
WWW.DATABADGER.CO.UK

# BadgerView Software

# Operating Manual

BadgerView Version 1.5.1 Rev 0

DATA BADGER

## Contents

# 1. Introduction

DataBadger is a Windows PC software application which allows the user to easily and quickly view and log data from the DataBadger range of devices. This software is designed to be operated without any specialised knowledge of network operation or programming.

This manual provides an overview of the main features of the BadgerView application and allows the user to rapidly focus on obtaining the data they need.

# 2. Getting Started

This section discusses the requirements of the BadgerView application and provides a guide to the installation process.

## 2.1. Requirements

BadgerView has the following system requirements;

- .NET Framework 4.8 (packaged with BadgerView)
- OS: Windows 11, 10, 8, Vista
- Memory 512 MB RAM
- 10 MB installation hard drive space + sufficient space for any log files
- Network connection, on same subnet as target logger devices
- Port 30331 access
- Port 9772 access

## 2.2. Installation

The BadgerView application can be downloaded from www.databadger.co.uk/software. A website user account must be created in order to download the application. BadgerView is downloaded as a .zip file containing;

1. BadgerView Setup.msi
2. Setup.exe
3. The following steps detail the installation process;
4. Open the BadgerView.zip file downloaded from our website
5. Double click the “Setup.exe” file and follow the installer instructions
6. If Windows displays the warning message shown in Figure 1, click the underlined, “More info” link -> Run anyway.

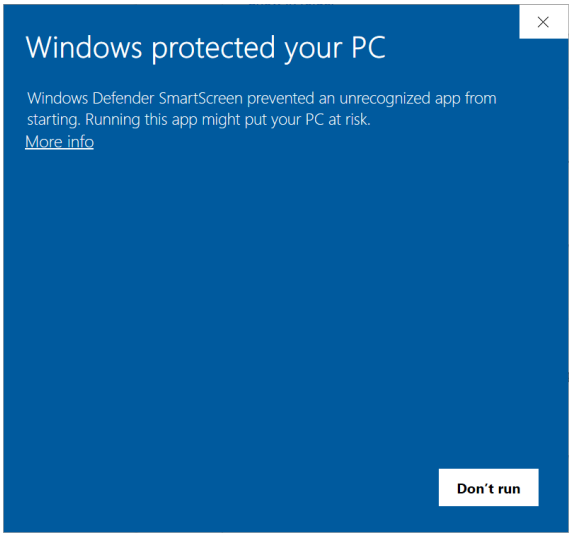


**Figure 1: Windows installer warning**

7. Once installation completes a BadgerView icon will be placed on the Windows desktop and in the start menu under the DataBadger folder.
8. Double click the desktop or Start menu icon to start the application.

## 2.3. Software Updates

DataBadger encourages users to keep their software up to date to enjoy new features and functionality. Users on our mailing list will receive email updates when new BadgerView versions are released. Otherwise, please periodically check www.databadger.co.uk/software for more information.

## 2.4. VPN Operation

BadgerView is capable of communicating with devices when connected to a VPN network. However, in order to communicate with devices via a VPN when not connected to the same local network, a VPN bridge must be suitably configured.

While DataBadger are happy to provide support on network communication, it is impossible for us to advise on the configuration of the various VPN server applications available.

## 2.5. Licensing

The BadgerView application is free to use with a single logger device. However, should the user wish to log data from multiple devices at the same time, a software license must be installed. Software licenses can be purchased via the DataBadger online store at www.databadger.co.uk.

A software license can be installed using the following procedure;

1. Purchase a software license through the website or by speaking with a sales representative
2. Start the BadgerView application
3. Select Tools -> Licensing Hash on the top bar menu
4. BadgerView will open a dialog allowing a hash file (.hsh) to be saved. Email this file to DataBadger along with the licensee details.
5. The DataBadger support team will send an email to the contact named with a .lic file attached. Save this file to the computer to be licensed. In Badgerview, select Tools -> Import License. Select the license file in the dialog which opens. BadgerView will verify the license key and report that the application is correctly licensed.

