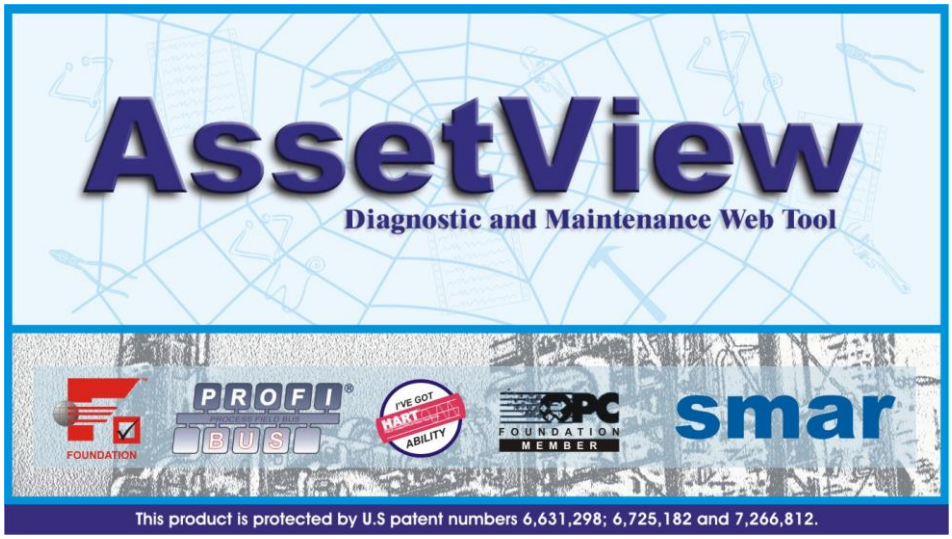
smar - AssetView

INSTALLATION AND OPERATION

USER'S MANUAL



APR / 17

AssetView

VERSION 4.2

ASETVIEWME

smar
NOVA SMAR S/A
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web: www.smar.com/contactus.asp

INTRODUCTION

To fulfill the requirements of a control system, the plant needs a system that can provide specific management functions, such as calibration, diagnostics, identification, materials of construction and setup for the *Field Devices*.

Smar ***AssetView*** is a software system for on-line network enabled asset management. The primary objective is to unleash the powerful diagnostics capabilities found in Fieldbus devices in general and particularly in Smar devices, providing several maintenances schemas and making the user interface friendlier.

AssetView deals only with devices and is used for the long-term maintenance and device operation. ***AssetView*** is not restricted to just displaying error messages from the device, but it can take devices through test sequences, record data, plot charts and analyze them providing a much more sophisticated failure analysis.

Another important characteristic of the ***AssetView*** is the web technology based architecture. The user interface is the Internet Explorer web browser and it can be used on any Windows platform.

Since there will always be a mix of instrument brands in a plant, it is important to have a maintenance tool that is independent of the device manufacturer. The same single software must support devices even though these come from different manufacturers.

The device manufacturers know best what information to display, and how to present it for the user to get the best out of their device. The device manufacturer is the ideal candidate to make pages available for their devices, incorporating their knowledge and visualization characteristics, and keeping them up to date with the latest features and capabilities. That's the proposal of ***AssetView***: to allow the manufacturers to develop the devices' home pages.

AssetView software is network enabled and allows the user to tap into the information of the devices, indicating the condition of any device at any time, so that users can have a complete overview to picture the status of the entire plant.

ATTENTION
The ***AssetView HMI*** manuals describing the identification, configuration, calibration and other device pages are available at the Smar Web Site: http://www.smar.com.br

This product is protected by U.S. patent numbers 6,631,298; 6,725,182 and other U.S. Patents pending.

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INSTALLATION AND CONFIGURATION

Installing AssetView with System302 version 7.0.x or higher

If you are installing ***AssetView*** with ***System302*** version 7.0 or higher, please refer first to the **System302 Installation Guide** available in the ***System302*** Documentation and follow the instructions to complete the installation and configure your system.

Then, refer to the steps described in subsections **After the Installation** and **AssetView Initial Settings** in this manual, and configure specific system settings to execute ***AssetView*** properly.

Installing AssetView with System302 Version 6.1.x

Before installing ***AssetView*** with ***System302*** version 6.1.x, you must have already installed some essential applications that support **Smar** software.

Installing Internet Explorer 6.0 or higher

The Internet Explorer installation file is located at the folder **Tools\IE6**, in the ***System302*** CD.

Run the application **Ie6setup.exe** and follow the instructions in the dialog boxes to complete the installation. It will be necessary to restart the computer after the IE installation.

Installing IIS on Windows XP or Windows Server 2003

Install the *Internet Information Services* (IIS), version 5.0 or higher. The IIS is a Windows *Add-on Component*. Place the Windows CD in the CD-ROM drive. Open the **Control Panel** and double-click the **Add or Remove Programs** application.

In the **Add or Remove Programs** window, click **Add or Remove Windows Components** on the menu on the left. The **Windows Components Wizard** dialog box will open.

- On Windows XP, mark the item **Internet Information Services (IIS)** and click **Next**. Follow the instructions to complete the IIS installation and click **Finish**.

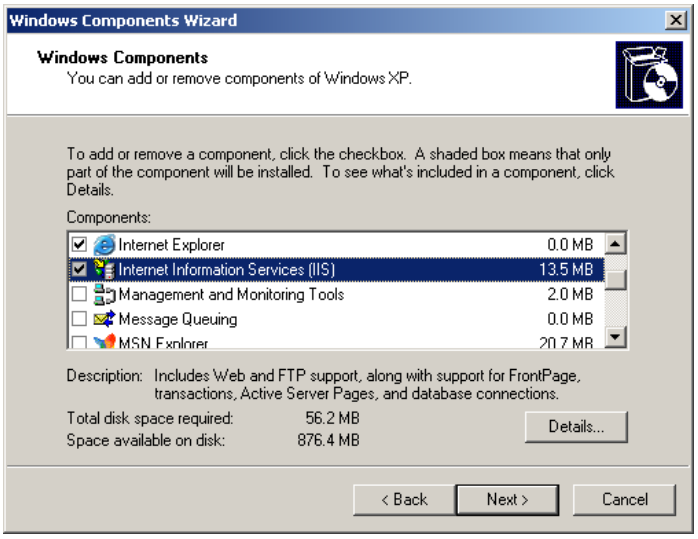


Figure 1.1. Installing IIS on Windows XP

- On Windows 2003 Server, select the item **Application Server** and click **Details**. In the **Application Server** dialog box, mark the items **ASP.NET** and **Internet Information Services (IIS)** and click **Ok**. In the **Windows Component Wizard**, click **Next** and follow the instructions to complete the installation. Click **Finish** to conclude.

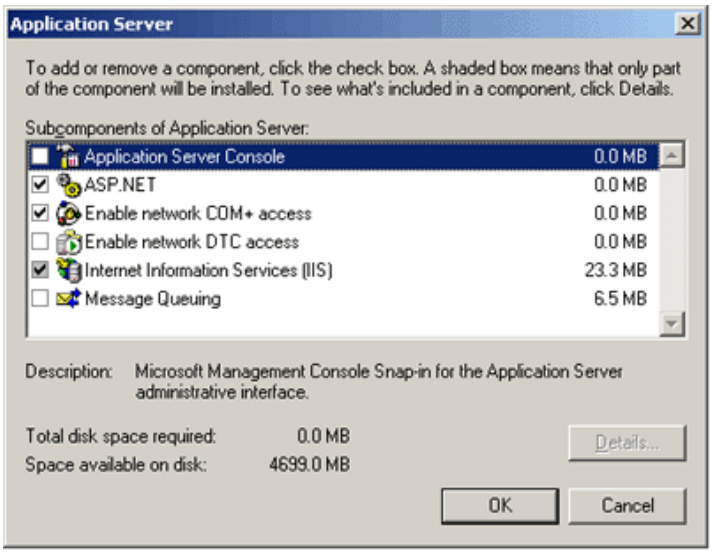


Figure 1.2. Installing IIS on Windows 2003

IMPORTANT
If IIS was already installed in the machine but the ASP.NET was not installed, it will be necessary to remove IIS and install ASP.NET together with IIS. In this case, open the **Application Server** dialog box and unmark the item **Internet Information Services (IIS)**. Click **Ok** and click **Next** on the **Windows Components Wizard** window. Follow the instructions to uninstall IIS. Then, open the **Windows Components Wizard** window again, select the item **Application Server** and click **Details**. Mark the items **ASP.Net** and **Internet Information Services (IIS)**, click **Ok** and follow the instruction to complete the installation.

To check if the installation was successful, open the *Internet Explorer* window and type the machine name or "*localhost*". The **Internet Information Services** page should be loaded.

Installing AssetView

IMPORTANT
To install ***AssetView***, the user must be logged on as the **Administrator** or a member of the **Administrators** group. If ***AssetView*** will be installed in a domain, the user installing the software must have administrator rights to access the domain.

Place the ***System302*** Installation DVD at the DVD-ROM driver. The **Installation** dialog box will automatically open. Click **Install SYSTEM302**.

Follow the instructions in the dialog boxes, providing the necessary information during the installation.

Make sure to select the **Custom** installation mode. In the **Select Features** dialog box, check the option **AssetView** from the list of applications available:

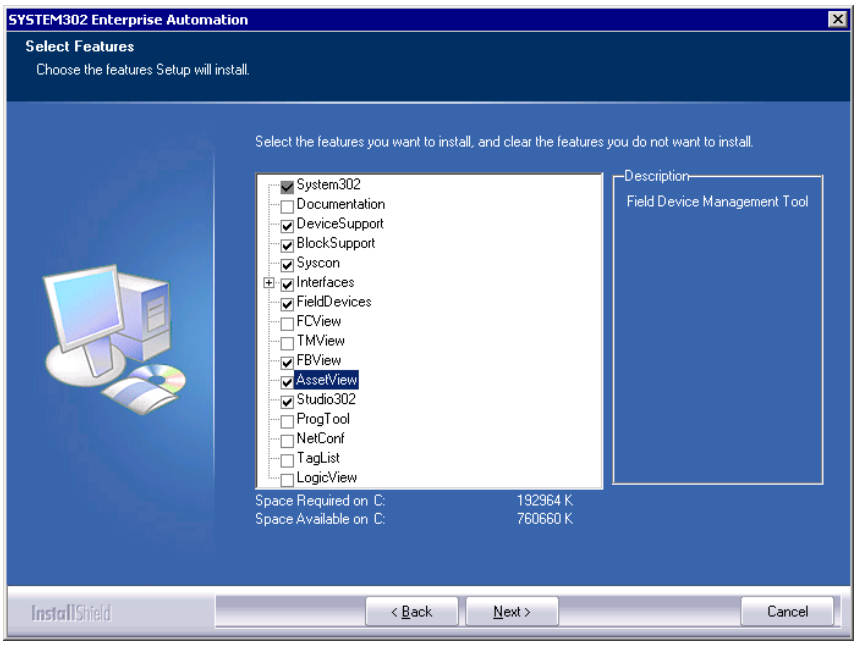


Figure 1.3. Installing AssetView

It will be necessary to restart the computer after the installation is complete.

IMPORTANT
If a database application is not located during the ***AssetView*** installation, the MSDE database will be automatically installed. If any error message appears during the ***AssetView*** installation and configuration, please refer to the section **Known Problems and Limitations** for details on how to manually configure the system.

AssetView Licensing

AssetView Server requires a *HardKey* to run properly. A specific number of field devices will be managed according to the license option select by the user.

The following table shows the license types available according to the maximum number of field devices installed on the plant.

Note that if there are more than 200 instruments, it will not be possible to use the MSDE database, only the SQL Server database.

Option	Number of Devices	Database Required
1	25	MSDE or SQL Server
2	100	MSDE or SQL Server
3	200	MSDE or SQL Server
4	300	SQL Server
5	400	SQL Server
6	500	SQL Server
7	750	SQL Server
8	1000	SQL Server
9	1500	SQL Server

A	2000	SQL Server
B	2500	SQL Server
C	3000	SQL Server
D	4000	SQL Server
E	5000	SQL Server
F	7500	SQL Server
G	10000	SQL Server

Connect the *HardKey* to the parallel port or USB port in the machine. Then select **Start > Programs > System302** and click **Get License**.

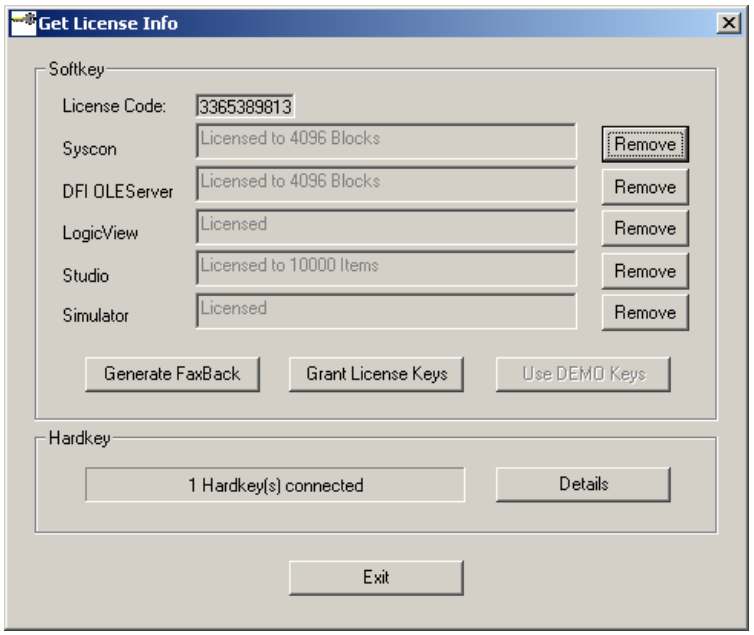


Figure 1.4. Checking the *HardKey*

On the ***Get License*** application, *Hard keys* are automatically detected. Click the button **Details** to open the diagnostic report about *Hard Key(s)*. Click **Exit** to conclude.

NOTE
If an error message appears during the test, check if the *Hard Key* is connected properly and if you have a valid license.

After the Installation

Remember that it is necessary to restart the computer after the installation is complete.

NOTE
AssetView supports MSDE and SQL Server versions 2000 and 2005.

Configuring the Windows Firewall

NOTA
The following steps are not required for **System302 versions 7.3.4 SP1** or higher. See the **SYSTEM302 Handbook** (GetStarted) for further information.

If the Windows Firewall is enabled, add the port 80 used by ***AssetView*** to the exception list:

1. Open the Windows **Control Panel** and double-click the option **Windows Firewall**.
2. The **Windows Firewall** dialog box will open. Click the **Exceptions** tab:

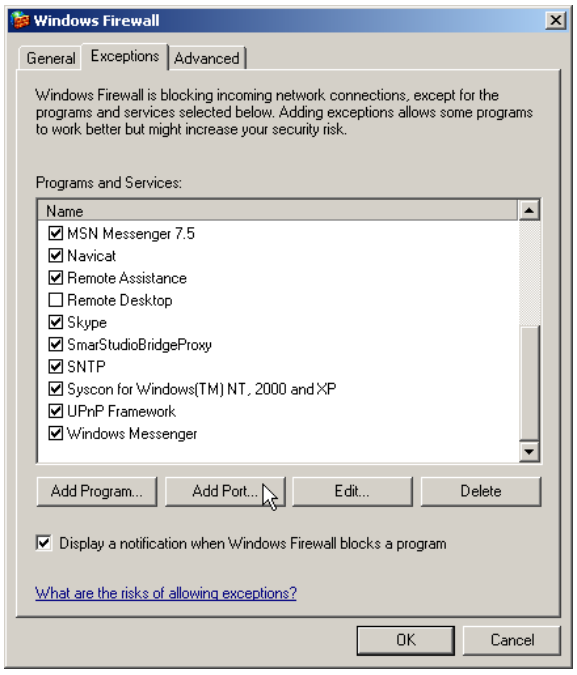


Figure 1.5. Configuring the Windows Firewall

3. Click the button **Add Port**.
4. On the **Add a Port** dialog box, type **Web** as the port name and type **80** for the port number. Select the **TCP** protocol and click **Ok** to conclude.

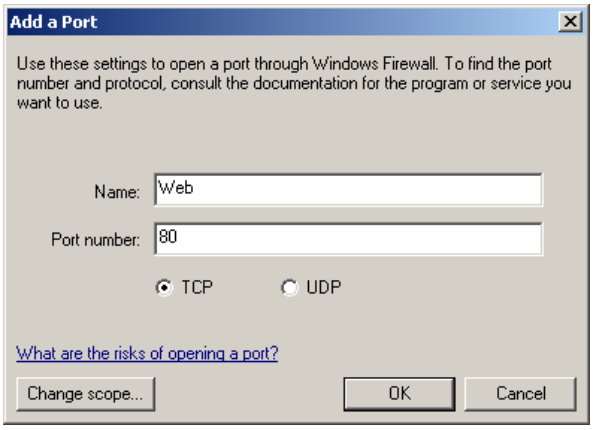


Figure 1.6. Configuring the Port 80

5. Click **Ok** on the **Windows Firewall** window to conclude.

Configuring the DCOM Properties Manually

Advanced security properties from Windows XP SP2 and Windows Server 2003 SP1 must be configured to enable the communication between ***AssetView*** and ***System302*** components. For operating systems Windows 7, Windows Server 2008, or higher refer to **SYSTEM302 Handbook** (GetStarted) for further information.

On the **Start** menu, click **Run**, type **dcomcnfg** and click **Ok**. The **Component Services** window will open. On the left panel, select **Component Services > Computers > My Computer**.

Right-click the icon **My Computer** and select the option **Properties**. On the **My Computer Properties** dialog box, select the **Default Properties** tab and check if the option **Enable Distributed COM on this computer** is marked.

Select the **COM Security** tab. Click **Edit Default** on the **Access Permissions** area. The **Access Permission** dialog box will open:

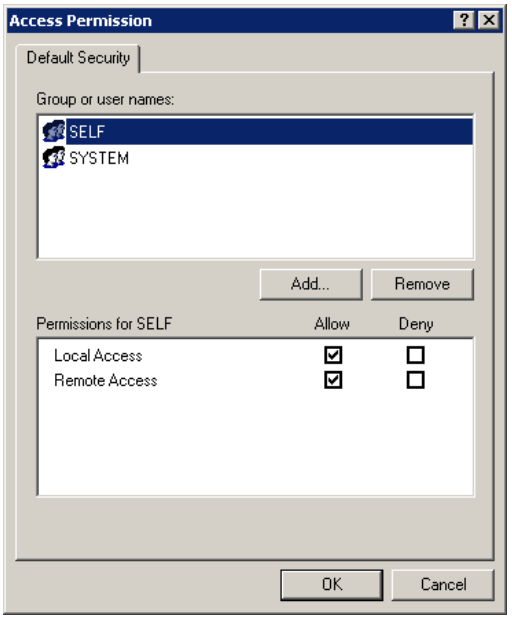


Figure 1.7. Configuring the Access Permission

Click **Add** and include the user **ASP.NET** and the following groups: **Administrators**, **Users**, **Interactive**, **System**, **Engineer**, **AssetViewGuest**. See the example in the figure below:

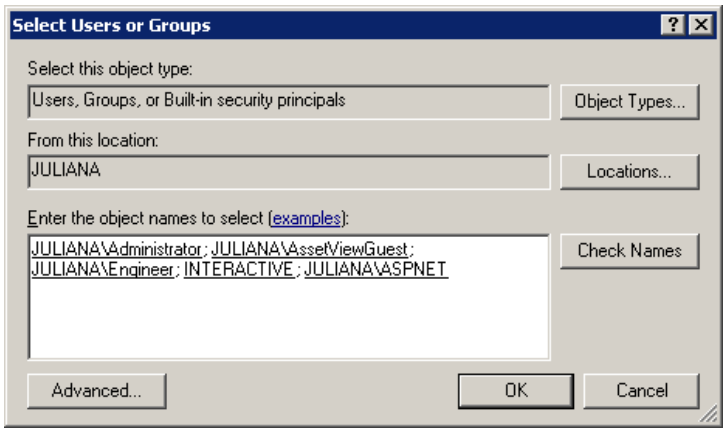


Figure 1.8. Adding Users and Groups

Click **Ok** to return to the **Access Permission** dialog box. For each user and group added, select its icon and mark the **Allow** column for the options **Local Access** and **Remote Access**.

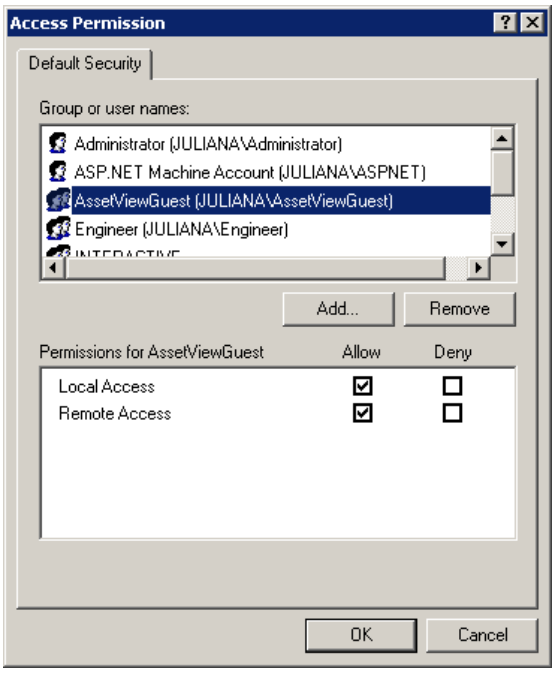


Figure 1.9. Local and Remote Access Permissions

Click **Ok** to return to the **My Computer Properties** dialog box. Then, click **Edit Default** on the **Launch and Activation Permissions** area and repeat the steps described above to add the same user and groups, allowing the permission for **Local Launch**, **Remote Launch**, **Local Activation**, and **Remote Activation**.

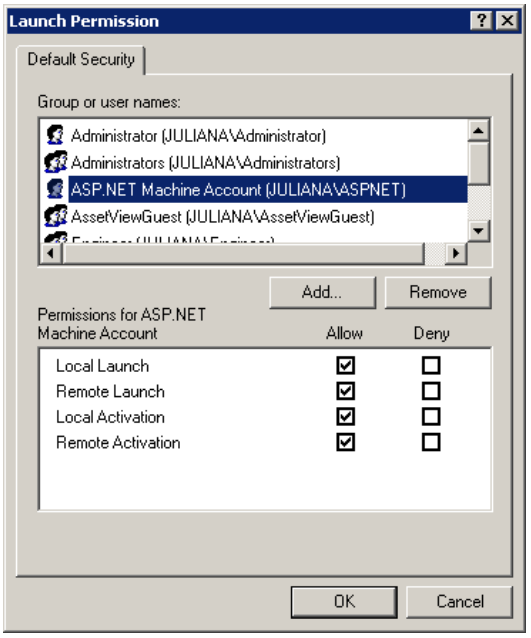


Figure 1.10. Launch and Activation Permissions

Click **Ok** to return to the **My Computer Properties** dialog box and click **Ok** again to conclude.

AssetView Initial Settings

On the **Start** menu, select **Programs > System302 > AssetView > Installation Guide**. The **AssetView Welcome Screen** will open.

NOTE

When you run ***AssetView Server*** for the first time, the ***AssetView Welcome Screen*** opens to guide the user while configuring the system.

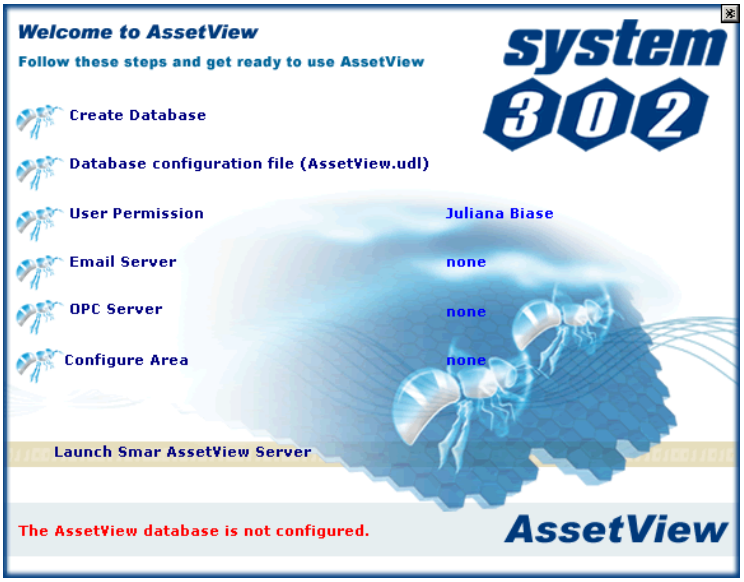


Figure 1.11. AssetView Welcome Screen

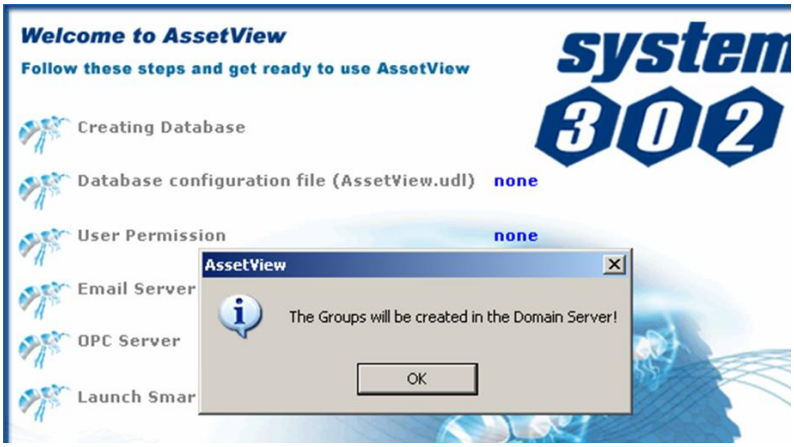
The **Welcome Screen** indicates the status of the ***AssetView*** installation. For example, if the user is executing the application for the first time, the **Welcome Screen** indicates that the database is not configured.

If an error message appears indicating that the *HardKey* is not valid, check if it is connected properly and if you have a valid license. See section **AssetView Licensing** for further details.

Use the links in the **Welcome Screen** and follow the instruction in the sections below to configure the computer to run the ***AssetView*** and ***AssetView Server*** applications.

IMPORTANT

When installing ***AssetView*** in a domain, the groups **Engineer** and **AssetViewGuest** are created in the domain server machine and all other users must be created in the same machine. The message in the figure below appears when ***AssetView*** is executed for the first time, when the **Welcome Screen** appears:



In this case, make sure the user with administrative rights runs ***AssetView*** for the first time to execute and complete the necessary initial settings.

Creating the Database

Run this procedure in the machine that hosts the database server to create the ***AssetView*** database.

It is not necessary to install ***System302*** and the database on the same machine, because the ***AssetView Server*** can remotely access the database. The *SQL Server* can be installed in any computer that communicates with the ***AssetView Server***.

IMPORTANT
The database for ***AssetView*** version 4.1 or higher is not compatible with previous ***AssetView*** versions. When creating the database, the history of all registers and operations will be deleted. For further information on how to keep the database history from versions previous to ***AssetView 4.1***, contact your Smar representative. To create the ***AssetView*** database, the user must be logged as the **Administrator** or a member of the **Administrators** group.

In the **Welcome Screen**, click the link **Creating Database**. The **Configure SQL Server Database** dialog box will open:

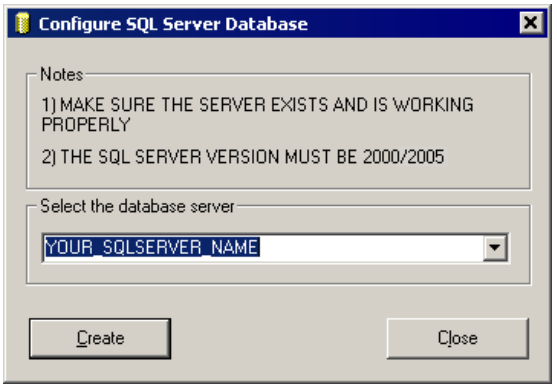


Figure 1.12. Configuring the SQL Server Database

Select the ***AssetView*** database server from the drop-down list and click **Create**.

If the database already exists in the selected server, a message box will open asking if the user wants to create a new database. Click **Yes** and all existing data will be deleted.

Wait a few seconds until the message box opens alerting the user that the database was created. Click **Ok** to close this dialog box:

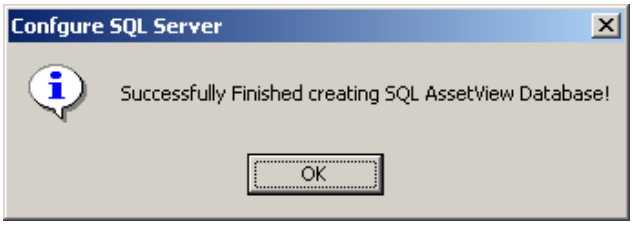


Figure 1.13. Creating the SQL Server Database

NOTE
If the database was not created properly, check the SQL Server configuration and the user login information.

Click **Close** to conclude the database configuration.

Creating the Remote Database

Follow this procedure to create the ***AssetView*** database in a dedicated machine, that is, in the remote computer where all database information will be saved.

Locate the ***AssetView*** installation folder. The default path is "*C:\Program Files\Smar\AssetView*". Copy the folder **SQL Server Support** to the remote machine and run the file **SqlServer.exe**, double-clicking its icon.

Select the database server from the drop-down list and click **Create**. When the database is created, click **Close** to conclude.

Database Configuration File

Now check if the database connection is configured properly. In the **Welcome Screen**, click the link **Database Configuration File**. The **Data Link Properties** dialog box opens.

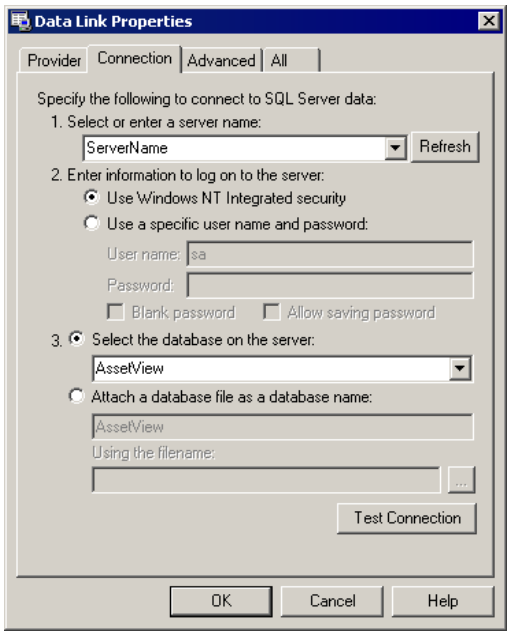


Figure 1.14. Connecting to the SQL Server Database

At the **Connection** tab:

1. Select the name of the SQL Server.
2. Choose the log on mode.
3. Select the ***AssetView Database*** on the server.
   If the database was created in the remote machine, make sure to select the name of the remote server.
4. Click **Test Connection** and wait for the message confirming the test succeeded:

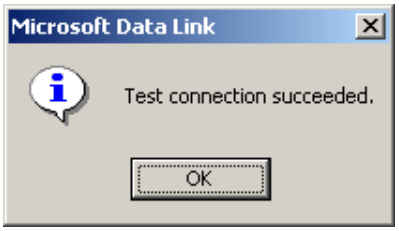


Figure 1.15. Testing the connection

Click **Ok** on the **Data Link Properties** dialog box to conclude.

User Permission

In the **Welcome Screen**, click the link **User Permission** to open the **Local Users and Groups** window.

Only the ***AssetView*** administrator can configure the access level. The access control of ***AssetView*** uses the Windows authentication, and for this reason the ***AssetView*** administrator is the administrator of the machine where the ***System302*** was installed.

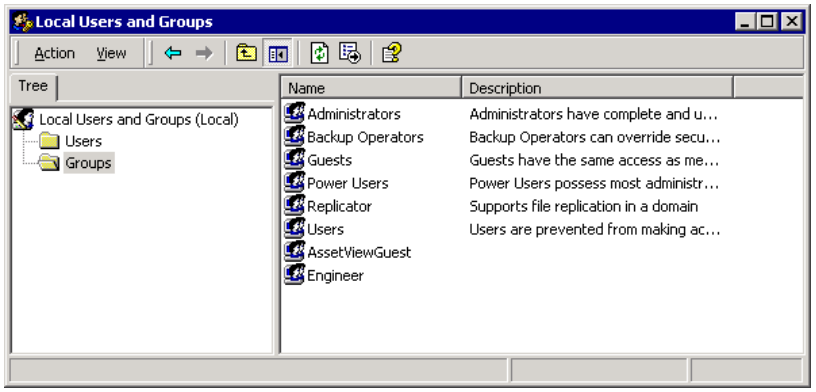


Figure 1.16. Local Users and Groups Window

Users added to the **Engineers Group** will have permission for writing and reading information from the server. Double-click the **Engineer** group to open the **Engineer Properties** dialog box.

Click **Add** and select the user(s) to be included in the **Engineer** group. Click **Ok** to confirm and conclude this procedure.

Users added to the **AssetViewGuest** group will only have permission to read information from the server. Double-click the **AssetViewGuest** group to open the **Properties** dialog box.

Click **Add** and select the user(s) to be included in the **AssetViewGuest** group. Click **Ok** to confirm and conclude.

Email Server

In the **Welcome Screen**, click the link **Email Server** to configure the SMTP Server address. The **Mail Options** dialog box will open:

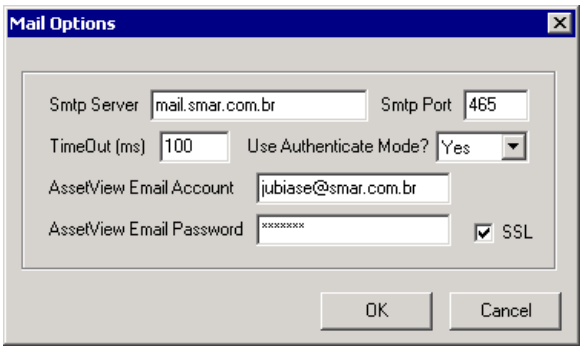


Figure 1.17. Configuring E-mail Options

1. Type the name or the IP address of the e-mail server in the **SMTP Server** box.
2. Configure the maximum idle time, in milliseconds, for the communication with the e-mail server in the **TimeOut** box. It is recommended to use a value 10 times bigger than the server's response time.
3. Configure the e-mail account for ***AssetView***.

4. If the e-mail server requires authentication, select **Yes** in the **Use Authenticate Mode** box and type the password for the e-mail address in ***AssetView***.
5. If the mail server uses the SSL protocol, check the option **SSL** and type the corresponding number for the SMTP port, on the **SMTP Port** box.
6. Click **Ok** to save the changes and close this dialog box.

NOTE
Some e-mail servers may require a Domain and User name instead of the email address to configure the **AssetView Email Account** field.

Configuring the Communication

In the **Welcome Screen**, click the link **OPC Server** to configure the communication interface. The **Communication Settings** dialog box will open:

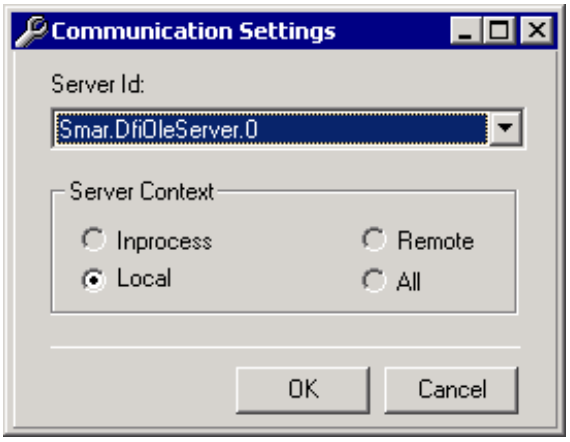


Figure 1.18. Configuring the Communication

Select the communication server from the list of available servers. Click **Ok** to conclude.

