BigFarmNet manager

EasySlider

Code No. 99-94-0597 GB

Edition: 10/2024

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Big Dutchman International GmbH

P.O. Box 1163

49360 Vechta

Germany

Phone: +49(0)4447-801-0 Fax: +49(0)4447-801-237 Email: big@bigdutchman.de

1 System description

EasySlider is a computer-controlled dry feeding system used for sows that are kept individually, e.g. in farrowing pens or stalls. Electronic animal identification via antenna and transponder is not required.

Each sow is assigned her own EasySlider unit. EasySlider can be sensor-controlled or time-controlled.

- With the sensor-controlled version, the sow can choose for herself when and how much she wants to eat. To receive feed, the sow actuates a pendulum inside the feed pipe. During active feeding periods, if the sow is also entitled to receive feed, a portion is dispensed. The sow can only demand the next portion once a defined eating time has elapsed.
- With the time-controlled version, a specific time is defined for feed dispensing.

EasySlider is controlled by the BigFarmNet Manager software. The program defines individual feed curves per sow and the user can assign individual EasySlider pens to each sow. Moreover, up to 24 feeding periods can be programmed.

The application allows the user to monitor and control the eating behaviour of each sow. This information provides important knowledge on each sow's state of health.

1.1 Requirements to install the EasySlider application

The EasySlider application uses 510*pro* as control computer. Each 510*pro* control computer can control a maximum of 25 CAN bus junction boxes. Up to 16 EasySlider units can be set up per CAN bus junction box. This means that one 510*pro* can control a maximum of 400 EasySlider feeding spaces.

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

Code no.	BigFarmNet Manager license	Use
91-02-6605	License 510 – BigFarmNet EasySlider	1 per 510*pro*
91-02-6500	BigFarmNet Manager – basic installation software	1 per BigFarmNet network
91-02-6555	License BigFarmNet Manager – Sow Manager	1 per BigFarmNet network

The following software licenses are **optional**:

Code no.	BigFarmNet Manager license	Use
91-02-6558	License BigFarmNet Manager – sow management < 1000 sows	1 per BigFarmNet network
91-02-6566	License BigFarmNet Manager – sow management 1000 - 3000 sows	
91-02-6567	License BigFarmNet Manager – sow management > 3000 sows	
91-02-6564	License BigFarmNet – Web Access Pig	App Pig / access via the user's smartphone or tablet
91-02-6551	License BigFarmNet Manager per additional PC/MC700	In case animal and system data in BigFarmNet Manager are to be available on additional computers

1.2 System limits

30,000	Sows
400	EasySlider units
25	CAN bus junction boxes per control computer
50	Feed curves
1,000	Components
50	Recipes
24	Feeding periods

2 Setting up the BFN Manager PC and 510pro control computer

NOTICE!

Only service technicians may install and configure the control computer.

Figure 2-1: Control computer 510*pro*

Carry out the following steps to install and configure the control computer:

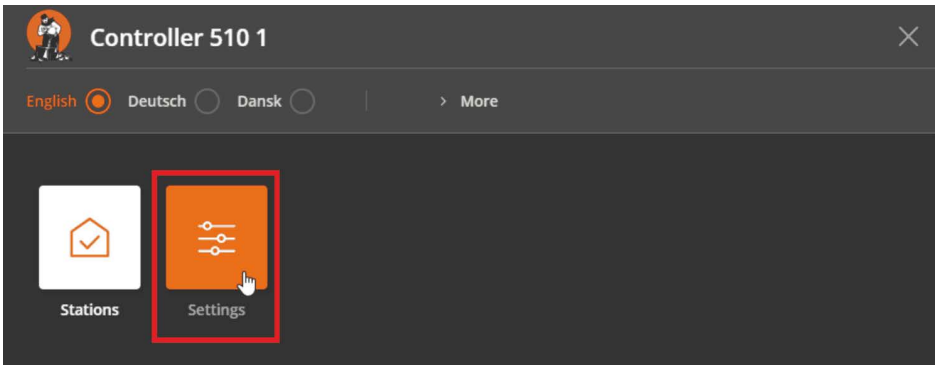
1. Wiring, see the enclosed wiring diagram
2. Assigning a static IP address to the control computer, see chapter 2.1
3. Assigning a static IP address to the Manager PC, see chapter 2.2
4. Assigning a network card to the control computer, see chapter 2.3
5. Testing the connection to the control computer, see chapter 2.4
6. Installing the software on the control computer, see chapter 2.5

NOTICE!

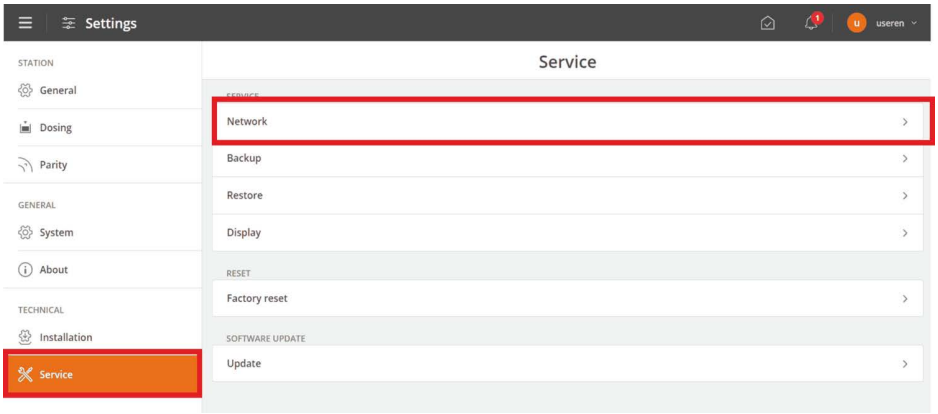
The operator's IT administrator is responsible for defining the static IP addresses.

2.1 Connecting the 510pro control computer to the network (assigning a static IP address)

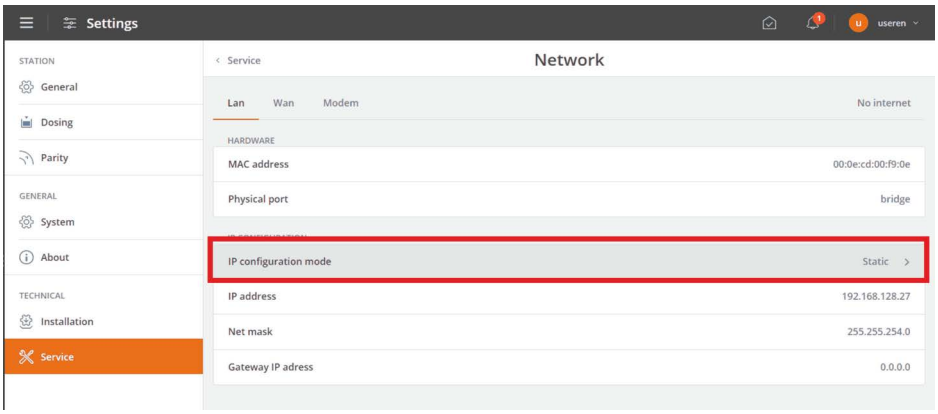
1. On the start screen, tap on **Settings**.



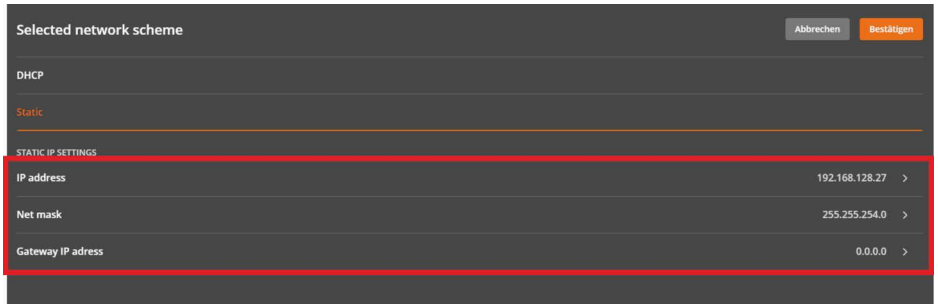
2. Tap on **Service** and then on **Network**.



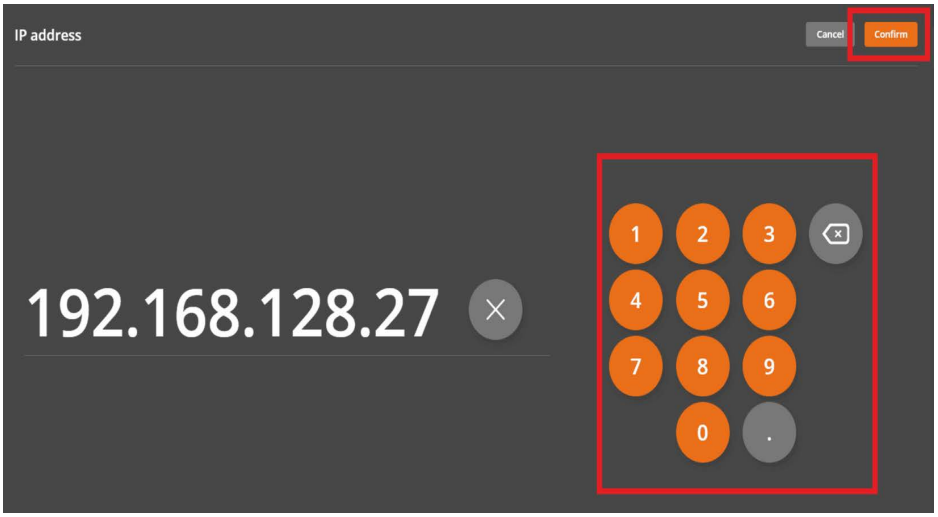
3. Tap on **IP configuration mode**.



4. Under "Selected network scheme", make sure that **Static** is selected.
5. Tap on **IP address**.



6. Enter the IP address defined for this control computer. Complete your input by tapping on **Confirm**.

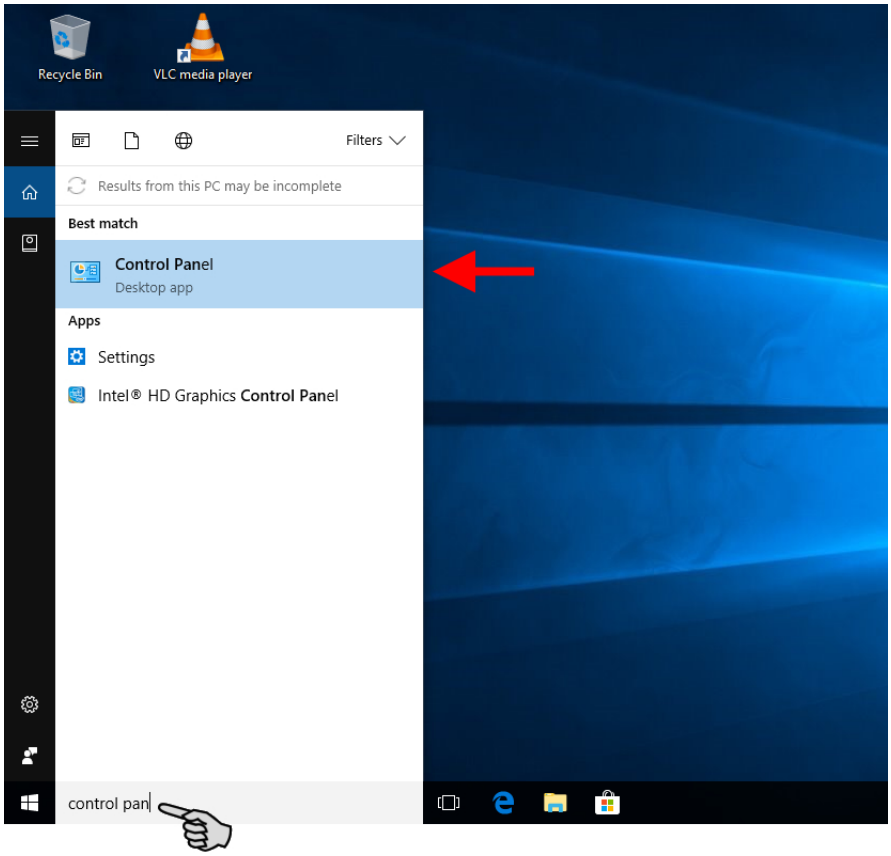


7. Continue in this manner to enter the values for **Net mask** and **Gateway IP address**.

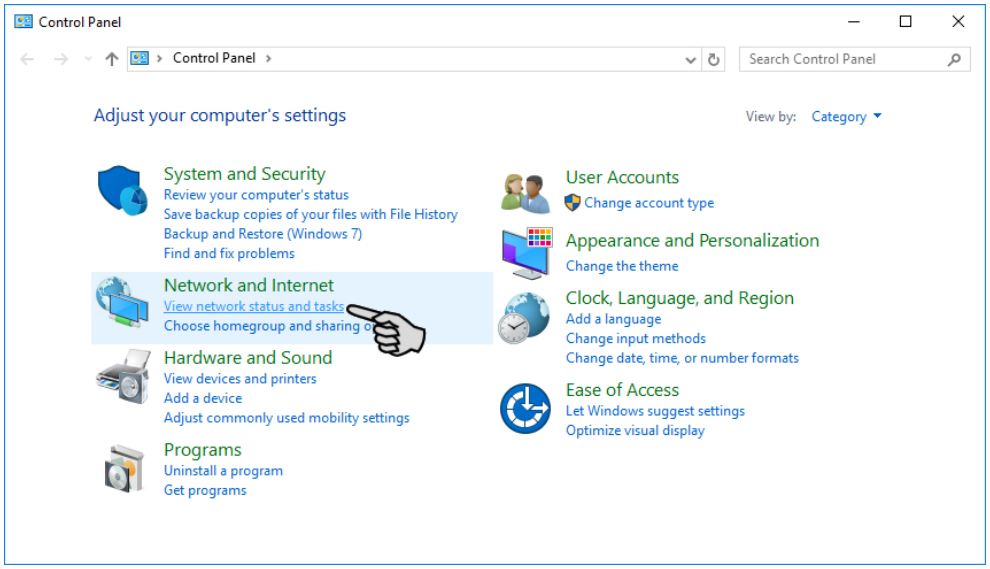
2.2 Manager PC: assigning a static IP address

Windows 10 operating system

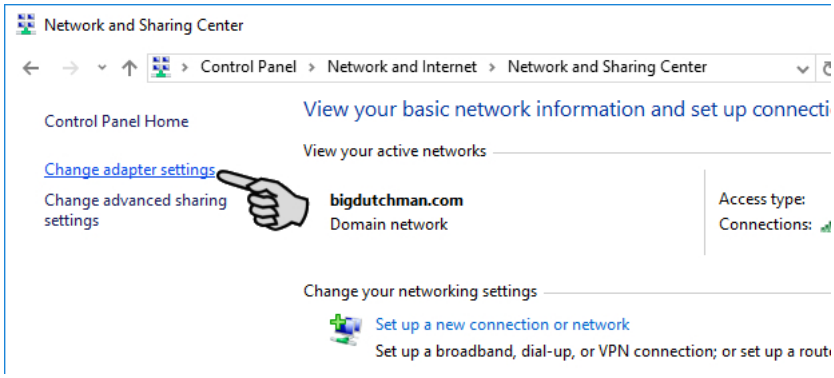
1. Open the **Control Panel** using the search field in the task bar.



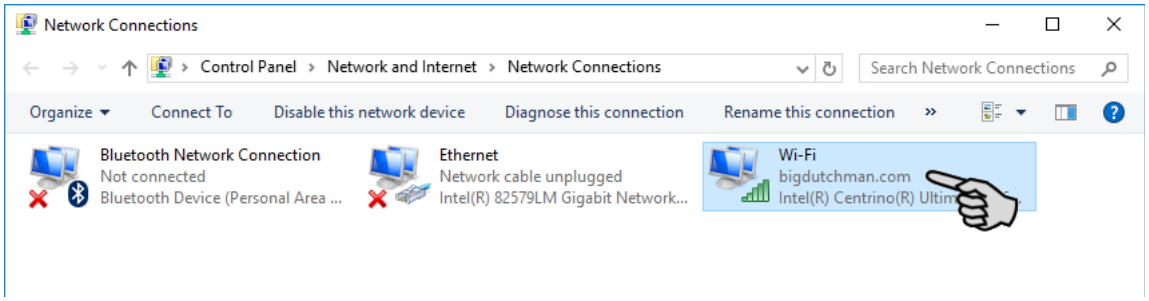
2. Click on **View network status and tasks** under **Network and Internet**.



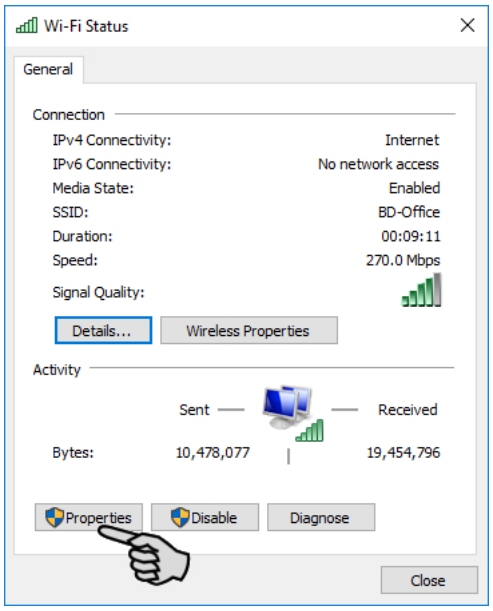
3. Click on **Change adapter settings**.



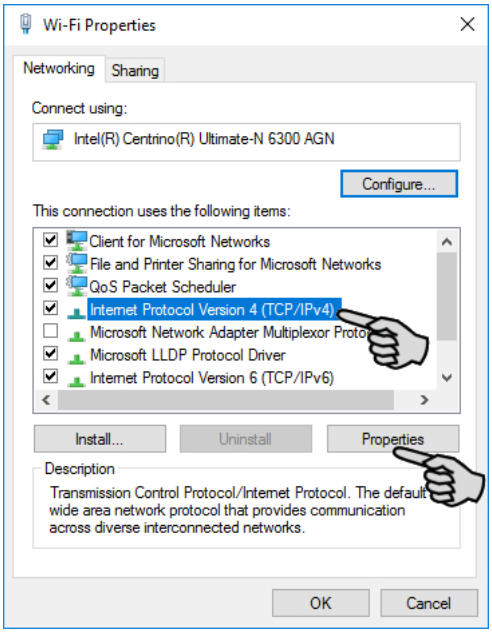
4. Double-click on **Wi-Fi**.



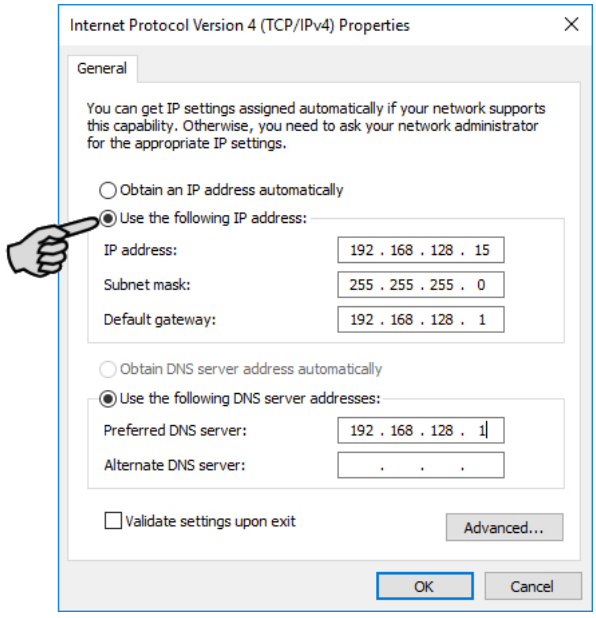
5. Click on **Properties**.



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



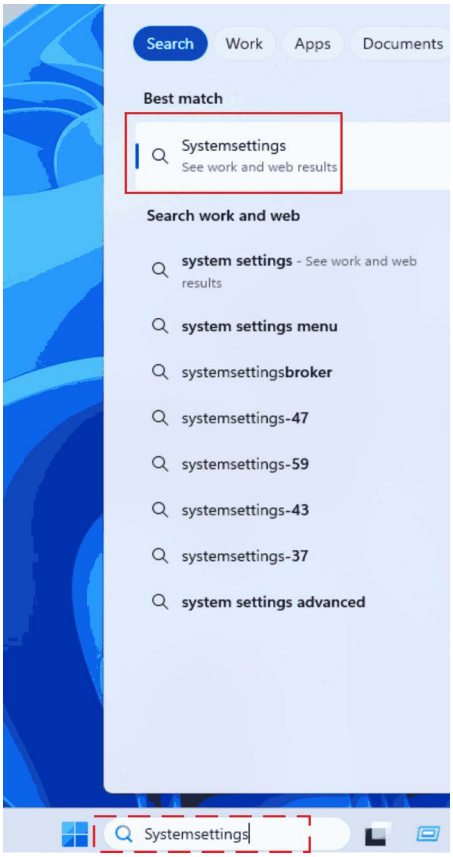
7. Enter a static IP address.



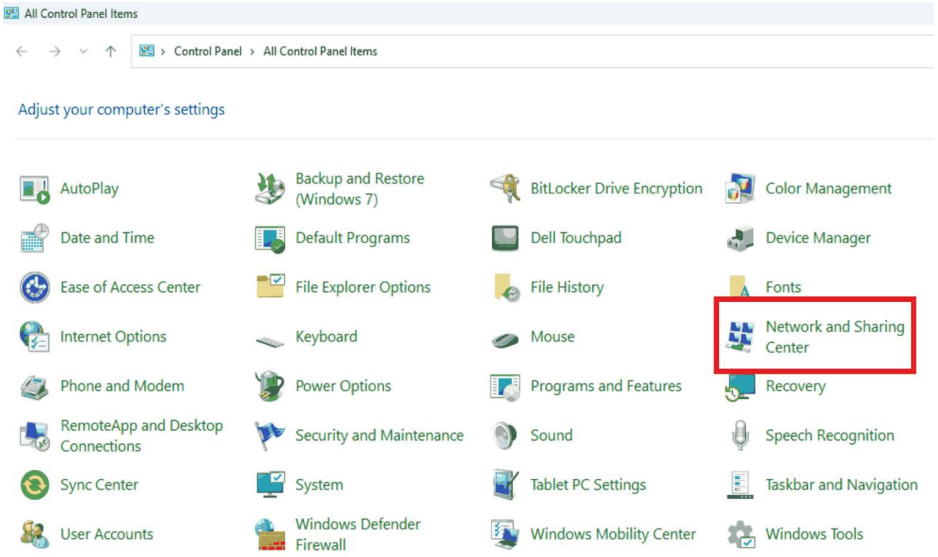
8. Confirm these inputs by clicking on **OK**.

Windows 11 operating system

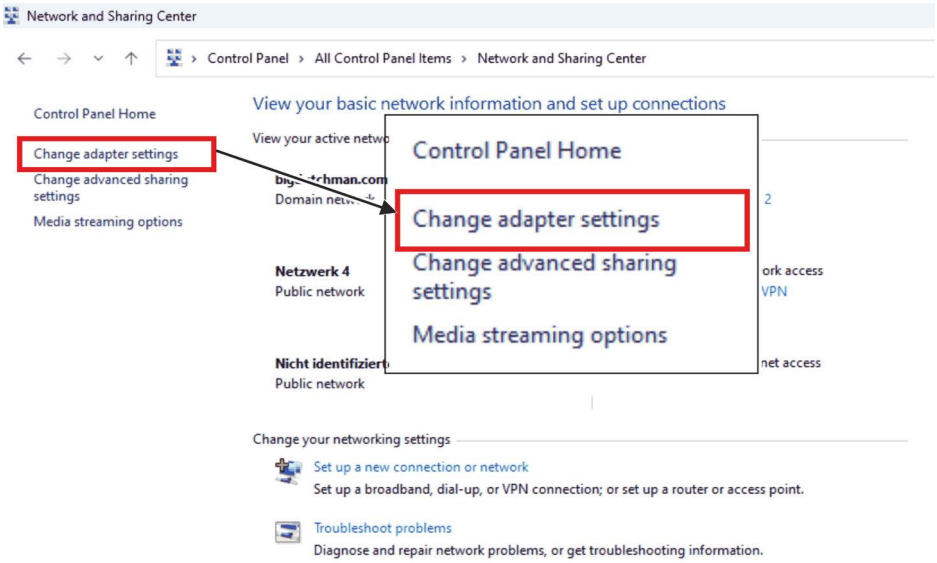
1. Open the **Control Panel** using the search field in the task bar.



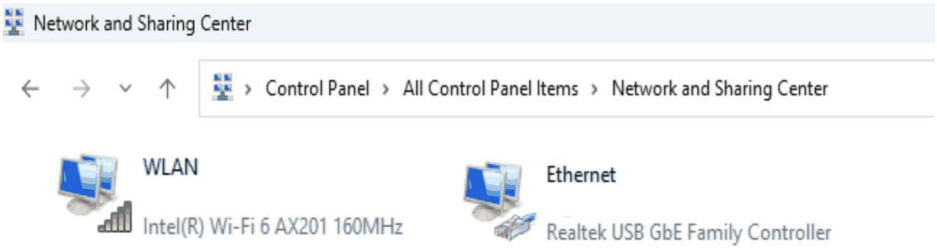
2. Click on **Network and Sharing Center**.



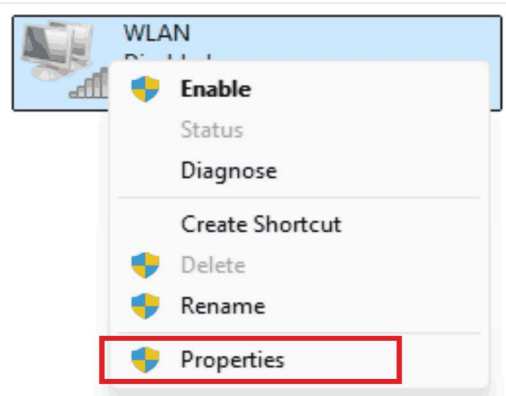
3. Click on **Change adapter settings**.



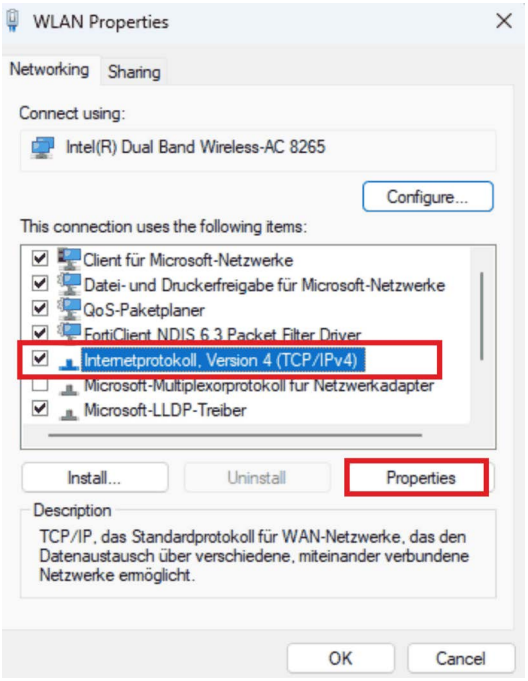
4. Select the correct adapter.



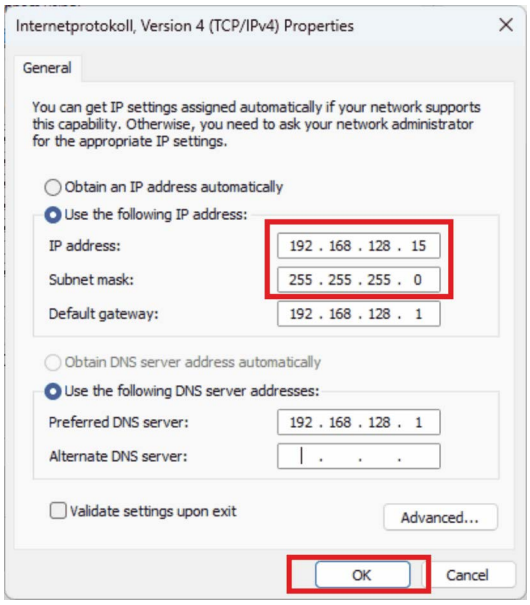
5. Click on **Properties**.



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



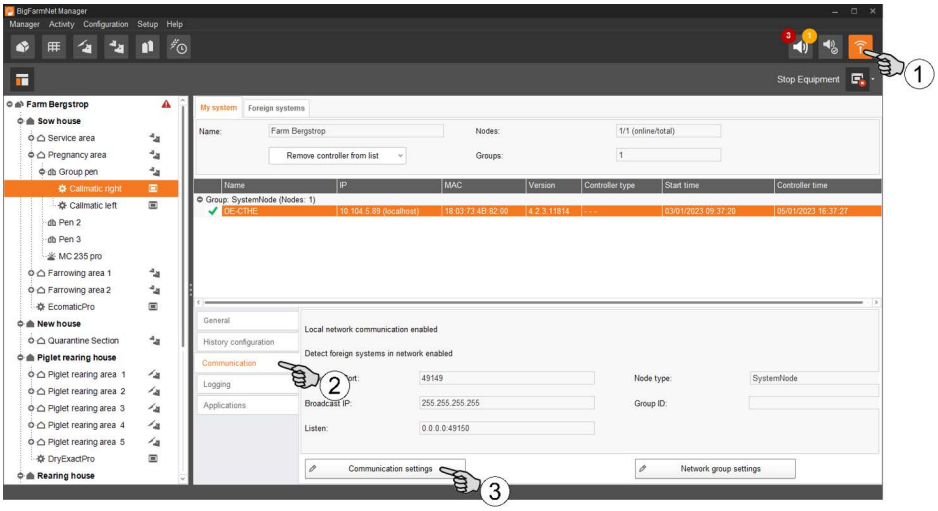
7. Enter the values for **IP address** and **Subnet mask**.



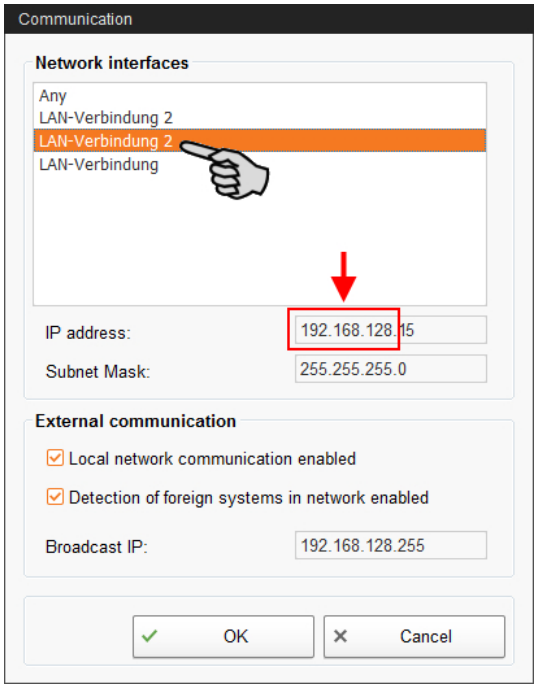
8. Confirm these inputs by clicking on **OK**.

2.3 Assigning a network card

The network card is read during the first start of BigFarmNet Manager. Its assignment can be changed later on as follows:



1. Click on the network icon.
2. Click on "Communication".
3. Click on "Communication settings".
4. Select the correct network interface. The first three octets of the IP address must match those you have entered for the Manager PC beforehand.



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

2.4 Testing the communication between control computer and BFN Manager PC

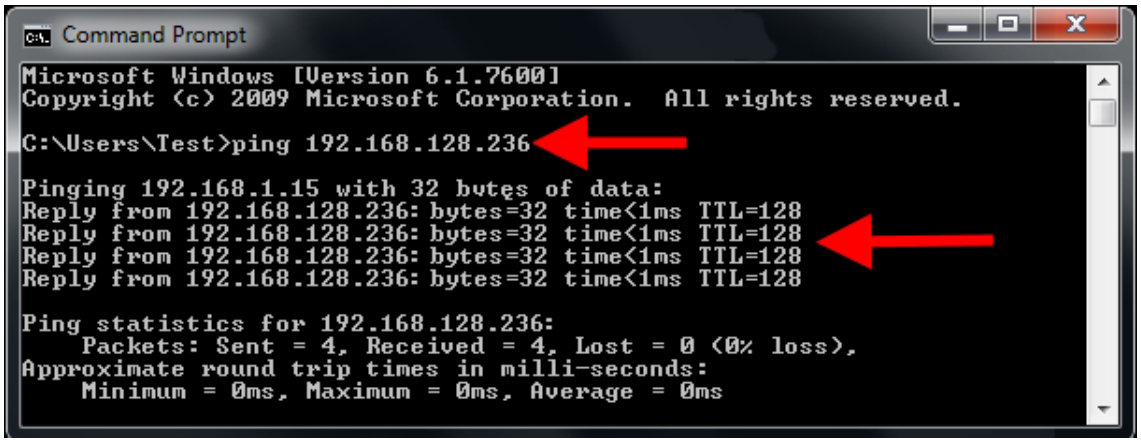
Use the "ping" command to check whether the control computer is available in the network.

