Tech Note 281

InTouch 7.11: Setting-up the Alarm DB Logger Manager and the Alarm DB View ActiveX Control

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This *Tech Note* describes how to setup Alarm DB Manager Logger and Alarm DB View ActiveX Control in InTouch 7.11. The procedure described here consists of the following steps:

1. Explanation of the three main Alarm executables.

2. Setting up Alarm DB Logger Manager. Connecting to the Server and creating the alarm database.

3. Setting up the Alarm DB View ActiveX Control.

4. Writing Script to change the nodes and/or servers in the Alarm DB View ActiveX Control.

5. Known issues regarding the topic.

Explanation of Alarm Executables

Alarmmgr.exe - This is the Distributed Alarm system. It launches when View or any of the InTouch Alarm utilities are started.

Alarmlogwiz.exe - This is the Alarm Logger Manager utility and is used to configure the Alarm Logger. This can be started via WindowMaker or the Start menu shortcut.

Wwalmlogger.exe - This is the Alarm Logger Utility. It logs alarms to the database. For automatic startup this executable can be placed in the Startup Folder or launched from View. It can also be configured to run as a Windows Service (see below). The executable can also be started via the Alarm DB logger Manager (Almlogwiz.exe) via the Start button. This can be done from either, WindowMaker or Start menu shortcut.

Step 1: Setting up Alarm DB Logger Manager

In WindowMaker, double-click the **Alarm DB Logger Manager** (this starts the Alarmlogwiz.exe) and select **Settings**.
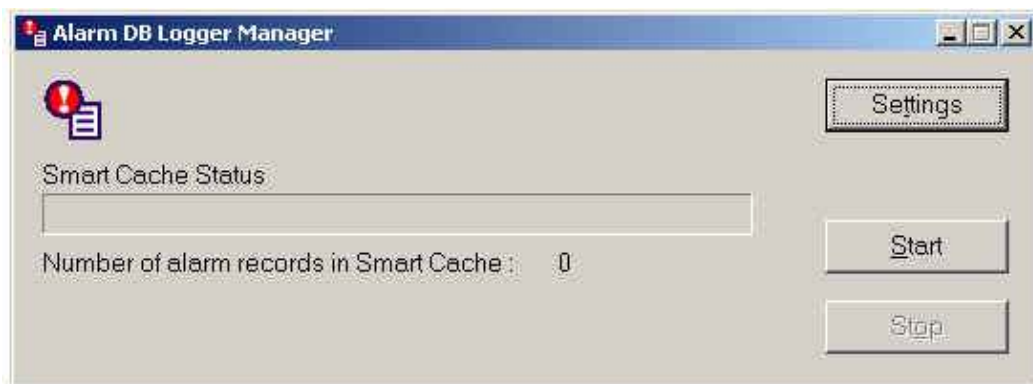

Figure 1

The **Alarm DB Logger Manager - Configuration** dialog box opens:

Figure 2

Under **SQL Server/MSDE** either select your SQL Server Machine Name from the drop-down box or type it in the space provided. Under **User Info** type in the User Name and Password for the server. Under **Logging Mode**, select **Detailed** or **Consolidated** depending on how you would like your data logged.

Note: Consolidated Mode - In this mode all states of an alarm (ALM, ACK, and RTN) are stored in a single record showing the time stamp for each transition. This is the recommended mode of operation. Detailed Mode - In this mode, a separate record is stored for each alarm condition (ALM,ACK,and RTN). The alarm database grows significantly faster when it is configured to store records in the Detailed Mode.

Select **Test Connection**. If you get the message **Unable to connect to database** check your database name.

If you receive the error: **Connection to server not available** check the Microsoft SQL Server Security model (under **Properties/Security/Authentication**) and make sure you have it set to SQL Server authentication mode (mixed mode). Alarm BD Logger utility does not support the windows security model.

After testing the connection you will need to create the Alarm DB Logger database (if it doesn't already exist). Simply click the **Create** button. The Alarm DB Logger automatically creates the necessary data.

Caution! If an Alarm database already exists, creating the tables again destroys your data. If a pre-existing database is detected, a dialog asks you to confirm whether this is what you want to do.

Select **Next**.

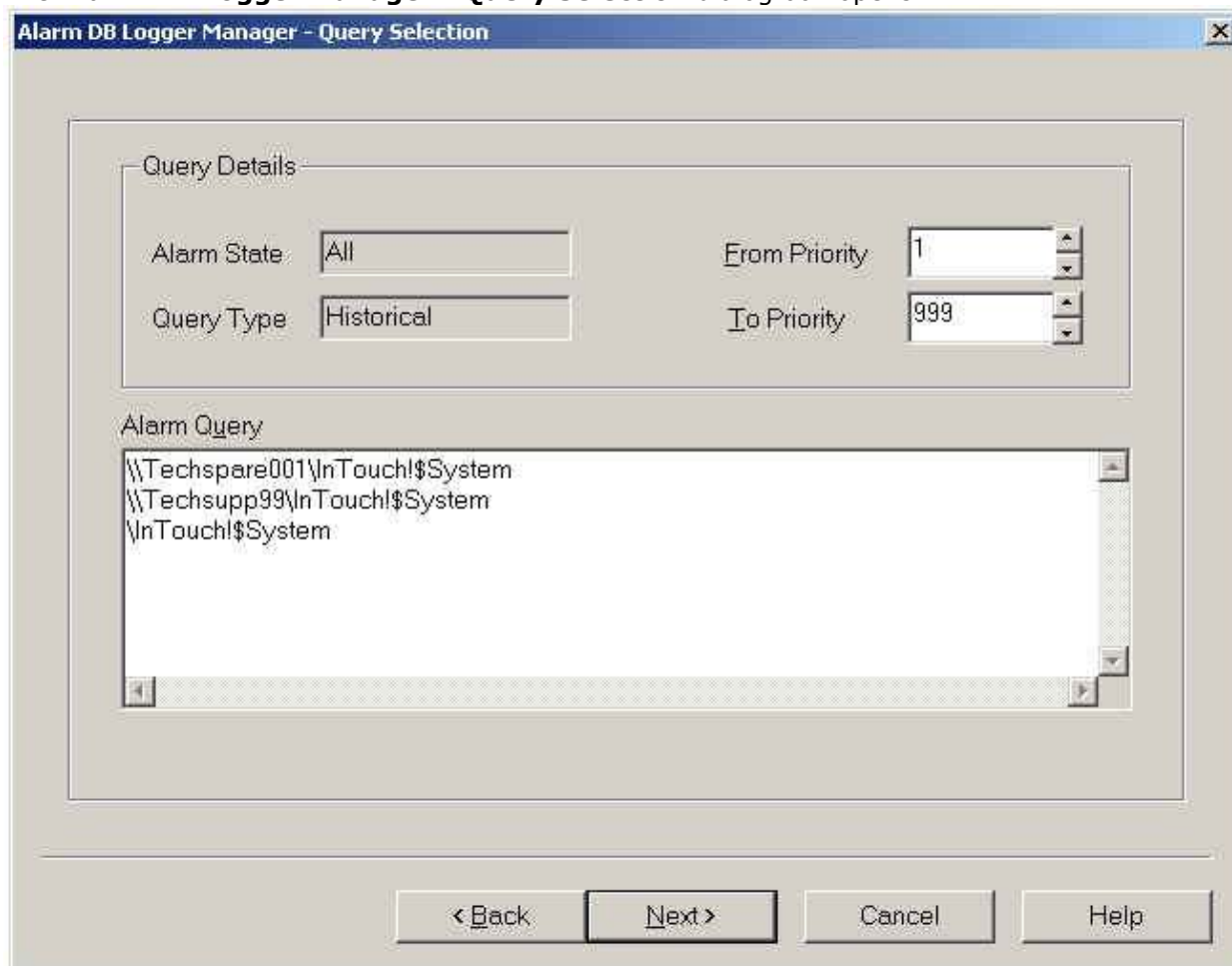The **Alarm DB Logger Manager - Query Selection** dialog box opens:

