Planer Incubator Management Software

User Guide

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Original instructions

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Getting Started

1 Getting Started

1.1 Notices

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1.2 Introduction

The Planer Incubator Management Software (PIMS) provides a simple dashboard for your CT37stax and BT37 incubators. The dashboard provides an instant overview of the incubators' states. Graphs of real-time and historical data can also quickly be plotted on-screen.

This documentation is also available by clicking the *Help* button in the toolbar.

1.2.1 Intended use

The Planer Incubator Management Software is intended to be used to provide a visual display of the status of CT37stax and BT37 incubators. For the CT37stax incubators, it also provides limited control features for the acknowledgement of alarm conditions and adjustment of the set-points.

The Planer Incubator Management Software is not intended to be used as an alarm and monitoring system. Alarms should be monitored using the specific alarm outputs provided by the incubators.

1.3 Terminology

The CT37stax product comprises a docking station, which is connected to the network, and up to six incubation chambers. The BT37 product is a single integrated unit that is also connected to the network. Although the BT37 is a single unit, it has two independently controlled chambers. To distinguish between the different products, the following terminology is used within the application::

Incubator: the device that is connected to the network. This is either the CT37stax docking station or the BT37.

Incubation chamber: this refers to the individual incubation chambers.

- A CT37stax incubator includes up to six incubation chambers numbered 1 to 6 from the base.
- A BT37 incubator incorporates two incubation chambers: left and right-hand sides.

1.4 Symbols used in the manual

	WARNING. Failure to follow these instructions could result in injury or loss of samples.
	CAUTION: This section contains important information. Failure to follow these instructions could result in loss of data.
	TIPS: This information is intended to help you use the application.

1.5 Symbols in the application

	Add or increment.
	Current user.
	All users.
	Sound is on.

	Sound is off.
	Maintenance.
	Audit trails.
	System configuration.
	Log in.
	Log out a user.
	Log out an administrator.
	Help.
	Information.
	Close the current window; negative acknowledgement.
	Selection; positive acknowledgement.
	Graph.
	Show stepped graph.
	Expected alarm condition; see Handling alarms 26.
	Alarm condition; see Handling alarms 26.
	Label.
	Incubation chamber settings.
	Standby.
	Incubator settings.
	Pause polling.
	Start polling.
	Delete.
	Save changes.
	Date control.

	Refresh the display.
	Zoom out.
	Save a snapshot of the window.
	Acknowledge alarms and messages.
	Selection; positive acknowledgement.
	Edit.
	Filter
	Send data to the incubator.
	Select folder.
	Decrement.
	Backup database.
	Erase data or entry.
	Wait.
	Backspace key.
	Undo.
	Enter key.
	Keyboard type.
	Shift key.
	Empty dish position.
	Unused dish position.
	Debug information.
	Check for application updates.
	Catalogue reference.
	Manufacturer.

1.6 Installation

You must ensure that any PC running PIMS is protected by suitable antivirus and firewall software and that these applications are kept up to date. See Cybersecurity 66.

PIMS can be installed on any PC meeting the following requirements:

- Windows 10 (8u51 and above); 64 bit.
- RAM: 4 GB
- Disk space: 10 MB for application. At least 20 MB for data storage.
- Processor: Minimum 1.6 GHz
- Minimum screen size 1024 x 768; on small screens, the Windows taskbar should be set to automatically autohide and text scaling must not be greater than 100%.

Data are only logged and recorded while the application is running and will not be recorded if the PC goes into sleep or hibernate modes.

It is recommended that the application is installed onto a PC configured to run in kiosk mode with the application automatically starting when the PC is switched on. In this configuration, sleep and hibernate modes should be disabled.

Two methods of installation are available; the choice will depend on how you want to use the PC.

1. CT37_BT37PIMS: the main application.
2. DEMO-CT37_BT37PIMS: a demonstration version; see Demonstration version 11.

During installation you will be asked to enter an access code for the database. You must make a note of this code and keep it secure. You will not be able to re-install

any backed-up databases without this code.

Full kiosk mode

If the PC will be used primarily to run PIMS, you will probably want the application to start automatically without requiring the user to log in. In this case run the *Setup_PIMS_Kiosk.ps1* installer. The installer will provide the option for you to add a user specifically to run PIMS. This user will be logged in automatically when the PC starts but will be limited to running PIMS. This type of operation is commonly referred to as kiosk mode.

In Windows file explorer, right click on the *Setup_PIMS_Kiosk.ps1* file.

1. Select *Run* with *PowerShell*.
2. Follow the on-screen instructions.

Standard desktop installation

If the PC will be used to run multiple applications in addition to PIMS, you will probably want to install PIMS as a conventional application alongside your other programs.

1. Double click on the *CT37_BT37PIMS_windows-x64_*_*_*.exe* installer program.
2. Follow the on-screen instructions.
3. Two versions of the application will be installed:
   a. CT37_BT37PIMS: the main application.
   b. DEMO-CT37_BT37PIMS: a demonstration version; see Demonstration version 11.

1.6.1 Demonstration version

The Planer Incubator Management Software comes with a demonstration version that is automatically installed alongside the main application. The demonstration works in the same manner as the standard application with the following key differences:

- All data are stored in a separate database and as such changes made in the demonstration version will have no impact on the main application.
- IP addresses of the incubators are ignored and no data are sent out over the network. All incubator data is fictitious and generated by the application itself.

These differences mean that the demonstration version can safely be used for training purposes.

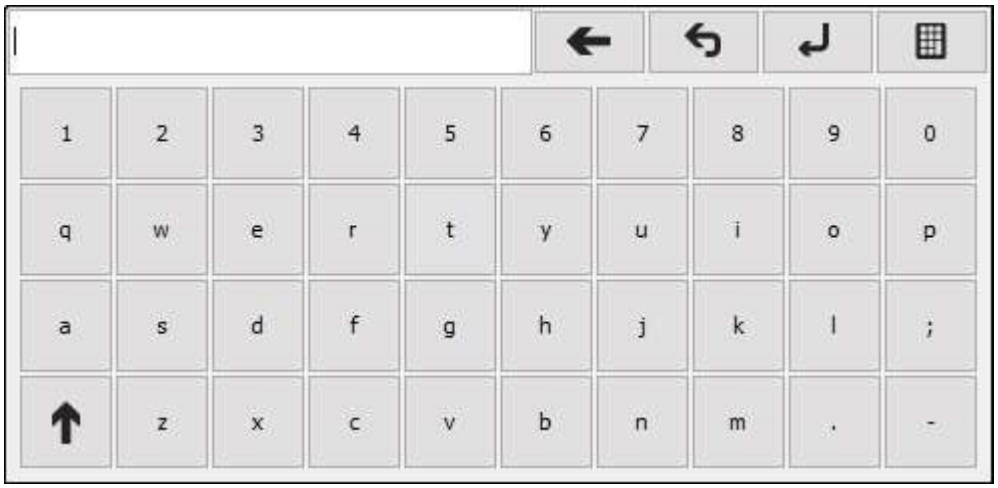
1.7 Running the application

- The incubators are only monitored while the application is running.
- No data are logged and no alarms generated by the PC if the application is not running.
- If your PC is configured to go into sleep or hibernate modes, data will not be recorded and alarms will not be generated during those times.

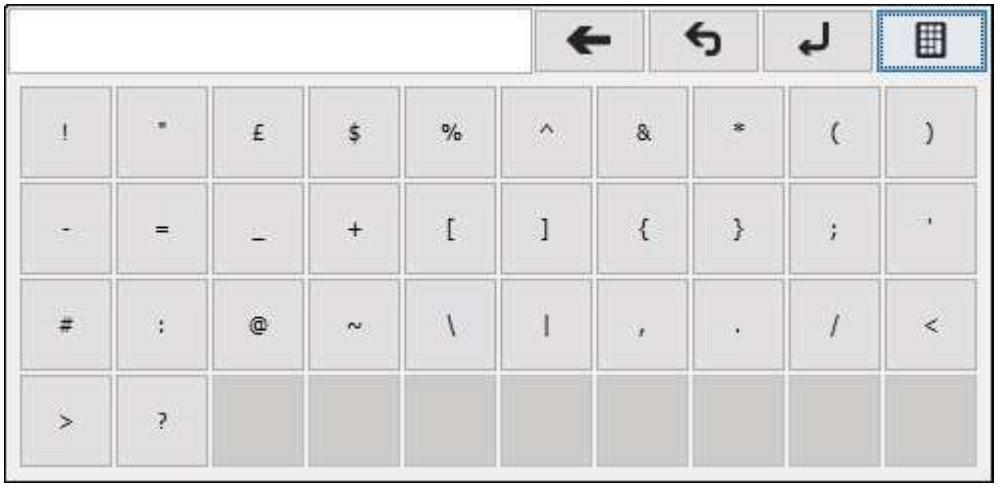
- If you installed the application in full kiosk mode 10, PIMS will start automatically when the PC is powered on.
- If you installed the application in standard desktop mode 10, and selected *autostart after login* during installation, PIMS will start as soon as you log in.
- If you did not select *autostart after login*, simply run the CT37_BT37PIMS or DEMO-CT37_BT37PIMS as required.

1.8 On-screen keyboard

If your installation has been configured to use an on-screen keyboard, a keyboard will be displayed whenever you click in a field. The keyboard is shown below.



- Click the shift key to change the keypad to the shifted set of keys.
- Click the backspace key to delete a character.
- Click the undo key to undo all changes.
- Click the return key to enter your new entry.
- Clicking will cycle through different keyboards; the available keyboards will depend on your locale.



1.9 Logging in

The application may be used to view data and graphs without logging in; however, adding devices or changing settings requires you to log in first. In addition, you must log in before you can close the application.

The default login details are given below:

ID MANAGER

Password PASSWORD

After you first log in, the MANAGER's password should be changed from its default. See Changing your own details 42.

To log in

1. Click on the *Log in* button .
2. Enter your *ID* and *Password.*

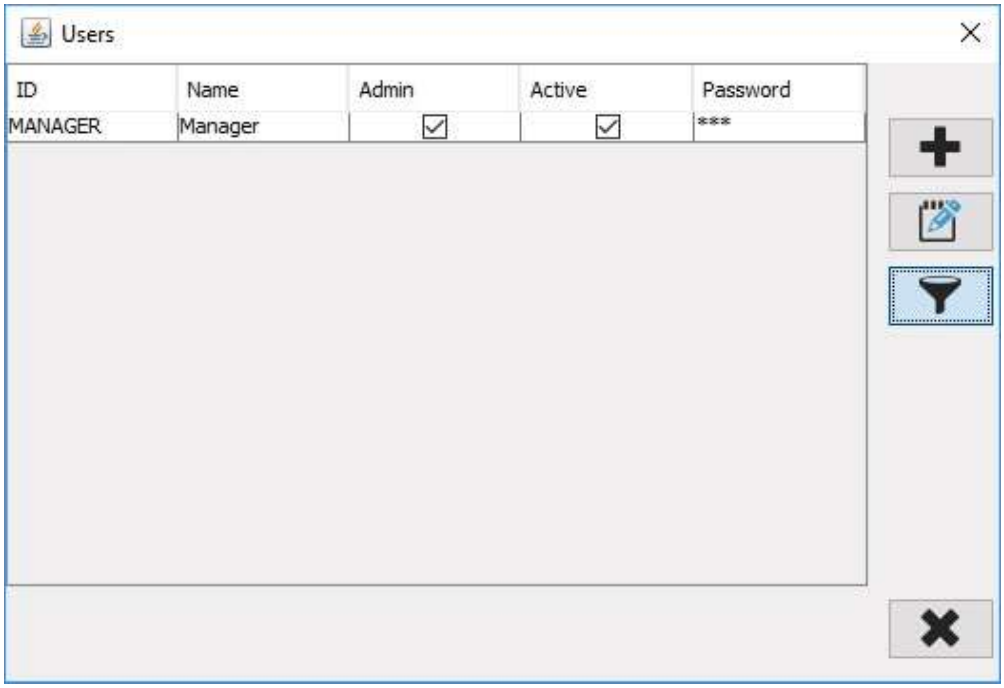
To log out

1. Click on the *Log out* button, either or . The second icon indicates that you are currently logged in with administrator's privileges.

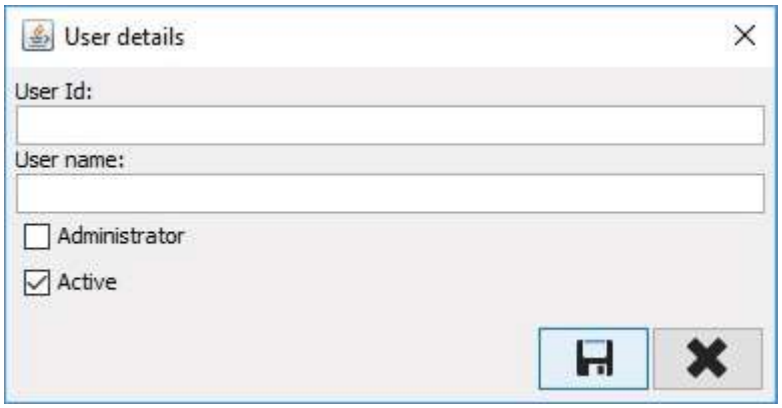
1.10 Adding users

Although the application is provided with one inbuilt user, the MANAGER, you should first add the details of users who will need to access the system. There are two types of users that can be added: *Users* and *Administrators*. The access rights of each type of user is shown in the Access levels 15 topic.

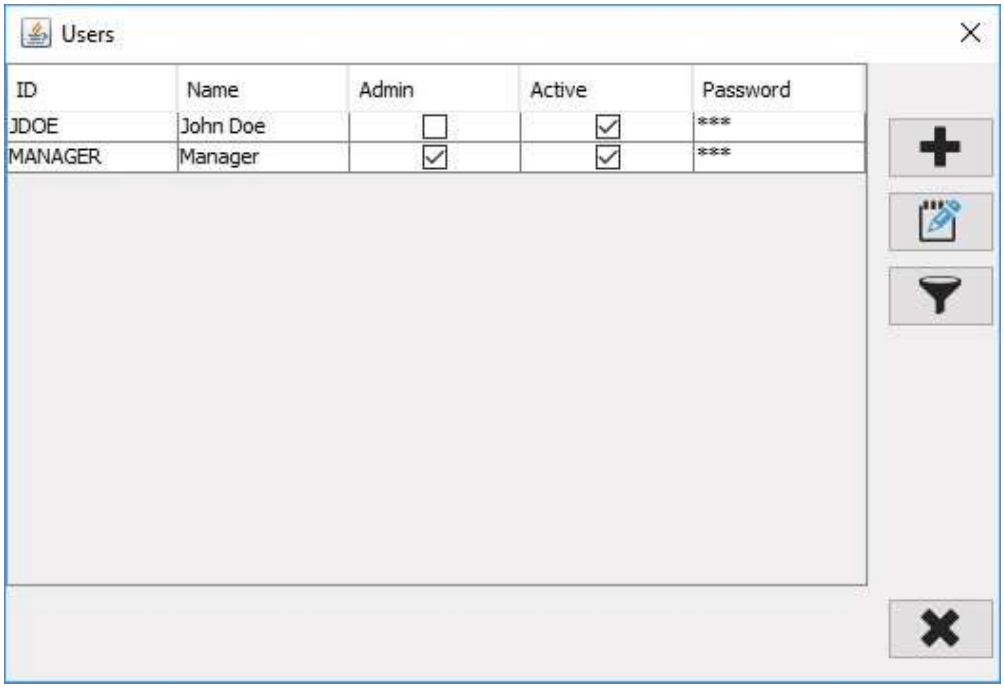
1. Click on the *Users* button to open the *Users* table.



2. Click ✚ to open the *User details* window.



3. Enter the *User Id* and *User name*. The *User Id* will be used to log in.
4. If the user requires administrator's rights, check the *Administrator* box.
5. Leave the *Active* box ticked; the *Active* box can be unchecked later if you want to prevent the user accessing the system.
6. Click 🖫 to save the new user and return to the table of users.



7. Click ✖ to return to the dashboard.
8. All new users are given a default password of PASSWORD. Users should be told to change their passwords immediately; see Changing your own details 42.