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

Example in the screenshot: ping 192.168.128.236

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

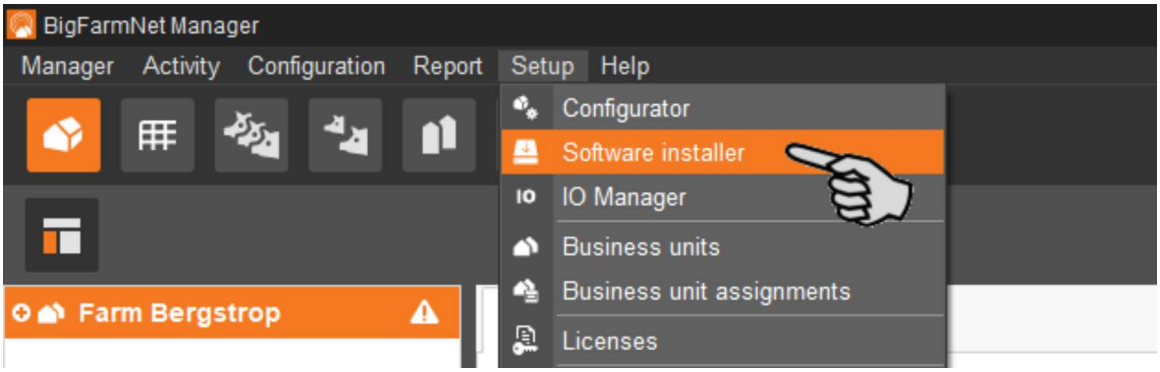
- IP address;
- packet size;
- required time;
- TTL (time to live).



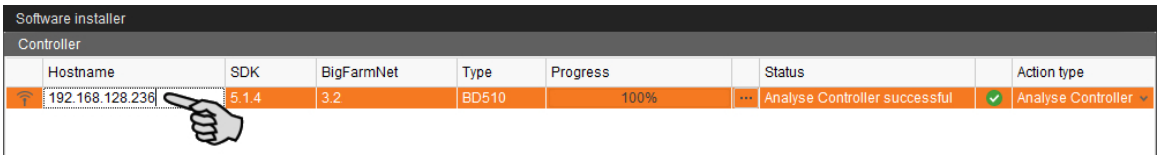
2.5 Installing the BFN software on the 510pro control computer

Upon delivery, the control computer has an operating system pre-installed. The corresponding BigFarmNet software must be installed additionally.

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

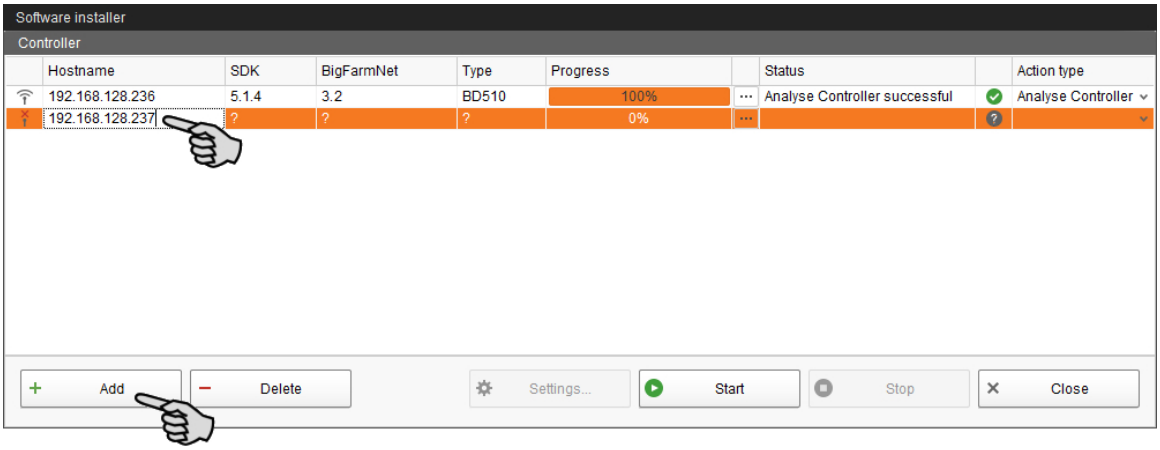


2. Enter the IP address of the control computer on which you want to install the software.



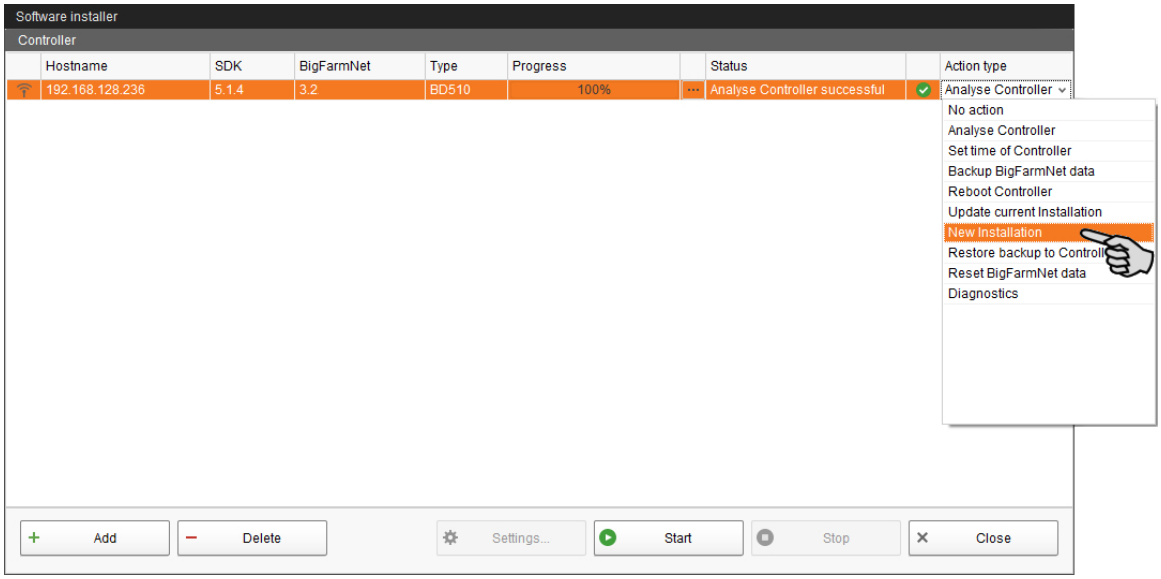
3. If necessary, add the desired number of control computers by clicking on "Add".

   This feature allows you to install the software simultaneously on multiple control computers. Each click on "Add" adds another control computer and the IP address increases by 1. However, you may change the IP address according to your wishes.



4. Click on a control computer to select it.

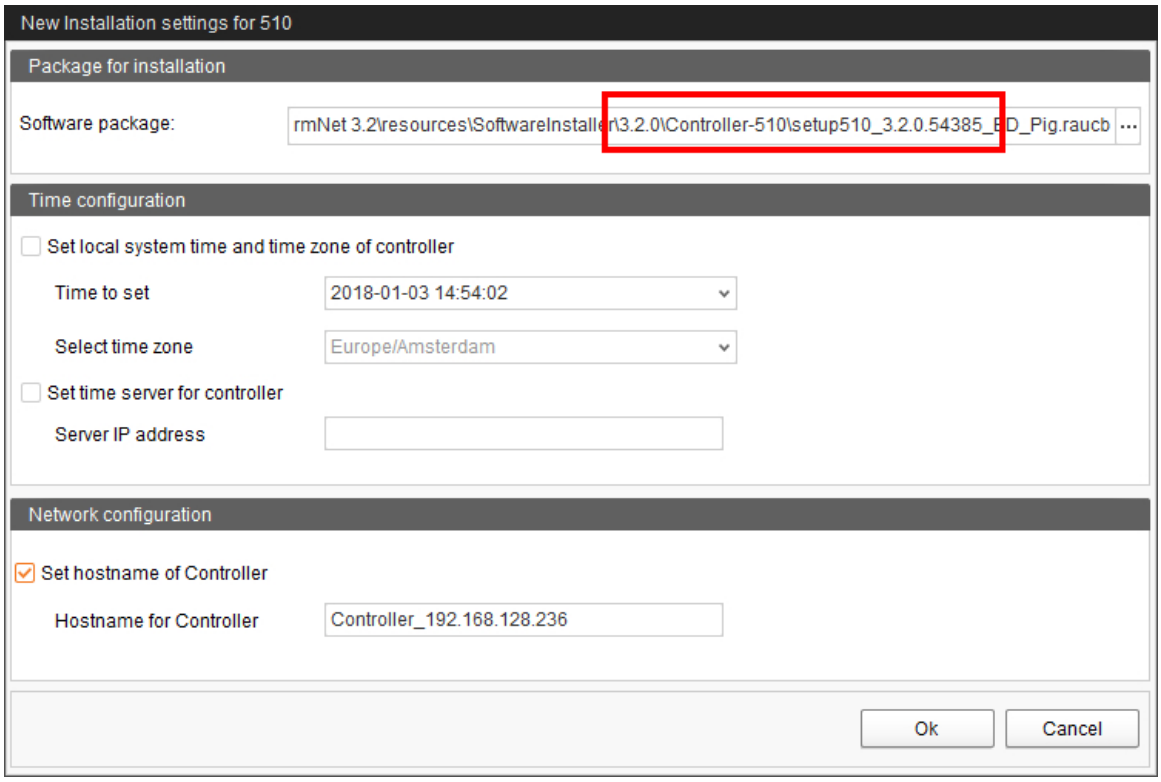
5. Click into the respective input field under "Action type" and select "New Installation".



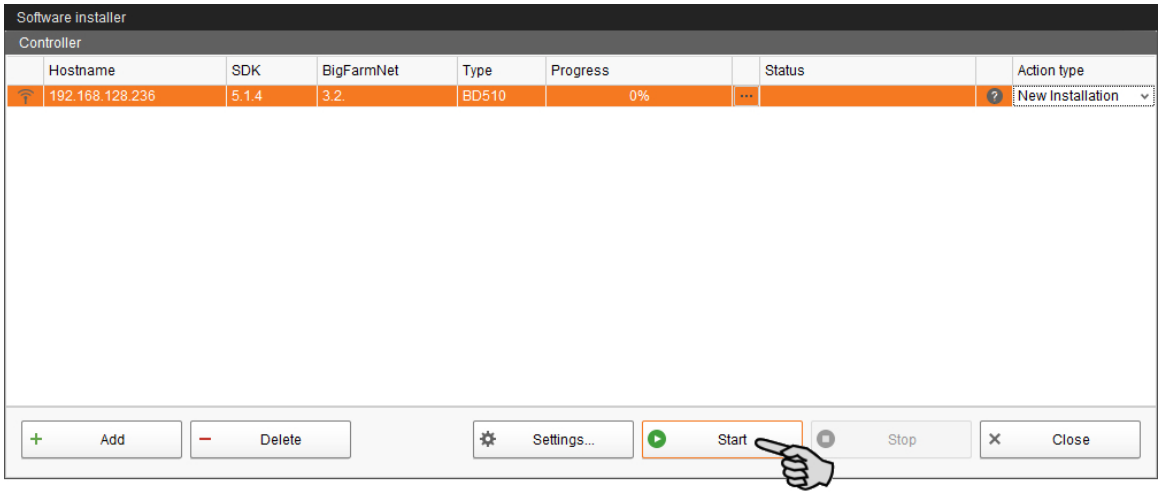
6. Click on "Settings" in the lower command bar of the dialog window.
7. Under "Software package", check whether the setup for the 510*pro* control computer is stored under the indicated path.

NOTICE!

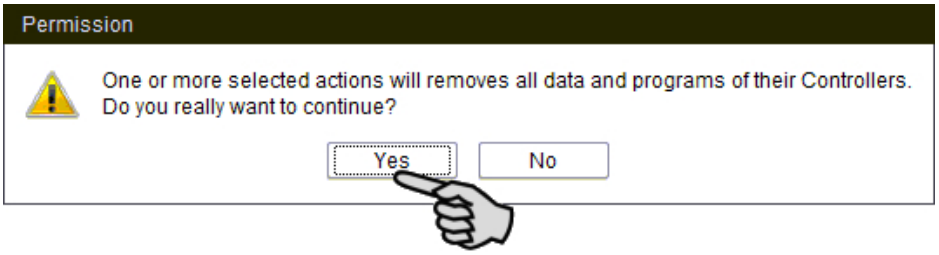
When updating, check whether the update's version number in the software package corresponds to the version you want to install.



8. Confirm the dialog by clicking on "OK".
9. Click on "Start".

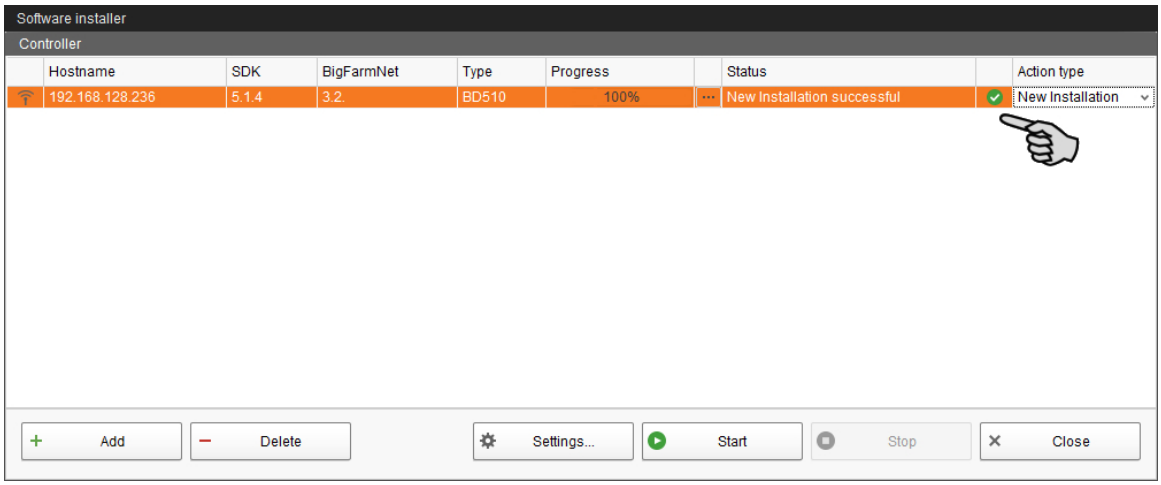


10. Confirm the prompt for confirmation.



The installation process may take a few minutes. Click on ··· to receive more information on the progress.

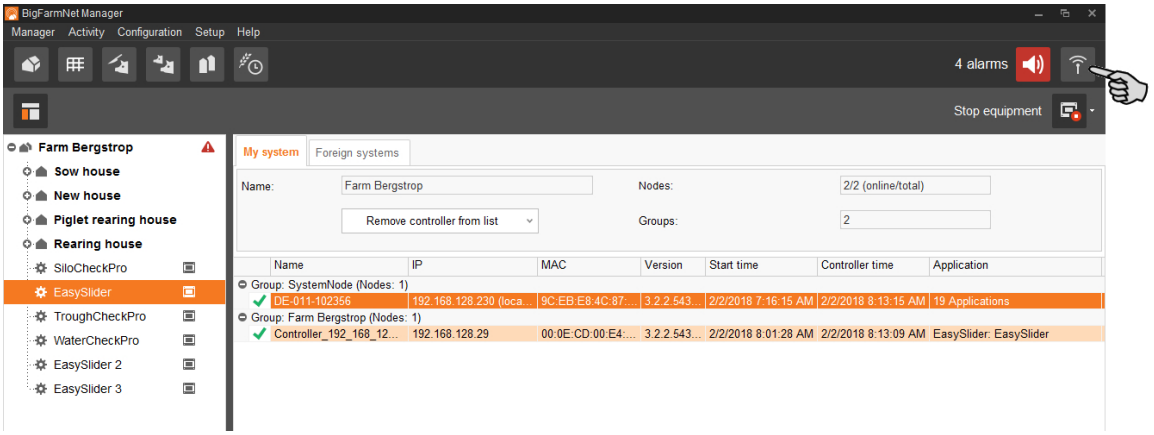
Successful installation is indicated by a checkmark in the "Status" column.



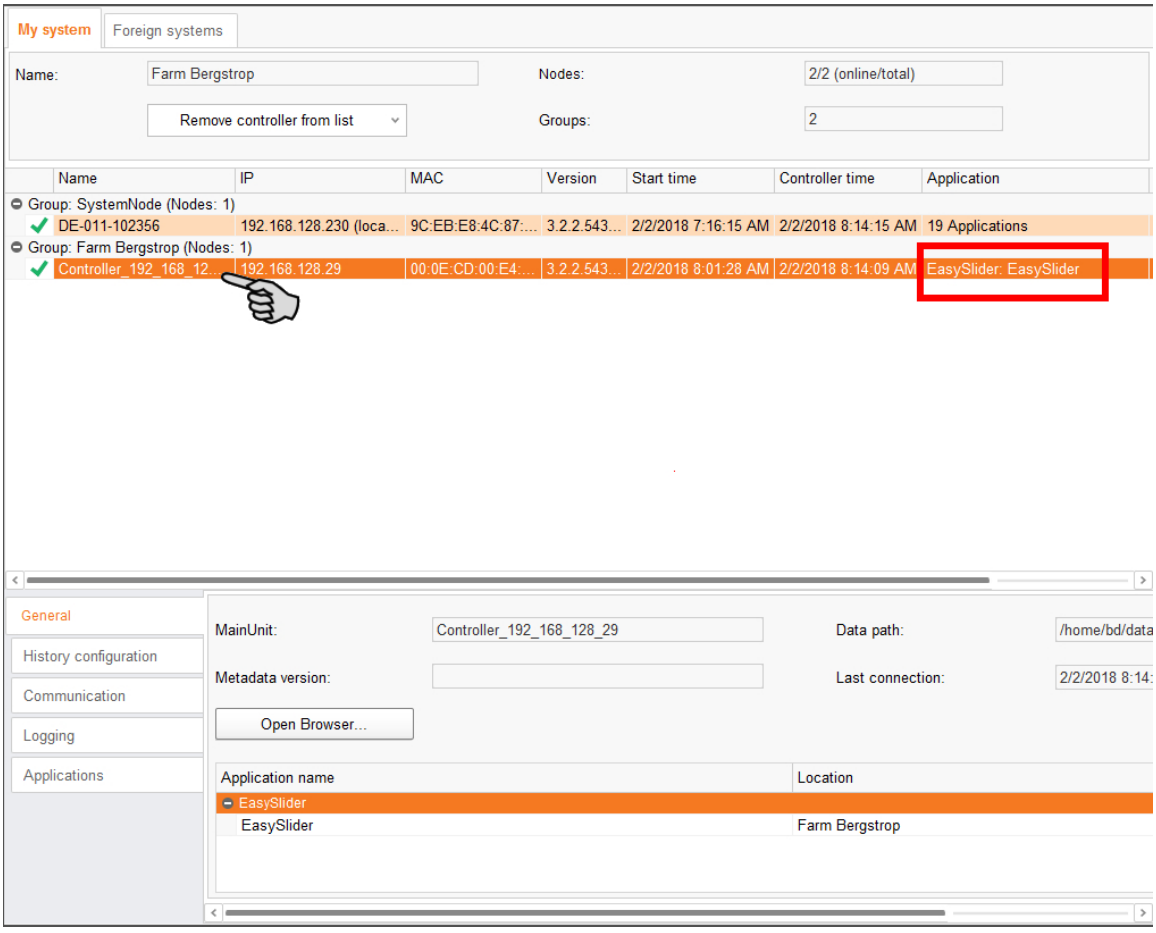
2.6 Configuring a group node

As the EasySlider application is created on the farm level, you need to configure a group node with an assigned location in the network to allow for data exchange with the control computer in the network.

1. Click on the network icon.

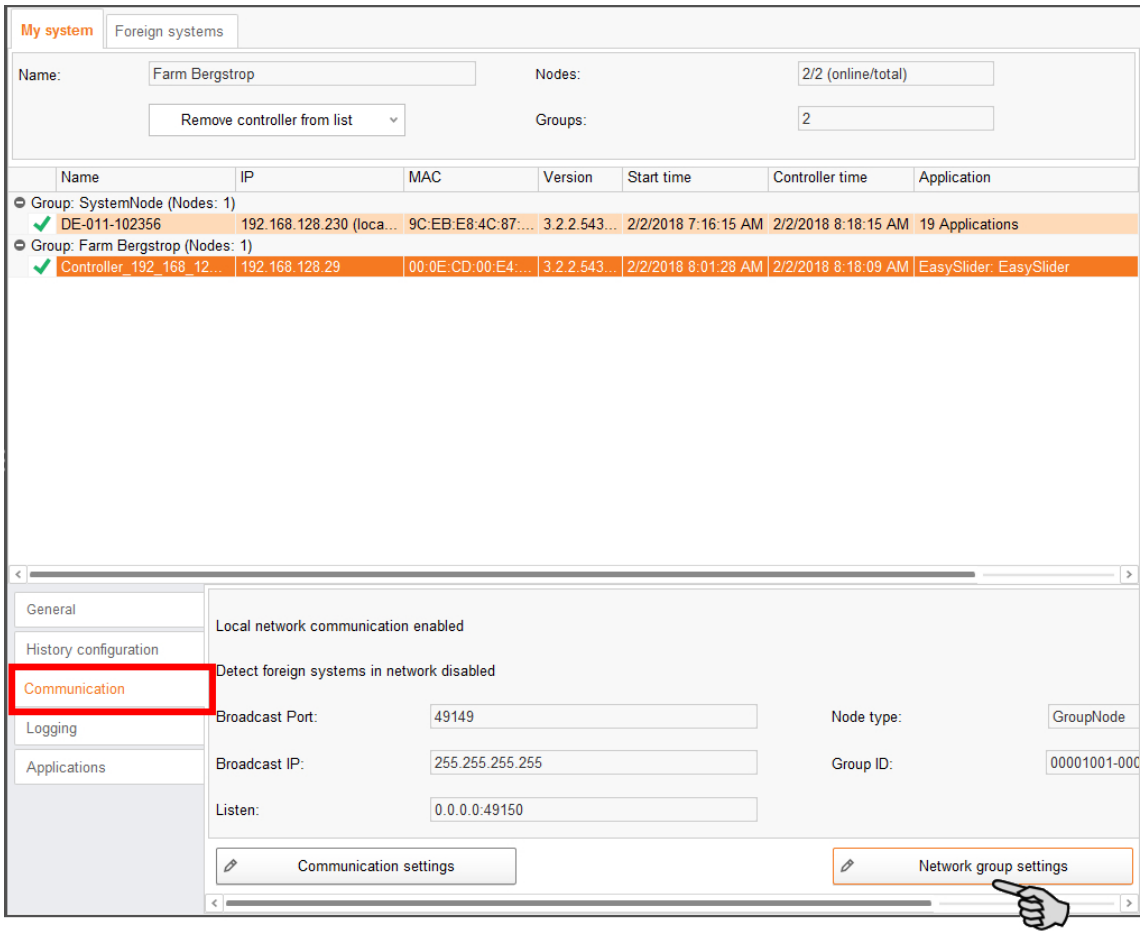


2. Click on the node of the farm level on which the EasySlider application was created.

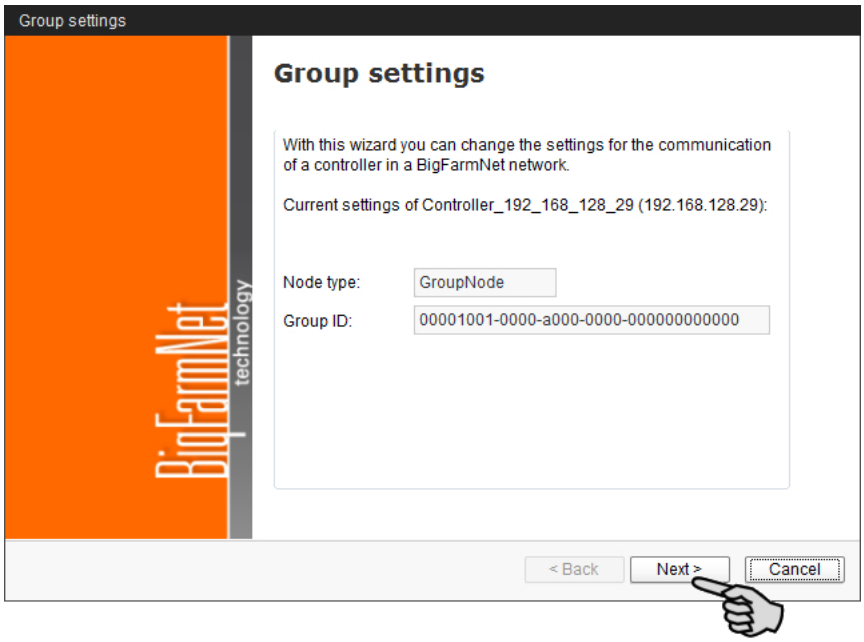


3. Click on "Network group settings" in the "Communication" category.

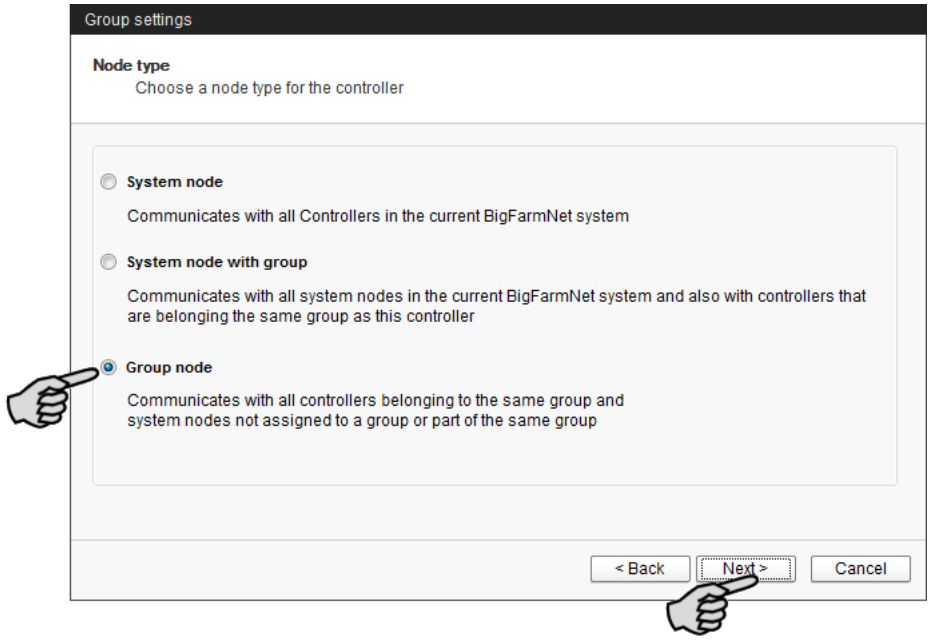
   This opens the settings assistant.



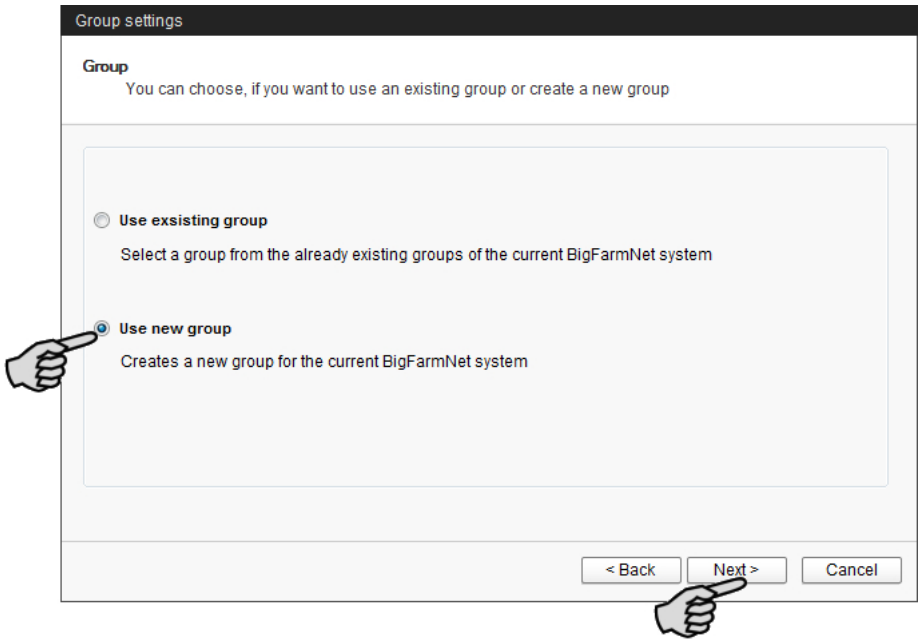
4. Make sure that the node type is "GroupNode" and click on "Next".



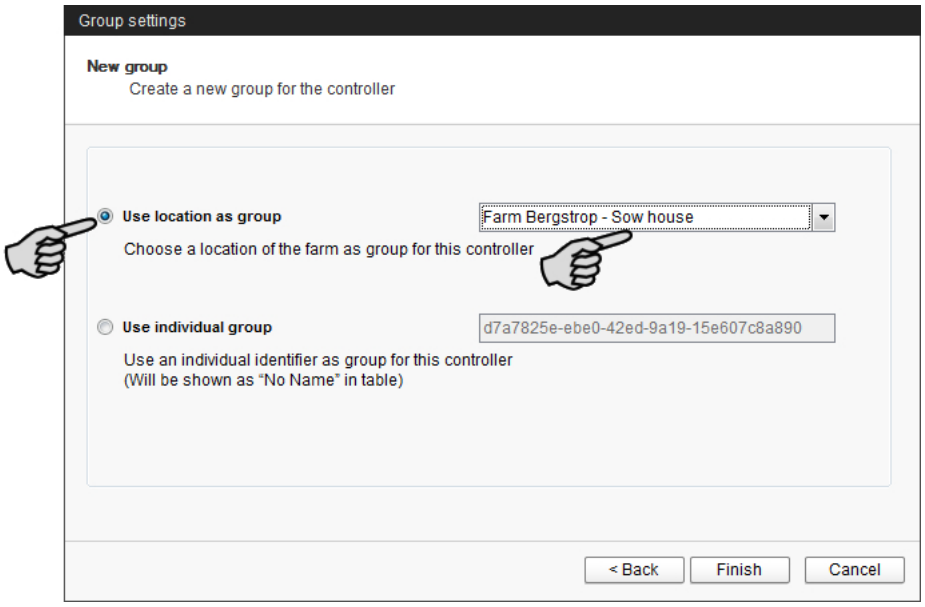
5. Select "Group node" and click on "Next".



6. Select "Use new group" and click on "Next".



7. Select "Use location as group" and select the correct location (house!) from the drop-down menu.



8. Click on "Finish".

   The application is now configured as group node on the house level.

3 Configuration of the system

3.1 Adding the control computer and the application

Add the control computer and the application to your farm structure before you configure the system according to the mechanical situation.

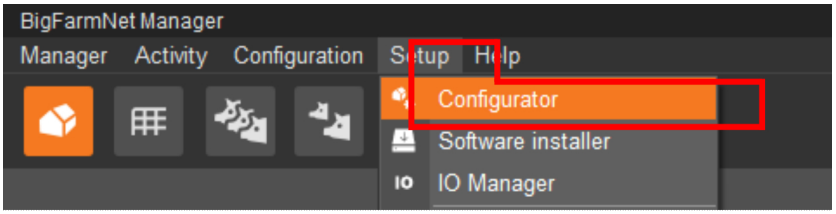
NOTICE!

Do **not** use the Configurator to create the farm structure with houses, sections and pens for this system. Circuits and feed valves must be assigned to their corresponding location (house, section and pen) in the Composer, see chapter 3.2 ”Configuring settings in the Composer”, page 25. The farm structure is generated automatically as soon as the locations have been assigned in the Composer. This approach can save much time.

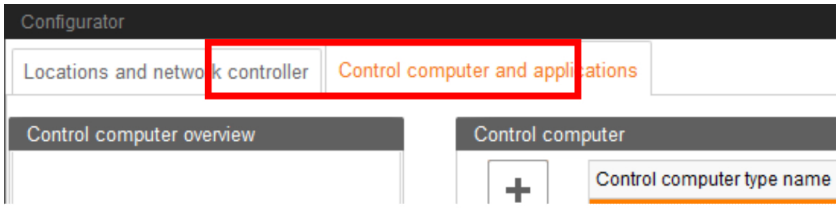
Proceed as follows:

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

   This opens the "Configurator" window.