Selecting the Topology Configuration

In the **Welcome Screen**, click the link **Configure Area** to select the project configuration that will be used by the ***AssetView Server***. The **Areas** dialog box will open:

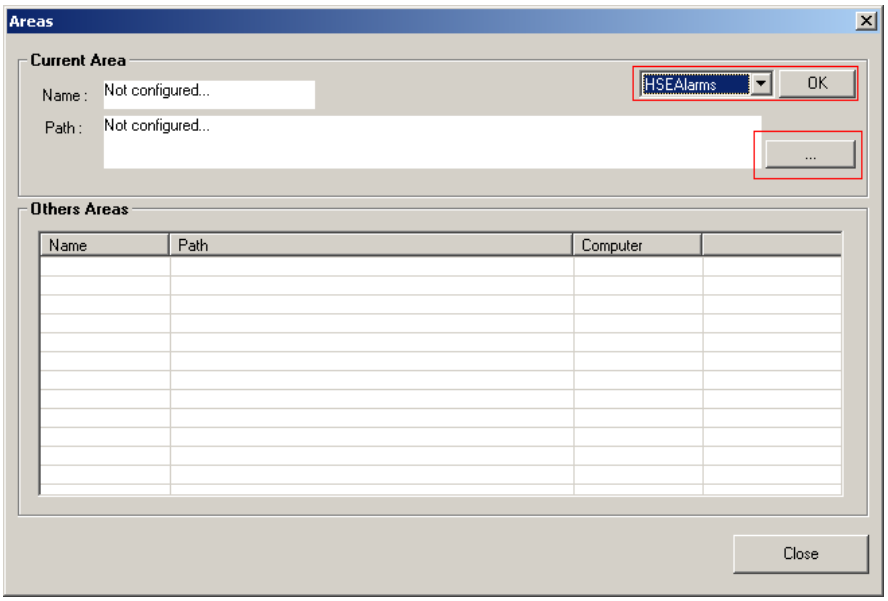


Figure 1.19. Areas dialog box

Click the combo box on the upper right corner on the Areas dialog box to select the configuration from the list of configurations available and click **Ok**.

If the desired configuration is not listed on the combo box, click the button **...** as indicated in the figure above and the **Open** dialog box will open. Browse the folders to locate the configuration file with the extension **.ffp**. Select the file icon and click **Open** to import the plant project configuration to the ***AssetView Server***.

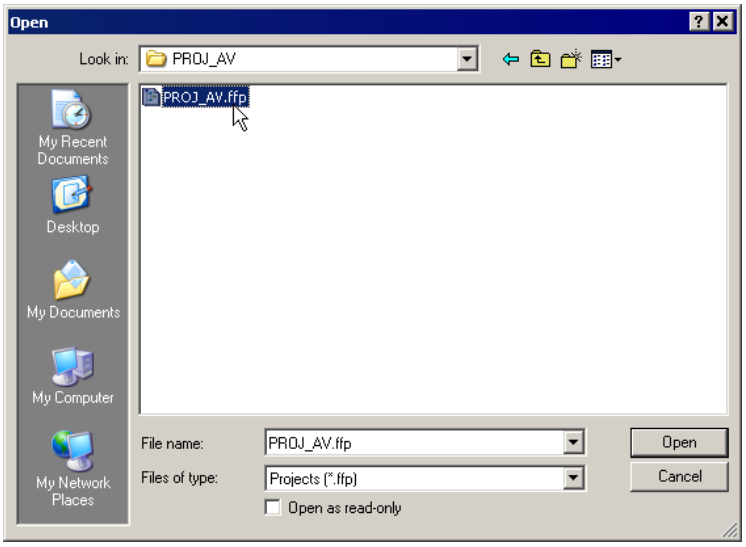


Figure 1.20. Selecting the configuration file

ATTENTION
From ***System302*** version 7.0.x on, project configuration files are managed by ***Studio302***. Those files are saved in the corresponding project folder, in a common directory. The default path to project folders is *C:\Program Files\Smar\ConfigurationWorkspace\Client\CWFiles\System302*.

A message box will open indicating the topology was stored in the database.

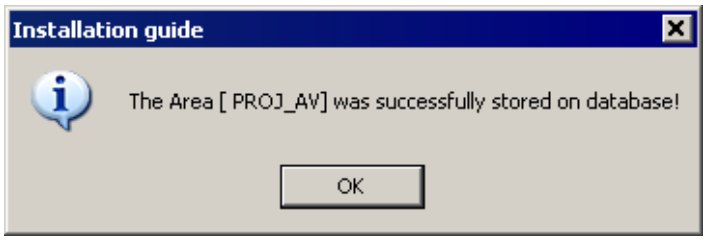


Figure 1.21. Selecting the configuration file

Click **Ok** to return to the **Areas** dialog box and click **Close** to conclude.

Now the system is ready to execute the ***AssetView Server*** and navigate on the ***AssetView*** devices' pages.

Click **Launch Smar AssetView Server** to start ***AssetView Server***. The following sections on this manual will describe the ***AssetView Server*** interface and how to navigate the pages available for the field devices

ASSETVIEW SERVER

The **Smar *AssetView Server*** runs transparently to the user. The ***AssetView Server*** monitors the devices, controls the number of devices monitored and grants permissions to users.

Before initializing the ***AssetView Server***, it is necessary to:

1. Create the device configuration using ***Syscon***.
2. Export the tags.
3. Initialize the communication using ***Syscon*** to check if the settings are correct.
4. Check if the **Online Characterization** window shows the parameter values in ***Syscon***.

It is not necessary to keep the ***Syscon*** window open while executing the ***AssetView Server***. Remember that ***Syscon*** and ***AssetView*** can be installed separately, on different computers. Refer to the **Syscon User's Manual** for details about project configurations.

Starting AssetView Server

Using *System302* Version 6.1

To open the ***AssetView Server*** window, click **Start > Programs > System302 > AssetView > AssetView Server**:

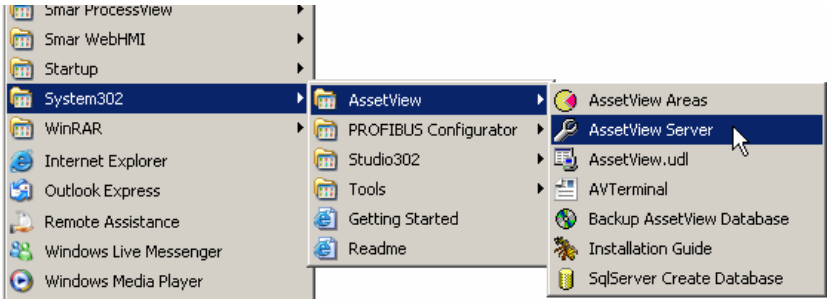


Figure 2.1. Initializing the AssetView Server

Using *System302* Version 7.0.x

From the **Start** menu, select **Programs > System302 > Studio302** and click **Studio302**, as indicated below:

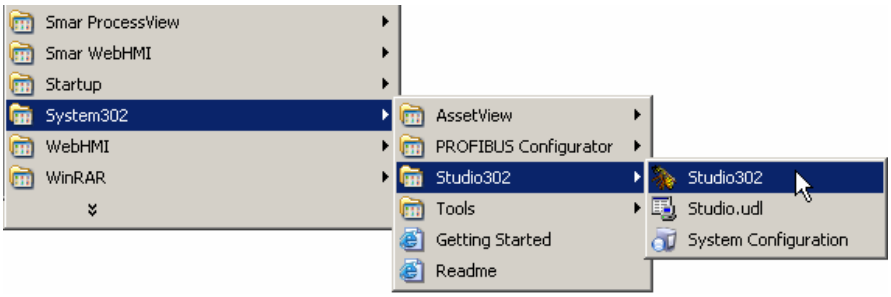


Figure 2.2. Starting Studio302

Click the button on the ***Studio302*** toolbar and the following dialog box will open:

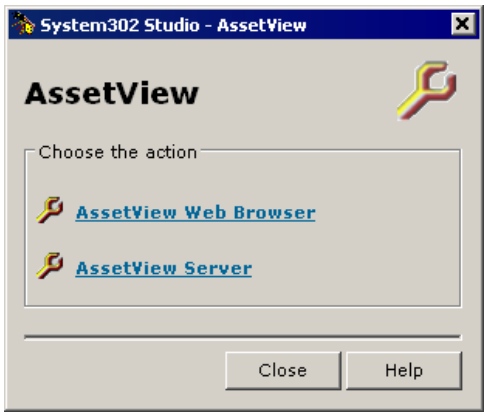


Figure 2.3. Initializing the AssetView Server

Click the option ***AssetView Server*** to execute this application. The following figure shows the ***AssetView Server*** window:

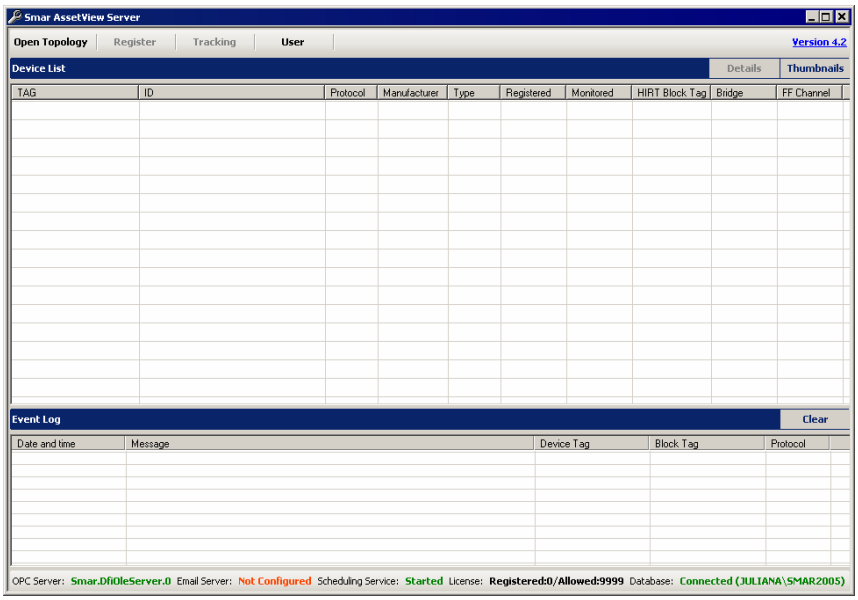


Figure 2.4. AssetView Server Interface

At the bottom of the ***AssetView Server*** window, the status bar indicates the configurations made by the user at the **AssetView Welcome Screen**, when the tool is executed for the first time. This means that the status bar indicates the OPC server selected for the communication, the e-mail server, the number of licenses available according to the number of the devices registered in the ***AssetView Server*** database, and also indicates if the connection to the database is active.

Selecting the Topology

Click **Open Topology** on the main menu to read the configuration from the ***Syscon*** file selected on the *Welcome Screen*, which was configured when ***AssetView*** is executed for the first time.

Wait a few seconds while the information from blocks and devices are read from the configuration file and from the communication network, in case the configuration has HART devices.

ATTENTION
To read information from another project configuration, it will be necessary to create the database again and include the configuration file, at the ***AssetView Welcome Screen***. Refer to the section **Selecting the Topology Configuration** for details.

Registering Devices

When executing ***AssetView Server*** for the first time, there are no devices registered in the database. Registering a device implies the parameter values from this device are read and stored in the database, and after that it is possible to monitor maintenance and diagnostic events, for example.

On the main menu, click the option **Register** to open the **List of Devices** dialog box.

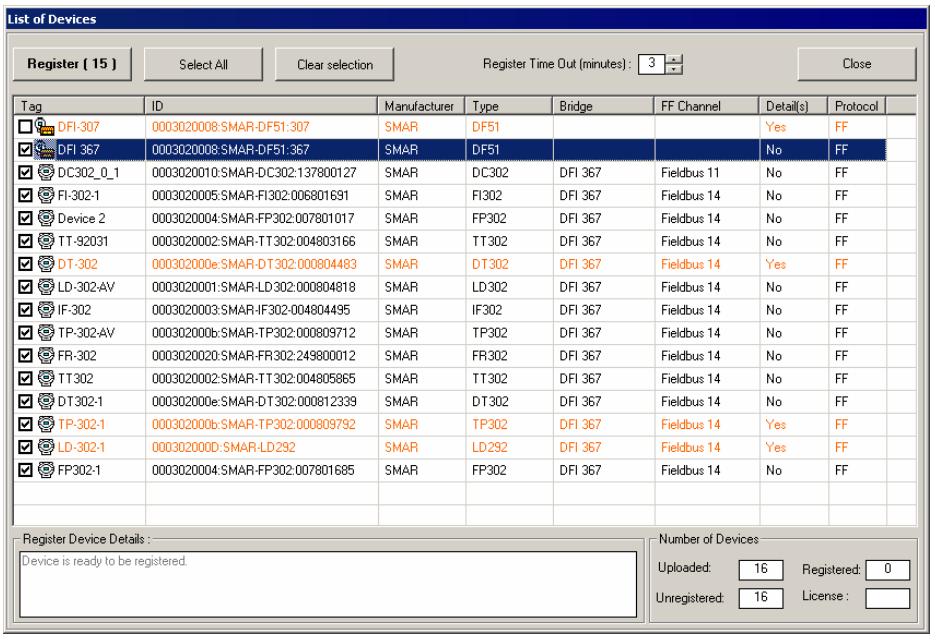


Figure 2.5. List of Devices

Text displayed in orange means the device can be registered but some restrictions apply. Missing or outdated information are indicated in the **Register Device Details** text box, at the bottom of the dialog box. Select the device on the table to display the details about the status.

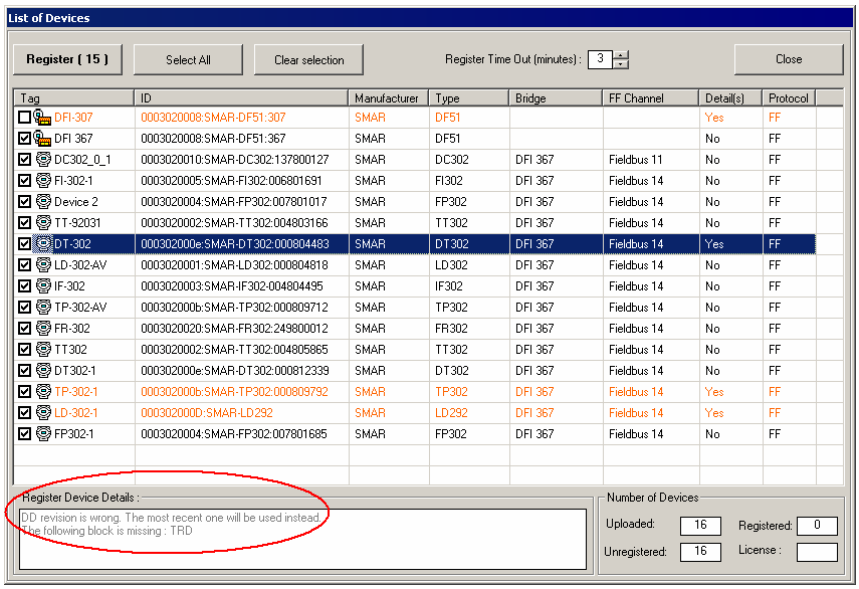
Mark the devices to be registered in the database. To select all devices, click the button **Select All**. To unmark all devices, click the button **Clear Selection**.

The procedure to register the devices has a time limit variable and its default value is 3 minutes. This value can be edited in the **Register Time Out** box. When the idle time interval defined by the user expires, the register procedure for the instrument being registered is aborted.

Click **Register** to start registering the selected devices in the database.

IMPORTANT

For Smar's Fieldbus devices, it is recommended to use the firmware version 3.46. Some parameters and methods may not be available for devices with other firmware versions. The List of Devices dialog box indicates the functionalities missing in the selected device:



AssetView can monitor HART devices using the Smar HI302 - HART/Foundation Fieldbus Interface. It is necessary to update the firmware version to 0601 (6.01 or higher) and create the blocks configuration for the HI302. Please refer to the **HI302 User's Manual** (Chapter 3) for further information.

The current ***AssetView*** version supports the devices FY301, LD301, TT301, DT301, TP301 and FY400. Other HART devices will use a generic page, as well as the devices from other manufacturers.

If a device selected to be registered does not have all required blocks or has an old firmware revision, the device will be registered in the database but some functionalities, such as calibration and diagnostic methods, may not be available.

The example on the figure below shows the dialog box that will appear while the instruments are being registered:

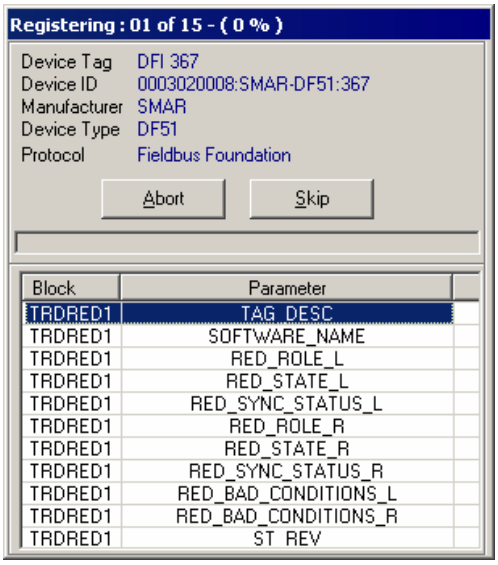


Figure 2.6. Registering devices

If the selected devices have *Maintenance Templates*, ***AssetView Server*** will register these maintenances after registering the blocks. See section **Maintenances Templates** for details about the ***AssetView Maintenance Wizard***.

Figure 2.7. Programming Maintenances

The **Register Report** window will open indicating if the instruments were registered with success. See the example below:

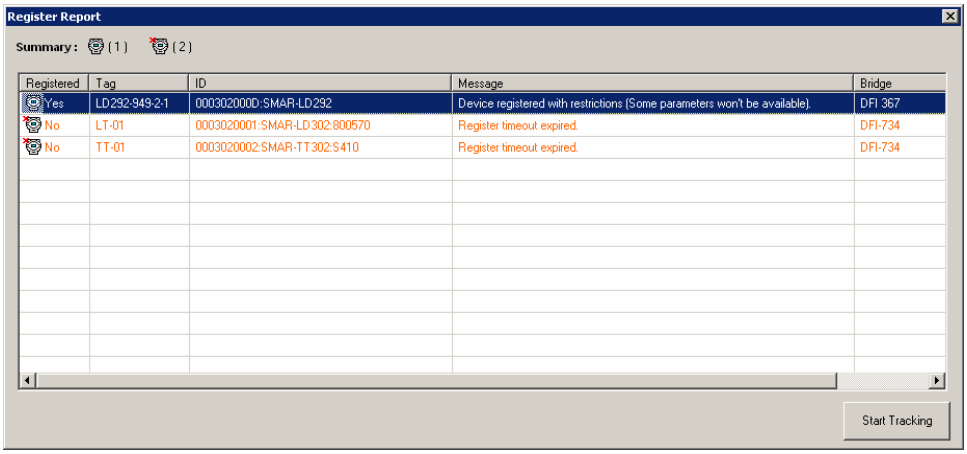


Figure 2.8. Details Window

Click the button **Start Tracking** to start monitoring and tracking the devices. Refer to the section **Tracking** for further details.

Tracking

The **Tracking** option initializes the monitoring of the devices registered in the database, storing the changes of the parameter values in the historical information.

On the main menu, click the option **Tracking**. ***AssetView Server*** starts monitoring the information from the Fieldbus network and the **Tracking** window displays the information about the devices being monitored.

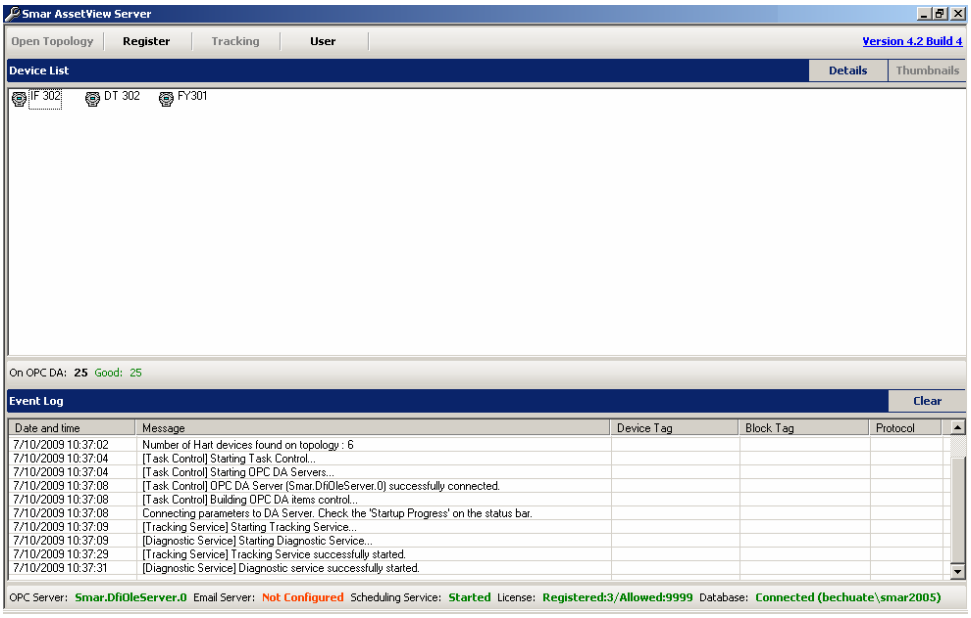


Figure 2.9. Tracking results

ATTENTION
Devices must be registered in the database and **online** on the Fieldbus network to be monitored.

Tracking Failings

If a device is displayed in the **Tracking** window with a red ***X*** on its icon, it means that the device is not being monitored because of a failure in the communication.

A typical example of a communication failure occurs when the device goes offline and returns to online mode after a short period of time. The system automatically detects when the instrument starts communicating again. The monitoring process is restarted and the device icon in the **Tracking** window is restored to its normal state.

Right-click the device icon and select **Failing Reason** to see the details about the tracking fail. This option is also available in the device popup menu, in the **Device List** window.

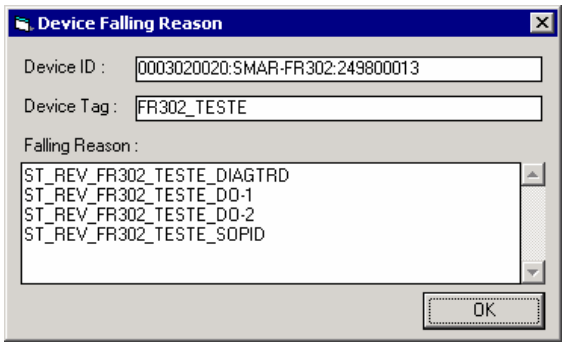


Figure 2.10. Failing Reasons

NOTE
To stop tracking the devices, it is necessary to close ***AssetView Server***. In the **Topology** menu, click **Exit**.

Managing Devices in the Database

You can check the list of devices registered in the database or remove a device register from the database. The **Devices List** dialog box has two view modes that can be selected clicking the buttons **Details** and **Thumbnails** on the upper right side of the window.

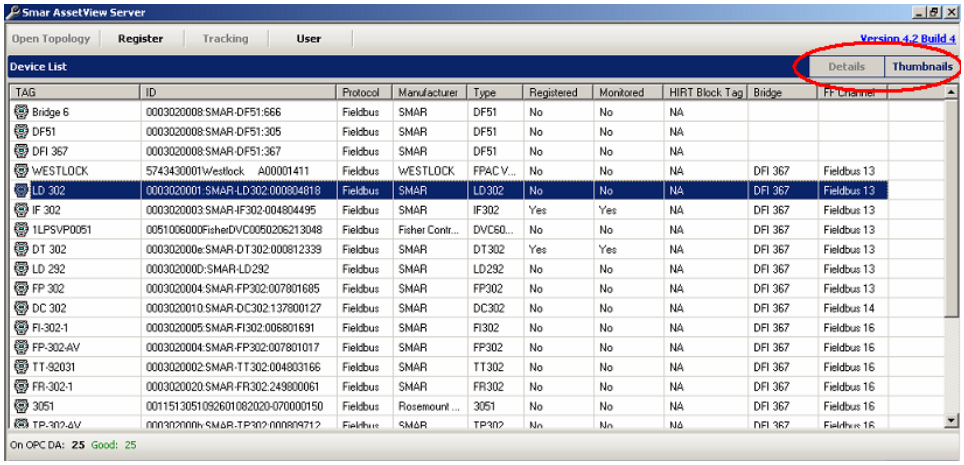


Figure 2.11. Device List Dialog Box - Details View

The option **Detils** displays information about the devices, such as the manufacturer, device type and protocol. Click the column header to sort the list of devices, toggling between ascendant and descendent sorting.

The option **Thumbnails** shows only the devices registered on the database that are being monitored.

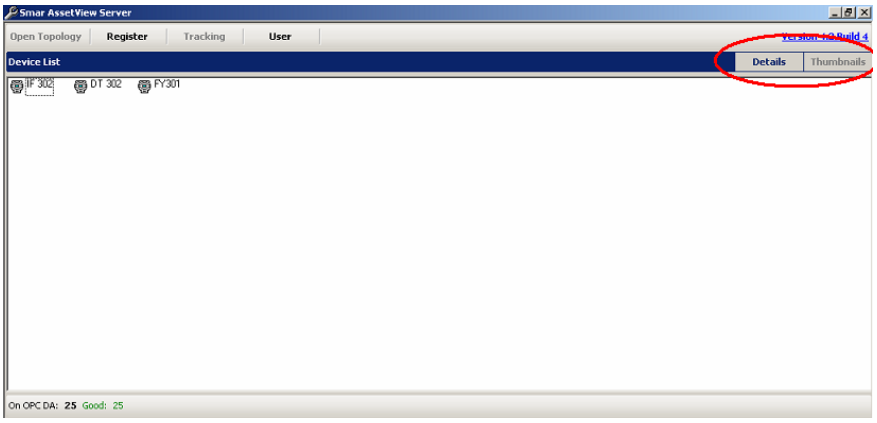


Figure 2.12. Device List Dialog Box - Thumbnails View

The devices displayed in this dialog box are configured in the ***Syscon*** file. The **Tracking** procedure reads the information related to these devices from the database and from the Fieldbus Network. See section **Tracking** for further information about monitoring a device.

You can manage the devices adding or removing their register from the database, according to the number of devices allowed by the *License Key* to be included in the topology.

Unregistering Devices

On the **Device List** dialog box, right-click the device icon and select the option **Unregister**.

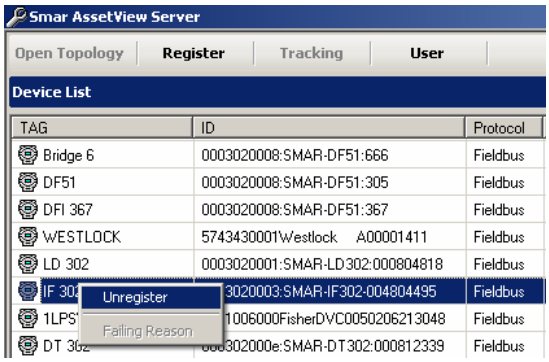


Figure 2.13. Unregistering a Device

The option **Unregister** is also available from the **Thumbnails** view on the **Tracking** window.

A message box opens to confirm the operation. Click **Yes** to remove the device register from the database or click **No** to cancel. Another message box indicates to the user that the operation was concluded with success. Click **Ok** to conclude.

Event Log

The log with the events executed in ***AssetView Server*** is shown at the bottom of the ***AssetView Server*** window.

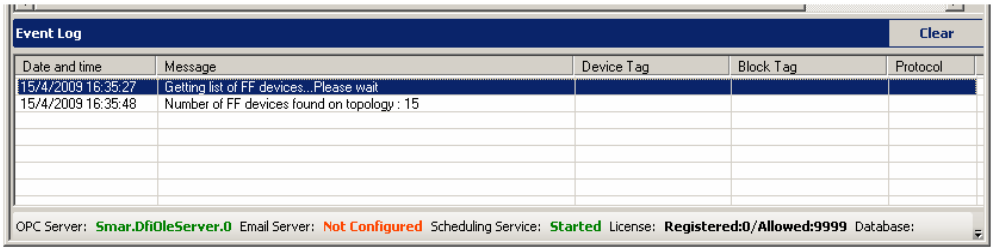


Figure 2.14. Event Log window

In case an error occurred, it is indicated in red. Double-click the corresponding row in the **Event Log** window to open the **Error Message** that provides information about the error.

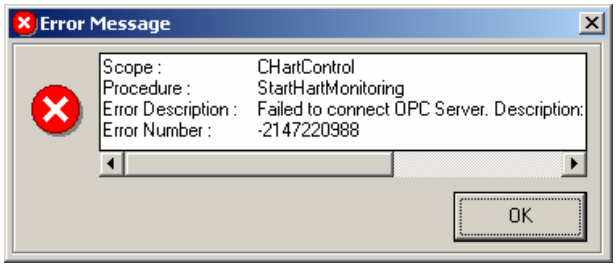


Figure 2.15. Error Details

Deleting the Event Log

Click the button **Clear** on the right side of the window to delete all the information in the **Event Log** window.

User Management

It is necessary to configure permissions for users to access the ***AssetView Server***. Click **User** on the main menu to open the dialog box:

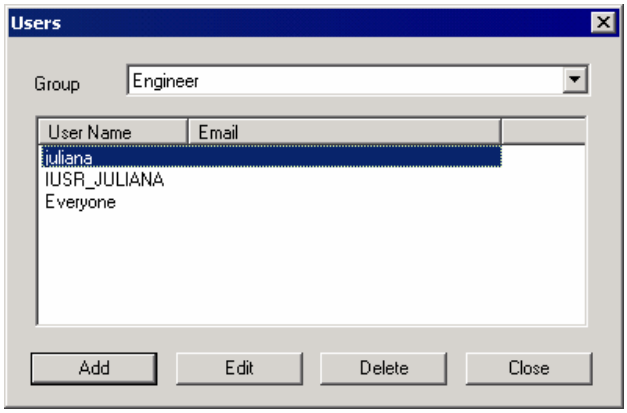


Figure 2.16. Users dialog box

Adding Users

Click the **Add** button to add a new user. The **Add Users** dialog box will open:

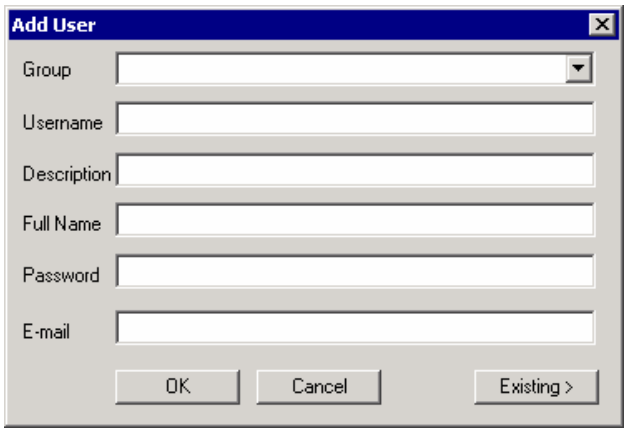


Figure 2.17. Adding Users

1. Select the group to which the user will be added: **Engineers** or **AssetViewGuest**. Users added to the **Engineers** group will have permission for writing and reading information from the server. Users added to the **AssetViewGuest** group will only have permission to read information from the server.
2. Type the user name.
3. Type a brief description for the user.
4. Type the user's full name.
5. Choose a password for the user.
6. Type the user's e-mail.
7. Click **Ok** to conclude.

Adding Existing Users

On the **Add Users** dialog box, click **Existing** to open the list of users for the local machine:

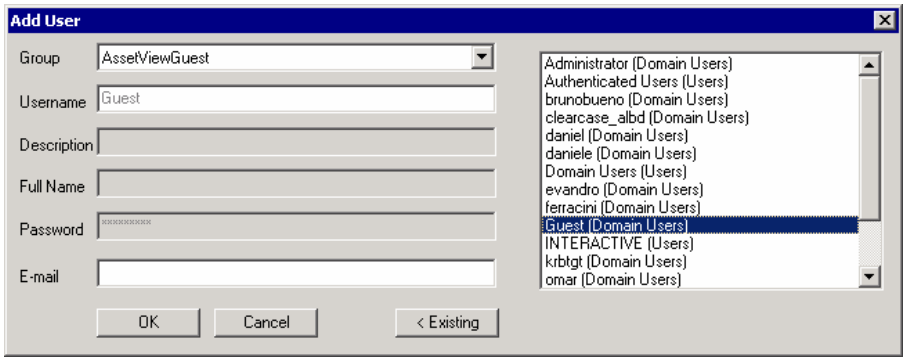


Figure 2.18. Existing Users

1. Select the user name from the list of existing users.
2. Select the group to which the user will be added: **Engineers** or **AssetViewGuest**.
3. Type the user's e-mail.
4. Click **Ok** to conclude.

Editing User's Attributes

Only the e-mail address can be altered, it is not possible to change the user's name or password, for example.

On the **Users** dialog box, click **Edit** to open the **Add User** dialog box and type the new e-mail address. Click **Ok** to conclude.

Removing Users

Click the user's name in the **Users** dialog box and click **Delete**.

A message box opens to confirm the operation. Click **Yes** to proceed and remove the user from the group of ***AssetView*** users.

Another message opens to confirm whether the user should be removed from Windows. Click **Yes** to remove the user from the operational system, or click **No** and the user will only be removed from the group of ***AssetView*** users.

ASSETVIEW AREAS

For many reasons, a large plant is usually divided into several areas. From the ***AssetView*** point of view, each area is represented by one particular ***AssetView Server***, which will be in charge of registering all devices and keeping track of them.

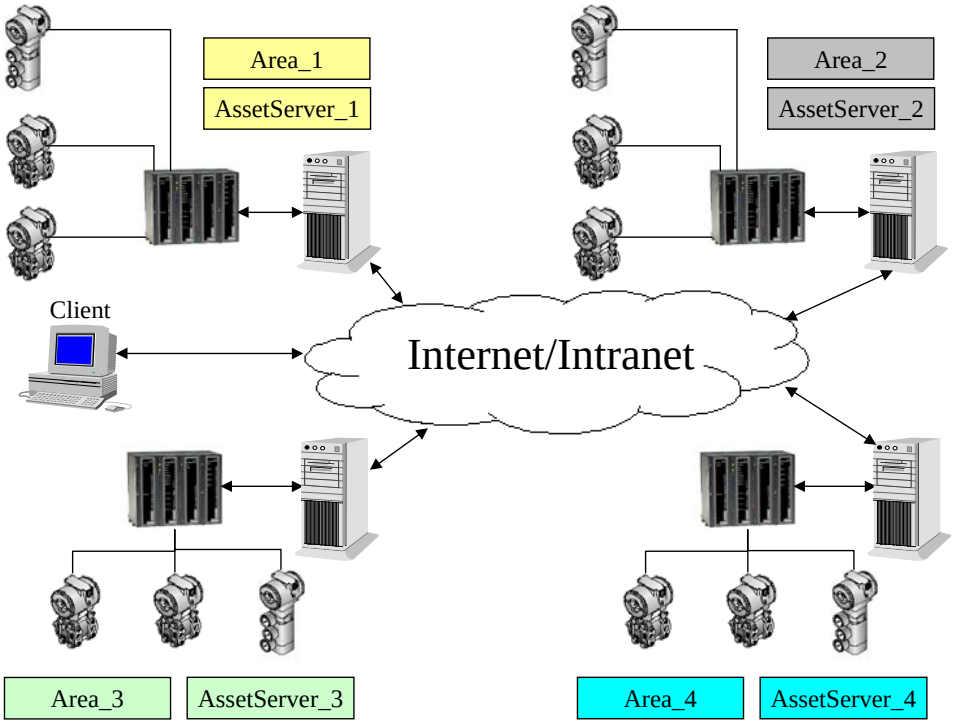


Figure 3.1. Managing different areas

AssetView provides a Web page with links to all these areas, so the user can easily navigate through these areas just by clicking a link. This Web page can be opened from any of the ***AssetView Server*** machines as well as any other client computer (intranet/internet) that has a browser installed. To achieve this functionality, follow the steps below to configure the ***AssetView*** areas.

