

# AssetView FDT HART

smar

APR / 17  
**AssetView  
FDT HART**  
VERSION 2.0

USER'S MANUAL

## AssetView FDT HART



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# INTRODUCTION

FDT/DTM is the abbreviation for *Field Device Tool* and *Device Type Manager*, two essential elements for a specification based on COM components (ActiveX) with standard interfaces, which integrates devices from different protocols and manufacturers in a single software tool. This specification intends to develop components (or *drivers*) for all field devices in the plant hierarchy, including communication interfaces, gateways and the transmitter itself.

**AssetView FDT** is the frame application that manages device-specific data and functions from each device encapsulated in software components (DLL, ActiveX, OCX) using a standard communication interface.

It provides a graphical interface to the plant; you can create and manage connections between DTMs and communication channels, and access the DTM functionalities, such as online and offline parameterization windows, charts, calibration methods, etc.

DTMs are drivers for specific functions from every device installed in the plant, from any manufacturer.

The DTM catalog, a list of all DTMs installed in the local machine, is also available for Smar devices.

**AssetView FDT** is totally integrated with **Studio302** and the other **System302** tools. Therefore, you can use FDT/DTM technology and DDs simultaneously, or other technology that provides access to field devices, such as web pages developed for **AssetView**.



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## ASSETVIEW FDT HART

### Installation

**AssetView FDT** is installed with **System302**, when the user selects the *Typical* installation mode. For other installation mode, it will be necessary to select **AssetView** from the list of available applications.

ATTENTION
The <i>Typical</i> installation mode installs <b>AssetView</b> , <b>AssetView FDT</b> and DTMs from the <i>Device Library</i> <b>only if</b> the <b>Internet Information Services (IIS)</b> version 5.0 or higher is installed and running in the local machine.
Otherwise, during the <b>System302</b> installation, select the <i>Custom</i> installation mode and mark <b>AssetView</b> from the list of available tools.
Refer to the <b>System302 Installation Guide</b> for further details about the installation procedure.

Follow the instructions in the dialog boxes to complete the installation.

Remember that it is necessary to validate the hard key to execute **AssetView FDT**. A specific number of field devices will be managed according to the license option select by the user. Refer to the **System302 Installation Guide** for details about license keys for Smar tools.

### Starting FDT HART Configurator

IMPORTANT
Database and MSDTC services from SQL Server must be started and executing to assure the proper operation of the <b>FDT HART Configurator</b> and <b>AssetView FDT</b> .

The **FDT HART** configurator is executed from **Studio302**. Select **Start > Programs > System302 > Studio302** and click **Studio302**.

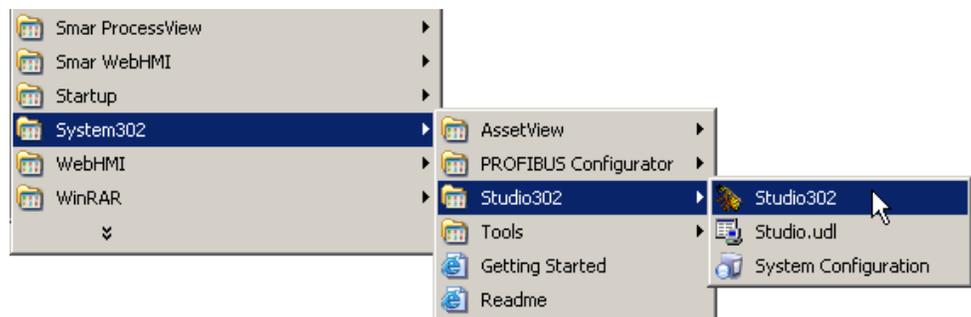


Figure 1. Starting Studio302

Type the user name and password to execute **Studio302**.

On the **Studio302** main toolbar, click **FDT HART**  to open the configurator window.

