LUMASENSE™ TECHNOLOGIES

Instruction Manual

BZ7007 Remote and Offline Software

BE6042-13

Index

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Chapter 1

Introduction

January 2018

1. Introduction

In some situations, it may be an advantage to control a system comprising a Type 1409 Multipoint Sampler and a Gas Monitor without having the instrument online connected to a PC. In such a system, the Gas Monitor is the system controller. The BZ7007 Remote and Offline SW can be used during set-up of the system and to retrieve data from the system. The BZ7007 can be used either directly connected via a USB cable or through a LAN network via the Ethernet connection.
The procedure to use the Gas Monitor as a system controller in a Stand Alone Multipoint System is covered in the User Manual BE6043 for the Stand Alone Multipoint System.

Please consult the User Manual BE6043 for guidance in how to Set-up the system from the Gas Monitor's front panel.

This Manual only describes the use of the BZ7007 Remote and Offline Software during set-up and data retrieval.

Please be aware that if any set-up parameter is changed or a measurement is started/stopped from the Gas Monitor front panel it will require the Soft Ware to be disconnected and reconnected to be realigned with the Gas Monitor.

BZ7007 will utilize the **USB or the Ethernet** interface in the newer 1512, 1412i, 1314i and 3434i Gas Monitors:

The Monitors serial number must be from:

1314i: 702-130

1412i: 713-500

3434i: 952-110

1512: 110-001

Chapter 2

Installation of the BZ7007

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2 Installation of the BZ7007

When taking delivery of a Multipoint Sampler – INNOVA 1409 the BZ7007 Remote software is delivered on an USB Memory Stick.

2.1 Installing the BZ7007 Remote and Offline Software.

2.1.1 Computer requirements

The Software is targeted to work on a Desktop/Laptop PC environment running a Microsoft Windows Operating System.

Before installing the Software the PC must meet the following minimum requirements:

Processor	Intel dual-core i3 or compatible.
Operating System	Windows 7 Windows 8.1 Windows 10
RAM	Minimum 4 GB Ram
Hard Disk	Up to 500 MB of available space may be required.
Display	HD resolution monitor 1366 x 768 pixel or higher with small fonts.
Total port connections	1 USB port Or 1 TCP/IP (Ethernet) port
Connection to Gas Monitor	1 USB port Or 1 TCP/IP (Ethernet) port

Table 2.1 Computer requirements

2.1.2 Installing BZ7007

Please refer to Appendix A how to perform the installation of the BZ7007 Remote and Offline software.

After the installation is successfully completed the LumaSense -> BZ7007 menu is created.

The BZ7007 program icon (Figure 2.1) is also placed on your desktop for easy access to the program.

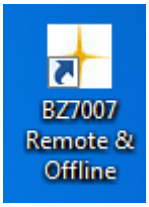

Figure 2.1 BZ7007 Remote and Offline desktop shortcut

Chapter 3

Using the Program

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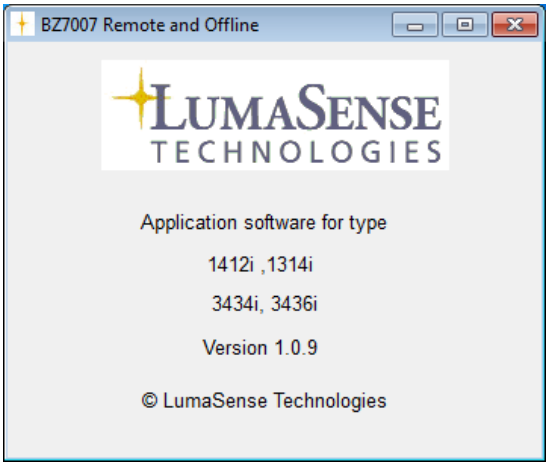
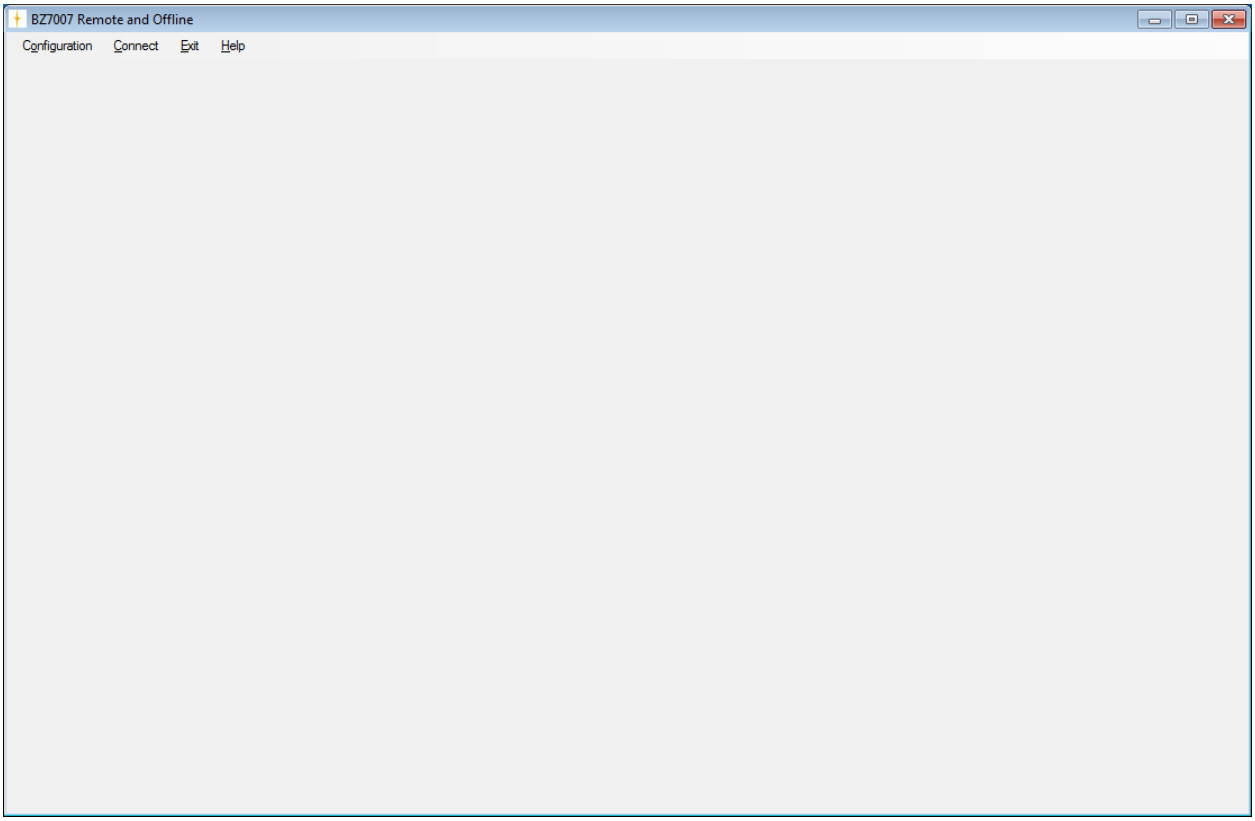
3 Using the Program

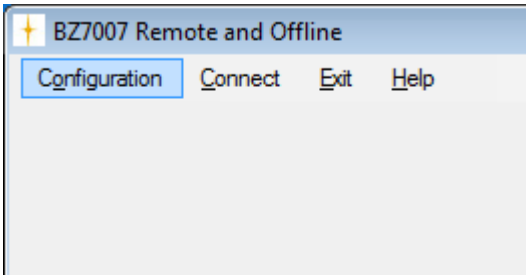
During the start-up of the **BZ7007** application, a splash screen will be shown.



The **BZ7007** start-up window will appear when the application has started.



3.1 Program configuration



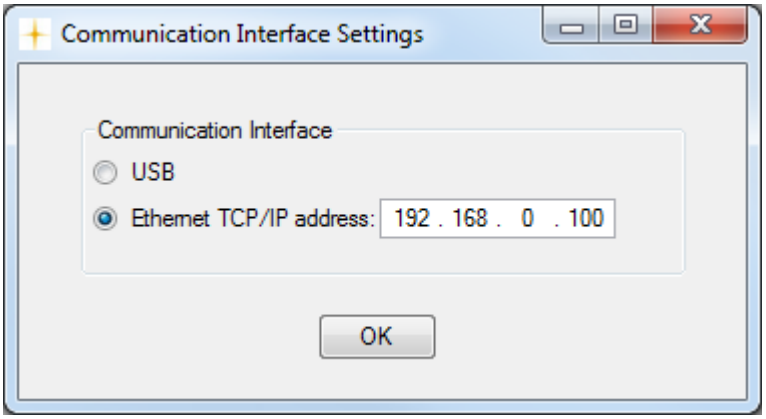
The very first time BZ7007 is started the **Communication Interface Settings** and **Units** needs to be configured.

The **Configuration** menu pull-down contains the **Communication Interface Settings** and **Units** menu items.

After making these configurations it is normally not necessary to change them again, as the communication interface or the units is by preference.

The chosen configuration will be stored so they need not to be set when restarting BZ7007.

3.1.1 Communication interface settings

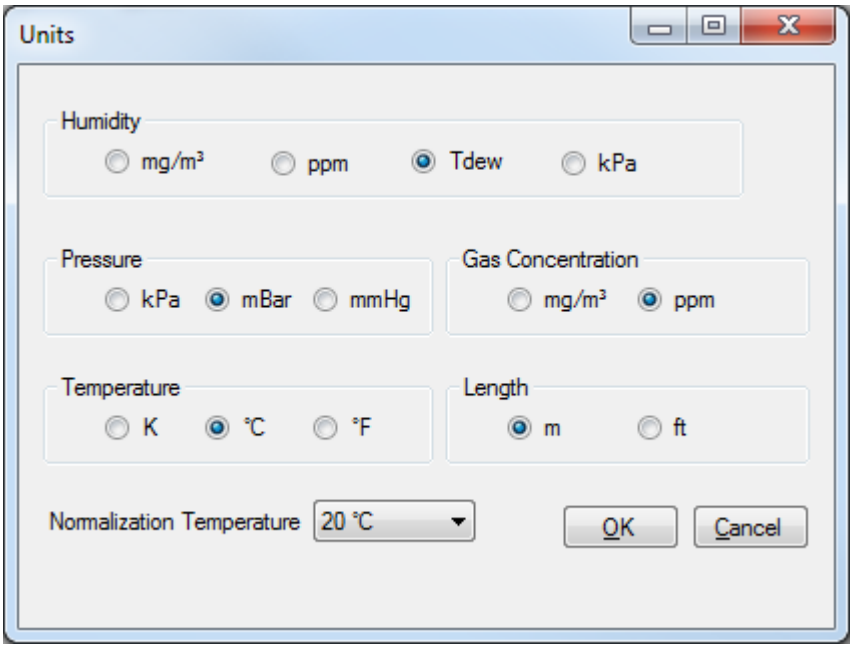


The **USB** interface or **Ethernet** interface can be selected.

When the **Ethernet** interface has been selected the **TCP/IP address** of the remote/distant Gas Monitor in the Stand Alone Multipoint System can be specified.

The selected communication interface settings will be retained when restarting the BZ7007.

3.1.2 Units



These unit and normalization temperature settings will be send to the stand alone Gas Monitor as part of the setup upload to the Gas Monitor described in section 5.1.1.

The selected units will be used by the Gas Monitor when calculating the respective values for:

- **Humidity**
- **Pressure**
- **Gas Concentration**
- **Temperature**
- **Length**

The selected normalization temperature will be used when calibration is performed.

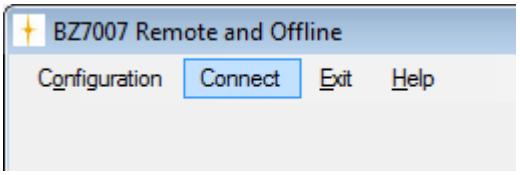
3.1.2.1 The default unit values are:

- Humidity : Tdew
- Pressure : mBar
- Gas Concentration : ppm
- Temperature : °C
- Length : m

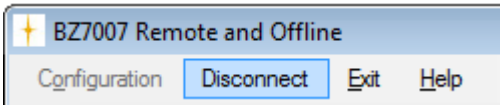
The default normalization temperature is 20 °C.

The selected unit and normalization temperature settings will be retained when restarting the BZ7007 Remote and Offline Software.

