BigFarmNet manager

Climate*pro*

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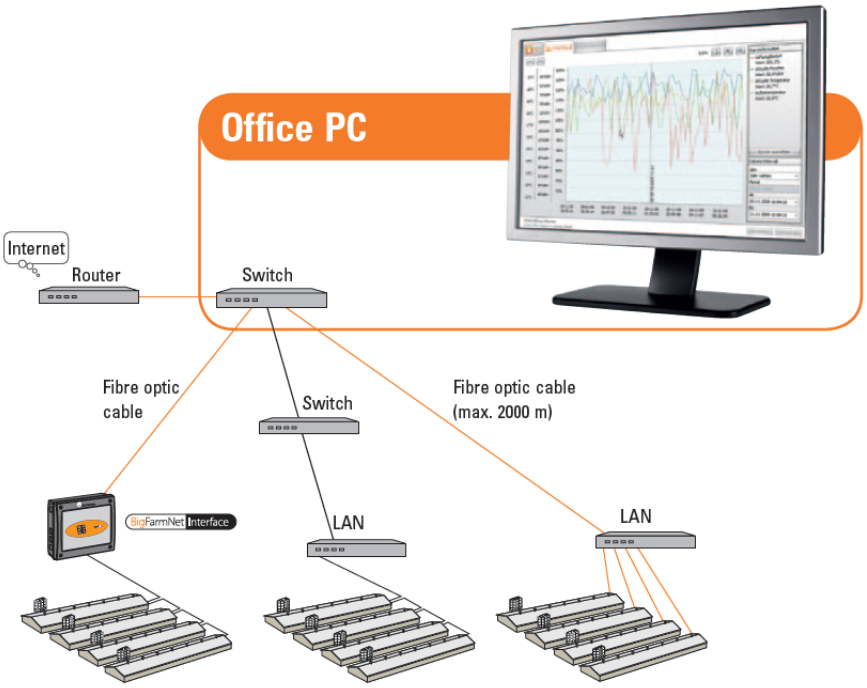
1 System description

Climate*pro* is an BigFarmNet Manager application. Climate*pro* allows you to control and monitor the climate computers on your farm centrally from one PC.

Climate*pro* directly accesses the climate computers installed in your houses. Climate*pro* lets you view climate data for any location or adjust the most important climate parameters, e. g. heating, ventilation and humidity, for a selected period of time like a remote control. The PC on which the BigFarmNet Manager software is installed, i.e. the Manager PC, and the climate computers constantly exchange data.



1.1 Requirements to install the Climate*pro* application

The Climate*pro* application can control the following climate computers:

- 135*pro*
- 235*pro*
- CT2 Touch
- 307*pro*

The following software licenses are **required** to run the Climate*pro* application:

Code no.	BigFarmNet Manager license	Use
91-02-6500	BigFarmNet Manager – Basic installation software	1 per BigFarmNet network

The following **additional** licenses might be **required**, depending on the circumstances.

Code no.	**BigFarmNet Manager license**	**Use**
91-02-6594	BigFarmNet – 135/235pro 1 compartment incl. strain relief	1 for 1 compartment
91-02-6595	BigFarmNet – 135/235pro 2 compartments incl. strain relief	1 for 2 compartments
91-02-6582	BigFarmNet – MC135/235 + 135/235pro 1 compartment	1 for 1 compartment
91-02-6590	BigFarmNet – MC135/235 + 135/235pro 2 compartments	1 for 2 compartments

The following software license is **optional**:

Code no.	**BigFarmNet Manager license**	**Use**
91-02-6564	BigFarmNet Manager – Web Access Pig	once for the app

1.2 Examples for climate network installation

1. Create a network diagram for the climate computers and the Manager PC.
2. Lay all cables for the network.
3. Program the climate computers' IP addresses.
4. Completely reset the BigFarmNet network on every climate computer, see chapter 2.2 ”Adding a climate computer”.
5. Connect all network connections.

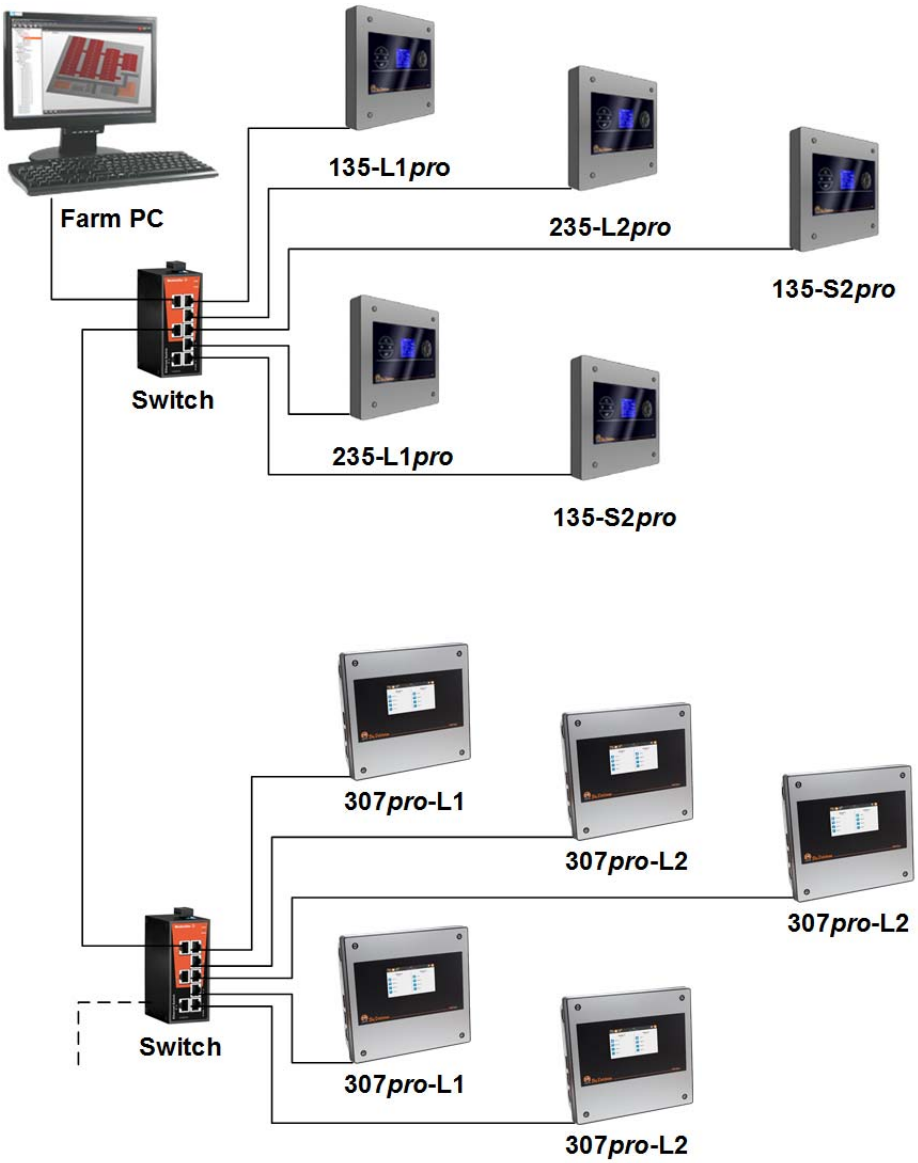


Figure 1-1: Network example with multiple climate computers

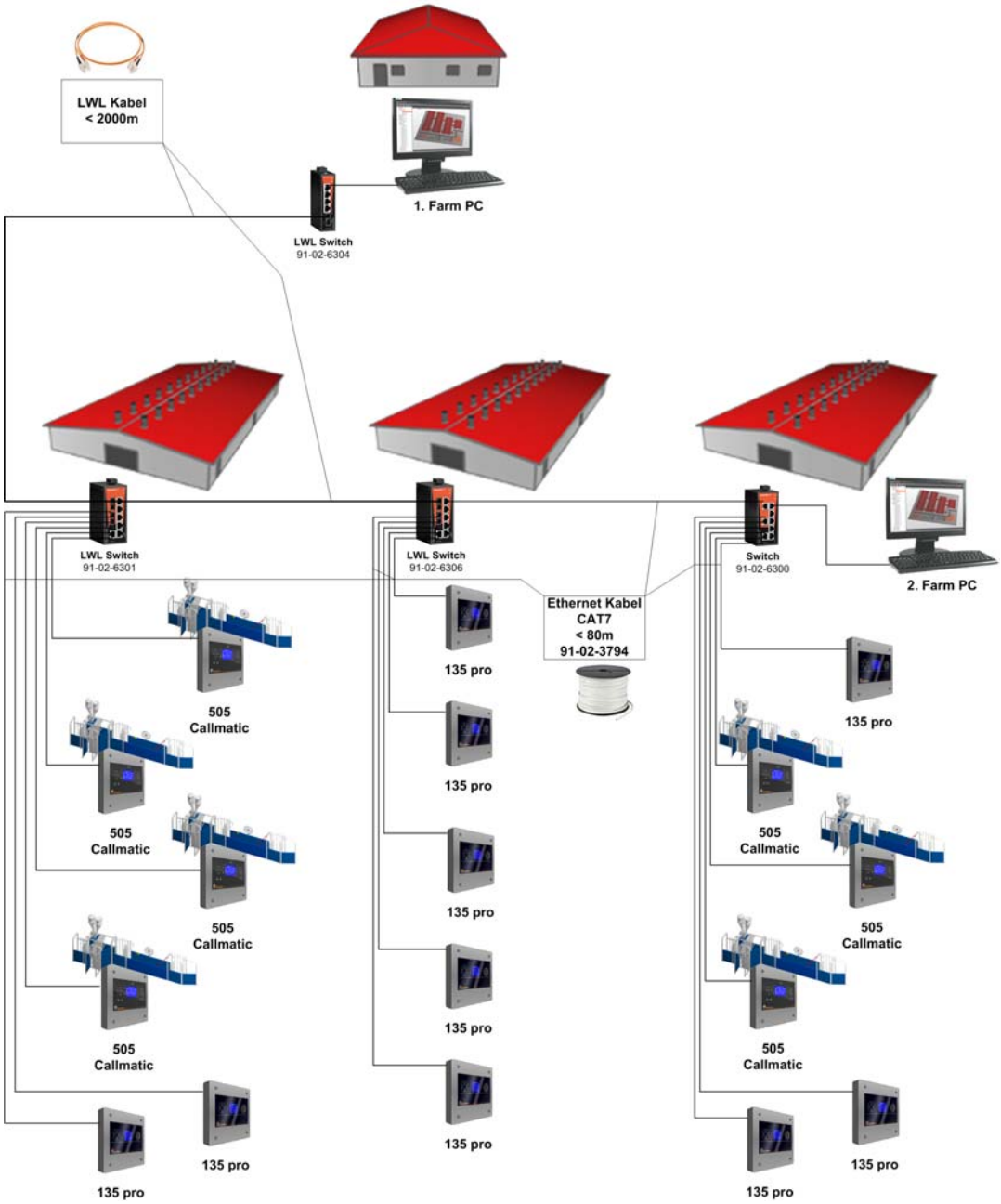


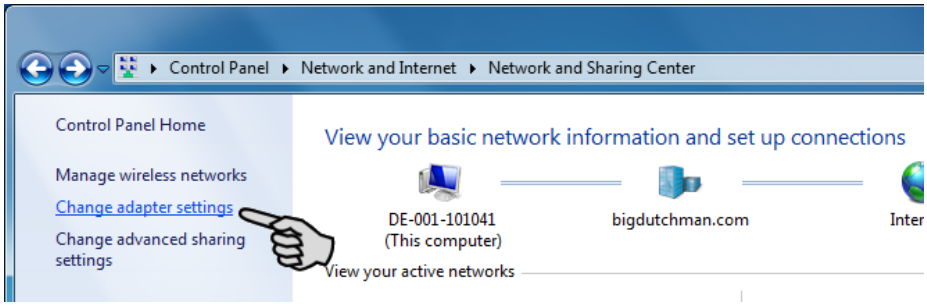
Figure 1-2: Network example including CallMatic stations and using of fiber optic cables

2 Installation and configuration of the climate computer

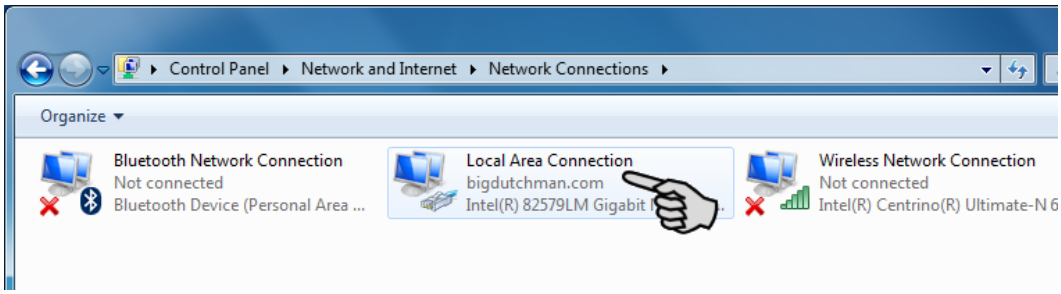
2.1 Network configuration of the BigFarmNet Manager computer

Assign a static IP address to the computer on which BigFarmNet Manager is installed. The following steps correspond to the Windows 7 operating system.

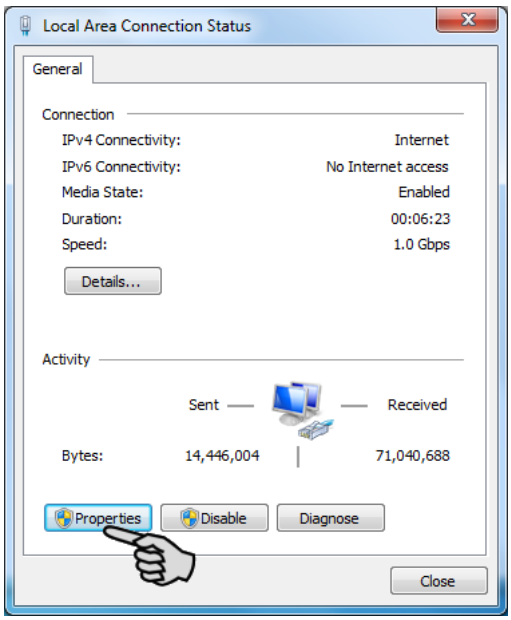
1. Click on "Control Panel" in the start menu.
2. Click on "Network and Internet" > "Network and Sharing Center".
3. Click on "Change adapter settings".



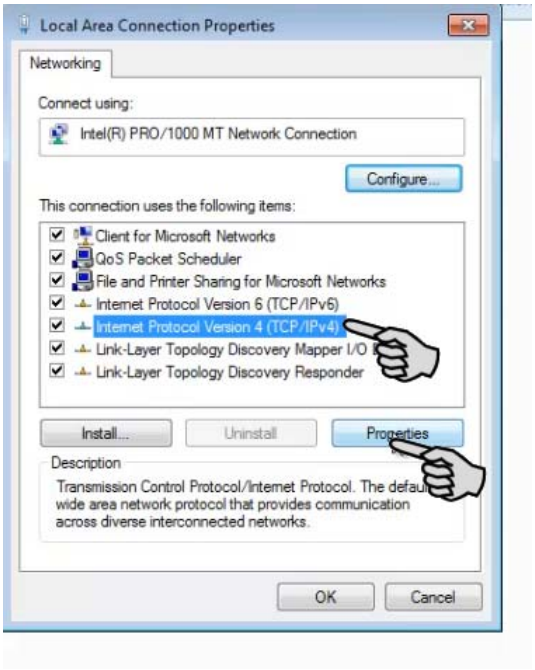
4. Double-click on "Local Area Connection".



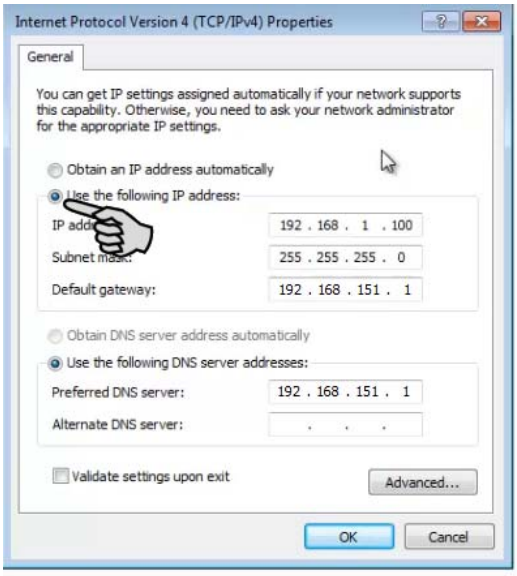
5. Click on "Properties".



6. Select "Internet Protocol Version 4 (TCP/IPv4)" and click on "Properties".



7. Enter a static IP address.

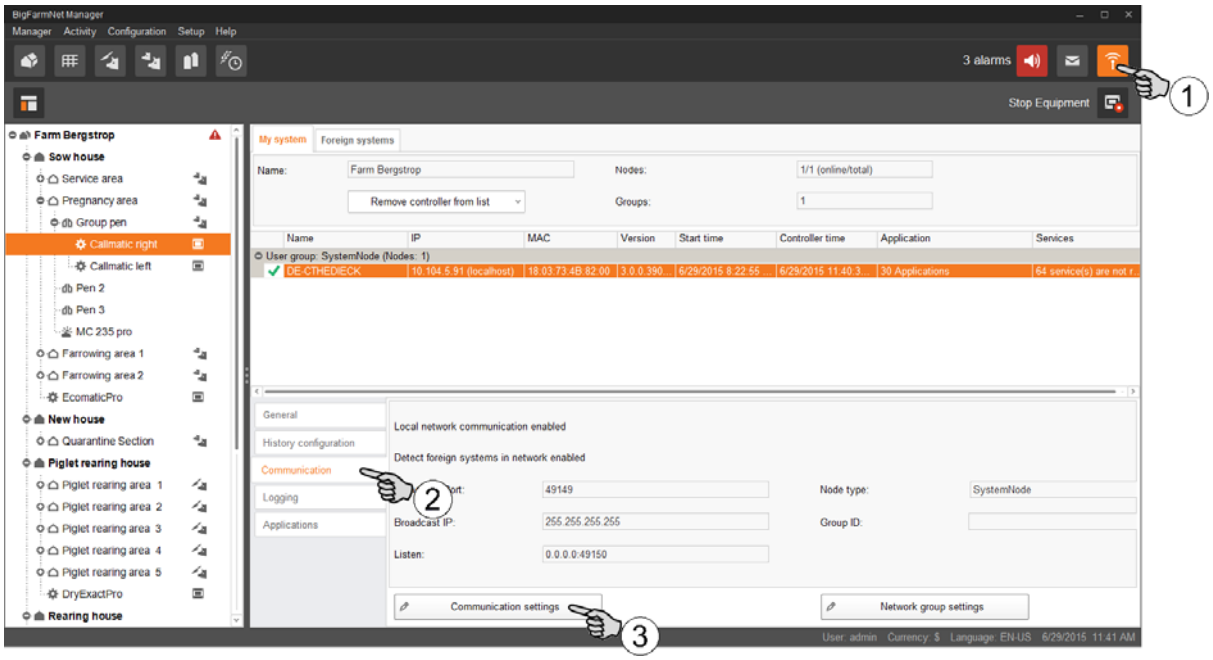


8. Accept these inputs by clicking on "OK".

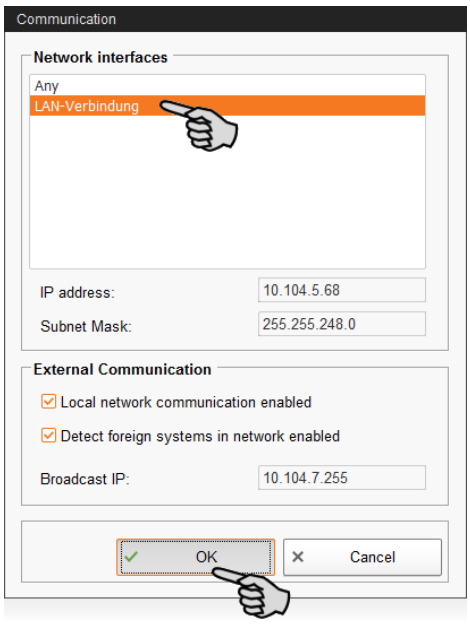
2.1.1 Assigning a network card

Assign the network card in BigFarmNet Manager. Install BigFarmNet Manager on your PC first, see the "BigFarmNet Manager – Installation/Configuration" manual.

Carry out the following steps to assign the network card to the BigFarmNet Manager PC:



1. Click on the network icon.
2. Click on "Communication".
3. Click on "Communication settings".
4. Select the network interface in the next window and click on OK.



2.1.2 Checking the connection to the climate computer

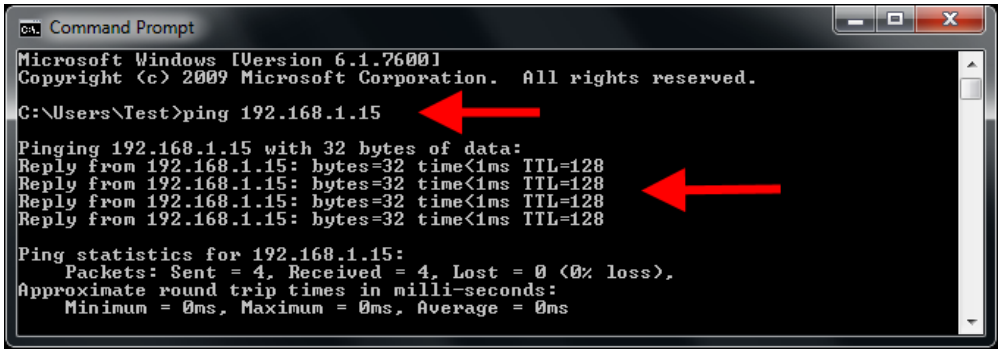
	Use the "ping" command to check the connection to the climate computer.

Enter the command into the console as follows: ping <IP address>

Example in the screenshot: ping 192.168.128.15

If the climate computer replies, four lines with the following information will appear:

- IP address;
- packet size;
- required time;
- TTL (time to live).



If the climate computer replies, the software can be installed.

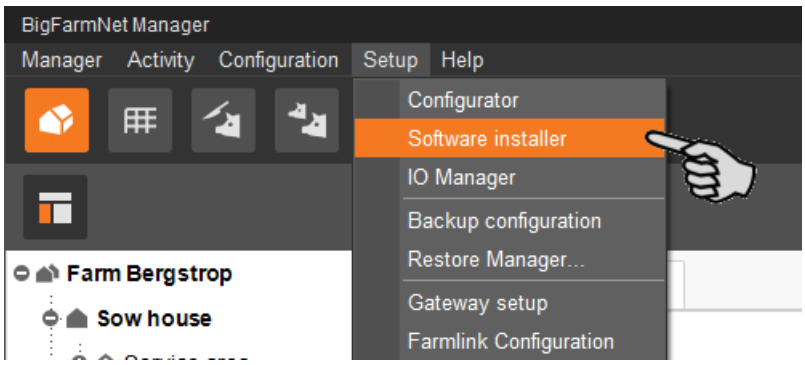
If the "ping" command fails and the climate computer does not reply, contact the customer's IT administrator.

2.2 Adding a climate computer

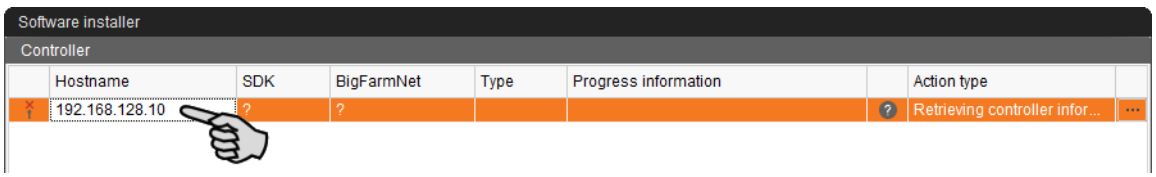
	Before adding the climate computer to your farm structure in BigFarmNet Manager for the first time, reset the data on the climate computer. All old data (climate history) that had been controlled by foreign computer systems must be reset to protect your current data in BigFarmNet Manager. Resetting the data causes an alarm! Inform the customer or the farm workers of this alarm in advance.