Figure 3

Under **Query Details** the **Alarm State** field is set by default to **All** and the **Query Type** field is set by default to **Historical**. These fields can not be changed. Select the Alarm Priority levels you would like to have logged to the WWALMDB by entering the desired values in the **From Priority** and **To Priority** fields. Use either the arrow keys or simply key the numbers in.

In the **Alarm Query** box type in the queries you would like to pull data from, to log to your WWALMDB database, using the following syntax:

\\Nodename\Provider!AlarmGroup

Example: **\\Node1\InTouch!$System**

Note: Distributed Name Manager Alarm groups are not supported in this alarm logging system.

Select **Next**.

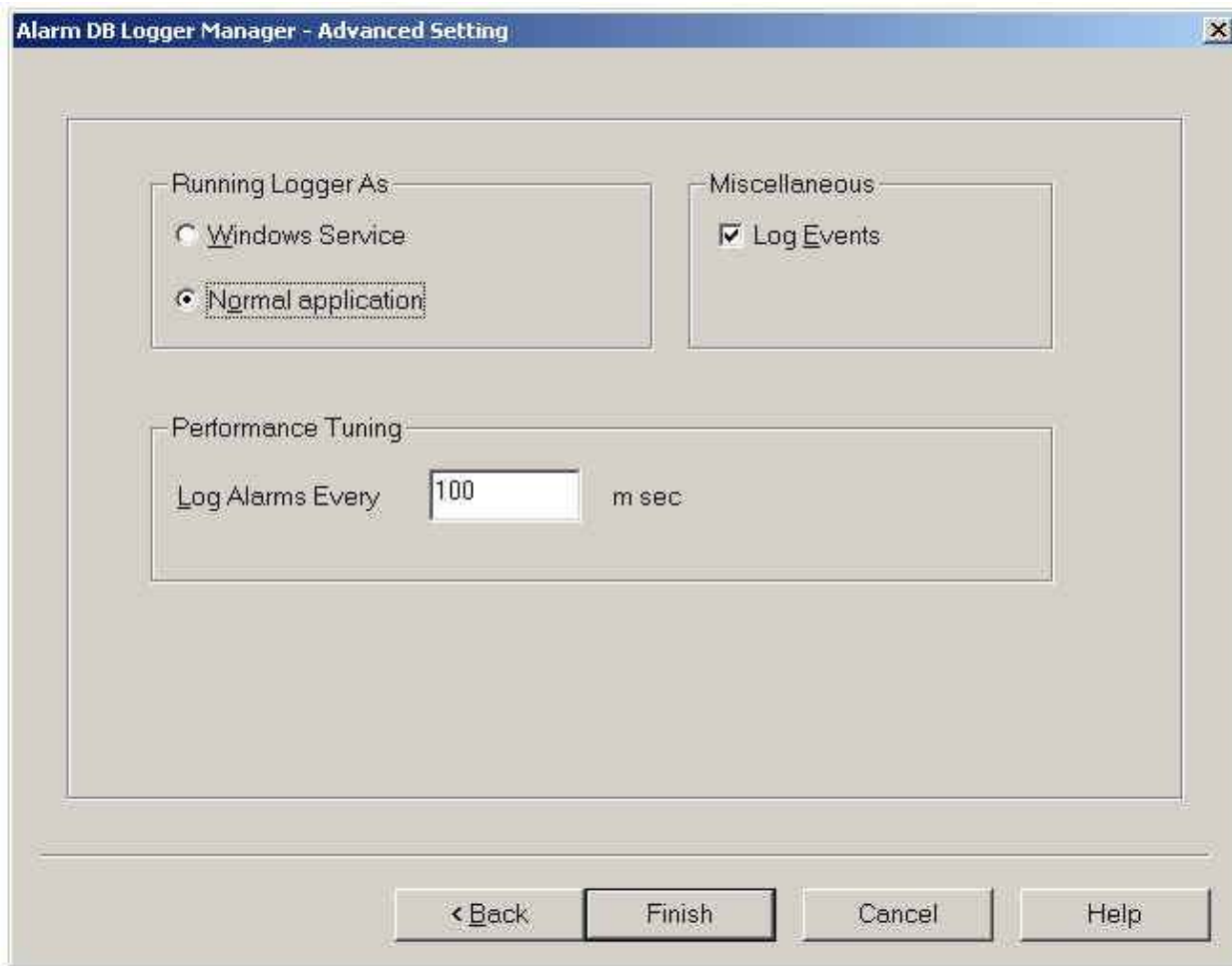The **Alarm DB Logger Manager - Advanced Setting** dialog box opens:

Figure 4

Under **Running Logger As** select either **Windows Service** (if you want to run the application as a Windows Service) or **Normal Application**.

If you want all events to be logged in the events table you need to check the **Miscellaneous/Log Events** option. Under **Performance Tuning** in the **Log Alarms Every** box, enter the number of msec you would like to have between your alarms logged. **Your system performance will be affected if you set the Performance Tuning parameter too low.**

Select **Finish**. The Alarm DB Logger Manager will save all the settings and will switch back to the opening window. Now you can start the alarm logging process.