3.2 Gas Monitor connect

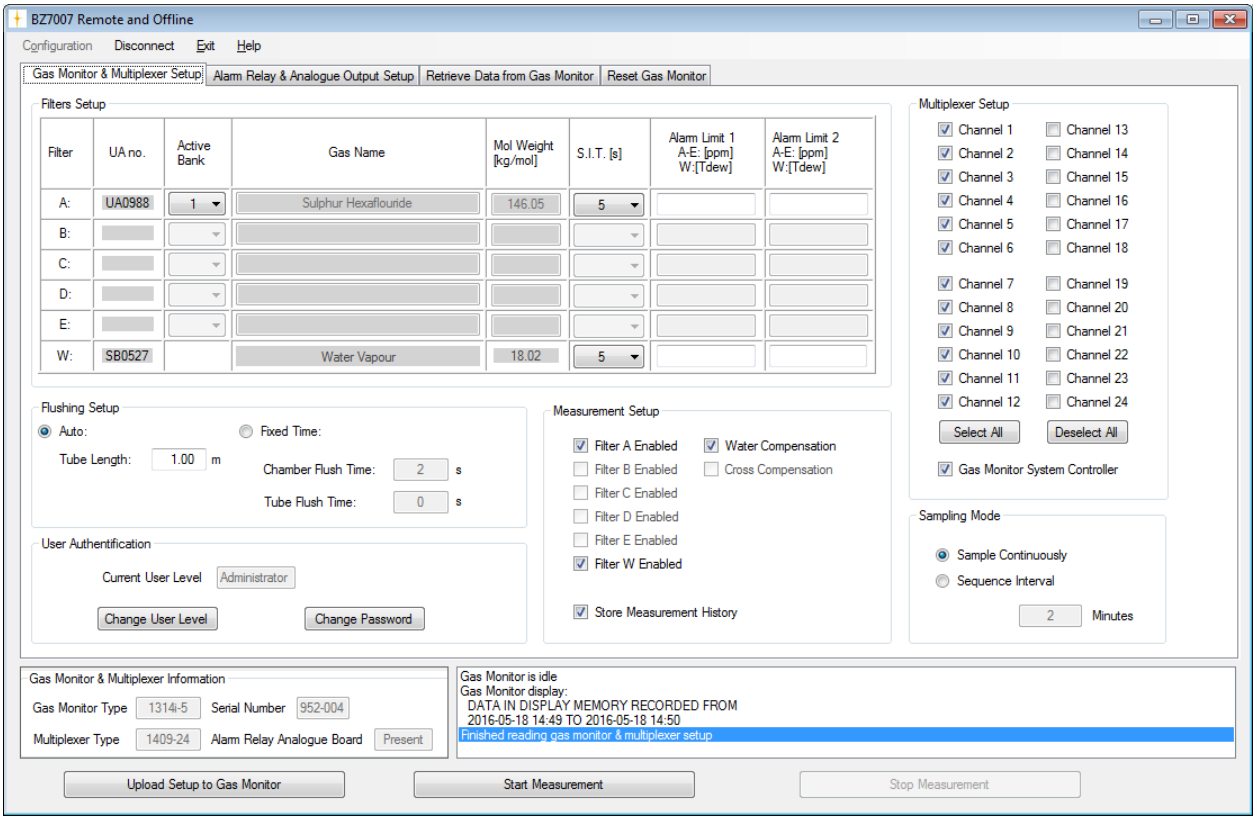


In order to connect to the Gas Monitor the file menu item **Connect** can be used.
The configured communication interface will be used when connecting to the Gas Monitor in the Stand Alone Multipoint System.
In case of a failed connect a popup error message box will be displayed.
After a successful connection to the Gas Monitor the **BZ7007 Remote and Offline** main window (see section 3.3) becomes visible.
The **Configuration** file menu will be inactive (not changeable) after connecting to the Gas Monitor, implying that neither the **Communication Interface** nor the **Units** can be changed while the BZ7007 is connected with the Gas Monitor in the Stand Alone Multipoint System.
After a successful connect to the Gas Monitor, the text of the **Connect** menu item changes into the text **Disconnect**, which then offers the option to make a disconnect from the Gas Monitor.



3.3 The Main window after connect

The **BZ7007 Remote and Offline** main window after having connected to the Gas Monitor:



Chapter 4

Set-up

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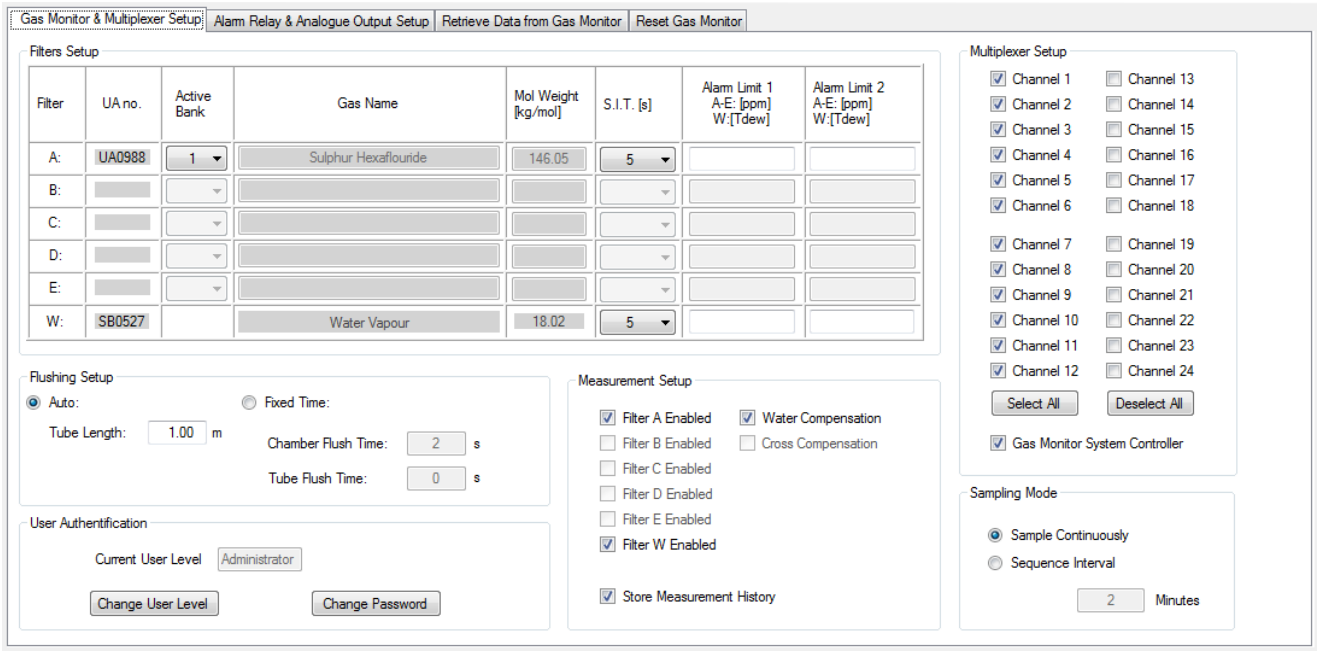
4 Set-up

4.1 Gas Monitor & Multiplexer Setup tab



The main purpose of the **Gas Monitor & Multiplexer Setup** tab is to configure the Gas Monitor and select the measurement and multiplexer set-up,

4.1.1 Gas Monitor Set-up

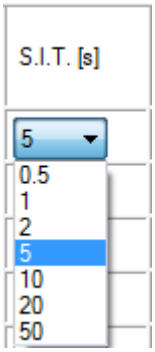
The UA filters, gases available, flushing parameters, averaging setting, sampling mode setting, filters enabled/disabled, compensation settings and chosen multiplexer channels in the Gas Monitor are automatically detected, when connecting to the stand alone Gas Monitor.

The table column **UA no.** will display the detected UA filter numbers. Furthermore the **Gas Name** and **Mol. Weight.** Values will be displayed.

For the filters A-E, where an UA filter is detected, and for the filter W, the following columns become active (changeable):

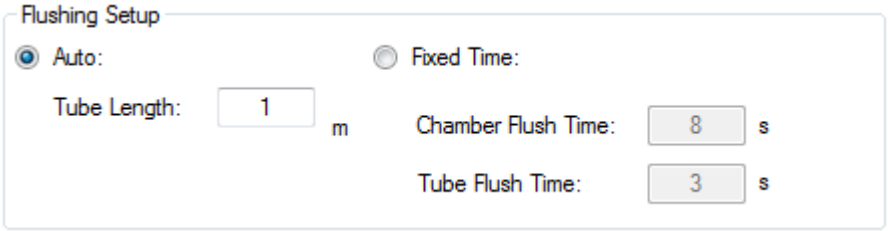
- **Active Bank** (1-5)
- **S.I.T.** (Sample integration time)
- **Alarm limit 1** (in the current unit as shown in the column header)
- **Alarm limit 2** (in the current unit as shown in the column header)

The **S.I.T.** (Sample Integration Time) can be set individually for each of the filter A to W, with a predefined value of 5 seconds.
The choice of S.I.T. values in seconds are



- 0.5 second
- 1 second (Fast)
- 2 seconds
- 5 seconds (Normal)
- 10 seconds
- 20 seconds (Low noise)
- 50 seconds

In the flushing setup **Auto**(matic) or **Fixed Time** flushing of the gas can be selected.

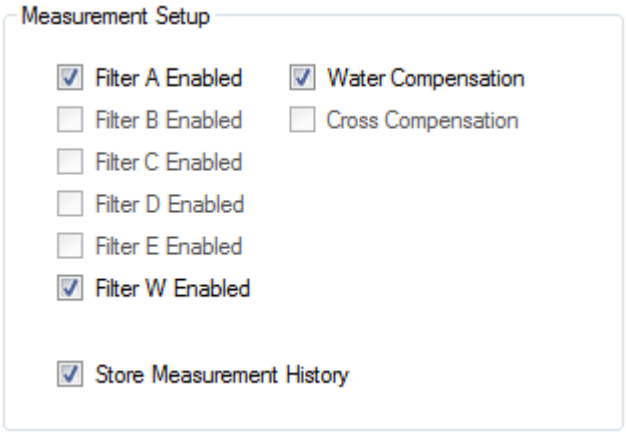


For **Auto**-flushing the **Tube Length** can be defined.
For **Fixed Time**-flushing the **Chamber**- and **Tube**-flush time can be defined.
The default, minimum and maximum values for all the flush settings are:

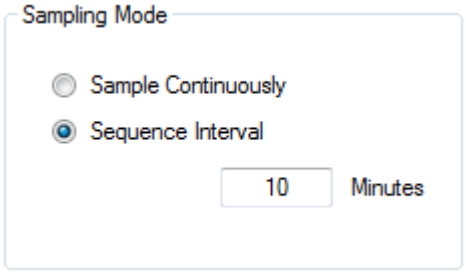
		Default	**Minimum**	**Maximum**
Flushing		Auto		
Auto	**Tube Length**	1 meter	0 meter	99 meter
Fixed Time	**Chamber flush time**	8 seconds	2 seconds	60 seconds
	Tube flush time	3 seconds	3 seconds	120 seconds

When **Auto**-flushing is selected the **Chamber:** and **Tube:** settings for **Fixed Time**-flushing will be in-active (not changeable, and vice versa when **Fixed Time**-flushing is selected.

In the **Measurement Setup** group box, it can be ticked which of the **Filter**'s **A-W** shall be included in the measurement and whether **Water** or **Cross Compensation** shall be performed during the measurement.
The **Cross Compensation** tick box will be dimmed if only one of the **Filter**'s **A-W** is available.
Furthermore the **Store Measurement History** tick box selects whether measurements will be stored in the display memory during a measurement session.

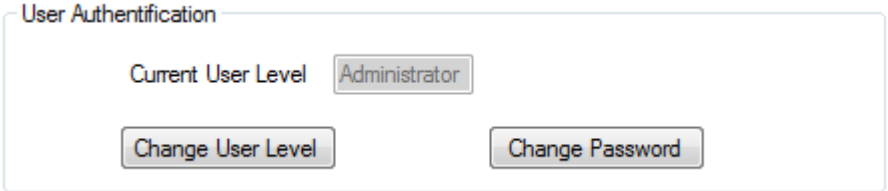


The **Sampling Mode** group box determines whether the sampling should run continuously or with a defined **Sequence Interval**.
The **Sequence Interval** is the time between the end of one multiplexer channel sequence and the start of the next one.
The maximum **Sequence Interval** is 60 minutes and the minimum **Sequence Interval** is 1 minute.



4.1.2 User Authentication

The **User Authentication** group controls the **User Level** feature in the stand alone Gas Monitor



The three user levels available in the Gas Monitor are User, Expert or Administrator.

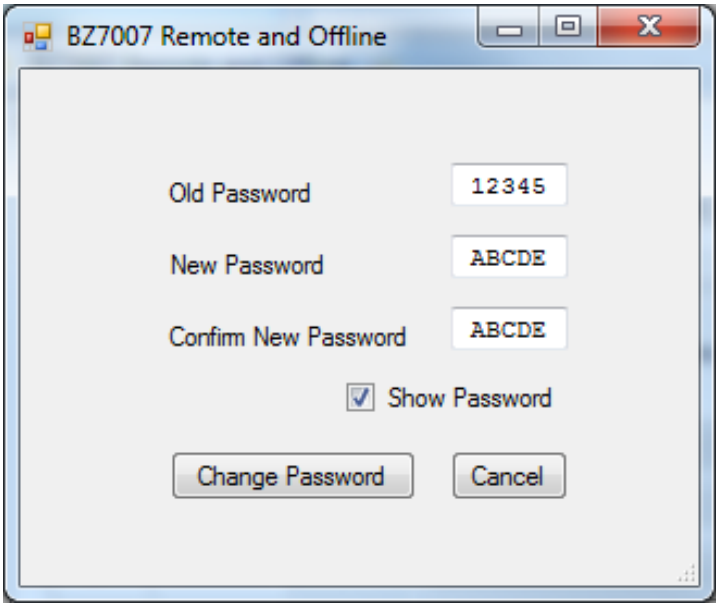
The **Expert** or **Administrator** level enables the user to change the Gas Monitor, the multiplexer, the alarm relay and the analogue output setup.

The **User** level will only allow the user to start/stop measurements in the Gas Monitor and to retrieve measurement data and logs from the Gas Monitor.
This gives the administrator the opportunity to setup the Stand Alone Multipoint System and then protect the setup by choosing the **User** level, after having performed the setup of the Gas Monitor.

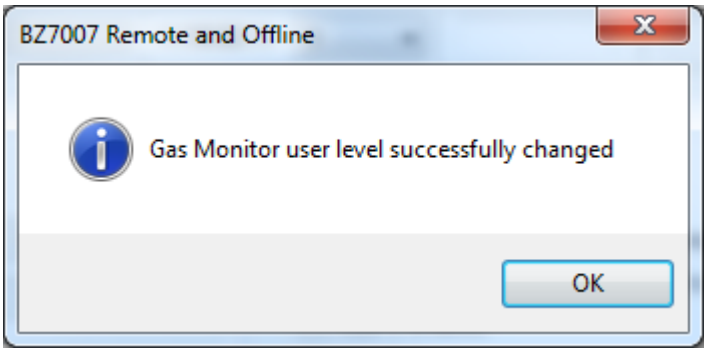
4.1.2.1 User Level

The **Change User Level** button will open a dialog box giving the opportunity to change the Gas Monitor user level. In order to be able to change the user level the correct Gas Monitor password must be entered.

All the typed passwords can be shown by ticking the **Show Password** tick box.



