GB

F-CENTRAL FARMMANAGER

MANUAL

VERSION A1

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This manual has been compiled with the utmost care. If, however, you should discover an error, please inform Fancom B.V.

Art.Nr. A5911488

GB130401

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1. General introductiom

This manual has been compiled with the utmost care. If, however, you should discover an error, please inform Fancom B.V..

1.1 Documentation with the program

The documentation consists of the following:

- Getting Started

  The Getting Started manual provides information about the installation and activation of the program.

- Help

  The manual is intended for the installer and end-user. The manual provides information about configuring and working with F-Central FarmManager.

1.2 How to use this manual

Fancom uses the following symbols in this manual:

Suggestions, advice and remarks with additional information.

Warning indicating damage to the product if procedures are not carefully observed.

Warning indicating a hazard for humans or animals.

Example of an actual application of the described functionality.

Example of a calculation.

Describes the combination of keys required to access a certain screen.

Decimals

The controller and this manual use a decimal point in values. For example: a weight is shown as 1.5 kg (not as 1,5 kg).

1.3 Fancom helpdesk

For any questions and support, please contact your local Fancom Sales & Service Centre.

1.4 F-Central FarmManager™

Virtually all Fancom equipment can be controlled and managed from a central location. This requires the F Central FarmManager software package and a communication module. The screens in the controllers are also used in F Central FarmManager. This means you can start working immediately.

2. F-Central FarmManager introduction

With F-Central FarmManager, you are connected with your stalls 24 hours a day. You can monitor and adjust the situation in your stalls from anywhere in the world. This allows you to save time and to manage your stalls more efficiently. F-Central FarmManager provides the following functions, among others:

- Central operation of all controllers

  All activities that you perform on a controller can also be performed via F-Central FarmManager.

- View overviews

  You can view overviews of all farm sections at various levels, such as house, curve and clocks. You can create an overview in table form, graphic display, a curve or a Farm-specific overview.

- Constructing graphs

  You can construct graphs based on information from a controller (sample data). When constructing graphs, you can combine the information from multiple control units into one graph.

- Archiving F-Central FarmManager settings

  You can create an archive of certain farm situations in F-Central FarmManager. The archive contains all settings of graphs, for example, and all connected controllers. With an archive, you can view your farm situation at a given moment in the past. You can also compare your farm situation with the archive.

- Reacting to an alarm

  Alarms that occur on a controller are displayed in F-Central FarmManager. You can adjust the alarm status if desired.

- E-mail notifications

  You can send notifications about backup tasks, sample tasks and alarms to one or more e-mail addresses.

- Making backups of controllers

  You can create a backup of information from a controller. This way you can reconstruct old situations - for example, because new settings do not work.

- Adding personal data (Plus keys)

  You can add your own information to the program. This data is only saved in F-Central FarmManager and not in the control units. With Plus keys, you can perform cost calculations, for example.

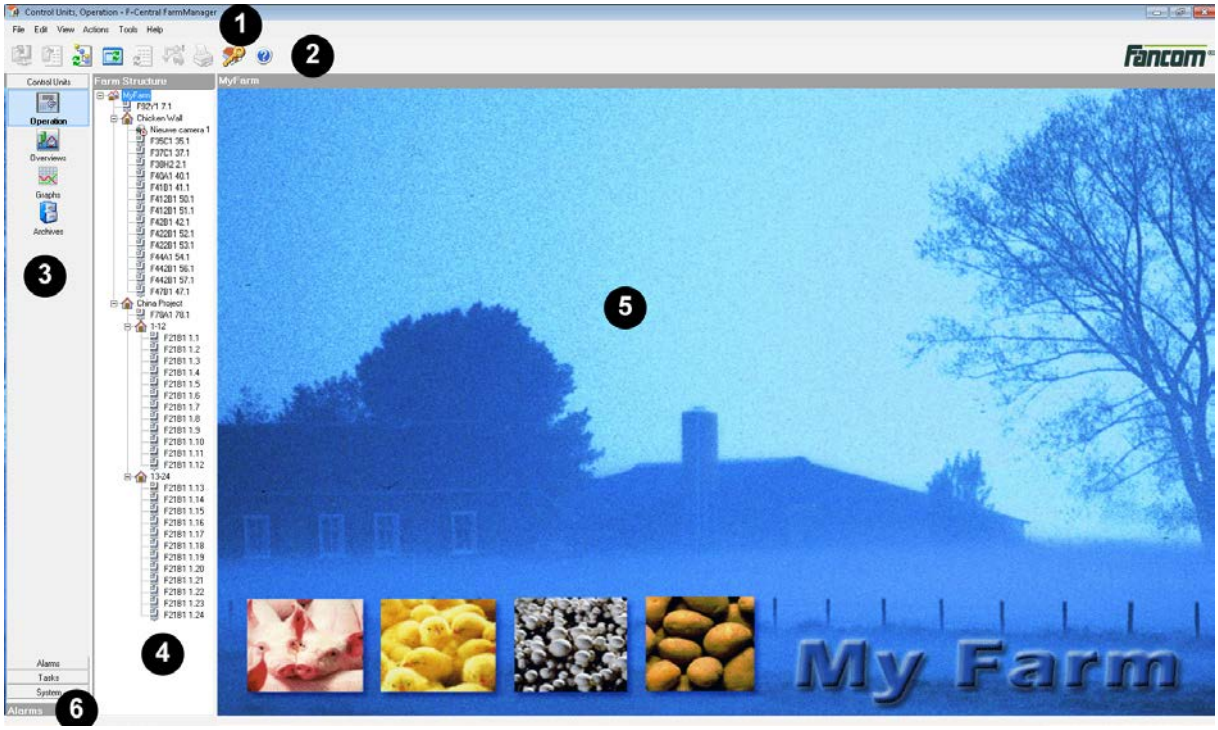
3. Working with F-Central FarmManager

In this chapter, you can read about the basic functions of F-Central FarmManager.

> The presumption of this chapter is that F-Central FarmManager has been correctly installed. You can read more information about the installation of F-Central FarmManager in 'Getting Started'.

3.1 Screen layout

After logging in, the F-Central FarmManager screen appears. The screen has a standard layout that is the same as in all other components of the program. The most important parts of the screen are explained below.



1. Menu bar

   The menu bar contains generic buttons that are the same in all parts of the program. Among other things, you can change the display, print pages and configure a number of basic settings.

2. Button bar

   In the button bar, you will find buttons that apply specifically to the selected shortcut menu.

3. Shortcut menu

   The shortcut menu is comprised of four layers. Under the *Control units* and *Alarms* layers, you can perform actions such as operating the controllers and displaying graphs. Under the *Tasks* and *System* layers, you can configure things such as adding control units.

4. Farm and device structure

   An overview of the farm locations (stalls) and devices that are connected to F-Central FarmManager.

5. Work area

   In the work area, data is displayed with which you can perform activities. The layout of a work area differs according to function.

6. Alarms

   When alarms occur, these are displayed here. If you double-click on the alarm, you go directly to the corresponding controller so that you can turn off the alarm if you wish.

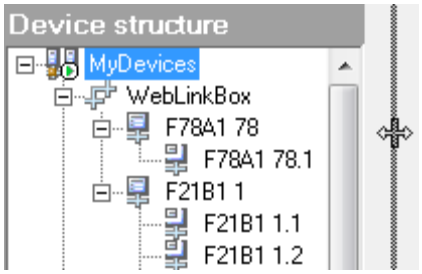
3.2 Basic functions

F-Central FarmManager has several basic functions that help you to use the program better.

3.2.1 Adjusting column width

The program is subdivided into various columns. To have the information displayed fit well on your screen, you can adjust the column width. You adjust the column width as follows:

1. Place your cursor on the dividing line between two columns.
2. Hold the left mouse button pressed down and drag the line. Then release the left mouse button.



3.2.2 Logging in and logging out

During the use of F-Central FarmManager, you can switch between users. For this, it is not necessary to close down the program, but you can log out and log in again with another user name.

For daily work activities, you are logged in as *FarmManager*. If you want to change system settings, you must be logged in as *Service Engineer*. If you just want to view the program, then you log in as *FarmViewer*. Then, you cannot change any information.

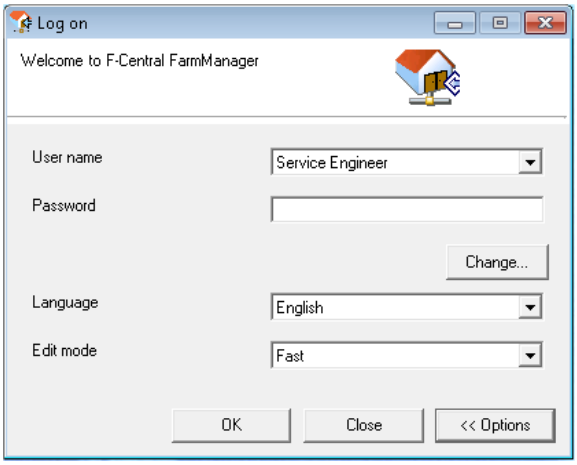
1. Click the *Log off*  .
2. Choose the desired *User name* and enter the *Password* (read more about logging in ‘Getting Started’).
3. Click *OK*. You are now logged in with the other user name.

3.2.3 Changing the password

> Be careful with your passwords.

You can change your password via the login window. You change a password as follows:

1. Start F-Central FarmManager.
2. Select the user name for which you wish to change the password and click on the *Options* button. The following screen appears:



3. Click on *Change* and enter the old password, followed by the new password.
4. Click on *OK* to save the new password.

3.2.4 F-Central FarmManager close

> Never turn off the computer on which F-Central FarmManager is installed! The automatic tasks will then no longer be performed.

You can always close F-Central FarmManager. Even if tasks are still being performed, e.g. an automatic backup.

These tasks remain active in the background. You close the program by clicking the *Log off* button.

3.2.5 Print

You can print a screen by clicking the *Print* button. This always prints the working area of the active screen.

3.2.6 Show the entire screen

You can display the screen in its full dimensions with the *Full screen* button. If the full screen is active, you can go back to the regular display with the *Close full screen* button.

3.2.7 View current program status

The following current statuses are displayed at the lower right of the work area:

- Red: F-Central FarmManager is busy retrieving data.
- Green: F-Central FarmManager has retrieved all the data.
- Blue: F-Central FarmManager has demo or archive data.

4. Configuring basic settings

Before you can make use of F-Central FarmManager, a few basic settings must be configured. The tasks that you must perform for this are:

- Make a device structure
- Making a farm structure
- Plan backup tasks
- Create sample tasks
- Create graphs
- Add cameras

For all the tasks described in this chapter, you must be logged in as *Service Engineer*.

4.1 Create a device structure

The link between the controller and the program is called a route. Before you can add a route in the program, the controller must be connected to a communication device (e.g. GreenLinkBox or WebLinkBox). For this, consult the manual for the particular communication device.

You first make the routes in the program and then you link all the controllers that are connected to this.

4.1.1 Adding routes

New routes can be added automatically or manually:

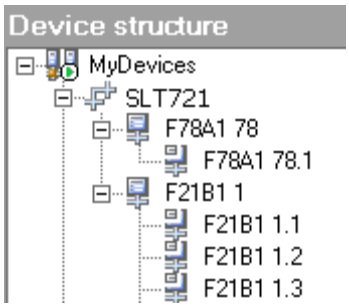
- Automatic: the program checks whether new routes are present. All new routes are added automatically and the settings are automatically determined (applies only for USB and COM ports such as SLT721).
- Manual: you check yourself whether new routes are present. You add the new routes manually and also determine all the settings manually (applies only for ethernet connection such as GreenLinkBox ELT and WebLinkBox).

Adding routes automatically

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure*  . The 'Device structure' display appears.
3. Select ‘My Devices’.
4. Click on the *Install communication route*  . The program now adds all available routes. At the end, all routes are shown in the 'Device summary' display.

Adding routes manually

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure*  . The 'Device structure' display appears:
3. Select ‘My Devices’.
4. Click on the *New communication route*  .
5. Choose GreenLinkBox ELT/Weblinkbox or Greenlinkbox SLT and click *OK*. The program now adds all available routes. At the end, all routes are shown in the 'Device summary' display.
6. Set the properties for the route (see the end of this paragraph) and click on the *Apply* button to save the properties.

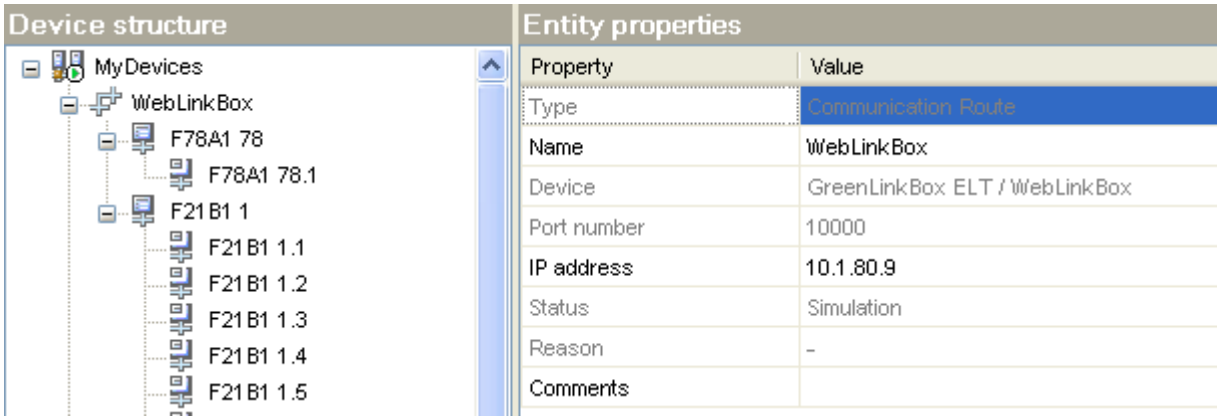


Adding simulated routes

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure*  . The 'Device structure' display appears:
3. Select ‘My Devices’.
4. Click on the *New simulated communication route*  . The new route gets created and shown in the 'Device structure' display.
5. Set the properties for the route (see the end of this paragraph) and click on the *Apply* button to save the properties.

Changing routes' properties

1. Select a newly added route. The route's properties appear in the work area.
2. Adjust the route properties:



- *Type*: device type.
- *Name*: name of the device.
- *Device*: description of the device.
- *Port number*: the port on the program to which the device is connected (only applies for manual routes).
- *IP address:* the IP address for the device (only applies for manual routes).
- *Status*: the current status of the device (only applies for manual routes).
- *Comment*: any remarks that you may enter for yourself.

3. Click on *Apply* to save the changed properties.

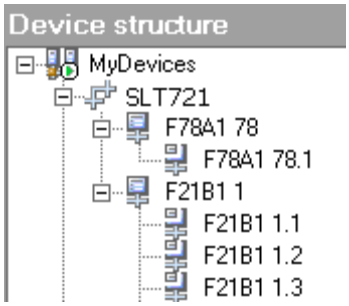
4.1.2 Adding controllers

New controllers can be added automatically or manually:

- Automatic: the program checks whether new controllers are present. All new controllers are added automatically and the settings are automatically determined.
- Manual: you check yourself whether new controllers are present. You add the new controllers manually and also determine all the settings manually.

Adding controllers automatically

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure*  . The 'Device structure' display appears:
3. Select the route to which you want to add a controller.
4. Click on the *Install controller*  . The program now adds all available controllers. At the end, all controllers are shown in the 'Device summary' display.



When adding the controllers F47, F79 and 778, you must link the text file yourself. After adding the controller, click on the *Link menu structure file* button  , select the proper text file and click on *Open.*

Adding controllers manually

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure*  . The 'Device structure' display appears:
3. Click on the *New controller*  .
4. Set the properties for the controller (see the end of this paragraph) and click on the *Apply* button to save the properties.

Changing controllers' properties

1. Select a newly added controller. The controller properties appear in the work area.
2. Adjust the properties for the controller:

Entity properties	
Property	Value
Type	Controller
Name	
Controller Type	Please select Controller type...
Number	0
Version	
Language	
Number of Control Units	0
Menu Structure File	
Network	-
Status	Simulation
Reason	Identity unknown
Comments	

   - *Number*: the controller number.
   - *Network*: exporting the communication protocol from the network (Fnet / Loop).
   - *Comment*: any remarks that you may enter for yourself.
3. Click on *Apply* to save the changed properties.

4.1.3 Supporting tasks

Deactivating controllers or control units

If you add a climate computer with eight control units (departments), all eight control units become active. If you use only six control units in practice, you can deactivate two. These are then no longer displayed in the 'Device summary' and no communication takes place between the deactivated control units and the program.

You deactivate a controller or control unit as follows:

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure*  . The 'Device structure' display appears:
3. Select the desired controller or control unit.
4. Click on the *Activate/Deactivate entity*  to turn off the controller or control unit.

Activating controllers or control units

If you wish to put the two deactivated control units back into service, you must activate them again. Then, the relevant control units will again be displayed in the 'Farm summary' display and the communication between the activated controllers or control units and the program will be initiated again.

You activate a controller or control unit as follows:

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure* . The 'Device structure' display appears:
3. Select the desired controller or control unit.
4. Click on the *Activate/Deactivate entity* button to turn on the controller or control unit.

Delete routes and controllers

If you remove a route or controller, the graphs and samples from that route or controller also get removed.

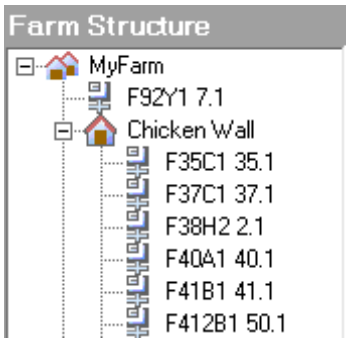
If you no longer wish to make use of a certain route or controller, you can remove these. You remove a route or controller as follows:

1. Go to *System* and select *Configuration*.
2. Click on the *View device structure* . The 'Device structure' display appears:
3. Select the desired controller.
4. Click the *Delete* .

4.2 Making a farm structure

After you have added your controllers to the program, these are shown in the 'farm summary' display. Each controller has its own name. You can change these names into names that are used at your farm. You can also add the set-up of your farm. For example, you can assign control units for each stall. To create a farm structure, you can perform the following tasks:

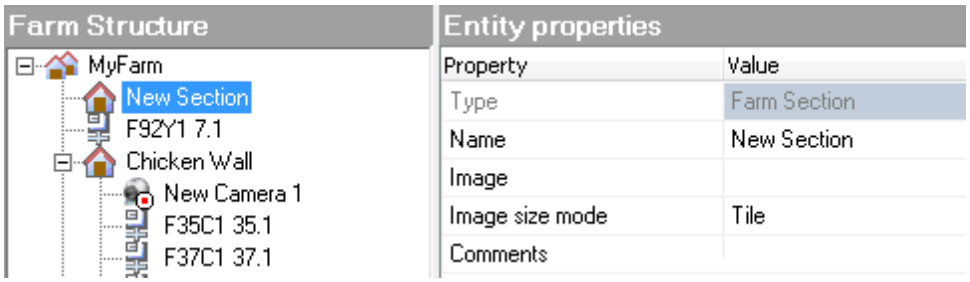
- Adding farm sections
- Sorting farm sections
- Adding a start screen for farm sections



4.2.1 Adding farm sections

> The first time you add a farm section, you choose the name of the farm that should be displayed at the highest level. Then you can add other farm sections at every level desired.

1. Go to *System* and select *Configuration*.
2. Click on the *View farm structure*  . The 'Farm structure' display appears.
3. Select the location to which you wish to add a farm section.
4. Click on the *New farm section*  . The new farm section is added to the summary and automatically selected. The properties for the selected farm section appear in the work area:

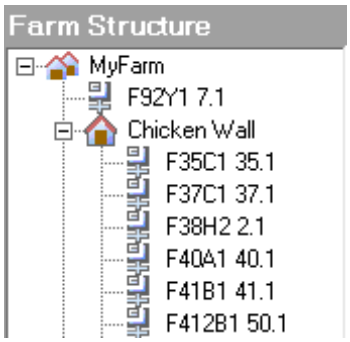


- *Name*: the name of the farm section that is used in the 'Farm structure'.
- *Comment*: any remarks that you may enter for yourself.

5. Click on *Apply* to save the changed properties.

4.2.2 Sorting farm sections

After adding farm sections, you can sort them. You can do this to make a logical layout, for example.



> The controllers and control units are displayed in the sequence in which you have moved these. So start with the controller or control unit that should be last within a farm section.

You drag a controller or control unit as follows.

1. Go to *System* and select *Configuration*.
2. Click on the *View farm structure*  . The 'Farm structure' display appears.
3. Select the controller or control unit you wish to drag period.
4. Hold the left mouse button down and drag the controller or control unit to the desired farm section.
5. Release the left mouse button.

4.2.3 Adding a start screen for farm sections

If cameras are installed in the form component, the camera image is always displayed. Then it is not possible to display an image.

You can add an image to the start screen of a farm section, for example, your logo. You add an image to the start screen as follows:

1. Go to *System* and select *Configuration*.
2. Click on the *Farm structure*  . The 'Farm structure' display appears.
3. Select the desired farm section. The properties for the selected farm section appear in the work area:
4. Adjust the farm section's properties:

Entity properties	
Property	Value
Type	Farm Section
Name	Chicken Wall
Image	front.jpg
Image size mode	Tile
Comments	

- *Name*: the name of the farm section that will be used on the start screen and in the 'Farm structure' display.
- *Image*: the image of the farm section that will be used on the start screen and in the 'Farm structure' display.
- *Image method*: the way in which the image will be displayed:
  Tile: the image is repeated in order to fill the entire space.
  Stretch: the dimensions of the image are changed so that they fit precisely into the space.
  Center: the image is displayed centrally (at actual size) in the screen.
- *Comment*: any remarks that you may enter for yourself.

5. Click on *Apply* to save the changed properties.

4.2.4 Supporting tasks

Removing farm sections

If you remove a farm section, the underlying controller and control unit do **not** get removed. These are placed under the 'My Farm' level.

In the 'Farm structure' display, you can remove farm sections but not controllers and control units. Controllers and control units can be removed in the 'Device structure' display (for more information, see Supporting tasks).

If you no longer wish to make use of a certain farm section, then you can remove it. You remove a farm section as follows:

1. Go to *System* and select *Configuration*.
2. Click on the *Farm structure*  . The 'Farm structure' display appears.
3. Select the desired farm section.
4. Click the *Delete*  .

4.3 Linking cameras

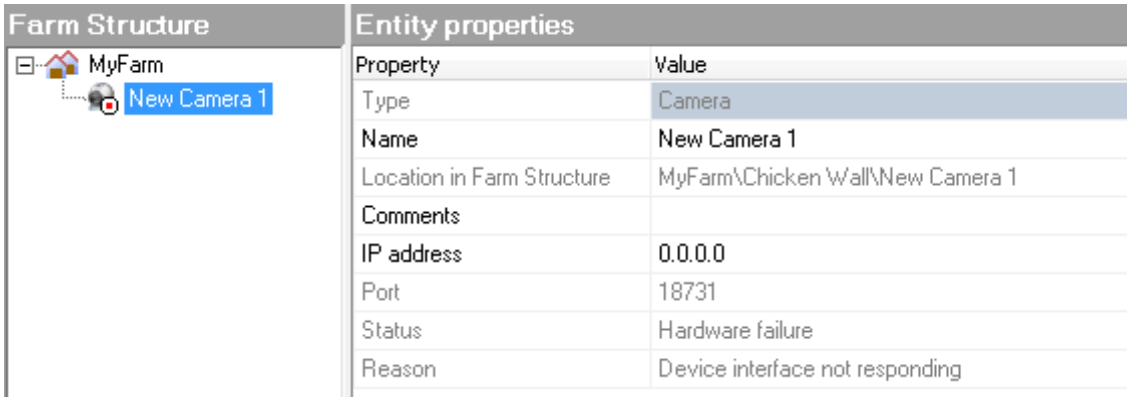
If there are cameras installed in part of the farm, you can add these in F-Central FarmManager. You add a camera as follows:

1. Go to *System* and select *Configuration*.
2. Click on the *View farm structure*  . The 'Farm structure' display appears.
3. Select ‘MyFarm’.
4. Click on the *New camera*  . The new camera is then created and displayed in the 'Farm structure' display.

Set the camera properties (see further in this paragraph) and click on *Apply* to save the properties.

Changing a camera's properties

1. Select a newly added camera. The camera properties appear in the work area.
2. Adjust the camera properties:



- *Type*: device type.
- *Name*: The name of the camera used in the ‘Device structure' display.
- *Location in farm structure*: of the location of the camera in the 'Farm structure' display.
- *URL*: the URL for picking up the MJPEG stream.
- *Comment*: any remarks that you may enter for yourself.
- *IP-address*: the IP address for the camera (only applies for eYeNamic).
- *Port*: the port on the program to which the camera is connected (only applicable for eYeNamic).
- *Status*: the current status of the device (only applicable for eYeNamic).
- *Reason*: the explanation for the current status if this is not correct (only applicable for eYeNamic).

3. Click on *Apply* to save the changed properties.

Fancom makes use of cameras from Mobotix and Axis by default. The URLs for these cameras are:

Mobotix camera:	http://<ip address>/control/faststream.jpg?stream=full
Axis camera:	http://<ip address>/axis-cgi/mjpg/video.cgi

4.4 Plan backup tasks

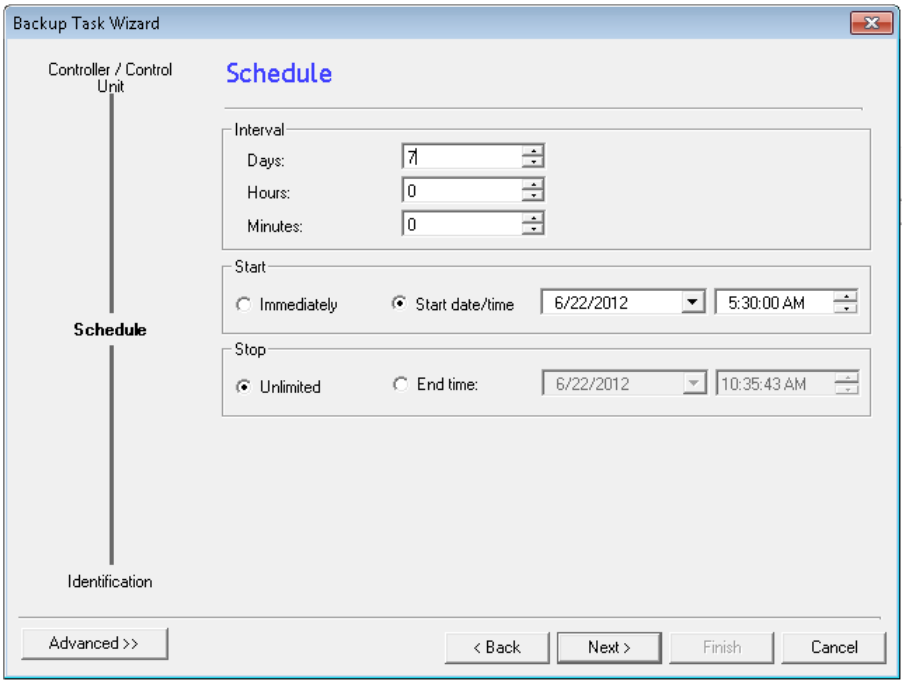
Via F-Central FarmManager you can make a backup of the information in the controllers. With a backup, you can replace a copy of the old information from a controller on a controller. By setting up backup tasks, backups are created at regular intervals. You determine yourself the controllers and control units from which backups are made and how often this happens.

	You decide to change the information on your controller. After a few seconds, you discover that the changed information is not completely correct. Now you can replace the backup with the old information, so that you can work further from the old situation (for more information, see Replacing a backup "Restore backups" page 80).
	Fancom recommends always setting up backup tasks. This way, you are certain that backups will be made, even if you don't take the initiative for this yourself.
	Always set the starting time for creating a backup at a moment when few actions are being performed in the stall - for example, outside feeding times.

4.4.1 Creating a schedule backup task

This paragraph explains how you create a backup task simply and quickly. There are also advanced settings for creating a backup task (see Creating an advanced backup task page 73 for more information). You create a backup task as follows:

1. Go to *Tasks* and select *Backups*.
2. Click on the *Farm structure* . The 'Farm structure' display appears.
3. Select the control unit for which you want to make a backup.
4. Click on the *New backup task* . The following screen appears:



5. In the *Interval* component, indicate how often the backup must be done.
6. In the *Start* component, indicate when the first backup must be done.
   - *Immediate*: the backup is done immediately.
   - *Start time*: the backup will be done at the selected moment.

7. In the *Stop:* component, indicate the point up to which the backup should be done.
   - *Unlimited*: the backup is always done at the desired interval.
   - *End time*: the backup will include everything done up until the selected moment.
8. Click *Next*.
9. Enter a name for the backup task.
10. Click *Finish*. The backup task has been created.

If you enter an end time, you must reset the backup after the end's time has passed.