To open the **AssetView Areas** window, go to the **Start** menu and select **Programs > System302 > AssetView > AssetView Areas**, as indicated below:

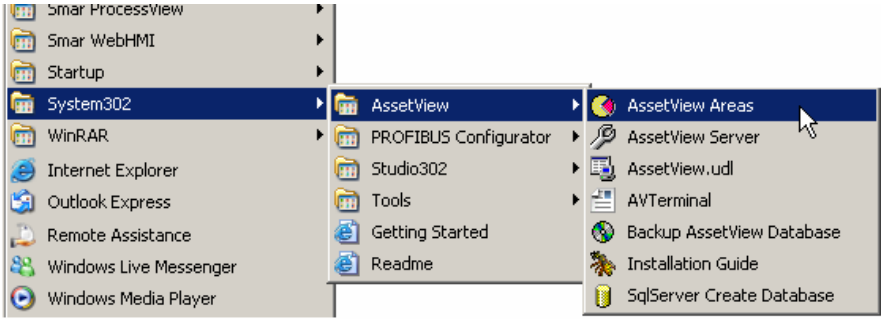


Figure 3.2. Initializing the AssetView Areas

The **AssetView Areas** window will open:

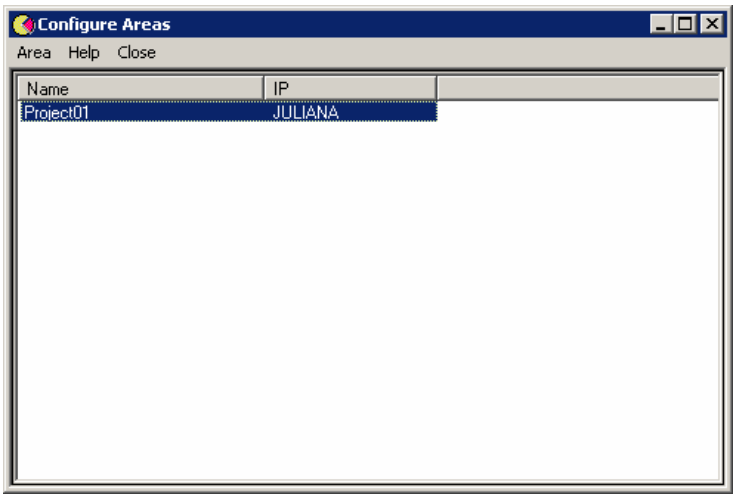


Figure 3.3. Configuring Areas

Changing Areas Attributes

Select the area icon from the list of areas. On the main menu, select **Area** and click **Change Attributes**. The **Change Attributes** dialog box will open.

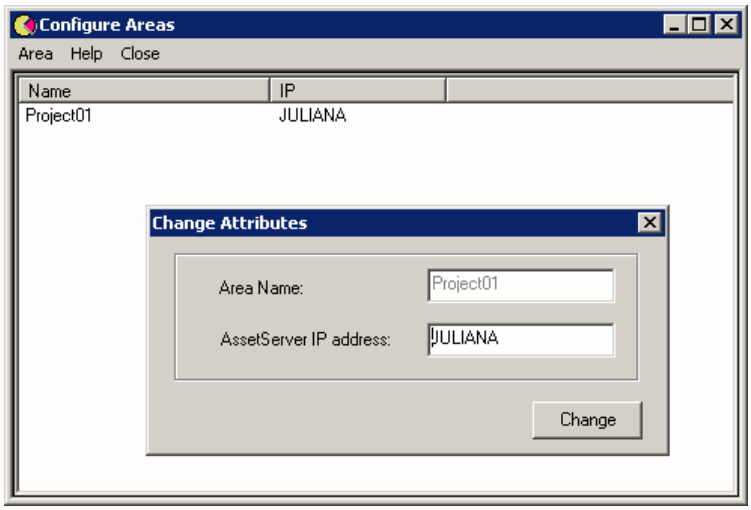


Figure 3.4. Changing Areas Attributes

At the **AssetServer IP address** text box, type the new IP address or the network machine name where the devices from this area have been registered. Click **Change** to conclude.

Repeat the steps described above to change the attributes from other areas.

Opening the Areas Topology

Open the Web browser and type the web address to the **Areas** page: *http://<server address>/assetview/area.htm*

IMPORTANT
The **Areas** page must be opened in the browser using the server address or the name of the server machine where the areas were configured with ***AssetView Areas***. The address is indicated in the column **IP** corresponding to the area, in the **Configure Areas** window described above.

Click the expansion sign next to the plant icon to expand the tree and see the links to the areas:

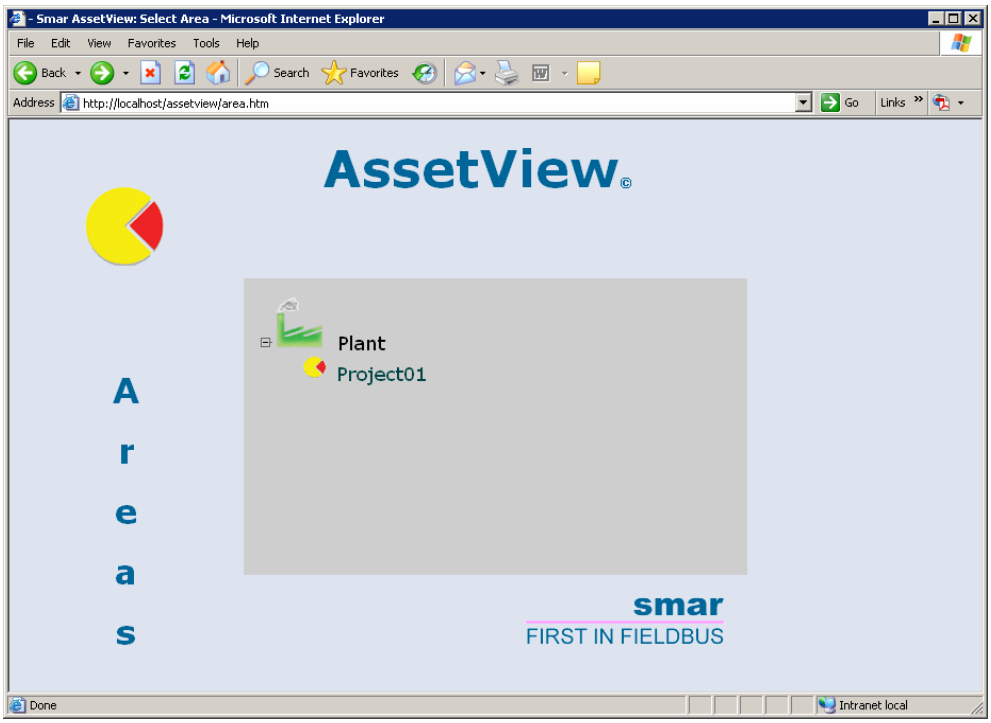


Figure 3.5. Areas topology

Clicking a link to an area will open the ***AssetView*** page from the respective machine, identified by the IP address configured previously by the ***AssetView Areas*** application. On the ***AssetView*** page, the user must type the login and password to open the configuration topology tree and access the ***AssetView*** functionalities.

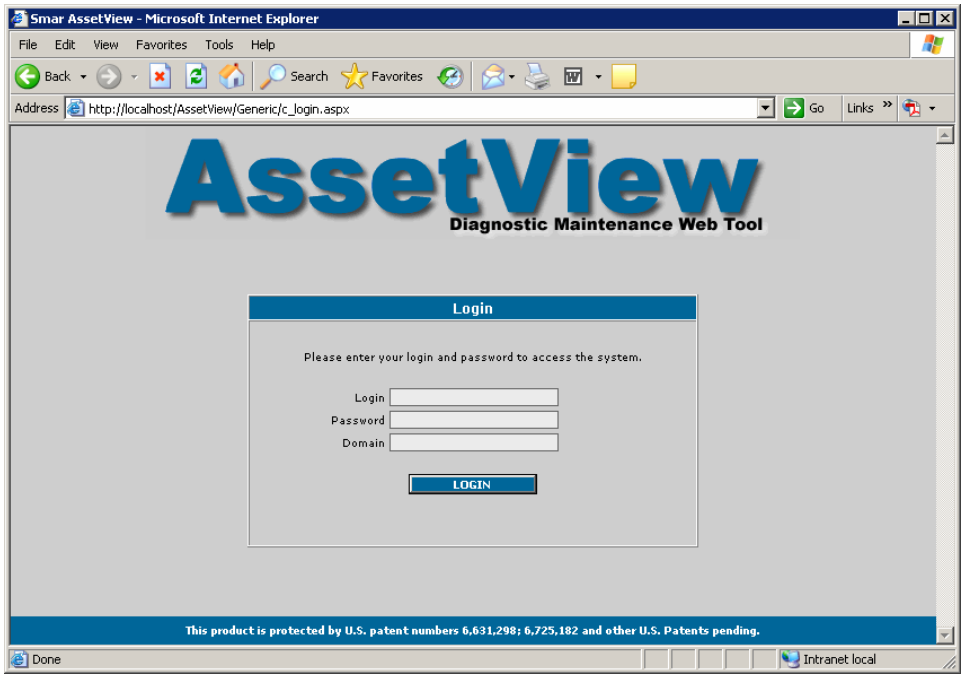


Figure 3.6. User Authentication

Once the user name and the password are correct, the ***AssetView*** topology will open on the browser, as illustrated below:

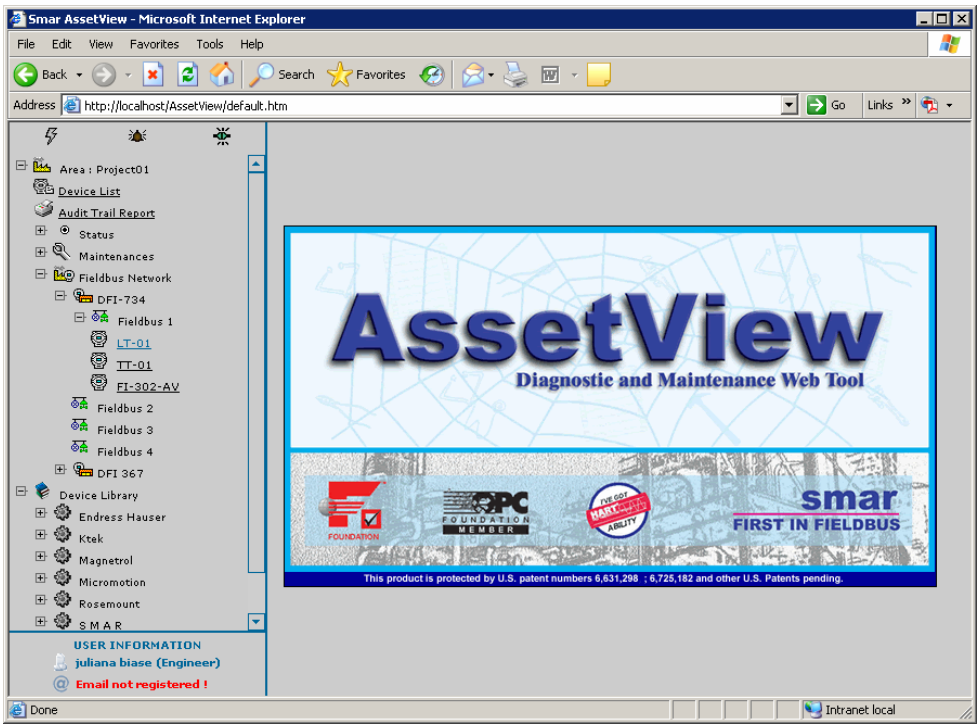


Figure 3.7. Loading the topology

ASSETVIEW

Loading the Configuration

To start ***AssetView***, open the *Internet Explorer* and type:

```
http://machine name/assetview (local or remote access)
    or
http://localhost/assetview (local access)
    or
http://machine IP_number/assetview (local or remote access)
```

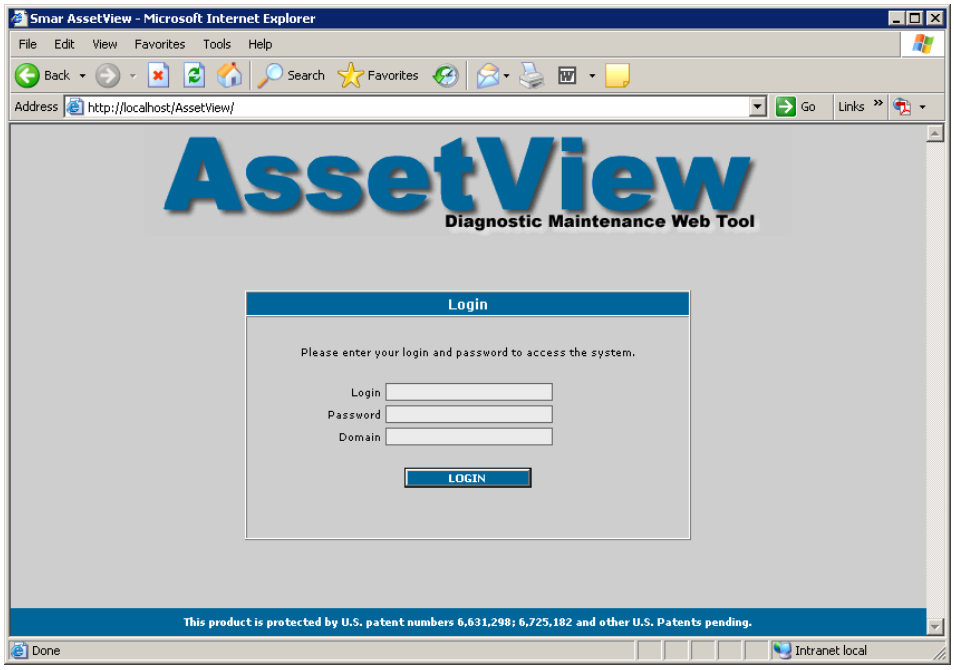


Figure 4.1. AssetView Home Page

On the ***AssetView*** main page, the user will have to type the login and password to access the configuration topology tree and the ***AssetView*** functionalities.

ATTENTION
If ***AssetView*** is installed in a domain, it will be necessary to type the domain name to access the ***AssetView*** functionalities.

AssetView reads the network topology from the ***Syscon*** configuration file. The user can browse the operational devices at different plant locations using ***AssetView***.

The frame on the left side of the browser window will display the plant topology. Click the expansion sign to expand the *Fieldbus Network* and its segments.

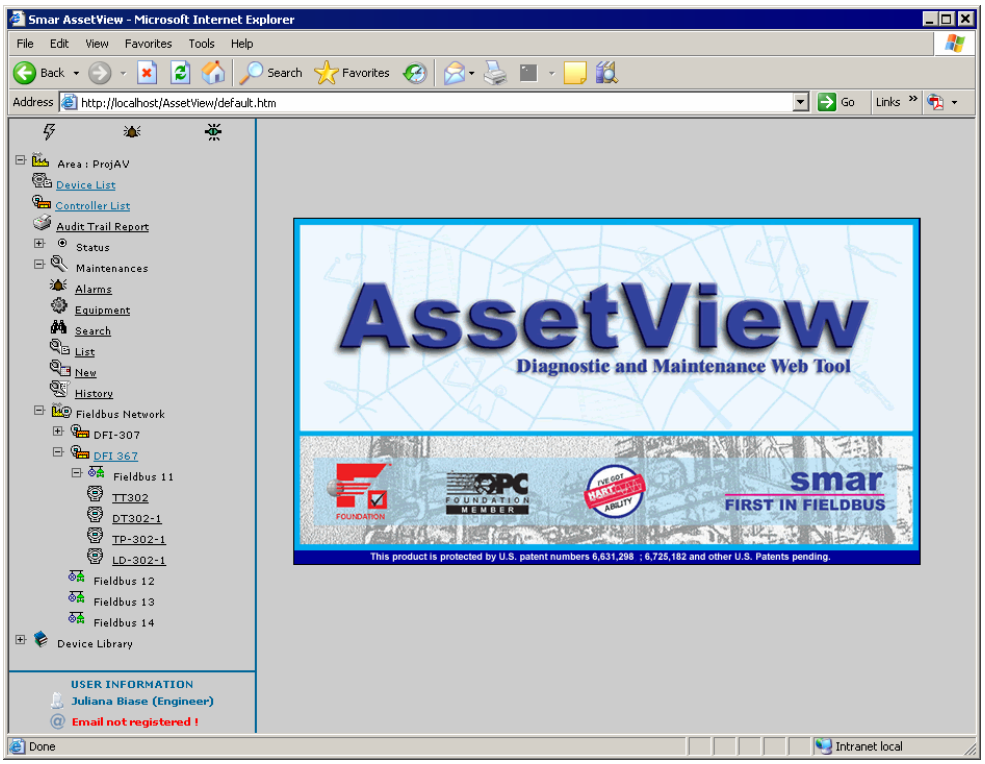


Figure 4.2. Browsing the Topology

Opening the Device Home Page

Each device type has a standard home page layout. Every device in a plant location has a home page from where the user can proceed with the calibration, configuration, identification, diagnostics or reconciliation of the device configuration.

Navigating through the topology tree, click on any device icon to display its home page. The figure below shows the home page of the **LD302** with the tag name **LD 302**:

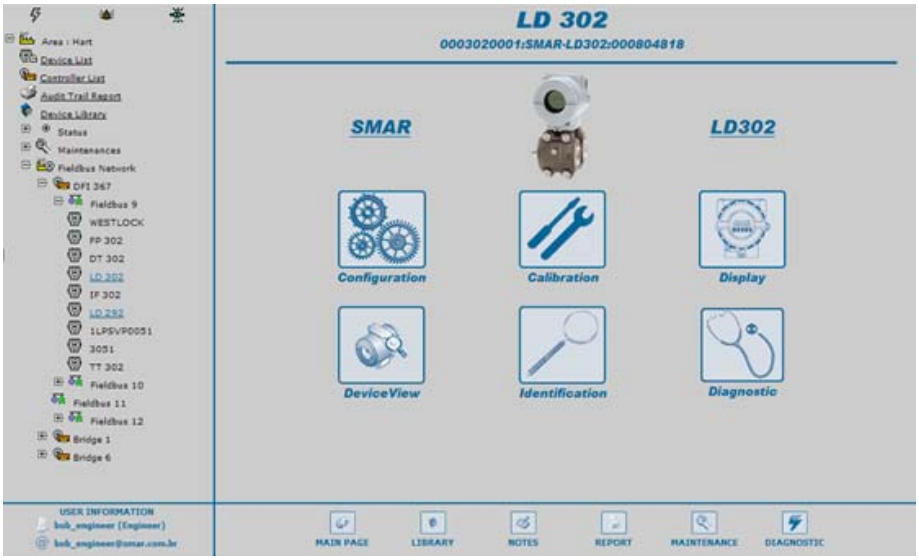


Figure 4.3. Device Home Page

According to each device type, the main page may have the following links:

Calibration

Calibration is the correction of sensor reading and physical outputs. During this process messages are displayed to the user indicating the status of this condition. There are specific calibration methods for each device based on scripts defined by the manufacturers.

Configuration

In the Configuration page, the user can read and write the parameter values of the devices. From this page, the user can also access the Reconciliation page and compare the current configurations to previous configurations of the devices stored in the database. Refer to subsection ***Reconciliation***.

Diagnostics

Simple diagnostics are displayed to the user. Comprehensive tests can be done from time to time using several charts to check the condition of the field device. Because of the diagnostic it is possible to first remotely check the device if there really is a failure before going into the field. And yet, because of the detailed information about the Network and device operation provided by the diagnostics, the user knows exactly where the problem is.

Identification

The Identification page provides all the information relevant to maintenance of the device, such as its manufacturer, device type, tag, serial number, and its versions. Materials of construction for wetted parts are also indicated.

Device View

The Device View page monitors the instrument data, such as temperature or pressure values read from the instrument.

Display

In the Display page, the user can configure the device's display, viewing and modifying parameters such as device mnemonics.

Reconciliation

Reconciliation allows comparison of current device settings with past configurations stored in the database.

The **Time** menu on the left side of the page list the modifications made in the device, including the last modification that is also called the "current device parameterization". The Time menu on the right side also list the modifications made in the device except date and time for the current device parameterization.

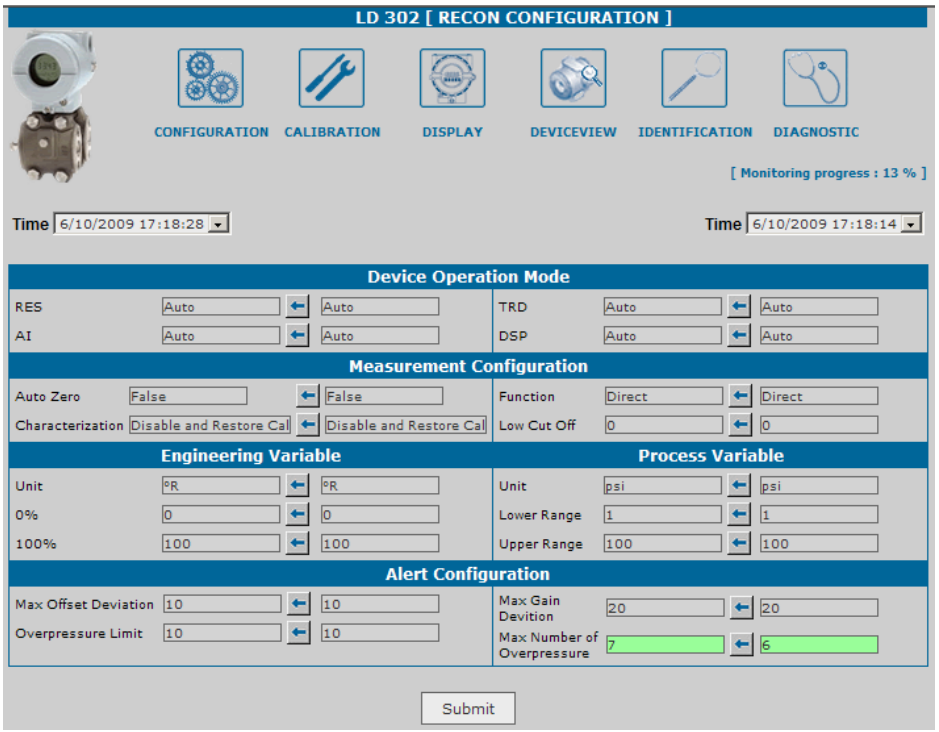


Figure 4.4. Reconciliation Page

Values of parameters that differ between the selected modification dates are highlighted.

When the parameter values differ between the two dates selected in the **Time** menu, it is possible to transfer the value from the moment selected on the right clicking the arrow between the highlighted values. After transferring the values, click **Submit** to apply the values to the device and a new modification date will be created on the **Time** menu indicating the current time and date.

Integrating Devices

HART Devices

AssetView monitors HART instruments using the **Smar** HI302 (HART/Foundation Fieldbus Interface).

It is necessary to create the blocks configuration for the HI302 to represent the HART instruments installed in the plant. Please refer to the **HI302 User's Manual** (Chapter 3) for further information.

If the HART instrument being registered with the ***AssetView Server*** has not been registered in the database, this instrument will be registered as a generic instrument. The **List of Devices** dialog box will indicate the instrument is generic:

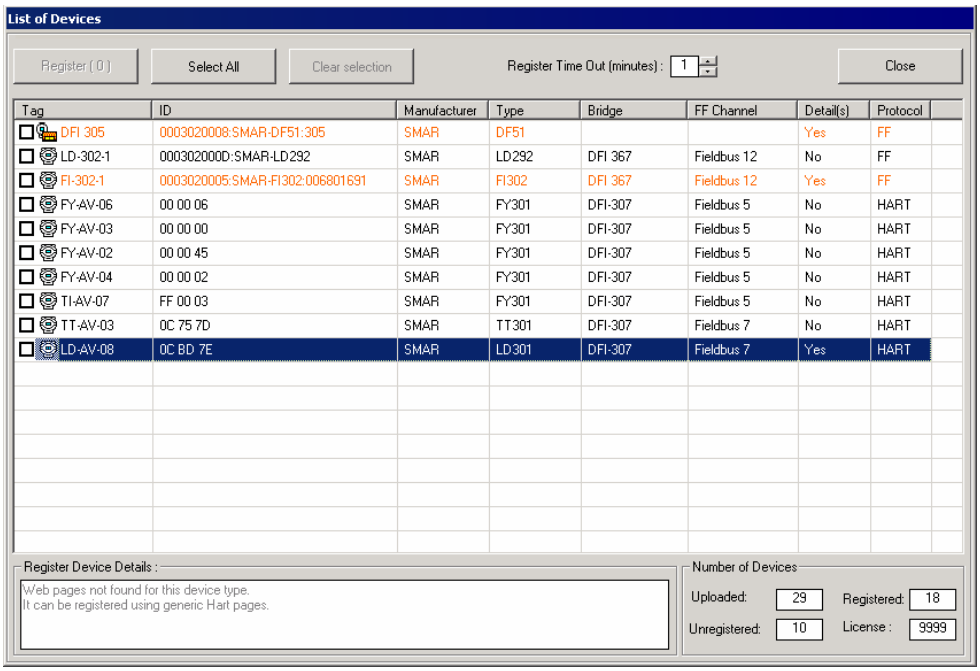


Figure 4.5. Generic HART Device

Select the HART instrument and the **Details** box will indicate the device is generic and it is ready to be registered.

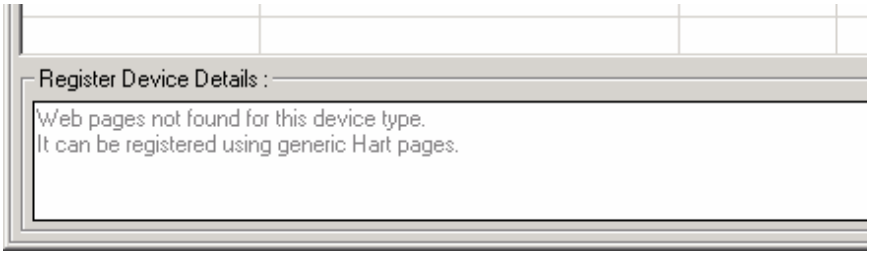


Figure 4.6. Registering a Generic Device

HART instruments from **Smar** or other manufacturers that don't have registered pages will use the generic pages located in the folder "`Web Pages\Hart Device Support\GenericHart`", inside the ***AssetView*** installation folder.

Observe the figure below:

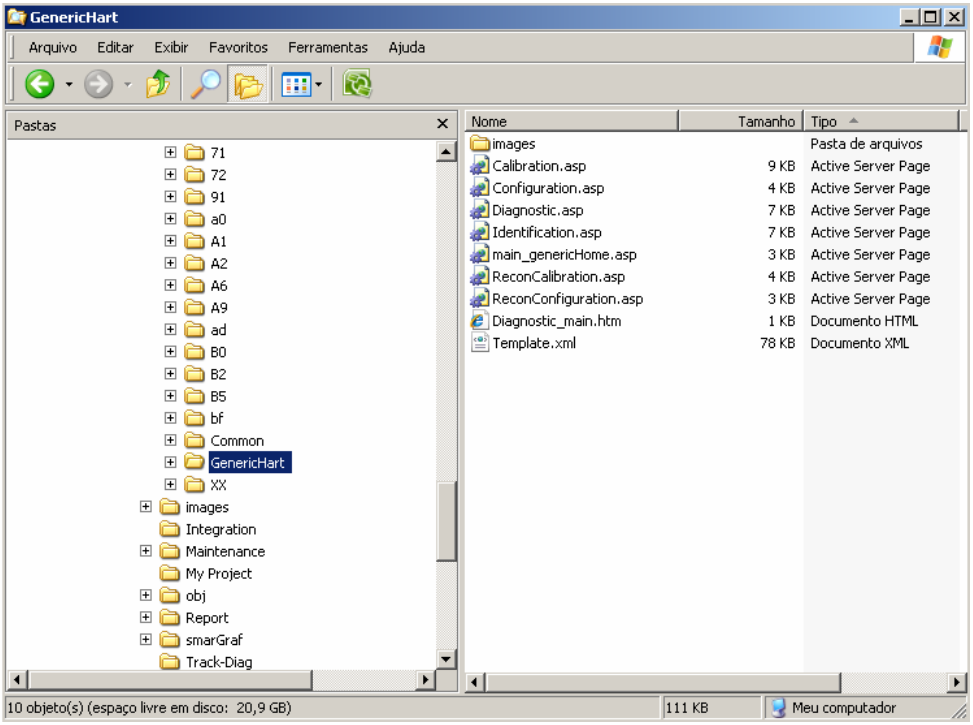


Figure 4.7. Generic Pages for HART Instruments

DEVICE AND CONTROLLER LIST

Device List

Click the link **Device List** to open a page with the list of all devices in the topology from the project configuration selected in ***AssetView Server***:

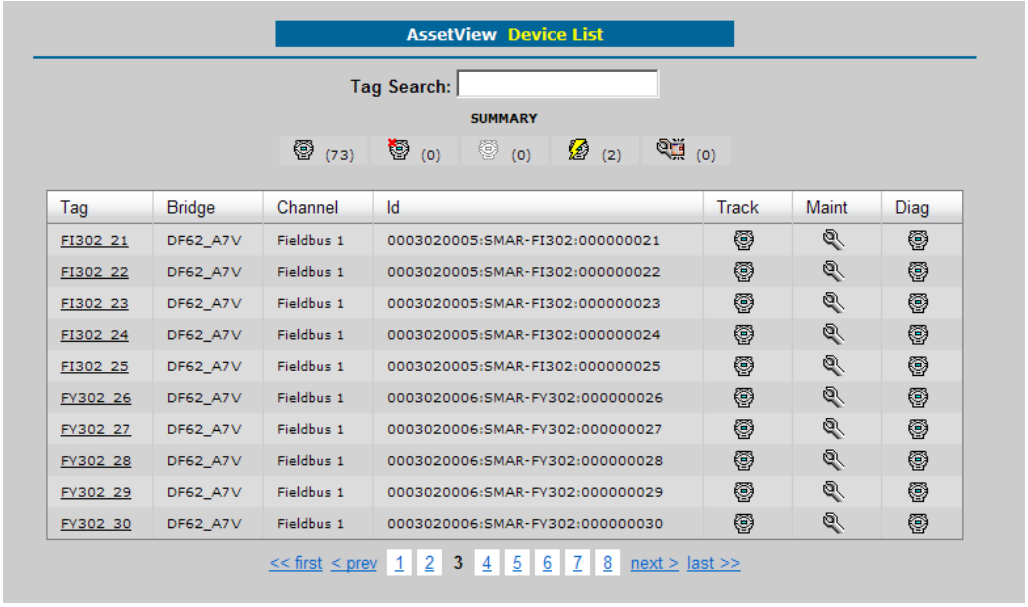


Figure 5.1. Device List Page

At the top of the page, use the **Tag Search** box to search for a specific device tag:

Figure 5.2. Searching for a Device

Type the desired text and the tags list will be shown dynamically based on that the user has typed.

You can order the list of devices in alphabetical order, ascendant or descendent, clicking each column header.

In the **Tag** column, click the device tag to open the device home page.

The **Bridge** and **Channel** columns indicate the tag of the controller and to which channel the instrument is connected, respectively.

In the **Track** column, the following icons indicate the device status:

Indicates the device has communication problems.

Indicates the device is operating in normal conditions.

Indicates the device is off-line.

Indicates a HART device operating in normal conditions.

In the **Diag** column, the following icons indicate diagnostic events:

Indicates that a diagnostic event has occurred.

Indicates a HART device and there is a diagnostic event for the device.

Indicates the device is operating in normal conditions.

In the **Maint** column, the following icons indicate the maintenance status for the device:

Indicates there are no pending maintenances for the device.

Indicates that maintenance should be executed in the device.

Controller List

Click the link **Controller List** to open a page with the list of all controllers in the topology from the project configuration selected in ***AssetView Server***:

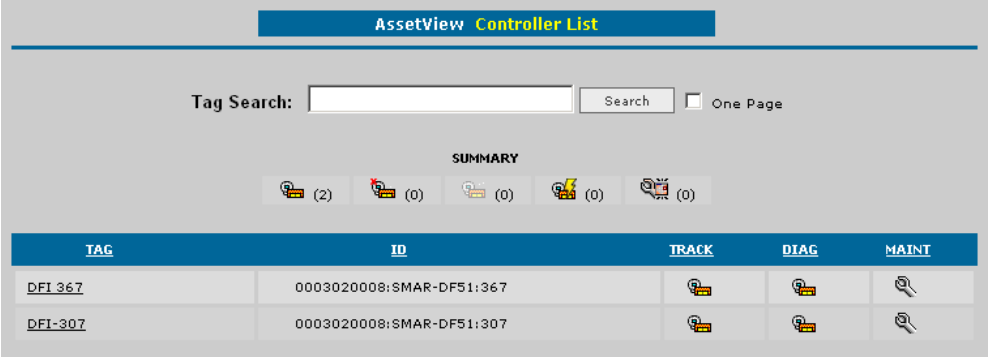


Figure 5.3. Controller List Page

At the top of the page, use the **Tag Search** box to search for a specific controller tag, as described previously for searching a device.

Click the column header to order the list of controllers in alphabetical order, ascendant or descendent.

In the **Tag** column, click the controller to open its home page.

In the **Track** column, the following icons indicate the controller status:

Indicates the controller has communication problems.

Indicates the controller is operating in normal conditions.

Indicates the controller is off-line.

In the **Diag** column, the following icons indicate diagnostic events:

Indicates that a diagnostic event has occurred.

Indicates the controller is operating in normal conditions.

In the **Maint** column, the following icons indicate the maintenance status for the controller:

Indicates there are no pending maintenances for the controller.

Indicates that maintenance should be executed in the controller.

AUDIT TRAIL REPORTS

AssetView has different types of reports to be configured by the user. Click the link **Audit Trail Report** to open the page with available reports.

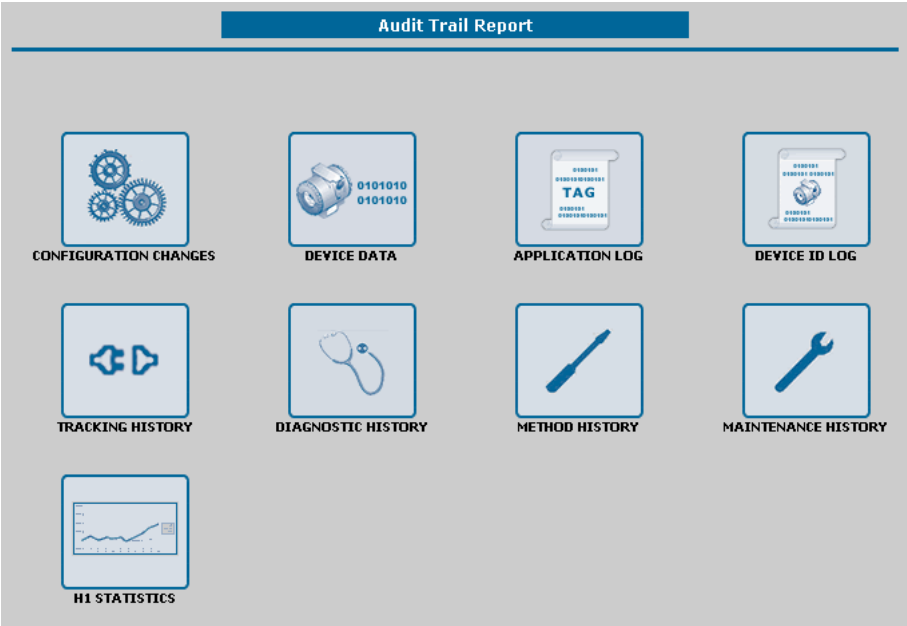


Figure 6.1. Audit Trail Reports in AssetView

The subsections below describe the functionality of these reports and how to generate them. For all reports, the following filters will be available:

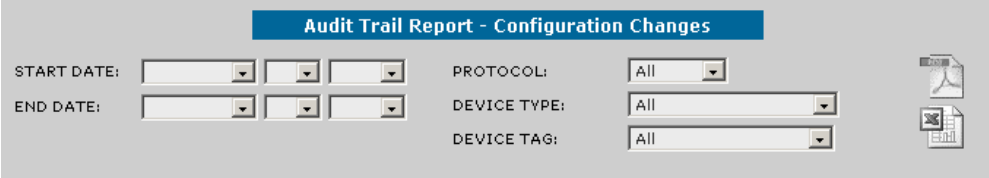


Figure 6.2. Filters for the Reports

- **START DATE:** Select the initial date to search for the information to generate the report.
- **END DATE:** Select the final date to search for the information to generate the report.
- **PROTOCOL:** Select the devices of a specific communication protocol (HART or Fieldbus).
- **DEVICE TYPE:** Select the type of the device from the list of devices registered in the database.
- **DEVICE TAG:** This filter will display the list of tags from the devices registered in the database.

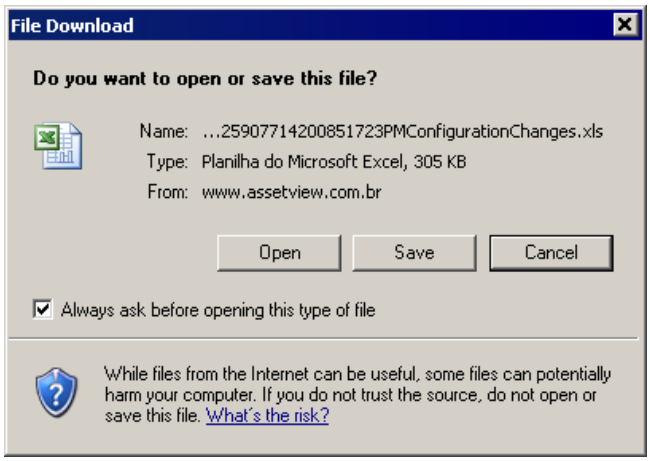
After configuring the filters, select the file format to generate the report:

Click this icon to generate the audit trail report in the **pdf** file format.