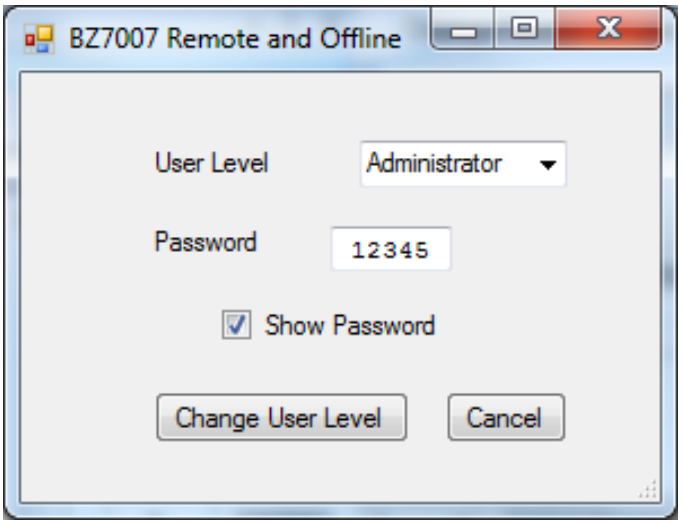
A message will be given if the Gas Monitor user level was successfully changed.



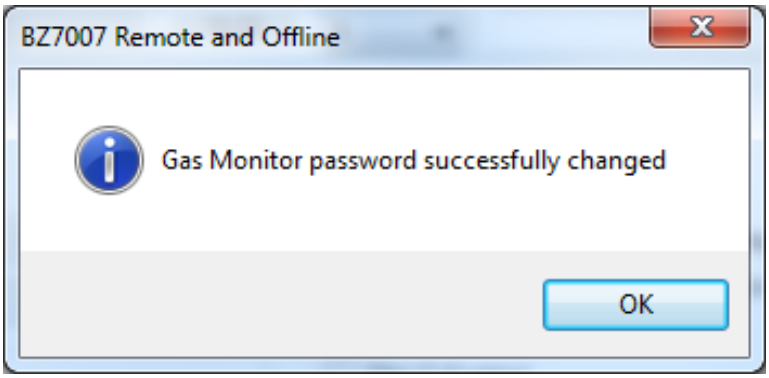
4.1.2.2 Password

The **Change Password** button will open a dialog box giving the opportunity to change the Gas Monitor password.

The typed **Password** can be shown by ticking the **Show Password** tick box.



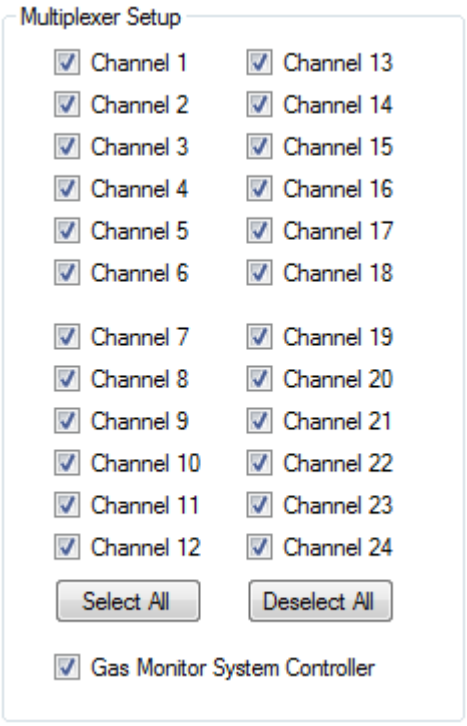
A message will be given if the Gas Monitor password was successfully changed.



4.1.5 Multiplexer Set-up

The **Multiplexer Setup** selects the multiplexer channels to be included in the measurement sequence.

The **Gas Monitor System Controller** is ticked if the gas monitor is controlling the 1409 multiplexer channel sequence.



The possible active channels installed in the 1409 will be shown according the 1409 Multiplexer variant:

1409-06
1409-12
1409-24

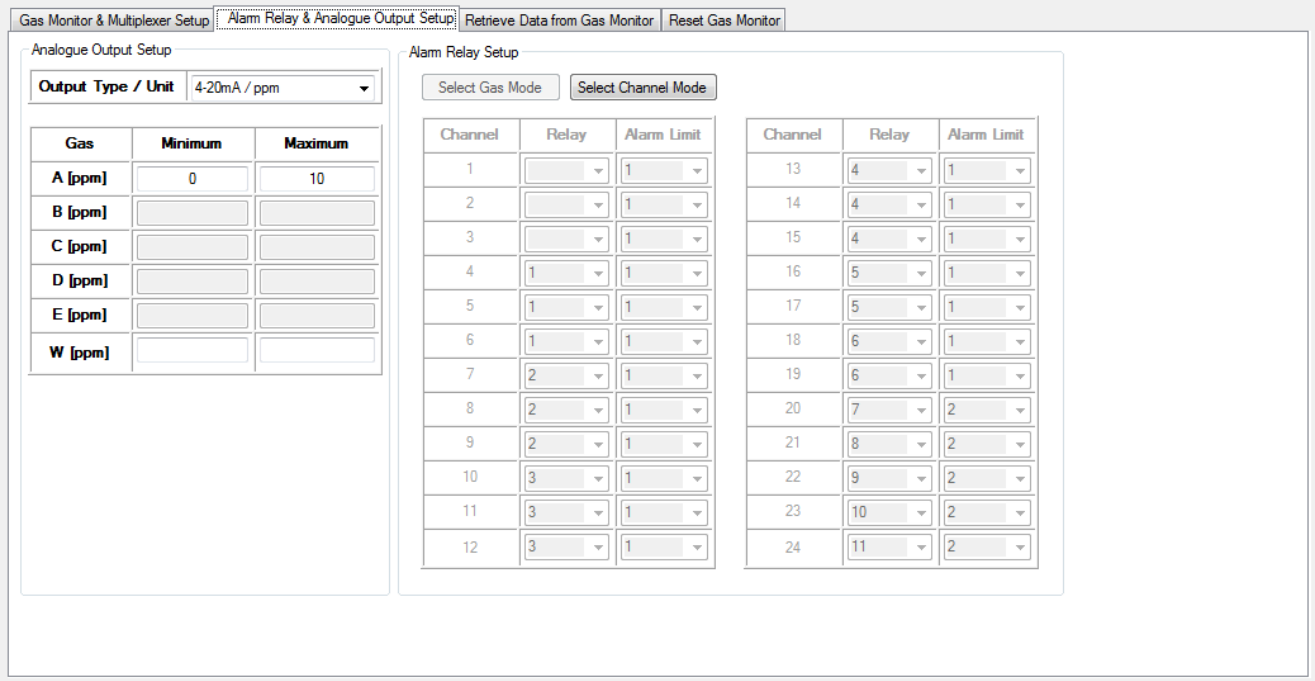
Unavailable channel numbers will be inactive.

Each active channel can be set to be included in the measurement sequence by a tick mark.

The measurement sequence will always be consecutive, starting from the lowest number selected.

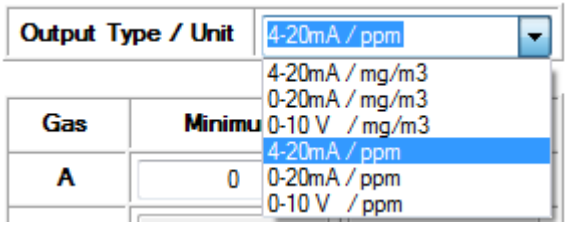
4.2 Alarm Relay and Analogue Output Setup tab

This tab defines the **Analogue Output & Alarm Relay** settings.

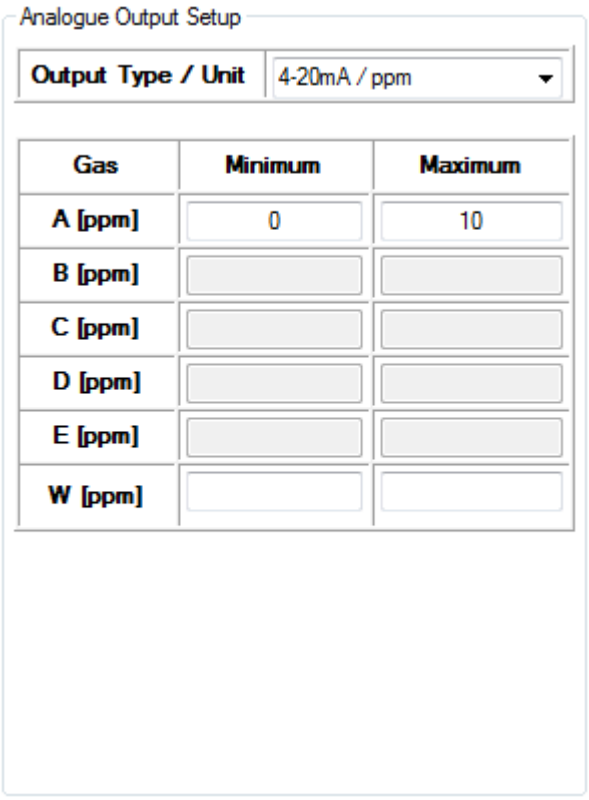


4.2.1 Analog output Set-up

The **Analogue Output Setup** group box defines which voltage or current analogue **Output Type** is to be used. It also defines the **Unit** of the minimum and maximum concentration values for the respective gases A-W.



The **Gas** table defines the minimum and maximum values for the respective gases A-W.
The chosen min./max. Values will correspond to the selected **Output Type**.
Any of the filters A-E being unavailable, will make its respective minimum and maximum values inactive.

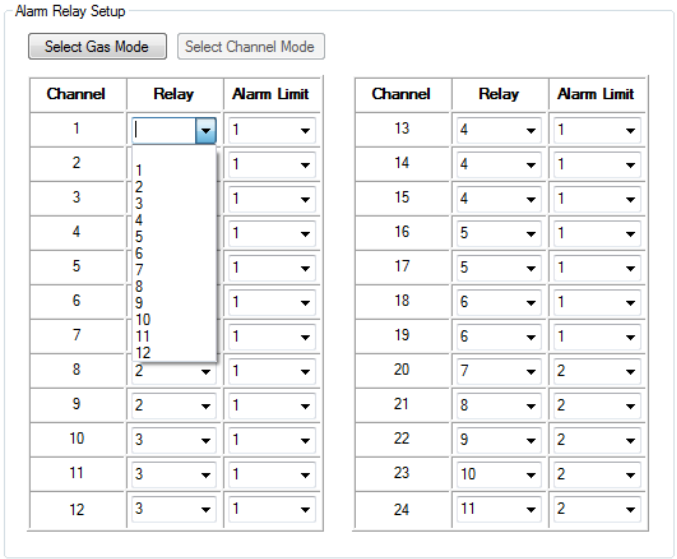


4.2.2 Alarm Relay Set-up

In the **Alarm Relay Setup** group box the buttons **Select Gas Mode** and **Select Channel Mode** can be used to control the behaviour of the 12 relays.

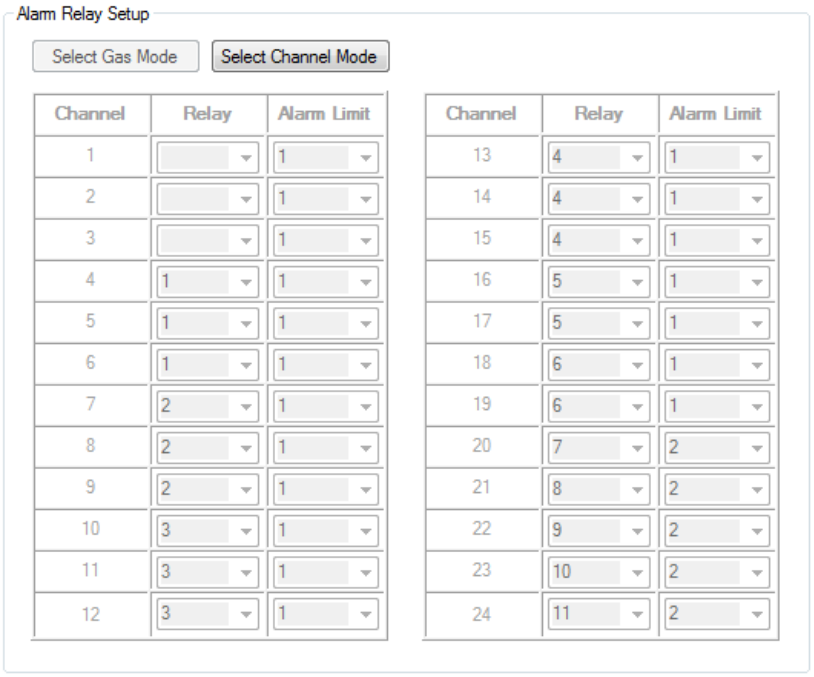
4.2.2.1 Channel Mode

When **Channel Mode** is selected the **Channel**-**Relay**-**Alarm Limit** tables will be active and can then be used to configure which multiplexer **Channel**(s) and at which **Alarm Limit** (**1** or **2**) level, none, one or more of the 12 **Relay**'s should be activated.



4.2.2.2 Gas Mode

When **Gas Mode** is selected the Channel-Relay-Alarm Limit tables will be dimmed as shown below.



