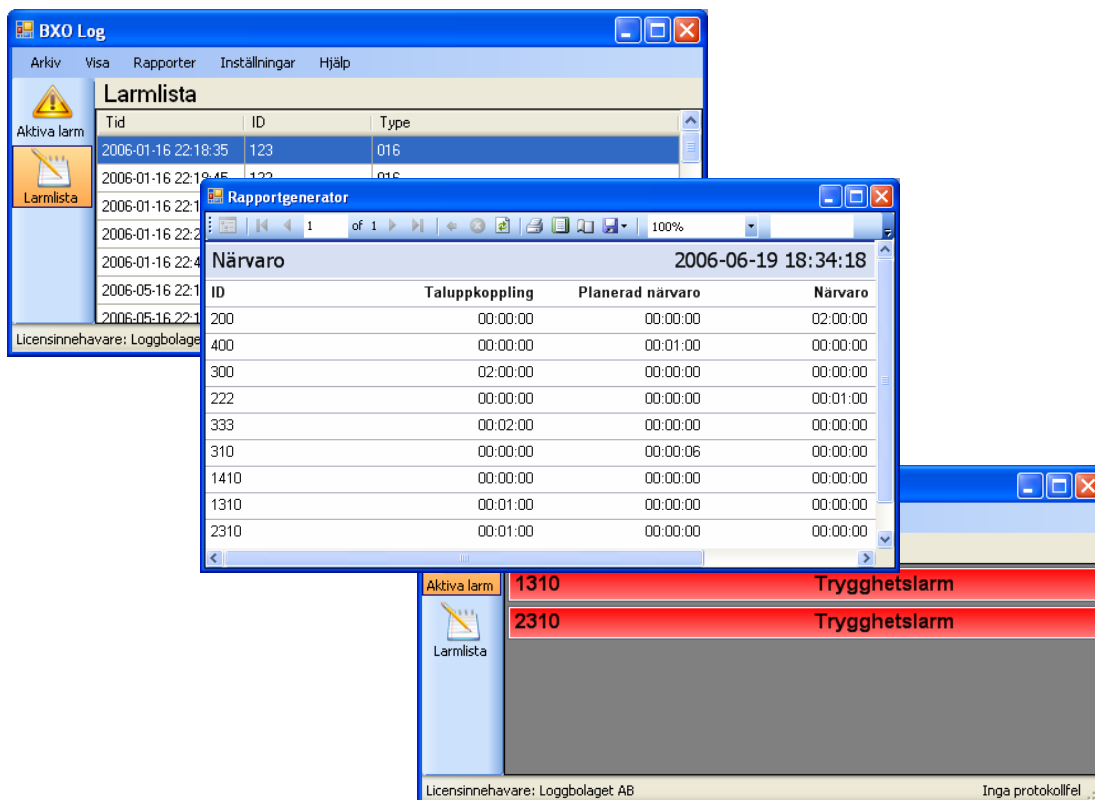


# BXO - log

LOG ON TO THE FUTURE...



User's Guide

BXO Log V1.0

## Revisions

<b>Date/version</b>	<b>Changes</b>
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2006-06-19 V1.00	First release.
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The information contained in this document, with respect to applications, examples and similar, is intended through suggestion only. It is your responsibility to make sure that your application meets your specifications. BXO Solutions AB takes no responsibility for the correctness of the information or its use. This applies in particular, but not limited to, information regarding the exchange of information with third party products.

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# 1 What is BXO Log?

BXO Log is a highly flexible piece of logging software, designed to handle a majority of the systems where logging may be desired, that is, where you want to keep a record of events in a technical system. It is mainly intended for logging of alarms in different kinds of alarm system, in particular warden call systems.

BXO Log has the following key features:

- Configurable parser and database – handles most of the existing protocols.
- Built-in report generator for statistical information.
- High-performance database engine handles demanding applications and high frequency of alarm.
- Real-time display of active alarms.
- Multiple languages.
- Based on cutting-edge technology for software development in a PC environment.

## 2 System Requirements

Windows XP SP2 with .NET Framework 2.0 and SQL Server 2005 Express

Windows 2003 Server with .NET Framework 2.0 and SQL Server 2005 Express

.NET Framework and SQL Server 2005 Express are both freely available from Microsoft's web site.