Step 2: Setting Up the Alarm DB View ActiveX Control

In **WindowMaker**, open the window you want to place the **Alarm DB View ActiveX Control** onto. Click the Wizard Hat to display the **Wizard Selection** dialog box. ActiveX Controls should be the first one on the list. Double-click the **AlmDBViewCtrl** wizard and place the object on the window by clicking once to drop it. Stretch the object to the required size.
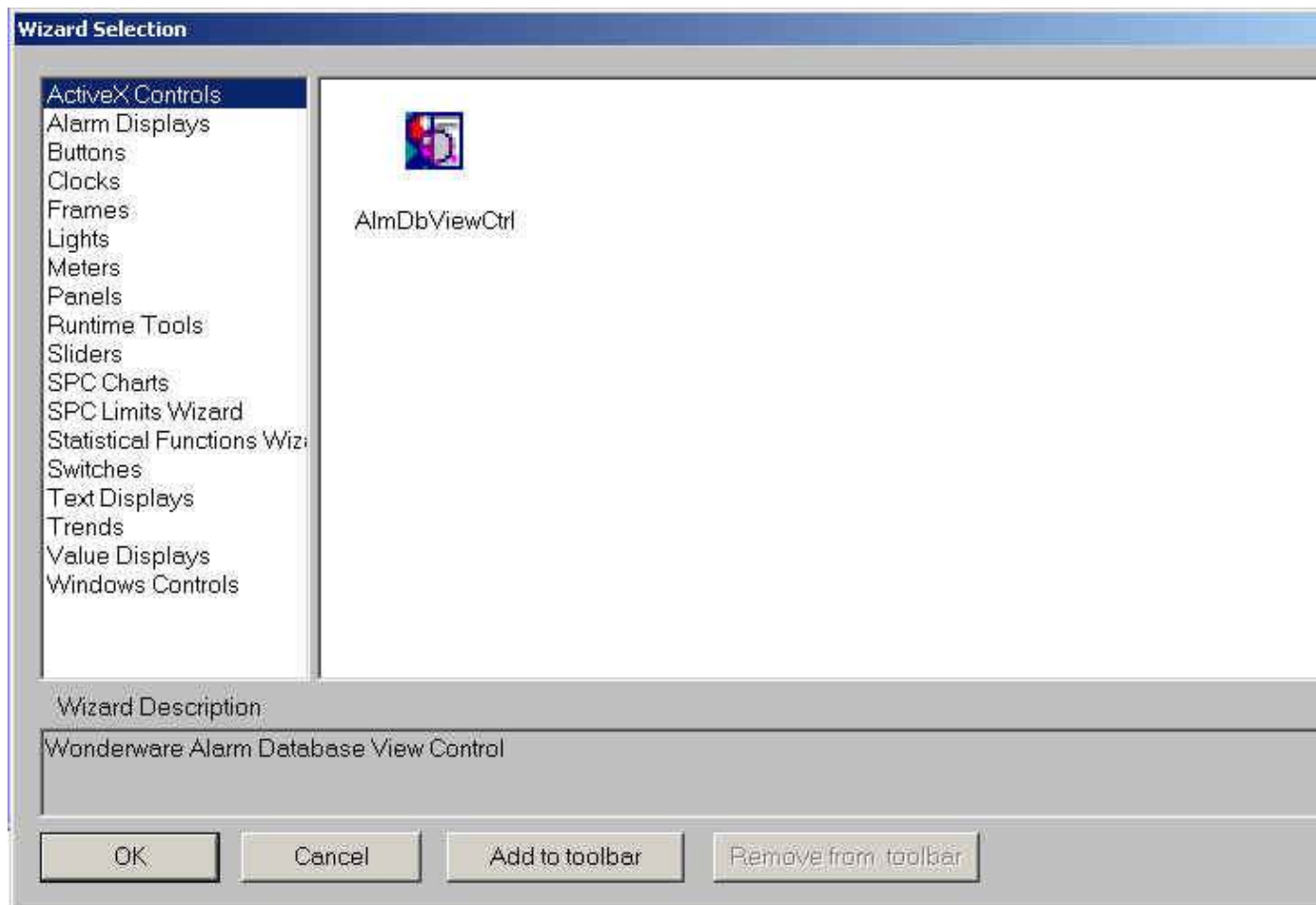
Figure 5

> **Note:** If you do not see the Alarm DBViewCtrl in the Wizard Selection you will have to go to **Special/configure/ActiveX Installations**. Go to the ActiveX Control Installation Tab. In the lower window scroll through the list and find the Wonderware Alarm Database View Control. Highlight it and click the **Install** button on the right. The Wonderware Alarm Database View Control should now appear in the **Installed ActiveX Controls** window. Click **OK**.

Click on the Wizard Hat as instructed above to place the ActiveX on your window.

Double-click the **Alarm DB View ActiveX Control Object** to open the **AlmDbViewCtrl1 Properties** dialog box.
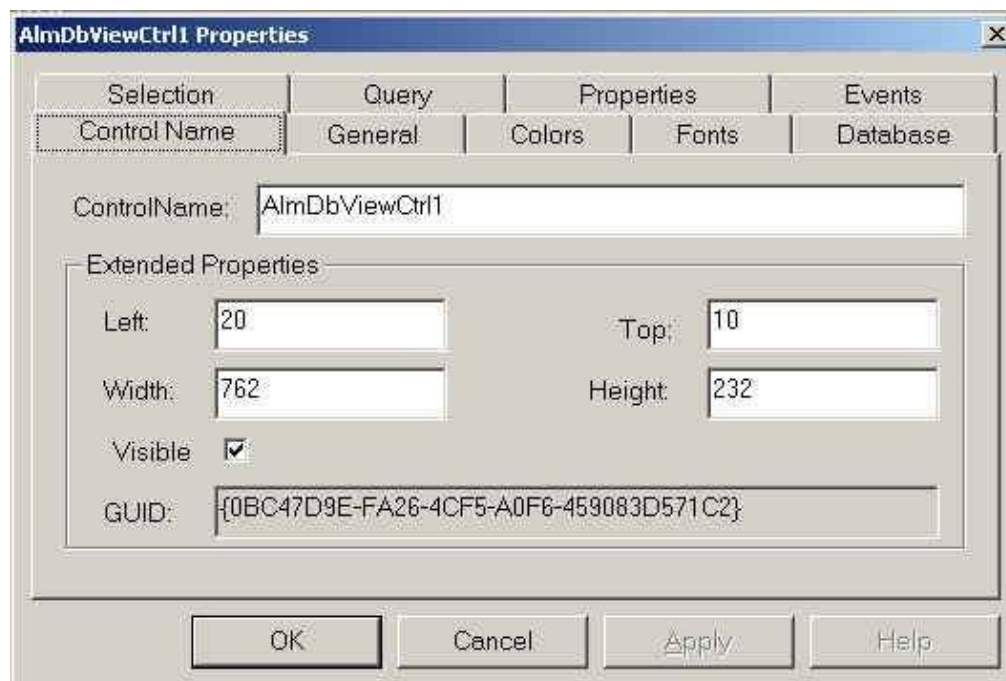
Figure 6

Under the **Control Name** tab you can use the default settings or make adjustments to the size and name of the object. The **Visible** check box allows you to make the control visible/invisible during runtime.