The behaviour of the 12 relays will then be according to the following table (for the **Gas Mode)**:

Gas	Relay	Alarm Limit
A	1	1
A	2	2
B	3	1
B	4	2
C	5	1
C	6	2
D	7	1
D	8	2
E	9	1
E	10	2
W	11	1
W	12	2

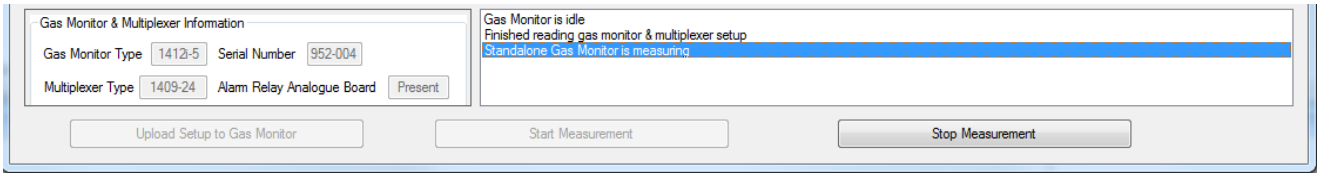
Chapter 5

Control buttons

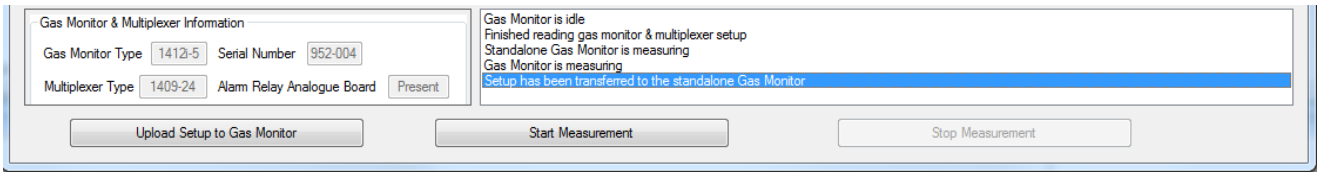
January 2018

5.1 Control buttons, Status text box and Info box

5.1.1 Control Buttons



The 3 control buttons at the bottom of the BZ7007 application window gives the possibility to transfer the selected settings in the **Gas Monitor & Multiplexer Setup** and the **Alarm Relay & Analogue Setup** or to **Start** or **Stop** the measurement. The **Units** settings described in section 3.1.2 , will be transferred to the Gas Monitor as well.
The **Upload Setup to Gas Monitor** button will only be enabled if the measurement has been stopped.



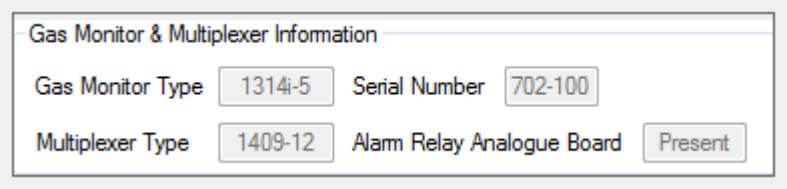
Use of the **Upload Setup to Gas Monitor** button will transfer all the **Unit** settings described in section 3.1.2, the **Gas Monitor & Multiplexer Setup** described in section 4.1 and the **Analogue Output & Alarm Relay** settings described in section 4.2.

5.1.2 Status text Box

The status text list box above the 3 control buttons will present status messages, when the control buttons has been activated.

5.1.3 Info box

The **Gas Monitor & Multiplexer Information** group box will present the **Gas Monitor Type** and its **Serial Number** and the **Multiplexer Type** as well. The presence of the **Alarm Relay Analogue Board** inside the Gas Monitor will also be shown.



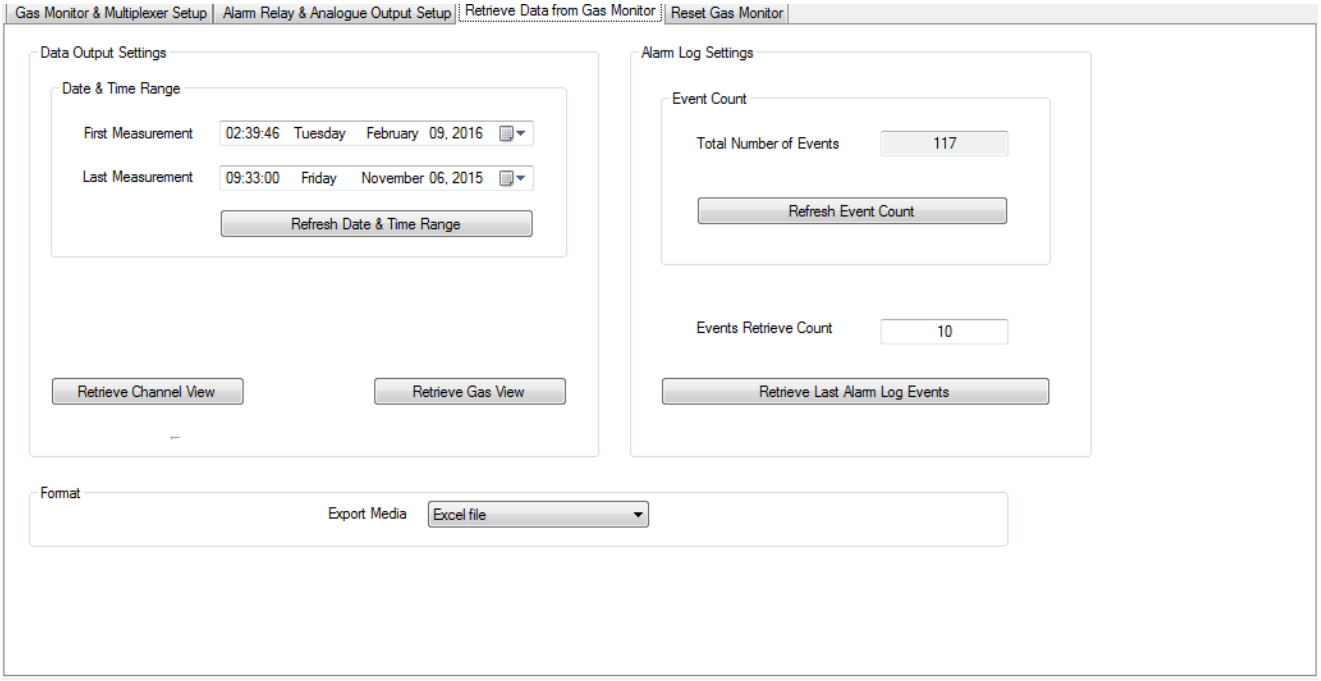
Chapter 6

Data Export

January 2018

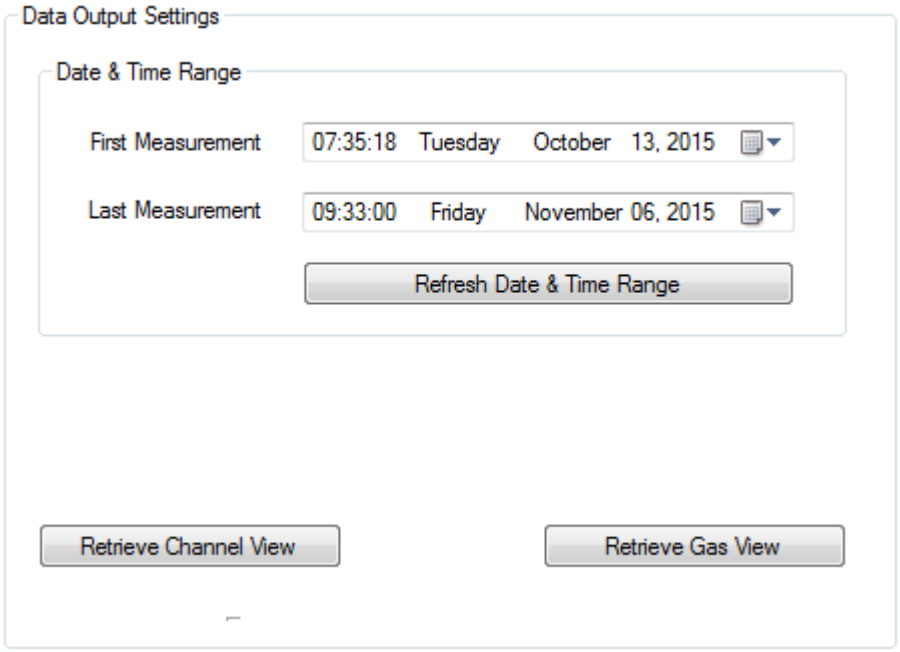
6.1 Exporting Data from the Stand alone Gas Monitor

6.1.1 Retrieve Data from Gas Monitor tab



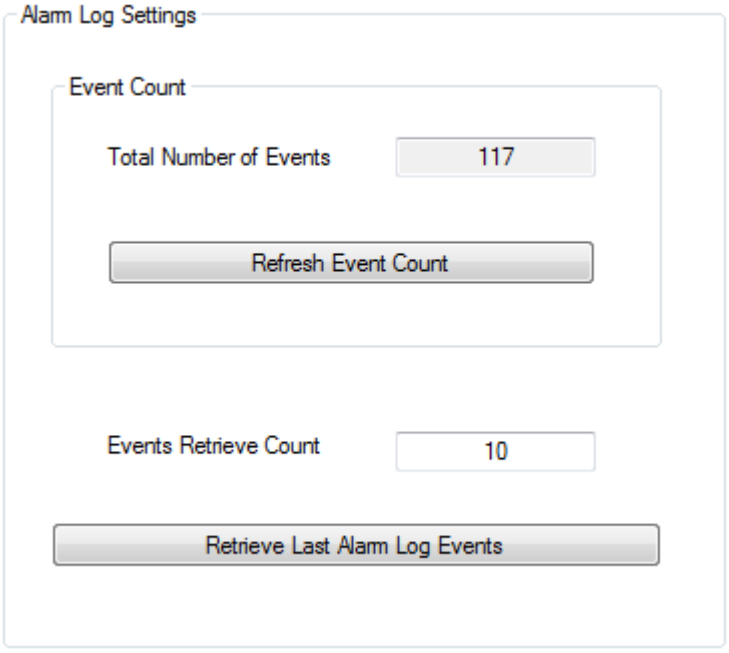
The purpose of the **Retrieve Data from Gas Monitor** tab is to create measurement or alarm reports based on data extracted from the stand alone gas monitor.

The **Date & Time Range** represents the time interval of measurements available in the display memory of the Gas Monitor, which was detected in the stand alone Gas Monitor when entering this tab.
The date & time for the **First** and **Last Measurement** can be refreshed with the **Refresh Date & Time Range** button at the user's convenience, in order to obtain the latest measurements. The refresh button is necessary because the Gas Monitor might or can be measuring continuously.



When connecting, the current **Date & Time Range** was read from the Gas Monitor.
The date & time for the **First Measurement** and **Last Measurement** can be changed, if only a part of the measurements are to be retrieved from the stand alone Gas Monitor. For instance only the latest measurements of the up to 15 days of measurements might be exported at the user's convenience.
The behavior of the **Retrieve Channel View** button for exporting measurement data channel-wise and the **Retrieve Gas View** button for exporting measurements gas-wise is described in section 6.2.

The **Total Number of Events** represents the number of alarm log events available in the display memory of the Gas Monitor, which was detected in the stand alone Gas Monitor when entering this tab.

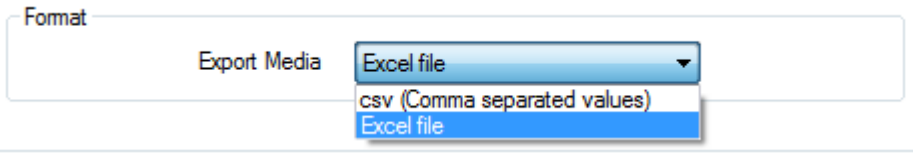


The count number for the **Total Number of Events** can be refreshed with the **Refresh Event Count** button at the user's convenience.

The last alarm log events to be retrieved can be specified in the **Events Retrieve Count** text field.

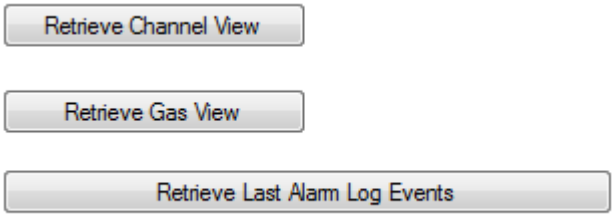
The behavior of the **Retrieve Last Alarm Log Events** button for exporting an alarm log is described in section 6.2.

The **Export Media** report format can be either in 'Excel file'- ,or 'csv'-format. The selected **Export Media**-setting will be retained when restarting the BZ7007.



6.2 Retrieve Measurement and Alarm Report

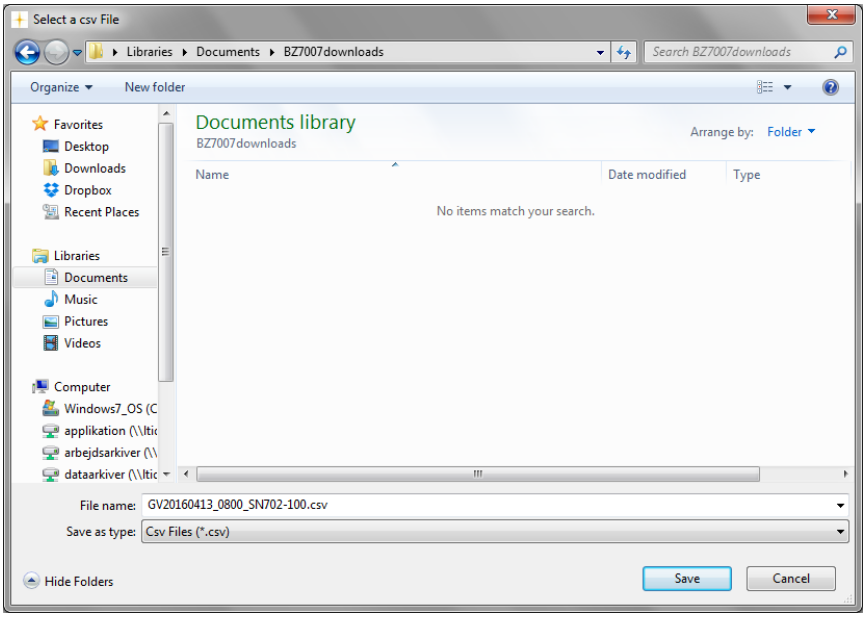
3 types of reports can be generated:



Measurement data reports can be generated either channel-wise as described in section 6.2.1, by using the **Retrieve Channel View** button or gas-wise as described in section 6.2.2 by using the **Retrieve Gas View** button.

An alarm log report can also be generated as presented in section 6.2.3 by using the **Retrieve Last Alarm Log Events** button.

Before the read operation is started a file save dialog will be presented, with the option to select a folder for the file save operation.