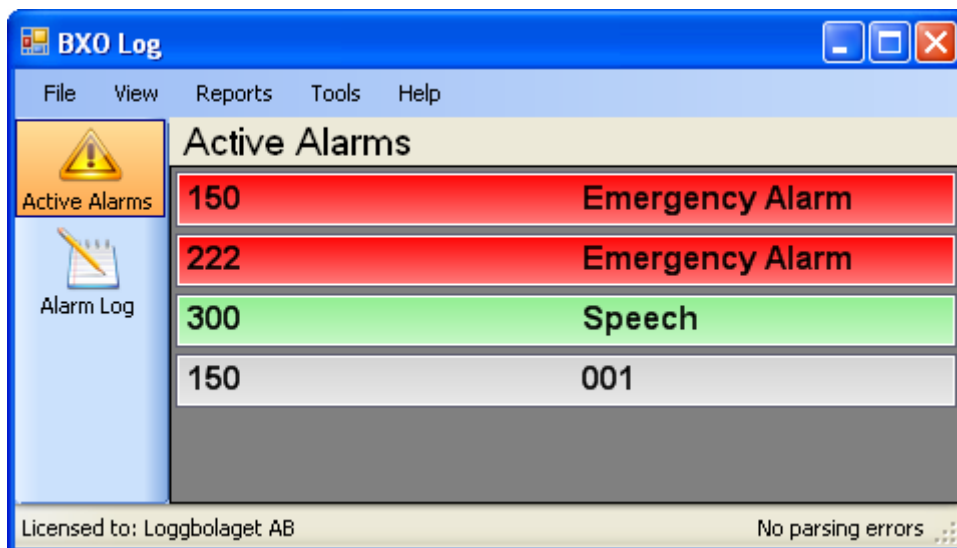
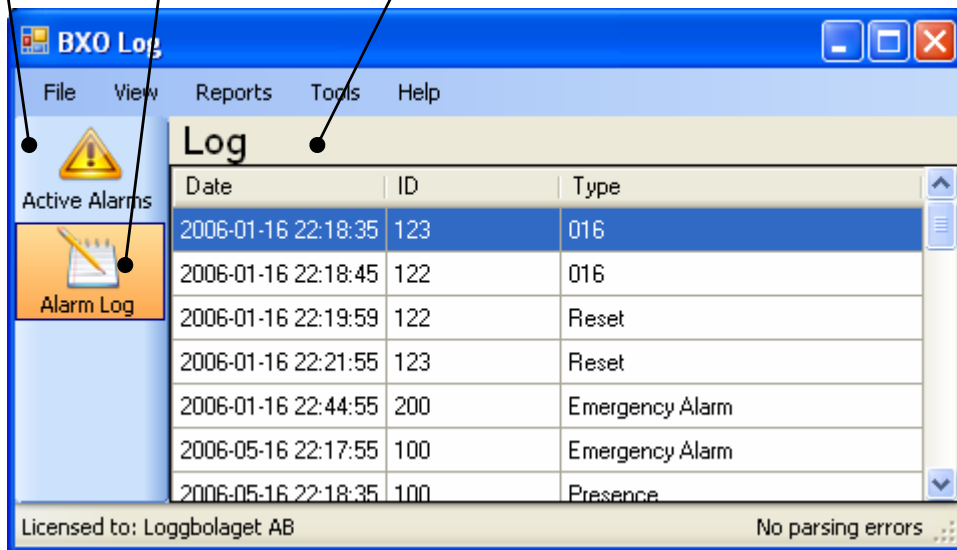
Before buying a computer, do remember to make sure that the hardware requirements for the operating system you choose, as well as the requirements for SQL Server Express are met.

### 3 Overview

Click on **Active Alarms** to see the alarms that are active at this moment.