Click this icon to generate the audit trail report in the **MS Excel** file format.

ATTENTION

According to the settings on your browser, the dialog box showed in the example below may open when selecting the **MS Excel** file format:



Click **Open** to open the audit report inside the browser window or click **Save** to save the report file in the local machine.

Configuration Changes Report

This report shows all changed parameters of the device in a specific period of time.

To generate this report, click the link **Configuration Changes** in the **Audit Trail Reports** page and configure the filters to generate the report in the **pdf** or **xls** file format.

See the example below in **pdf** format:

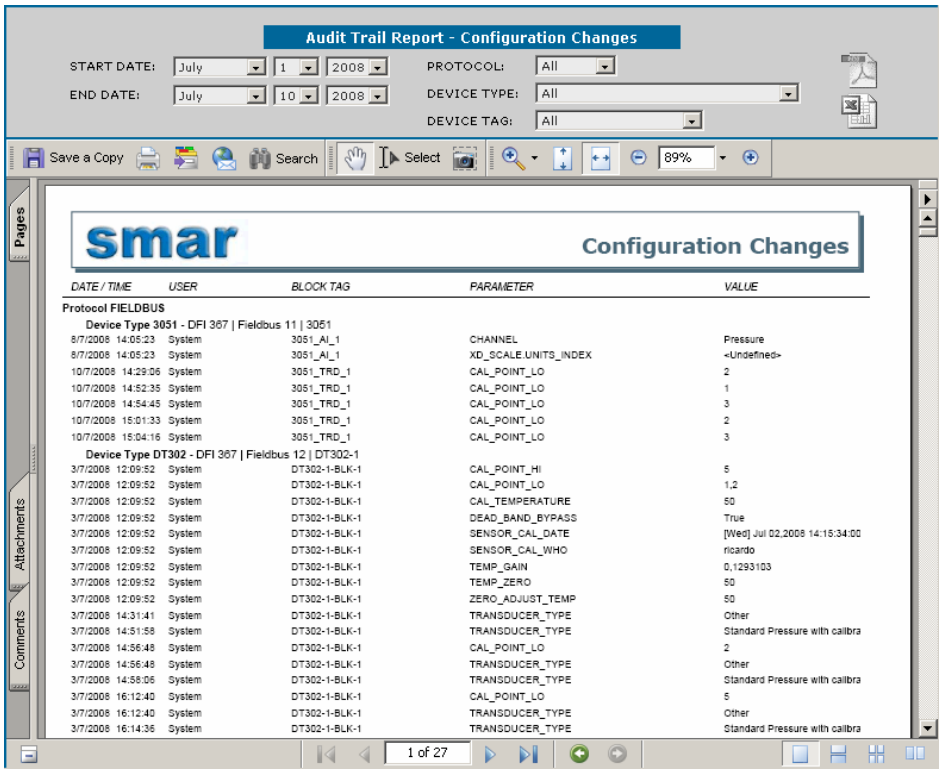


Figure 6.3. Configuration Changes Report

Device Data Report

This report shows the current status of the device in a specific period of time, listing the last values of all parameters at the selected date.

To generate this report, click the link **Device Data** in the **Audit Trail Reports** page and configure the filters to generate the report in the **pdf** or **xls** file format.

smar **Device Data**

DATE / TIME	USER	BLOCK TAG	PARAMETER	VALUE
Protocol FIELDBUS				
Device Type 3051 - DFI 367 | Fieldbus 11 | 3051				
Calibration				
1/7/2008 20:33:58	System	3051_TRD_1	CAL_MIN_SPAN	1,25358
1/7/2008 20:33:58	System	3051_TRD_1	CAL_POINT_HI	137,8939
1/7/2008 20:33:58	System	3051_TRD_1	CAL_UNIT	bar
1/7/2008 20:33:58	System	3051_TRD_1	PRIMARY_VALUE_DAMPING	0
1/7/2008 20:33:58	System	3051_TRD_1	PRIMARY_VALUE_TYPE	differential pressure
1/7/2008 20:33:58	System	3051_TRD_1	SENSOR_CAL_METHOD	factory trim standard calibration
1/7/2008 20:33:58	System	3051_TRD_1	SENSOR_RANGE.EU_0	-2219,98
1/7/2008 20:33:58	System	3051_TRD_1	SENSOR_RANGE.EU_100	2219,98
1/7/2008 20:33:58	System	3051_TRD_1	SENSOR_RANGE.UNITS_INDEX	psi
Configuration				
1/7/2008 20:33:58	System	3051_AI_2	CHANNEL	Pressure
1/7/2008 20:33:58	System	3051_AI3	CHANNEL	Terminal Temperature
1/7/2008 20:33:58	System	3051_AI_1	IO_OPTS	<None>
1/7/2008 20:33:58	System	3051_AI_2	IO_OPTS	<None>
1/7/2008 20:33:58	System	3051_AI3	IO_OPTS	<None>
1/7/2008 20:33:58	System	3051_AI_1	L_TYPE	Direct
1/7/2008 20:33:58	System	3051_AI_2	L_TYPE	Indirect
1/7/2008 20:33:58	System	3051_AI3	L_TYPE	Uninitialized
1/7/2008 20:33:58	System	3051_AI_1	LOW_CUT	15
1/7/2008 20:33:58	System	3051_AI_2	LOW_CUT	10

Figure 6.4. Device Data Report

Application Log Report

AssetView stores the tags of the devices in the database. This report shows all devices to which a specific tag has been assigned.

To generate this report, click the link **Application Log** in the **Audit Trail Reports** page and configure the filters to generate the report, in **pdf** or **xls** format.

smar **Application Log**

DATE / TIME	USER	DEVICE TYPE	DEVICE ID
Protocol FIELDBUS			
Device DFI 367 | FIELDBUS 10 | WESTLOCKDISCRETE			
14/7/2008 17:59:16	System	FPAC VALVE CONTROLLER EL401(	5743430001Westlock A00001411
Device DFI 367 | FIELDBUS 11 | 3051			
14/7/2008 17:59:26	System	3051	0011513051092601082020-070000150
Device DFI 367 | FIELDBUS 11 | FY-302			
14/7/2008 17:59:43	System	FY302	0003020006:SMAR-FY302:006800709
Device DFI 367 | FIELDBUS 12 | DT-302			
14/7/2008 18:04:24	System	DT302	000302000e:SMAR-DT302:000804483
Device DFI 367 | FIELDBUS 12 | DT302-1			
14/7/2008 18:06:22	System	DT302	000302000e:SMAR-DT302:000812339
Device DFI 367 | FIELDBUS 12 | FP302-1			
14/7/2008 18:03:40	System	FP302	0003020004:SMAR-FP302:007801685
Device DFI 367 | FIELDBUS 12 | FR-302			
14/7/2008 18:05:19	System	FR302	0003020020:SMAR-FR302:249800012
Device DFI 367 | FIELDBUS 12 | IF-302			
14/7/2008 18:04:47	System	IF302	0003020003:SMAR-IF302-004804495
Device DFI 367 | FIELDBUS 12 | LD-302-AV			
14/7/2008 18:03:09	System	LD302	0003020001:SMAR-LD302:000804818
Device DFI 367 | FIELDBUS 12 | TP-302-1			
14/7/2008 18:06:38	System	TP302	000302000b:SMAR-TP302:000809792

Figure 6.5. Application Log Report

Device ID Log Report

This report shows all tags that have been assigned to a specific device ID.

To generate the report, click the link **Device ID Log** in the **Audit Trail Reports** page and configure the filters to generate the report, in **pdf** or **xls** format.

smar Protocol: FieldBus

DeviceID Log

DATE / TIME	USER	DEVICE TYPE	DEVICE TAG
Protocol FIELDBUS			
Device ID 0003020001:SMAR-LD302:000804818			
14/7/2008 18:03:09	System	LD302	DFI 367 | Fieldbus 12 | LD-302-AV
Device ID 0003020002:SMAR-TT302:004803166			
14/7/2008 18:04:09	System	TT302	DFI 367 | Fieldbus 12 | TT-92031
Device ID 0003020002:SMAR-TT302:004805865			
14/7/2008 18:05:41	System	TT302	DFI 367 | Fieldbus 12 | TT302
Device ID 0003020003:SMAR-IF302-004804495			
14/7/2008 18:04:47	System	IF302	DFI 367 | Fieldbus 12 | IF-302
Device ID 0003020004:SMAR-FP302:007801685			
14/7/2008 18:03:40	System	FP302	DFI 367 | Fieldbus 12 | FP302-1
Device ID 0003020006:SMAR-FY302:006800709			
14/7/2008 17:59:43	System	FY302	DFI 367 | Fieldbus 11 | FY-302
Device ID 0003020008:SMAR-DF51:307			
14/7/2008 17:58:49	System	DF51	Fieldbus Networks | DFI-307
Device ID 0003020008:SMAR-DF51:367			
14/7/2008 17:59:00	System	DF51	Fieldbus Networks | DFI 367
Device ID 000302000b:SMAR-TP302:000809712			
14/7/2008 18:05:06	System	TP302	DFI 367 | Fieldbus 12 | TP-302-AV
Device ID 000302000b:SMAR-TP302:000809792			
14/7/2008 18:06:38	System	TP302	DFI 367 | Fieldbus 12 | TP-302-1

Figure 6.6. Device ID Log Report

Tracking History Report

This report shows the occurrences of communication failures.

To generate this report, click the link **Tracking** in the **Audit Trail Reports** page and configure the filters to generate the report, in **pdf** or **xls** format.

IMPORTANT
While the fail event is not acknowledged by any user, the user name displayed on the report will be "*System*". Once a user acknowledges the event, the name displayed on the report will be updated with the login name of that user.

smar

Tracking History

DATE / TIME	USER	STATUS	DEVICE TAG	ACK
Protocol FIELDBUS				
Device Type 3051				
15/7/2008 02:29:45	System	Communication failed	DFI 367 | Fieldbus 11 | 3051	none
15/7/2008 02:41:57	System	Communication restored	DFI 367 | Fieldbus 11 | 3051	none
17/7/2008 03:51:08	System	Communication failed	DFI 367 | Fieldbus 11 | 3051	none
17/7/2008 03:52:32	System	Communication restored	DFI 367 | Fieldbus 11 | 3051	none
18/7/2008 10:44:25	System	Communication failed	DFI 367 | Fieldbus 11 | 3051	none
18/7/2008 10:45:20	System	Communication restored	DFI 367 | Fieldbus 11 | 3051	none
19/7/2008 11:24:21	System	Communication failed	DFI 367 | Fieldbus 11 | 3051	none
19/7/2008 11:25:11	System	Communication restored	DFI 367 | Fieldbus 11 | 3051	none
22/7/2008 02:57:43	System	Communication failed	DFI 367 | Fieldbus 11 | 3051	none
22/7/2008 02:58:48	System	Communication restored	DFI 367 | Fieldbus 11 | 3051	none
25/7/2008 06:45:40	System	Communication failed	DFI 367 | Fieldbus 11 | 3051	none
25/7/2008 06:46:34	System	Communication restored	DFI 367 | Fieldbus 11 | 3051	none
Device Type DC302				
15/7/2008 02:29:45	System	Communication failed	DFI 367 | Fieldbus 9 | DC302_0_1	none
15/7/2008 02:41:53	System	Communication restored	DFI 367 | Fieldbus 9 | DC302_0_1	none
17/7/2008 03:51:08	System	Communication failed	DFI 367 | Fieldbus 9 | DC302_0_1	none
17/7/2008 03:52:53	System	Communication restored	DFI 367 | Fieldbus 9 | DC302_0_1	none
18/7/2008 10:44:25	System	Communication failed	DFI 367 | Fieldbus 9 | DC302_0_1	none
18/7/2008 10:45:42	System	Communication restored	DFI 367 | Fieldbus 9 | DC302_0_1	none
19/7/2008 11:24:20	System	Communication failed	DFI 367 | Fieldbus 9 | DC302_0_1	none

Figure 6.7. Tracking History Report

Diagnostic History Report

The diagnostic events indicate failures or operational conditions of the devices, and they are stored in the ***AssetView*** database.

To generate this report, click the link **Diagnostic History** in the **Audit Trail Reports** page and configure the filters for the report. Click the icon corresponding to the desired file format: **pdf** or **xls**.

smar Diagnostic History

DATE / TIME	USER	STATUS	DEVICE ID	BLOCK TAG	ACK
Protocol FIELDBUS					
Device Type 3051					
DFI 367 | Fieldbus 11 | 3051					
14/7/2008 18:35:49	System	[IN] OutOfService	00115130510926010820 20-070000150	3051_TRD_1	none
14/7/2008 18:35:49	System	[IN] No error		3051_TRD_1	none
14/7/2008 18:35:50	System	[IN] OutOfService		3051_AI3	none
14/7/2008 18:35:50	System	[IN] InputFailure		3051_AI3	none
14/7/2008 18:35:50	System	[IN] BlockConfiguration		3051_AI3	none
14/7/2008 18:35:50	System	[IN] OutOfService		3051_AI_1	none
14/7/2008 18:35:50	System	[IN] InputFailure		3051_AI_1	none
14/7/2008 18:35:50	System	[IN] BlockConfiguration		3051_AI_1	none
14/7/2008 18:35:50	System	[IN] OutOfService		3051_AI_2	none
14/7/2008 18:35:50	System	[IN] InputFailure		3051_AI_2	none
14/7/2008 18:35:50	System	[IN] BlockConfiguration		3051_AI_2	none
14/7/2008 18:35:50	System	[IN] OutOfService		3051_RES	none
14/7/2008 18:35:50	System	[IN] No repair needed		3051_RES	none
14/7/2008 18:35:50	System	[IN] Jumper/Switch on		3051_RES	none
14/7/2008 18:35:50	System	[IN] Jumper/Switch off		3051_RES	none
14/7/2008 18:35:50	System	[IN] Jumper/Switch on, no simulation		3051_RES	none
14/7/2008 18:35:50	System	[IN] Run Mode		3051_RES	none

Figure 6.8. Diagnostic History Report

Method History Report

Methods are calibration procedures composed by a sequence of reading and writing in the device. The parameter values before writing and the values that were written in the parameters, static or dynamic, are stored in the database.

This report shows all methods performed and the parameters that have been changed.

To generate this report, click the link **Method History** in the **Audit Trail Reports** page. Configure the filters and click the icon corresponding to the desired file format: **pdf** or **xls**.

smar Method History

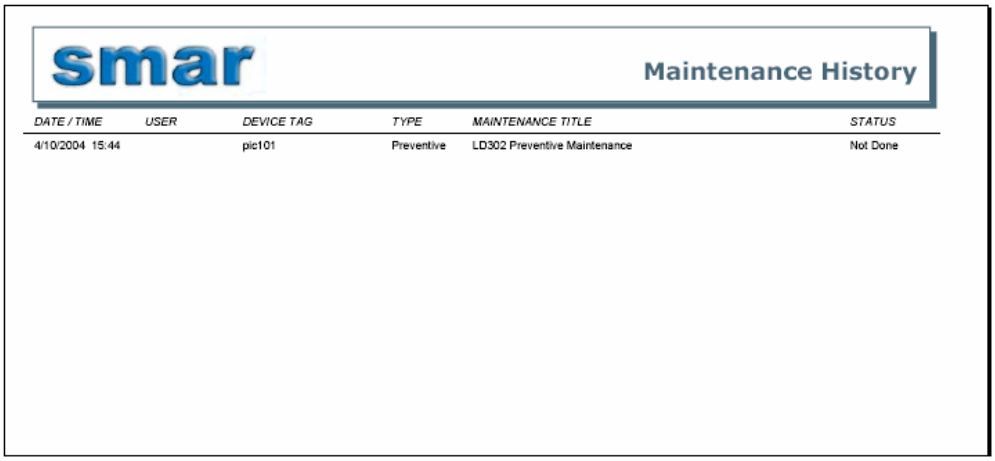
DATE / TIME	USER	DEVICE TAG	DEVICE ID	METHOD NAME	STATUS
Protocol FIELDBUS					
Device Type 3051					
21/7/2008 19:13:38	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Engineering Variable	Success
21/7/2008 19:27:38	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Engineering Variable	Failed
21/7/2008 19:32:43	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Engineering Variable	Success
21/7/2008 19:34:08	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Engineering Variable	Failed
21/7/2008 19:34:57	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Engineering Variable	Success
21/7/2008 19:37:44	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Lower Pressure Calibration	Success
21/7/2008 19:38:19	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Lower Pressure Calibration	Failed
21/7/2008 19:39:45	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Upper Pressure Calibration	Failed
21/7/2008 19:41:20	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Engineering Variable	Success
21/7/2008 19:43:35	bob_engineer	DFI 367 | Fieldbus 11 | 3051	00115130510926010820 20-07000015 0	Engineering Variable	Success
Device Type FP302					
21/7/2008 19:21:16	bob_engineer	DFI 367 | Fieldbus 12 |	0003020004:SMAR-FP302:007801686	Lower Current Calibration	Failed

Figure 6.9. Method History Report

Maintenance Report

This report shows all maintenances scheduled and performed for each device.

To generate this report, click the link **Maintenance History** in the **Audit Trail Reports** page and configure the filter options. Click the icon corresponding to the desired file format, **pdf** or **xls**, to generate the report.



DATE / TIME	USER	DEVICE TAG	TYPE	MAINTENANCE TITLE	STATUS
4/10/2004 15:44		pic101	Preventive	LD302 Preventive Maintenance	Not Done

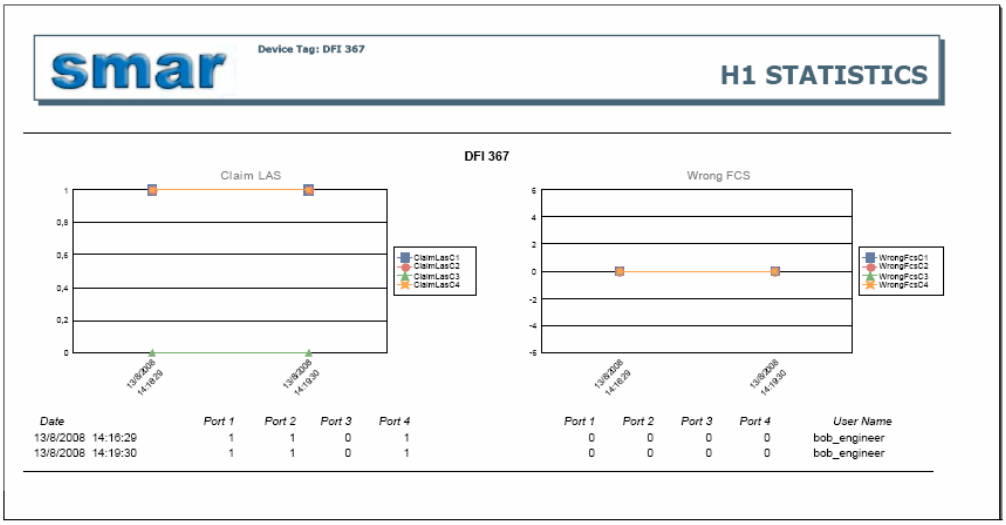
Figure 6.10. Maintenance Report

H1 Network Statistics Report

The report generates statistic charts for controllers, representing the values read from the H1 fieldbus channels configured in the plant topology, indicating the date the statistics were calculated and fails occurred in the controller. Using the charts, it is possible to predict potential communication fails between the controller and field devices, and avoid interruptions in the network communication and connected devices.

To generate this report, click the link **H1 Statistics** in the **Audit Trail Reports** page and configure the filter options. Click the icon corresponding to the desired file format, **pdf** or **xls**, to generate the report.

See the example below:



Date	Port 1	Port 2	Port 3	Port 4	Port 1	Port 2	Port 3	Port 4	User Name
13/8/2008 14:16:29	1	1	0	1	0	0	0	0	bob_engineer
13/8/2008 14:19:30	1	1	0	1	0	0	0	0	bob_engineer

Figure 6.11. H1 Statistics Report

MONITORING DEVICE STATUS

The field devices notify the system when a communication failure or operational conditions occur.

To display the events reported to ***AssetView***, click the link **Status** in the topology to expand the monitoring options.

Status	Indicates normal condition, no communication problem occurred.
Status	Indicates that a diagnostic event or communication problem has occurred.

Tracking

The **Tracking View** page shows the status of the devices and their location.

Tracking	Indicates normal condition, no communication problem occurred.
Tracking	Indicates that a communication problem has occurred.

When the device is disconnected from the plant or has communication problems, it appears in the tracking list. Click the link **Status > Tracking** in the topology to open the **Tracking List**:

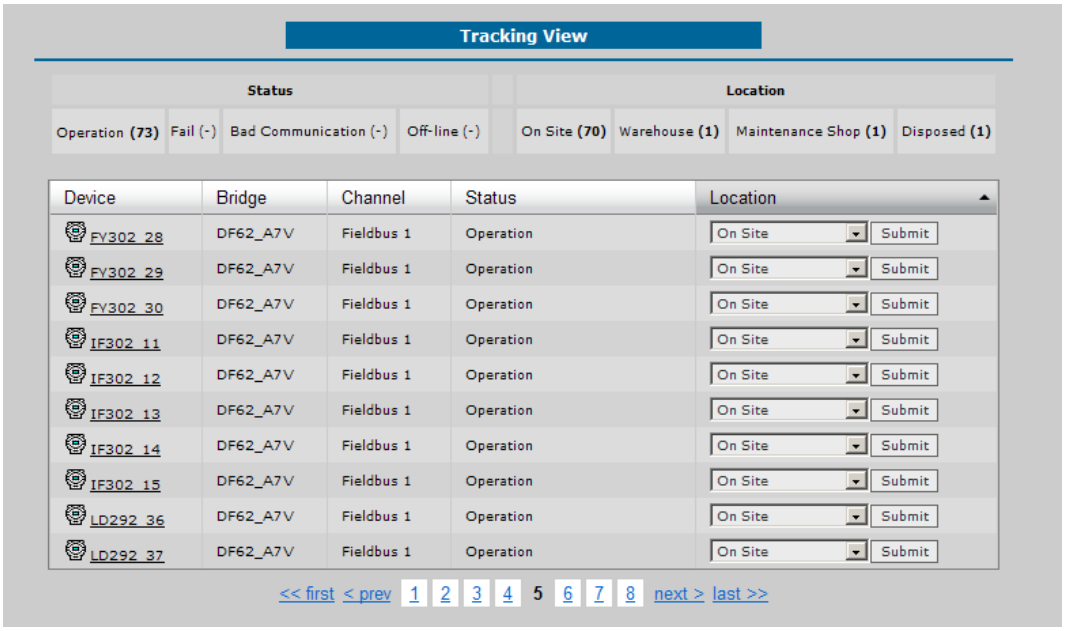


Figure 7.1. Tracking List

The **Bridge** and **Channel** columns indicate, respectively, the tag of the controller and to which channel the device is connected.

Click the magnifying glass icon to open a new window that shows detailed information about the device:

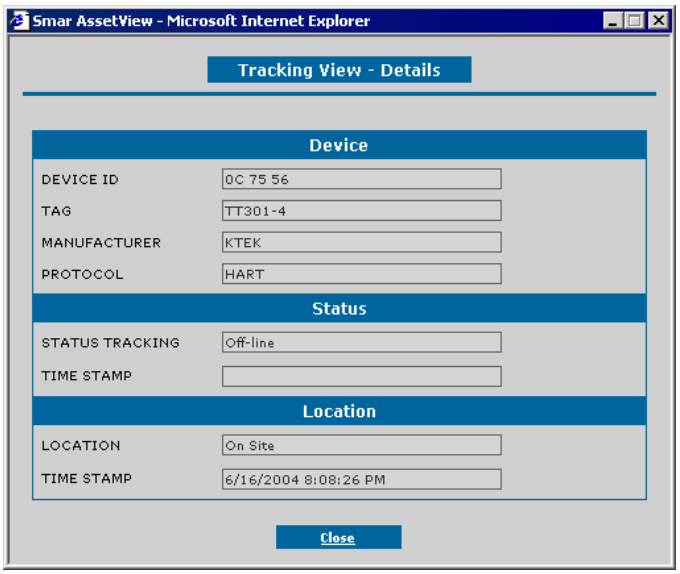


Figure 7.2. Device details

Defining the device status

To define the device status in the tracking list, click the list box in the **Status** column related to the device:

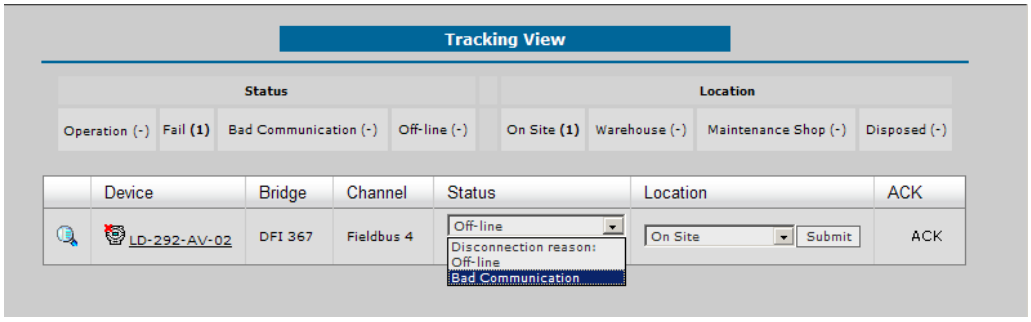


Figure 7.3. Device status

Select the option:

- **Off-line**: the device is not communicating because it was removed from the plant.
- **Bad Communication**: the device is connected to the plant but has communication problems.

Click the button **Submit** to apply the alterations to the device. The tracking event will be automatically acknowledged. See the example below:

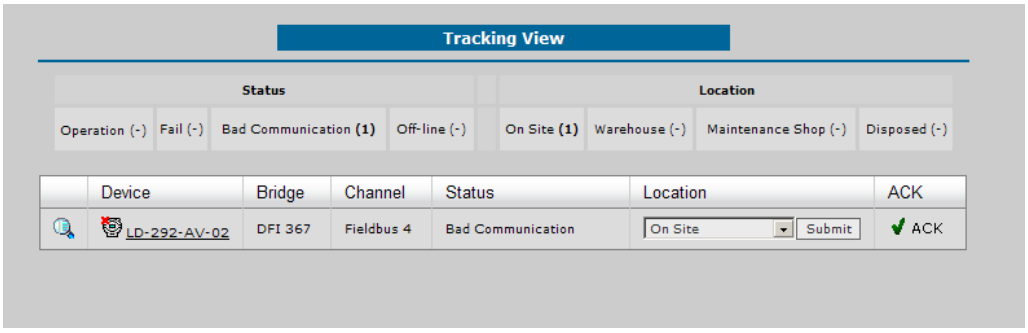


Figure 7.4. Defining the Device status

Defining the device location

To define the device's location in the tracking list, click the list box in the **Location** column related to the device:

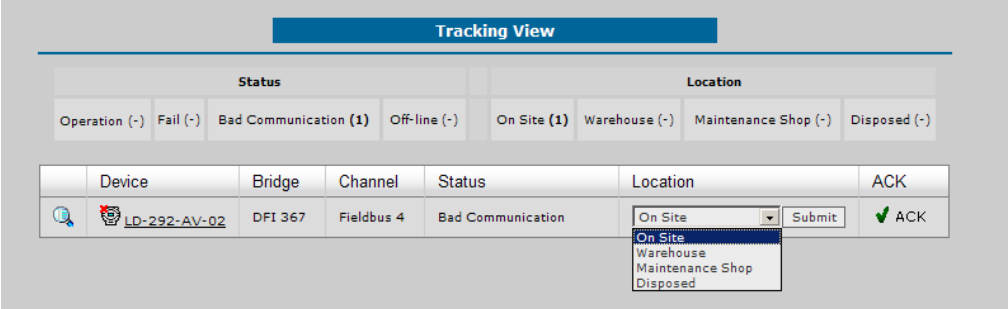


Figure 7.5. Device Location

Select the option:

- **On Site**: the device is operating in the plant.
- **Warehouse**: the device is stored in the warehouse.
- **Maintenance Shop**: the device was removed from the plant for maintenance.
- **Disposed**: the device was removed from the plant and discarded.

Click the button **Submit** to apply the alterations to the devices.

Acknowledging the Tracking Event

Click the link **ACK** in the **Tracking View** page to acknowledge the event.

NOTE
The tracking event is automatically acknowledged when the user defines the device status in the **Tracking View** page, clicking the list box in the **Status** column related to the device.

The **Acknowledge Tracking** window will open:

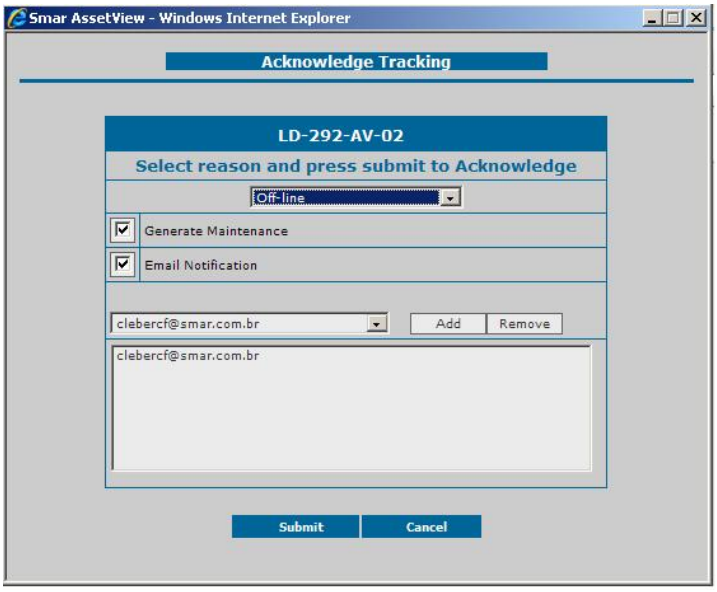


Figure 7.6. Acknowledge Window

- Select the cause of the tracking event: **Off-line** if the device was removed from the plant or **Bad Communication** if the device has communication problems.
- Select the option **Generate Maintenance** to schedule maintenance for the device, corrective or proactive. See section ***Scheduling Maintenances for an Event*** for details.
- Select the option **E-mail Notification** to send e-mails to the plant administrator and technicians.

Click the button **Submit** to acknowledge the tracking event.

NOTE
When acknowledging a tracking event, you do not have to define maintenance for the device, or the e-mail address to be notified. To create a maintenance related to an acknowledged event, or define an e-mail address, click the link **ACK** in the **Tracking View** page and the **Acknowledge** window will open.

The **Tracking View** page will be updated and a check mark will appear in the column **ACK** for the events that have been acknowledged. Observe the figure below:

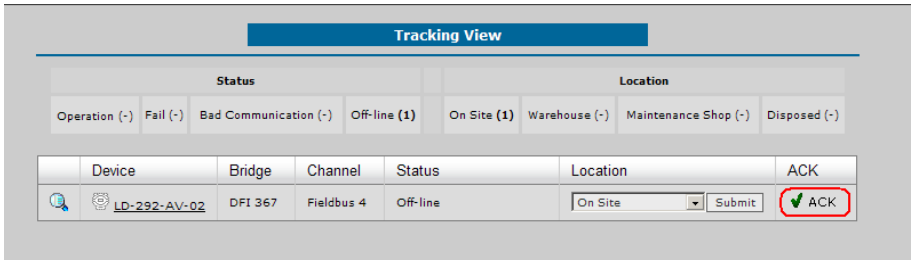


Figure 7.7. Event Acknowledged

Diagnostic

The **Diagnostic View** page shows the events caused by failure notifications or operational conditions programmed by the user to be monitored by the system.

Diagnostic	Indicates normal condition, no communication problem occurred.
Diagnostic	Indicates that a diagnostic event has occurred.

When a diagnostic event occurs, it appears in the **Diagnostic View**. Click the link **Status > Diagnostic** in the topology tree to open the list of diagnostic events:

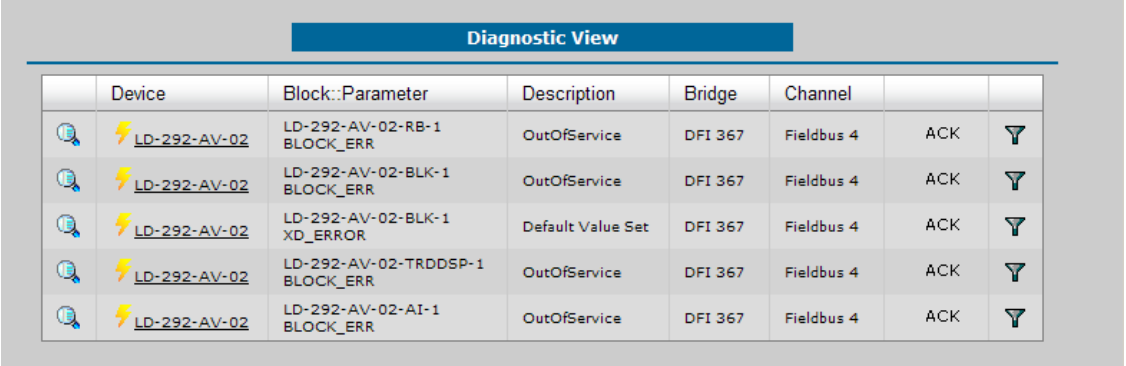


Figure 7.8. Diagnostic View

Click the device icon in the **Device** column to open the corresponding home page.

The **Block** column indicates the tag of the block where the diagnostic event occurred. The **Bridge** and **Channel** columns indicate, respectively, the tag of the controller and to which channel the instrument is connected.

Click the magnifying glass icon to open a new window that shows detailed information about the diagnostic related to the block of the device:

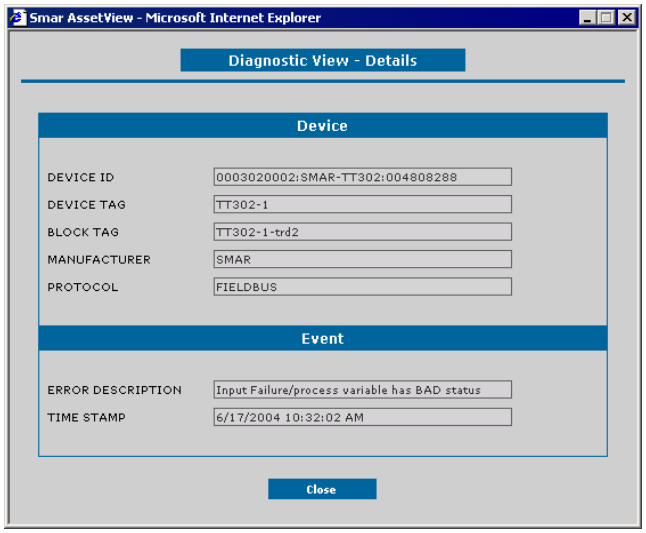


Figure 7.9. Device Details

Acknowledging the Diagnostic Event

Click the link **ACK** in the **Diagnostic View** page to acknowledge the event.

The **Acknowledge Diagnostic** window will open:

- Select the option **Generate Maintenance** to schedule maintenance for the device, corrective or proactive. See section ***Scheduling Maintenances for an Event*** for details.
- Select the option **E-mail Notification** to send e-mails to the plant administrator and technicians.

