


# Industrial<sup>IT</sup> Asset Vision Professional 5.0 SP2

## Advanced Configuration



# Asset Vision Professional

Asset Vision Pro	Calibration
	Work Order
	Maintenance
Configuration ▶	Magnetic Flowmeter 
Diagnostics	Pressure Transmitter
HART	Valve Positioner
PROFIBUS	pH Analyzer
FOUNDATION Fieldbus	Temperature Transmitter
	Mass Flowmeter
	Damper Drive
	Oxygen Analyzer



**Industrial<sup>IT</sup>**  
**Asset Vision Professional 5.0 SP2**

**Advanced Configuration**

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Release: November 2008  
Document number: 3KXD151801R4501

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# About This Book

## General

This manual describes the configuration, operation and commissioning of Asset Vision Professional including display navigation, device integration for Foundation Fieldbus, PROFIBUS and HART, and asset optimization.

This book refers, at places, to 800xA System documentation and individual product documentation. Consider the following while referring to these documents in the context of Asset Vision Professional:

- Ignore all the sections and descriptions referring to 800xA specific configuration and operation. For example:
  - Configuration of AC800M controller and its I/O Modules
  - User Interfaces like Plant Explorer Workplace, Operator Workplace etc.,
  - All references to Control Builder M
- Relate 800xA user accounts to corresponding Asset Vision user accounts. For example: “800xA Service User” corresponds to “Asset Vision Professional Service User”.

## Document Conventions

Microsoft Windows conventions are normally used for the standard presentation of material when entering text, key sequences, prompts, messages, menu items, screen elements, etc.

## Warning, Caution, Information, and Tip Icons

This publication includes **Warning**, **Caution**, and **Information** where appropriate to point out safety related or other important information. It also includes **Tip** to point out useful hints to the reader. The corresponding symbols should be interpreted as follows:



Electrical warning icon indicates the presence of a hazard which could result in *electrical shock*.



Warning icon indicates the presence of a hazard which could result in *personal injury*.



Caution icon indicates important information or warning related to the concept discussed in the text. It might indicate the presence of a hazard which could result in *corruption of software or damage to equipment/property*.



Information icon alerts the reader to pertinent facts and conditions.



Tip icon indicates advice on, for example, how to design your project or how to use a certain function

Although **Warning** hazards are related to personal injury, and **Caution** hazards are associated with equipment or property damage, it should be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process performance leading to personal injury or death. Therefore, **fully comply** with all **Warning** and **Caution** notices.

## Terminology

A complete and comprehensive list of terms is included in Industrial IT, 800xA System, Function Description (3BSE038018Rxxxx). A list of terms associated with Asset Vision Professional is provided in [Appendix A, Terminology](#).



## Related Documentation

Following is a list of documents related to Asset Vision Professional.

Title	Description
Asset Vision Professional 5.0 SP2 Installation Manual	This manual describes how to install Asset Vision Professional software.
Asset Vision Professional 5.0 SP2 Basic Configuration and Operation Manual	This manual provides details about basic configuration of Asset Vision Professional and basic operations that can be performed with Asset Vision Professional.



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# Section 1 Introduction

## Overview

Asset Vision Professional is an application used for configuration, parameterization, diagnostics and maintenance of field devices.

This document addresses the following topics and points to the relevant 800xA documents:

- Users and Security
- Field Device Management
  - PROFIBUS Devices
  - HART Devices
  - FOUNDATION Fieldbus Devices
- Asset Optimization
  - Maximo Integration
  - SAP/PM Integration
  - DMS Calibration Integration
- Access Management
- OPC Data Access

Users can perform traditional engineering functions for device parameterization and configuration using Asset Vision Professional Workplace. The enabling technique for the above is the Aspect Object™ technology.



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## Section 2 Users and Security

### Introduction

User Roles in Asset Vision Professional extends default user role settings in 800xA. Default user groups, like Application Engineers, System Engineers & Operators, that are more meaningful in automation (manufacturing) environment are not used in Asset Vision Professional. New user groups for Maintenance people are created in Asset Vision Professional.

User roles and groups provide security and access definitions in Asset Vision Professional. Some operations require Maintenance Engineer or System Engineer role to be performed.

However, having the correct role does not give the user the permission to perform the operation. The permission is completely controlled by the security configuration of the system.

The User roles define the security of the Asset Vision Professional system. Roles define the user interfaces for different user types / user groups. It also defines the permissions that each user group is provided with, for the operation and configuration of Asset Vision Professional System.

The Users and user roles are based on extensions to Windows security model. The extensions make it possible to set permissions for users or user groups on the Asset Vision Professional system, a structure or part of a structure, or an Aspect Object.

The users and user roles are created to match with the FDT user roles that are defined in the FDT specifications.

[Table 1](#) shows the Asset Vision Professional users and their mapping to the FDT user roles.