Carry out the following steps to reset the data on the climate computer:

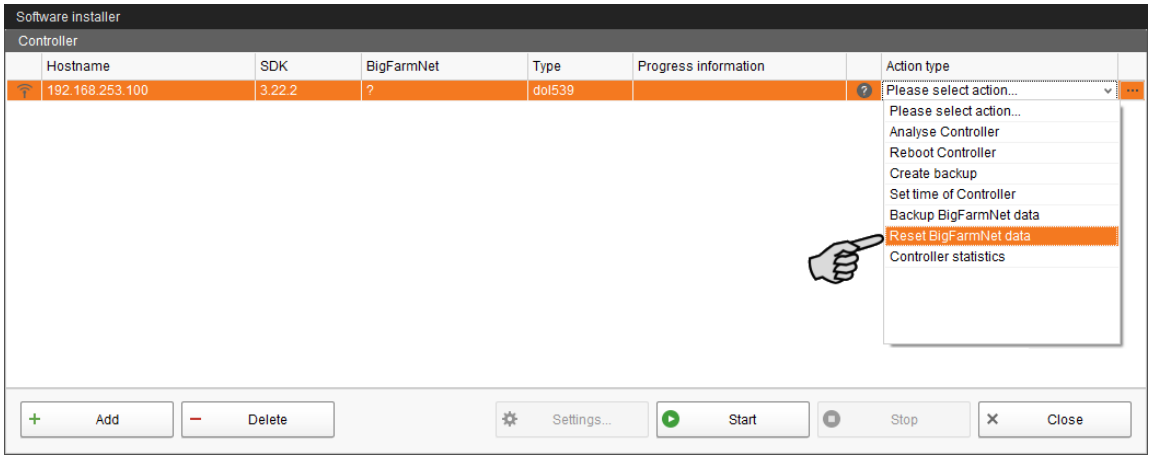
1. Click on "Software installer" in the "Setup" menu.



2. Enter the climate computer's IP address that was previously added to the network under "Hostname".



3. Click into the "Action type" input field and select "Reset BigFarmNet data".



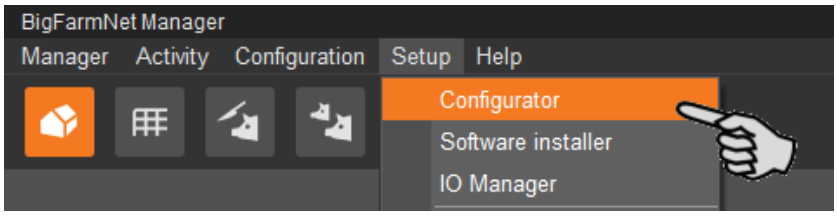
4. Click on "Start" in the lower command bar.

   This causes an alarm. The alarm is for informational purposes only and can be acknowledged without any further action, see chapter 4.2 ”Acknowledging an alarm”, page 58.

After resetting the climate computer, add the climate computer to your farm structure by carrying out the following steps:

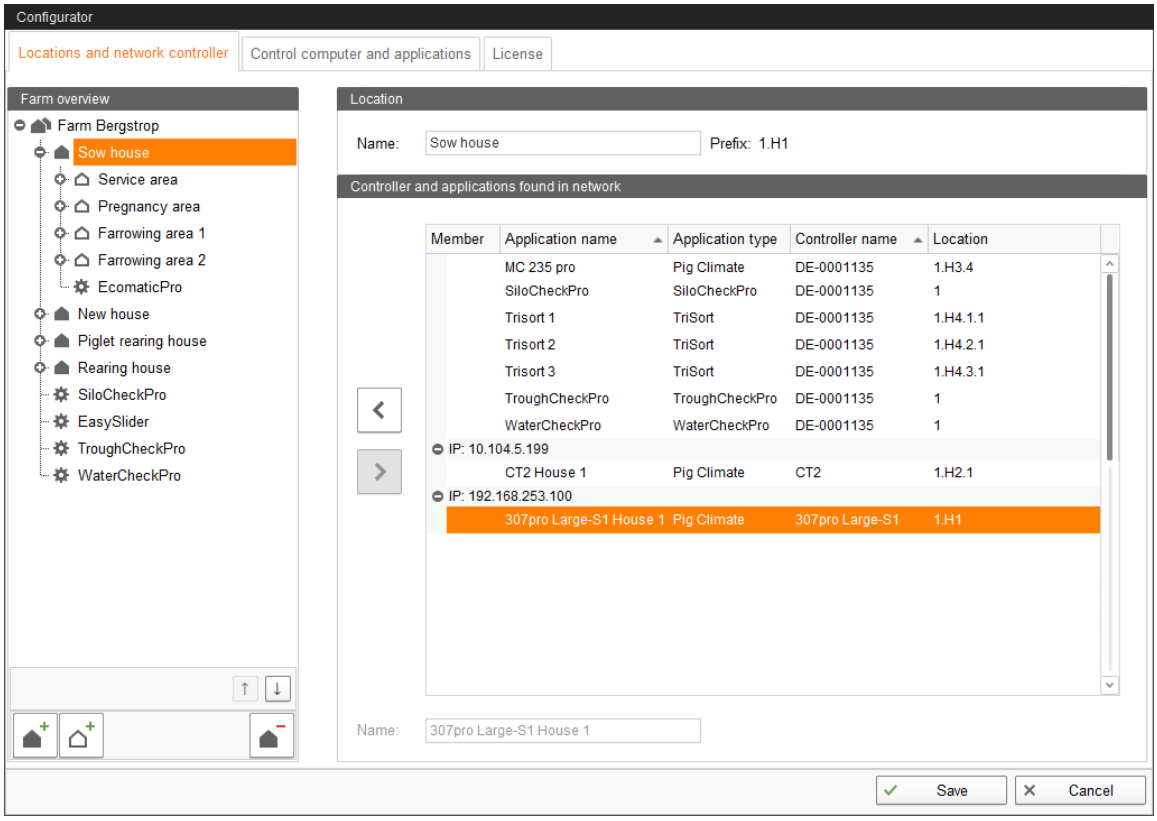
1. Click on "Configurator" in the "Setup" menu.

   This opens the "'Configurator" window.

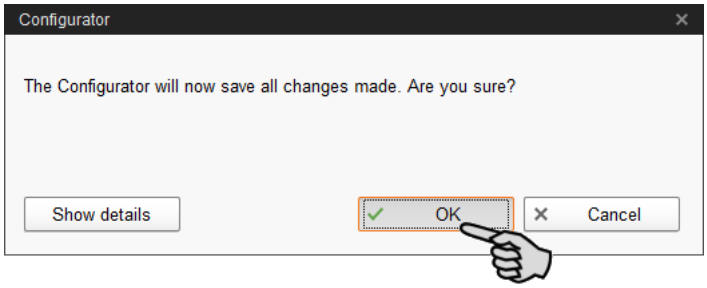


   The first tab is "Locations and network controller". The farm structure you created is displayed in the left-hand part of the dialog window. The climate computers that are part of the network are displayed under "Controller and applications found in network".

	Consult the "BigFarmNet Manager – Installation/Configuration" manual" for information on how to create the farm structure. If you also use BigFarmNet Manager to control Big Dutchman feeding systems, please check the notes regarding creation of the farm structure in the system-specific BigFarmNet manuals.



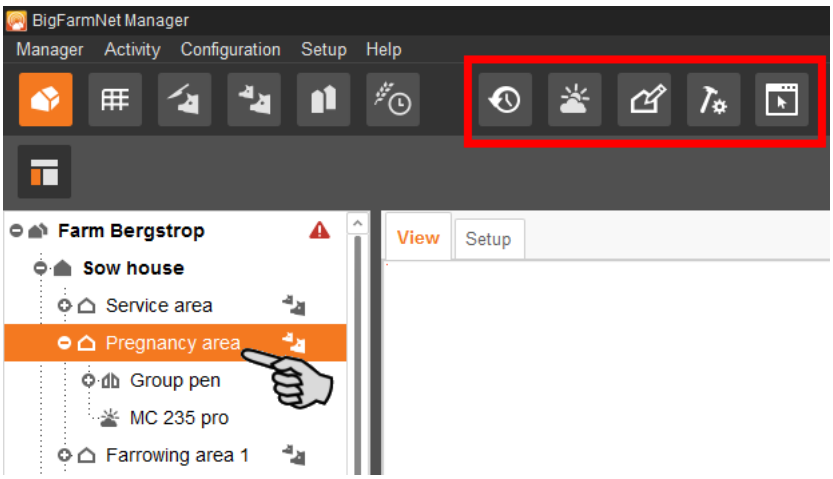
2. Click on the correct location (section) of the climate computer in the farm structure.
3. Click on the climate computer in the area "Controller and applications found in network".
4. Click on to add the climate computer to the farm structure.
5. Add all your climate computers using this procedure.
6. Click on "Save" in the bottom command bar of the "Configurator" window after having configured all settings.
7. Confirm these settings by clicking on "OK".



8. Confirm these settings again by clicking on "OK" in the next window.

3 Climate management

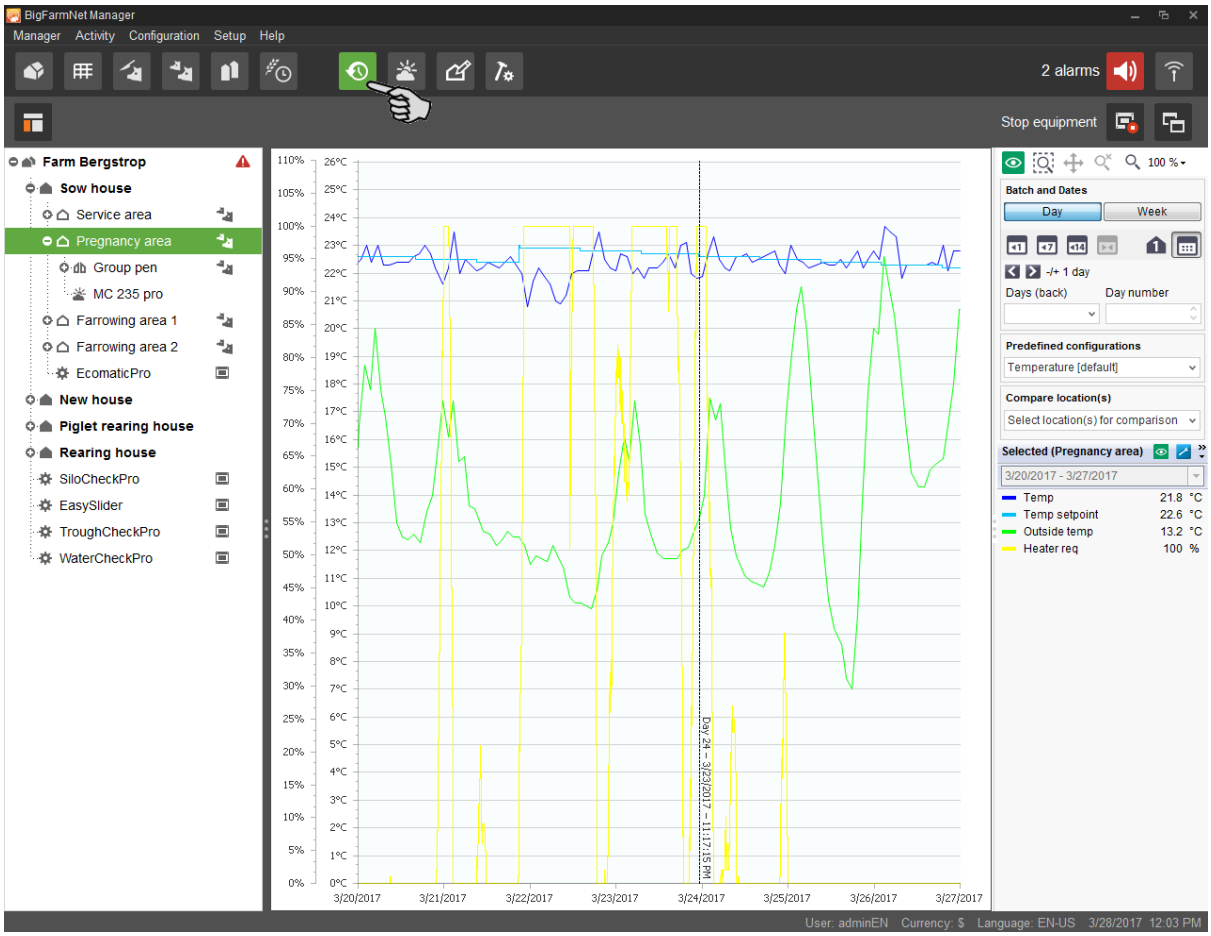
As soon as a climate computer has been added to a section, see chapter 2.2 ”Adding a climate computer”, page 9, the management area shows the corresponding icons for the climate management function. The icons appear when you click on a section with climate computer in the farm structure.



	Climate history	View of historical climate data in curves
	Climate view	Graphic overview of current climate data and setting of parameters for climate control
	Batch manager	View and management of activities in connection with climate control, like moving pigs in or out and house cleaning
	Remote control	Adjustment of climate programs which regulate parameters like ventilation, heating, temperature, humidity and pressure control over a fixed period of time
	Service Access	Mirroring of the climate computer display, including control in BigFarmNet Manager

3.1 Climate history

The climate history shows the past climate data in a curve diagram. The climate history is a view only, i.e. it is not possible to configure any climate settings.



The diagram shows the location's climate data for a specific time period. Select the location or the climate computer by clicking into the farm structure on the left. You may select the parameters to be displayed, so-called key values, yourself, see chapter 3.1.1 ”Selecting key values”, page 15.

There are also multiple filter options available. Use these options to view climate data in different time periods or to compare locations with each other. BigFarmNet Manager saves climate data for up to five years.

Settings for data viewing, for the key values and for the time periods as well as further filter options can be found in the column to the right of the application window.

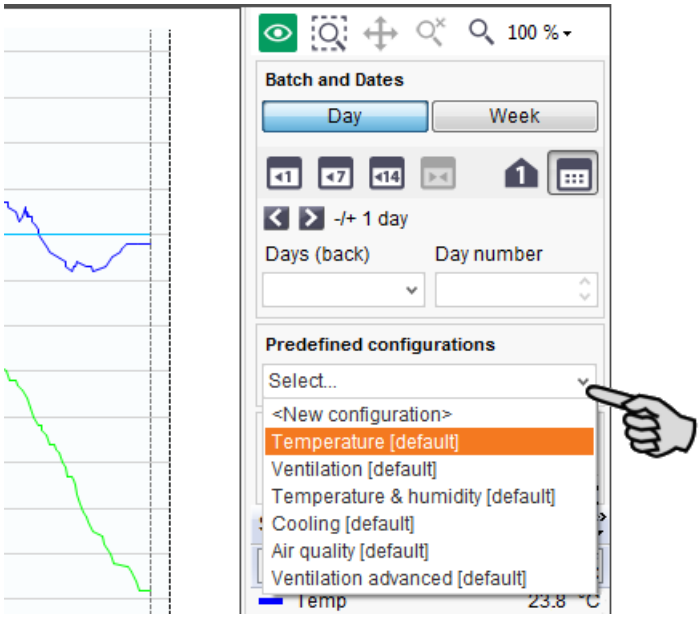
3.1.1 Selecting key values

Among others, the following parameters are defined as key values: temperature, outside temperature, humidity, heating requirements, CO_2, etc. The curve diagram shows the selected key values.

"Predefined configurations" to the right of the application window shows key values that have already been combined under a predefined topic. You may change these predefined configurations as required by adding or removing key values. You may also create a new combination of key values for a new topic.

Proceed as follows:

1. Select the location or the climate computer in the farm structure on the left.
2. Open the drop-down menu under "Predefined configurations" in the window on the right by clicking on the arrow pointing down.

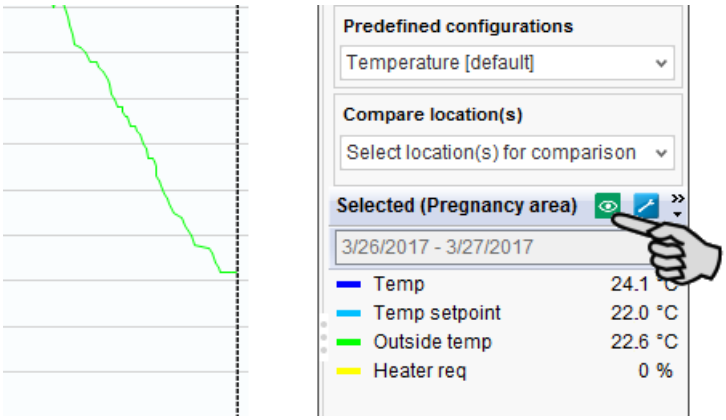


3. Select a pre-defined configuration.

   OR:

   Click on "New configuration" and combine key values under a new topic.

4. Click on the button "Select key values" in the right-hand part of the window next to the selected location.

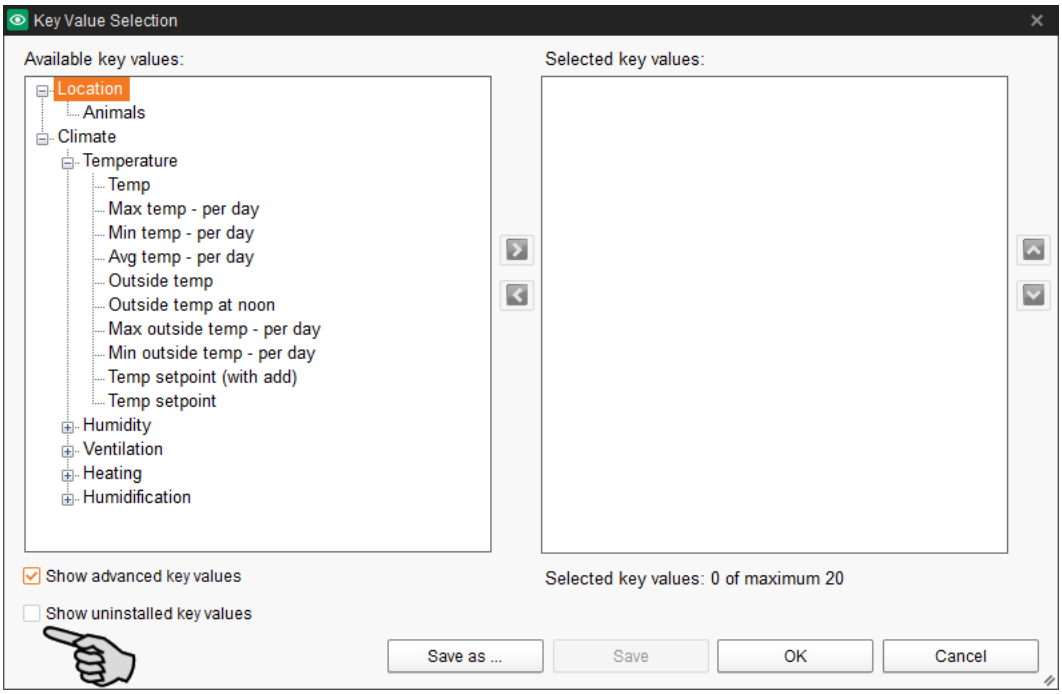


5. In the next window, click on all plus icons on the left under "Available key values".

   This opens all basic key values.

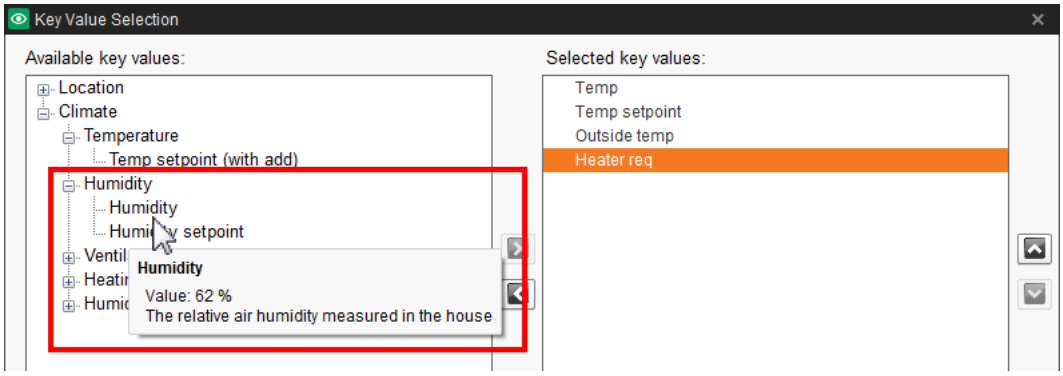
   If you check the box "Show advanced key values", additional key values are displayed.

   If you check the box "Show uninstalled key values", key values that were not installed in the climate computer are displayed. Key values that were not installed are grayed out.



6. Select the key values to be displayed in the curve diagram:

   If you move the mouse pointer over a key value, a tooltip shows the set value and an explanation.



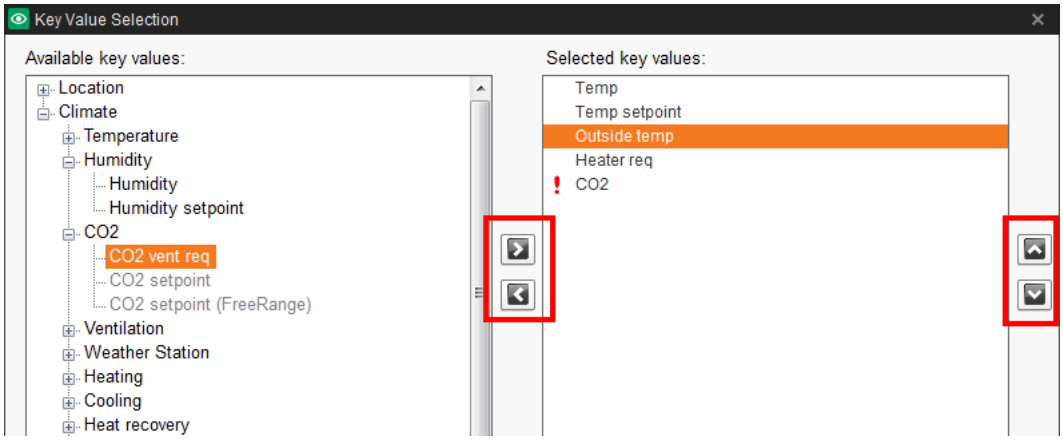
   a) Click on the desired key value.

   b) Click on the arrow pointing to the right in the middle of the window.

      The selected key value is transferred to the "Selected key values" field on the right. If you select an uninstalled key value, this key value is marked by a red exclamation point.

   c) Define the order of the key values using the arrows pointing up and down, if necessary.

   d) Remove a selected key value by first clicking on the value and then on the arrow pointing to the left in the middle of the window, if necessary.



7. Save the selection as follows:

   – If you want to save the selected values as new configuration, click on "Save as...".

   – If you want to save the selection for the already existing configuration, click on "Save".

     The existing configuration is changed.

– If you only want to save the selection temporarily for the configuration, click on "OK".

  As soon as you change the configuration, a dialog box appears. This box reminds you of the changed configuration. Decide whether you want to save the change. If you do, decide how you want to save it.

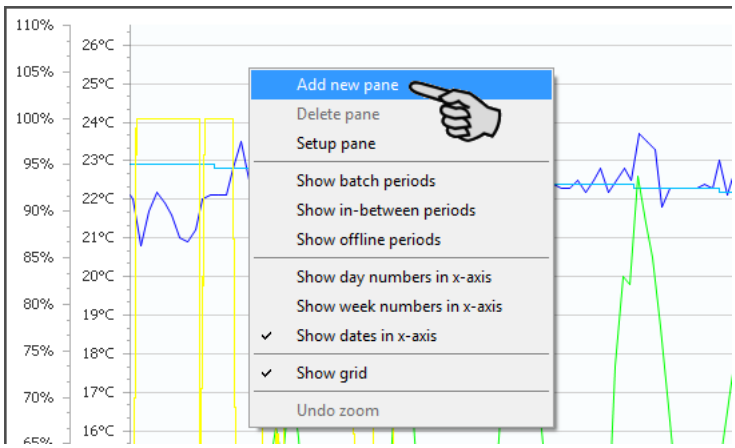
After saving, the corresponding curves for each key value are displayed in the diagram. The key values are also shown to the right of the application window for the selected location.