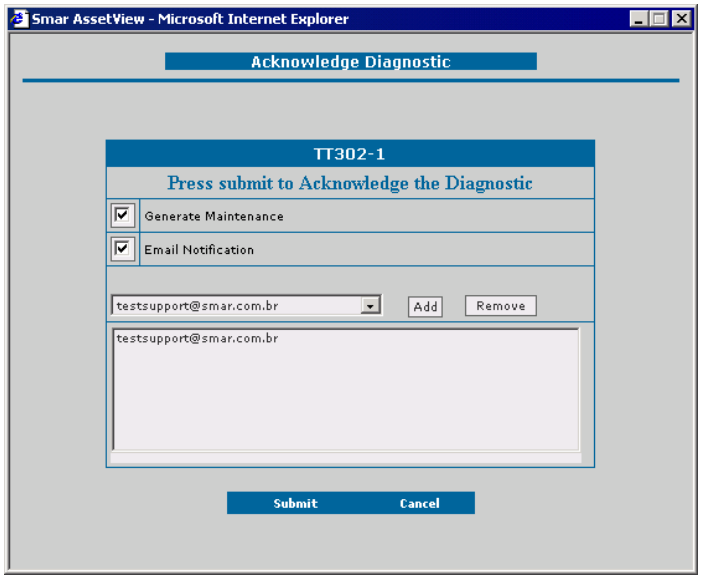
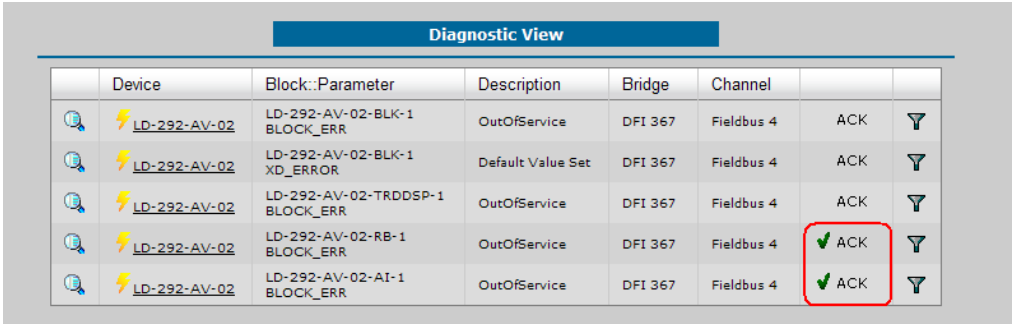


Figure 7.10. Acknowledging the Event

Click the button **Submit** to acknowledge the diagnostic event.

NOTE
When acknowledging a diagnostic event, you do not have to define maintenance for the device, or the e-mail address to be notified. To create maintenance for an acknowledged event, or define an e-mail address, click the link **ACK** in the **Diagnostic View** page and the **Acknowledge** window will open.

The **Diagnostic View** will be updated and a check mark will appear in the column **ACK** for the events that have been acknowledged. Observe the figure below:



Diagnostic View

	Device	Block::Parameter	Description	Bridge	Channel		
	LD-292-AV-02	LD-292-AV-02-BLK-1 BLOCK_ERR	OutOfService	DFI 367	Fieldbus 4	ACK	
	LD-292-AV-02	LD-292-AV-02-BLK-1 XD_ERROR	Default Value Set	DFI 367	Fieldbus 4	ACK	
	LD-292-AV-02	LD-292-AV-02-TRDDSP-1 BLOCK_ERR	OutOfService	DFI 367	Fieldbus 4	ACK	
	LD-292-AV-02	LD-292-AV-02-RB-1 BLOCK_ERR	OutOfService	DFI 367	Fieldbus 4	✓ ACK	
	LD-292-AV-02	LD-292-AV-02-AI-1 BLOCK_ERR	OutOfService	DFI 367	Fieldbus 4	✓ ACK	

Figure 7.11. Event Acknowledged

Configuring Diagnostic Events

Click the link **Diagnostic > Configuration** on the topology tree, as indicated in the figure below, to open the monitored instruments and instruments with diagnostic events.

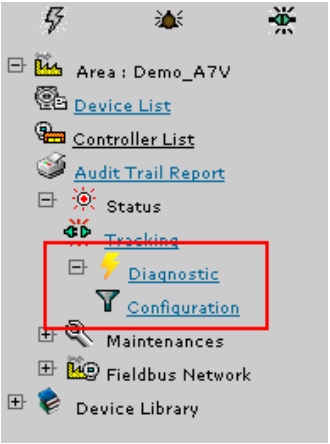
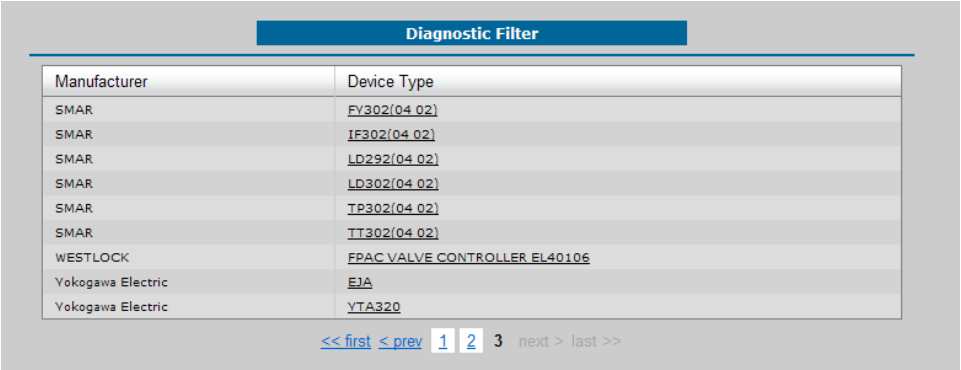


Figure 7.12. Configuring Diagnostic Events

Click the instruments to view the events.



Diagnostic Filter

Manufacturer	Device Type
SMAR	FY302(04 02)
SMAR	IF302(04 02)
SMAR	LD292(04 02)
SMAR	LD302(04 02)
SMAR	TP302(04 02)
SMAR	TT302(04 02)
WESTLOCK	FPAC VALVE CONTROLLER EL40106
Yokogawa Electric	EJA
Yokogawa Electric	YTA320

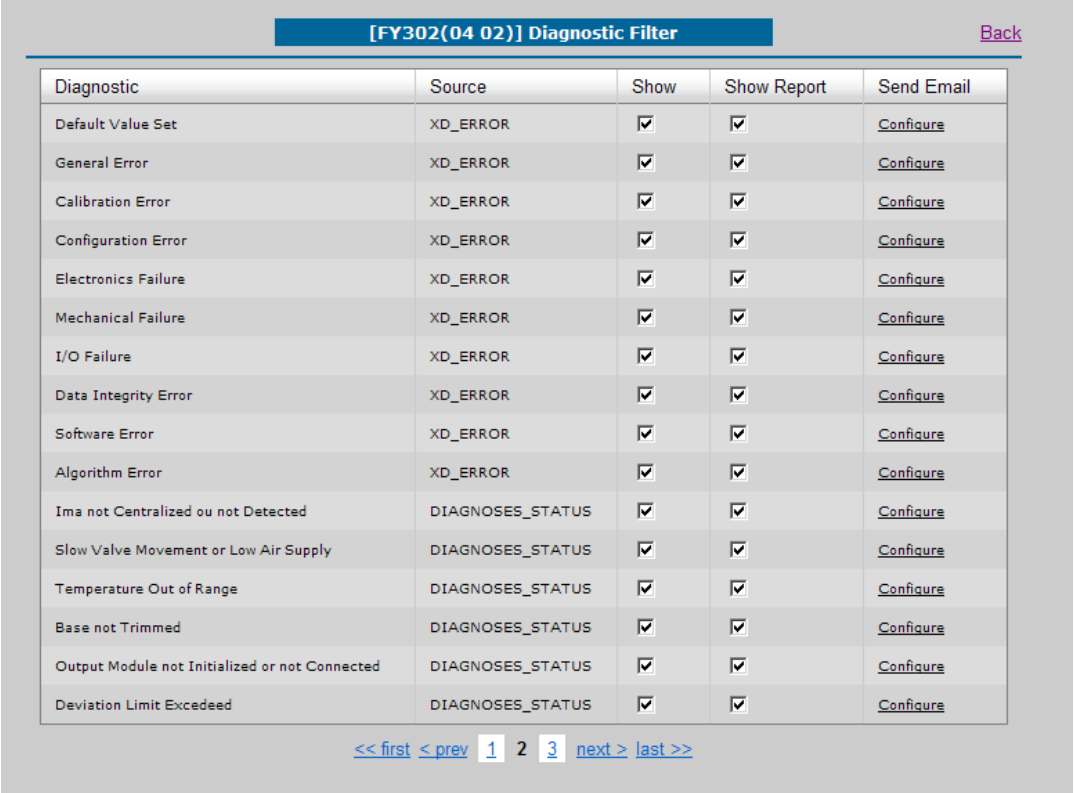
<< first < prev 1 2 3 next > last >>

Figure 7.13. Selecting the instrument

The list shows all diagnostic events of the instrument.

To activate a diagnostic event, mark the option in the corresponding column:

- **Show:** shows an event on the **Diagnostic View** page.
- **Show Report:** the selected diagnostic will be listed on the report.
- **Send E-mail:** sends an e-mail to the user, describing the diagnostic. Click the link **Configure** referring to a diagnostic to select the instruments from which the diagnostics will be send by email when the respective events occur.



[FY302(04 02)] Diagnostic Filter Back

Diagnostic	Source	Show	Show Report	Send Email
Default Value Set	XD_ERROR	☑	☑	Configure
General Error	XD_ERROR	☑	☑	Configure
Calibration Error	XD_ERROR	☑	☑	Configure
Configuration Error	XD_ERROR	☑	☑	Configure
Electronics Failure	XD_ERROR	☑	☑	Configure
Mechanical Failure	XD_ERROR	☑	☑	Configure
I/O Failure	XD_ERROR	☑	☑	Configure
Data Integrity Error	XD_ERROR	☑	☑	Configure
Software Error	XD_ERROR	☑	☑	Configure
Algorithm Error	XD_ERROR	☑	☑	Configure
Ima not Centralized ou not Detected	DIAGNOSES_STATUS	☑	☑	Configure
Slow Valve Movement or Low Air Supply	DIAGNOSES_STATUS	☑	☑	Configure
Temperature Out of Range	DIAGNOSES_STATUS	☑	☑	Configure
Base not Trimmed	DIAGNOSES_STATUS	☑	☑	Configure
Output Module not Initialized or not Connected	DIAGNOSES_STATUS	☑	☑	Configure
Deviation Limit Excedeed	DIAGNOSES_STATUS	☑	☑	Configure

<< first < prev 1 2 3 next > last >>

Figure 7.14. List of Diagnostic Events

The example from the following figure shows the diagnostic **DEVIATION LIMIT EXCEEDED** for a **FY302** device:

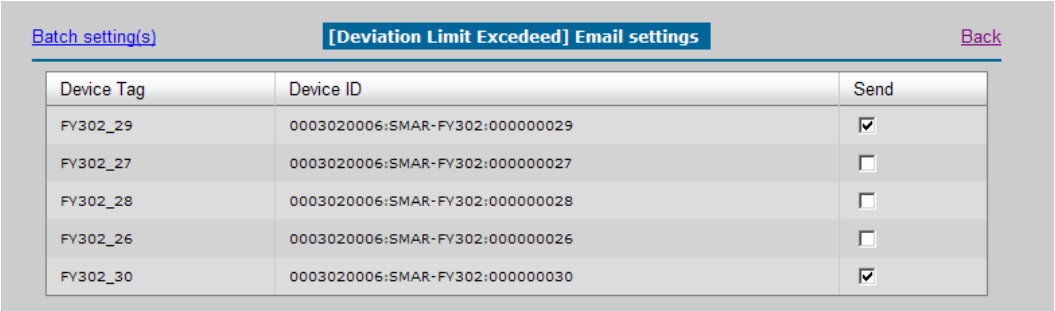


Figure 7.15. Configuring sending e-mail of Diagnostic Event

Select the devices, through their tags, on which the user wants to receive notification e-mails.

The figure below shows an example of a notification e-mail related to a diagnostic.

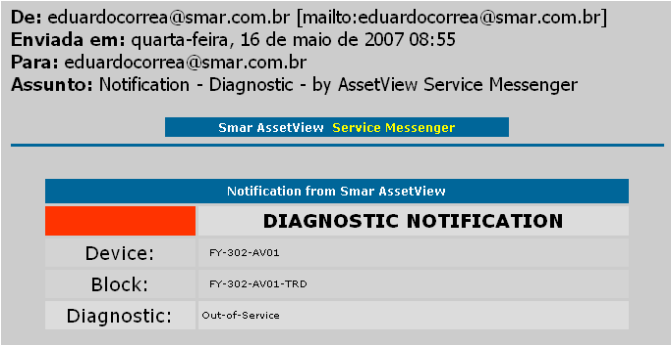


Figure 7.16. Notification of a Diagnostic Event

Through the **Batch settings** option the user can select some diagnostic events simultaneously.

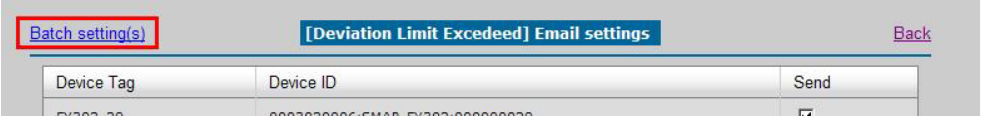


Figure 7.17. Batch Settings option

Click **Batch settings** in the **DEVIATION LIMIT EXCEEDED** diagnostic window, shown above, and the following window will open.

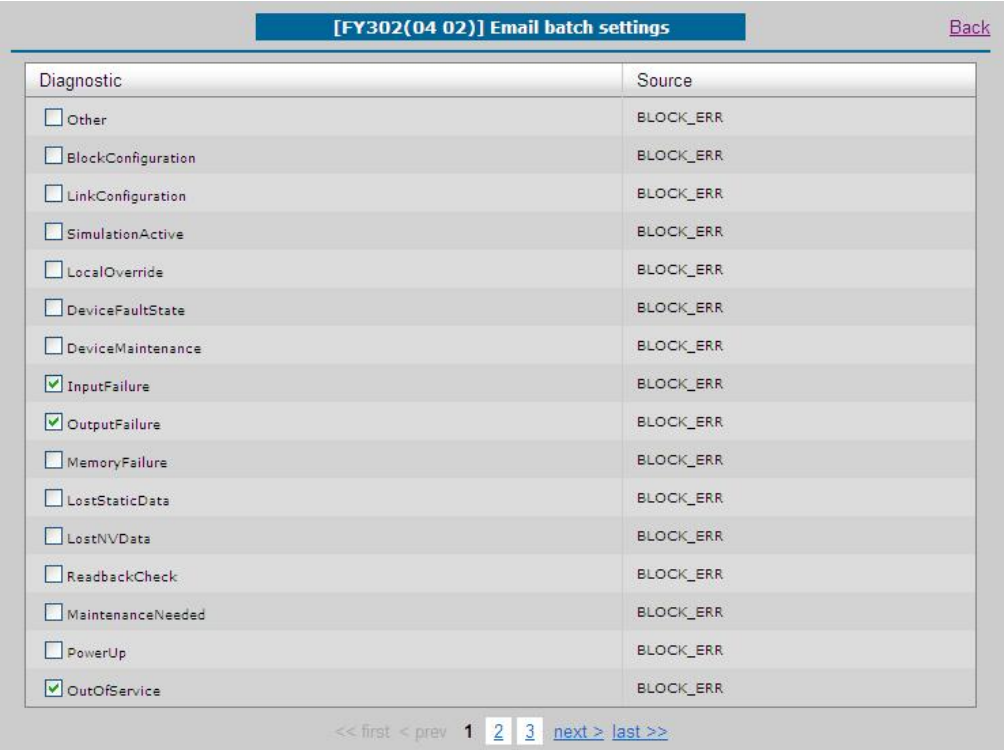


Figure 7.18. Selecting some diagnostic events for the notification e-mail

Select the necessary diagnostic events, and notification e-mails related to that list of selected devices will be sent.

Filtering diagnostics

Click the funnel icon to filter the diagnostic.

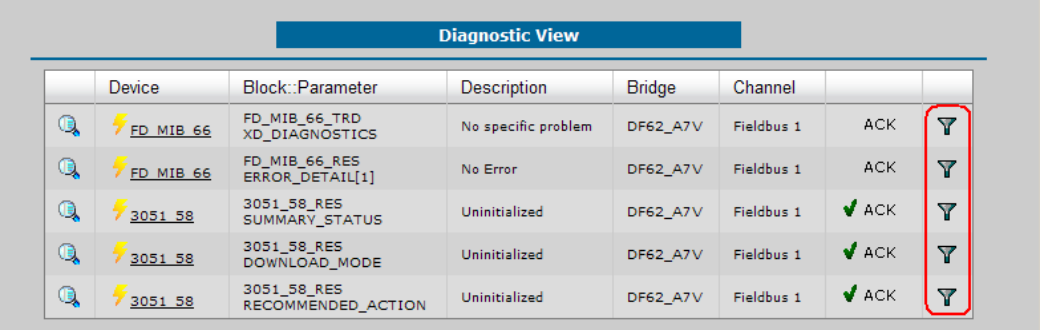


Figure 7.19. Filtering a Diagnostic

Scheduling Maintenances for an Event

At the **Acknowledge** window, for tracking and diagnostic events, select the option **Generate Maintenance** to schedule maintenance for the device. Click **Submit** to open the window as shown in the example below:

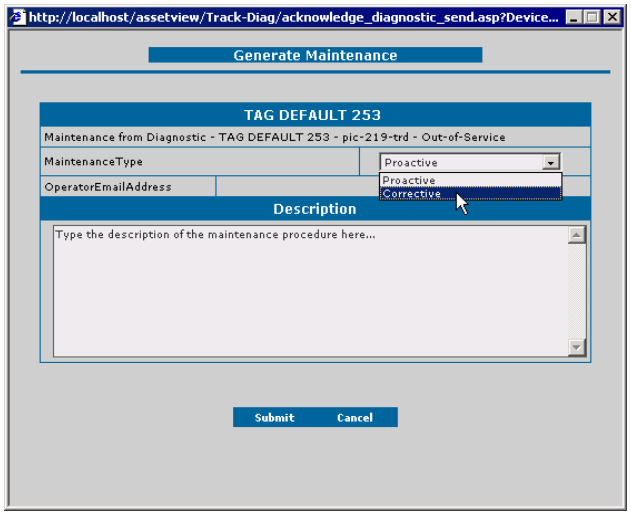


Figure 7.20. Generating Maintenance

Select the type for the maintenance: proactive or corrective. In the field **Description**, describe the procedure for executing the maintenance. Click the button **Submit** to conclude. The window below should appear confirming the maintenance was created:

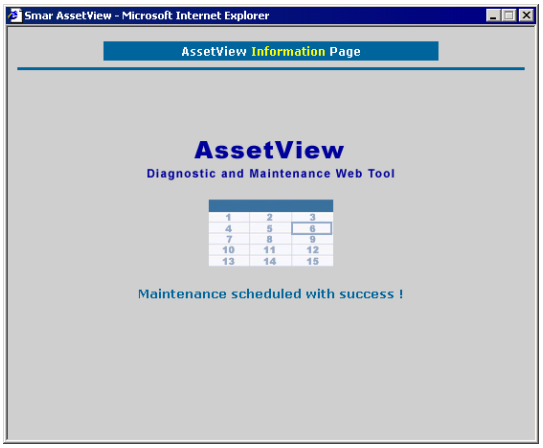


Figure 7.21. Confirming Maintenance

MANAGING DEVICE MAINTENANCES

Procedures for managing maintenances are available from the **Maintenances** menu in the topology tree, as indicated in the figure below:

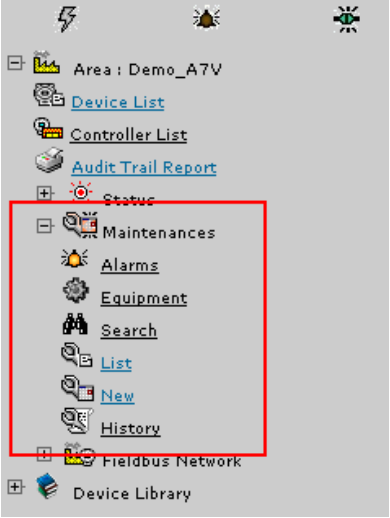


Figure 8.1. Maintenances Menu

Click the link **Maintenances > List** in the topology tree to open the list of scheduled maintenances:

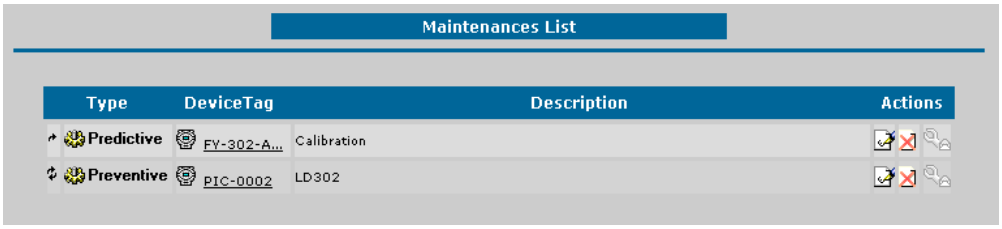


Figure 8.2. Maintenances List

The **Type** column indicates the type of the maintenance. The icon indicates that the maintenance is recurrent, while the icon indicates the maintenance should be executed only once.

Click the device icon in the **Device Tag** column to open the home page of the device.

Editing Equipment Information

Click the link **Maintenances > Equipment** in the topology tree to display the list of equipment registered in AssetView and other equipment registered to represent plant control assets.

For example, add a motor as an equipment and generate maintenances for this equipment, as described in subsection **Adding Preventive and Predictive Maintenances**.

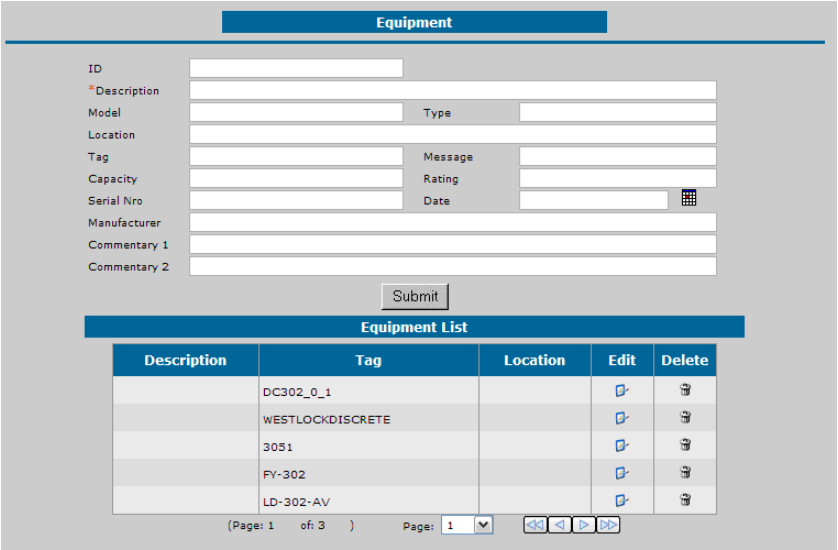


Figure 8.3. Equipment List

Use the navigation buttons at the bottom of the page to browse the list of equipment, as indicated in the figure below:

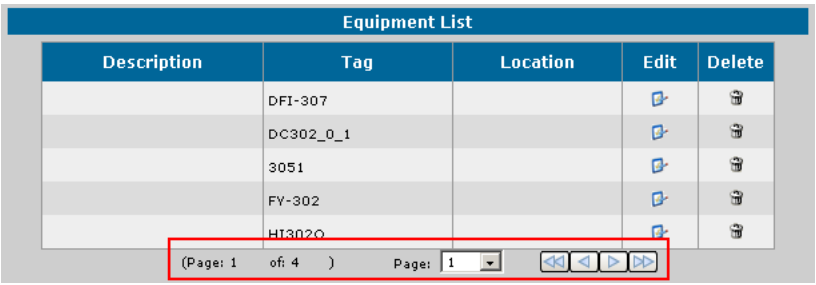


Figure 8.4. Navigation Bar

Adding Equipment

Fill the form typing the information related to the equipment and click the button Submit to add the equipment to the **Equipment** list.

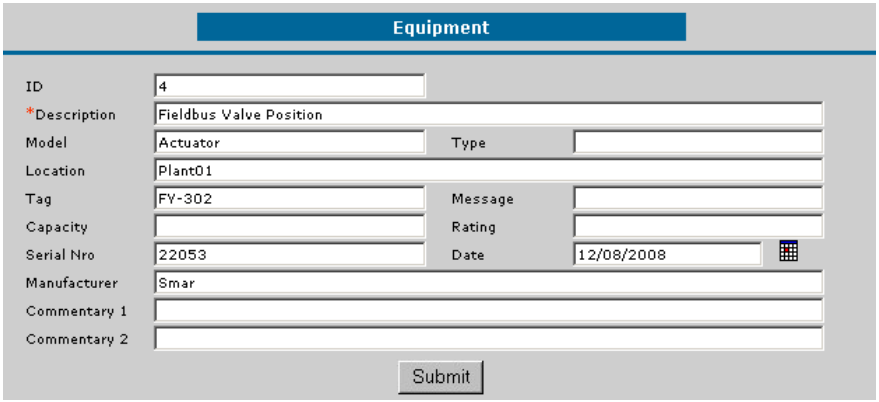


Figure 8.5. Adding Equipment

A message box informs the equipment was created. Click Ok to conclude and the new equipment is register as a plant asset.

Editing the information

To change the information related to the equipment, click the icon in column **Edit** corresponding to the equipment and the form in the upper part of the page displays the data. See the example below:

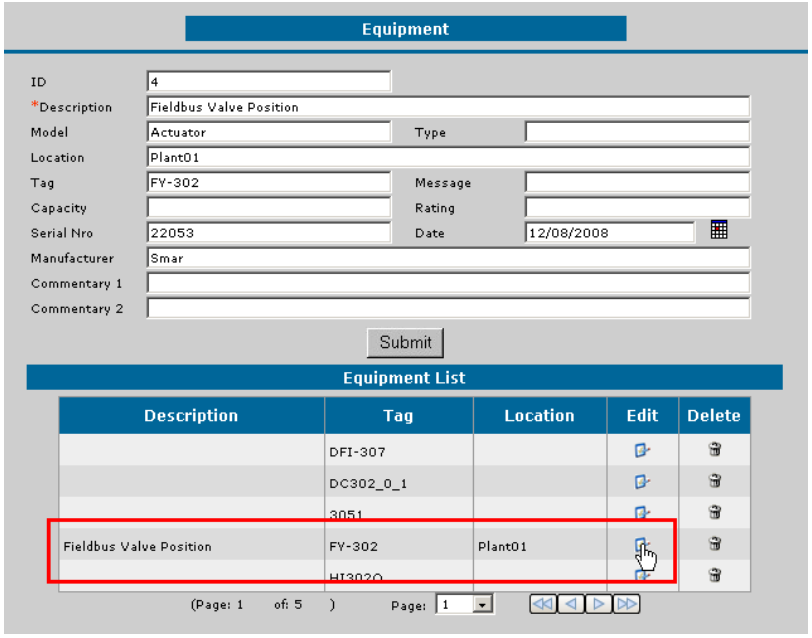


Figure 8.6. Editing Data

Type the desired information and click **Submit**. A message box indicates the information was updated with success. Click **Ok** to conclude.

Deleting Equipment

To delete the equipment from the list of plant assets, click the icon in column **Delete** corresponding to the equipment.

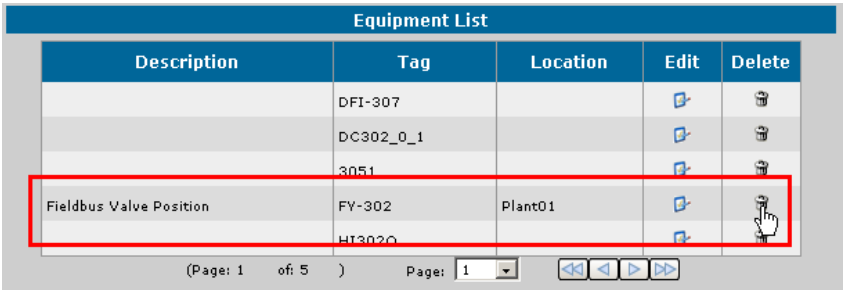


Figure 8.7. Deleting Equipment

The page loads the information related to the selected equipment. Click **Delete** to confirm the operation and remove the equipment from the list, or click **Cancel** to abort the operation. See the example:

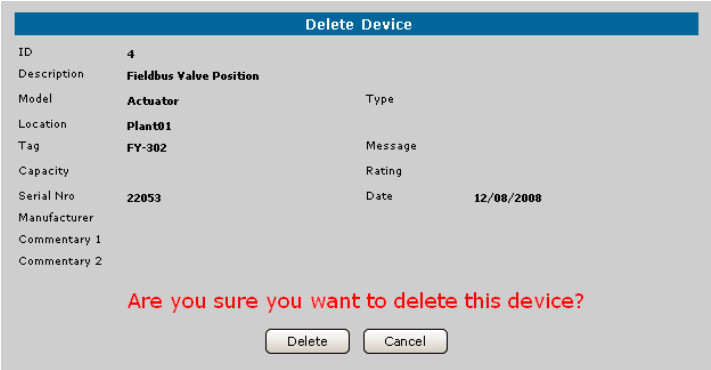


Figure 8.8. Confirming the Operation

Adding Preventive and Predictive Maintenances

To schedule maintenance for a specific device, click the link **Maintenances > New** in the topology tree. The **Maintenance Scheduling** page will be loaded:

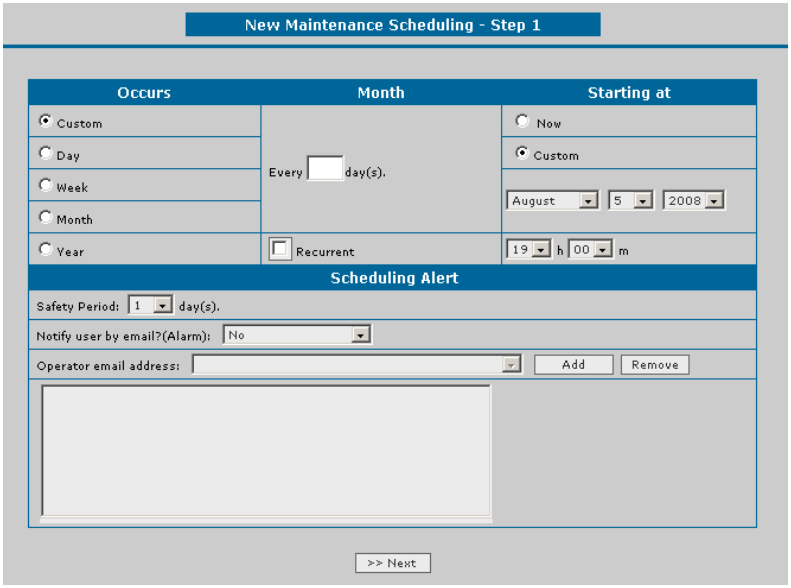


Figure 8.9. Adding Device Maintenances

1. In the field **Occurs**, select the maintenance occurrence: customized, daily, weekly, monthly or annual.
2. Select the option **Recurrent** in case the maintenance should occurs repeatedly.
3. In the field **Starting at**, select the date and the time that the maintenance should start. To customize the maintenance starting date, click the option **Custom**, select the maintenance date and the time.
4. Configure the maintenance alert in the field **Safety Period**, selecting the number of days that the user should be notified in advance.
5. In the field **Notify user by e-mail**, select **Yes** in the options list to send e-mails to the users, and add the e-mail address of the user that will be notified about the maintenance.
6. Click the button **Next** to proceed describing the maintenance details:

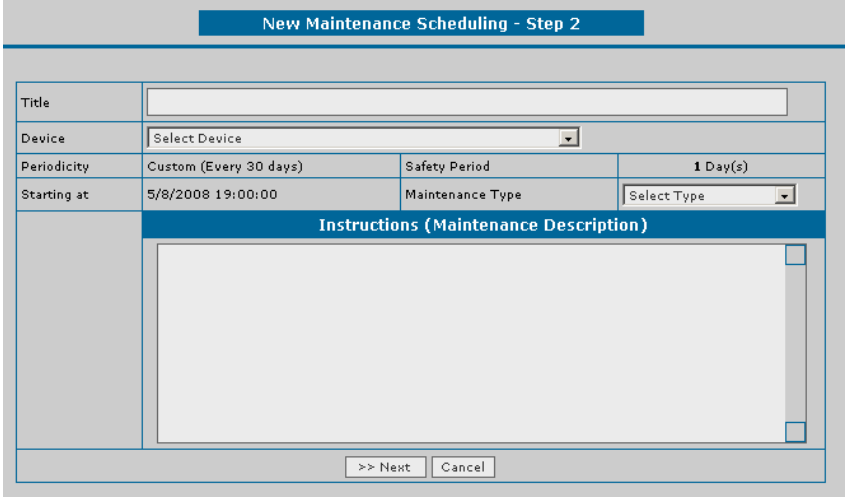


Figure 8.10. Maintenance Details

7. Type the title of the maintenance.
8. Select the device.
9. Select the type of the maintenance: preventive or predictive.
10. Type the instructions to perform the maintenance.
11. Click **Next** to conclude and update the **Maintenances List**.

Editing the Maintenance

In the topology tree, click the link **Maintenances > List** to open the list of scheduled maintenances.

In the column **Action**, click the edit icon, , related to the device, to open the **Maintenance Edit** window.

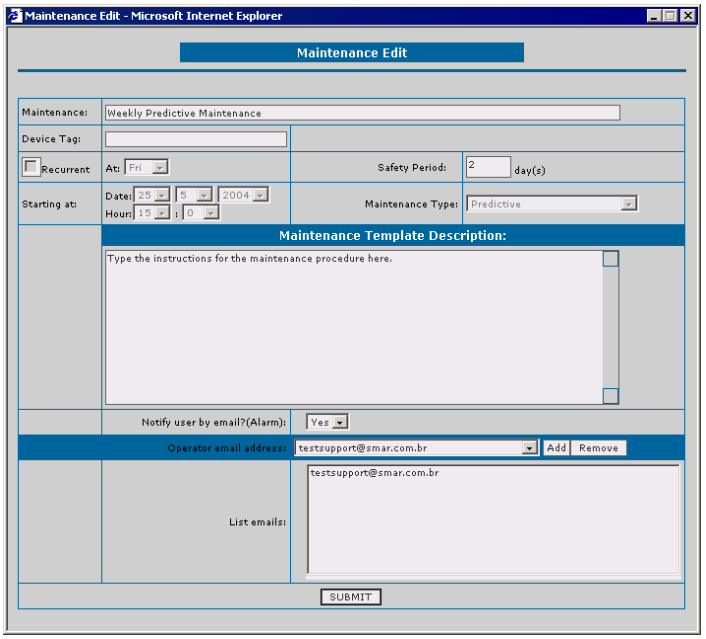


Figure 8.11. Editing the Maintenance

Edit the necessary information and click the button **Submit** to apply the alterations.

Removing a Maintenance

In the topology tree, click the link **Maintenances > List** to open the list of scheduled maintenances.

In the column **Action**, click the delete icon, , related to the device.

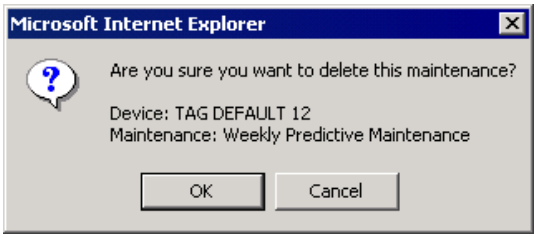


Figure 8.12. Removing a Maintenance

Click **Ok** to confirm the operation and remove the selected maintenance.

Sending Service Orders

In the topology tree, click the link **Maintenances > List** to open the list of scheduled maintenances.

In the column **Action**, click the send service order icon related to the device. This icon will only be available if any e-mail address was assigned to the maintenance. The window to edit the service order opens:

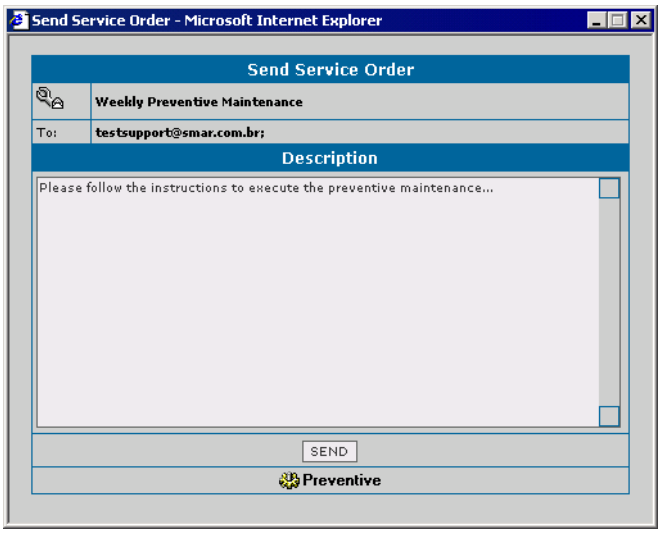


Figure 8.13. Sending a Service Order

Type the instructions to be sent to the user and click the button **Send** to send the e-mail. The figure below should appear confirming that an e-mail has been sent:

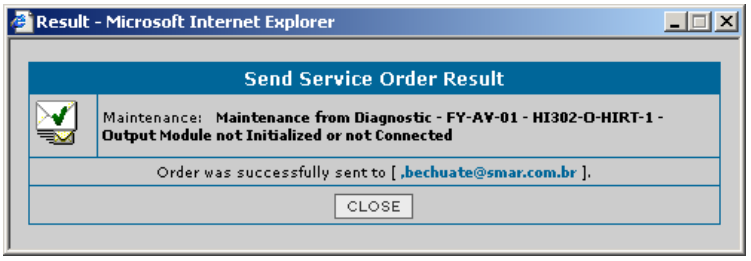


Figure 8.14. Confirming the Service Order

Searching for Maintenances

To search for a specific maintenance, click the link **Maintenances > Search** in the topology tree.

