

OpenEnterprise Alarm Bell Reference Guide (V2.83)

Contents

- 1 AlarmBell..... 1**
- 1.1 AlarmBell Overview..... 1
- 1.2 Getting Started..... 1
 - 1.2.1.1 Application Files..... 1
 - 1.2.1.2 Installation Instructions 1
- 1.3 Alarm Bell Main Dialog..... 2
 - 1.3.1 File Menu..... 2
 - 1.3.2 Help Menu 2
 - 1.3.3 Number of Signals 3
 - 1.3.4 Refresh Button..... 3
 - 1.3.5 Connection Status 3
 - 1.3.6 Active Query Status 3
 - 1.3.7 Total Inserts..... 3
 - 1.3.8 Total Updates 3
 - 1.3.9 Total Deletes..... 3
 - 1.3.10 Silence Button 3
 - 1.3.11 Hide on Silence 4
 - 1.3.12 Event History 4
 - 1.3.13 Help Button..... 4
 - 1.3.14 Hide Button..... 4
 - 1.3.15 Close Button..... 4
 - 1.3.16 Test Button 4
- 1.4 AlarmBell Configuration 4
 - 1.4.1 AlarmBell.ini File 5
 - 1.4.2 Klaxon.ini File 5
 - 1.4.3 Names File..... 5
 - 1.4.4 Examples..... 5
 - 1.4.4.1 AlarmBell.ini Example 5
 - 1.4.4.1.1 AlarmBell.ini Example..... 5
 - 1.4.4.1.2 AlarmBell.ini Example..... 6
 - 1.4.4.1.3 AlarmBell.ini Features..... 6
 - 1.4.4.1.3.1 DB Section 6
 - 1.4.4.1.3.2 DataService 6
 - 1.4.4.1.3.3 Retry Period 6
 - 1.4.4.1.3.4 FTHeartbeatInterval 6
 - 1.4.4.1.3.5 FTHeartbeatTimeout 6
 - 1.4.4.1.3.6 Username..... 6
 - 1.4.4.1.3.7 Password..... 6
 - 1.4.4.1.3.8 AlarmSummary Section 7
 - 1.4.4.1.3.9 MinIntervalSecs..... 7
 - 1.4.4.1.3.10 AppSettings Section..... 7
 - 1.4.4.1.3.11 Names 7
 - 1.4.4.1.3.12 SignalsDisplayed..... 7
 - 1.4.4.2 Klaxon.ini Example..... 7
 - 1.4.4.2.1 Klaxon.ini Example 7
 - 1.4.4.2.2 Klaxon.ini Features 7
 - 1.4.4.2.2.1 Name 7

- 1.4.4.2.2.2 BaudRate 7
- 1.4.4.2.2.3 Parity 7
- 1.4.4.2.2.4 StopBits 8
- 1.4.4.2.2.5 ByteSize 8
- 1.4.4.2.2.6 ModuleAddress 8
- 1.4.4.2.2.7 Output..... 8
- 1.4.4.3 Names Text Example..... 8
 - 1.4.4.3.1 Names Text Example 8
 - 1.4.4.3.2 Names Text File Features 8
 - 1.4.4.3.2.1 Comment Mark..... 8
 - 1.4.4.3.2.2 Signal Names 8
- 2 Index 9**

1 AlarmBell

1.1 AlarmBell Overview

The AlarmBell provides the following features

- The ability to sound an audible alarm via a Klaxon device connected to the PC COM port when pre-configured remote alarm signals go into alarm, or when a standing alarm changes state from cleared to in-alarm.
- A Klaxon test facility. This allows the operator to manually test the Klaxon apparatus by sounding and silencing it from the AlarmBell's main dialog.
- Displays alarm status regarding the configured alarm signals.
- Simple configuration of the data source and signals to be monitored.

