

[Tech Note 890](#)

Alarm DB Logger Status Functions (Windows 7 and Server 2008 R2)

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Introduction

This *Tech Note* explains using several functions that can be configured from InTouch® to monitor the current status of the Alarm DB Logger.

Application Versions

- InTouch 2012
- Windows 7 (32- and 64-bit)
- Windows Server 2008 (32- and 64-bit)

Function Constraints

- These functions can only access the local Alarm DB Logger, therefore the Alarm DB Logger has to be running on the InTouch node.
- In a Terminal Services Environment, only the InTouch application running in the console can get the status from the Alarm DB Logger running in the console either as an application or a service.
- WindowViewer running in a terminal session cannot access the status of the Alarm DB Logger running in the console.
- The functions cannot execute from an Application Server script.

Adding the Functions to InTouch

These functions are not exposed by default. In order to see and use the functions in InTouch, you must create a set of registry entries using the following steps.

Edit the Registry

1. Click **Start** and type **regedit** into the search field.
2. Navigate to **MyComputer\HKEY_LOCAL_MACHINE\Software\Wow6432Node\Wonderware.**

3. Create a new Key called **AlarmDBLogStatus** for Wonderware.
4. Create new DWORD entry **EnableAlarmDBLogStatus** with the value **1**.
5. **Optional:** Create an additional entry **SmartCacheStatusLoggingRate** with a decimal value of **10,000**.