1.10.1 Access levels

There are three access levels:

1. Not logged in
2. Standard users
3. Administrators

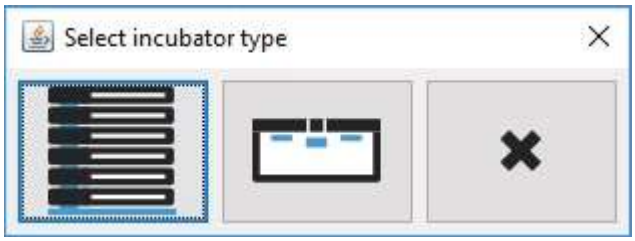
The access rights for these users are shown in the table below:

Function		Not logged in	Logged in	Administrator
	alarm: mute	✔	✔	✔
	alarm: view	✔	✔	✔
	graph: view	✔	✔	✔
	reminder: remind later	✔	✔	✔
	reminder: acknowledge		✔	✔
	user: change own log-in details		✔	✔
	alarm: acknowledge		✔	✔
	incubator: standby		✔	✔
	audit trail: view			✔
	database: manage			✔
	incubator: add			✔
	incubation chamber: configure			✔
	incubator: delete			✔
	incubator: configure			✔
	incubator: pause polling			✔
	incubator: start polling			✔
	system: configure			✔
	users: add			✔
	users: deactivate			✔
	users: change access level			✔

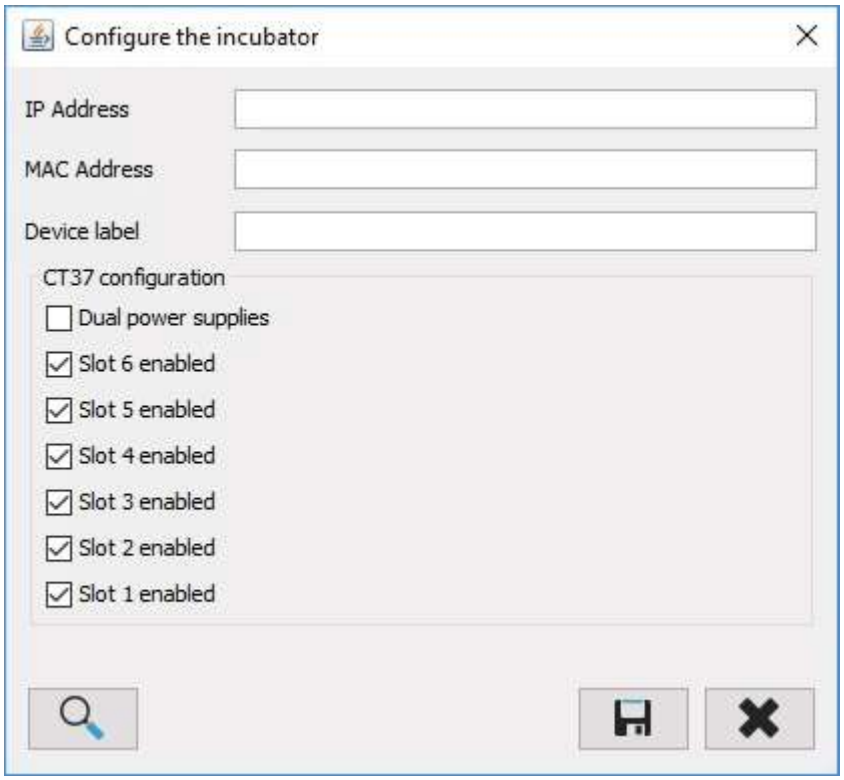
1.11 Adding a incubator

1. Click on the *Add device* button .

2. Select your device type. If the application has been configured to support just one type of device, the type will be automatically selected.



3. From the *Configure the incubator* window, enter the incubator details.



   a. *IP Address*: the address for the device. Ask your system administrator for this.

      Alternatively, if the device is on the network you can use the button to search for the device; see Searching for devices 18.

   b. *MAC Address*: there will be a label on the device clearly showing its MAC Address.

   c. *Device label*: this can be any label that you want to use to help identify the incubator.

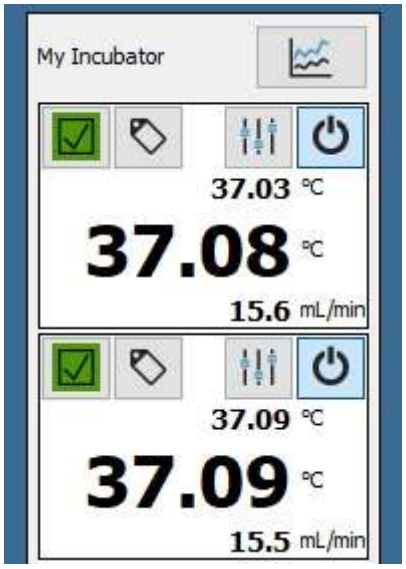
The following additional settings are only available for CT37stax systems.

   d. *Dual power supplies*: check if your system has been fitted with dual power supplies.

   e. *Slot X enabled*: if you are using a partially populated CT37stax system, uncheck the slots that are unoccupied.

4. Click to save your changes or to cancel.

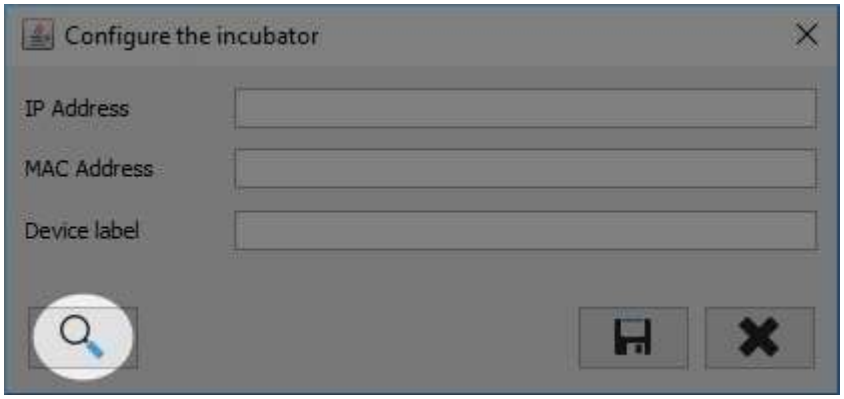
5. The device will then be added to the dashboard.



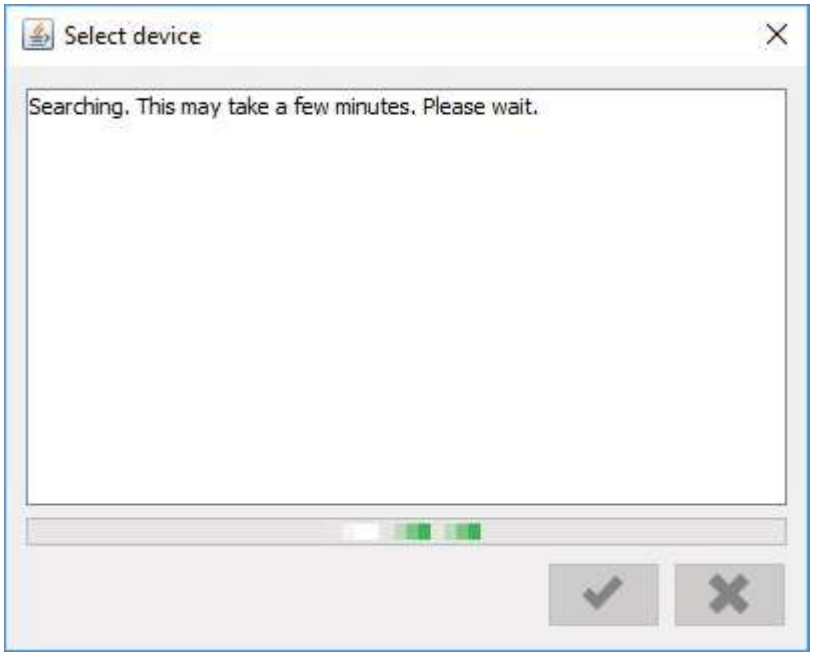
1.11.1 Searching for incubators

The application can only detect incubators if they are on the same sub-network as the PC running the application.

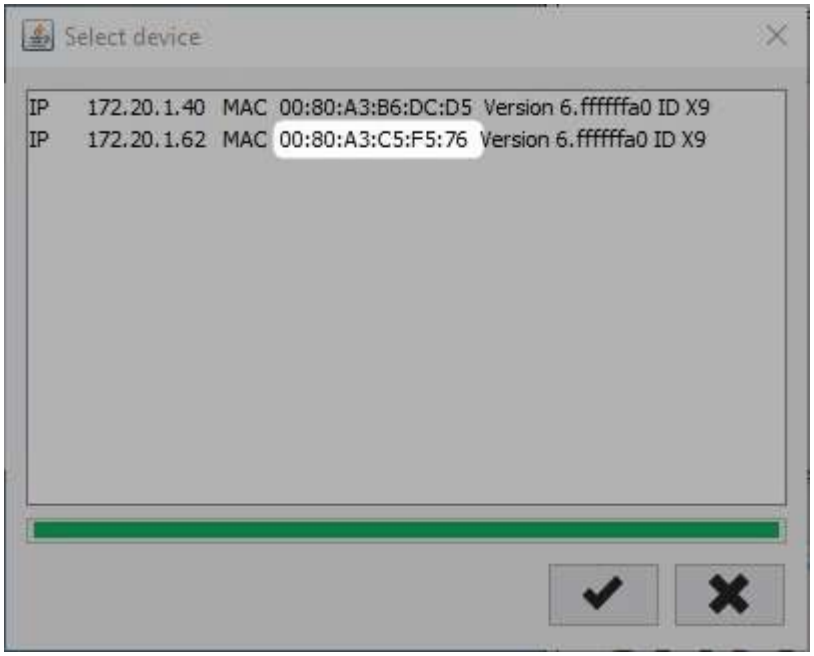
1. From the *Configure the incubator* window, click on the Search button.



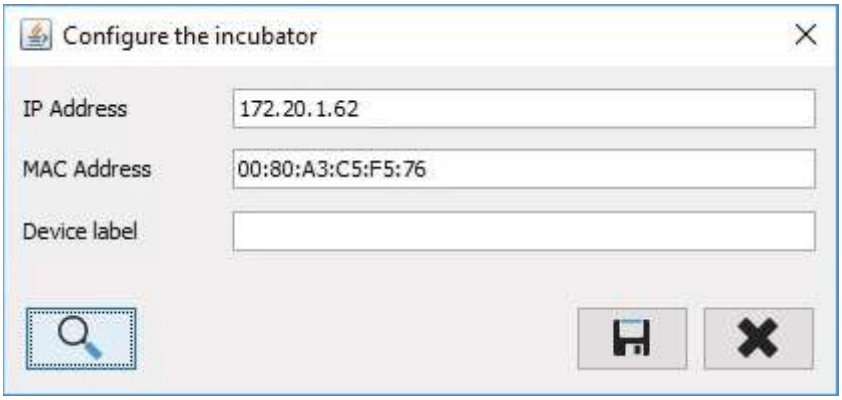
2. The Select device window will open and start looking for incubators.



3. If an incubator is found, check that the MAC address matches the address on the incubator's label.



4. If it does, click ✔ to select the incubator. The *IP Address* and *MAC Address* will automatically be populated with the search result.

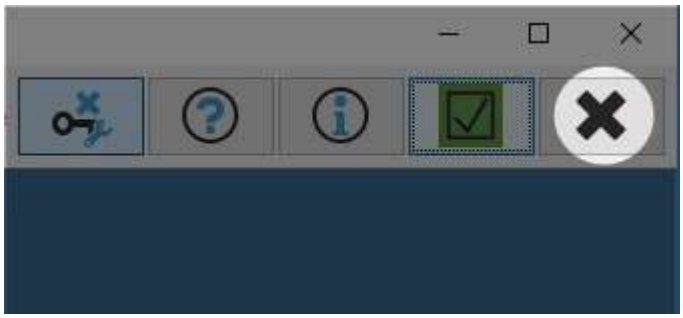
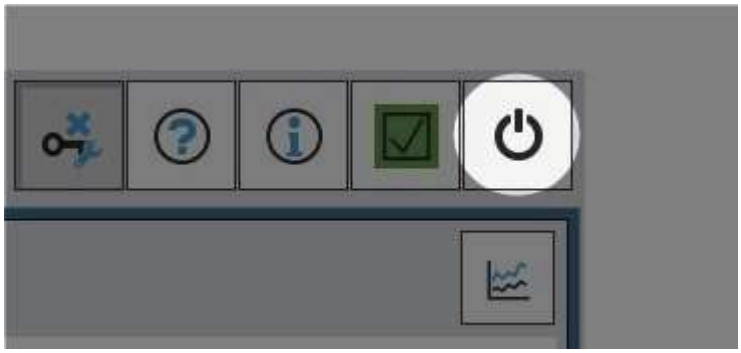


1.12 Exiting the application

- The incubators are only monitored while the application is running.
- No data are logged and no alarms generated by the PC if the application is not running.
- The application may have been configured to shut down the PC on exit. See below for more details.

You must log in to exit the application.

1. Check the icon at the top right of the screen. If the icon is shown, closing the application will also shut down the system.


or


2. .Click the or button on the toolbar to close the application.

3. If the button was clicked, the system will also shut down after the application has closed. If you need to access the operating system from this type of installation, check Accessing the operating system 65.

In demonstration mode you can use the window's close button to exit without logging in.

Common tasks

2 Common tasks

2.1 Viewing live data

The live readings for each incubator are shown on the dashboard. You can also view live data using the graph view; see Live data graphs 32.

2.1.1 BT37 readings

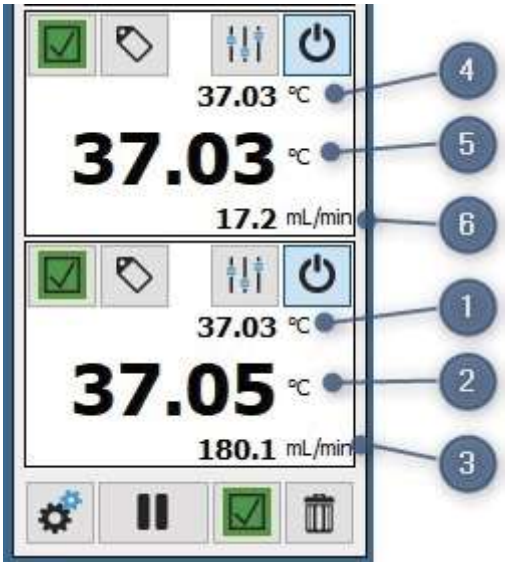
For the BT37 models, the readings are normally displayed as shown in the diagram below.

1. Left-hand chamber: lid temperature. This line is omitted in Compact mode 25.
2. Left-hand chamber: base temperature.
3. Flow rate to left and right-hand chambers.
4. Right-hand chamber: top temperature. This line is omitted in Compact mode 25.
5. Right-hand chamber: bottom temperature.
6. Flow rate to left and right hand chambers.

The BT37 incubator measures the flow before it splits to the left and right-hand chambers. As such the display will show the same flow on both sides. The flow shown is the total flow of gas through the incubator and not the individual flow to each side.

2.1.2 CT37stax readings

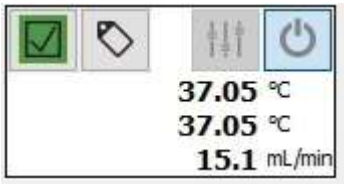
For the CT37stax, each slot is shown in a column matching the CT37stax physical layout.



1. Slot 1: lid temperature. This line is omitted in Compact mode 25.
2. Slot 1: base temperature.
3. Slot 1: flow rate to slot 1.
4. Slot 2: lid temperature. This line is omitted in Compact mode 25.
5. Slot 2: base temperature.
6. Slot 2: flow rate to slot 2.

2.1.3 Auto-scaling of fonts

On monitors with a height less than 960px, the base temperature will be displayed in a smaller font.



2.1.4 Compact mode

The application may have been pre-configured to run in compact mode so that it can run on small displays. In this mode the lid temperatures are not displayed.

1. Base temperature
2. Flow rate

2.2 Handling alarms

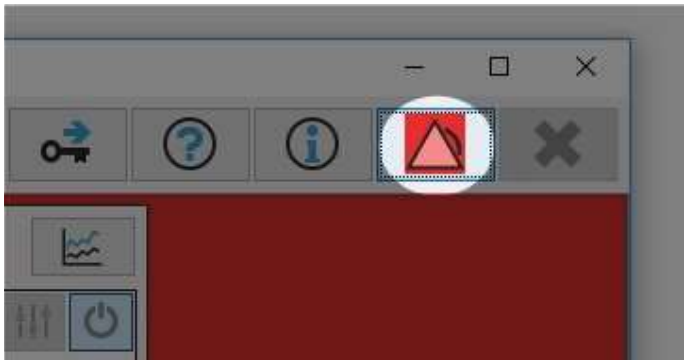
If the application detects an issue with the incubator, it will show a visual alarm and begin beeping. The visual alarm indicators are shown on the alarm buttons on each incubator. For the CT37stax system, an additional alarm button is provided for the docking station itself. The state of the visual alarms is shown below.

	Standby
	Normal
	Expected alarm condition. E.g the temperature is temporarily incorrect because of a setpoint change.
	Alarm condition that has been acknowledged by the user.
	Alarm condition that has not been acknowledged.

An unacknowledged alarm is accompanied by a audible alarm. This can be silenced by clicking the in the main toolbar. When silenced, the button will change to the icon. The audible alarms will only be silenced for five minutes.

If you have installed the application on a desktop PC, the user can still disable sounds using the operating system's volume controls.