# 3. Application Overview

## 3.1. Main User Interface

The user interface of the BadgerView software is designed to allow users to focus on their data, not the devices. With that in mind, the interface is kept clean, with no clutter or distractions.

Figure 2 shows the main user interface with the device tree view on the left and the display window on the right. The display window has a number of tabs at the top, allowing the user to access data display, device settings, data settings, system settings, and alerts.

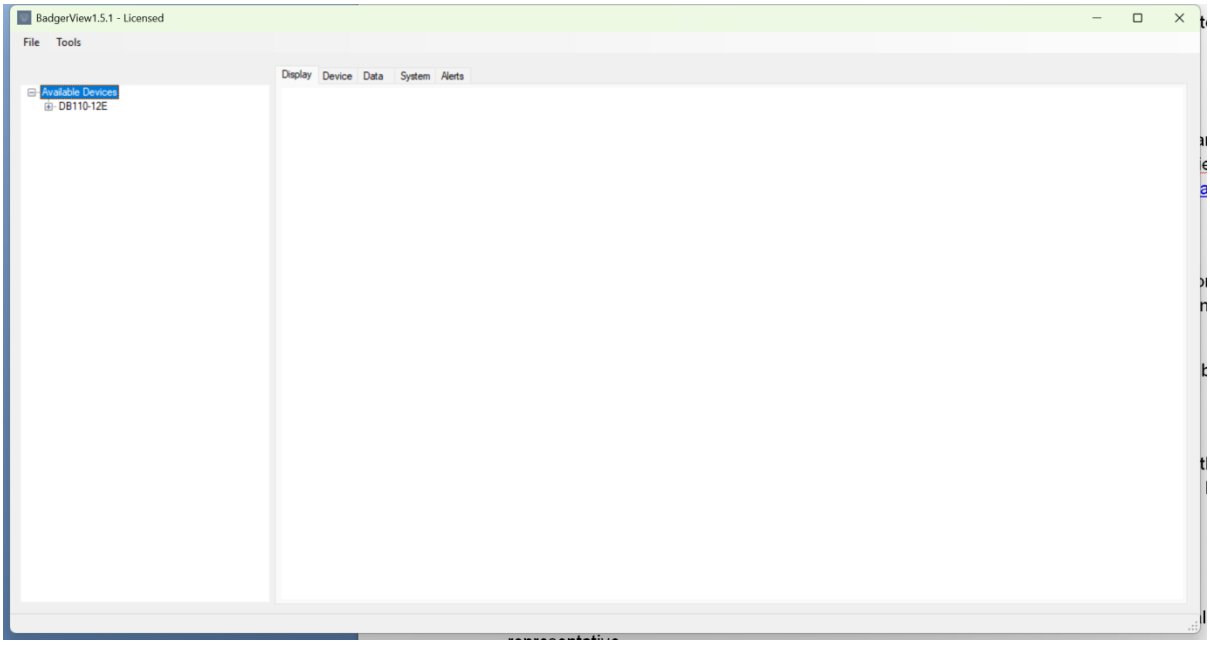


**Figure 2: BadgerView Main User Interface**

## 3.2. Device Settings

The device settings tab allows the user to view and modify settings associated with the data logger selected in the device tree view. To view the settings belonging to a device, click the device in the tree view and select the, “Device” tab. The device is then queried and it’s settings displayed in the table. Figure 3 shows a DB110-12E device selected and the corresponding settings loaded in the Device tab.

The settings shown are dependent on the model of the device selected. Please consult the device user manual for the relevant device to view the settings and parameters available.