1.2 Getting Started

1.2.1.1 Application Files

There are five files used by the AlarmBell application. They are: -

1. AlarmBell.exe
2. Klaxon.dll
3. OEHelp.dll
4. AlarmBell.ini
5. Klaxon.ini
6. Names.txt

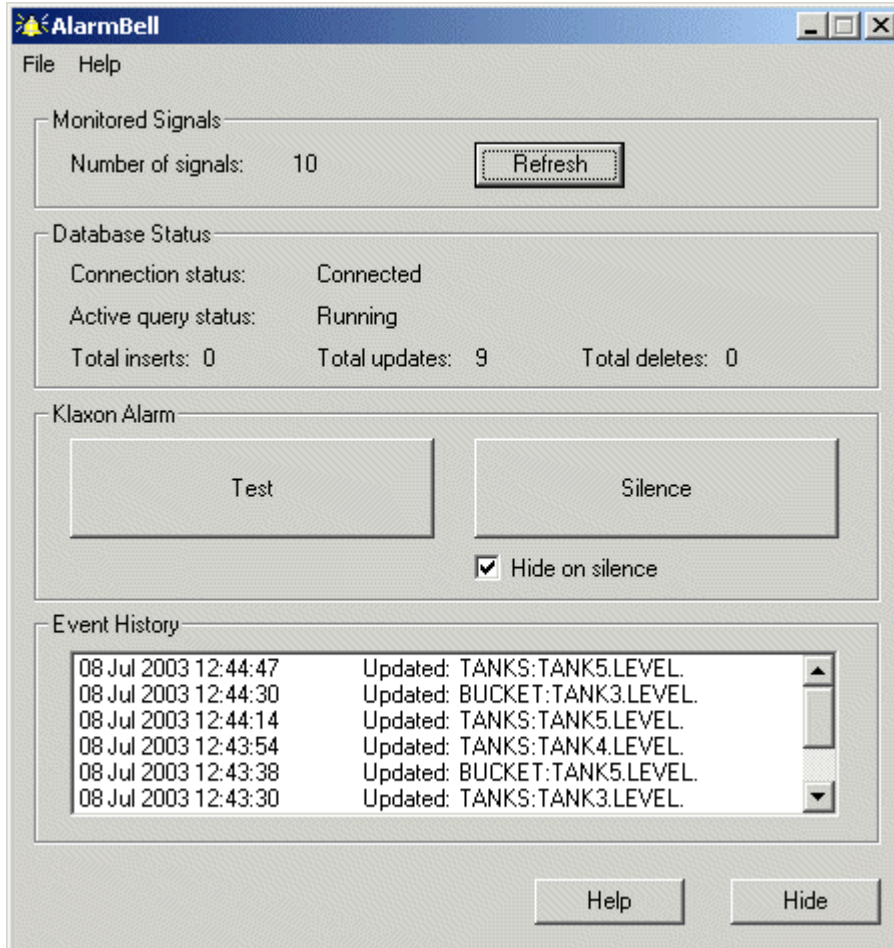
1.2.1.2 Installation Instructions

Before running the AlarmBell application, please do the following: -

1. Copy the AlarmBell.exe, Klaxon.dll, OEHelp.dll and Names.txt files to the application directory of your choice.
2. Copy the AlarmBell.ini and Klaxon.ini files to the Windows/Winnt directory.
3. Open the AlarmBell.ini file using Notepad, and edit this file as necessary. You will probably need to change the DataService value as a minimum, although other values may need editing. See AlarmBell.ini Example for further information.
4. Open the Klaxon.ini file using Notepad, and view the default settings for the COM port. If you are using other settings, edit and save the file as necessary. See Klaxon.ini Example for further information.
5. Open the Names.txt file using Notepad, and enter the names of the signals which you require to be monitored. See Names Text Example for further information.

AlarmBell Overview

1.3 Alarm Bell Main Dialog



1.3.1 File Menu

The Exit option on this menu will hide the application's dialog. Note that the Alarm Bell will still be running as a process, and if there are any alarm inserts or updates on the signals defined in the Names.txt file, the dialog will be made visible again, and will be placed on top of any window currently having the focus, and the klaxon will be sounded.