A global alarm indicator is also shown in the toolbar:

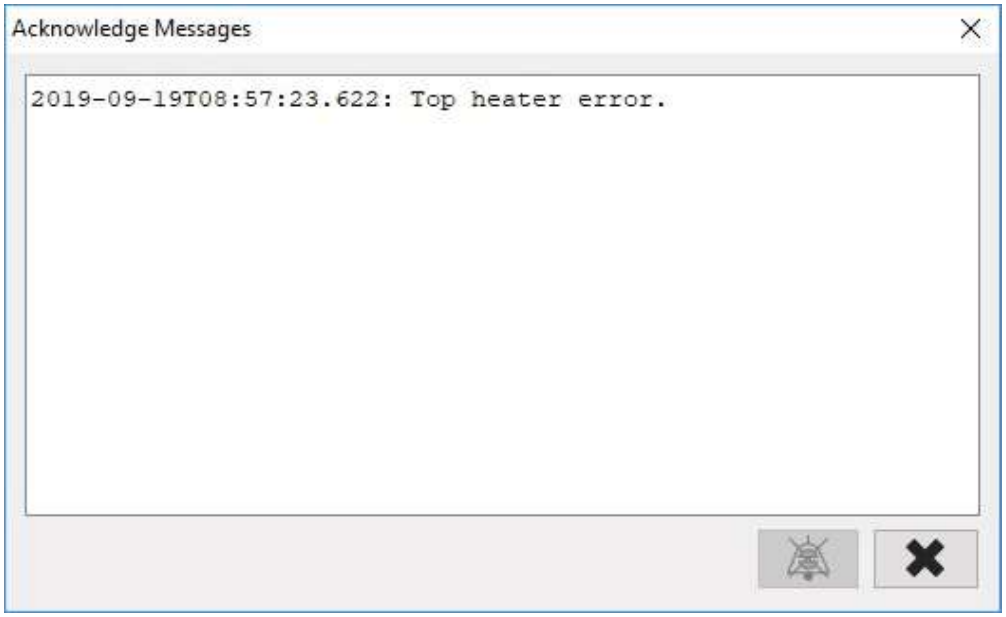


This will reflect the state of the most serious condition of any incubators on the dashboard and will help you identify alarm conditions even if the incubator is off screen. When the global alarm indicator is showing an alarm, the dashboard background will turn red.

2.2.1 Acknowledging alarms

1. Click on the *Alarm* button.

2. The *Acknowledge Messages* window will open.

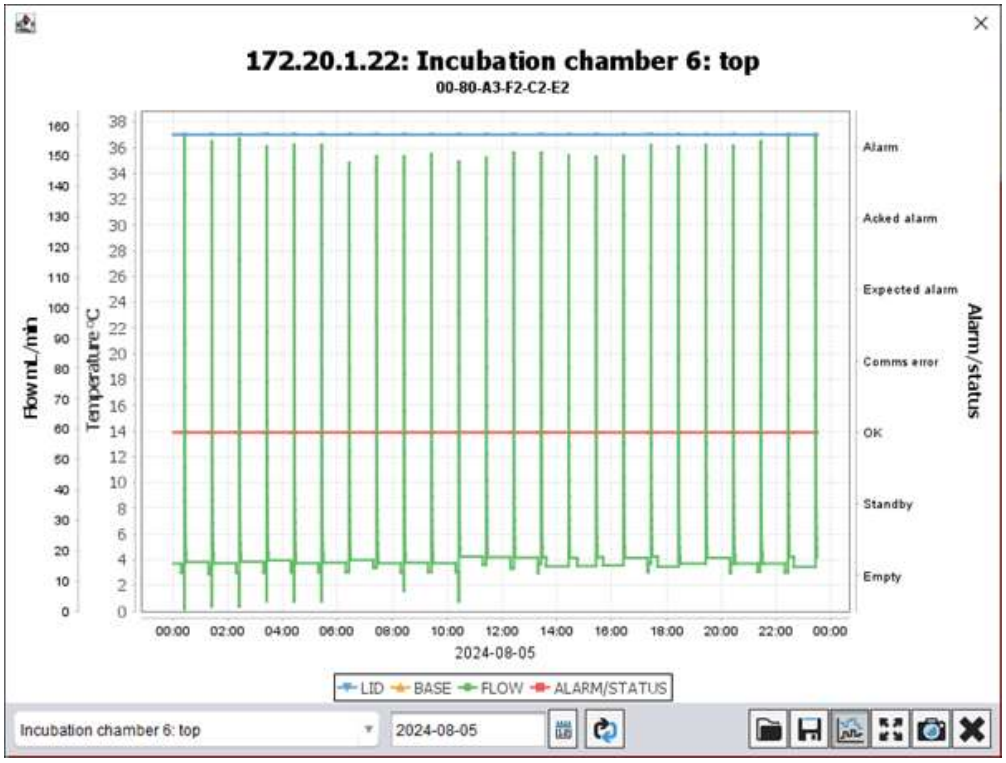


3. To acknowledge the alarm, click . Acknowledging the alarm will clear the list of messages.

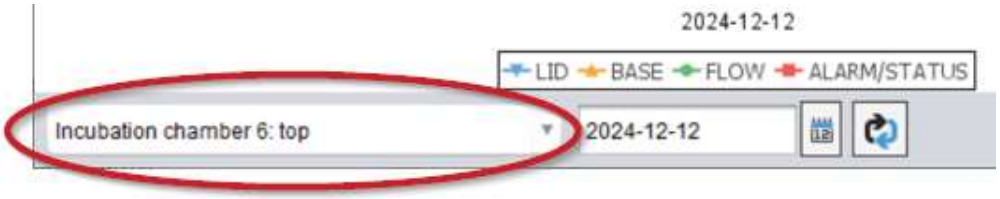
4. If you click , the alarm will not be acknowledged and the message will remain. Any new alarms will be added to the list.

2.3 Viewing graphs

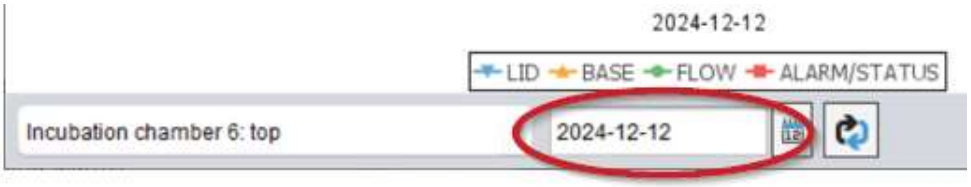
1. To view a graph, click on the *Graph* button.



2. The incubator selection button at the bottom of the graph can be used to select the data to show. For the CT37stax system, this will show the slots 1 to 6; for the BT37, it will allow you to select the left or right hand sides. The graph is automatically updated when you change the slot.



3. The date field can be used to change the displayed date; it will default to today.



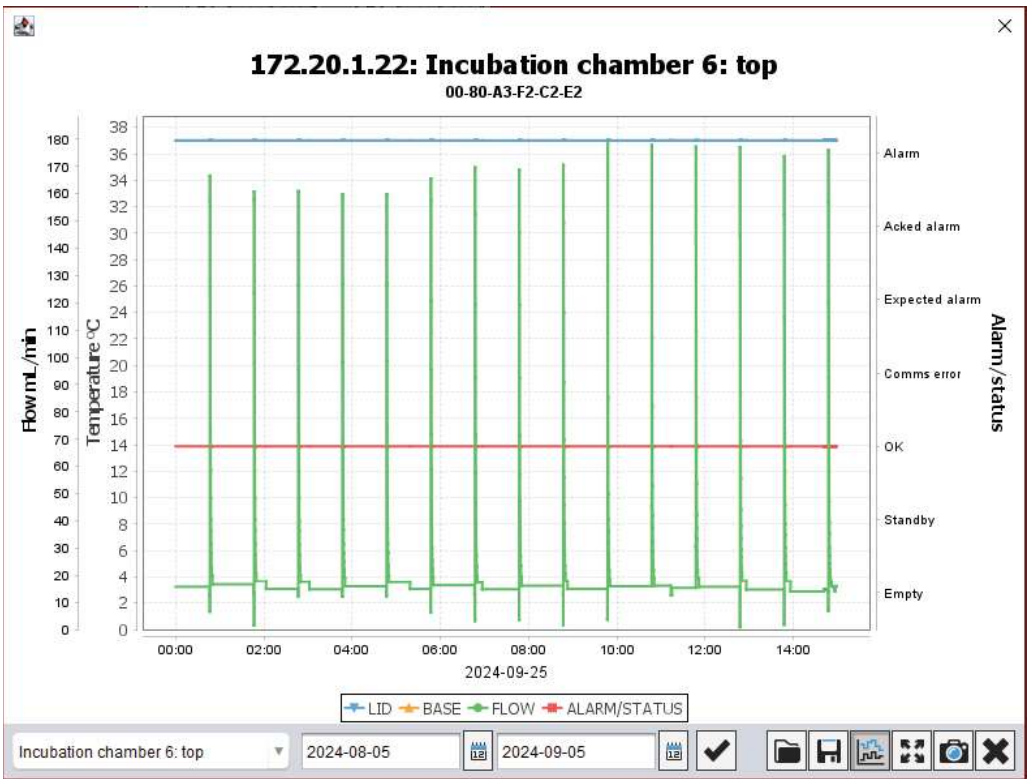
   a. Click on the calendar icon to select your date.

   b. Click on the refresh button to update the graph. The graph is not automatically updated when the date is changed.

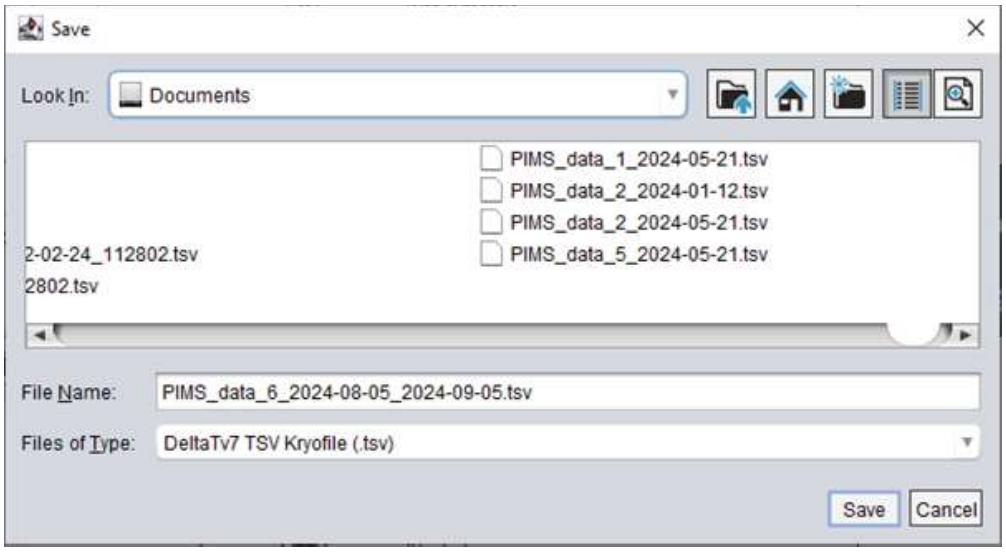
4. To save an image of the graph, click on the *Camera* button.

Historical data will show less data points per hour than live data. See Data compression 64 for more information.

5. To save the graph data in spreadsheet format, click on the folder button.
6. Select the time period by clicking on the calendar buttons. Note that the earliest date is on the left.



7. To create the spreadsheet file, click on the tick button.
8. Select the location for the file from the save window.



9. Opening the file in a spreadsheet program will display the data as shown.

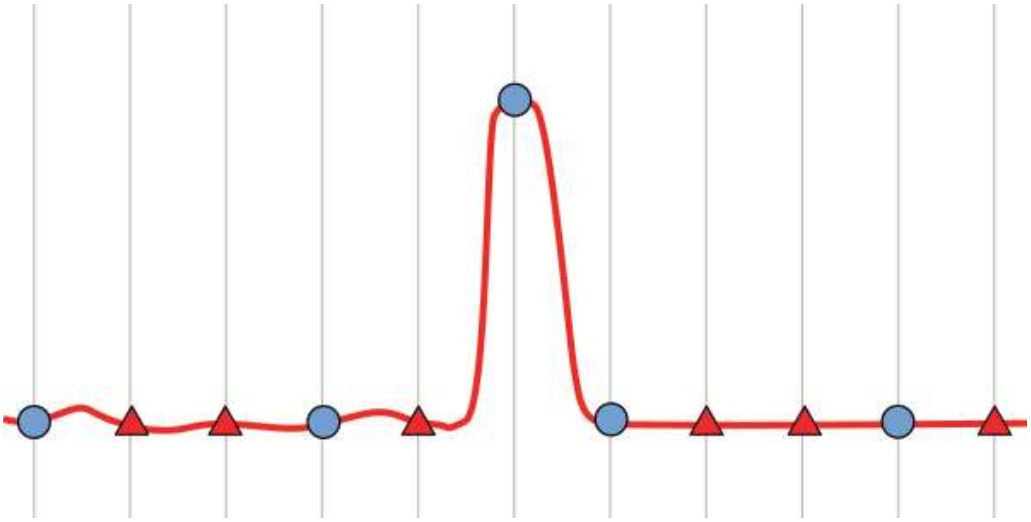
	A	B	C	D	E	F
1	Time index	Lid temperature	Base temperature	Flow	Status	Alarm
2	05/08/2024 00:00	37	37	15.7	OK	
3	05/08/2024 00:17	37	37	12.8	OK	
4	05/08/2024 00:22	37	37	15.4	OK	

Note:- the data is logged every 10 seconds, to save memory if the values have not changed then the data is not shown in the table and gaps larger than 10 seconds will be seen in the data recorded. See Data compression 64 for more details.

2.3.1 Stepped graphs

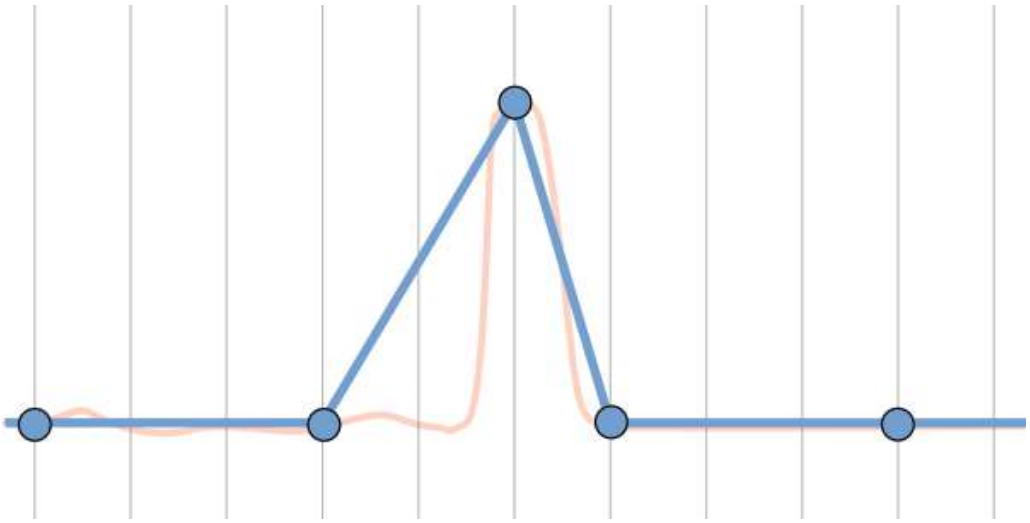
In order to save space, not all readings are saved to the database; see Data compression 64 for more details.

In the diagram below, the intervals at which the application took a reading are shown as vertical lines. The circles mark the readings that were saved after data compression. The triangles mark readings that were not saved as there had not been a significant change in value.

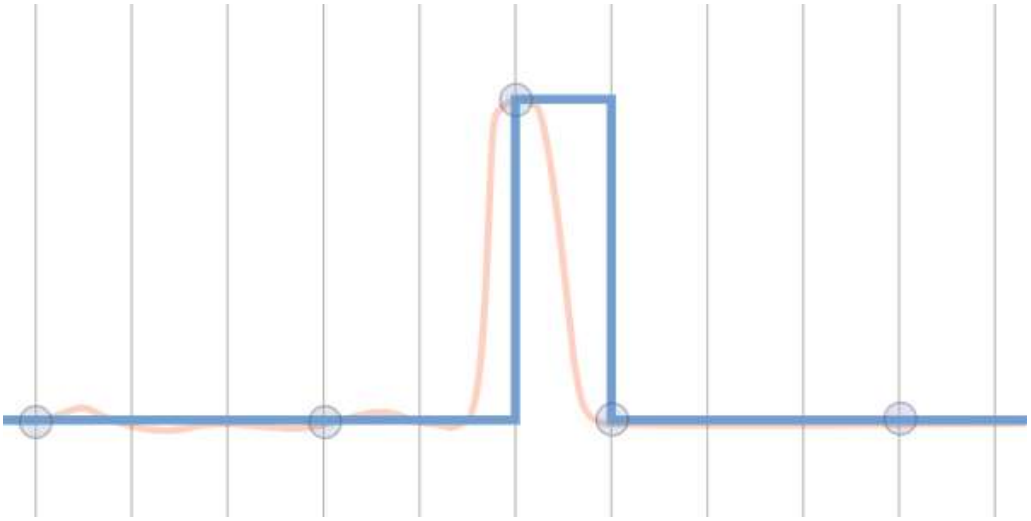


There are two methods the application can use to connect the saved data points.

The first method is simply to connect the data points with straight lines as shown below.