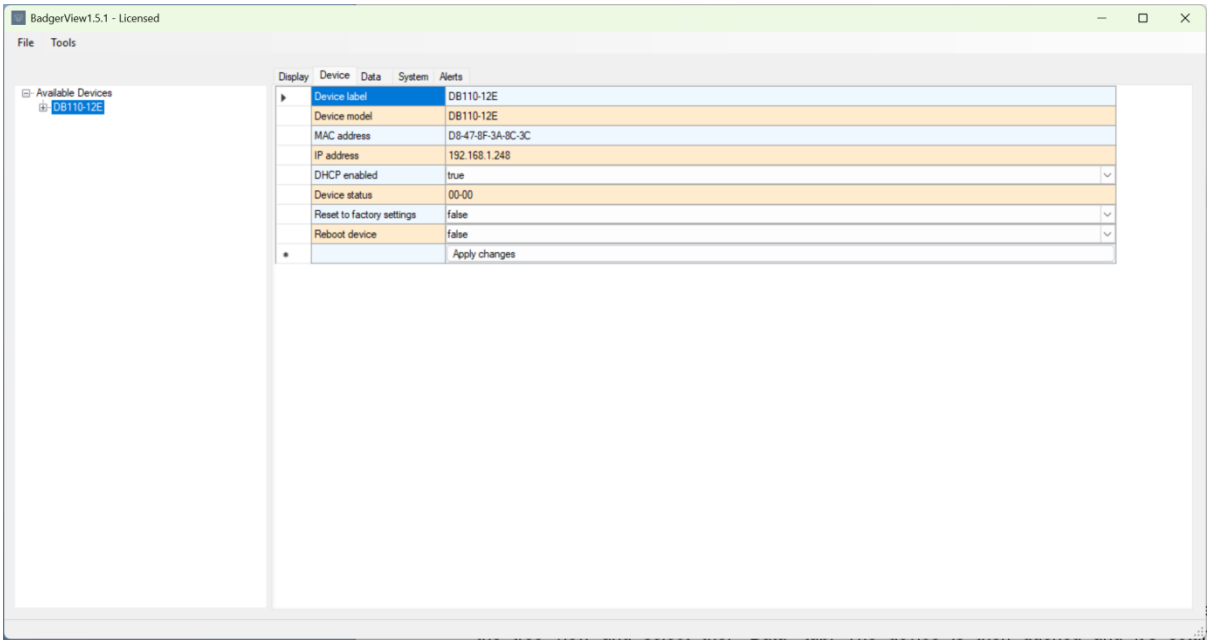


**Figure 3: DB110-12E device settings example**

## 3.3. Data Settings

The data settings tab allows the user to view and modify settings associated with the data logger sensor interface. To view the sensor settings belonging to a device, click the device in the tree view and select the, “Data” tab. The device is then queried and it’s settings displayed in the table. Figure 4 shows a DB110-12E device selected and the corresponding settings loaded in the Data tab.

The settings shown are dependent on the model of the device selected. Please consult the device user manual for the relevant device to view the settings and parameters available.

