



Polygon Technologies

GSM BASE LOGGER MANUAL

V1.2



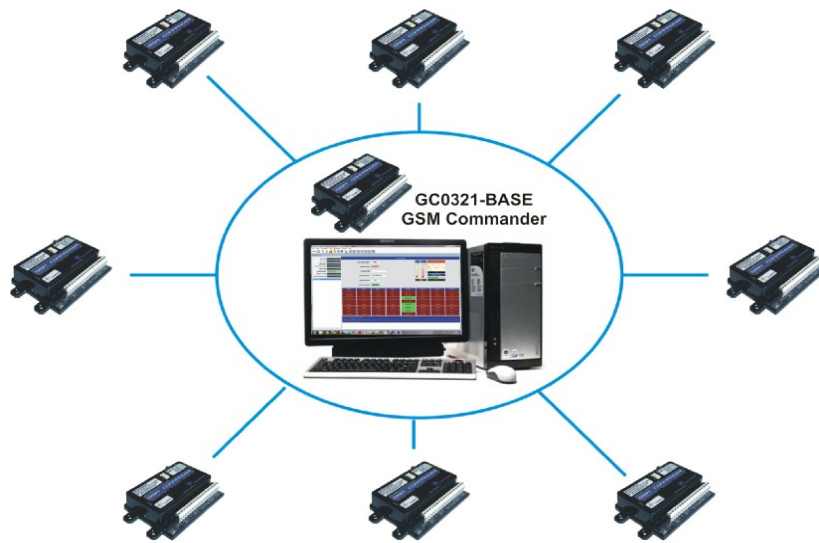
**Before attempting to operate this software,
please read these instructions in its entirety.**

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1. INTRODUCTION



The windows based server **GSMBaseLog** is a stand alone server that can monitor a number of sites controlled by GSM Commanders. The server sends predefined or user defined commands to these units to control equipment and receives SMS's from the units. The received statuses are logged to a CSV file or an Access database. These statuses are also decoded and mapped to modbus slots that can then be retrieved by a standard scada system using the modbus IP protocol.

2. SOFTWARE COMPARASON

The following table lists the functions available in each of the packages.

GSM Base Logger			
Function Description	Lite	Standard	Professional
Pricing	Free	On Request	On Request
Maximum number of sites	1	10 / 20 / 30	127
Log received SMS's to CSV file	✓	✓	✓
Log received Base-log SMS's to the Database	✗	✓	✓
Log received SMS's to the Database	✗	✓	✓
Log transmitted SMS's to the Database	✗	✓	✓
Log system events to the Database	✗	✓	✓
Send digital output control SMS's	✓	✓	✓
Send analog output control SMS's	✗	✗	✓
Send manually entered SMS's	✗	✗	✓
Automatic polling of sites	✓	✓	✓
Selection of polling types	✗	✓	✓
Triggered SMS's displayed in pop-up	✓	✓	✓
Number of SMS triggers	1	4	8
Scada system modbus interface	✗	✗	✓
Scada system notification interface	✗	✗	✓
GSM modem type selection	✗	✗	✓
Graphical user interface	✓	✓	✓
Security system	✓	✓	✓

3. INSTALLATION

3.1. Install the Dot Net Framework (Windows XP users only)

The dot net version 3.5 SP1 framework is the core of the server and needs to be installed on the PC that will be running the program. It is freely available to download from Microsoft, just click on the following link: [Microsoft .NET Framework 3.5](#)

3.2. Install the GSM Base Logger Software

The GSM Base Logger uses a database engine back-end to log all system configurations and received SMS's. This section will guide you through the installation process. To begin the process, forward your name, company, e-mail and contact number to [GSM Base Logger](#) in order to obtain the download link. Once the download has completed, double-click on the set-up file to start the installation process. The installation selection screen will be displayed as shown below. Follow the dialogue screens until the installation has been completed.

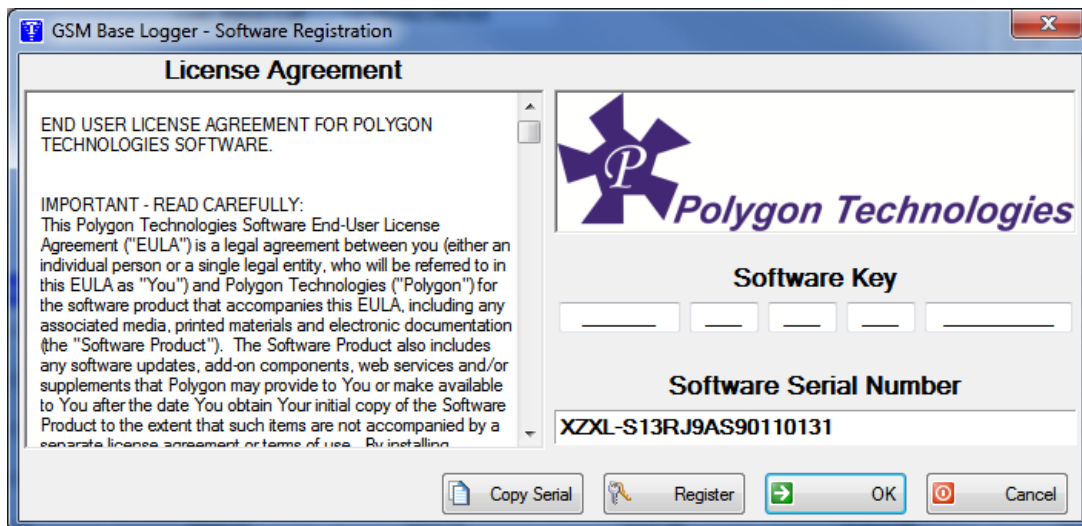


Please Note: GSM Base Logger software is ONLY compatible with Windows 32bit operating systems. Run as administrator in Vista and Windows 7.

3.3. How to obtain an Activation Key

Menu: Help -> Register GSM Base Logger ...

In order to activate the GSM Base Logger software, follow the steps below. See image below for detail.



- Open the registration screen, copy and mail the software serial together with your name, company, e-mail and contact number to baselogger@gsmcommnder.com to obtain your 30 day free Professional Version key.
- A key will be generated and mailed back to the you within 24 hours.
- Enter the supplied key into the software registration screen and then click the register button. (Clicking on the **Software Key** text will display a screen where the key can be pasted into and then automatically enter into the key fields.)
- Once registered click the OK button to exit.

3.4. How to connect the GSM Modem

In order for the GSM Base logger to communicate to the remote sites, a modem has to be connected to the system. The steps below describe how to connect the BASIC GSM Commander to your PC.

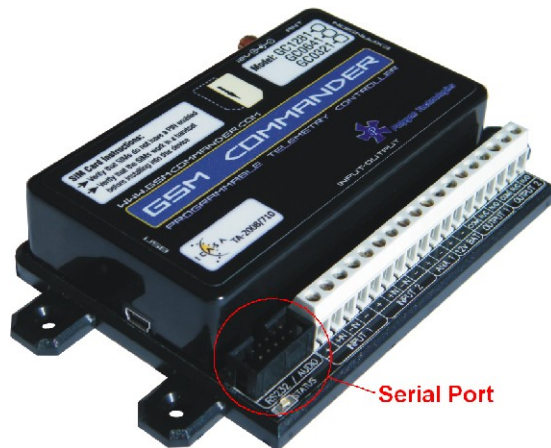
- Locate the serial communications port on your PC (Normally marked as COM1). See image below for more detail.



- If there is no connector on the PC or another device is using it, then install a USB to RS232 adapter. See the image below for an example of an adapter.



- Locate the serial port on the GSM Commander and then insert the supplied cable in the connector. Insert the other side of the connector into the serial port of the PC. See the image below for the location of the GSM Commanders serial port.



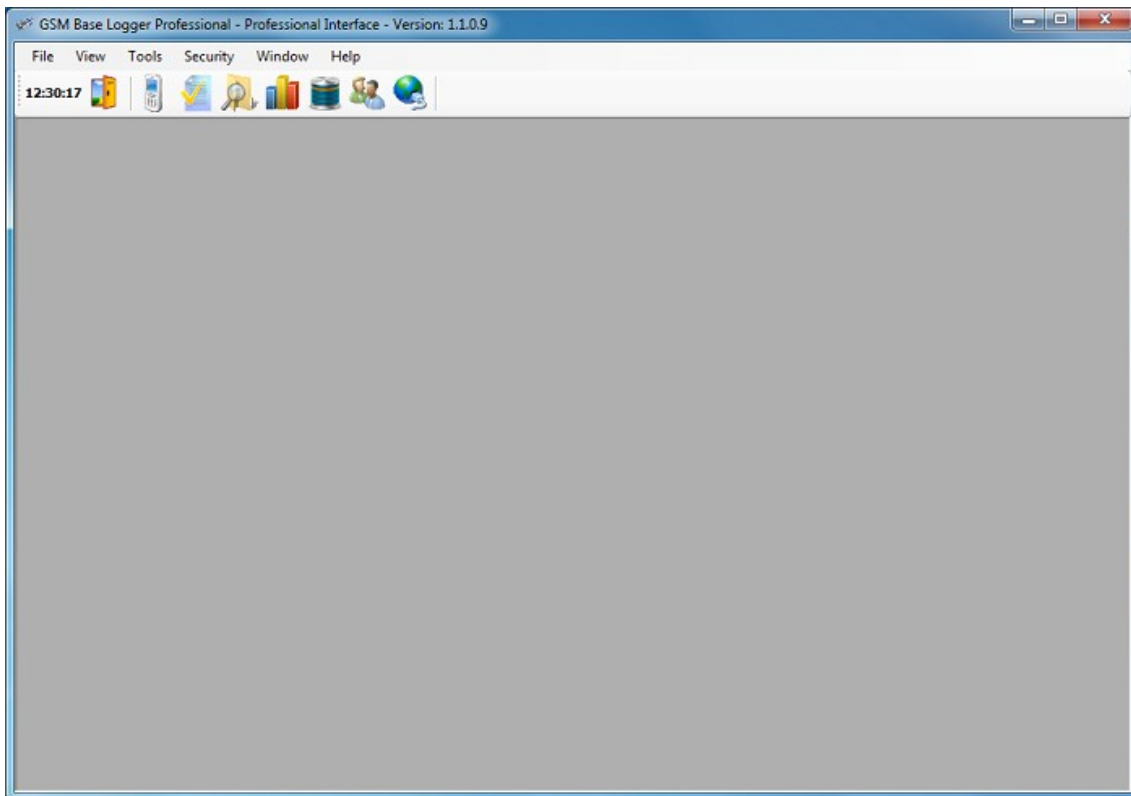
4. SCREEN DESCRIPTIONS

The following sections describe the function of the four main screens. These are the site display, modem, database and modbus screens.

4.1. GSM Base Logger Main Screen

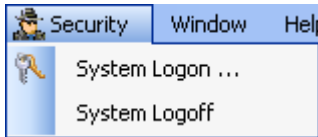
4.1.1. Main Display Screen

The main screen is the container screen for the server, system configuration and display screens are accessed from this screen.