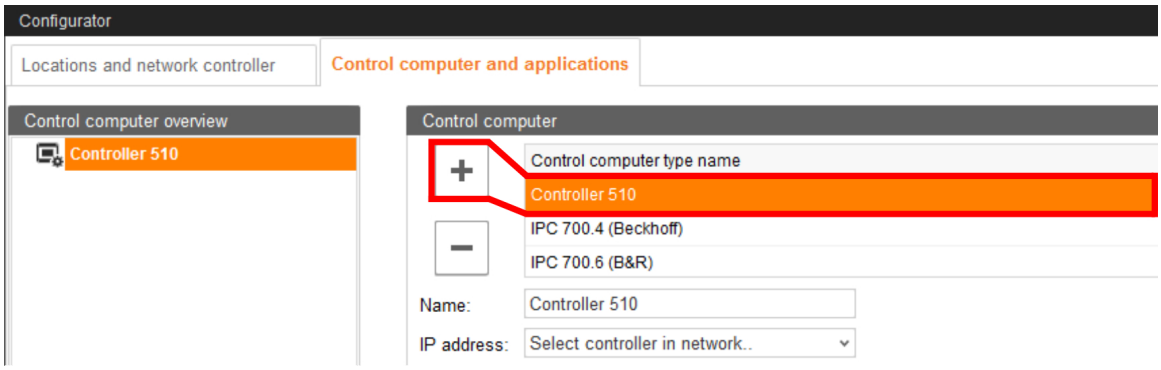


2. Click on the "Control computer and applications" tab.

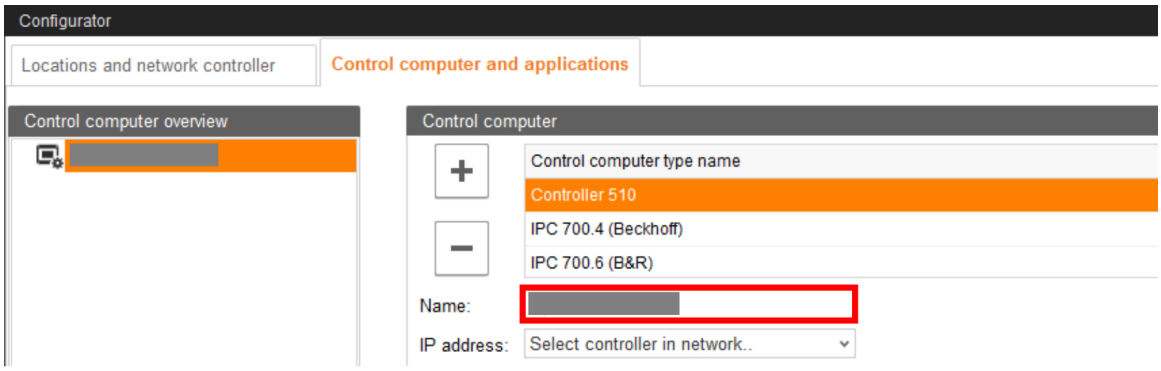


3. Select the correct control computer in the upper part of the window under "Control computer" and click on the plus button.

   The control computer is now added on the left under "Control computer overview".



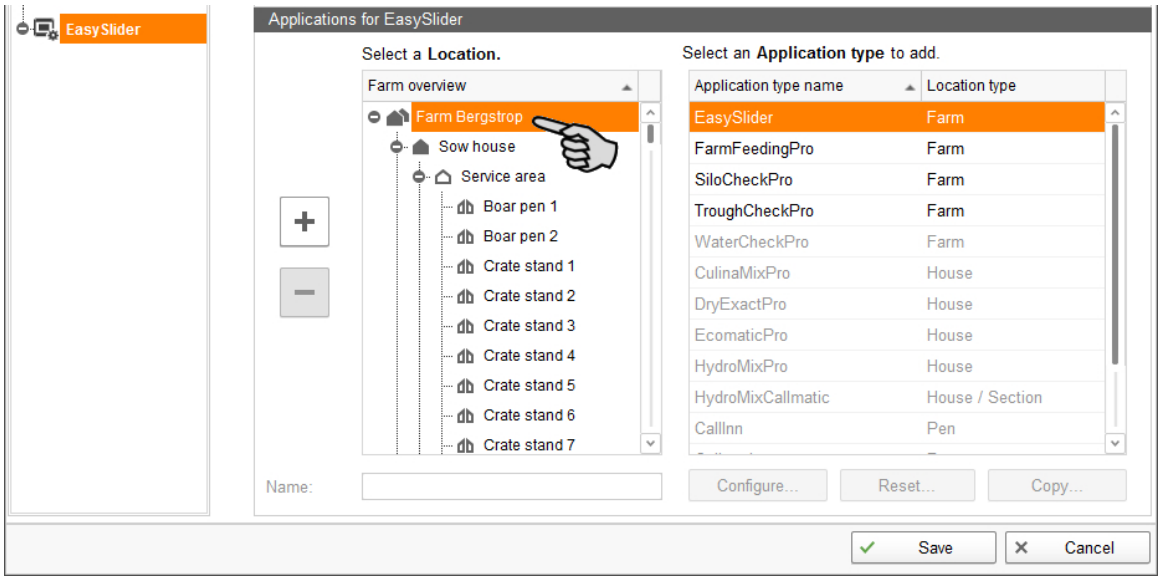
4. Enter a name for the control computer.



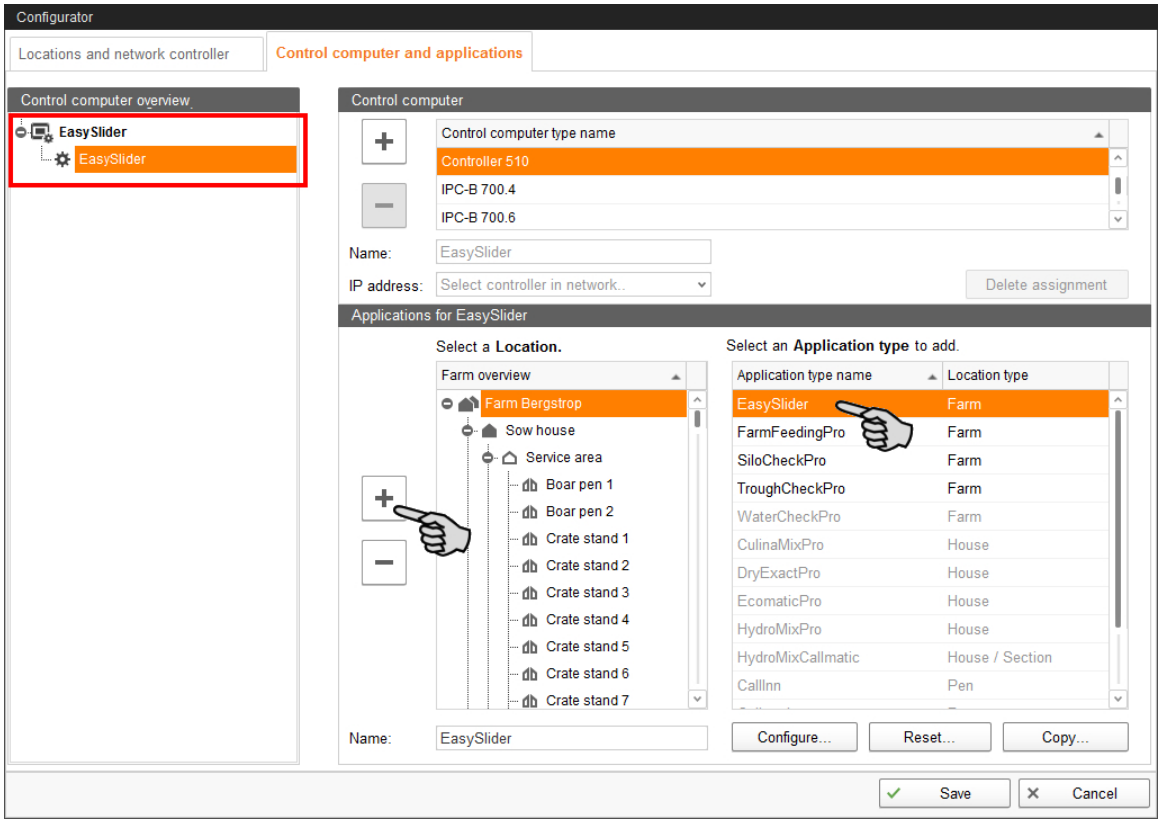
5. From the lower part of the window under "Applications for...", select the location where the system is to be operated.

   The applications available for selection depend on the selected location.

   The EasySlider control software can only be added on the farm level.

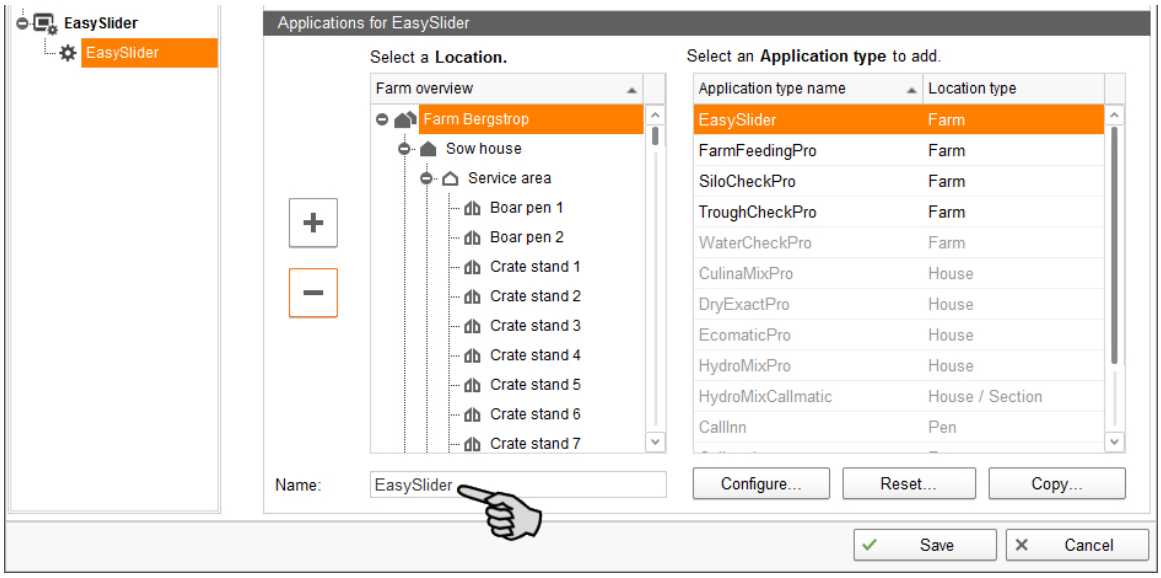


6. Select the correct application in the table on the right and click on the plus button to the left.



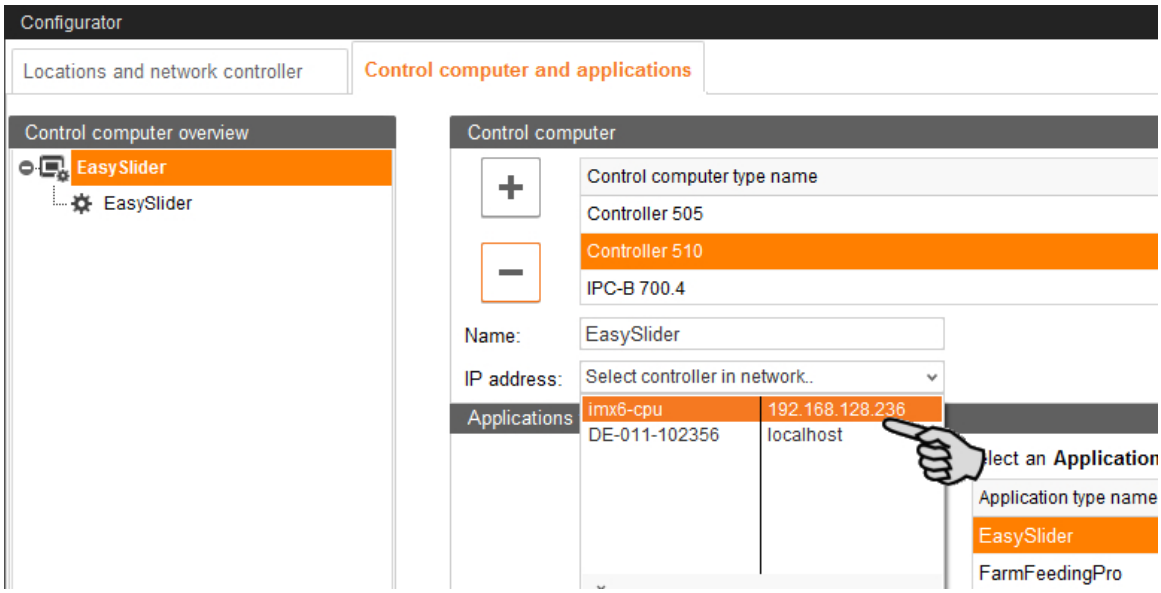
The selected application is assigned to the control computer on the left under "Control computer overview". In the structure, the control computer is displayed on the upper level and the respective application on the lower level.

7. Enter a name for the application.



8. Click on the level of the control computer in the left-hand part of the window under "Control computer overview".
9. Assign the corresponding IP address to the control computer, if known.

   If the IP address has not been set up yet, you will need to add it later on.



10. Save your settings by clicking on "Save" and confirm the next dialogs with "OK".

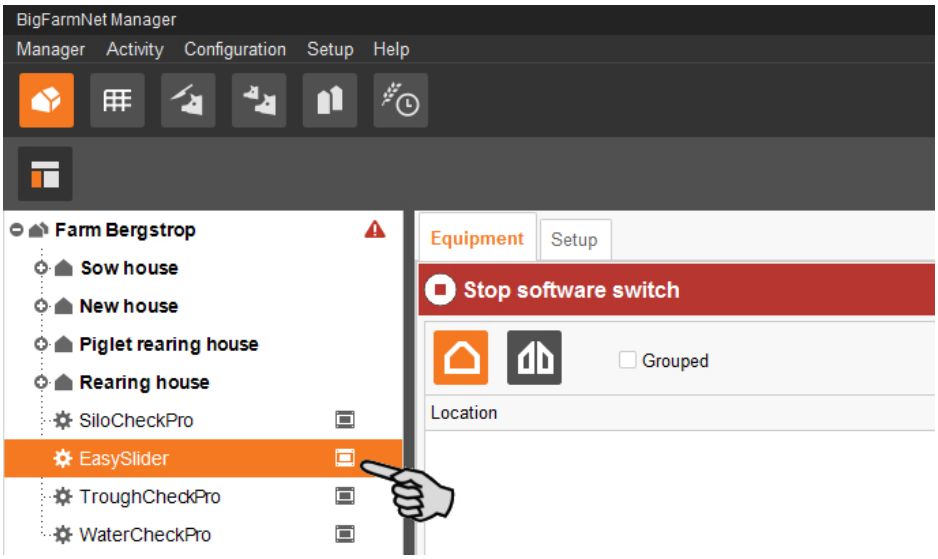
3.2 Configuring settings in the Composer

Define the functional range and configure settings according to the system's structure in the Composer. These settings are usually configured once.

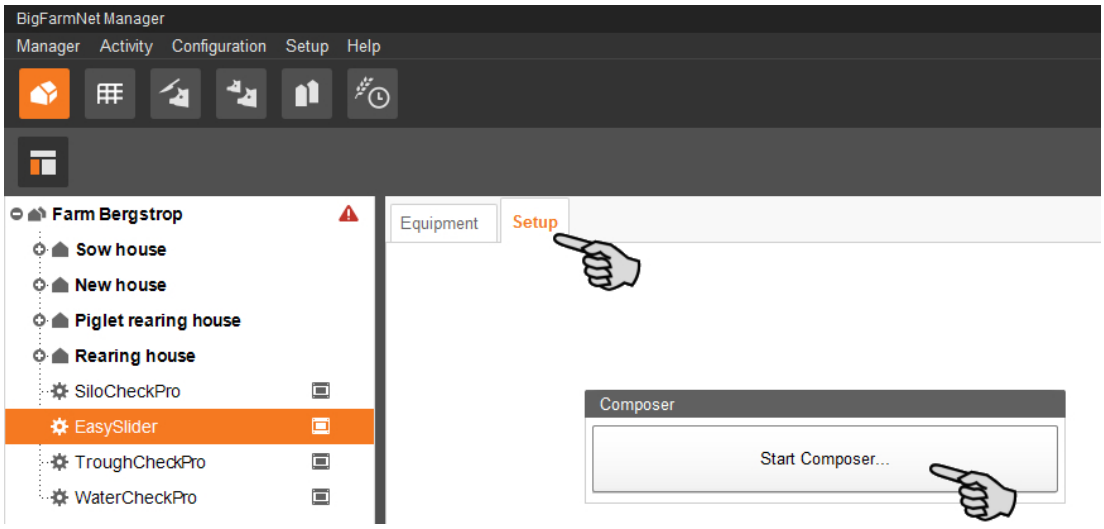
NOTICE!

Check whether the system is running. Stop the system by clicking on Stop in the upper bar.

1. Click on the controller icon of the respective system application in the farm structure.

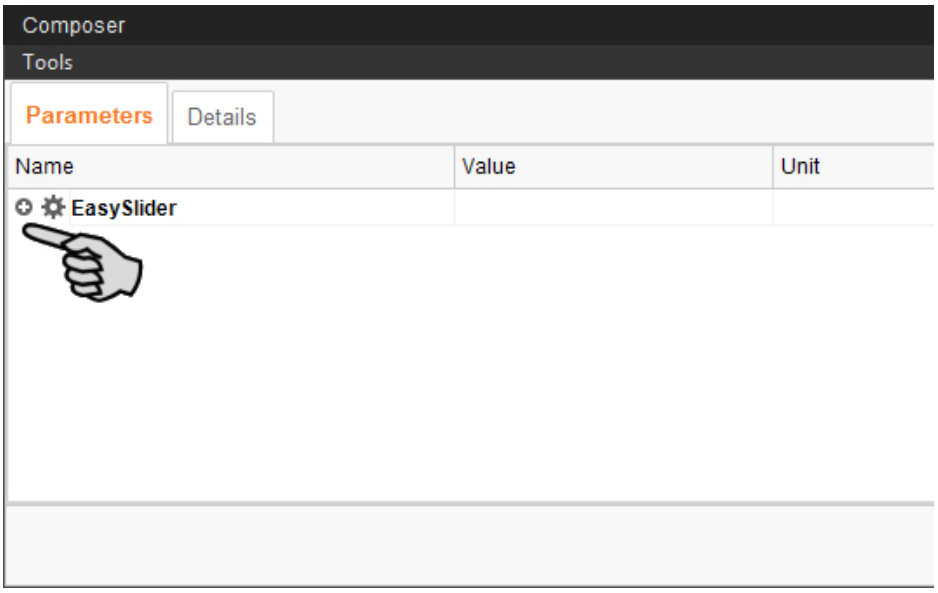


2. Under "Setup", click on "Start Composer...".



3. Click on the plus icon to show hidden parameters.

   Also open subordinate parameters by clicking on the respective plus icon.



4. Configure the settings in accordance with the structure of the EasySlider system. Change pre-set values, if necessary.

   The column "Comment" contains information for setting of the values. The following explains some of the parameters:

   ValveSensorCards/ValveSensorPlusCards: Number of ValveSensor cards or ValveSensorPlus cards (with additional outputs for status lamps). Are used for external feed delivery, for example. One card is required for 16 pens.

   BDDIO32LC: Number of BDDIO32LC cards. Are used to pilot the water valves, for example.

   Timed relay: Number of time relays. Are used for time-controlling the lighting or piloting the water valves, for example. One time relay is required per section.
   For the time relay settings, see chapter 4.1.9.

   Control type: Defines how feed dispensing is triggered.

   "Sensor" = sensor-controlled operation = sow requests feed.

   "Time" = time-controlled operation = feed is dispensed at fixed intervals.

   Groups: Number of sections.

   EasySlider group:

   – **Stations:** Number of pens in this section.

– **Tag detection:** Defines whether status LEDs to display the sows' eating status in the pens are installed or used. Only applicable for sensor-controlled operation.

  "Enabled" = status LEDs are used.

  "Disabled" = no status LEDs are installed or used.

  For the status LED settings, see chapter 4.1.4.

– **Alarm relay:** Defines whether water valves are installed or used in the pens or in this section.

  "Disabled" = no water valves are installed or used.

  "Group" = one water valve is used for the entire section.

  "Station" = each pen uses its own water valve.

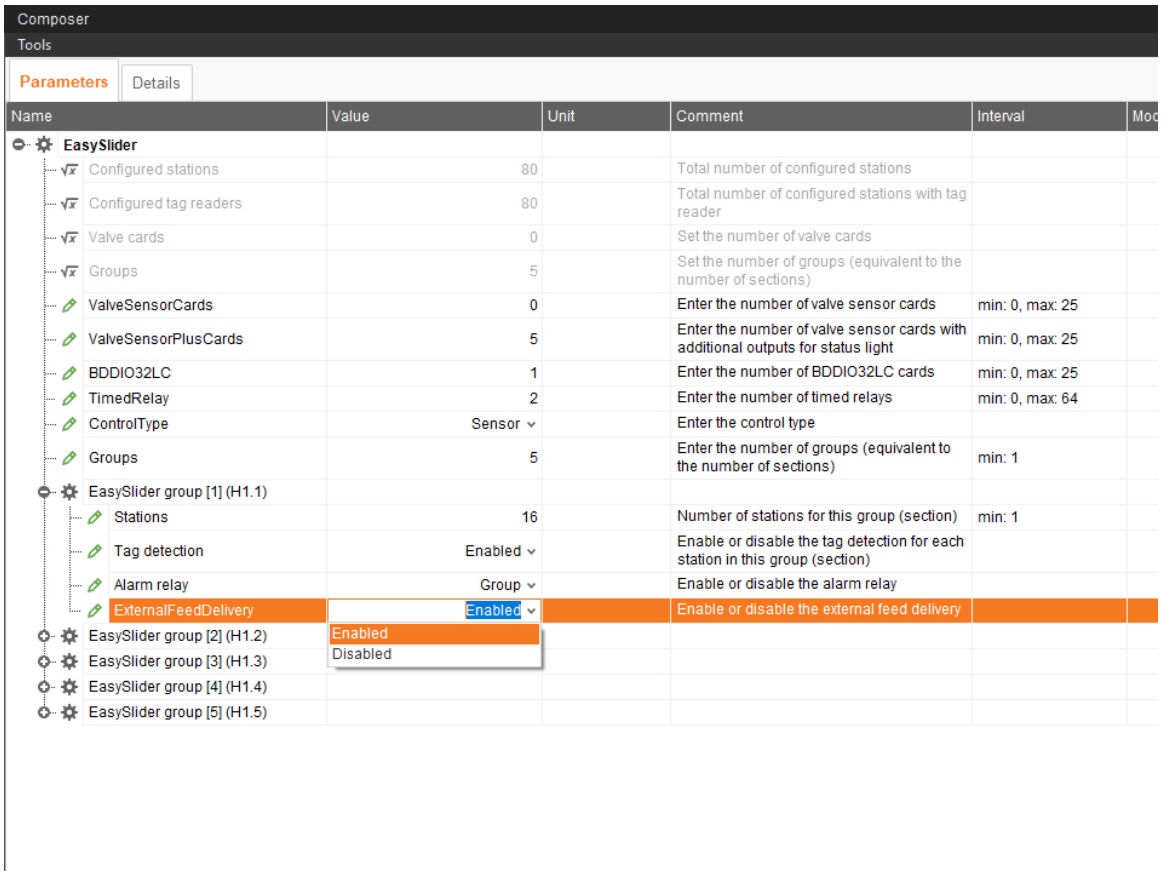
  For the water valve settings, see chapter 4.1.7.

– **External feed delivery:** Usually, a dry feeding system supplies the EasySlider hoppers with feed. When a sow requests feed in a pen, this function sends a signal to the dry feeding system via the output of the ValveSensor card or the ValveSensorPlus card, and receives a signal from the full sensor after completed filling.

  "Enabled" = external feed delivery is used.

  "Disabled" = no external feed delivery is installed or used.

  For the settings to start and monitor the dry feeding system, see chapter 4.1.8.

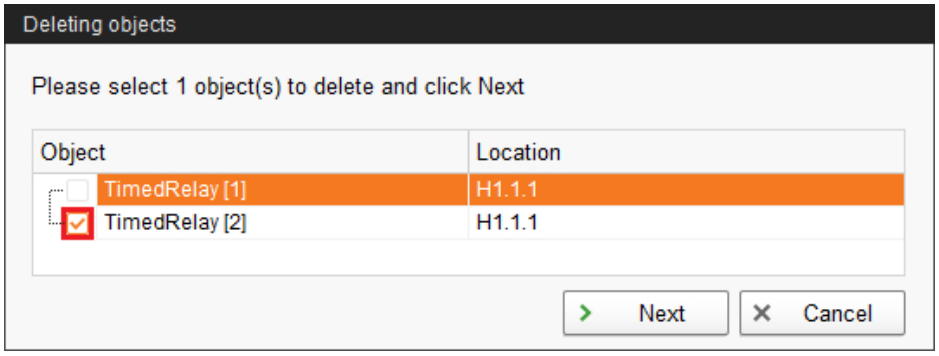


5. Proceed as follows to delete system components:

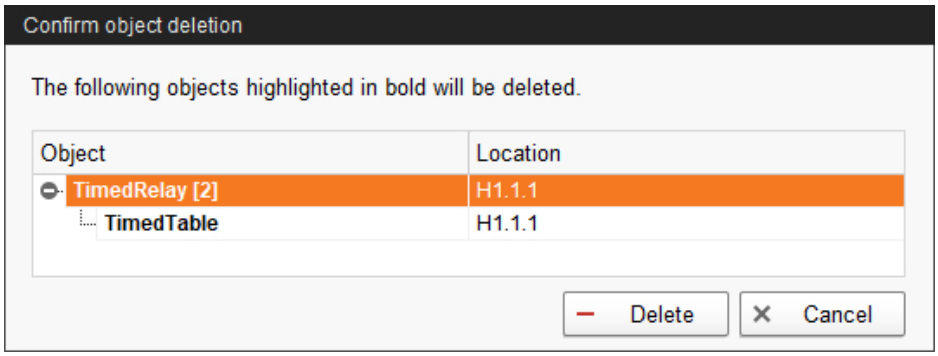
   a) Enter the new quantity (a lower number or 0) and press Enter.

   This opens a new dialog window that shows the system components with their assigned locations.

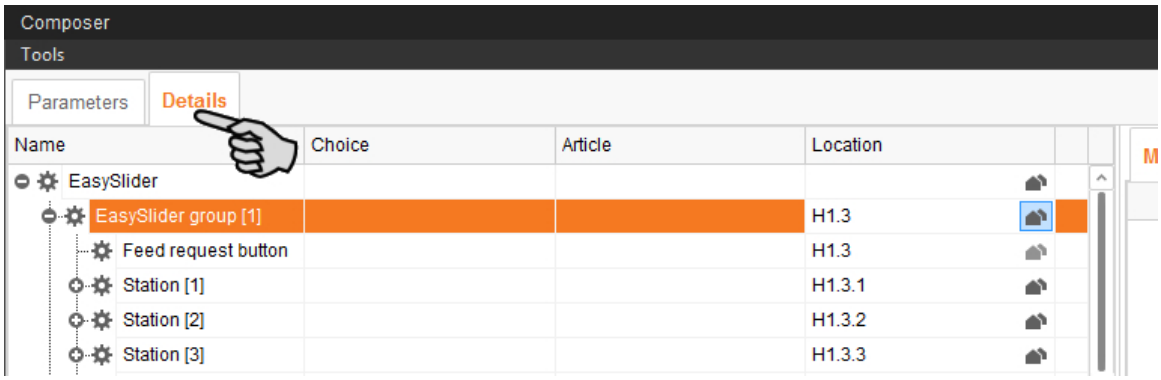
   b) Select the object(s) you wish to delete and click on "Next".



   c) In the next window, confirm that you want to delete the object(s) shown by clicking on "Delete".

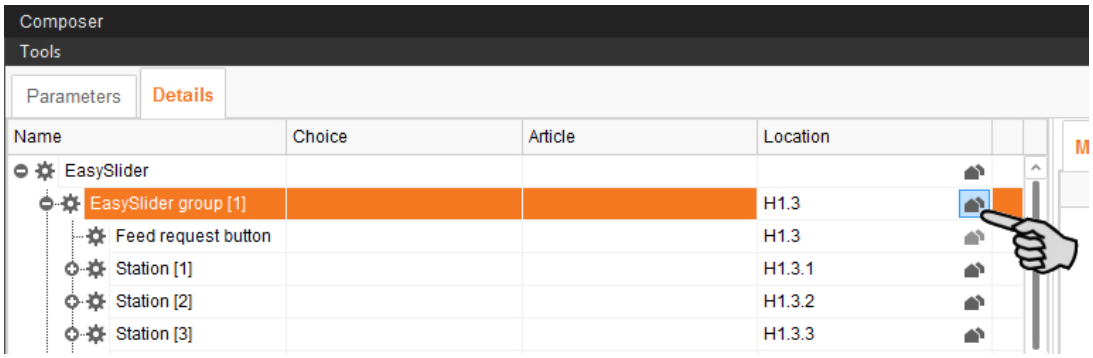


6. Click on the "Details" tab and open the different stations of the EasySlider groups by clicking on the plus icon.



7. Assign the exact installation location to each EasySlider station.

   a) If you want to define the location of the entire group (section), click on the house icon in the line "EasySlider group".

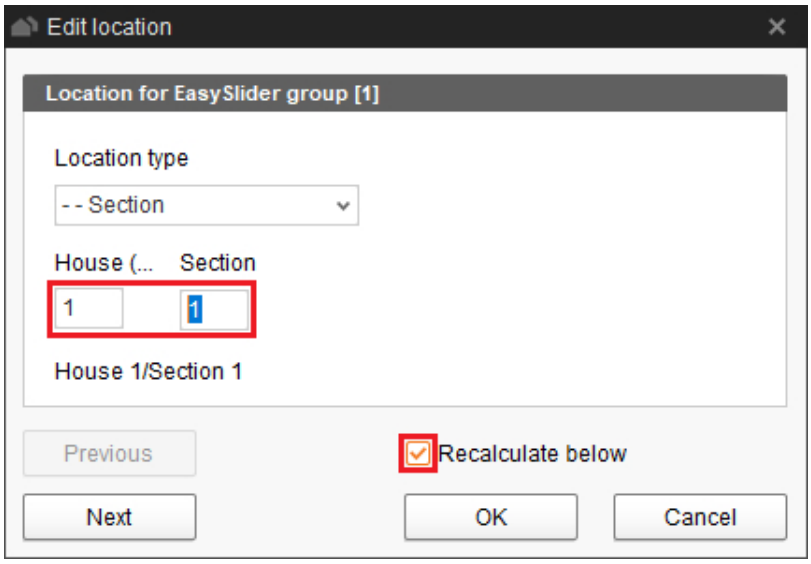


   Or:

   If you want to define the location of single stations, click on the house icon in the line "Station".

b) Enter the correct location (in this example: for the group) in the next dialog window.

If the box "Recalculate below" is checked, all subordinate stations of the selected group are adjusted automatically.



c) Click on "Next" to move to the next group.

d) After you have assigned a location to all groups and stations, confirm your inputs by clicking on "OK".

8. Click on "Save" to accept all settings for the Composer.

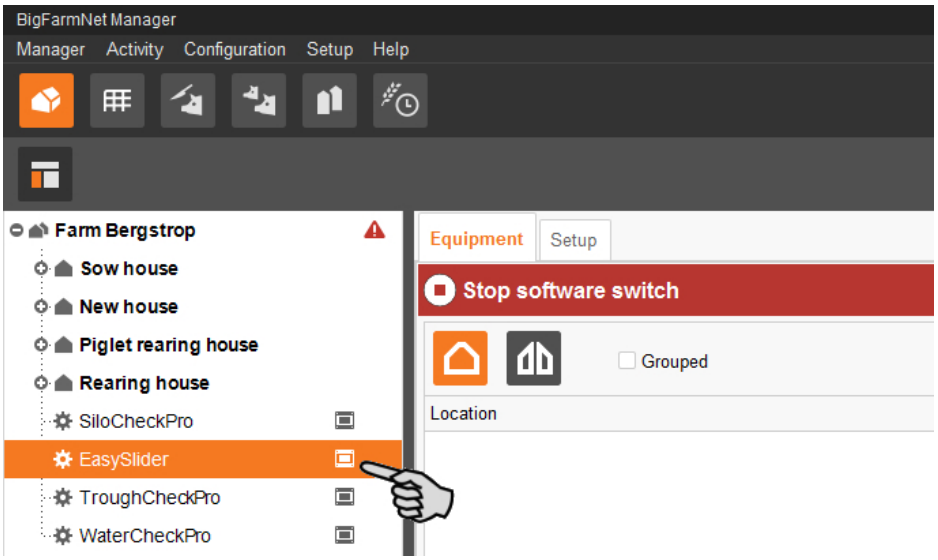
NOTICE!