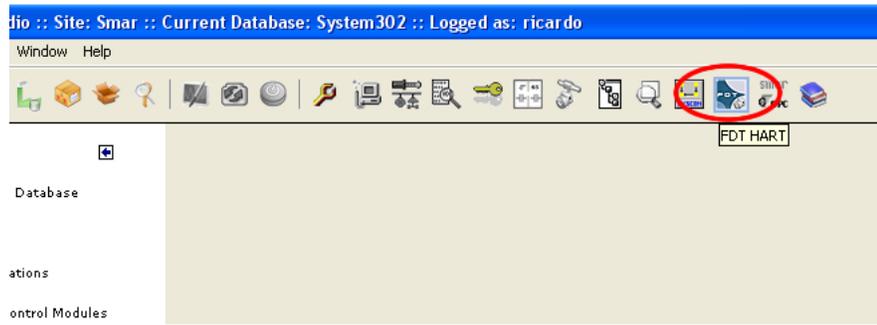


Figure 2. Starting FDT HART Configurator

## Creating a HART Configuration

To create a HART configuration, select the **File** menu and click the option **New**. The **Project** dialog box will open. Type the name for the configuration and click **Ok**.

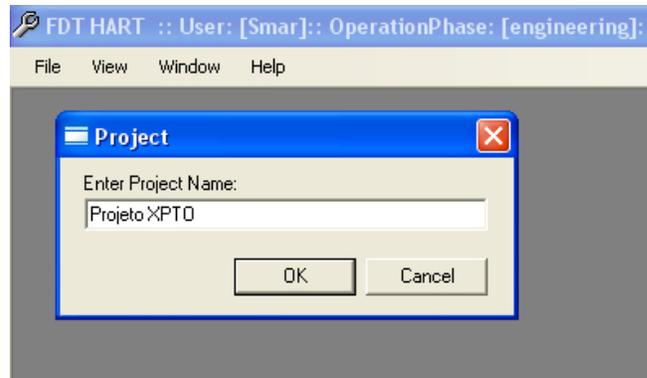


Figure 3. Creating a Configuration

The topology tree for the configuration will be displayed. First select the communication DTM for the configuration. Right-click the icon **MyNetwork** and click **Add DTM**.

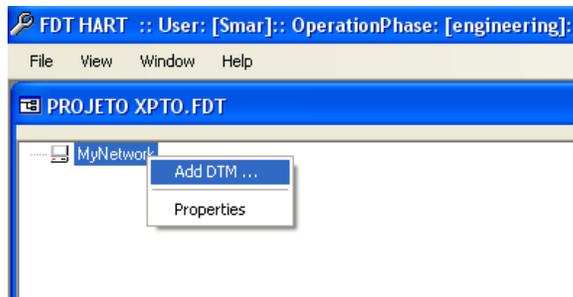


Figure 4. Adding DTMs

On the **Add** dialog box, select the DTM clicking the corresponding table line and click **Ok** to return to the topology window.

If necessary install Smar Device Library or any other library to update available DTMs. After any new library installation make sure to update DTM catalog under Tools menu.

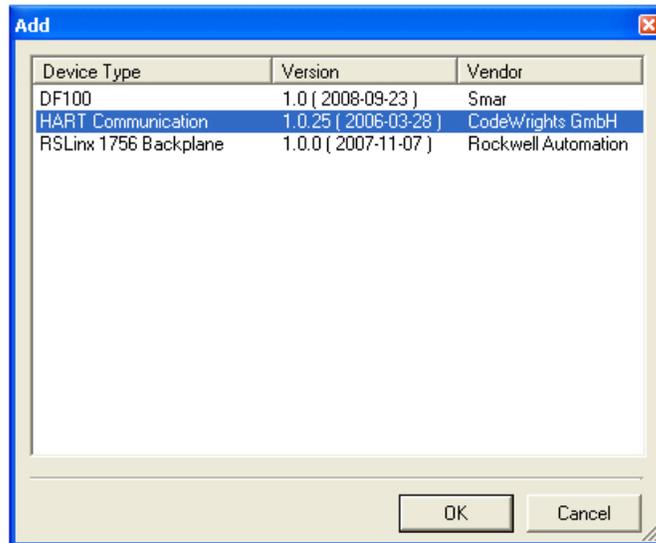


Figure 5. Selecting the Communication DTM

To add a field device DTM, right-click the communication DTM and select the option **Add DTM**. Click the table line corresponding to the desired device to select it and click **Ok**.