4.5 Creating sample data

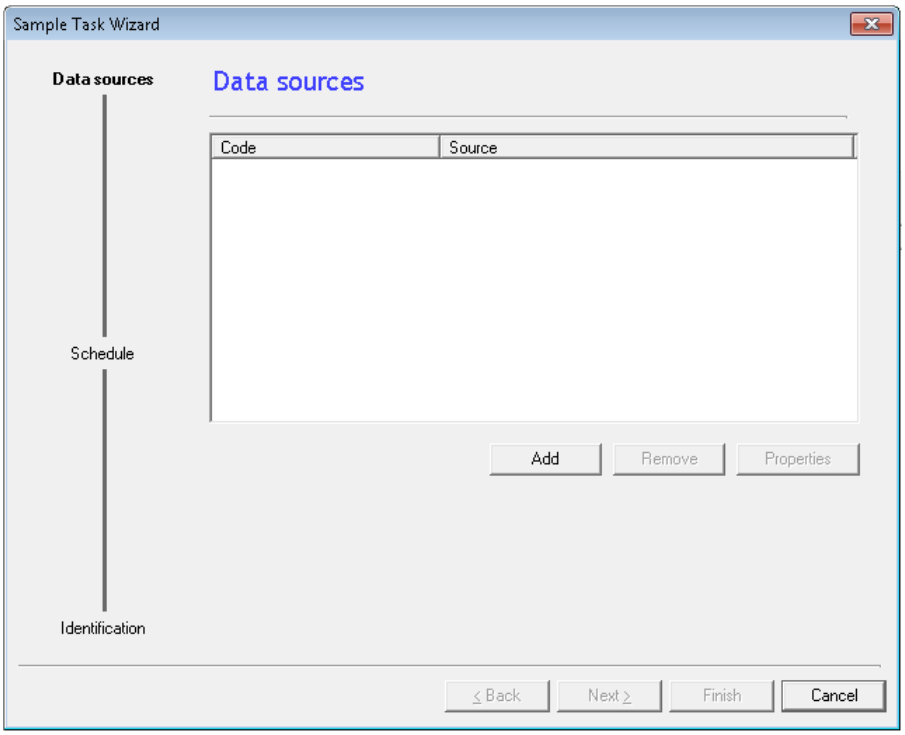
Sample tasks are used to collect certain information from the connected controllers that you want to monitor. This information can then be displayed in a graph and plotted across time (see Creating and managing graphs page 42). A sample is a snapshot. In the sample task, you determine how often the snapshot is made and which information is registered from the controllers.

You wish to query graphs of the progression of temperature in your stalls. For this reason, you create a simple task for your climate control system. Starting with the current date, you register the 'Measurement value' and 'Control value' data every hour. With this, you can request a graph in which the progression of temperature is displayed with intervals of an hour.

4.5.1 Creating a simple sample task

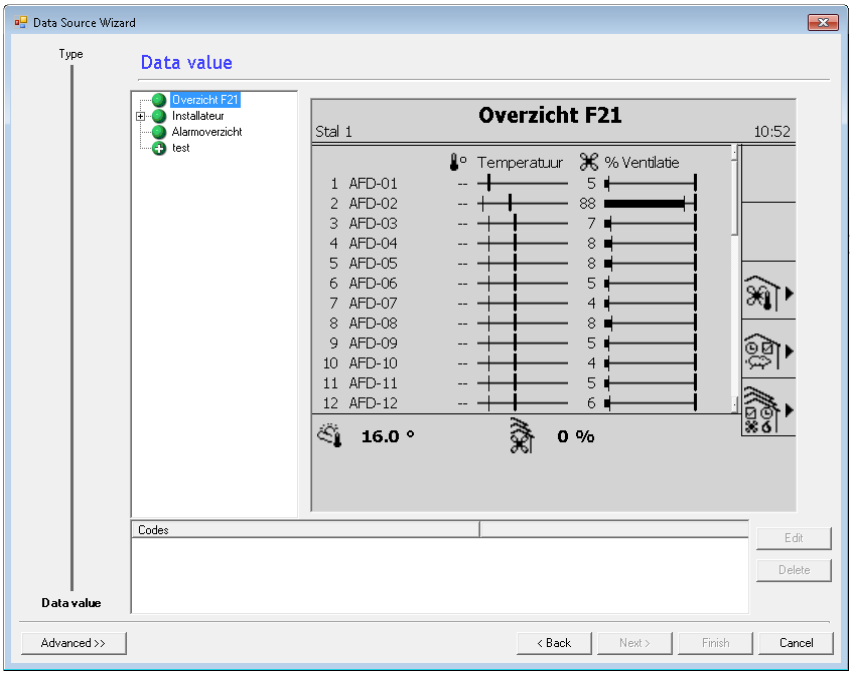
This paragraph explains how you create a sample task simply and quickly. There are also advanced settings for creating a sample task (see Creating an advanced sample task page 29 for more information). You create a sample task as follows:

1. Go to *Tasks* and select *Sample data*.
2. Click on the *New sample task*  . The following screen appears:



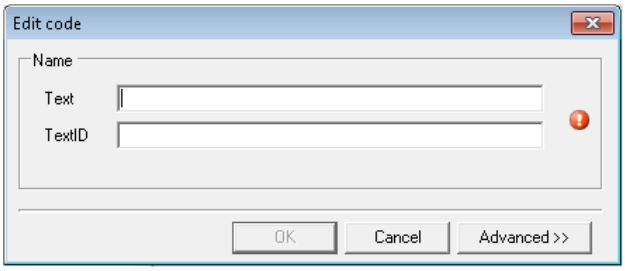
3. Click on the *Add* button.

4. Select the type of controller whose sample data you wish to use and click on *Next*. The overview screen appears for the selected controller.



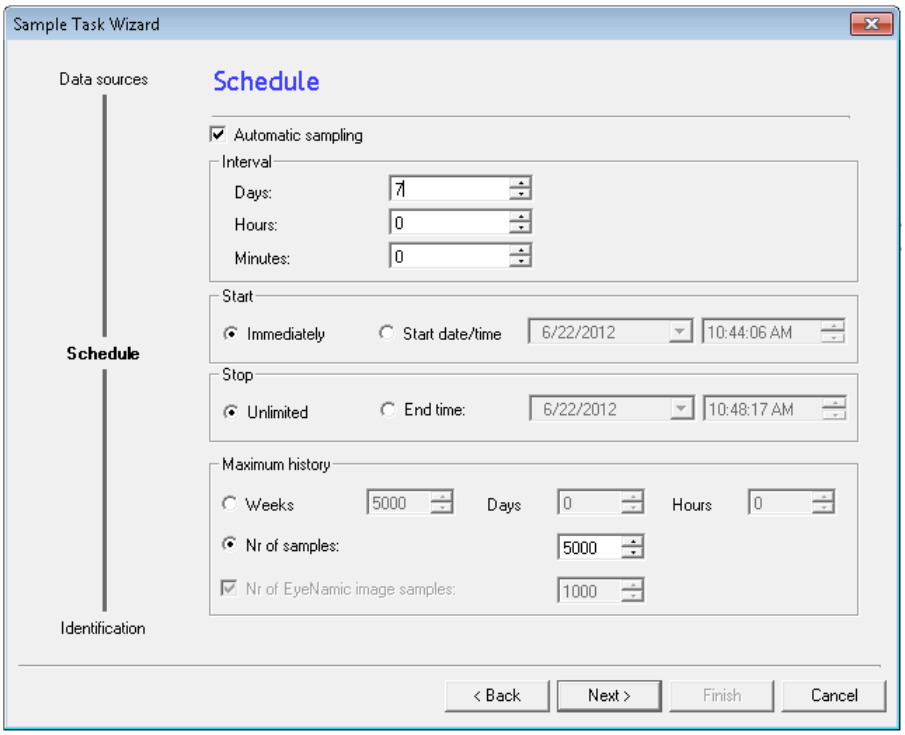
On the left side of the overview screen, you see the menu of the selected controller. You can page through this menu to arrive at the proper screen.

5. Click on the field of the sample data that you wish to use. The following screen appears:



6. In the *Text* field, enter the title of the sample data and click *OK*. The title will be used as a graph label in F-Central FarmManager. The *TextID* gets filled in automatically. Repeat steps 5 and 6 if you wish to use multiple sets of sample data.
7. Click the *Finish* button. The sample data is displayed as data sources.

8. Click *Next*. The following screen appears:



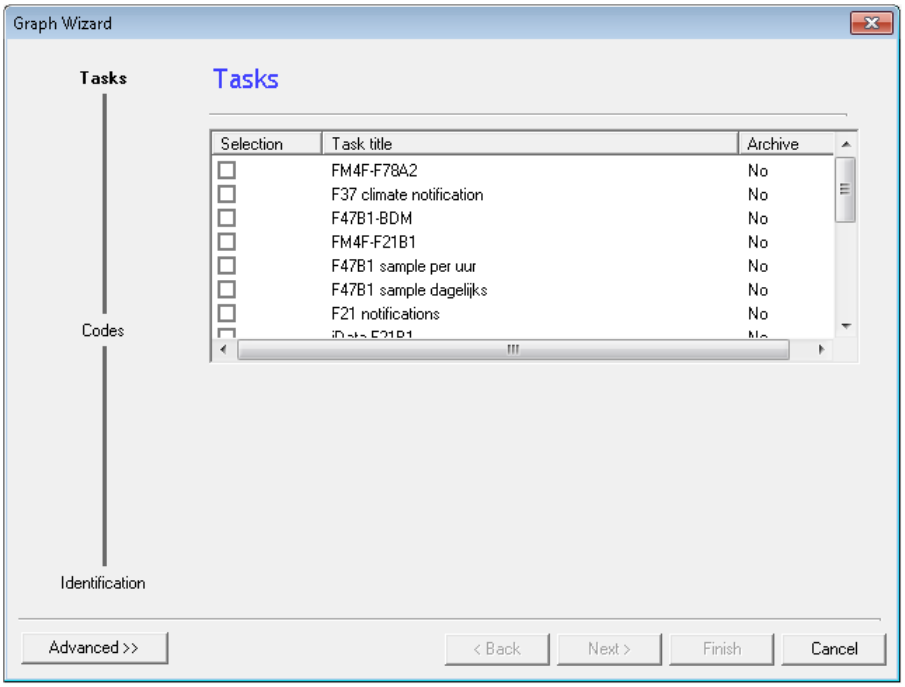
9. Indicate how the sample data must be sampled:
   - *Automatically*: the program creates a sample according to the set schedule. Continue with step 10.
   - *Manually*: you create a sample manually. Continue with step 14. (for more information, see Starting a manual sample task "Start a sample task manually" page 39)
10. In the *Interval* component, indicate how often sample data must be retrieved.
11. In the *Start* component, indicate when the first sample data must be retrieved.
    - *Immediate*: the sample data is retrieved immediately.
    - *Start time*: the sample data is retrieved at the chosen moments and for the chosen interval.
12. In the *Stop* component, indicate when the sample data must be stopped.
    - *Unlimited*: the sample data is always retrieved at the desired interval.
    - *End time*: the sample data will be retrieved up until the selected time.
13. In the *Maximum history* component, indicate how along the sample data must be kept.
14. Click *Next*.
15. Enter a title for the sample task and indicate whether the sample data should be saved in a CSV file.
16. Click *Finish*. The sample task has been created.

If you enter an ending time at step 12, you must reset the sample data again after passing the ending time.

4.6 Create a simple graph

This paragraph explains how you create a graph simply and quickly. There are also advanced settings for creating a graph (see Creating an advanced graph "Creating advanced graphs" page 42 for more information). You create a graph as follows:

1. Go to *Control units* and select *Graphs*.
2. Click on the *New graph*  . The following screen appears:



3. Select the sample tasks whose data you wish to include in the graph and click on *Next*.
4. Select the sample information (codes) you wish to include in the graph and click on *Next*.
5. Enter a name for the graph.
6. Click on *Finish* to save the graph. If you have selected the proper location or device in the 'farm structure' or 'device structure', the graph will be displayed immediately.

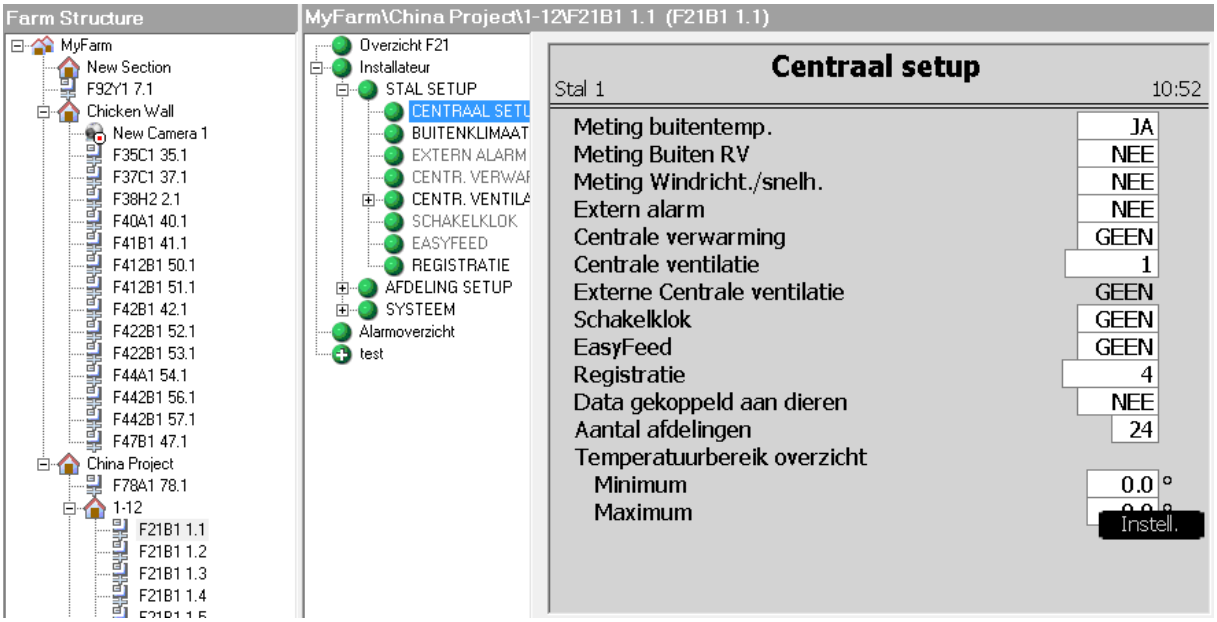
	You can use the same sample task for multiple graphs. So you don't need to create a separate sample task for each graph.
	You have created a sample task from the controller F21B1.10 with the sample information 'target value' and 'temperature'. 24 control units are links to this controller. Due to this, the sample data from all 24 control units are maintained in the sample task. When creating the graph, you choose the sample task and the sample data 'target value' and 'temperature'. When calling up the graph, you determine the control units from which you wish to request data. If the graph becomes too cluttered, you can limit the amount of information, for example.

5. Operating controllers

In F-Central FarmManager, it is possible to operate all connected controllers remotely. You see exactly the same operation screen in the program as you do in the connected controller. All the settings that you enter via the program are carried out directly in the controller.

5.1 Opening the operating screen of a controller

1. Go to *Control units* and select *Operation*.
2. Click on the *View farm structure*  . The 'Farm structure' display appears.
3. Select a controller. The operating screen of the selected controller appears in the work area:

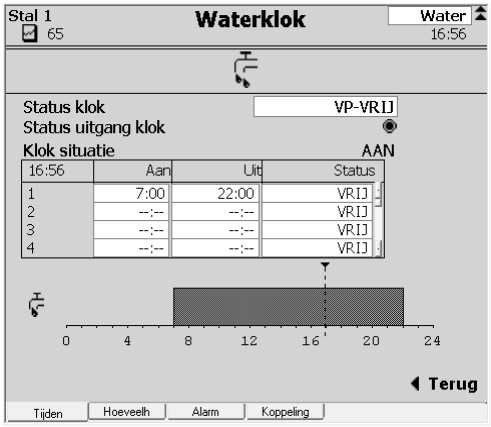


The work area of the operating screen consists of two parts: the menu from the selected controller and the screen. Click on the various menu parts to browse through the controller.

5.2 Entering values via the operating screen

Via F-Central FarmManager, you can enter values in the controller. You can recognise the values that you can enter from their white background color. If you click on a value, you can enter the value with your keyboard and mouse.

In the screen below, you can change the *Status clock* and the columns *On*, *Off* and *Status*. The *Clock situation* line has a white background and cannot be changed.



After you have entered a value, you can press one of the arrow keys on your keyboard. You then proceed to the following field. If you also wish to enter a value in the next field, press F2.

If you change the values and press *Enter*, you jump to the next column to the right by default. If you fill in one column, by way of example, it may be desirable to jump down. For this, you can use the shortcut *CTRL* + *D* (down) (for more information, see Using shortcuts "Using shortcut keys" page 24). If you then press *Enter*, you jump down a line.

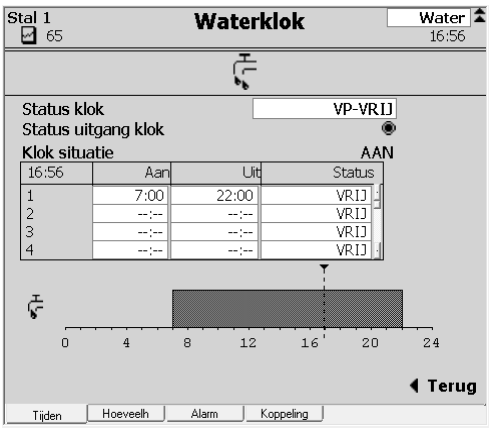
Changing values

1. Click on the value you wish to change.
2. At a multiple-choice menu, select the desired value or enter the desired value in an open field using the keyboard and mouse.
3. Click *Enter* to confirm the entry.

With the *Escape* key on your keyboard, you can leave the entry field without saving your entry.

5.3 Browsing through the operating screen

Operating screens may comprise multiple pages. Each page is indicated with a sequence number (index). If, for example, you use five components, you see a sequence number at the top right of the operation screen. Using the *Page Up* and *Page Down* keys on your keyboard, you can browse easily through the sequence numbers (indexes).



5.4 Using shortcut keys

With the shortcut keys below, you can operate the controller with your keyboard.

Key	Function
Arrow keys	Advancing through fields
Space / F2	Change selected field
Esc	Leave field without saving input
Page Up / Page Down	Browsing through sequential numbers (indexes)
CTRL + D	After Enter, going down a screen
CTRL + U	After Enter, going up a screen
CTRL + L	After Enter, going to the left of the screen
CTRL + R	After Enter, going to the right of the screen

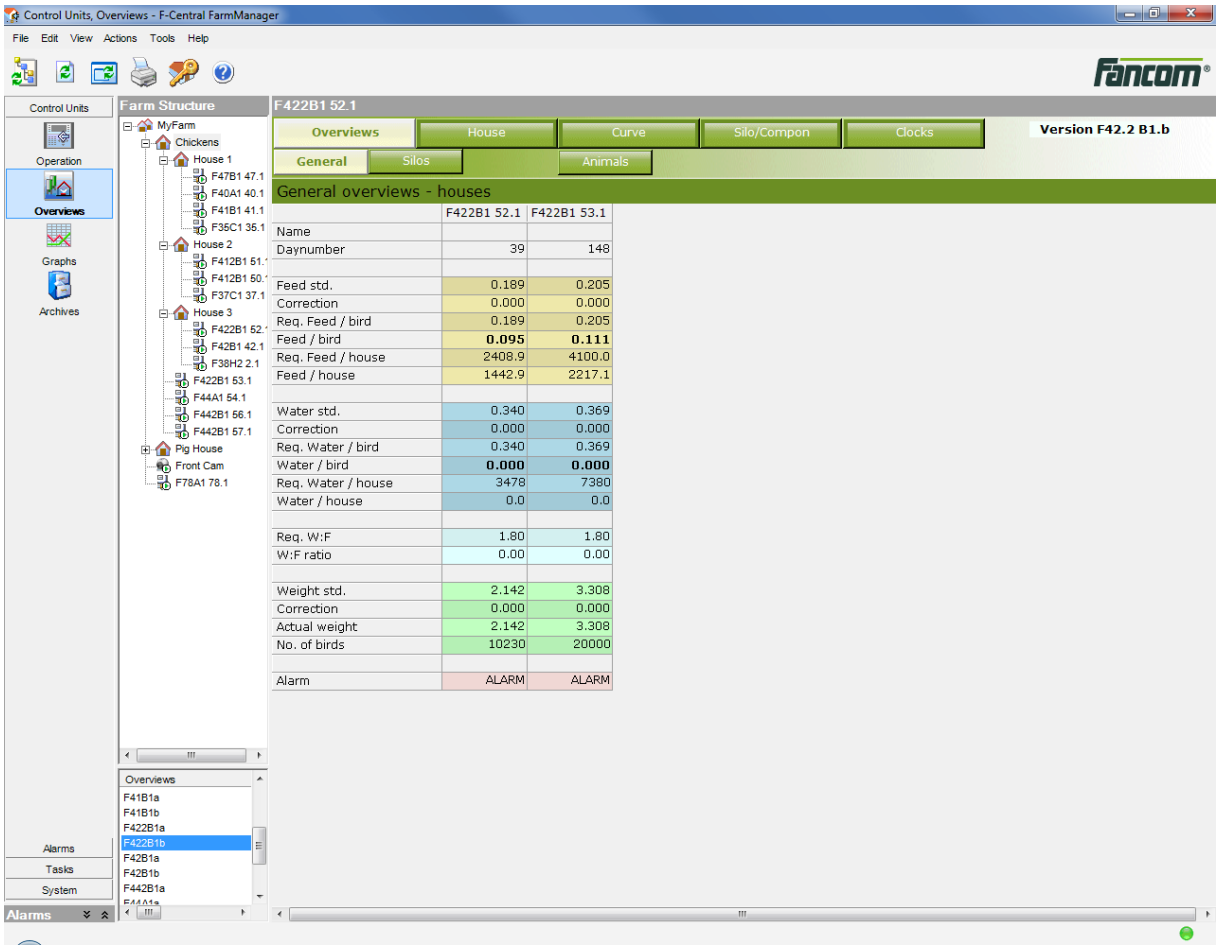
6. Viewing current overviews

The current overviews in F-Central FarmManager can play an important role in the support of your daily work activities. In these overviews you see the current information about your farm and you can adjust as necessary. In F-Central FarmManager, you have:

- Current farm section overviews
- Current alarm overviews

6.1 View current farm section overviews

In F-Central FarmManager, you can view overviews of all farm sections. You can view the overviews in *Control units – Overviews*.



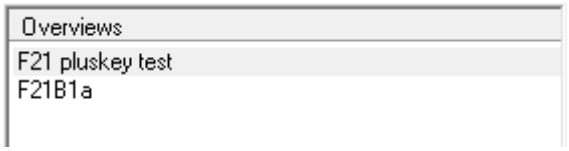
F-Central FarmManager contains a number of standard overviews. You can create overviews yourself using the FarmSketcher program. You can also have overviews made. For this, contact your distributor or Fancom.

6.1.1 Navigating through the various levels

You can view the current overviews at various levels. The current overviews are displayed in the work area depending on where you are in the 'Farm structure' or 'Device structure' display:

- Farm level : you see the current overviews of the total farm.
- Stall level : you see the current overviews of the selected stall and underlying controllers.
- Controller : you see only the current overviews of the selected controller.

If multiple overviews are available for a controller, you see these at the lower left of the work area. This screen can be found under the 'Farm structure' or 'Device structure' displays:



6.1.2 Viewing overviews

Overviews can be viewed in various display forms. Depending on the level at which you view the overview, the relevant information is displayed here:

- Overview in table form
- Overview as a graphic stall display
- Overview as a curve
- Farm-specific overview

Overview in table form

Overviews | House | Curve

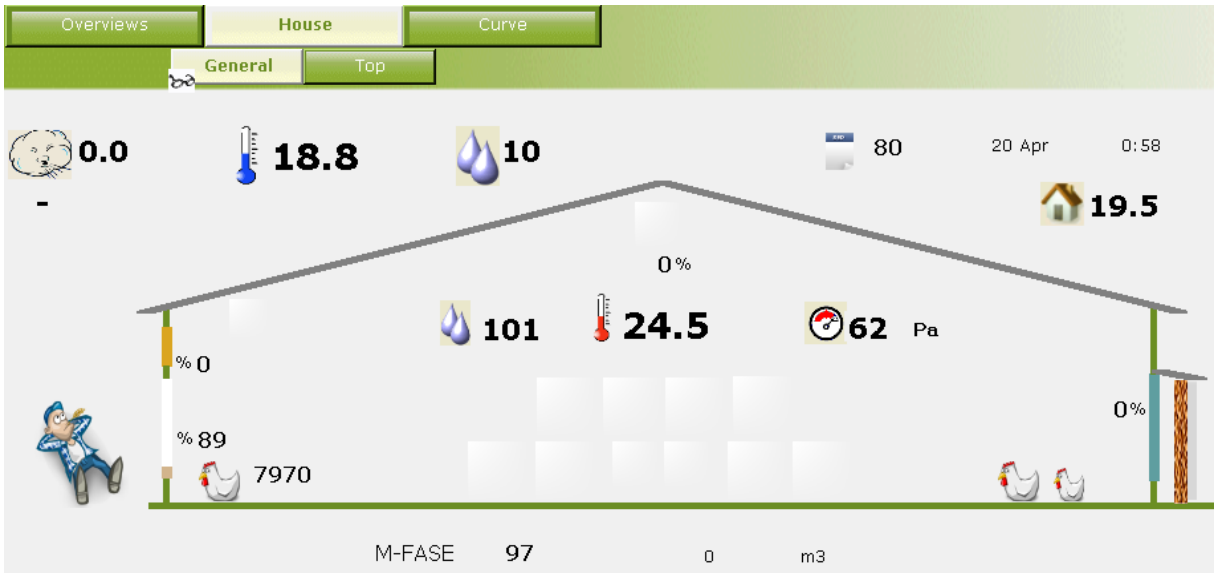
General | Silos | Animals

General overviews - houses

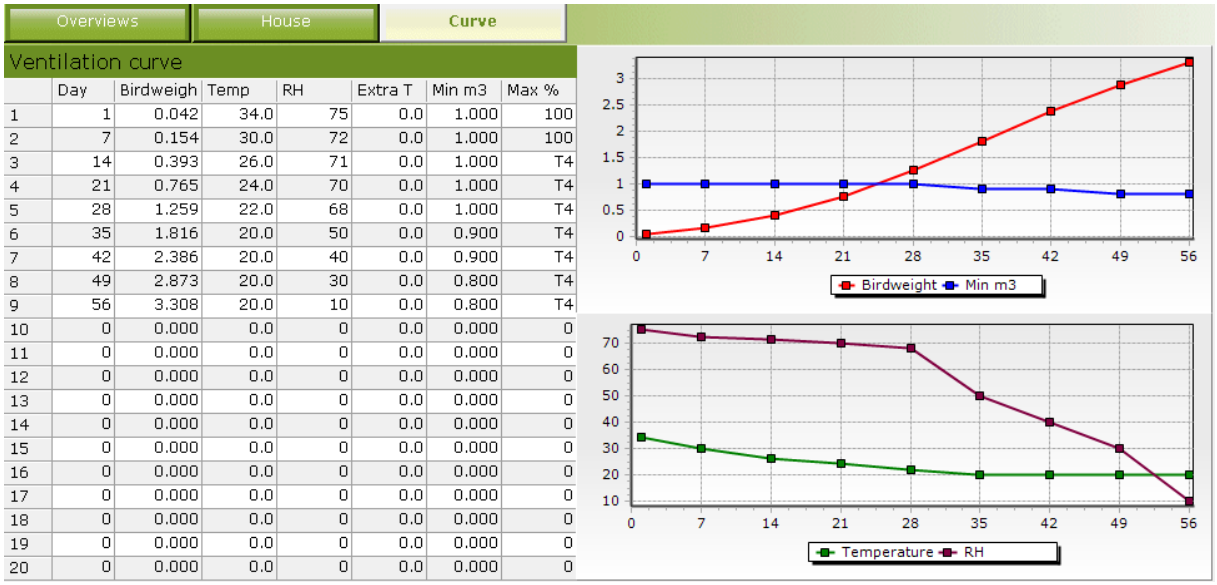
	F422B1 52.1	F422B1 53.1
Name		
Daynumber	39	148
Feed std.	0.189	0.205
Correction	0.000	0.000
Req. Feed / bird	0.189	0.205
Feed / bird	**0.095**	**0.111**
Req. Feed / house	2408.9	4100.0
Feed / house	1442.9	2217.1
Water std.	0.340	0.369
Correction	0.000	0.000
Req. Water / bird	0.340	0.369
Water / bird	**0.000**	**0.000**
Req. Water / house	3478	7380
Water / house	0.0	0.0
Req. W:F	1.80	1.80
W:F ratio	0.00	0.00
Weight std.	2.142	3.308
Correction	0.000	0.000
Actual weight	2.142	3.308
No. of birds	10230	20000
Alarm	ALARM	ALARM

Overview as a graphic stall display

Graphic displays can only be viewed at controller level.



