an Association to a Sector
- 3. Associate an external Sensor to a Fridge-tag 2 / Fridge-tag 3

# 7.5.1. Association to a Sector



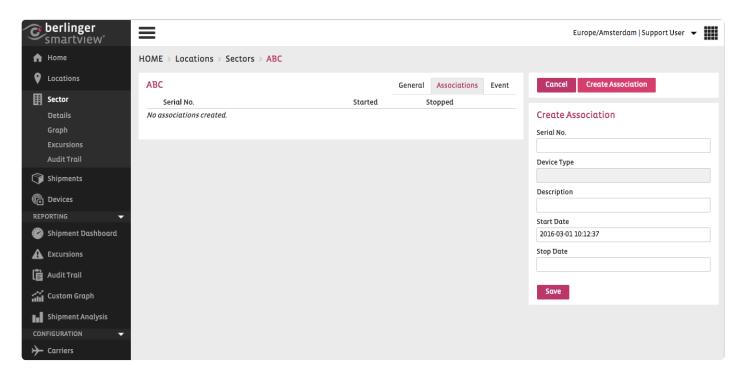
https://player.vimeo.com/video/178156803

https://player.vimeo.com/video/178156803

After <u>creating a sector</u>, you can associate a Device to it by clicking on the shown in the following image:

**Create Association** 

าร



Click in the Serial No. field to choose your Device for the Sector.

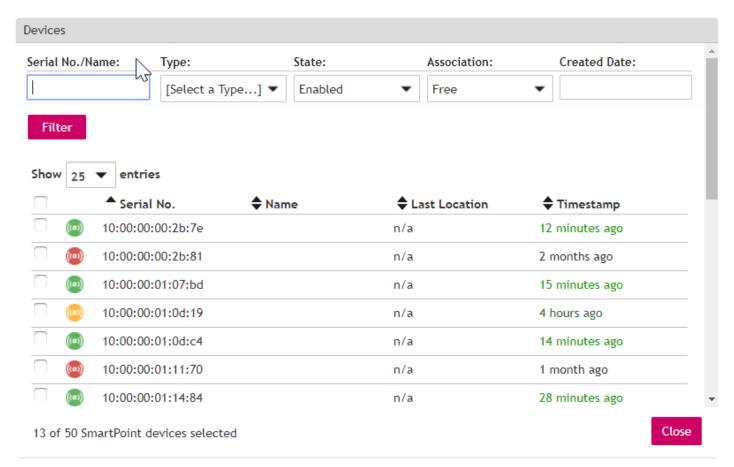
Select or modify the Start Date and click on



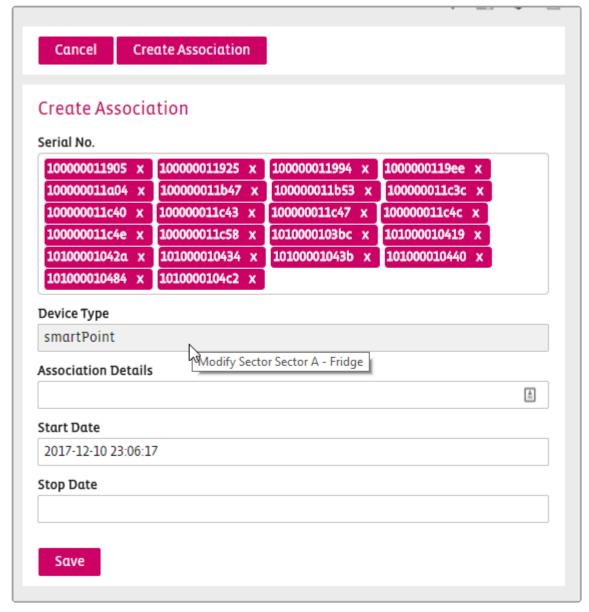
You can repeat this process for as many Devices as you would like to add to your Sector.

## Associate up to 50 Devices to a Sector

You can mark an assacioate up to 50 devices to a sector.



After selecting the devices the list on the right will be filled with the serial numbers of the devices and are marked purple red.

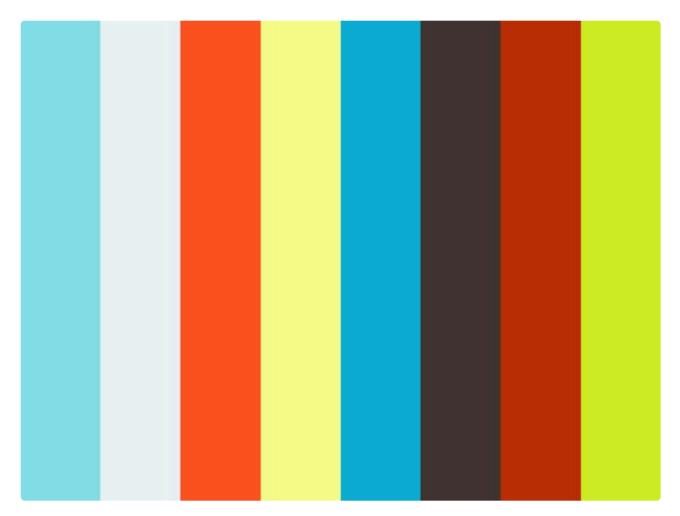


Click save to associate the devices.

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# 7.5.2. Edit / stop / delete a Association

Stopping a <u>shipment</u> automatically disassociates all the Smart Sensors from the shipment. In specific situations, it may be required to disassociate individual sensors from a shipment, without stopping the complete shipment (so other sensors remain associated with the shipment). It may also be required to completely delete or edit an individual association of a shipment.



https://player.vimeo.com/video/178160824

For <u>associating sensors from one sector</u> to another, these need to first be dis-associated or the association needs to be stopped. At that point, the sensors become available again and can be used again for other sectors. This also applies for sensors that are simply being removed from the sector.

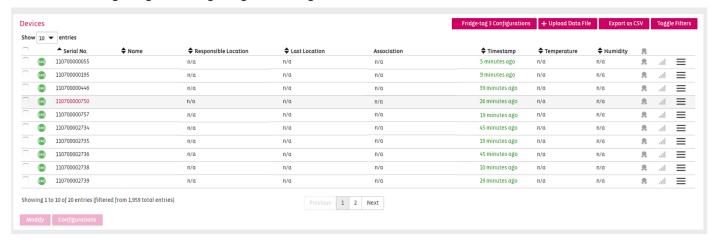
**Note**: Changing or deleting sensor associations for shipments or sectors is restricted to authorised users. This functionality should only be performed in exception situations, e.g. to correct data entry errors.

To edit an Association, you need to access the Modify screen of the Shipment/Sector where the association has been made. Then click on the button of the association and make the desired changes: edit/stop/delete association.

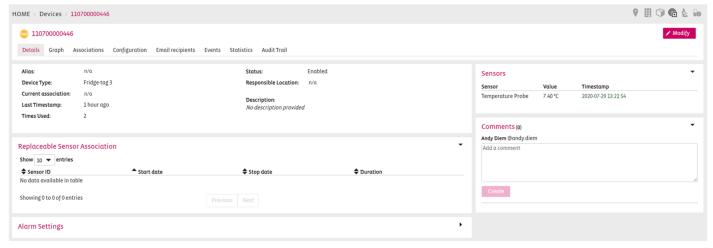
# 7.5.3. Associate a new Sensor to a Fridge-tag 2L / Fridge-tag 3

External Sensor for Fridge-tag 2L / Fridge-tag 3 can be associate to the device.

Choose the Fridge-tag 2I / Fridge-tag 3 to assign a new sensor:





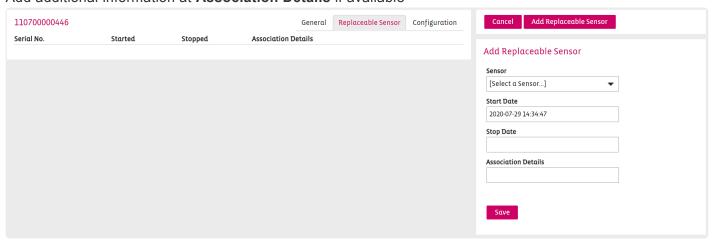


Select Replaceable Sensor:



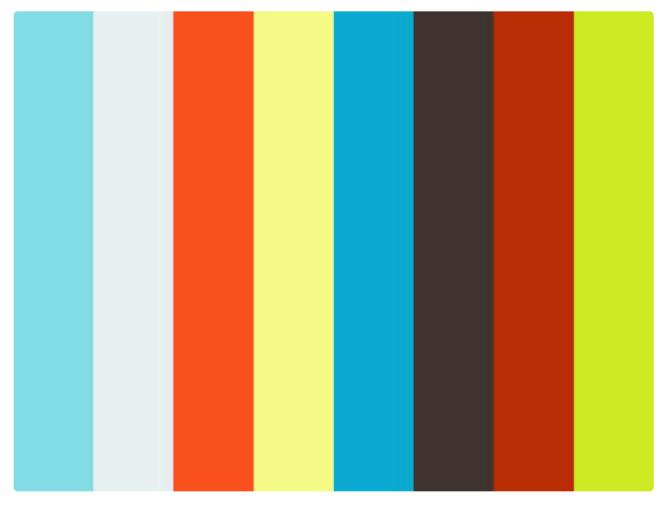
Add Replaceable Sensor by choosing the Sensor Set start date and time

Add additional information at Association Details if available



# 7.6. Device calibration

The status of the calibration of each device in SmartView, can be identified in the device overview page in the column indicating a a calibration icon. When hovering over with the mouse, the information box will indicate the state of the calibration of the device and whether this is available.



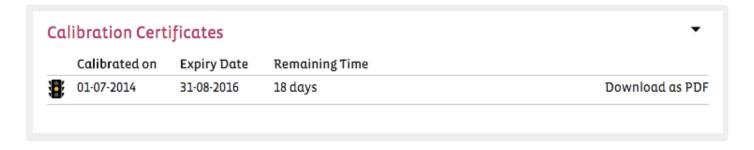
https://player.vimeo.com/video/178598225

The different states of the calibration certificates in the device overview page are indicated as follows:

Icon	Description			
*	Calibration certificate available.			
*	Calibration certificate is about to expire.			
*	Calibration has expired.			
無	No calibration certificate available.			

The calibration of the devices can be checked also in the view page of each individual device, where it is also possible to download the certificate (if available) in PDF.

In this box, you will find all the details related to the calibration, including expiration date or remaining date until this will expire.



E.g. Calibration certificate:

Page 1 of 2			
	Certificate numb	per: 590009087	
Applicant data:		Device under test:	
Applicant : Address : Place :	Antaris Solutions B.V. Arnhemseweg 6 Amersfoort	Manufacturer Type Sort Serial number Identification number Barcode	Berlinger SP3000T Temperature Data Logger 100000010D30 - 303621
Used reference standar	rd(s):		
Type : Expiry date : Certificate nr :	ASL / Jumo F500-A-6 / Pt100 4W 4-Mar-2016 590001015 195264 / 146220		
Research method	<ul> <li>The device under test is The reference temperatu chamber.</li> </ul>	calibrated by comparing it with a reference in re probe and the device under test probe are p	strument based on the ITS-90. slaced together in a regulated climate
Environmental condition	ons : The ambient temperatur	e is 21°C ± 7°C.	
Traceability		ndertaken with calibration equipment for whi (inter-) national standards.	ich the company
Calibration started Calibration finished	: 9-Feb-2016 : 11-Feb-2016	Re-calibr	ration date : 11-Feb-2018
Results	; The results are shown o	n the next page(s).	

## **Calibration Certificate Expiry Notification:**

**All devices are part to the** <u>calibration certificate expiry notification:</u> SmartPoint, SmartPoint One, Fridge-tag 2 L, Fridge-tag 3

## **End-of-life Calibration**

If the device is no longer in use and an End-of-Life calibration was conducted the Calibration status will show a green icon with not expiry date.



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# 7.7. Geofence notifications

If you are using a GPS enabled Smart Sensor for your Shipment and want to ensure receiving notification email, then check and ensure the following steps:

Configure geofence(s) for the Location(s): SmartView will send Shipment notifications based on the detection of a GPS enabled Smart Sensor inside or outside of a geofence defined for a Location. For example, if a sensor sends position information from within the geofence of a Location for the first time, SmartView will translate the Shipment's entry in that Location and will send notification email. In the same way SmartView will detect the Shipments exit from the Location and will send notification email.

E.g. Notification E-Mail when Shipment has left Location:



To Whom it may concern

ILC2000 02006143f5014009 has LEFT AMS (Amsterdam):

## Shipment Details

ID: 20234

Name: Shipment fo geofence

#### Smart Sensor Details

Name: 02006143f5014009

Timestamp: 2016-07-25 10:20:17 (UTC)

Location: AMS (Amsterdam)

Best regards,

SmartView Support

If you want to get notification email for a Location, you have to make sure that the Location is defined in the SmartView with geofence specified for it (see section 9.3 for detail).

**Main Recipients of the Shipment Event Settings**: SmartView will use the main recipient of the Shipment Event Settings to send automatic notification emails. Before you add an Event Profile to a Shipment make sure that required recipients are defined.

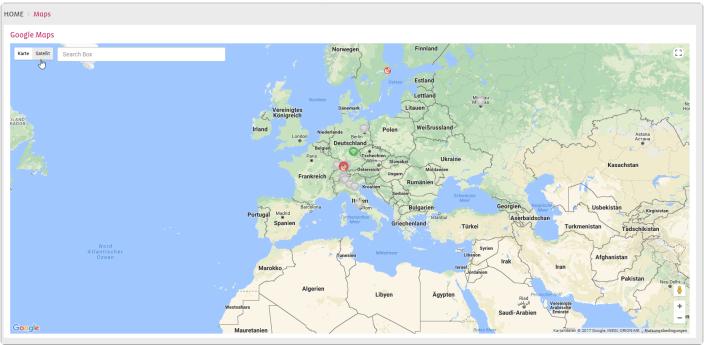
# 7.8. Monitoring with GPS/GPRS devices

The GPS/GPRS devices are autonomous battery-powered device for real-time monitoring of valuable shipments and transportation vehicles via the GSM network. The device contains a range of sensors, including temperature, humidity, battery Voltage, air pressure, light intensity, RF-strength, tilt, battery percentage and shock-force. The device also enables localisation of shipments with GPS and cellular localisation. The Sendum PT 300 automatically shuts off prior to aircraft take-off, and automatically turns back on when the aircraft lands. While in-flight, the device continues to collect sensor data.

Because of the device's capabilities to transmit the GPS location, it is also possible in smartview to draw a geofence around a location. Once the GPS/GPRS device will be associated to a shipment and once this will enter/leave the area that the geofence was defined, it will trigger an alarm and notify all the recipients defined in the event profile.

# 8. Maps

You will find an overview of all destinations which you have set up as Loocation/Destination on the Map.



If you click at one of the icons green, red or grey one you will get more detailed information about the device, like coordinates, status, type of device, etc.





# 9. Reporting

The SmartView application provides a number of reporting and analytical functionalities that enable users to review and analyze sensor data collected from their monitoring devices which are used both for shipment monitoring and for facility monitoring. The analytics and reporting module incorporates a number of functionalities which ensure the accessibility to the sensor data, provides aggregated information on the monitored shipments and enables personalized analysis depending on the required scope.

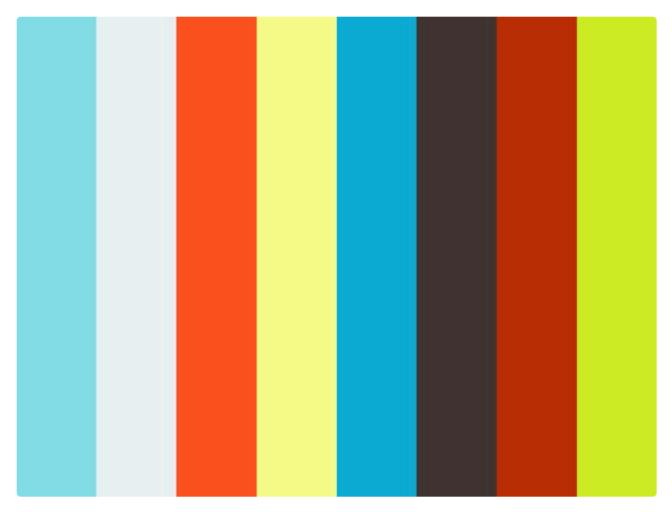
A description of their usability is displayed in the following table:

	Description	How to create	How to use	How to share
Shipment Report	Report for each individual Shipment. Includes temperature graph, excursion information and milestones.	Automatically created for each Shipment	Evaluate the complete information about an individual Shipment	On-line or in PDF format.
Custom graph	Report that combines data from multiple sensors (e.g. Q-tag CLm doc)	Manually, by selecting specific sensors	For specific tests such as Thermal Mappings.	Online or in PDF format.
Shipment Analysis Report	Report that provides a statistical analysis and overlay of multiple Shipments (maximum 20)	Manual, by selecting specific Shipments or directly from the View:Shipments	For example to analyze the performance on a specific shipping lane or from a specific transportation company	On-line or in PDF, JPG or Excel format
Shipment Dashboard	Aggregated information about excursions, transportation and the monitoring process	Automatic	For trend analysis, for example on the number of Shipments with excursions.	Online and by e-mail subscription

The reporting and analytics module provides a powerful tool that enables users to review the automatic generated sensor data and to perform custom analysis. This module is divided in four main functionalities which outputs have been described above and which can be used both for shipment and facility monitoring.