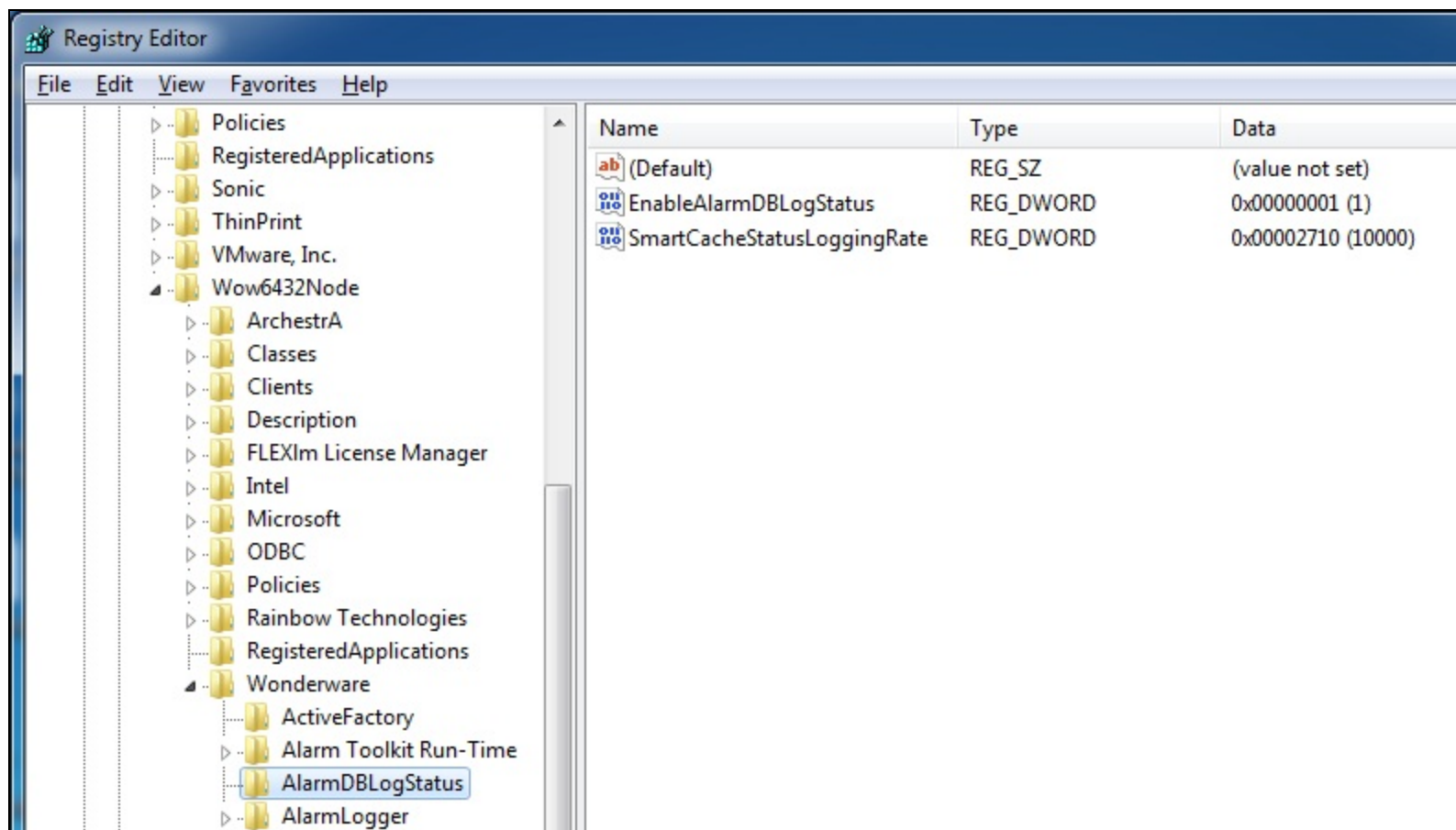


FIGURE 1: NEW REGISTRY ENTRIES

6. Close the Registry Editor.
 - **EnableAlarmDBLogStatus** is the setting that enables Alarm DB Logger diagnostics.
 - **SmartCacheStatusLoggingRate** is time interval at which the Alarm DB Logger provides the diagnostics to WindowViewer. If this value is not configured, the default is 1 minute.

Configuring InTouch

1. Open a new application and add the Application script by clicking **Special/Scripts/Application Scripts**.

Type: While Running Every: 1000 Msec

Script:

```
AlarmLoggerCacheCount = GetAlarmLogCacheCount( );  
AlarmLoggerConnStatus = GetAlarmLogConnStatus( );  
AlarmLogMaxCacheCount = GetAlarmLogMaxCacheCount( );
```

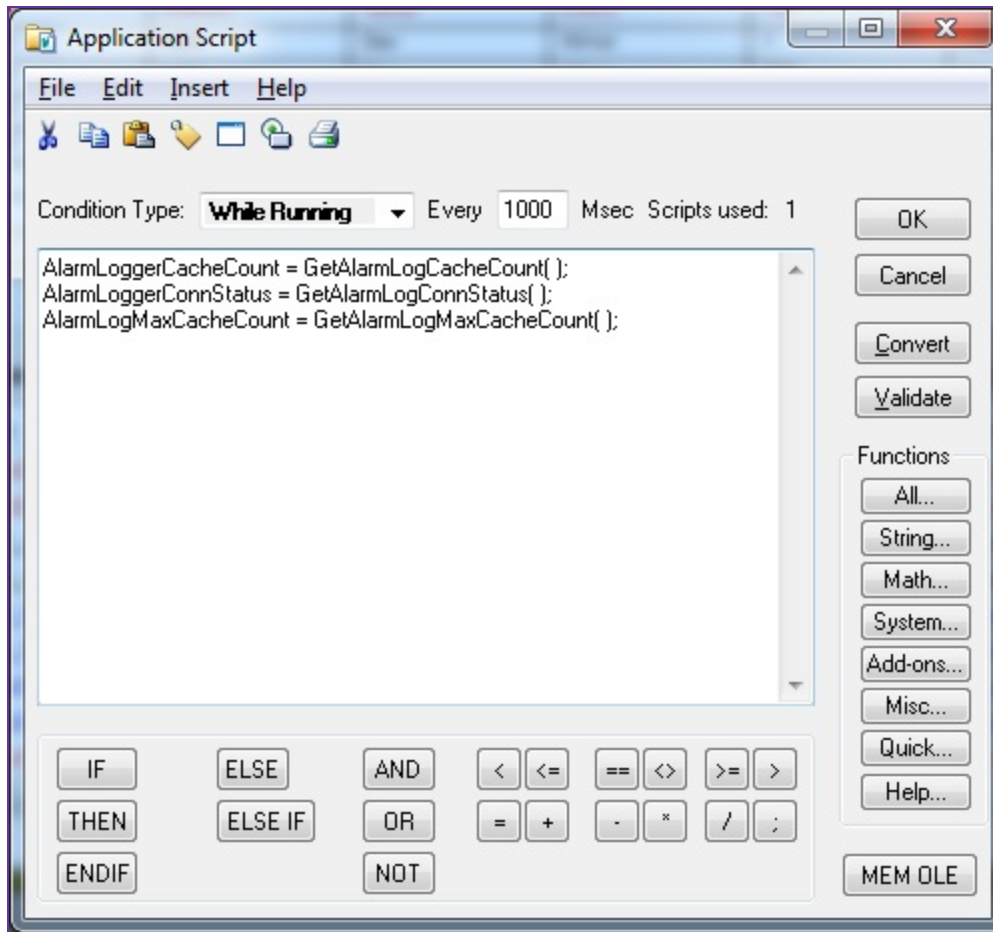


FIGURE 2: NEW APPLICATION SCRIPT

2. Configure the tag as shown in Figure 3 (below).

Type: Memory integer
Group: \$System
Initial Value: 0
Min Value: -999999 and
Max Value: 999999