Overview as a curve

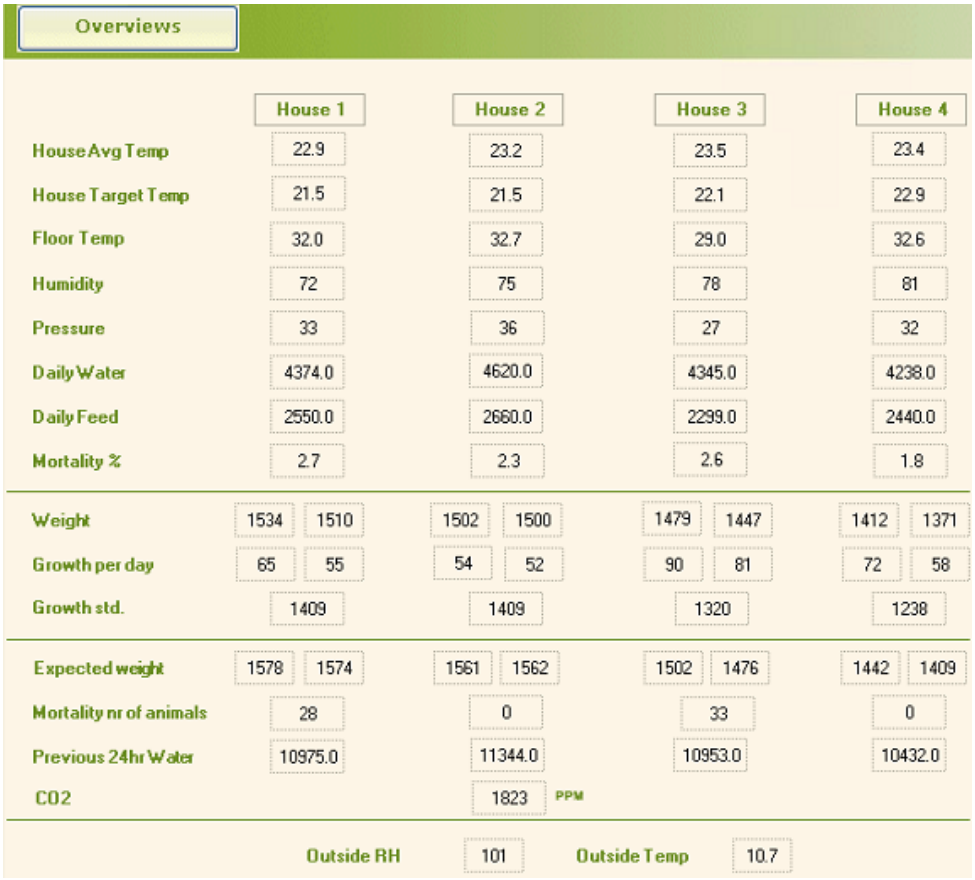


	Day	Birdweigh	Temp	RH	Extra T	Min m3	Max %
1	1	0.042	34.0	75	0.0	1.000	100
2	7	0.154	30.0	72	0.0	1.000	100
3	14	0.393	26.0	71	0.0	1.000	T4
4	21	0.765	24.0	70	0.0	1.000	T4
5	28	1.259	22.0	68	0.0	1.000	T4
6	35	1.816	20.0	50	0.0	0.900	T4
7	42	2.386	20.0	40	0.0	0.900	T4
8	49	2.873	20.0	30	0.0	0.800	T4
9	56	3.308	20.0	10	0.0	0.800	T4
10	0	0.000	0.0	0	0.0	0.000	0
11	0	0.000	0.0	0	0.0	0.000	0
12	0	0.000	0.0	0	0.0	0.000	0
13	0	0.000	0.0	0	0.0	0.000	0
14	0	0.000	0.0	0	0.0	0.000	0
15	0	0.000	0.0	0	0.0	0.000	0
16	0	0.000	0.0	0	0.0	0.000	0
17	0	0.000	0.0	0	0.0	0.000	0
18	0	0.000	0.0	0	0.0	0.000	0
19	0	0.000	0.0	0	0.0	0.000	0
20	0	0.000	0.0	0	0.0	0.000	0

Farm-specific overview

Farm-specific overviews can be viewed for one or more controllers.

It is possible to make a farm-specific overview such that data from various controllers is presented on one screen. This gives you a total overview of your farm process with the most important parameters from the Fancom controllers.



7. Creating and managing sample tasks

Sample tasks are use to collect certain information from the connected controllers that you want to monitor. This information can then be displayed in a graph and plotted across time (see Creating and managing graphs page 42). A sample is a snapshot. In the sample task, you determine how often the snapshot is made and which information is registered from the controllers.

For collecting certain information from one controller or unit, it is usually enough for you to do a quick-create of a sample task without using the advanced possibilities (see Creating a simple sample task page 18). This chapter explains how you create advanced sample tasks.

You wish to query graphs of the progression of temperature in your stalls. For this reason, you create a simple task for your climate control system. Starting with the current date, you register the 'measurement value' and 'control value' data every hour. With this, you can request a graph in which the progression of temperature is displayed with intervals of an hour.

7.1 Creating an advanced sample task

When creating sample tasks, you can also choose advanced settings. With advanced settings, you can make the following specific settings for the sample tasks:

- Select sources and control units

  You can use this possibility, for example, if you want to use a number of controllers or control units of a specific type, but not all of them.

- Select multiple sequential numbers.

  If you have more than one of the same device in a department (e.g. multiple heating units), you can select the device (devices) from which you wish to sample the data.

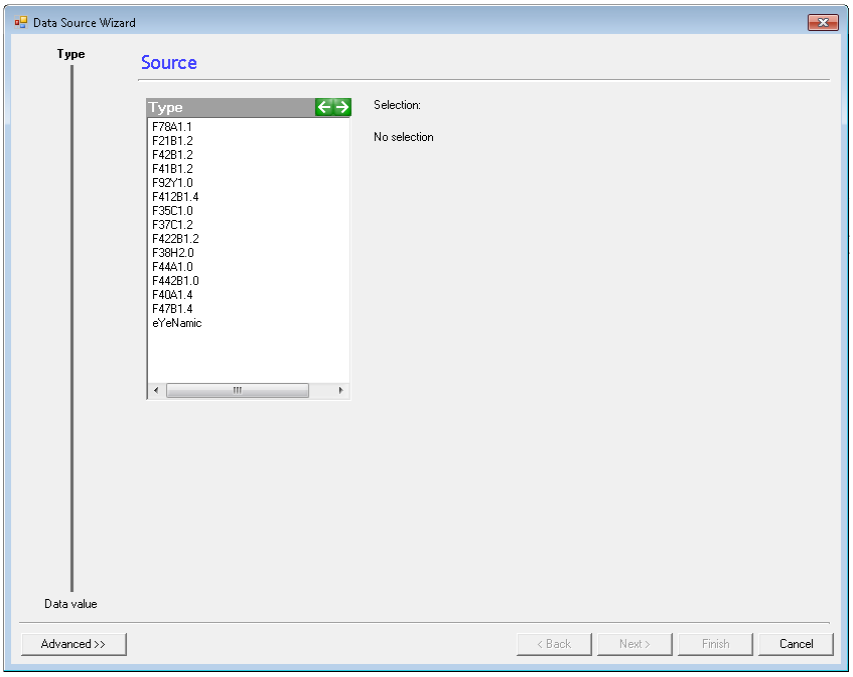
- Export sample data.

  You can export the sample data created in order to import this into another program.

Open the sample task wizard

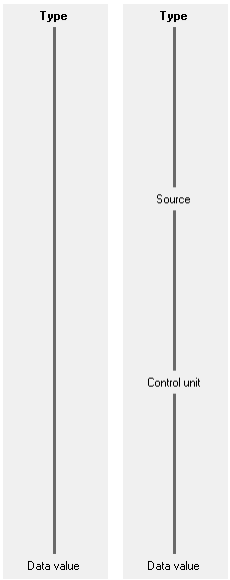
You can get to the advanced settings via the sample task wizard. You open this wizard as follows:

1. Go to *Tasks* and select *Sample data*.
2. Click on the *New sample task* button  to add a new sample task.
3. Click on the *Add* button. The following screen appears:



4. Click on the *Advanced* button. You can set the advanced sample task settings here.

If you click the *Advanced* button, the sample task Wizard is extended with the steps*Source* and *Control unit*:

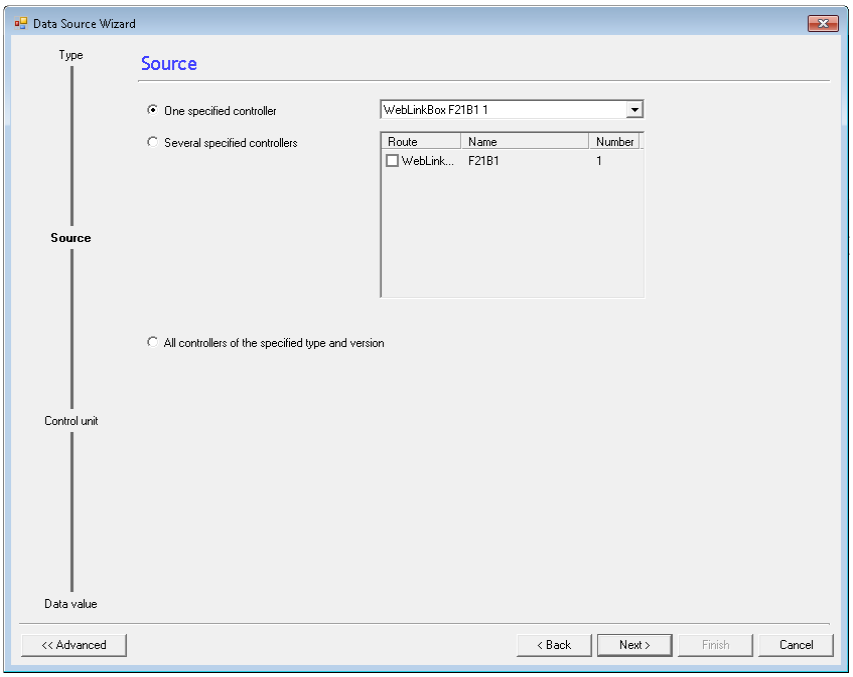


7.1.2 Select sources and control units

You have for controllers of the F38 type. One of these controllers is not being used at the moment. You want to set up a sample task for the other three F38 controllers. For this reason, you select only the three active controllers at the advanced settings.

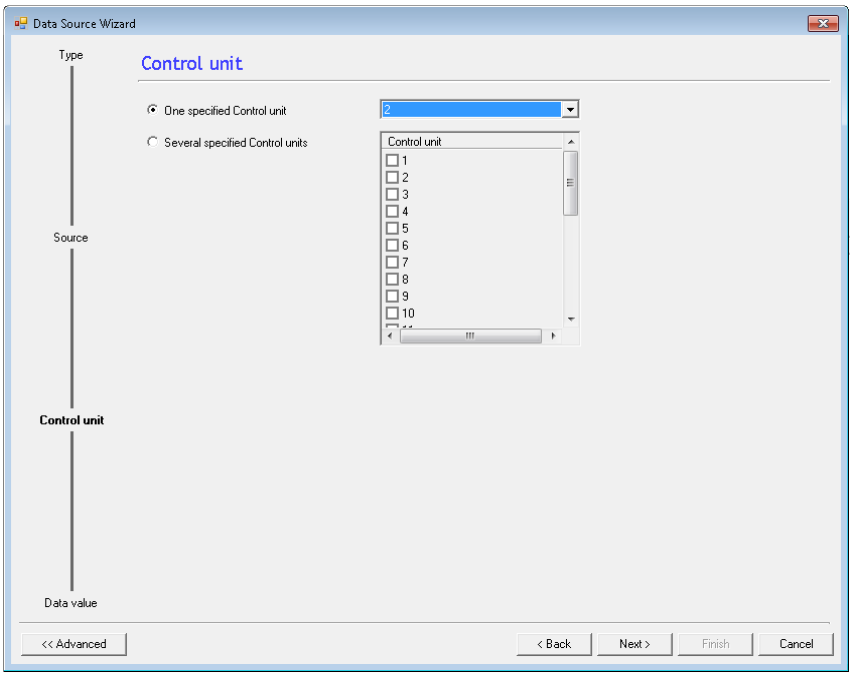
You select the advanced sources and control units as follows:

1. Open the sample task wizard and choose *Advanced* to open the advanced settings.
2. Select the controller whose sample data you wish to use and click on *Next*. The *Source* screen appears:



3. Select the desired controller(s):
   - *One specified controller*: select one controller from the drop-down list.
   - *Severalspecified controllers*: select one or more controllers from the list.
   - *All controllers of a specified type and version*: select all controllers.

4. Click *Next*. The following screen appears:

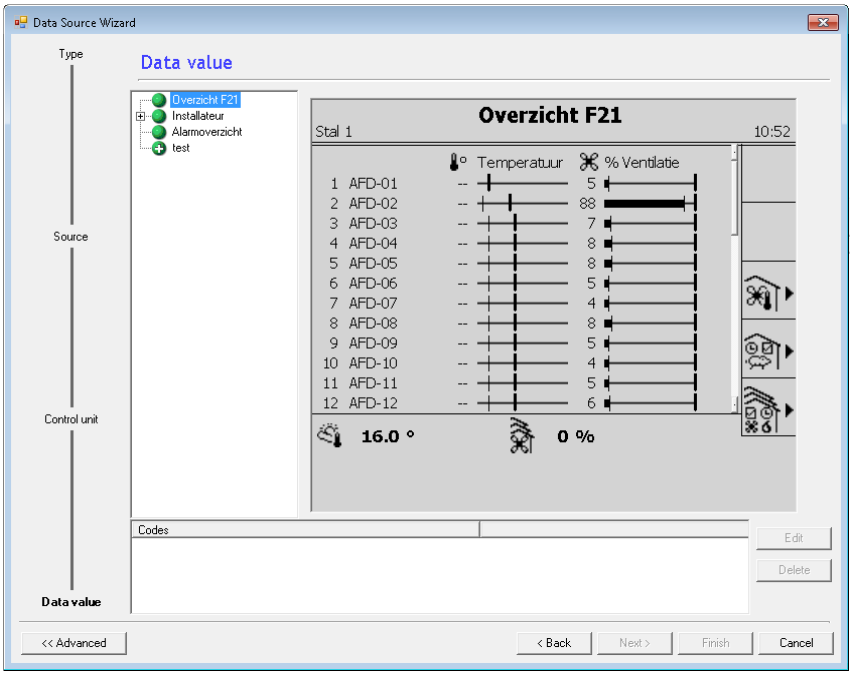


5. Select the desired control units:
   - *One specified control unit*: select one control unit from the drop-down list.
   - *Several specified control units*: select one or more control units from the list.
6. Click *Next*. You can now select the information values from the selected controllers and control units.

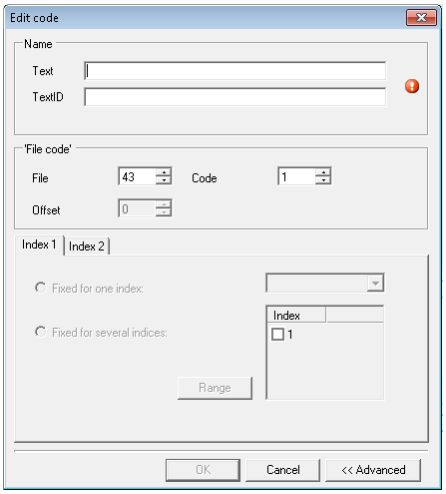
7.1.3 Select multiple sequential numbers.

Information from a controller can be standalone (for example, the number of animals) or they may be part of a series (for example, the temperature curve). You can select information from a series in one go. In this way, you don't have to enter the values one for one in the wizard. You select a value with sequential numbers as follows:

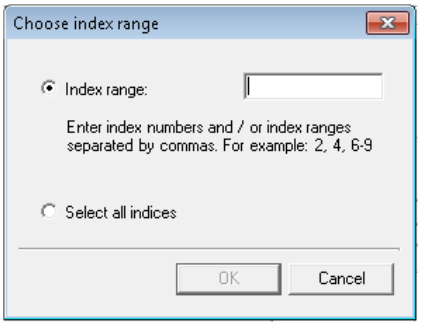
1. Open the sample task wizard and choose *Advanced* to open the advanced settings.
2. Select the controller whose sample data you wish to use and click on *Next* until the following screen appears:



3. Click on the field of the sample data that you wish to use.
4. In the *Text* field, enter the title of the sample data and click *Advanced*. The title will be used as a graph label in F-Central FarmManager. The *TextID* is entered automatically. The following screen appears:



5. Fill all the fields in as follows:
   - *File Code*: a unique identification number for a given value.
   - *Fixed for an index*: select one single sequential number.
   - *Fixed for multiple indexes*: select multiple values with sequential numbers.
6. Click on the *Range* button to select multiple sequential numbers.

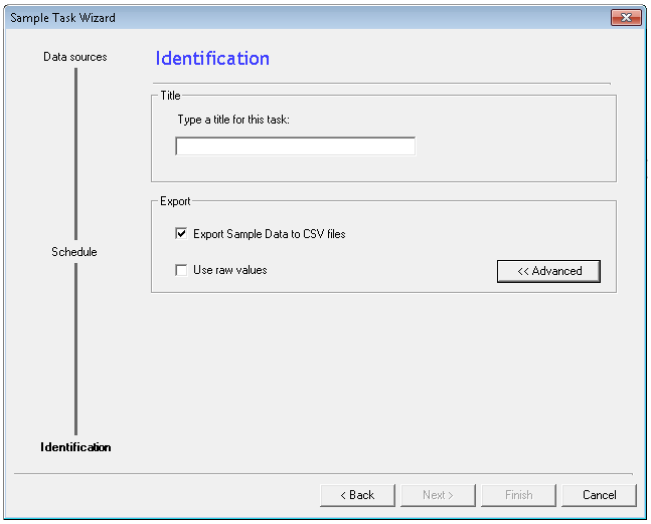


   - *Index range*: the range of the sequential numbers (an *Index range* of 6-9 means that you select the sequential numbers 6, 7, 8 and 9).
   - *Select all indexes*: select all unavailable sequential numbers.

7.1.4 Export sample data

You can export the created sample information and save it as a CSV file. You can also use these sample data outside F-Central FarmManager - for example, in a management information system. You create an export file for a sample task as follows:

1. Go to *Tasks* and select *Sample data*.
2. Click on the *New sample task* button  .
3. Choose the desired source information and compose the desired schedule.
4. Click the *Next* button. The *Identification* screen appears:



5. Enter the title of the sample task.
6. In the *Export* component, select the settings for the export:
   - *Export Sample Data to CSV files*: Every time a sample is created, the sample data is automatically exported.
   - *Use raw values*: The sample information is stored unformatted.
7. Click the *Finish* button.

At the first export, two files are created for each control unit and sample task:

- CSV file: the sample information from the controller, including date and time.
- TXT file: information about the sample task.

At every subsequent export, a line of export information is added to the CSV file. Each line contains the date and time on which the sample was made.

The sample data is stored on the hard drive of your computer. By default, the program stores these files in the folder '<disk>\Data\Fancom\FarmManager\Sample', where <disk> is the workstation on which F-Central FarmManager is installed. The file names are created automatically according to the following protocol:

- G_<sample>_<route>_<controller>.CSV
- WC_<sample>_<route>_<controller>.TXT

The names between <tags> refer to the name of the sample, the route and the control unit.

You make an export based on the following information:

Sample title: Climate

Route: ELT721.002

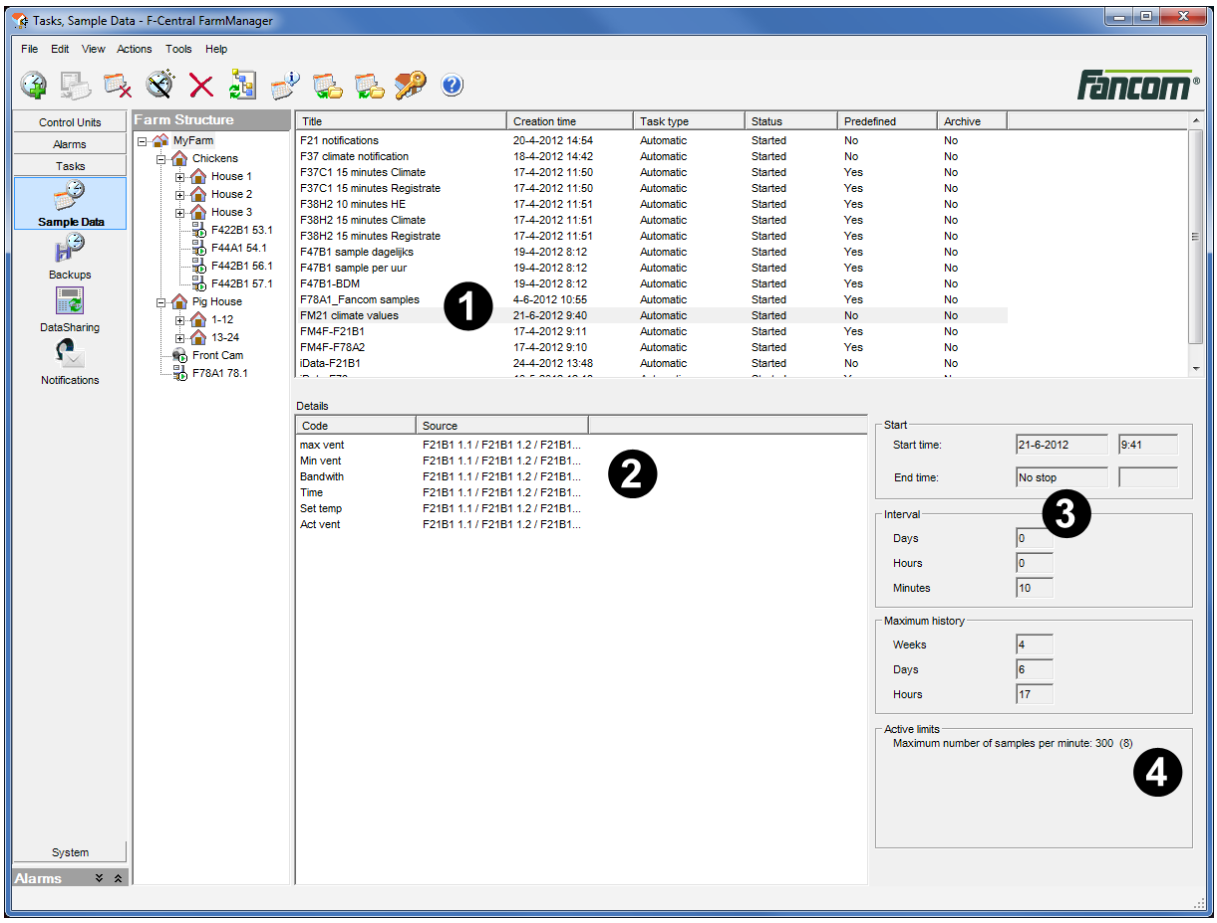
Control unit: F38.10.6

The following export files are created:

- G_Climate_ ELT721.002_F38.10.6.CSV
- WG_Climate_ ELT721.002_F38.10.6.TXT

7.2 Viewing sample tasks

For each sample task, you can view information via the menu *Tasks* – *Sample Data*. Via the displays 'Farm structure' or 'Device structure', you determine which sample tasks are displayed. Select the highest level to view all sample tasks. In the work area, you see the following components:



1. Summary of the created sample tasks per farm section including the information for each sample task.
2. Details of the selected sample task.
3. Schedule settings for the selected sample task.
4. Warnings of exceeding the maximum number of sample tasks.

7.2.1 Summary of the created sample tasks

For each sample task, the following information is displayed:

Title	Creation time	Task type	Status	Predefined	Archive
F21 notifications	20-4-2012 14:54	Automatic	Started	No	No
F37 climate notification	18-4-2012 14:42	Automatic	Started	No	No
F37C1 15 minutes Climate	17-4-2012 11:50	Automatic	Started	Yes	No
F37C1 15 minutes Registrate	17-4-2012 11:50	Automatic	Started	Yes	No
F38H2 10 minutes HE	17-4-2012 11:51	Automatic	Started	Yes	No
F38H2 15 minutes Climate	17-4-2012 11:51	Automatic	Started	Yes	No
F38H2 15 minutes Registrate	17-4-2012 11:51	Automatic	Started	Yes	No
F47B1 sample dagelijks	19-4-2012 8:12	Automatic	Started	Yes	No
F47B1 sample per uur	19-4-2012 8:12	Automatic	Started	Yes	No
F47B1-BDM	19-4-2012 8:12	Automatic	Started	Yes	No
F78A1_Fancom samples	4-6-2012 10:55	Automatic	Started	Yes	No
FM21 climate values	21-6-2012 9:40	Automatic	Started	No	No
FM4F-F21B1	17-4-2012 9:11	Automatic	Started	Yes	No
FM4F-F78A2	17-4-2012 9:10	Automatic	Started	Yes	No
iData-F21B1	24-4-2012 13:48	Automatic	Started	No	No

- *Title*: the name of the sample task.
- *Creation time*: the date and the moment at which the sample task was made.
- *Task type*: the type of sample task.
  - *Automatic*: the sample task will be executed with a fixed regularity.
  - *Manual*: the sample task will be performed manually.
- *Status*: the current status of the sample task.
  - *Not yet started*: the sample task is not yet started.
  - *Started*: the sample task has started.
  - *Ready*: no more samples are being taken.
- *Pre-defined*: the sample task (the pre-defined file) is imported automatically by F-Central FarmManager.
- *Archive*: read-out of whether an archive has been built for the selected sample task (*Yes/No*).

7.2.2 View the details of the selected sample task

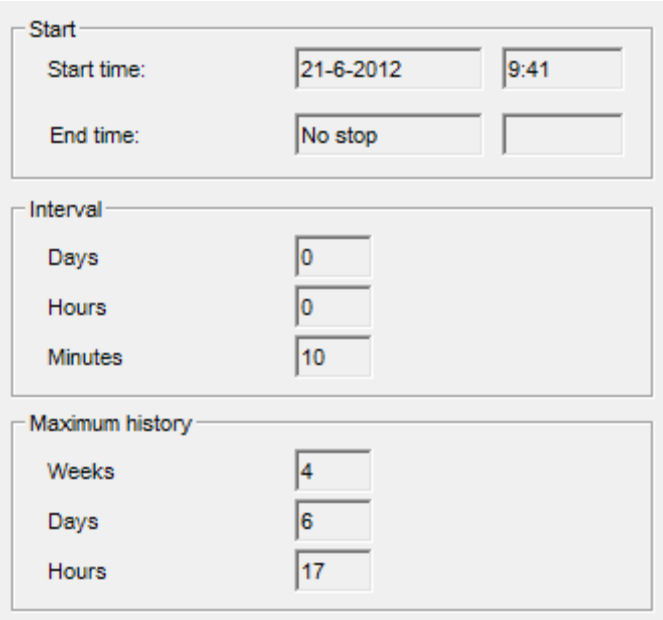
When you select a sample task, the details of this sample task appear at the lower left of the work area. In the *Code* column, you see the names of the sample info that is used in the selected sample task. In the *Source* column, you see the controller from which the information has come.

Details

Code	Source
max vent	F21B1 1.1 / F21B1 1.2 / F21B1...
Min vent	F21B1 1.1 / F21B1 1.2 / F21B1...
Bandwith	F21B1 1.1 / F21B1 1.2 / F21B1...
Time	F21B1 1.1 / F21B1 1.2 / F21B1...
Set temp	F21B1 1.1 / F21B1 1.2 / F21B1...
Act vent	F21B1 1.1 / F21B1 1.2 / F21B1...

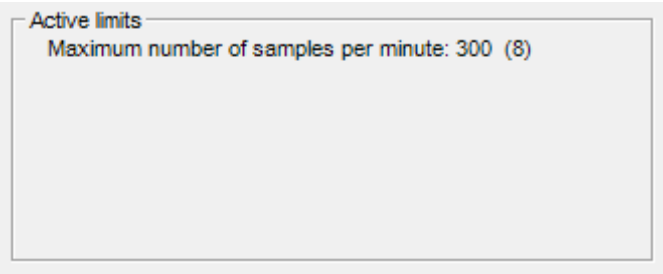
7.2.3 View settings for the selected sample task

When you select a sample task, the schedule settings for this sample task appear at the lower right of the work area.



7.2.4 View the limit of the selected sample task

When you select a sample task, the active limits for this sample task appear at the lower right of the work area. These are the warnings that appear when the maximum number of sample tasks are exceeded.