Searching a period

The default **Maintenance Search** page is shown in the figure below:

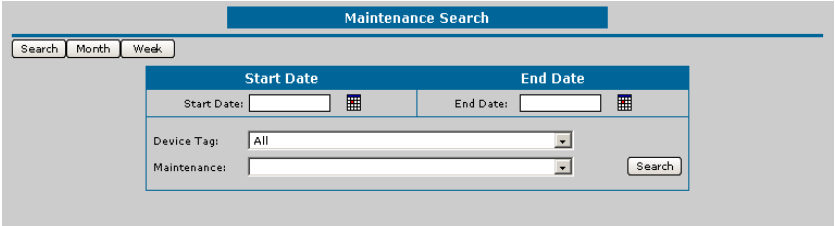


Figure 8.15. Searching for Maintenances

1. Select the beginning of the search in the field **Start Date** and the end of the search in the field **End Date**, clicking the icon to open the **Calendar** dialog box.

Figure 8.16. Calendar

2. In the field **Device Tag**, filter the tag of a specific device.
3. In the field **Maintenance**, filter the name of the maintenance defined by the user.
4. Click the button **Search** to view the results.

The page with the search results will be loaded. Click the link of the device name to view the information about the maintenance.

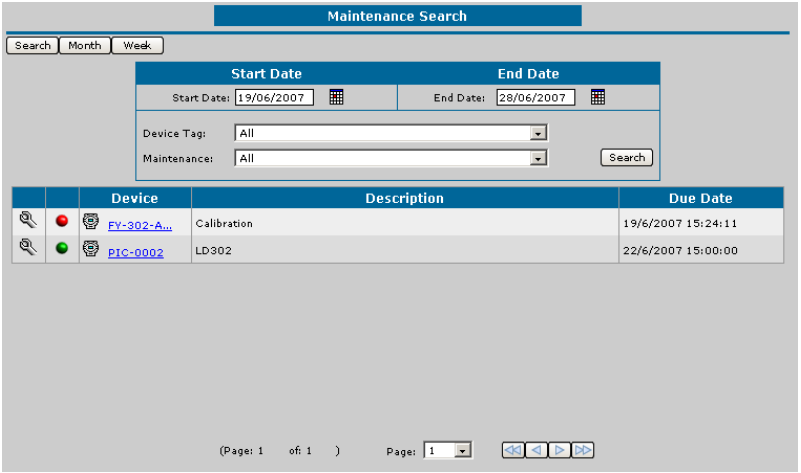


Figure 8.17. Search Results

Searching maintenance during the month

Click the button **Month** to view the maintenances scheduled for the month:

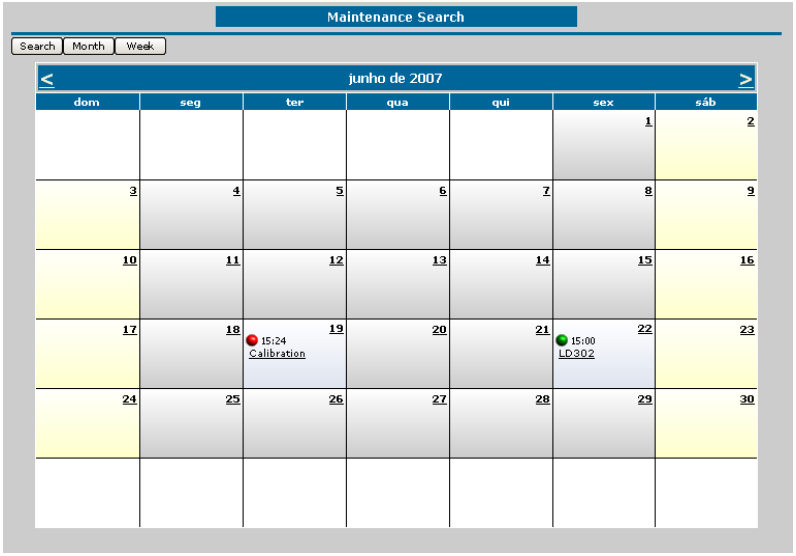


Figure 8.18. Month Calendar

Click the link of the maintenance name to view the instructions related to the maintenance.

Searching maintenance during the week

Click the button **Week** to view the maintenances scheduled for a selected week:

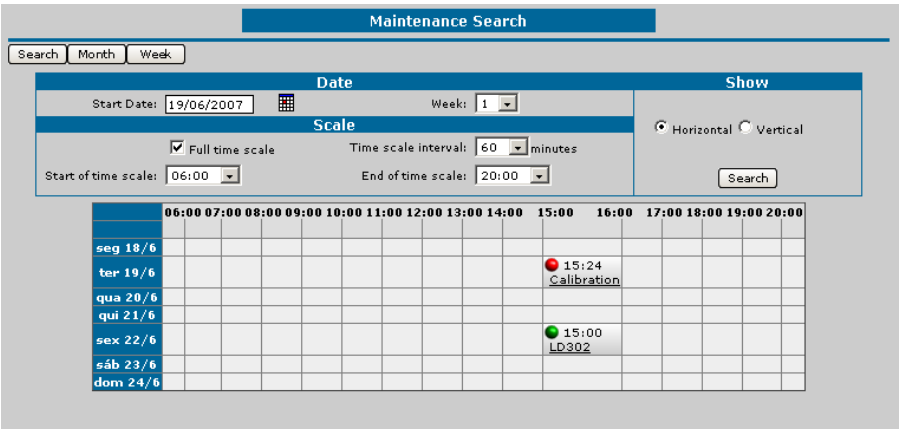


Figure 8.19. Week Calendar

1. Select the beginning of the search in the field **Start Date** clicking the icon to open the **Calendar** dialog box.
2. Select the number of weeks from the **Week** menu.
3. Select the time interval in the **Scale** area.
4. Select the view mode for the week: horizontal or vertical.
5. Click the link of the maintenance name to view the instructions related to the maintenance.

Opening the Maintenances History

To list the maintenances that have been executed, click the link **Maintenances > History** in the topology tree. The **History Search** page will be loaded:

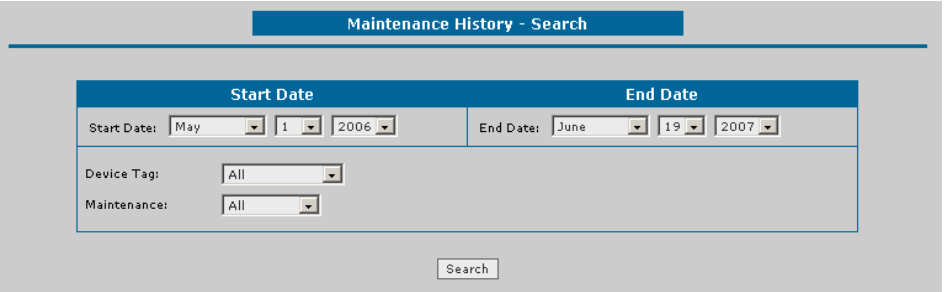
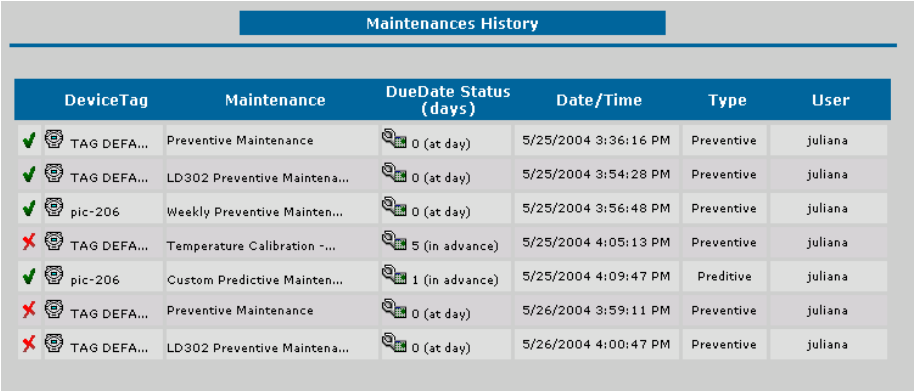


Figure 8.20. Searching for the maintenances executed

1. Select the starting date for the search in the field **Start Date**.
2. Select the ending date for the search in the field **End Date**.
3. In the field **Device Tag**, filter the tag of a specific device.
4. In the field **Maintenance**, filter the name of the maintenance defined by the user.
5. Click the button **Search** to view the results.

The page with the results for the search will be loaded:



DeviceTag	Maintenance	DueDate Status (days)	Date/Time	Type	User
TAG DEFA...	Preventive Maintenance	0 (at day)	5/25/2004 3:36:16 PM	Preventive	juliana
TAG DEFA...	LD302 Preventive Maintena...	0 (at day)	5/25/2004 3:54:28 PM	Preventive	juliana
pic-206	Weekly Preventive Mainten...	0 (at day)	5/25/2004 3:56:48 PM	Preventive	juliana
TAG DEFA...	Temperature Calibration -...	5 (in advance)	5/25/2004 4:05:13 PM	Preventive	juliana
pic-206	Custom Predictive Mainten...	1 (in advance)	5/25/2004 4:09:47 PM	Preditive	juliana
TAG DEFA...	Preventive Maintenance	0 (at day)	5/26/2004 3:59:11 PM	Preventive	juliana
TAG DEFA...	LD302 Preventive Maintena...	0 (at day)	5/26/2004 4:00:47 PM	Preventive	juliana

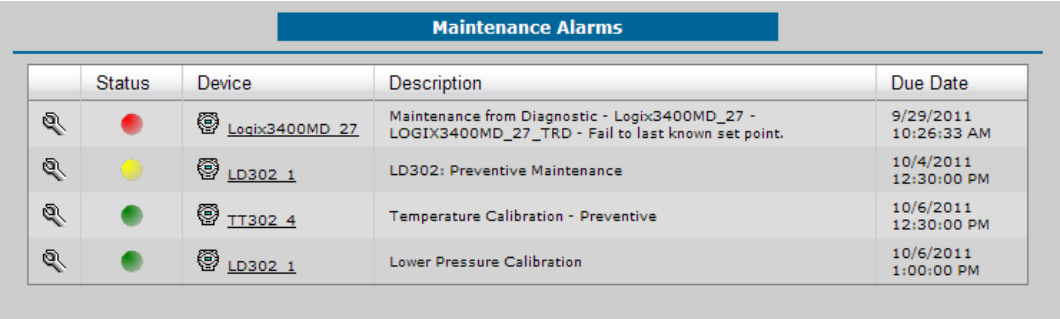
Figure 8.21. Maintenances History

The icon in the first column indicates that the maintenance has been executed.

The icon indicates that the maintenance has been removed.

Opening the Alarms List

To list the alarms that indicate the status of the scheduled maintenances, click the link **Maintenances > Alarms** in the topology tree. The page with the alarms list will be loaded:



Maintenance Alarms

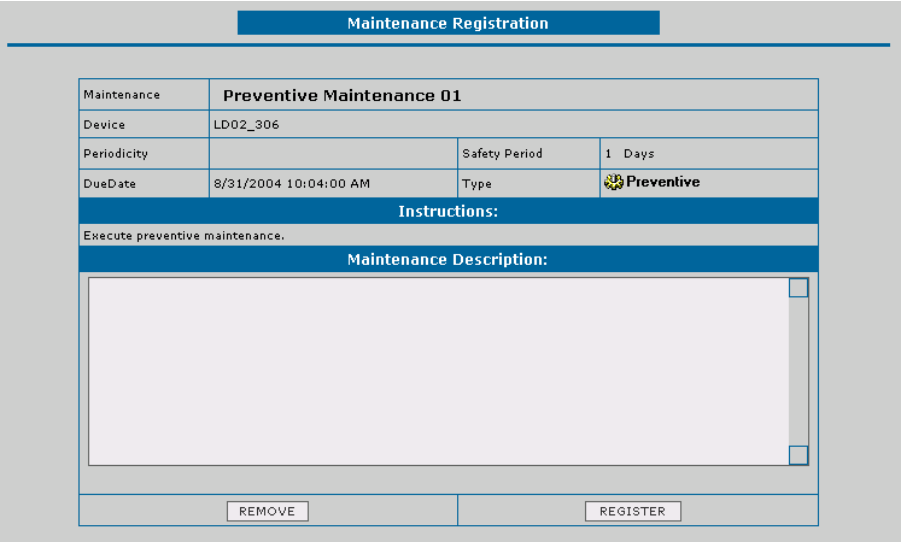
	Status	Device	Description	Due Date
		Logix3400MD_27	Maintenance from Diagnostic - Logix3400MD_27 - LOGIX3400MD_27_TRD - Fail to last known set point.	9/29/2011 10:26:33 AM
		LD302_1	LD302: Preventive Maintenance	10/4/2011 12:30:00 PM
		TT302_4	Temperature Calibration - Preventive	10/6/2011 12:30:00 PM
		LD302_1	Lower Pressure Calibration	10/6/2011 1:00:00 PM

Figure 8.22. Maintenance Alarms

The color indicates the severity of the alarm:

- Indicates the maintenance should be executed in the near future.
- Indicates the deadline for the maintenance to be executed.
- Indicates the date of the maintenance has expired.

To register the maintenance, click the icon to open the **Maintenance Registration** window. Type the description of the executed maintenance procedure and click the button **Register** to confirm that the maintenance has been executed.



Maintenance Registration

Maintenance	Preventive Maintenance 01		
Device	LD02_306		
Periodicity		Safety Period	1 Days
DueDate	8/31/2004 10:04:00 AM	Type	Preventive

Instructions:

Execute preventive maintenance.

Maintenance Description:

REMOVE | REGISTER

Figure 8.23. Registering the Maintenance

A message box will open confirming the procedure. Click **Ok** to conclude.

To remove the scheduled maintenance, click the icon related to the maintenance and, in the **Maintenance Registration** window, type a brief explanation about canceling the maintenance and click the button **Remove**. A message box will open confirming the procedure. Click **Ok** to conclude.

Maintenance Templates: Using the AssetView Maintenance Wizard

The user can create templates for the preventive maintenance of a device, and register these maintenances in the ***AssetView*** database. When the device is registered by the ***AssetView Server***, the maintenances are automatically added to the **List of Programmed Maintenances**.

Maintenances templates are created using the ***AssetView Maintenance Wizard***. To run this application, double-click the file **AVMaintenanceWizard.exe** located in the ***AssetView*** installation directory, inside the **bin** folder. The default installation path is "*C:\Program Files\Smar\AssetView\bin*".

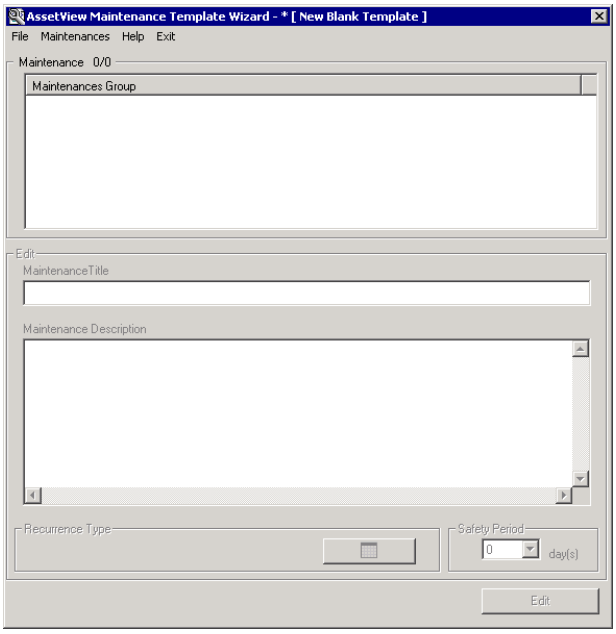


Figure 8.24. AssetView Maintenance Wizard

Creating Maintenance Templates

Go to the **File** menu and click **New Template**. Then, on the **Maintenances** menu, select the option **New Maintenance Wizard** to open the **Maintenance Template Wizard** dialog box:

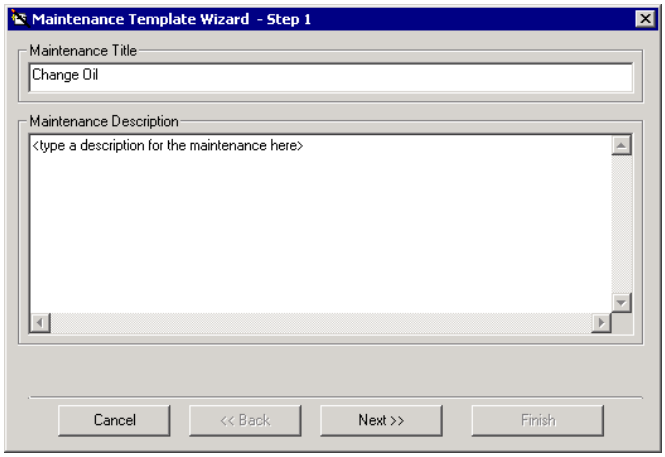


Figure 8.25. Creating Maintenance Templates

Type the name for the maintenance template and describe the maintenance procedure that should be executed. Click **Next** to continue.

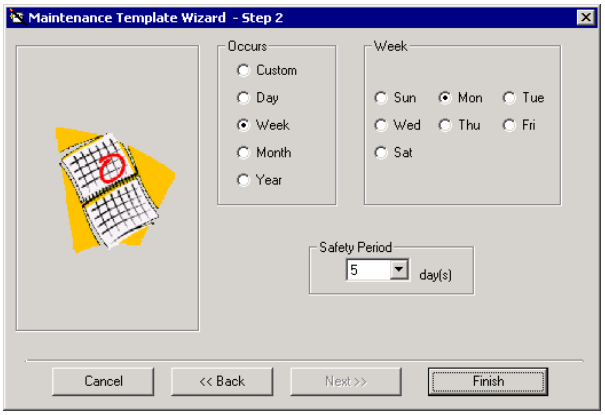


Figure 8.26. Defining the Schedule

In the field **Occurs**, select the maintenance occurrence: customized, daily, weekly, monthly or annual. According to this selection, define the hour, the day of the week, the day of the month or the day of the year that the maintenance should be executed or repeated.

Configure the maintenance alert in the field **Safety Period**, selecting the number of days that the user should be notified in advance about the maintenance. Click **Finish** to conclude.

Saving Maintenance Templates

On the **File** menu, click **Save** to open the **Save Maintenance Template** dialog box. The maintenance templates are saved in XML file format.

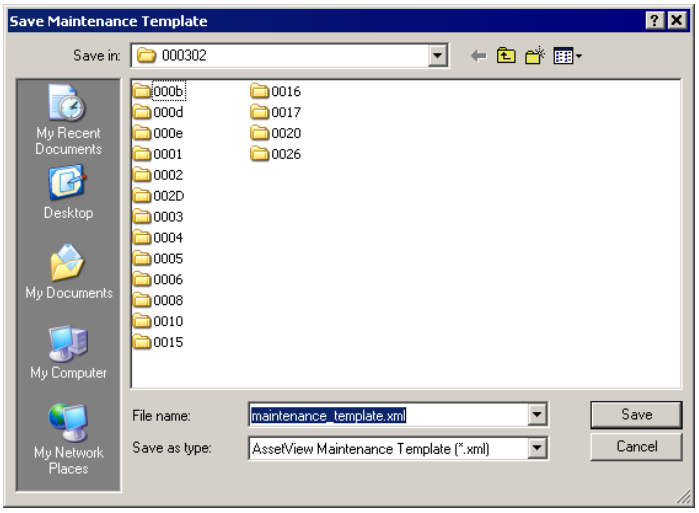


Figure 8.27. Saving the Maintenance Template

Type the name for the file and click **Save** to conclude.

IMPORTANT
The maintenance template file must be saved on the ***AssetView*** folder, following the default Web pages structure on the ***Device Support*** folder. The default path is: `C:\Program Files\Smar\Assetview\Web Pages\Device Support\<manufacturer code>\<device type code>` For example, if you create a maintenance template for Smar's **FY302**, the file must be saved in `C:\Program Files\Smar\Assetview\Web Pages\Device Support\000302\0006`.

Opening Maintenance Templates

On the **File** menu, click **Open Template** to open the **Open Maintenance Template** dialog box. Select the icon of the maintenance file and click **Open**.

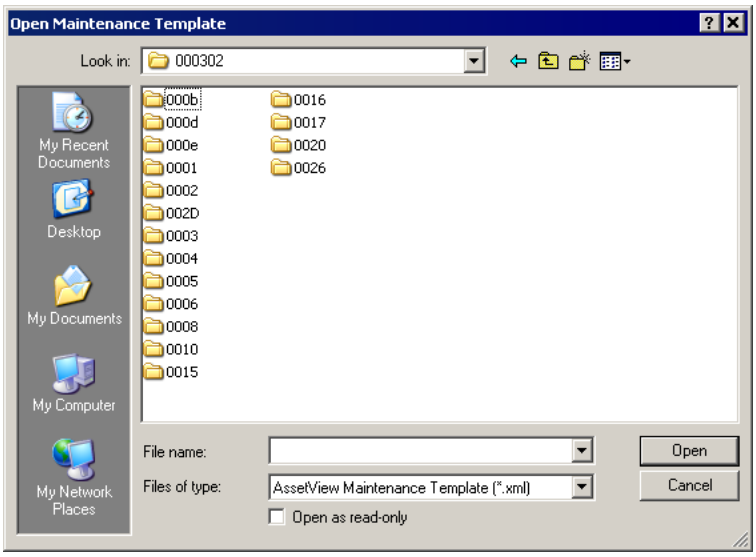


Figure 8.28. Opening the Maintenance Template

Editing Maintenance Templates

In the field **Maintenances Group**, select the icon of the maintenance to be edited and click **Edit**, at the bottom of the ***AssetView Maintenance Wizard*** window. Or go to the **Maintenances** menu and click **New Maintenance Wizard**. The fields will be available for edition:

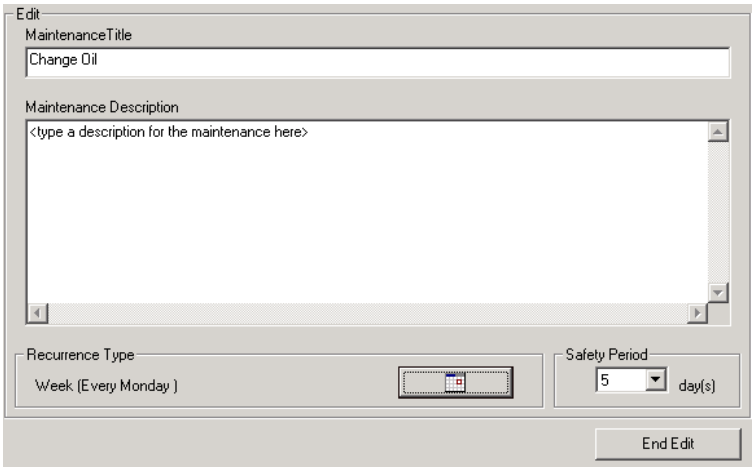


Figure 8.29. Editing a Maintenance

You can change the title of the maintenance and the description.

To edit the scheduling, click the button at the **Recurrence Type** field to open the **Recurrence Type** dialog box:

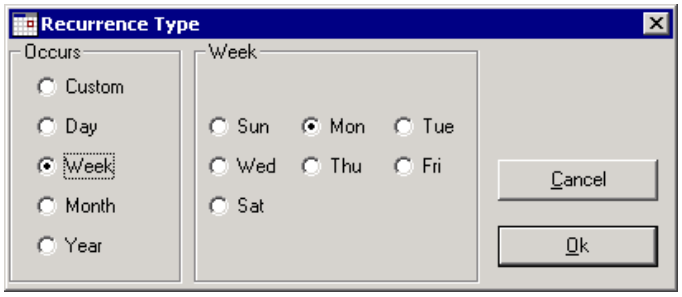


Figure 8.30. Editing the Scheduling

Select the recurrence type for the maintenance, define the recurrence period and click **Ok** to return to the ***AssetView Maintenance Wizard*** window.

It is also possible to edit the period that the user should be notified in advance about the maintenance. Select the number of days in the **Safety Period** box.

To conclude the edition, click **End Edit**, at the bottom of the ***AssetView Maintenance Wizard*** window.

Removing Maintenance Templates

To remove a maintenance template, select its icon on the **Maintenances Group** box. On the **Maintenances** menu, select the option **Remove Maintenance**.

The message box below will open to confirm the operation. Click **Yes** to remove the maintenance or click **No** to cancel the operation.

DEVICE LIBRARY

The **Device Library** is a set of information provided by manufacturers related to the devices, such as user's manuals, calibration procedures, preventive maintenance items, device-related diagrams and images, and notes. Observe the example below:

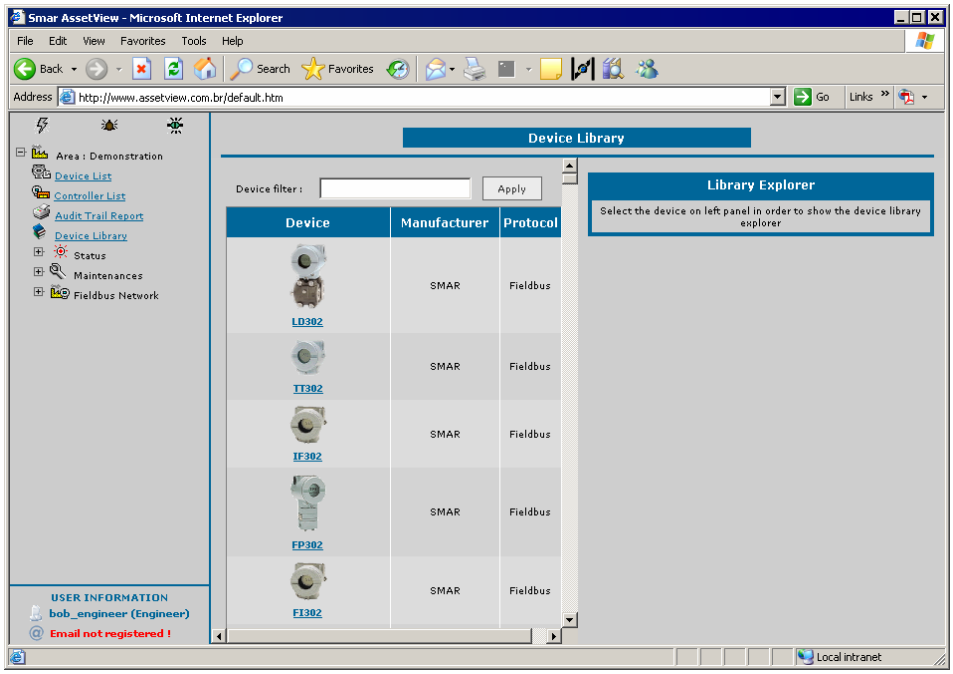


Figure 9.1. Device Library Page

Select the device on left panel to open the **Device Library Explorer** tabs on the right panel.

Device Images

Once a device is selected, the list of related images is shown at the **Explorer** tab. The example of the following figure shows a list of image files referring to the device **LD302** from **Smar**:

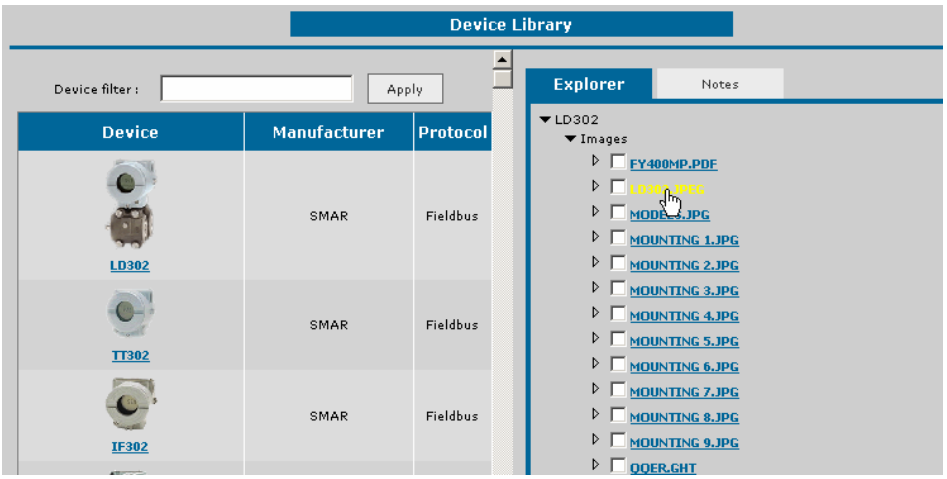


Figure 9.2. Example of Device Images

Click the image file name to view the image.

Adding Images

To include an image related to the device, at the bottom of the **Explorer** tab, type the name of the file or click **Browse** to locate the file, at the **Upload local file to library** area:

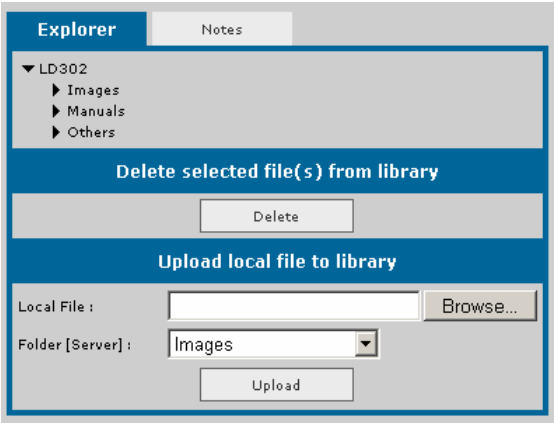


Figure 9.3. Adding Images

The dialog box to locate the file will open. Select the file of the image and click **Open**. At the **Explorer** tab, select the folder **Images** and click **Upload**.

The link to the new image will be created in the list of images and a copy of the original file will be created in the device's folder, in the device's manufacturer directory located at "**`AssetView\Web Pages\ DeviceLibrary\MANUFACTURERS\`**", at the default ***System302*** installation directory.

Removing Images

At the **Explorer** tab, expand the device's tree, mark the image(s) that will be deleted and click **Delete**.

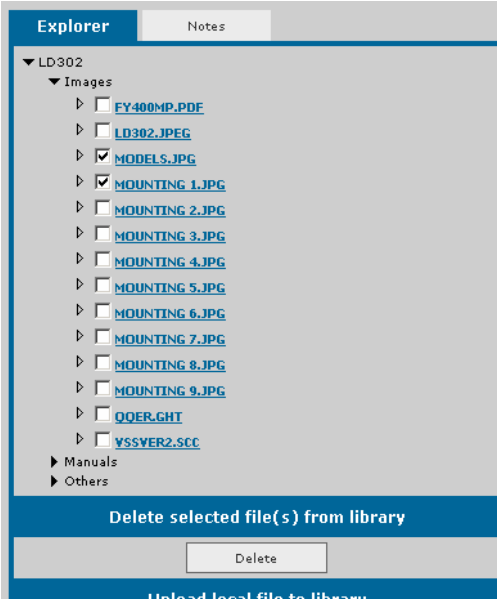


Figure 9.4. Removing Images

The link to the image will be deleted and the file will be removed from the related device's folder, in the manufacturer directory at the default installation path "**`\AssetView\Web Pages\DeviceLibrary\ MANUFACTURERS\`**", at the default ***System302*** installation directory.

Device Manuals

Click the **Manual** icon to open the documentation file from the device:

Adding Manuals

At the bottom of the **Explorer** tab, type the name of the file or click **Browse** to locate the file, at the **Upload local file to library** area:

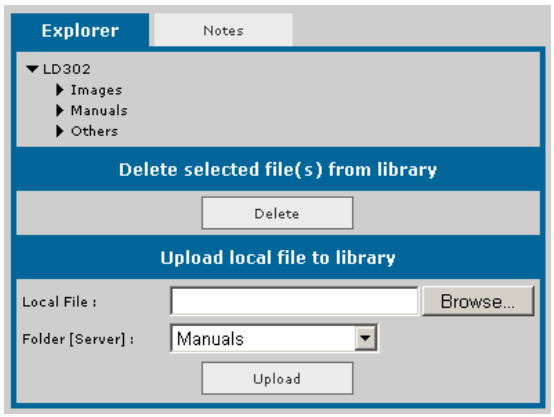


Figure 9.5. Adding a Manual

After selecting the manual file, select the folder **Manuals** and click **Upload**.

The link to the new manual will be created in the list of manuals and a copy of the original file will be created in the device's folder, in the device's manufacturer directory located at "**`AssetView\Web Pages\ DeviceLibrary\MANUFACTURERS\`**".

For example, if a manual was added to **Smar FY302**, the copy of the file will be created in the default installation directory: "**`C:\Program Files\Smar\AssetView\Web Pages\DeviceLibrary\MANUFACTURERS\SMAR\FY302\manual`**".

Removing Manuals

At the **Explorer** tab, expand the device's tree, mark the manual file(s) that will be deleted and click **Delete**.

The link to the manual will be deleted and the file will be removed from the related device's folder, in the manufacturer directory at the default installation path "**`\AssetView\Web Pages\DeviceLibrary\ MANUFACTURERS\`**".

Managing Other Files

Files related to descriptions or references for a device, or worksheets for example, are managed similarly to image and manual files.

To add a new file, type the name of the file or click **Browse** to locate the file, at the **Upload local file to library** area. After selecting the file, select the folder **Others** and click **Upload**. The link to the new file will be created in the list of files.

To remove a file, mark the name of the file that will be deleted and click **Delete**.

Managing Device Notes

Click a device icon to display the **Notes** tab which list of notes related to the device. See the example below:

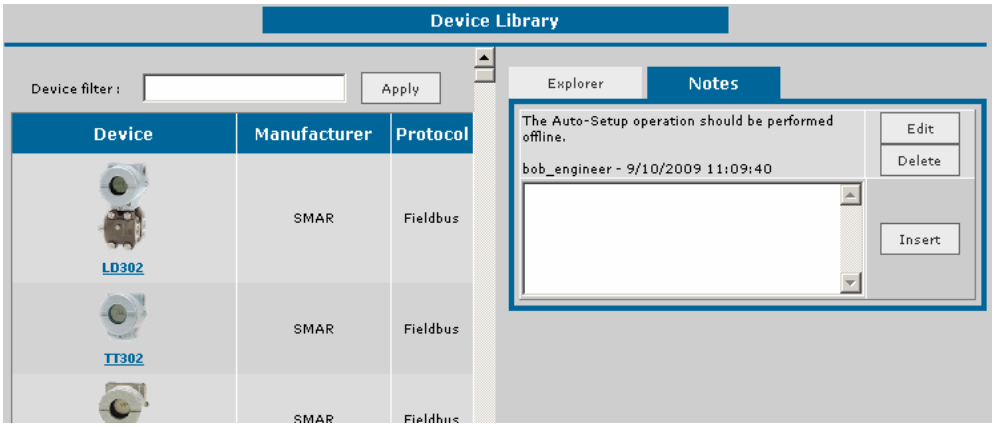


Figure 9.6. Example of Notes for the LD302

Adding Notes

To add a note to a device, type the text and click the button **Insert**. See the example below:

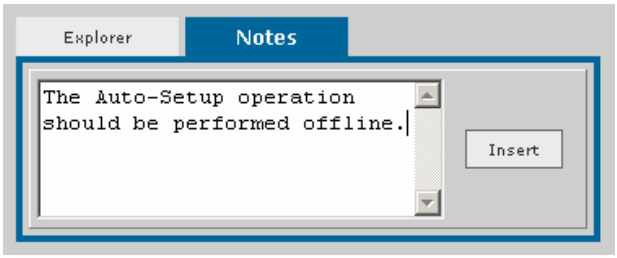


Figure 9.7. Adding a Note

The text will be displayed on the list of notes for the device.

