BNCS Alarm System

Atos IT Services

Alarm System – BNCS Output Module

alm_bncs_op.dl

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BNCS

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1 Alarm System – BNCS Output Module

1.1 Overview

This module (alm_bncs_op.dll) is part of the suite of modules that form the BNCS Alarm System. It is used to provide a method of getting the current state of the Alarms System on to the BNCS system via an infodriver. It also provides a way by which BNCS clients can override one or more process(s).

1.2 Description

This module tries to connect to the infodriver detailed in the configuration file on start up. If it fails to connect it will remain in a fail state and not do anything useful. Whenever there is a change to the state of a process this change, if configured, will be passed on to the infodriver.

1.2.1 Output States

The slots will have the current state of the relevant process in them, these states are:

Value	Meaning
-1	**Unknown**
0	Off (OK)
1	On (Alarm)
2	Forced Off
3	Forced On
4	Acknowledged
5	Ignored
6	Latched

As shown in the main application document.

1.2.2 Native States

The 'native' states supplied by the Alarm System are: OK, Alarm, Latched and Unknown. The Unknown state is supplied if the acquisition module has never had a revertive from the said input. The latched state is optional and is configured for each process.

These native states are maintained automatically within the alarm system based on the alarm conditions reported by the acquisition modules.

1.2.3 Override States

A panel element (button) may be configured to override the native states. The possibilities are any of the following:

1. Acknowledged. This is when the operator acknowledges the process.
2. Forced Off. This is forcing the process to appear OK.
3. Forced On. This is forcing the process to appear Alarm.
4. Ignored. One shot Force Off. It resets the next time the process goes to OK.
5. Normal. This removes any override. The process reverts to its native state.

It is possible to override a state for a fixed period if desired by writing the override code and the time period in seconds to the appropriate slot, separated by a comma. For example "3,30" will Force On for 30 seconds. After the time period it will revert to its native state.

1.2.4 Device Types

Using the configuration tools it is also possible to configure the outputs to appear as "Alarm devices" on the BNCS v4.5 system. This is useful if there are many instances of the same type on your system. It makes the panels easier to create than using one long list of infodriver slots.

2 Configuration Procedure

Use the configuration editor. See the configuration document for details.

2.1 Starting up

This module is started from the host application AlarmControl.exe. It expects CSI and the appropriate external infodriver to be running beforehand. There may be more than one BNCS Output module in an Alarm System. Each one must connect to a separate infodriver.