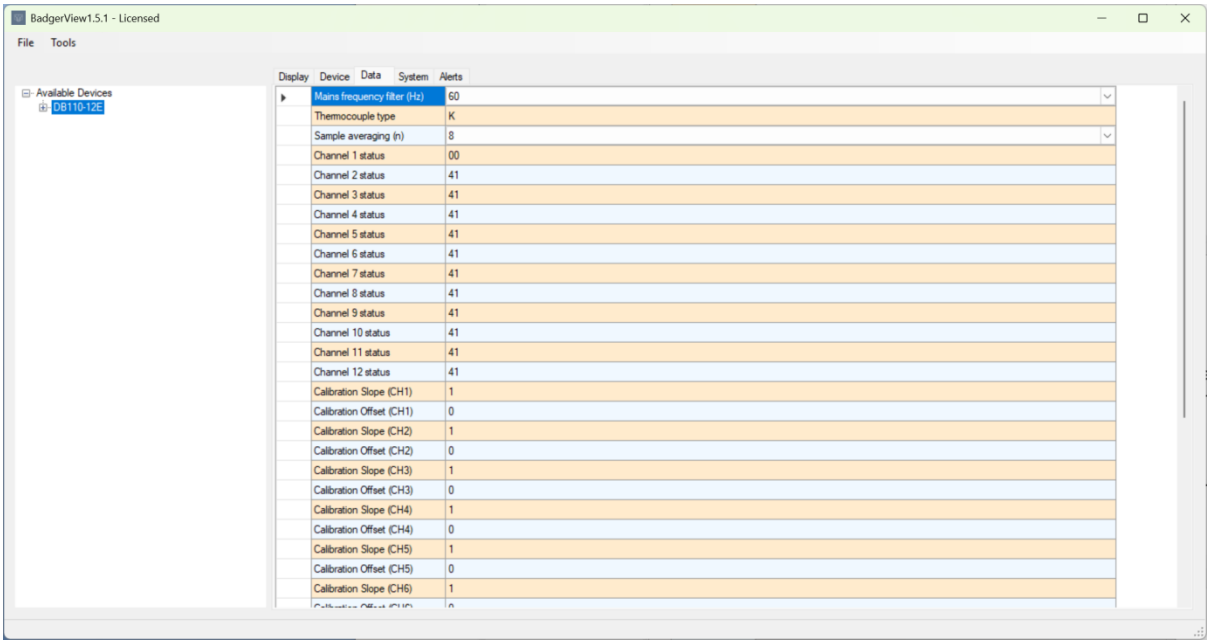


Figure 4: DB110-12E data settings example

## 3.4. System Settings

The system settings tab provides settings which are global to the BadgerView application. The System tab is shown in Figure 5. The available settings and their editable status are shown in Table 1. Click the, “Apply changes” button to confirm any changes made on the System tab.

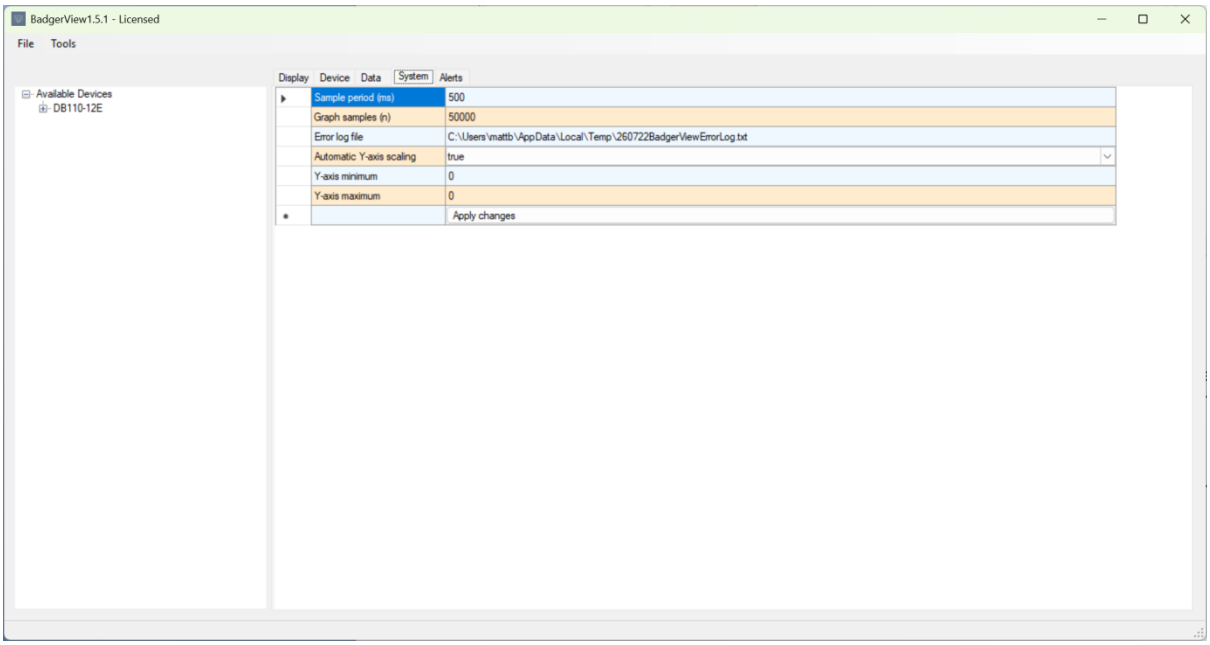


Figure 5: System settings tab

Table 1: System settings

| Parameter | Default Value | Read/Write |
|---|---|---|
| Sample rate (ms) | 1000 | R/W |
| Graph samples (n) | 1000 | R/W |
| Error log file | N/A | R |
| Automatic Y-axis scaling | True | R/W |
| Y-axis minimum | 0 | R/W |
| Y-axis maximum | 0 | R/W |

#### 3.4.1. Sample Rate

The sample rate set in the System tab determines the global rate at which BadgerView acquires data from all logged devices. BadgerView acquires data from each logged device, waits the specified duration and then triggers sampling again.