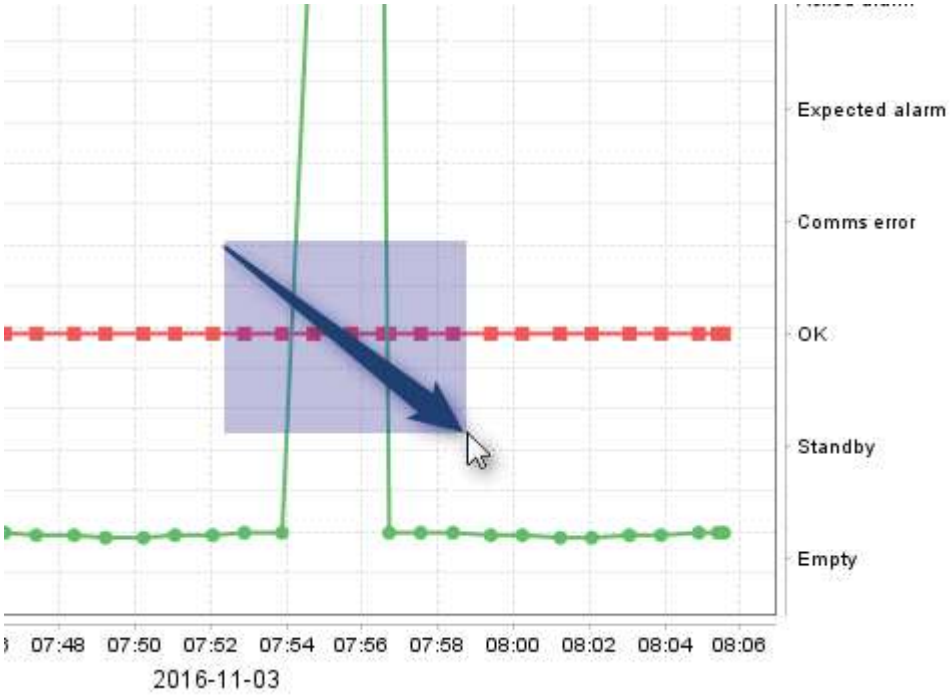
The second method connects the data points using steps as shown below. This is the default method and typically gives a better representation of the true reading; however, when plotted as steps, the data points are not shown.



To toggle between these two connection methods, click the *Stepped graph* button.

2.3.2 Zooming in

1. To zoom in, click on the screen and while holding down the left mouse button drag a rectangle over the screen.



2. To pan the zoomed-in graph, hold down the CTRL key and left mouse button.

3. To return to the full screen, click on the *Zoom out* button.

2.3.3 Live data graphs

If the date on the graph, see Viewing Graphs 28, is set to the current day, real time data will be automatically appended to the graph as it is recorded.

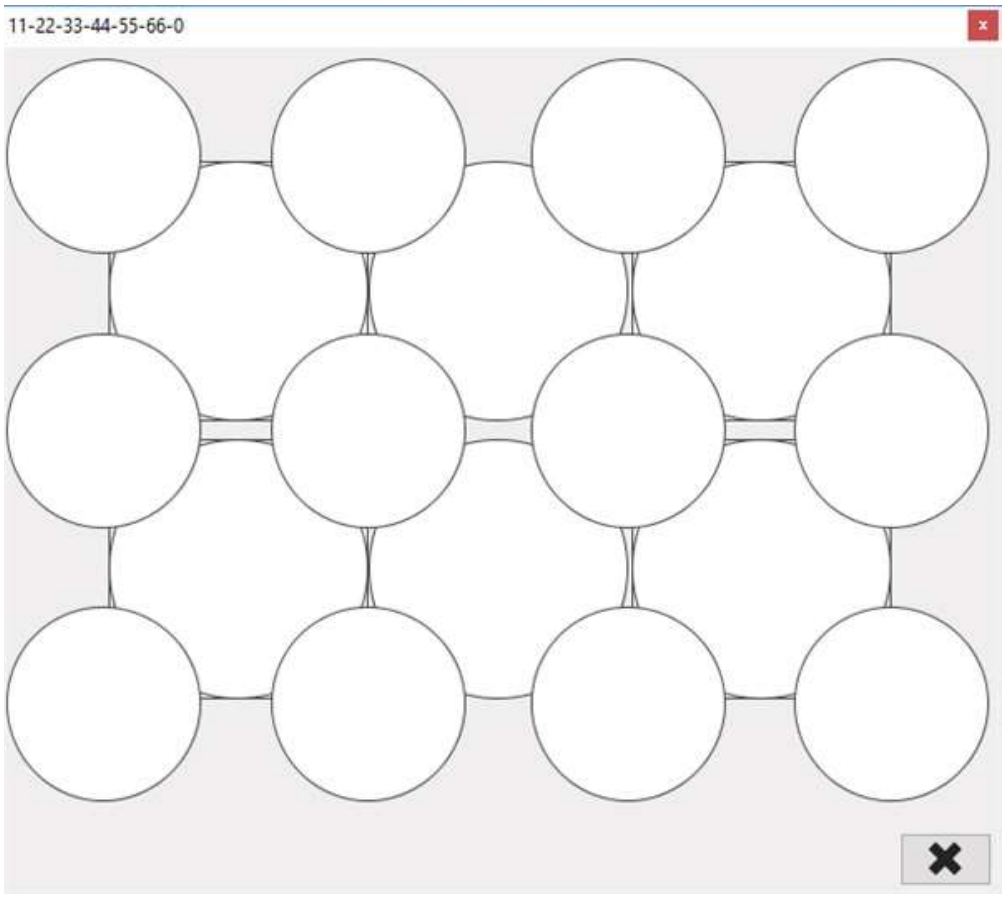
2.4 Adding labels

The application allows you to add labels to help you identify dish positions.

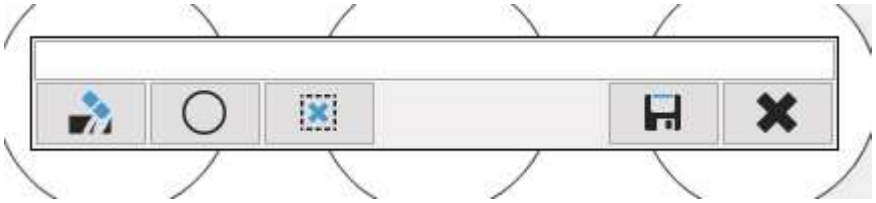
The labels are stored in the application database and are not intended for storing patient sensitive information.

1. Click on the *Label* button.

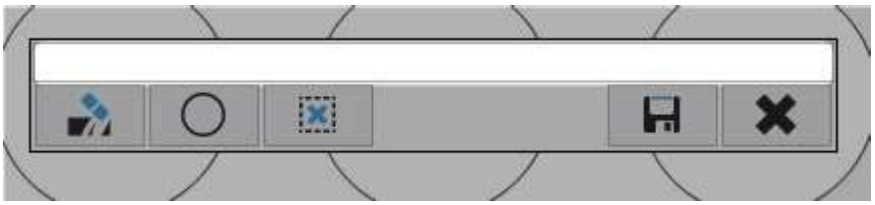
2. The label display for the selected incubator will be shown. If no labels have been added, the display will show all possible locations.



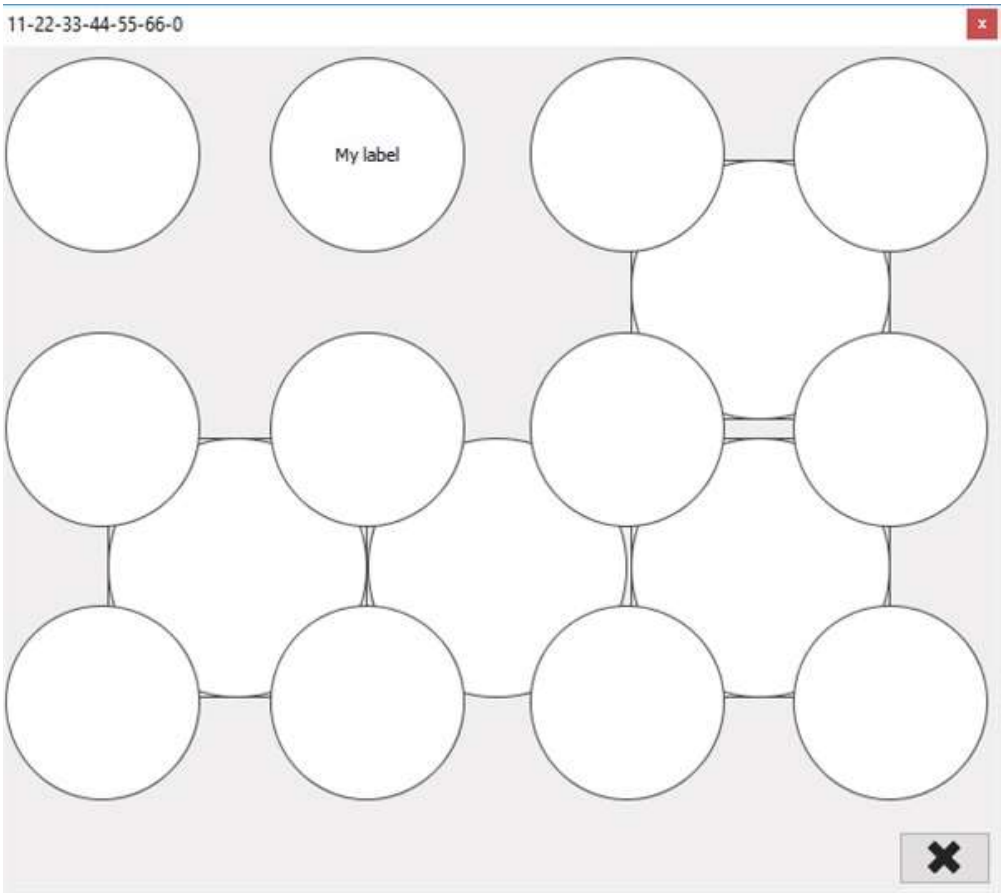
3. To enter a label, click on the label position to open the label entry window.



4. Enter your label in the text entry field.



5. To clear the entry click the .
6. Click to save your label or to discard any changes.
7. Overlapping dish positions will be hidden.

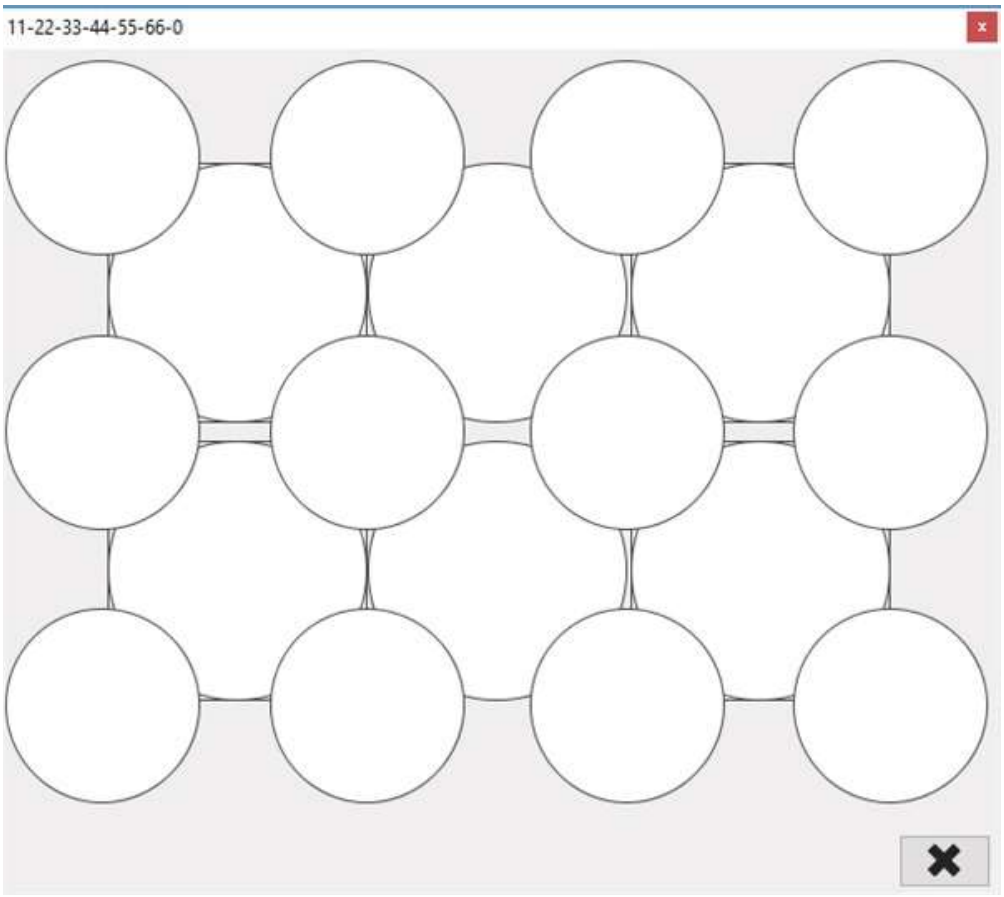


8. Note that labels with no text do not obscure adjacent positions.
9. To simplify the view, you can hide some of the positions; see Marking locations as unavailable 34 and Marking locations as available 36.

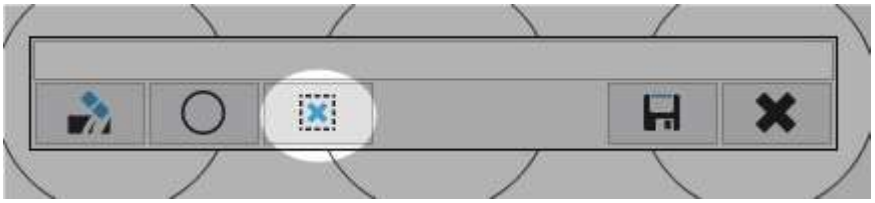
2.4.1 Marking positions as unavailable

To simplify the labels view, locations can be marked as unavailable. This will cause the locations to be faded into the background.

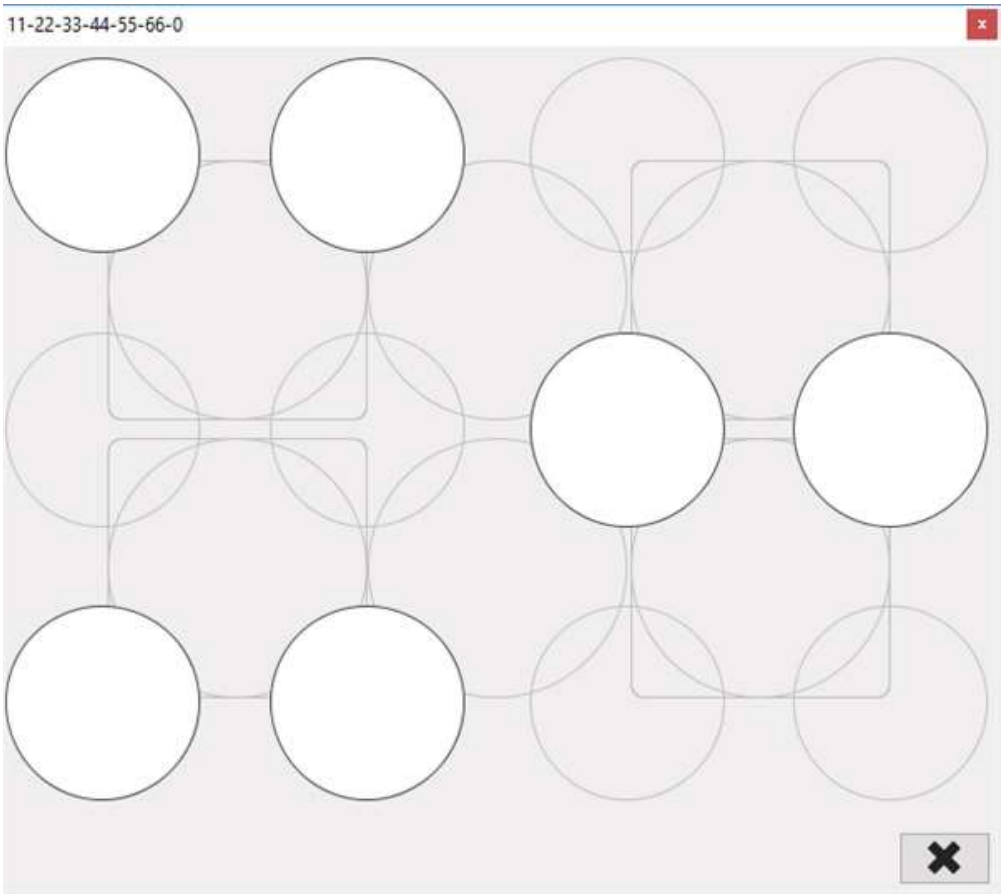
1. Before marking any locations, all possible positions will be shown.



2. Click on the position which you want to mark as unavailable.
3. When the edit window appears, click to mark the position as unavailable.