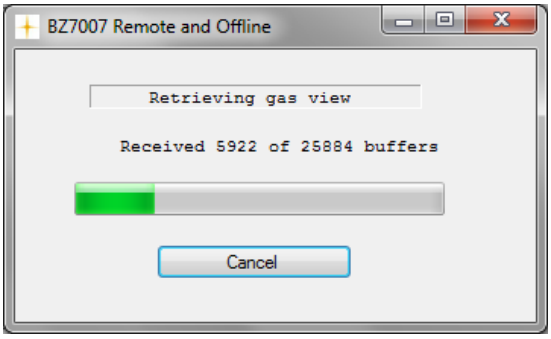
A file name is then entered, and the data and setup from the Gas Monitor will be saved in the selected **Export Media** format either the Microsoft Office Excel file format or as **csv (comma separated values)** files.

The **File name:** text field will have a suggested name containing the current date, time, Gas Monitor serial number and an acronym for the retrieval operation, like CV for channel view, GV for gas view or AL for alarm log.
When using the **csv** option, the **csv** files will be created in an automatically generated subfolder.

The Excel-file format can only be generated if Microsoft Office is installed. An error message will be shown if Microsoft Office is not installed, if trying to generate an Excel file.

The content of the Excel- and csv-files is described in the following sections.

During the retrieval of the selected report, a message box is shown, stating the type of retrieval, remaining retrieval time and a progress bar, with the option to **Cancel** the retrieval if desired.



6.2.1 Channel View

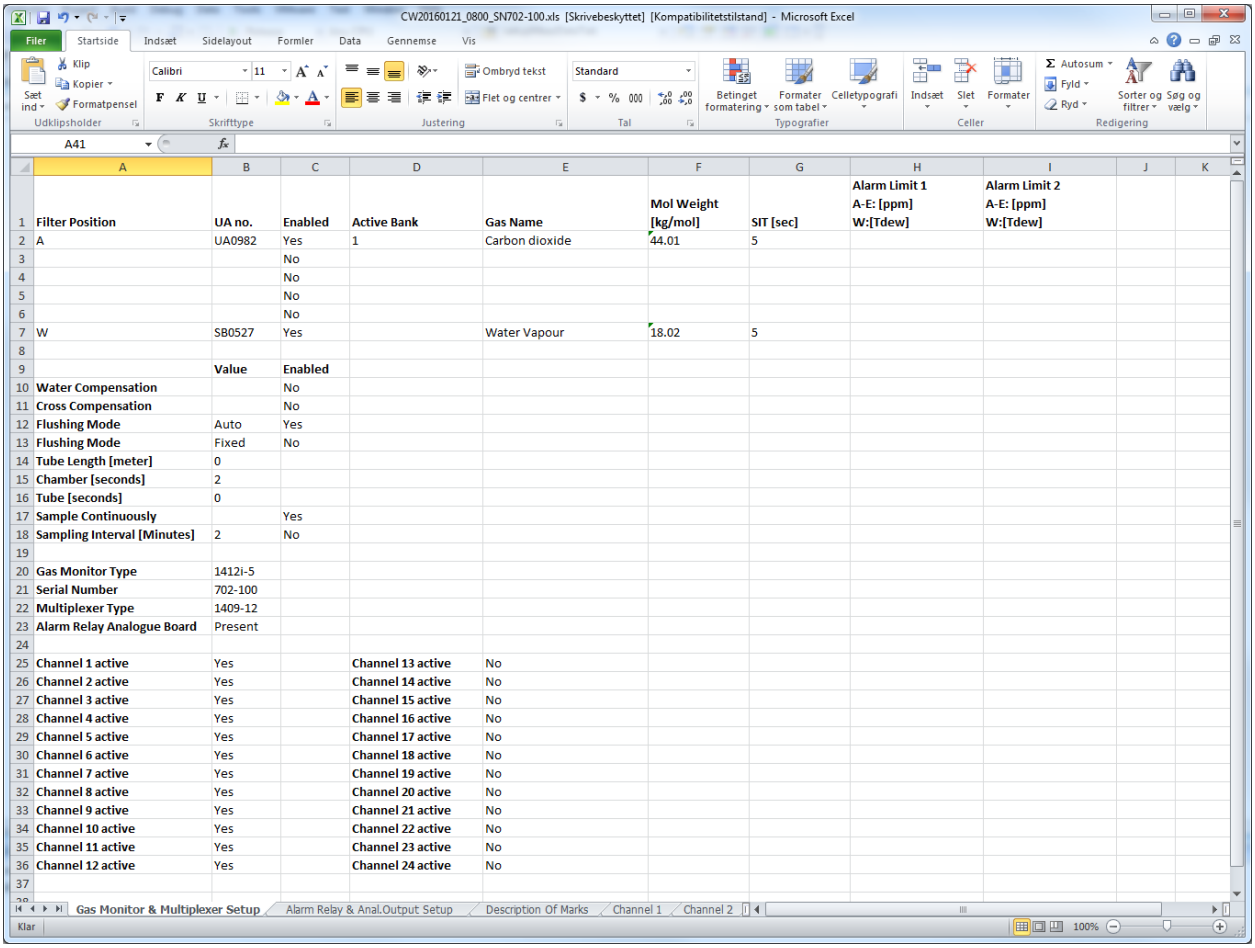
The generated Excel file will contain several tabs:

1. Gas Monitor & Multiplexer Setup
2. Alarm Relay & Analog Output Setup
3. One tab for each active channel presenting gas values and warning, error and status flags. Only active channels will be presented in a tab.

If a csv-file is generated each of the above mentioned Excel tabs will be as separate files, because the csv-file (text) format does not allow tabs to be generated.

6.2.1.1 Gas Monitor & Multiplexer Set-up tab

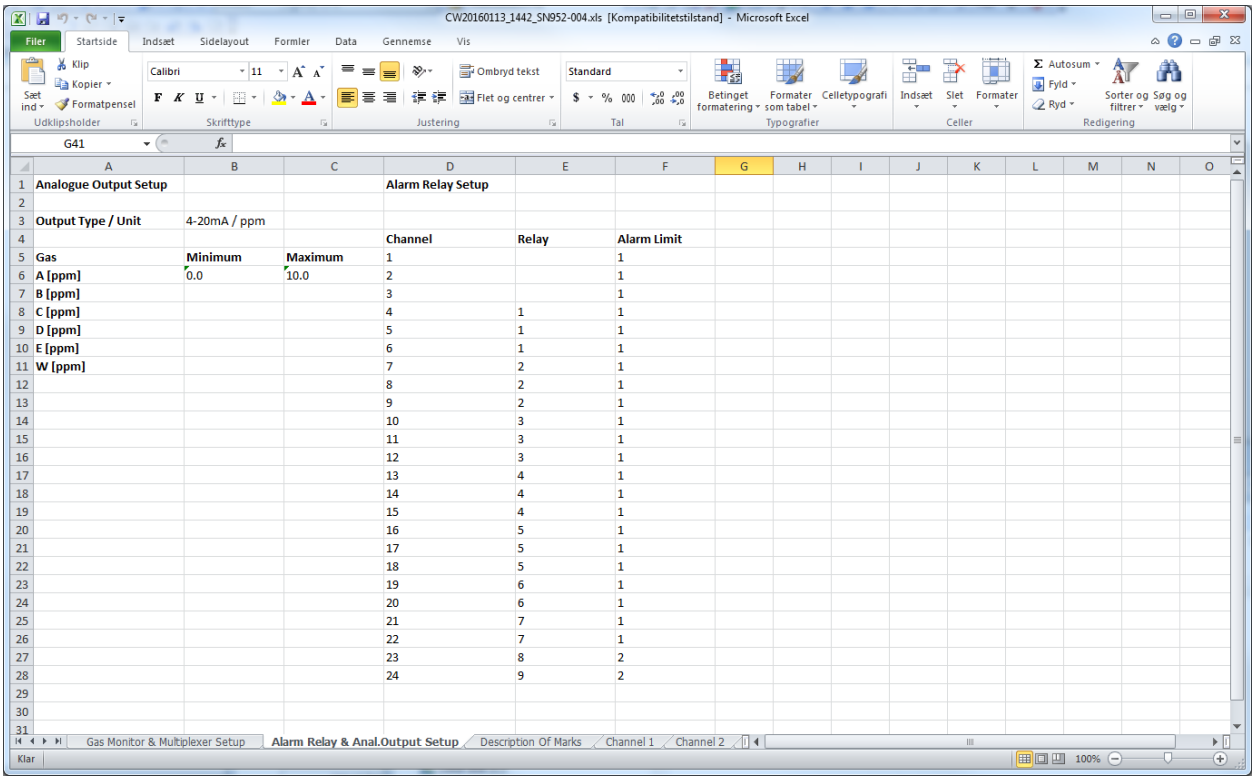
Below a sample of the **Gas Monitor & Multiplexer Set-up** tab.



	A	B	C	D	E	F	G	H	I	J	K
1	**Filter Position**	**UA no.**	**Enabled**	**Active Bank**	**Gas Name**	**Mol Weight [kg/mol]**	**SIT [sec]**	**Alarm Limit 1 A-E: [ppm] W:[Tdew]**	**Alarm Limit 2 A-E: [ppm] W:[Tdew]**		
2	A	UA0982	Yes	1	Carbon dioxide	44.01	5				
3			No								
4			No								
5			No								
6			No								
7	W	SB0527	Yes		Water Vapour	18.02	5				
8											
9		**Value**	**Enabled**								
10	**Water Compensation**		No								
11	**Cross Compensation**		No								
12	**Flushing Mode**	Auto	Yes								
13	**Flushing Mode**	Fixed	No								
14	**Tube Length [meter]**	0									
15	**Chamber [seconds]**	2									
16	**Tube [seconds]**	0									
17	**Sample Continuously**		Yes								
18	**Sampling Interval [Minutes]**	2	No								
19											
20	**Gas Monitor Type**	1412i-5									
21	**Serial Number**	702-100									
22	**Multiplexer Type**	1409-12									
23	**Alarm Relay Analogue Board**	Present									
24											
25	**Channel 1 active**	Yes		**Channel 13 active**	No						
26	**Channel 2 active**	Yes		**Channel 14 active**	No						
27	**Channel 3 active**	Yes		**Channel 15 active**	No						
28	**Channel 4 active**	Yes		**Channel 16 active**	No						
29	**Channel 5 active**	Yes		**Channel 17 active**	No						
30	**Channel 6 active**	Yes		**Channel 18 active**	No						
31	**Channel 7 active**	Yes		**Channel 19 active**	No						
32	**Channel 8 active**	Yes		**Channel 20 active**	No						
33	**Channel 9 active**	Yes		**Channel 21 active**	No						
34	**Channel 10 active**	Yes		**Channel 22 active**	No						
35	**Channel 11 active**	Yes		**Channel 23 active**	No						
36	**Channel 12 active**	Yes		**Channel 24 active**	No						
37											

6.2.1.2 Alarm Relay & Analogue Output tab

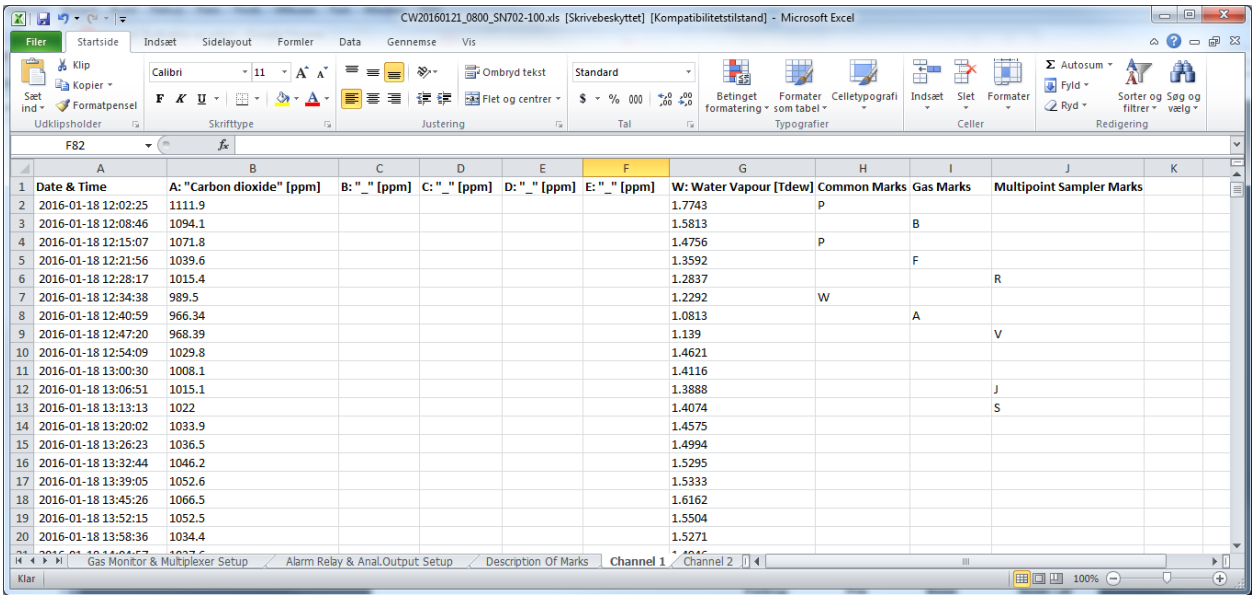
Below a sample of the **Alarm Relay & Analog Output Setup** tab.



	A	B	C	D	E	F
1	**Analogue Output Setup**			**Alarm Relay Setup**		
2						
3	**Output Type / Unit**	4-20mA / ppm				
4				**Channel**	**Relay**	**Alarm Limit**
5	**Gas**	**Minimum**	**Maximum**	1		1
6	**A [ppm]**	0.0	10.0	2		1
7	**B [ppm]**			3		1
8	**C [ppm]**			4	1	1
9	**D [ppm]**			5	1	1
10	**E [ppm]**			6	1	1
11	**W [ppm]**			7	2	1
12				8	2	1
13				9	2	1
14				10	3	1
15				11	3	1
16				12	3	1
17				13	4	1
18				14	4	1
19				15	4	1
20				16	5	1
21				17	5	1
22				18	5	1
23				19	6	1
24				20	6	1
25				21	7	1
26				22	7	1
27				23	8	2
28				24	9	2
29						
30						
31						

6.2.1.3 Channel data tab

Below a sample of a channel data tab (Channel View).