The overall data throughput s therefore determined by the number of data channels being logged, the local network bandwidth available (router contention), and the sample rate specified.

#### 3.4.2. Graph Samples

The graph samples entry specifies the maximum number of data points per data channel which will be displayed on the chart in the display tab. Once the maximum number of data points has been reached, the chart will automatically scroll along the time axis.

#### 3.4.3. Error log file

The error log file entry displays the location of the BadgerView error log file. In the event of any internal errors, details are written to the error log file. Should the user require technical support from DataBadger, it is likely this error log will be requested to aid investigation. A new error log file is created each day when an error is encountered. Subsequent errors are appended to the same file.

The error log file can be loaded by BadgerView by selecting File -> View Error Log. The log file will be loaded in the system default text file viewer. If no errors have been encountered (or the file has been removed), an error pop-up will be displayed stating that the file is not found.

#### 3.4.4. Automatic Y-Axis Scaling

By default, BadgerView will automatically scale the Y-axis of the graph on the display tab to show all data. However, in some situations, it may be helpful for users to manually specify Y-axis limits. To do this, set the automatic y-axis scaling parameter to false, and enter appropriate values in the y-axis minimum/maximum entries. Returning this parameter to true will restore automatic scaling again, ignoring the specified minimum/maximum values.

#### 3.4.5. Y-axis Minimum

When automatic y-axis scaling is set to false, this parameter controls the minimum y-axis value on the data graph in the display tab.

### 3.4.6. Y-axis Maximum

When automatic y-axis scaling is set to false, this parameter controls the maximum y-axis value on the data graph in the display tab.

## 3.5. Alerts

The alerts tab allows the user to configure email alerts for specified data conditions. Data channels currently being logged are automatically listed. The columns in the alerts tab are shown in Table 2, below. An email server must be correctly configured before alert emails can be sent. See Section 4.4 for information of configuring email settings.

**Table 2: Alerts tab columns**

| Parameter | Default Value | Read/Write |
|---|---|---|
| Channel name | N/A | R |
| Low limit | 0 | R/W |
| Alert low | False | R/W |
| High limit | 0 | R/W |
| Alert high | False | R/W |
| Repeat | 1 minute | R/W |