# 9.1. Shipment Dashboard

The Shipment Dashboard offers aggregated information about excursions, transportation and the monitoring process. The dashboard is generated automatically and moreover it is also possible to receive monthly subscriptions by e-mail. The dashboard enables trend analysis like for example on shipments with excursions on a specific trade lane.

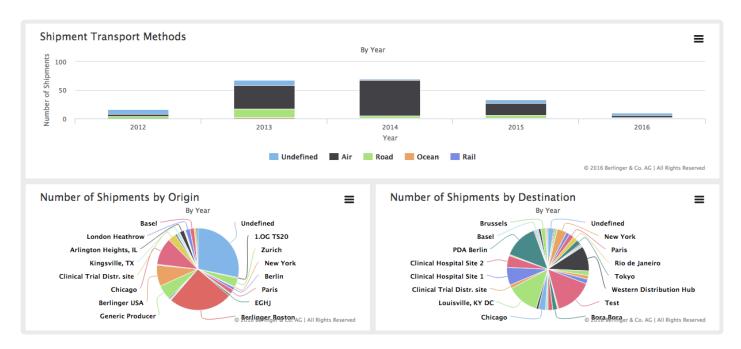


https://player.vimeo.com/video/178026101

#### **Usability**

The Shipment Dashboard provides statistical information based on different entities:

- a) Excursions: statistical report of the excursions that have been identified based on selected time frames.
- b) **Details**: overview of all the shipments that have been monitored and statistical analysis of the information related to the shipments (such as origin, destination, customer, products) based on a selected time frame.
- c) **Device usage**: statistics based on the used monitoring devices and the information related to their use.



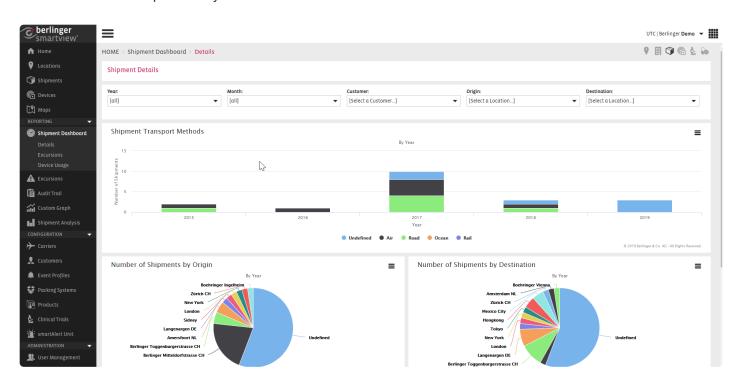
**Tip**: You have the option in SmartView to automatically receive a monthly update of the Shipment Dashboard by e-mail.

You can subscribe as follows: Navigate in the menu to Profile —> Support User and click to Subscriptions. Make a tick at the **Transport Report**.

# 9.1.1. Shipment Dasboard Details

## **Shipment Dashboard Details**

- · Shipment Transport Methods
- · Number of Shipments by Origin
- · Number of Shipments by Destination
- · Number of Shipments by Product
- · Number of Shipments by Product



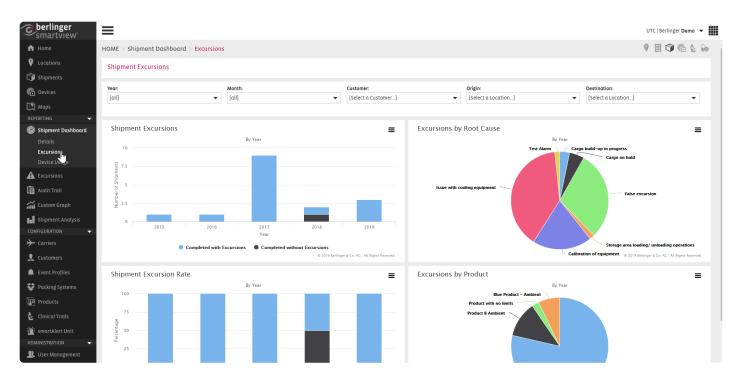
## Filter by

- Year
- Month
- Customer
- Origin
- Destination

# 9.1.2. Shipment Dashboard Excursions

## **Shipment Excursions Dashboard**

- · Shipment Excursions
- · Excursions by Root Cause
- · Shipment Excursions Rate
- · Excursions by Product



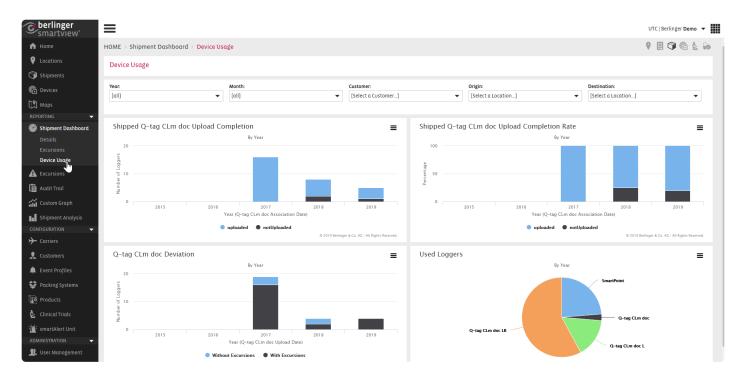
## Filter by

- Year
- Month
- Customer
- Origin
- Destination

# 9.1.3. Shipment Dashboard Device Usage

## **Shipment Excursions Dashboard**

- · Shipped Q-tag CLm doc Upload Completion
- · Shipped Q-tag CLm doc Upload Completion Rate
- · Q-tag CLm doc Deviation
- · Used Loggers



## Filter by

- Year
- Month
- Customer
- Origin
- Destination

## 9.2. Excursions

An important functionality of **smartview**® is the excursion management, as the application not only documents the event excursion, but also enables you to investigate and process an the excursion.

As soon as an event excursion is identified, smartview will send out <u>notification</u> messages to pre-defined recipients and it is important that the excursion is evaluated, <u>acknowledged</u> and eventually closed.

A user can view all the historical excursions reported against a Shipment or a Sector. Further on it is possible for a user to note down the Root Cause and Action taken for an event excursion.

This helps users to identify the most frequent causes and the user can define preventive action for identified causes. It is also possible for the users to acknowledge an Event Excursion so that the system stops sending a notification message for an excursion. After acknowledging an excursion, the user can close the excursion to indicate the proper handling of the situation.

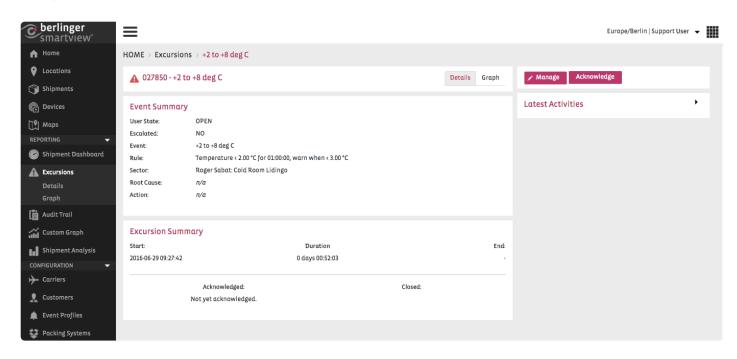
#### **Excursion list in Home Page**

The Home Page shows the 5 latest active shipments for both shipments and sectors. If any of the latest 8 shipments has an active excursion, then this is indicated by the **loop** icon in the excursions list found in the Home Page.

Following image shows the indication of excursion in the Home page:

Sector	Rule
Cold Ridingo (Roger Sabat)	< 2.00 °C for 01:00:00
Freezer (Roger Sabat)	<-25.00 °C
Refrigerator (Berlsite)	> 8.00 °C for 00:25:00
SmartLine (Engir. 2)	> 8.00 °C for 01:00:00
Freezer (Berlsite)	< 2.00 °C for 01:00:00
	17228 Excursion(s) to be Acknowledged and 176 to be Clos
urrent Shipment Excurs	17228 Excursion(s) to be Acknowledged and 176 to be Clos
urrent Shipment Excurs	17228 Excursion(s) to be Acknowledged and 176 to be Clos
urrent Shipment Excurs Shipment to active excursions found	17228 Excursion(s) to be Acknowledged and 176 to be Clos

To view the detailed information of an excursion, click on the icon on the home page and choose 'View excursion'. You will get the View:Excursion screen as shown in the following image:



The screen includes the following information for an excursion:

**Details**: Detailed information related to the excursion, such as related shipment or sector, related Event and Rules of the event.

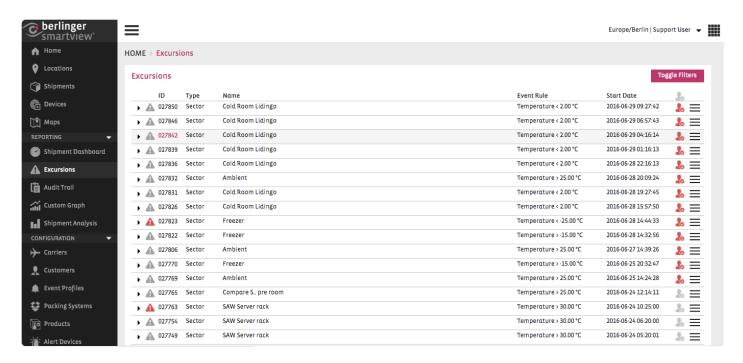
Information regarding start and end time of the excursion, its duration, whether it has been acknowledged or closed.

Information about the way users interacted with the excursion like user who have acknowledged or closed the excursion.

**Graph**: Redirects to the specific temperature graph of the sector or the shipment where the excursion was identified.

#### Viewing Excursion overview

To view the list of all the event excursions reported by the system, click on the 'Excursions' tab in the Main Menu. A list will appear, displaying all the excursions registered in the system.



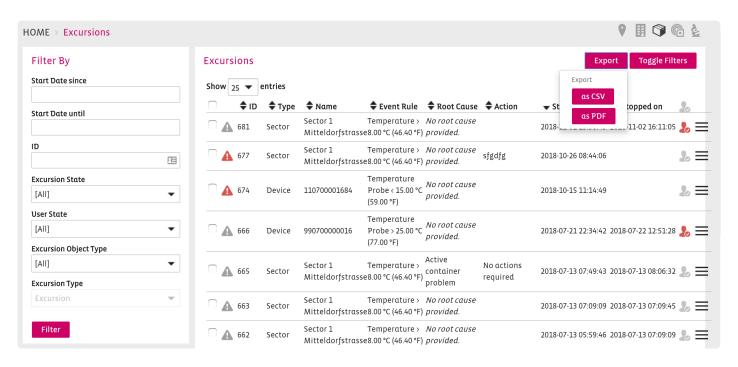
## Managing/Modifying an excursion

You can select from a predefined list of reasons and provide an appropriate action for handling the excursion.



#### **Exporting Excursions:**

You can export and download the filtered excursions list as PDF or CSV file.



# 9.2.1. Excursion Icons

#### **Excursion Alert State Icons**

Icon	Meaning	Description	
A	Active Excursion	The sensor value is currently in alert state.	
A	Stopped Excursion	The sensor value has returned to the allowed range.	

#### **Excursion User State Icons**

Icon	Meaning	Description
20	Open Excursion	The excursion has not been acknowledged yet by user.
20	Acknowledged Excursion	The excursion has been acknowledged by user.
	Closed Excursion	The excursion has been closed by user.

# 9.2.2. Notifications about excursions

Once smartview® has identified an excursion (shipment excursion, sector excursion or Q-Tag excursion) it will send out notifications to the predefined recipients via E-Mail and/or SMS.

The excursion notification per E-Mail provides information about:

- Excursion ID
- · Event Rule that has been reached
- Start time of the excursion
- · Personalised message
- Recipients
- · Last reported message
- Value that has been reached

#	Туре	Who	When	How
1	Warning	Main Recipients	When sensor value reaches warning limit, but not excursion limit	E-mail, or E-mail and SMS
2	Excursion Alert	Main Recipients	When sensor value reaches excursion limit, based on value and delay period (e.g. temperature > 8°C for 15 minutes)	E-mail, or E-mail and SMS
3.	Excursion Reminder	Main Recipients (and when escalated also Escalation Recipients	When excursion value persists and excursion is not acknowledged by user within the repetition interval period	E-mail only
4.	Escalation Alert	Escalation Recipients + Main Recipients	When the excursion value persist and excursion is not acknowledged within the defined delay period	E-mail, or E-mail and SMS (depending on Notification Ty for Main Recipients and Escalation Recipients)

5.	Escalation reminder	Escalation Recipients + Main Recipients	When excursion value persists and escalation is not acknowledged by user within the repetition interval period	E-mail only (depending on Notification Ty for Main Recipients and Escalation Recipients)

## **Example Scenario**

**Escalation Recipients:** 

Event Rules:

Main Recipients:

Event Rule: Temperature < 15.00 °C (59.00 °F) for 00:15:00, warn when <

18.00 °C (64.40 °F)

Notification Type (Main Gerry, Andy

Recipients):

Repetition Interval:

E-mail and SMS

15 minutes

Excursion can escalate:

Yes, with 30 minute delay period

Notification Type (Escalation

Recipients):

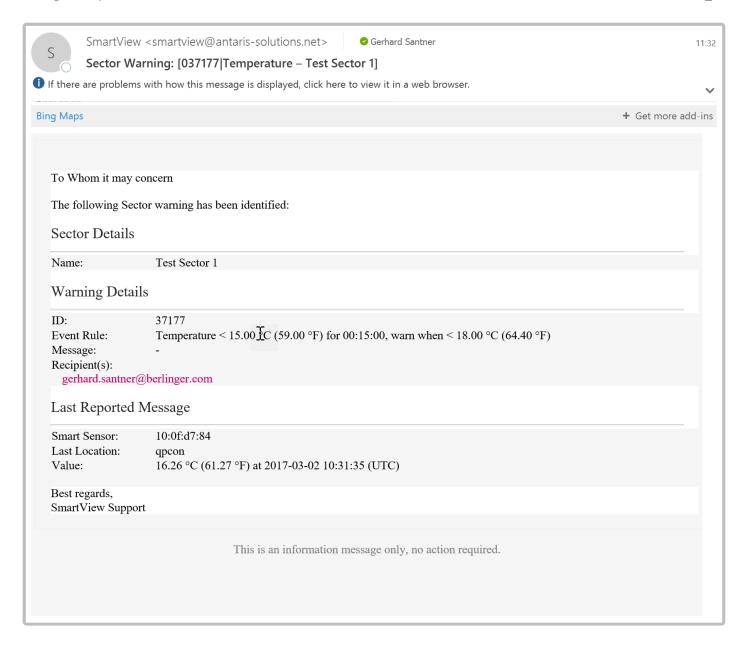
Jon, Marlen

Let's assume the following scenario for a cold room with this Event Profile:

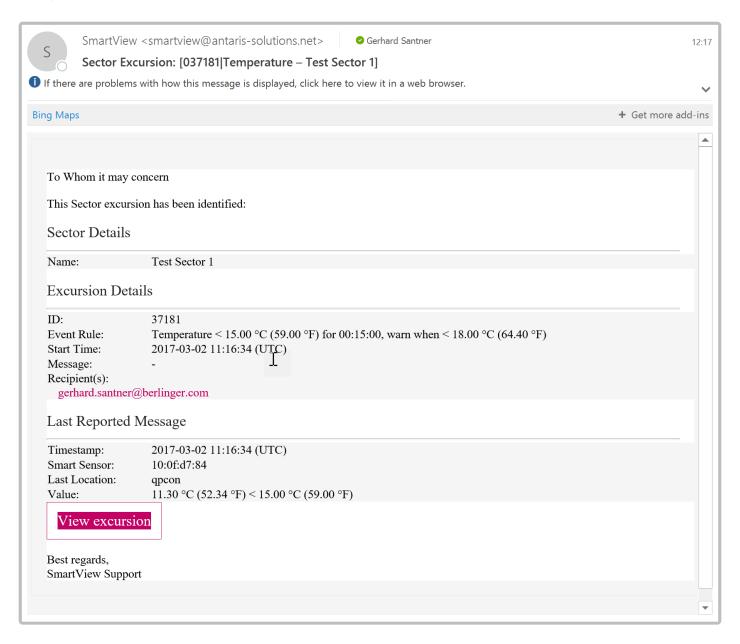
- At 10:31h a temperature value of 16.26°C is received
- At 11:16h a temperature value of 11.30°C is received
- The temperature remains above 8 °C for 4 hours, in which period the users do not acknowledge the excursion in SmartView.