3.1.2 Distributing curves over multiple diagrams

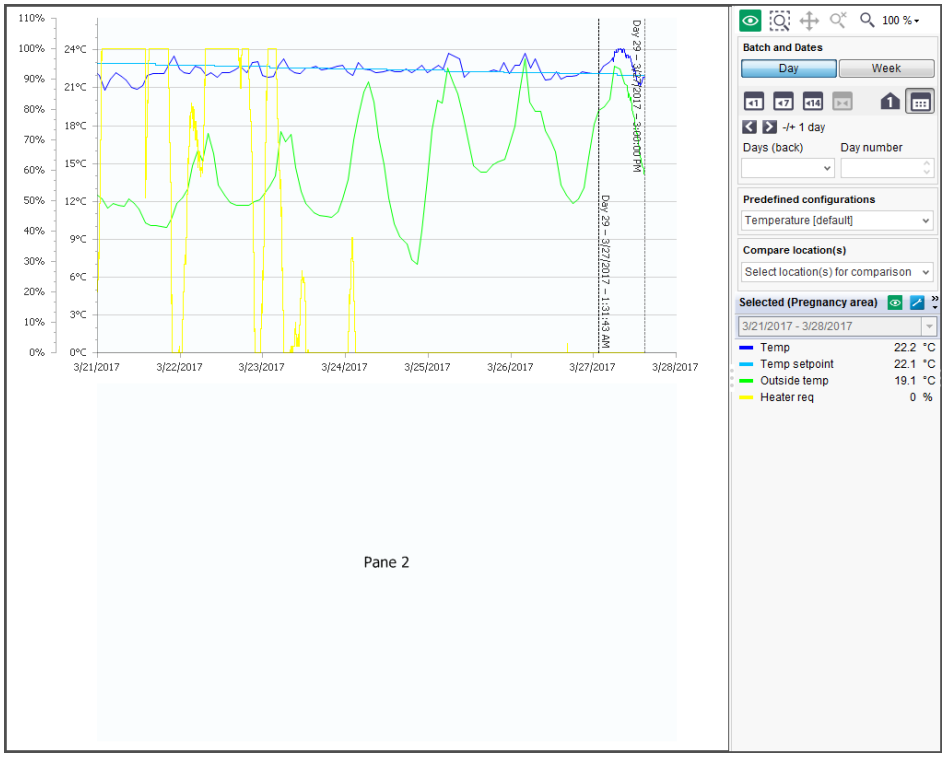
If you select key values, the corresponding curves are displayed in a diagram. You may distribute these curves over multiple diagrams (panes).

The following instructions describe how to create a new pane for a diagram and how to move e.g. the key values "Temp" and "Temp setpoint" into this pane.

1. Right-click into the background of a curve diagram.
2. Click on "Add new pane" in the context menu.

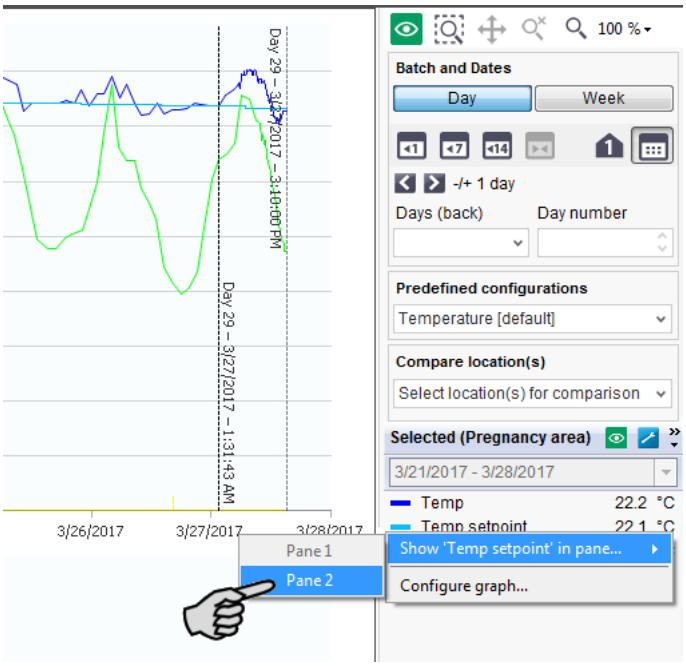


This adds an empty pane to the application window. You may add multiple panes.



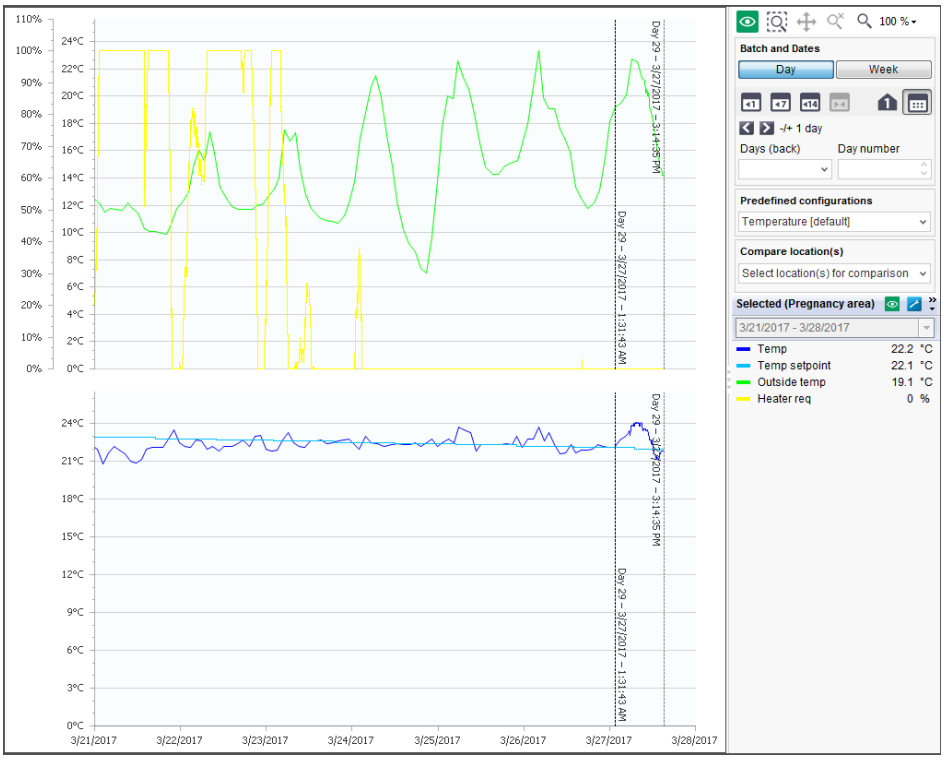
3. Right-click on the key value you want to display in the new pane.

4. Select the correct pane in the context menu (in this example) under "Show 'Temp setpoint' in pane...".



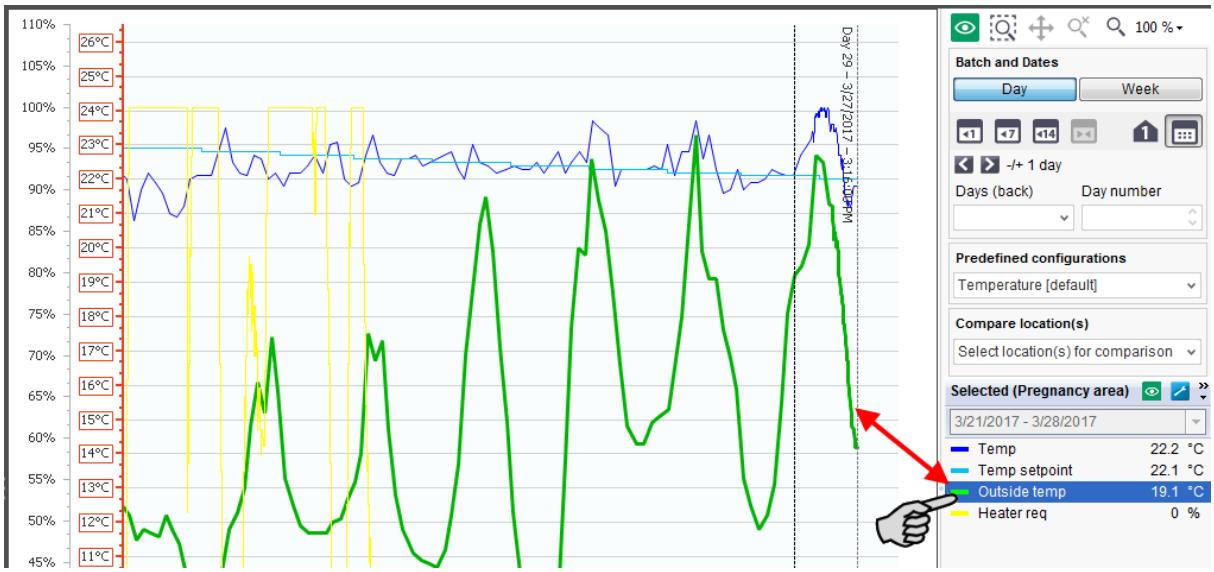
5. Move further key values into the desired pane.

   The curves are now shown in the new pane. In the example, the key values "Temp" and "Temp setpoint" were moved into a new pane.



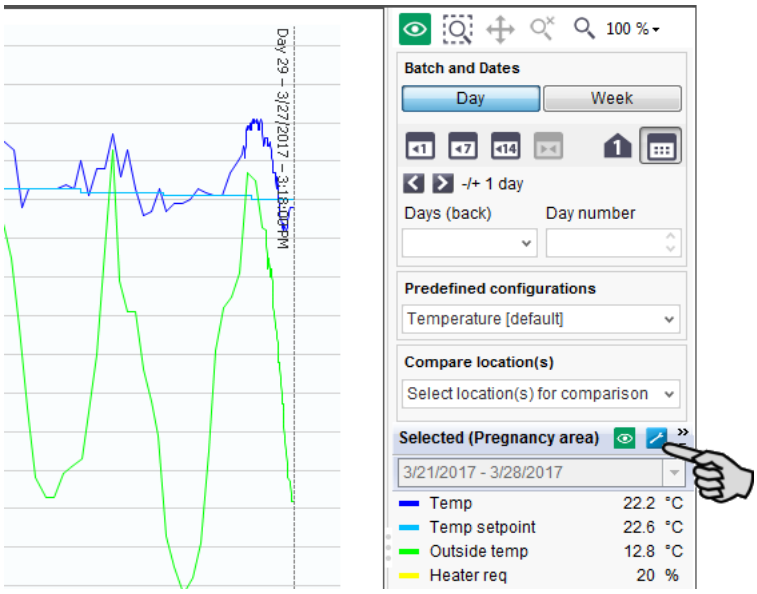
3.1.3 Highlighting a curve

Click on a key value to select it and to highlight the corresponding curve in bold. You may also click directly on the curve to read the corresponding key value. Only one key value can be selected at a time, with the corresponding curve highlighted.

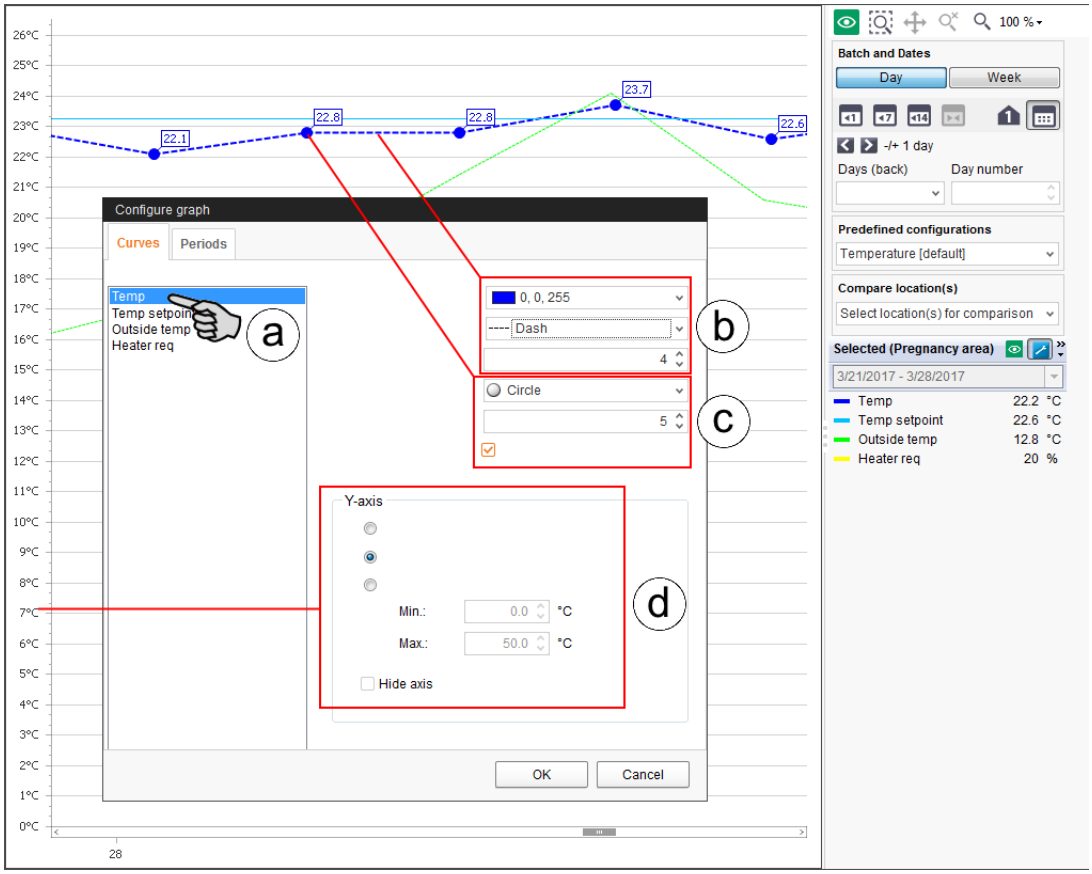


3.1.4 Configuring the curve diagram

1. Click on the button "Configure graph" in the area with the key values.



2. Configure the following settings for the curve diagram, as required:



a) Select the correct key value of the curve you want to configure.

b) Curve line: Define color, type and thickness.

c) Values: Highlight specific values by defining a symbol and the thickness.

Show individual values, if necessary, by checking the box.

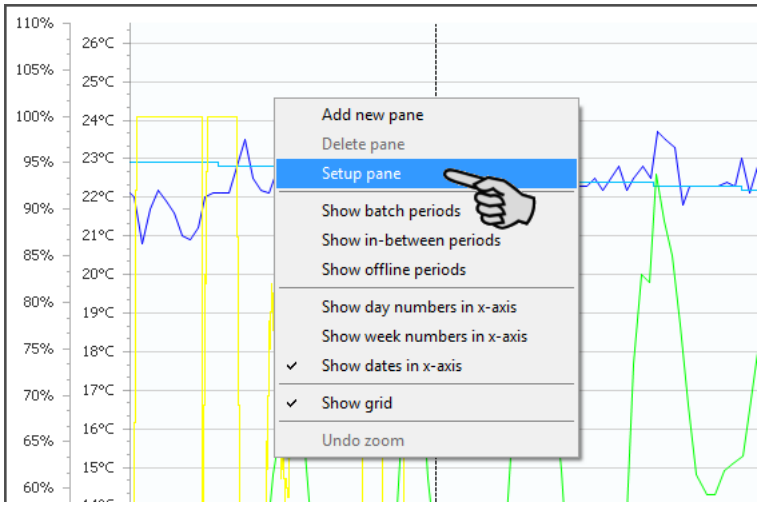
d) Y-axis: Hide the Y-Axis by checking the box "Hide axis".

All changes immediately affect the curve.

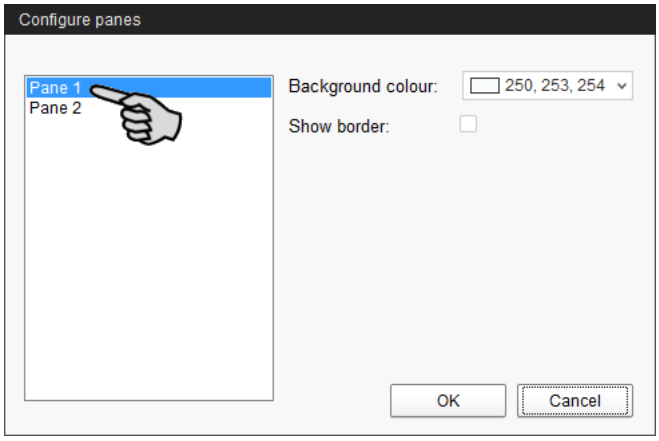
3. Click on "OK" to accept these settings.

Changing the background color

1. Right-click into the background of a curve diagram.
2. Click on "Setup pane" in the context menu.



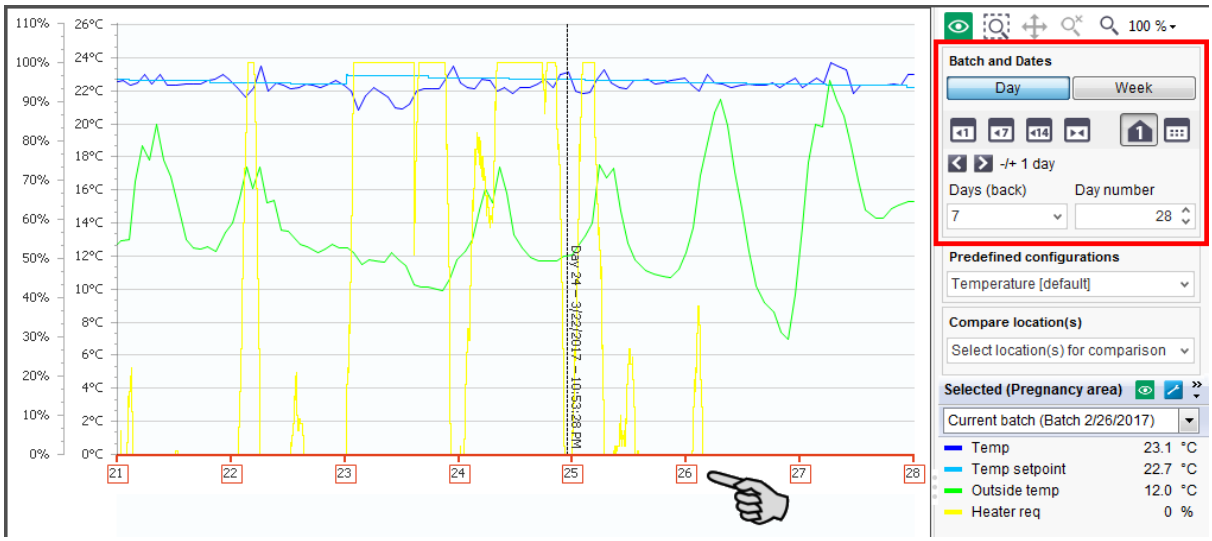
3. Select the pane of the diagram you want to adjust.



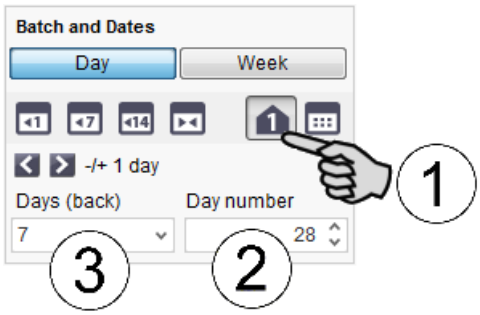
4. Click into the input field next to "Background colour" and select a color.
5. Check the box "Show border" if you want to frame the diagram view on all sides.
6. Click on "OK" to accept these settings.

3.1.5 Selecting a time period

The X-axis of the curve diagram shows the time period of the previous climate data. This time period can be selected freely. Configure the following settings under "Batch and Dates" on the right next to the application window:



- Day Week show days or weeks on the X-axis
- show the past hours since midnight
- show the past 7 days
- show the past 14 days
- show the entire current batch
- move the shown time period back or forth by one day
- Selecting a time period for a batch:



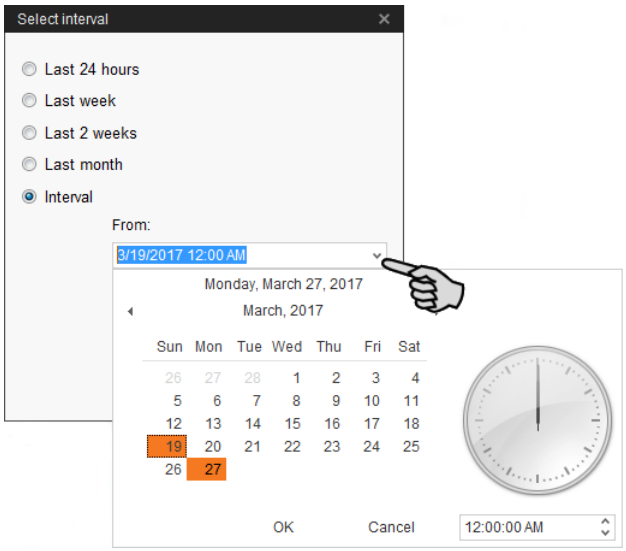
(1) Click on the "Batches" button.

(2) Enter the day number starting from which the time period will be backdated.

(3) Enter the number of days (back) to be shown.

- Selecting an interval

  Click on this button to open a dialog window in which you can select a time period. Enter the desired time period under the option "Interval". Either use your keyboard to enter the values or click on the arrow pointing downwards to open the calendar.

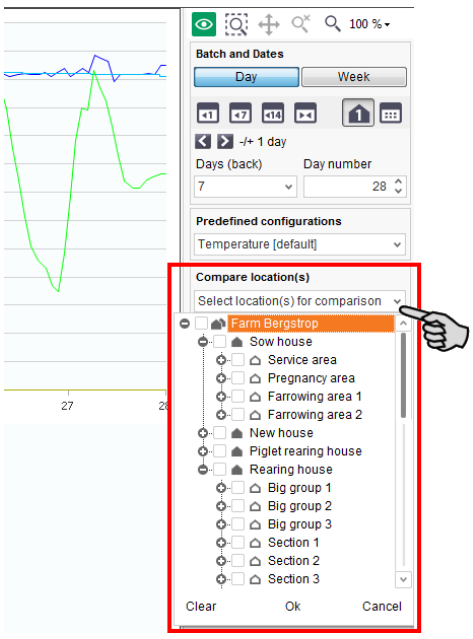


3.1.6 Comparing locations

You may compare the climate data of multiple locations.

1. Select the first location in the farm structure on the left.
2. Click on the arrow pointing downwards on the right next to the application window under "Compare location(s)".

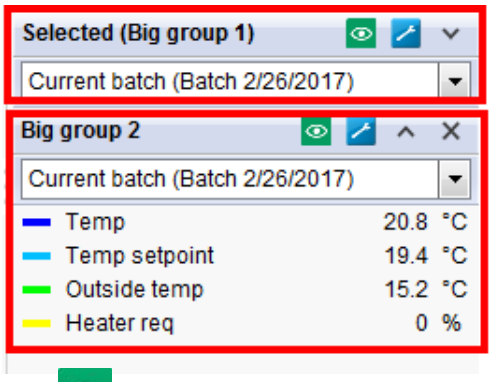
   This opens the farm structure.



3. Check the boxes of the climate computers you want to compare with each other.
4. Click on "OK".

   This opens the window "Key Value Selection".
5. Select the key values whose data you want to compare, see chapter ”Selecting key values”, page 15.

The climate data of both locations are loaded and displayed in a curve diagram. The locations with the corresponding key values are displayed in the column to the right of the application window. The following functions are available for each location to change the display of the curve diagram or the view:



- Selecting/changing key values, see chapter 3.1.1 ”Selecting key values”, page 15
- Configuring the diagram: color, line type, hide/show the Y-axis, etc., see chapter 3.1.4 ”Configuring the curve diagram”, page 21
- Hiding the list of key values
- Showing the list of key values
- Removing the location including key values and curves – This function is not available for the first location that was selected from the farm structure on the left.
- Distributing the curves over multiple diagrams, if required, see chapter 3.1.2 ”Distributing curves over multiple diagrams”, page 19.

3.1.7 Adjusting views

The size of the diagram view is set to 100 % by default. You may change the curve diagram view in the application window or the X-axis or hide and show the grid in the curve diagram as desired.