The locations intended for the system are automatically added to the farm structure after the settings have been configured in the Composer.

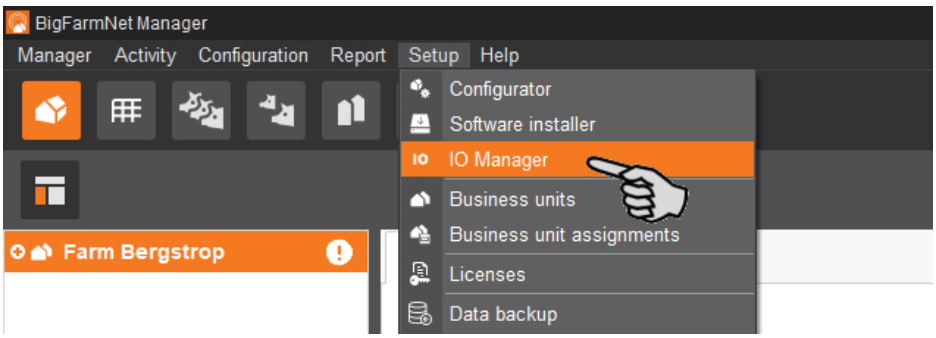
3.3 Configuring the IO Manager

The controller is configured in the IO Manager. Assign the system functions that you defined in the Composer in the previous step to the IO cards.

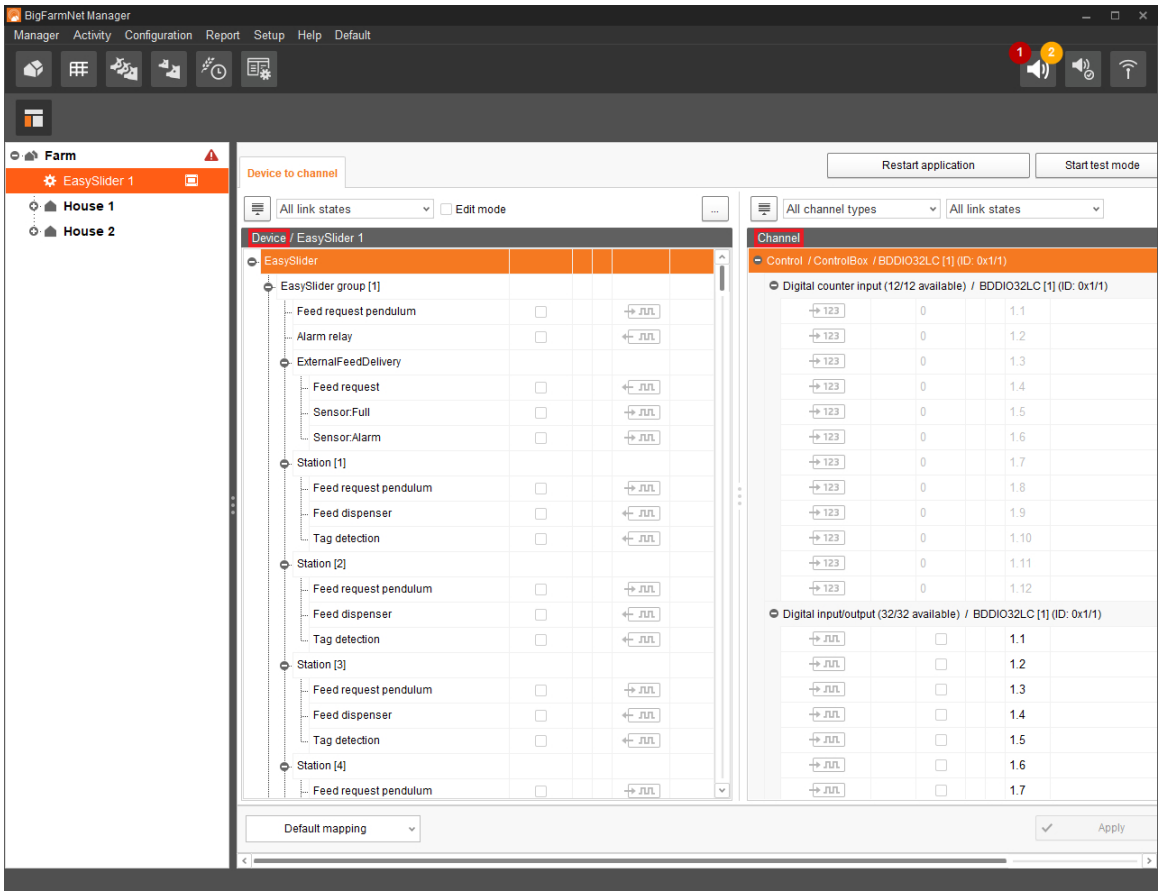
1. Click on the controller icon of the respective system application in the farm structure.



2. Click on "IO Manager" in the "Setup" menu.



The IO Manager opens in the application window. The left-hand part of the window shows the individual devices of the system under "Device". The right-hand part of the window displays the channels of the IO cards under "Channel".



EasySlider can use the following devices:

- **Feed request pendulum** (per section): manual switch

  A single activation immediately triggers dispensing of one feed portion in every active pen of the section.

  A double activation within three seconds immediately starts the upcoming feeding period in every active pen of the section. The end of the feeding period is also moved ahead so the overall duration does not change.
  A feeding period that was moved ahead in this manner is displayed with an orange background in the feeding period overview (see chapter 4.2) with the adjusted times.

- **External feed delivery** (per section): see chapter 3.2

  Feed request: Switches on external feed delivery

  Sensor: Full and **Sensor: Alarm**: Monitors external feed delivery

- **Alarm relay** (per section or pen): see chapter 3.2
- **Feed dispenser** (per pen)
- **Feed request pendulum** (per pen): only for sensor-controlled operation

- **Tag detection** (per pen): only for sensor-controlled operation, see chapter 3.2

Adjust the view in the IO Manager as follows using the upper bar:

– Expanding or collapsing the structure entirely
– Displaying the device and/or channel according to the link state
– Enabling or disabling the edit mode, in which you can edit device names and create links between devices and IO cards manually with your keyboard
– ... Showing the control cabinet number
– Showing the channel according to the channel type

The interfaces of the devices and the IO cards are indicated by the following icons:

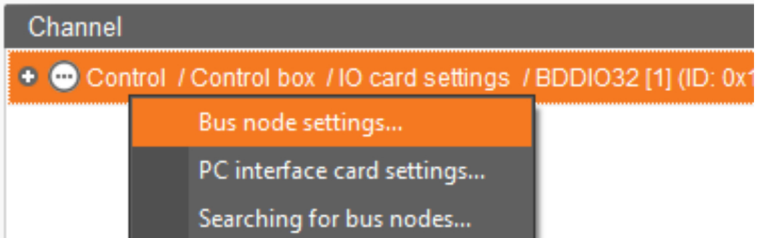
– Digital output
– Digital input
– Analog output
– Analog input
– 123 Counter input
– Serial interface
– Linked interfaces are colored:
– Non-linked interfaces are grayed out:

3.3.1 Changing the node ID

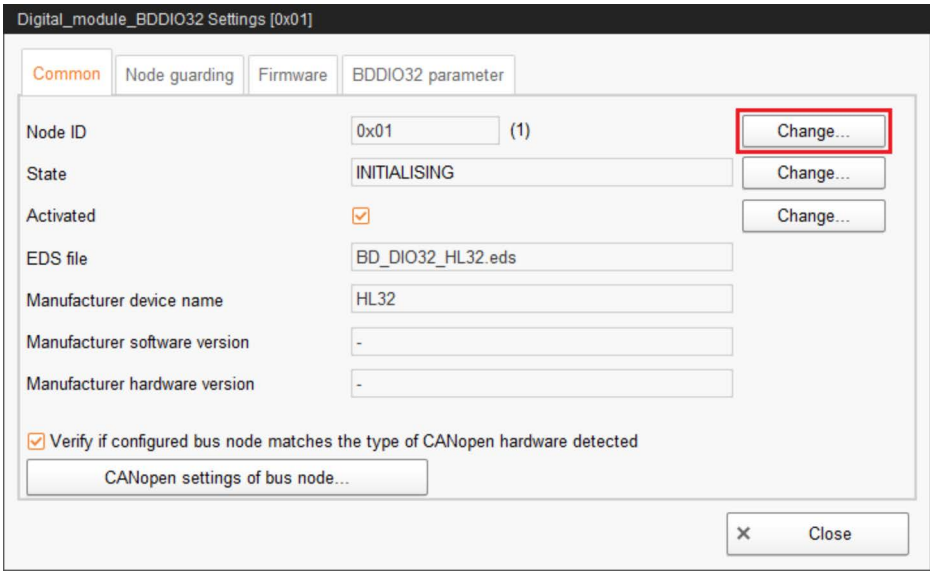
Please refer to the enclosed wiring diagram for information on the devices' CAN addresses. Assign the CAN addresses in accordance with the wiring diagram.

1. On the IO cards to be assigned, check to which CAN ID the rotary switch of each card is set (in the control box).
2. Open the context menu by right-clicking on the IO card (top level) and click on "Bus node settings...".

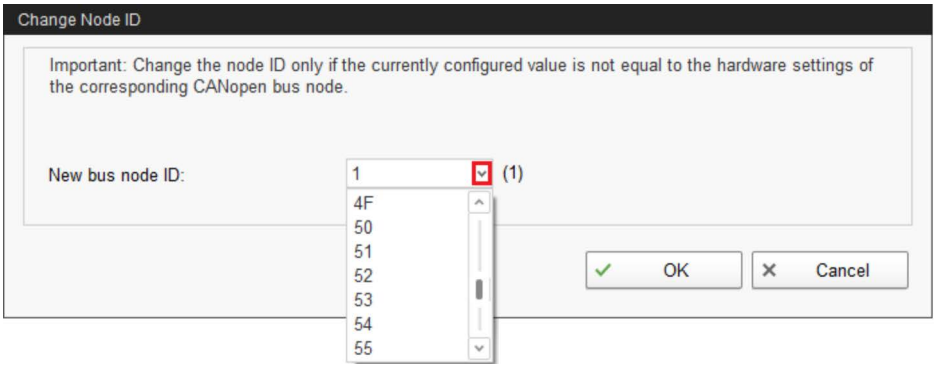
   This opens a new dialog.



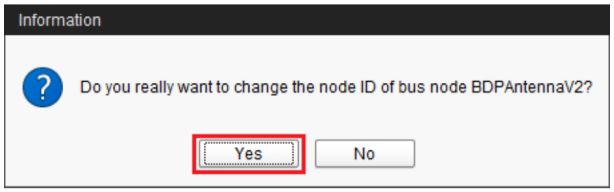
3. In the first tab, click on "Change..." next to "Node ID".



4. Select the new node ID and click on "OK".



5. Confirm the prompt for confirmation.



6. Click on "Close" to close the dialog.

7. Click on the button "Restart application" to accept the settings.

3.3.2 Creating links

Link the different devices with the corresponding IO card. The system supports the "Default mapping" function (button at the bottom of the window). You can thus create links either manually or by using the default mapping.

Default mapping

If wiring has been carried out according to the wiring diagram, click on "Default mapping" in the lower command bar.

The system now loads the default mapping saved according to the wiring diagram. The functions of the system are automatically assigned to the IO cards.

NOTICE!

Make sure to check the established links by referring to the supplied wiring diagram.

Manual assignment

1. Change one or more inputs to outputs with the supply voltage +24 V in the "Channel" area, where necessary.

   The default shows only inputs at first.

   This function is only possible for IO cards type BDDIO32 and BDDIO32LC.

   a) Select one input or select multiple inputs by holding the Ctrl key.

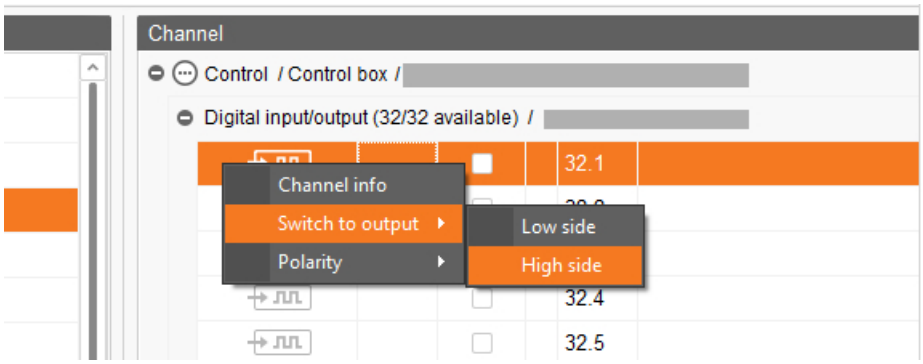
      Multiple editing is only possible for channels of the same type.

   b) Right-click into the marked area.

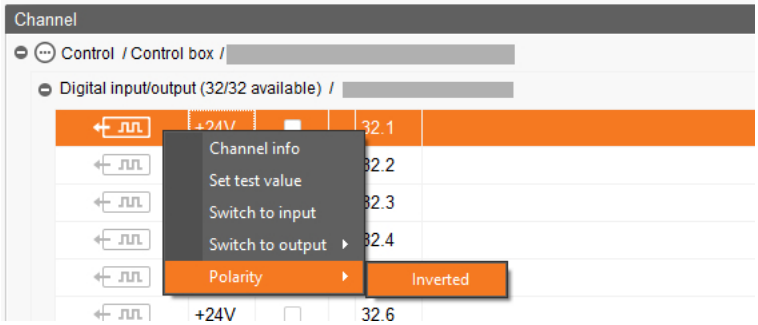
c) In the context menu, select "Switch to output" > "High side", if the new output should switch to high side (24 V).

OR:

In the context menu, select "Switch to output" > "Low side", if the new output should switch to low side (ground).



d) If necessary, you can invert the polarity of the signal by clicking on "Polarity" > "Inverted" in the context menu.



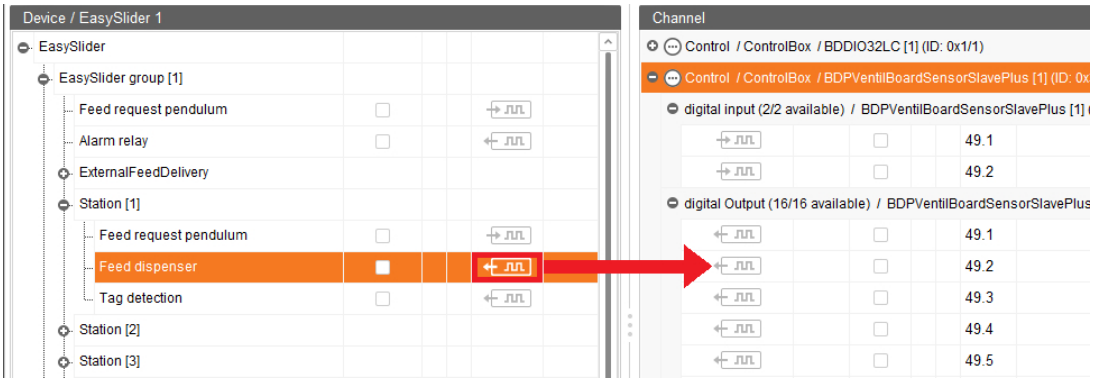
2. Select one of the following options to link the interfaces:

Option 1:

a) Click on the interface of the respective system component and hold the mouse button.

b) Hold the mouse button and move the mouse to the interface of the correct channel, then release the button.

The system component and the channel are now linked. The icons are colored .

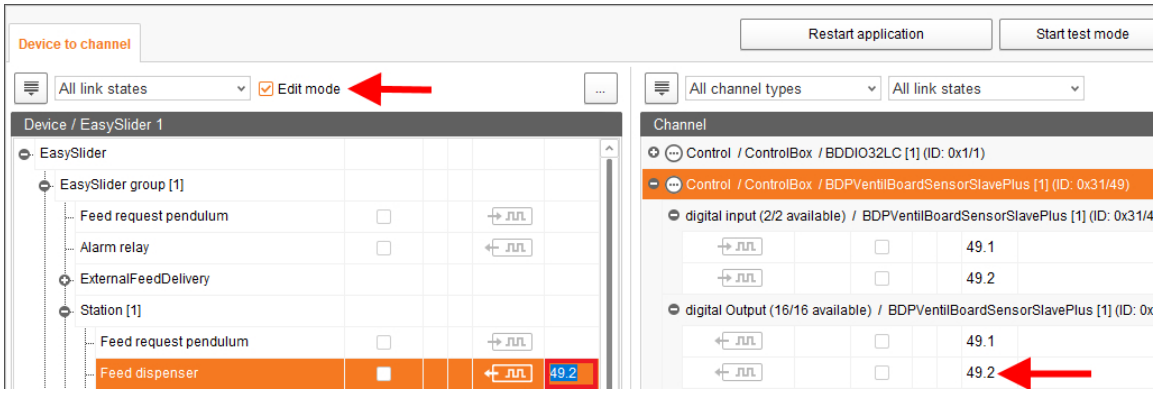


Option 2:

a) Activate the edit mode in the upper bar.

b) The IO card interfaces have numbers. Enter the corresponding number for the system component's interface.

The system component and the channel are now linked. The icons are colored .



3. If you have created an incorrect link, right-click on the corresponding linking icon. Click on "Delete connection" in the context menu.

NOTICE!

Checking links:

Double-click on the respective device to mark the linked channel.

4. Click on "Save" in the bottom command bar after having established all links.
5. Click on "Restart application" at the top of the window to start the control.

3.3.3 Importing a wiring diagram

Wiring diagrams can be loaded in CSV format.

1. Click on the arrow pointing downwards next to the button "Default mapping" in the lower bar.

   This opens a context menu.

2. Select "Load control cabinet mapping".

3.3.4 Using the test mode

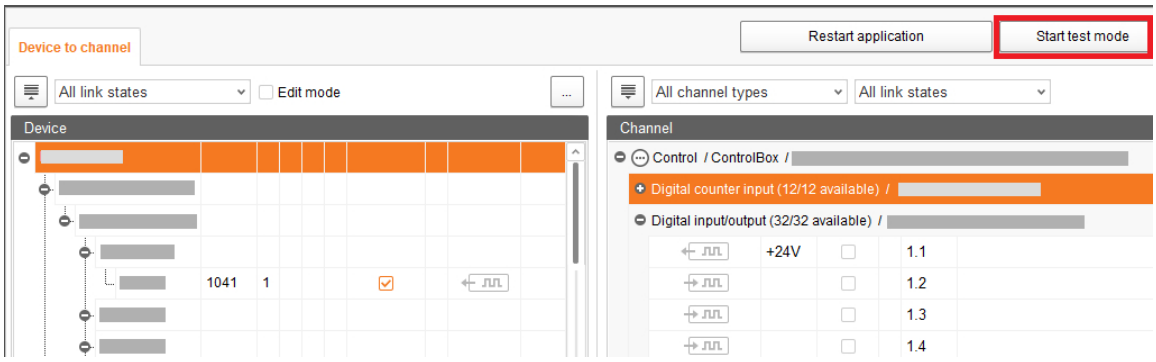
In the test mode of the IO Manager, all devices can be turned on and off to check the correct setup of the control before starting to operate the system.

⚠ CAUTION!

Only service technicians may use the test mode. Devices may start in case the system is connected. Make sure that no persons or animals are located in or around the station while using the test mode.

Deactivate the test mode when finished.

1. Click on "Start test mode" in the upper bar.



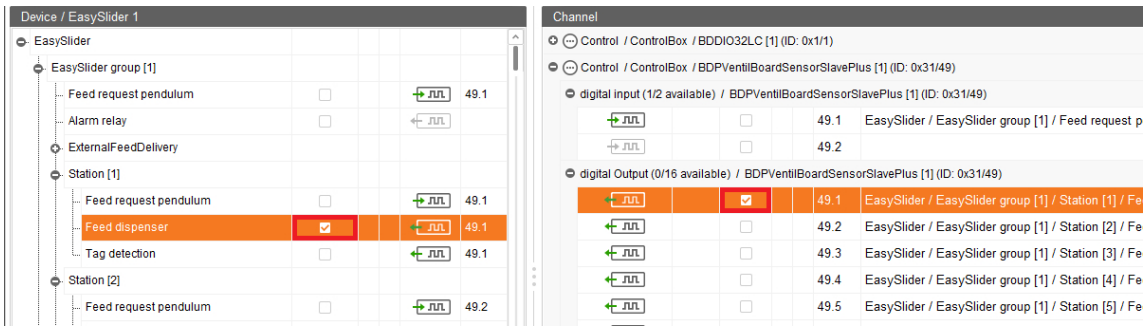
2. In the "Device" part of the window, double-click on the interface of the device you want to turn on .

   The linked channel is marked accordingly.

3. Click on the check boxes of the selected device and respective channel to activate them.

   The actual device is now turned on.

   If the actual device does not turn on or if another actual device is running instead, correct the links in the IO Manager or reconnect the outputs of the IO card. Always refer to the overview drawing of the IO card attached to the wiring diagram.



4. Turn off the device by deactivating the check box.

5. End the test mode by clicking on

in the upper bar.

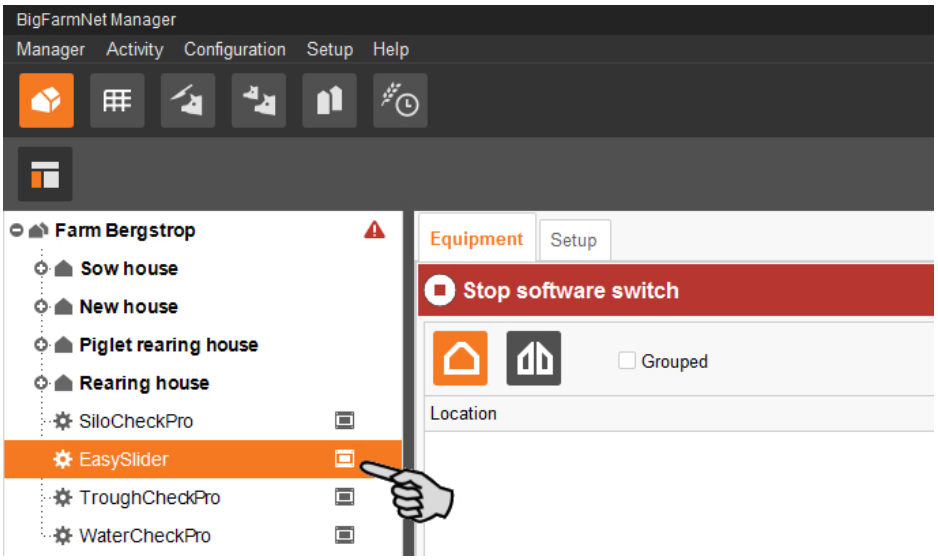
4 Configuration of the application

4.1 Configuring settings

Settings regarding the application are configured under the "Equipment" tab. Parameters in the settings include the eating speed based on the parity or the amount of dispensed feed. The values in the settings can be changed as required at any time.

Proceed as follows:

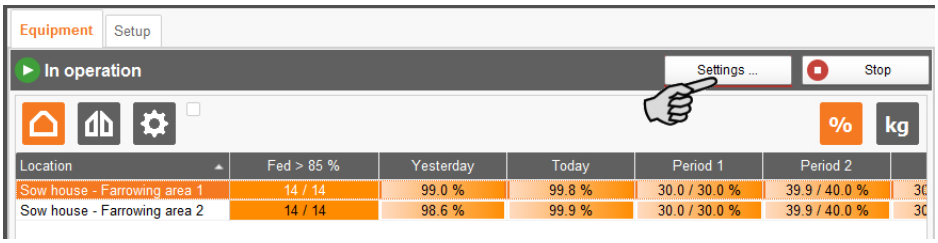
1. Click on the controller icon of the respective system application in the farm structure.



NOTICE!

Check whether the system is running. Stop the system by clicking on Stop in the upper bar.

2. Under "Equipment", click on "Settings...".



This opens the settings dialog, which contains all settings for the system components you defined in the Composer beforehand. The settings are grouped and may have pre-set values. The different parameters are described in the following chapters.

Only save after you have defined all settings of the tabs. The "Save" function affects the entire settings dialog. Saved changes are immediately applied to the system(s)!

NOTICE!

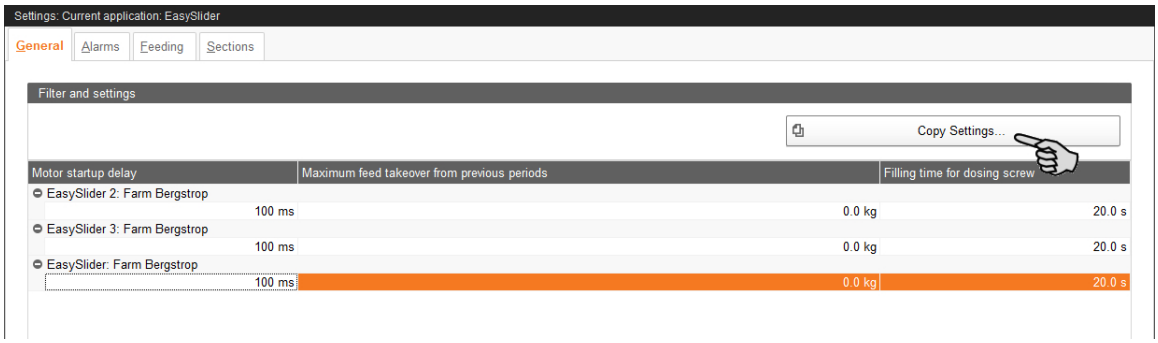
Tooltips available! Move the mouse pointer over the input fields or the parameters in the head line to see a more detailed description.

4.1.1 Copying the settings of a system

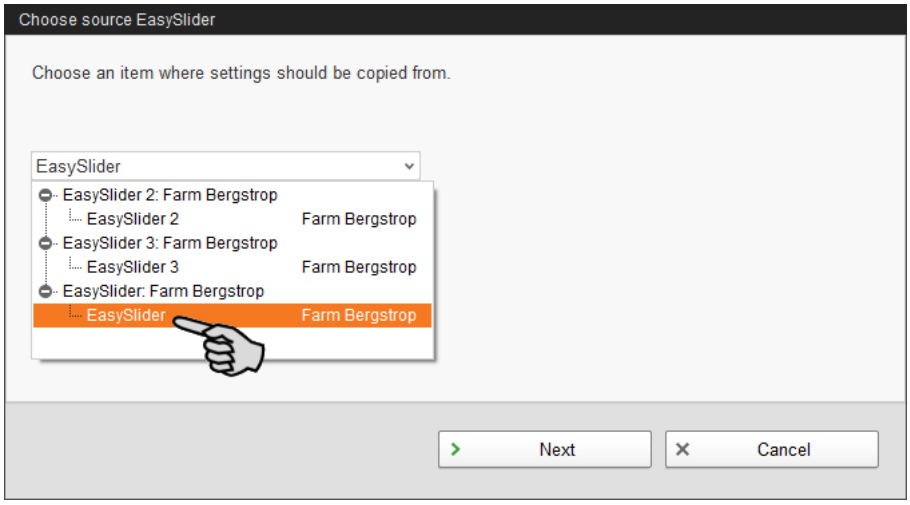
If multiple systems (applications) of the same type are to be configured with the same settings, you can define the settings for one system and copy them to other systems. The copy function is permanently available in the settings dialog. It can only be used for the settings of the currently active tab.

Proceed as follows:

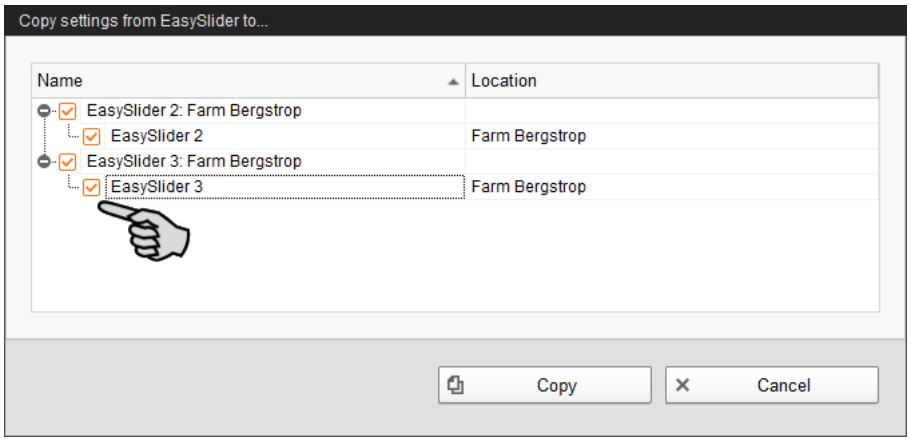
1. Configure the settings for one system.
2. Click on the button "Copy Settings..." in the top part of the window.



3. In the next dialog window, select the system whose settings you want to copy.

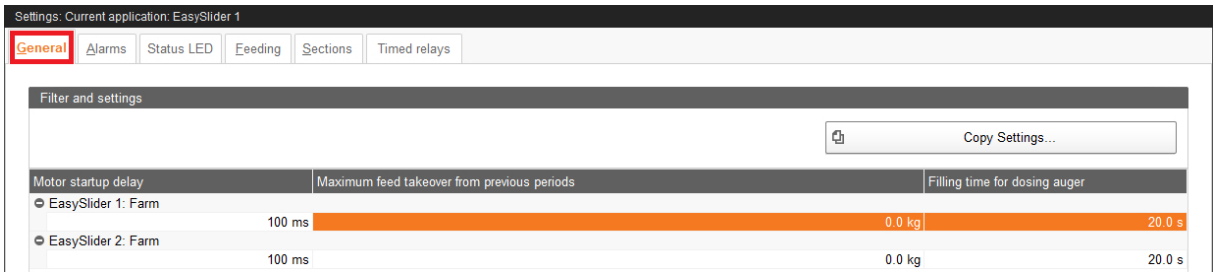


4. Click on "Next".
5. Select all systems to which you want to transfer these settings in the next dialog window.



6. Click on "Copy". The settings are now transferred to all selected systems.

4.1.2 General



- **Motor startup delay: Never** set the startup delay of the motor for the group switch to less than 100 ms.
- Use **Maximum feed takeover from previous periods** to define how much feed from previous feeding times should be dispensed in addition to the amount defined in the feed curve and the feeding time pattern per feeding time.

  Example: The sow is entitled to 4 kg per feeding time. The "Maximum feed takeover from previous periods" is set to 2 kg.

  – If the sow only eats 1 kg of these 4 kg in the first feeding time, a total of 3 kg can be dispensed additionally in the following feeding times, but only a maximum of 2 kg per period.

– In the second feeding time, 4 kg of feed to which the sow is entitled + 2 kg "Maximum feed takeover from previous periods" = 6 kg of feed in total are approved for this sow and dispensed. The sow eats these 6 kg of feed.

  The remaining 1 kg of feed to which the sow was entitled from the first feeding time expires at the end of the second feeding time because the amounts can only be transferred to the next feeding time.

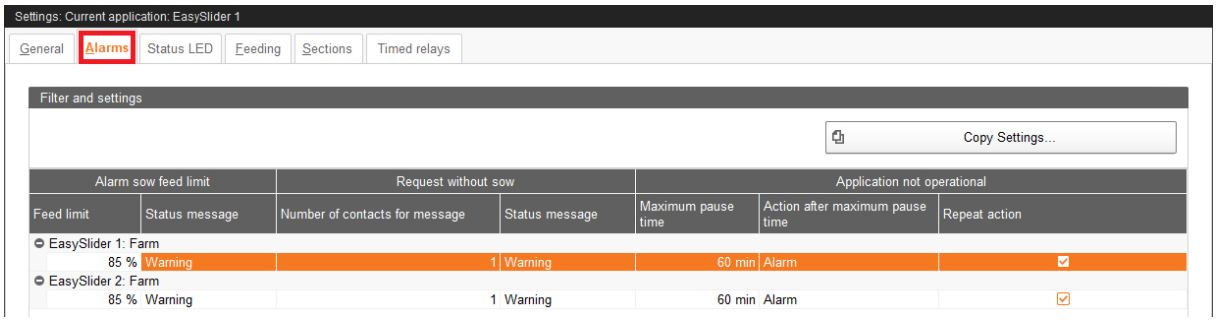
NOTICE!

Dispensing of the feed portion – the "Maximum feed takeover from previous periods" may not be greater than the volume of the dispenser. It is otherwise not possible to guarantee that all sows receive their feed portion.

This setting applies for sensor-controlled operation only.

- **Filling time for dosing auger:** Time that is required to fill an empty dosing auger with feed, e.g. after cleaning.

4.1.3 Alarm



- **Alarm sow feed limit:** Define a **feed limit** and select the alarm type (**status message**).

  The status message is issued when the dispensed amount of feed is below the set feed limit at the end of the day. This setting applies to every animal of the same EasySlider unit.