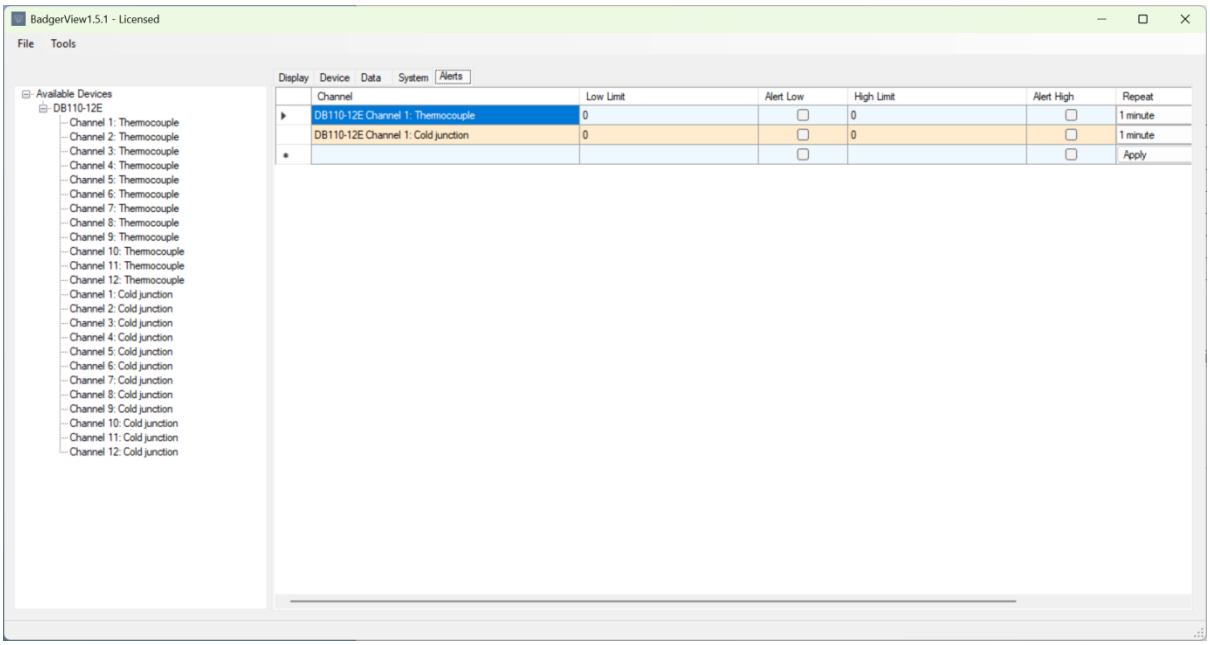


**Figure 6: Alerts tab**

For each logged data channel, a low and high threshold may be configured, which is specified in the units for that device. E.g. °C for the DB110-12E device shown in the example of Figure 6. The selected repeat rate specified how often email alerts will be received.

For example, a low limit of 15°C is configured with a repeat of 1 minute. The alert low drop down is set to true, to activate the alert. Every time the selected temperature channel falls

below 15°C an alert email is sent to the specified address. 1 email per minute will be sent. If the temperature remains below the threshold, an email will be continually sent every minute.

# 4. BadgerView Operation

## 4.1. Device Detection

In order to interact with a DataBadger device, the BadgerView application must first locate it on the local area network. BadgerView does this by sending a broadcast message over the network, to which all DataBadger devices reply. Once a device has been identified it is added to the device tree view on the left of the main user interface.

Figure 7 shows the device tree view with two devices located. In this instance, a DB110-04E 4-channel Ethernet thermocouple logger and DB110-12E 12-channel thermocouple logger have been identified. Both devices are displayed in summary mode, with the available data channels hidden. Clicking the + symbol to the left of the device expands the listing to show data channels available, as shown in Figure 8.

BadgerView automatically searches for available devices on start up. However, the user can manually search for devices by selecting Tools -> Find Devices in the top bar menu.