Under the **General** tab options you can leave the default settings or change them according to your application requirements.
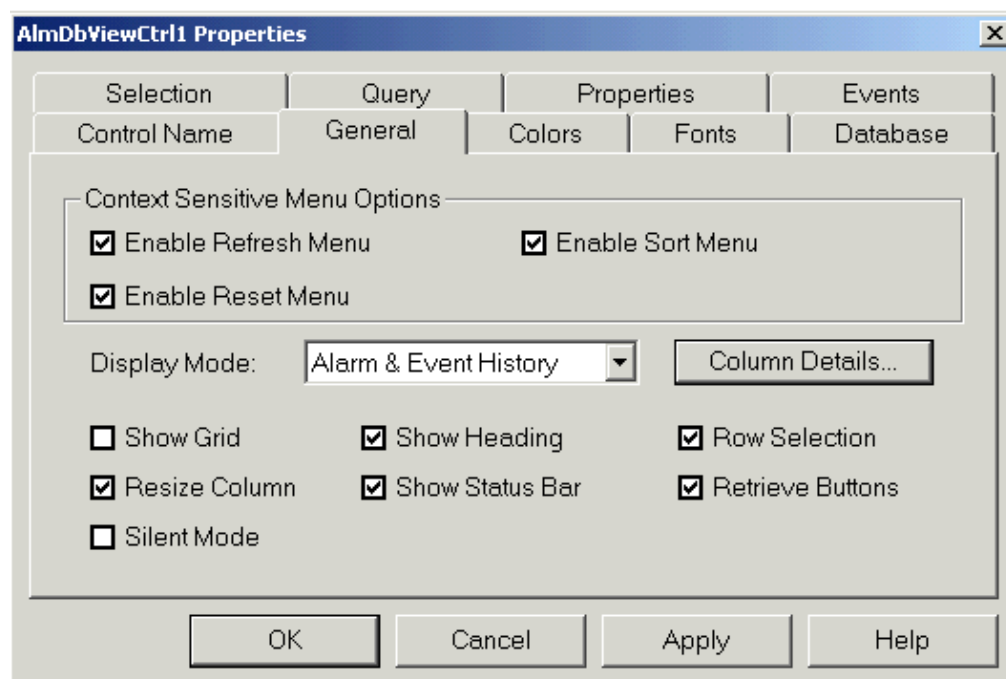

Figure 7

Click on the **Display Mode** drop-down box to choose between Alarm History, Events History or Alarm & Event History view options.

Choose **Column Details** to select the columns to be displayed, to change their names, to adjust their width, and to specify the order in which they will be displayed.

You can change the Runtime Features of the control by acting upon the following check boxes:

Show Grid enables/disables the display of the grid.

Resize Column enables/disables the column resize.

Silent Mode enables/disables the display of error messages.

Show Heading enables/disables the display of the heading of the control.

Show Status Bar enables/disables the display of the status bar (shows the current status of the control).

Row Selection enables/disables the row selection option. If the row selection is disabled no **click** or **double-click** events can be generated.

Retrieve Buttons enables/disables the display of the retrieve buttons at the right side of the control.

Under the **Colors** tab options you can accept the defaults or you can choose the **Property Name** drop-down box and the **System Color** drop-down box to select the color of your choice.
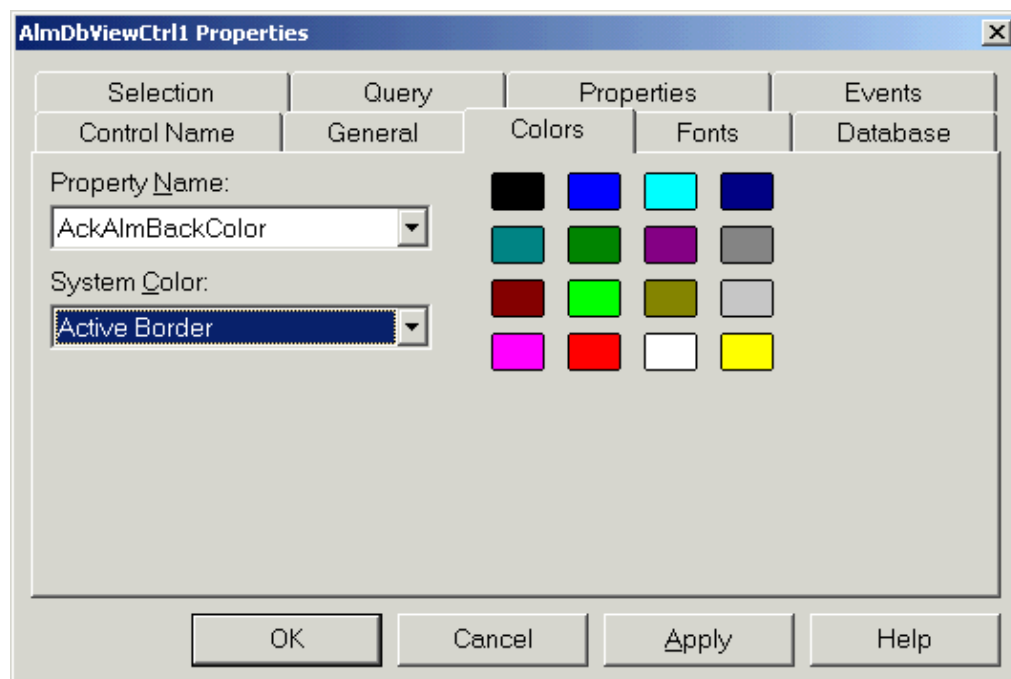