4.1.2. System Security

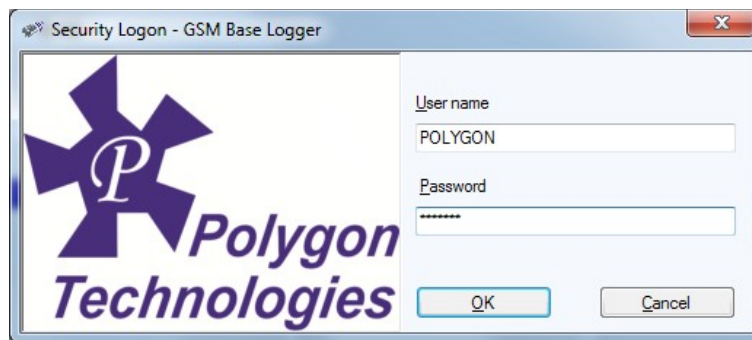
To be able to configure and operate the server you have to log onto the system. Three levels of security are provided and a configurable global time-out will log you off. Use the security option in the main screen to log on and off the system. The icon next to the security menu option indicates that a user has logged onto the system.



Menu: Security -> System Log-on
Menu: Security -> System Log-off

The screen below is displayed when trying to log onto the system. Enter the user name and password then click OK. If logged on an icon will be displayed next to the security menu.

If it is a new installation, use the default settings to log on and then configure at least one user with administrator rights. Please note that the default setting is disabled once a user has been added. See section 5.5 on how to configure a user



The default settings to be used are as follows:

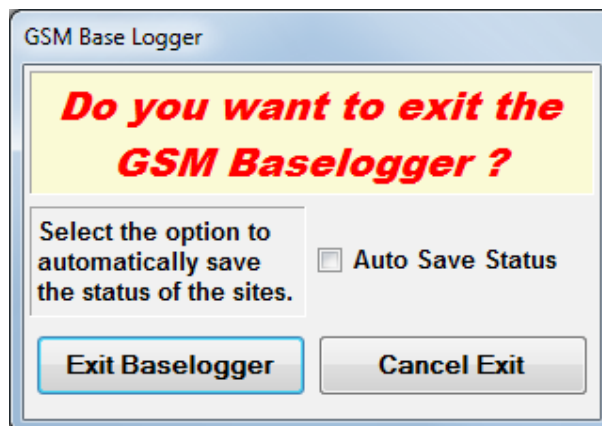
User name : Polygon
Password: polygon

4.1.3. System Exit



File -> Exit
(Security: Technical)

The option exits the GSM Base logger server, an exit dialogue is displayed giving the option to save all the sites status before exiting as shown below.



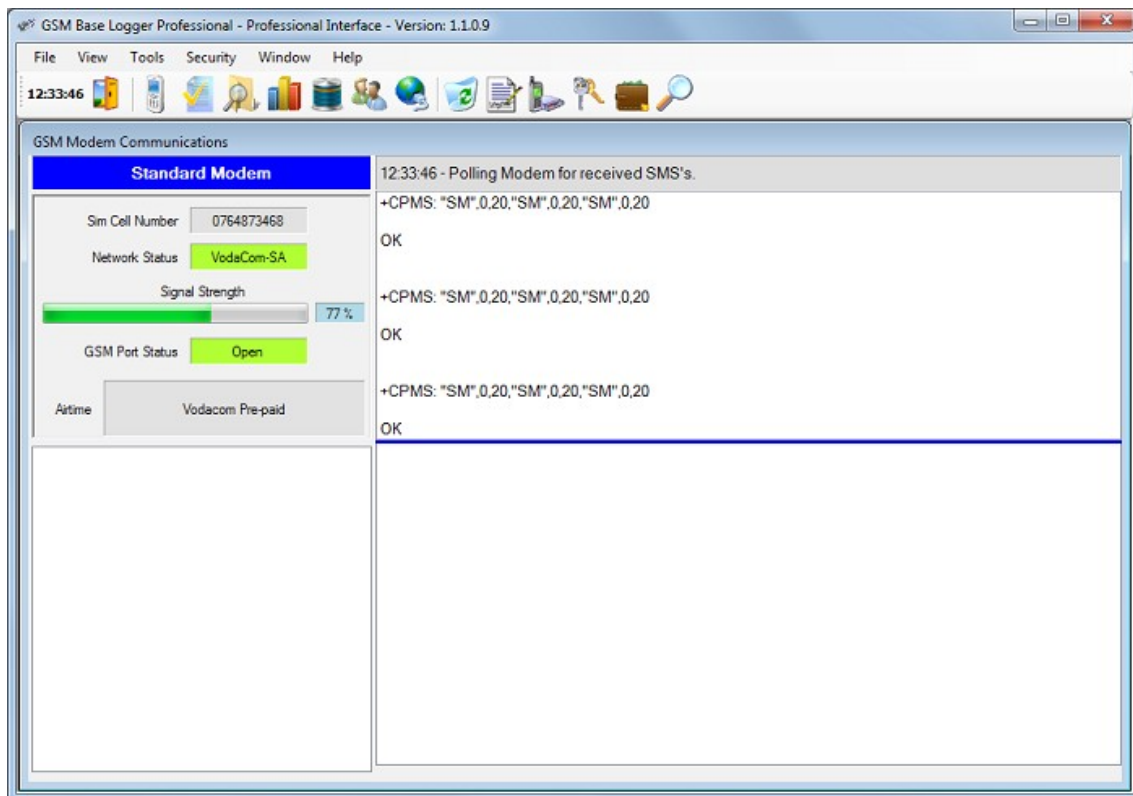
4.2. GSM Modem Section



This section describes the functions found in the modem display screen.

4.2.1. Modem Display Screen

The image below represents the GSM modem communications screen that controls the communication between the server and the GSM modem. Support is provided for a **GSM Base Logger KIT** (Model: GC0321-BaseLogger-KIT).



4.2.2. Modem Screen Option Buttons



Tools → Clear Displays

Use clear displays to clear the right hand side panes.



Tools → Clear Buffer
(Security: Technical)

Use clear buffer to clear the transmit buffer.



Tools → Get Network Status

(Security: Operator)

Sends commands to the modem to retrieve the network status.



Tools → Send PIN Number

(Security: Technical)

Retrieves the configured PIN number and sends it to the modem to log onto the GSM network.



Tools → Load Prepaid Airtime

(Security: Technical)

The option displays a screen where the recharge voucher number can be entered to update the prepaid SIM airtime.



Tools → SMS Simulator

The option displays the SMS simulation screen as shown below. Use this screen to “send” a SMS to the base logger to check the system configuration.

GSM Base Logger - Demonstration SMS

Cell Number : Tee Water - 0828234233

Single Change SMS

Commander 5 (Normal)
 Commander 5 (Version)
 Commander 6

Alarm Pump 1 Off
 Pump 1 On
 Valve 1 Open
 Valve 1 Close

Text Messages

Manual Text

Predefined Text

Analog Values

Analog Value	Temperature A	Temperature B	Last SMS Number
120	20	25	0828234233
Battery Voltage (x10)	Signal Strength %	Prepaid Airtime R	Last Voice Call
135	65	51	0828234233
<input type="button" value="Battery Normal"/>	<input type="button" value="Signal Normal"/>	<input type="button" value="Prepaid Normal"/>	<-Click to fail reading

Digital Input Values 1 to 8 (00)

1 2 3 4 5 6 7 8

Digital Output Values 1 to 8 (00)

1 2 3 4 5 6 7 8

4.3. Site Summary Display Section



This section describes the functions found in the site summary screen.

4.3.1. Site Display Screen

The image below represents the site summary screen that displays a summary of each site. The site communications status, battery voltage, temperatures and all inputs are displayed for each site. When inputs are configured, there current alarm level is displayed. Click on the refresh button to display all the site's information.

Click on the "configure summary" button (see 5.1.5) in order to configure the summary screen.

The screenshot shows the 'GSM Site Summary' window. The title bar reads 'GSM Base Logger Professional - Professional Interface - Version: 1.1.0.9'. The menu bar includes 'File', 'View', 'Tools', 'Security', 'Window', and 'Help'. The toolbar shows the time '12:36:20' and various icons. The main content area displays a table titled 'Site summary at 12:36:09 on 04 Jun 2011'. The table has columns for Name, Coms, Battery, Temp A, Temp B, In01, In02, In03, In04, Out01, and Out02. Two rows are visible: 'Toewater' and 'Grootwater'. A legend at the bottom states: 'Display Legend : D - Disabled : N - Normal : F - Failed : I - Information : C - Caution : A - Alarm'.

Name	Coms	Battery	Temp A	Temp B	In01	In02	In03	In04	Out01	Out02
Toewater	N	14.0 V	20 C	25 C	N	C	N	F	N	N
Grootwater	F	14.0 V	20 C	25 C	D	D	D	D	D	D

4.3.2. Site Summary Option Buttons



Tools → Refresh Summary Screen

Refreshes the summary display site information.

4.4. Site Display Section



This section describes the functions found in the site display screen.

4.4.1. Site Display Screen

The image below represents the site screen that displays the received data from the sites. Trigger text values assigned during configuration will set the format of the logged SMS with an additional option to display it in a pop-up screen. When configuring inputs, an alarm level can be assigned for each input to be displayed (when failed) in the alarm list at the bottom of the screen. Click on the site name in the left pane to display that site's information.

The screenshot shows the 'GSM Base Logger Professional - Professional Interface - Version: 1.1.0.9' window. The interface includes a menu bar (File, View, Commands, Tools, Security, Window, Help), a toolbar with various icons, and a main display area. The main display area is titled 'GSM Site Display' and is divided into several sections:

- Left Pane:** A list of sites with 'Grootwater' and 'Teewater' visible.
- Site Information:** Fields for Site Code (xxxx), Unit Type (None), Cell Number (xxxxxxxxxx), Last SMS Received (dd/mm/yyyy HH:mm), Polling Time (00:00), Communications (Normal), SMS's Send (Hr) (0), and SMS's Received (Hr) (0).
- Selected Site Name:** A blue header for the site's data.
- Unit Signal Strength:** 0 %
- Pre-paid Airtime:** R 0.00
- Last Voice Call:** +27828234233
- Last SMS Number:** +27828234233
- Firmware Version:** 0.00
- Unit Power Status:** Power
- Temperature:** Two gauges for Temp A and Temp B, both ranging from -10 to 50.
- BATTERY VOLTAGE:** A gauge showing ADC Value from 0 to 30, with a reading of 0 V.
- INPUT/OUTPUT TABLE:** A table with 8 columns: INPUT, INPUT, INPUT, INPUT, OUTPUT, OUTPUT, OUTPUT, OUTPUT. It lists inputs from 01 to 32 and outputs from 01 to 32.
- Alarm List:** A table with columns for Site Name, Input, and Alarm Description.