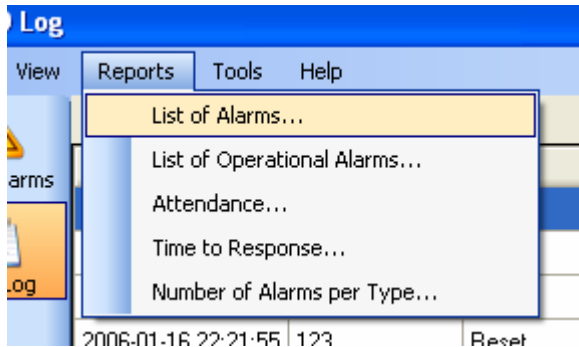
Click on **Alarm Log** to see logged alarms.

Here you can also see which view is currently shown.



## 4 Create Reports

BXO Log can generate different kinds of report and statistics. Below you can see an example of how to create a list of alarms, but the other reports are created in a similar way.



Start by choosing the type of report you want to create, from the menu **Reports**. A window will appear, allowing you to specify criteria for the report (see below). To see all alarms during the past month, all you need to do is click **OK**.

Only show alarms between 100 and 200. N.B. just leave empty to show all!

Only show alarms that occurred during a certain period of time.

Specify here if you only want to see alarms from a certain time of day (e.g night).

Choose here whether you want to see all alarm types or just one specific type.

A screenshot of the 'Criteria' dialog box in the BXO Log application. The dialog has a blue title bar and a close button (X) in the top right. It contains several sections: 'ID range' with 'From:' and 'To:' text boxes containing '100' and '200' respectively; 'Date range' with a 'Show only alarms from:' section containing radio buttons for 'Last month' (selected), 'Last week', and 'From' (with date and time pickers); an unchecked checkbox for 'Include only alarms between' with time pickers; and 'Type' with radio buttons for 'All types' and 'Only' (with a dropdown menu showing 'Emergency Alarm'). 'OK' and 'Cancel' buttons are at the bottom right.

Example of a report:

Number of pages

Click on the printer icon to print the report

Report Viewer

1 of 16

Whole Page

Find | Next

Date	ID	Type
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	013
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 02:17:55	100	Panic Alarm
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	Presence
2006-06-01 06:17:55	200	Presence
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	J17
2006-06-01 06:17:55	200	Presence

**BXO - log** License name: LoggbolagetAB Page: 1 (16)



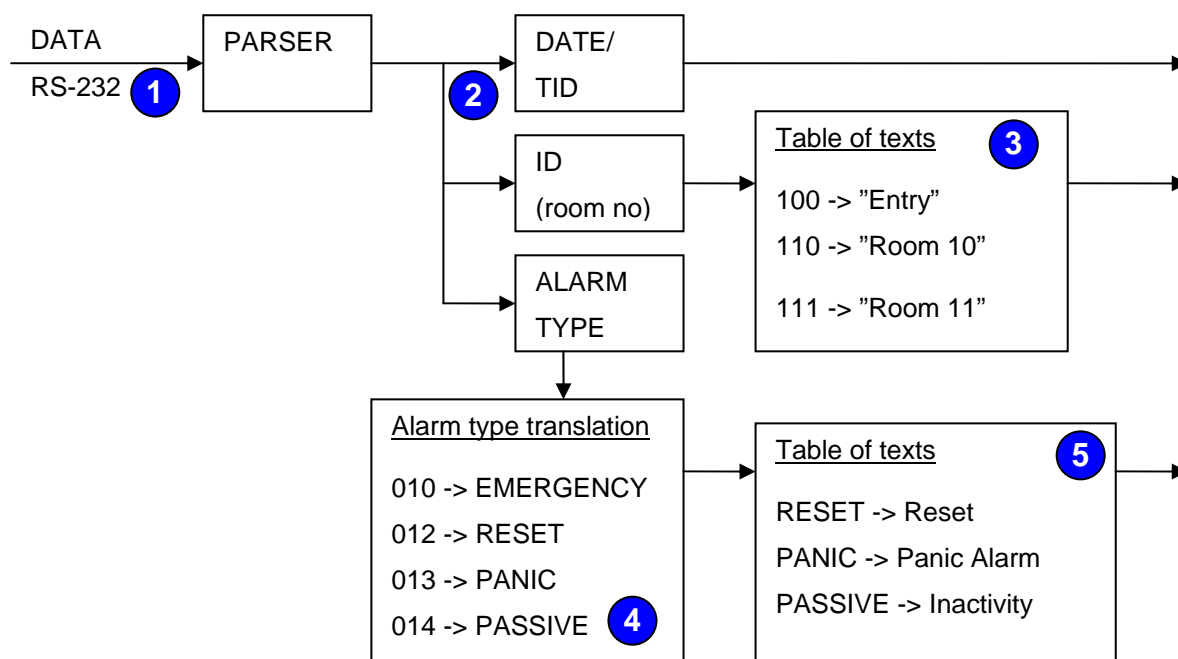
You can also save the report as a PDF or Excel document, by clicking the disk icon.