Figure 8

Under the **Fonts** tab you can either use the default settings or adjust them using the drop-down and scroll boxes to choose among the options.
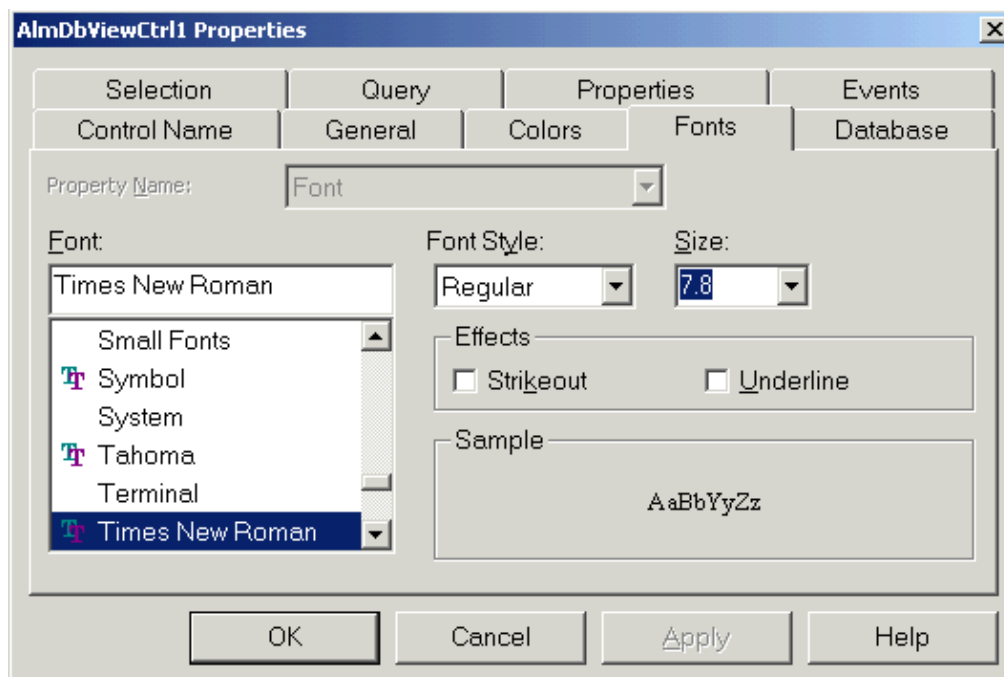
Figure 9

Under the **Database** tab you **must** choose a **Server Name**.
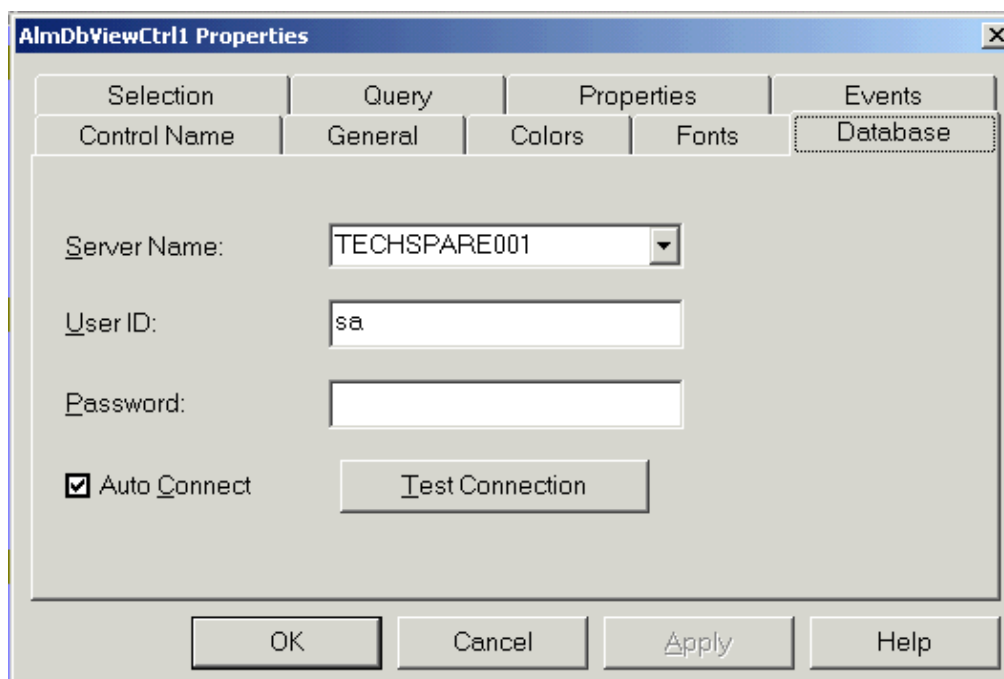

Figure 10

You can either use the drop-down menu (which should list all SQL Server and MSDE Server names on your network) or you can type one in. You **must** also enter a **User ID** and **Password**. If you would like to **Auto Connect** to the server when the window with the ActiveX opens check the box. Click the **Test Connection** button to test your server connection. You should get a message stating **Successful Connection**.

If you have already completed Step 1 you will also have a message stating the database on Server__ is in Detailed/Consolidated mode. If you have not completed Step 1 yet, you may get a message stating that the WWALMDB does not exist. In that case you will need to create it in the Alarm DB Logger Manager as noted in Step 1. If you get a message stating **Connection to Server Failed** you will need to make sure the server is running or test the connection by pinging the Server machine. You must have

a successful connection here to obtain data on your Alarm DB View ActiveX Control.