- Zoom into an area of the curve diagram as follows:

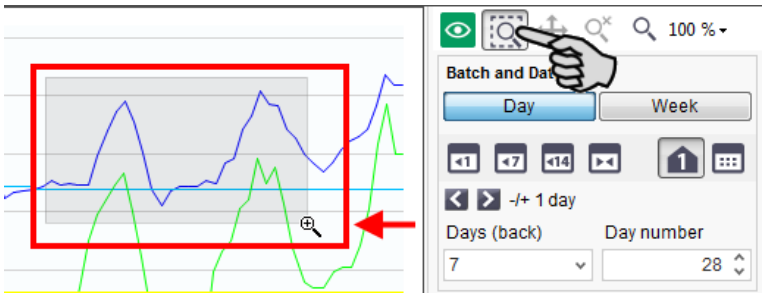
  a) Click on the "Zoom" button 100 % in the upper right corner of the window and select the desired size from the drop-down menu.

  The view is zoomed in accordingly.

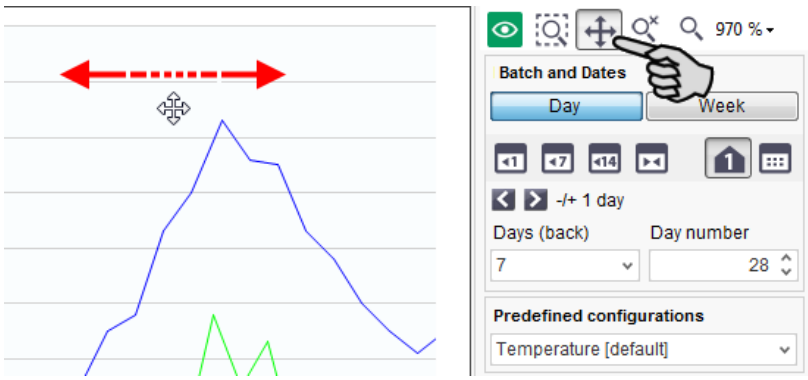
  OR:

  a) Click on the button "Marquee zoom" in the upper right corner of the window and hold the left mouse button to draw a rectangle around the desired area in the diagram.

  The marked area is enlarged and the zooming factor is indicated accordingly.

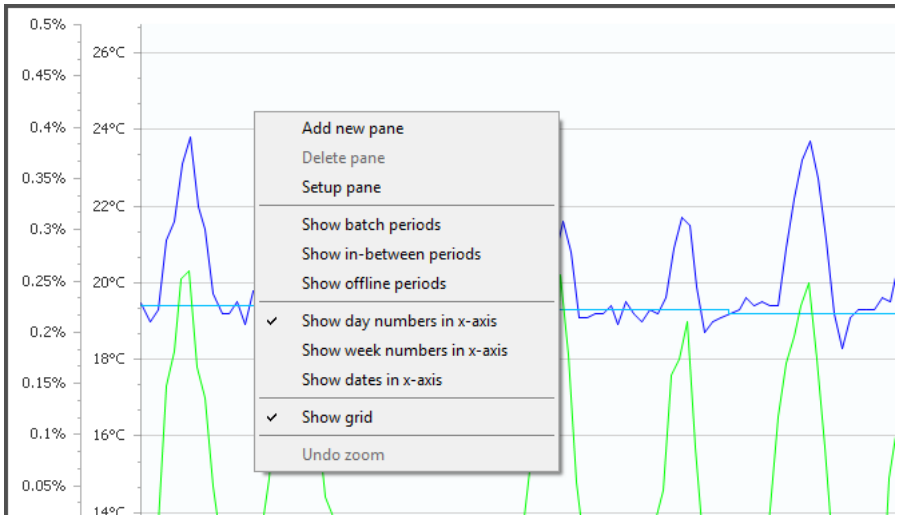


  b) Click on the button "Pan" and move the curve diagram view by holding the left mouse button.



  c) Return the enlarged view back to 100 % by clicking on in the upper right corner.

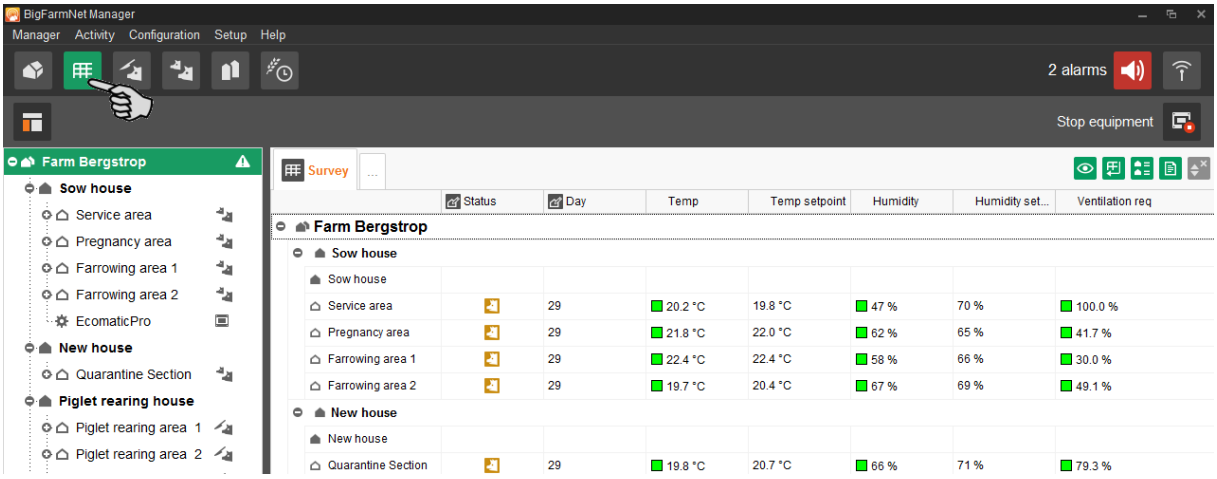
- Right-click into the application window to open the context menu and use other options, for example:
  - Settings window, see "Changing the background colour" in chapter 3.1.4 ”Configuring the curve diagram”
  - Point in time on the X-axis as day number, week number or date
  - Show the grid



3.2 Survey

The survey displays all selected key values, providing a quick overview of the current climatic situation in the different sections. This requires a climate computer to be installed in the respective section.

Click on the button "Survey view" to open a table view of the climate data for the different sections in the application window. The head line shows the status, the day and the selected key values. The sections on the left are sorted according to the farm structure.



Different icons are used to indicate the current status of a location (section). The following icons are possible:

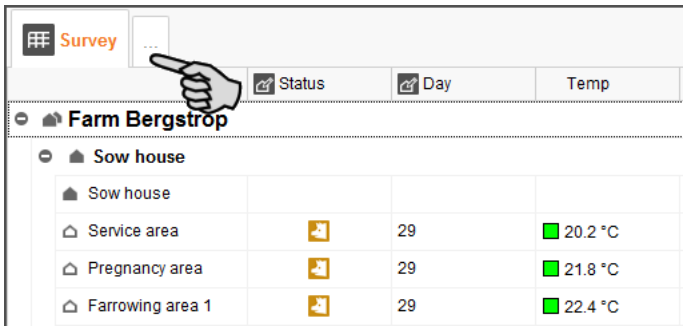
	Animals in the section	Location is active and controlled according to the current settings.
	Possibly other animals in the section	Connected, but no data synchronisation possible.
	Empty	Location is empty and controlled according to the setting "Empty house".
	Data retrieval	Connected. Data are being retrieved.
	In-between function - Soaking	Location is empty. The in-between function is carried out within a set time period.
	In-between function - Disinfecting	
	In-between function - Washing	
	In-between function - Drying	

The color next to the values indicates the current status of the control. For details on the color selection, see chapter ”Climate view”, page 32.

If it is not possible to retrieve a value for a location, e.g. because no sensor was installed, this is indicated by two dashes in the survey.

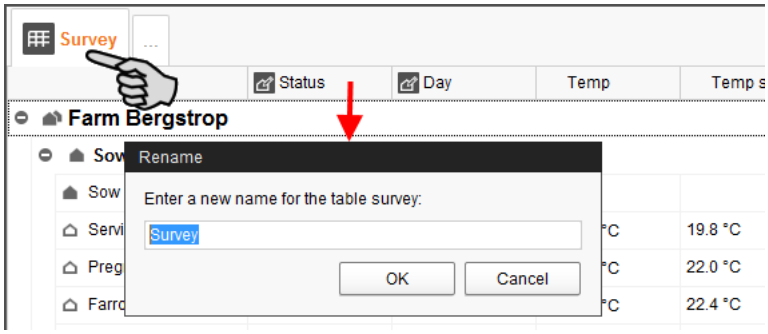
Adjusting views

You may create multiple table surveys by clicking on the empty tab with the three dots.



The following settings can be configured for each table survey:

- Entering a name:
  - Click on the tab of the table survey and enter a name for the table survey in the next window. Confirm by clicking on "OK".



- Adding or removing key values:
  - Click on the button "Select key values" in the upper right corner of the window.
  - Follow the instructions in chapter 3.1.1 ”Selecting key values”.
- Changing the order of the data:
  - Click on the button "Transpose the table survey" in the upper right corner of the window.

    This swaps the data in the lines with those in the columns.
- Sorting data:

  - Click on the head line of the respective key value to sort the data in ascending or descending order according to the given values. The same is possible in the columns "Status" and "Day".

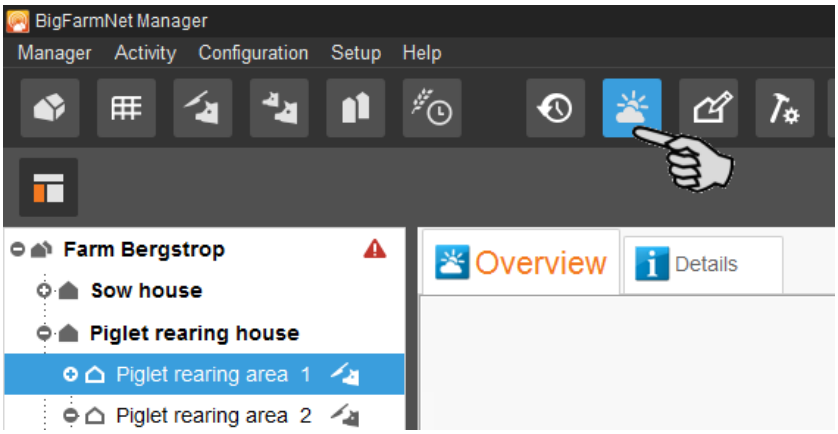
- Changing the grouping:
  - If you click on in the upper right corner, the sections are either assigned to the houses, based on the farm structure, or displayed as one continuous list.
- Printing the data:
  - Click on in the upper right corner to automatically create and print a report. No preview is shown for this print job.
- Clearing all sorting:
  - If you have sorted your data based on the parameters in the head line, click on in the upper right corner of the window to clear the sorting.

3.3 Climate view

The climate view depicts the current climate data as a graph. You may also set or adjust specific parameters of the climate control. The shown climate data only refer to the selected location or the climate computer you have selected from the farm structure on the left. The climate view consists of the tabs "Overview" and "Details".

Switch to the climate view by carrying out the following steps:

1. Select the desired section in the farm structure on the left.
2. Click on the "Climate view" icon.

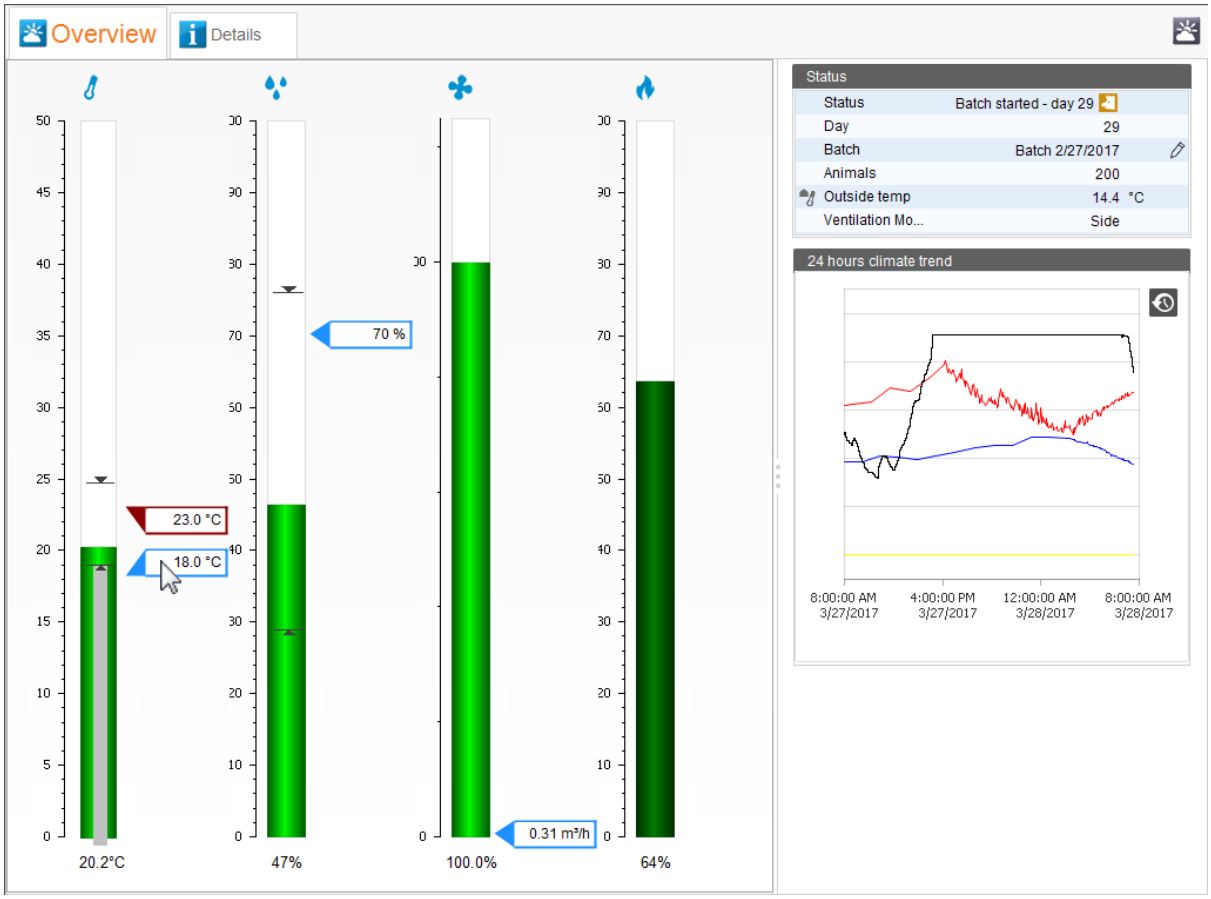


This opens the first tab "Overview" in the application window.

The current climate data are displayed in a bar chart. The main key values are:

- Inside temperature
- Humidity
- Ventilation / tunnel ventilation
- Heating
- CO_2 concentration

If one of the main key values is not installed in the climate computer, the respective bar chart does not appear.



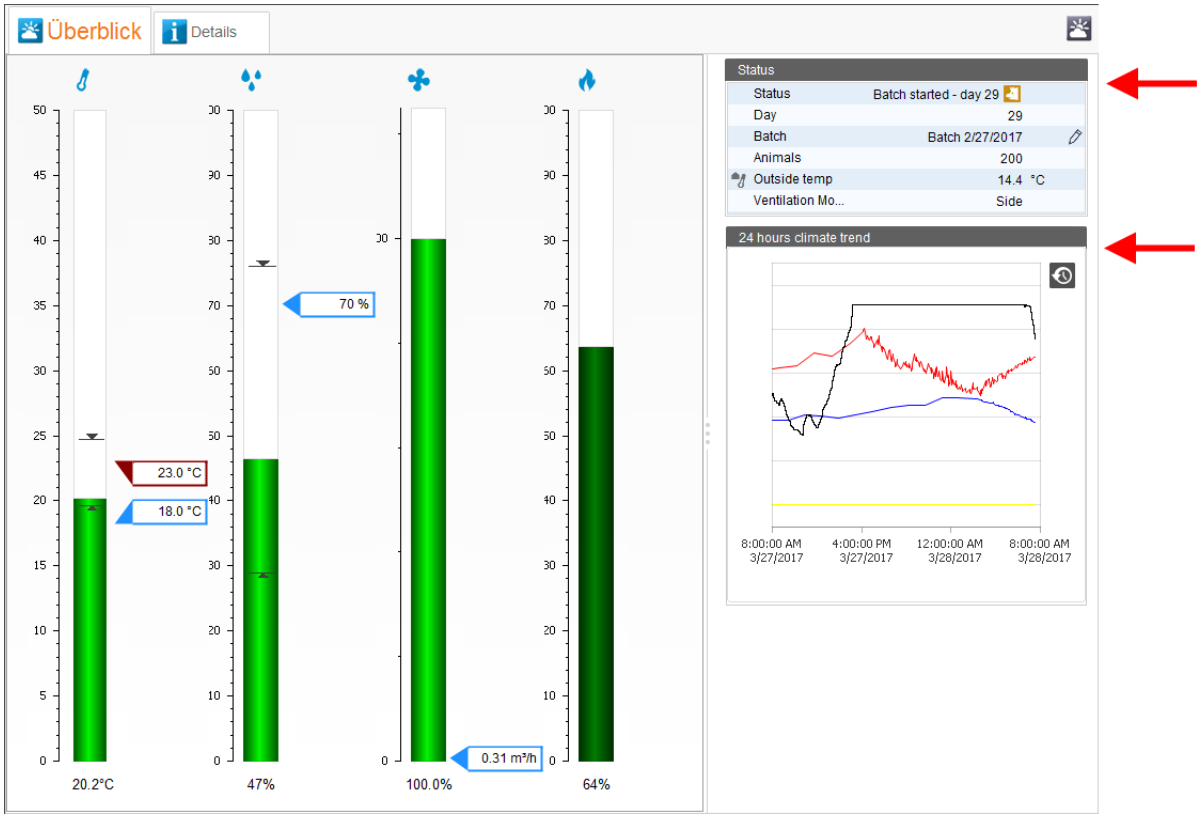
Each column provides the following information:

- The foot of the column shows the current value.
- Refer to the table below for the meaning of the different colors.
- The setpoints of the respective key value are displayed at the columns (blue border).
- The column for the inside temperature also has the temperature setpoint (red border) at which heating becomes active.
- Icon for the maximum value of the past 24 hours.
- Icon for the minimum value of the past 24 hours.
- If you move the mouse pointer over the temperature setpoint, another gray column is displayed inside the column. The gray column indicates the temperature sensor plus additions such as comfort temperature, etc.

	Move the mouse pointer over the columns, icons and values to open a tooltip with additional information.

	Inside temperature		
			Temperature too high. This causes an alarm.
			The set temperature has been increased by an addition for pig comfort due to a high ventilation level.
			The inside temperature is within the required range, i.e. between the temperature setpoint and the heating setpoint.
			Temperature too low.
			Temperature too low. This causes an alarm.
	Humidity		Humidity too high. This causes an alarm.
			The humidity is within the required range, i.e. between the humidity setpoint and the humidification setpoint.
			Humidity too low.
	Ventilation		Ventilation exceeds the calculated maximum requirement to ensure cooling via high air velocity.
	Tunnel ventilation		Ventilation is within the required range.
			Ventilation is at minimum.
	Heating	Given in percent. Colored columns only appear if heating is necessary.	
	CO_2 concentration		CO_2 concentration too high. This causes an alarm.
			The CO_2 concentration is within the required range.
			CO_2 concentration too low.

The right-hand part of the window shows the status of some selected parameters and the climate trend of the past 24 hours in a curve diagram. Click on to switch to the climate history automatically, see chapter 3.1 ”Climate history”, page 14.



3.3.1 Changing climate settings

You may change climate settings in both the tab "Overview" and the tab "Details". The values that can be adjusted depend on the installation and the functions of the climate computer you are using. Functions which are not available in the respective climate computer or which can only be adjusted directly at the computer are not displayed.

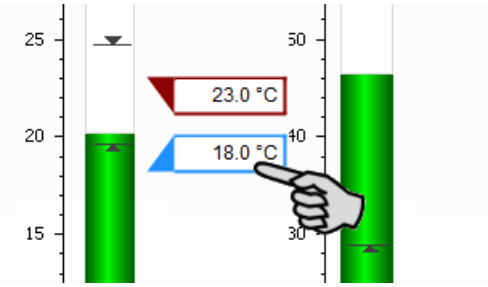
Please consult the documentation for your climate computers for detailed descriptions of their functions.

The following values can be adjusted:

Changing the setpoint in the bar chart

1. Click on the setpoint you want to change.

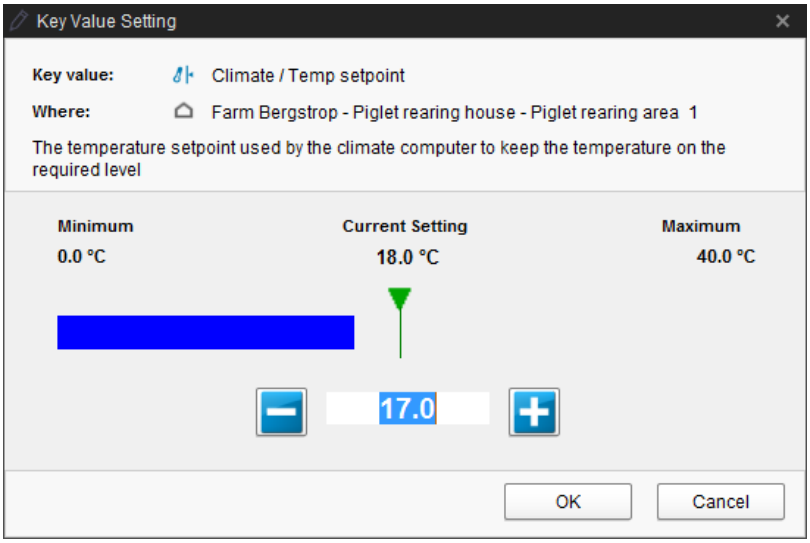
   This opens the dialog window "Key Value Setting".



2. Click directly into the input field and use your keyboard to enter the new value.

   OR:

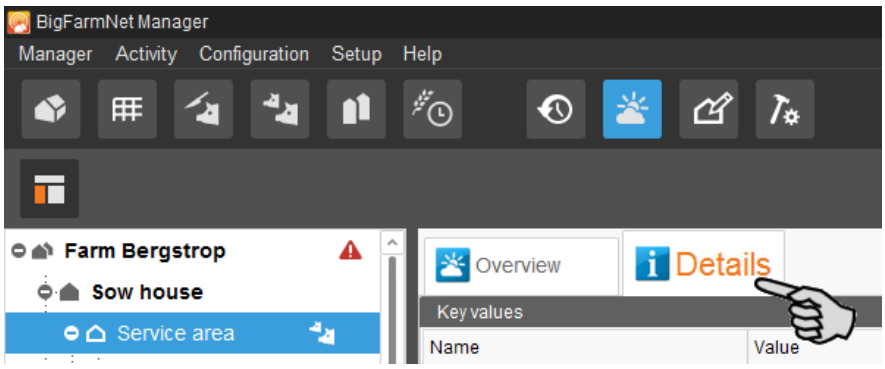
   Change the value by using the plus and minus buttons.