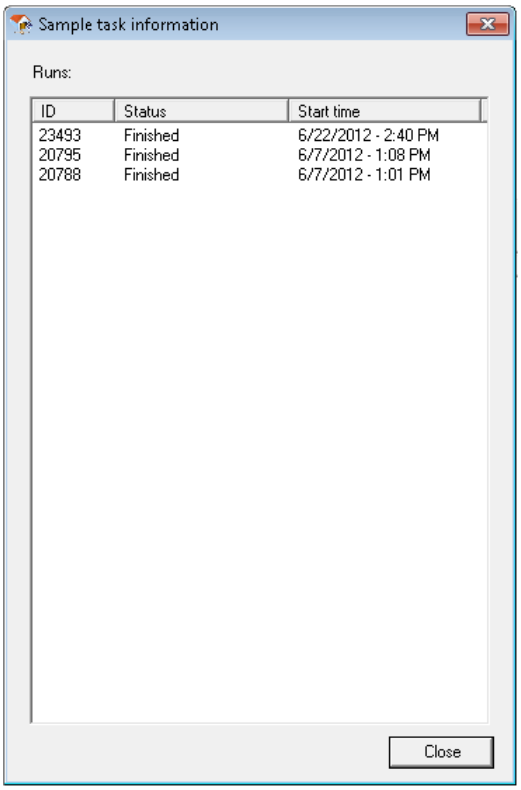


7.2.5 View the history of the selected sample task

A history is saved for each sample task. You can request the history of a sample task as follows:

1. Select a sample task.

2. Click the *Sample task information*  . The following screen appears with the history:

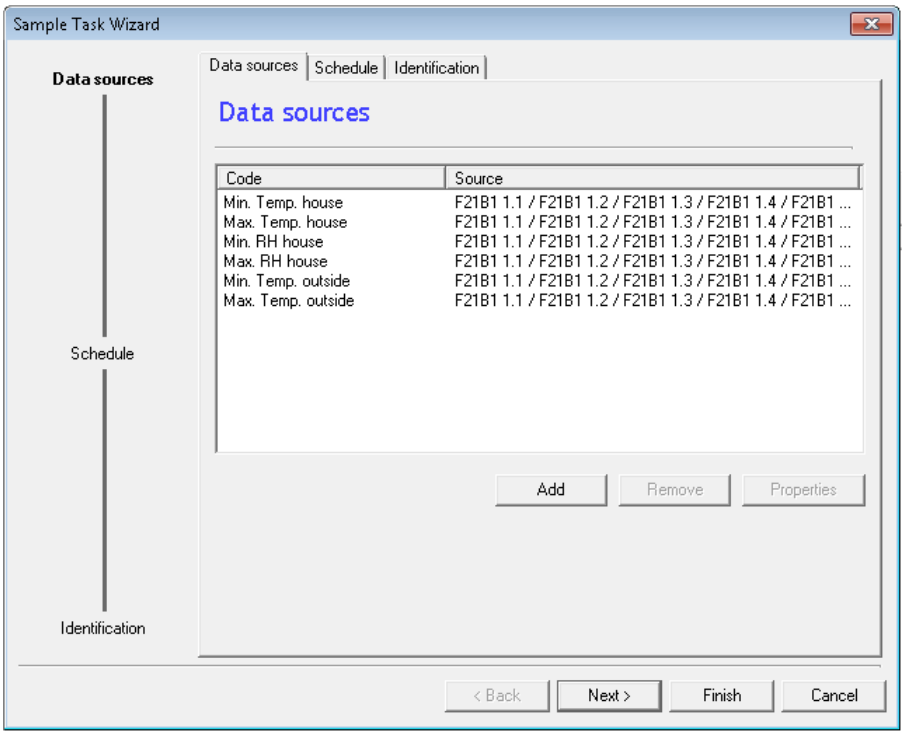


The screen is refreshed automatically. In this way, new sample information is added to the window automatically.

7.3 Changing sample tasks

Be careful when changing sample tasks. An incorrect change can have an impact on the grounds that particular sampling task is based on.

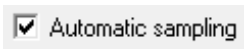
1. Go to *Tasks* and select *Sample data*.
2. Select the desired sample task.
3. Click on the *Edit task*  . The following screen appears:



4. Change the data.
5. Click on *Finish* to save the changes.

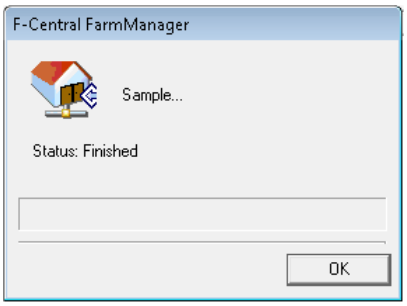
7.4 Start a sample task manually

You can start sample tasks manually only if you have not selected *Automatic sampling* when creating the sample task. For more information, see Creating simple tasks "Creating a simple sample task" page 18).



You start the sample task manually as follows:

1. Go to *Tasks* and select *Sample data*.
2. Select the desired sample task.
3. Click on the *Execute manual task*  . The program executes the simple task. Once the sampling is finished, the following appears in the screen:

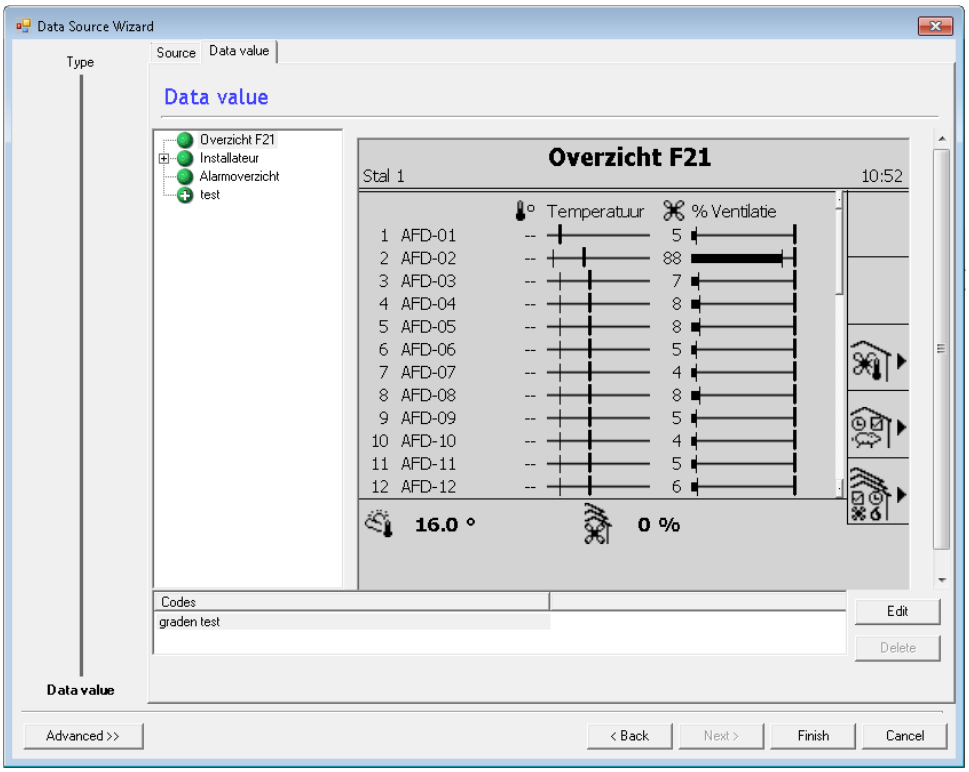


7.5 Supporting tasks

Change the name of sample information

You can change the name of sample information. In this way, you can shorten names that are too long, for example. The new name will be used in graphs that are based on the sample information. You change the name of sample information as follows:

1. Go to *Tasks* and select *Sample data*.
2. Click on the *Edit task*  . The sample task wizard opens.
3. Select the desired Information source and then click the *Properties* button. The following screen appears:



4. At the bottom of the screen, select the code and click on the *Edit* button.
5. Enter a new name for the sample information and click on *OK* to save the new name.

Removing a sample task

Be careful when removing sample tasks. An incorrect change can have an impact on the grounds that particular sampling task is based on.

If you no longer wish to make use of a given sample task, then you can remove it. You remove a sample task as follows:

1. Go to *Tasks* and select *Sample data*.
2. Select the desired sample task.
3. Click the *Delete*  .

Importing and exporting sample information

For more information, see Importing and exporting sample definitions and graph definitions "Exporting and importing sample definitions and graph definitions" page 53.

8. Creating and managing graphs

In F-Central FarmManager, you can create and manage graphs. The information displayed in the graphs is based on sample data. These data are snapshots of specific information from the connected controller(s) that you wish to monitor, arranged across time. Together these snapshots form a series of data points that can be displayed in the form of a graph.

Sample data is collected from sample tasks. Before you can create a graph, sample tasks must first be created (see Creating and managing sample tasks page 29 for more information).

Graphs provide the following possibilities:

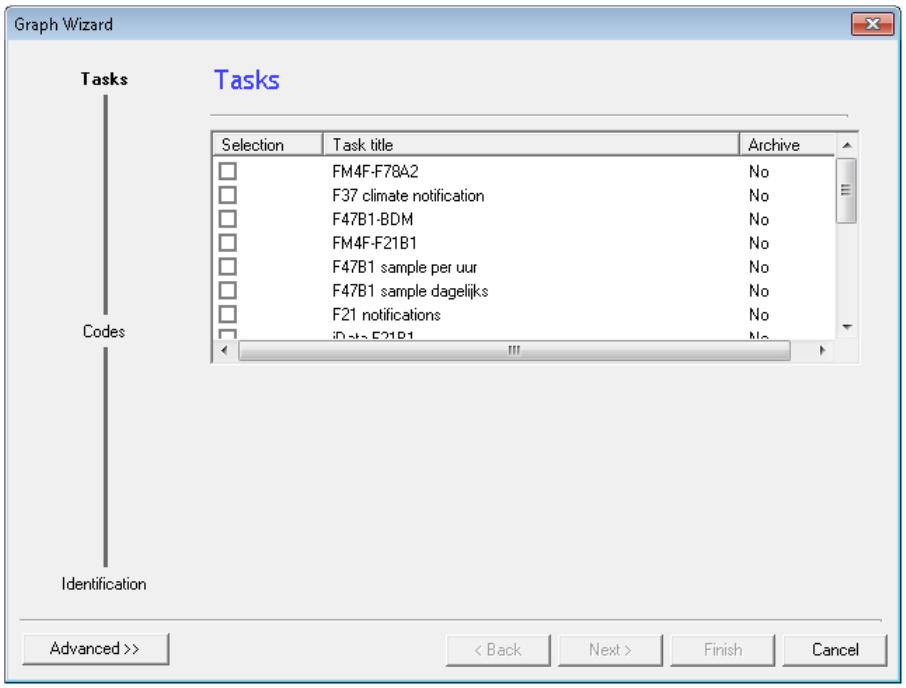
- Rapid insight into your farm information
- Comparison of current graphs with stored graphs
- Comparison of graphs from multiple controllers or units
- Querying of the information on which the graphs are based, e.g. in the form of a table.
- Exporting graphs as an image or a table

To create a graph, a simple graph is usually it is usually sufficient without using the advanced possibilities (see Creating a simple sample graph "Create a simple graph" page 20). This chapter explains how you create advanced graphs.

8.1 Creating advanced graphs

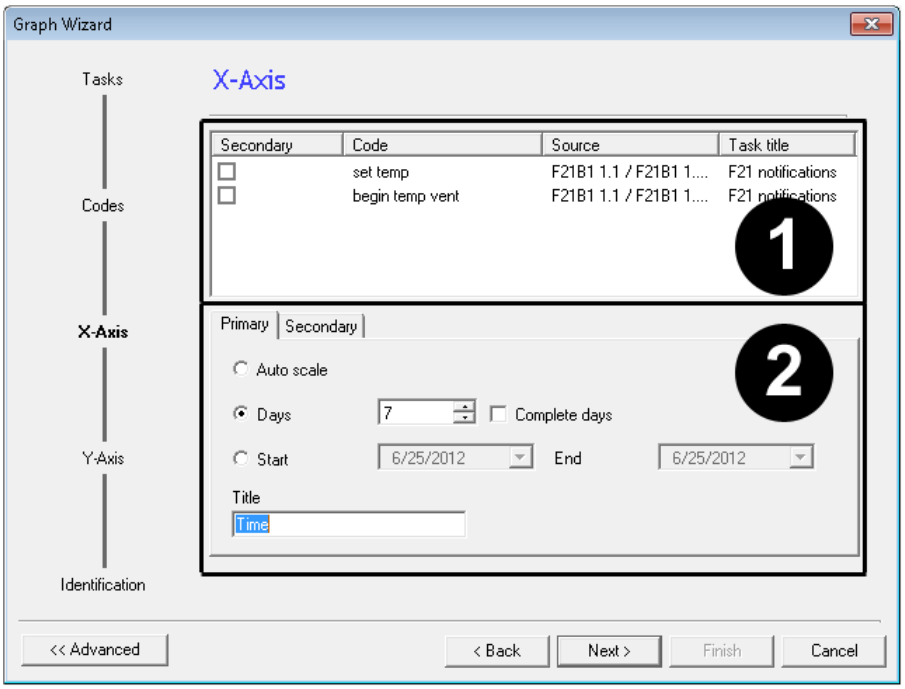
When creating graphs, you can also choose advanced settings. With advanced settings, you can make specific settings for the scale of the x- and y-axis. You do this as follows:

1. Go to *Control Units* and select *Graphs*.
2. Click on the *New graph*  . The following screen appears:

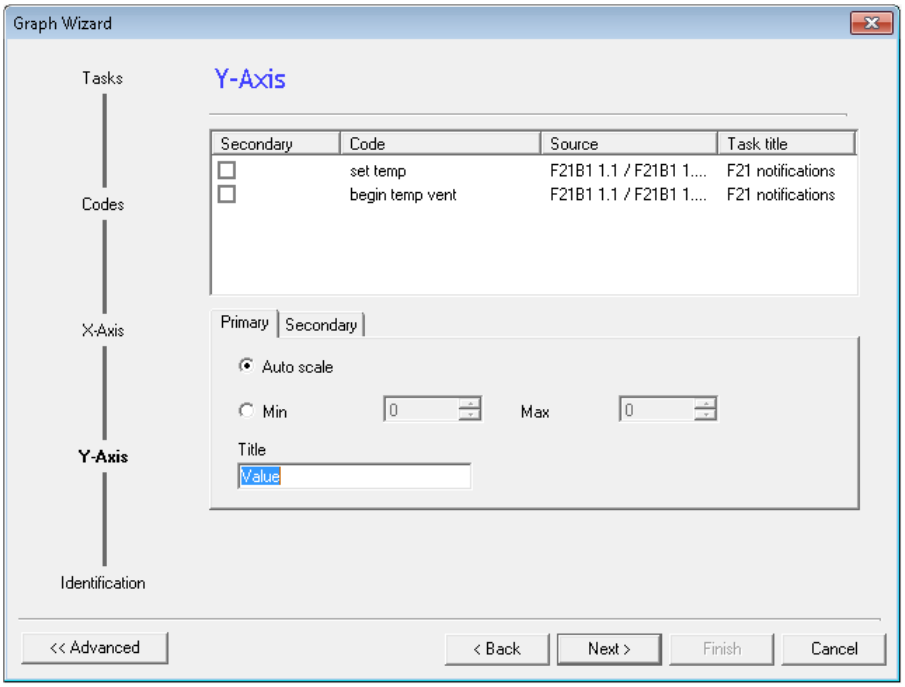


3. Click on the *Advanced* button. You can set the advanced graph settings here.
4. Select the sample tasks whose data you wish to include in the graph and click on *Next*.

5. Select the sample information (codes) you wish to include in the graph and click on *Next*. The following screen appears:

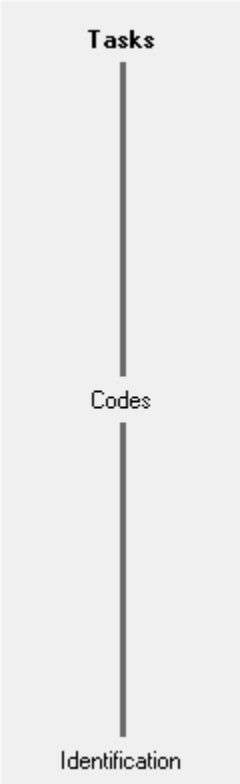


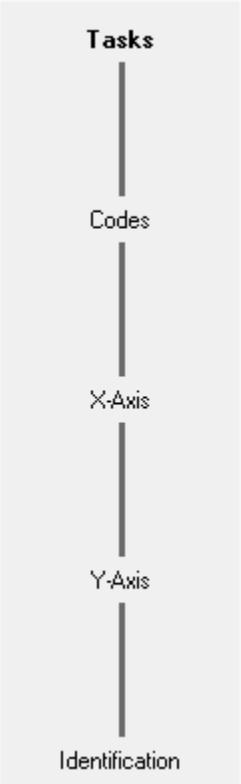
6. In part one, select the sample information you want to use for the secondary x-axis.
7. In part two, set the primary and secondary settings (for more information, see Primary and Secondary "Primary and secondary axes" page 44):
   - *Auto scale*: the program determines the scaling automatically.
   - *Days*: only the most recently entered number of days will be displayed. Select *Complete days* if the first and the last day of the range must be displayed completely (24 hours), even if these might not contain data.
   - *Start / End*: Enter the date range for the x-axis (start date and end date).
   - *Title*: enter a name for the scale distribution.
8. Click *Next*. The following screen appears:



9. Select a sample data that you want to use for the y-axis and set the primary and secondary settings (for more information, see Primary and Secondary "Primary and secondary axes" page 44):
   - *Automatic scaling*: the program determines the scaling automatically.
   - *Min / Max*: and to the value range for the y-axis (minimum and maximum value).
   - *Title*: enter a name for the scale distribution.
10. Click *Next*.
11. Enter a name for the graph and click on *Finish* to save the graph.

If you click on the *Advanced* button, the graph wizard is extended with the steps *x-axis* and *y-axis*:



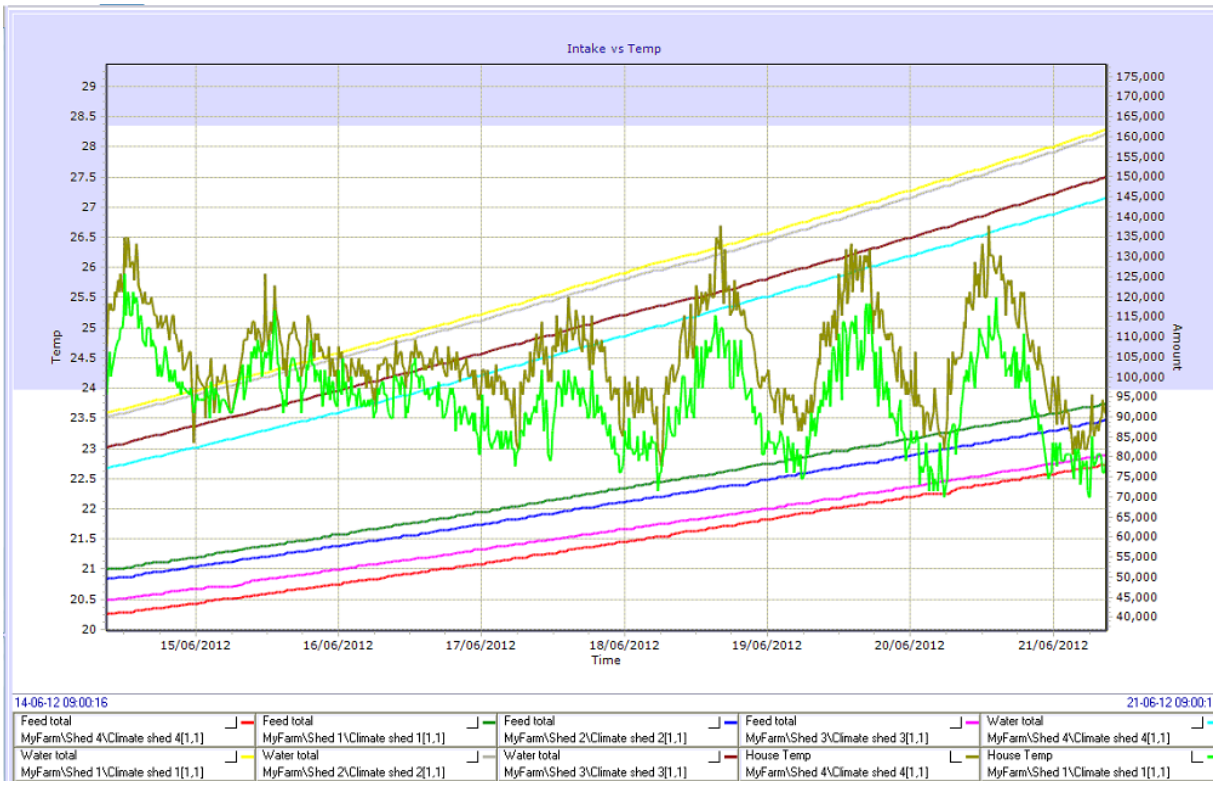


8.1.1 Primary and secondary axes

Most graphs consist of an x-axis on the bottom and a y-axis to the left. These are called the primary axes. In this program, you can also make use of secondary axes. Here, the x-axis is displayed on the upper side and the y-axis on the right side of the graph. The primary and secondary axes can be displayed together in one graph. The legend makes a distinction between the axes with the following symbols:

Symbol	X-axis	Y-axis
	Primary	Primary
	Primary	Secondary
	Secondary	Primary
	Secondary	Secondary

You wish to compare temperature data from January and December. In a normal graph, this is difficult, because the graph covers an extended period:



8.2 Legend layout

The legend is displayed under the graph. For each piece of sample information, the following information is displayed:

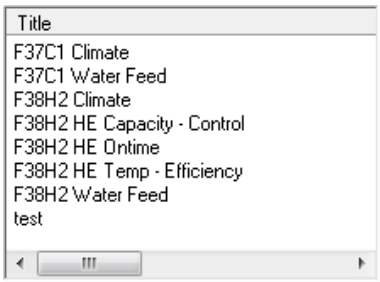
- *Setp.HouseTmp*: The name of the sample information.
- *MyFarm\Chicken Wall\F38H2 2.1*: The location and the code of the control unit from which the sample information comes.
- *[1,1]*: The sequence number (index) ('[' ']')
- : The colour of the line in the sample information.
- : The settings for the x-axis and y-axis (for more information, see Primary and Secondary "Primary and secondary axes" page 44)

	A maximum of 10 sample data are displayed in the legend.

8.3 Viewing a graph

You can view a graph as follows:

1. Go to *Control units* and select*Graphs*.
2. Select the farm section or device for which you wish to view the graph.
3. Select the title of the graph you wish to view:

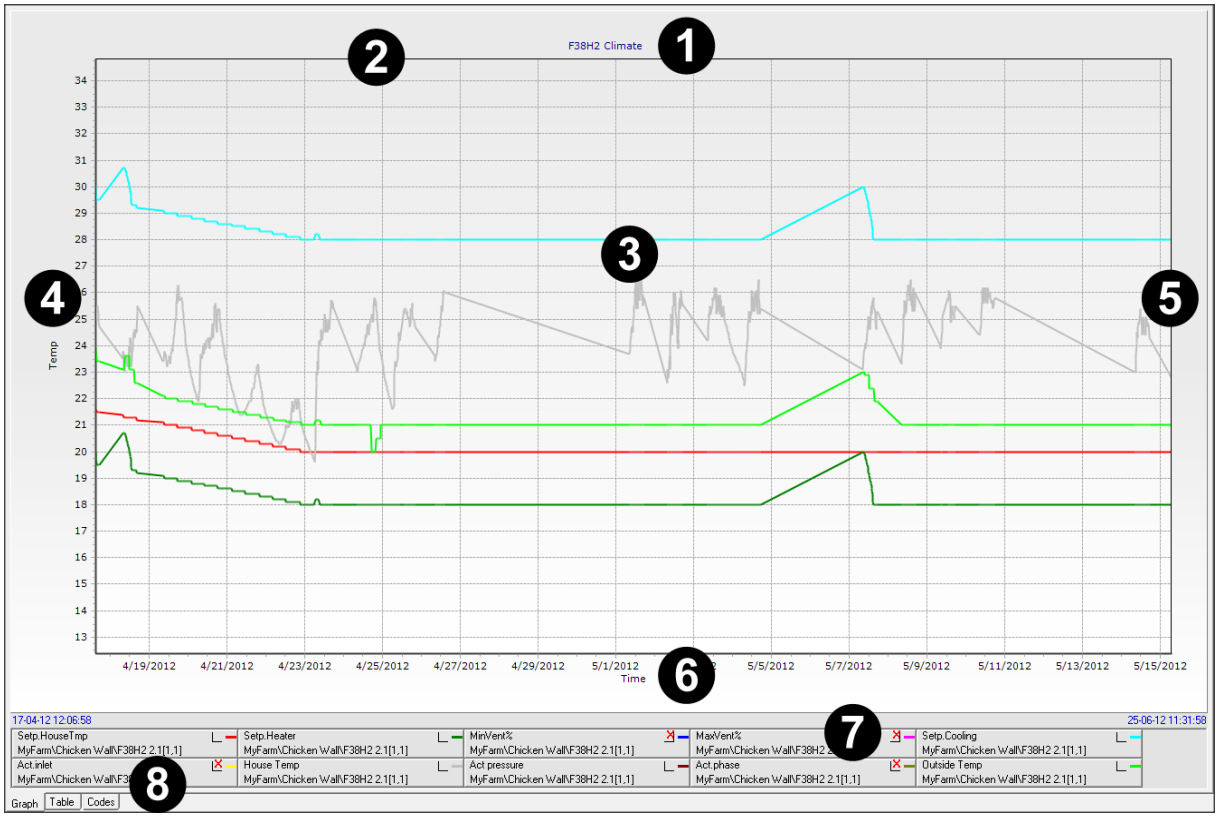


The graph of the selected farm section or device appears in the working area.

	Only graphs are displayed from the selected level, for example, all graphs from the selected stall or from the selected control unit.
	The moment you view a graph, the current information is retrieved and processed in the graph. This happens only if the graph information for the selected farm section or device is available.

Graph layout

A graph is composed of the following components:



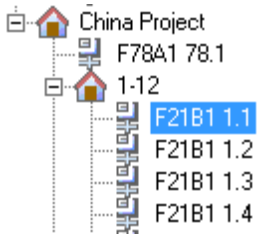
1. Graph title: The title of the graph.
2. Secondary x-axis: The period that the graph covers.
3. Graph information: A graphical display of the sample information (information is displayed as coloured lines).
4. Primary y-axis: The graph's scale, such as temperature, weight and number.
5. Secondary y-axis: The graph's scale, such as temperature, weight and number.
6. Primary x-axis: The period that the graph covers.
7. Legend: Information about the displayed sample information (for more information, see Legend layout page 45).
8. Tabs:
   - *Graph*: view a graphical display of the sample information.
   - *Table*: view a table display of the sample information.
   - *Codes*: set the parameters as to which sample information will be displayed in the graphical and table display.

8.3.2 Navigating through the various graph levels

Stalls may comprise one or more departments. In a stall with various departments, the data that the controller observes is called 'Department dependent data' - for example, the number of animals and the amount of feed. Most data is different for each department. However, in this stall there is also central data, such as date and time. The central data is stored once in the controller and not repeated for each department.

If you select 'Department dependent data' when creating a sample task, the data from all departments is included. If you select central data when creating a sample task, only the data from the first department is included.

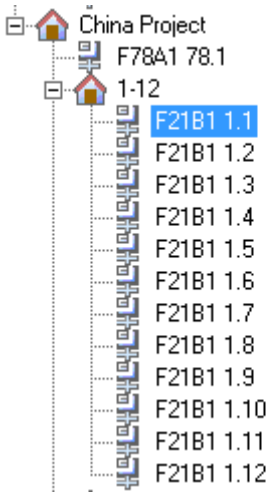
In the graphs that you create, the central data is only displayed in the first department.

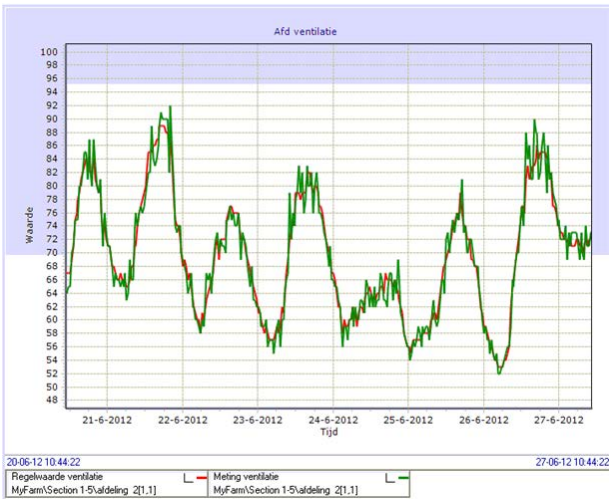


The display of a graph is dependent on the selected data and the level in the 'Farm structure' or 'Device structure' display. Three possibilities for the display of a graph are explained below.

Example 1

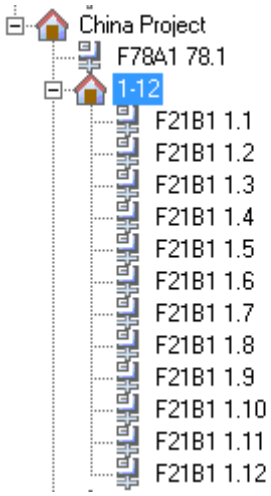
You request the graph from department 1 from the F21 controller. Only data from this department is included in the graph that is displayed. The graph with two differing values from this controller generates two lines in the graph.