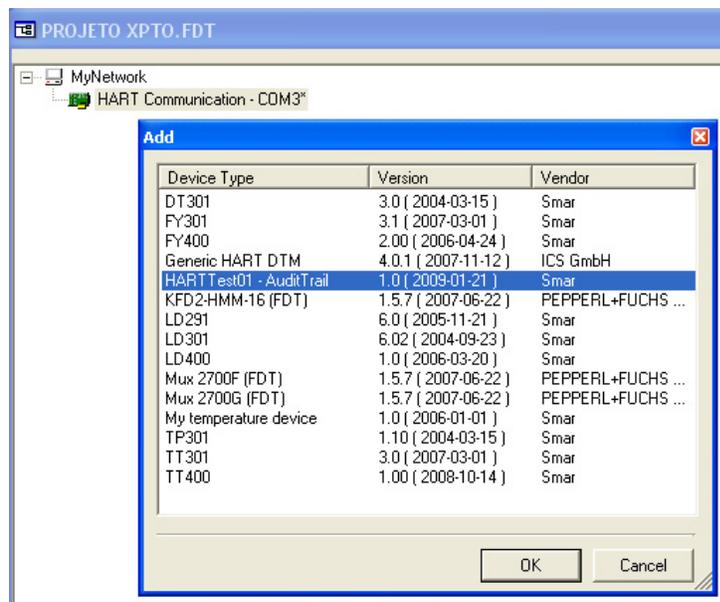


Figure 6. Adding DTMs

On the **Tag** dialog box, type the name for the device and click **Ok**. See the example below:

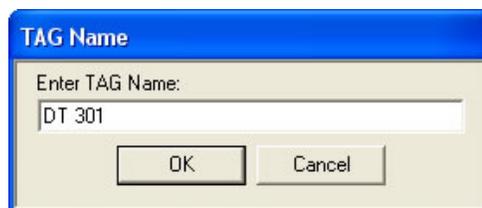


Figure 7. Defining the device tag

To add DTMs from other devices, repeat this procedure clicking the communication DTM and selecting the option **Add DTM**. See the example on the figure below:

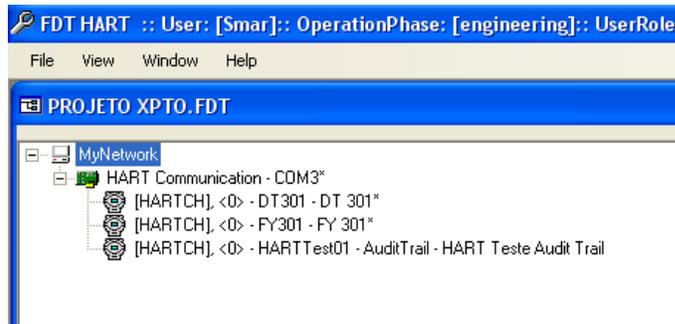


Figure 8. Example of a HART Configuration

After including the desired DTMs and concluding the configuration, save the project file clicking on the **File** menu and selecting the option **Save**. Close the **FDT HART** configurator window to return to **Studio302**.

### Configuring the DF116-DF117 Communication DTM

The DF116/DF117 hart modules need a specific HART communication DTM. To start its configuration, right-click under DF116-DF117 DTM icon and choose **Offline Parameter**. Start configuring the "RIO HART Transducer (Block Tag)". The TAG to be written there must be the same TAG configured in HART Transducer block located in Syscon strategy configuration. Copy and paste the proper name from there. The next field to be configured is "Group Location (RRSGP)". This number requires to know the physical location of DF116/DF117 module, where RR=Rack (00-15), S=Slot(0-3), G=Group(0-7), P=Point(9). Each group represents one HART device. Press **Write** button and **Apply**.