The screenshot shows the 'Tagname Dictionary' dialog box with the 'Details & Alarms' tab selected. The tagname is 'AlarmLoggerCacheCount' and its type is 'Memory Integer'. The group is '\$System' and it is set to 'Read Write'. The initial value is 0, with a minimum of -999999 and a maximum of 999999. The ACK model is set to 'Condition'. There are sections for 'Alarm Value Priority Alarm Inhibitor' with 'LoLo', 'Low', 'High', and 'HiHi' options, and a section for '% Deviation Target Priority Alarm Inhibitor Deviation Deadband %' with 'Minor Deviation' and 'Major Deviation' options. A 'Rate of Change' section is also present at the bottom.

FIGURE 3: ALARMLOGGERCACHECOUNT TAG CONFIGURATION

3. Close the Tagname Dictionary editor.
4. Click **Special/Tagname Dictionary** and click **Select**.

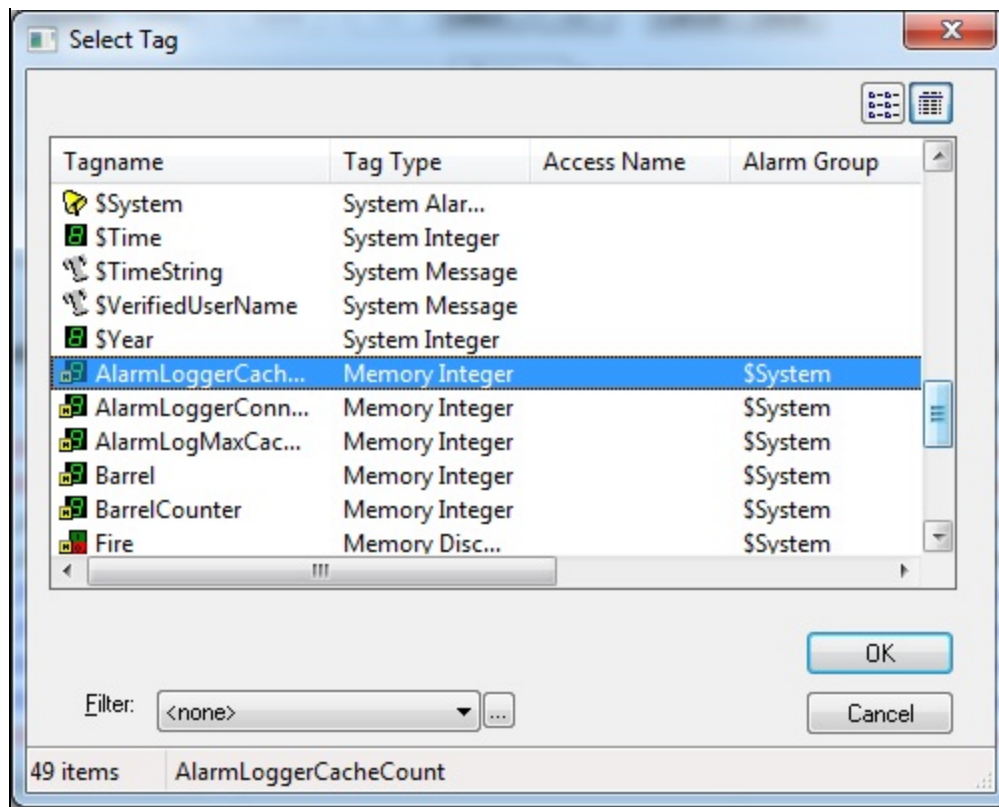


FIGURE 4: SELECT ALARMLOGGERCACHECOUNT TAG

5. Add text objects to the InTouch alarm window to display the 3 tags (Figure 5 below).

The screenshot shows the InTouch software interface. On the left is a 'Classic View' sidebar with sections for 'Windows', 'Scripts', and 'Tools'. The main area displays two data tables and status indicators.