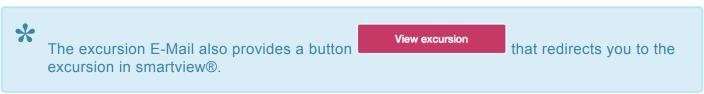
#### What messages will SmartView send?

At 10:31h a WARNING MESSAGE is sent to Gerry and Andy by E-mail and SMS

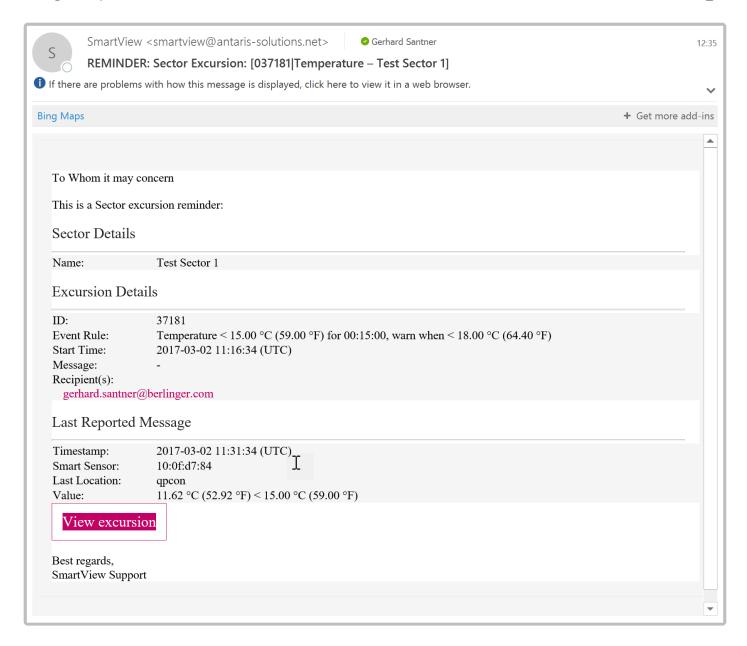


At 11:16h an EXCURSION ALERT is sent to Gerry and Andy by E-mail and SMS

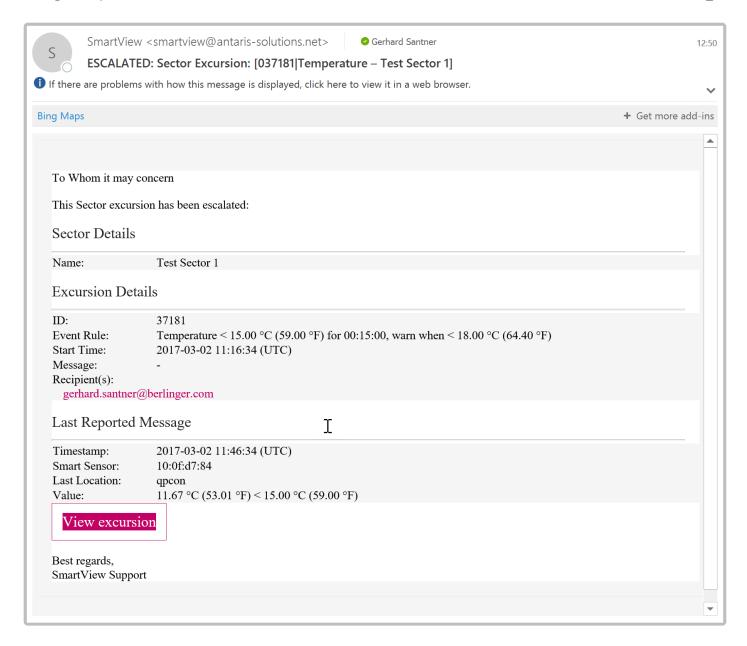




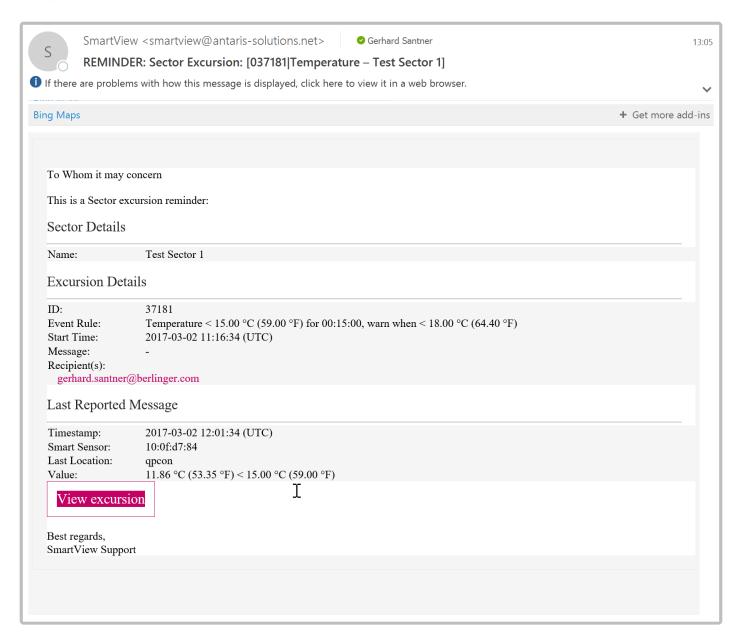
At 11:31h an EXCURSION REMINDER is sent to Gerry and Andy by E-mail.



At 11:46h an ESCALATION ALERT is sent to Jon and Marlen, as well as to Gerry and Andy by E-mail and SMS



At 12:01 an again an EXCURSION REMINDER is sent to Gerry, Andy, Jon and Marlen by E-mail.



# 9.2.2.1. Notification Q-Tag Excursion

Although you do not get the notification about the Q-tag alarm in real time, SmartView has the capability to send notifications about the Q-tag excursions reported against Q-tag Alarms. As soon as a Q-tag data file is uploaded to the system, the system will send a notification about the Q-tag alarms reported in it.

If a Q-tag is associated with a Shipment and an Event Profile with recipients defined is added to the shipment prior to the Q-tag file upload, then as soon as Q-tag file is uploaded, the notification email about the Q-tag will be sent to the recipients defined in the shipment profile.

Below is an example of the Q-tag excursion notification email:

### To Whom it may concern

The Q-tag BDBX00051 data has been uploaded to SmartView; it contains 5 excursion(s):

### **Excursions**

SmartView Support

ID:	17627
Event Rule:	Temperature > 15.00 °C for 01:00:00
Start Time:	2016-02-01 16:06:00 (UTC)
Stop Time: Duration:	2016-02-01 18:49:00 (UTC) 0 days 02:43:00
ID:	17629
Event Rule:	Temperature > 8.00 °C for 02:00:00
Start Time:	2016-02-01 16:06:00 (UTC)
Stop Time:	2016-02-01 21:35:00 (UTC)
Duration:	0 days 05:29:00
ID:	17630
Event Rule:	Temperature > 8.00 °C for 02:00:00
Start Time:	2016-02-25 22:23:00 (UTC)
Stop Time:	2016-02-26 20:21:00 (UTC)
Duration:	0 days 21:58:00
ID:	17628
Event Rule:	Temperature > 15.00 °C for 01:00:00
Start Time:	2016-02-26 04:15:00 (UTC)
Stop Time: Duration:	2016-02-26 12:20:00 (UTC) 0 days 08:05:00
ID:	17631
Event Rule:	Temperature > 8.00 °C for 02:00:00
Start Time:	2016-02-27 03:13:00 (UTC)
Stop Time:	2016-02-27 09:29:00 (UTC)
Duration:	0 days 06:16:00
Best regards,	

However, the notification email about the Q-tag excursion will be sent to the main contact (e.g. Site Manager) instead of the recipients in the event profile, in the following cases:

- · Prior to the data file upload, if the Q-tag is not associated with a shipment prior to its data file upload
- Prior to the data file upload, if no Event Profile is added to the shipment to which Q-tag is already associated with.

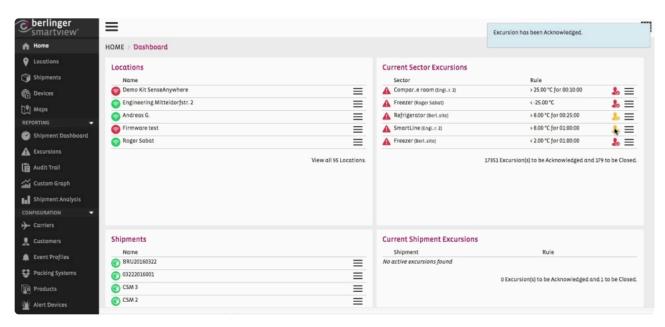
## 9.2.3. Acknowledge an Excursion

In order to stop receiving notifications about an open excursion, it is important to acknowledge this.

You have various options to acknowledge an excursion:

#### From the homepage

You can easily acknowledge an excursion from the homepage, by clicking on the and then choose 'Acknowledge Excursion', like shown in the video below:



https://fast.wistia.net/embed/iframe/kioda5c25m

#### From the Excursion overview

From the Excursion list, you can choose to acknowledge your excursion by clicking on the and choose 'Acknowledge Excursion' as instructed in the previous video.

#### From the 'View Excursion' page

You also have the option to acknowledge the excursion by choosing to view the details of the excursion and click on as shown in the following video:

https://www.youtube.com/embed/WFAmiwUKT3o?rel=0

#### From the Graph

Another possibility to acknowledge excursions, is to go to the Graph in the Excursion details page and acknowledge the desired excursion directly from the Graph, as shown below:



#### After the excursion has been acknowledged

After the excursion has been acknowledged by one of the recipients, smartview will send out an acknowledgement E-Mail informing all recipients about this action. The E-mail will contain information about who has acknowledged the excursion, which other recipients are aware of this, what the excursion details are, the root cause and the action taken.

E.g. Acknowledgement E-Mail



### To Whom it may concern

The following Sector excursion has been acknowledged:

### Sector Details

Name: BRU Ambient CRT 2

### **Excursion Details**

ID: 75772

Event Rule: Temperature > 25.00 °C (77.00 °F), warn when > 24.00 °C

(75.20 °F)

Start Time: 2016-06-30 13:09:27 (UTC)

Message: pay attention / critical temperature below +16° respectively

above +24° Celsius!

Recipient(s):

testing@antaris-solutions.net testing@antaris-solutions.net

Acknowledged By: Support User on 2016-07-08 14:02:45 (UTC)

Root Cause:

Corrective Action: -

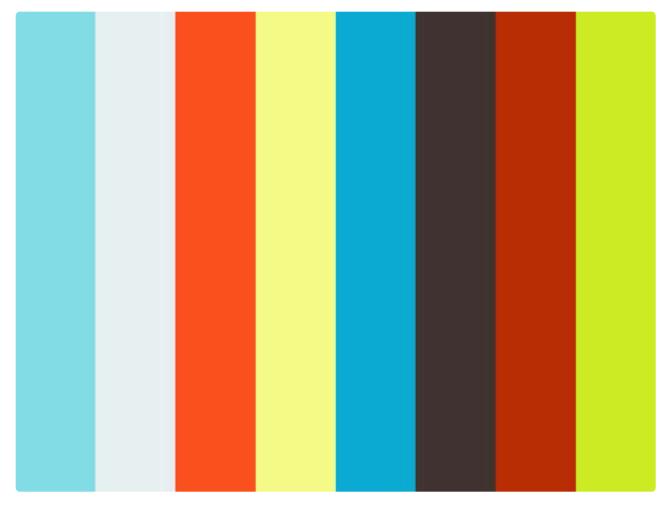
Best regards,

SmartView Support

Once the excursion has been acknowledged, smartview will stop sending out notifications about the particular excursion, as this has already been processed by a user and has been taken into account.

## 9.2.4. Document an Excursion

SmartView allows you to document additional information about an excursion. You can note down the Root Cause of an excursion and the corrective Action taken for the excursion.

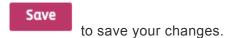


https://player.vimeo.com/video/175688790

You have various options to document the Root cause and Action for an excursion:

#### From the homepage

You can easily modify an excursion from the homepage, by clicking on the and then choose 'Modify Excursion'. You can then add the Root cause and Action taken in the designated fields and click on



#### From the Excursion overview

From the Excursion list, you can choose to modify your excursion by clicking on the and choose 'Modify Excursion' as instructed in the previous video.

### From the 'View Excursion' page

When clicking on the Excursion ID (either from the E-Mail notification or from the Excursion Overview) you will be redirected to the Excursion Details screen. Click on

## 9.2.5. Close an Excursion

When an excursion situation no longer persists and corrective action has been taken, you can close the excursion. Closing an excursion is only possible after it has been acknowledged by the user. The sole purpose of closing an excursion, is to document proper handling of an excursion situation. You should not close an excursion when it still persists.

The same as <u>acknowledging an excursion</u>, you have various options to close an excursion:

- From the homepage
- From the Excursion overview
- From the 'View Excursion' page
- From the Graph

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## 9.2.6. Q-tag Excursions

As soon as a Q-tag file is uploaded, the system checks for Alarms reported by the Q-tag and translates them into Excursions. Each Alarm reported in the Q-tag data file will be translated into a single Excursion. Configuration for an Alarm will be represented by the Rule of the corresponding Excursion.

For example, if a Q-tag alarm configuration is set for temperature "above 44.9°C for 1h" then the excursion triggered against such an alarm would have its rule as "Temperature > 44.9 for 01:00:00". If the alarm configuration has any established rule, then this is also indicated in its corresponding Excursion rule.

**Note**: The Time of an Alarm and the Start time of an Excursion do not represent the same thing. The date and time of an alarm represent the time when the alarm was trigged based on a configuration. **E.g.** Time 10:00 of an alarm against configuration "above 44.9°C for 1h" indicates that at that time the temperature was found to be above 44.9°C for one hour. The actual breaching of the temperature was started an hour ago which is at 09:00 in this case. The *Start time* of the reported Excursion shows the actual start time when the breaching of the temperature is first identified. This helps to identify the exact point of time when the temperature started breaching the limit. The excursion also states the End time of an Excursion which usually represents the exact point of time when the temperature went back to the limit. In case the temperature did not come back to the limit before the Q-tag is stopped, then the Stop Time of the Q-tag is noted as End time for the excursion. The excursion reported against the Accumulated Alarm configuration does not have an *end time*.

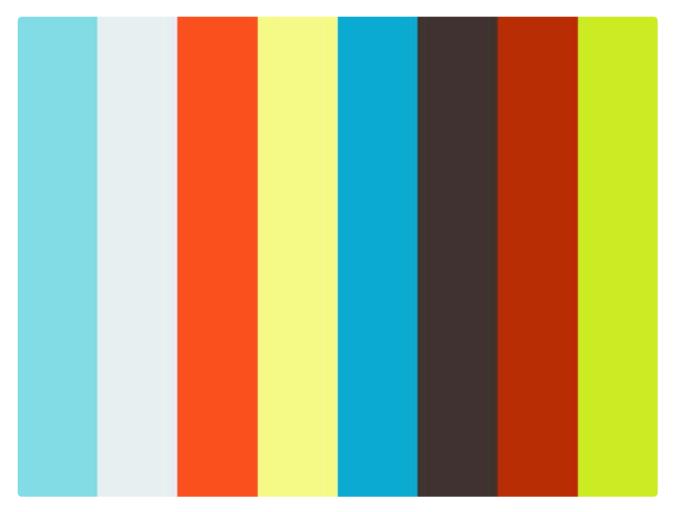
#### **Notification about a Q-tag Excursion**

Although you do not get the notification about the Q-tag alarm in real time, SmartView has the capability to send notifications about the Q-tag excursions reported against Q-tag Alarms. As soon as a Q-tag data file is uploaded to the system, the system will send a notification about the Q-tag alarms reported in it.

If a Q-tag is associated with a Shipment and an Event Profile with recipients defined is added to the shipment prior to the Q-tag file upload, then as soon as Q-tag file is uploaded, the notification email about the Q-tag will be sent to the recipients defined in the shipment profile.

# 9.2.7. Excursion markers in the graph

The displaying of additional markers in the Sector/Shipment Graph is similar to the Shipment Milestone markers, but related to the Shipment Excursions. Effectively, it will show a dashed vertical line in either the color red, yellow, gray (depending on the excursion state) and indicate a box with the ID of the Excursion and click-through to the detail page of that Excursion.