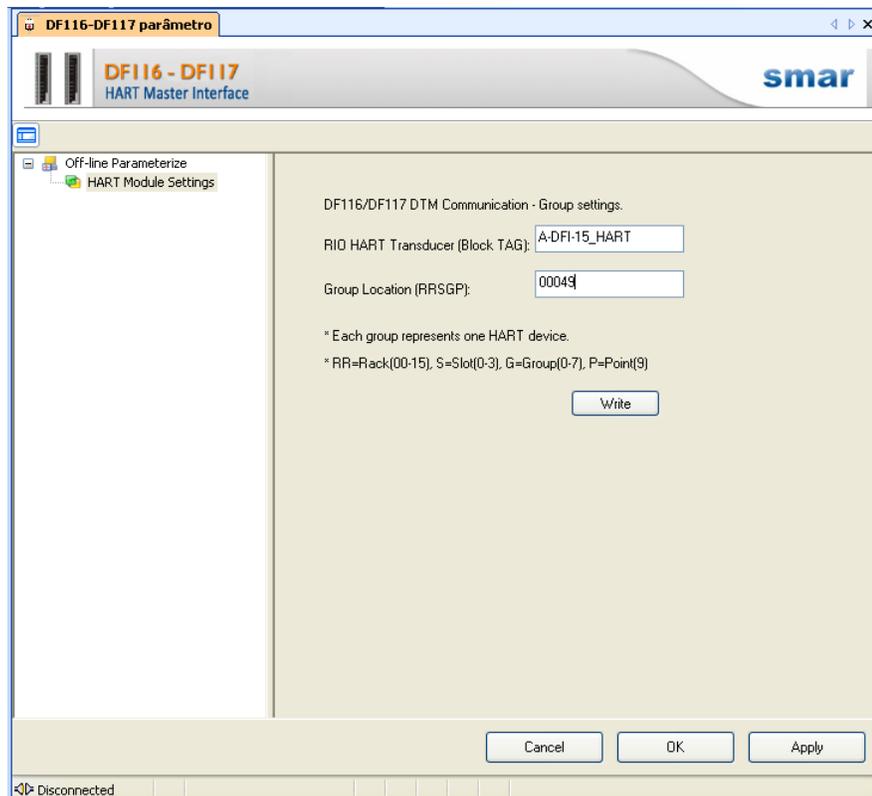


Figure 9. DF116-DF117 DTM configuration

## Editing a HART Configuration

Configurations created using the **FDT HART** tool are available on the **Areas** window, on **Studio302**. At the **Studio302** topology tree, click **Areas**. The project icon is displayed. See the example below:

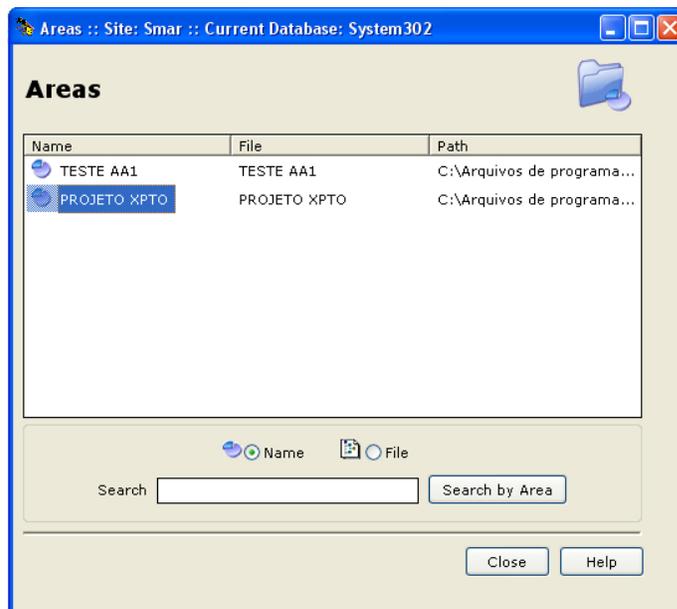


Figure 10. Areas window

Double-click the configuration icon to open the **FDT HART** tool and edit the configuration. Or click the **Field Devices** icon on the **Studio302** topology tree to open the **Field Devices List** window, right-click the device icon from the desired configuration and click the option **Configuration**. See the example below:



Figure 11. Field Devices List window

The **FDT HART** tool will be executed showing the configuration topology corresponding to the device selected in **Studio302**.