Table 1: Alarm Log

Date	Time	State	Class	Type	Priority	Name	Group
07 May	11:43	UNACK	Value	HIHI	1	Alarm1	GroupNa
07 May	11:43	UNACK	Value	HI	250	Alarm2	GroupNa
07 May	11:43	UNACK	Value	LO	500	Alarm3	GroupNa
07 May	11:43	UNACK	Value	LOLO	750	Alarm4	GroupNa
07 May	11:43	ACK	Dev	Minor	1	Alarm5	GroupNa
07 May	11:43	ACK	Dev	Major	250	Alarm6	GroupNa
07 May	11:43	ACK	ROC	1	500	Alarm7	GroupNa
07 May	11:43	ACK	Custom	1	750	Alarm8	GroupNa

Table 2: Alarm Log (Detailed)

Time	State	Class	Type	Priority	Name	Group
05/07/2012 11:4...	UNACK_ALM	Value	HIHI	1	Alarm0	GroupName
05/07/2012 11:4...	UNACK_ALM	Value	HI	250	Alarm1	GroupName
05/07/2012 11:4...	ACK_ALM	Value	LO	500	Alarm2	GroupName
05/07/2012 11:4...	ACK_ALM	Value	LOLO	750	Alarm3	GroupName
05/07/2012 11:4...	ACK_RTN	Dev	Minor	1	Alarm4	GroupName
05/07/2012 11:4...	ACK_RTN	Dev	Major	250	Alarm5	GroupName
05/07/2012 11:4...	UNACK_RTN	ROC	ROC	500	Alarm6	GroupName
05/07/2012 11:4...	UNACK_RTN	ROC	ROC	750	Alarm7	GroupName
05/07/2012 11:4...	UNACK_RTN	EVENT	Startup		EVENT0	GroupName

Status Indicators:

- AlarmLogConnStatus: ###
- AlarmLogCacheCount: ###
- AlarmLogMaxCacheCount: ###

At the bottom, it shows '(local) - WWAlmDb'.

FIGURE 5: ALARM DBWINDOW

- Configure the animation links to **Value Display/Analog**.

The screenshot displays the Alarm DB Logger Status Functions interface. At the top, a table lists alarm events with columns for Date, Time, State, Class, Type, Priority, Name, and Group. Below the table, there are two smaller tables: 'AlarmLogConnStatus' and 'AlarmLogMaxCacheCount'. A context menu is open over the 'AlarmLogConnStatus' table, showing options like Duplicate, Cut, Copy, Erase, Links, Rotate/Flip, Back/Front, Cell/Symbol, Substitute, Fonts..., Enlarge Font, Reduce Font, Animation Links..., and SmartSymbol. The 'Animation Links...' option is highlighted.

Date	Time	State	Class	Type	Priority	Name	Group
07 May	12:08	UNACK	Value	HIHI	1	Alarm1	GroupNa
07 May	12:08	UNACK	Value	HI	250	Alarm2	GroupNa
07 May	12:08	UNACK	Value	LO	500	Alarm3	GroupNa
07 May	12:08	UNACK	Value	LOLO	750	Alarm4	GroupNa
07 May	12:08	ACK	Dev	Minor	1	Alarm5	GroupNa
07 May	12:08	ACK	Dev	Major	250	Alarm6	GroupNa
07 May	12:08	ACK	ROC	1	500	Alarm7	GroupNa
07 May	12:08	ACK	Custom	1	750	Alarm8	GroupNa

Time	State	Cl
05/07/2012 11:4...	UNACK_ALM	Va
05/07/2012 11:4...	UNACK_ALM	Va
05/07/2012 11:4...	ACK_ALM	Va
05/07/2012 11:4...	ACK_ALM	Va
05/07/2012 11:4...	ACK_RTN	Da
05/07/2012 11:4...	ACK_RTN	Da
05/07/2012 11:4...	UNACK_RTN	RO
05/07/2012 11:4...	UNACK_RTN	RO
05/07/2012 11:4...	UNACK_RTN	EV

Name	Group
Alarm0	GroupName
Alarm1	GroupName
Alarm2	GroupName
Alarm3	GroupName
Alarm4	GroupName
Alarm5	GroupName
Alarm6	GroupName
Alarm7	GroupName
EVENT0	GroupName

FIGURE 6: CONFIGURE ANIMATION LINKS

- Link the tag as the Expression with the formatting type of **Integer** (Figure 7 below).