## 5 Database and parser configuration

In order to attain the flexibility of BXO Log, a rather complex configuration is necessary. It is important to understand how it works, to be able to make full use the programme.

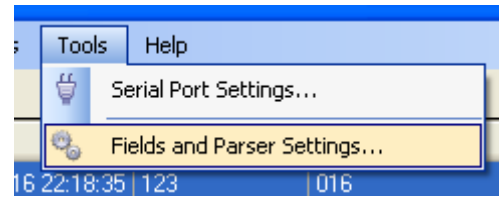
Look at the figure below. Please not that this is only an example of how it can be set up!



1. A continuous stream of data enters the PC's COM port via RS-232.
2. The parser splits the data up into fields, according to the parser setup.
3. A text table can be connected to every field, except date/time. This allows you to translate, for instance, numbers to names. If an incoming value is not found in the table, the value will be passed on unchanged.
4. Alarm types (and other fields, if necessary) are translated in two steps. This way, the same reports can be used for different kinds of system.
5. The alarm types are then translated from the "intermediate" value to a plain text name. The intermediate value will never be displayed to the user, but only used internally. In this example, when EMERGENCY is not in the table of texts, only the numbers 010 will be shown to the user.

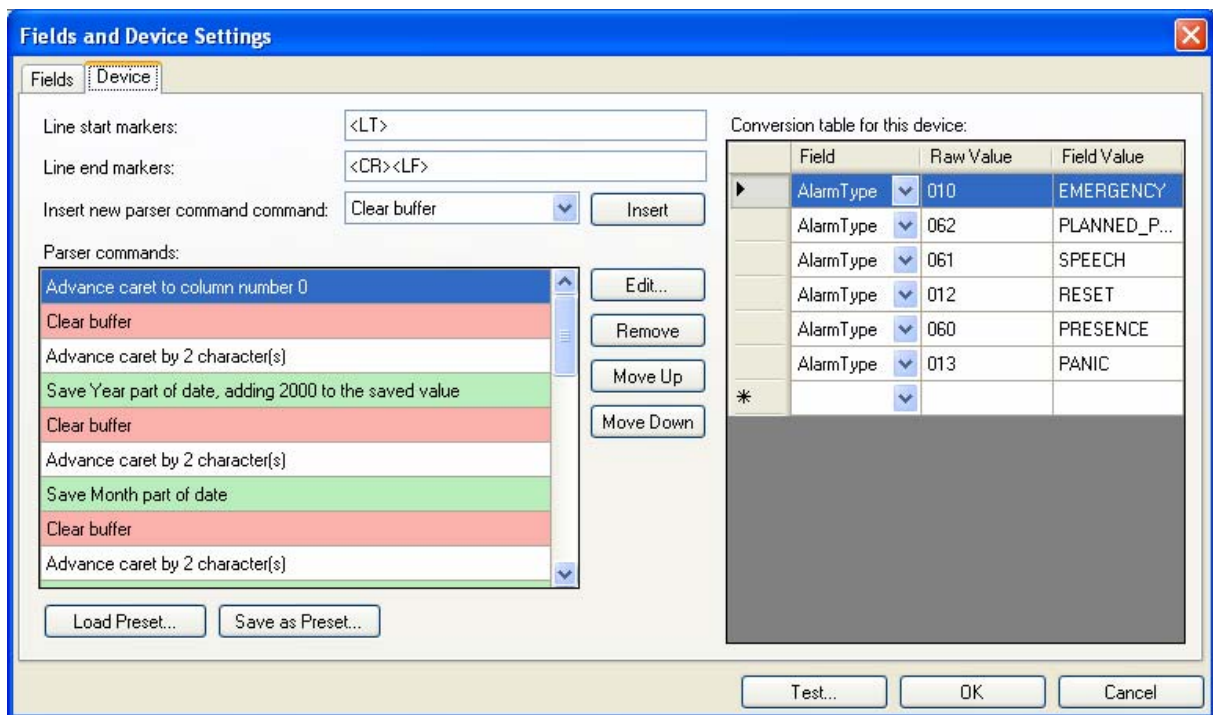
## 5.1 Configure the parser

Start by selecting **Database and parser settings** from the menu **Tools**. In the window that appears, click the **System** tab.



### 5.1.1 Load a parser preset

In some cases, parser presets are readily available. In these cases, you can just load a parser preset file to set up the parser for a specific protocol. Click **Load Preset** to load such a file.



### 5.1.2 Define your own parser setup

If no parser preset is available, you can make one of your own.

### 5.1.3 Splitting into lines

The parser splits the incoming data into lines. If it's a printer output you're logging, it's pretty obvious what a line is, but other kinds of data can be split into lines as well, in a similar way, by looking characters that mark the start and end of each line.

For a line printer output, you should normally leave the end marker at <CR><LF> and the line start marker empty.