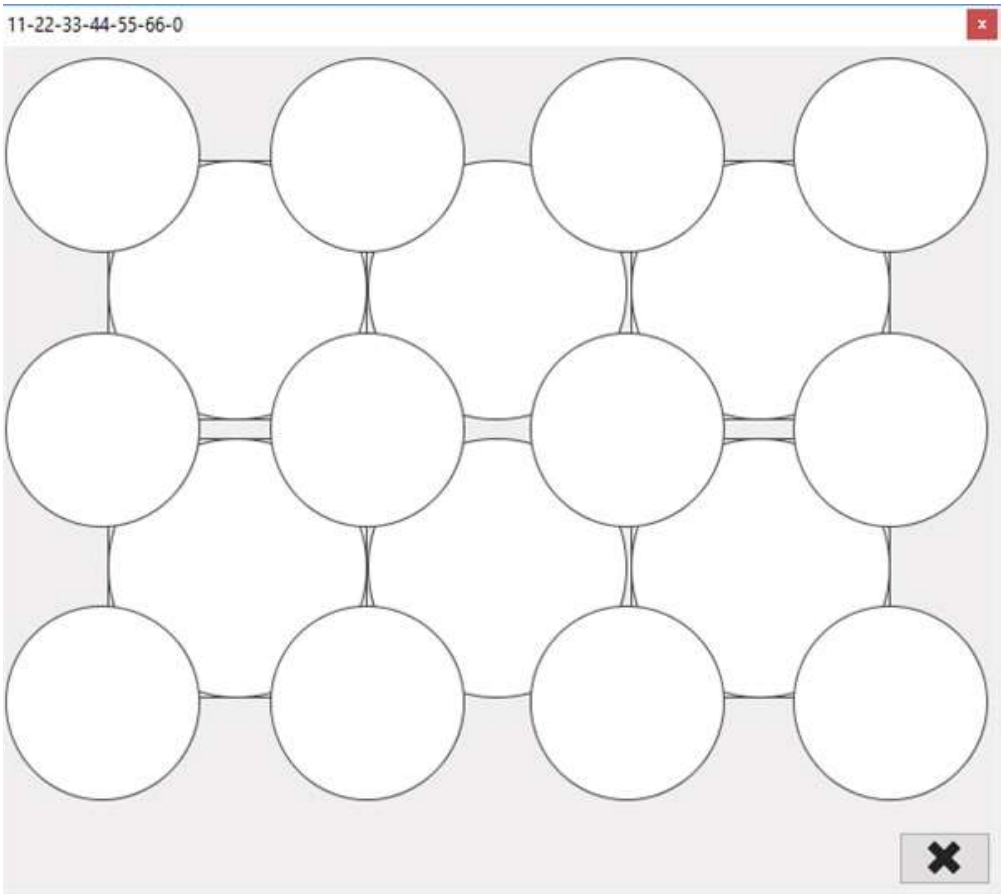
4. Click to save the changes.
5. The outline of the position will be marked with a faint line.
6. This approach can be used to identify all positions that are not to be used.



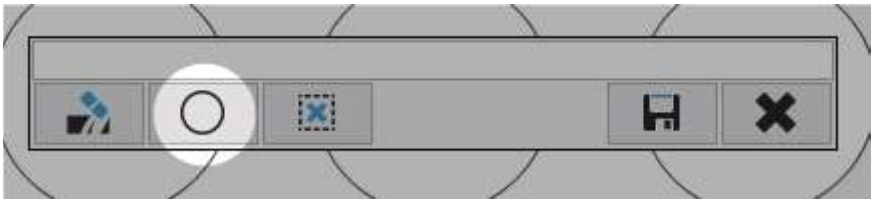
2.4.2 Marking positions as available

To simplify the labels view, positions can be marked as available to utilise the application's automatic dish hiding feature.

1. Before marking any positions, all possible positions will be shown.

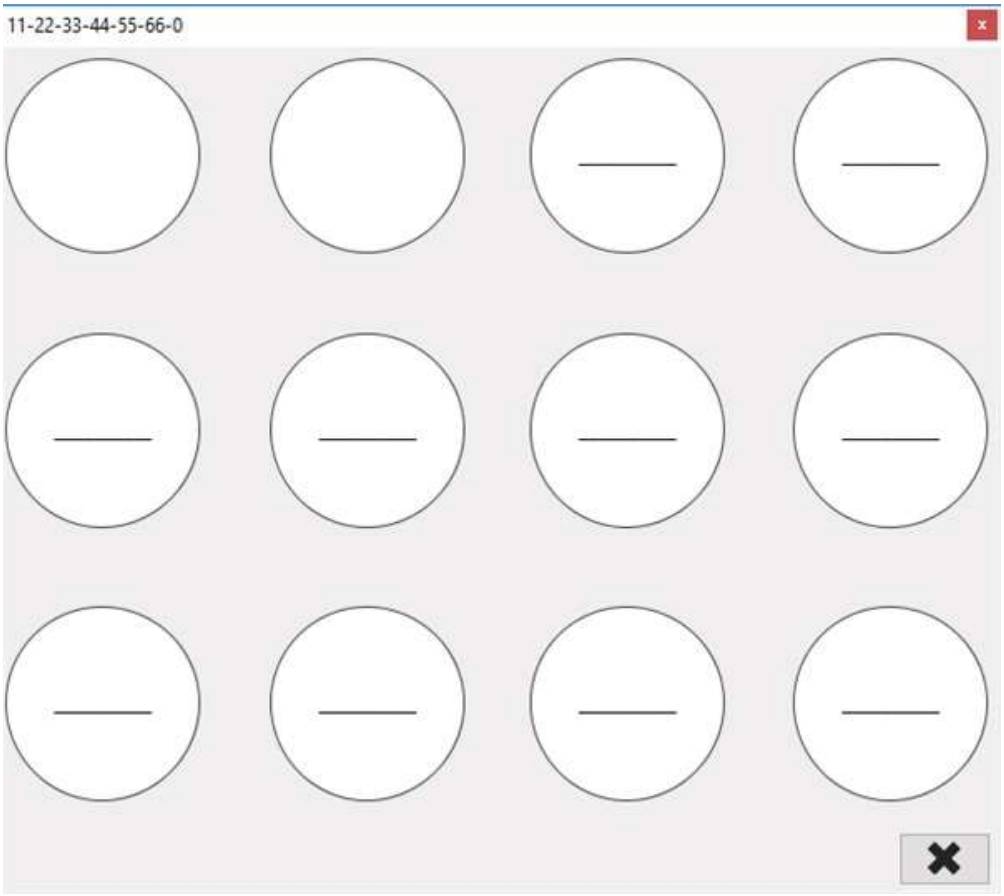


2. Click on the position that you want to mark as empty.
3. When the edit window appears, click ○ to mark the position as normally in use but currently empty.

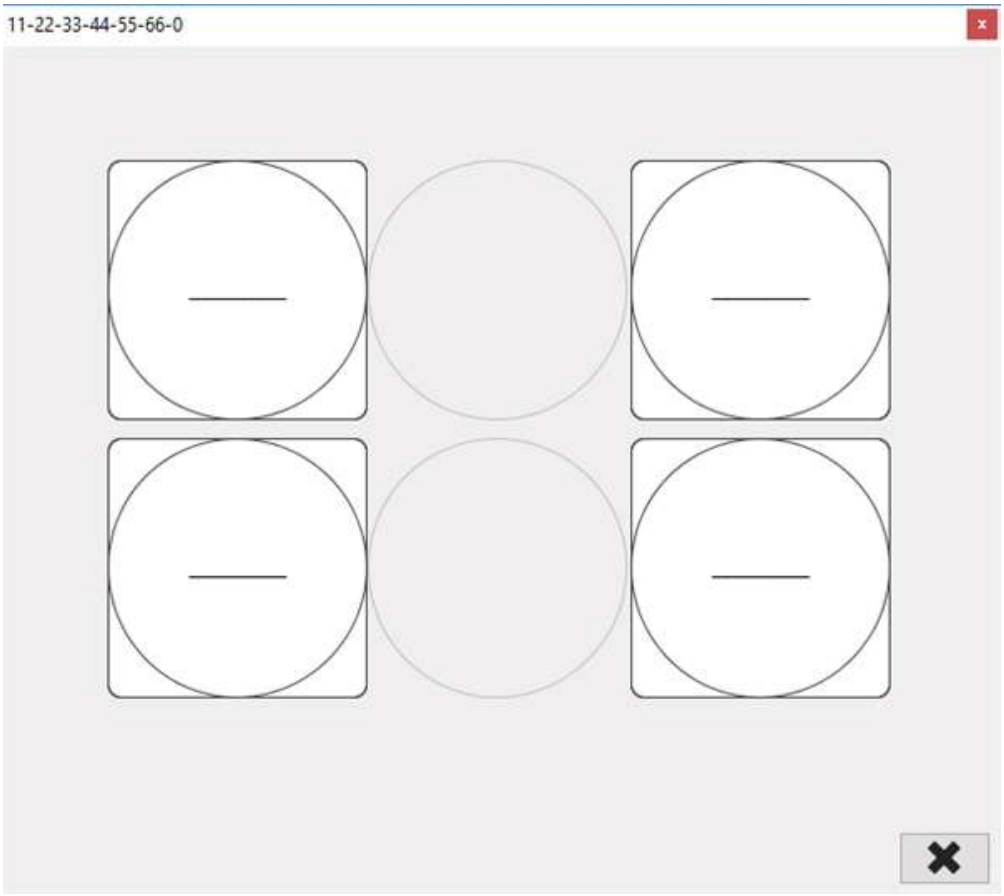


4. Click 💾 to save the changes.
5. The position will be marked with an empty label and adjacent positions will be hidden.

6. This approach can be used to identify all positions that you intend to use. The application will hide the other dishes.

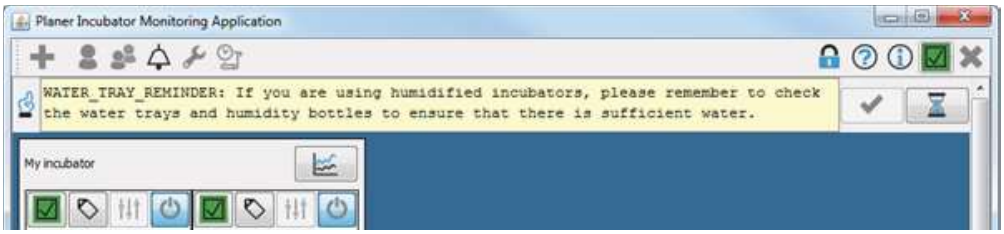


If you are using four square dishes in a CT37stax, you will need to mark the centre round dishes as unavailable as these will not be automatically hidden; see Marking positions as unavailable 34.



2.5 Reminders

The application will remind you to check the humidification status of the incubators every seven days. The reminder will appear as a message below the toolbar.



You can continue to use the application as normal while the reminder is displayed.

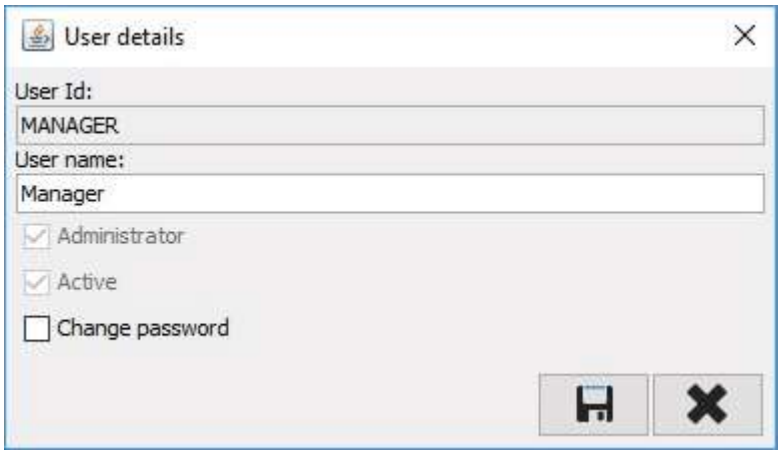
- Click ✔ to acknowledge the reminder. Note you must be logged in to acknowledge the reminder.
- Click ⌛ to close the reminder for one hour.

Managing users

3 Managing users

3.1 Changing your own details

1. Click on the *User* button.

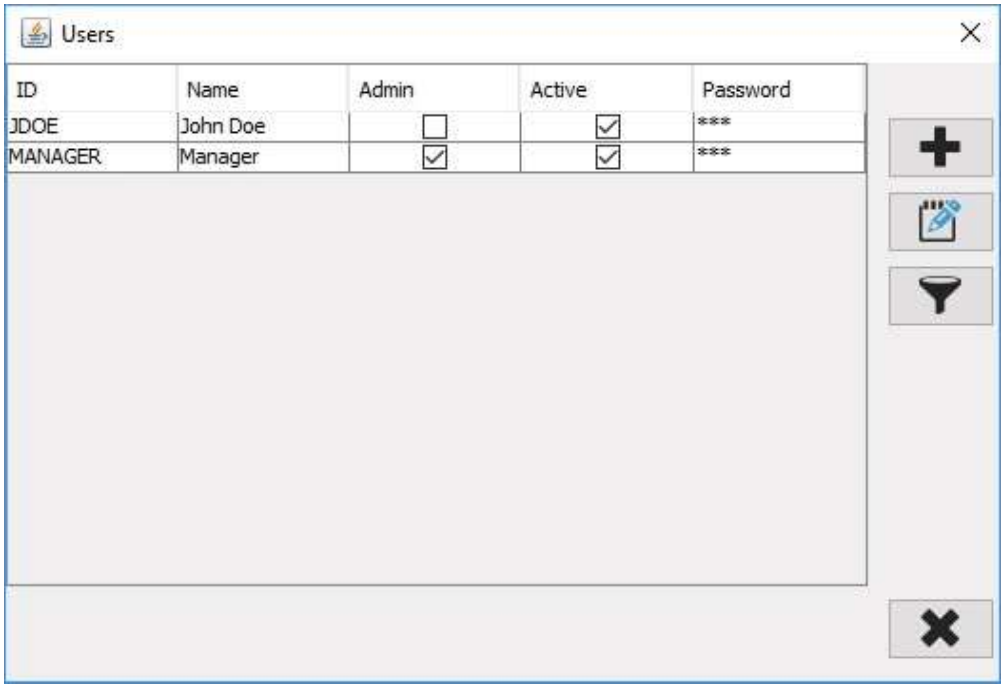


2. You will be able to change your user name and password.
3. To change your password, check the *Change password* box.

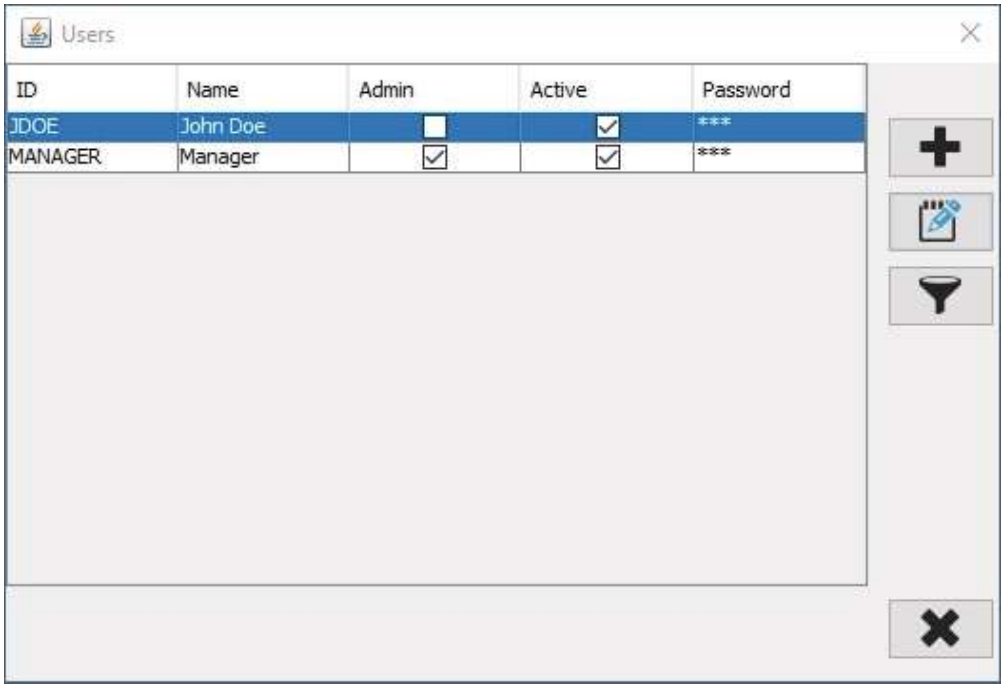
4. Click to save your changes or to discard any changes.