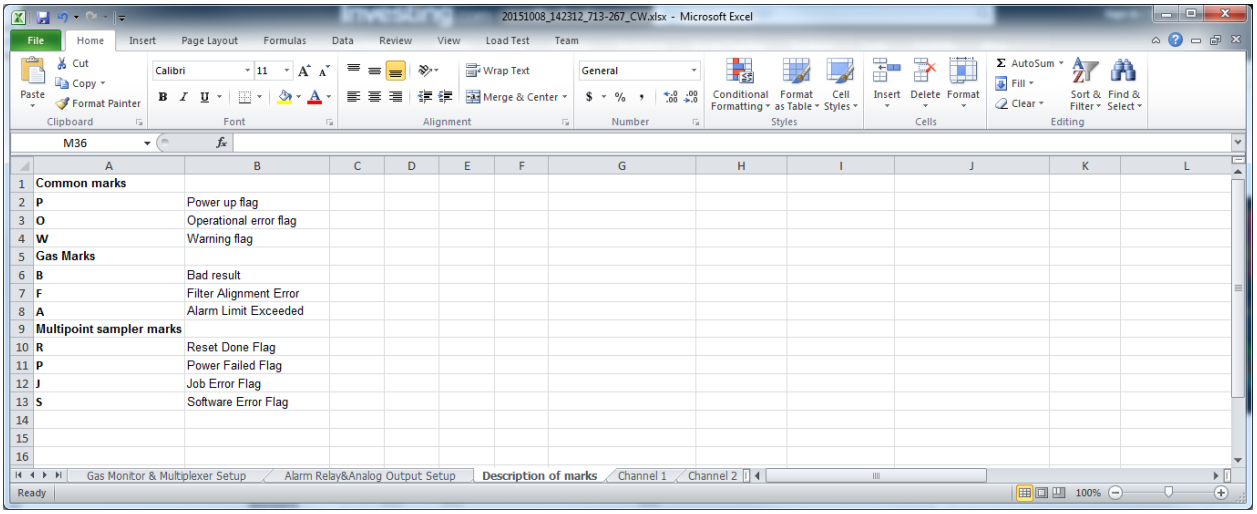
CW20160121_0800_SN702-100.xls [Skrivebeskyttet] [Kompatibilitetstilstand] - Microsoft Excel

	A	B	C	D	E	F	G	H	I	J	K
1	Date & Time	A: "Carbon dioxide" [ppm]	B: "_" [ppm]	C: "_" [ppm]	D: "_" [ppm]	E: "_" [ppm]	W: Water Vapour [Tdew]	Common Marks	Gas Marks	Multipoint Sampler Marks	
2	2016-01-18 12:02:25	1111.9					1.7743	P			
3	2016-01-18 12:08:46	1094.1					1.5813		B		
4	2016-01-18 12:15:07	1071.8					1.4756	P			
5	2016-01-18 12:21:56	1039.6					1.3592		F		
6	2016-01-18 12:28:17	1015.4					1.2837			R	
7	2016-01-18 12:34:38	989.5					1.2292	W			
8	2016-01-18 12:40:59	966.34					1.0813		A		
9	2016-01-18 12:47:20	968.39					1.139			V	
10	2016-01-18 12:54:09	1029.8					1.4621				
11	2016-01-18 13:00:30	1008.1					1.4116				
12	2016-01-18 13:06:51	1015.1					1.3888			J	
13	2016-01-18 13:13:13	1022					1.4074			S	
14	2016-01-18 13:20:02	1033.9					1.4575				
15	2016-01-18 13:26:23	1036.5					1.4994				
16	2016-01-18 13:32:44	1046.2					1.5295				
17	2016-01-18 13:39:05	1052.6					1.5333				
18	2016-01-18 13:45:26	1066.5					1.6162				
19	2016-01-18 13:52:15	1052.5					1.5504				
20	2016-01-18 13:58:36	1034.4					1.5271				

The flags is grouped into

- Common marks
  - P = Power up flag
  - O = Operational error flag
  - W = Warning flag
- Gas Marks
  - B = Bad result
  - F = Filter Alignment Error
  - A = Alarm Limit Exceeded
- Multipoint sampler marks
  - R = Reset Done Flag
  - P = Power Failed Flag
  - J = Job Error Flag
  - S = Software Error Flag

The meaning of these marks is described in the previous tab to the first channel tab:



	A	B
1	**Common marks**	
2	**P**	Power up flag
3	**O**	Operational error flag
4	**W**	Warning flag
5	**Gas Marks**	
6	**B**	Bad result
7	**F**	Filter Alignment Error
8	**A**	Alarm Limit Exceeded
9	**Multipoint sampler marks**	
10	**R**	Reset Done Flag
11	**P**	Power Failed Flag
12	**J**	Job Error Flag
13	**S**	Software Error Flag

Please refer to the User Manuals for the Gas Monitor and Multipoint Sampler for further information on the marks.

6.2.2 Gas View

The generated Excel file will contain several tabs:

1. Gas Monitor & Multiplexer Setup
2. Alarm Relay & Analog Output Setup
3. One tab for each active gas presenting channel values and warning, error and status flags. Only active gasses will be presented as a tab.

If a csv-file is generated each of the above mentioned Excel tabs will be as separate files, because the csv-file (text) format does not allow tabs to be generated.

6.2.2.1 Gas Monitor & Multiplexer Setup tab

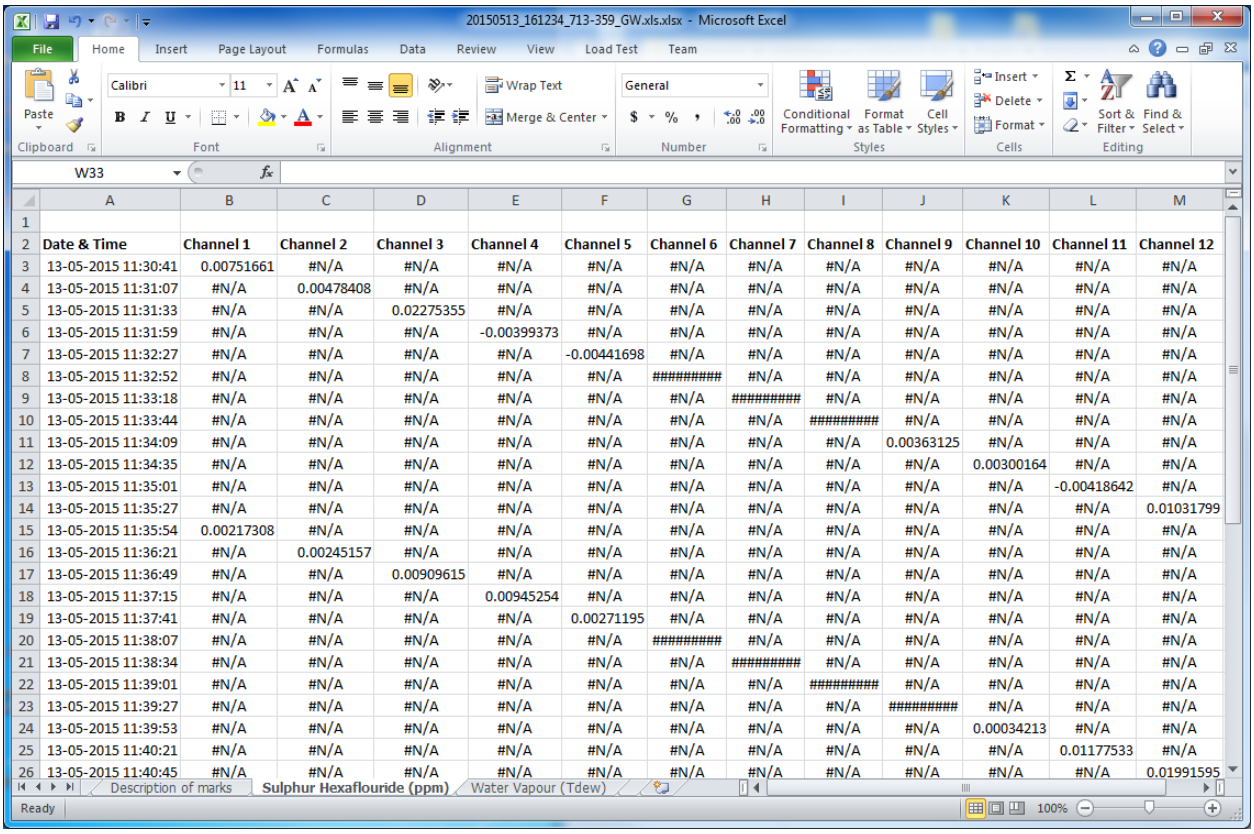
The **Gas Monitor & Multiplexer Setup** tab will have the same layout as for the channel view (see section 6.2.1.1)

6.2.2.2 Alarm Relay & Analogue Output tab

The **Alarm Relay & Analog Output Setup** tab will have the same layout as for the channel view (see section 6.2.1.2).

6.2.2.3 Gas data tab

Below a sample of a gas data tab (Gas View).

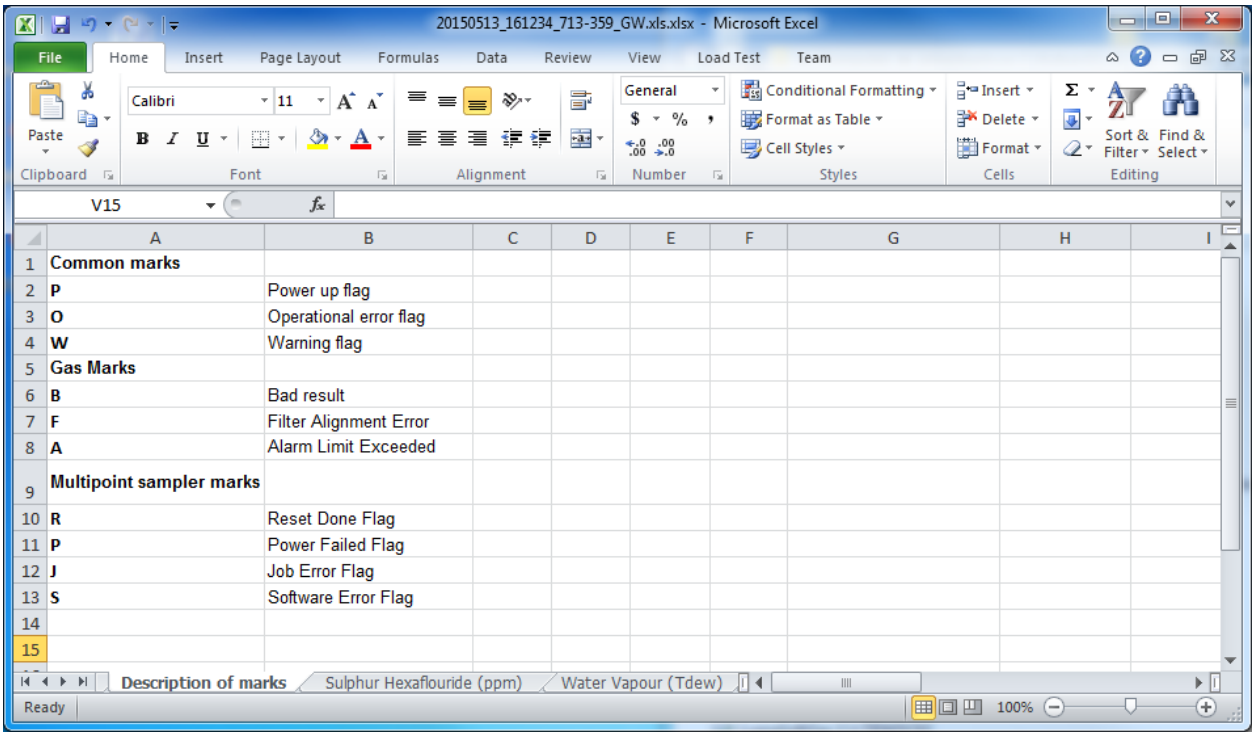


Date & Time	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	Channel 7	Channel 8	Channel 9	Channel 10	Channel 11	Channel 12
13-05-2015 11:30:41	0.00751661	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:31:07	#N/A	0.00478408	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:31:33	#N/A	#N/A	0.02275355	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:31:59	#N/A	#N/A	#N/A	-0.00399373	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:32:27	#N/A	#N/A	#N/A	#N/A	-0.00441698	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:32:52	#N/A	#N/A	#N/A	#N/A	#N/A	#########	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:33:18	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#########	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:33:44	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#########	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:34:09	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00363125	#N/A	#N/A	#N/A
13-05-2015 11:34:35	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00300164	#N/A	#N/A
13-05-2015 11:35:01	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	-0.00418642	#N/A
13-05-2015 11:35:27	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.01031799
13-05-2015 11:35:54	0.00217308	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:36:21	#N/A	0.00245157	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:36:49	#N/A	#N/A	0.00909615	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:37:15	#N/A	#N/A	#N/A	0.00945254	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:37:41	#N/A	#N/A	#N/A	#N/A	0.00271195	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:38:07	#N/A	#N/A	#N/A	#N/A	#N/A	#########	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:38:34	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#########	#N/A	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:39:01	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#########	#N/A	#N/A	#N/A	#N/A
13-05-2015 11:39:27	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#########	#N/A	#N/A	#N/A
13-05-2015 11:39:53	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.00034213	#N/A	#N/A
13-05-2015 11:40:21	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.01177533	#N/A
13-05-2015 11:40:45	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	0.01991595

Each date & time stamped measurement sample will have the warning, error and status flags like for the channel view (see section 6.2.1.3).
The flags is again grouped into

- Common marks
- Gas Marks
- Multipoint sampler marks

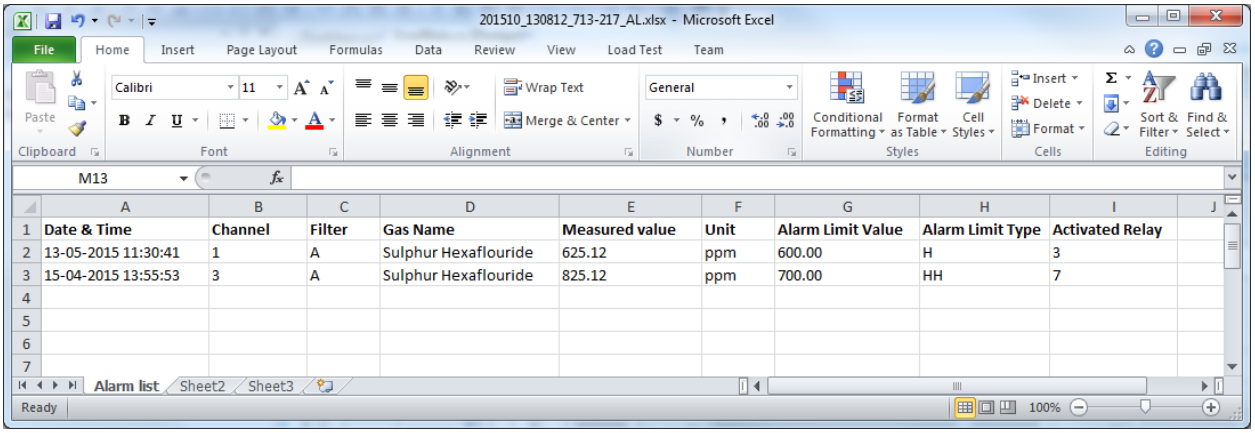
The meaning of these marks is described in the previous tab to the first gas tab



	A	B
1	**Common marks**	
2	**P**	Power up flag
3	**O**	Operational error flag
4	**W**	Warning flag
5	**Gas Marks**	
6	**B**	Bad result
7	**F**	Filter Alignment Error
8	**A**	Alarm Limit Exceeded
9	**Multipoint sampler marks**	
10	**R**	Reset Done Flag
11	**P**	Power Failed Flag
12	**J**	Job Error Flag
13	**S**	Software Error Flag
14		
15		

6.2.3 Alarm Log

Below a sample of an exported alarm log in Excel format.