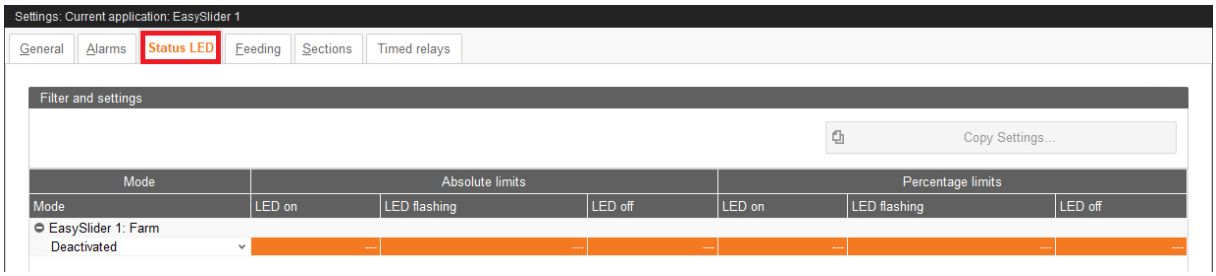
  This setting applies for sensor-controlled operation only.

- **Request without sow** means a situation in which an animal not registered by the system is in the pen. Under **Number of contacts for message**, define how many request pulses for feed are necessary before an alarm (**status message**) is generated.

  This setting applies for sensor-controlled operation only.

- **Application not operational**
  - **Maximum pause time:** If the application does not run for a time longer than set here (pause or error), an alarm or a warning is issued, depending on what is set for "Action after maximum pause time". If the time is set to 0 minutes, there is no maximum pause time.
  - **Action after maximum pause time** can be set to be either an alarm, a warning or no action at all ("No").
  - **Repeat action:** When this box is checked, the action (alarm, warning or no action) is repeated every time the maximum pause time expires.

4.1.4 Status LED



These settings apply for sensor-controlled operation only.

- **Mode**
  - **Deactivated:** Status LED is deactivated.
  - **Period (Percentage):** The set percentage values refer to the portion to be fed during one feeding time.
  - **Period (Absolute):** The set kg values refer to the portion to be fed during one feeding time.
  - **Daily (Percentage):** The set percentage values refer to the daily portion to be fed.
  - **Daily (Absolute):** The set kg values refer to the daily portion to be fed.
- **Absolute limits:** Only active if "Mode" is set to "Period (Absolute)" or "Daily (Absolute)"
  - **LED on:** The status LED is lit continuously as long as the sow has requested an amount of feed lower than the set kg value within a feeding time or a day.
  - **LED flashing:** The status LED flashes while the sow has requested an amount of feed higher than the kg value set under "LED on" but lower than the kg value set under "LED off" within a feeding time or a day.
  - **LED off:** The status LED turns off as soon as the sow has requested an amount of feed higher than the set kg value within a feeding time or a day.
- **Percentage limits:** Only active if "Mode" is set to "Period (Percentage)" or "Daily (Percentage)"
  - **LED on:** The status LED is lit continuously as long as the sow has requested an amount of feed lower than the set percentage value within a feeding time or a day.
  - **LED flashing:** The status LED flashes while the sow has requested an amount of feed higher than the percentage value set under "LED on" but lower than the kg value set under "LED off" within a feeding time or a day.

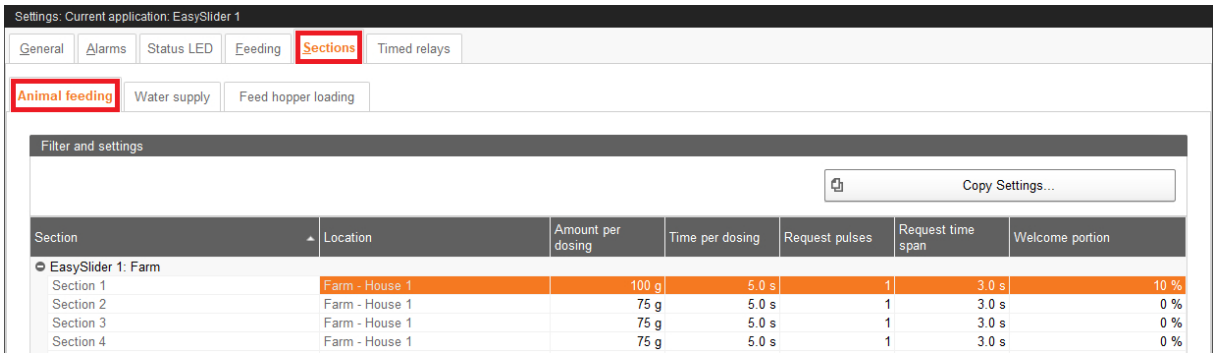
- **LED off:** The status LED turns off as soon as the sow has requested an amount of feed higher than the set percentage value within a feeding time or a day.

4.1.5 Feeding system

- Define the **eating speed** according to parity (number of times a sow has farrowed). Any additional feed requests from the sow will be ignored within the set time, standardised according to a dispensed feed amount of 100 g.
- **Feed adjustment**
  - **Active:** Activates feed adjustment. This makes sense where the amount of feed provided according to the feed curve is not sufficient for the sow. The relative feed adjustment factor can be defined individually for each sow, see chapter 5.3 ”Entering the individual feed adjustment factor”.
  - **Number of sequential periods:** The set value indicates for how many consecutive feeding times the sow must continue to request feed after requesting the feed amount defined in the feed curve before the feed amount is adjusted. The adjusted amount is dispensed during the last of the feeding times set here.
  - **Minimum number of feeding requests:** The set value indicates how often – at a minimum – the sow must continue to request feed during each of the feeding times set under "Number of sequential periods" after requesting the amount defined in the feed curve before the feed amount is adjusted.
  - **Duration:** Number of consecutive days on which the feed amount is adjusted after a sow has met the requirements for a feed adjustment as explained above.

  This setting applies for sensor-controlled operation only.

4.1.6 Sections – Animal feeding



- **Amount per dosing** is the calibrated feed amount dispensed within the **Time per dosing**.

  The feed amount per dosing is calibrated in the control computer, see chapter 8.7.1.1 ”Calibration”.

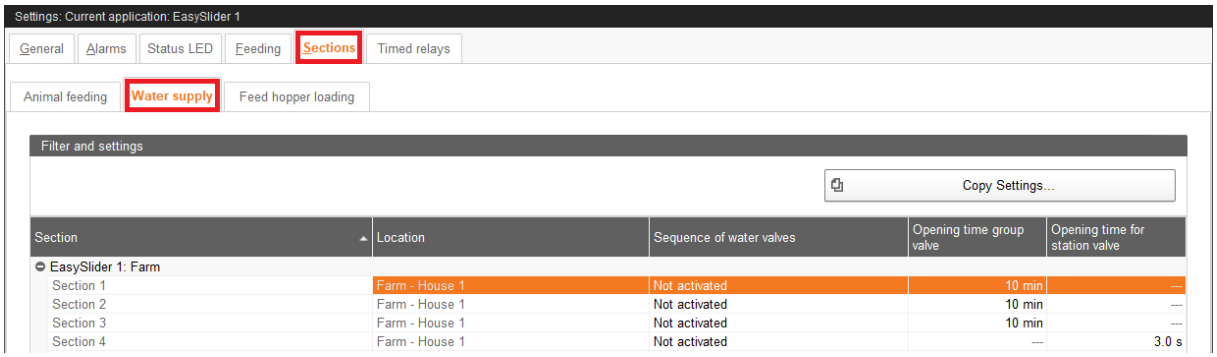
- Number of **request pulses** required within a defined time period (**Request time span**) a sow must perform for feed dispensing.

  This setting applies for sensor-controlled operation only.

- **Welcome portion:** A percentage of the sow's feed amount that is automatically dispensed at the beginning of the feeding time. A smaller amount may be a trigger for the sow to realize that she can request feed again. If the welcome portion is set to a larger amount, this means that a minimum amount of feed is always dispensed into the trough. Any additional amounts must be requested by the sow.
  The welcome portion can also be defined individually for each sow, see chapter 5.2 ”Entering an individual welcome portion”. However, the individual welcome portion cannot be smaller than the welcome portion for the entire section, only larger.

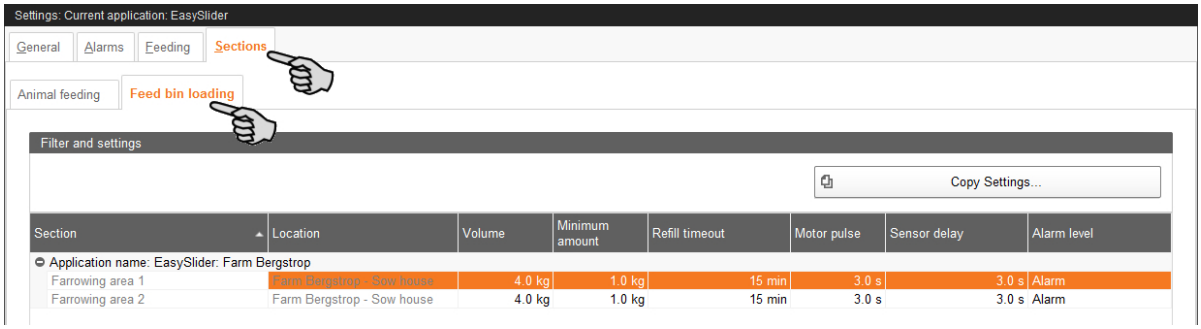
  This setting applies for sensor-controlled operation only.

4.1.7 Sections – Water supply



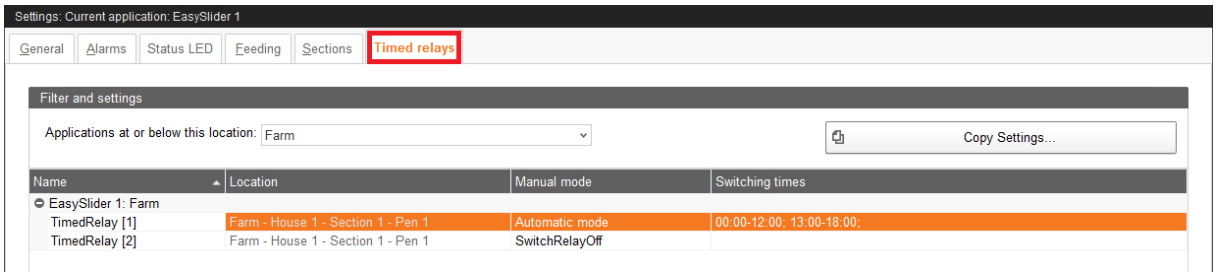
- **Sequence of water valves:** Defines when the water valves open and close in relation to the feeding time (group valve) or feed dispensing (station valves).
  - **Not activated:** The water valves are not opened.
  - **Before the feeding period:** The group valve is opened for the time set under "Opening time group valve" before each feeding period starts, and closed again at the beginning of the feeding period.
  - **After the feeding period:** The group valve is opened at the end of each feeding period and closed again after the time set under "Opening time group valve" has elapsed.
  - **During the feeding period:** The group valve is opened at the beginning of each feeding period and closed again after the time set under "Opening time group valve" has elapsed.
  - **Before dosing the feed:** The station valve of the corresponding pen is opened for the time set under "Opening time for station valve" before each feed dispensing and closed again when feed dispensing starts.
  - **After dosing the feed:** The station valve of the corresponding pen is opened after each feed dispensing and closed again after the time set under "Opening time for station valve" has elapsed.
  - **Starts with the feed dosing:** The station valve of the corresponding pen is opened for each feed dispensing and closed again after the time set under "Opening time for station valve" has elapsed.
- **Opening time group valve:** Opening time of the water valve if one water valve is used for the entire section.
- **Opening time for station valve:** Opening time of the water valve if each pen has its own water valve.

4.1.8 Sections – Feed bin (hopper) loading



As soon as the control receives a signal from the full sensor of the external dry feeding system, it will consider the hoppers to be filled with a **volume** of 4 kg of feed (default value). The sows start requesting their feed. As soon as a sow has reached its defined **minimum amount** of 1 kg (default value), the control emits the **motor pulse** so that the output is activated for 3 seconds (default value). The control then assumes that the dry feeding system has started filling the hopper and waits until the value **Refill timeout** is reached. Within this period, the control must receive a sensor signal indicating that the dry feeding system has filled all hoppers. If this is not the case, the control issues an alarm (**Alarm level**). The **Sensor delay** defines a delay time. The system waits for this delay time after starting the external filling system before checking the overflow sensor. This delayed request is necessary because the overflow sensor may still be active at the start and may only stop working with a delay. This is because feed may still remain on the chain.

4.1.9 Time relay



- **Manual mode:** Type of manual control of the relay.
  - **Automatic mode:** The relay switches according to the settings under "Switching times". Use this mode only.
  - **(SwitchRelayOff:** Do not use.)
  - **(SwitchRelayOn:** Do not use.)
- **Switching times:** If "Manual mode" is set to "Automatic mode", the relay is energized during the times defined here.

4.2 Determining feeding periods

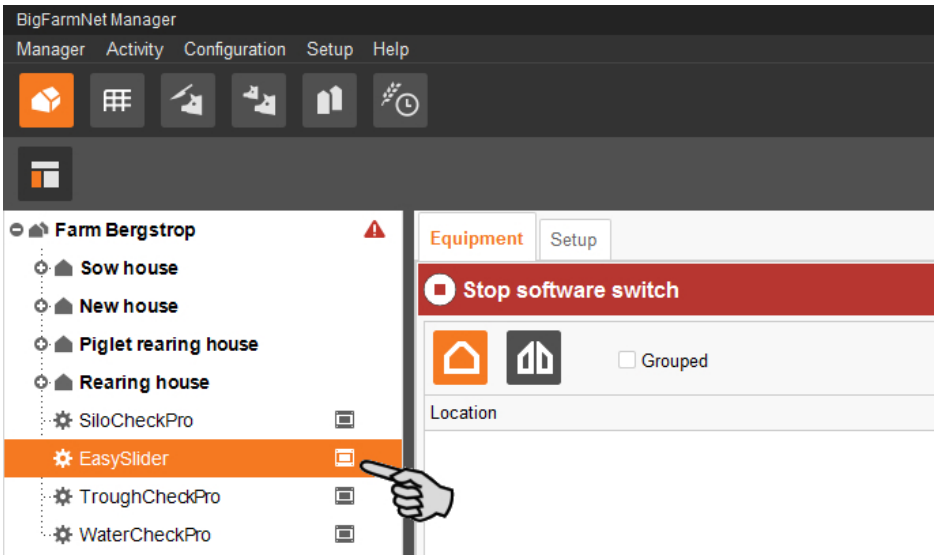
The feeding period is a specific time of the day duruing which the sow is entitled to a specific amount of feed. With these feeding periods, the feeding day can be divided into smaller and uniform periods per section. Identical feeding periods prevent that the sows become agitated because they keep eating at the same time, even if the dispensed amount of feed differs. If necessary, you can also define individual periods for the pens of a section.

Up to 24 feeding periods can be defined in each feeding time pattern. The daily portion set in the feed curve is divided into smaller portions for each feeding period. The days in the feeding time pattern refer to the feed curve days in the lactation phase. During this phase, the sow is in the "Lactating" state. Based on the number of days in state, the EasySlider application determines the feeding day on which all sows in the section have the same feeding period, see chapter 5.5 ”How does the EasySlider application determine the feeding day?”, page 62.

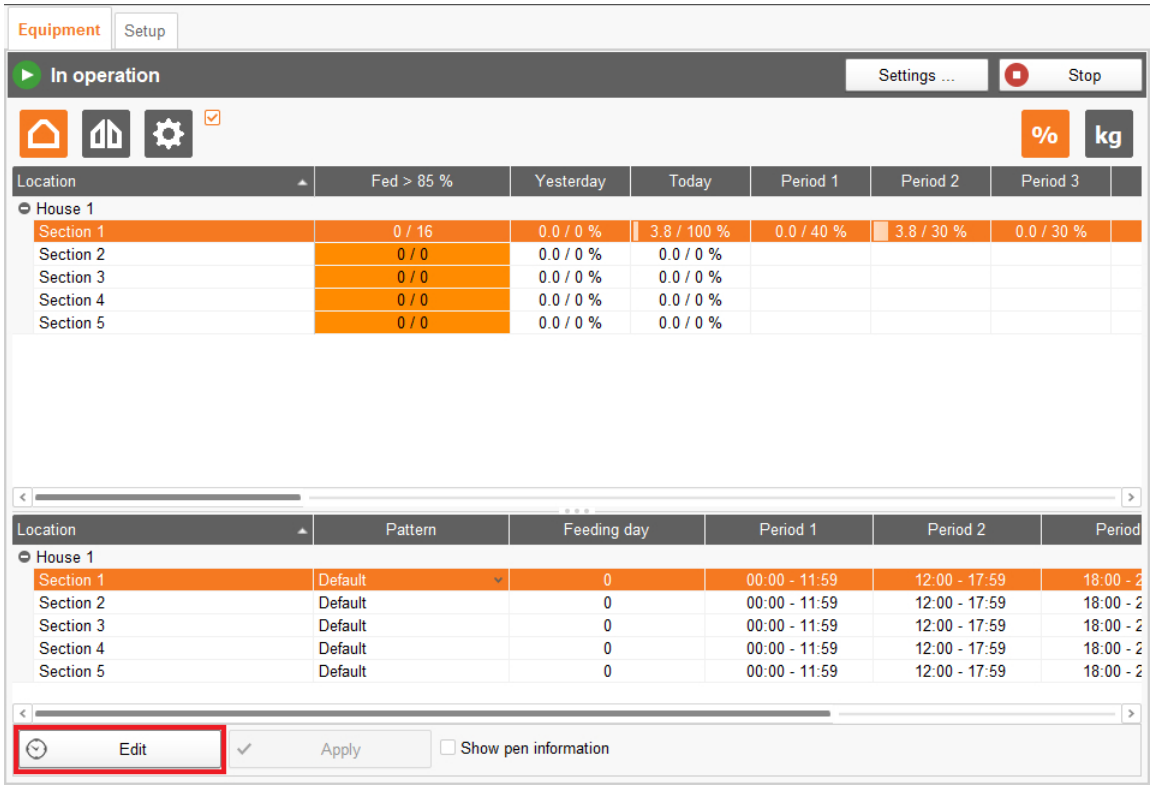
When the sow is not in the "Lactating" state, the feeding time pattern always uses the day "0".

If you do not create any patterns with feeding periods, the pre-set pattern "Default" is used automatically.

1. Click on the controller icon of the respective system application in the farm structure.



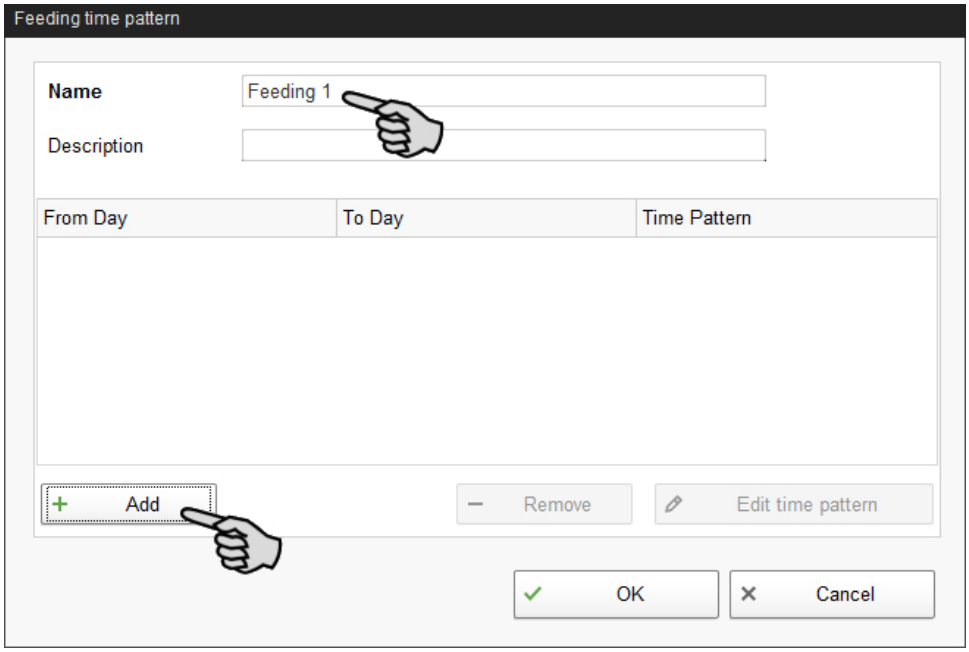
2. In the tab "Equipment", click on "Edit” to add a feeding time pattern.



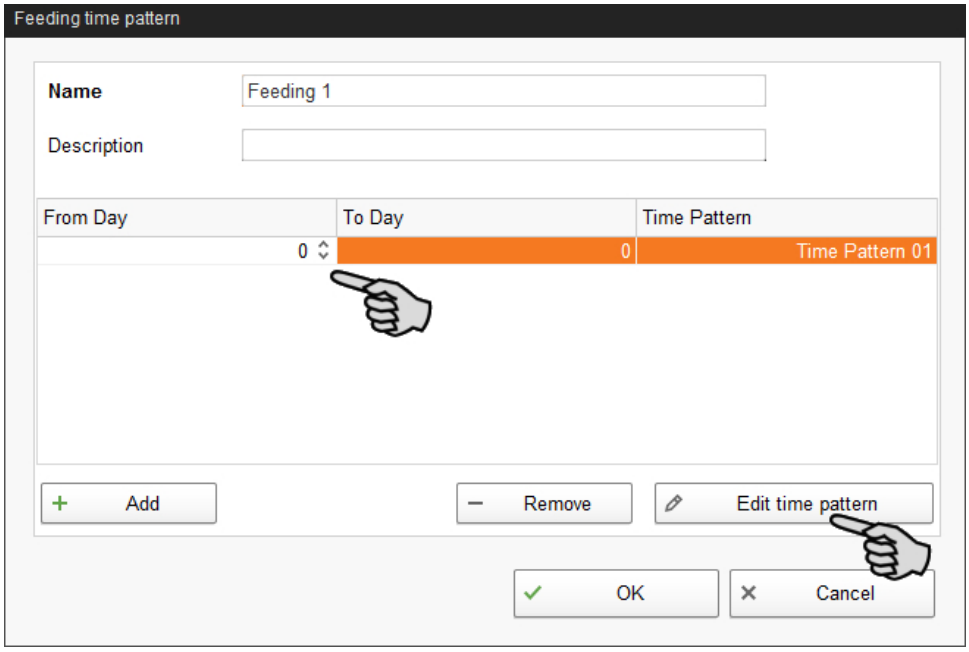
3. In the dialog window "Feeding time patterns", click on "Add".

   All time patterns you create will be displayed in this window later on. The pattern "Default" is pre-set and cannot be modified.

4. In the next dialog window, enter a name for the pattern and click on "Add".

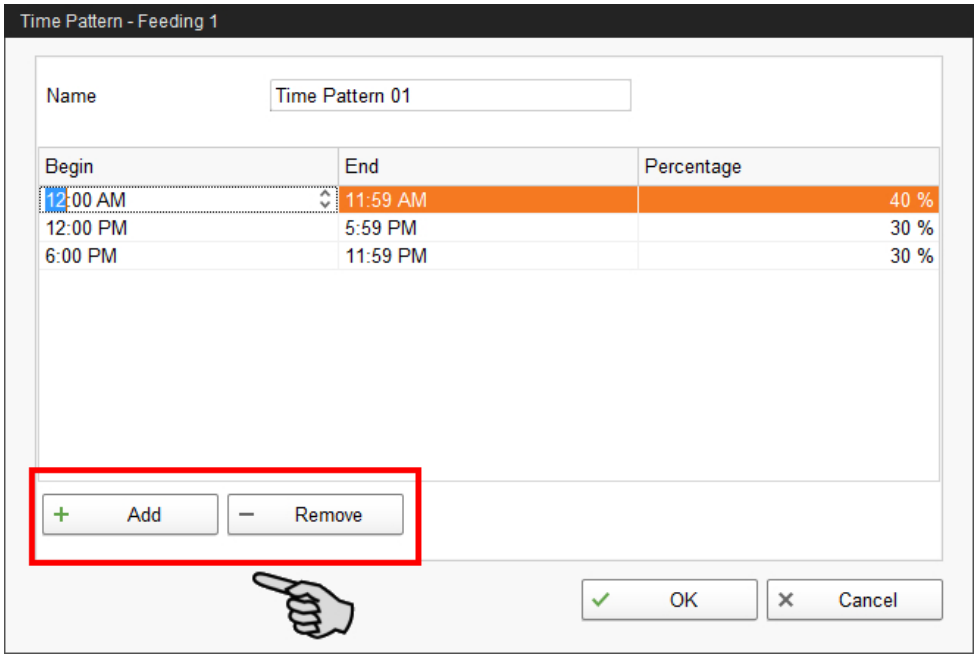


5. Enter the time period "From Day - To Day" and click on "Edit time pattern".



6. Define the number of periods by clicking on "Add" or "Remove".

   You may enter a maximum of 24 periods. The presetting includes three periods.



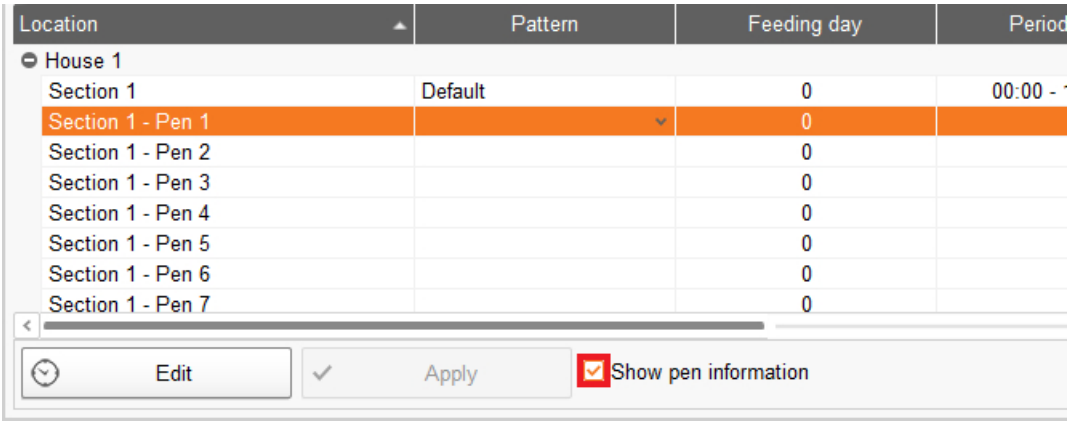
7. Define the times of day for each period and set the percentage amount of feed to be dispensed per period based on a total of 100 %:

   a) Enter the time of day either using your keyboard or the arrows pointing up and down in the corresponding input field.

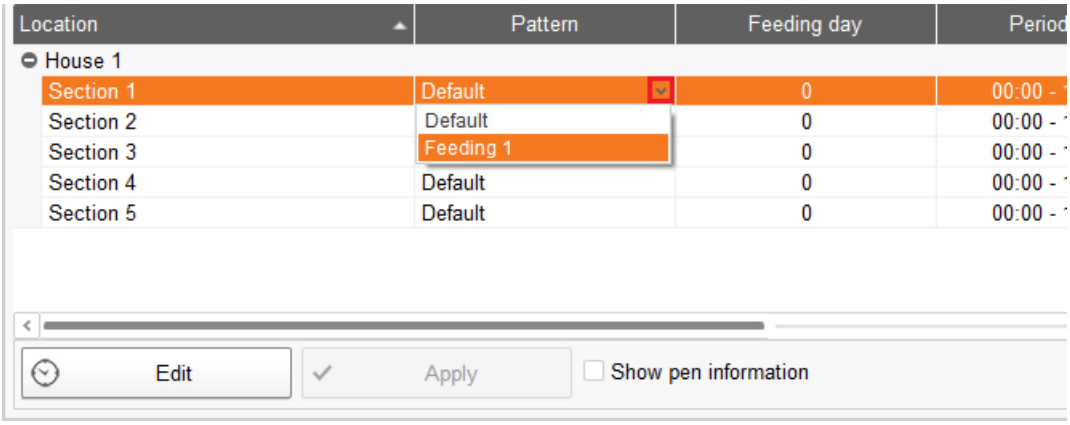
b) Enter the percentage per period in the corresponding input fields.

8. Click on "OK" in all dialog windows after you have configured all settings.
9. Click on the desired location to which you want to assign the new feeding time pattern.

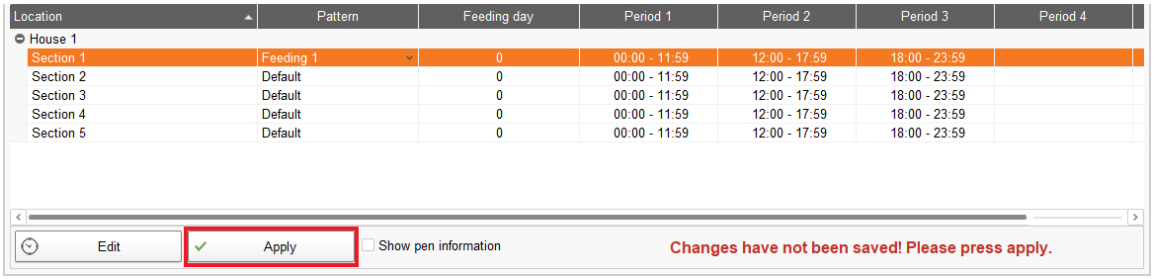
   If you want to assign the same feeding time pattern to all or multiple pens of a section, click on a pen. If you want to assign a feeding time pattern to one pen or to a pen that deviates from the rest of the section, check the box next to "Show pen information" and click on a pen.



10. Click on the arrow pointing downwards under "Pattern" and select the correct pattern.



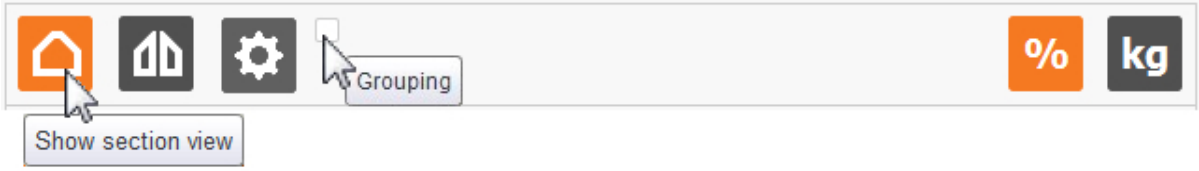
11. Click on "Apply" to accept the time pattern for this section.



5 Information for the user

5.1 Viewing feeding data

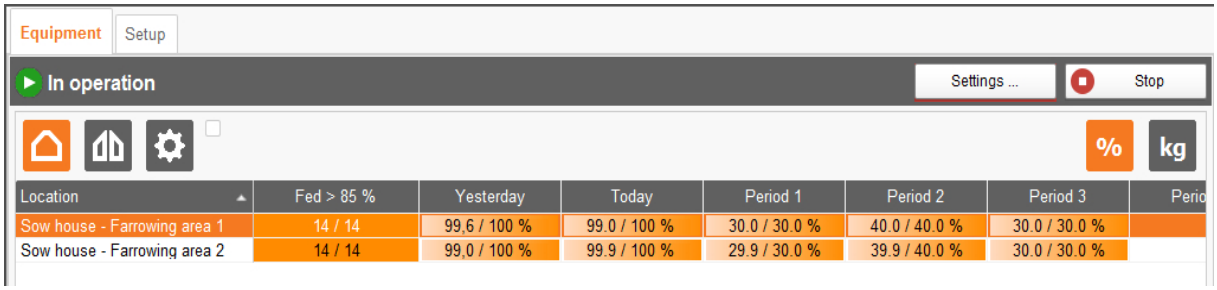
The view in the application window can be set either to section view or to pen view. Each view can also be shown grouped per location. Additionally, the feeding data can be shown as percentage or as absolute values.



Example 1: Section view, not grouped, percentage

This view summarizes the feeding data of individual sections. The feeding data are displayed as a percentage.