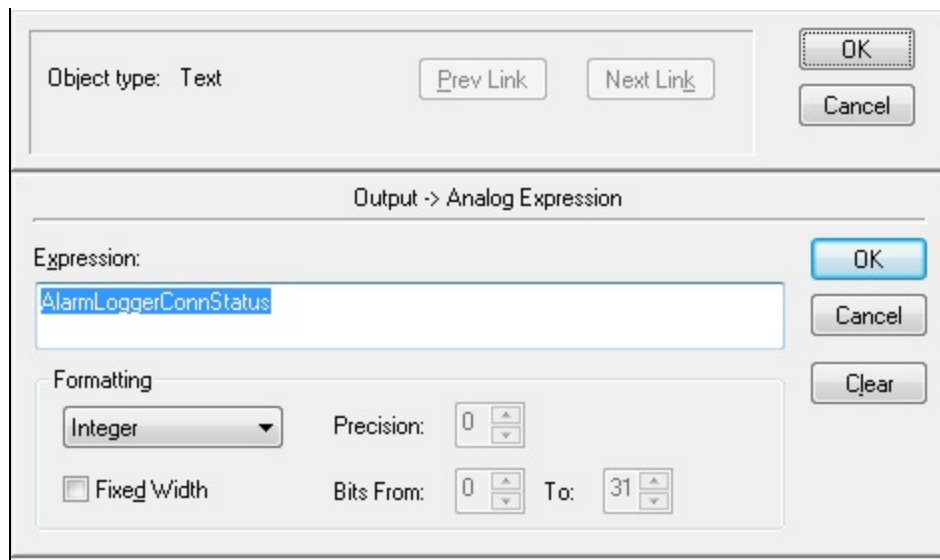


FIGURE 7: ANIMATION EXPRESSION: ALARMLOGGERCONNSTATUS AS INTEGER

7. Switch to Runtime and start the **AlarmDBLogger**.

The screenshot displays the Alarm DB Logger Manager interface. At the top, a table shows a single alarm record:

Date	Time	State	Class	Type	Priority	Name	Group
07 May	12:22	UNACK	VALUE	LOLO	100	TankA	\$System

Below the table, the status 'Update Successful' is displayed. A 'Default Query' field is present with a blue selection bar. Below this, the following status information is shown:

AlarmLogConnStatus: -1 AlarmLogCacheCount: 0 AlarmLogMaxCacheCount: 191692

A second table below shows an empty list of records with the same column headers as the first table. To the right of this table are up and down arrow buttons. At the bottom of the main window, the connection status is '(local) - WWAlmDb' and 'Not Connected'.

In the bottom right corner, a smaller window titled 'Alarm DB Logger Manager' is open. It features a 'Settings' button, a 'Smart Cache Status' section with a progress bar, and the text 'Number of alarm records in Smart Cache : 0'. Below this are 'Start' and 'Stop' buttons.

FIGURE 8: START ALARM DB LOGGER

The main window displays a table of alarm records with the following data:

Date	Time	State	Class	Type	Priority	Name	Group
07 May	12:22	UNACK	VALUE	LOLO	100	TankA	\$System

Below the table, the status is "Update Successful" and "Default Query".

Summary statistics:

- AlarmLogConnStatus: 1
- AlarmLogCacheCount: 0
- AlarmLogMaxCacheCount: 191692

A secondary table shows a list of events:

Time	State	Class	Type	Priority	Name	Group
05/07/2012 12:2...		EVENT	SYST	999	\$Operator	\$System
05/07/2012 12:2...		EVENT	SYST	999	\$NewAlarm	\$System
05/07/2012 12:2...	UNACK_ALM	VALUE	LOLO	100	TankA	\$System
05/07/2012 12:2...		EVENT	SYST	999	\$AccessLevel	\$System
05/07/2012 12:2...		EVENT	SYST	999	\$OperatorDomain	\$System
05/07/2012 12:2...		EVENT	SYST	999	\$OperatorName	\$System
05/07/2012 12:2...		EVENT	SYST	999	\$LogicRunning	\$System

The bottom status bar shows "(local) - WWAlmDb", "Displaying 1 to 7 of 7 records.", and "Connected".

The "Alarm DB Logger Manager" window shows:

- Smart Cache Status: 0
- Number of alarm records in Smart Cache: 0
- Smart Cache is Empty.
- Buttons: Settings, Start, Stop

FIGURE 9: ALARM DB LOGGER USING THE NEW FUNCTIONS

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