Under the **Selection** tab. Select the **Date** and **Time** format you wish to have displayed or use the default settings. If the **Date and Time** check boxes are not selected, no date/time details are displayed.
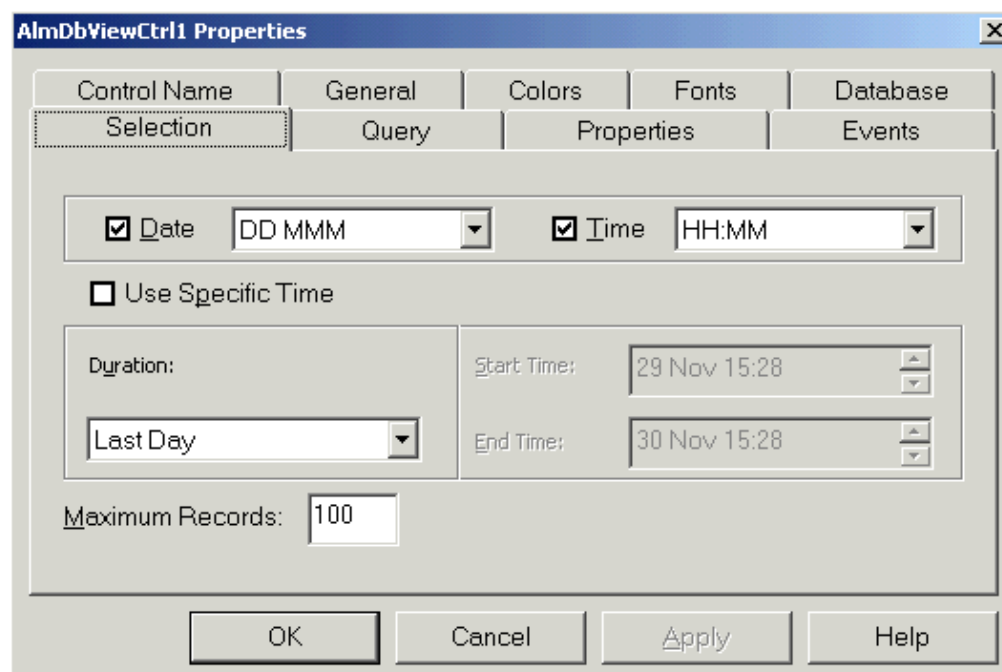

Figure 10

Use Specific Time check box enables/disables the user's ability to enter a specific **Start Time** and **End Time**. If the **Use Specific Time** check box is not selected the Start/End time are computed based on the **Duration** Property.

Select the **Maximum Records** you would like to display. The maximum records can be between 1 and 1000. Performance can be affected if the maximum records is set too high.

Under the **Query** tab the **Provider Name** should be left blank.
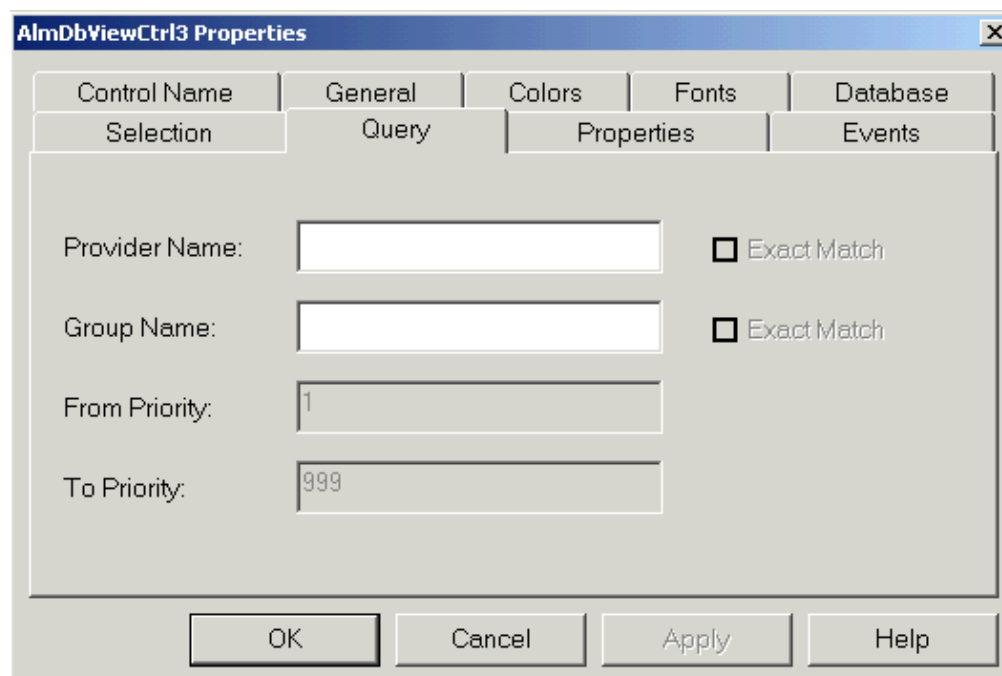

Figure 11

It could be set to InTouch (there will be more Provider options in the future). However, we find more

stable behavior leaving it blank at this point in time. The **Group Name** is the Alarm group name for the Alarms you wish to display. For all alarms on a node it would be left blank. You can check the **Exact Match** check boxes if you want to enable the exact comparison of the **ProviderName/Group Name** given by the user to that in the database. When the **Exact Match** check boxes are not checked the control will retrieve the data for all the given Provider/Group or for all the Providers/Groups whose names are a sub-string of the **Provider Name/Group Name**.

Choose the **From** and **To Priority** levels you wish to display.

Under the **Properties** tab you can assign tags to the various properties associated with the control. Click on the **Advanced** button to apply filter specifications.
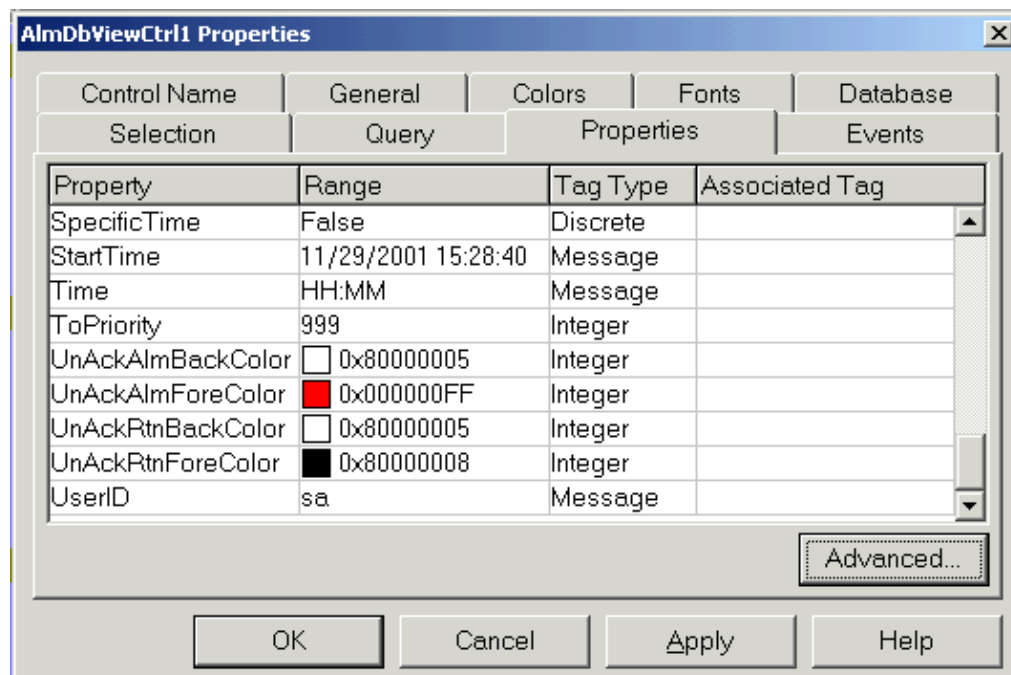