4.4.2. Site Display Option Buttons



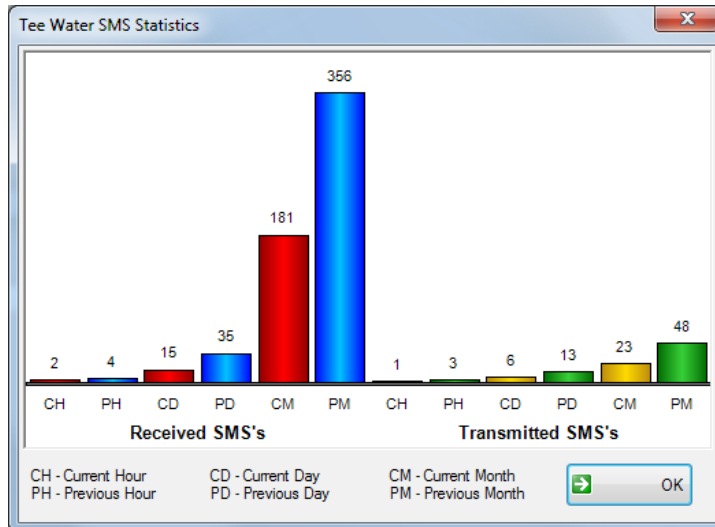
Tools → Refresh Site Screen

Refreshes the currently selected site information.



Tools → Site Statistical Information

Displays the selected sites received and transmitted SMS's. Statistics is displayed for the current and previous hour, day and month. See image below for details.



Commands → Request Site Status

(Security: Operator)

Sends the site status command to the SMS unit. The complete status of the site will be returned in a single SMS.



Commands → Set Unit Time

(Security: Operator)

Sends a SETTIME command to the unit to update its internal clock to the received time of the SMS.



Commands → System Command 1

(Security: Operator)

Sends a user defined command to the GSM Commander unit.



Commands → System Command 2

(Security: Operator)

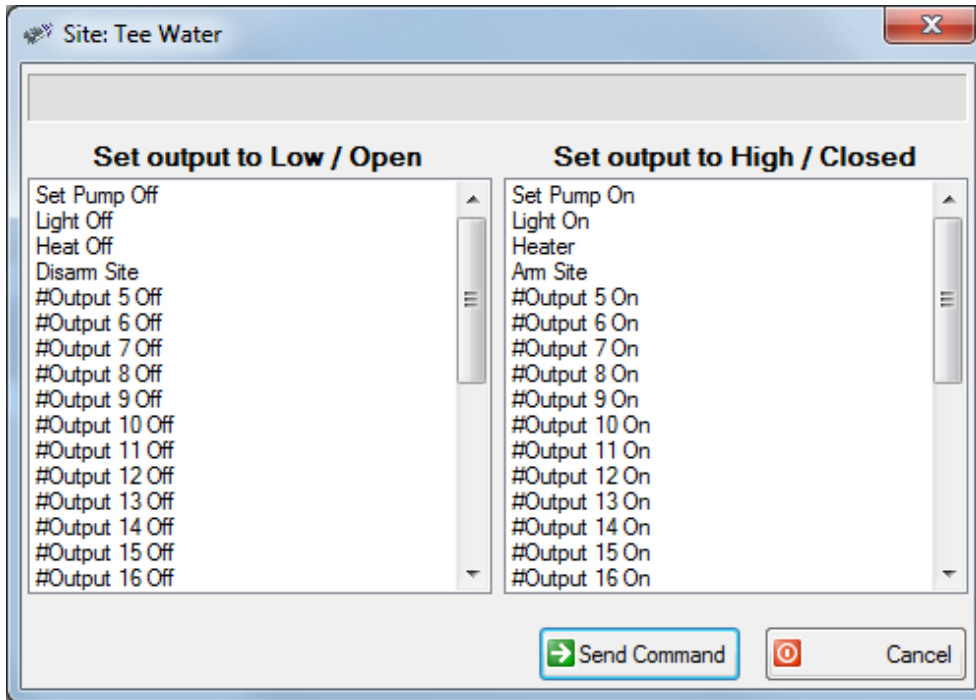
Sends a user defined command to the GSM Commander unit.



Commands → Digital Output Commands

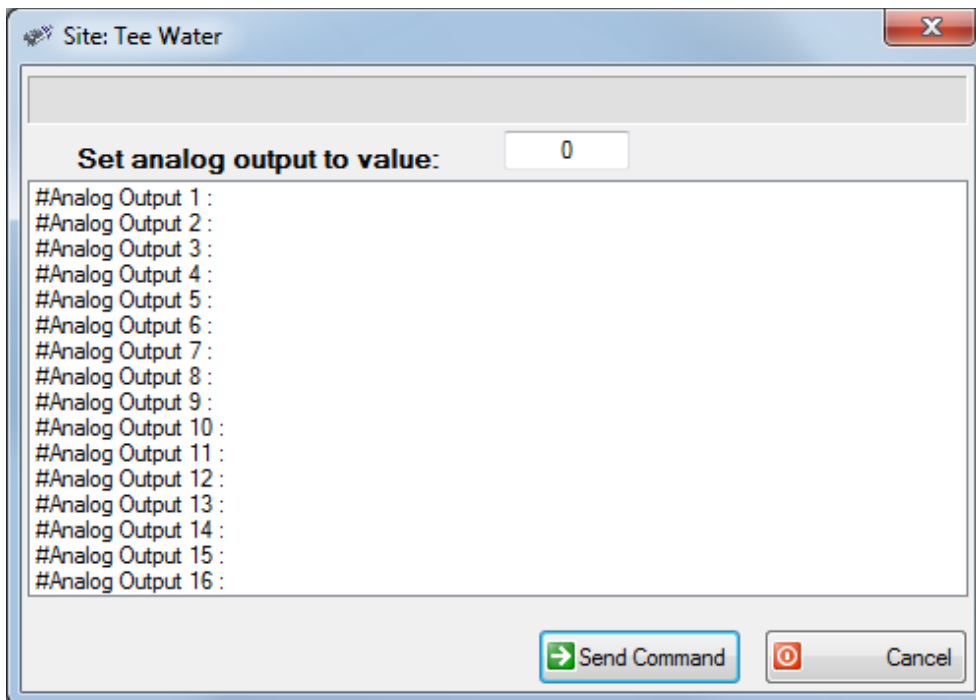
(Security: Operator)

The option is used to send a defined digital output to the SMS unit for controlling outputs. When the dialogue is displayed, select the command in the left or right hand pane and then click on the **Send Command** button to send it to the SMS unit. See the image below for details.



Commands → Analog Output Commands
(Security: Operator)

The option is used to send a defined analog output to the SMS unit for controlling outputs. When the dialogue is displayed, enter the analog value, select the command in the command pane and then click on the **Send Command** button to send it to the SMS unit. See the image below for details.

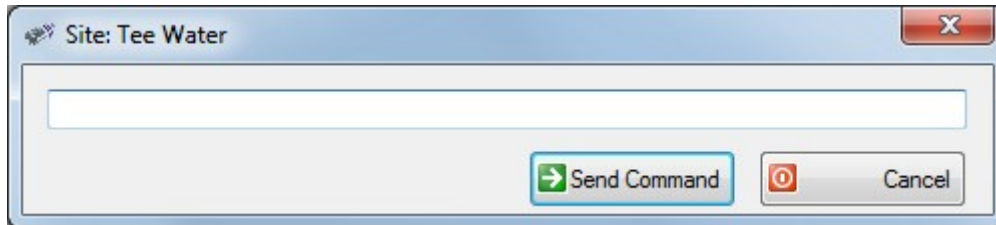




Commands → Manual Command

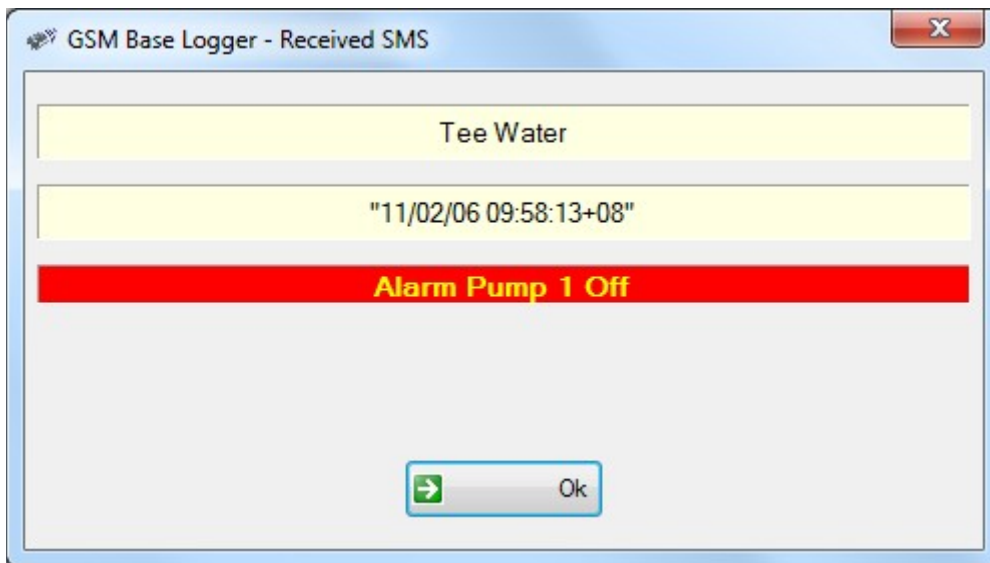
(Security: Technical)

The option is used to send a manually typed message to the SMS unit. When the dialogue is displayed, type the message into the field and then click on the **Send Command** button to send it to the SMS unit. See the image below for details.



4.4.3. Reported SMS Pop-Up

The system supports predefined text triggers. If the text is detected in an incoming SMS the predefined formatting is applied to the text. Each trigger can be configured to display the received SMS in a pop-up screen with an optional time-out that will remove the pop-up. See the image below.



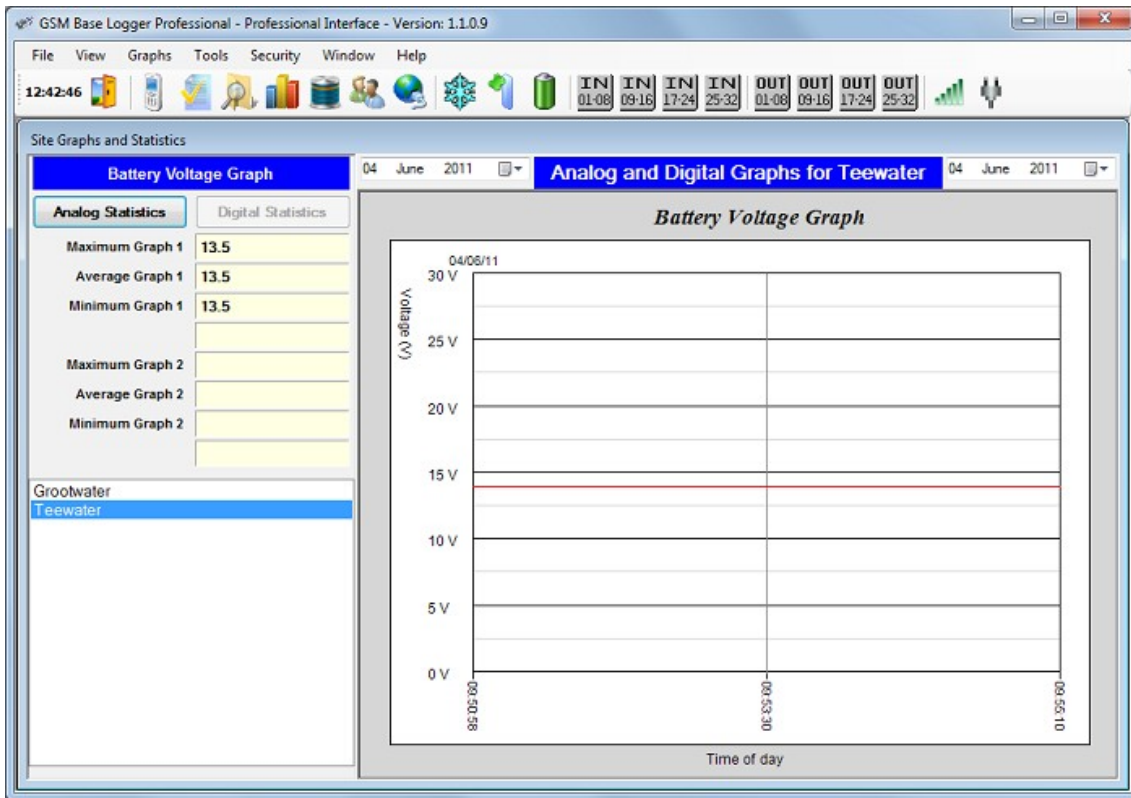
4.5. Graphs Display Section



This section describes the functions found in the graphs and statistical Interface screen.