## Removing a Device from the Configuration

On the **FDT HART** window, right-click the desired device icon and click the option **Remove DTM/Block**.



Figure 12. Removing a Device

If the device has maintenances, a message box will open for the user to confirm the operation. Otherwise, the device will be automatically deleted from the configuration.

## Starting AssetView FDT

**AssetView FDT** is executed from the **Field Devices List** window in **Studio302**, right-clicking the device icon and selecting the option **FDT Device Management**. See the example below:



Figure 13. Executing AssetView FDT

The **AssetView FDT** window shows the offline parameterization window for the device previously selected in the **Field Devices List** dialog box. See the example below:

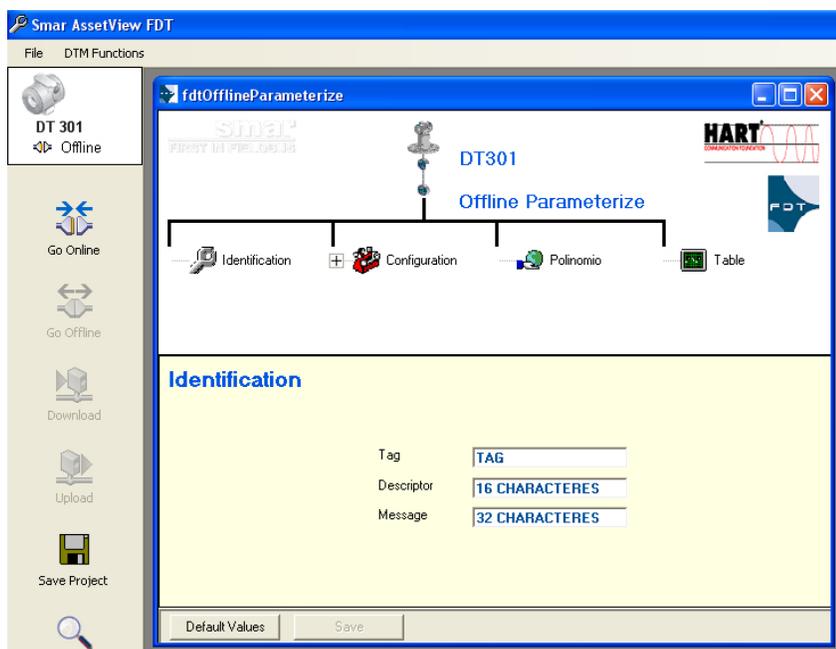


Figure 14. Example of Offline Parameterization

The following subsections describe menus and functionalities available in **AssetView FDT**. For details about the DTMs from Smar devices, refer to the **User's Manual** corresponding to the device's DTM. This manual is available on the **System302** Documentation CD and also at the Smar's web site.

## AssetView FDT Interface

Main functions for **AssetView FDT** are available in the side menu, in the **AssetView FDT** window. The table below describes the functionalities:



This icon indicates the communication status for the device.



Go Online

Click this button to start the communication and execute the **online** parameterization for the device. Refer to subsection **On-line Parameterization**.



Go Offline

Click this button to stop the communication and return to the **offline** mode.



Download

Click this button to download the device configuration, sending new parameter values configured in **AssetView FDT** to the physical device. Refer to subsection **Executing the Download**.



Upload

Click this button to read parameter values from the physical device and update the information in the **AssetView FDT** window. Refer to subsection **Executing the Upload**.



Save Project

Click this button to save the alterations to the project file corresponding to the device.



Click this button to view additional information from the DTM.



Click this button to close the **AssetView FDT** window and return to **Studio302**.

## Using AssetView FDT

### Off-line Parameterization

When you select the option **FDT Device Management** for a HART device in the **Field Devices List** window, in **Studio302**, **AssetView FDT** opens the offline parameterization window corresponding to the selected device and list the parameters to be configured by the user.

To edit the parameter value, click the text box and type the new value (or select the value from a drop down menu). When the parameter is altered, the text box is highlighted and the button **Save** is enabled.