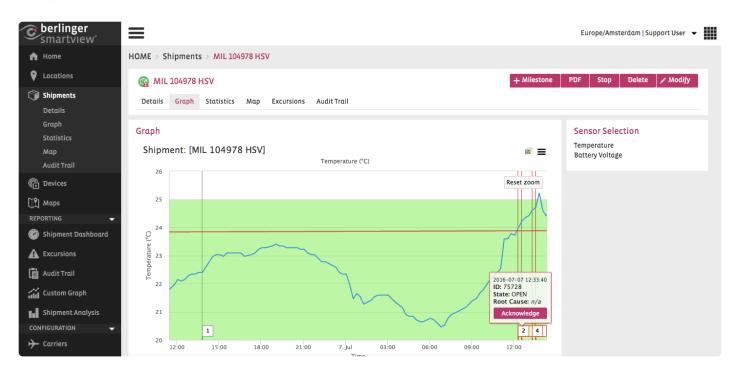
https://player.vimeo.com/video/178011135

The markers are colored according to the status of the excursion:

Red – indicating open excursions.

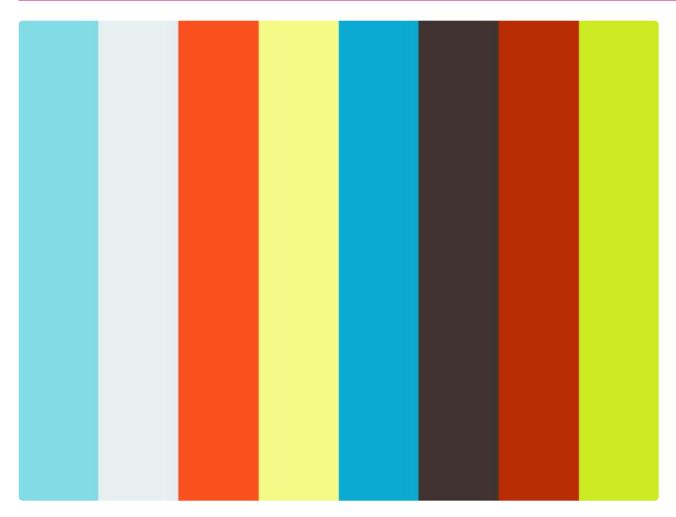
Yellow - indicating acknowledged excursions.

Gray – indicating closed excursions.



When hovering the mouse over the Marker, this will display the detailed information of the Excursion. When clicking on the Excursion ID in the detailed information box, you get redirected to the detail page of the Excursion. You also have the possibility to acknowledge the excursion directly from the graph.

## 9.3. Audit Trail



https://player.vimeo.com/video/178441495

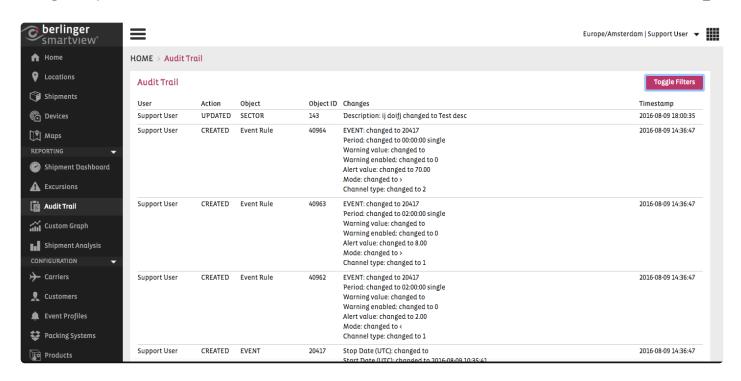
The **Audit Trail** functionality of SmartView allows a user to track different users' activities in SmartView. Such an activity includes the creation of a Shipment and/or Sector, adding or deleting a SmartSensor association to a Shipment and/or Sector and so on.

The user has the option to view an overview of all the Audit Trail generated by the system. The user can filter the overview to track the activities of a specific user or to track the activities related to a Shipment or Sector.

**Note**: Only a user with specific access rights can view the Audit Trail. To have the access to this feature, contact Berlinger Support.

To view the overview of all the Audit Trail generated by the system, go to the menu item 'Audit Trail'. You will see the overview of the system generated by the Audit Trail as show in the following image:

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Each entry in the audit trail is generated for the activity related to one of the objects: Shipment, Sector, Event, Event Profile, Event Rule, Sensor Association, Location, Shipment Milestone. Thus it may look difficult to identify all the activities related to a single object. For example how to track activities related to a Shipment. This purpose can easily be served by performing the following steps:

View audit trail related to a single object

You can view the audit trail related to a single object in one of the following ways:

Use the filtering option: Filter the Audit Trail overview list by selecting the required Object (e.g. Shipment) and Object ID (e.g. Shipment ID). You will get a list of the Audit Trail containing the activities related to the specific object.

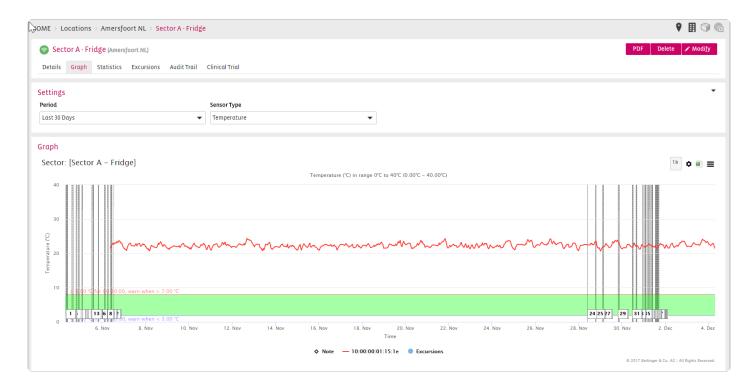
Click on the Object ID: Alternatively you can get the list of Audit Trail related to a specific object by clicking on the Object ID in any of the visible entries. For example, the screen shot showing the Audit Trail overview includes audit trail for Create, Update for Shipment with ID 5. To view only the audit trail related to this shipment, simply click on the ID (i.e. 5) of any of the corresponding entries. As shown in the following image, you will get the audit trail list with activities related to that particular shipment.

# 9.4. Graph View

The Graph View and handling of the Graph is identical in Sectors and Shipments.

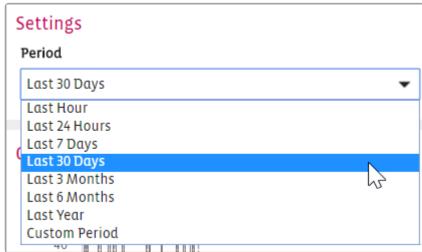
The only difference is, that within the Sector Graph I can choose and change the **Time Period** under the point Settings.

### **Overview**

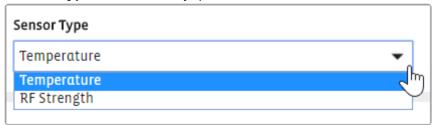


### **Settings (only available in Sector Graphs)**

Period: Choose the time period which should be displayed

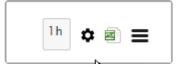


Sensor Type: Choose the tyepe of sensor which should be shown on the graph if available

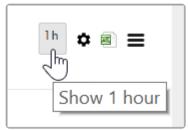


### Graph

Displays the graph with the following settings:

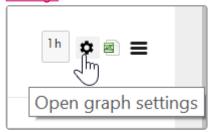


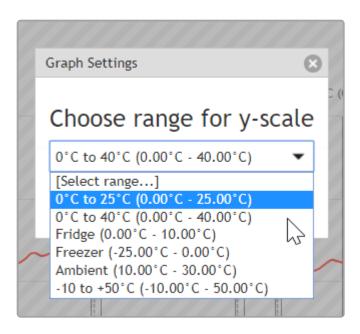
Show the Behavior of the last hour on the graph



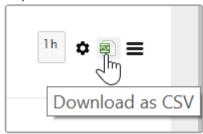
## y-scale range settings

Choose a temperature range for the y-scale graph view which you have set under <u>Site Settings</u> —> <u>Range</u> <u>Settings</u>

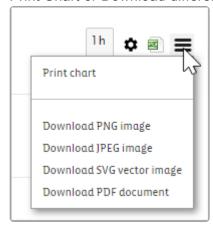




### Export CSV File

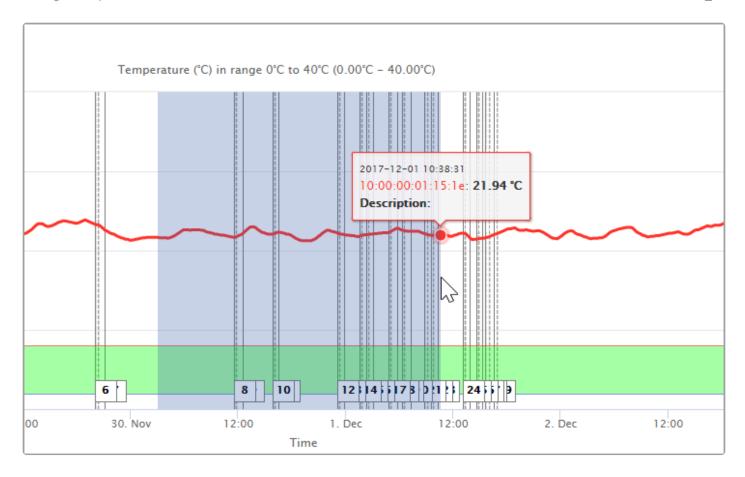


Print Chart or Download different images types for presentations

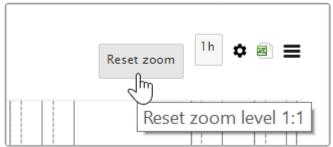


Choose (mark) x-scale of graph view

By cklicking in to the graph, holding down the left mouse button, dragging along the x-scale and releasing the mouse button you can zoom in into the part you have choosen.

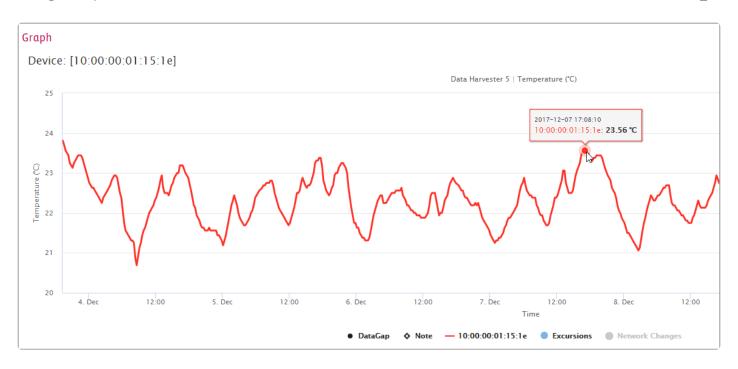


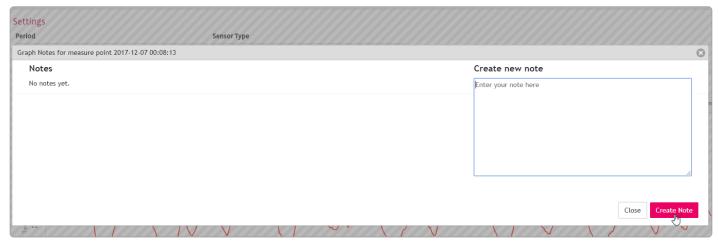
### Press the Reset zoom button to get back to the initial position



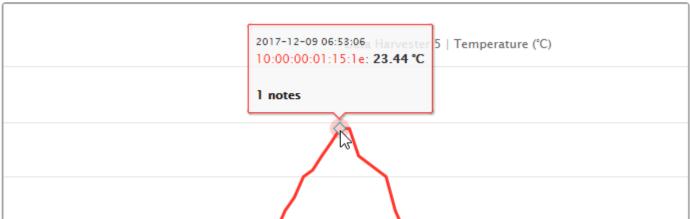
## **Create Note on the Graph**

You can click on the Graph and a new pop up window will open.

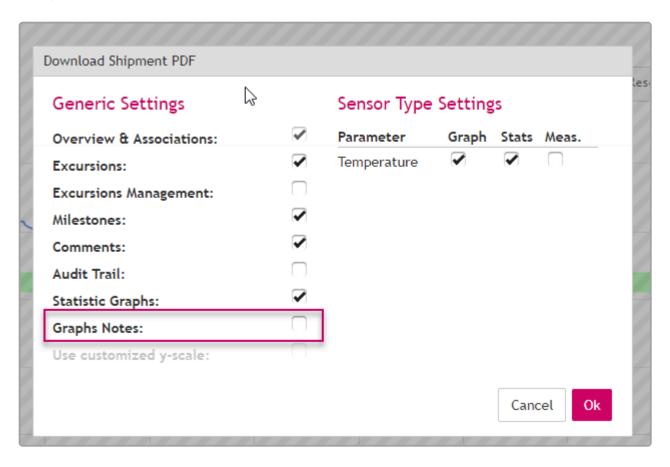




The note will by shown on the Graph by a blue rhomb. You can cklick on it and the notes window will be opend.



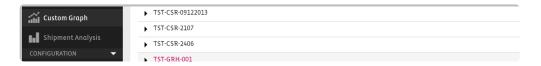
In the PDF report you have an option whether to export **Graph Notes** or not.



# 9.5. Custom Graph

You can either choose a custom graph from the list or create a new custom graph

### Choosing a custom graph from the list:



### Creating a new custom graph:

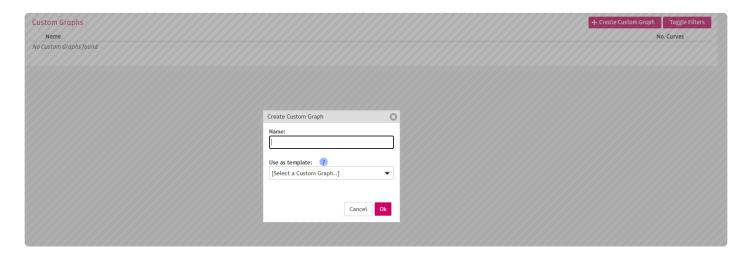
Click on the top right on



to start the process of creating a new custom graph.



A new window will pop up that will allow to enter a name for the new graph as well as the option to select another custom graph as template if one is available.



In the following window 3 options will be available for graph type.

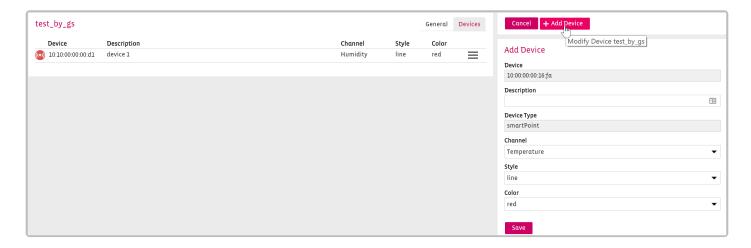
Name	Description	
Custom Period	This allows to create a custom graph for a specific time period for non Q-tag Devices	
Latest Period	This allows to create a custom graph for the latest period for non Q-tag Devices	
Q-tag Overlay	This allows to create a custom graph for Q-tag Devices	



If custom period is selected as option, the duration can either be limited with the duration modifier or the specific end date. If both are entered the end date will be used.



By clicking on the following view will be available where the devices can be added to the custom graph.



## **Modify a Custom Graph**

To modify a custom graph \_\_\_\_ can be pressed within the custom graph overview and Modify Custom Graph selected.



## **Delete a Custom Graph**

When within the detail page of the custom graph, by pressing on the top right the graph can be deleted.

# 9.5.1. **Detail**

On the detail page an overview of the selected devices in your custom graph is shown. It also shows which color of the graph is assigned to the certain devices.



## 9.5.2. Graph

SmartView provides the capability to create a **Custom Graph** by overlapping the data from multiple sensors in order to perform an analysis of several used monitoring devices. The Custom Graph has the capability to include and combine data from sensors of the same type or of different types (e.g. Q-Tag, etc.) into one single graph.

Each Custom Graph contains the following two elements:

- 1. **Overlay of the temperature graph** of the various sensors that shows the different values of the sensors in a single graph.
- 2. **Statistical Table** that shows the statistical information in table format, with easy indication of the lowest and highest maximum etc.

#### **Usability**

If the graph includes sensor data from real-time monitoring devices, the Custom Graph functionality offers the possibility to define the desired period for which the data should be included in the graph. If the graph will include sensor data from a Q-Tag USB logger device, the graph will overlay automatically the data based on the start time and the end time of the device.

The **Custom Graph** is to be created manually by selecting the sensors that should be included in the graph in order to analyze their containing data. A maximum number of 100 sensors can be included and overlayed in the custom graph.

The **Custom Graph** is commonly used for conducting Thermal Mapping studies inside a temperature-controlled facility, for sensor recalibration or for performing different tests with a larger number of sensors.