4.5.1. Graphs Display Screen

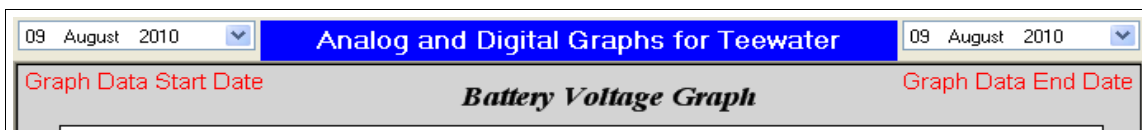
The image below represents the graphs and statistical interface screen. Logged data is selected per site and the displayed graphs can be filtered by selecting a start and end date.



4.5.2. Graph Display Option Buttons

4.5.2.1. Graph Filter

The logged data of the selected site can be filtered by selecting a start and end date. The date selection can be found on either side of the blue title bar above the graphs. See the image below.



4.5.2.2. Analog Graph Section

The following buttons display the analog graphs if the analog input logging is enabled.



[Graphs → Analog Input Graphs → Temperature Graphs](#)

Displays the logged temperatures A and B in the graph.
Displays the logged battery voltage in the graph.



[Graphs → Analog Input Graphs → Analog Input Graph](#)

Displays the logged analog input values in the graph.



[Graphs → Analog Input Graphs → Battery Voltage Graph](#)

4.5.2.3. Digital Input Graph Section

The following buttons display the digital inputs if digital input logging is enabled.



[Graphs → Digital Input Graphs → Digital Inputs 1 to 8](#)

Display the logged digital values of inputs 1 to 8 in the graph.



[Graphs → Digital Input Graphs → Digital Inputs 9 to 16](#)

Display the logged digital values of inputs 9 to 16 in the graph.



[Graphs → Digital Input Graphs → Digital Inputs 17 to 24](#)

Display the logged digital values of inputs 17 to 24 in the graph.



[Graphs → Digital Input Graphs → Digital Inputs 25 to 32](#)

Display the logged digital values of inputs 25 to 32 in the graph.

4.5.2.4. Digital Output Graph Section

Display the logged digital values of inputs 25 to 32 in the graph.



[Graphs](#) → [Digital Output Graphs](#) → [Digital Outputs 1 to 8](#)

Display the logged digital values of outputs 1 to 8 in the graph.



[Graphs](#) → [Digital Output Graphs](#) → [Digital Outputs 9 to 16](#)

Display the logged digital values of outputs 9 to 16 in the graph.



[Graphs](#) → [Digital Output Graphs](#) → [Digital Outputs 17 to 24](#)

Display the logged digital values of outputs 17 to 24 in the graph.



[Graphs](#) → [Digital Output Graphs](#) → [Digital Outputs 25 to 32](#)

Display the logged digital values of outputs 25 to 32 in the graph.

4.5.2.5. GSM Unit Graph Section



[Graphs](#) → [GSM Unit Graphs](#) → [Unit Signal Strength Graph](#)

Displays the Units logged signal strength data in a graph.



[Graphs](#) → [GSM Unit Graphs](#) → [Unit Power Status Graph](#)

Displays the Units logged power status in a graph.

4.5.2.6. Displayed Data Statistics

The following buttons display the analog or digital statistics of the selected graph.

Analog Statistics

[Tools](#) → [Create Analog Statistics](#)

The maximum, minimum and average readings are calculated for the displayed analog graph.

Digital Statistics

Tools → Create Digital Statistics

The number of on and off events is counted for each input of the displayed digital graph.

4.6. Database Configuration Section

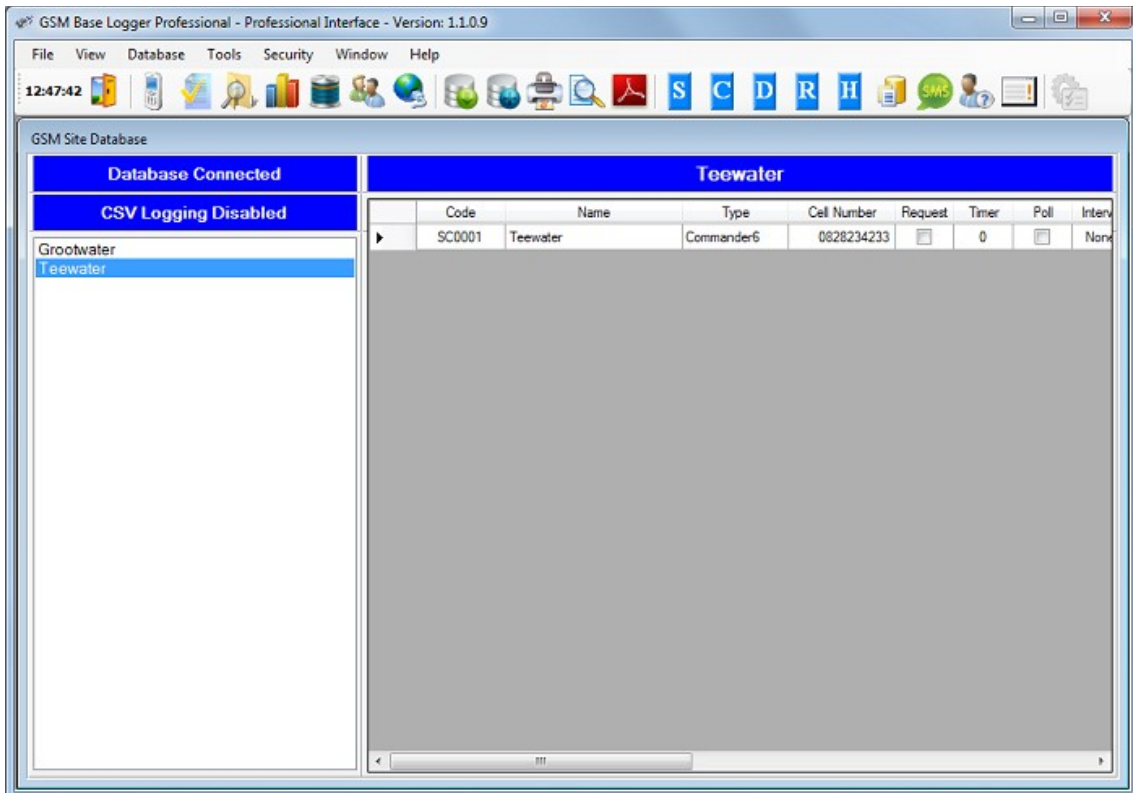


This section describes the functions found in the database screen.

4.6.1. Database Display Screen

The image below represents the database screen and is the interface to the server's logged data. Logged data can be retrieved on a per site basis. Select a site by clicking on it in the site name list. Only the site record will be displayed and the site table buttons are activated. Select these buttons to display the tables.

Responding to received SMS's and controlling SMS that will set outputs on a site is configured in these tables. See the "How To ..." section in the base logger help file.



4.6.2. Database Display Option Buttons



File → Import Database
(Security: Technical)

The option imports a backed up database data file.



File → Export Database
(Security: Technical)

The option exports the database to the selected location.



File → Print Selected Site

Print the selected site's configuration data.



File → Preview Selected Site

Preview the selected site's configuration data printout.



File → Export Selected Site as PDF

Export the selected site's configuration data to a PDF format document.



Database → Site List Table

The site table option displays all the configured site records in the data grid display. When selected it deactivates all the site table options, to reactivate the options click on a site in the site list.



Database → Digital Output Table
(Security: Operator- Read, Technical - Edit)

The digital output table (Coils) option displays all the outputs that can be connected to the SMS unit. The first four outputs are reserved for system use and the next thirty two outputs correspond to the maximum outputs that can be connected to the unit. The text displayed in the off and on fields is the text that will be send to the unit. Edit the text in the fields to change it to the required SMS text.



Database → Digital Input Table

(Security: Operator- Read, Technical - Edit)

The digital input table (Discrete) option displays all the inputs that can be monitored with the SMS unit. The first four inputs are reserved for system use and the next thirty two inputs correspond to the maximum inputs that can be connected to the unit. The text displayed in the off and on fields can be edited to correspond to the received SMS or connected equipment at the SMS unit. If a SMS is received and it is not a site base log message, it is compared to the entries and the corresponding modbus input is set or cleared.



Database → Analog Input Table

(Security: Operator- Read, Technical - Edit)

The analog input table (Registers) option displays all the analog values that can be monitored with a SMS unit. The first four inputs are reserved for system use and the next sixteen inputs correspond to the analog inputs connected to the unit. The analog text can be edited to describe the equipment connected to the unit.



Database → Analog Output Table

(Security: Operator- Read, Technical - Edit)

The analog output table (Holding Registers) option displays all the analog outputs that can be controlled by a SMS unit. The first four outputs are reserved for system use and the next sixteen outputs correspond to the analog outputs that can be connected to the unit. The analog text displayed is the text that will be transmitted to the unit. Edit the text in the field to change it to the required SMS text.



Database → Site Base-log SMS History

The history option displays all the base-log messages that were received from the selected site.



Database → Site Messages History

The history option displays all the user defined messages that were received from the selected site.



Database → Site Messages History

The history option displays all the user names and cell numbers received in the base-log messages of the version 6 Commanders of the selected site.



Database → Site Transmitted SMS

The site transmitted SMS option displays all the logged SMS commands that were sent to the selected site.



Database → System Events

The option displays all the logged system events.

Tools → Database Maintenance

(Security: Technical)

The option displays the database maintenance screen.

Tools → Reset System SMS

When the default system messages has been changed they can be reset to there default values to re-establish base log communications back to the site.