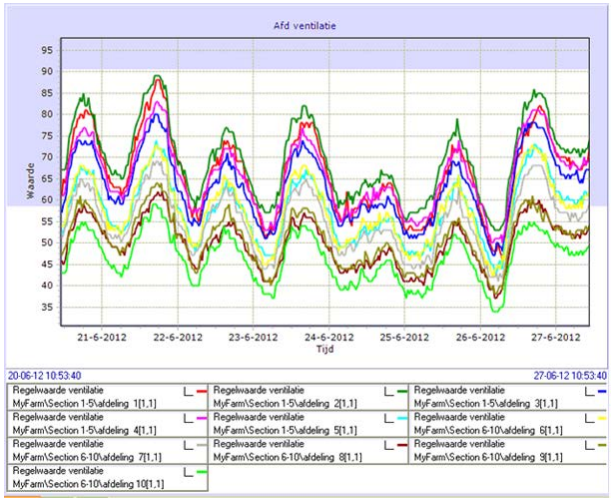




Example 2

You request the graph from farm section '1-12'. All the data from all the underlying departments is included in the graph that is displayed.



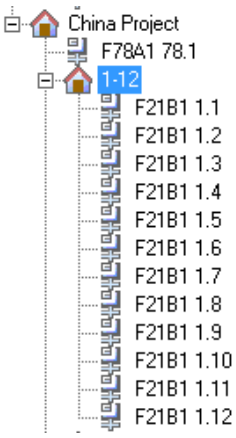


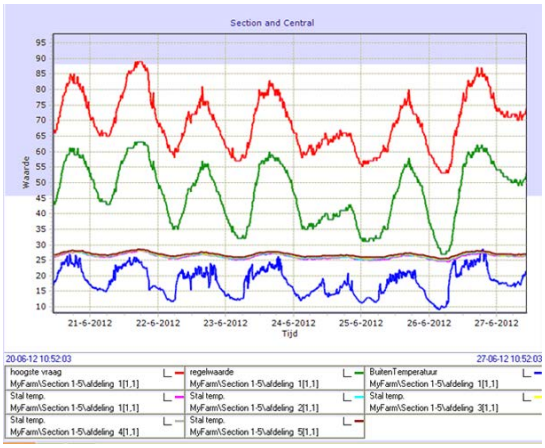
Example 3

You query the graph for farm section '1-12' in which 'Department dependent data' and central data are available:

- Department 1-3: Central data.
- Department 4-12: Department dependent data

The graph that is displayed shows the central data and the department dependent data.





8.4 Operating a graph

For analysis of the graph, the program offers a number of functions to operate the graph. In this paragraph, the following functions are explained:

- Hiding graph information
- Changing information on the x-axis and y-axis
- Highlighting graph information
- Viewing graph information from a particular moment
- Zooming in and zooming out
- Dragging a graph

8.4.1 Hiding graph information in a graph

If you wish to display less graph information in order to make the graph less cluttered, for example, you can hide graph information. You hide graph information as follows:

1. Open the graph (see Viewing a graph page 46).

On the *Codes* tab: select the desired graph information. All possible graph information is displayed in this overview (also from any other controllers).

1. Click the *Save* button. The selection will now be saved and automatically applied when you request the graph again.

	If you select codes without saving them, these are displayed temporarily in the graph. If you select codes and then click the *Save* button, the selected codes will be saved permanently. The selected codes are displayed in every graph that you request.
	The codes that you see in the *Codes* tab are dependent on where you are in the 'Farm structure' or 'Device structure' display.
	You can also hide the graph information by double-clicking the desired graph information in the legend. Note! In this manner, the graph information is temporarily hidden. Whenever you call up the graph the next time, you will see the hidden information again. A hidden piece of graph data is indicated in the legend with .

8.4.2 Highlighting graph information

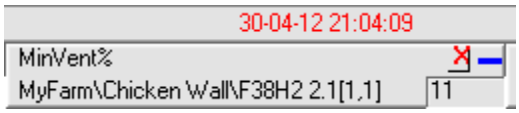
You can highlight graph information as follows:

1. Open the graph (see Viewing a graph page 46).
2. On the *Graph* tab: place your mouse on the line you wish to highlight. The other lines are displayed in grey tints.

8.4.3 View graph information from a given moment.

You view graph information from a given moment as follows:

1. Open the graph (see Viewing a graph page 46).
2. On the *Graph* tab: click the *Toggle graph cursor*  . A black vertical line will appear in the graph.
3. Drag the line to the left or right to change the moment at which the data is created. As you drag the line, you see the values in the legend change along with this.

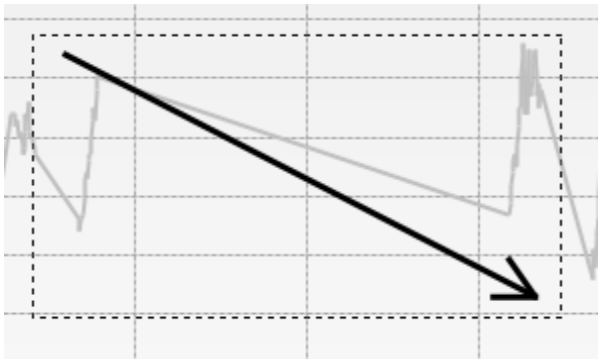


To view graph information from a given moment, you can also place your mouse cursor on a line. After one second, a balloon appears with the values for the relevant moment.

8.4.4 Zooming in and zooming out

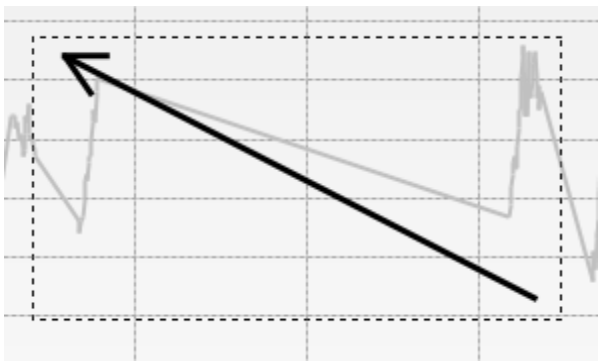
To view graphic information better, you can zoom in on a particular part of the graph:

1. Open the graph (see Viewing a graph page 46).
2. Click somewhere in the graph area with your mouse.
3. Drag over the graph area diagonally with your mouse (from upper left to lower right). This increases the size of the selected box.



Zoom out as follows:

1. Click somewhere in the graph area with your mouse.
2. Drag over the graph area diagonally with your mouse (from lower right to upper left) or click the Normal view button.  .



8.4.5 Dragging a graph

If you zoom in on a certain part of the graph, you can drag the graph from that point:

1. Open the graph (see Viewing a graph page 46) and zoom in on a specific area in the graph.
2. Keep pressing the right mouse button.
3. Drag the graph to the left or to the right.

8.4.6 Hiding the legend

You can increase the display area of the graph by hiding the legend:

1. Open the graph (see Viewing a graph page 46).
2. Click on the *Legend info* button  to hide the legend.
3. To show the legend again, click again on the *Legend info*  .

8.5 Combining and comparing graphs

You can combine graph information into one graph so that you can compare these with each other.

You have requested a graph from the F38.10 control unit. Here, only the information (code) from this control unit will be displayed. However, the samples also include information from other control units, for example F38.11. This is a control unit from another controller. You can turn on the codes from the F38B2.11.3, which causes the lines to be added to the table. You can compare F38.10 and F38.11 in this manner.

1. Go to the *Codes* tab.
2. Select the desired graph information. On this tab, a summary of all possible graph information is given (also, possibly, from other controllers).

3. Click the *Save* button. The selection will now be saved and automatically applied when you request the table again.

8.6 Save graphs as image or table

You can save a graph as an image or as a table. This allows you, for example, to e-mail the information to someone, to import it into another program or to use it in a presentation.

	If you save a graph as an image, the graph is stored as it is displayed in the program. For example, if you have zoomed in, the zoomed-in graph will be stored.
	If you save the graph information as a table (CSV file), you can import this into many other programs such as Microsoft Excel.

You save a graph as follows:

1. Open the desired graph with the desired graph information.
2. Click on the *Export graph*  . The following screen appears:

3. Choose the desired export format and click *OK*.
4. Select the folder in which you wish to save the graph and enter the desired file name.
5. Click on *Save* to save the graph.

8.7 Exporting and importing sample definitions and graph definitions

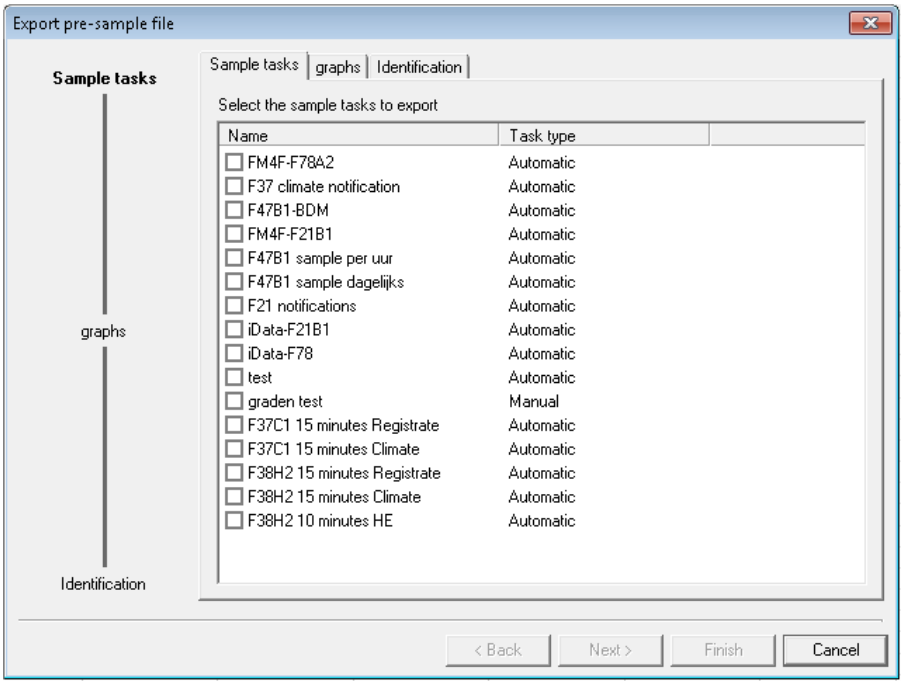
In F-Central FarmManager, you can export and import sample definitions (title of the sample and its identification code) and graft definitions. This applies for the sample tasks and graphs in the menu *Tasks* - *Sample info* and *Control units* - *Graphs*.

The values gotten during sampling will not be imported or exported.

Exporting

You export the sample information and graphs as follows:

1. Go to *Control units* and select *Graphs*.
2. Click on the *Export pre-sample file*  . The following screen appears:



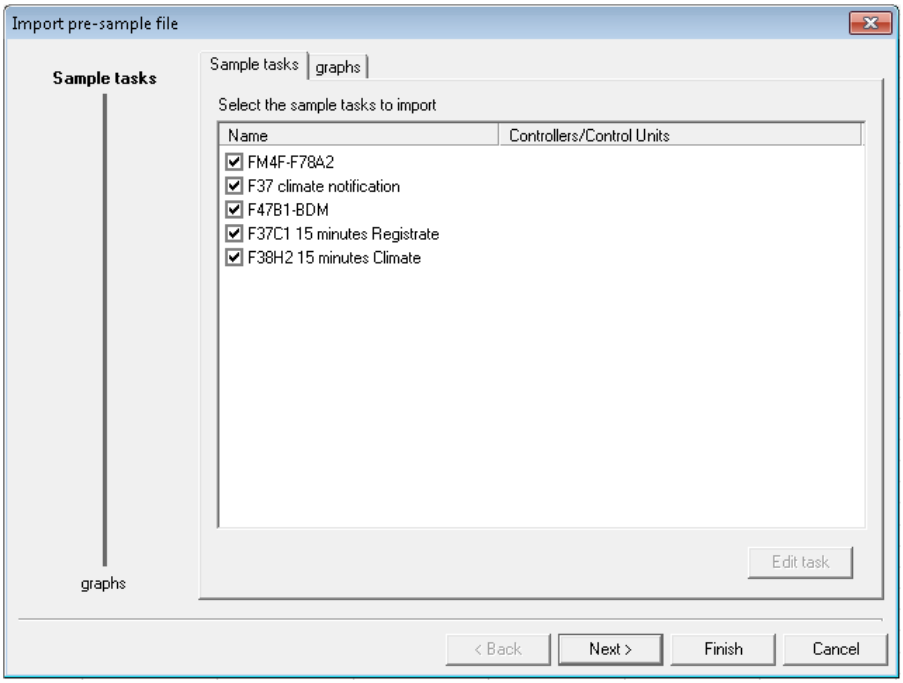
3. Select the sample tasks you wish to export and click on *Next*.
4. Select the graphs you wish to export and click on *Next*.
5. Click on the button  and select the folder in which you wish to save the file and enter the desired file name. Save the file preferably in the folder '<drive>\Data\Fancom\FarmManager\PreSample', where <drive> is the workstation on which F-Central FarmManager is installed.
6. Click on *Save* to save the file.

The name of the controller should preferably be included in the file name so that you can locate this easily.

Importing sample information and graphs

Import the sample information and graphs as follows:

1. Place the file you wish to import in the folder '<drive>\Data\Fancom\FarmManager\PreSample', where <drive> is the workstation on which F-Central FarmManager is installed.
2. In F-Central FarmManager, go to *Control units* and select *Graphs*.
3. Click on the *Import pre-sample file*  .
4. Select the file you wish to import and then click Open. The following screen appears:



5. Select the sample tasks you wish to import and click on *Next*.
6. Select the graphs you wish to import and click on *Finish*. The file will be imported to F-Central FarmManager.

8.8 Removing graphs

You might wish first to create an archive before you remove a graph. This way you can always query old information again later. Graphs that are part of an archive cannot be changed. (for more information, see Creating an archive page 69).

If you no longer wish to make use of a given graph, then you can remove it. You remove a graph as follows:

1. Go to *Control units* and select *Graphs*.
2. Select the desired graph.
3. Click the *Delete*  .

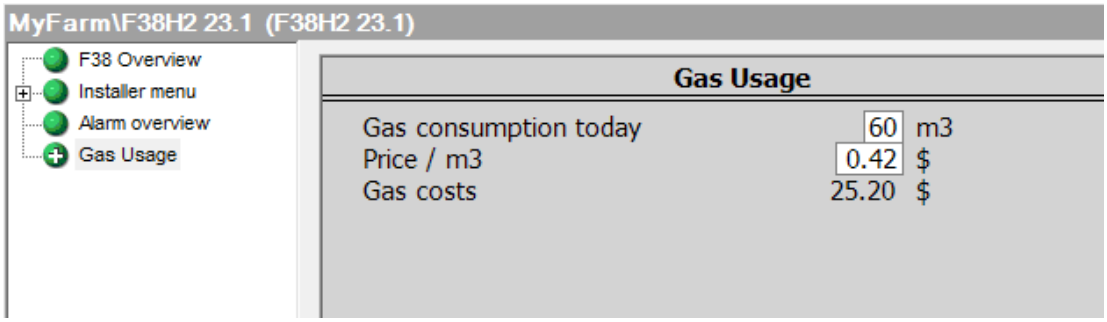
9. Creating and managing personal data

F-Central FarmManager generates data based on information from the connected controllers. You can also create data yourself - for example, to perform calculations that cannot be exported via the controllers. This data is called the Plus keys. With the Plus keys, you can:

- Enter extra information yourself.
- Have calculations performed.
- Compare data from various controllers with each other.

You wish to calculate the energy costs of your climate computer. The controller only registers gas consumption per day. With Plus keys, you can add the following codes, for example:

- The daily gas price per m3 (you request this from your energy supplier)
- Cost calculation (multiply gas consumption by the daily gas price)



9.1 Create personal data

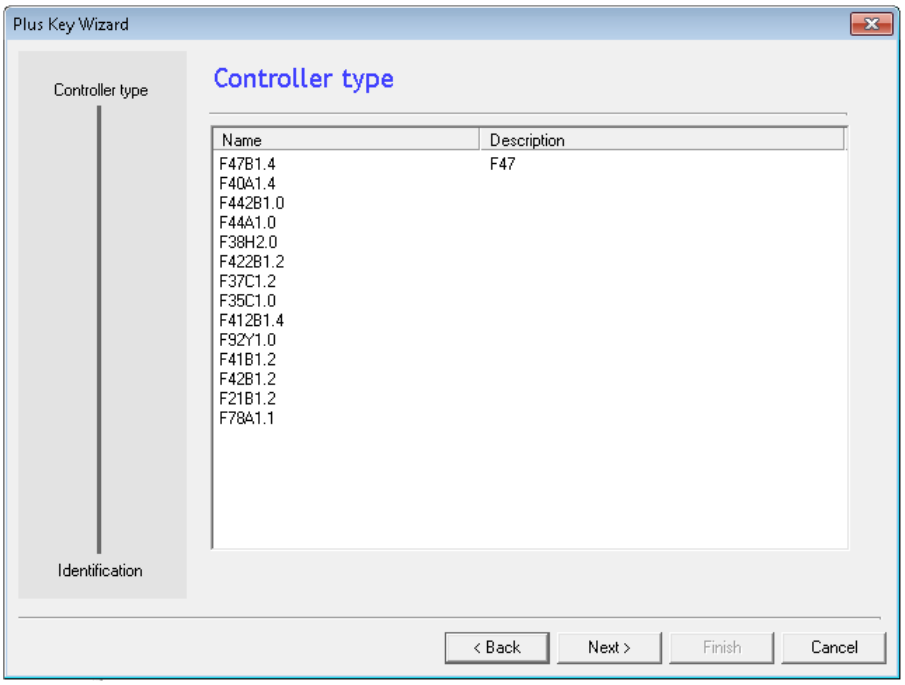
Creating personal data is done in two steps:

1. Create a Plus-key. The Plus-key is shown in a controller's menu.
2. Select Plus data. This is how you determine which information is displayed.

Create a Plus-key.

The Plus keys are created for all controllers.

1. Go to *System* and select *Plus Data*.
2. Click on the *New Plus key* button . The following screen appears:

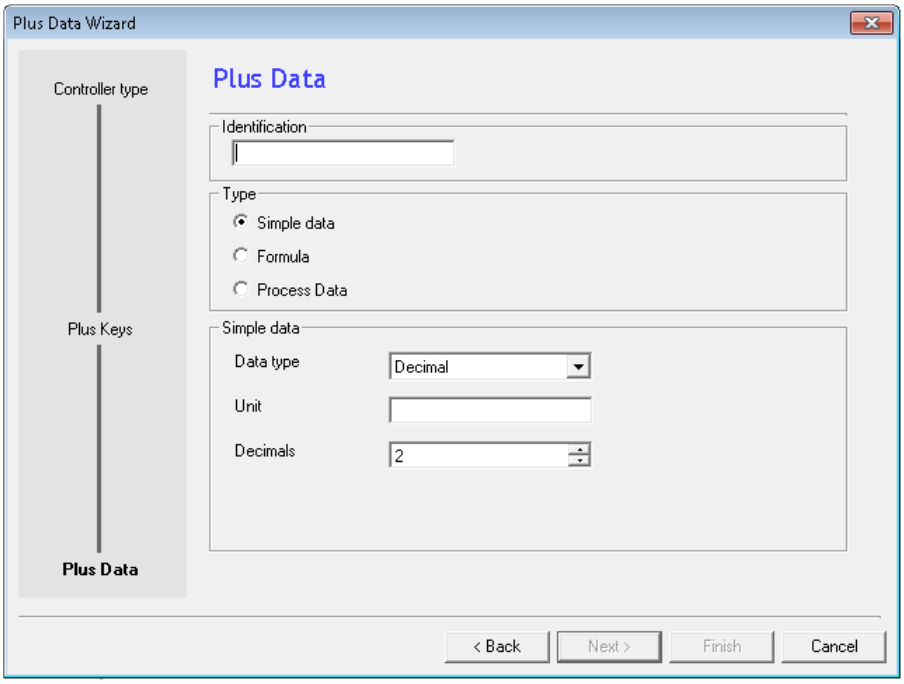


3. Select the controller for which you wish to create the Plus data and click on *Next*.
4. Enter the name of the Plus key and click on the *Finish* button. The new Plus key is shown in the 'Plus keys' display.

Select Plus data

Plus data is stored only in F-Central FarmManager, not in the controllers.

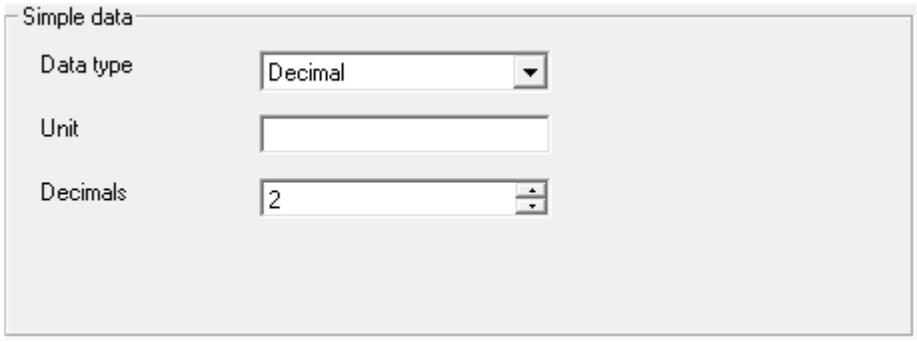
1. Go to *System* and select *Plus Data*.
2. In the 'Plus keys' display, select a Plus key for which you wish to choose Plus data.
3. Click on the *New Plus data* button . The following screen appears:



4. In the *Identification* field, enter the name of the Plus data.
5. Select the type of Plus data:
   - *Simple Data*: Extra data that you can enter yourself, such as a value, time or date. See Adding simple data page 58.
   - *Formula*: Formula for performing a calculation. See Adding a formula page 59.
   - *Process information*: An existing item from a controller. See Adding process information "Add process information" page 60.

9.1.2 Adding simple data

If you've selected Simple data at the Plus data type, the screen below appears:

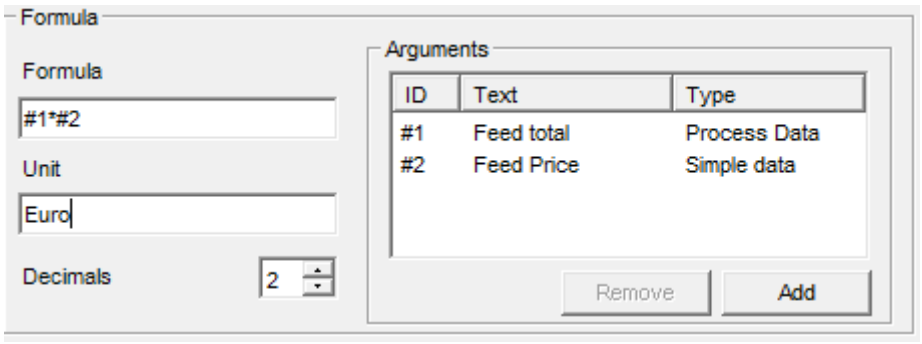


1. Enter the simple data:
   - *Information type*: enter the information (*Numerical* / *Time* / *Date*).
   - *Unit*: enter the unit, e.g., 'Euro' or 'Kilogram'.
   - *Decimals*: select the number of decimals this information contains (this option is available only if you have selected the info type *Numerical*).
2. Click on the *Finish* button to save the Plus data.

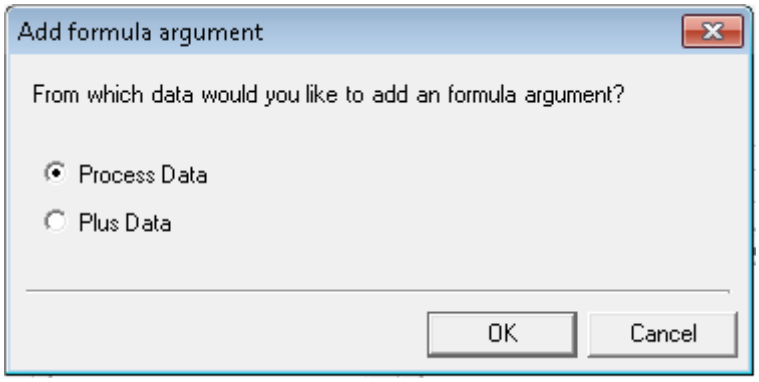
9.1.3 Adding a formula

> Formulas cannot be changed after saving.

If you've selected Simple data for *Formula,* the screen below appears:



1. Click on the *Add* button. The following screen appears:



2. Select the formula argument you wish to add:
   - *Process information*: value from a controller.
   - *Plus data*: value from self-made Plus data
3. Click *OK*.
4. Select the desired value and then click *Finish*. Repeat steps 1 through 4 if you wish to add multiple arguments.
5. Click on the *Finish* button to save the Plus data.
6. Enter the formula:
   - *Formula*: enter the formula using the following characters:

Calculation	Character	Example	Result
Add	+	5+2	7
Subtract	-	5-2	3
Multiply	*	5*2	10
Divide	/	5/2	2.5
Exponentiation	^	5^2	25
Division of remainders	%	5%2	1

   - *Unit*: enter the unit, e.g., ‘Euro’ or ‘Kilogram’.
   - *Decimals*: select the number of decimals in the formula.

	Division of remainder: the % formula determines the remainder of a division operation. First, the division operation is performed. The result is rounded down to the nearest whole number. This results in a remainder, the result of the calculation.
	Division of remainder: 5/2 = 2.5 By rounding down the result (2.5), a remainder of 1 occurs. Remainder calculation 5%2 = 1

9.1.4 Add process information

If you've selected *Process information* at the Plus data type, the screen below appears:

1. Click the *Select* button.
2. Select the desired process information from the controller and click *Finish*.
3. Click on the *Finish* button to save the Plus data.

9.2 Sorting personal data

After creating Plus keys and Plus summaries, you can sort them. You can do this to make a logical layout, for example.

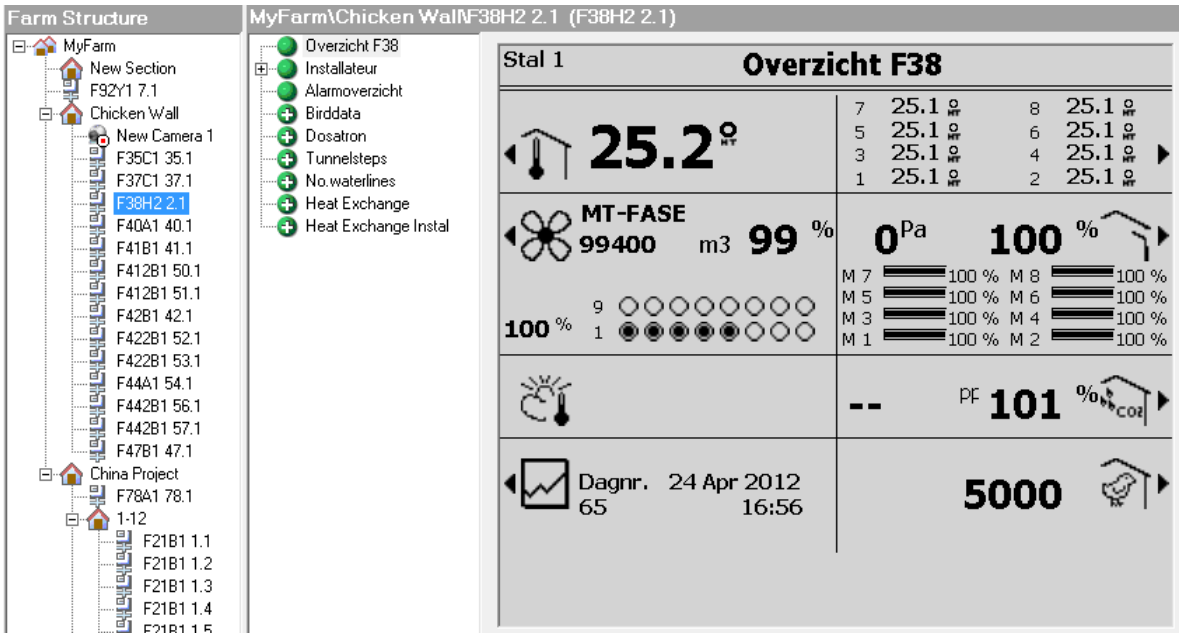
1. Go to *System* and select *Plus data*.
2. Select a Plus key or Plus data that you wish to sort.
3. Click on the *Plus key down* button or *Plus key up* to move the Plus key.
4. Click on the *Plus data down* or *Plus data up* to move the Plus data key.

9.3 View personal data

Operating the Plus keys is the same as the operation of the controller. For more information, see Operating controllers page 22.

Plus keys are added to the menu of a controller.

1. Go to *Control units* and select *Operation*.
2. Select the controller for which you have created Plus keys.
3. Select the Plus key. The result appears in the work area



:

9.4 Changing Plus keys

You can only change the name of a Plus key.

1. Go to *System* and select *Plus data*.
2. Select the desired controller in the 'Farm structure' display.
3. Select the desired Plus key from which you want to change the information in the 'Plus keys' display.
4. Click on the *Edit Plus key* .
5. Go to the *Identification* tab and change the name.
6. Click on *Finish* to save the change.