Table 1. Mapping between Asset Vision Professional Users and FDT User Roles

Asset Vision Professional User Role	FDT 1.2 User Role					
	OEM Service	Administrator	Planning Engineer	Maintenance	Operator	Observer
Software Developer	X	X				X
System Engineer	X	X				X
Application Engineer			X			
Maintenance Technician				X		
Maintenance Supervisor				X		
Maintenance Engineer		X		X		
Operator					X	
Everyone / Guest						X



Asset Vision Professional Product is targeted for Maintenance activities and not for the process Control. User Roles and Permissions are defined keeping in mind the 800xA Security architecture and requirements of Asset Vision Professional. For example, Application Engineer Role is assigned to Maintenance Engineer keeping in mind the scope of Maintenance Engineer in Asset Vision Professional Environment and visibility and accessibility provided by Application Engineer Role.

## Asset Vision Professional Administrator

The Asset Vision Professional Administrator is responsible for installing Asset Vision Professional and System Administration. Also the Asset Vision Professional Administrator can perform:

- Installing device object types via Device Library Wizard into the Asset Vision Professional. This covers the installation of the DTM, Asset Monitor, etc.
- Activities that are performed by Maintenance Engineer and Maintenance Technician.

The Asset Vision Professional Administrator needs knowledge of restrictions and limitations, as well as, dependencies of System Software Components and DTMs. Furthermore, Asset Vision Professional Administrator must have additional Windows knowledge, due to the fact, that DCOM settings and Windows settings need to be completed as a prerequisites for using device object types and DTMs.



During configuration, commissioning and operation, avoid using the user's identity who is also a member of the Administrators group. All members of the Administrators group run the system with the security system disabled.

## Asset Vision Professional Service Account

The Service Account is responsible for Asset Vision Professional services management.



This account is not used for any operation except to run the Asset Vision Professional product services i.e. service with this user settings run under this account.

## Maintenance Engineer

Maintenance Engineer can perform:

- Creation of field topology.
- Instantiation of device objects.
- Setting device parameters (offline/online).
- Activities that are performed by Maintenance Supervisors and Maintenance Technicians.
- Device configuration using DTMs.
- Configuration and monitoring of Foundation Fieldbus devices using fieldbus builder.
- Asset optimization using asset monitors and Computerized Maintenance Management System (CMMS).

Maintenance Engineer must possess knowledge of Fieldbus technology, as well as process & device know-how.

During maintenance, the Maintenance Engineer is responsible for:

- Supervising correct functioning of devices.
- Reacting in case of faults.
- Scheduling of appropriate action in case of observed performance degradation.

Maintenance Engineer must possess device and process knowledge so that appropriate action is taken in the event of reported unexpected behaviors.

During commissioning, the Maintenance Engineer is responsible for:

- Downloading the preconfigured parameter set to the devices.
- Uploading the preconfigured parameter sets from the devices.
- Testing correct functioning of the device by itself.
- Testing correct functioning of device within the automation application.

Maintenance Engineer must possess basic knowledge of handling devices and its parameter sets, as well as, possess process and application know-how. Fieldbus



know-how is needed in case the same person is responsible for troubleshooting for Fieldbus problems.

During operation, the Maintenance Engineer is responsible for:

- Making DTM parameter tuning changes and calibrating field devices.

## **Maintenance Supervisor and Maintenance Technician**

During operation, the Maintenance Technician is responsible for:

- Monitoring field devices using asset monitors.
- Initiating corrective actions.
- Making DTM parameter tuning changes and calibrating field devices.

During operation, the Maintenance Supervisor is responsible for:

- Monitoring asset monitors, initiating corrective actions, setting up calibration schedules, and approving calibration results.
- Approving and supervising technicians' actions. For example, provide a digital signature for technicians' actions.

During maintenance, the Maintenance Supervisor is responsible for:

- Supervising correct functioning of devices.
- Reacting in case of faults.
- Scheduling of appropriate action in case of observed performance degradation.

## **Configuring Users**

Asset Vision Professional is powered by 800xA suite of software products and simply follows its security definition architecture. The 800xA Security model is based on extensions to Windows security model.

The extensions make it possible to set permissions for users or user groups on an 800xA System, a structure or part of a structure, or an Aspect Object.

Roles adapt the user interface for different types of users, i.e. user groups. Some operations require a Maintenance Engineer or Maintenance Technician role.

However, having the correct role does not give the user the permission to perform the operation. The permission is completely controlled by the security configuration of the system.

Configuration of user roles mainly involves the following steps:

1. Creating windows users and user groups.
2. Creating user groups within the Asset Vision Professional Workplace.
3. Assigning appropriate user roles to each user group.
4. Assigning required permissions to user group.
5. Defining User Role Binding.
6. Synchronizing workplace and windows users groups and users.

## Creating Windows User Groups and Users

The following windows user groups are created on Asset Vision Professional node:

1. **IndustrialITUser** - Created by System Installer
2. **IndustrialITAdmin** - Created by System Installer
3. **Maintenance Technician** – Created by System Installer
4. **Maintenance Supervisor** – Created by System Installer
5. **Maintenance Engineer** – Created by System Installer
6. **Administrator** – Default Windows Group
7. **Power User** – Default Windows Group



The Windows Users and User Groups (1 to 5) are created by the System Installer during the windows configuration phase.