## **Custom Graph Overwiew**



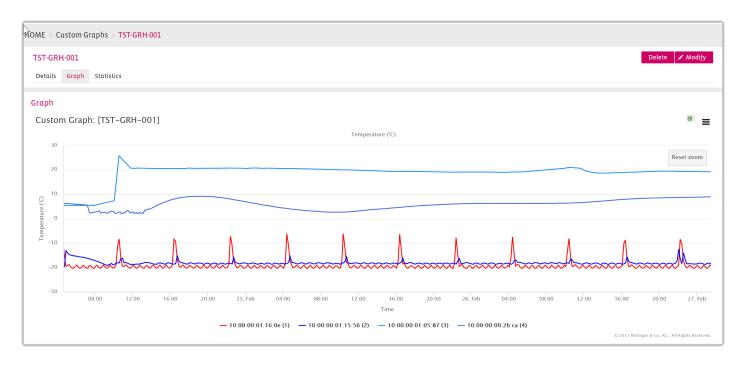
## **Custom Graph Zoom Area**

Click, hold and drag the mouse from one point to the other a zoom area will be selected as shown in the next graphic.



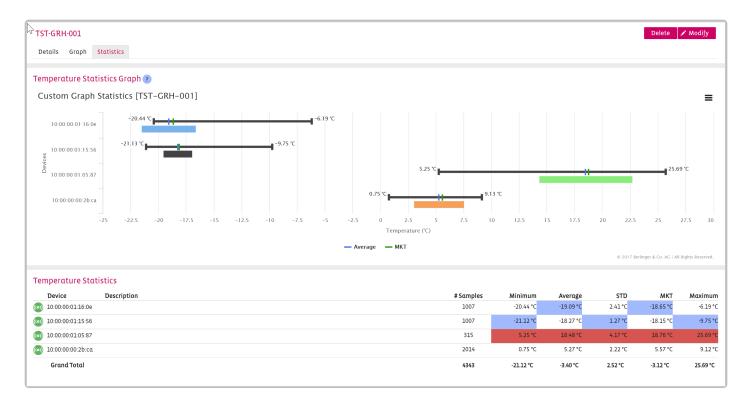
### **Custom Graph Zoomed**

The next screenshot shows the zoomed in area. Go back to the overview by clicking the "Reset zoom" Button on the right.



# 9.5.3. Statistics

Temperature Statistics Graph in Boxplot and Table format:



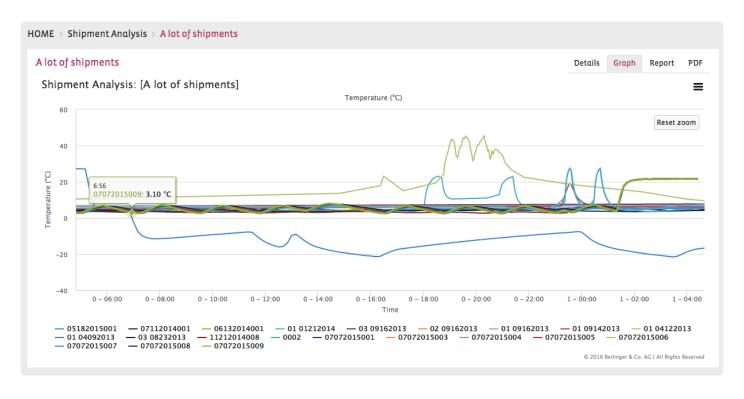
## 9.6. Shipment Analysis Report

The Shipment Analysis Report is a document that provides a statistical analysis of shipments that have been monitored with SmartView and enables users to overlay multiple shipments in a single graph. Each Shipment Analysis Report contains the following three elements:

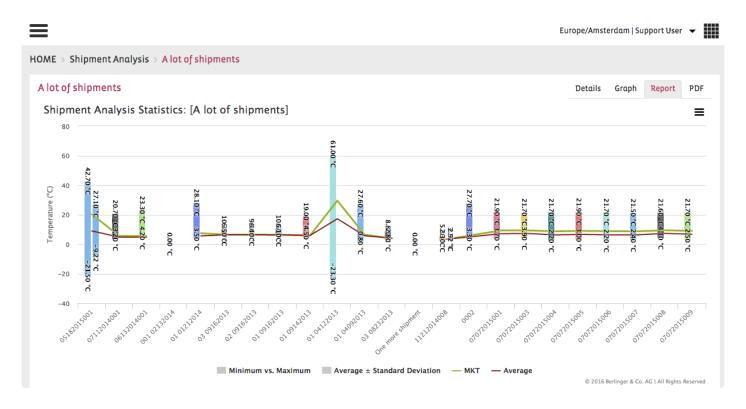
- 1. **Overlay of the temperature graph of the various shipments**. As these shipments may be performed at different times, the temperature graph is based on a relative time.
- 2. **Statistical Overview Graph** (see below) that provides a graphical overview of the maximum, minimum, average and standard deviation for each shipment that is included.
- 3. **Statistical Table** that shows the statistical information in table format, with easy indication of the lowest and highest maximum etc.

The Shipment Analysis Report is generated manually by selecting the specific shipments that need to be included in the analysis. This functionality can be accessed directly from the menu option or from the shipment overview screen.

#### E.g. Shipment Analysis Graph



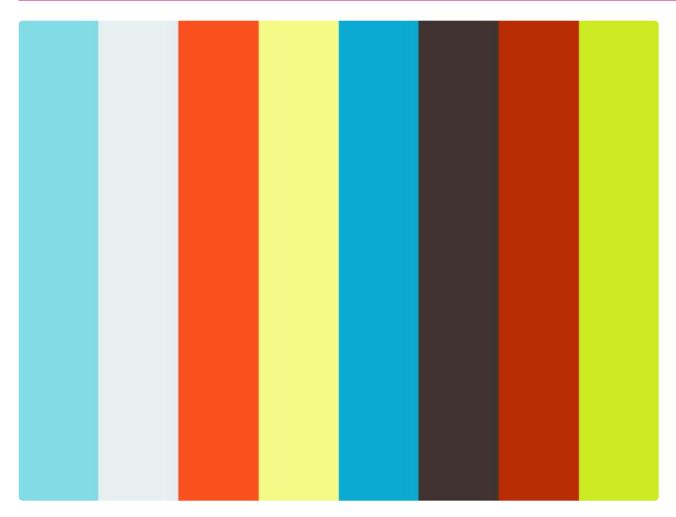
#### E.g. Shipment Analysis Report



# 10. Configuration

- Carriers
- Customers
- Event Profiles
- Packing Systems
- Products
- smartAlert Unit

## 10.1. Carriers



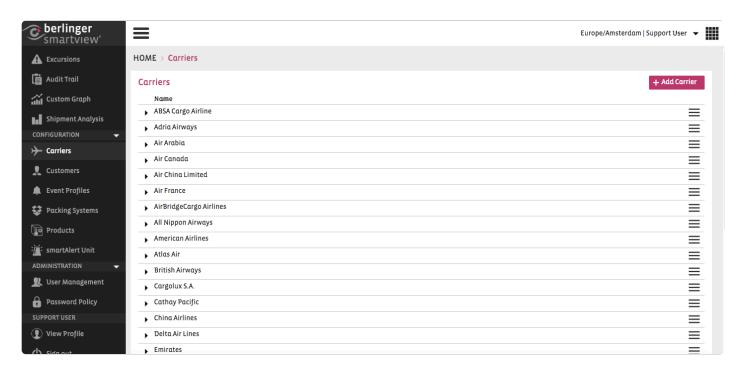
https://player.vimeo.com/video/178601186

### **Carriers**

The Carriers menu item allows you to define a subset list of Air Carriers from a list of all the carriers available in the system that you will use in smartview when working with carriers. The carrier list available in the system includes around 250 commercial Air Carriers. Before you use the carrier in other places (for example for a Shipment) you need to define the Air Carriers subset list by adding the frequently used carrier from the main list.

### **Overview of existing Carrier**

To view an overview of the air carrier subset list, click on the menu item Configuration: Carriers. As shown in the following image and you will get the screen with the air carrier subset list.



To add a new carrier to the list simply click on the from the dropdown list.

+ Add Carrier
button and choose the desired carrier

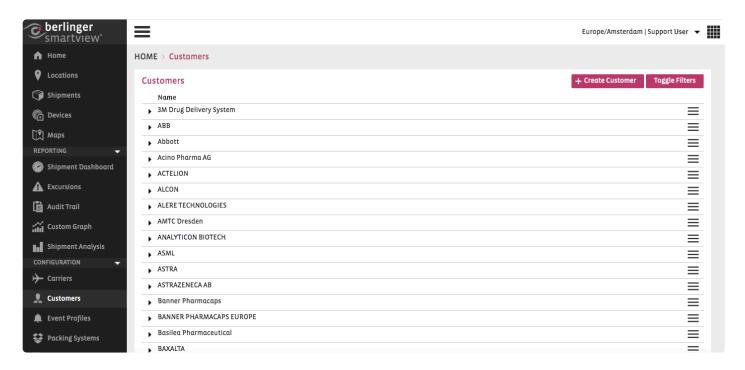
To remove an air carrier from the subset list, simply click on the button next to the carrier and select delete.

Note: You cannot remove a carrier from the subset list if it has already been referred somewhere.

## 10.2. Customers

### **Create Customers**

The Customers menu item provides an overview of all the customers created in the system. This screen also enables you to define new customers for your shipments and to edit existing customers. You can also filter the list of customers depending on your preferences.



To add a new customer, simply click on the customer. After creating a customer, you will be able to assign this to one or more shipments.

### **Modify Customers**

You can edit your customers by clicking on the button.

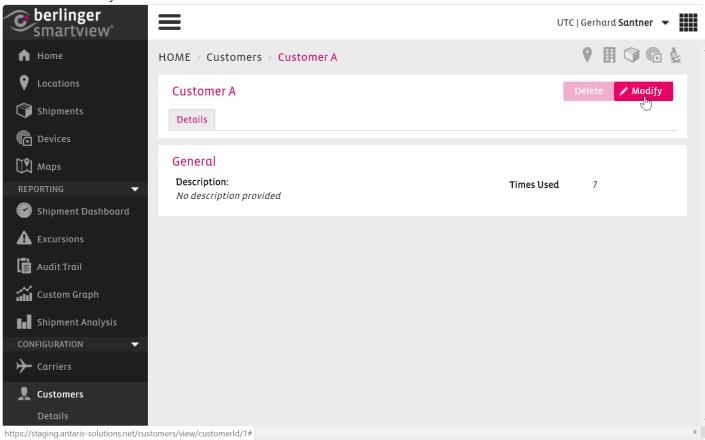


### **Enable/Disable Customers**

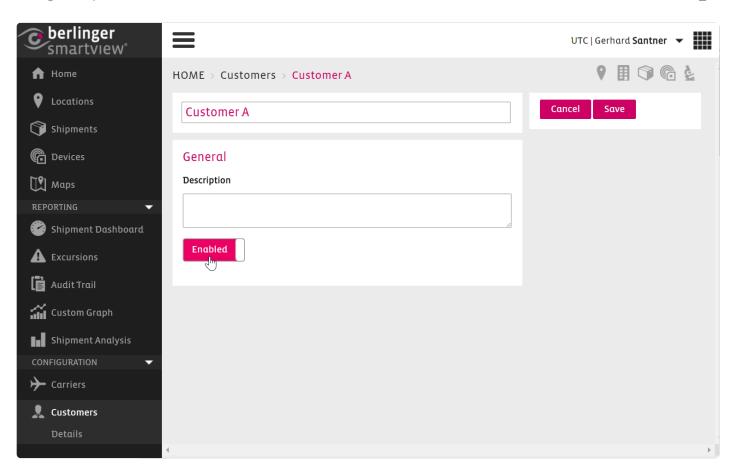
If you want to enable or disable a Customer, use the toggle Enable/Disable on the bottom of the details tab

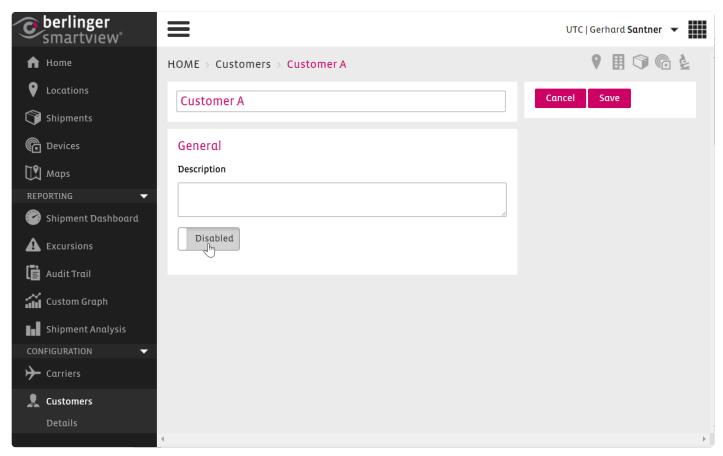
in modify mode.

Choose to modify in the Customer tab.



Scroll down to the toggle Enable/Disable and change settings.





Click save to save your settings.

!

A Customer cannot be deleted, only disabled.

# 10.3. Event Profiles

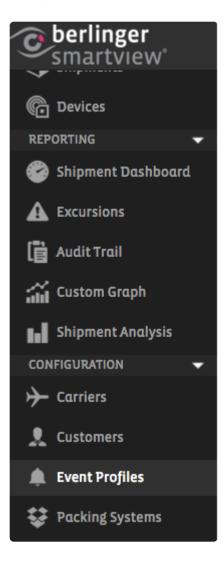
One of the core capabilities of SmartView is the **event management**, which includes defining events, identifying, handling and reporting on event excursions. An event is the occurrence of a pre-defined situation.

SmartView enables users to define business rules for such situations. An Event Excursion represents an alert situation which indicates the breach of one of the business rules that are defining the event. With continuous sensor measurements, SmartView can identify the breach of a rule and thereby can report on an excursion.

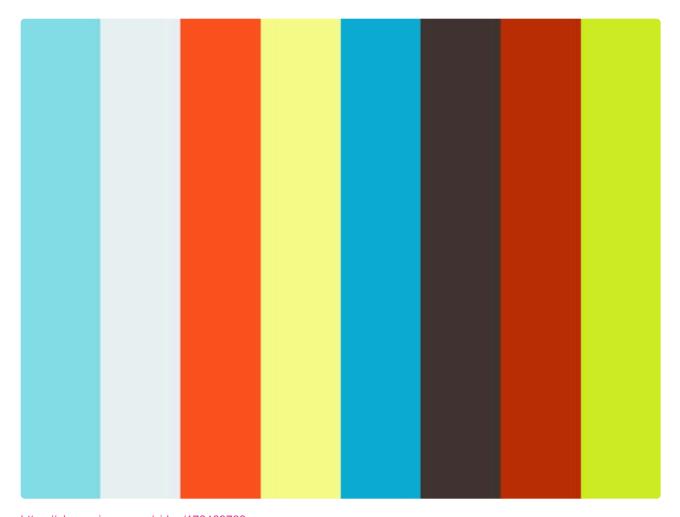
To support the event management, SmartView enables users to define event profiles that include: Event Rules, Recipients and personalised message.

The user needs to define appropriate Event Profiles in the system first. For monitoring a shipment or a facility, he needs to select one of the predefined Event Profiles that is applicable for it. Selecting an Event Profile for a shipment or sector means that the business rules, as defined in the Event Profile, are now applicable to the specific shipment or sector.

To access the Event Profiles, you need to go to the 'Configuration' tab in the Menu bar and click on Event Profiles.



#### **Create**



https://player.vimeo.com/video/178463789

+ Create Event Profile

To create a new Event Profile, go to the Event Profile menu item and click on the button.

Provide a Name for the Event Profile and click OK.

**Optionally** you can select an existing Event Profile as a template in the Use Event Profile selection box. If you select an existing Event Profile as a template, then the new Event Profile will get the information that was already defined in the existing profile. This is useful in a situation when an Event Profile similar to an existing one needs to be created.

The Event Profile screen contains different sections for defining relevant information:

**Message**: Define the Message that needs to be sent in the notification email or SMS in case of an event excursion.

**Main Recipients**: The main recipients section defines the first recipients of the notification in case of an event excursion.

Recipients: Start typing the name of the user who needs to get the notification message. A list of user

names matching your typed keys will be visible. Select the name from the list. To define multiple recipients just type again and select the name from shown list.

**Notification Type**: Select the type of notification that the user will get in case of event excursion – Email, SMS, Email & SMS

**Repetition Interval**: Define the repetition interval of sending notifications in case an excursion situation persists.

**Escalate Recipients**: You can optionally define the escalated recipients who will be notified in case an event excursion persists for an Escalation Delay Period and none of the main recipients has acknowledged the excursion.