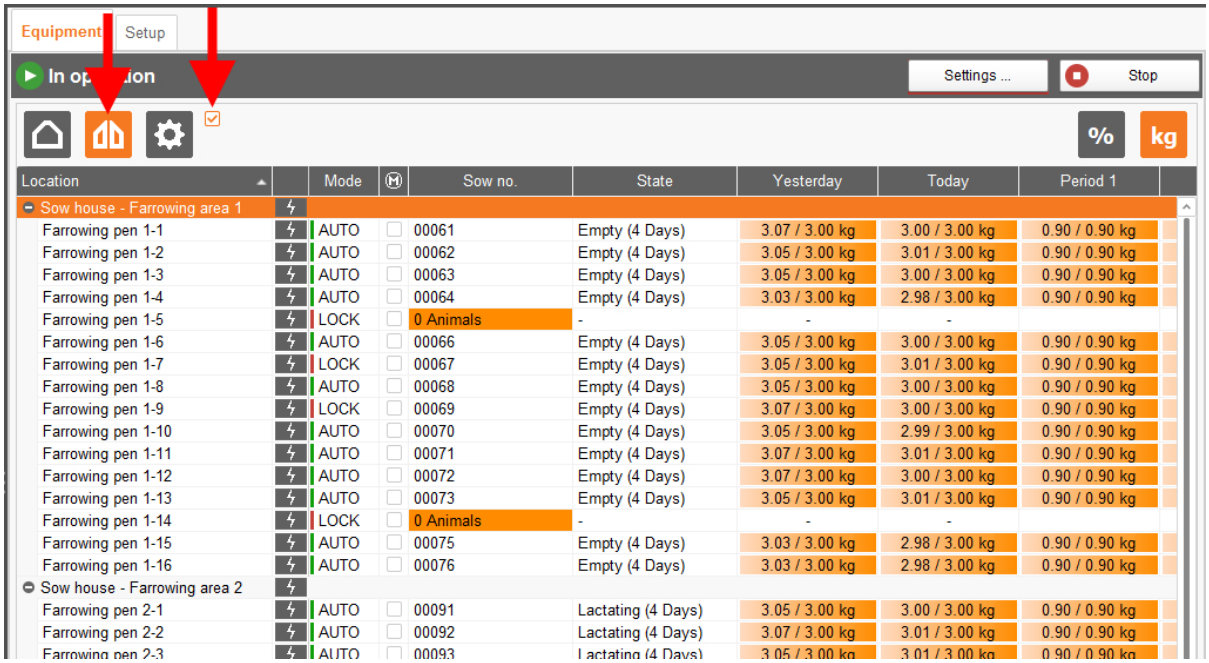
- The number of sows that was fed today based on the total number of sows is shown. The feed limit defined previously in the settings is used as reference value, see chapter 4.1.3 ”Alarm”.
- The current day ("Today) and the previous day ("Yesterday") each show the actual percentage of requested feed as well as the respective target value.
- The different periods show the actual percentage of requested feed of the current day as well as the respective target value.



Example 2: Pen view, grouped, absolute values in kg

This view shows the individual feeding data of each sow per pen. The feeding data are indicated as absolute values in kg.

- Both the sow number and the sow's current state are displayed.
- The current day ("Today) and the previous day ("Yesterday") each show the actual percentage of requested feed as well as the respective target value.
- The different periods show the actual percentage of requested feed of the current day as well as the respective target value.
- The column "Motor" indicates whether feed is currently being dispensed.
- The column "Mode" shows the current state of the dosing unit (valve).
  - **AUTO**: normal mode – feed can be dispensed.
  - **LOCK**: locked valve



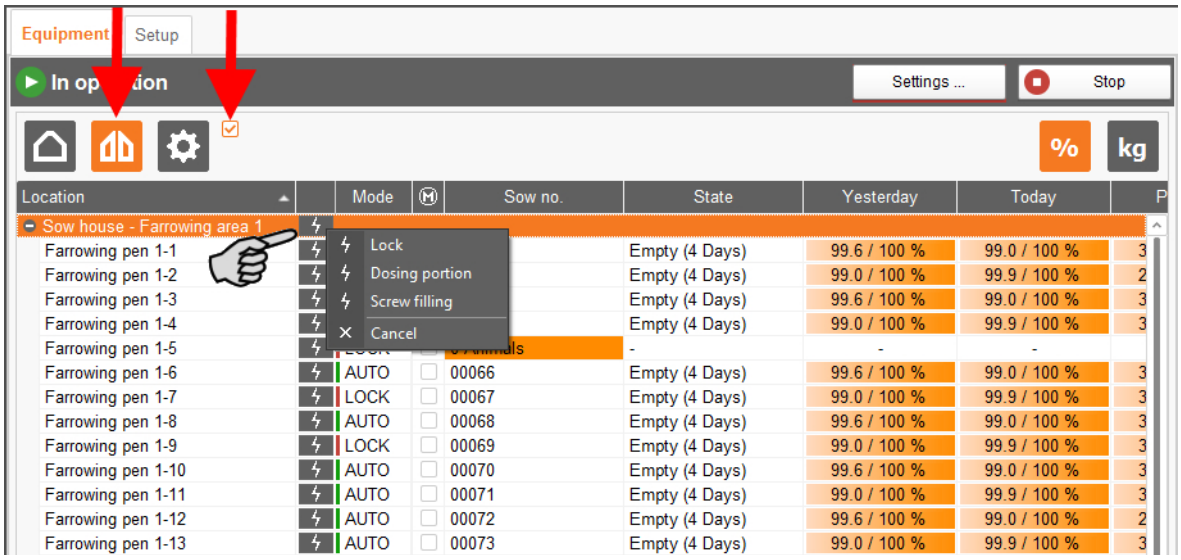
Location	Mode	Sow no.	State	Yesterday	Today	Period 1
Sow house - Farrowing area 1						
Farrowing pen 1-1	AUTO	00061	Empty (4 Days)	3.07 / 3.00 kg	3.00 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-2	AUTO	00062	Empty (4 Days)	3.05 / 3.00 kg	3.01 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-3	AUTO	00063	Empty (4 Days)	3.05 / 3.00 kg	3.00 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-4	AUTO	00064	Empty (4 Days)	3.03 / 3.00 kg	2.98 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-5	LOCK	0 Animals	-	-	-	
Farrowing pen 1-6	AUTO	00066	Empty (4 Days)	3.05 / 3.00 kg	3.00 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-7	LOCK	00067	Empty (4 Days)	3.05 / 3.00 kg	3.01 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-8	AUTO	00068	Empty (4 Days)	3.05 / 3.00 kg	3.00 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-9	LOCK	00069	Empty (4 Days)	3.07 / 3.00 kg	3.00 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-10	AUTO	00070	Empty (4 Days)	3.05 / 3.00 kg	2.99 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-11	AUTO	00071	Empty (4 Days)	3.07 / 3.00 kg	3.01 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-12	AUTO	00072	Empty (4 Days)	3.07 / 3.00 kg	3.00 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-13	AUTO	00073	Empty (4 Days)	3.05 / 3.00 kg	3.01 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-14	LOCK	0 Animals	-	-	-	
Farrowing pen 1-15	AUTO	00075	Empty (4 Days)	3.03 / 3.00 kg	2.98 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 1-16	AUTO	00076	Empty (4 Days)	3.03 / 3.00 kg	2.98 / 3.00 kg	0.90 / 0.90 kg
Sow house - Farrowing area 2						
Farrowing pen 2-1	AUTO	00091	Lactating (4 Days)	3.05 / 3.00 kg	3.00 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 2-2	AUTO	00092	Lactating (4 Days)	3.07 / 3.00 kg	3.01 / 3.00 kg	0.90 / 0.90 kg
Farrowing pen 2-3	AUTO	00093	Lactating (4 Days)	3.05 / 3.00 kg	3.01 / 3.00 kg	0.90 / 0.90 kg

The following actions are possible for each individual valve. Click on to open the options:

- **Lock**: The valve is locked immediately. (Option only available in the **AUTO** mode.)
- **Automatic:** The locked valve is immediately put into operation again. (Option only available in the **LOCK** mode.)
- **Dosing portion**: The portion is dispensed immediately. (Option only available in the **AUTO** mode.)

- **Screw filling**: The auger is filled immediately. Advantage: The amount of feed required to fill the auger is not included in the sow's feeding statistics. The time the auger needs to fill the dosing unit can be defined in the settings under chapter 4.1.2 ”General”.

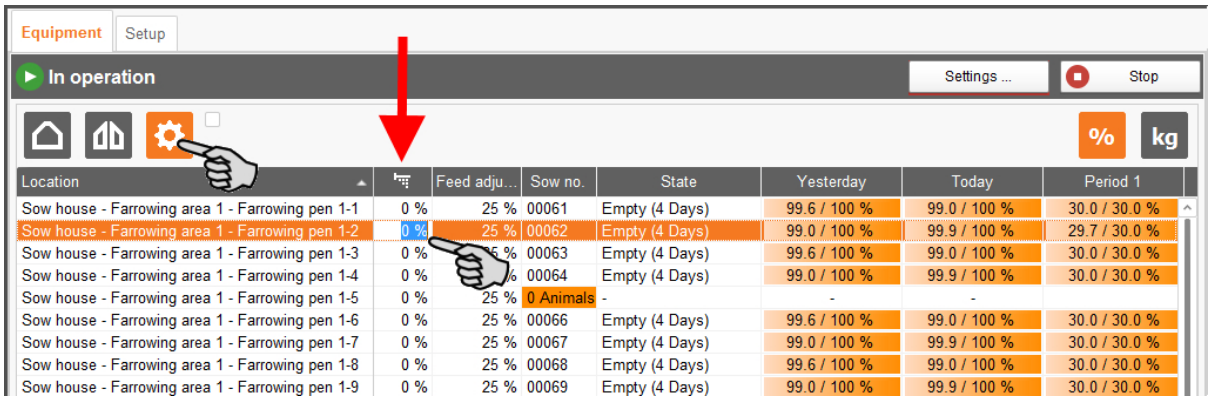
You may also carry out one action for all valves in a section, for example to lock all valves. On the section level, click on . Make sure you are using the correct view!



5.2 Entering an individual welcome portion

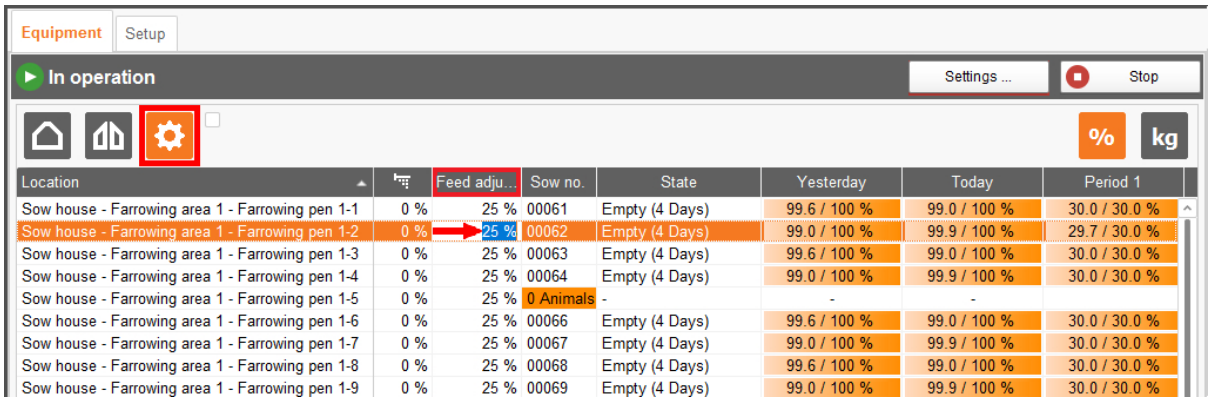
Click on the icon for quick settings to see the pen view including the column "Welcome portion". Define the individual welcome portion for each sow in this column. The value can be set to 100 % for sows which have not learned how to use the request mechanism. The assigned feed amount is dispensed at each beginning of a period. However, the maximally dispensed amount should not exceed the hopper volume, see also chapter 4.1.6 ”Sections – Animal feeding”.

The individual welcome portion cannot be smaller than the welcome portion for the entire section, only larger.



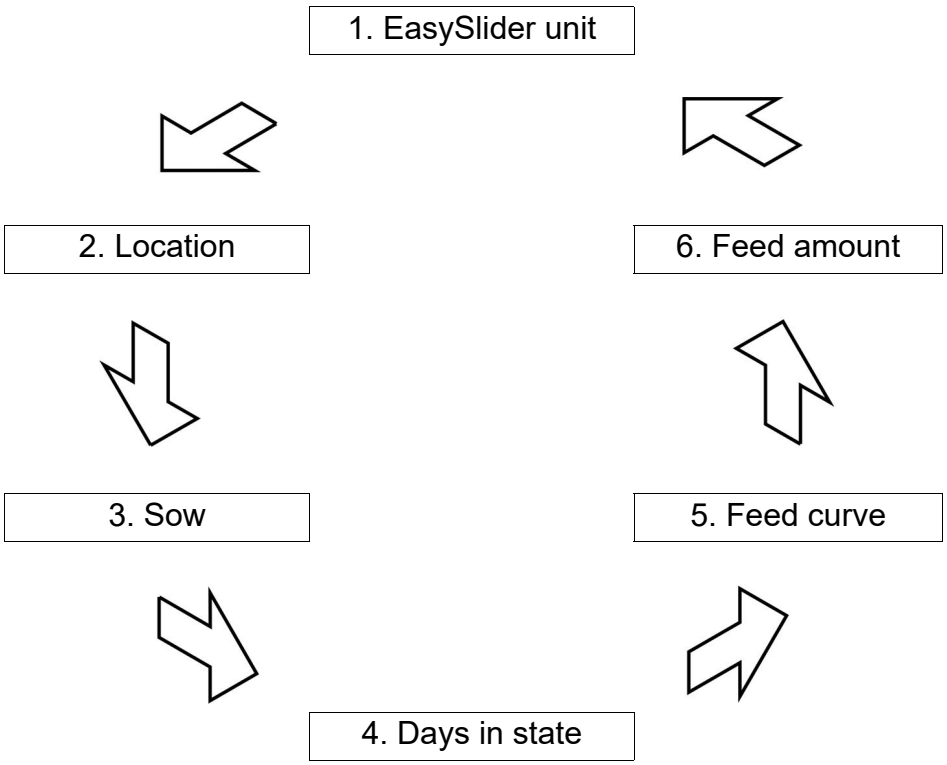
5.3 Entering the individual feed adjustment factor

In the quick settings in the column "Feed adjustment factor", you can define the relative feed adjustment factor individually for each sow. The factor indicates which percentage of the feed amount provided according to the feed curve the sow can request additionally. See chapter 4.1.5 ”Feeding system” for the activation and deactivation of the feed adjustment and other related settings.



Location		Feed adju...	Sow no.	State	Yesterday	Today	Period 1
Sow house - Farrowing area 1 - Farrowing pen 1-1	0 %	25 %	00061	Empty (4 Days)	99.6 / 100 %	99.0 / 100 %	30.0 / 30.0 %
Sow house - Farrowing area 1 - Farrowing pen 1-2	0 %	25 %	00062	Empty (4 Days)	99.0 / 100 %	99.9 / 100 %	29.7 / 30.0 %
Sow house - Farrowing area 1 - Farrowing pen 1-3	0 %	25 %	00063	Empty (4 Days)	99.6 / 100 %	99.0 / 100 %	30.0 / 30.0 %
Sow house - Farrowing area 1 - Farrowing pen 1-4	0 %	25 %	00064	Empty (4 Days)	99.0 / 100 %	99.9 / 100 %	30.0 / 30.0 %
Sow house - Farrowing area 1 - Farrowing pen 1-5	0 %	25 %	0 Animals	-	-	-	
Sow house - Farrowing area 1 - Farrowing pen 1-6	0 %	25 %	00066	Empty (4 Days)	99.6 / 100 %	99.0 / 100 %	30.0 / 30.0 %
Sow house - Farrowing area 1 - Farrowing pen 1-7	0 %	25 %	00067	Empty (4 Days)	99.0 / 100 %	99.9 / 100 %	30.0 / 30.0 %
Sow house - Farrowing area 1 - Farrowing pen 1-8	0 %	25 %	00068	Empty (4 Days)	99.6 / 100 %	99.0 / 100 %	30.0 / 30.0 %
Sow house - Farrowing area 1 - Farrowing pen 1-9	0 %	25 %	00069	Empty (4 Days)	99.0 / 100 %	99.9 / 100 %	30.0 / 30.0 %

5.4 How does the EasySlider unit know how much feed to dispense?



1. Each EasySlider unit is assigned to a location (pen).
2. Each location (pen) houses one sow.
3. The sow is in a specific state (inseminated, pregnant, lactating, empty) and is assigned a feed curve.
4. The days in state define for how long the sow is in the specific state.
5. The status time is divided into individual curve days when defining the feed curve. Each curve day is assigned a specific amount of feed.
6. This amount is dispensed by the EasySlider unit.

Please find instructions on the following functions in the "BigFarmNet Manager – Sow Manager" manual:

- Defining feed curves
- Editing sow activities and changing the state

NOTICE!

For feed dispensing, only the status day and the amount of feed are relevant. The feed composition is not taken into account.

5.5 How does the EasySlider application determine the feeding day?

To determine the feeding day, the EasySlider application calculates the median value based on the days in state of all sows that are housed in the respective section.

The following example shows how the EasySlider application proceeds to determine the feeding day.

Example:

A section houses 7 sows in the same state. However, the number of days in the state are different for each sow.

Sow no.	Status	Days in state
001	Lactating	4
002	Lactating	6
003	Lactating	4
004	Lactating	5
005	Lactating	6
006	Lactating	2
007	Lactating	4

The figures for days in state are sorted in ascending order. 2, 4, 4, 4, 5, 6, 6

The median is the value in the centre, i.e. 4.

The general question for determining the feeding day therefore is:

Which feeding times apply to 50 % of the sows in the section?

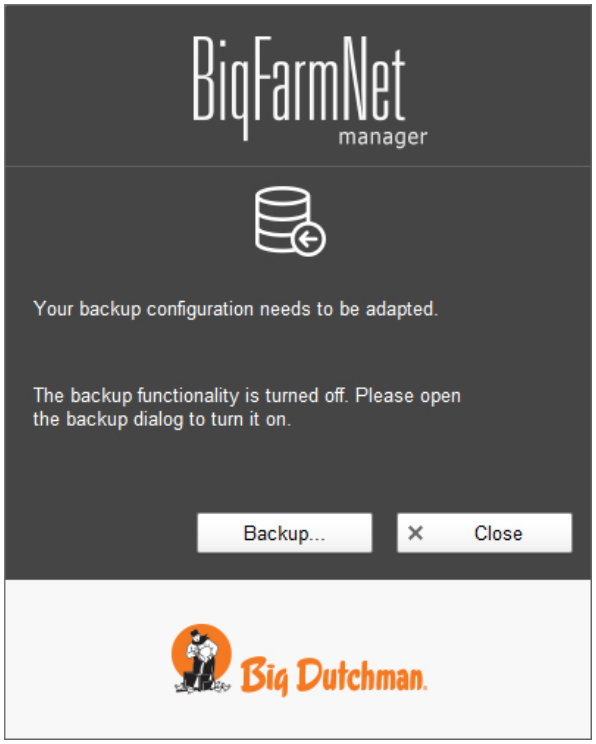
5.6 Data backup

From BigFarmNet Manager version 3.2.0, the following message regarding data backup configuration appears after installation or an update. If you only close this message, it will reappear after a short time.

NOTICE!

The system requires an external storage location for data backup, e.g. a network drive, an external hard drive or a USB flash drive. As soon as an external storage location has been indicated, the message no longer appears, irrespective of whether automatic data backup has been enabled or disabled.

If an external storage location has already been defined before updating to version 3.2.0, the message does not appear at all.



We recommend data backups in regular intervals. In case of a data loss, the backup can then be used to retrieve saved data.

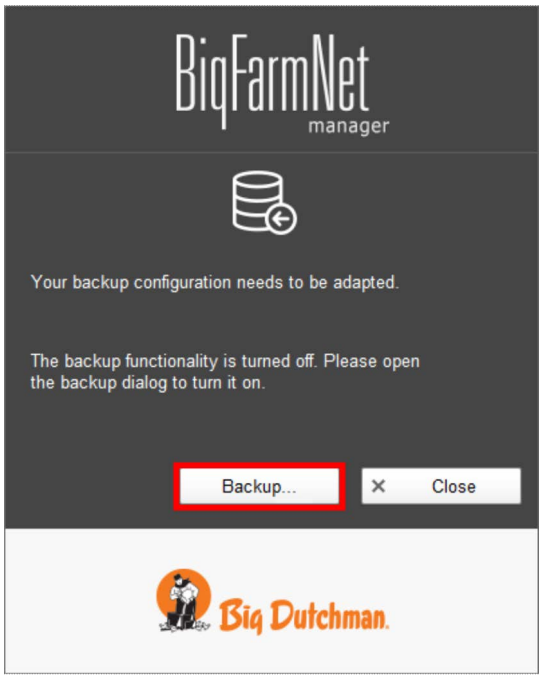
Remember that you can only retrieve the last data backup. Everything you have created or changed since then is not included in this backup. This means that the backup period should be determined depending on the amount of data you produce. You should find the ideal compromise between acceptable data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

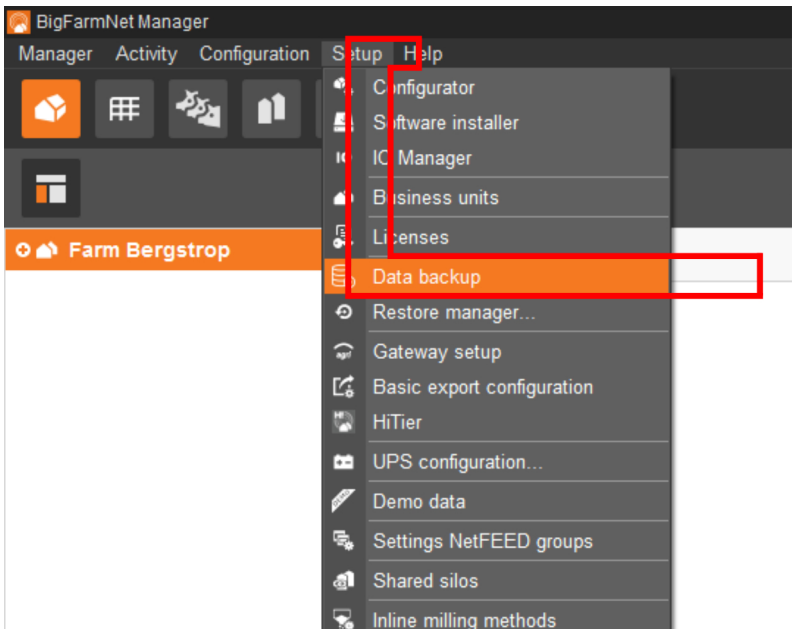
Open the settings dialog as follows:

1. Click on "Backup...".



OR

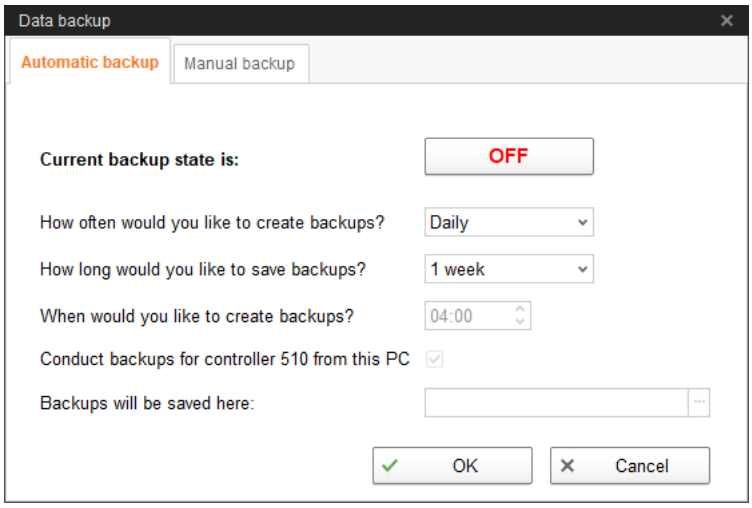
1. Click on "Data backup" in the "Setup" menu.



2. In the window "Data backup", 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".

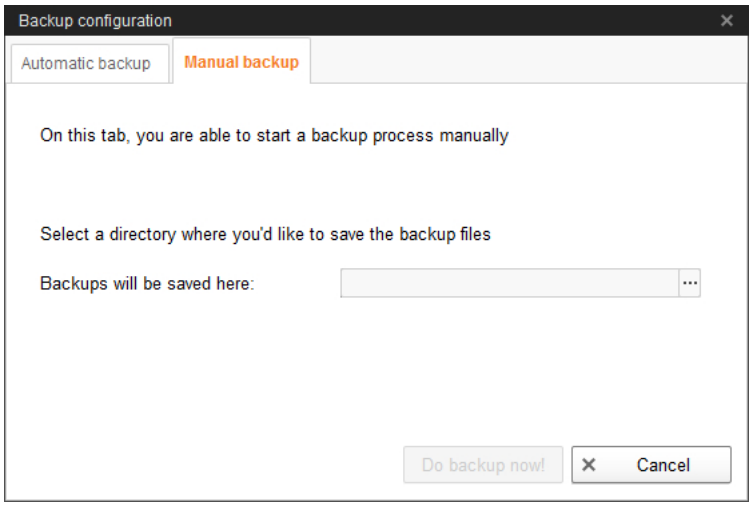
   b) Determine the backup period.

   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!"

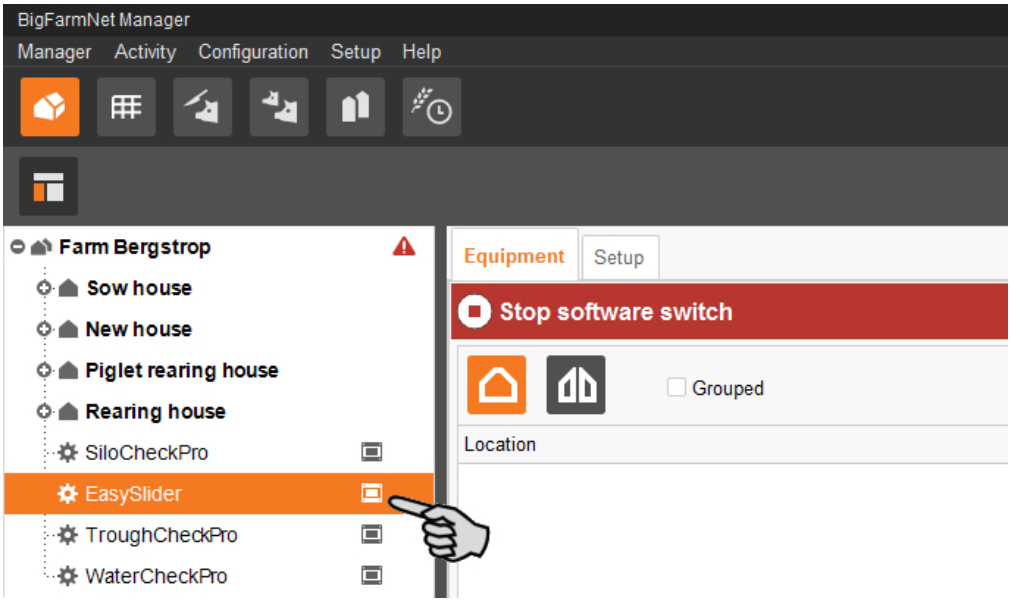
6 EasySlider statistics

In the EasySlider statistics, data is evaluated via the Sow Manager and the sow statistics. The extended overview regarding the sows' eating behaviour is a good option for monitoring.

Each sow's eating behaviour from the current day and up to six days back can be followed up on in the EasySlider statistics. For this time period, the amount of feed each sow has requested is also displayed as a curve. Additionally, each successful request for feed (i.e. feed was dispensed) and all requests where the sow was not entitled to receive feed are compared as a ratio in a diagram.

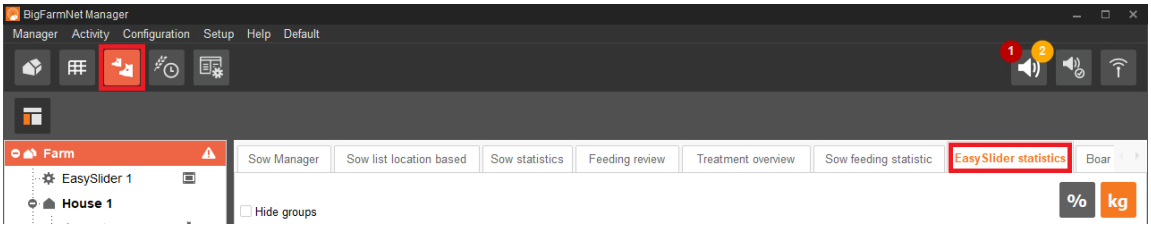
Data from the EasySlider statistics, dating back up to 50 days, can be exported as CSV file for further use. CSV files can be opened with a number of different spreadsheet programs.

1. Click on the EasySlider system in the farm structure.



2. Click on the management area "Sow Manager" and then on the tab "EasySlider statistics".

   The data for the EasySlider statistics are displayed now.

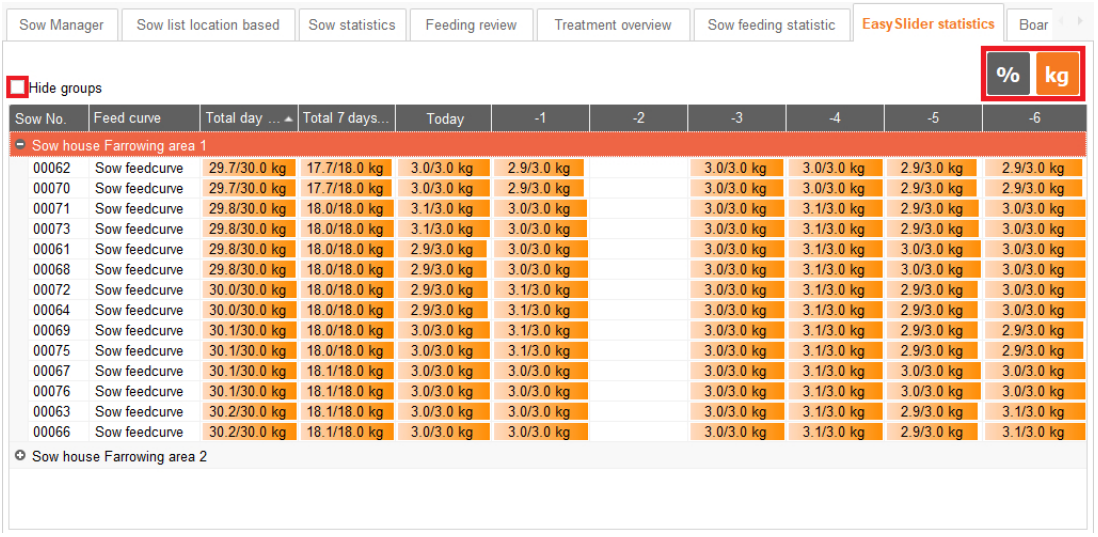


3. Select the view:

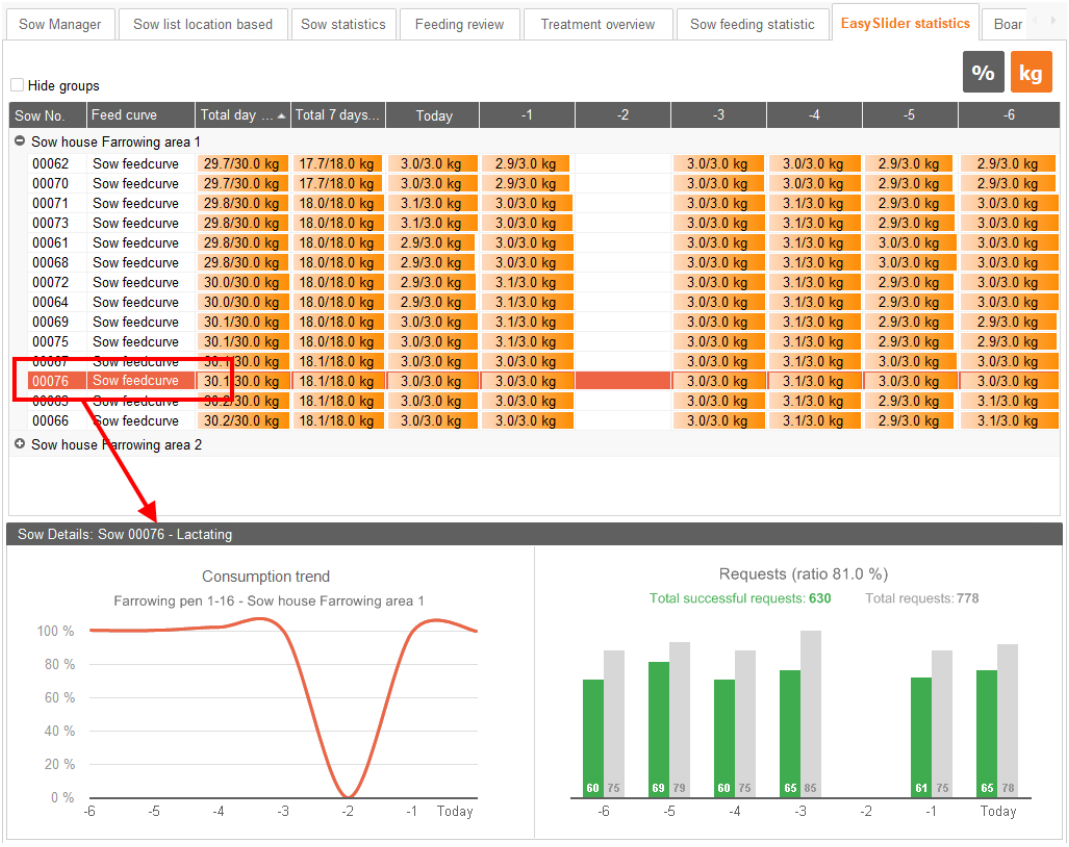
a) Check the box "Hide groups" to see the sows in one continuous list.