4.6.3. Import Site Descriptions

Use the database definition import option to configure multiple sites that have identical inputs and outputs. Create a coma delimited file, where each line is an input or output record with the following syntax as given in the sections below.

To import a file select the database screen and then select a site from the site display list. Then open the slot import file dialogue screen.

Menu: File → Import Slot Descriptions

(Security: Technical)

4.6.3.1. Coils – Digital Output Syntax

In order to configure the digital outputs create a line in the file with the following syntax. The display field is used to identify the outputs in the site display and graphics sections. See the sample and image below for more detail.

Syntax: Modbus, Open SMS, Close SMS, Display

Example: 000005,#DISARM,#ARM,Arm/Disarm

	Slot	Open SMS	Close SMS	Display	Value	Modbus
	1	#None	#REQ	Reserved 01	0	1
	2	#None	SETTIME	Reserved 02	0	2
	3	#None	#None	Reserved 03	0	3
	4	#None	#None	Reserved 04	0	4
	5	#DISARM	#ARM	Arm/Disarm	0	5
	6	#Output 2 Off	#Output 2 On	Output 02	0	6
	7	#None	#EMRESET	Emergency	0	7

4.6.3.2. Discrete – Digital Input Syntax

In order to configure the digital inputs create a line in the file with the following syntax. The display field is used to identify the inputs in the site display and graphics sections. See the sample and image below for more detail.

Syntax: Modbus, Off Text, On Text, Display

Example: 100006, Site door open, Site door closed, Door

	Slot	Off Text	On Text	Display	Value	Modbus
	1	SMS Coms Failed	SMS Coms Normal	Reserved 01	0	100001
	2	Reserved	Reserved	Reserved 02	0	100002
	3	Site Disarmed	Site Armed	Reserved 03	0	100003
	4	Unit Power Failed	Unit Power Status	Reserved 04	0	100004
	5	Movement Detected	No Movement	Movement	0	100005
	6	Site door open	Site door closed	Door	0	100006
	7	No Emergency	Emergency on site	Emergency	0	100007

4.6.3.3. Registers – Analog Input Syntax

In order to configure the analog inputs create a line in the file with the following syntax. Note that certain fields are included to be compatible with the digital definitions. See the sample and image below for more detail.

Syntax: Modbus, *Null*, Analog Text, *Null*

Example: 300006, ,Signal strength,

	Slot	Analog Text	Value	Modbus
	1	SMS Timeout ...	0	300001
	2	Received Year ...	0	300002
	3	Received Month ...	0	300003
	4	Received Day ...	0	300004
	5	Firmware version ...	0	300005
	6	Signal strength ...	0	300006
	7	Prepaid airtime ...	0	300007

4.6.3.4. Holding Registers – Analog Output Syntax

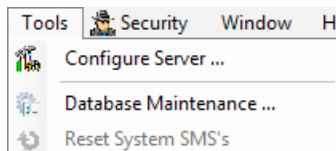
In order to configure the analog outputs create a line in the file with the following syntax. Note that certain fields are included to be compatible with the digital definitions. See the sample and image below for more detail.

Syntax: Modbus, *Null*, Analog SMS, *Null*

Example: 400005, , Set water flow,

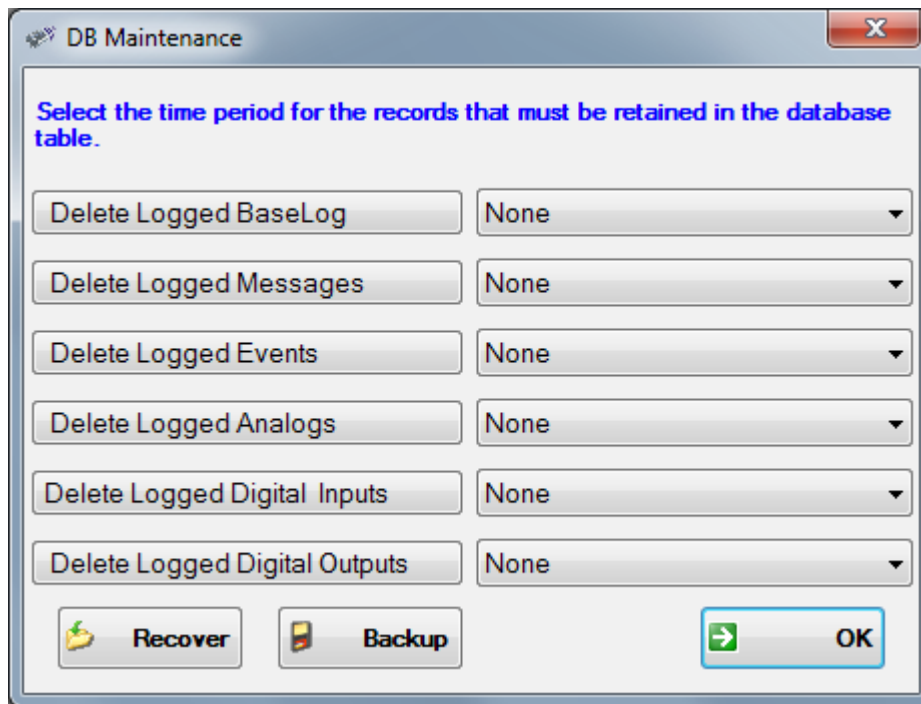
	Slot	Analog SMS	Value	Modbus
	1	Received Hour ...	0	400001
	2	Received Minute ...	0	400002
	3	Reserved	0	400003
	4	Reserved	0	400004
	5	Set water flow : ...	0	400005
	6	#Analog Output 2 : ...	0	400006
	7	#Analog Output 3 : ...	0	400007

4.6.4. Database Maintenance



Tools → Database Maintenance

Use the database maintenance option to backup the databases and delete old records from it. See the description and image below for details.



- Select the time period in the drop-down lists on the right side
- Click the left hand button to perform the task
- Click the backup button to make a copy of the database files
- Click the recover button to read the database files back into the GSM Base Logger

4.7. User Notification Section



This section describes the user notification interface screen.

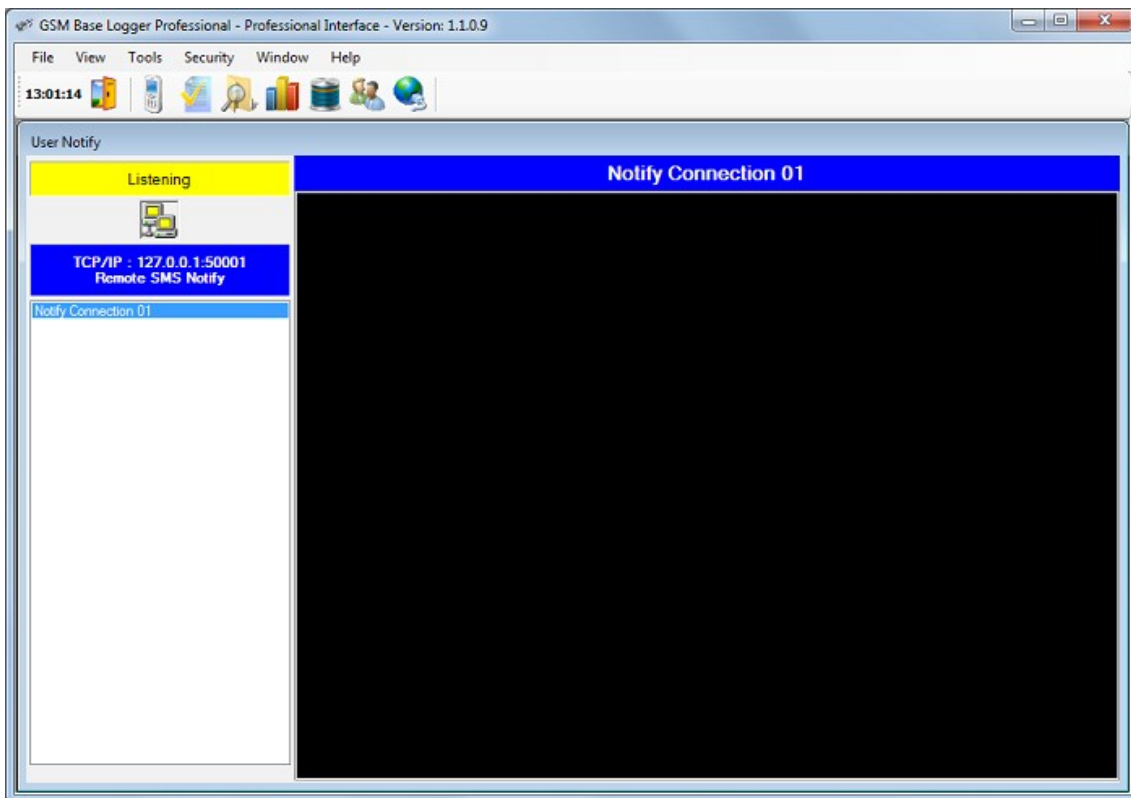
4.7.1. Notification Display Screen

The image below represents the notification communications screen that provides the connection to send notifications to users.

Two types of connections are catered for:

- Command line utility that can be executed from any scripting language that allows it.
- The remote SMS user interface module.

Please Note: Messages can only be send to configured users as the system does not allow the entry of ad hock cell numbers, this is to prevent abuse of the system



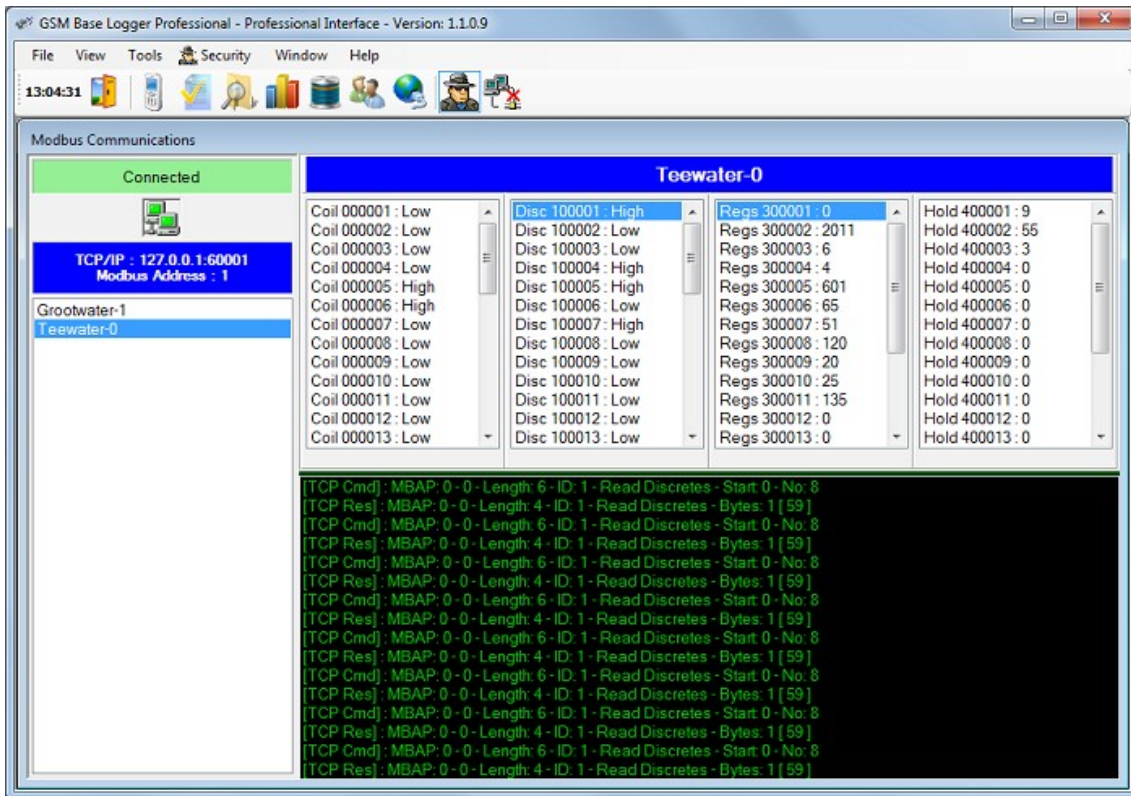
4.8. Modbus Interface Section



This section describes the functions found in the modbus interface screen.