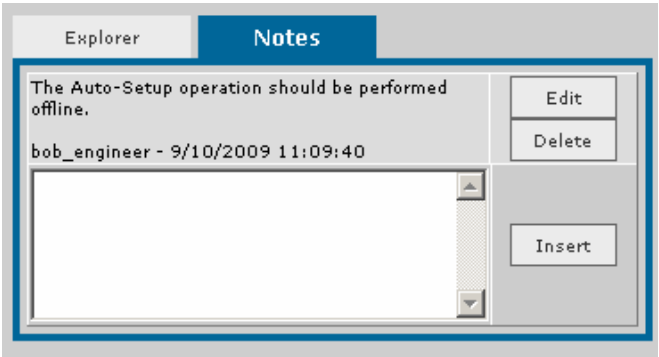


Figure 9.8. Device Note

Updating a Note

To update a note, click the button **Edit** corresponding to the note.

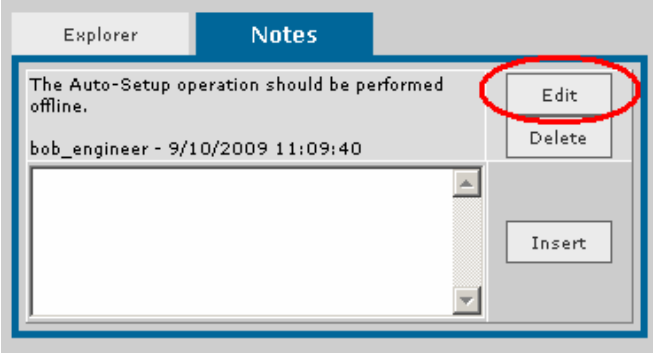


Figure 9.9. Editing a Note

The text box to edit the note will open. Edit the text and click **Update** to confirm the alterations:

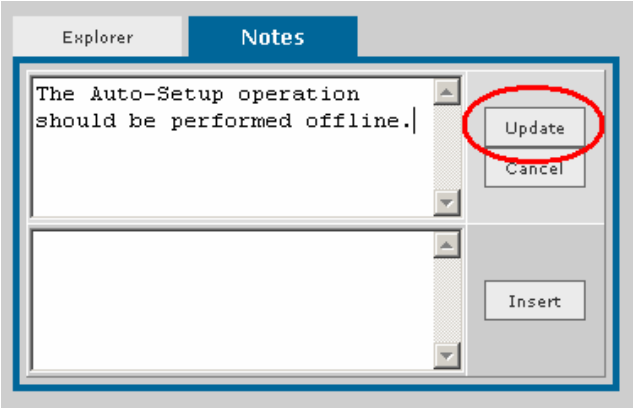


Figure 9.10. Updating a Note

To cancel the alterations, click **Cancel** and the text will not be altered.

Removing Notes

To remove a note, click the button **Delete** corresponding to the note. See the example below:

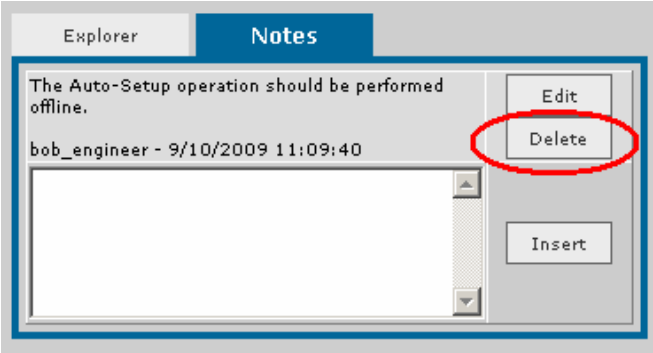


Figure 9.11. Deleting Notes

The note will be removed from the list of notes for the device.

KNOWN PROBLEMS AND LIMITATIONS

1. ***AssetView Server is monitoring the changes of the parameters (Tracking Activated). An online Web page from AssetView is requested and all fields in the page are blank, instead of showing the values. At the same time, the monitoring procedure (Tracking) stops.***

Run the **dcomcnfg** application, select the application **Smar OPC & Conf Server for DFI302** and click **Properties**. At the **Identity** tab, select the option **The Interactive User**. Click **Ok** to conclude.

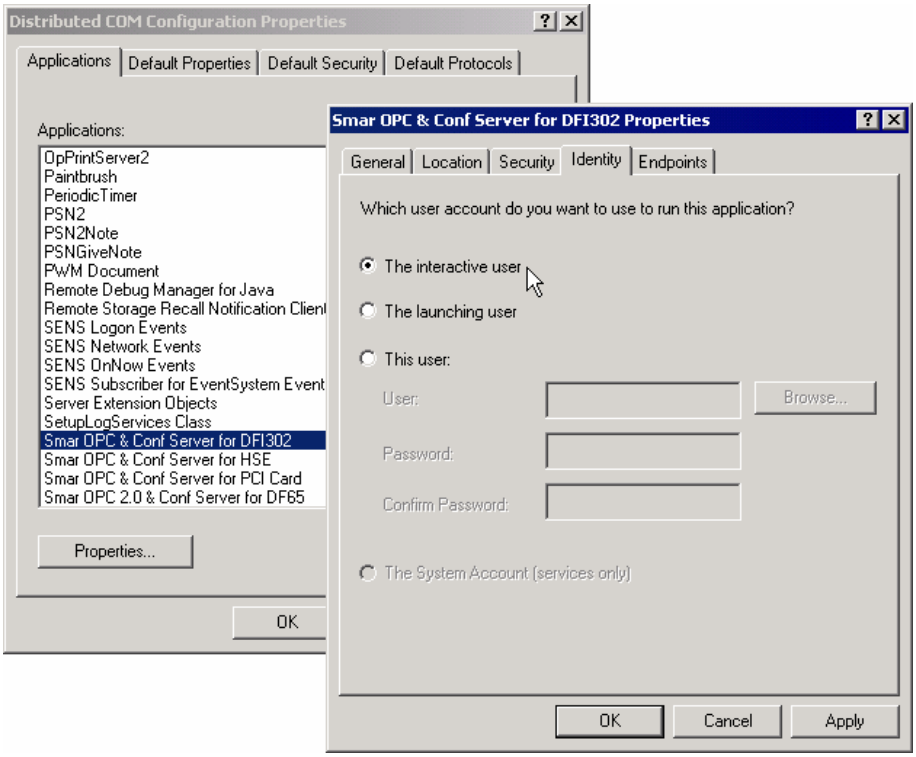


Figure 10.1. Configuring the DCOM Properties

2. ***When trying to execute an operation in the page, the following error message appears:***

Figure 10.2. Error Message

The user logged probably doesn't belong to the **Engineers** group. Refer to the section ***User Permission*** on ***Section 1***, in this manual.

IMPORTANT! If the user belongs to a **domain**, the group **Engineers** must exist in the domain server and the user must be added to this group to perform specific operations.

3. ***When trying to start the AssetView Server after the installation, the following error message appears:***

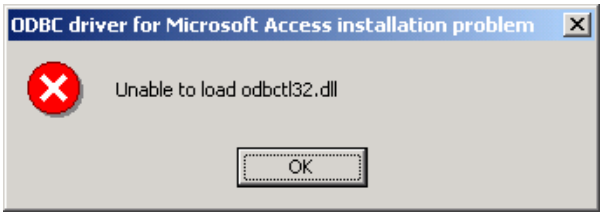


Figure 10.3. Database Installation Error

This message occurs if Windows is not installed in drive C and the ***System302*** version is prior to version 6.1.3.3.

- If the user is running the ***AssetView Server*** with **Windows 2000**, click **Start > Settings > Control Panel > Administrative Tools > Data Sources (ODBC)**.
- If the user is running the ***AssetView Server*** with **Windows NT**, click **Start > Settings > Control Panel > ODBC**.

The **ODBC Data Source Administrator** dialog box will open. Click the **System DSN** tab and double-click the ***AssetView*** data source name to open the dialog box. Click **Select** and locate the file **AssetView.mdb** in the folder "`<System302 Installation Path>\AssetView\Database\`".

Click **Ok** and close the **ODBC Data Source Administrator** dialog box.

4. ***When trying to open the AssetView main page, the following error message appears: "The page cannot be found".***

The *Virtual Directories* of ***AssetView*** might not have been created correctly during the installation.

Refer to the **Appendix A** for specific information about the *Virtual Directories*.

5. ***The Device icon in the Tracking window doesn't have its normal state recovered after the communication is restored.***

Close the **Tracking** window and open it again by clicking **View > Tracking View**.

6. ***IIS and .NET Framework installation: AssetView pages are not shown in the browser.***

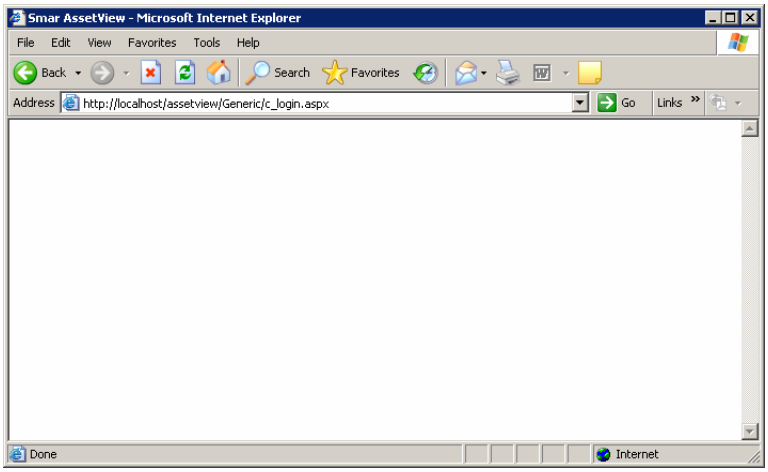


Figure 10.4. *AssetView* Pages Blank

The **Internet Information Services** must always be installed before the **.NET Framework**.

In case the installation order is inverted, follow the procedure below:

a. On the **Start** menu, select **Run** and type **cmd**. The command interpreter window will open.

b. Execute the file **aspnet_regiis.exe** located on the default directory "`C:\WINDOWS\Microsoft.NET\Framework\v1.1.4322\`". On the command line, type:

C:\WINDOWS\Microsoft.NET\Framework\v1.1.4322\aspnet_regiis.exe -i

c. The **Internet Information Services** will be configured. Wait a few seconds until the procedure is concluded and close the command interpreter window. See the example below:

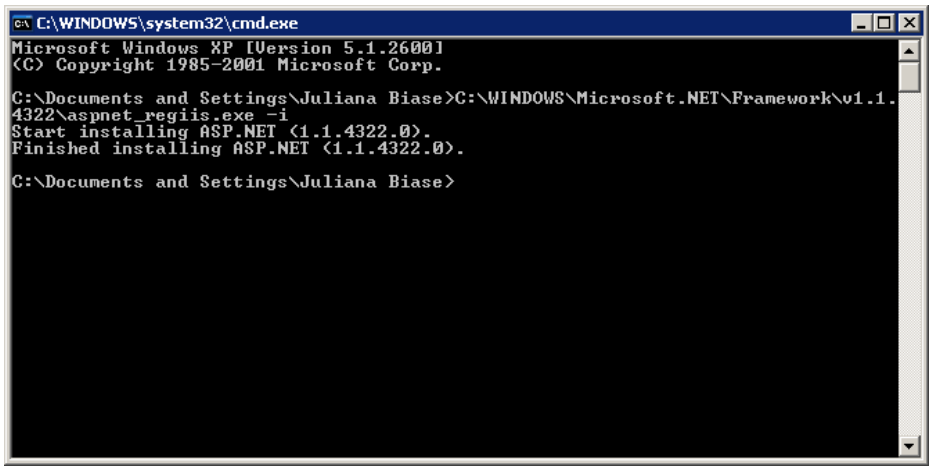


Figure 10.5. Command Window

d. Open the **Control Panel**, double-click the icon **Administrative Tools** and open the **IIS** window.

e. Right-click the icon of the ***AssetView*** folder and select the option **Properties**.

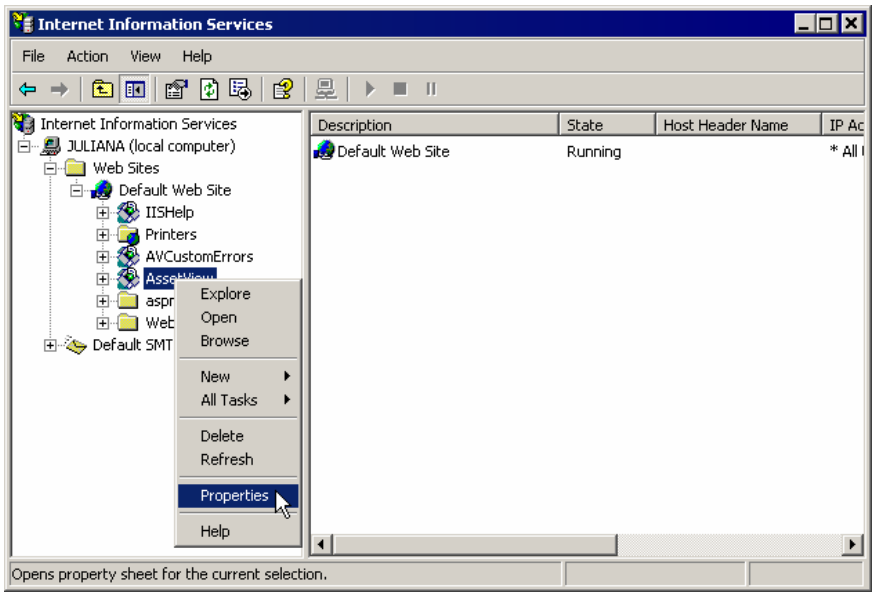


Figure 10.6. AssetView Folder Properties

f. On the **Properties** dialog box, select the **ASP.NET** tab and select **version 1.1.*** of ASP.NET, as indicated in the figure below:

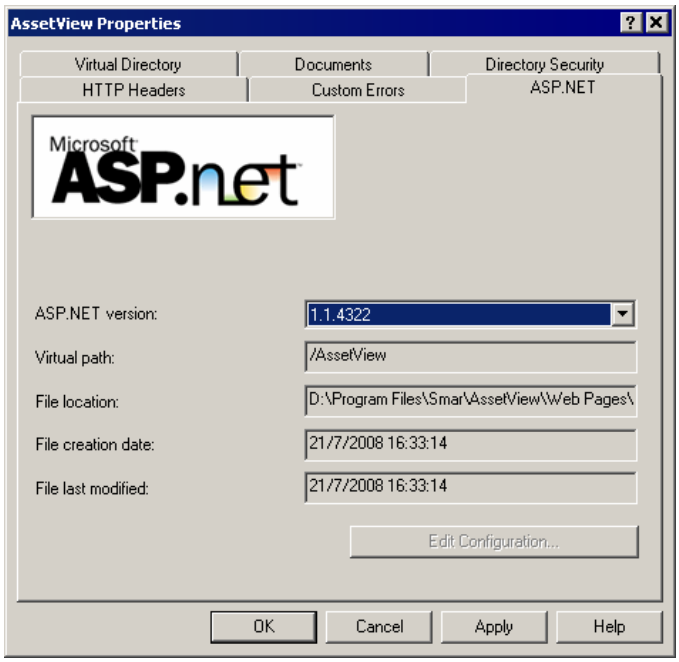


Figure 10.7. AssetView Folder Properties

g. Click **Ok** to conclude and close the **IIS** window.

ASSETVIEW VIRTUAL DIRECTORIES

Configuring IIS 5.0 on Windows XP

Creating the Virtual Directories

If the virtual directories were not created during the ***System302*** installation, it will be necessary to create them according to the procedure described below.

Click **Start > Settings > Control Panel** and double-click **Administrative Tools**. Start the **Internet Services Manager**. The **Internet Information Services Manager** window will open.

Expand the directory tree of the server machine and right-click the **Default Web Site** directory. Select **New > Virtual Directory**.

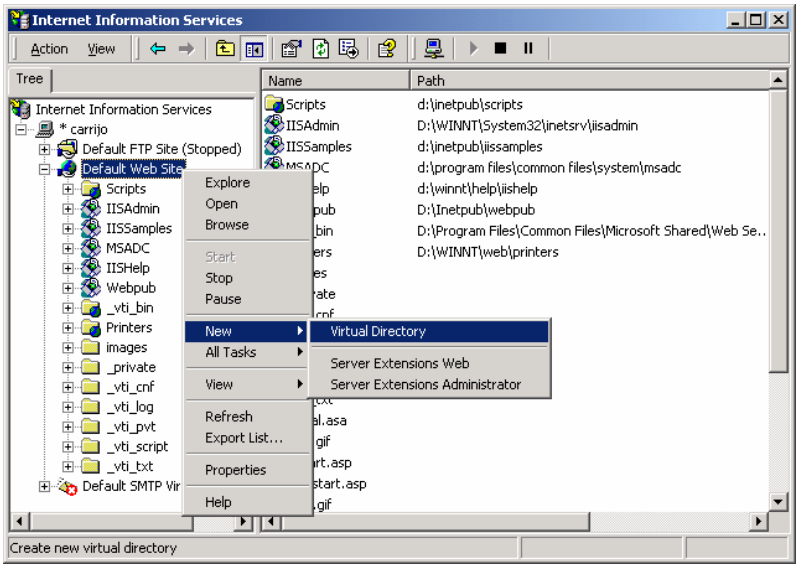


Figure A.1. IIS Manager

The **Virtual Directory Creation Wizard** dialog box will open. Click **Next** and type the name ***AssetView*** to create the virtual directory. Click **Next**.

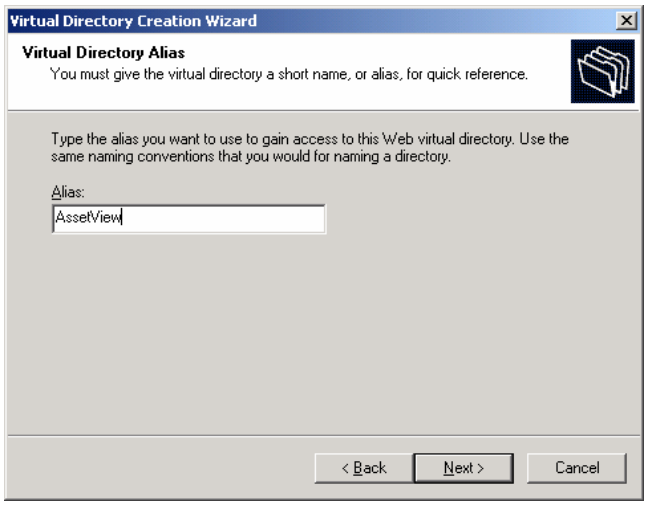


Figure A.2. Creating the Virtual Directory

Select the path of the new virtual directory. The default installation path is "`C:\Program Files\Smar\AssetView\Web Pages`". Or click **Browse** and select the **AssetView Web Pages** directory.

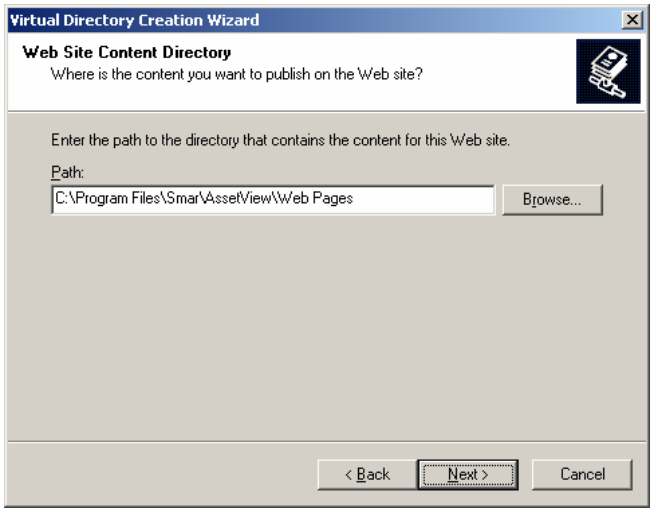


Figure A.3. Locating the *AssetView* Directory

Click **Next**. On the following dialog box, select the options **Read and Run scripts (such as ASP)**.

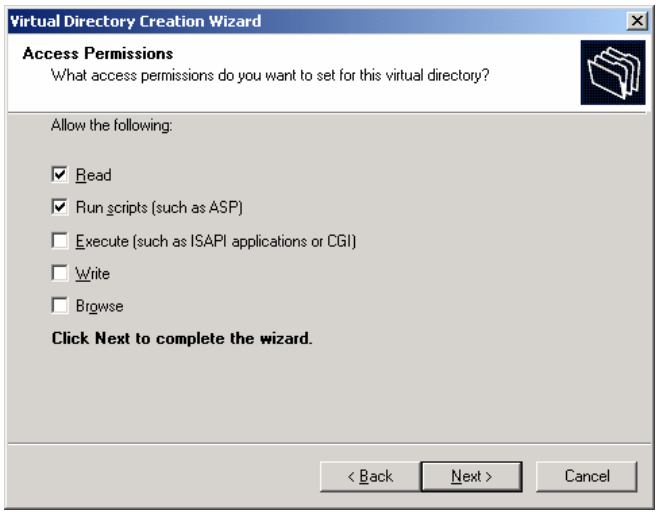


Figure A.4. Configuring the permissions for the Virtual Directory

Click **Next** to complete the wizard and click **Finish** to conclude.

Check if the virtual directory was created at the **Internet Information Services** window.

Once the virtual directory is created correctly, it will be necessary to configure the properties of the virtual directory according to the section below.

Configuring the Properties of the Virtual Directories

At the **Internet Information Services** window, expand the directory tree of the **Default Web Site** directory, right-click the ***AssetView*** virtual directory and select **Properties** from the menu.

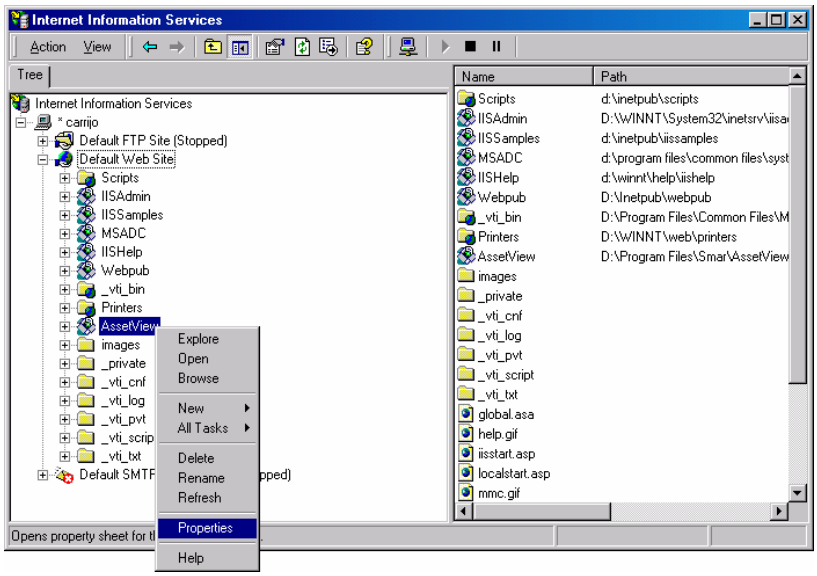


Figure A.5. AssetView Virtual Directory

The **AssetView Properties** dialog box will open.

At the **Virtual Directory** tab, select the options **Read** and **Index this resource** in the **Local Path** rectangle. In the **Application Settings** area, select **Low (IIS Process)** in the **Application Protection** box.

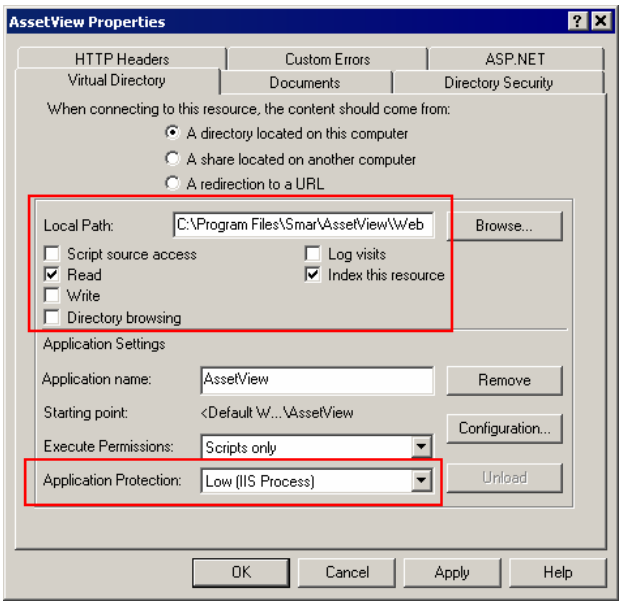


Figure A.6. Properties of the Virtual Directory

Select the **HTTP Headers** tab and mark the option **Enable Content Expiration** and **Expire Immediately**, as indicated below:

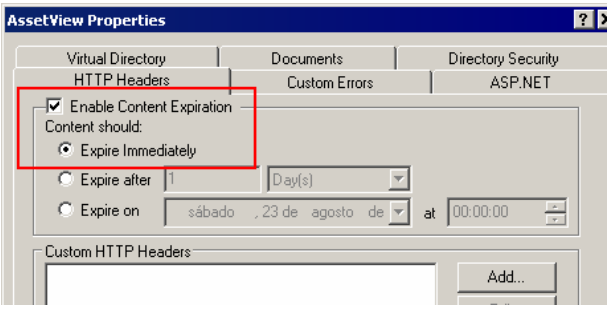


Figure A.7. Properties of the Virtual Directory

Select the **ASP.NET** tab and select version **1.1.*** for ASP.NET, as the example in the figure below:

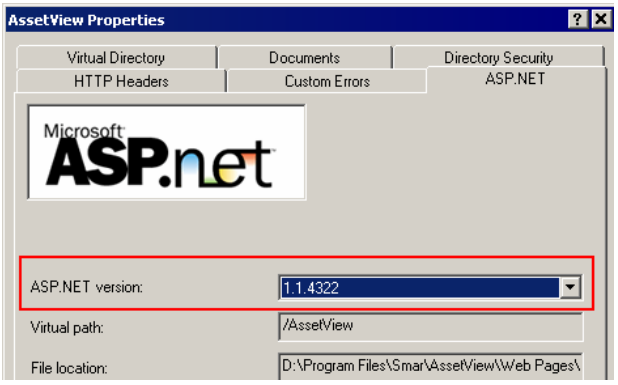


Figure A.8. Selecting the ASP.NET version

Click **OK** to close the dialog box and close the **AssetView Properties** dialog box.

Configuring IIS 6.0 on Windows Server 2003

Configuring the Application Pool

It is necessary to create the *Application Pool* in IIS 6.0 for ***AssetView***:

i. Open the **Internet Information Services** window. Click **Start > Settings > Control Panel** and double-click **Administrative Tools**. Then double-click **Internet Information Services Manager**.

ii. Right-click the **Application Pool** icon and select **New > Application Pool**.

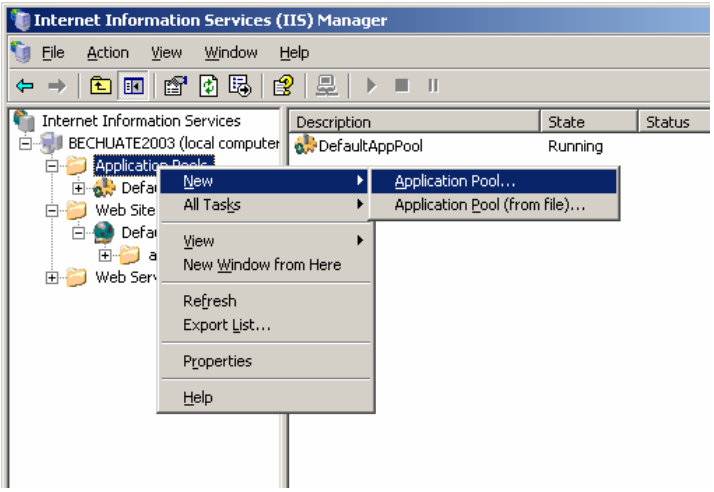


Figure A.9. Creating the Application Pool

iii. The **Add New Application Pool** dialog box will open.

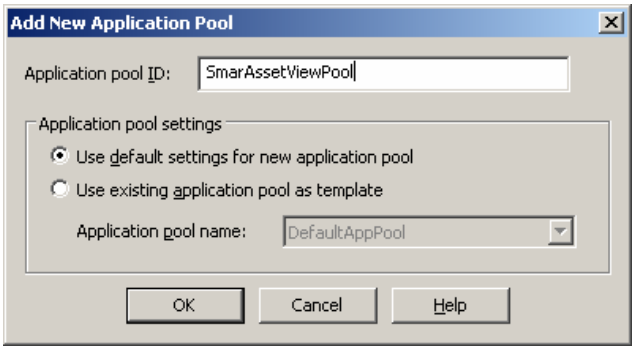


Figure A.10. Application Pool Identification

iv. Type **SmarAssetViewPool** as the Application Pool ID and click **Ok**.

v. Right-click the **SmarAssetViewPool** icon and select **Properties**.

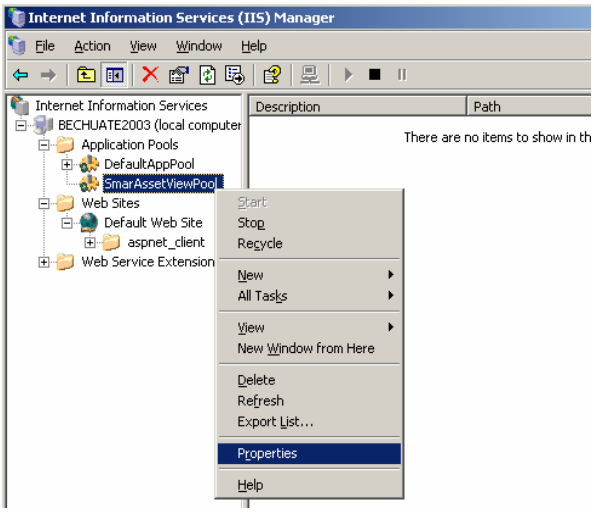


Figure A.11. Application Pool Properties

vi. The **SmarAssetViewPool Properties** dialog box will open.

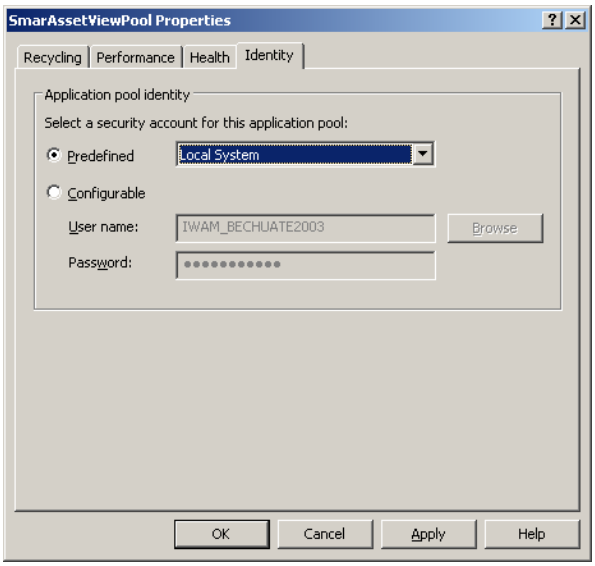


Figure A.12. AssetView Application Pool Properties

vii. Select the **Identity** tab, check the option **Predefined** and select **Local System** as the user account.

viii. Click **Ok** to conclude.

Creating the Virtual Directories

Now, it will be necessary to create the Virtual Directories.

On the **Internet Information Services Manager** window, expand the directory tree of the server machine and right-click the **Default Web Site** icon. Select **New > Virtual Directory**.

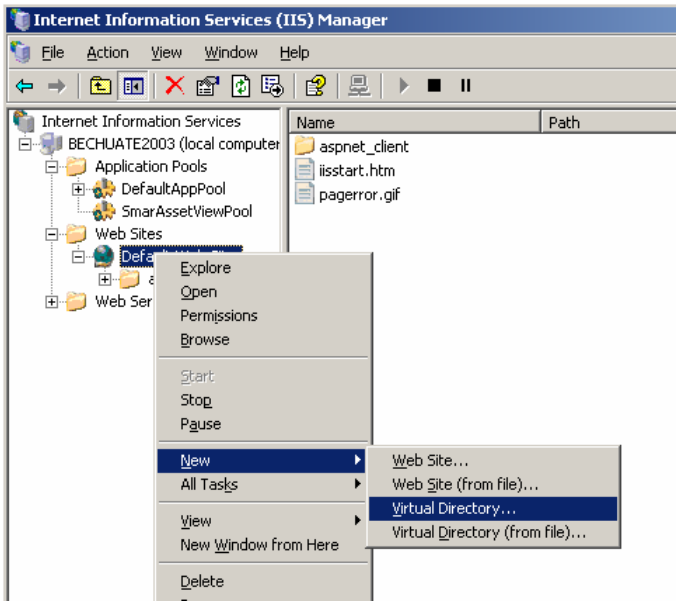


Figure A.13. Creating the Virtual Directory for the AssetView Application Pool

The **Virtual Directory Creation Wizard** will open. Click **Next** and type **AssetView** as the alias of the virtual directory. Click **Next**.

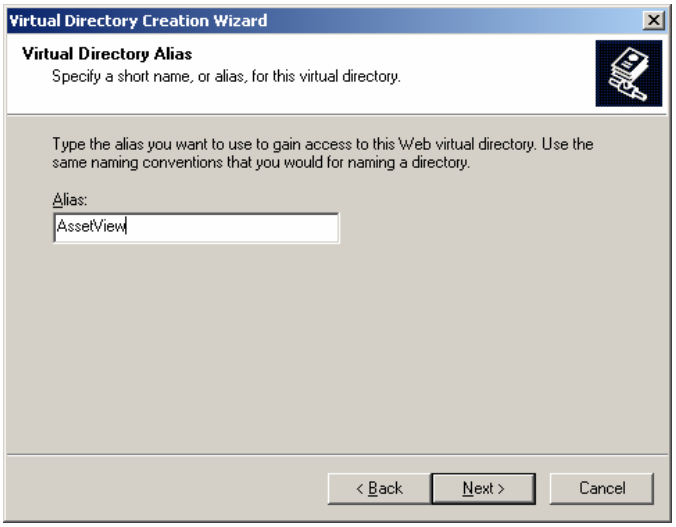


Figure A.14. Configuring the Virtual Directory

Then select the path of the new virtual directory. The default installation path is `C:\Program Files\Smar\AssetView\Web Pages`. Or click **Browse** to locate the **AssetView Web Pages** directory.

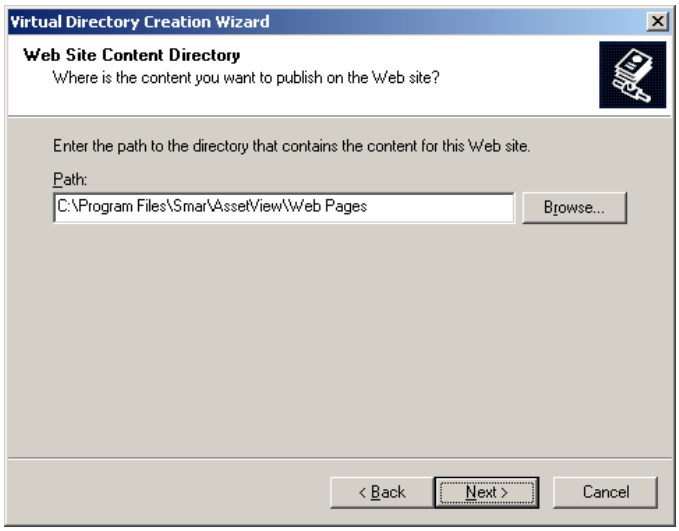


Figure A.15. Locating the *AssetView* Directory

Click **Next** to continue. On the following dialog box, select the options **Read** and **Run scripts (such as ASP)**.