3.2 Editing users

1. Click on the *Users* button.

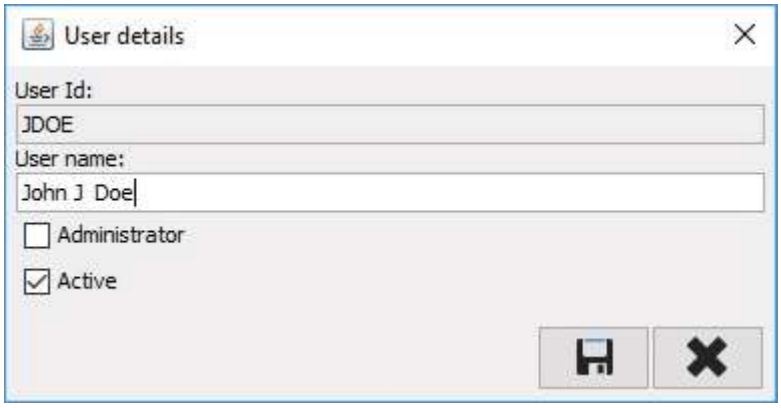


2. Click on the user so that the row is highlighted.

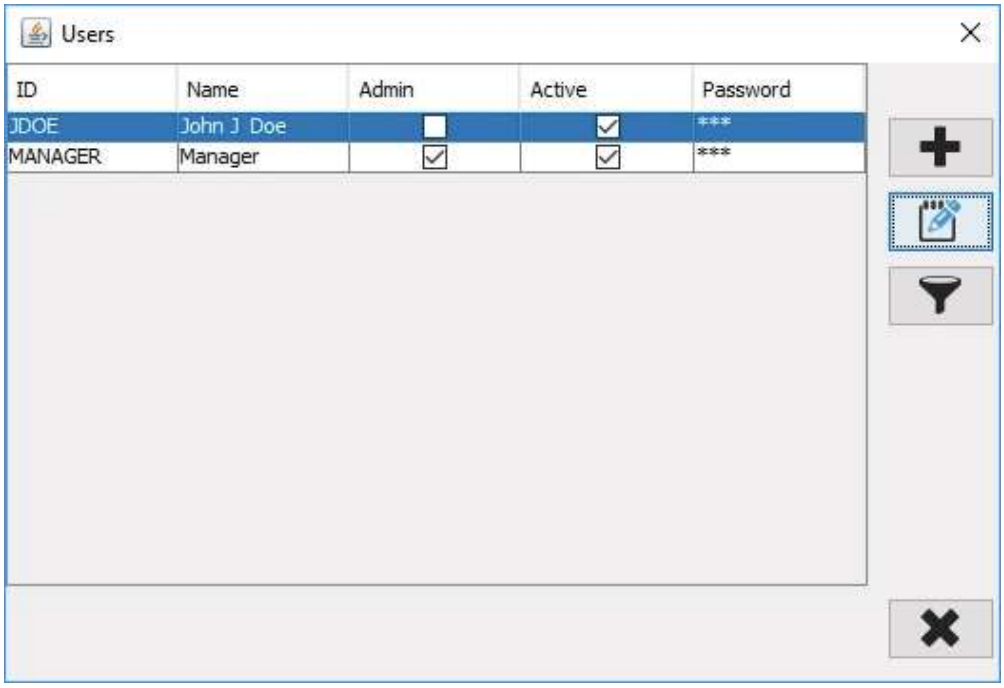


3. Click the button to open the *User details* window.

4. Make your changes.



5. Click to save the changes and return to the *Users* table view.

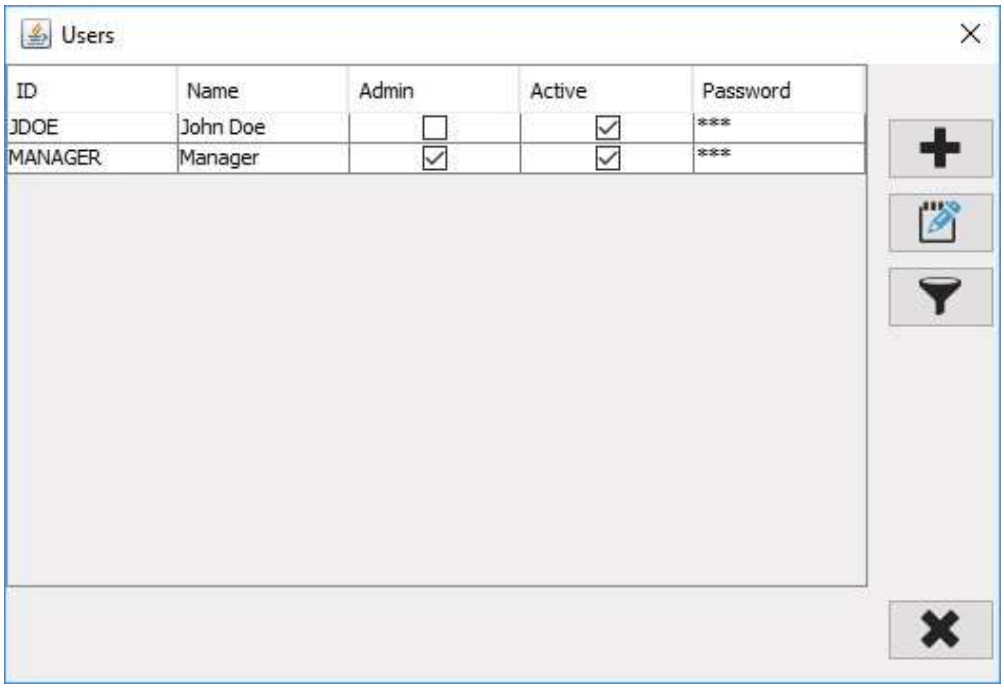


6. Click to return to the dashboard.

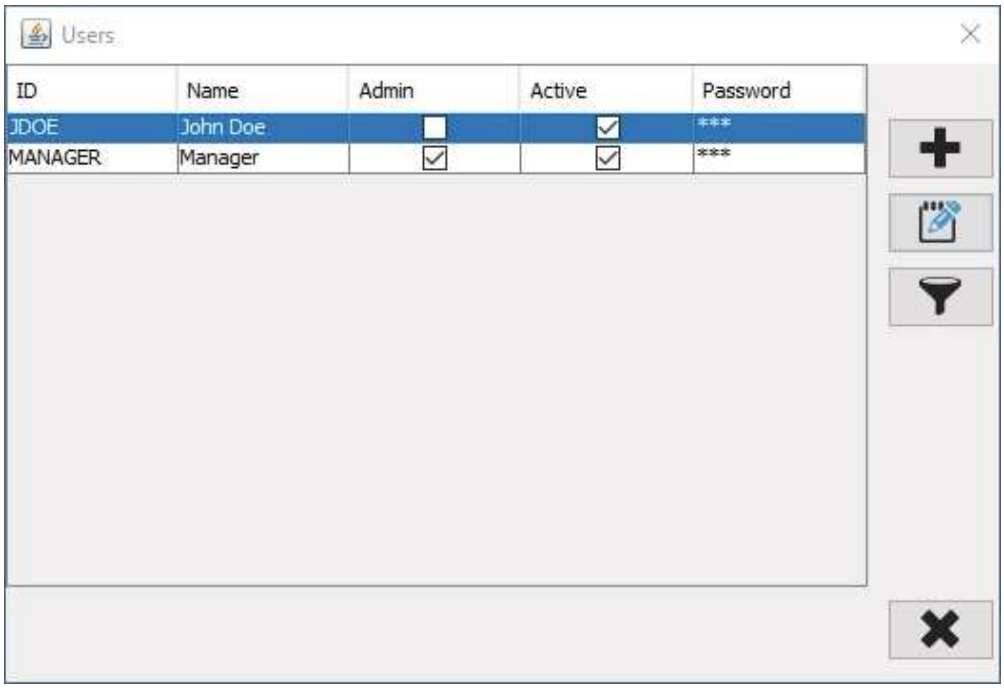
3.3 Removing users

Once users have been added to the system, they cannot be removed; this is to ensure the integrity of the audit trail. Users can be deactivated.

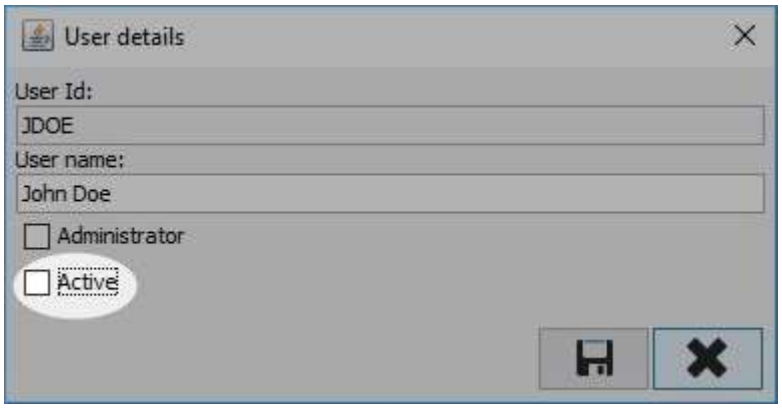
1. Click on the *Users* button.



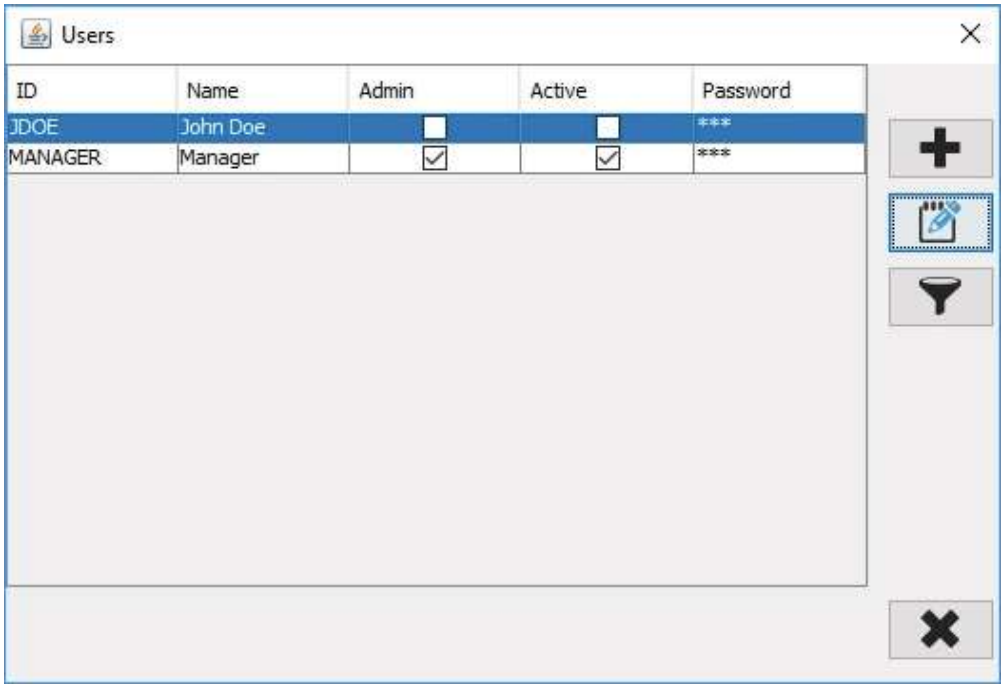
2. Click on the user so that the row is highlighted.



3. Click to open the *User details* window.
4. Uncheck the Active box.



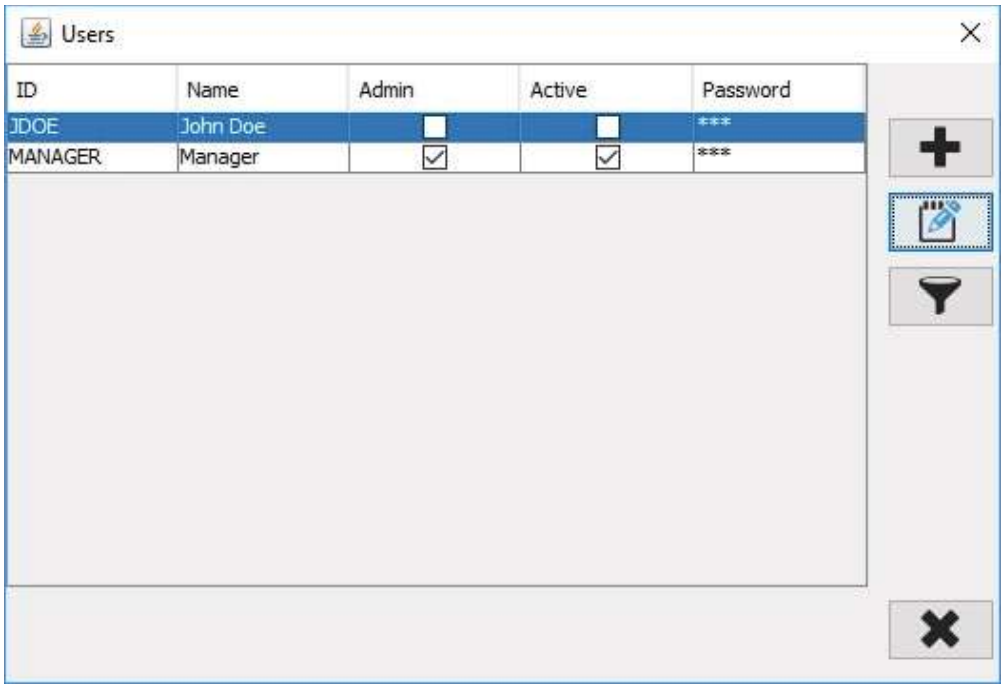
5. Click to save the changes and return to the *Users* table view.



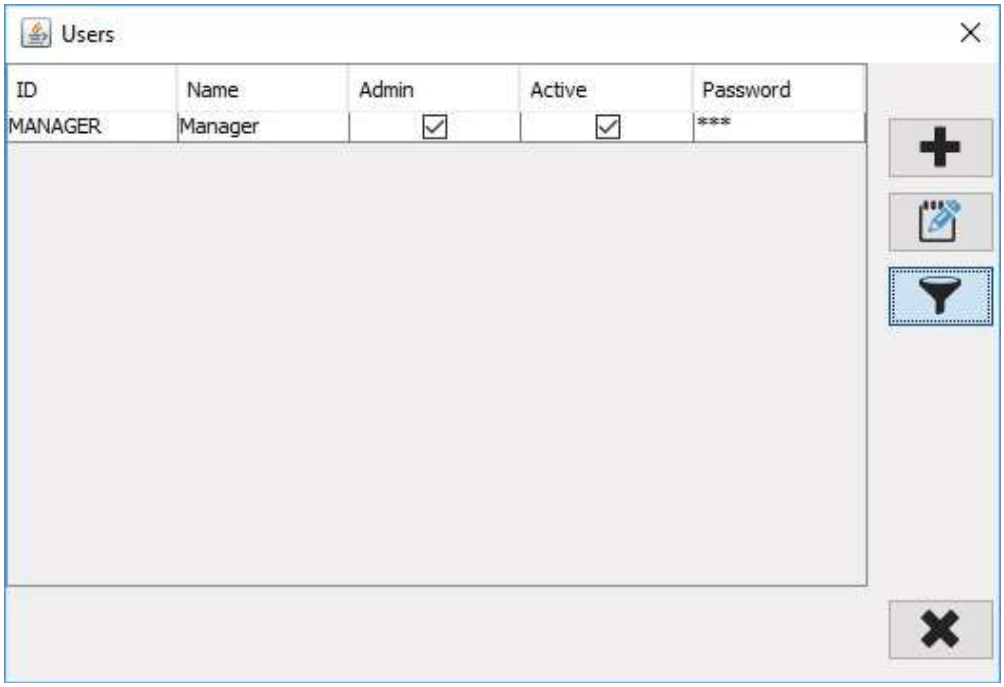
6. Click to return to the dashboard.
7. This user will no longer be able to log in to the system.

3.3.1 Hiding deactivated users

1. When you open the Users table, all users, active or not, will be shown.



2. To only show active users, click on the *Filter* button.



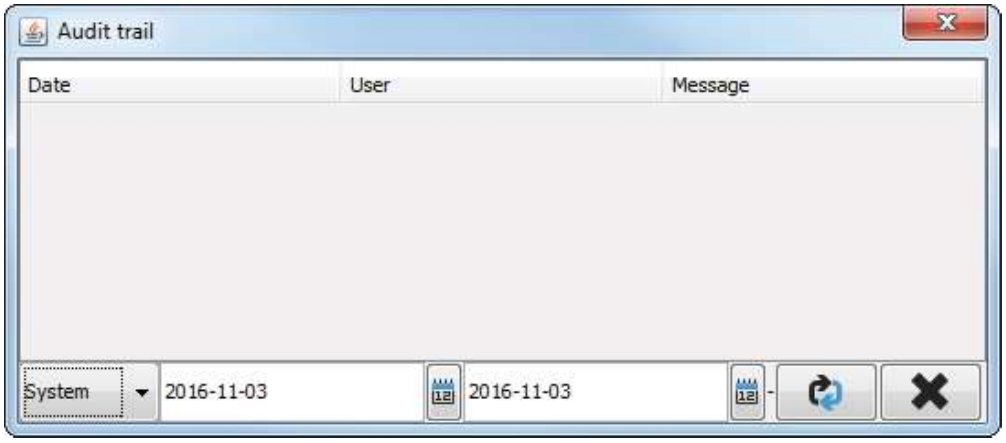
Adminstration tasks

4 Adminstration tasks

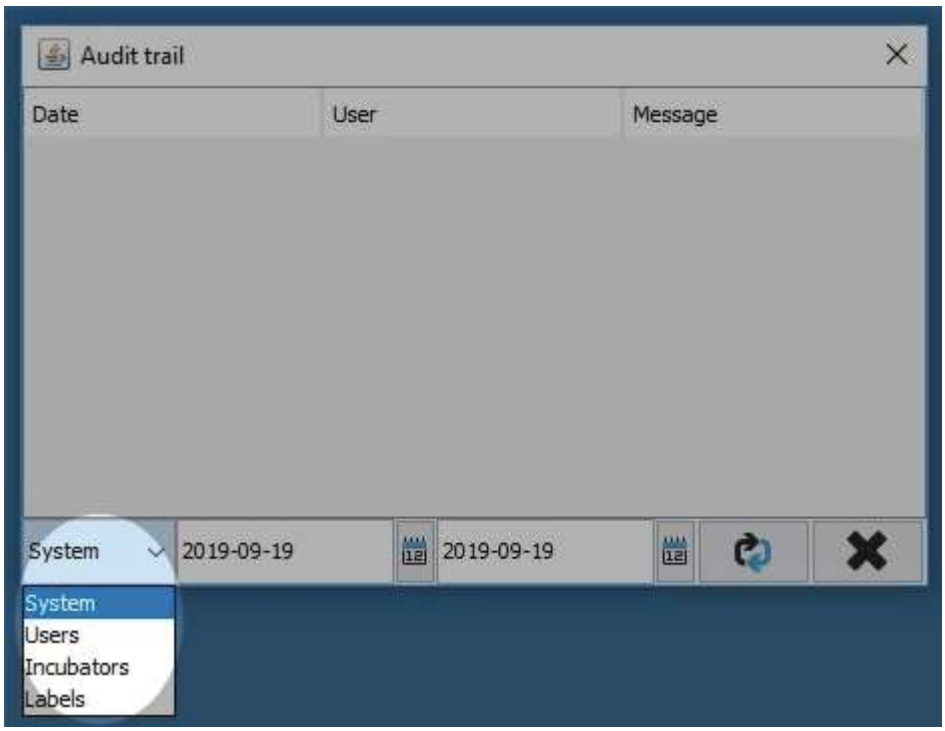
4.1 Auditing

The application maintains a comprehensive audit trail.