Event Rules: In this section the user defines the business rules for a situation that should be monitored. The breach of any of the rules defined by the user will trigger an excursion and a notification message will be sent to the recipients. Click on the icon and define the following fields as shown in the image below.

**Sensor**. : Select the sensor that needs to be monitored by the rule such as Temperature, Humidity, Contact and Power Status.

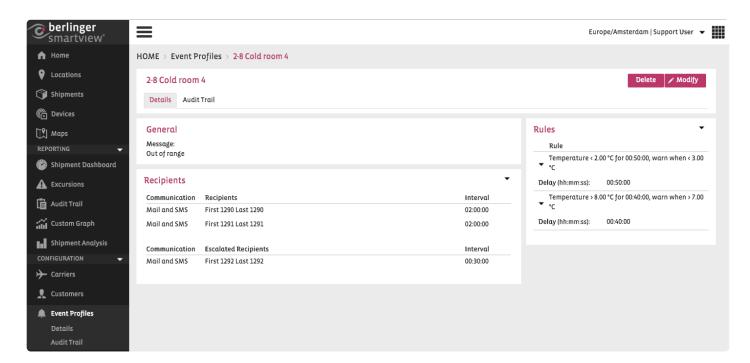
**Condition**: Select the appropriate mode for the rule, such as "< less than" or "> greater than" for the sensor. For Contact and Power Status sensors the only available Condition is "== equals".

Value: Define the alert value for the rule.

**Delay**: Optionally define a delay period for the rule, in case you want to get notified if the alert situation is found to be persisting for the delay period. For example, if you want to get notified in case the temperature crosses the limit for 20 minutes, then define 20 minutes in the delay period.

Warning: Optionally check this box if you want to define a Warning Value.

**Warning Value**: After checking the Warning option, define the warning value for which you want to get notified. For example, if you want to get a warning notification before the temperature crosses the limit of 8 °C, then you can define the warning value 7. In this case, if the temperature is found to be above 7°C but below 8°C, then you will get a warning notification about the temperature approaching the excursion situation.

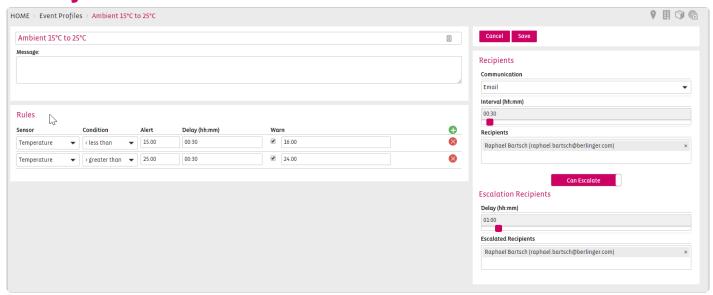


After creating an Event Profile, this can be applied to a Sector or a Shipment and can be reused as many times as required.

You can choose to Edit or Delete the Event Profile from the Event Profile overview, by clicking on the button and by choosing your action. The Modify page can be reached also from the Event Profile itself, by choosing the button.

**Note**: Editing or deleting an Event Profile does not affect the Shipments or Sectors to which the event profile is added. Editing an Event Profile will only affect the Shipments or Sectors to which the Event Profile will be added.

#### **Modify**



Every setting can be modified which you had to fill out or define when creating an Event Profile.

#### **Delete**

### You cannot delete an Event Profile if it is in use.

#### **Special Type Sensors**

Besides the standard sensors that measure and report temperature and humidity continuously, there are following special type of sensors that report on events like Open/Close of contact, Shock.

<u>Open/close Contact</u>: This type of sensor can report on the state of its contact sensor – either OPEN or CLOSE. This type of sensor can be used to monitor the state of a door. You can use such a sensor to get an alert in case the 'Door is OPEN for 20 minutes'.

<u>Power Monitoring</u>: This type of sensors are actually network infrastructure devices installed in a location, like Gateway or MicroRouter. Although the main responsibility of such a device is to make sure that the data is forwarded to the right node(s), they can be configured to report on their power status. If a Power Monitoring device is running on its backup battery, it will report its status as BATTERY, otherwise it will report the status as MAINS POWER. Thus you can associate such a device to a sector to get an alert in case 'Power Status in on BATTERY for 5 minutes'.

Battery Voltage: This sensor serves the same purpose of the sensor Power Monitoring but for ILC2000 device only. You can use this sensor for power monitoring of an ILC2000 device.

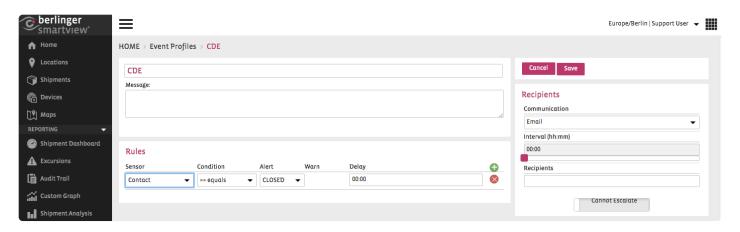
<u>Light</u>: This especial sensor originally reports on light event i.e. presence of light. This is only available with an ILC2000 device. This sensor should be confused with Light intensity (Lux) sensor of the device.

**Shock**: This is a measurement that indicates Shock/ Fall experienced by an ILC2000 device. Unlike the other sensor, this is not a separate sensor of ILC2000 device. If an ILC2000 device falls from 1-2 feet above from the ground or experiences a similar shock, it will report a shock event.

**Note**: Light and Shock reporting of an ILC2000 device is turned off by default. If you want to use these report please make sure have configured the device by turning these sensors ON in SmartView.

To define an Event Profile for any of these special type of sensors, create a new profile and define required rules following the steps described below.

#### Event rule for open/close contact sensor



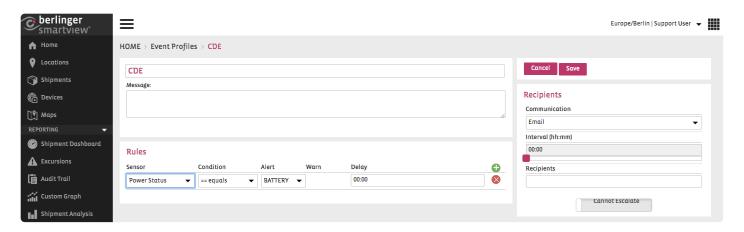
To define an Event Profile for open/close contact sensor, create a new Event Profile and follow the following steps

Go to the Edit Event Profile screen for the profile that you have just created and click on the icon to add a rule. By default, the Temperature sensor is selected for the rule. Change the sensor by selecting Contact from the sensor list. The Condition field will be changed to '== equals' which is unchangeable.

In the Value field select the alert value for which you want to get the alert notification. For example if you want to monitor the state of a door and want to get notified if the door is open, select OPEN for Alarm.

If you want to get the alert if the door is OPEN for a certain period, then define the period by dragging the time (hh:mm) bar. While dragging the bar you can see the period in the Delay field.

#### **Event rule for power monitoring**



To define an Event Profile for power monitoring (by using devices like a ConnectGate or MicroRouter), create a new Event Profile and follow the following steps

Go to the Edit Event Profile screen for the profile that you have just created.

Click on the icon to add a rule. By default, the Temperature sensor is selected for the rule. Change the sensor by selecting Power Status from the sensor list. The condition field will be changed to '== equals' which is unchangeable.

To get alert notification when the power status is on backup battery, select BATTERY in the Value field.

If you want to get the alert if the power status is on backup battery for a certain period, then define the period by dragging the time (hh:mm) bar. While dragging the bar you can see the period in the Delay field.

#### **Event rule for Light event**

To define an Event Profile for Light event (reported by ILC2000 devices only), create a new Event Profile and follow the following steps

Go to the Edit Event Profile screen for the profile that you have just created.

Click on the ficon to add a rule. By default, the Temperature sensor is selected for the rule. Change the sensor by selecting Light from the sensor list. The Condition field will be changed to '== equals' and the Value field will be changed to 'ON'. Both of these fields are unchangeable.

You will Delay, Warning and Warning Value fields are disabled as these are not required for monitoring light event.

Click on the Save button to save your changes.

#### **Event rule for Shock event**

To define an Event Profile for Shock event (reported by ILC2000 device only), create a new Event Profile and follow the following steps

Go to the Edit Event Profile screen for the profile that you have just created.

Click on the ficon to add a rule. By default, the Temperature sensor is selected for the rule. Change the sensor by selecting Shock from the sensor list. The Condition field will be changed to '== equals' and the Value field will be changed to 'ON'. Both of these fields are unchangeable.

You will Delay, Warning and Warning Value fields are disabled as these are not required for monitoring light event.

Click on the Save button to save your changes.

#### **Event rule for Battery Voltage**

To define an Event Profile for monitoring the battery voltage of an ILC2000, create a new Event Profile and follow the following steps

Go to the Edit Event Profile screen for the profile that you have just created.

Click on the ficon to add a rule. By default, the Temperature sensor is selected for the rule. Change the sensor by selecting Battery Voltage from the sensor list.

Select '< less than' from the condition field and in the Value field put the battery voltage value below which you want to get noticed.

Click on the Save button to save your changes.

## 10.4. Packing Systems

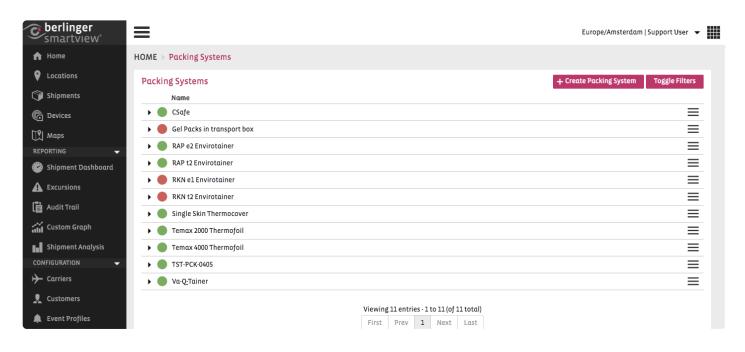
### **Create Packing Systems**

The Configuration: Packing Systems menu item allows you to define the Packing Systems (e.g. Envirotainer). In practice the Packing System refers to a kind of packaging to which a Smart Sensor is mounted to monitor the relevant shipment.

You can define a list of frequently used Packing Systems for your shipments that are monitored by SmartView. While creating a Smart Sensor association to a Shipment, you can optionally select the Packing System.

#### Overview of Existing Packing Systems

To view an overview of Packing Systems already defined in the system, click on the menu item Configuration: Packing Systems. You will get an overview of all the Packing Systems as shown in the following image.



The coloured icons indicate whether the packing system is: enabled or disable

#### Adding a Packing System

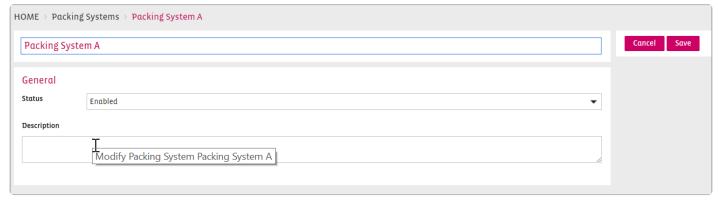
To create a new Packing System click on the and non-empty name for the new Packing System and click on the OK button. The Packing System name can have a maximum length of 64 characters.

#### **Editing and Deleting a Packing System**

To Edit an existing Packing System simply click on the for the Packing System.

**Note**: You cannot delete an existing Packing System if it has already been defined against a Shipment Association.

## **Modify Packing Systems**

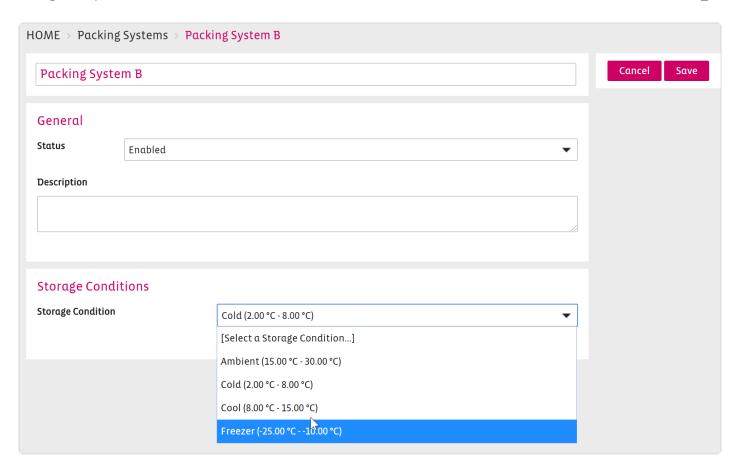




Changed Packing System from Package A to SkyCall CRT750

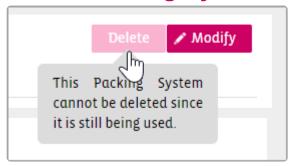
## **Modify Storage Conditions**

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You can choose a Storage Condition for your packing system which you have predefined under Site Settings / Storage Conditions.

### **Delete Packing Systems**





The Packing System can only be deleted if the Packing System is not in use anywhere.

## 10.5. Products

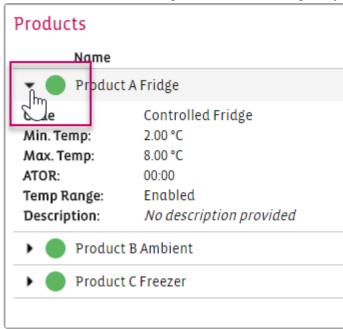
#### **Create**



Create your Products you ship with the button

For example you ship or store products for a fridge, freezer or ambient temperature.

Click the small black triangle to see the settings of your Product



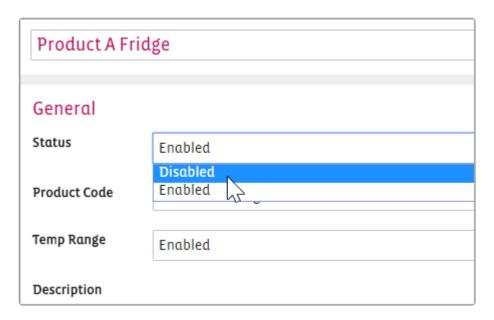
## **Modify**

If you want to Modify your Product settings, click the Product name to get inside the product settings.



#### **Delete**

You can only delete a Product if it's Status is Disabled and in the Product is not in use.

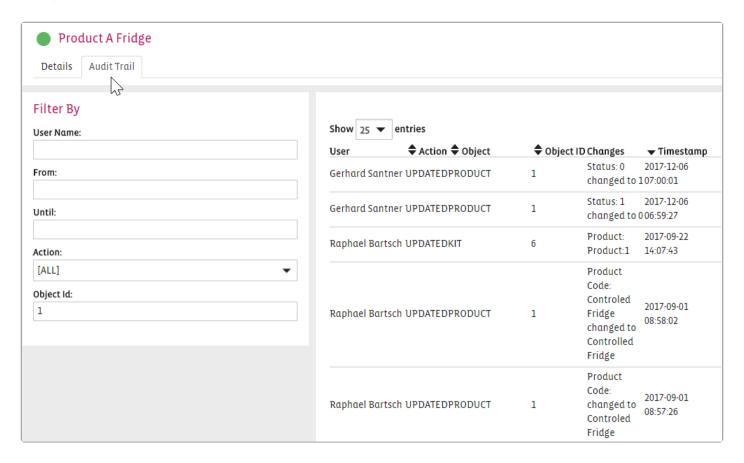


The Delete button is greyed out as long as the Product is in use.



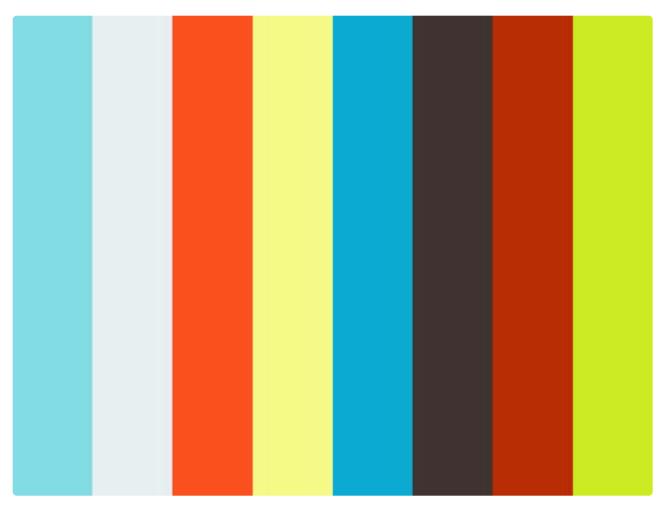
#### **Audit Trail**

The Products Audit Trail shows you all the changes you have made.



# 10.6. smartAlert Unit

The smartAlert Unit menu item allows you to add an audio/visual alert device for your facility.