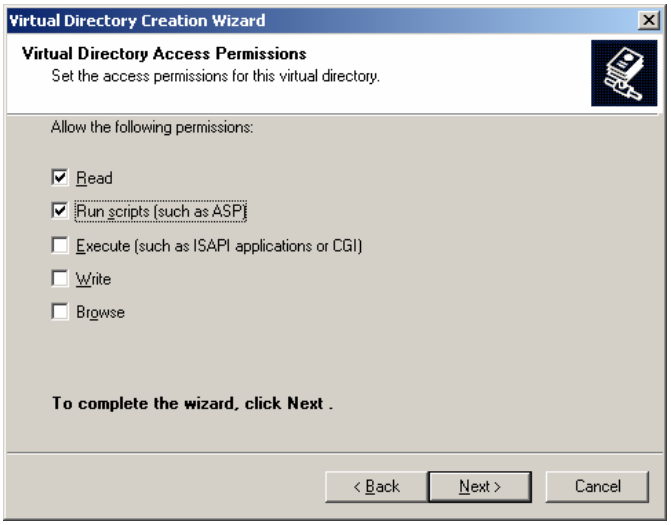


Figure A.16. Configuring the Permissions for the Virtual Directory

Click **Next** to complete the wizard then click **Finish** to conclude.

Once the virtual directory is created correctly, it will be necessary to configure the properties of the virtual directory according to the Application Pool created previously.

Configuring the Properties of the Virtual Directories

On the **Internet Information Services Manager** window, right-click the **AssetView** virtual directory and click **Properties**.

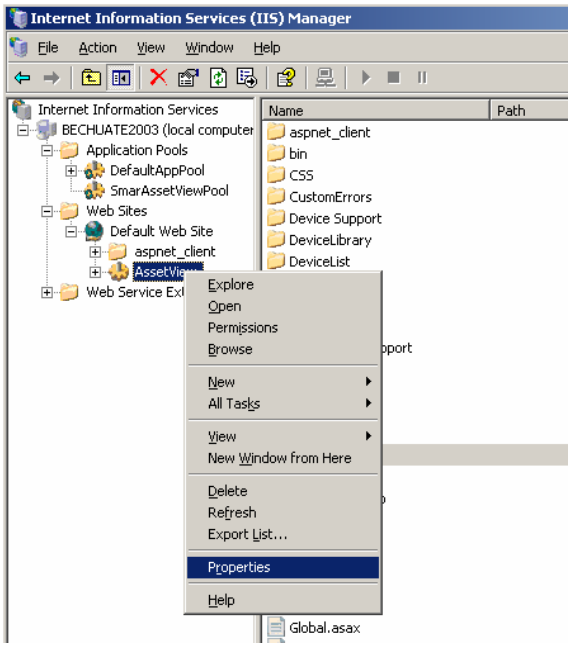


Figure A.17. AssetView Virtual Directory

The **AssetView Properties** dialog box will open. At the **Virtual Directory** tab, select the options **Read** and **Index this resource** in the **Local Path** rectangle. In the **Application Settings** area, select **SmarAssetViewPool** created previously as the Application pool for the virtual directory.

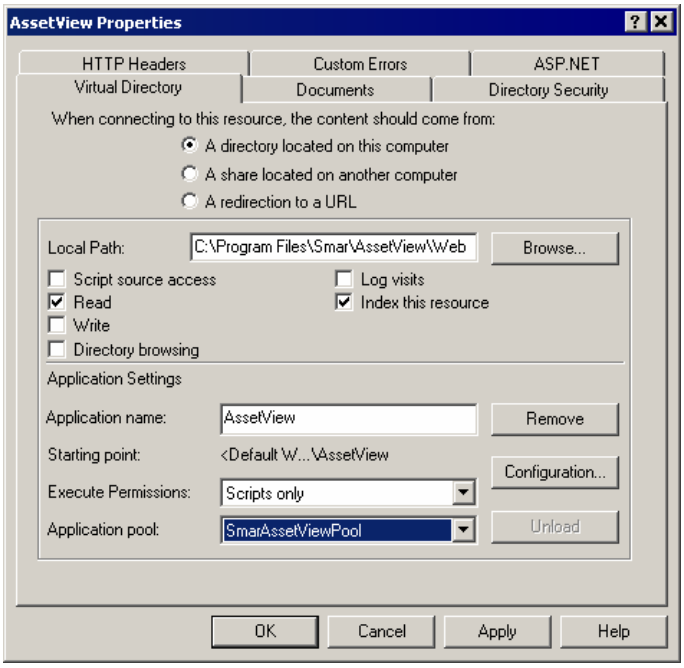


Figure A.18. Properties of the Virtual Directory

At the **Directory Security** tab, click **Edit** in the **Anonymous Access and Authentication Control** area. Verify that the **Anonymous access** option is selected.

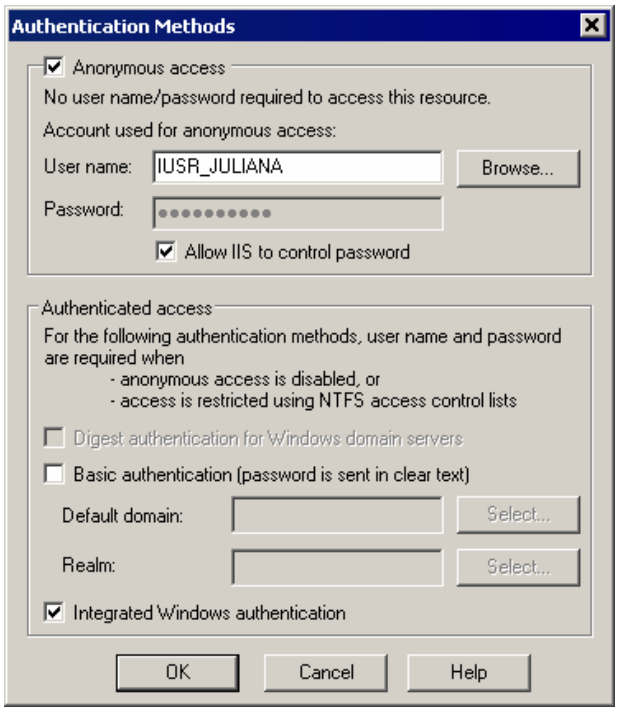


Figure A.19. Configuring the Authentication Method

Click **OK** to close the dialog box and close the **AssetView Properties** dialog box.

Select the **HTTP Headers** tab and mark the option **Enable Content Expiration** and **Expire Immediately**. Then, select the **ASP.NET** tab and select version **1.1.*** for ASP.NET.

The IIS configuration for ***AssetView*** is complete.

ASSETVIEW DATABASE BACKUP PROCEDURES

Use the ***AssetView Backup*** application to backup the ***AssetView*** database. The ***AssetView Backup*** is easy to execute, and it can be used with the SQL Server or the MSDE database.

The ***AssetView Backup*** must be located in the same directory of the file **SmarAssetServer.exe**, because these applications use the same connection (**Assetview.udl**).

It is recommended to run the ***AssetView Backup*** application in the machine where the database server is installed. Even if the ***AssetView Backup*** is executed in a remote machine, the backup will be saved in the machine where the database server is installed.

Attention:

- Store the backup files in a secure place. It is recommended to save three copies of each backup file and store them in different locations.
- Execute the backup procedure on regular intervals.
- Define a reasonable period of time to store old backup versions.

IMPORTANT
Before executing the ***AssetView Backup***, make sure that the ***AssetServer*** is not being executed and the ***AssetView*** pages are not open.

Creating the Backup File

1. On the **Start** menu, select **Programs > System302 > AssetView > Backup AssetView Database**, as indicated below:

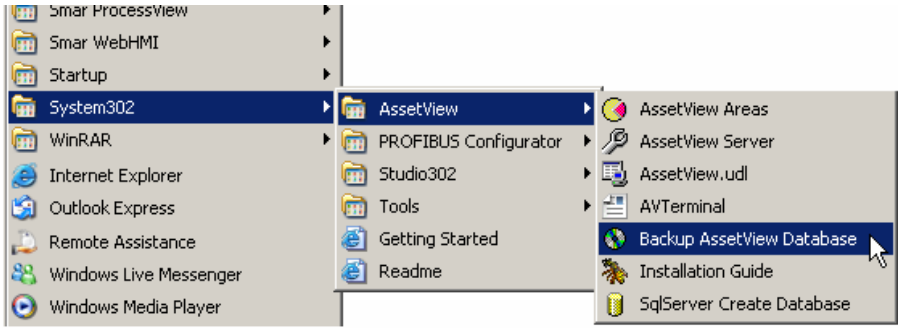


Figure B.1. Starting the AssetView Backup

2. The **AssetView Backup** window will open:

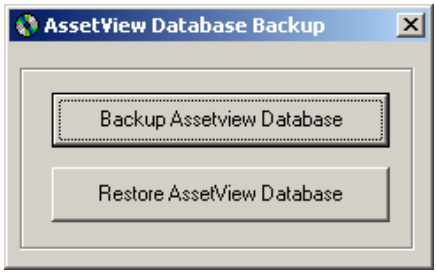


Figure B.2. AssetView Backup Window

3. Select the option **Backup AssetView Database** to open the **Backup AssetView** dialog box.
4. Select the folder where the backup file will be saved and type the name for the file.
5. Click **Save** to conclude.

Restoring the Database

Before restoring the database, make sure the ***AssetServer*** is not being executed and the ***AssetView*** pages are not open.

It will be necessary to create a new ***AssetView*** database before restoring an old database. Follow the steps described below:

1. To create a new ***AssetView*** database, go to the **Start** menu and select **Programs > System302 > AssetView > SqlServer Create Database**.
2. The **Configure SQL Server Database** window will open:

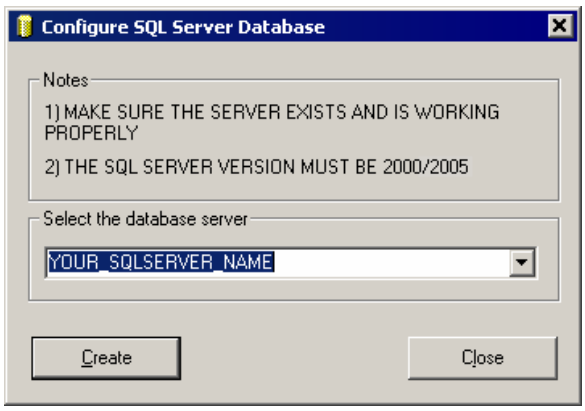


Figure B.3. Configure SQL Server Database Window

3. Select the name of the database server and click **Create**.
4. A message box will open to confirm the operation. Click **Yes** to proceed and wait a few seconds until a message box confirms that the operation was successful.
5. Click **Ok** and then click **Close** on the **Configure SQL Server Database** to conclude.
6. On the **AssetView Backup** window, select the option **Restore AssetView Database**. The **Backup AssetView** dialog box will open.
7. Select the icon of the backup file that will be restored and click **Open**.
8. A message box will open to confirm the operation. Click **Yes** to proceed.
9. Wait a few seconds until a message box confirms that the operation was successful. Click **Ok** to conclude.

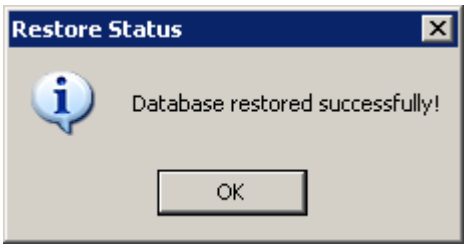


Figure B.4. AssetView Backup Database Restored

TUTORIAL: ASSETVIEW DEVICE WIZARD

AssetView Device Wizard Foundation Fieldbus has a DD library for Foundation Fieldbus devices that contain information provided by the devices manufacturers, such as parameters and the corresponding enumerations.

The execution file for ***AssetView Device Wizard Foundation Fieldbus*** is located on the ***System302*** default installation path: *C:\Arquivos de Programas\Smar\AssetView\bin*.

To run the ***Device Wizard***, double-click the icon of the **DeviceWizard.exe** file. See the figure below:

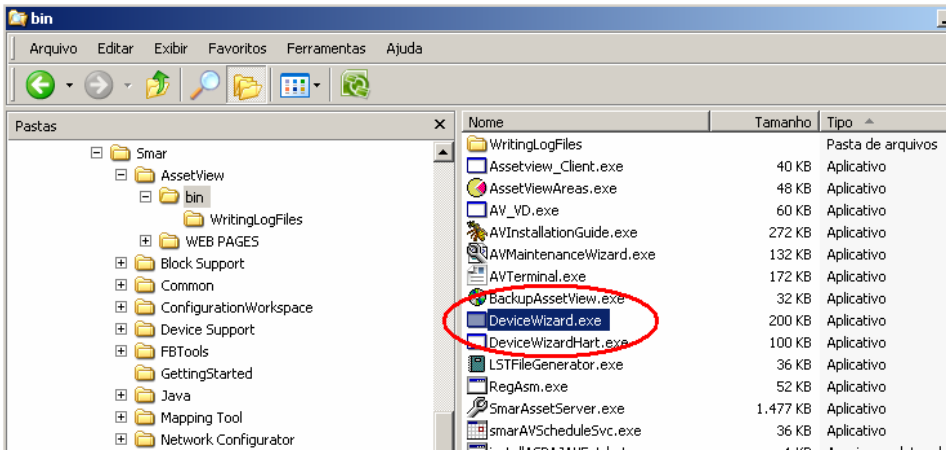


Figure C.1. Running *AssetView Device Wizard*

The ***AssetView Device Wizard*** window will open:

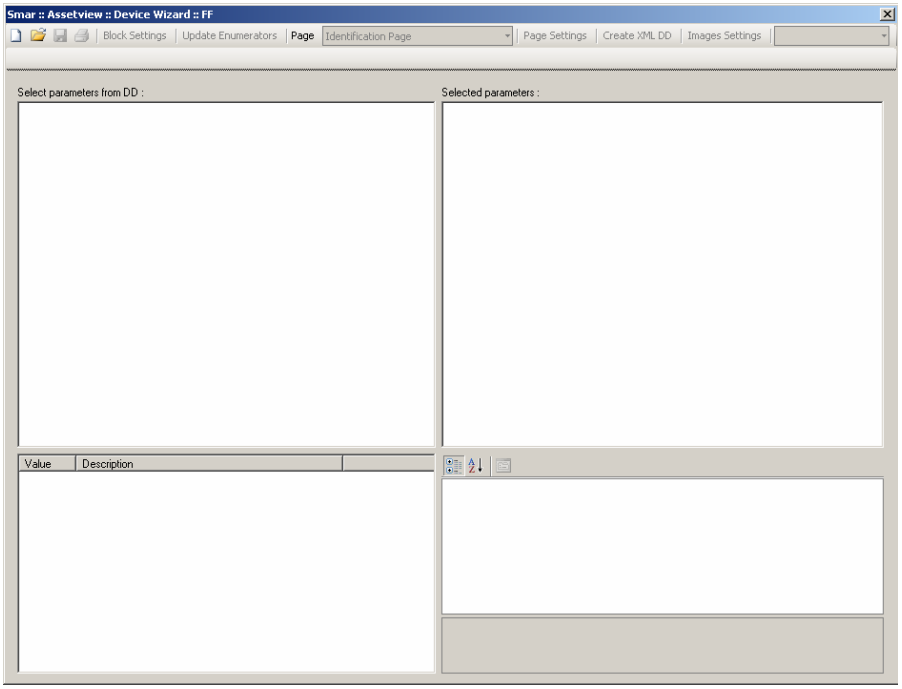


Figure C.2. *AssetView Device Wizard* window

Creating XML Templates for Devices

AssetView Device Wizard creates XML templates for SMAR and third-parties devices from DD files.

To create a XML template, click **New** on the main toolbar. The **Device Support Explorer** dialog box will open:

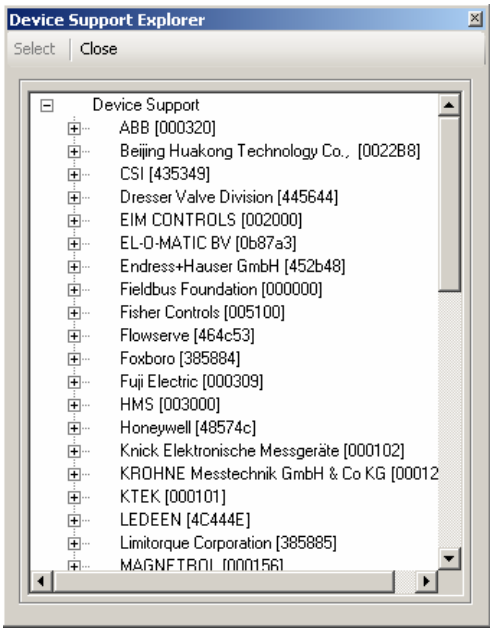


Figure C.3. Creating templates

Expand the manufacturer tree to list the types of devices available and their corresponding DD versions:

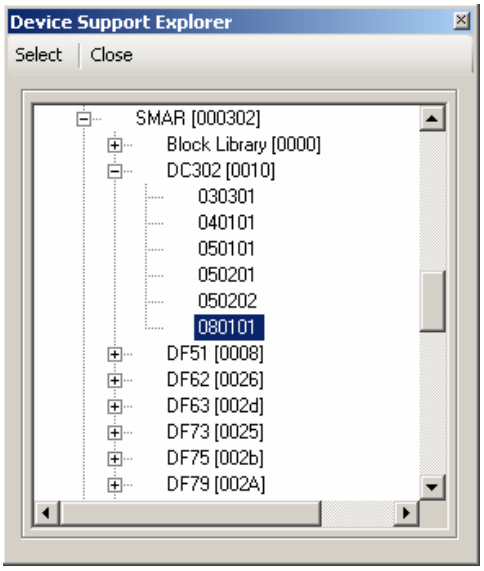


Figure C.4. Selecting the DD version

Select the DD revision and click **Select** to return to the ***AssetView Device Wizard*** window.

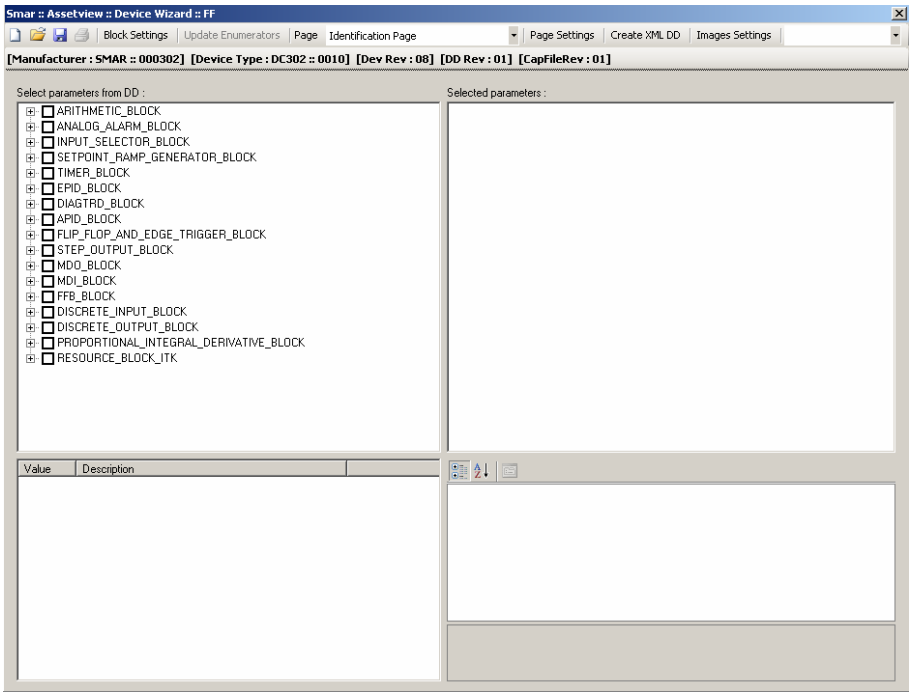


Figure C.5. Configuring a template

The panel **Select parameters from DD** on the left side of the ***AssetView Device Wizard*** window shows the blocks supported by the selected device and the parameters available.

At the **Page** combo box on the main toolbar, select the ***AssetView*** web page of the device where the configured parameters will be displayed.

Then, expand the block icon to list the parameters supported by the block that will be configured.

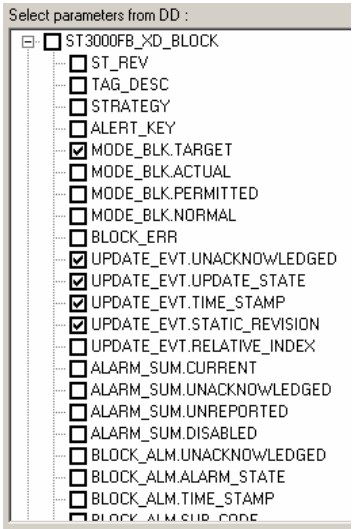


Figure C.6. Selecting parameters

Mark the desired parameters and the panel **Selected parameters** on the right side of the ***AssetView Device Wizard*** window will show the selected parameters and related information. See the example below:

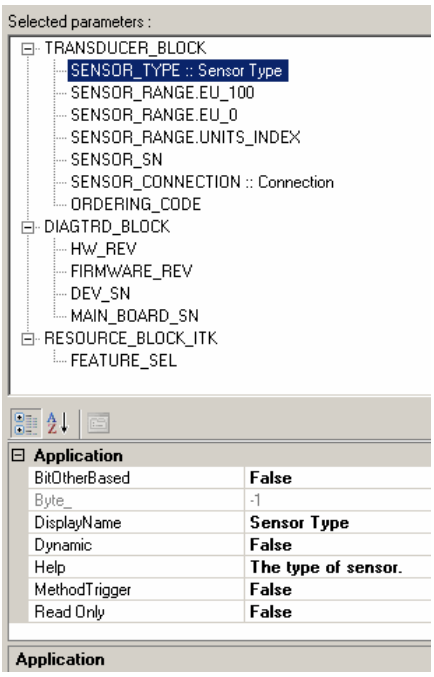


Figure C.7. Selected parameters

The following Information are displayed for the parameters:

- **BitOtherBased:** Only for diagnostic parameters. It indicates that when the parameter has an alarm status, the diagnostic **Other** from the parameter **BLOCK_ERR** is activated.
- **Byte:** When the diagnostic parameter is an *array*, this attribute indicates which element is being considered.
- **Display Name:** This attribute indicates the name of the parameter displayed on the ***AssetView*** web page.
- **Dynamic:** When this attribute is **True**, the parameter is read online. If **False**, the parameter is read from the ***AssetView*** database.
- **Help:** This attribute adds the description to the parameter.
- **MethodTrigger:** It indicates that the value of the parameter is not altered when writing to the device. Writing acts only as a trigger.
- **Read Only:** When **True**, the parameter is **Read Only**. If **False**, writing is enabled for the parameter.

For **Read Only** parameters, it is only possible to read values from the parameters, that is, the user can not actuate on the device.

For **Read/Write** parameters, it is possible to read values from the parameters and edit values according to the device operation, submitting new values to the device.

If the selected parameter is an *enumerador*, check the *enumerations* on the bottom of the left panel. See the example below:

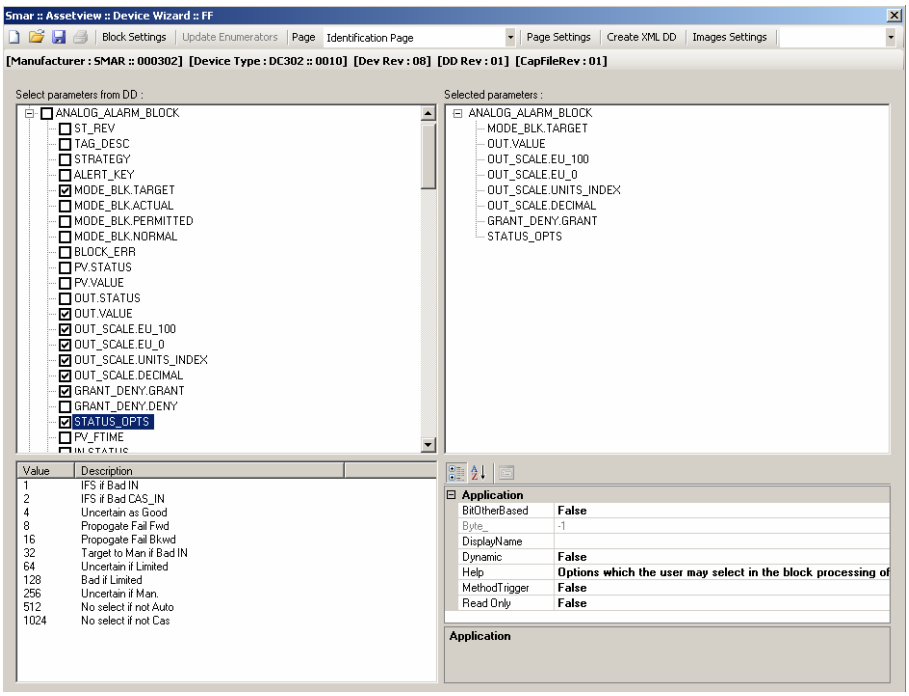


Figure C.8. Enumerations

Click **Save** on the main toolbar to save the XML template. A dialog box indicates the progress.

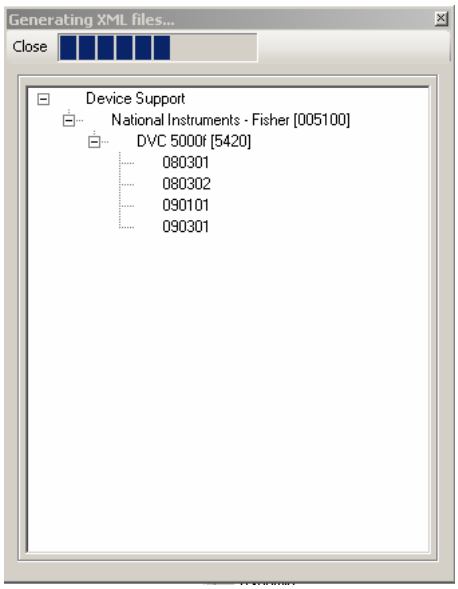


Figure C.9. Saving the XML template

Opening a Template

On the main toolbar, click **Open** to open an existent device template. On the dialog box, double-click the icon of the device template:

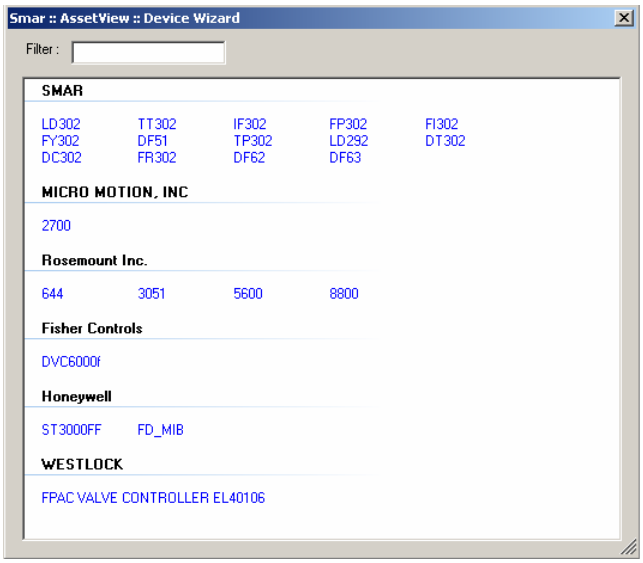


Figure C.10. Opening a device template

To locate a template for a device, type the name of the device on the **Filter** area.

Configuring Blocks

On the ***AssetView Device Wizard*** window, select a block and click **Block Settings** on the main toolbar to open the dialog box that lists the blocks being used in the template.

On the **Block Settings** dialog box, mark the column **Supports AE** corresponding to the block to enable alarm and events functionalities. Mark the column **Tracking** corresponding to the block to enable tracking. At the column **Mnemonic** corresponding to the block, define the block mnemonic used by ***AssetView***. See the example below:

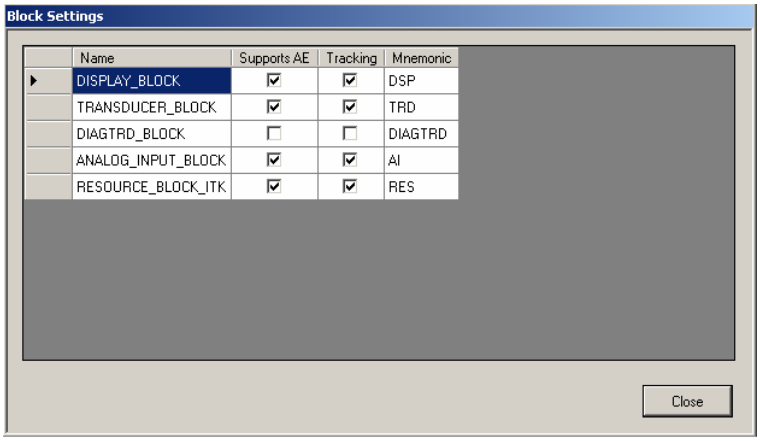


Figure C.11. Configuring blocks

Updating Enumerations

On the ***AssetView Device Wizard*** window, select a parameter and click **Update Enumerators** on the main toolbar to customize enumerations for the parameter. On the **Enumerators** dialog box, type the value and the description for the selected parameter and click **Add**. See the example below:

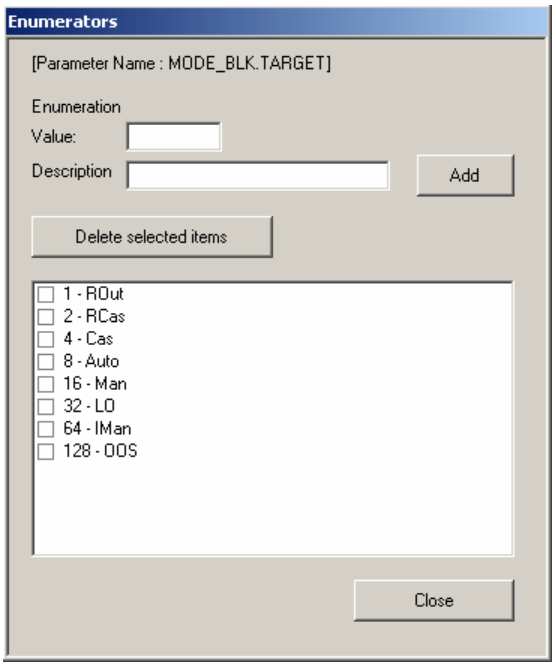


Figure C.12. Enumerations

To remove enumerations from the selected parameter, mark the items on the **Enumerators** dialog box and click **Delete selected items**.

Click **Close** to return to the ***AssetView Device Wizard*** window.

Configuring Pages

On the main toolbar, click **Page Settings** to open the **Page Settings** dialog box and list the pages for the template.

Mark the column **Supports Recon** corresponding to the desired page to enable the **Calibration** and **Configuration** pages to support **Reconciliation** pages:

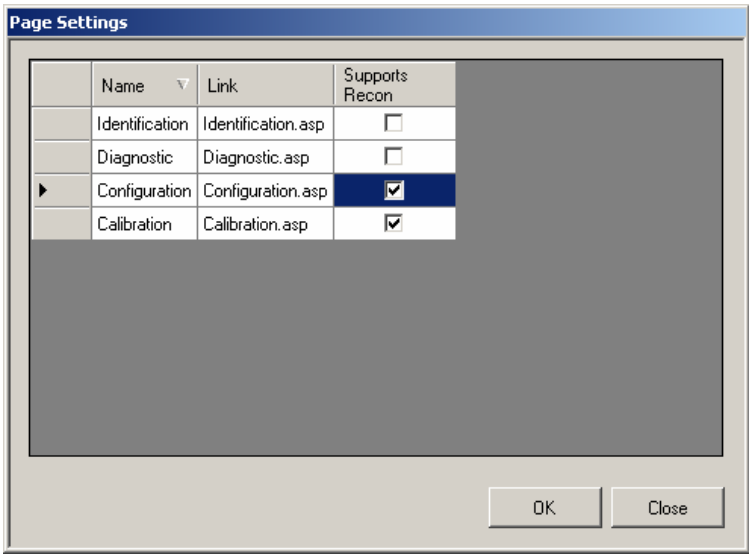


Figure C.13. Configuring Pages

Creating XML DD

On the main toolbar, click the button **Create XML DD** to generate XML versions. For example, consider DD revision 0101 for a specific device and a new DD revision 0102 is available. When clicking **Create XML DD**, the XML file **0102_0101.xml** is created to store both DD version.

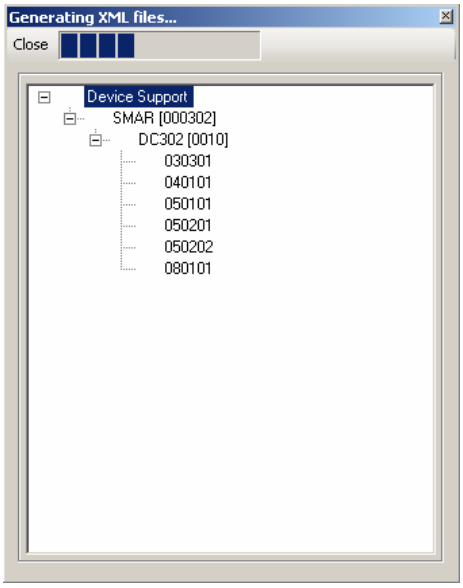


Figure C.14. Creating XML DD

Configuring Images

On the main toolbar, click the button **Images Settings** to select the image that will be displayed on the device's main page and on the ***AssetView*** toolbar. See the example below.

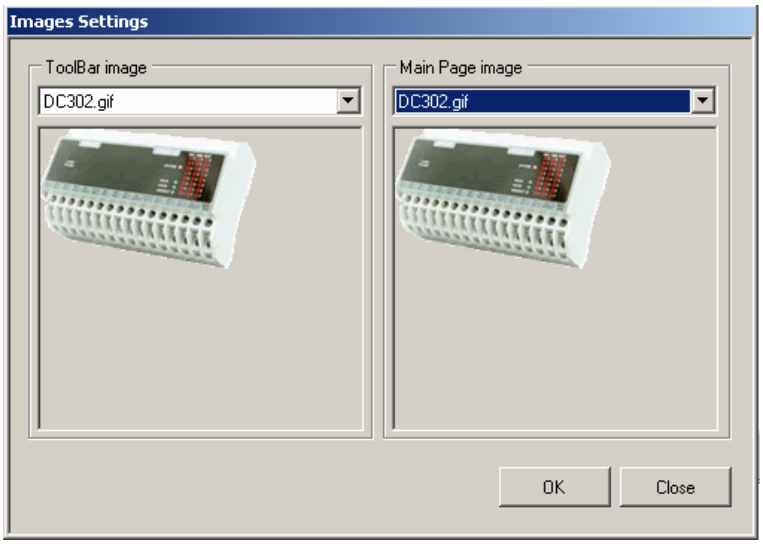


Figure C.15. Configuring images

TYPICAL SETTINGS AND HOW TO INCLUDE MULTIPLE AREAS

Typical settings to run AssetView

1. After opening System302 Studio, make sure that the Areas are updated in the Maintenance Station and Syscon has already exported tags for each area.
2. Make sure a valid License for AssetView is installed, so open AssetView Server.
3. Inside the System302 Studio, open AssetView toolbox.
4. Create a Database (“machine name”\smar2005).
5. Under [User Permission] > [Groups] > [Engineer] add “machine user”.
6. Choose “HSE Ole Server” under OPC Server setting.
7. Under [Configure Area] add a consolidated XML file. (see “ How to consolidate different areas in one XML file”).
8. Launch Smar AssetView Server.
9. Open Topology.
10. Register Devices. Start tracking.
11. If necessary to redo any setting, open [System302] > [AssetView] > InstallationGuide.
12. To run AssetView Web browser use the Internet Explorer 6 (IE6), (IE7) or (IE8). The link is http://”MachineNameOrIP”//AssetView .
13. ServerManager settings for AssetServer station
    - Supervision only
    - MVC disable
    - Update time = 20000
    - NoDataChange Timeout = 40000

How to consolidate different areas in one XML file

- Go to folder [Smar\AssetView\Bin] .
- Open AV_Topology.exe and open first Area file.
- Save as a first XML file.
- Repeat these steps to second Area file.
- Using a XML editor (e.g Notepad++), open the second XML file and copy the Bridges section. Insert these Bridges from second XML file to first XML file, generating a third XML file including all the Bridges inside Topology structure. The merge procedure need to be done carefully. The following example show the Tags structure and where is the position (*) to merge Bridges:

```
<Project><Topology><Bridge "HSE HOST"><Channel>
        <Bridge>
                <Block>
                …
                <Channel>
                        <FF Device>
                                <Block>
                                …
                        </FF Device>
                </Channel>
        </Bridge>
        …

        (* insert here new Bridges)

</Channel></Bridge></Topology></Project>
```

Figure D.1. Consolidated XML file