If the box is not checked, the sows are shown in groups per section.

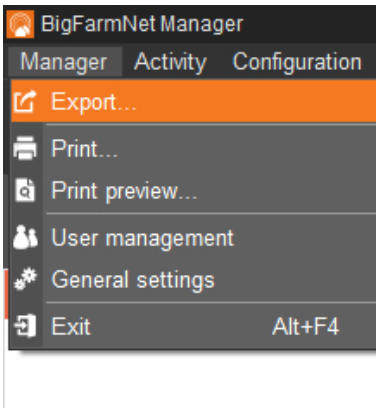
b) Click on the button "%" or "kg" to see the desired type of information.



4. Select the desired sow on which you want more information regarding the requested amount of feed or the feed requests.

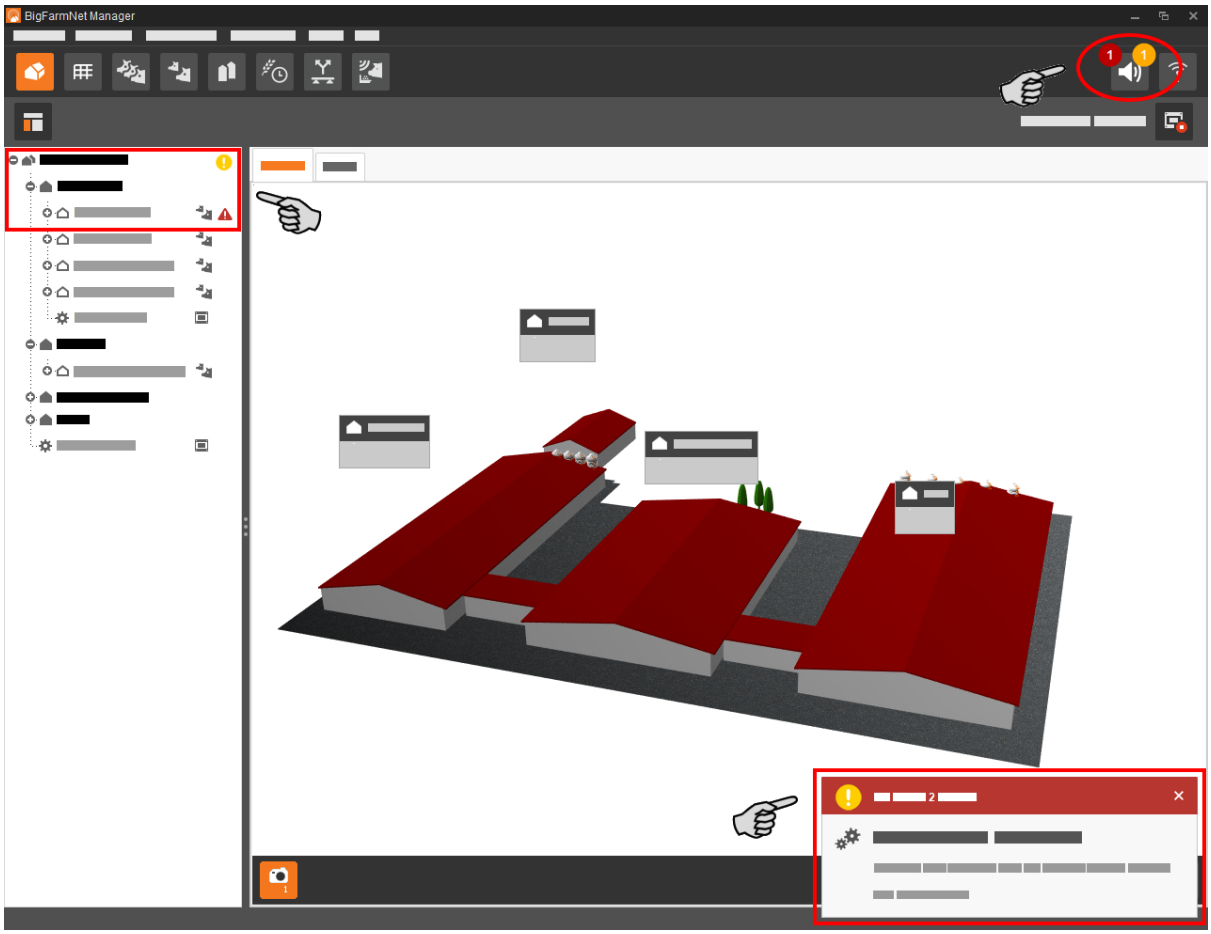


5. To export the data (dating back up to 50 days) for further use, click on "Export..." in the menu "Manager".



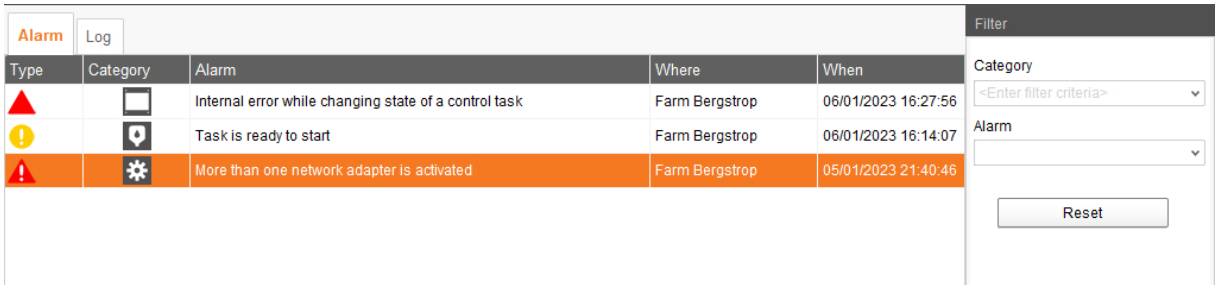
7 Alarms

Alarms and warnings are registered by the control computer, which transmits the message to BigFarmNet Manager. BigFarmNet Manager indicates alarms and warnings as follows:



Clicking on the pop-up window or the alarm icon in the tool bar opens the window for alarms. It shows all active alarms and warnings. Alarms and warnings are listed in the order of their occurrence.

If you click on a location with an alarm or warning icon in the farm structure, only problems active in the respective location are displayed.



Alarm types

Icon		Status	Description
without user note	with		
		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 or test (system-specific)
	IO connection
	BigFarmNet system or general
	Dry feeding system
	Liquid feeding system
	Production
	WebAccess

Icon	Category
	Gateway (ISOagriNET)
	CallMatic system
	EasySlider system
	HydroMixCallMatic system
	MillAndMix system
	SiloCheck system
	TriSort system

NOTICE!

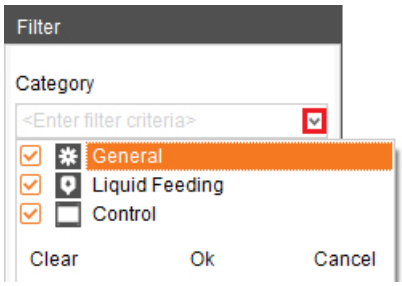
Always eliminate causes for alarms in the "Climate" category first.

7.1 Filtering alarms

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

1. Open the drop-down menu under "Filter" in the right-hand part of the window.

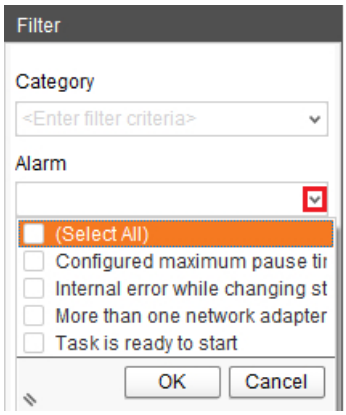
   By default, all categories are selected.



2. Click on "Clear" to delete all check marks.
3. Check the boxes of the correct categories and confirm by clicking on "OK".

4. Select the correct cause from the drop-down menu under "Alarm".

   The alarms will be displayed according to the selected filter.



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

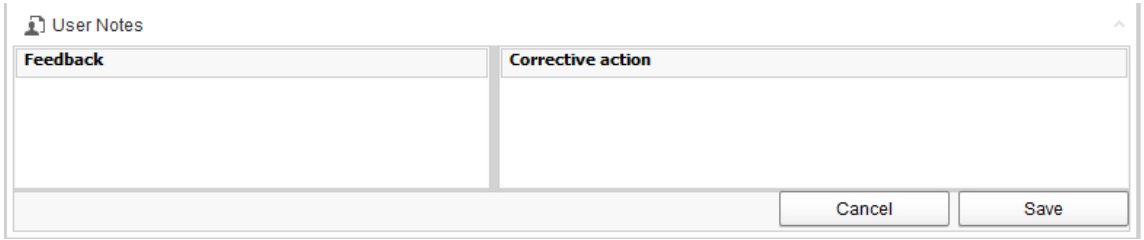
   The selection is discarded and all alarms are listed.

7.2 Acknowledging an alarm

Alarms can be acknowledged once 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. Save a note for an alarm before acknowledging it, if required.

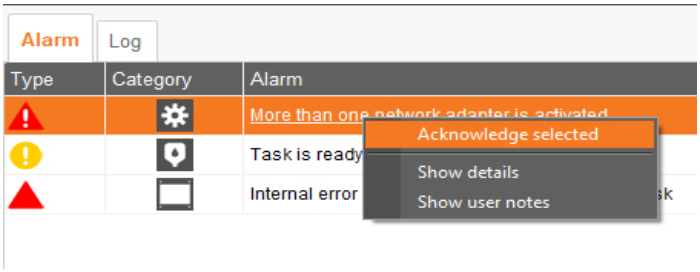
   This note may be helpful to eliminate similar alarms later on. Notes are saved for each alarm in the lower part of the window under **User Notes**. Save the note.



2. Select the alarm you want to acknowledge by clicking on it.

   You may also select multiple alarms to acknowledge them at the same time.

3. Right-click to open the context menu and click on "Acknowledge selected".



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

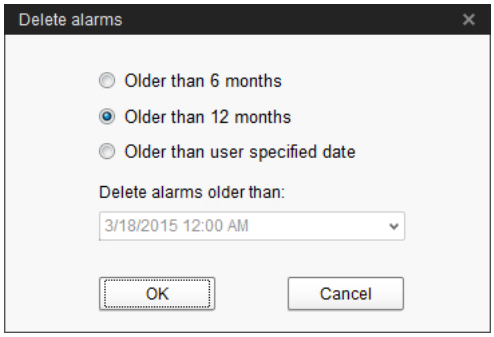
   The alarm is removed from the **Alarm** window.

7.3 Alarm log

The log shows all alarms that have occurred since initial operation of BigFarmNet Manager. You may filter for specific alarms or delete alarms that are older than six months as follows:

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

2. Select the desired time period or enter a date.



3. Click on "OK".

   All alarms within the selected time period are deleted.

7.4 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

NOTICE!

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:

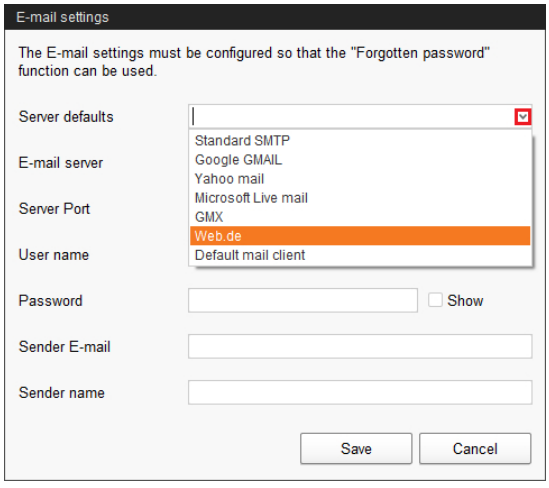
1. In the "Manager" menu, click on "General settings".

   This opens the dialog window "General settings".

2. Click on "Configure general E-mail settings".

   This opens the dialog window "E-mail settings".

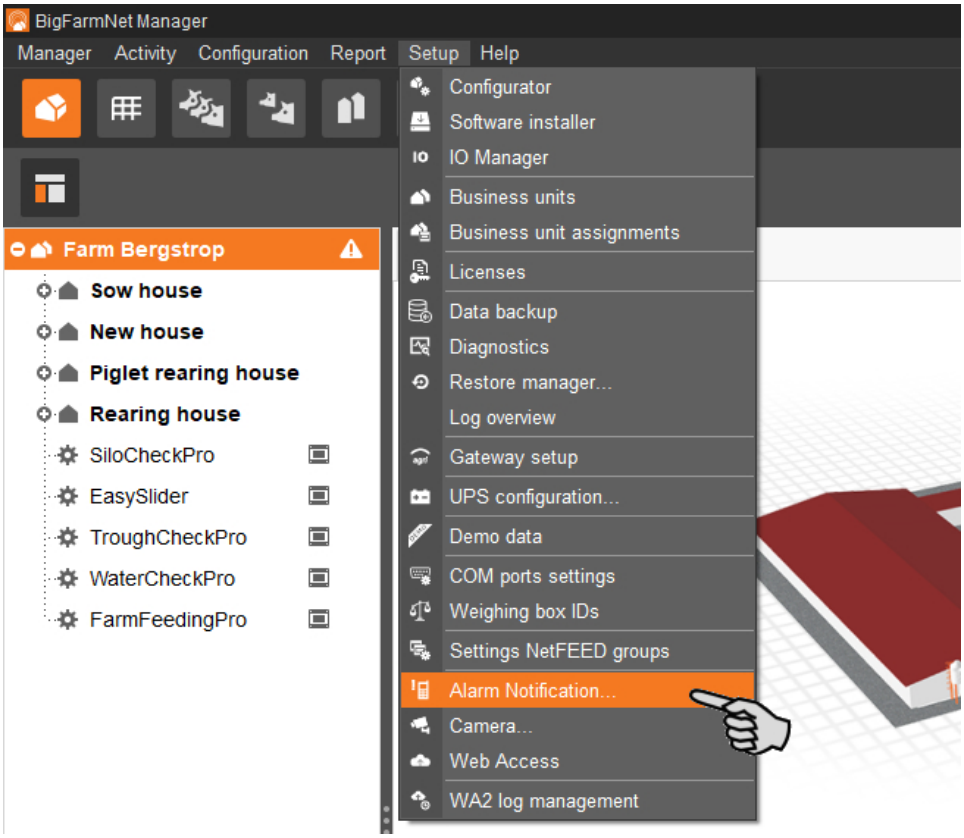
3. Click on the arrow pointing downwards next to **Server defaults** and select your server default from the drop-down menu.



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

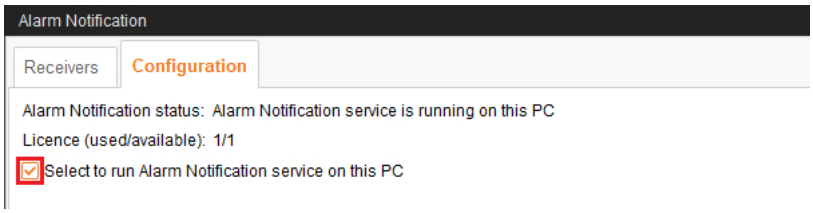
4. Enter the **user name**, the **password** and the **sender email**.
5. Click on "Save" to accept all settings.

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

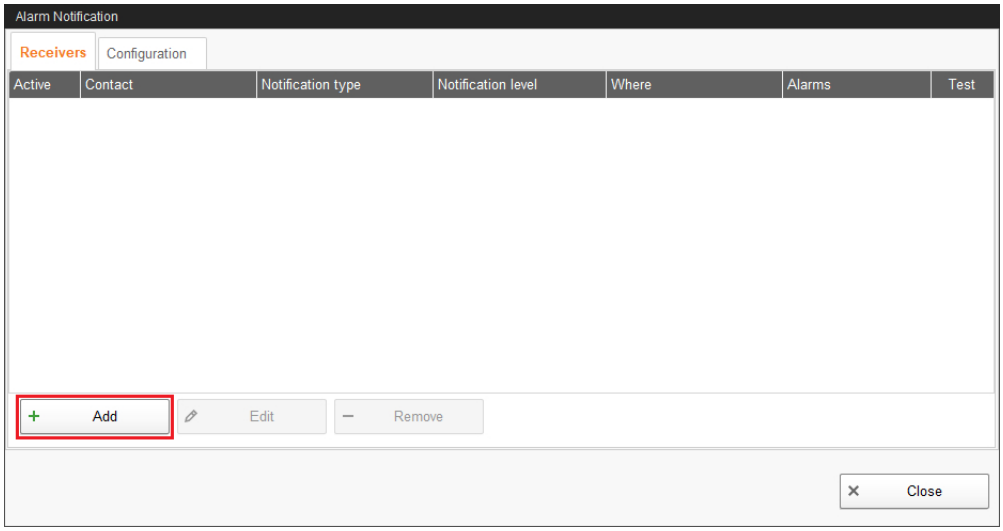


This opens the dialog window "Alarm Notification".

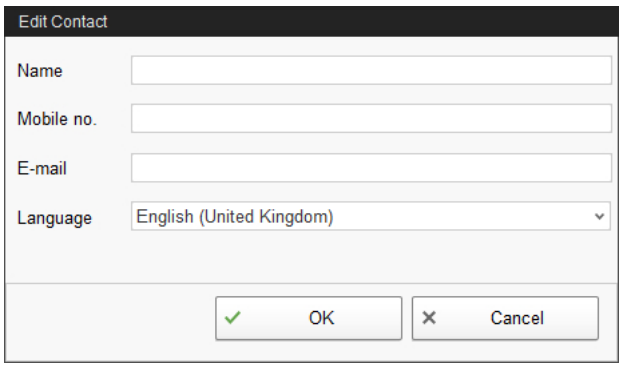
7. Activate the Alarm Notification service in the tab "Configuration".



8. In the tab "Receivers", click on "Add" to add a recipient.



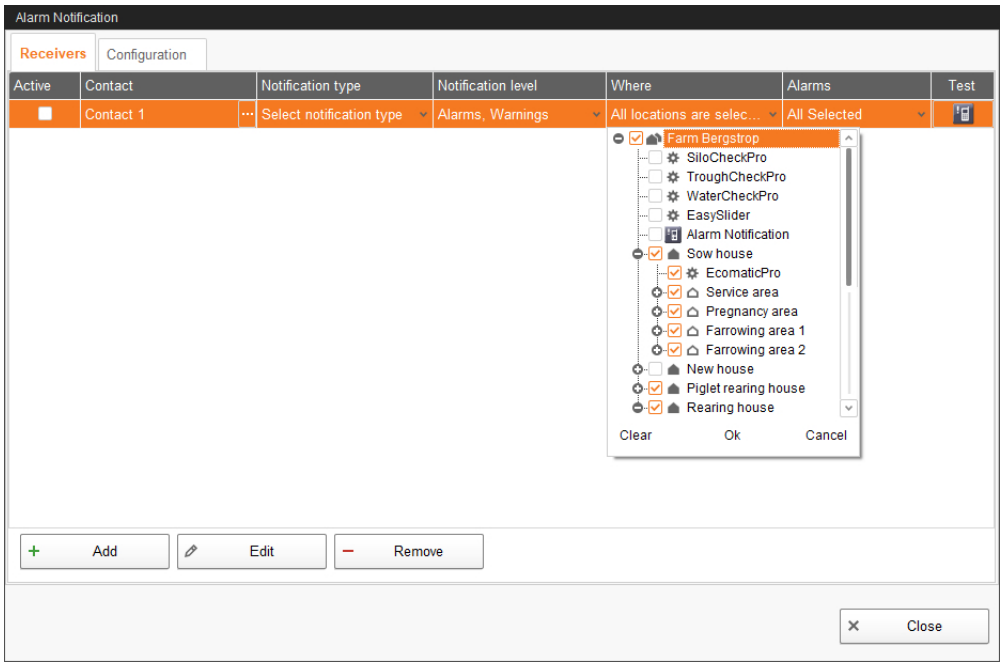
9. Enter the contact details and select the correct language.



10. Confirm your inputs by clicking on "OK".
11. Select "Email" as **notification type** and confirm your selection by clicking on "OK".
12. Select whether the recipient should receive alarm messages, warnings or both under **Notification level** and confirm your selection by clicking on "OK".

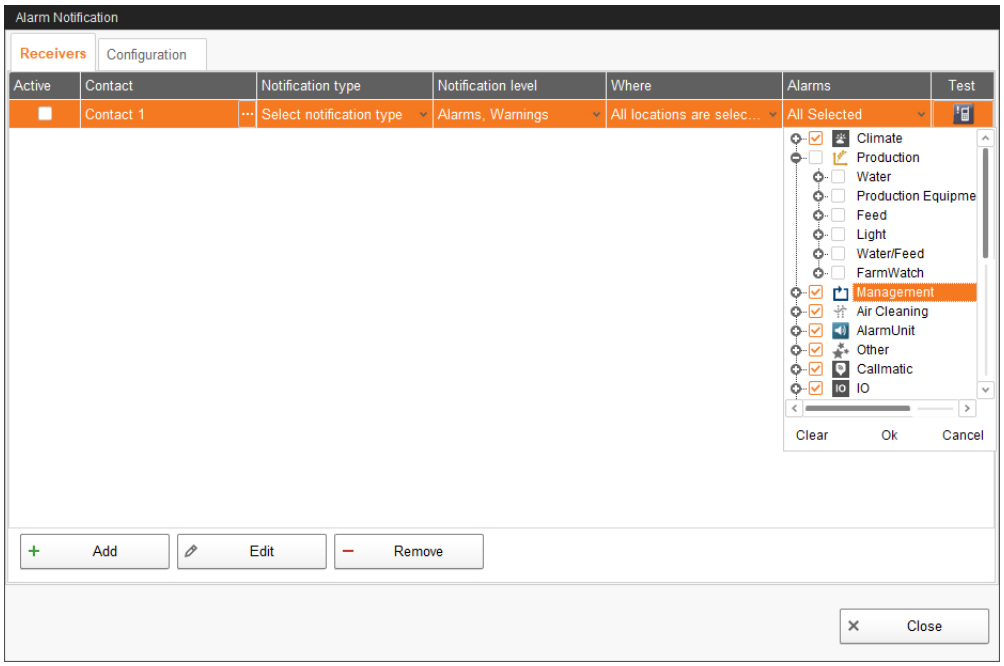
13. Under **Where**, select the location whose alarms the recipient should receive.

    You may select multiple locations.



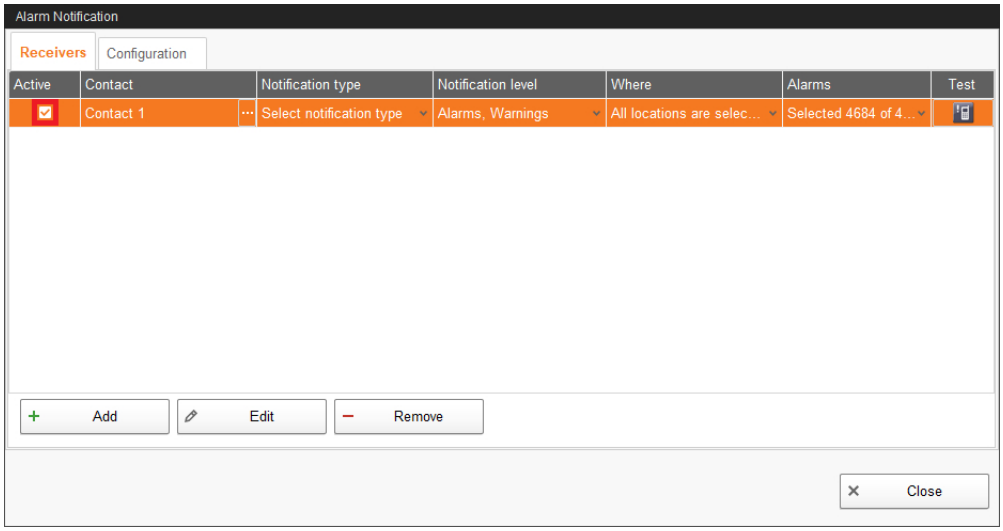
14. Confirm your selection by clicking on "OK" in the drop-down menu.
15. Under **Alarms**, select which alarm categories the recipient should receive.

    You may select multiple alarm categories.



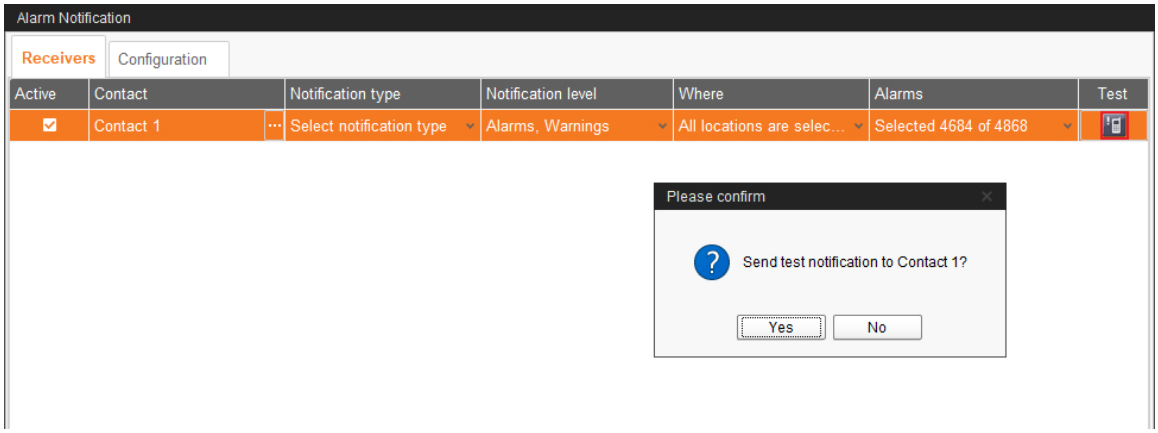
16. Confirm your selection by clicking on "OK" in the drop-down menu.

17. Activate the recipient for alarm notifications.



18. Check the recipient's data by sending the recipient a test message:

    Click on the alarm notification icon and confirm the next dialog with "Yes".



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

    This closes the dialog window.

7.5 System-specific alarms

The following table describes possible alarms and warnings for EasySlider:

Category	Alarm	Description	Possible cause
	Animal daily ration	(0) animals didn't eat their daily ration.	Indicates the number of animals which have not consumed a sufficient amount of feed by the end of the day. The threshold for the minimum feeding amount is indicated as percentage and can be configured in the settings for the EasySlider application, see chapter 4.1.3 ”Alarm”, page 46.
	No animal in a pen	There is no animals in the pen, but the feed pendulum is used.	There actually is an animal in the pen which is requesting feed. However, this animal is not registered for this pen (station) by the system, see chapter 4.1.3 ”Alarm”, page 46.

8 Operation of the control computer

The EasySlider feeding system is controlled by the 510*pro* control computer with touchscreen. The 510*pro* can be operated either centrally through BigFarmNet Manager or locally. Each 510*pro* can control a maximum of 25 CAN bus junction boxes. Up to 16 EasySlider units can be set up per CAN bus junction box. This means that one 510*pro* can control a maximum of 400 EasySlider feeding spaces.

Feed dispensing can be calibrated directly at the 510*pro* control computer. Additionally, sow-specific data can be retrieved and partially edited.

The control computer and the Manager PC are connected through the BigFarmNet software. This ensures permanent data exchange.

8.1 Technical data

Dimensions (H x W x D)	381 mm x 400 mm x 170 mm
Protection rating according to EN 60529	IP 54
Supply voltage	115 V, 200 V and 230 V/240 V AC +/- 10 %
Supply frequency	50/60 Hz
Power consumption	75 VA
Network	2 network interfaces, 10/100 BASE+TX RJ 45
USB	2 USB interfaces, USB 2.0 type A, max. 4 GB
Ambient temperature	-10 to +45 °C (+14 to +113 °F)
30 punch holes for metric cable gland M 25 x 1.5	
Code no.	91-02-4094
Description	Base computer 510pro Quad Core 10" display HW2

8.2 Icons

Overview / Start screen

Settings

Logout

Alarm

An alarm is active.

Close the current view and return to the previous view

Open additional information or settings

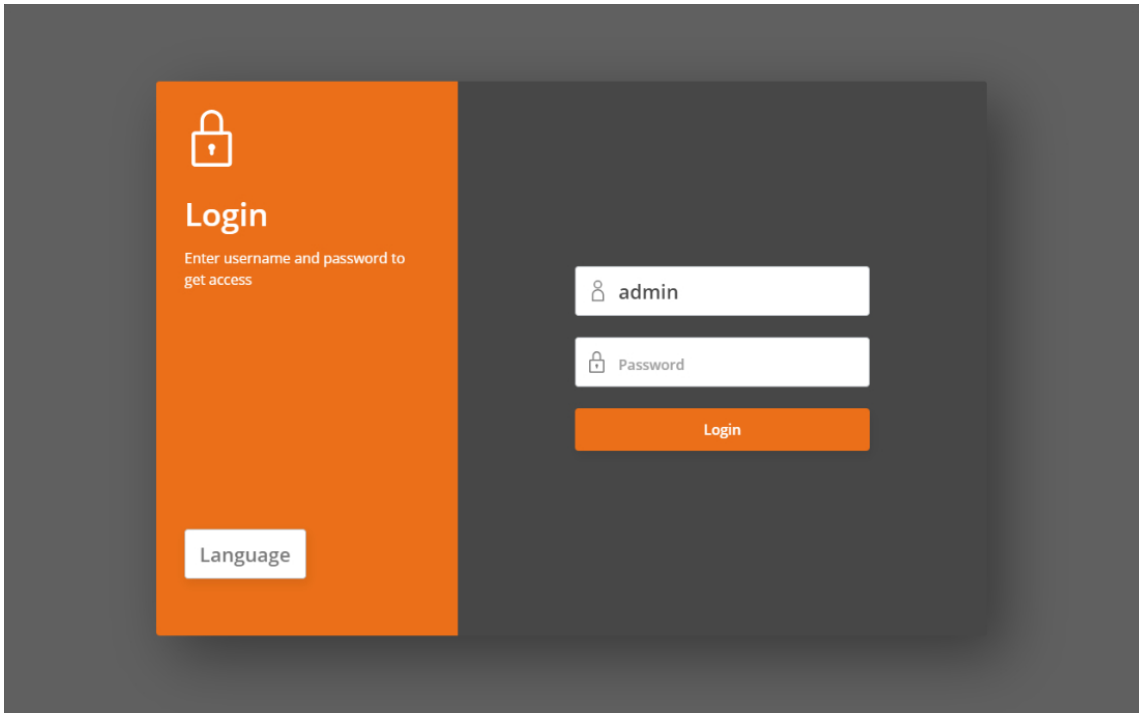
Scroll up / down in selection

8.3 Login

Log into the control computer using the login dialog.

The login dialog appears

- automatically after the software has been installed successfully, when the application starts;
- automatically after a specific time without activity (automatic logout); or
- if you actively log out of the control computer.



NOTICE!

The user name and the password are the same as when logging into BigFarmNet Manager.

8.4 Logout

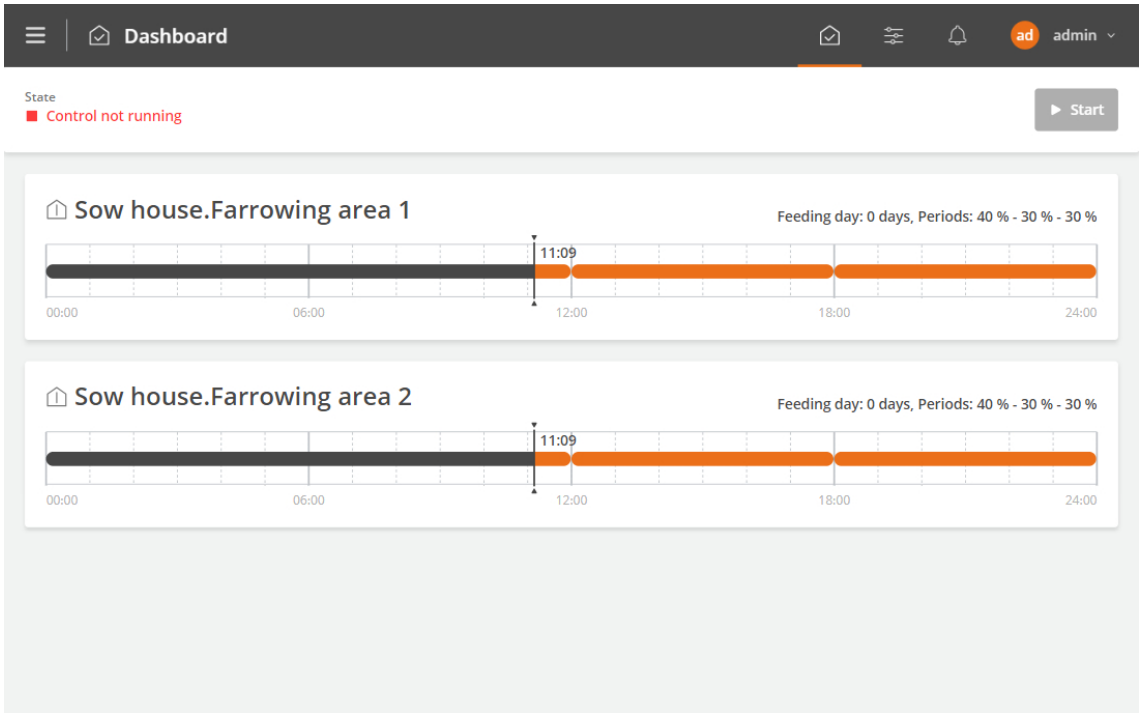
To log out, tap on the button in the top right corner. A new button appears. Tap on the "Logout" icon.