9.5 Changing Plus data

1. Go to *System* and select *Plus data*.
2. Select the desired controller in the 'Farm structure' display.
3. Select the desired Plus keys (left-hand side of the work area) from which you want to change the information in the 'Plus keys' display.
4. Select the desired Plus data from which you want to change the information in the 'Plus data' display.
5. Click on the *Edit Plus data*  .
6. Change the information and click on *Finish* to save the changes.

9.6 Removing Plus keys and Plus data

If you no longer wish to make use of a certain Plus key or Plus data, you can remove these. You remove a Plus key or Plus data as follows:

1. Go to *System* and select *Plus data*.
2. Select the desired Plus key or Plus data.
3. Click the *Delete*  .

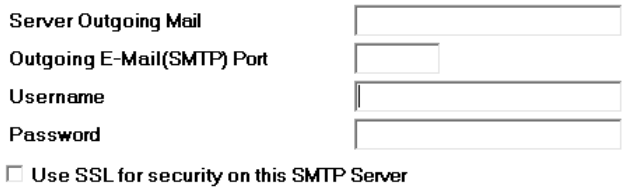
10. Creating and managing e-mail notifications

Using F-Central FarmManager, you can send notifications about backup tasks, sample tasks and alarms to one or more e-mail addresses. As soon as a loud alarm occurs on your farm, for example, you receive an e-mail message, possibly along with other people. Since you are automatically kept apprised of certain statuses, you always have control over your farm. So you don't always have to be present in the stall or at your computer to have insight into the situation on your farm. Configuring e-mail notifications consists of the following steps:

1. Set the server settings
2. Add contacts/recipients
3. Set time schedules
4. Setting notifications

10.1 Set the server settings

1. Go to *System* and select *Notifications*.
2. Enter the server settings. You can request the server settings from your Internet provider.



The server settings for Gmail and Hotmail are as follows.

	Gmail	Hotmail
Outgoing mail server	smtp.gmail.com	smtp.live.com
Outgoing e-mail (SMTP) port	587	587
User name	Your user name	Your user name
Password	Your password	Your password
Use SSL as security for this SMTP server	Tick off	Tick off

3. Click on the *Apply* button to save the server settings.

10.2 Add contacts/recipients

1. Go to *System* and select *Notifications*.
2. Click on the *Add receiver*  . You can add the information for a new contact person in the work area:

- *Name*: The name of the new recipient.
- *E-mail address*: The e-mail address of the new recipient.
- *Description*: Description of the new recipient (position title, for example).

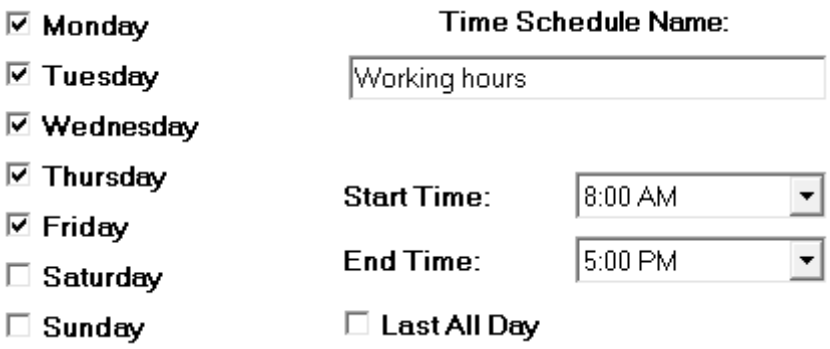
3. Click on the *Apply* button to save the new recipient.

You can send a test e-mail to the new recipient: click on the *Send test e-mail* button.

10.3 Set time schedules

Coordinate the time schedules for notifications with those of sample tasks! The interval of both time schedules must overlap each other, otherwise no notification will be sent.

1. Go to *System* and select *Notifications*.
2. Click on the *Add Time schedule*  . You can add the information for the new time schedule in the work area:



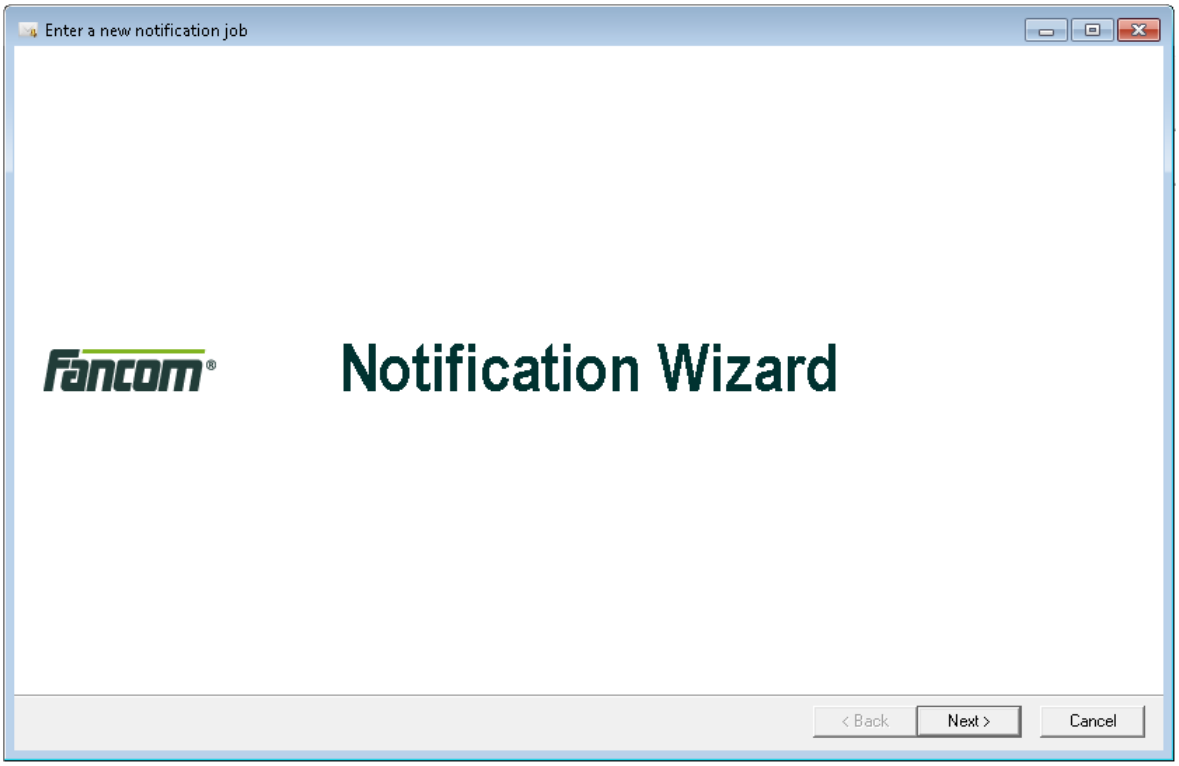
- *Time schedule name*: The name of the time schedule.
- *Data*: The days of the week that the time schedule is active.
- *Start time*: The starting time of the time schedule.
- *End time*: The ending time of the time schedule.
- *Last all day*: Select this option if the time schedule is active for the entire day.

10.4 Setting notifications

	If you wish to set a notification for sample tasks, you must first create a separate sample task for notification (see Creating and Managing sample tasks page 29).
	It is not possible to receive notifications for each department. If you select a department from a controller, you receive notifications from all departments from that particular controller.

This paragraph tells you how to set notifications for backup tasks, sample tasks and alarms. The first six steps are below. These are the same for each notification. In the following paragraphs, additional steps are explained that are unique for each type of notification. You set a notification as follows:

1. Go to *Tasks* and select *Notifications*.
2. Click on the *New notification task* . The notification wizard appears:



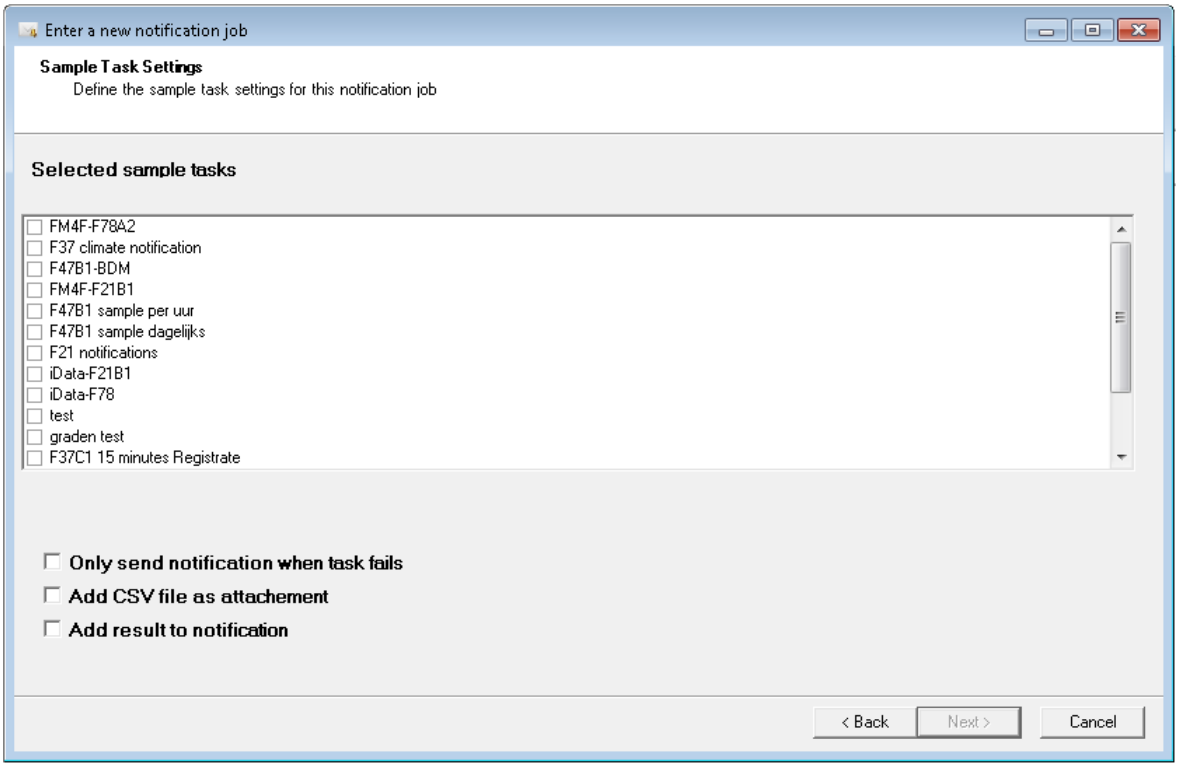
3. Click the *Next* button.
4. Select one or more receivers and click *Next*.
5. Select one or more time schedules and then click *Next*.
6. Select the information you wish to put in the notifications:
   - *Sample tasks*: proceed with Making a notification of sample tasks "Make a notification of sample tasks." page 65.
   - *Backup tasks*: proceed with Making a notification of backup tasks page 66.
   - *Alarms*: proceed with Making a notification of alarms page 67.

10.4.1 Make a notification of sample tasks.

	After setting the sample task notifications, you received one e-mail for each sample task.
	Fancom advises making a few sample-tasks a day e.g. once a day 1 overview. It is possible that you do not receive an e-mail notification if you use more than 10 sample-tasks.

Continue the Setting notifications page 64 procedure as follows:

1. Click *Next*. The following screen appears:



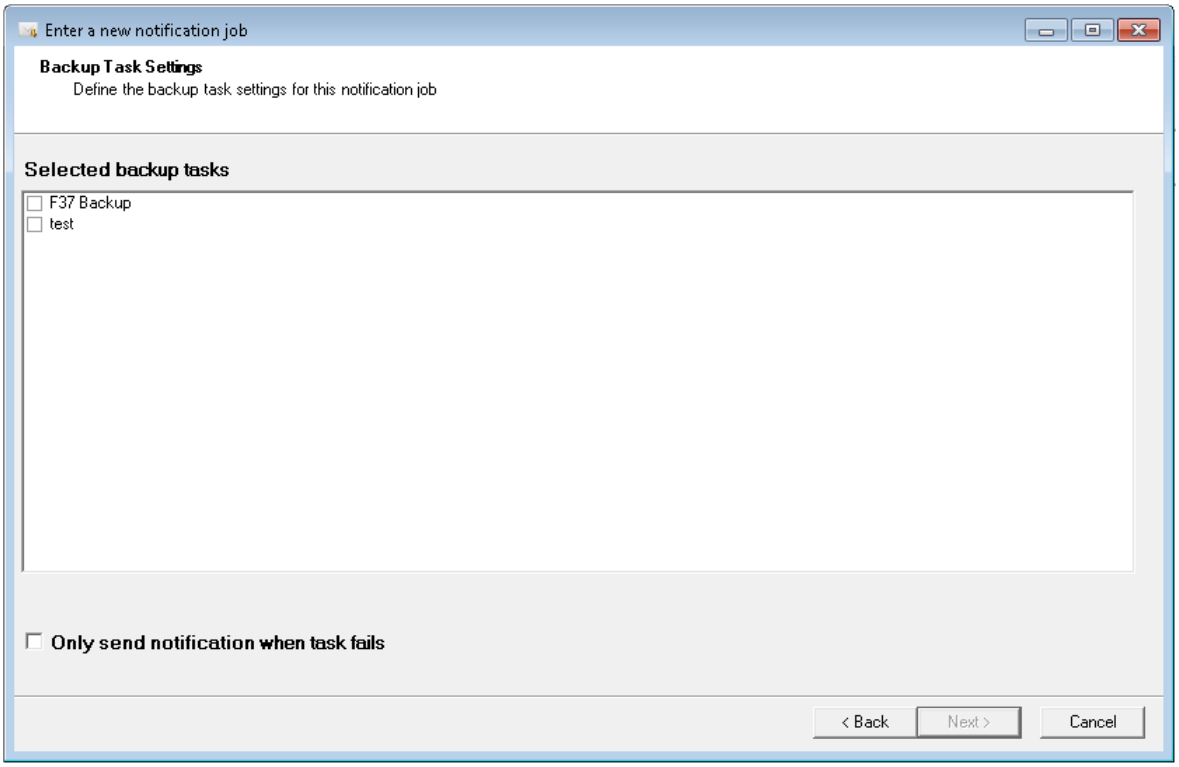
2. Select the sample task for which you wish to receive notifications (the separate sample task for notifications) and select the following options (optional):
   - *Onlu send notification when task fails*: You will then receive an e-mail only if a task fails.
   - *Add CSV file as attachment*: You receive the results of the sample task as an attachment (CSV file) in the e-mail message.
   - *Add result to notification*: You receive the results of the sample task in the body of the e-mail message. If you don't select this option, you will see the status of the sample task in the subject line of the e-mail message.
3. Click *Next* and enter the name of the notification.
4. Click on *Finish* to save the notification.

	If you don't select any of the options at step two, you receive a notification both when the task fails and when it succeeds.

10.4.2 Making a notification of backup tasks

Continue the Setting notifications page 64 procedure as follows:

1. Click *Next*. The following screen appears:

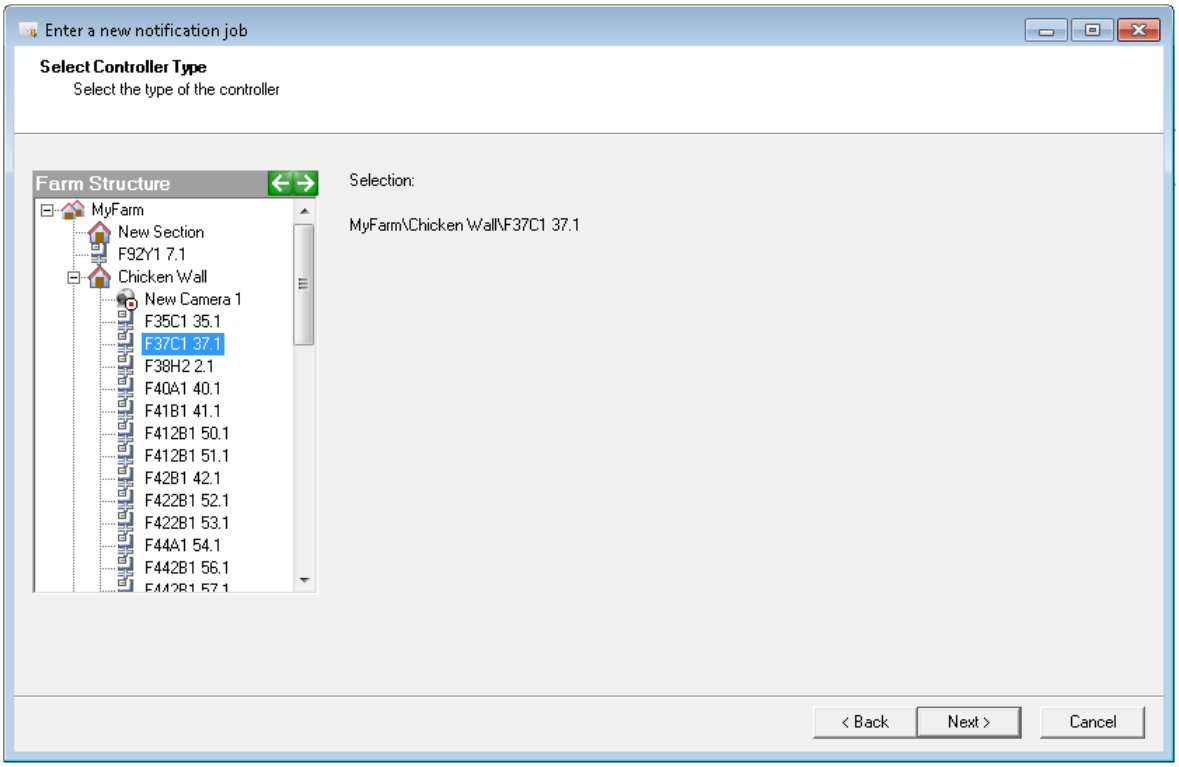


2. Select the backup task for which you want notifications and select the following option (optional):
   - *Only send notification when task fails*: You will then receive an e-mail only if a task fails. If you don't select this option, you always receive a notification (also when the task fails).
3. Click *Next* and enter the name of the notification.
4. Click on *Finish* to save the notification.

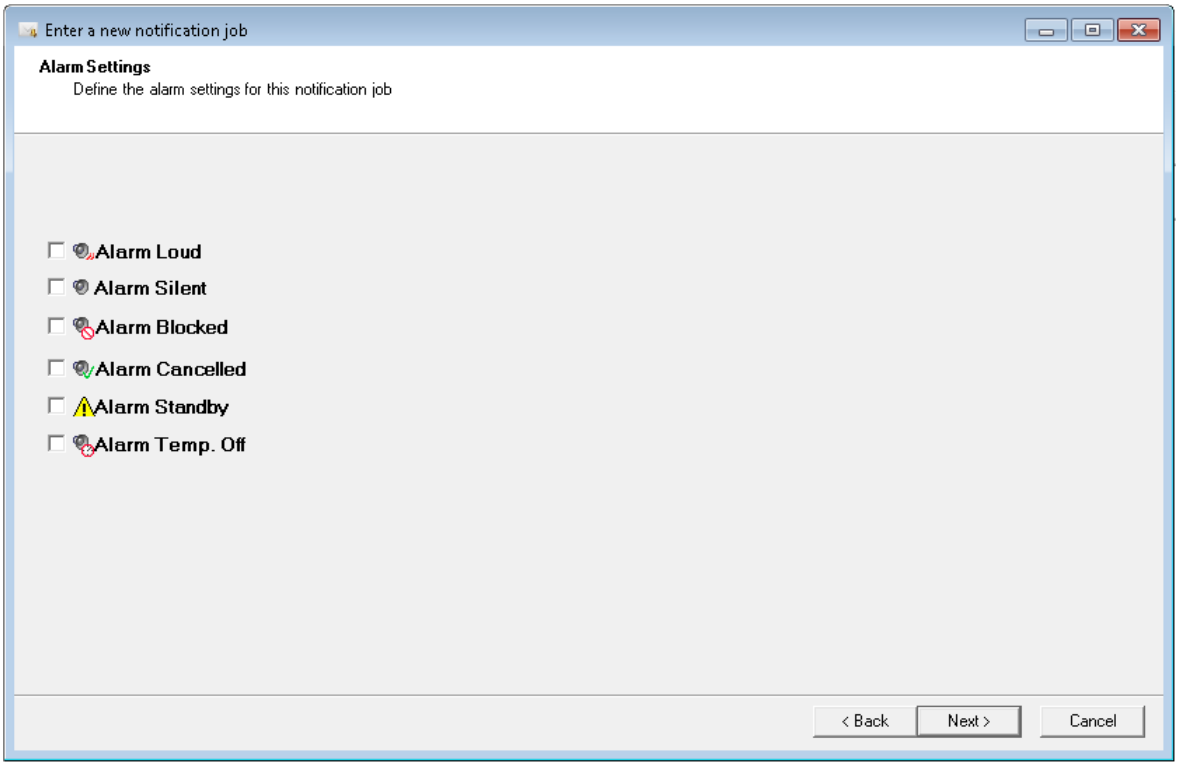
10.4.3 Making a notification of alarms

Continue the Setting notifications page 64 procedure as follows:

1. Click *Next*. The following screen appears:



2. Select the controller or control unit for which you want notifications and click on*Next*. The following screen appears:



3. Select one or more types of alarms for which you wish to receive notifications.
4. Click *Next* and enter the name of the notification.
5. Click on *Finish* to save the notification.

11. Creating and managing archives

An archive is a copy of your farm information in F-Central FarmManager. With an archive, you can record the entire situation in F-Central FarmManager at a given moment. You can compare current situations with historic situations in the archive. This gives you better insight into your information.

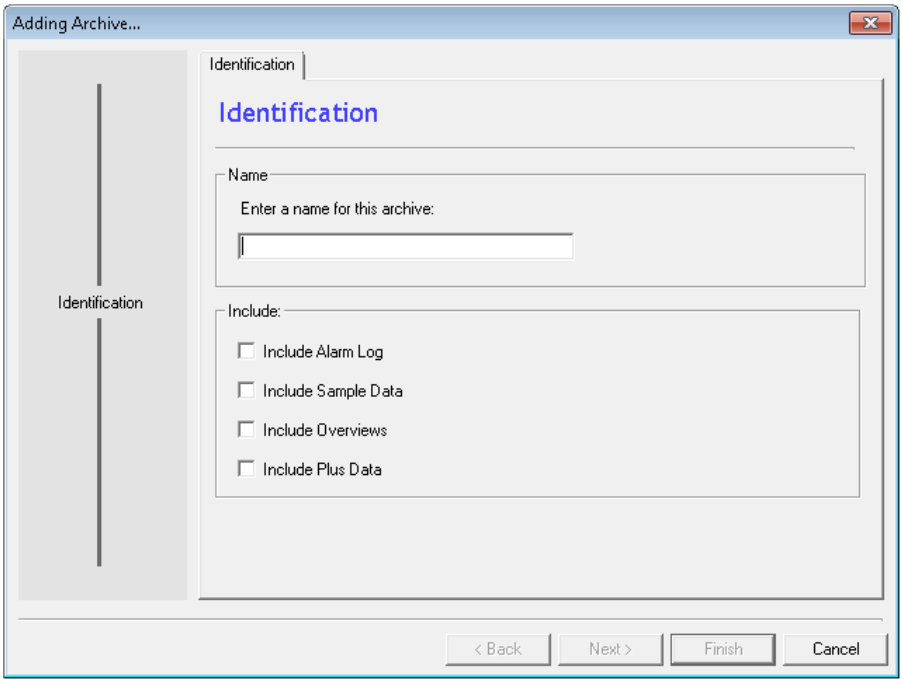
	Archives are not backups! In an archive, only the information from a certain date is saved, while a backup saves all information in a controller. For more information about making backups, see Backups "Creating and managing backups" page 73.
	You create an archive at the end of a round. This way, after three rounds you have the archives from rounds 1, 2 and 3. Each archive contains a snapshot of F-Central FarmManager on the relevant round/dates. If you open the archive from round one, you can go through the information from that round. You can compare current graphs, for example, with archived graphs.
	The Fancom Service Department may request that you make an archive. Fancom can use your archives to gain rapid insight into your farm situation and into the cause of any possible problems.

11.1 Creating an archive

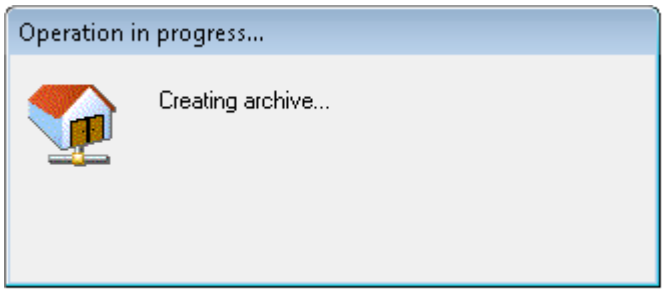
	Fancom recommends that you create archives with fixed regularity, for example at the end of a round. This way, you are certain that you can query older information.

An archive always contains the entire program database. In addition, you can archive a number of extra files. You create an archive as follows:

1. Go to *Control units* and select *Archives*.
2. Click on the *New archive*  . The following screen appears:



3. Enter the name of the archive and select which information must be included in the archive.
   - *Include Alarm Log*: All alarms that have been notified (files that have already been exported and are in the database F-Central FarmManager).
   - *Include Sample Data*: Exported CSV files from samples (files that have already been exported and are in the database F-Central FarmManager).
   - *Include Overviews*: Overview files (files that are not yet included in the database F-Central FarmManager).
   - *Include Plus Data*: Own created Plus data (files that have already been exported and are in the database F-Central FarmManager).
4. Click the *Finish* button. The archive will be created. Archive files are saved on your computer's hard drive. By default, the program stores this file in the folder 'drive>\Data\Fancom\FarmManager\Archive', where <drive> is the workstation on whichF-Central FarmManager is installed.



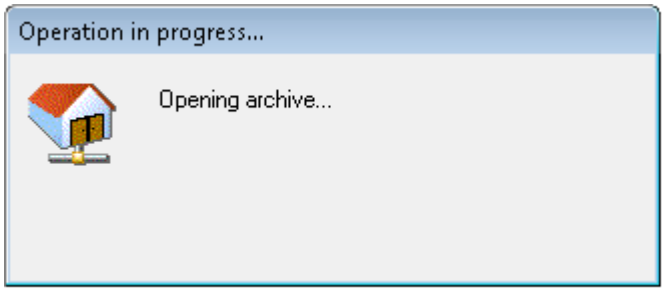
The file name is created automatically. The name referred to the name of the archive.

11.2 Opening and using archives

⚠	The archive which you would open must be created in the same versions of F-Central FarmManager. If you would like to open an archive which is created in a older version of F-Central FarmManager , you should convert the archive (See ArchiveConverter tool "Archive Converter Tool" page 90).
⚠	You can open only one archive at a time.

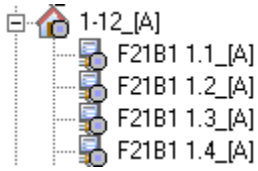
You open an archive as follows:

1. Go to *Control units* and select *Archives*.
2. Click on the *Farm structure*  . The 'Farm structure' display appears.
3. Select a location for the archive you wish to open. If you select the highest level, you will see all the created archives in the work area.
4. In the work area, select the archive that you wish to open.
5. Click on the *Open archive*  . The archive gets opened.



An open archive is added in the 'Farm structure' and 'Device structure' displays and has the following features:

- The designation '_[A]' denotes the archived controllers.
- In front of the archived controllers is the pictogram .



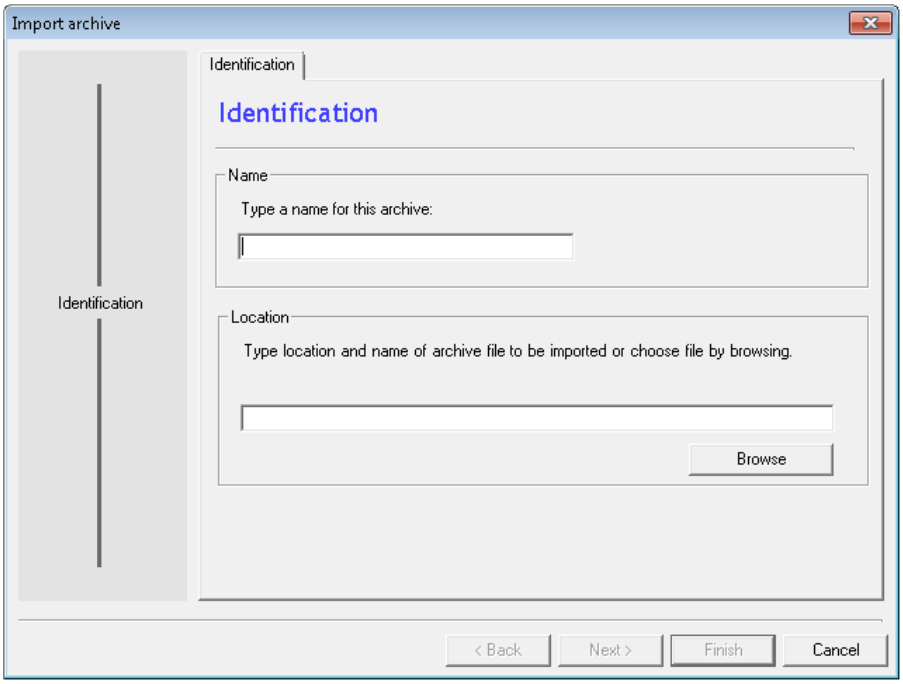
All the functions for consulting an archive are exactly the same as requesting the current information. You select archive files only in the 'Farm structure' or 'Device structure' displays.