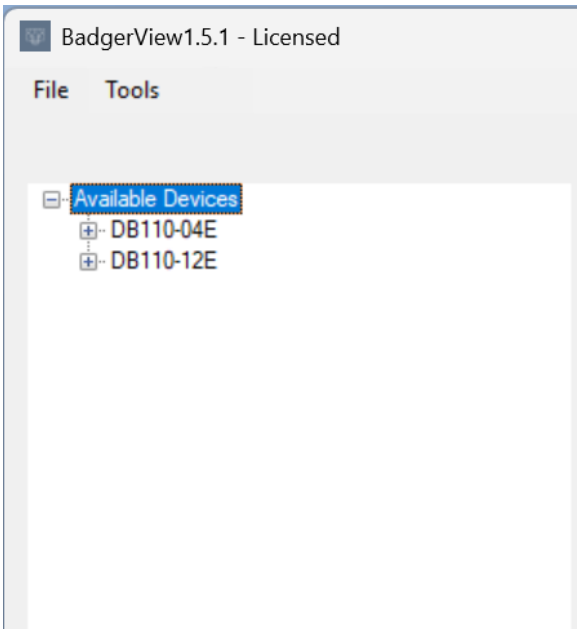


**Figure 7: Device tree view with two devices**

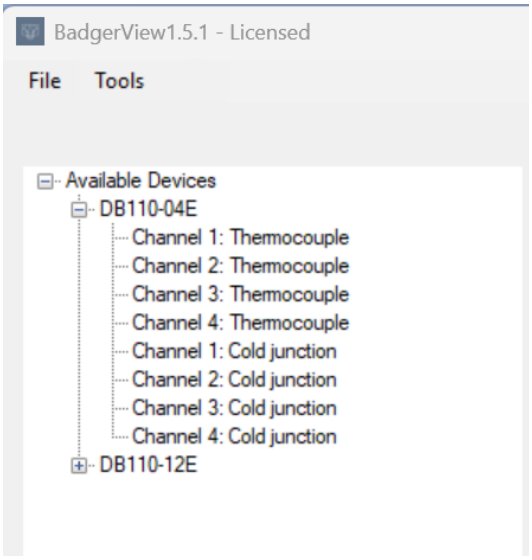


**Figure 8: DB110-04E expanded to show available data channels**

## 4.2. Adding Data Channels

To view device data, the user may add data channels to the Display tab graph. In order to add a channel;

1. Select the + symbol next to the desired device to display available channels for measurement, as shown in Figure 8
2. Right click the data channel of interest and click, “Add”
3. BadgerView will request data at the sampling rate set in the System tab. Data acquired will be displayed on the data chart, as shown in Figure 9.

The data chart can be cleared by clicking Tool -> Clear Chart on the top bar menu. This also stops data acquisition from all devices.

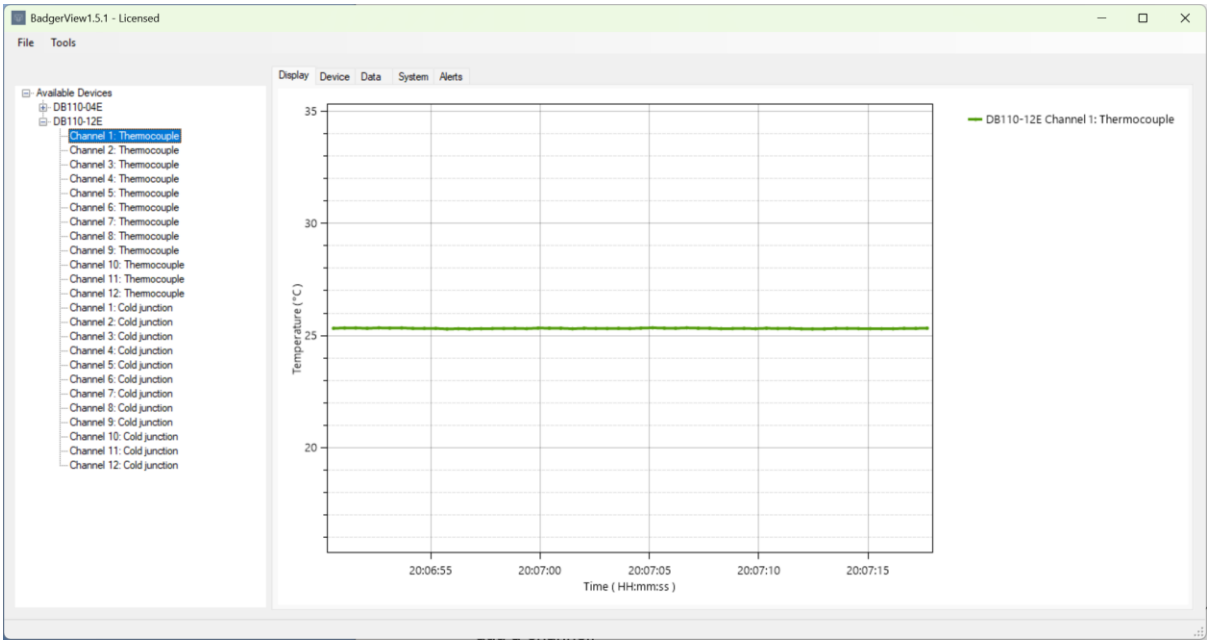


**Figure 9: Data channel acquisition**

## 4.3. Logging Device Data

With device data being acquired, the user can record this data to file by selecting File -> Log To File on the top bar menu. The file prompt will be shown, asking the user to select where the data file is to be stored. Select the file name/location as required and click OK.