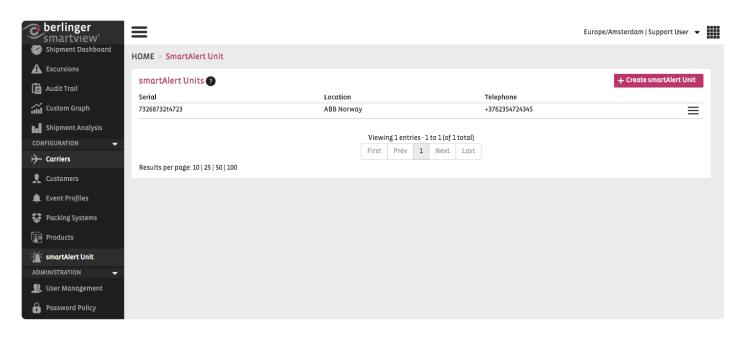
https://player.vimeo.com/video/178155401

**Note**: This functionality will only be visible if you are using the application for facility monitoring and if an audio/visual alert device has been installed in your facility.

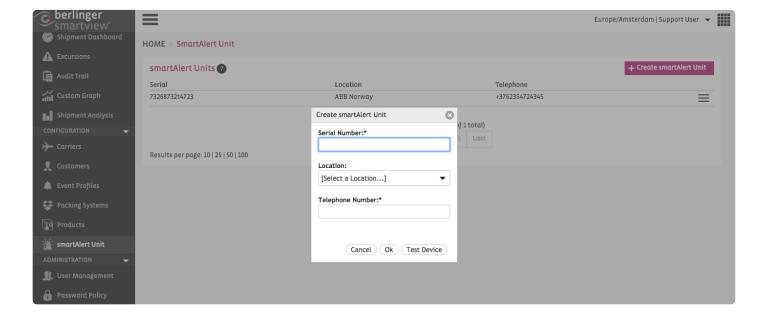
To add an alert device, click on the

+ Create smartAlert Unit

button as indicated in the following image:



This will lead you to the screen that allows you to add a location, a serial number and a telephone number for your alert device. After defining the details for your alert device, you have the option to test the device. Click on the Test Alert Device button and SmartView will automatically send a trigger to the defined phone number for test purposes. If the test is successful and you want to save the changes to your alert device, click the Create Alert Device button:



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## 11. Administration

The Administration button in the Main Menu enables you to Manage your own and other users' account settings.

This functionality provides two options:

- User Management The User Management option allows you to create new users and to modify the settings of existing users (status, access rights, restrictions, etc.)
- Password Policy The Password Policy functionality enables you to define a personalised password policy for your users.



The Administration functionality is only available to Admins.

## 11.1. User Management

In SmartView we distinguish between three types of SmartView users:

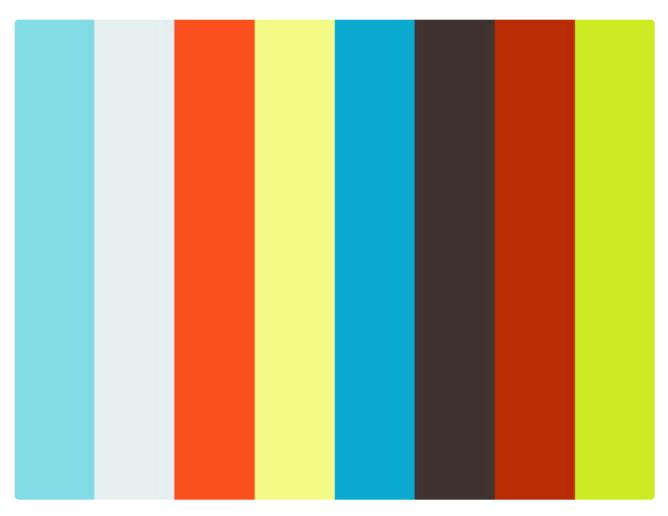
**Admin** – have full access and full rights in SmartView including viewing, editing and deleting information. SuperUsers also have the role of administrators of the database and can manage other user accounts including defining the access rights and setting user restrictions.

**User** – regular users with viewing and/or editing rights, depending on the access rights set by the SuperUser.

**Q-Tag upload user** – users who only have the right to upload Q-Tag data in SmartView. These type of users will only be able to view the screen that allows them to upload the Q-Tag data file. No other access rights are applicable to these type of users and no other information is available for them.

# 11.1.1. User Templates

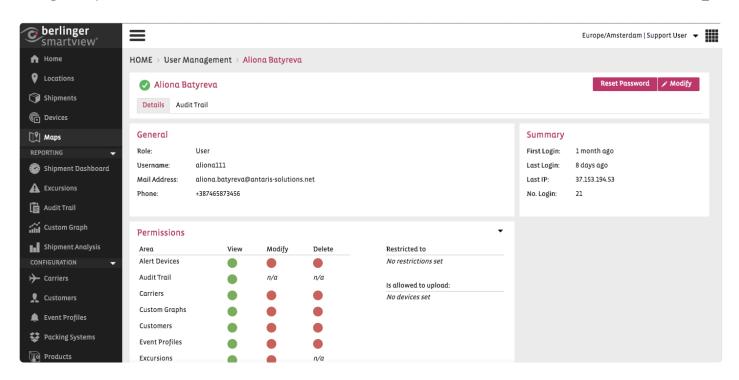
The Admins have the option to manage other users including to create, enable or disable users.



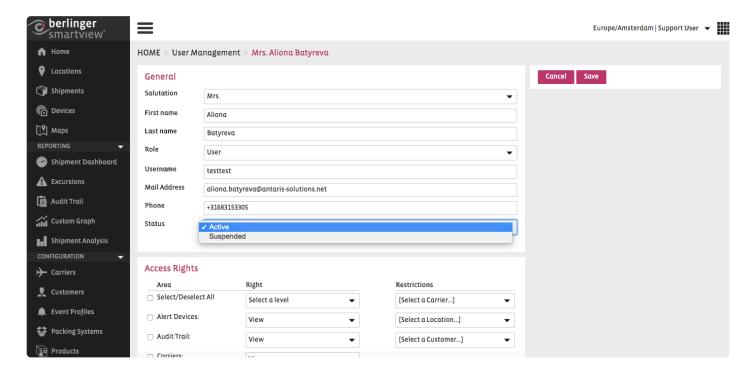
https://player.vimeo.com/video/178190982

To **create a User**, simply click on the + Creαte User button and fill in the necessary contact details.

An Admin can View the details of any type of user by clicking either on the user name and can modify the details of that specific user by clicking on the button.

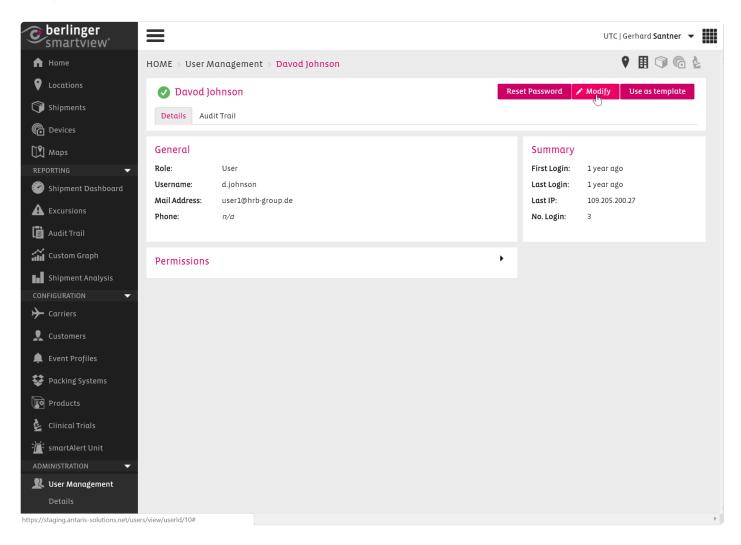


A user (of any type) cannot be deleted, but can be suspended. An Admin can suspend a User, a Q-Tag upload user or another Admin in case one is not entitled to have access to the system any longer. This can be done by selecting the '**Suspended**' status in the Modify screen and by clicking the Save button. The same way, a user can be activated, after it has been suspended, by selecting the '**Activated**' status.

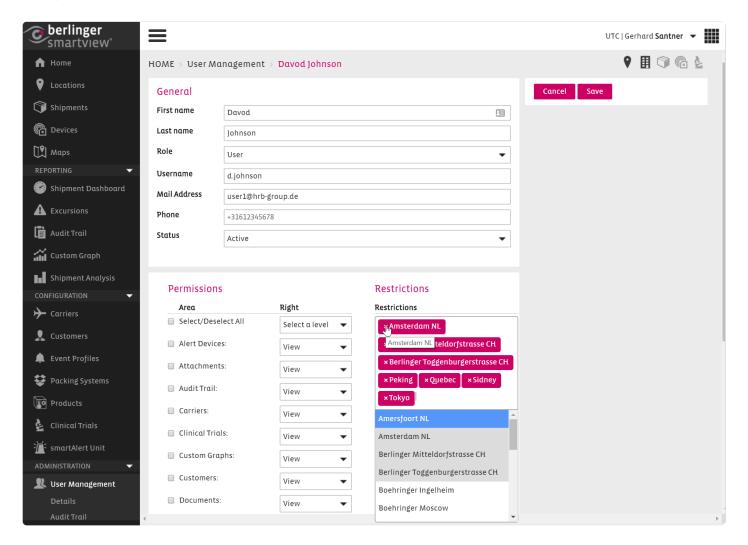


#### **User Restrictions**

An administrator can restrict a user to one or multiple locations. Navigate to User and click modify.

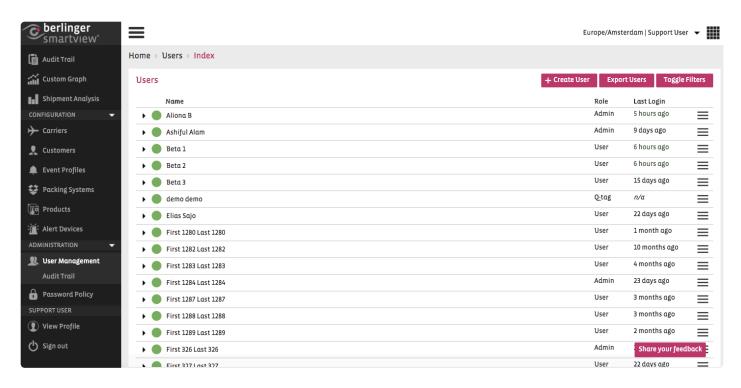


Now you can select the locations you want to restrict.

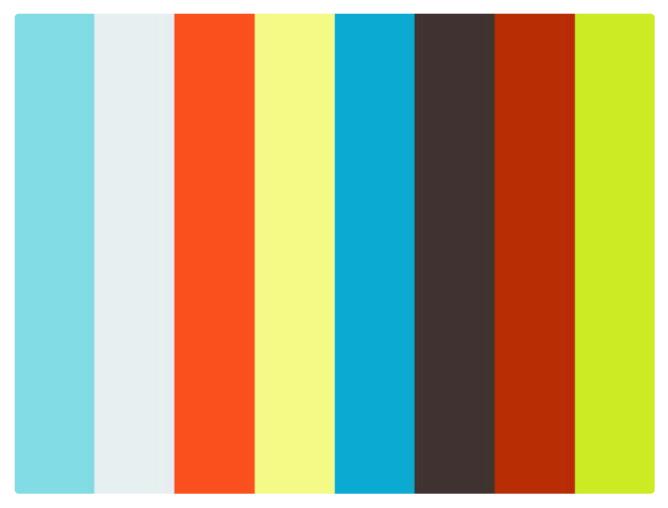


## 11.1.2. Admin

For Admins, a tab called "User Management" will appear in the menu bar as displayed in the below image.



By clicking on the 'User Management' tab, the Admin can edit the configuration of any type of user by selecting it from the overview list. A number of rights are assigned to the Admin:



https://player.vimeo.com/video/178461865

An Admin can View the details of any type of user by clicking either on the user name or on the icon in the overview list.

- An Admin can add a **User**, **Q-Tag upload user** or another **Admin** by clicking on the 'Create user' button in the User Overview page.
- An Admin can **edit the account settings** for a User or for another Admin by clicking on the of an individual user in the overview list or by clicking on the user name and then on the

button of that particular user.

- A user (of any type) cannot be deleted, but can be suspended. An Admin can suspend a User, a Q-Tag upload user or another Admin in case one is not entitled to have access to the system any longer. This can be done by selecting the 'Suspended' box in the Edit: User screen and by clicking the Save button.
- An Admin can activate any type of user in case the account needs reactivation following the same steps as for suspending the user by selecting the 'Active' box in the Edit: User screen and by clicking 'Save'.

Reset Password

 An Admin can trigger a password reset for any of the users by clicking on the button. An automatic email providing a link will be sent to the email address for which the password should be reset.

An Admin can select and modify the access rights for a regular User, by clicking on the



**Note**: The access rights of an Admin cannot be modified, as these are set by default to have full rights and full access in SmartView.

• For the **Q-Tag upload users**, the option to edit the access rights will not be visible, as the access rights for this type of users are set by default to only be able to upload Q-Tag data files. The Q-Tag upload users will only see a screen as displayed in the following image:

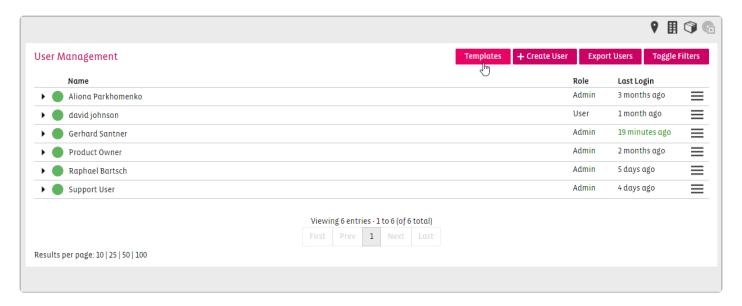


 An Admin can export an Excel document containing all the existing users in the system by clicking on the 'Export' button.

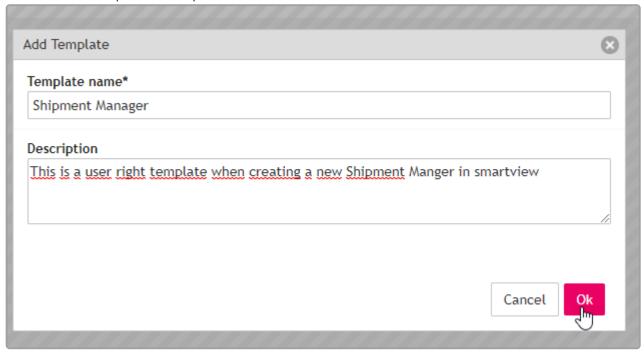
#### **Create a new User Template**

An Admin can create the following User Templates:

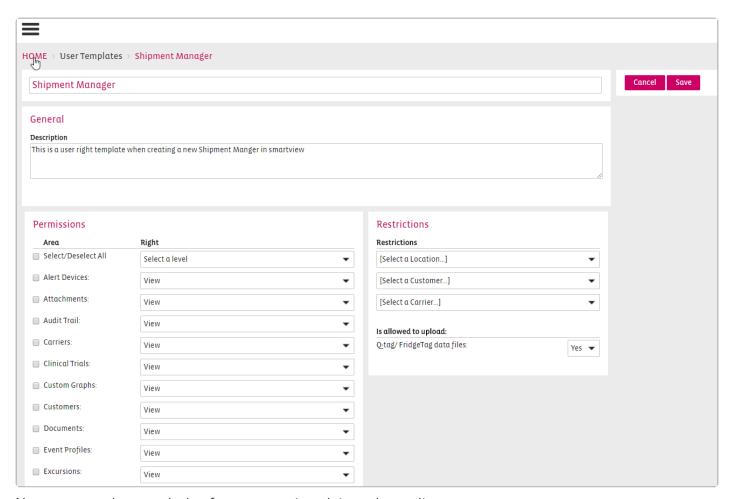
Create a new Template with the following steps



Name and description of template

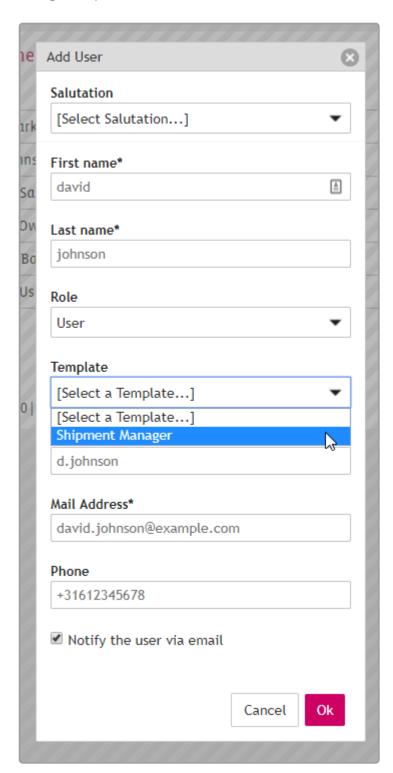


Permissons of the new template



Now you can give permission for your new template and save it.