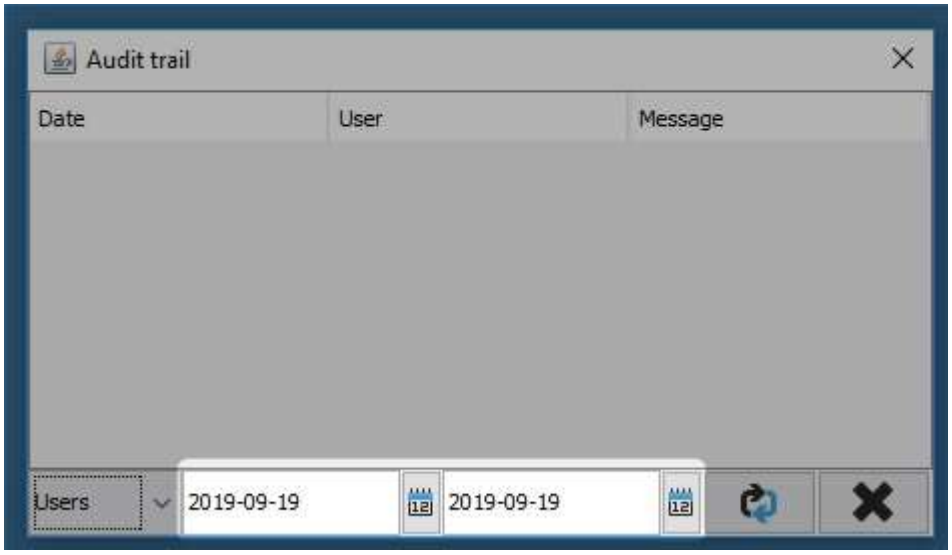
1. Click on the *Audit* button.



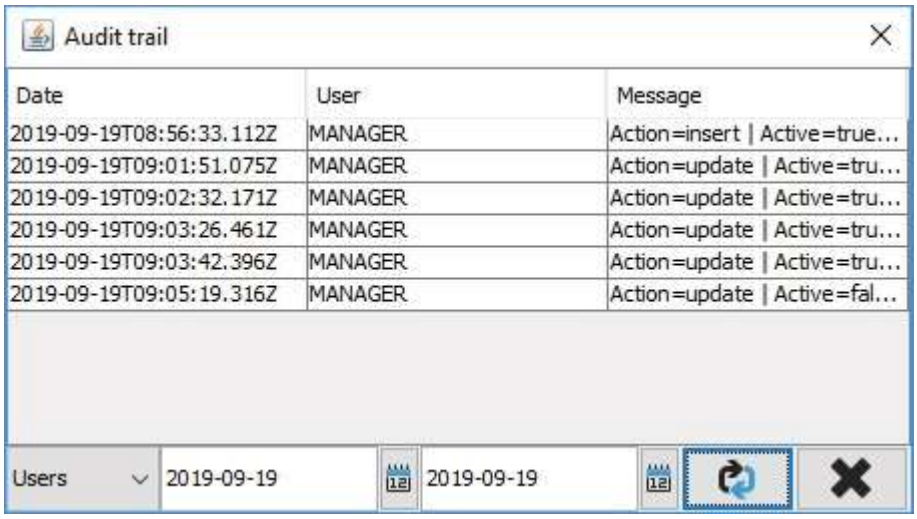
2. Click on the data type button to select the data that you are interested in.



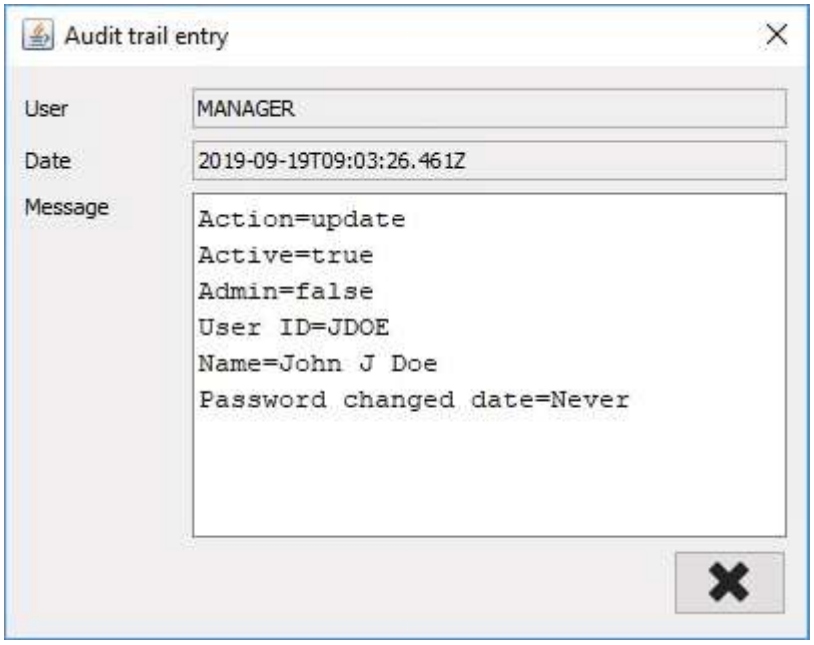
3. Use the date controls to select the start and finish dates for the audit.



4. Click the *Refresh* button to update the audit trail.



5. Clicking on an entry will show a detailed view of the audit trail entry.



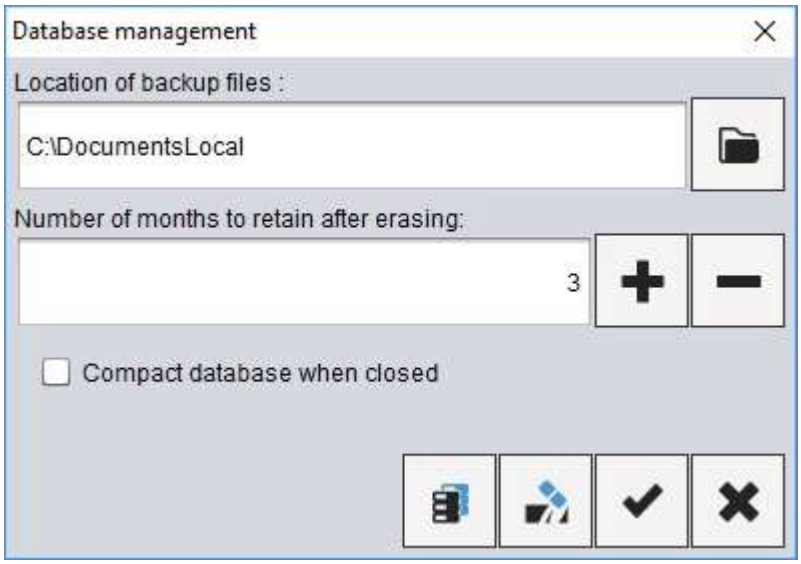
6. Click ✖ to exit the audit trail.

4.2 Database management

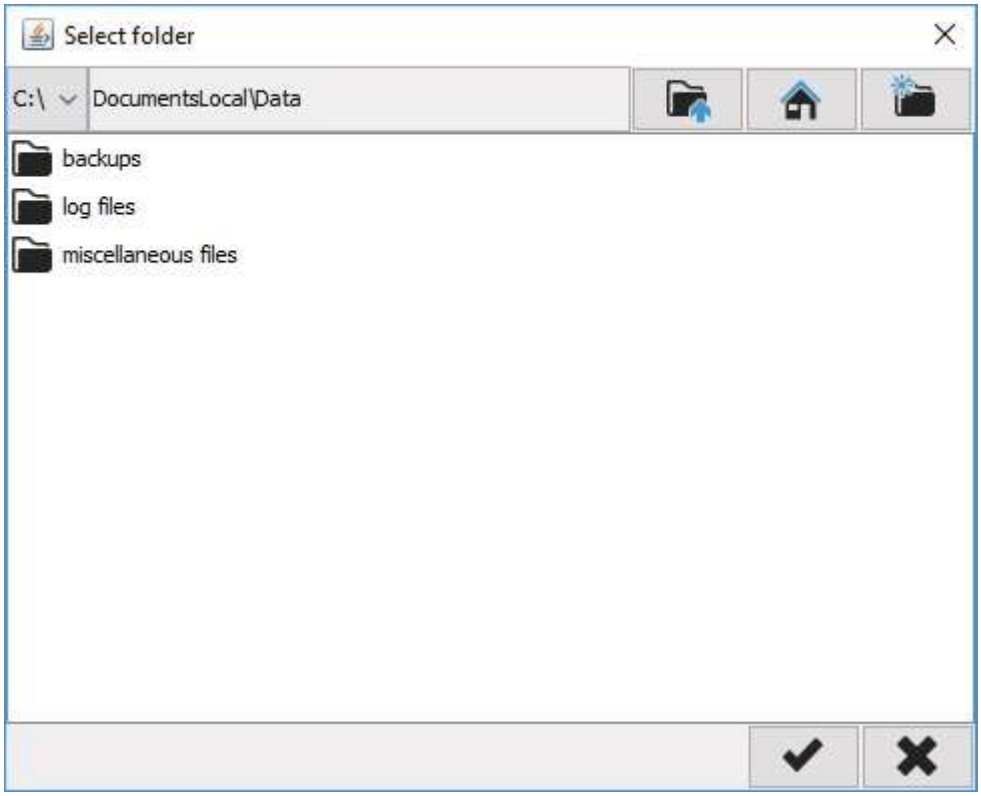
All of the incubator data are held in a local database. The size of the database is only limited by the available space on the computer; however, as the database grows, you may wish to remove old data in order to reduce the amount of storage space used.

4.2.1 Backing up the database

1. Click on the *Database management* 🔧 button.



2. Click on the *Folder* 🗀 button to set the location of backup files.

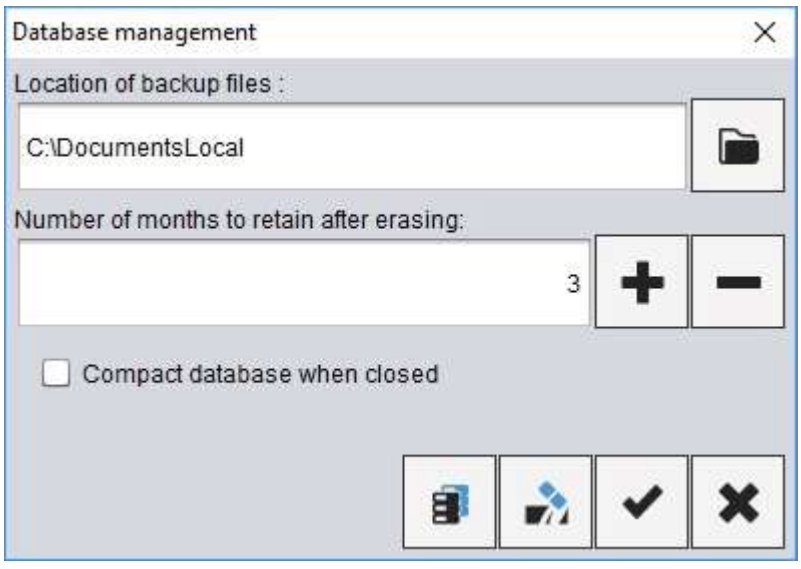


3. Click ✔ when you have selected your folder.

4. Click on the *Backup* button to make a backup copy of the database in your selected location.

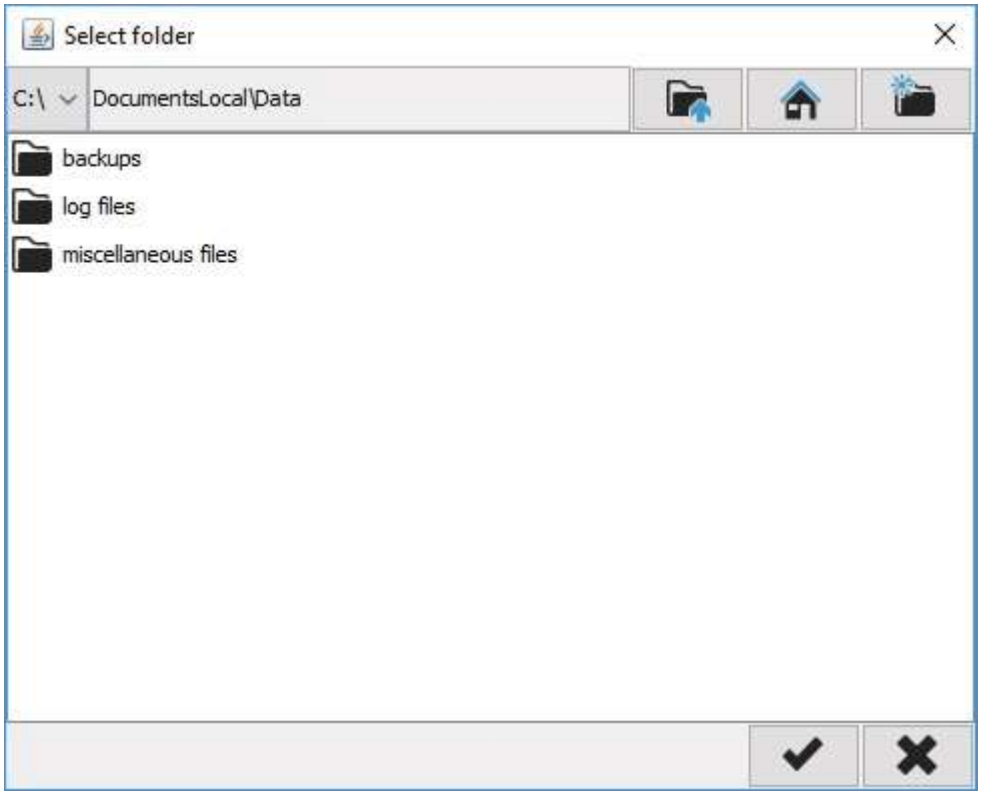
4.2.2 Deleting data

1. Click on the *Database management* button.



2. Use the + and − buttons to set the number of months of data to retain after erasing.

3. When the data is erased, the application will automatically create a backup of the current database. As such you should set the location of backup files before proceeding. Click on the *Folder* icon to set the location of backup files.



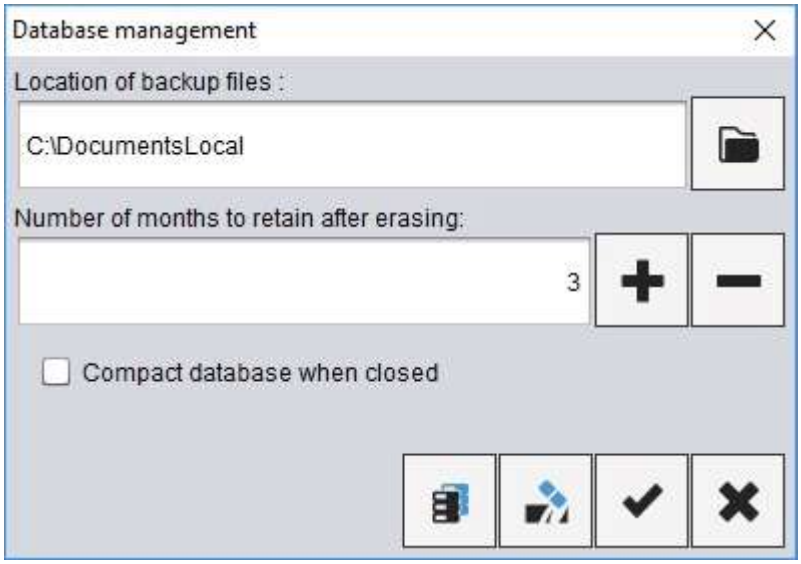
4. Click when you have selected your folder.

5. Click on the *Erase* button to delete the data from the database.

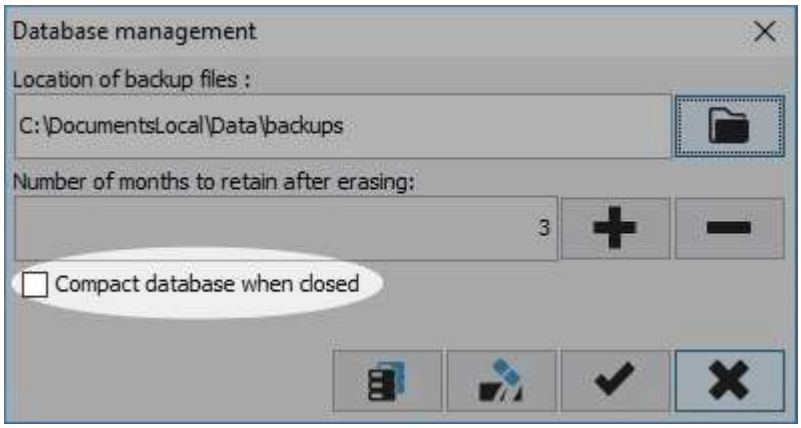
4.2.3 Compacting the database

Overtime the database may contain a lot of unused space. It may be necessary to occasionally compact the database to reduce the file size and improve performance.