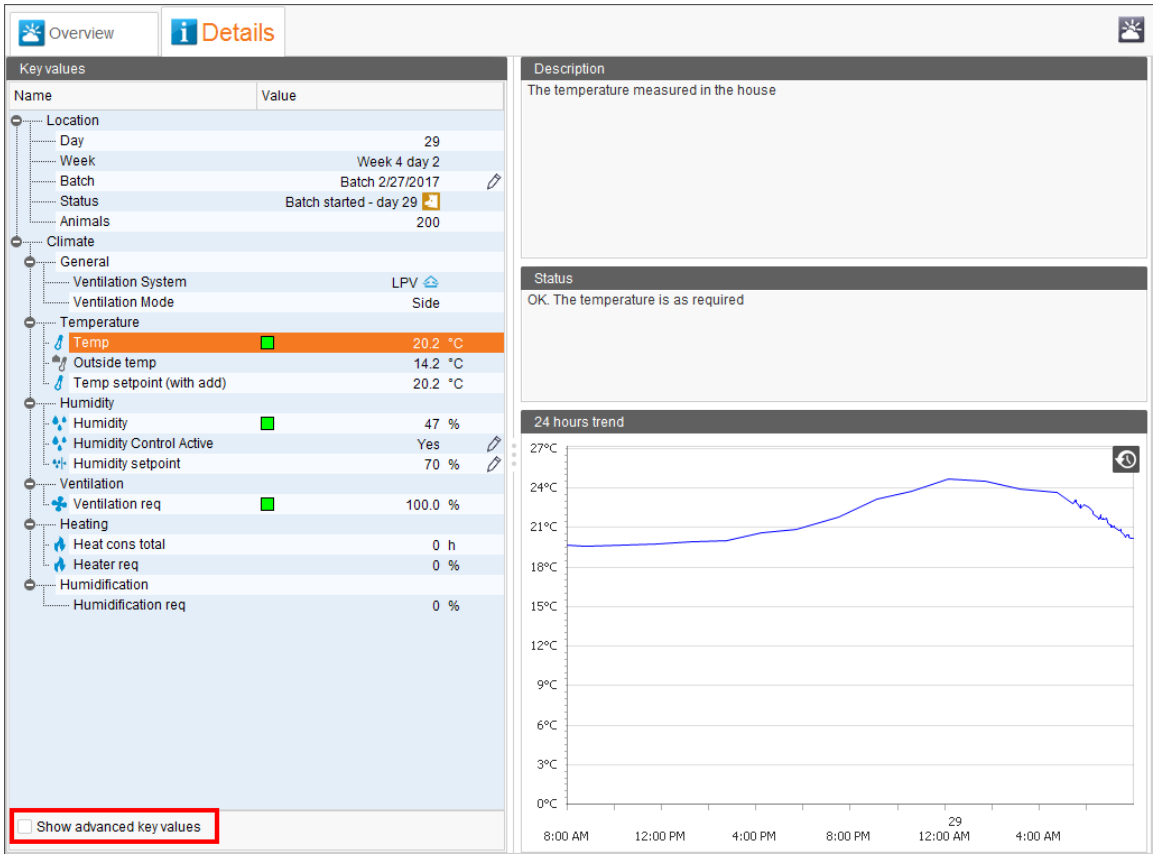
3. Click on "OK" to accept these settings.

Changing values in the "Details" tab

1. Click on the "Details" tab.



The application window shows the key values for the location and for climate.



a) Open the entire key value structure by clicking on the plus icons.

b) If necessary, click on "Show advanced key values" in the lower part of the window.

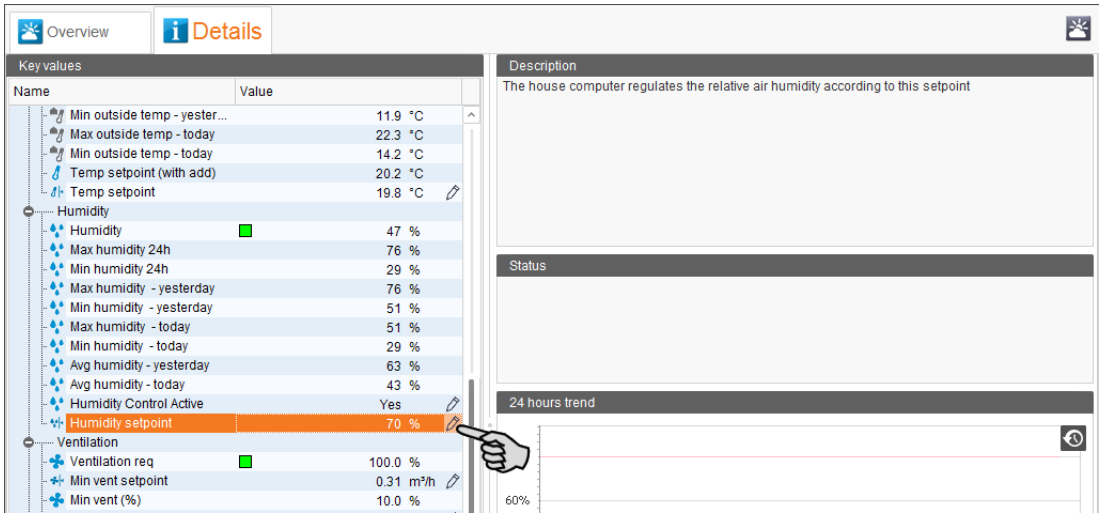
c) Click on a key value to see a description, the current status and the 24-hour trend of the respective key value in the windows on the right.

2. Adjust the key values, if necessary.

   Only key values marked by a pen icon can be adjusted.

   a) Click on the pen icon of the correct key value.

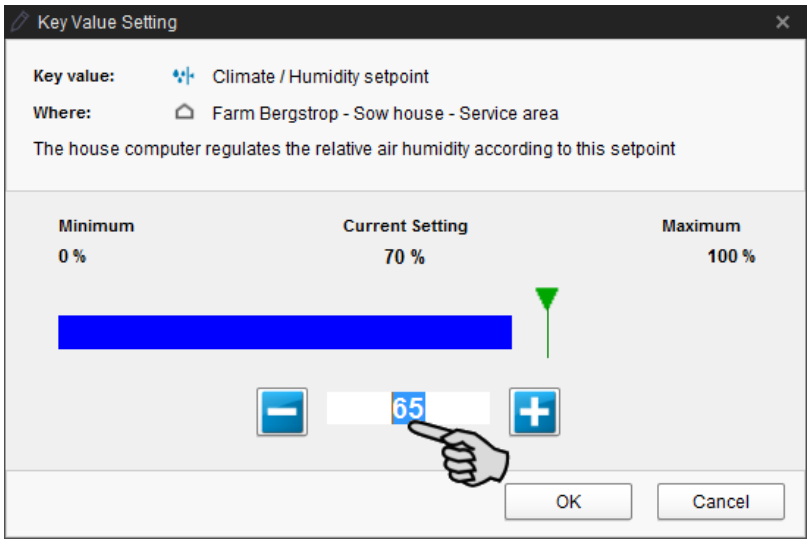
   This opens the dialog window "Key Value Setting".



   b) Click directly into the input field and use your keyboard to enter the new value.

   OR:

   Change the value by using the plus and minus buttons.



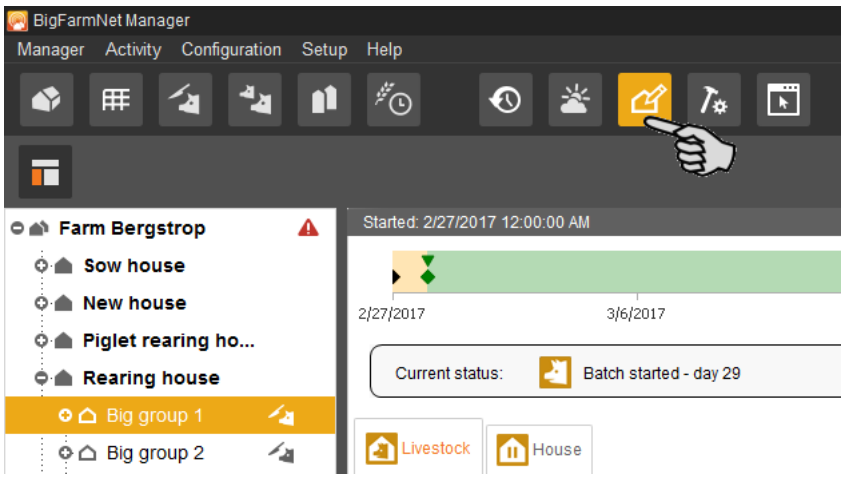
3. Click on "OK" to accept these settings.

3.4 Batch Manager

The Batch Manager provides information on the current and previous batches of the selected section. Additionally, a timeline indicates the current status and executed actions in the selected section. Use the Batch Manager to move animals in or out for a batch or to start in-between functions such as washing and disinfection when the location is empty.

Carry out the following steps to switch to the Batch Manager:

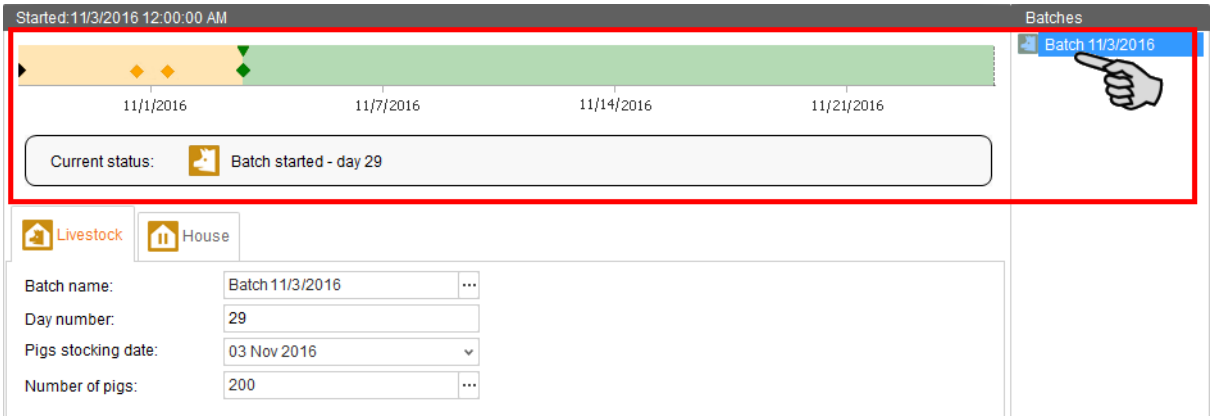
1. Select the desired section in the farm structure on the left.
2. Click on the "Batch Manager" icon.



3.4.1 Batch timeline

The upper part of the application window shows the timeline of the batch. Select the desired batch on the right, next to the timeline.

The current status of the section is displayed below the timeline. For the meaning of the icon, see chapter 3.2 ”Survey”, page 29



The timeline displays all actions, e.g. cleaning, drying, moving in and out, that have occurred over the course of one batch. These actions are depicted by different icons and colors:

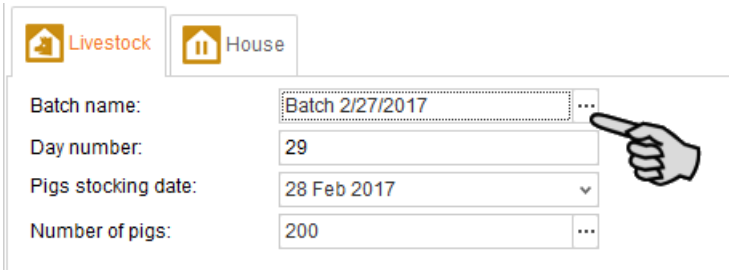
	The house is empty.
	Animals are moved in.
	Moving-in date
	Start of the batch
	Action such as cleaning or drying

If you move the mouse pointer over the timeline and the different icons, a tooltip with additional information opens.

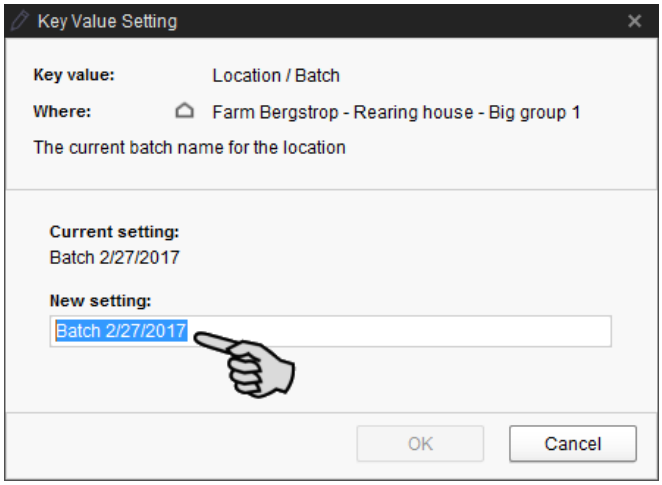
3.4.2 Moving in / batch

1. Click on the three dots next to the input field "Batch name" in the "Livestock" tab.

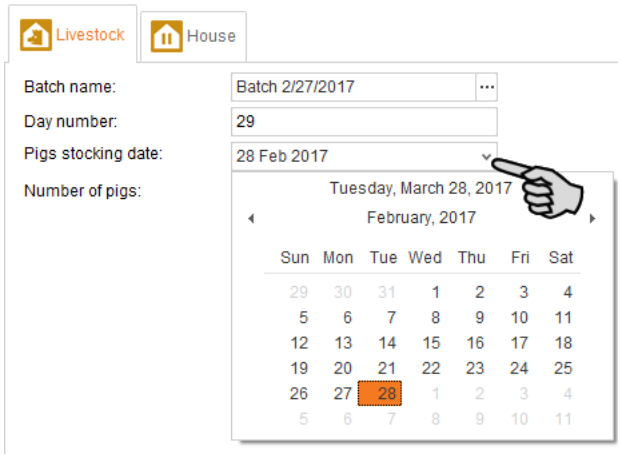
   This opens a new dialog window.



2. Enter the name for the new batch in the selected area below "New setting".

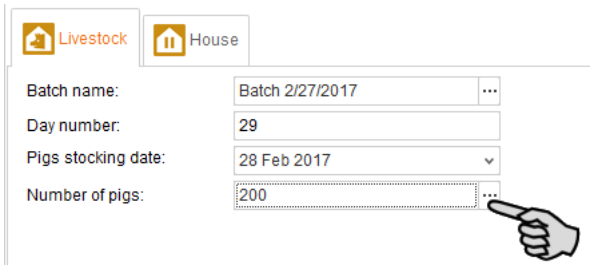


3. Accept these inputs by clicking on "OK".
4. Enter the day number.
5. Open the calendar by clicking on the arrow pointing downwards next to the input field "Pigs stocking date" and click on the correct moving-in date.

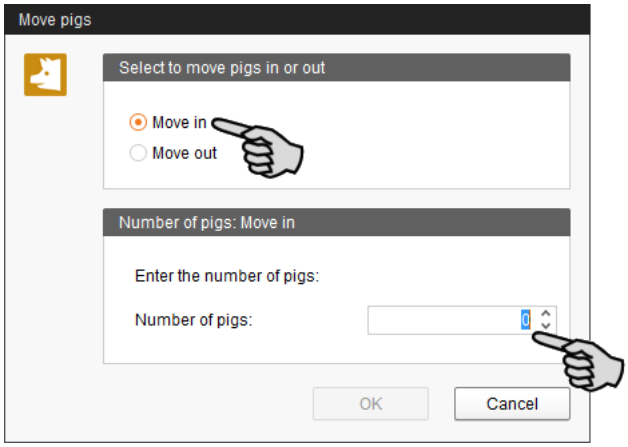


6. Click on the three dots next to the input field "Number of pigs".

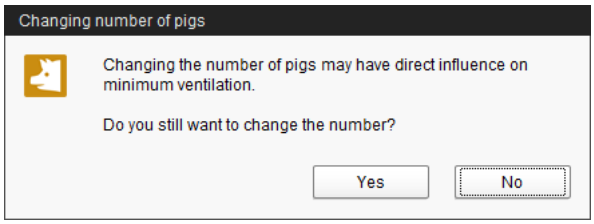
   This opens a new dialog window.



7. Select "Move in" and enter the correct number of pigs.



8. Accept these inputs by clicking on "OK".
9. Click on "Yes" in the next window to confirm all settings.

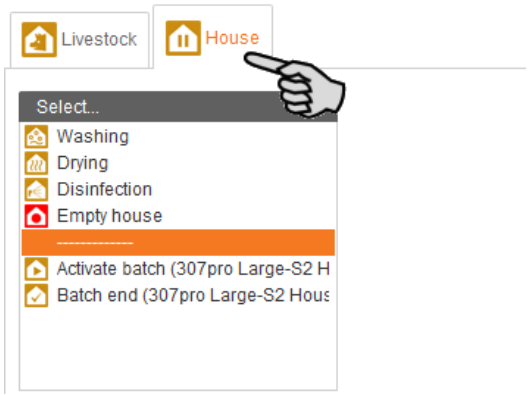


3.4.3 Starting in-between functions

While the location is empty between two batches, you may use the Batch Manager to start different in-between functions, i.e. cleaning tasks.

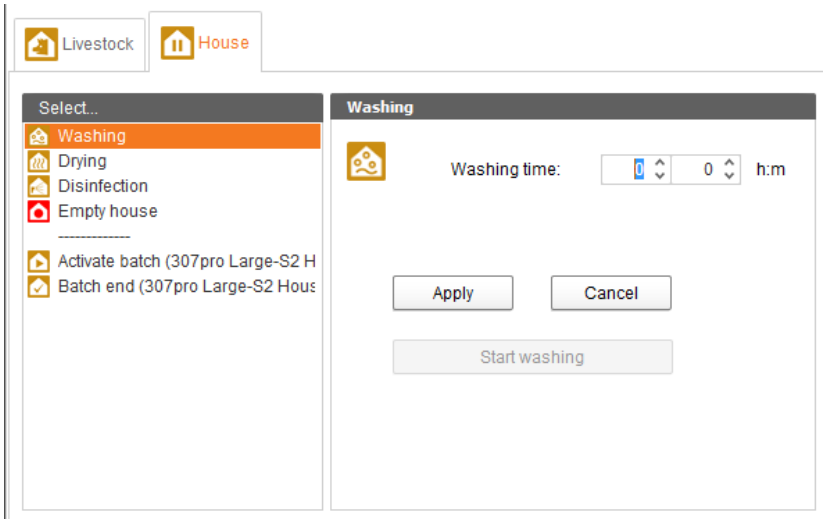
For the meaning of the icons, see chapter 3.2 ”Survey”, page 29.

1. Click on the "House" tab.

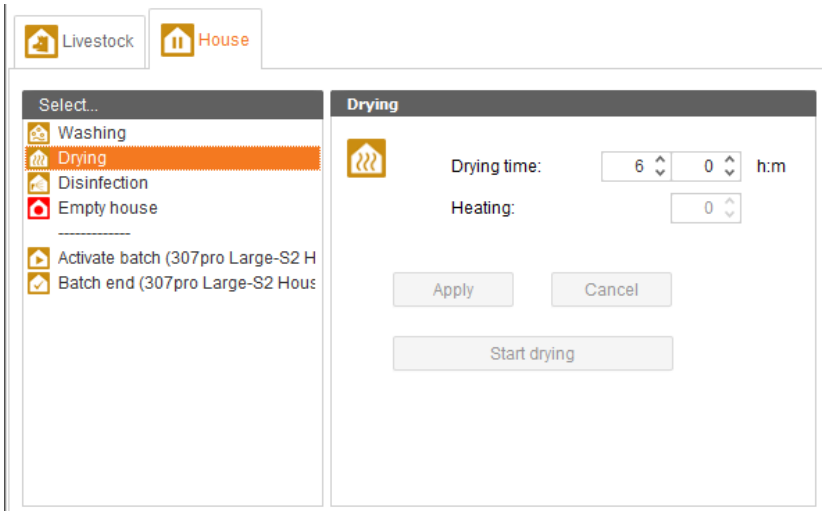


2. Double-click on one of the available in-between functions or actions to start it:

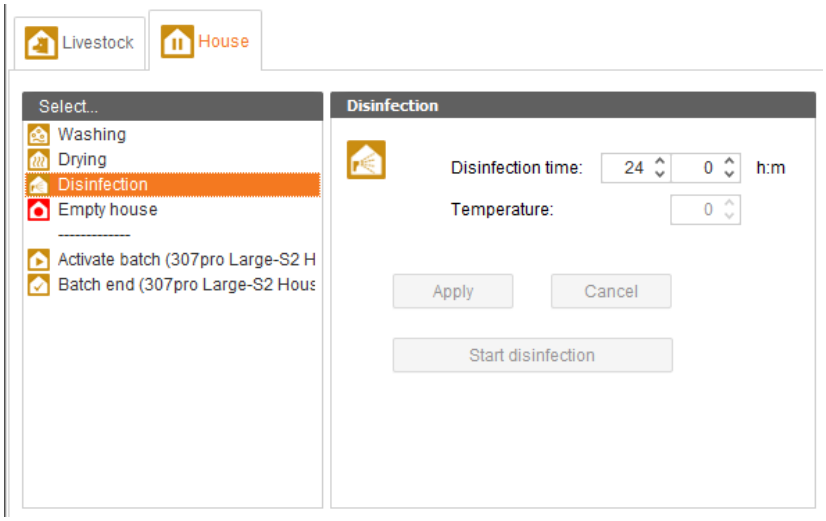
   – **Washing**



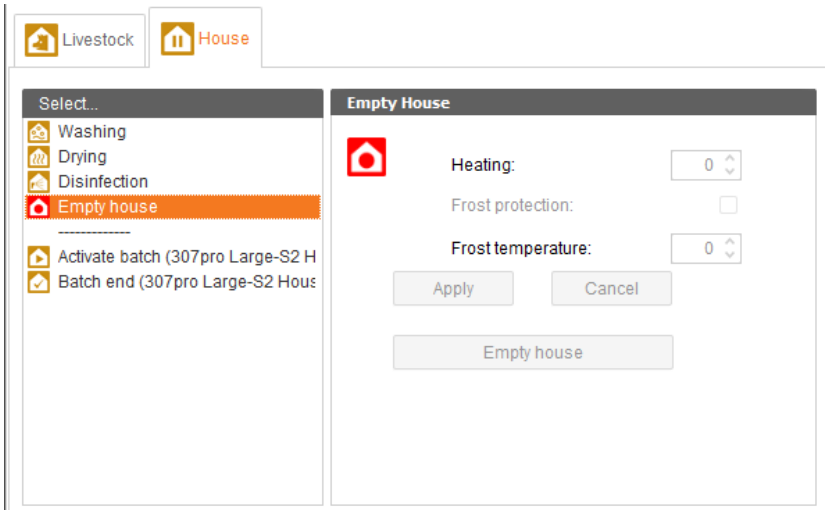
   – **Drying**



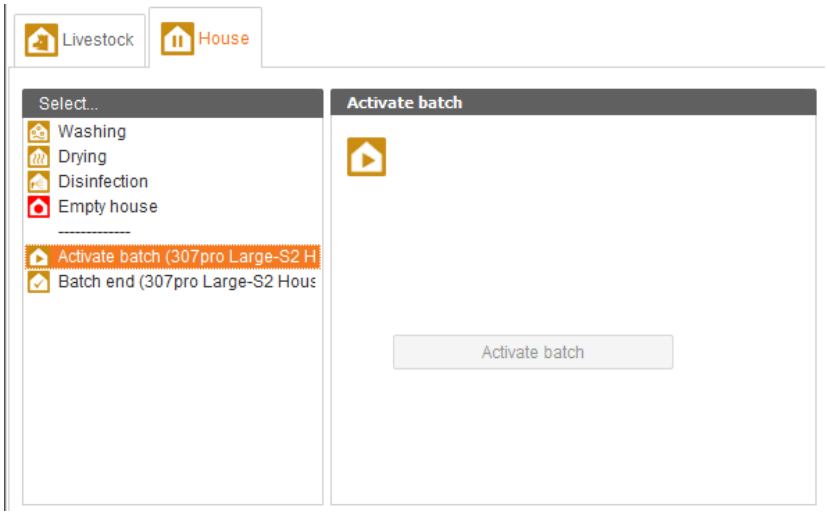
– **Disinfection**



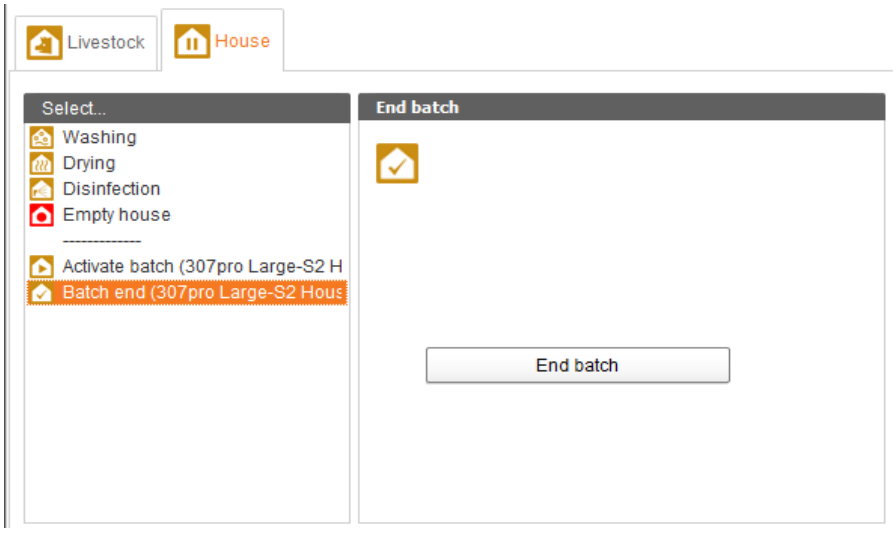
– **Empty house**



– **Activate batch**



– **Batch end**



	Please consult the manual for your climate computer for more information on the settings of the in-between functions.