The login dialog appears on the display again.

8.5 Start screen

After logging in, the start screen shows the individual sections, including the following information:

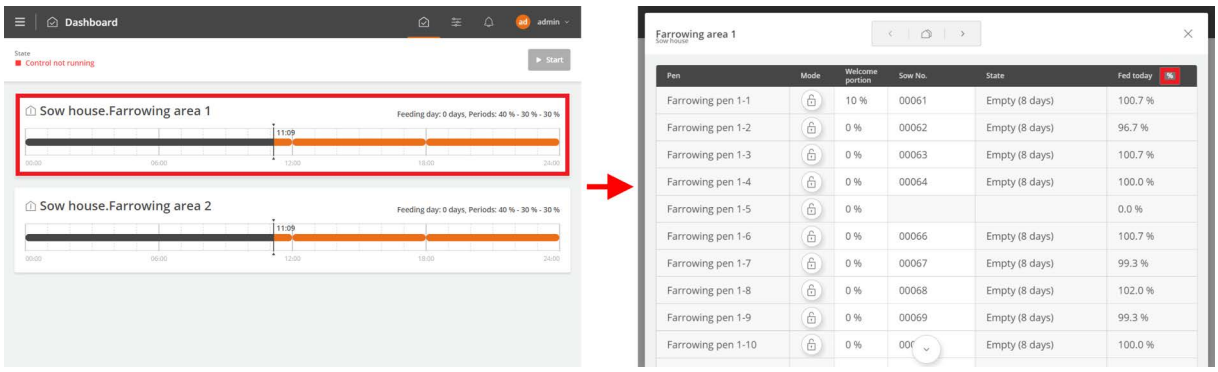
- feeding day;
- feed amounts of the individual feeding periods as percentage
- timeline with defined feeding periods and the current time



Tap on Start or Stop to start or stop the system.

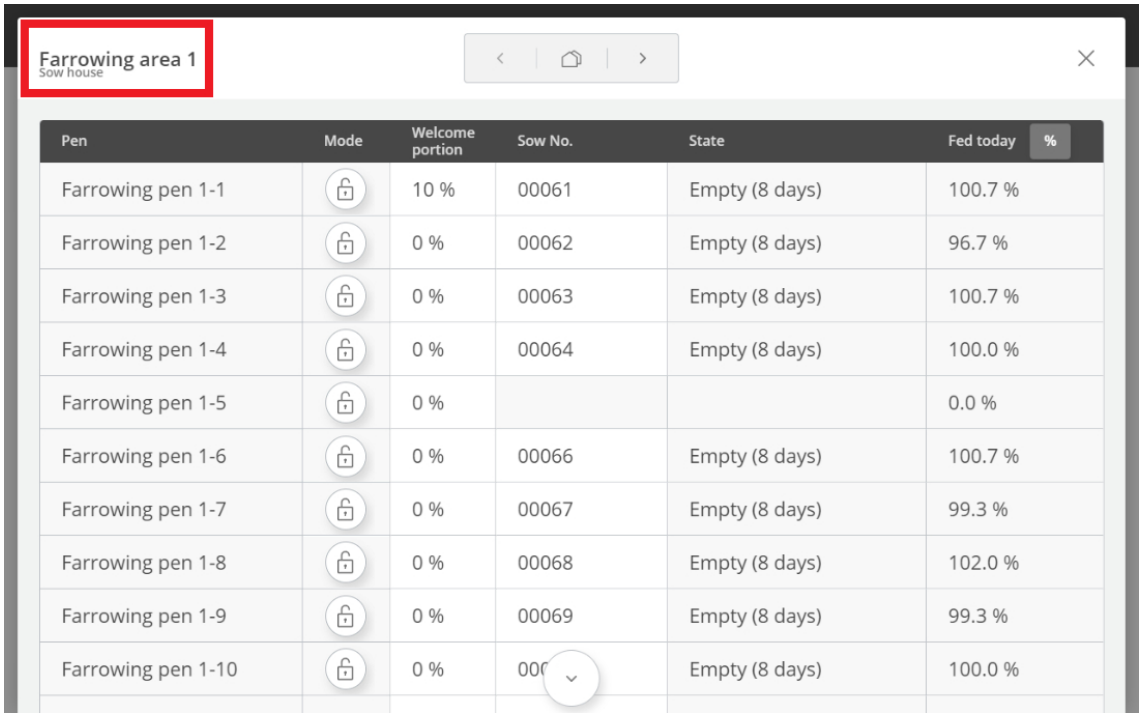
8.6 Pen view

Tap on the correct section on the start screen to open an overview of each pen's individual data. The feeding data can be displayed as percentage or as absolute values in kg, in the same manner as in BigFarmNet Manager.



The location of the pen is displayed in the top left corner.

Tap on to return to the previous overview or the start screen.



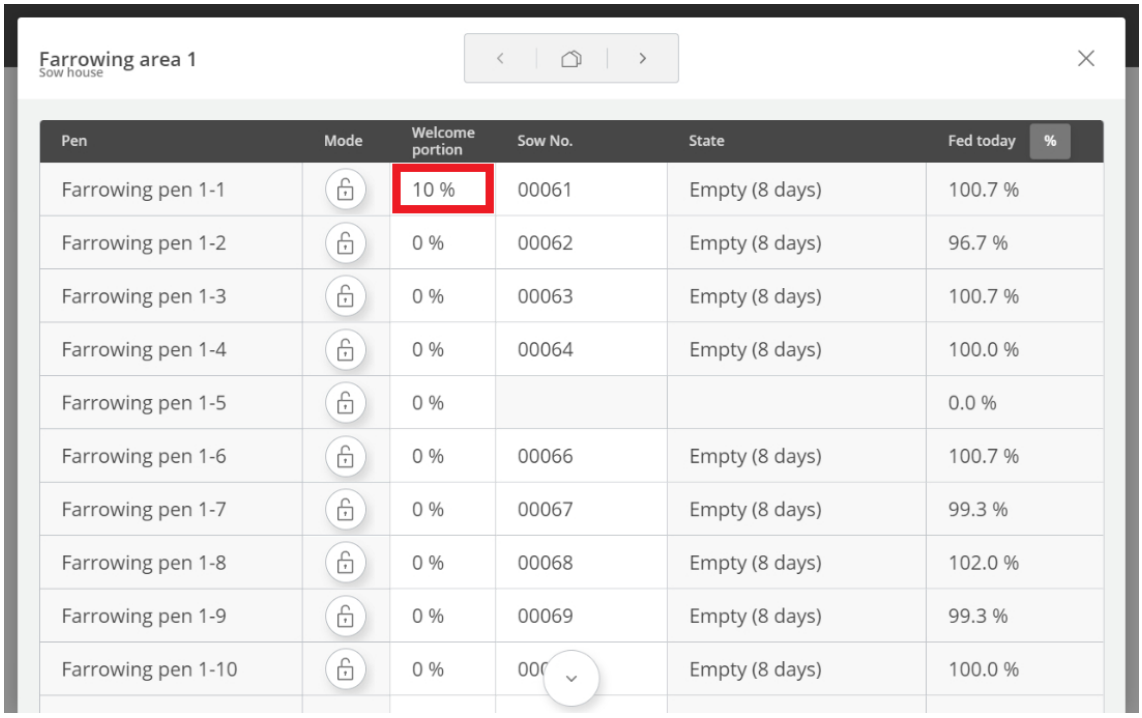
8.6.1 Valve actions

In the pen view, you can perform the following actions for each valve by tapping on or in the "Mode" column:

- **Lock**: An unlocked valve is locked immediately after actuation.
- **Unlock**: A locked valve is unlocked immediately after actuation.
- **Dosing portion**: The portion is dispensed immediately. (This function is only available from BigFarmNet Manager v6.1.)
- **Screw filling**: The auger is filled immediately. (This function is only available from BigFarmNet Manager v6.1.)
  Advantage: The amount of feed required to fill the auger is not included in the sow's feeding statistics. The time the auger needs to fill the dosing unit can be defined in the settings under chapter 4.1.2 ”General”.

8.6.2 Welcome portion

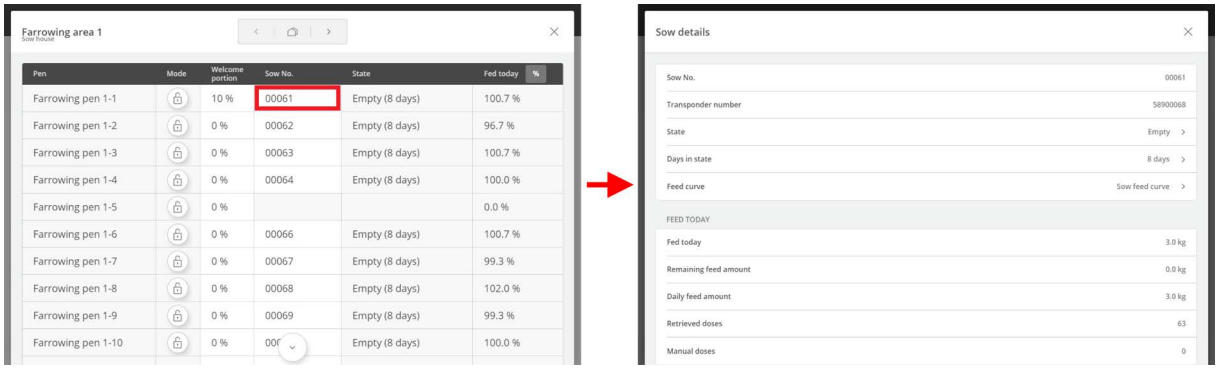
In the pen view, you can define or change the welcome portion for each individual sow. This function corresponds to the welcome portion in BigFarmNet Manager, see chapter 5.2 ”Entering an individual welcome portion”.



Pen	Mode	Welcome portion	Sow No.	State	Fed today %
Farrowing pen 1-1		10 %	00061	Empty (8 days)	100.7 %
Farrowing pen 1-2		0 %	00062	Empty (8 days)	96.7 %
Farrowing pen 1-3		0 %	00063	Empty (8 days)	100.7 %
Farrowing pen 1-4		0 %	00064	Empty (8 days)	100.0 %
Farrowing pen 1-5		0 %			0.0 %
Farrowing pen 1-6		0 %	00066	Empty (8 days)	100.7 %
Farrowing pen 1-7		0 %	00067	Empty (8 days)	99.3 %
Farrowing pen 1-8		0 %	00068	Empty (8 days)	102.0 %
Farrowing pen 1-9		0 %	00069	Empty (8 days)	99.3 %
Farrowing pen 1-10		0 %	00(	Empty (8 days)	100.0 %

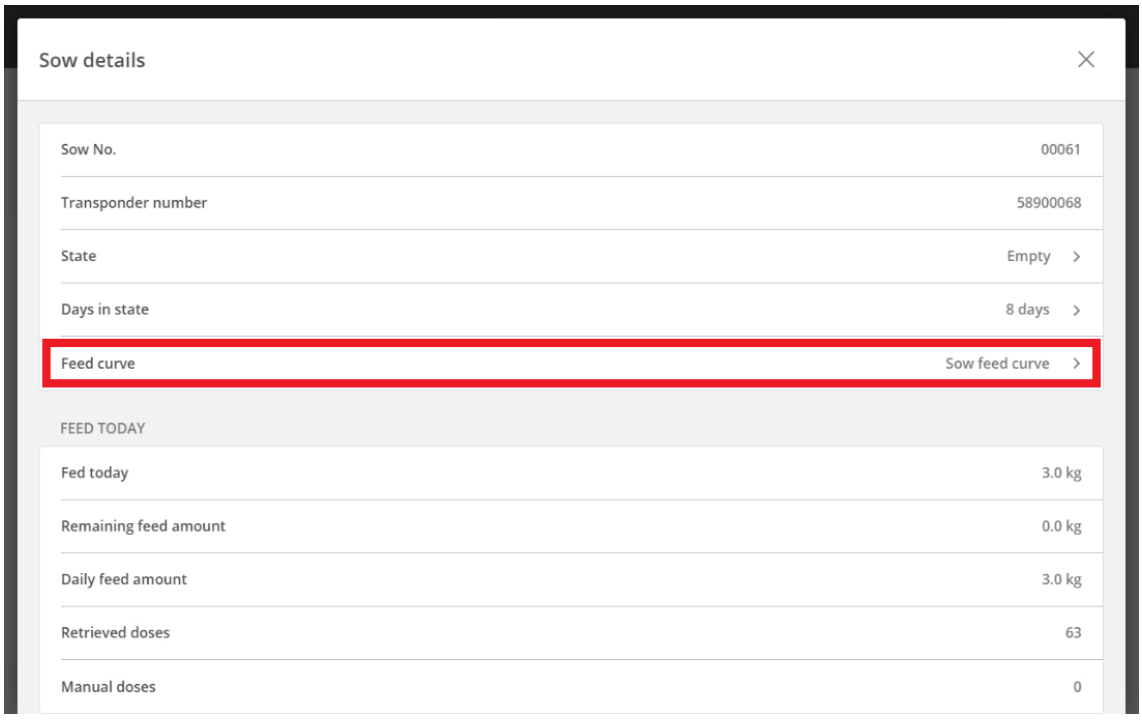
8.6.3 Sow details

In the pen view, you can retrieve the sow details, including feeding data, for each individual sow. You can also change the feed curve in the sow details. If you have selected the "Simple" mode under "Configuration" > "Sow" > "Setup sow" > "General" in BigFarmNet Manager, you can also change the sow's state and the number of days in state in the sow details.

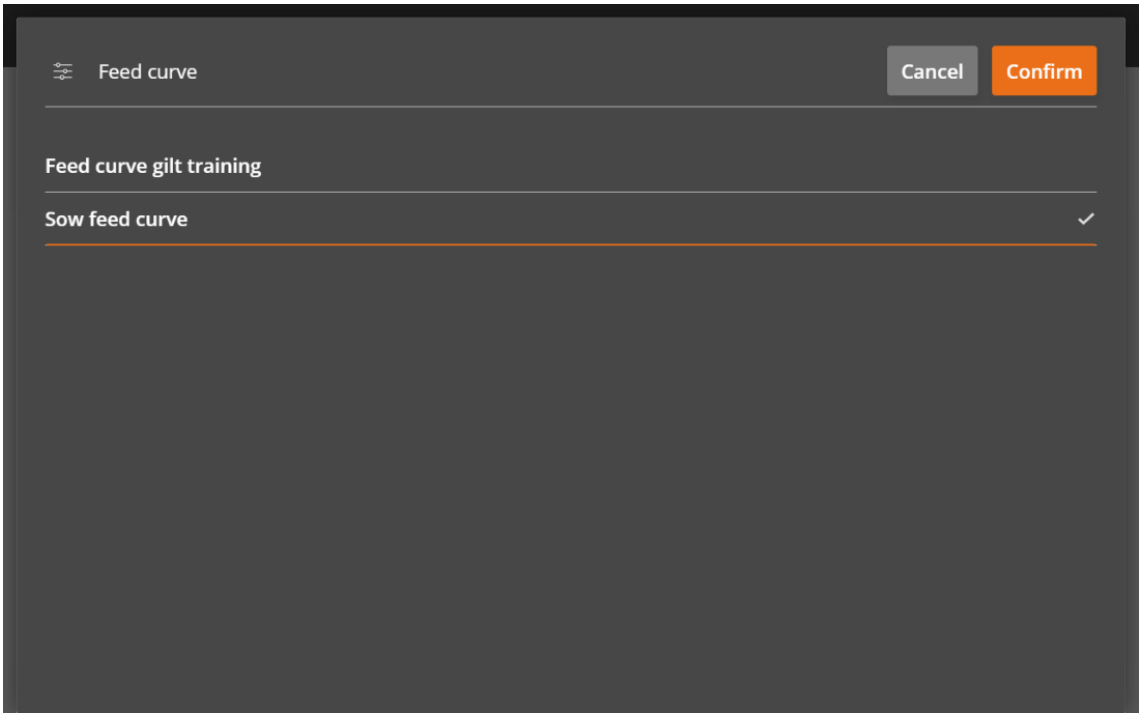


Selecting a feed curve

1. Tap on the row "Feed curve".



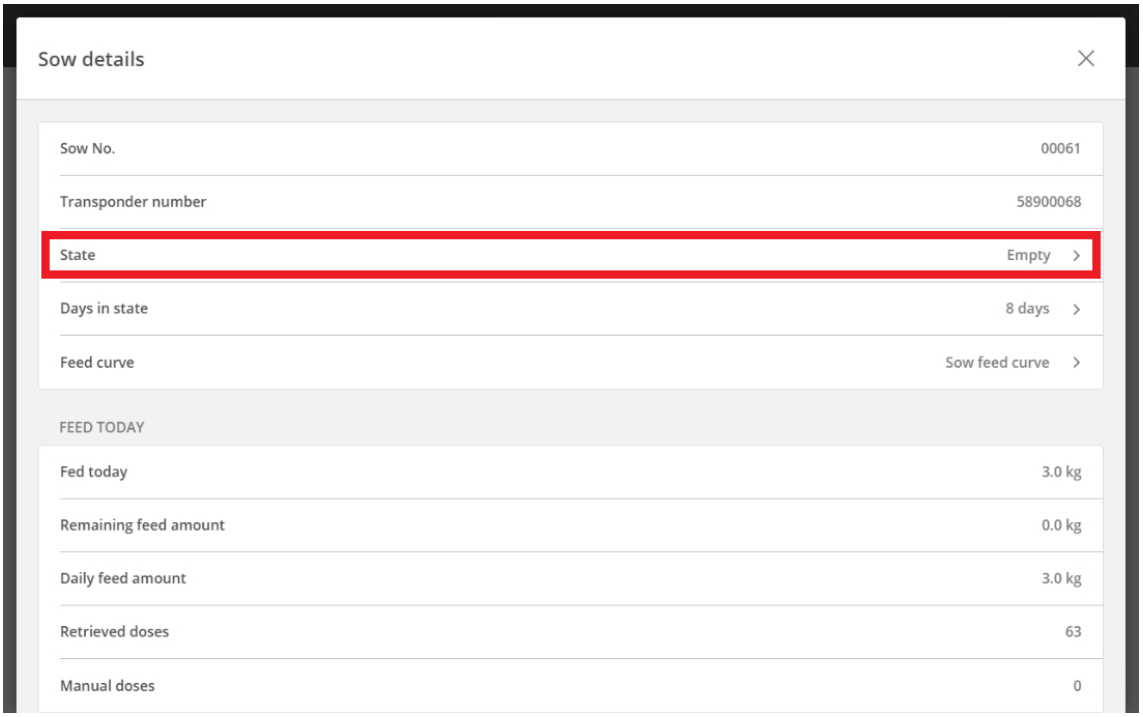
2. Select the correct feed curve for the sow.



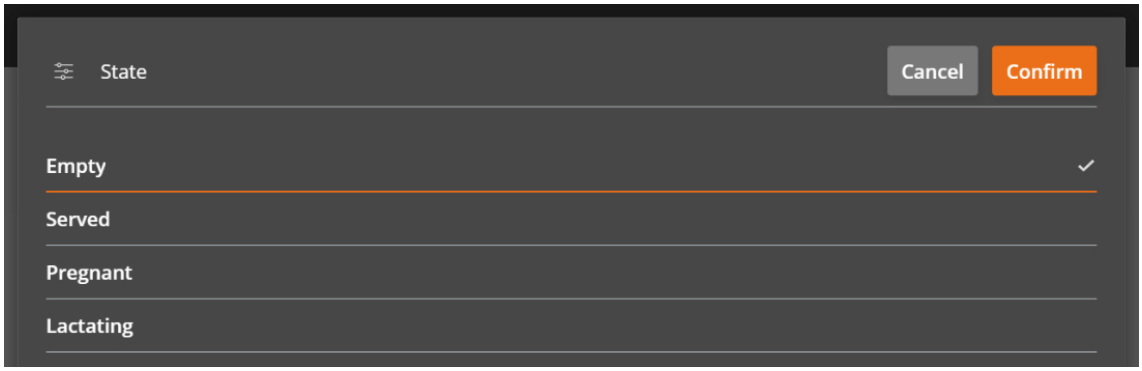
3. Save your input by tapping on "Confirm" in the top right corner.

Changing the state

1. Tap on the row "State".



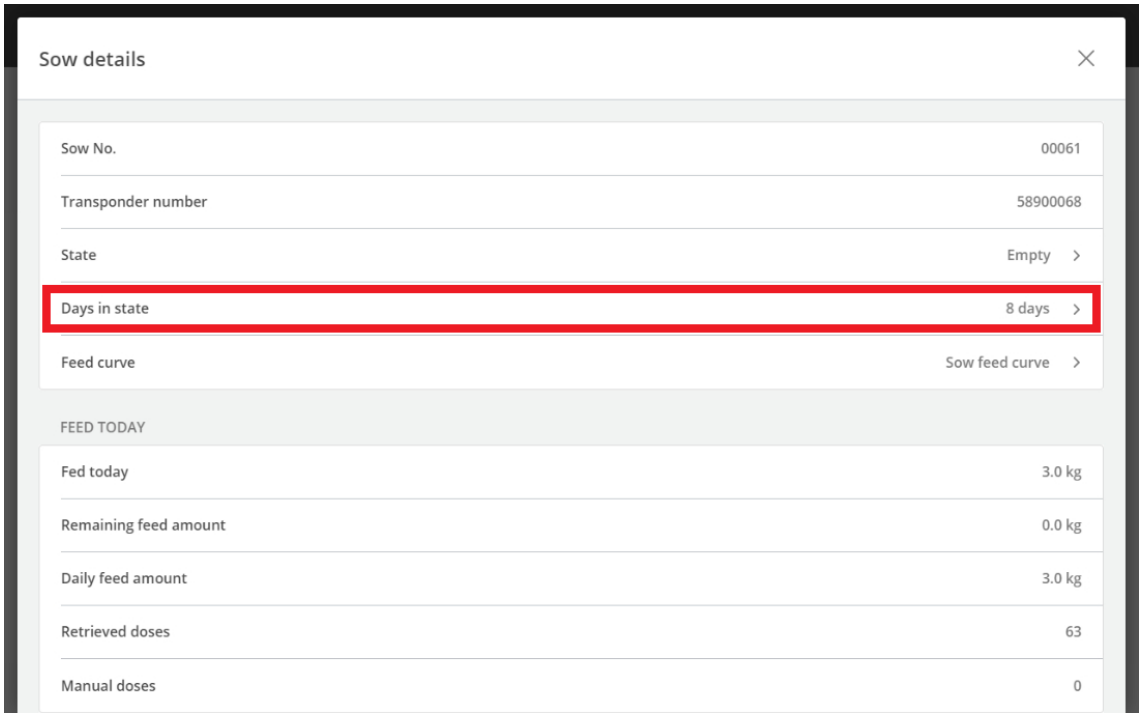
2. Select the correct state for the sow.



3. Save your input by tapping on "Confirm" in the top right corner.

Adjusting the days in state

1. Tap on the row "Days in state".



2. Enter the correct number.
3. Save your input by tapping on "Confirm" in the top right corner.

8.7 Settings

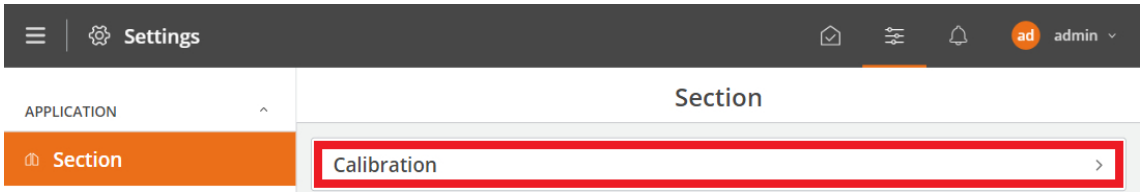
Tap on the "Settings" icon to switch to the settings menu. The following chapters describe the settings options.

8.7.1 Application settings

8.7.1.1 Calibration

Calibration is used to determine the dispensed amount of feed within a specific time. Proceed as follows:

1. Under "Settings" > "Application" > "Section", tap on "Calibration".



2. In the "Calibrate" dialog, select the section under "Group", and under "Station", select the pen in the section in which you want the dosing unit to dispense the calibration amount. Also define "Number of dosing" and "Dosing duration".

3. Place a suitable container with an established empty weight under the dosing unit to collect the calibration amount.

4. Tap on "Start" in the "Calibrate" dialog window.

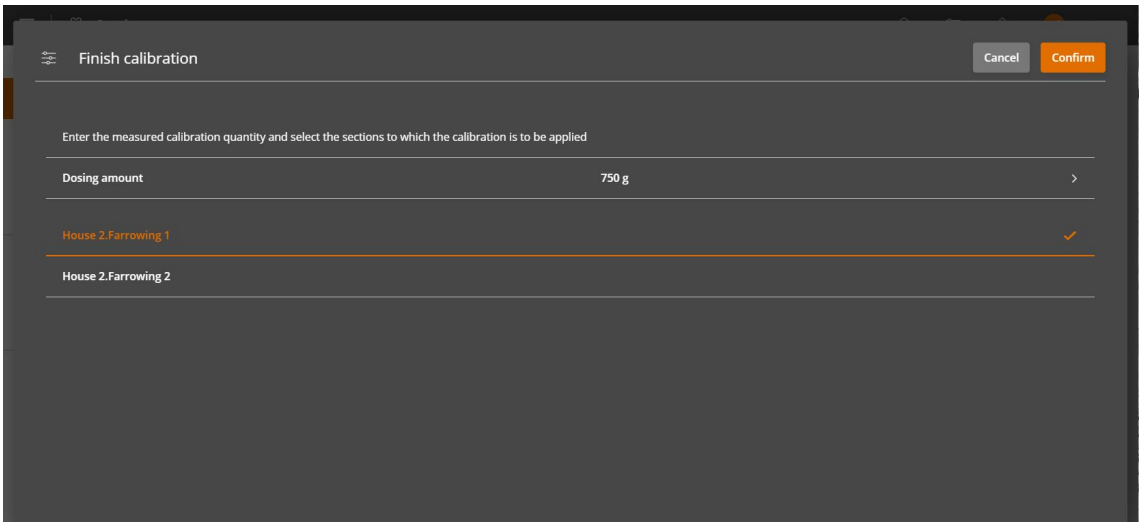
   In the selected pen, the selected amount of feed is dispensed for the selected duration. The progress is indicated under "State".

5. Tap on "Save" in the "Calibrate" dialog window.

6. Weigh the dispensed total amount in the container.

   If necessary, subtract the empty weight of the container from the weighed value.

7. Enter the weighed feed amount in the "Finish calibration" dialog. Select the pens for which this calibration should apply, and tap on "Confirm".

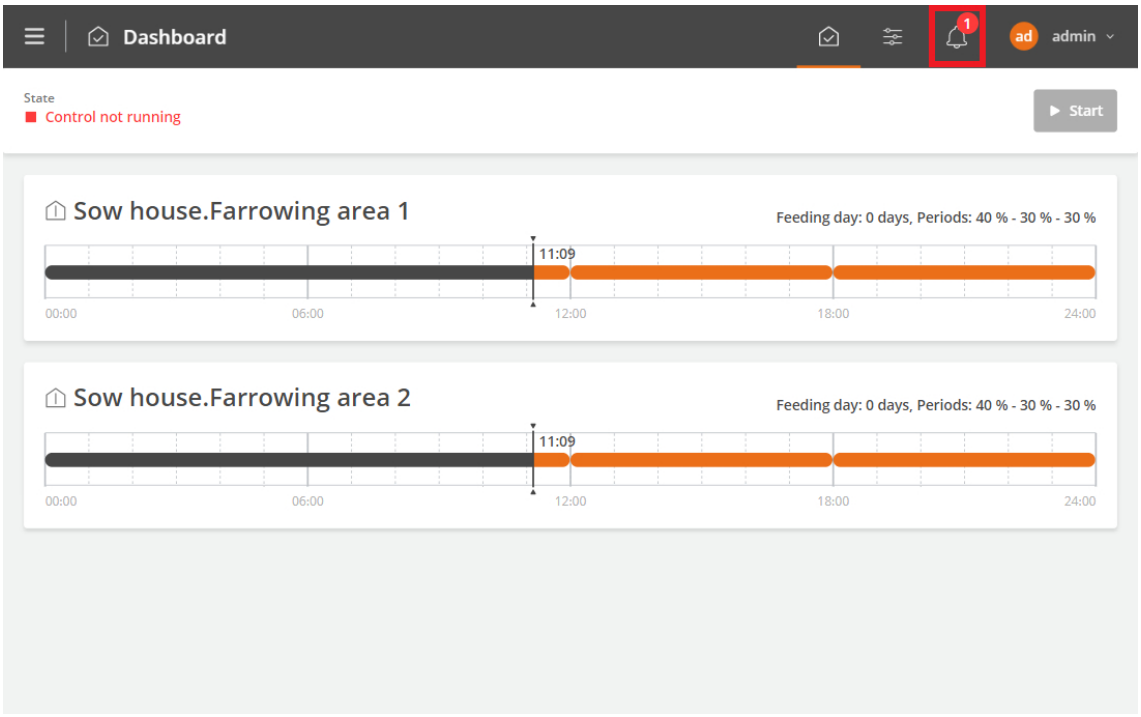


8. For validation, check the feed amount in two to four other pens. Adjust the calibration amount, if necessary.

8.8 Alarms

In case of an active alarm or warning, the alarm icon is surrounded by a red dot indicating the total number of alarms and warnings.

1. Tap on the icon to open the alarm overview.



In the alarm overview, the different alarms and warnings are shown in a list and sorted depending on when they occurred. The list provides the following information:

– Alarm type (see chapter 7 ”Alarms”)

  Active alarm: signal word with red background, red vertical line on the left

  Inactive alarm: signal word with gray background

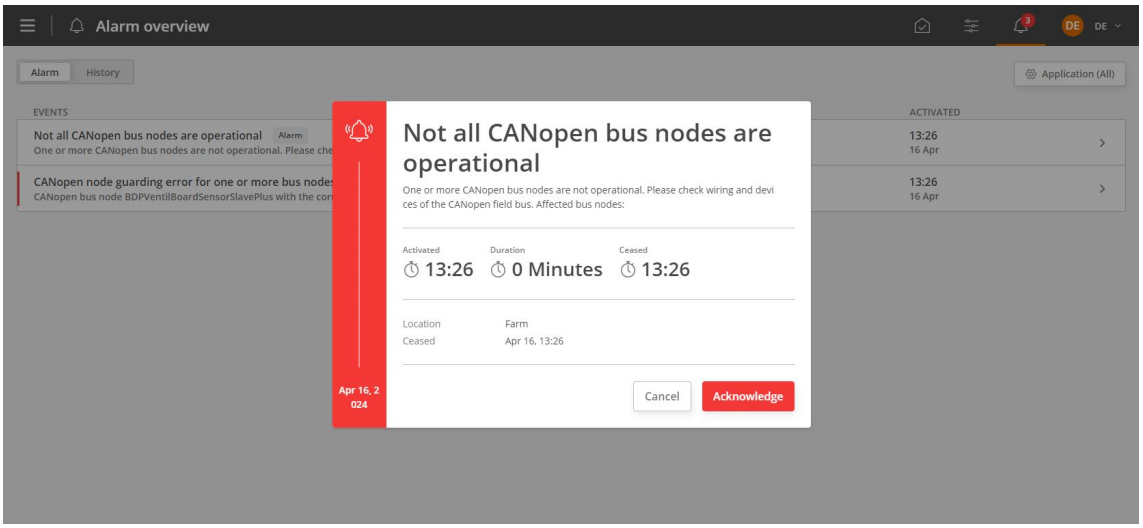
  Deactivated alarm: signal word with red background (only in "History")

  Ended alarm: signal word with gray background (only in "History")

  Active warning: signal word with yellow background, yellow vertical line on the left

  Ended warning: signal word with gray background (only in "History")

– Description of the alarm or warning

– Time of occurrence

2. Tap on the correct alarm or warning to read the full description and to confirm/ acknowledge the alarm or warning, if necessary.