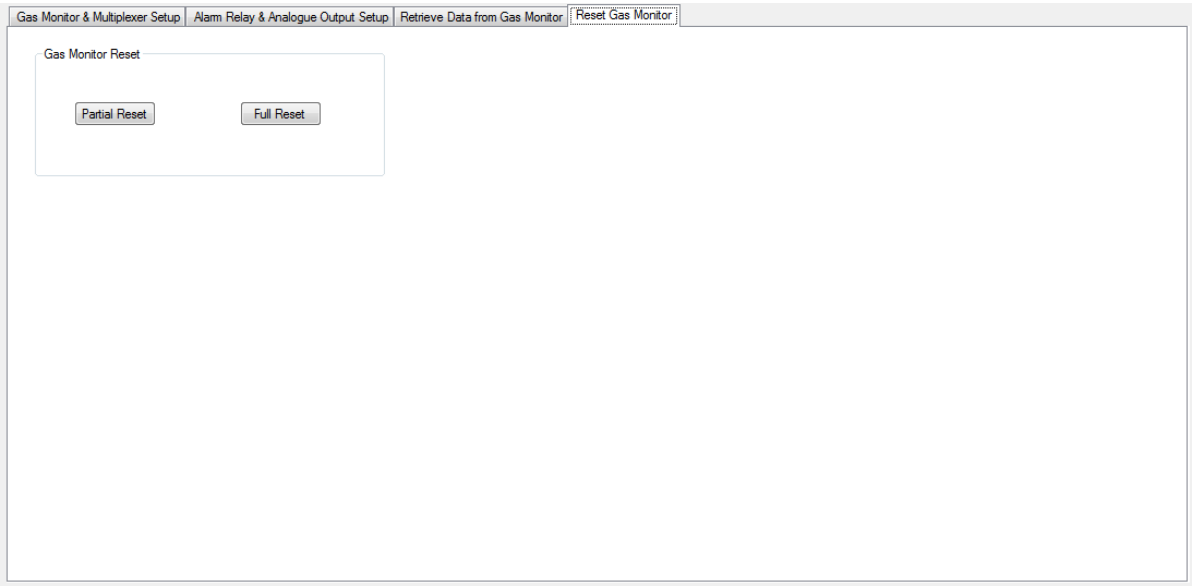


	A	B	C	D	E	F	G	H	I
1	**Date & Time**	**Channel**	**Filter**	**Gas Name**	**Measured value**	**Unit**	**Alarm Limit Value**	**Alarm Limit Type**	**Activated Relay**
2	13-05-2015 11:30:41	1	A	Sulphur Hexaflouride	625.12	ppm	600.00	H	3
3	15-04-2015 13:55:53	3	A	Sulphur Hexaflouride	825.12	ppm	700.00	HH	7
4									
5									
6									
7									

Chapter 7

Gas Monitor Reset

January 2018



The main purpose of the **Reset Gas Monitor** tab is to get access to remotely reset the Monitor when using the BZ7007 Software.

7.1 Partial Reset

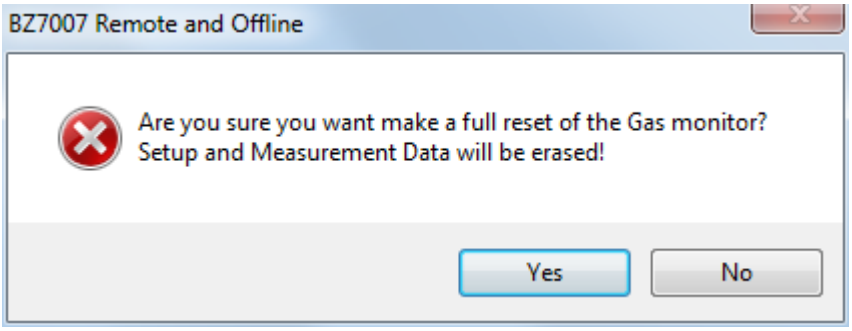
PARTIAL Reset: If this level of reset is chosen the Monitor stops operating, performs a **partial reset** and then resumes operating in the fashion described in Table 7.1.

Table 7.1 Dependence of Monitor's response, after a partial reset, to its operating condition at the time of the partial reset.

Monitor last used while in…	**Task being performed**	**Task started after a PARTIAL RESET**
Measurement **mode**	A gas measurement	Completes the monitoring task
"Display"	Looking at measurement results on the display screen	Measurement results are shown on the display from the beginning again
Set-up **mode**	Changing set-up parameters which control the operation of the Monitor	Measurement results are shown in the display from the beginning
Memory **mode**	Handling measurement results which are stored in Display Memory and Background Memory	Completes any interrupted task and then measurement results are shown in the display from the beginning
"Interface"	Obtaining hard-copies (that is, print-outs of, for example, measurement data)	Print-out is stopped and measurement results are shown in the display from the beginning

7.2 Full Reset

If this level of reset is chosen, the BZ7007 responds by giving the following warning.



By pressing YES you **confirm** that you wish the Monitor to perform a **FULL** reset:

During a **FULL** reset the Monitor performs the following two tasks:

- "Clearing" (emptying) all data from its ***Working Memory***. This means all data in ***Display Memory*** and ***Background Memory*** will be lost.
- The set-up parameters will be given their **default** values.

Appendix A

Installation Guide

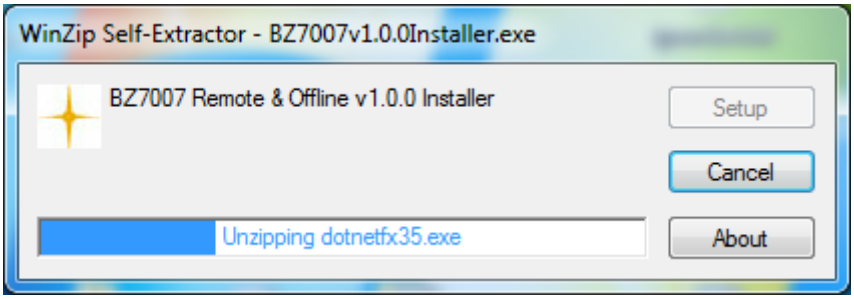
January 2018

Installation of BZ7007

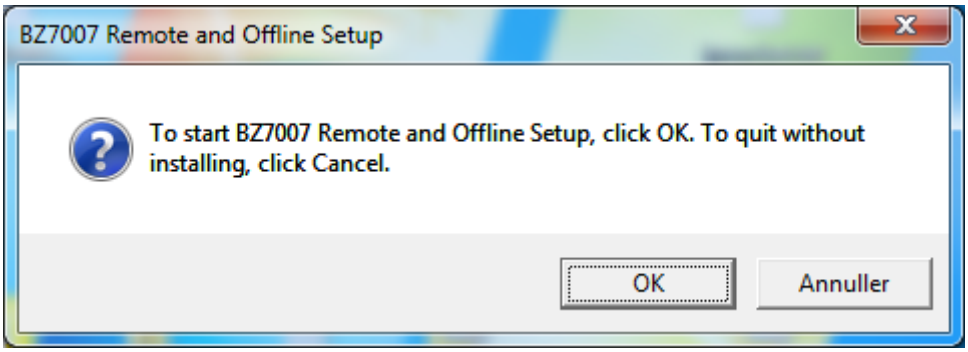
1. When installing the **BZ7007 Remote and Offline** software you must be logged in as Administrator that means that you must have “administrator” rights.

   Please also note that you must have Administrator rights or Power User rights to run the BZ7007 Remote and Offline application after installation.

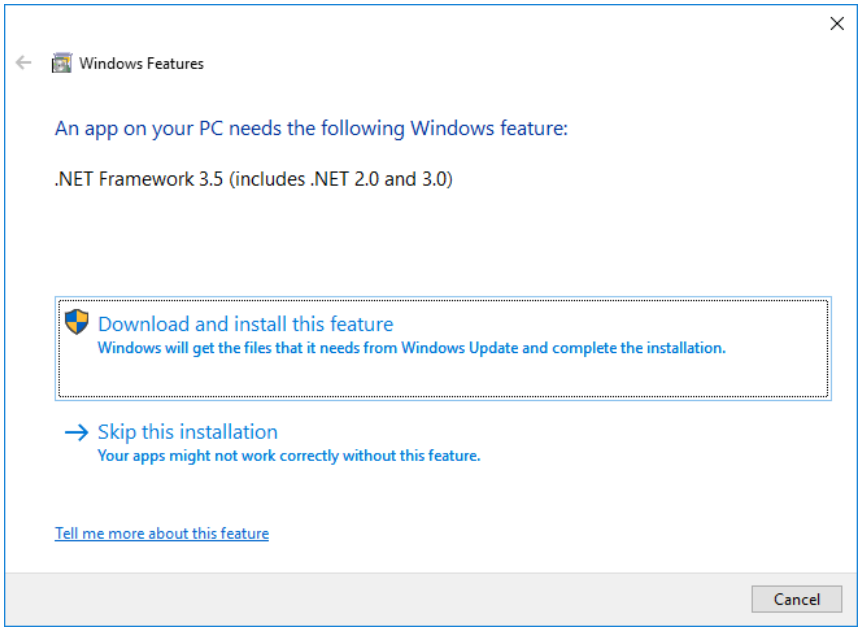
2. Start the installation of **BZ7007**. Insert the USB memory stick into an USB-port on your PC and open the index file to be found in the root folder on the USB memory. Select the **BZ7007 Remote & Offline v1.0.0 Installer** in order to start the installation. It will automatically install all the necessary drivers required to run the BZ7007 application. The installer will start unpacking with the following window. Please wait.



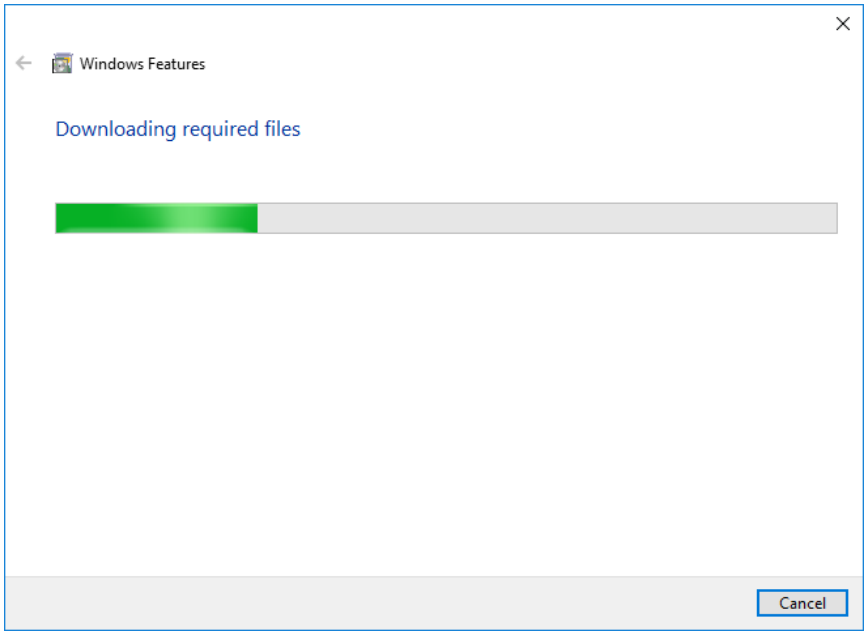
After a while the following window appears. Press the **OK** button to continue:



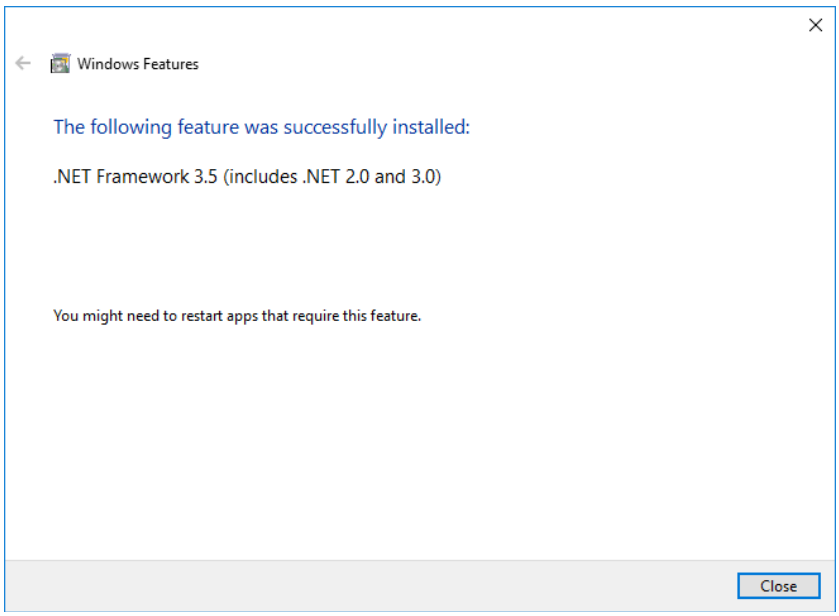
3. If the .NET Framework 3.5 is not present in your Windows installation you will be prompted to download and install this feature. Please be aware that this requires that you are connected to the Internet in order to make the feature download. Select the option **Download and Install this feature**. If the feature is already installed please proceed to step number 6 below.