See Appendix B for a listing of special character codes.

#### 5.1.4 Assigning the fields

Once the data is split into lines, the parser will attempt to split the line into fields, according to the parser command list. There are a number of parser commands, that makes it possible to select parts of the line, either at fixed positions, or in relation to delimiting characters. The fields can be either of fixed length or variable length.

The parser commands work by moving a thought caret (marker) through the line. Every character passed is stored in a buffer, which later can be either stored in a database field or cleared.

Parser commands	
Command	Description
Clear buffer	Discard the characters that have been stored in the buffer, and start to collect new characters to the buffer.
Advance caret by number of characters	Move the caret a number of characters, and store each character in the buffer.
Advance caret to specified column	Move the caret to a fixed position, storing all characters passed to the buffer.
Advance caret to next occurrence of delimiter	Search for a specific character (delimiter), and move the caret to this character. All characters between the previous position and the new position are added to the buffer. The delimiting character itself is not added to the buffer.
Advance caret to the end of line	Move the caret to the end of line, and add all passed characters to the buffer.
Save specified part of date	Interpret the buffer contents as part of a date/time stamp and store it in the database.
Save specified field	Store the buffer contents in a certain database field.

#### 5.1.5 Conversion table

The main purpose of the conversion table is to translate alarm types, from the numbers that the logged unit sends, to the internal names used by BXO Log. As mentioned earlier, the reason for this is that systems from different vendors use different alarm type numbers. See Appendix C for a listing of pre-defined alarm types. Please note that you can add/remove/change alarm types as you wish!