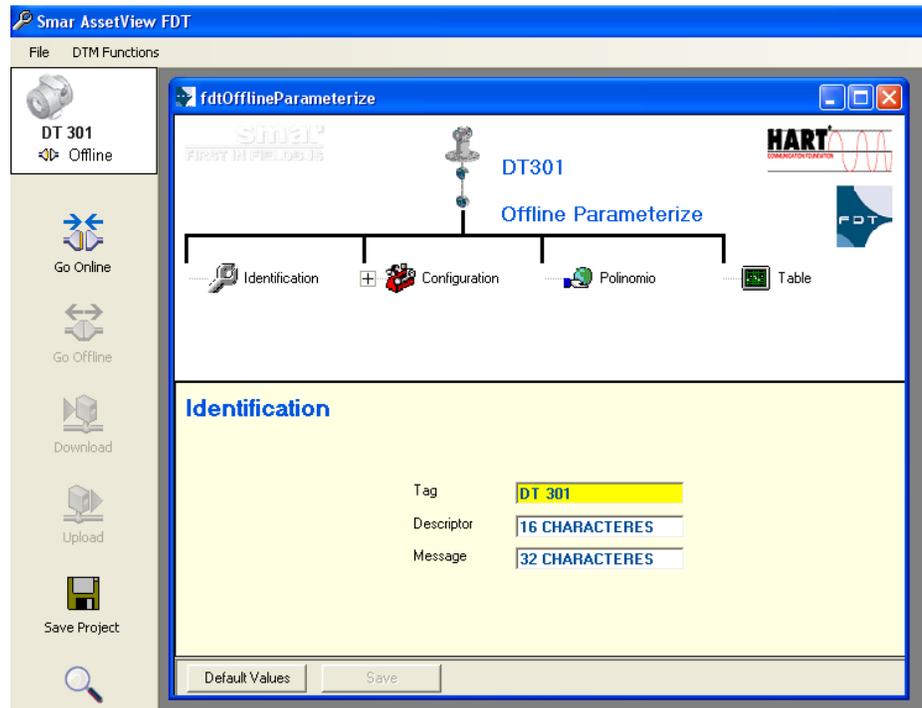


Figure 15. Editing Parameters

After editing the parameters, click **Save** to confirm the alterations. Remember that the values of the parameters were edited only in the device configuration file and therefore, it is necessary to download the new parameter values to the physical device. Refer to subsection **Executing the Download**.

#### IMPORTANT

The **Save** button simply confirms the alterations made to the values of the parameters, but it **does not save** the information in the project file. To save the new values configured for the parameters, click the button **Save Project** on the side menu **before** closing the **AssetView FDT** window.

## On-line Parameterization

Use the on-line parameterization window to alter the parameter value in the physical device.

First, start the plant communication clicking the button **Go Online** on the side menu, in the **AssetView FDT** window.

Wait until the DTM is stable and the status of the communication changes to **Online** mode.

Go to the **DTM Functions** menu and select the option **Online Parameter** to open the online parameterization window. This window shows values read directly from the physical device installed in the plant.

### ATTENTION

Other options related to online parameterization for devices, such as configuring diagnostic parameters, are available in the menu when implemented by the device's manufacturer. Refer to the user's manual from the related device for further details about DTM functions implemented by the manufacturer.

## Executing the Download

After editing the values for the device parameters in **offline** mode, it is necessary to download the new configuration to the physical device installed in the plant. After the download, new values can be properly monitored by **Studio302** and **AssetView**, for example.

Click the option **Go Online** on the side menu, in the **AssetView FDT** window, to start the communication. Then, click the option **Download**.

Wait a few seconds while the device configuration is downloaded.

## Executing the Upload

When the parameter value is altered in the online parameterization window, the value is written directly to the physical device, but it is **not saved** in the project configuration file.

Execute the *Upload* procedure to read the information from the plant control strategy and update the values of the parameters in the **AssetView FDT** window.

On the **AssetView FDT** side menu, click the option **Upload**. Wait a few seconds while the information is read from the physical device.

Remember to click the button **Save Project** on the side menu **before** closing the **AssetView FDT** window to save the alterations to the device's project file.