Data is written to file in a CSV format, which can be natively opened in Microsoft Excel or similar.

In order to stop logging click File -> Stop Logging on the top bar menu.

## 4.4. Email Server Settings

To configure an email server for use with the data alerts tab, select Tools -> Email Settings on the top bar menu. This will load the email settings window, shown in Figure 10.

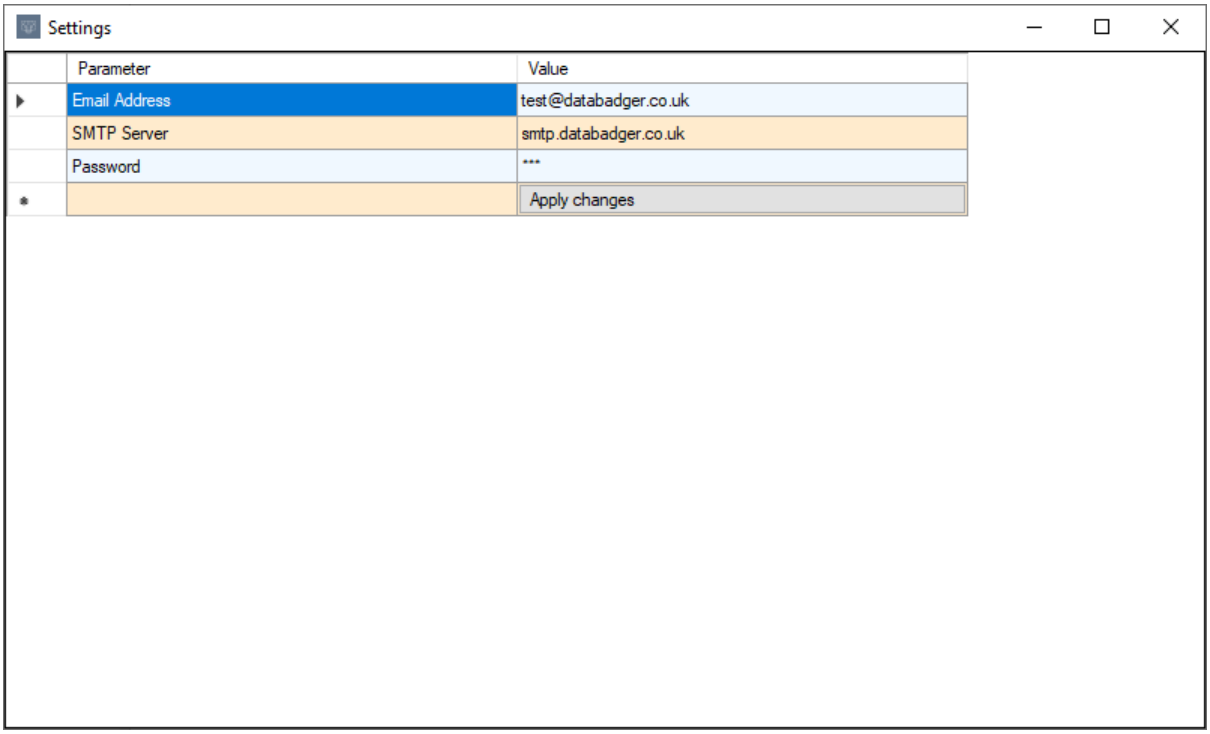


Figure 10: Email settings window

To configure an email server, enter a valid email address, SMTP server address and password for an existing email account. Press the, 'Apply changes' button to save these settings. Once saved, the email server password is not shown when the email settings window is opened. BadgerView will use the stored email server settings to connect and send an alert email to that account.

To test the email server settings, select Tools -> Send Test Email from the top bar menu in the main window. Check that the test email is correctly received before configuring email data alerts.

## 5. Support

For any support or sales queries please contact admin@databadger.co.uk