## 1.1. *Configuring the Database*

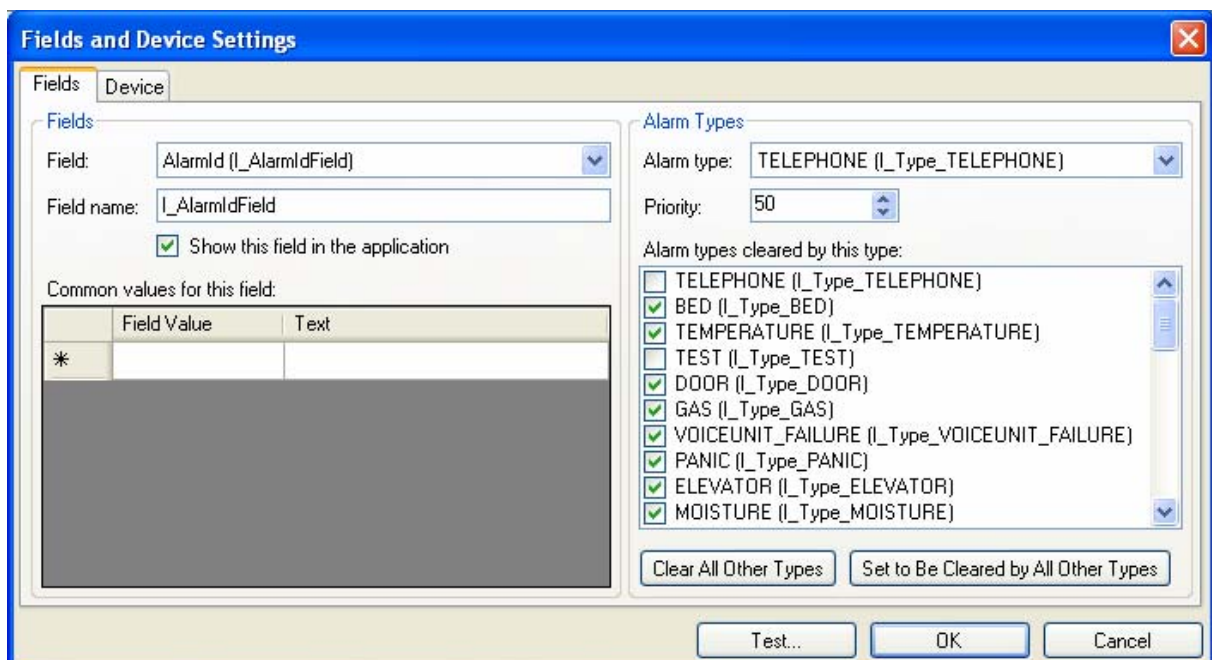
The database can be configured to store up to 10 fields, in addition to the pre-defined fields (Alarm type, ID and Date/time). There is also a translation table for each field, to be used when you want to translate for instance numbers to names.

### 5.1.6 Define a new field

1. Select one of the free fields from the box **Fields** – CustomString01 – 10.
2. Name the field by typing in the textbox **Field Name**.
3. Tick **Show this field in the log** to make the field visible.

### 5.1.7 Create a translation table

1. Select one of the fields from the box **Fields**.
2. In the table, **Common values for this field**, click the empty line in the column **Field value**, and type in the original value, the value to be changed for a text.
3. Click in the **Text** column and type in the text to be shown instead of the value.





The texts that start with "I\_" are automatically translated to different languages. I\_Emergency, for instance, is shown as Emergency Alarm in English and Trygghetslarm in Swedish.

### 5.1.8 Handling of Alarm Types

The Alarm Type field is handled in a special way. For every alarm type, you can specify a priority and which alarm types that should be reset by this alarm type.

The priority decides how the alarms are sorted in the active alarms view, and also what colour they have. Higher number means higher priority. The colour is set according to the following table:

Colours	
Priority	Colour
0	Gray
1-39	Green
40-59	Yellow
60 and above	Red

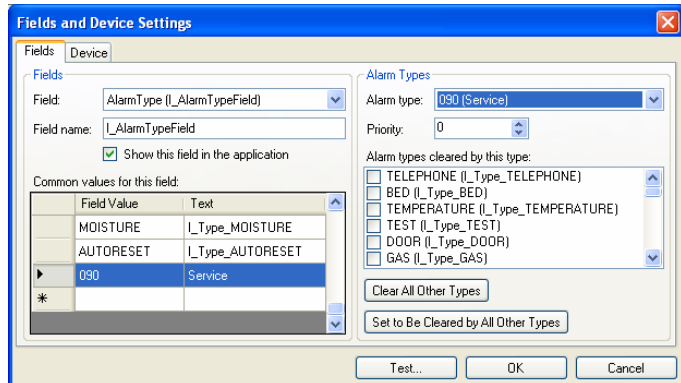
The list **Alarm types cleared by this type** specifies what alarms, in the active alarms view, that are to be cleared by a new alarm. If one alarm type does not clear another alarm type, it means that two alarms with the same ID (but different types) can active at the same time.

### 5.1.9 Adding an alarm type

1. Open the database settings and click on the empty line at the bottom of the table, in the **Field Value** column.

Enter the value of the alarm type you want to add, as it is transmitted by the logged

equipment. Then click in the **Text** column and type in the text you wish to see in the alarm log and active alarms view.