You cannot change anything in an archive.

11.3 Import an archive

Archives made on another computer with F-Central FarmManager can be imported as follows:

1. Go to *Control units* and select *Archives*.
2. Click on the *Import archive* . The following screen appears:



3. Enter the name of the archive.
4. Click on the *Browse* button to search for the folder containing the archive file to be imported.
5. Click the *Finish* button. The archive will be imported.
6. The imported archive file will be copied to the standard folder for archives on your hard drive: '<drive>\Data\Fancom\FarmManager\Archive', where <drive> is the workstation on which F-Central FarmManager is installed.

11.4 Closing archives

Once you're finished with looking at an archive you can close it. The associated information is no longer displayed in F-Central FarmManager, but is still available. You close an archive as follows:

1. Go to *Control units* and select *Archives*.
2. Select one of the control units from the opened the archive.
3. Click on the *Close archive*  . The archive gets closed.

11.5 Removing archives

If you remove an archive, you can no longer requests the associated information in F-Central FarmManager.

If you no longer wish to make use of a certain archive, then you can remove it. You remove an archive as follows:

1. Go to *Control units* and select *Archives*.
2. Select the desired archive.
3. Click the *Delete*  .

12. Creating and managing backups

Via F-Central FarmManager you can make a backup of the information in the controllers. With a backup, you can replace a copy of the old information from a controller on a controller. To create a simple backup, it is usually sufficient to have certain information from one controller or unit. You can do this back up without making use of the advanced possibilities (see Creating a simple backup task "Creating a schedule backup task" page 17). This chapter explains how you create advanced backup tasks.

	You decide to change the information on your controller. After a few seconds, you discover that the changed information is not completely correct. Now you can put back the old information so that you can continue from the old situation.
	Fancom recommends always setting up backup tasks. This way, you are certain that backups will be made, even if you don't take the initiative for this yourself.
	Always set the starting time for creating a backup at a moment when few actions are being performed in the stall - for example, outside feeding times.

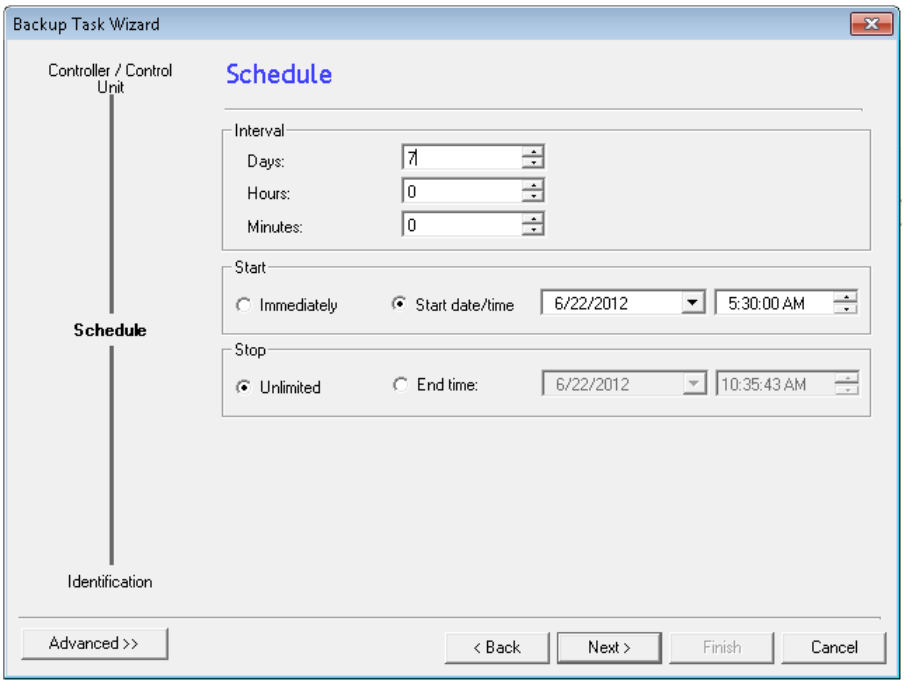
12.1 Creating an advanced backup task

When creating backup tasks, you can also choose advanced settings. With these advanced settings, you can select sources and control units. You can use this possibility, for example, if you want to use a number of controllers or control units of a specific type, but not all of them.

Open the backup task wizard

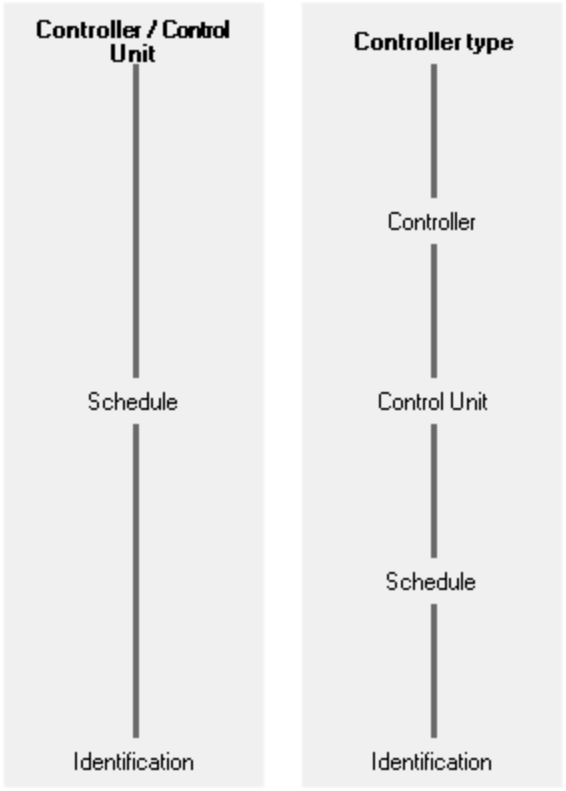
You can get to the advanced settings via the backup task wizard. You open this wizard as follows:

1. Go to *Tasks* and select *Backups*.
2. Click on the *New backup task* . The following screen appears:



3. Click on the *Advanced* button. You can set the advanced backup task settings here.

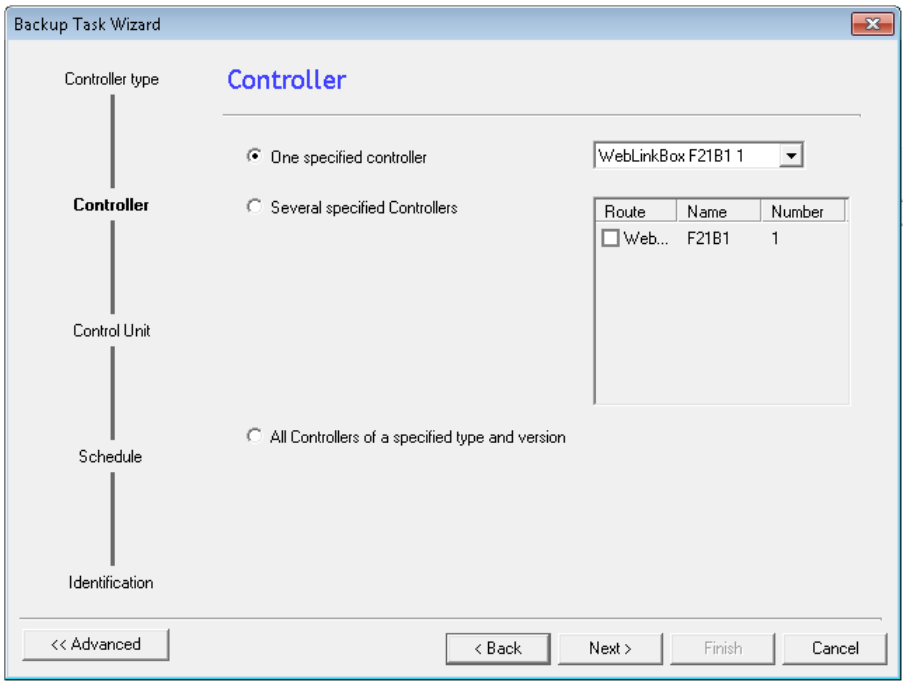
If you click the *Advanced* button, the backup task wizard is extended with the steps 'Controller type', 'Controller' and 'Control unit':



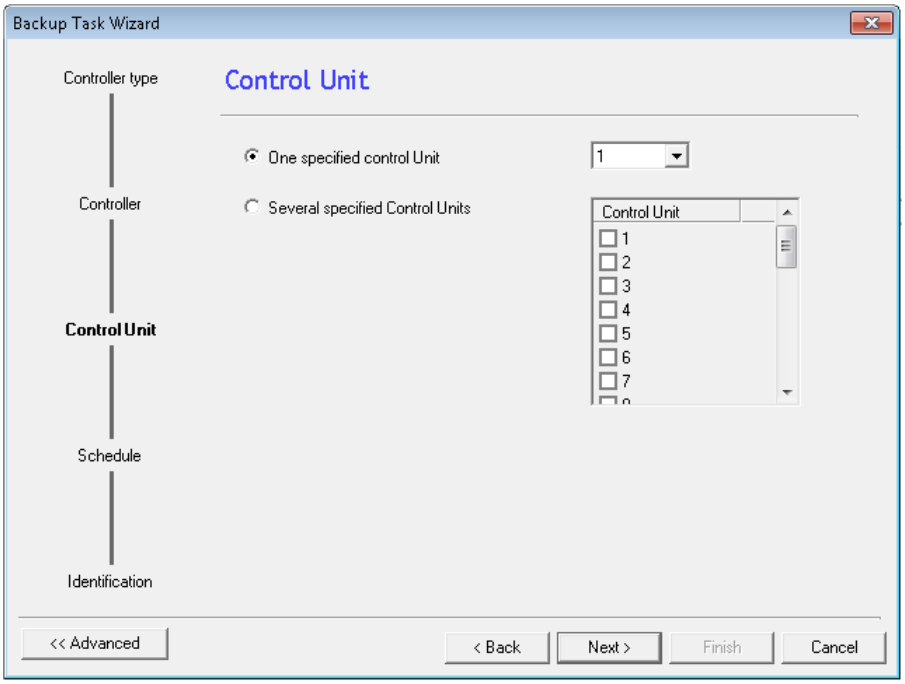
12.1.2 Select controllers and control units

You select the advanced sources and control units as follows:

1. Open the back up task wizard and choose *Advanced* to open the advanced settings.
2. Select the controller for which you wish to make a backup and click *Next*. The following screen appears:



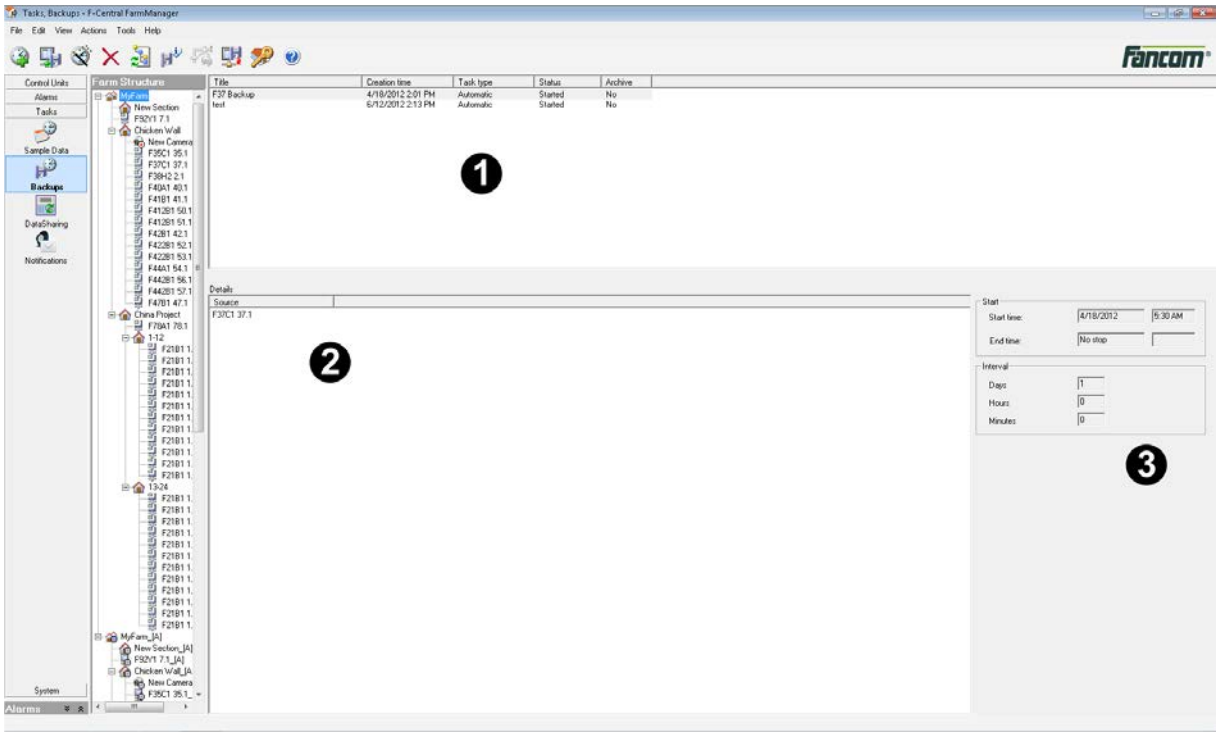
3. Select the desired controller(s):
   - *One specified controller*: select one controller from the drop-down list.
   - *Several specified controllers*: select one or more controllers from the list.
   - *All controllers of a specified type and version*: all controllers are selected.
4. Click *Next*. The following screen appears:



5. Select the desired control units:
   - *One specified control unit*: select one control unit from the drop-down list.
   - *Several specified control units*: select one or more control units from the list.
6. Click *Next*. Enter the schedule.
7. Click *Next*. Enter the title of the backup.
8. Click *Finish*. The backup task is stored.

12.2 Viewing backup tasks

For each backup task, you can view information via the menu *Tasks* – *Backups*. Via the displays 'Farm structure' or 'Device structure', you determine which tasks are displayed. Select 'My farm' to view all backup tasks. In the work area, you see the following components:



1. Overview of the backup tasks created for each form component with the general information for each backup task.
2. Details of the selected backup task.
3. Schedule settings for the selected backup task.

12.2.1 View summary of the backup tasks created

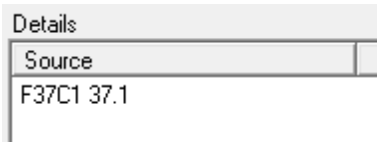
For each backup task, the following information is shown:

Title	Creation time	Task type	Status	Archive
F37 Backup	4/18/2012 2:01 PM	Automatic	Started	No
test	6/12/2012 2:13 PM	Automatic	Started	No

- *Title*: the name of the backup task.
- *Creation time*: the date and the moment at which the backup task was made.
- *Task type*: the type of backup task.
  - *Automatic*: the backup task will be executed with a fixed regularity.
  - *Manual*: you must perform the backup task yourself.
- *Status*: the current status of the backup tasks.
  - *Not yet started*: the backup task is not yet started.
  - *Started*: the backup task has started.
  - *Ready*: no more samples are being taken.
- *Archive*: export or the backup is coming from an archive (*Yes/No*).

12.2.2 View the details of the selected backup task

If you select a backup task, the details of this backup task appear at the lower left of the screen. In the Source column, you see the controller from which the backup information has come.



12.2.3 View settings for the selected backup task

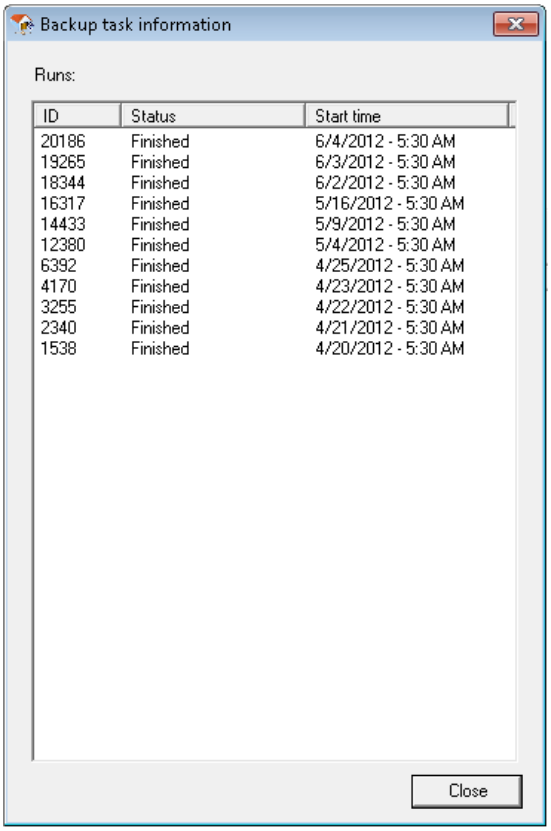
If you select a backup task, the schedule settings for this backup task appear at the lower right of the screen.

12.3 View the history of the selected backup task

The history is saved for each backup task. You can request the history of a backup task as follows:

1. Select a backup task.

2. Click the *Backup task information*  . The following screen appears with the history:

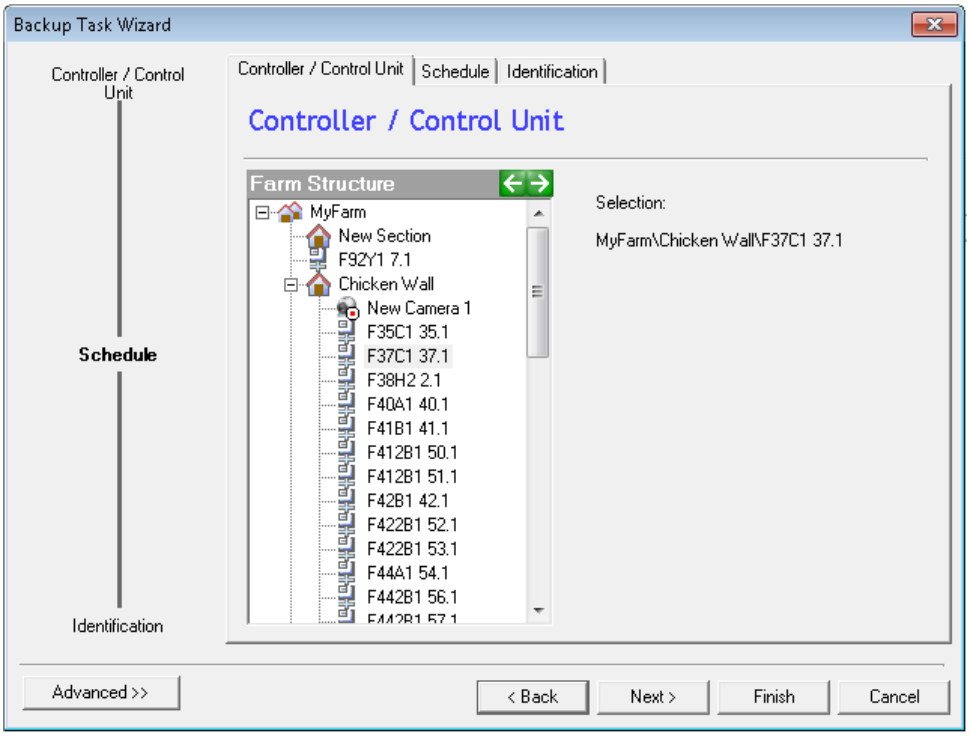


The screen is refreshed automatically. In this way, new backup information is added to the window automatically.

12.4 Changing backup tasks

You change a backup task as follows:

1. Go to *Tasks* and select *Backups*.
2. Select the desired backup task.
3. Click on the *Edit task*  . The backup task wizard appears:

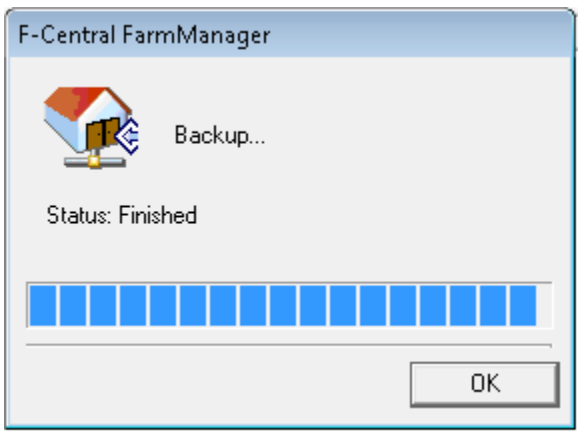


4. Change the data.
5. Click on *Finish* to save the changes.

12.5 Starting a manual backup task

You start the backup task manually as follows

1. Go to *Tasks* and select *Backups*.
2. Select the desired backup task.
3. Click on the *Backup immediately*  and enter a desired name. The program performs the backup task. Once the backup task is finished, the next screen appears:

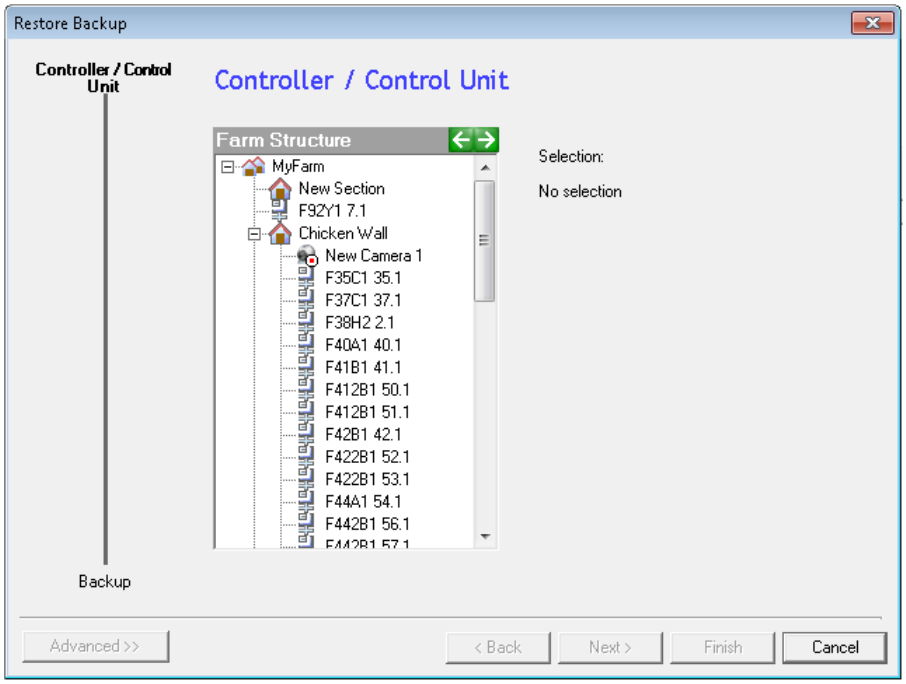


12.6 Restore backups

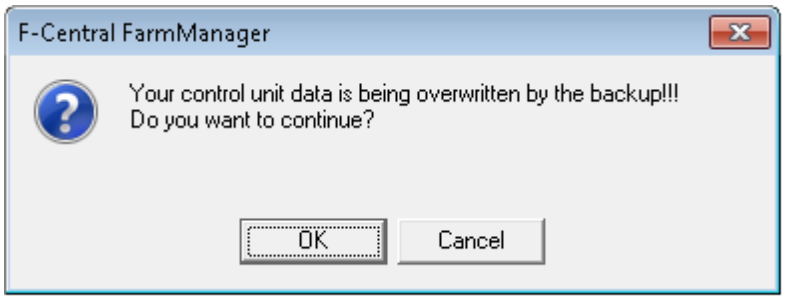
⚠	It is important to choose the moment of restoring a backup carefully. Any tasks that are being executed by the relevant control unit will be immediately aborted by the replacement of the backup. This may disturb farm processes. After restoring the backup, the relevant control unit will be restarted. Starting with that moment, the replaced information applies.
⚠	The restore of a backup is a serious measure that should only be performed by qualified employees.
⚠	By restoring a backup, the current information from a controller or control unit will be overwritten by information from the backup.
💡	It is only possible to restore a backup by department.

You replace a backup as follows:

1. Go to *Tasks* and select *Backups*.
2. Click on the *Restore backup*  . The following screen appears:



3. Select the controller or control unit for which you want to replace the backup and click on *Next*.
4. Click on the *Search file* button to search for the folder containing the backup file. Then click *Open*.
5. Click the *Finish* button. The following screen appears:



6. With the *OK* button, confirm that you want to replace the backup. The backup will be replaced.

12.7 Supporting tasks

Be careful when removing backup tasks!

If you no longer wish to make use of a given backup task, then you can remove it. You remove a backup task as follows:

1. Go to *Tasks* and select *Backups*.
2. Select the desired backup task.
3. Click the *Delete*  .

13. Viewing alarms

In F-Central FarmManager, you can view current alarms and the alarm log. When alarms occur, they are displayed in a alarm screen which is always visible. Every alarm is saved in a log.

13.1 Viewing current alarms

When alarms occur, they are displayed in the *Alarms* screen. This screen is always visible and is at the lower left of the screen:

In the summary you see the following information about a current alarm;

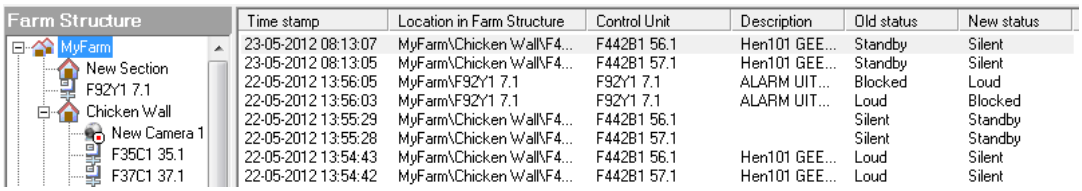
- *Alarm*: current status of the alarm.
- *Description*: explanation of the alarm.
- *Location in farm structure*: the location of the alarm in the 'Farm structure' display.
- *Control unit*: name of the control unit within which the alarm occurs.
- *Time*: start time of the alarm.

	You can scroll the alarm overview in and out with the arrow keys. 
	If you double-click on the alarm, the relevant screen opens in the controller and you can take measures immediately.
	If you place your cursor on the alarm, you will see the alarm information appear in a balloon.

13.2 Viewing the alarm log

Every alarm is saved in a log. You can query the log of alarm as follows:

1. Go to *Alarms* and select *Log*.
2. Select a controller or control unit whose log you wish to view. The logbook that shows in the work area is dependent on where you are in the 'Farm structure' or 'Device structure' display: The log information appears in the work area:



- *Time stamp*: the moment at which the alarm sounded.
- *Location in Farm Structure*: of the location of the alarm in the 'Farm structure' display.
- *Control unit*: the control unit on which the alarm was sounded.
- *Description*: explanation of the alarm.
- *Old status*: the most recent status of the alarm before the alarm was raised or before the alarm status was changed.
- *New status*: the new status of the alarm

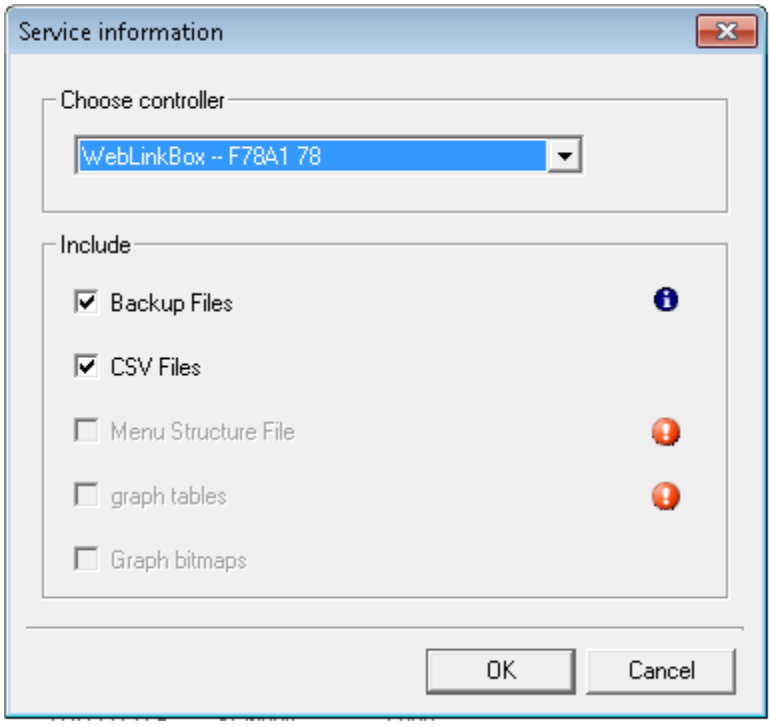
	Every time the status of an alarm changes, this is added to the history. Regardless of the type of change.