3.5 Changing climate settings with the remote control

Use the remote control to adjust the following climate programs:

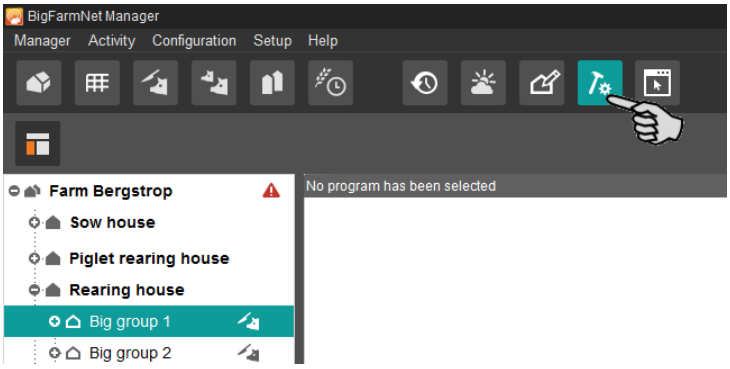
- Pressure
- Humidity
- Heating
- Cooling
- Ventilation and tunnel ventilation
- Temperature

BigFarmNet Manager has pre-set, standard climate data which can be read and adjusted over the whole course of the curve days.

Change the climate settings as follows:

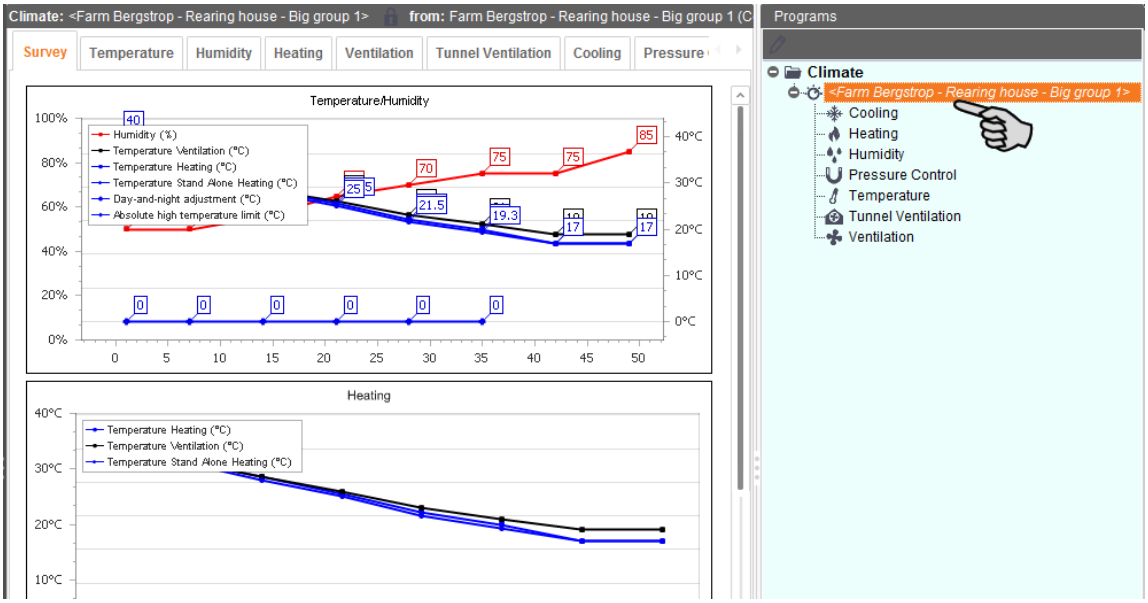
1. Select the desired section in the farm structure on the left.

2. Click on the "Remote control" icon.



3. In the application window on the right, click on the level of the location (section) under "Programs".

   The first tab, "Survey", opens in the application window and shows the standard values of all climate programs in one curve diagram each.

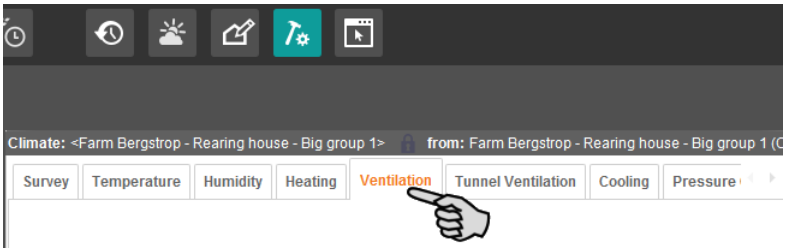


4. Select the climate program whose climate data you want to change. The following example for "Ventilation" shows how to change climate data.

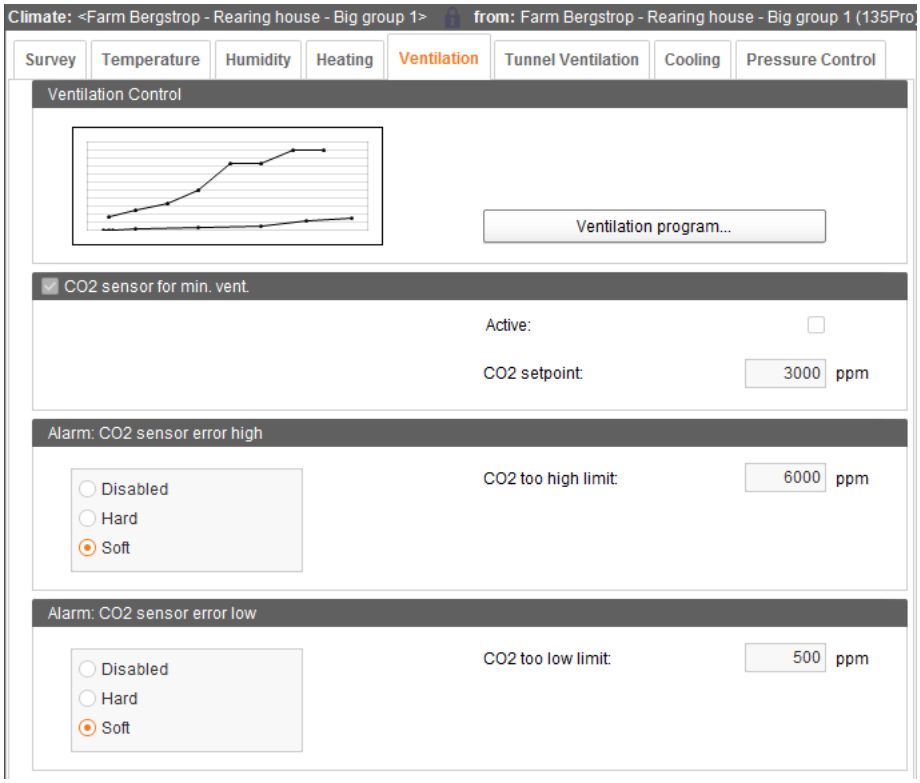
   Click on "Ventilation" in the application window on the right under "Programs".

   OR:

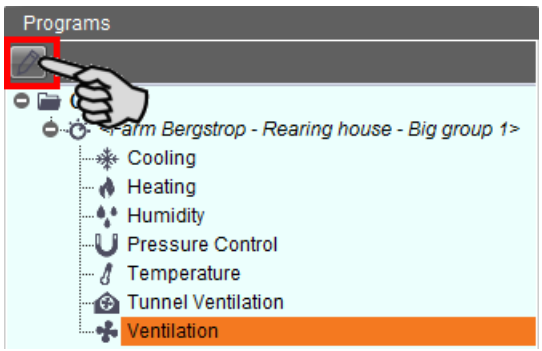
   Click on the tab "Ventilation" in the upper part of the application window.



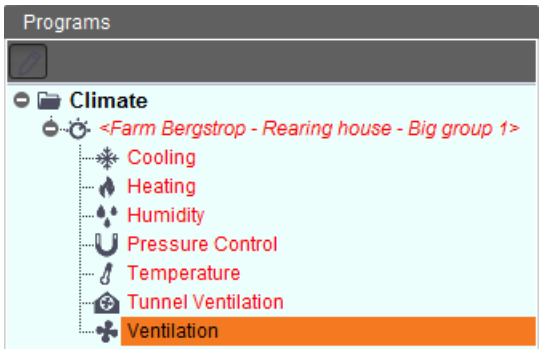
The "Ventilation" tab shows all possible setting parameters.



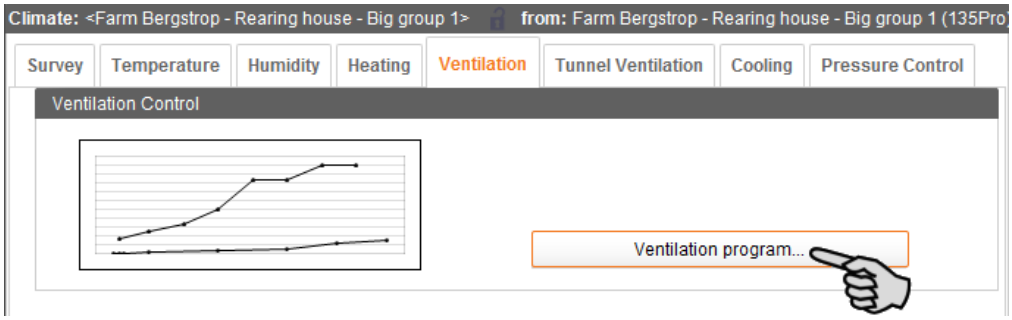
5. On the right-hand side of the application window, click on the pen icon under "Programs". This unlocks all climate programs and allows editing.



If you click on the pen icon, the color of the writing changes to red to indicate the edit mode.

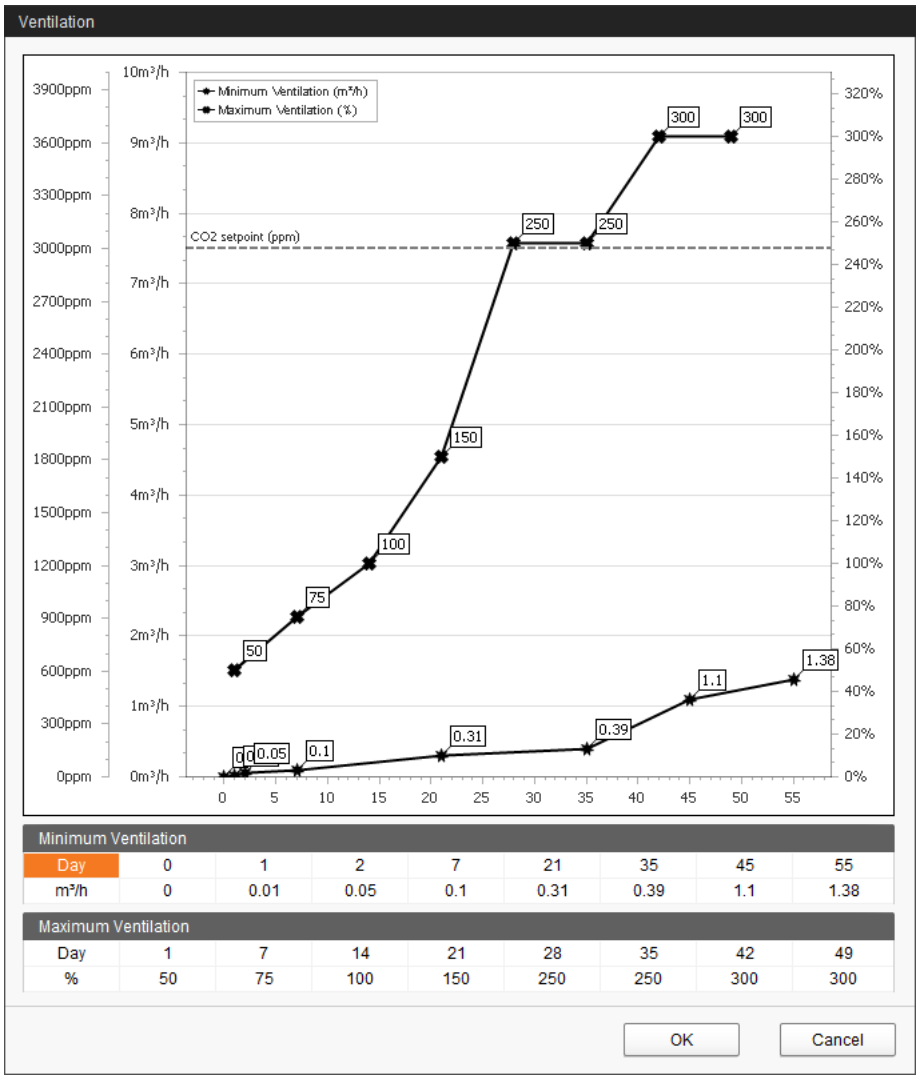


6. Click on the button "Ventilation program..." in the window "Ventilation Control".



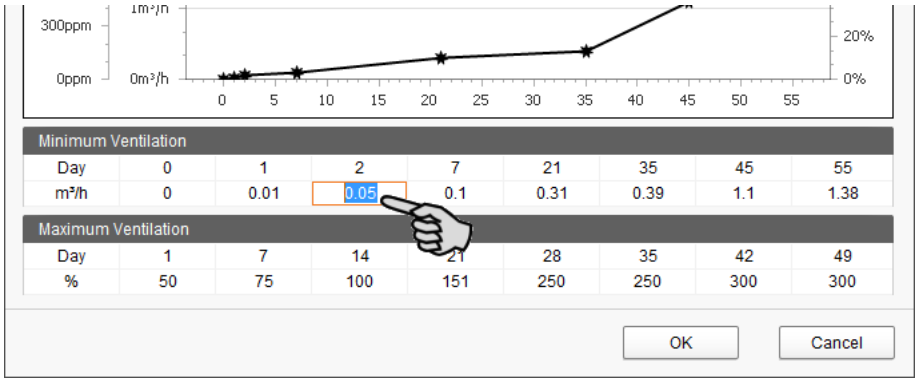
This opens the window "Ventilation".

You now see a curve diagram that depicts the maximum ventilation (%) and the minimum ventilation (m^3/h) for all curve days. Additionally, the CO_2 setpoint is displayed as a dashed line. The set values for maximum and minimum ventilation are listed in separate tables below the curve diagram.



7. Carry out the following steps to change values in the ventilation program:

a) Click on the desired value in the table and use your keyboard to enter a new value.

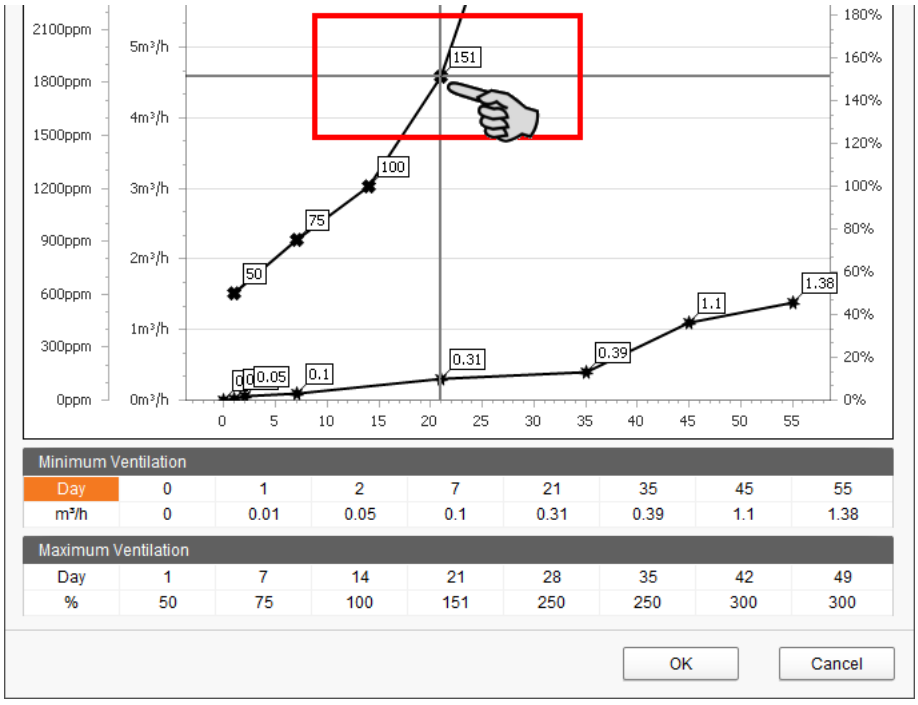


OR:

a) Move the mouse pointer over the correct value in the curve diagram. The mouse pointer will change its shape .

b) Left-click on the value (dot) and hold the mouse button.

Cross hairs appear. They help with reading the values at the X-axis and the Y-axis.



c) Move the dot to the required place and release the mouse button.

8. Click on "OK" after you have configured all settings.

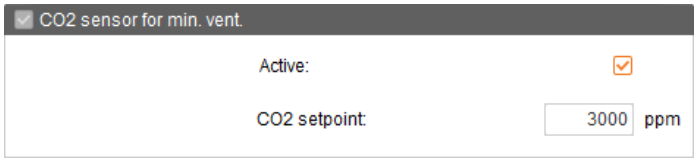
9. Configure additional ventilation settings, if necessary:

   – **CO2 sensor for minimum ventilation**

   Check the box to activate the CO_2 sensor.

   Remove the check mark to deactivate the CO_2 sensor.

   Change the setpoint for the CO_2 concentration, if necessary.



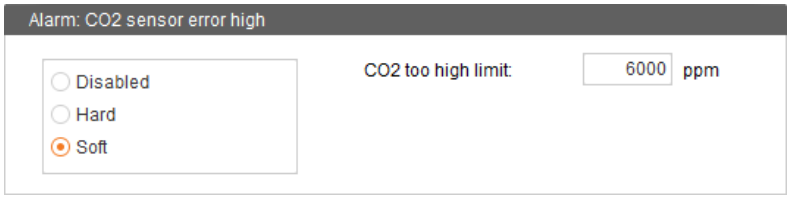
	The CO_2 concentration in the house air significantly influences the well-being of the animals. The sensor may therefore only be deactivated when the house is empty.

   – **Alarm: CO2 sensor error high**

   Enter the CO_2 value that needs to be exceeded for an alarm to be generated for "CO2 too high limit".

   Select "Disabled" if you want the alarm message for a CO_2 value that is too high to be deactivated.

   If you select "Soft" alarm, no alarm signal will sound. The authorized mobile phone does not receive a message, either.

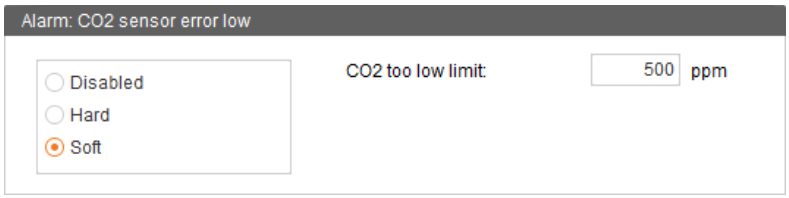


– **Alarm: CO2 sensor error low**

Enter the CO_2 value which will cause an alarm if the actual value drops below it for "CO2 too low limit".

Select "Disabled if you want the alarm message for a CO_2 value that is too low to be deactivated.

If you select "Soft" alarm, no alarm signal will sound. The authorized mobile phone does not receive a message, either.

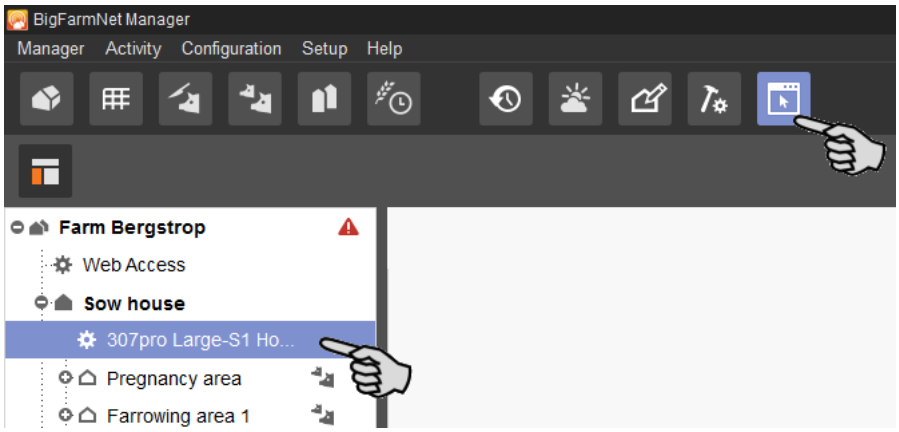


3.6 Service Access

The Service Access function mirrors the display of your climate computer, including all control functions, for BigFarmNet Manager. You can thus control your climate computer directly from BigFarmNet Manager as if you were standing in front of the climate computer.

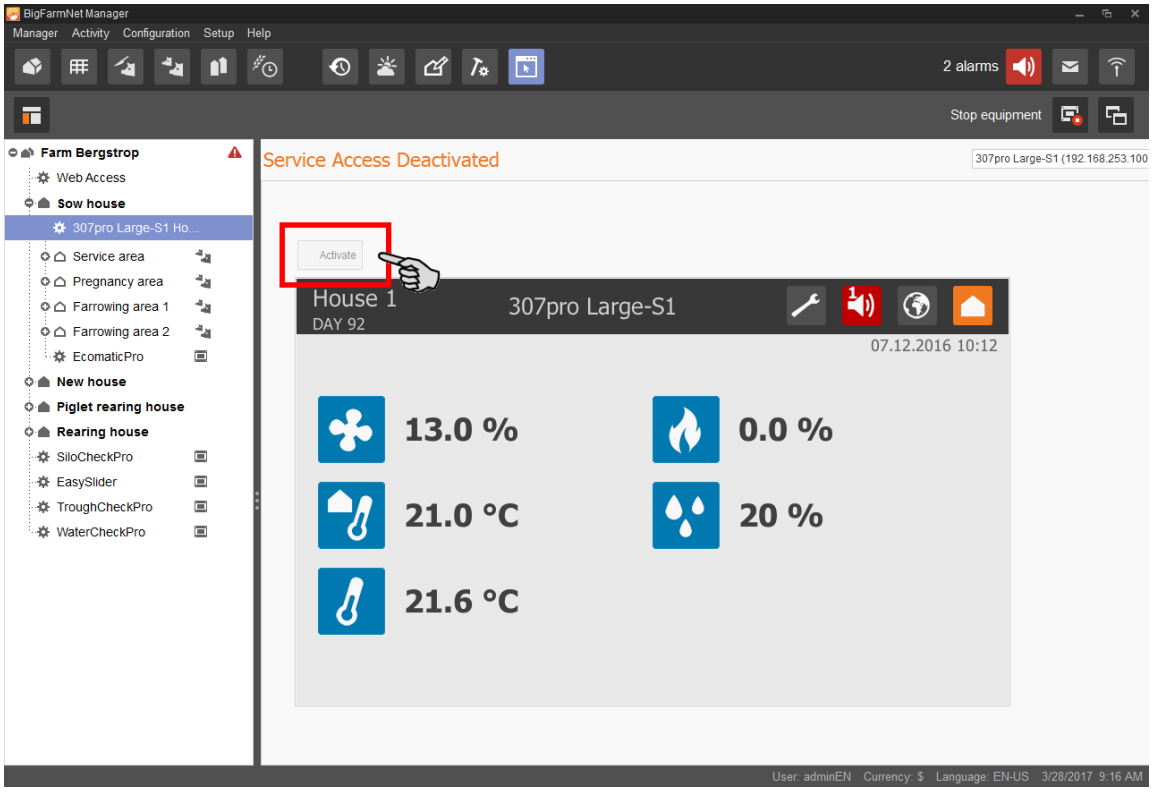
	This function requires a password which you create as user of BigFarmNet Manager, see the manual "BigFarmNet Manager – Installation/ Configuration".