4.8.1. Modbus Display Screen

The image below represents the modbus communications screen that implements a scada interface between the server and a scada system. Each configured site is assigned a virtual PLC with the functions given in the table below. Selecting a site in the site list, displays the PLC connection status in the left top panel and the current values assigned to the modbus slots in the right top four panels. The right bottom panel displays the modbus communications to the scada server.



4.8.2. Modbus Display Option Buttons



Tools → Decode Modbus

The option toggles the display of the modbus packets between a hexadecimal display and the decoded fields of the packets.



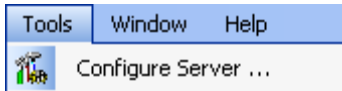
Tools → Reset TCP/IP Connection

The option resets all the TCP/IP connections and the reinitialise them.

4.8.3. Modbus Scanning Functions

Modbus Type	Description		Address Range
Coils	Digital output status	R/W	1 to 36
Discrete	Digital input status	R	100001 to 100036
Registers	Analog input values	R	300001 to 300020
Holding Registers	Analog output values	R/W	400001 to 400020

5. SYSTEM CONFIGURATION



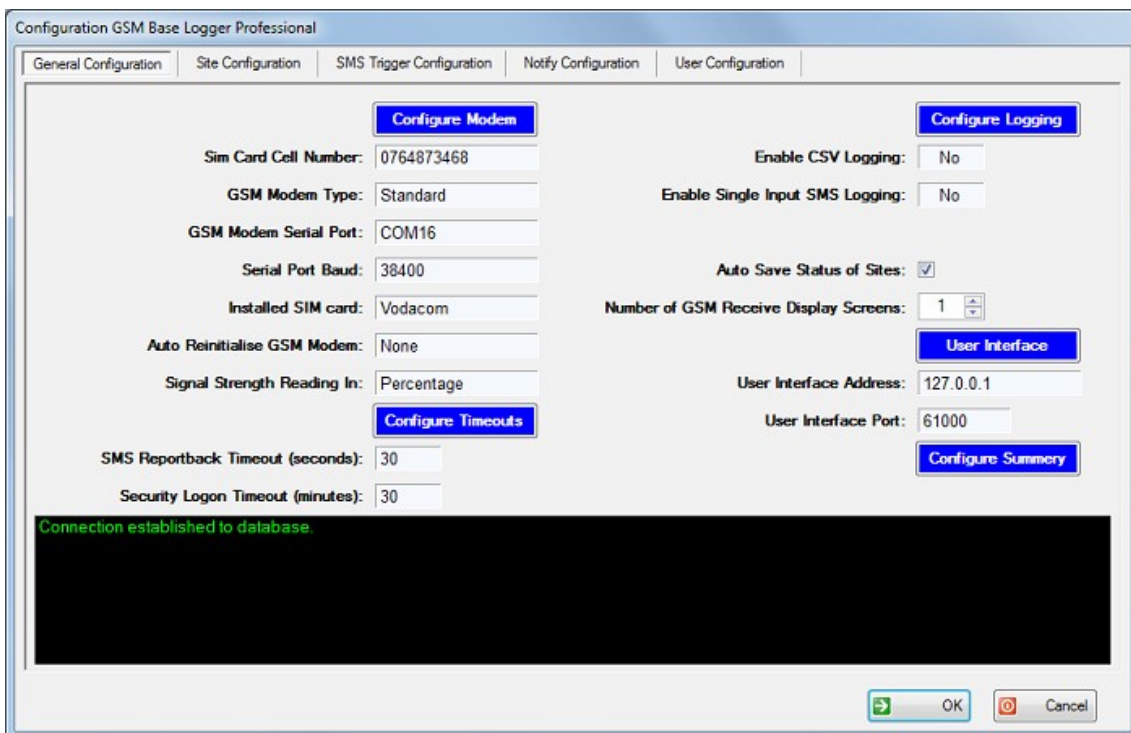
Tools → Configure Server
(Security: Administrator)

Selects the system configuration dialogue screens.

5.1. General Configurations Dialogue

The first tab in the configurations dialogue sets the general options of the GSM Base Logger.

5.1.1. General Configuration Screen



5.1.2. General Configuration Buttons

Configure Modem

Configure the communications of the modem connected to the GSM Base Logger.

Configure Timeouts

Configure the general and system time-outs.

Auto Save Check this option to save the status of the sites when configuring or exiting the base logger.

Display Screens Set the length of the display screen from 1 to 4 screens.

5.1.3. Database Configuration

Configure Logging Configure the additional logging options of the GSM Base Logger.

5.1.4. User Interface Configuration

User Interface Configures the remote user interface connection.

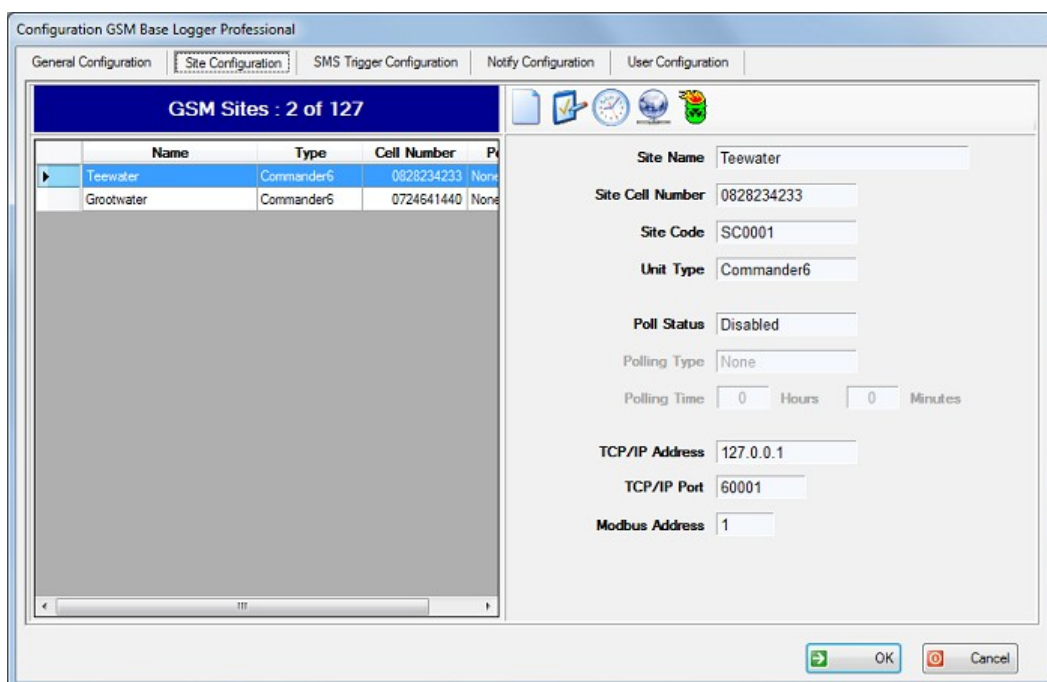
5.1.5. Summary Screen Configuration

Configure Summary Configures the displayed columns in the summary screen

5.2. Site Options Configuration

The second tab of the dialogue configures all the sites monitored by the GSM Base Logger.

5.2.1. Site Configuration Screen



5.2.2. Site Configuration Buttons



Create a new site that the GSM Base Logger will communicate to.



Edit the details of the selected site.



Configure the selected sites automatic polling.



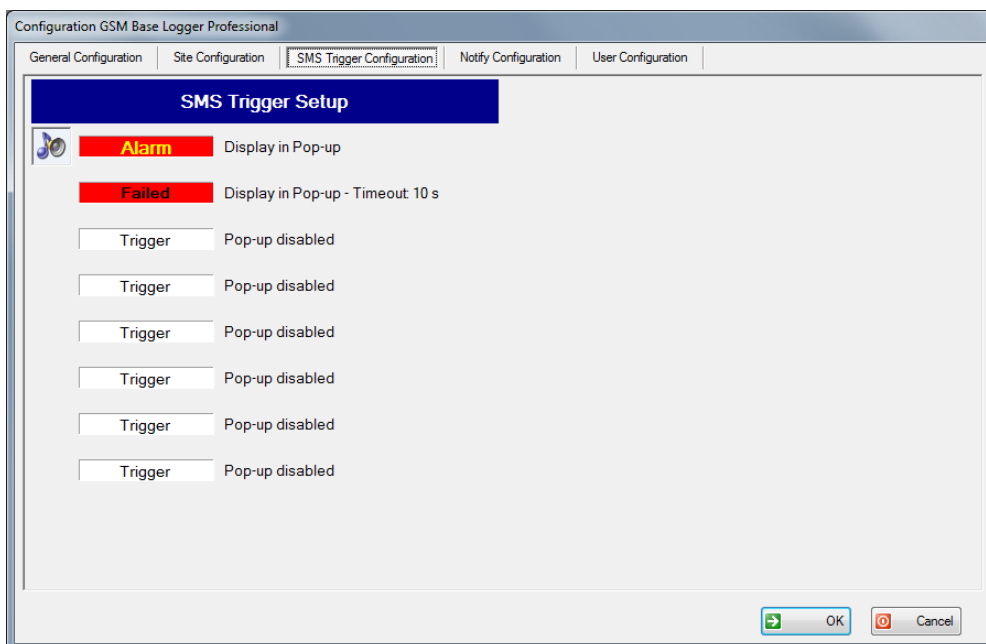
Configure the sites modbus communications to a scada system.



Delete the selected site from the GSM Base Logger.