2.1.1 Dependencies

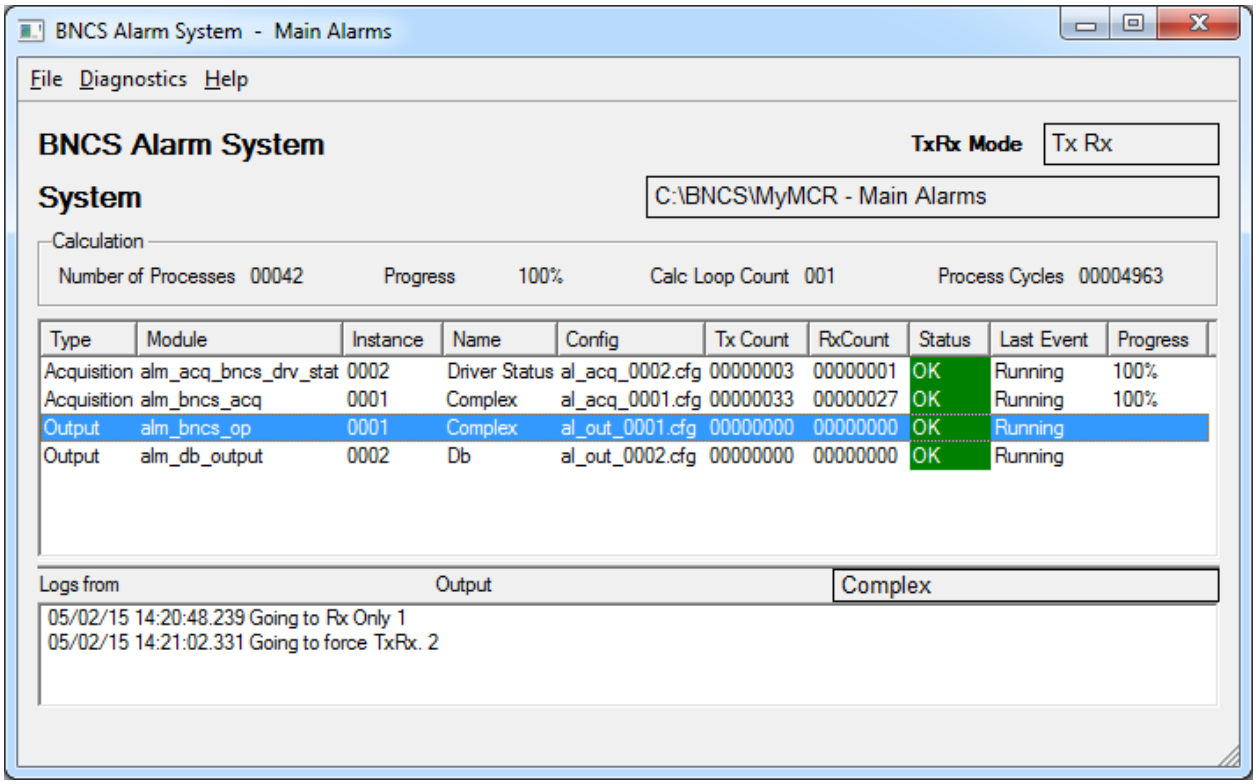
The module requires the QT dll (currently qt-mt323.dll), bncsif.dll and the Visual C runtime dll MSVCP60.dll.

The module connects to the infodriver as an external driver using BNCS_COPYDATA messaging, therefore needs either a v2.5.xx, v3.5.xx or v4.xx infodriver. The Alarm System would normally be shipped with a v4.5 installation and consequently a v4.xx infodriver.

3 Features

3.1 Diagnostics

As for AlarmControl.exe.



Tx Count and Rx Count show the number of messages to and from CSI.

The Status field will be 'FAIL' if CSI or the infodriver is not present.

Error messages are written in the lower display.

4 Test Procedures

A simple test is to look at an infodriver slot and change it to a "Force On" by writing a 3 to the slot, this should cause the Rx counter to increment by 1, and if the operation is valid the Tx counter should increment and the contents of the slot should have need updated.

5 Logging

When Logging is enabled (via AlarmControl's GUI or arguments), selected messages are logged into a file at a path determined by the BNCS settings.

Log files are written in %CC_ROOT%\%CC_SYSTEM%\logs\alarms\<alarm system name>.

6 Documents Referenced

This document should be read in conjunction with other documents in the tree.

In particular:

Alarm – overview

alarm - Configuration-Colledia Control output

alarm – mainapplication

The documentation relating to file formats may also be useful.

7 Version history

7.1 Software Version

Version numbers shown here may not be seen within the software itself. The implementation date is a more reliable way of determining whether a particular issue is present in any particular instance of the software.

Version	Date	Change	Author
1.00.00	19 November 2003☐	Original Release	Mark Baldry Charlotte Bell
1.00.1	31 March 2004	Now a plugin dll to AlarmControl.exe	

7.2 Document Version

Version	Date	Change	Author
1.00.00	15 January 2015	Original Release	Mark Baldry Charlotte Bell
1.00.1	31 March 2004	Now a plugin dll to AlarmControl.exe	

1.1.2	30 November 2005	Re-wording of document	
	15/01/2015	Document revised to current conventions and template. Images reworked from current versions of software.	Richard Kerry

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