Figure 12

Under the **Events** tab assign script functions to the various events that can take place in this control.
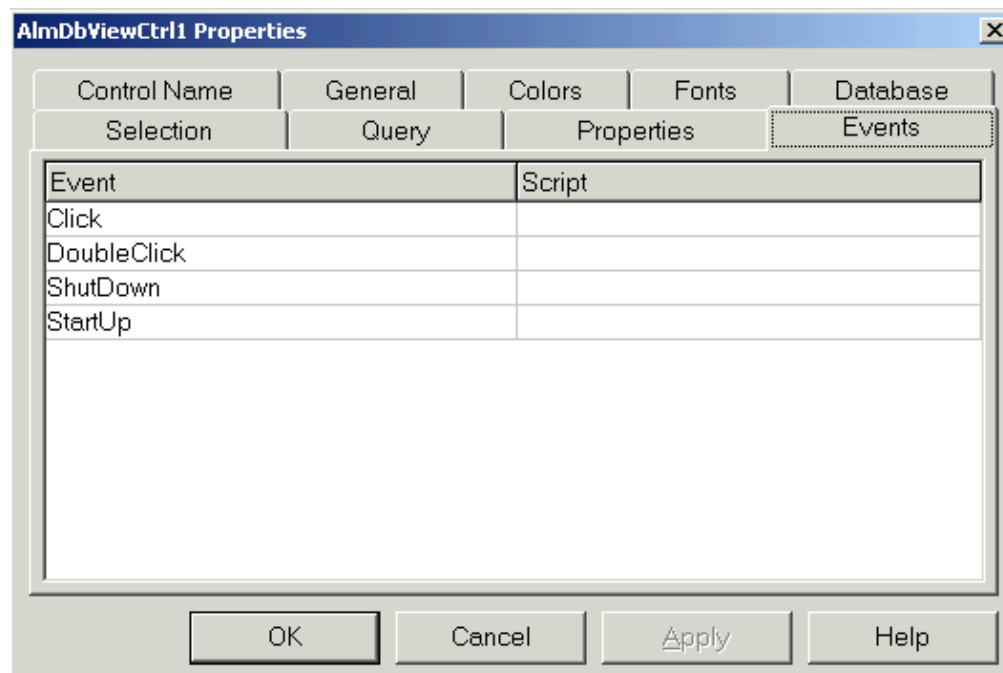

Figure 13

Step 3: Writing script to change the node and/or servers in the Alarm DB View ActiveX Control

Once you have setup your Alarm DB View ActiveX Control you can write additional script to change providers (nodes) and/or servers on the fly. To illustrate we will use **Pushbutton Action Scripts**.
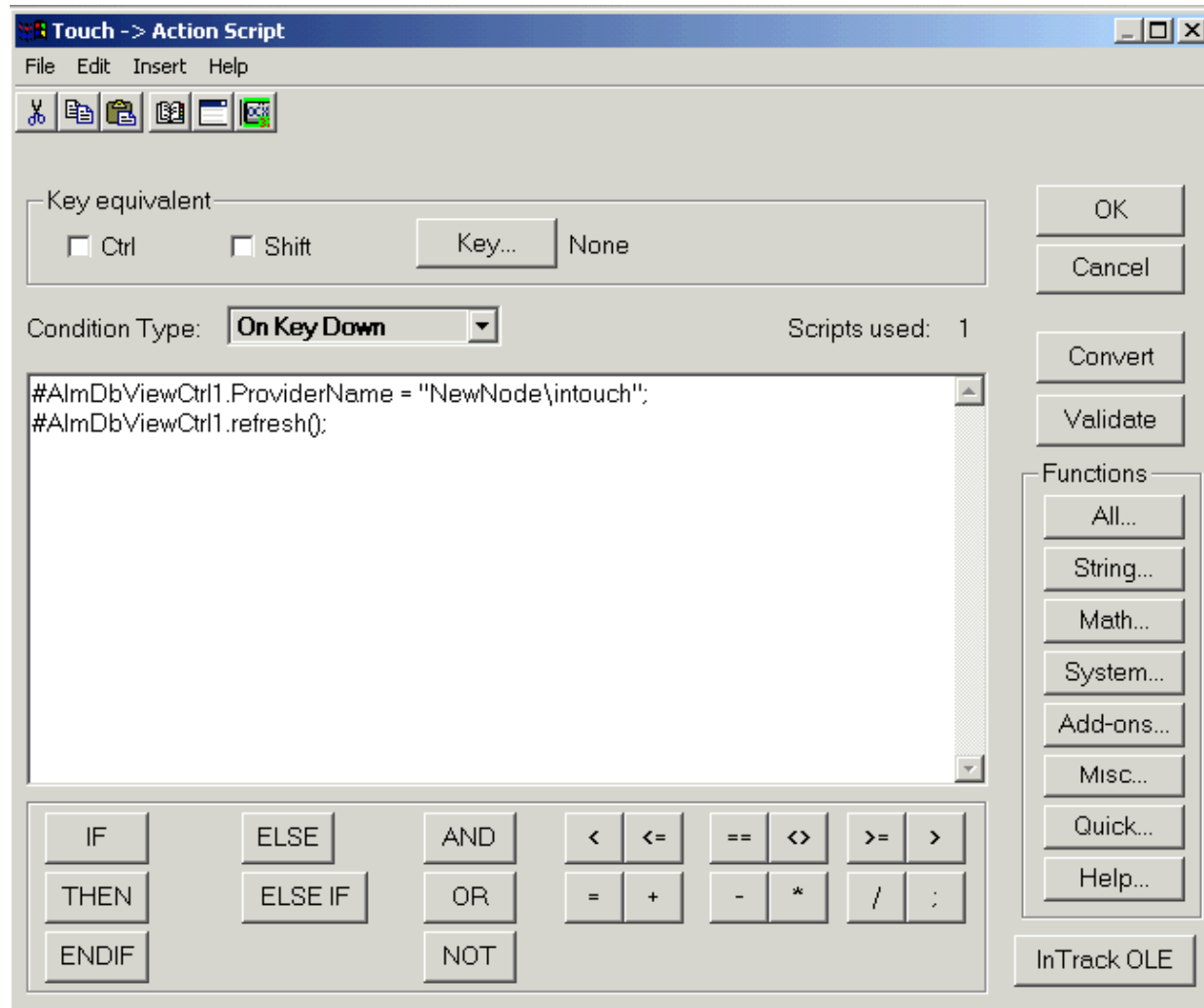