1.3.2 Help Menu

This menu provides two options: -

1. **Alarm Bell Help (or F1 key).** Either select this menu option or the F1 key on the computer keyboard to open this help file.
2. **About AlarmBell.** This option will display the About... box for the AlarmBell application, which provides information on the version and build number of the application, along with contact details for Bristol.

AlarmBell Main Dialog

1.3.3 Number of Signals

The number of signals currently being monitored. This is set by the number of signals configured in the Names.Txt file.

1.3.4 Refresh Button

Causes a re-read of the Names.Txt file without closing the AlarmBell application when extra alarm signals have been added.

1.3.5 Connection Status

Displays the connection status of the AlarmBell application. There are two possible values: -

- Connected
- Not connected

In the event that the field displays 'Not connected', firstly check that the 'Dataservice' in the AlarmBell.ini file is correctly defined.

AlarmBell Main Dialog

1.3.6 Active Query Status

Displays information on the status of the active query opened by the AlarmBell application. There are two possible values:-

- Running
- Not Running

In the event that the field displays 'Not running', firstly check that the query is defined correctly in the AlarmBell.ini file.

Note: For queries where not all attributes from the table are defined (*), the table's primary key must be included as part of the query.

AlarmBell Main Dialog

1.3.7 Total Inserts

The total number of times that any of the configured alarm signals has been inserted into the AlarmSummary table.

1.3.8 Total Updates

The total number of times that any of the configured alarm signals in the AlarmSummary table have had their 'Cleared' attribute updated.

1.3.9 Total Deletes

The total number of times that any of the configured alarm signals has been deleted from the AlarmSummary table.

1.3.10 Silence Button

Silences the Klaxon device attached to the host PC.

1.3.11 Hide on Silence

If selected, the Alarm Bell main dialog will be hidden when the **[Silence]** button is selected. It will still be running as a process, and if there are any alarm inserts or updates on the signals defined in the Names.txt file, the dialog will be made visible again, and will be placed on top of any window currently having the focus, and the klaxon will be sounded.

1.3.12 Event History

Displays realtime information on alarm activity for any of the configured alarm signals. The information includes: -

- The time of the activity
- The nature of the activity (i.e. insertion, deletion or update)
- The signal name

Events will be time-stamped, with the most recent event at the top of the list. When an alarm is updated, the AlarmBell application will automatically display its window, even when minimized. The list can be configured (via the AlarmBell.ini file) to contain a maximum number of entries (defaulted to 10).

AlarmBell Main Dialog

1.3.13 Help Button

Displays this help file.

1.3.14 Hide Button

When selected, the Alarm Bell dialog will be hidden. Note that it will still be running as a process, and if there are any alarm inserts or updates on the signals defined in the Names.txt file, the dialog will be made visible again, and will be placed on top of any window currently having the focus, and the klaxon will be sounded.

1.3.15 Close Button

When selected, the Alarm Bell dialog will be hidden. Note that it will still be running as a process, and if there are any alarm inserts or updates on the signals defined in the Names.txt file, the dialog will be made visible again, and will be placed on top of any window currently having the focus, and the klaxon will be sounded.

1.3.16 Test Button

Tests the Klaxon device attached to the host PC.

1.4 AlarmBell Configuration

Configuration for the AlarmBell is handled by three files. Click on each one below for more information.

1. The AlarmBell.ini file
2. The Klaxon.in file
3. The Names.Txt file

1.4.1 AlarmBell.ini File

The Alarmbell.ini file is a standard windows INI file and stores the information required for the AlarmBell application to: -

- Connect to OpenEnterprise
- Run an active query on the database
- Locate the file which specifies the monitored alarm signals
- Determine how many lines will remain in the Event History list

It should be placed in the Windows (or WINNT) directory. A default AlarmBell.ini file is provided. This should be changed to suit particular needs.

AlarmBell.ini Example

1.4.2 Klaxon.ini File

The Klaxon.ini file is a standard windows INI file and stores the information required for the AlarmBell application to control a klaxon device which is connected to the computer through one of it's COM ports.