1. Select the correct climate computer in the farm structure on the left.
2. Click on the "Service Access" icon.



The application window mirrors the display of the selected climate computer.

3. Click on "Activate" to open a dialog window for password input.



4. Enter your password to allow remote control of the climate computer.

   Please consult the manual of your climate computer to learn more about how the specific climate computer is operated.

3.7 Data backup

We recommend data backups in regular intervals. In case of a data loss, the backup can then be used to retrieve saved data. As storage location for the backup, we recommend using an external hard or flash drive.

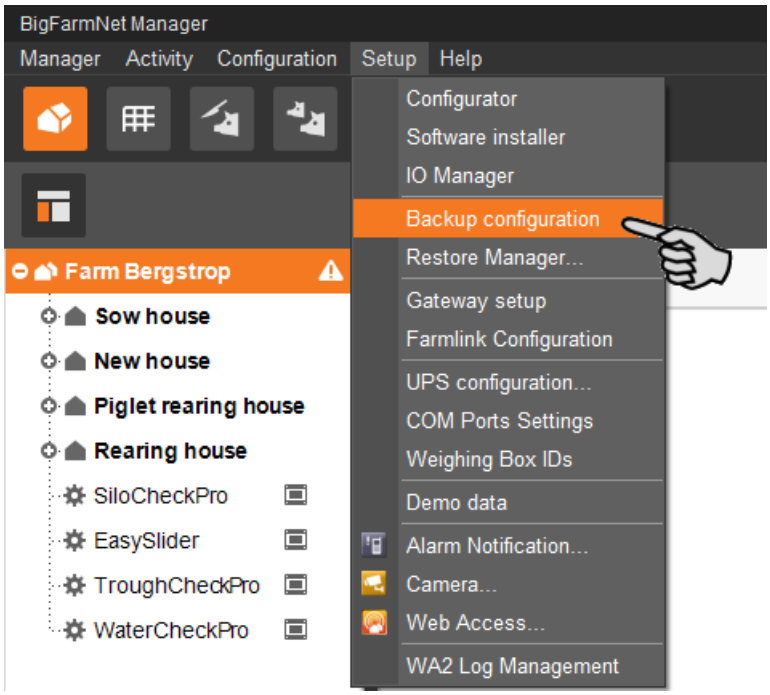
Remember that you can only retrieve the last data backup. Everything you have created or changed since then is not included in this backup. This means that the backup period should be determined depending on the amount of data you produce. You should find the ideal compromise between acceptable data loss and frequency of backups based on your individual needs.

The BigFarmNet Manager provides the following options for data backups:

- Manual backup, which you may carry out at any time when necessary.
- Automatic backup, for which you define a fixed backup period. The data is then backed up automatically according to the settings.

Open the settings dialog as follows:

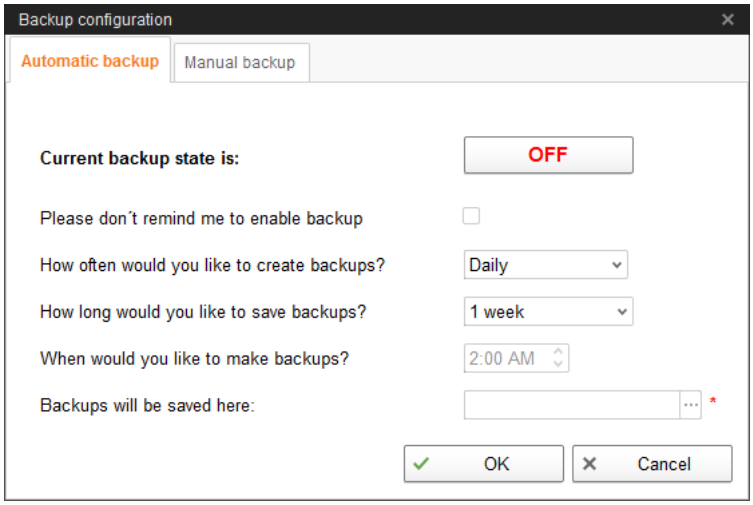
1. Click on "Data backup" in the "Setup" menu.



2. In the window "Backup configuration", select the desired process using one of the two tabs:

   Automatic backup

   The automatic backup is pre-set to "OFF".



   a) Click on "OFF" to turn off the deactivation.

      The button then switches to "ON".

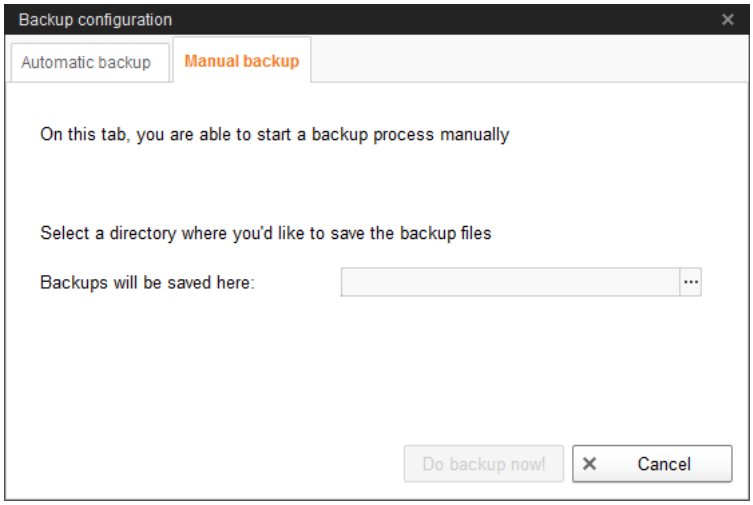
   b) Determine the backup period.

   c) Select an external storage location.

   d) Click on "OK" to accept these settings.

Or:

   Manual backup



   a) Select an external storage location.

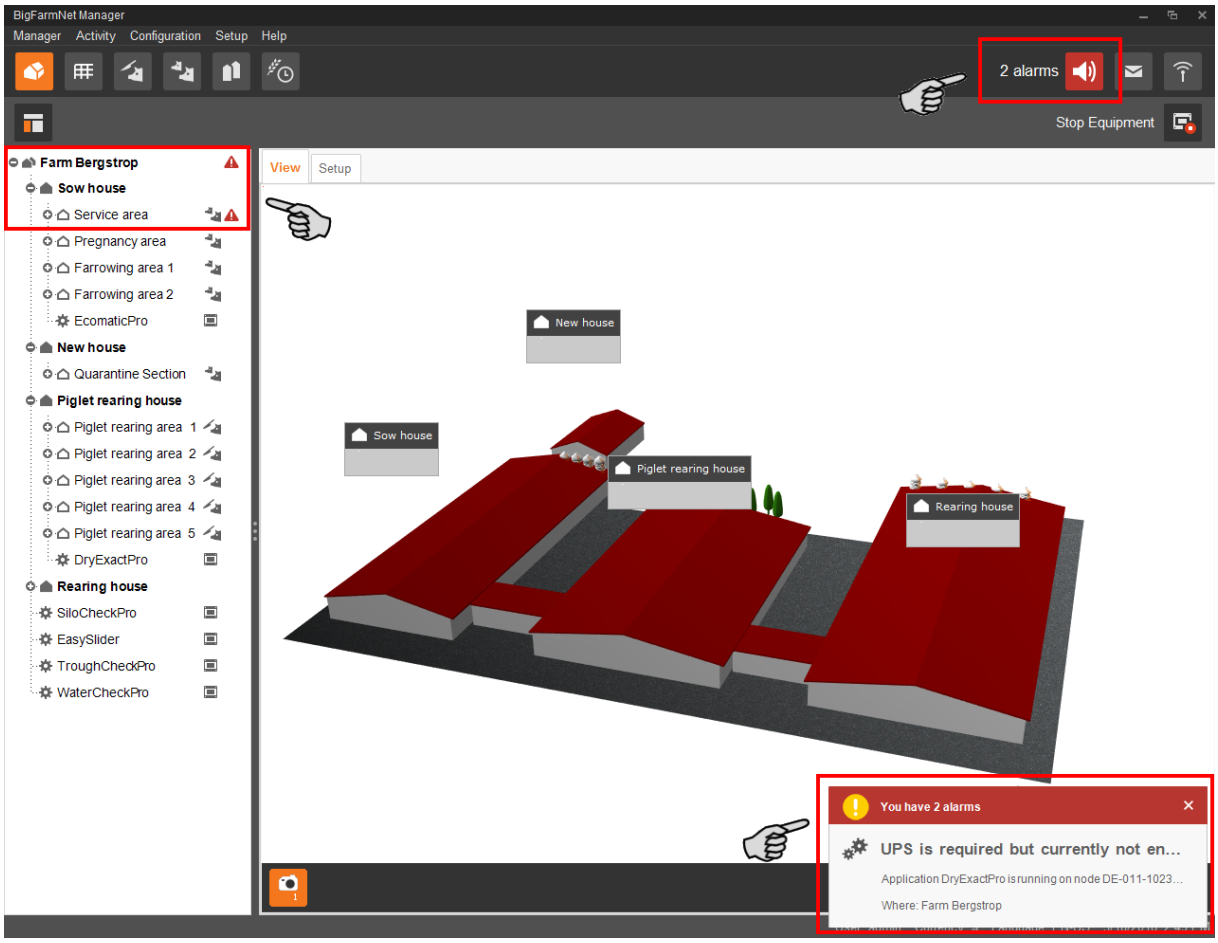
   b) Click on the now active button "Create backup now!"

4 Alarms

An alarm is triggered when the set values are not met during operation or when there are malfunctions. Warnings are also counted as alarms. Alarms are first registered by the control computer. The control computer then sends the alarm message to the BigFarmNet Manager.

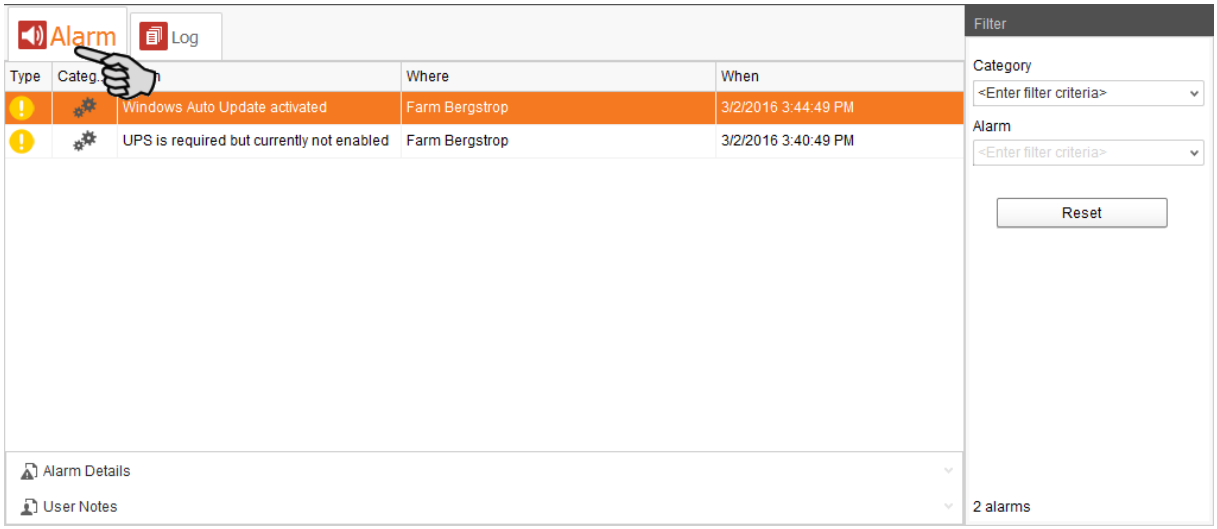
The BigFarmNet Manager indicates alarms as follows:

- Pop-up window: The window appears as soon as an alarm is registered, irrespective of the application the user is currently working in.
- Farm structure: Locations with a current problem are marked with a triangle in case of an alarm and with a circle in case of a warning.
- Tool bar: The number of alarms is shown next to the alarm icon.



Click on the pop-up window or the alarm icon in the tool bar to open the "Alarm" tab in the application window. The "Alarm" tab lists all active alarms and warnings.

If you click on a location with alarm or warning icon in the farm structure, the "Alarm" tab only shows problems active in the respective location.



The different alarms and warnings are shown in a list and ordered depending on when they occurred. The table columns contain the following information:

- Type: Alarm type
- Category: Alarm category
- Alarm: Alarm cause
- Where: Location of the alarm
- When: Time of occurrence

Alarm types

Icon	Status	Description
	Active alarm	Not acknowledged: Cause still exists.
	Inactive alarm	Not acknowledged: Cause no longer exists.
	Deactivated alarm	Acknowledged: Cause still exists.
	Ended alarm	Acknowledged: Cause no longer exists.
	Active warning	Not acknowledged: Cause still exists.
	Ended warning	Acknowledged: Cause no longer exists.
	Info	Information about an incident that has occurred.

Alarm categories

Icon	Category
	Climate: temperature, humidity
	Control, IO connection or test (system-specific)
	BigFarmNet system or CAN bus
	Dry feeding
	Liquid feeding
	SiloCheck system
	WaterCheck system

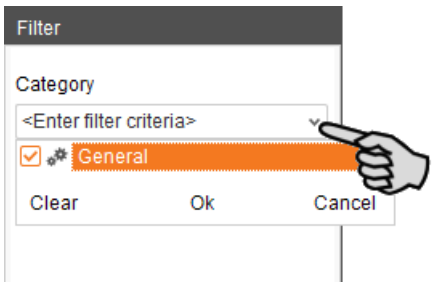
	Always eliminate causes for alarms in the "Climate" category first.

4.1 Filtering alarms

Alarms can be filtered according to category as well as cause.

1. In the right-hand part of the window under "Filter", open the drop-down menu listing categories.

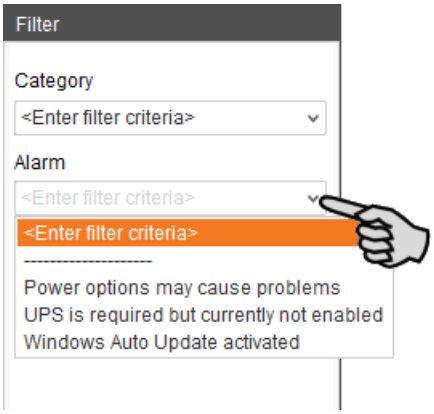
   By default, all categories are selected.



2. Click on "Clear" to delete all check marks.
3. Check the boxes of the correct categories.

4. Click on "OK" to accept this selection.
5. Under "Alarm", select the desired alarm cause from the drop-down menu.

   The table then shows the desired alarms.



6. To deselect the alarms, click on "Reset".

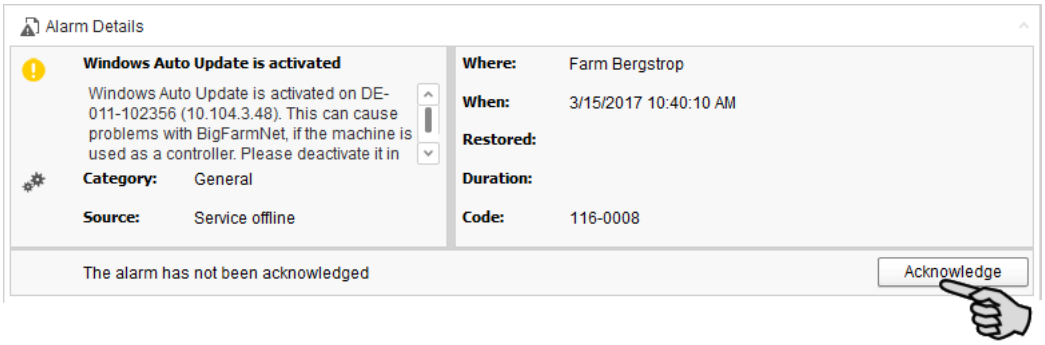
   The table now lists all alarms.

4.2 Acknowledging an alarm

Alarms can be acknowledged their cause has been eliminated. The alarm is marked with the corresponding icon (see alarm types) in the table and the system no longer requires action from the user.

1. Click on the alarm you want to acknowledge to mark it.
2. Click on "Alarm details" in the bottom part of the application window.

3. Click on "Acknowledge".



4. Click on "Acknowledge" again in the next window.

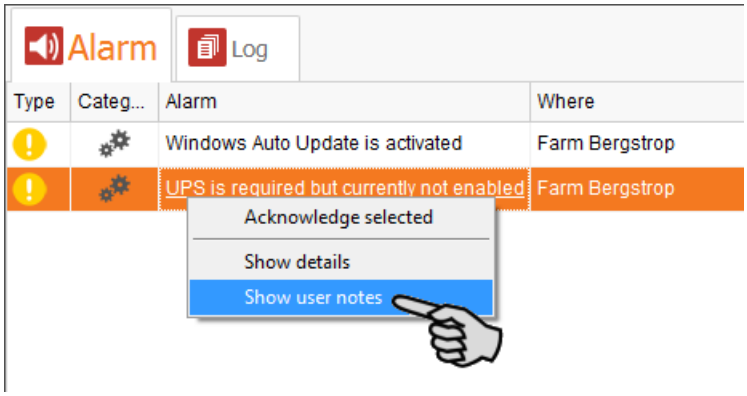
5. If necessary, leave a note on the alarm.

   This note may be helpful to later eliminate similar alarms.

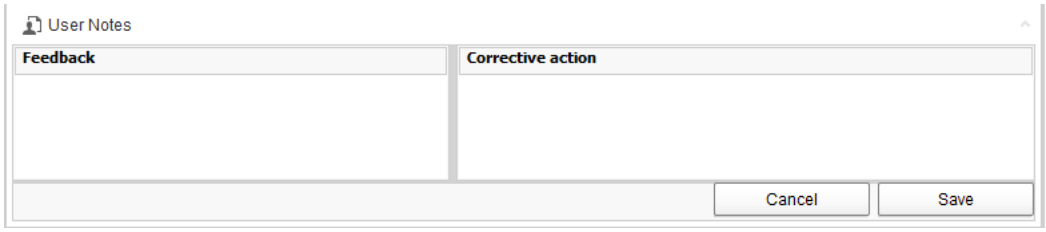
   a) Click on the alarm for which you want to leave a note to mark it.

   b) Right-click to open the context menu and click on "Show user notes".

   The window "User notes" opens in the lower part of the application window.



   c) Enter your note into the field "Feedback" or "Corrective action".

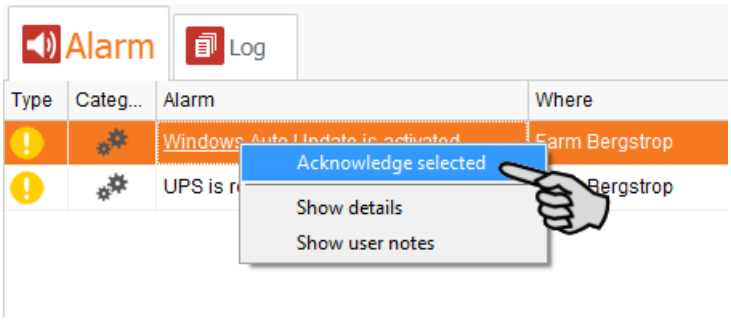


   d) Click on "Save".

Or:

	You can also acknowledge multiple alarms at the same time. Use the following key combination to select the respective alarms: • To select a group of consecutive alarms: Click on the first alarm, press and hold the Shift key and then click on the last alarm you want to select. • To select multiple alarms individually: Press and hold Ctrl and click on each alarm you want to select. • To select all alarms: Press and hold Ctrl and then press A.

1. Select one or more alarms.
2. Right-click to open the context menu and click on "Acknowledge selected".



3. Click on "Acknowledge" in the next window.

4.3 Alarm log

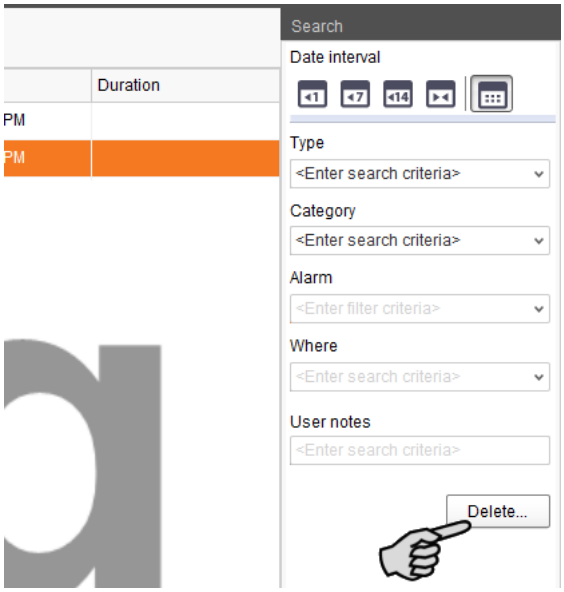
The "Log" tab shows all alarms which have occurred since initial operation of the BigFarmNet Manager on your farm.

Use the search function to view selected alarms in this tab. The following search options are available in the right-hand part of the window under "Search":

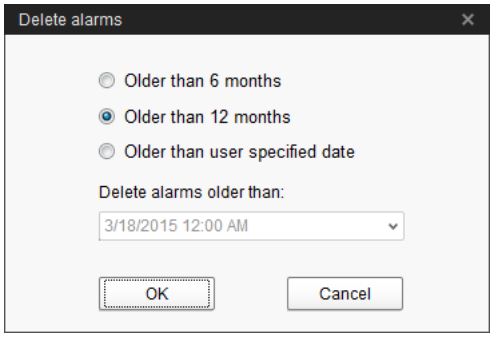
- Date interval: Time periods during which alarms may have occurred
- Type: Alarm type
- Category: Alarm category
- Alarm: Alarm cause
- Where: Location of the alarm
- User notes: provided user notes have been left

Deleting alarms

1. Click on "Delete..." in the right-hand part of the "Log" tab.



2. Click on the desired time period or enter a date.



	Only alarms older than six months can be deleted.

3. Click on "OK".

   All alarms of the selected time period are deleted, irrespective of whether specific alarms are currently selected via the search function.

4.4 Alarm Notification

Alarm Notification is a service that sends alarms via email. Alarm notification via SMS is currently not supported.

To use the Alarm Notification service via email, configure the service in BigFarmNet Manager. The following technical conditions must be met for email notifications:

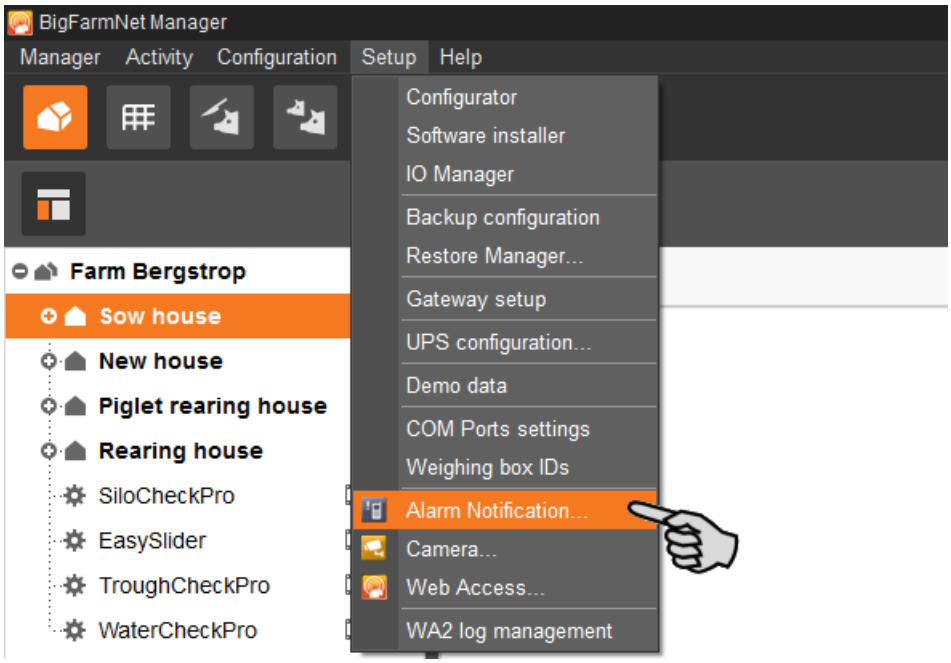
- Internet connection
- running BigFarmNet Manager

	The Alarm Notification service cannot replace an autocaller! The service is merely an additional help.