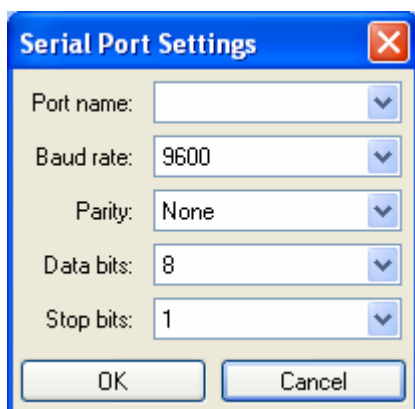
2. In the right frame (**Alarm Types**), look for the new alarm type in the box **Alarm type**.
3. Set the desired priority.
4. Click **Clear all other types**
5. Click **Set to be cleared by all other types**.



Steps 4 and 5 do, of course, only concern the cases when you do not wish to allow the new alarm type to be active simultaneously with another type.

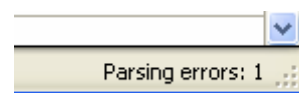
## 6 Setting up the COM port

Select **Serial Port Settings** from the **Tools** menu.



## 7 Parser error log

In case BXO Log fails to interpret the received information, the errors and causes are logged instead. When these errors occurred, they are displayed in the bottom right part of the window.



Double-click on the text **Parser errors** to see the log.

Reasons for parser errors may be:

- The unit being logged uses a different protocol.
- Temporary interference, e.g. when connecting/disconnecting.
- Cable-related faults.
- The unit emits information that does not conform to the protocol. It could for instance be headers, which are not of interest from a logging point of view, and thus these errors are usually not a problem.

## Appendix A

### Trouble shooting

Symptom	Cause/Cure

## Appendix B

<b>Special characters</b>	
<b>Sequence</b>	<b>Description</b>
<CR>	Carriage Return
<LF>	Line Feed
<TAB>	Tab
<GT>	>
<LT>	<
<SP>	Space

## Appendix C

Pre-defined alarm types

<b>Generic alarms</b>		
<b>Name</b>	<b>Description</b>	<b>Prio</b>
ALARM	Generic alarm	60
RESET	Alarm cleared	-
TEST	Test alarm	50
ERROR	Generic error	50
TIMEOUT	Alarm timed out	-
AUTORESET	Automatically reset	-
<b>Warden call</b>		
<b>Name</b>	<b>Description</b>	<b>Prio</b>
EMERGENCY	Emergency alarm	60
PANIC	Panic alarm	90
PASSIVE	Inactivity alarm	60
ASSISTANCE	Assistance request	80
DOOR	Door alarm	70
BED	Bed alarm	70
ELEVATOR	Elevator/lift alarm	60
DEMENTIA	Dementia/wander	70
EMERGENCY_NOSPEECH	Emergency alarm without speech	60
PANIC_NOSPEECH	Panic alarm without speech	90
DOOR_NOSPEECH	Door alarm without speech	70
PRESENCE	Check in	3
PLANNED_PRESENCE	Planned presence	2
SPEECH	Speech connection	1
ALARM_BLOCKING	Alarm blocking	0
<b>Intruder alarms</b>		
<b>Name</b>	<b>Description</b>	<b>Prio</b>
INTRUDER	Intruder alert	80
EARLY_WARNING	Early warning	70
TAMPER	Tamper/sabotage	80
<b>Environment</b>		
<b>Name</b>	<b>Description</b>	<b>Prio</b>
FIRE	Fire alarm	100
SMOKE_FIRE	Smoke/fire alarm	100
SMOKE	Smoke alarm	100
GAS	Gas alarm	100
MOISTURE	Moisture/dampness	60
TEMPERATURE	Temperature alarm	60
<b>Technical alarms</b>		
<b>Name</b>	<b>Description</b>	<b>Prio</b>
BATTERY_TRANSMITTER	Battery alarm, transmitter	50

BATTERY_MAINUNIT	Battery alarm, main unit	50
POWER_FAILURE	Power failure	50
POWER_RESTORED	Power restored	50
VOICEUNIT_FAILURE	Speech unit failure	50
BUSUNIT_FAILURE	Bus unit failure	50
<b>Other</b>		
<b>Name</b>	<b>Description</b>	<b>Prio</b>
TELEPHONE	Telephone signal	50