It has default settings, which are used by the AlarmBell application even when no Klaxon.ini file is present. However, the settings can be changed by editing this file.

It should be placed in the Windows (or WINNT) directory. A default file is provided. This should be changed to suit particular needs.

Klaxon.ini Example

1.4.3 Names File

The Names.Txt file contains the list of alarm signal names which the AlarmBell monitors for alarm activity.

Names Text Example

1.4.4 Examples

1.4.4.1 AlarmBell.ini Example

1.4.4.1.1 AlarmBell.ini Example

Click on the highlighted text below for more information.

[DB]

Dataservice = OpenEnterprisel:rtrdbl

RetryPeriod = 3

FTHeartbeatInterval = 7

FTHeartbeatTimeout = 9

Username = SYSTEM

Password = SYSTEM

[AlarmSummary]

MinIntervalSecs = 0

[AppSettings]

Names = Names.txt

SignalsDisplayed = 10

1.4.4.1.2 AlarmBell.ini Example

Click on the highlighted text below for more information.

[DB]

Dataservice = OpenEnterprise1:rtrdbl

RetryPeriod = 3

FTHeartbeatInterval = 7

FTHeartbeatTimeout = 9

Username = SYSTEM

Password = SYSTEM

[AlarmSummary]

MinIntervalSecs = 0

[AppSettings]

Names = Names.txt

SignalsDisplayed = 10

1.4.4.1.3 AlarmBell.ini Features**1.4.4.1.3.1 DB Section**

This section contains settings that affect the connectivity of the AlarmBell application.

1.4.4.1.3.2 DataService

The dataservice of the OpenEnterprise server. When the dataservice consists of a comma-separated list, the AlarmBell will automatically connect with fault tolerance enabled.No default.

1.4.4.1.3.3 Retry Period

The number of seconds between consecutive database connection attempts. Defaults to 10 seconds.

1.4.4.1.3.4 FTHeartbeatInterval

The number of seconds between heartbeats. Defaults to 30 seconds.

1.4.4.1.3.5 FTHeartbeatTimeout

The maximum number of seconds to wait for a heartbeat response.Defaults to 60 seconds.

1.4.4.1.3.6 Username

The name of the OpenEnterprise user to logon as. No default.

1.4.4.1.3.7 Password

The password of the openEnterprise user to logon as.No default.

1.4.4.1.3.8 AlarmSummary Section

This section is for configuration of the active AlarmSummary table query.

1.4.4.1.3.9 MinIntervalSecs

The optional number of seconds used to turn the active query into a polled query. E.g. When set to two seconds, the database will never update the client more frequently than once every two seconds. Defaults to zero.

1.4.4.1.3.10 AppSettings Section

This section contains settings for the signal names file, which defaults to Names.txt.

1.4.4.1.3.11 Names

The name and location of the names.txt file. Defaults to names.txt (in the working directory).

1.4.4.1.3.12 SignalsDisplayed

Limits the number of lines allowed for the Event History list within the AlarmBell's main dialog. When this number is exceeded, the oldest message is deleted to make way for the latest message. Defaults to 10.

1.4.4.2 Klaxon.ini Example**1.4.4.2.1 Klaxon.ini Example**

This is an example Klaxon.ini file, containing the default settings. Click on the highlighted text below for information on specific settings.

[PORT]

Name = COM1

BaudRate = 9600

Parity = no

StopBits = 1

ByteSize = 8

[OUTPUT_STRING]

ModuleAddress = 01

Output = 10

1.4.4.2.2 Klaxon.ini Features**1.4.4.2.2.1 Name**

This is the name of the COM port being used.

1.4.4.2.2.2 BaudRate

Sets the maximum rate in bits per second that you want data to be transmitted through this port. This is usually set to the maximum rate supported by the computer or the device attached to the port.

1.4.4.2.2.3 Parity

Changes the type of error checking you want to use for the selected port. The computer or device you are communicating with must have the same setting that you choose here. You must choose one of the following:

None - means that no parity bit will be added to the data bits sent from this port. This will disable error checking.