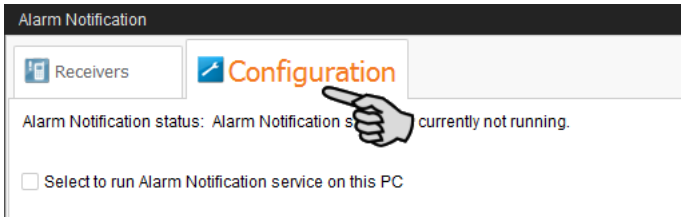
Carry out the following steps to set up the Alarm Notification service:

1. Click on "Alarm Notification" in the "Setup" menu.

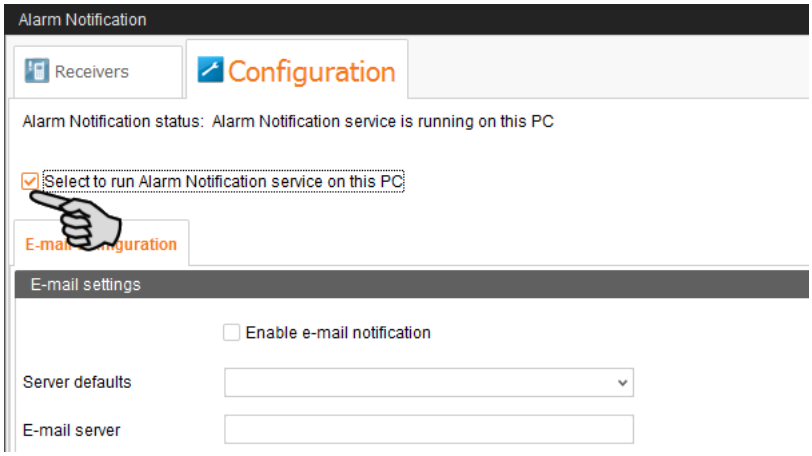
   This opens the dialog window "Alarm Notification".



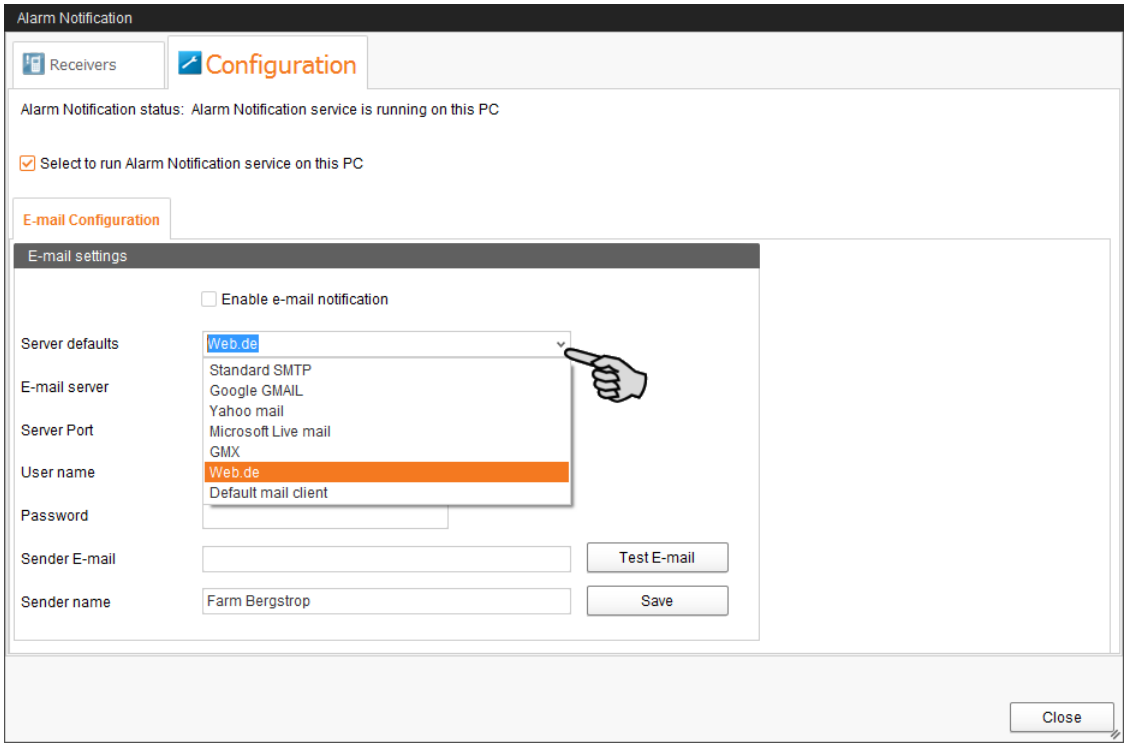
2. Click on the "Configuration" tab in the dialog window.



3. Check the box "Select to run Alarm Notification service on this PC".

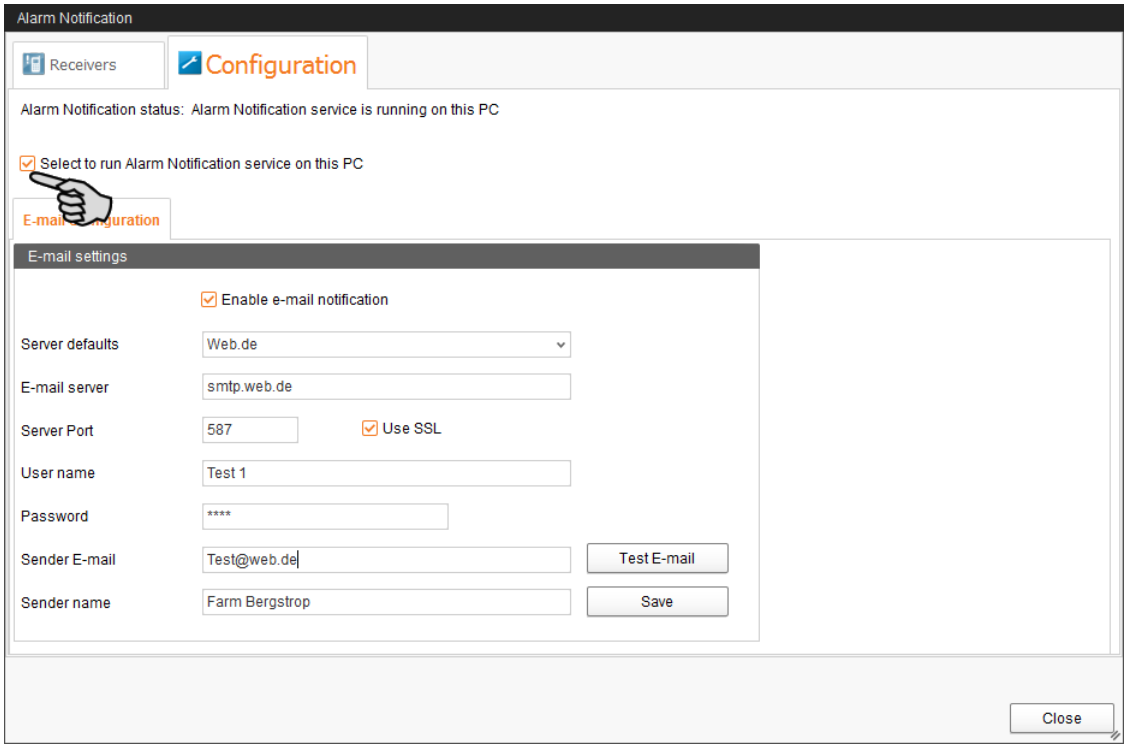


4. Click on the arrow pointing downwards next to "Server defaults" and select your server default from the drop-down menu.

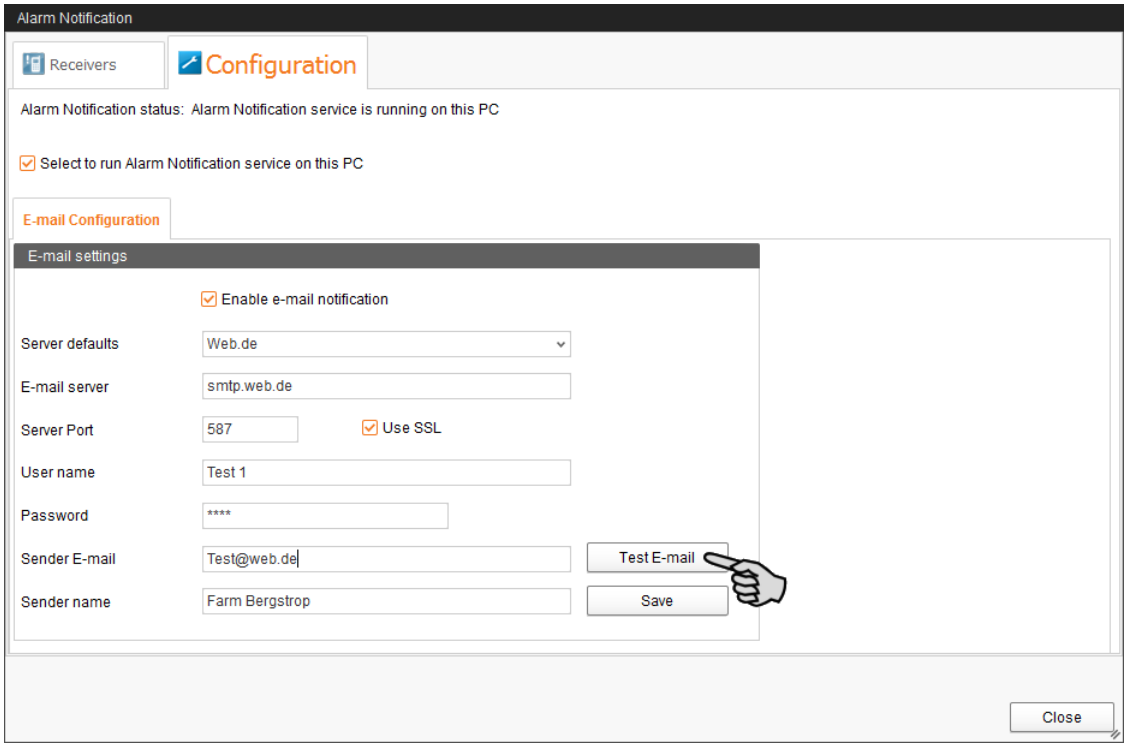


As soon as you have selected a server default, the email server, the server port and the SSL are filled in automatically.

5. Enter the user name, the password and the sender email.
6. Check the box "Enable e-mail notification" to activate this function.

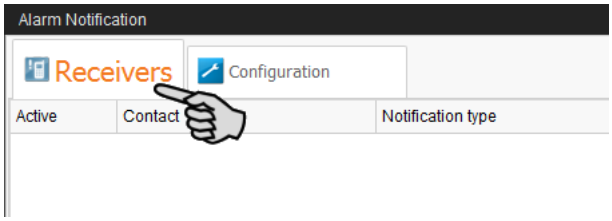


7. Click on "Test E-mail" to check the configuration.

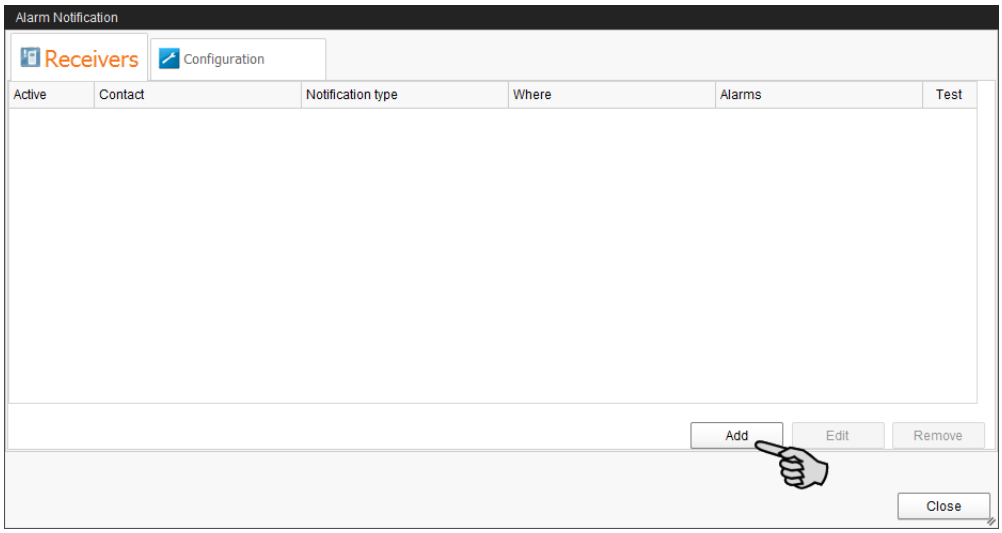


8. Click on "Save" to accept all settings.

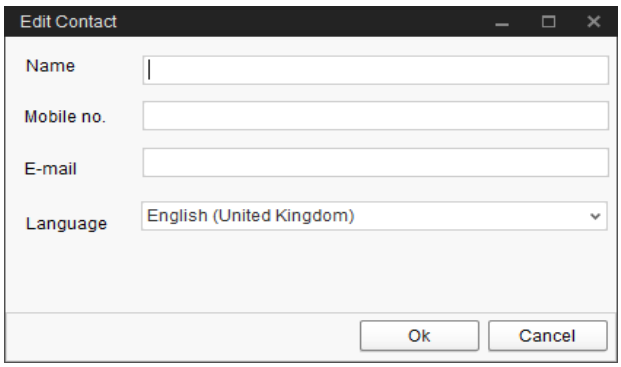
9. Click on the "Receivers" tab.



10. Click on "Add" to add a recipient.

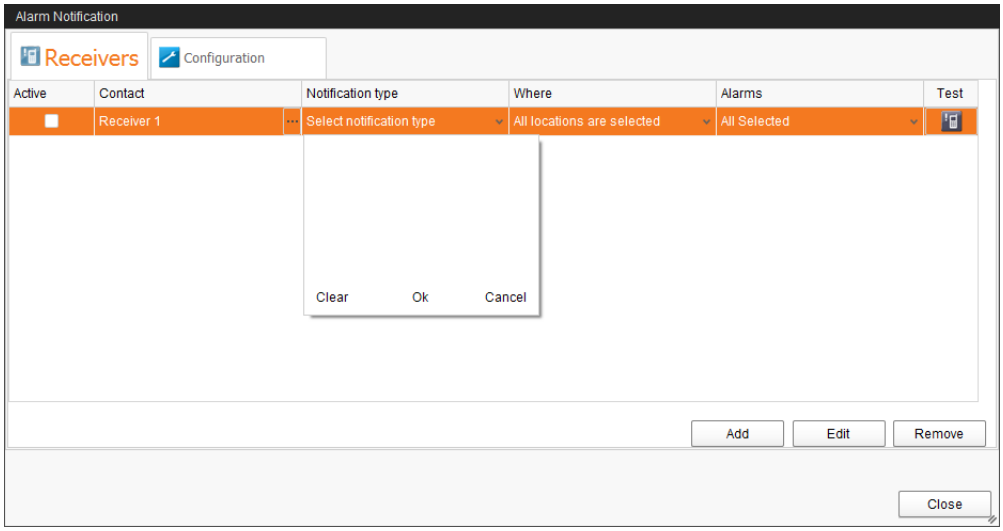


11. Enter the contact details in the next dialog window and select the correct language. Alarm notifications via SMS are currently not supported.



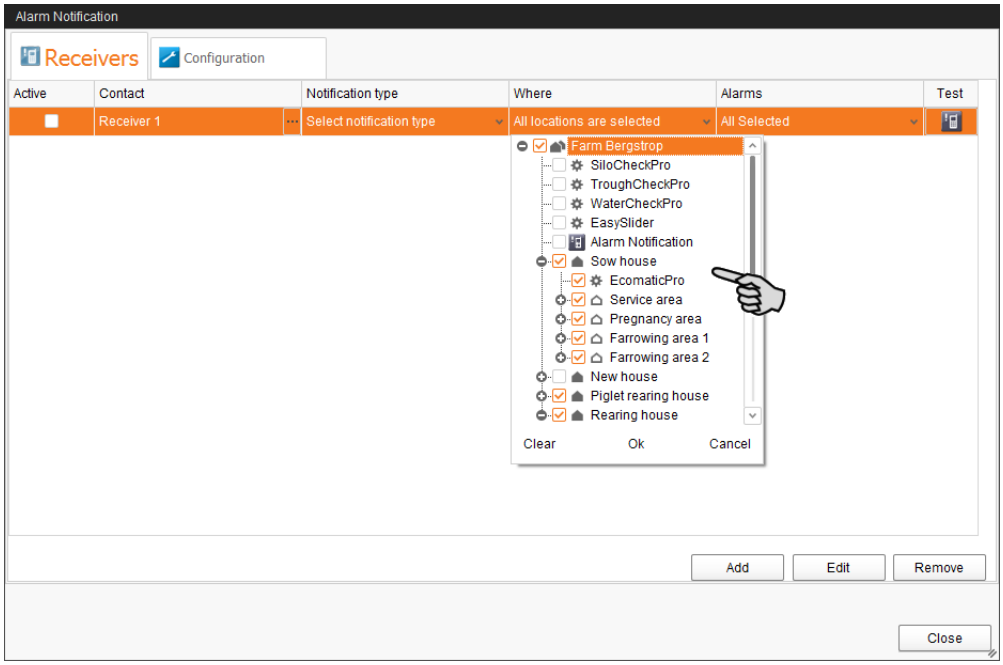
12. Confirm your input by clicking on "OK".

13. Click into the input field below "Notification type" and select "E-mail" from the drop-down menu.



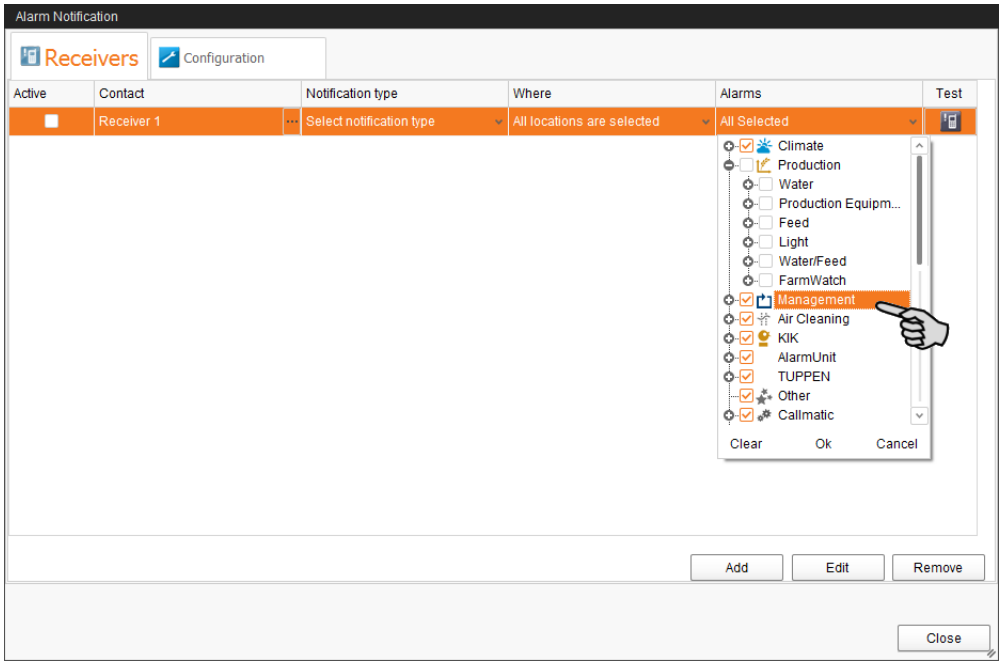
14. Confirm your selection by clicking on OK at the bottom of the drop-down list.
15. Click into the input field below "Where" and select the location for which you want to receive alarms.

    You may select multiple locations.

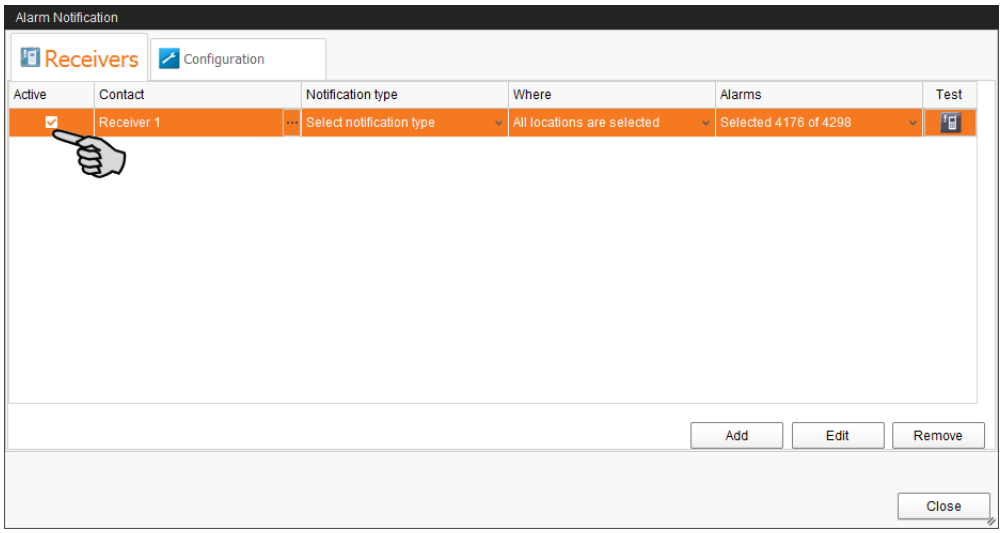


16. Confirm your selection by clicking on OK at the bottom of the drop-down list.
17. Click into the input field below "Alarms" and select which type of alarms the recipient should receive.

    You may select multiple locations.



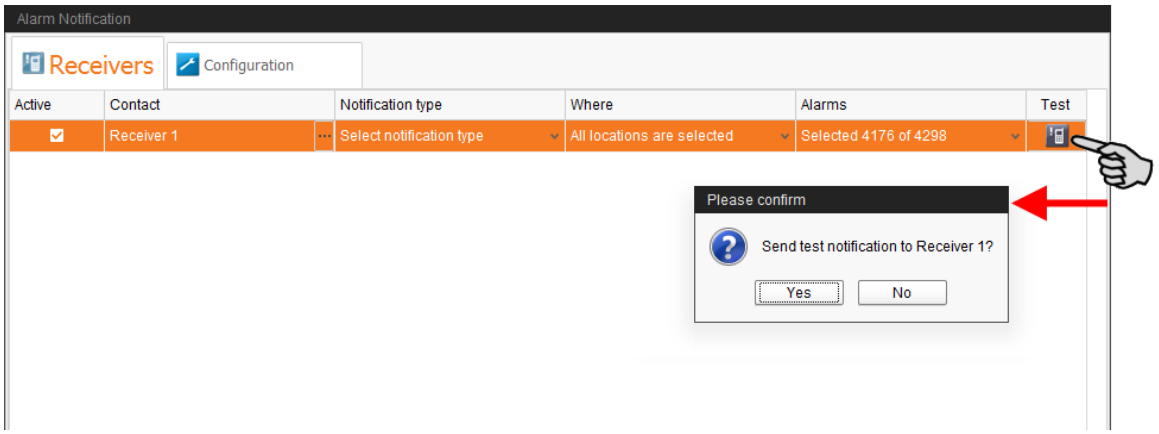
18. Confirm your selection by clicking on OK at the bottom of the drop-down list.
19. Activate the recipient for alarm notifications by checking the box below "Active"



20. Check the configuration of the recipient's data by sending the recipient a test notification:

    a) Click on the alarm notification icon.

    b) Confirm the dialog for test notification by clicking on "Yes".



21. Click on "Close" after you have configured all settings.

    This closes the dialog window.

4.5 System-specific alarms

Please consult the manual for your climate computer for system-specific alarms.

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