1. Click on the *Database management* button.



2. Select the *Compact database when closed* checkbox.



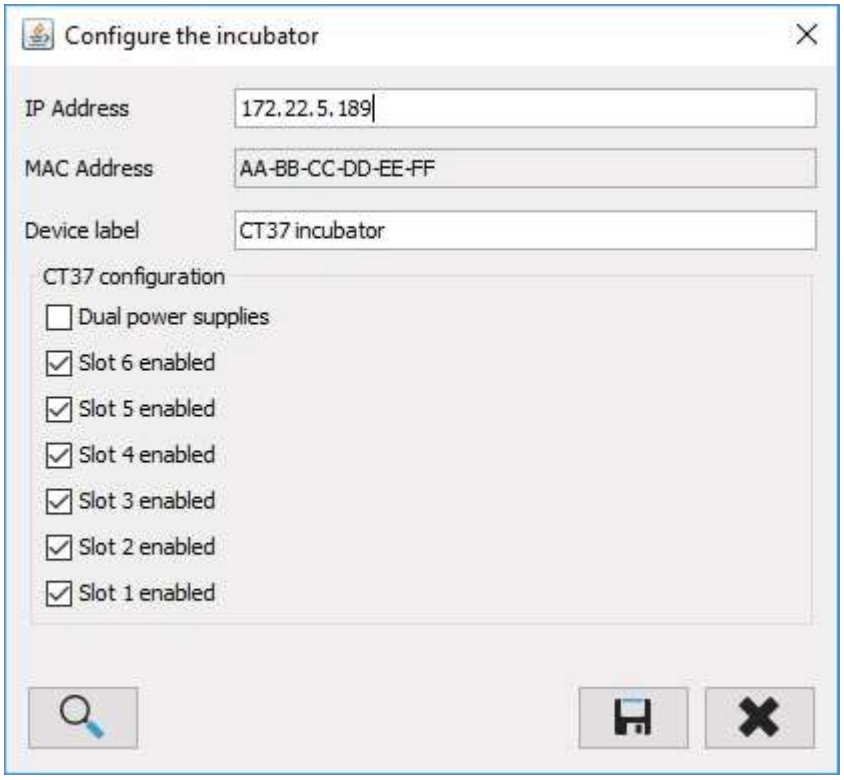
3. Click ✔ to save your changes.
4. The database will be compacted when you next shut down PIMS.
5. If you select the option to compact the database, you will be given the opportunity to shut down the application immediately.

6. Click ✔ to shut down the application immediately or ✖ to shut down the application later.

4.3 Changing incubators

4.3.1 Changing the configuration

1. Click on the *Configuration* button for the incubator you want to change.



2. Change the settings as required.

Changing the *IP Address* to an invalid setting will result in the application being unable to communicate with the device.

3. If you want to find the device on the network, click on the Search button; see Searching for incubators 18.

4. Click to save your changes or to discard them.

4.3.2 Changing the setpoint

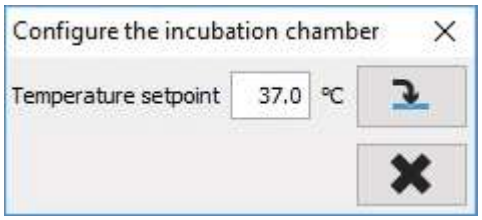
The temperature setpoint for each incubation chamber can be set from the application.

The setpoint can only be changed on the CT37stax systems; for the BT37 incubators these changes should be made using the incubator's keypad.

Changing the setpoint could damage samples if the incorrect temperature is selected.

You must press the network unlock switch on the CT37stax system before you can change its settings.

1. Click the button on the incubator chamber to be adjusted.



2. Adjust the setpoint to the required temperature.
3. Click the *Send* button to send the new setting to the incubator.
4. Click to close the configuration window.

4.3.3 Putting an incubator into standby mode

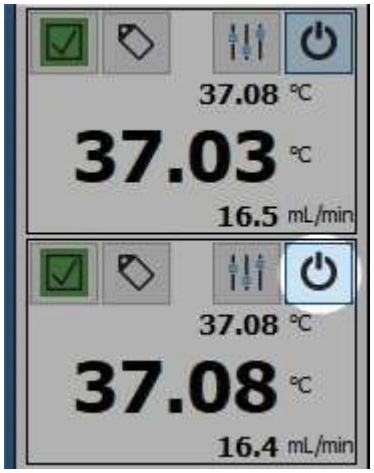
Standby mode can only be selected on the CT37stax systems; for the BT37 incubators, standby mode should be selected by using the incubator's keypad.

In standby mode, the incubator will no longer control its temperature or use any gas.

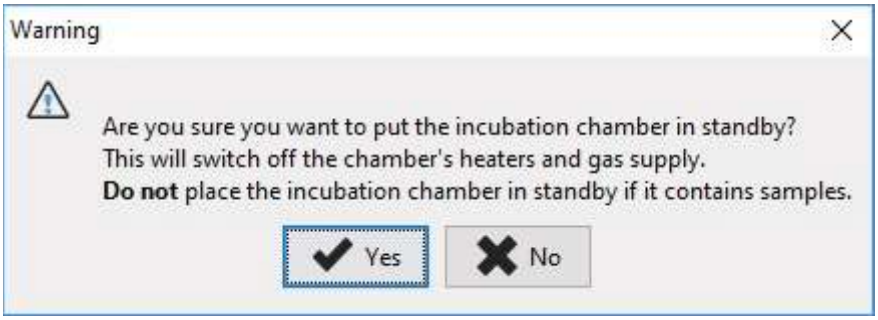
Do not place the incubator in standby if it contains samples.

You must press the network unlock switch on the CT37stax system before you can change its settings.

1. Click on the *Standby* button.



2. You will be asked to confirm the action.



3. Click ✔ to confirm standby or click ✖ to cancel.

4.3.4 Leaving standby

You can only leave standby mode on the CT37stax systems; for the BT37 incubators, you should leave standby mode by using the incubator's keypad.

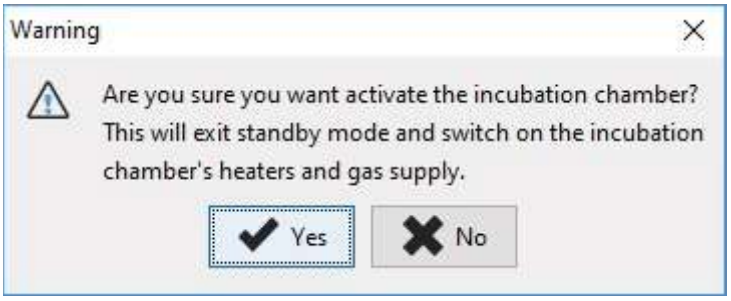
⚠

When leaving standby mode, the incubator begins to control its temperature and consume gas.

You must press the network unlock switch on the CT37stax system before you can change its settings.

1. Click the *Standby* ⏻ button on the incubator that is currently in standby mode.

2. You will be asked to confirm the action.



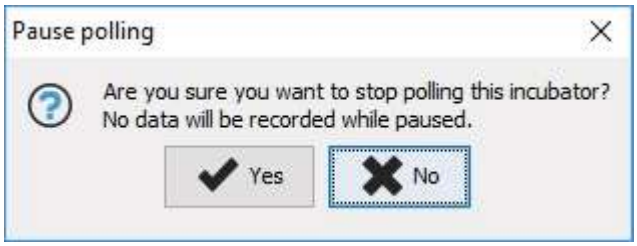
3. Click ✔ to leave standby or click ✖ to cancel.

4.3.5 Pausing logging

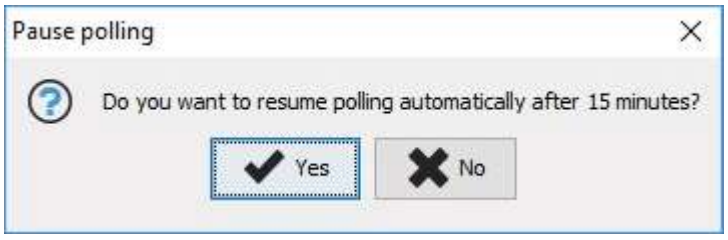
You may need to occasionally pause logging if, for example, an incubator is to be removed for servicing.

1. Click the *Pause* ⏸ button at the bottom of the incubator.

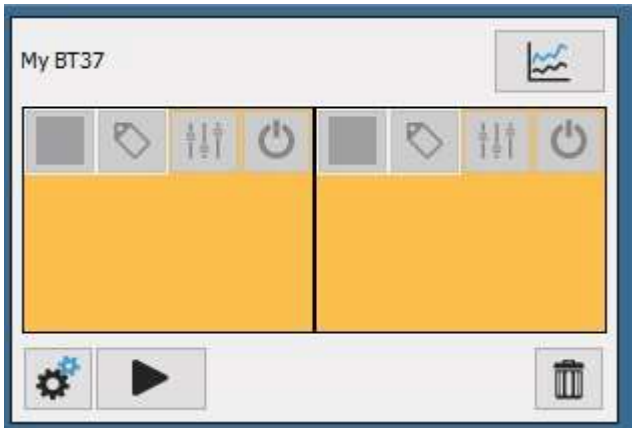
2. You will be asked to confirm whether you want to stop polling.



3. Click ✔ to stop polling or ✖ if you want polling to continue normally.
4. You will then be asked whether polling should automatically resume after 15 minutes.



5. Select ✔ to resume automatically or ✖ if you want polling to stop until manually restarted.
6. While polling is stopped all readings will be removed from the display.



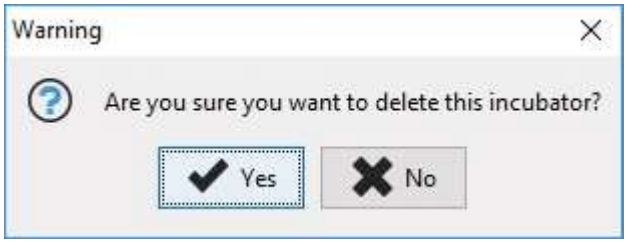
7. To resume polling, click the *Run* ▶ button.

4.3.6 Removing an incubator

Removing an incubator does not remove the data. If you add the incubator back again with the same MAC address, the historical data will still be available.

1. Click on the *Trash can* 🗑 button.

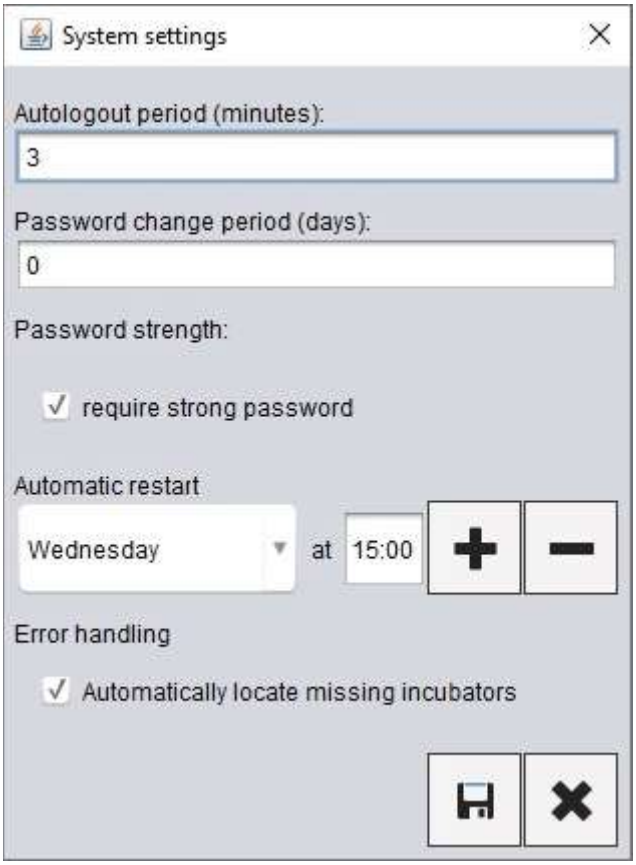
2. You will be asked to confirm the action.



3. Click ✔ to confirm the removal or click ✖ to cancel.

4.4 System configuration

1. Click on the *System Configuration* button .



2. Change the settings as required.
   a. *Autologout period (minutes)*: enter the period after which the application should automatically log you out if inactive.
   b. *Password change period (days)*: enter the number of days after which you will be asked to change your password.
   c. *Require strong password*: check this if you want to enforce strong passwords when they are changed. Strong passwords must contain at least 6 characters and lower case, upper case, digits and special characters. A special character is any character that is neither a digit nor a letter from a to z inclusive. If unchecked, the only requirement is that the password must contain at least 6 characters.
   d. *Automatic restart*: set the day of the week when an automatic restart of the system should take place. See Automatic restart 62 for more details.
   e. *Automatically locate missing incubator*: check this if you want to locate incubators automatically if their IP address changes.
3. Click to save your changes or to discard them.

4.4.1 Automatic restart

If the application is run continuously, the system should be periodically restarted to ensure optimum performance. The application can be configured to restart automatically from the System configuration 61 window.

Automatic restart should only be enabled on systems that automatically start PIMS without requiring the user to log in to Windows. If the user is required to log in, automatically restarting the application will result in logging terminating.

1. From the *System settings* window, see System configuration 61, set the *Automatic restart* day to the day when the restart should occur. Select *Never* if you want to disable the automatic restart.

2. Use the + and − buttons to adjust the time when the restart should occur. Note the restart will occur within one hour of the selected time.

Additional information

5 Additional information

5.1 Data compression

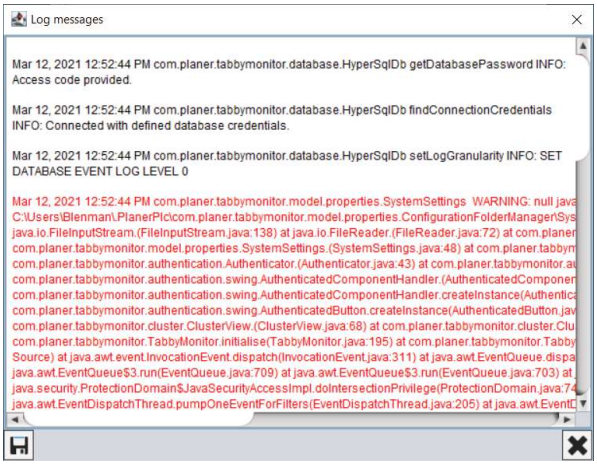
In order to reduce the size of the database, not all data points are recorded. Data is retrieved from the incubators every 10 seconds, but the application only records the data to the database if, since the last data point was written, one of the following conditions is met:

- More than 3600 seconds have elapsed.
- The temperature has changed by more than 0.1 °C.
- The flow has changed by more than 2.5 mL/min.

5.2 Debug information

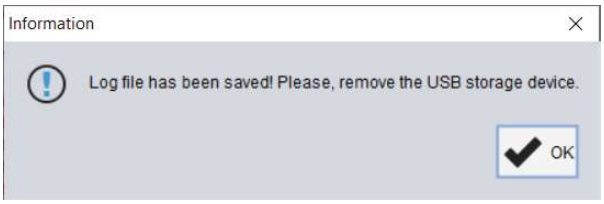
If you are experiencing problems with the application, Planer's support team may ask you to look at the most recent log messages. These can be opened from the *About* window.

1. Click on *About* button.
2. When the *About* window opens, click the *Debug* button.
3. The *Log messages* window will appear. The most recent messages since the application started will be shown.



4. Click the save symbol to write to the USB device.
5. Once you have inserted your USB flash drive, click Yes.

6. Remove your USB storage device and then click OK.



5.3 Checking for application updates

Checking for updates requires an internet connection.

Depending on the schedule that was selected during the initial installation, the application will occasionally look for updates when you log in.

You can also undertake a manual check at any time. To check for an update:

1. Click on the *About* button to open the *About* window.
2. Click on the *Update check* button to check for updates.

5.4 Accessing the operating system

- The incubators are only monitored while the application is running.
- No data are logged and no alarms generated by the PC if the application is not running.

Some installations will have been configured to prevent access to the underlying operating system. However, sometimes it may be necessary to access the operating system to configure the system. You can exit the application and log out of the operating system from the *About* window.

1. Click on the *About* button to open the *About* window.

2. Click on the *Lifebelt* button to exit the application and log out of the operating system.

You will then be able to log back into the operating system as an administrator to undertake the necessary configuration activities.

5.5 Cybersecurity

You must ensure that any PC running PIMS is protected by suitable antivirus and firewall software and that these applications are kept up to date.

No clinical data are held within PIMS. Data are limited to authentication credentials, operating data from the incubators, configuration data, and labelling information. The label feature is not intended to hold patient sensitive information; see Adding labels 32.

Incubator settings can only be changed on CT37stax systems. In order to protect the CT37stax from network attacks, settings cannot normally be changed over the network.

To enable settings to be changed, the network unlock switch on the docking station must be pressed. This will allow settings to be changed for up to five minutes. After this time, the incubator will return to its protected mode.

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