When creating a new user you can use the templete from the list.



## Create a User Template from an existing User

Only Administrators can make new User Templates. You can not make a Template out of a Administrator Account.

You cannot assign Templates to CLm doc User uploaders only

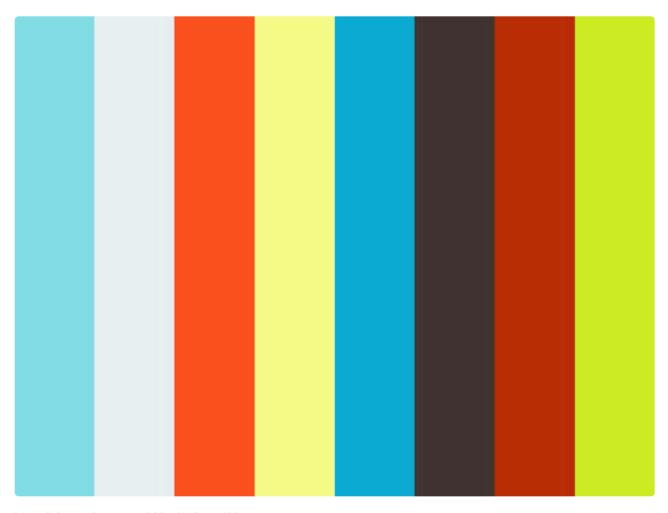
## 11.1.3. Restricted user accounts

SmartView provides the option to restrict the viewing and/or editing rights of regular users. This can be done

from the "Modify user" option or from the

/ Modify

button of a specific user.



https://player.vimeo.com/video/178447190

Access can be restricted for ONLY ONE of the three filters:

**Carriers** – users can view and/or edit only the information related to a specific carrier and no other information.

**Customer** – users can view and/or edit only the information related to a specific customer and no other information.

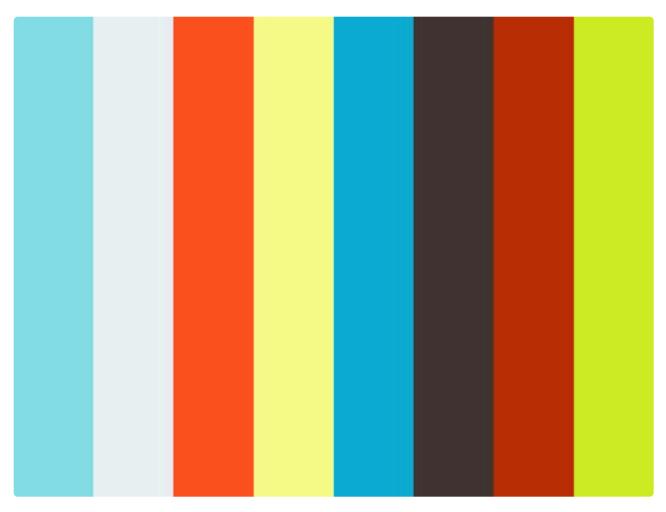
**Location** – users can view and/or edit only the information related to a specific location and no other information.

**Note**: Only Admins have access to this feature and have the right to restrict the viewing and/or editing rights of a user. Please note that **only one restriction per user** can be applied, e.g. a user can be restricted to a location, but the same user cannot be restricted to another entity.

# 11.2. Password Policy

smartview by default has a highly secure password policy. However, you also have the option to strengthen this policy if necessary.

#### **Create**



https://player.vimeo.com/video/178449758

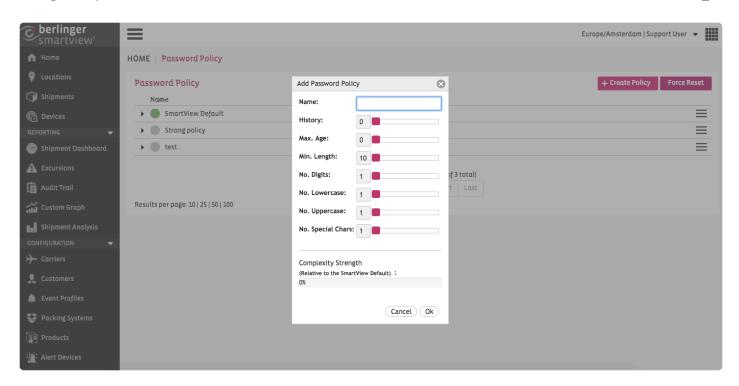
You can create a new password policy and determine your own requirements for the password of your users

+ Create Policy

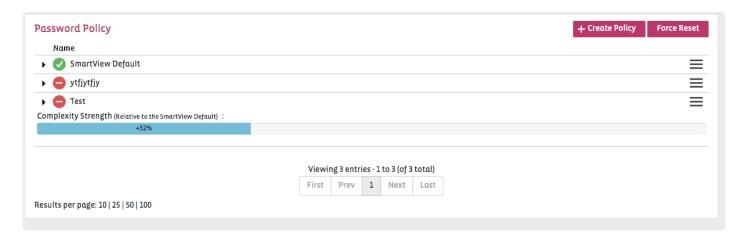
by clicking on the

button.

Choose the new requirements for your password policy.

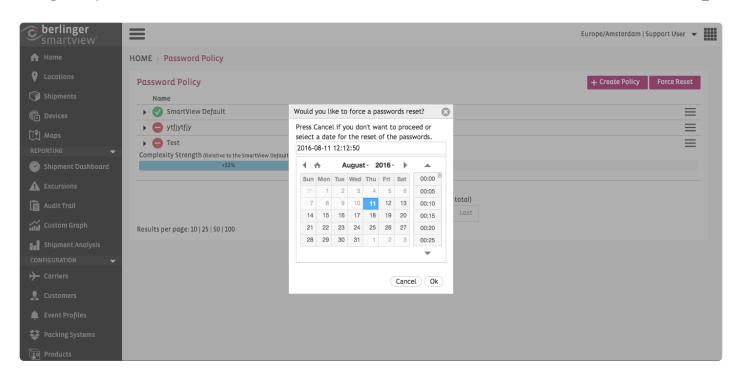


The created password policies can be activated or deactivated at any time, and you can recognise the status of a password policy by the status icon.



To activate/deactivate a password policy, simply click on the button and choose your action.

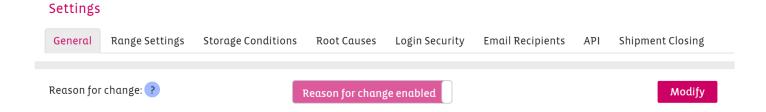
A pop-up will appear, asking you whether you would like to force a password reset for all users or whether you would like to schedule this action:



# 11.3. Site Settings

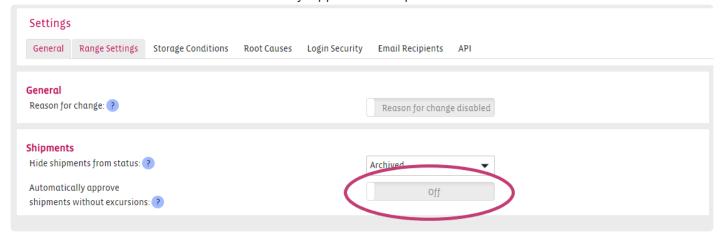
#### **General**

The Administrator can activate the "Reason for Change" functionality which will require the user to provide a reason when changing shipment or facility monitoring information.



### **Approve Automatically**

The Administrator can define to automatically Approve all shipments that contain no excursions



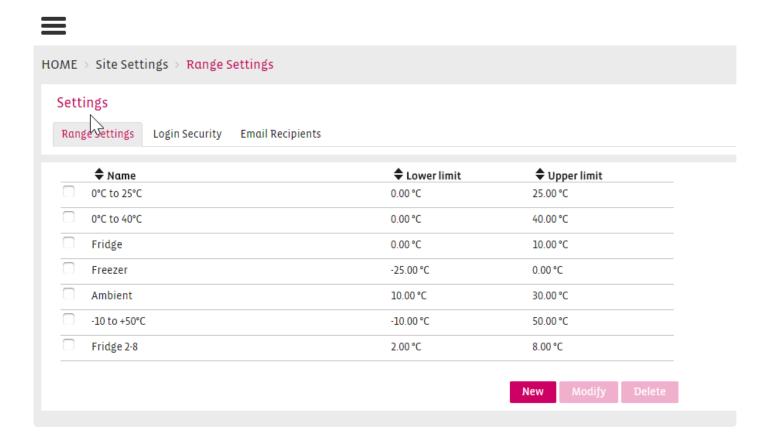
The following points can be modified in the Site Settings

- Range Settings
- Storage Conditions
- Root Causes:
- Login Security
- Email Recipients
- <u>API</u>
- Shipment Closing

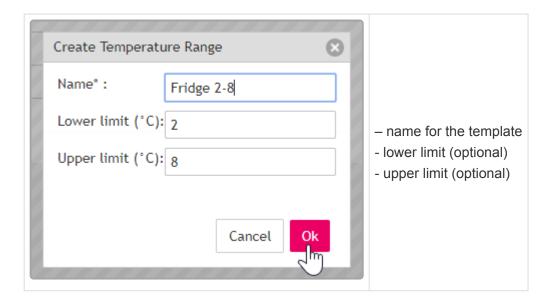
# 11.3.1. Range Settings

### Range Settings Temperature y-scale for Graph View

A Super user can define upper and lower limits for the graph view (y-scale) to make easier to compare different reports side by side.



Fields that should be provided:

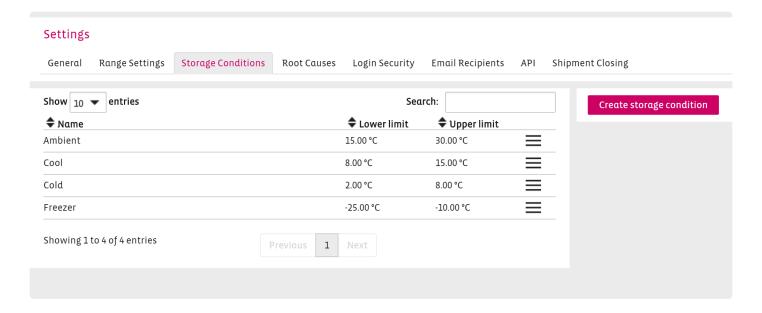


At least one of the limits should be filled in. Ranges set on the basis of the user settings (F or °C). Max amount of the ranges are 10.

# 11.3.2. Storage Conditions

Storage condition settings are used in multiple areas of SmartView.

Therefore, SmartView provides the functionality to define storage conditions in the Admin settings so that these conditions can be reused when assigning to **products**, **packaging systems**, **shipments** and **sectors**.



# 11.3.3. Root Causes

In the Root Causes tab, the administrator can define customized reasons for excursions.

These reasons can then be used when managing a specific excursion by selecting a root cause and providing an appropriate action for handling the excursion.



# 11.3.4. Login Security

System will lock out user account after repeated, unsuccessful login attempts.

Administrator can provide amount of unsuccessful login attempts and block time period on which user will be blocked.

 $\textbf{HOME} \Rightarrow \textbf{Site Settings} \Rightarrow \textbf{Login Security}$ 

Regular user do not have access to the tab Login Security.

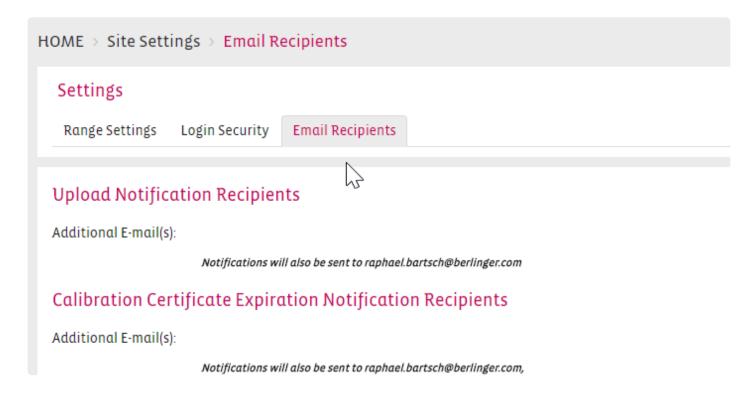
System will show warning message on the login page that user account was blocked.

System will send email notifications to a user that his account was blocked because of too much unsuccessful login attempts. Also email will be send to the site admin.

## 11.3.5. Email Recipients

### **Upload Notification Recipients:**

Up to 5 additional E-mail recipients can be added by the Admin.



### **Calibration Certificate Expiration Notification Recipients:**

Up to 5 additional E-mail recipients can be added by the Admin. 2 months before a calibratoin of a device expires an email reminder will be sent per mail to the Admin and up to 5 additional users (optional) assigned by the Admin.

#### Calibration Certificate Expiration Notification Recipients

Addition E-mail(s):

Notifications will also be sent to raphael bartsch@berlinger.com,

Support (testing@antaris-solutions.net) and Sales (testing@antaris-solutions.net)

### **Shipment Approval Digest Notification Recipients**

Up to 5 additional E-mail recipients can be added by the Admin.

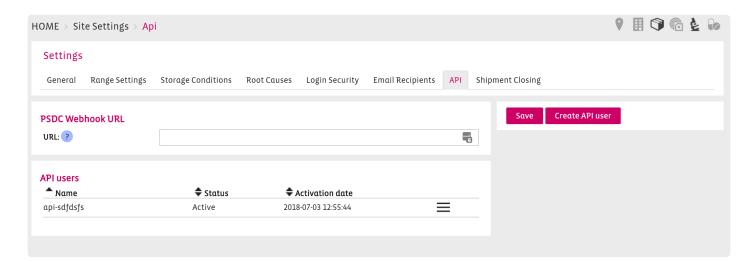
#### Shipment Approval Digest Notification Recipients

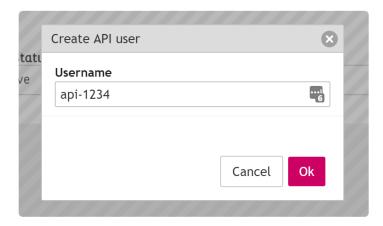
Additional E-mail(s):

## 11.3.6. API

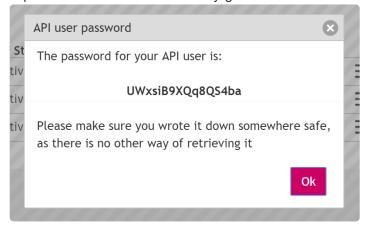
In the API Tab the Admin can allow integration with other applications by way of

- · Webhook URL's
- API Users





A password will be automatically generated.



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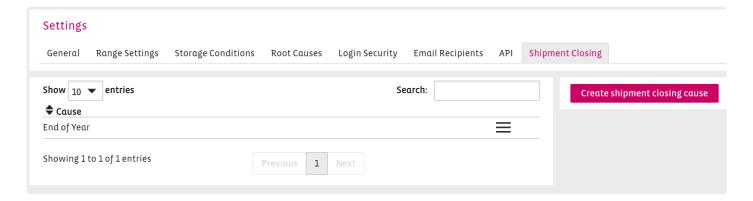
## **API Structure**

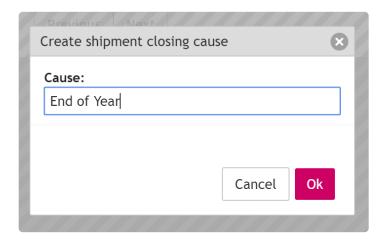


The structure of the SmartView API and the available Endpoints you will find <a href="here">here</a>.

# 11.3.7. Shipment Closing

In the Shipment Closing Tab the Administrator can define reasons for manually closing a shipment. When a shipment is closed manually, the user will be required to select one of these pre-defined reasons.







The functionality to manually close shipments is planned to be available in SmartView 4.8.

# 12. Profile



The Profile shows you information about the user and settings.

# 12.1. User

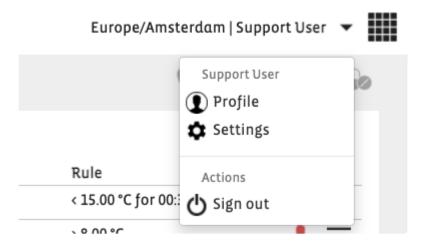
**Profile** 

**Settings** 

**Subscriptions** 

**Password** 

# 13. Sign Out



By using the "Sign Out" button, you can log out of SmartView.

# 14. Frequently Asked Questions (FAQ)

For technical problems or questions, please visit the Berlinger Support Center: FAQ – SmartView