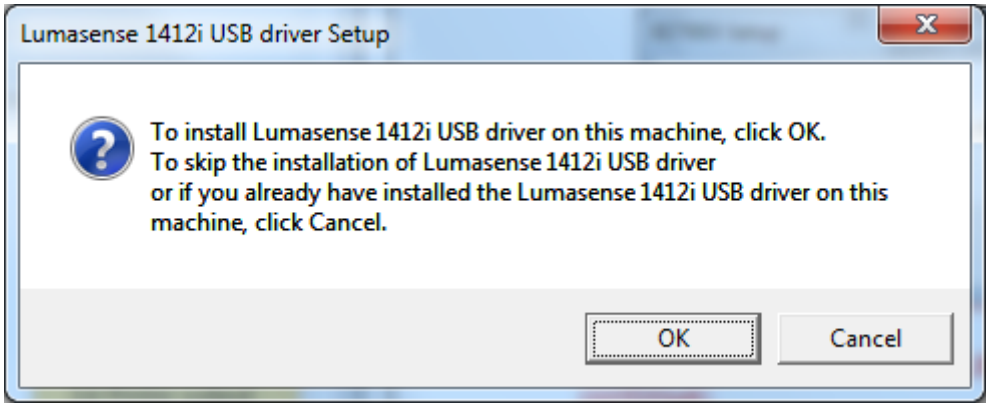
4. Now wait for the feature to be downloaded.



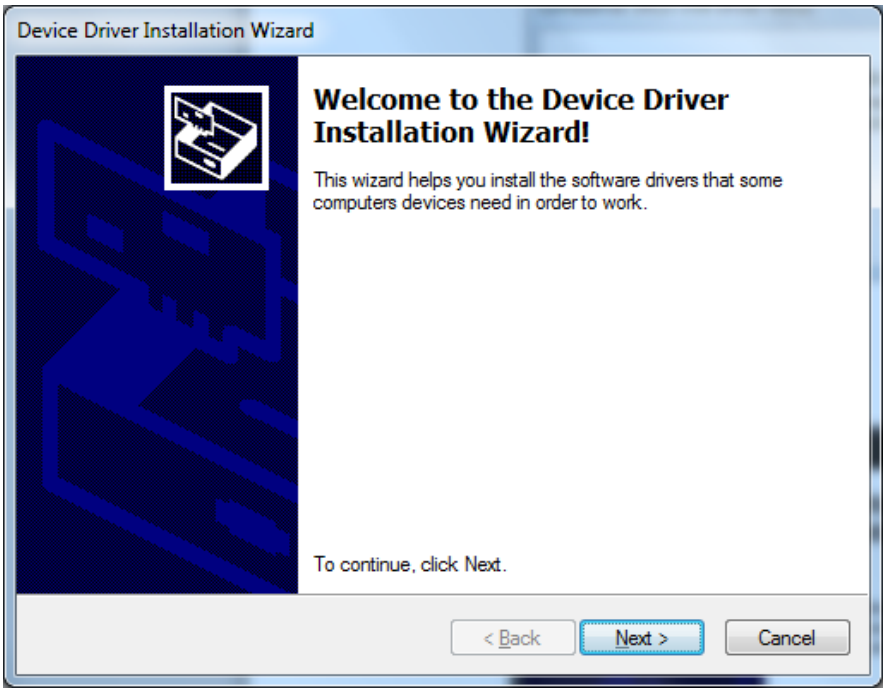
5. Press the Close button after the .NET Framework 3.5 feature has been successfully downloaded and installed.



6. Now you are prompted to install the Windows USB driver for the gas monitor. If the USB driver for monitor has been installed due to a previous BZ7007 installation you can skip this by pressing the **Cancel** button, otherwise please press the **OK** button to continue.

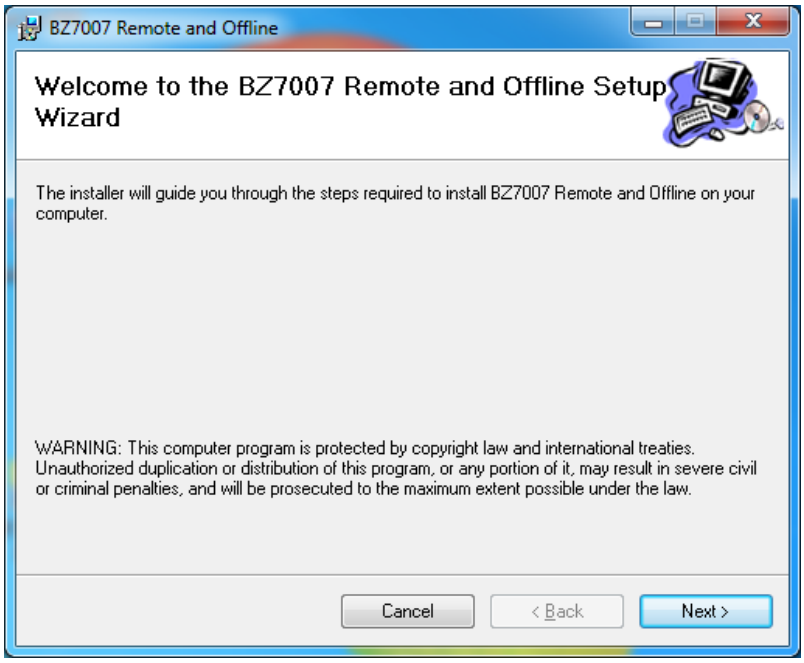


Press **Next** to start the USB driver installation.

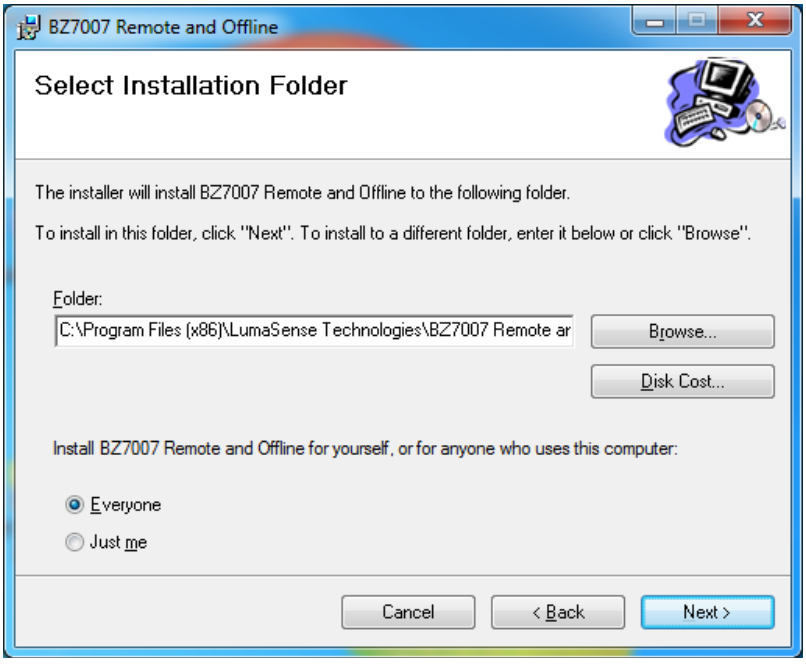


Press **Finish** to end the USB driver installation

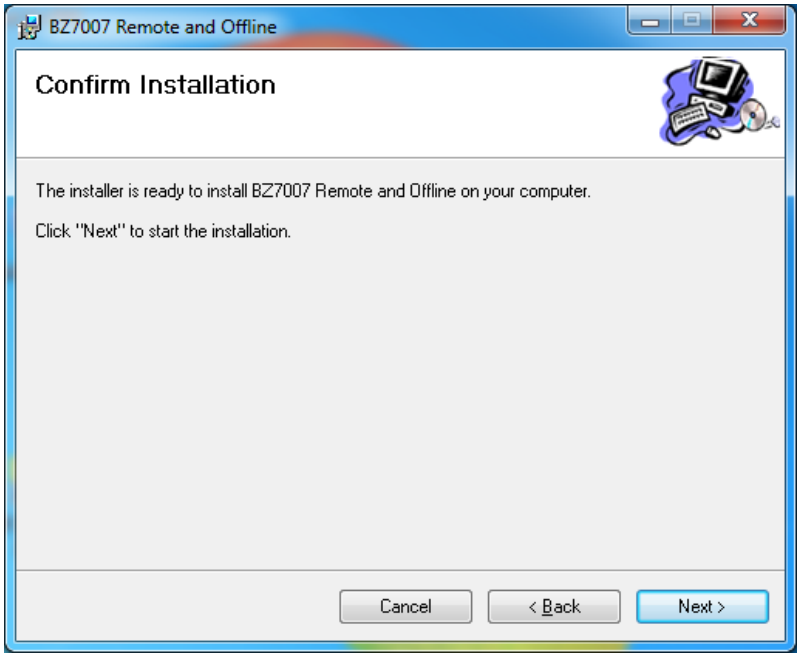
7. Finally the BZ7007 application is installed. Press **Next** to start installation of BZ7007 Remote and Offline Software.



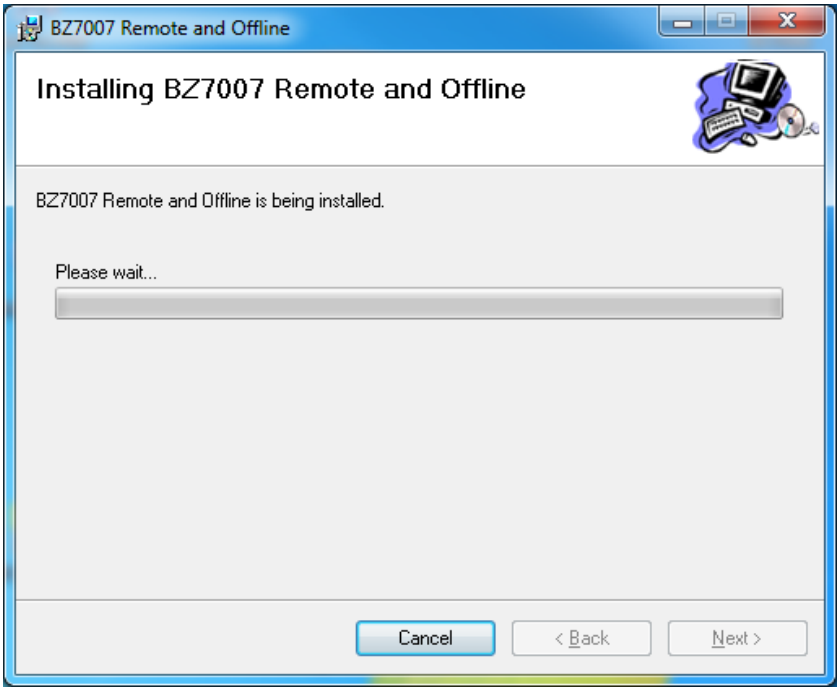
Select install for **Everyone** and press **Next**



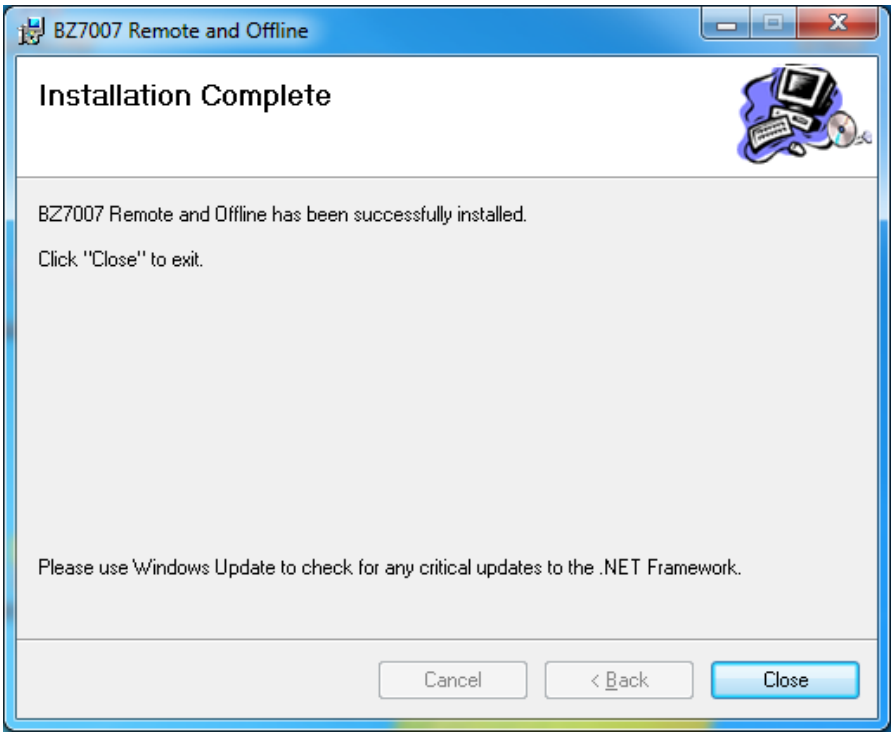
Select **Next** to confirm installation of BZ7007 Remote and Offline Software



Wait for the BZ7007 Remote & Offline application to be installed.



After installation of BZ7007 press **Close.**



BZ7007

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