14. Extra options

14.1 Making a Service Information File

If you have a problem with F-Central FarmManager, your distributor or Fancom may ask you to create a 'Service Information File'. This is a file with information about your controller, so that they can try to solve the problem. You create a 'Service Informatie File' as follows:

1. Select the controller whose information you want to save.
2. In the menu bar, go to *Actions* and select *Create a Service Information File*. The following screen appears:



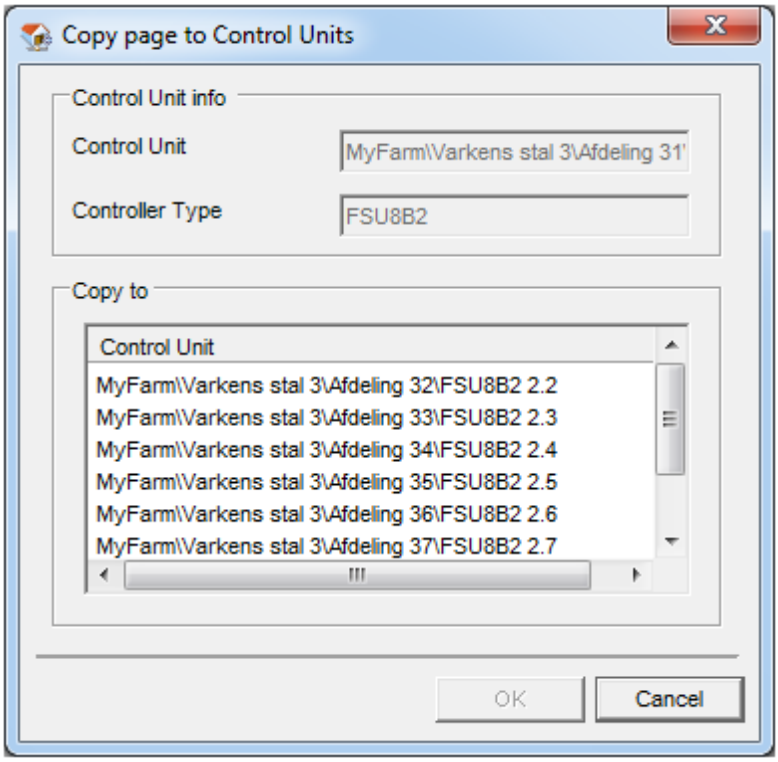
3. Select one or more files to include in the file.
4. Click *OK*. The program now collects all the selected information.
5. Enter the name for the file and save the file.

14.2 Copy pages and indices

If you update settings on a FSU or 700 control unit, you can copy these settings to other pages of the same FSU or 700 control unit. You can copy a page or an index as follows:

Copy pages to other control unit

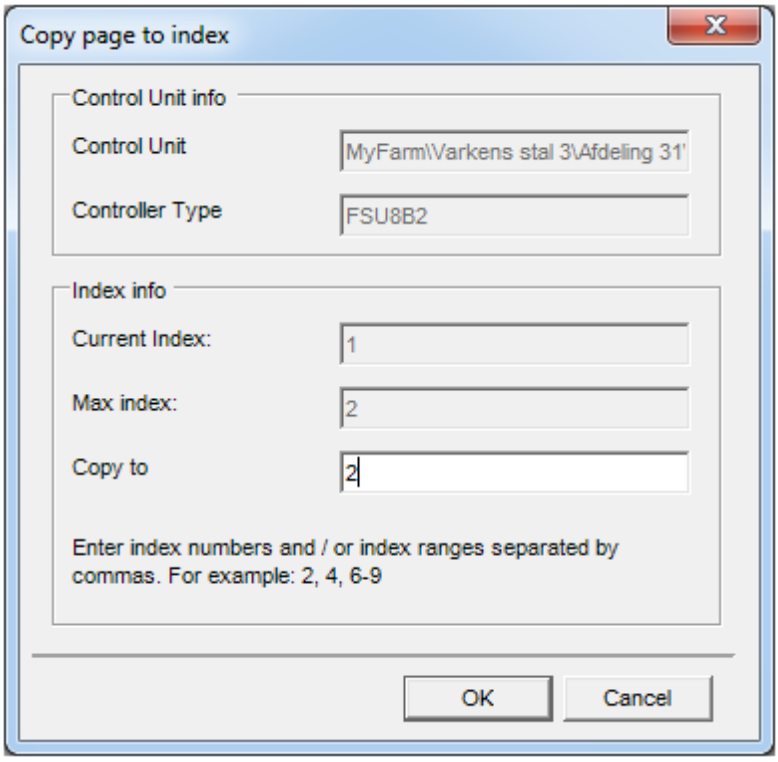
1. Go to *Control Units* and select *Operations*.
2. Select the page of the control unit which has been updated.
3. Click on the *Copy Page to control unit* button  . The following screen appears:



4. Select the control unit(s) to which you want to copy the current page.
5. Click on *OK*. The settings will now be copied.

Copy index to control unit

1. Go to *Control Units* and select *Operations*.
2. Select the index of the control unit which has been updated.
3. Click on the *Copy index to control unit* button  . The following screen appears:



4. Enter the index to which you want to copy the current index.
5. Click on *OK*. The settings will now be copied.

14.3 Data sharing

Setting Data sharing may only be performed by specialists. For this, contact your distributor or Fancom.

With Data sharing, values from a controller can be read into another controller. You approach Data sharing via *Tasks* - *Data sharing*.

15. Supporting programs

During the installation of F-Central FarmManager, seven supporting programs are installed. Most of these programs are intended to solve any problems that might occur. If you have a problem with F-Central FarmManager, your distributor or Fancom may ask you to use one of these programs. The following programs get installed:

- Service Monitor
- Analysis Tool
- Archive Converter Tool
- Archive Recovery Tool
- Communication Tool
- Text File Manager
- Farm Sketcher (not for problem support, for more information see the Farm Sketcher manual)

After the installation of F-Central FarmManager, you can open the programs via *Start* – *Programs* – *Fancom* - *FarmManager*.

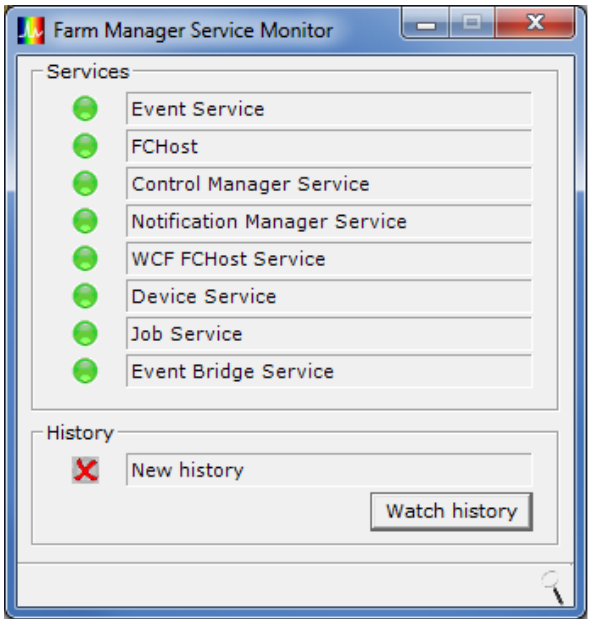
15.1 Service Monitor

The Service Monitor program provides an overview of the current status of all F-Central FarmManager services. As soon as a service is not functioning, this program issues a warning. All services are then also restarted in the proper sequence.

	The F-Central FarmManager services start automatically when you turn your computer on. The Service Monitor program only starts up once you are logged in on your computer.
	After the installation of F-Central FarmManager, the Farm Manager Service Monitor appears  in your task bar.

Viewing current statuses

1. Right mouse click on *Farm Manager Service Monitor* .
2. Select *Restore*. The following screen appears:

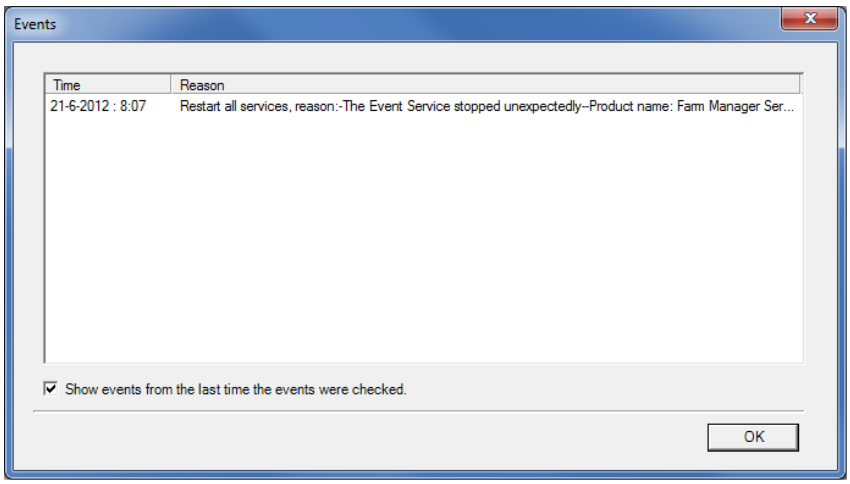


	If a service is not functioning properly, the *Farm Manager Service Monitor* icon in your task bar changes to .
	The Service Monitor program monitors the current statuses of the services once every minute.

Viewing history

The Service Monitor maintains a log of all status changes to the services. You request this logbook as follows:

1. Right mouse click on *Farm Manager Service Monitor* .
2. Select *Restore*.
3. Click the *Watch history* button. The following screen appears:



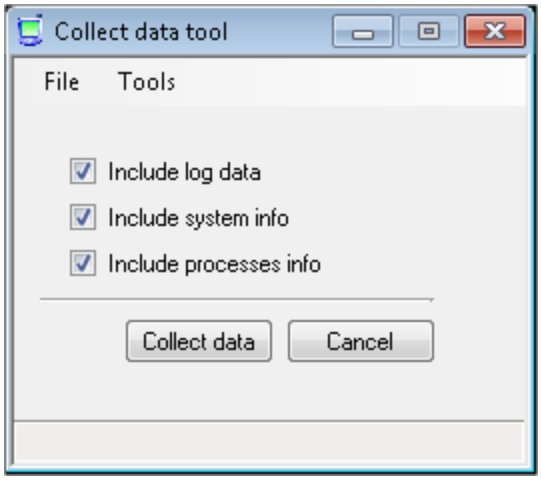
15.2 Analysis Tool

With the Analysis Tool program, you can easily collect data from the computer on which F-Central FarmManager is installed. You can also import and analyse collected data.

Data collection

You collect data as follows:

1. Start the Analysis Tool program. The following screen appears:

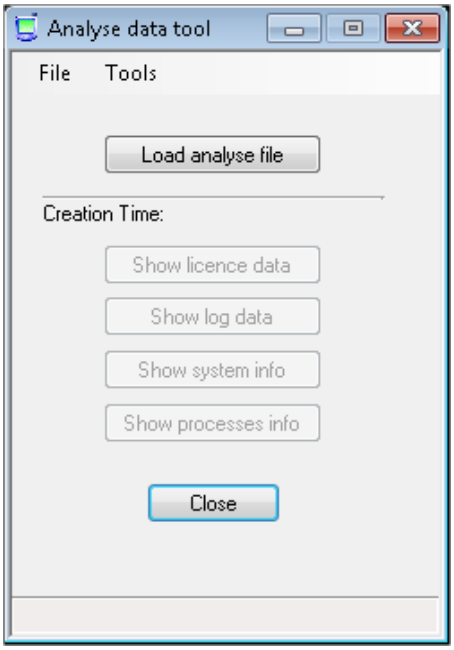


2. Choose which data you wish to collect:
   - *Include log data*: Windows log files.
   - *Include system info*: System and hardware information from your computer.
   - *Include processes info*: Process overview of your computer (Task Manager).
3. Click the *Collect data* button.
4. Enter the name of the file and click *Save*. The program now collects the selected data.

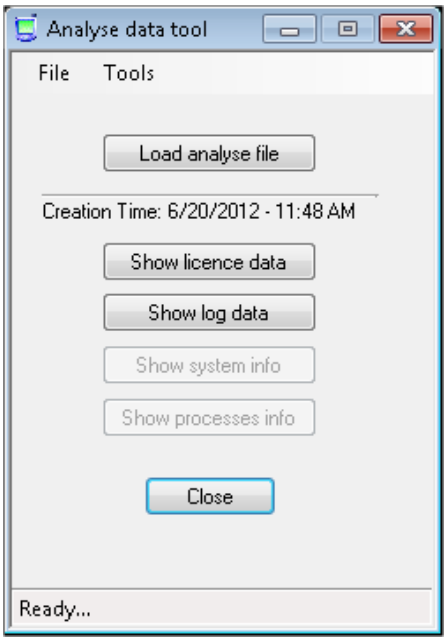
Importing and analysing data

You import the data as follows:

1. Start the Analysis Tool program.
2. Go to *Tools* and select *Analyse data tool*. The following screen appears:



3. Click on the *Load analysis file* button and select the file you wish to import.
4. Click the *Open* button. The program now imports the selected file. Once the import has finished, the following appears on the screen:

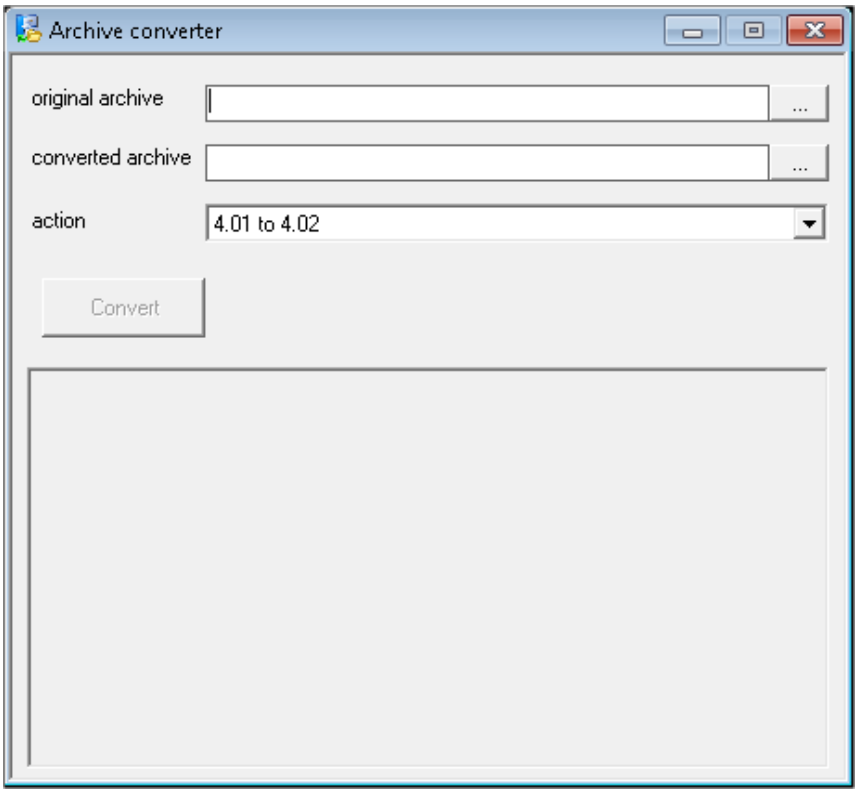


5. Click on the desired button to analyse the data:
   - *Show license data*: information about the F-Central FarmManager license.
   - *Show log data*: information about Windows.
   - *Show system info*: information about the computer.
   - *Show processes info*: information about the active processes on the computer.

15.3 Archive Converter Tool

With the Archive Converter Tool, you can convert an old archive to a newer version. You convert an archive as follows:

1. Start the Archive Converter Tool program. The following screen appears:



2. Click the button behind the *Original archive* field ... and select the archive file to be converted.
3. Click *Open*.
4. Click the button behind the *Converted archive* field ... and enter the name of the new conversion file to be created.
5. Click *Save*.
6. Select the method of conversion behind the *Action* field. The first number mentioned is the version number of the old archive. The second number is the version number of the new archive.

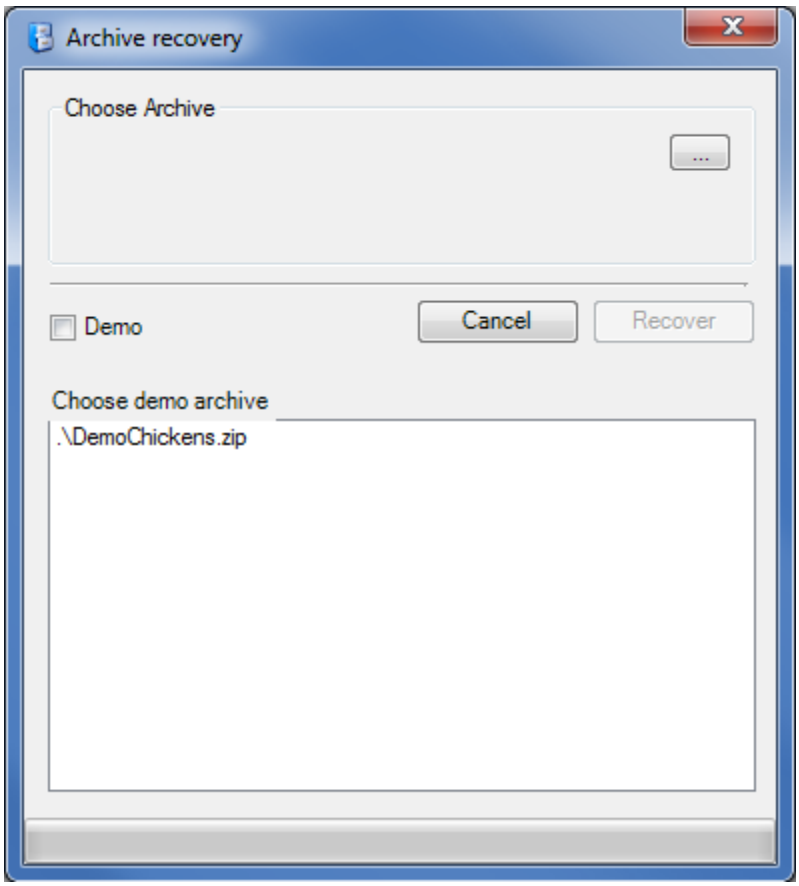
> You can search for the version number of the old archive in the folder '<drive>\Data\Fancom\FarmManager\Archive', where <drive> is the workstation on which F-Central FarmManager is installed. This map contains a zip file (archive) which contains the 'Info' folder. This map contains a .fai file in which the version number is mentioned.

15.4 Archive Recovery Tool

⚠	Be careful with the Archive Recovery Tool! If you overwrite all the current data, you can no longer recover this.

With the Archive Recovery Tool, you can overwrite all the current data in F-Central FarmManager with data from an archive file. You overwrite the current data as follows:

1. Start the Archive Recovery Tool program. The following screen appears:



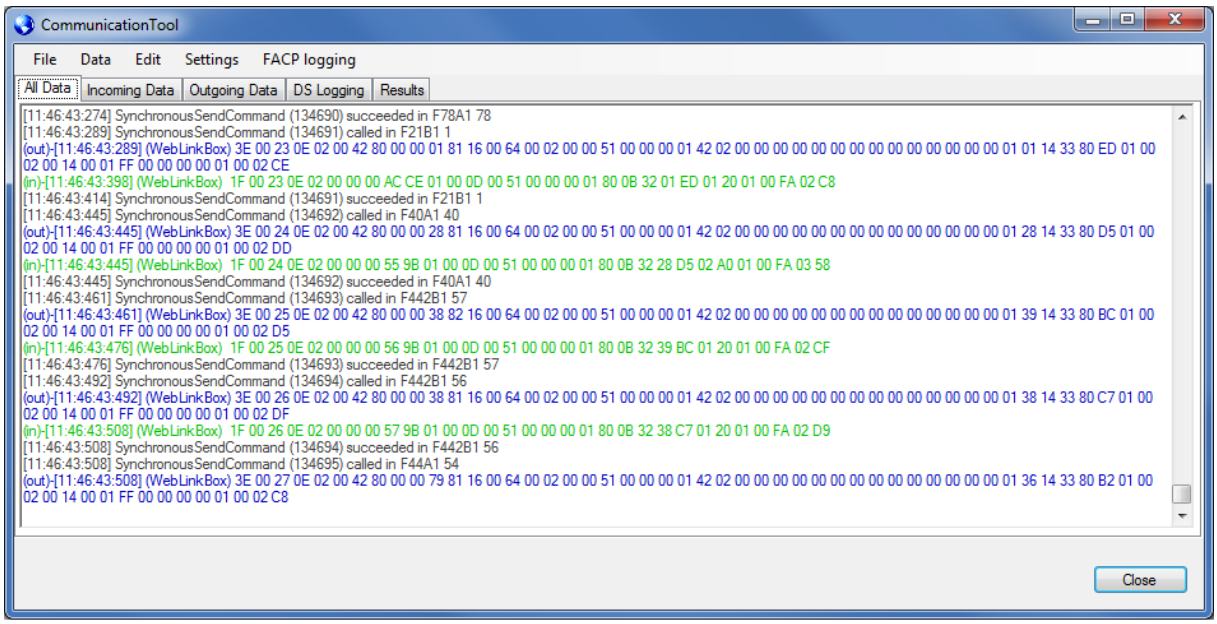
2. Click the button behind the *Choose archive* field ... and select the archive file that you wish to import.
3. Click *Open*.
4. Click on the *Recover* button to overwrite the current data with data from the archive file.

💡	If there are demo archive files in the same folder as this program, then under *Choose demo archive* you will see the archive files that it is possible to import.
💡	Select *Demo* If you only want to use a F-Central FarmManager archive for demo purposes.
💡	The Archive Recovery Tool is Useful for moving all F-Central FarmManager data to another computer with F-Central FarmManager - e.g. after a computer crash.

15.5 Communication Tool

Don't start the Communication Tool for simply any reason! The program generates a significant amount of data for which you must first set parameters.

With the Communication Tool program, you can view all communication from F-Central FarmManager.



The program's start screen consists of the following tabs:

- *All Data*: overview of all incoming and outgoing communication.
- *Incoming Data*: overview of all incoming communication (from WebLinkBox to F-Central FarmManager).
- *Outgoing Data*: overview of all outgoing communication (from F-Central FarmManager to WebLinkBox).
- *DS Logging*: extended display of incoming and outgoing communication.
- *Results*: summary of the communication. The number of sent messages (sent), the number of messages which received no reply (failed), the number of messages sent twice (resent) and the number of messages correctly answered (successful).

Setting the maximum number of communication lines

When the Communication Tool program is started, a lot of data is generated. To limit this amount, you can set a maximum number of lines:

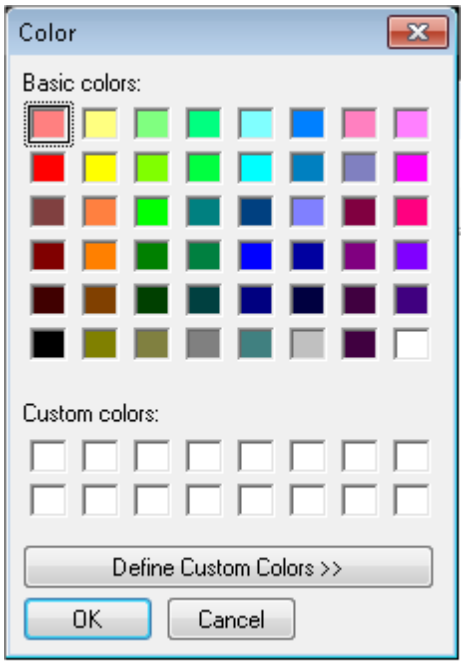
1. Start the Communication Tool program.
2. In the menu bar, click on *Settings* and select:
   - *Maximum Outgoing Data messages*: maximum number of lines for the *Outgoing Data* tab.
   - *Maximum Incoming Data messages*: maximum number of lines for the *Incoming Data* tab.
   - *Maximum Debug logging messages*: maximum number of lines for the *DS Logging* tab.
   - *Maximum All Data messages*: maximum number of lines for the *All Data* tab.
3. Enter the maximum number for the selected option.

If you enter a maximum of 2000 lines, this means that all lines after 2000 lines will be erased.

Assigning color to communication

In the program, you can assign colors to incoming and outgoing communication. This allows you to distinguish the type of communication in the summaries. You set the colors as follows:

1. Start the Communication Tool program.
2. In the menu bar, click on *Settings* and select:
   - *Outgoing Data Color*: color for outgoing communication.
   - *Incoming Data Color*: color for incoming communication.
   - *Debug Logging Color*: color for notifications.
3. Select the desired color using the color palette.



Erasing communication lines

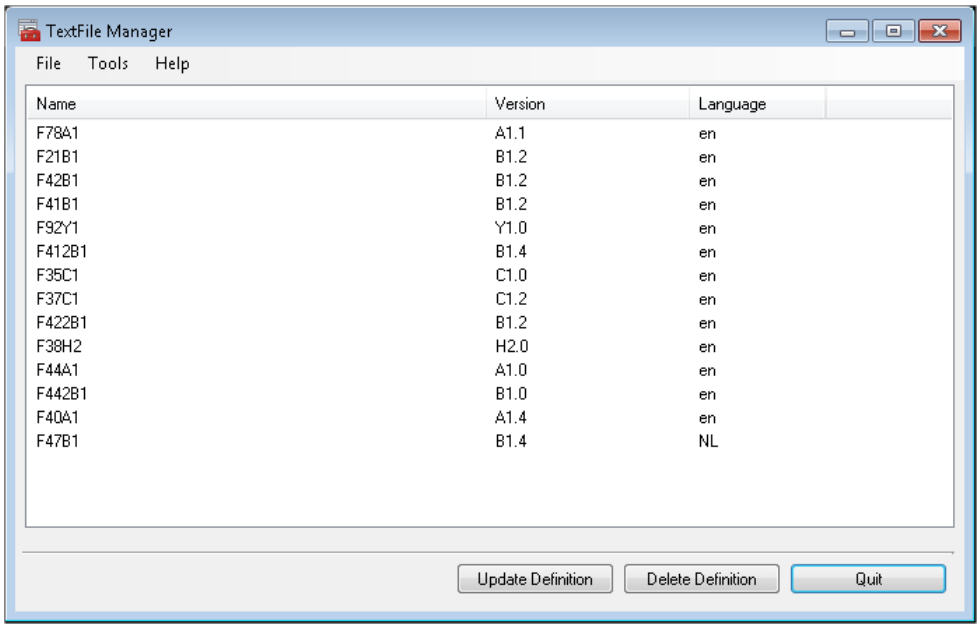
After a certain amount of time, you can erase all the communication lines in order to start than with new communication lines. You erase all communication lines and all tabs as follows:

1. Start the Communication Tool program.
2. In the menu bar, click on *Edit* and select *Clear Pane*.

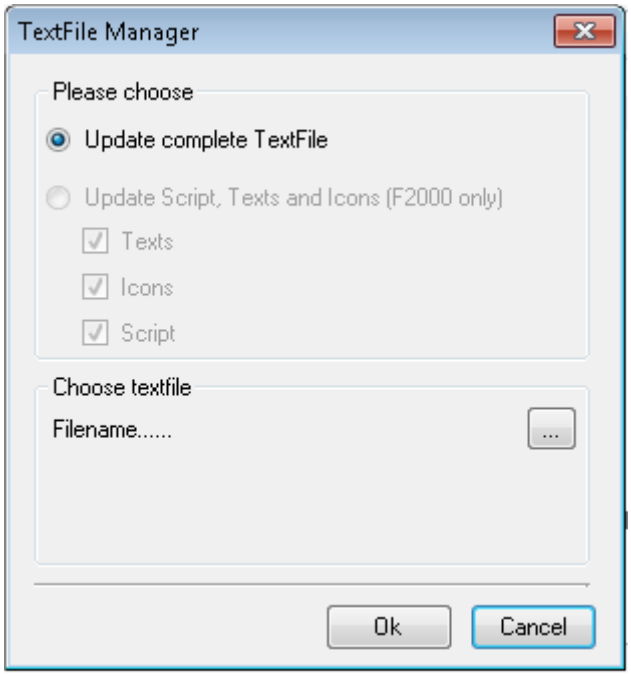
15.6 Text File Manager

You can update your controllers with the Text File Manager. For example, if you switch to a newer version of your controller, you must use this program to update the database. You can update your controller as follows:

1. Start the Text File Manager program. The screen appears with the controllers present:



2. Select the type of controller that you wish to update and click the *Update Definition* button. The following screen appears:



3. Behind the *Choose text file* field, click on the button ... and select the new text file.
4. Click *Open*.
5. Click *OK* to update the controller.

> After updating a type of controller, all controllers of that type change automatically. The name of the controller does not change automatically. For more information about changing the name, see Adding controllers page 10).

Removing the text file of a controller

Fancom recommends first removing a controller via F-Central FarmManager and only after that using the Text File Manager program.

You remove the text file of a controller as follows:

1. Start the Text File Manager program.
2. Select the controller you wish to remove and click the *Delete Definition* button.
3. Click *OK* to remove the text file.

16. Index

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