5.3. Trigger Text Configuration

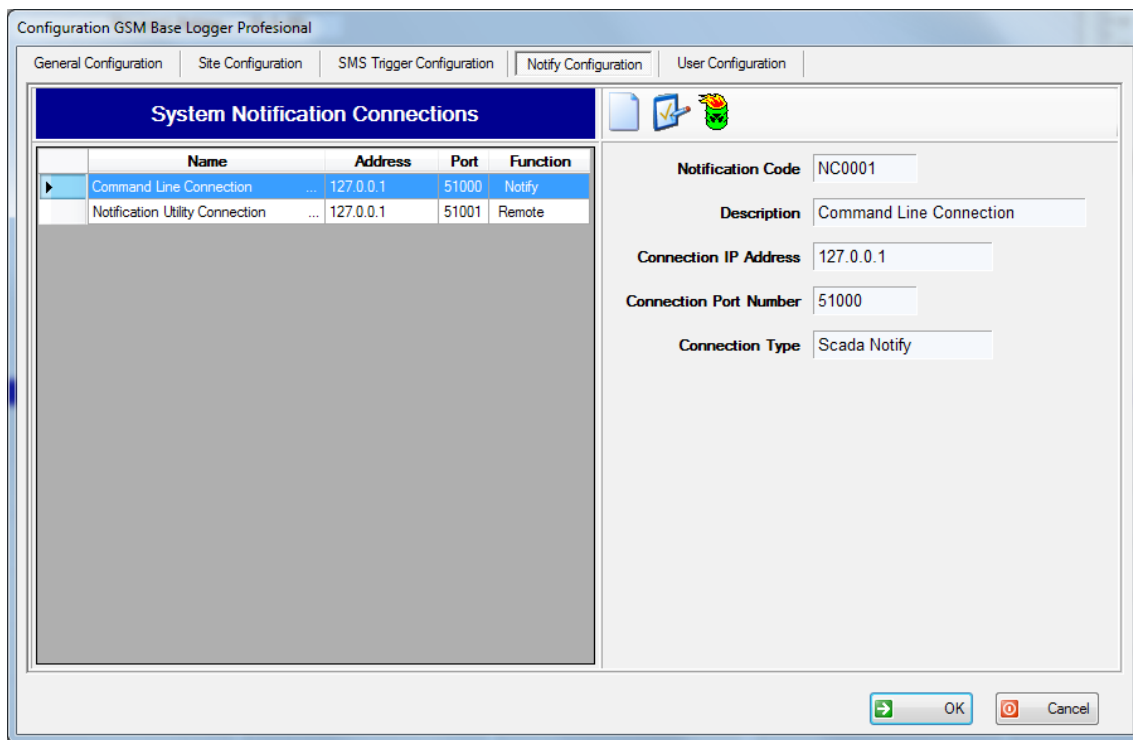
The third tab of the configurations dialogue configures all the text triggers used by the GSM Base Logger. Click on the displayed trigger text to start the wizard that will guide you through the configuration. See the image below.



5.4. Notification Configuration

The fourth tab of the configurations dialogue configures the notification connections to the GSM Base Logger.

5.4.1. Notification Screen



5.4.2. Notification Connection Buttons



Create a notification connection to the GSM Base Logger.



Edit the details of the selected notification connection.

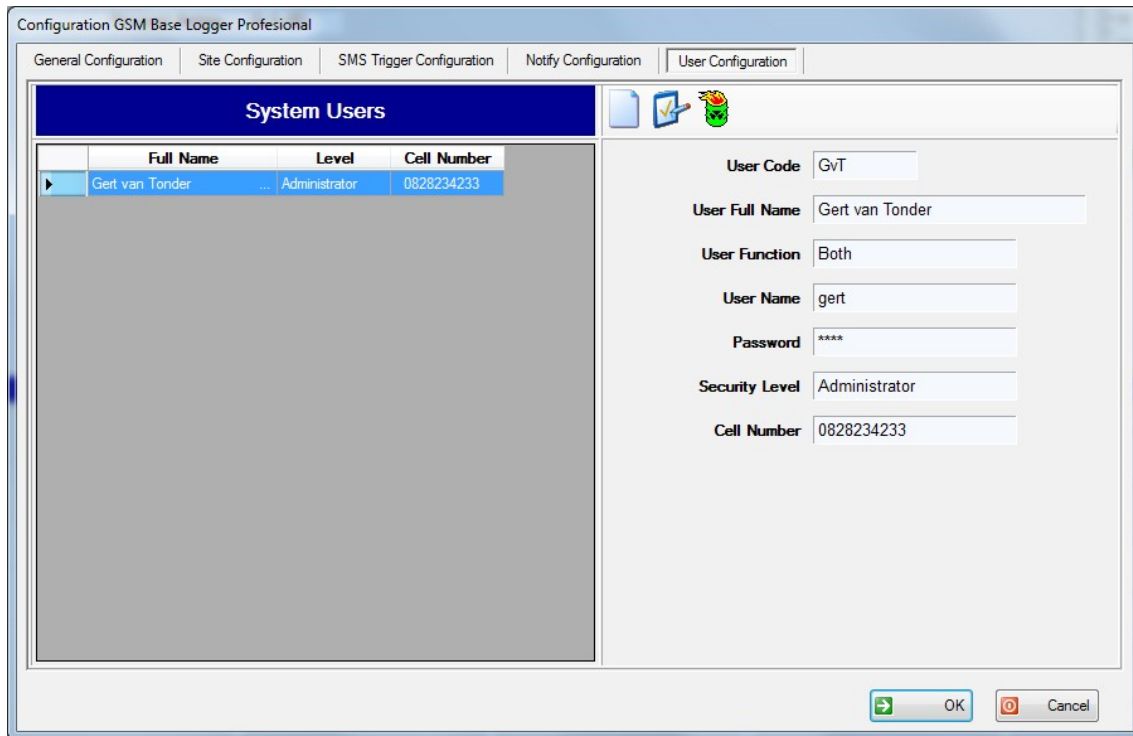


Delete the selected notification from the GSM Base Logger.

5.5. User Configuration

The fifth tab of the configurations dialogue configures all the users that can operate the GSM Base Logger.

5.5.1. User Configuration Screen



5.5.2. User Configuration Buttons



Create a new user on the server.



Edit the details of the selected user.

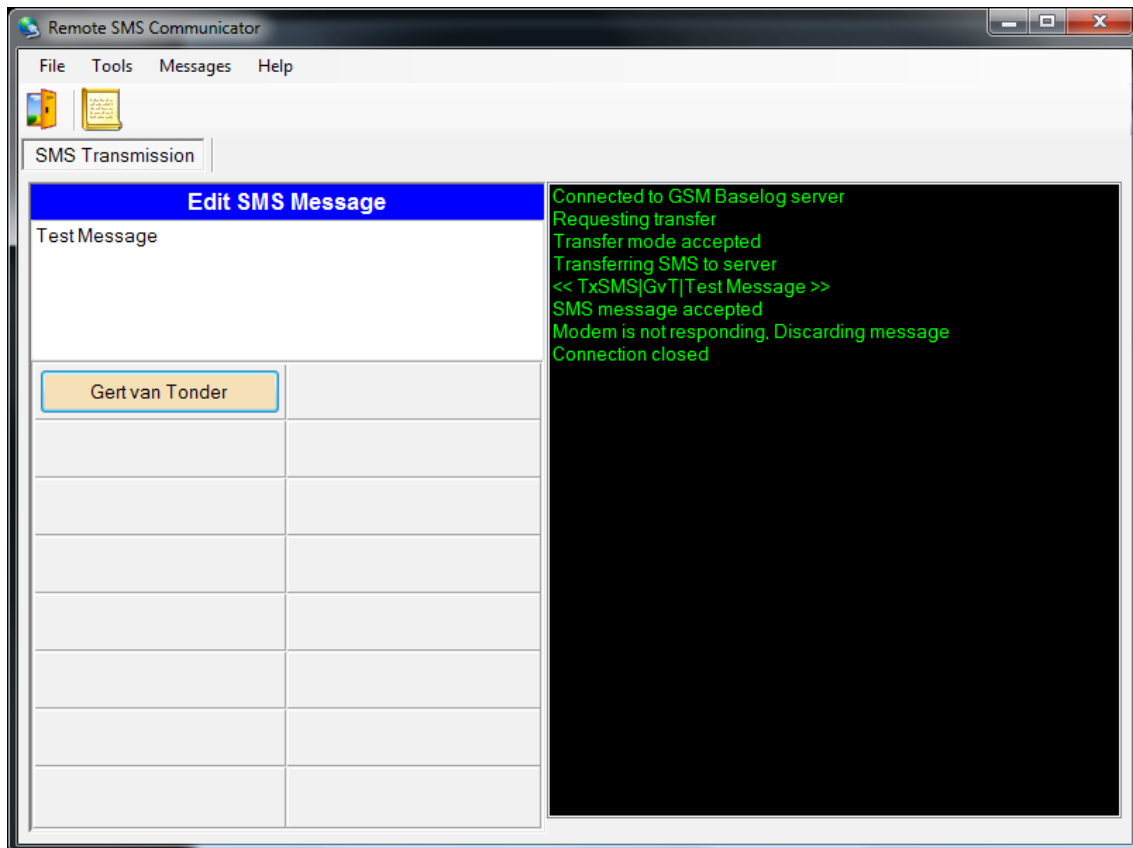


Delete the selected user from the system.

6. REMOTE SMS NOTIFICATION

The remote SMS controller **Remote SMS** is a remote notification interface that sends entered and predefined messages to configured users in the GSM Base logger.

6.1. Remote SMS Interface Screen

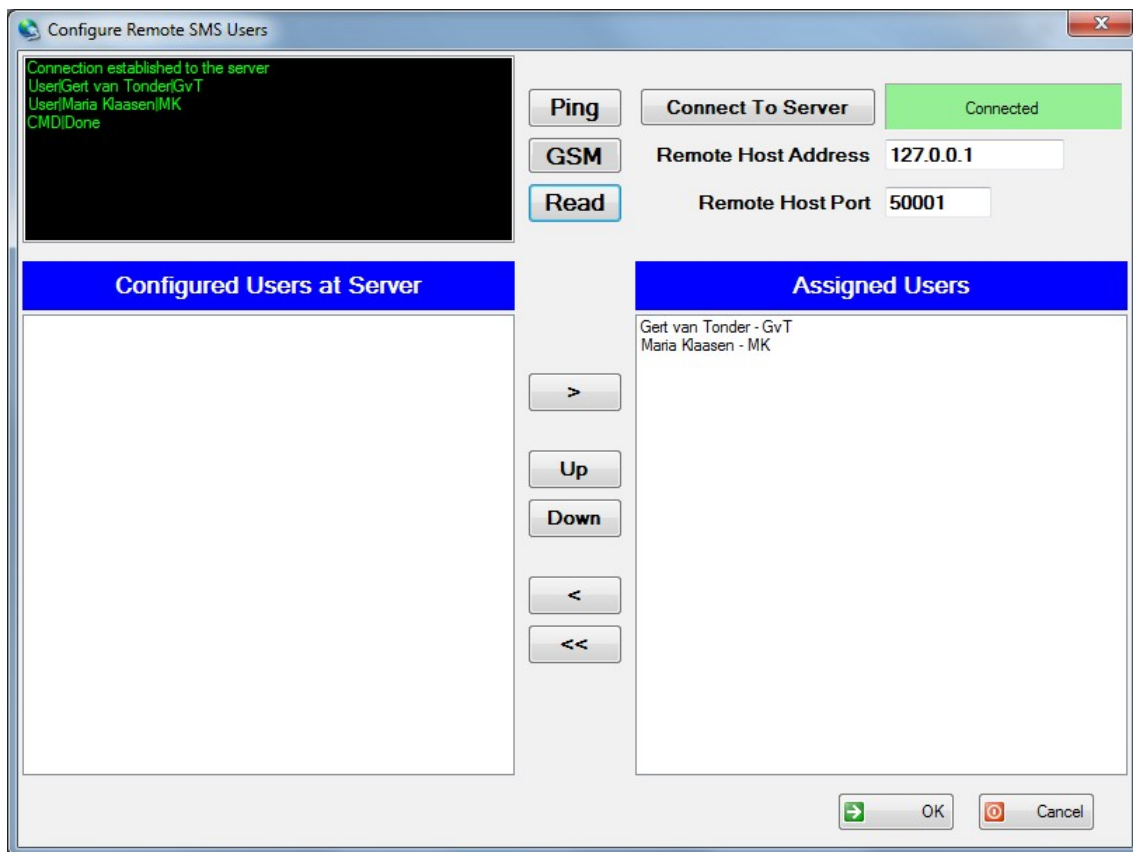


6.2. Remote SMS Configuration

Menu: [Tools -> Configure SMS Communicator](#)

The following topic explains the configuration of the users that will receive an SMS notification from the remote SMS user interface. The configuration is described below:

6.2.1. Remote User Configuration Screen



6.2.2. TCP/IP Connection

For the remote SMS software to communicate with the GSM Base Logger the remote host address and port number must be entered into the fields provided.