Figure 14

Create a **Pushbutton** and add the following action script to change the Provider (node). The data will be retrieved from the database for the given provider.

```
#AlmDbViewCtrl1.ProviderName = "NewNodeHere\intouch";
#AlmDbViewCtrl1.refresh();
```

Create a Pushbutton and add the following action script to change the Server Name to which the control connects.

```
#AlmDbViewCtrl1.ServerName = "NewServerHere";
#AlmDbViewCtrl1.Connect();
```

Create a pushbutton to go back to the original Provider:

```
#AlmDbViewCtrl1.ProviderName = "OriginalNodeName\intouch";
#AlmDbViewCtrl1.refresh();
```

Create a pushbutton to go back to the original Server:

```
#AlmDbViewCtrl1.ServerName = "OriginalServerName";
```

#AlmDbViewCtrl1.ProviderName="intouch";
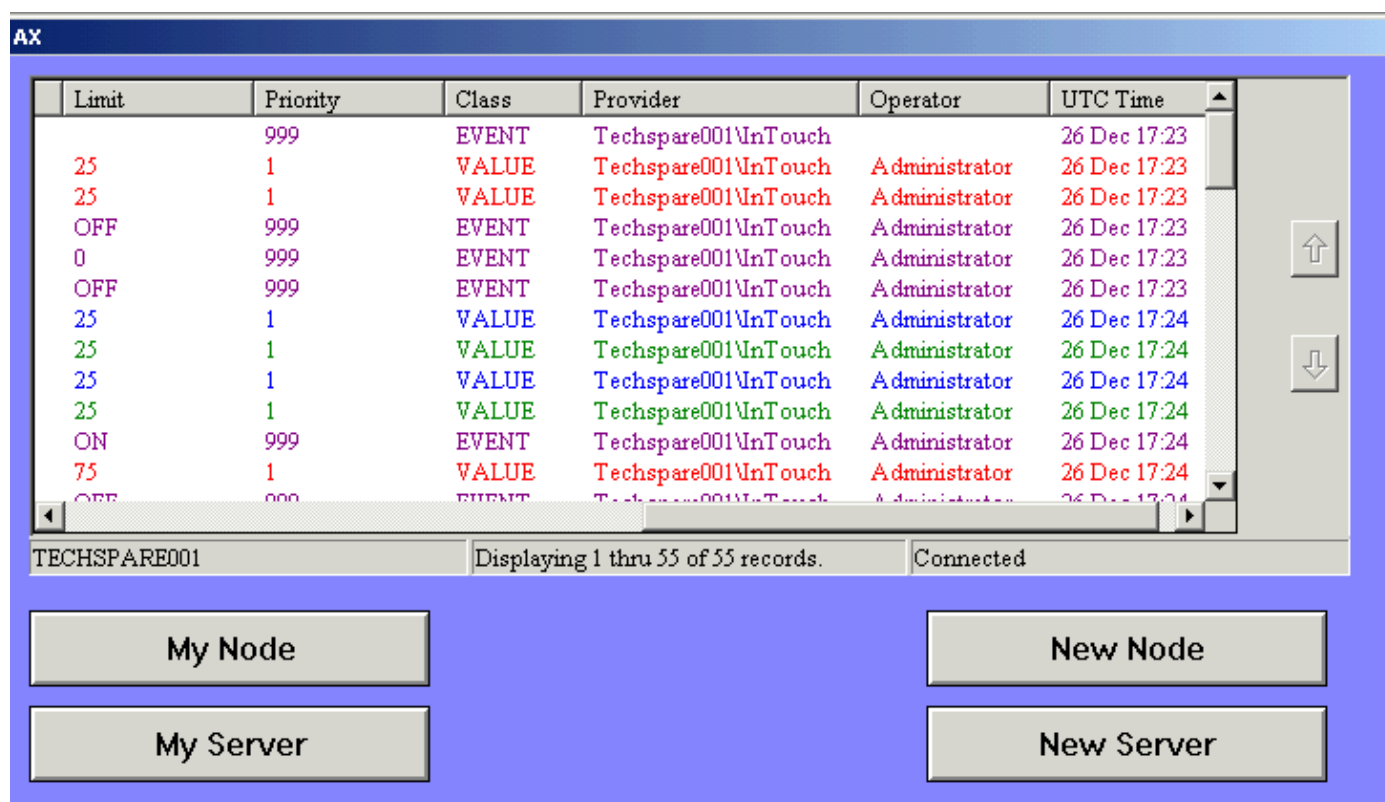#AlmDbViewCtrl1.Connect();

Figure 15

By displaying the **Provider** column in the Alarm DB View ActiveX as well as the **Status Bar** you can verify that you are querying the correct Server/Provider.

Note: My Server = TECHSPARE001(displayed on left side of the Status bar) and My Provider = Techspare001\InTouch displayed under the **Provider** column.

Note: The lower right area of the Status Bar will display one of the following messages: In Progress, Connected or Not Connected. It is possible that you will wait a few seconds while In Progress prior to Connection.

Known Issues

CRI0018293 -- AlarmDBView Control: Query for group name does not query all alarms for that group and all derived groups

There is no workaround for groups other than $System. If you want to display all alarms ($System and any other group), leave the Group Name field blank

It is not possible to query two alarm groups like **aaa** and **bbb**.

However, if the groups are named **Groupaaa** and **Groupbbb** then you can use **Group** (without the quotes) as the Group Name and that will return all alarms for **Groupaaa** and **Groupbbb.**

CRI0020250 -- (in Patch03 release notes) - The "Timeout expired" error message appears, when AlarmDBView ActiveX queries a large (275,000 entries) WWAlmDB database.

Problem:

The error message, "Timeout expired," appears when AlarmDBView ActiveX queries a large (275,000

entries) WWAlmDB database.

The timeout value can now be controlled through the registry, as follows:

Manually define a DWORD value "ConnectionTimeOut" under the registry key, "HKEY_LOCAL_MACHINE\SOFTWARE\Wonderware\AlarmDBView\Database."

A default value of 120 seconds will be assumed if this key is not present in the registry.

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