Even - means that a parity bit is set to 1 if it is needed to make the number of 1's in the data bits even. This will enable error checking.

Odd - means that a parity bit is added if it is needed to make the number of 1's in the data bits odd. This will enable error checking.

Mark - means that a parity bit is added, but it is always set to 0.

Space - means that a parity bit is added, but it is always set to 1.

1.4.4.2.2.4 StopBits

Changes the time between each character being transmitted (where time is measured in bits). Options are 1, 1.5 or 2.

1.4.4.2.2.5 ByteSize

The number of bits in one byte. Options are any integer between 4 and 8.

1.4.4.2.2.6 ModuleAddress

Can be any Hex based number between 00-FF.

1.4.4.2.2.7 Output

1c, Ac or Bc where c is the selected channel.

1.4.4.3 Names Text Example

1.4.4.3.1 Names Text Example

The text below is an example Names file. Click on the highlighted text for further information.

```
!This is a comment  
TANKS:SINE.VALUE.001  
TANKS:SINE.VALUE.003  
TANKS:TANK3.LEVEL.  
TANKS:TANK6.LEVEL.  
TANKS:TANK6.AUTO.  
TANKS:TANK6.DRAIN.CMD  
TANKS:TANK4.FILL.INP  
BUCKET:TANK4.DRAIN.CMD  
BUCKET:TANK3.LEVEL.
```

1.4.4.3.2 Names Text File Features

1.4.4.3.2.1 Comment Mark

Signals can be commented out by placing an exclamation mark before them.

1.4.4.3.2.2 Signal Names

Each signal name should occupy a different line.

2 Index

A

AlarmBell Main Dialog..... 4
AlarmBell.ini Example 7
AlarmBell.ini File 6
AppSettings Section..... 8

B

BaudRate 9
ByteSize 9

C

Comment Mark..... 10

D

DB Section 8

F

FTHeartbeatTimeout..... 8

H

Hide Button 6
Hide on Silence..... 5

K

Klaxon.ini File..... 7

N

Names File..... 7

R

Refresh Button 5

S

SignalsDisplayed 8
Silence Button..... 5
Stop Bits..... 9

T

Test Button..... 6
Total Deletes..... 5
Total Updates..... 5

U

Username 8

Reference Guide

D301468X412

April 2012

DISCLAIMER

Bristol, Inc., Bristol Babcock Ltd, Bristol Canada, BBI SA de CV and the Flow Computer Division, are wholly owned subsidiaries of Emerson Electric Co. doing business as Remote Automation Solutions ("RAS"), a division of Emerson Process Management. ROC, FloBoss, ROCLINK, Bristol, Bristol Babcock, ControlWave, TeleFlow and Helicoid are trademarks of RAS. AMS, PlantWeb and the PlantWeb logo are marks of Emerson Electric Co. The Emerson logo is a trademark and service mark of the Emerson Electric Co. All other marks are property of their respective owners.

The contents of this publication are presented for informational purposes only. While every effort has been made to ensure informational accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. RAS reserves the right to modify or improve the designs or specifications of such products at any time without notice. All sales are governed by RAS' terms and conditions which are available upon request. RAS does not assume responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use and maintenance of any RAS product remains solely with the purchaser and end-user.

Engineered and supported by:

Remote Automation Solutions,

Blackpole Road, Worcester, WR3 8YB, UK

Registered office: Meridian East, Leicester, LE19 1UX

Registered in England and Wales, Registration No. 00671801

VAT Reg No. GB 705 353 652

Emerson Process Management
Remote Automation Solutions
1100 Buckingham St
Watertown, CT 06795
T 1 (860) 945 2200
F 1 (860) 945 2278
www.EmersonProcess.com/Remote
binfo@EmersonProcess.com

Emerson Process Management
Remote Automation Solutions
Blackpole Road
Worcester, WR3 8YB
T 44 (0) 1905 856848
F 44 (0) 1905 856930
www.EmersonProcess.com/Remote
oedsupport@EmersonProcess.com