Ping

Click the button to check if the remote PC hosting the GSM Base Logger can be reached.

Connect To Server

Click the button to establish the connection, the display next to the button will indicate the status of the connection. Leave the connection established to configure the notification users of the interface.


GSM

Click the button to check the modem connection at the GSM Base Logger.

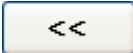
6.2.3. Notification Users Configuration

With the network connection established, the configured users in the GSM Base Logger can be downloaded and added to the user notification list. The functions of the buttons are explained below.

 Reads all the users that are assigned notification status into the server list.

 Adds the selected user in the server list to the assigned user list.

 Removes the selected user from the assigned user list.

 Clears the assigned user list.

 Moves the selected user in the assigned user list up one position.

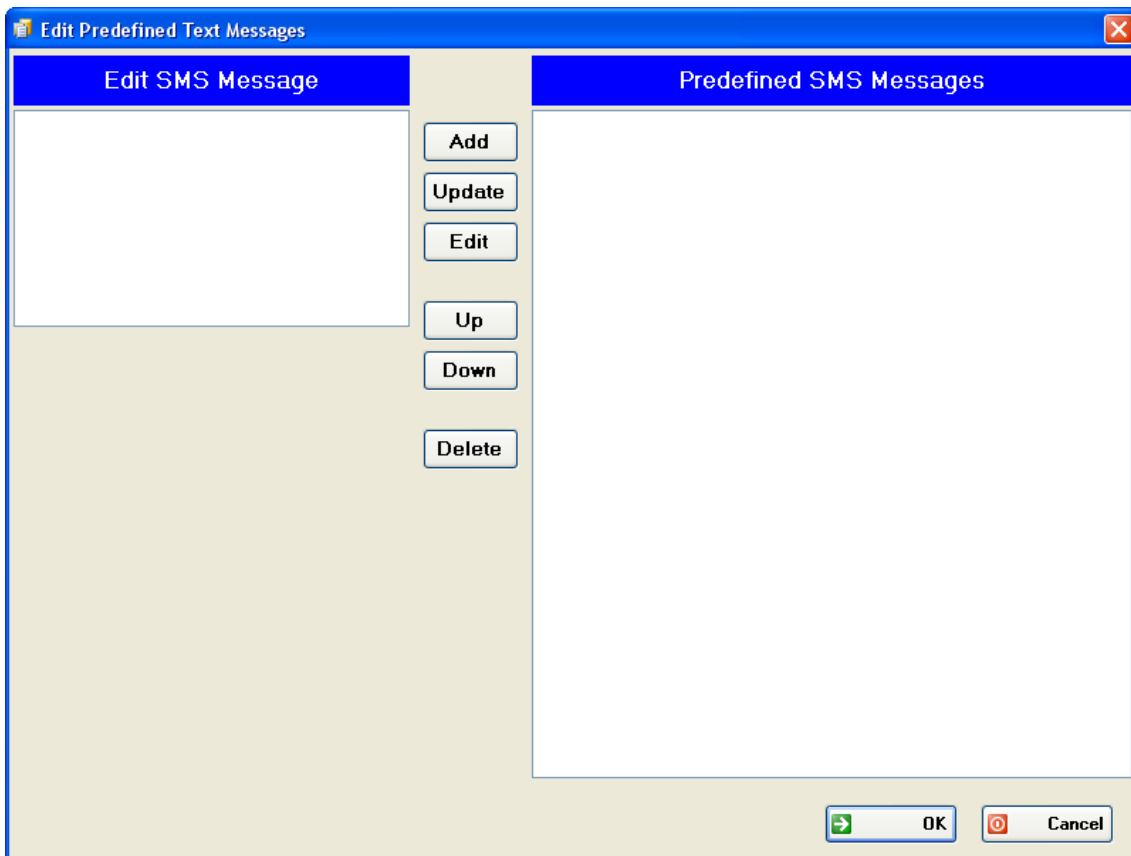
 Moves the selected user in the assigned user list down one position

6.2.4. Predefined Message Configuration

Menu: Tools -> Edit Predefined Messages

The following topic explains the creation of the predefined text messages that can be used to notify users. The configuration is described below:

6.2.4.1. Message Configuration Screen



6.2.4.2. Message Configuration Buttons

Use the left hand panel to enter or edit a message, then add it to or update the message list.

Add Adds the created message to the predefined message list

Update Updates the selected message in the list with the text from the edit panel

Edit Transfers the selected message in the list to the edit panel for editing

Up Moves the selected message in the list up one position

Down Moves the selected message in the list down one position

Delete Deletes the selected message in the list

7. COMMAND LINE UTILITY

The command line utility is an interface command to the GSM Base Logger that can be called from any scripting language able to run executable files externally. See the descriptions below for more details.

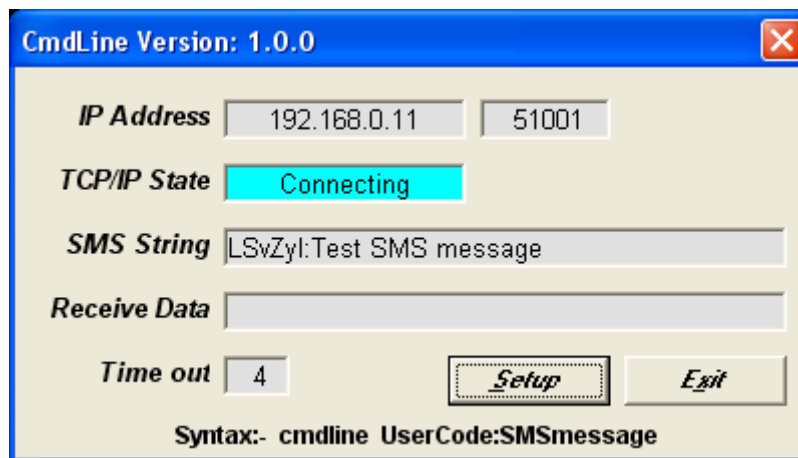
7.1. Command Line Execution

To send an SMS manually, follow the steps below:

- Go to Windows Start -> All Programs -> Accessories and then open the Command Prompt.
- Once displayed, navigate to the directory containing the **cmdline** utility and enter the command as shown below.

```
D:\CommandLine>cmdline LsvZ:Test SMS message_
```

- The command line dialogue will pop-up indicating the status of the transfer and then close on completion as shown in the image below.



The syntax of the command is given below with an example on how to execute it with PHP scripting language.

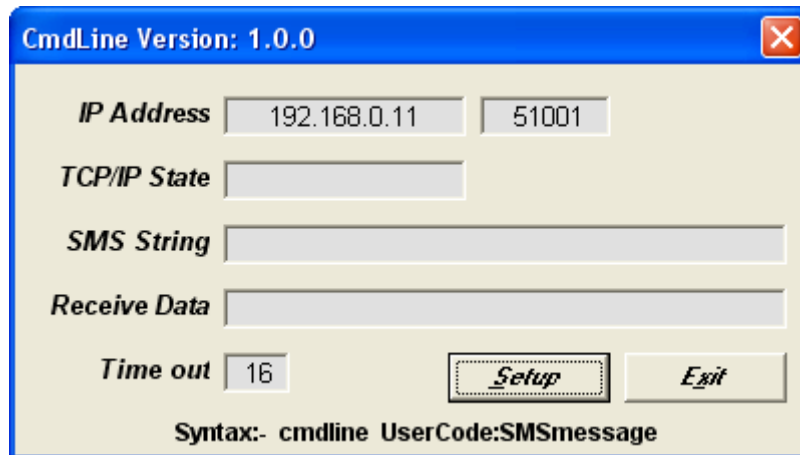
Syntax: cmdline User Code: SMS Message

Example:

```
<?php
$tmp = exec("cmdline lsvz:Test SMS Message", $results);
?>
```

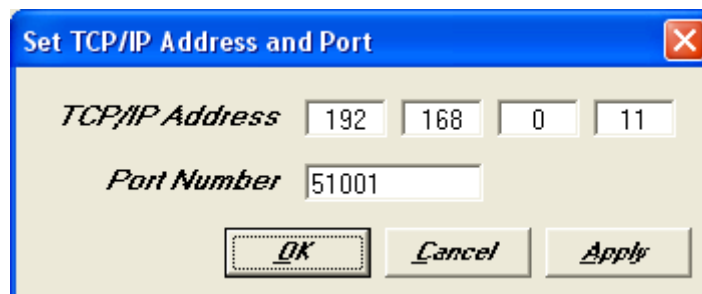
7.2. Connect Configuration

In order to use the cmdline utility, the IP address and notification port number at the GSM Base Logger must be configured. Click Windows Start then Run, browse for the cmdline utility and run it. The screen as shown below will be displayed.



The screenshot shows a window titled "CmdLine Version: 1.0.0". It contains several input fields and buttons. The "IP Address" field is split into two parts: "192.168.0.11" and "51001". Below it are fields for "TCP/IP State", "SMS String", and "Receive Data". A "Time out" field is set to "16". At the bottom, there are "Setup" and "Exit" buttons. A syntax instruction at the bottom reads: "Syntax:- cmdline UserCode:SMSmessage".

Once the form is displayed click the set-up button to open the IP address configuration dialogue. Enter the IP address of the PC where the GSM Base Logger is installed and the configured notification port number as shown below. Once completed, close the dialogue and the command line screen.



The screenshot shows a window titled "Set TCP/IP Address and Port". It contains two rows of input fields. The first row is labeled "TCP/IP Address" and has four separate boxes containing "192", "168", "0", and "11". The second row is labeled "Port Number" and has a single box containing "51001". At the bottom, there are "OK", "Cancel", and "Apply" buttons.

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