Table 2 shows the Windows User accounts created on the Asset Vision Professional node.

Table 2. Windows User accounts created on Asset Vision Professional Node

User	Full Name
AVPAdmin	Asset Vision Professional Administrator User
AVPService	Asset Vision Professional Service Account
mnteng	Maintenance Engineer
mntsupv	maintenance Supervisor
mnttech	Maintenance Technician

There is one to one association between windows user groups and Asset Vision Professional user groups. For example, Asset Vision Professional Maintenance Engineers Group is associated with Windows Maintenance Engineers Group. The following user groups are created during the restoration of Asset Vision Professional Backup data (Asset Vision Professional is delivered as a preconfigured software in the form of a backup).

1. Administrators
2. Application Engineers (Not Used in Asset Vision Professional)
3. Everyone
4. Maintenance Engineers
5. Maintenance Supervisors
6. Maintenance Technicians
7. Operators (Not Used in Asset Vision Professional)
8. System Engineers
9. Software Developers (Not Used in Asset Vision Professional)

**Table 3** shows the mapping of Asset Vision Professional users to 800xA User Group and/or to the Windows User Group.

*Table 3. Mapping of Asset Vision Professional Users to Workplace & Windows User Groups*

<b>User</b>	<b>Member of 800xA User Group(s)</b>	<b>Member of Windows User Group(s)</b>
Maintenance Engineer	1. Maintenance Engineers 2. Maintenance Technicians 3. Everyone	1. Administrators 2. Power Users
Maintenance Supervisor	1. Maintenance Supervisors 2. Everyone	Users
Maintenance Technician	1. Maintenance Technicians 2. Everyone	Users
Service User	1. Administrators 2. Everyone	Administrators
Administrator	1. Administrators 2. Maintenance Engineers 3. System Engineers 4. Maintenance Technicians 5. Everyone	Administrators

## User Roles

User roles help to customize the environment to suit the needs of each user i.e., the operations that require actions are visible to the user. The user role is used to adapt the user interface work with Asset Vision Professional user groups. For example, configuration dialogs are removed from users with an Operator Role.

The user roles are associated with the Asset Vision Professional user groups. By adding a Windows user to an Asset Vision Professional group, a user is assigned a role.

The following User Roles exist in Asset Vision Professional:

- **Operator Role** - allows a user to operate a plant. The role makes it possible to use process control dialogs, acknowledge alarms etc.
- **Application Engineer Role** - allows a user to perform engineering operations and work with objects and applications built for objects (programs, graphics etc.)
- **System Engineer Role** - allows a user to work with service, node or user administration.
- **Maintenance Engineer Role** – is equivalent to Application Engineer + System Engineer + Operator Roles.
- **Maintenance Supervisor Role** – is equivalent to Operator Role. This role allows authorization of technicians' actions.
- **Maintenance Technician Role** - is equivalent to Operator Role.
- **Object Type Structure Role** – allows visibility to Object Type Structure.
- **Library Structure Role** – allows visibility to Library Structure
- **Aspect System Structure Role** – allows visibility to Aspect System Structure

The default security configuration (permission and roles) is provided with the assumption that different users typically do different tasks. The assumption is that users with the role, Operator, control the process but do not tune or configure.

The role, Application Engineer, tunes the process and makes all application configurations. Finally the role, System Engineer, handles the physical configuration like server configurations, adding users, and setting up security.

Each user group in Asset Vision Professional is associated with one or more user roles. [Table 4](#) shows the association of user roles with each user group.

*Table 4. User Roles and User Groups in Asset Vision Professional*

<b>User Groups</b>	<b>User Roles</b>
Maintenance Engineers	<ol style="list-style-type: none"> <li>1. Application Engineer Role</li> <li>2. System Engineer Role</li> <li>3. Aspect System Structure Role</li> <li>4. Library Structure Role</li> <li>5. Maintenance Engineer Role</li> <li>6. Object Type Structure Role</li> </ol>
Maintenance Supervisors	<ol style="list-style-type: none"> <li>1. Maintenance Supervisor Role</li> <li>2. Operator Role</li> </ol>
Maintenance Technicians	<ol style="list-style-type: none"> <li>1. Maintenance Technician Role</li> <li>2. Operator Role</li> </ol>
Administrators	Asset Vision Professional Default Settings (No User Role)
Everyone	Asset Vision Professional Default Settings
System Engineers	<ol style="list-style-type: none"> <li>1. System Engineer Role</li> <li>2. Object Type Structure Role</li> <li>3. Library Structure Role</li> <li>4. Aspect System Structure Role</li> </ol>

## User Permissions

Permissions have nothing to do with the role of the user. Permissions are defined by the Security Definition aspects and Windows user identity only. Each user group is allowed to do specific task in Asset Vision Professional. User Group permissions are defined by Security Definition Aspect.

Asset Vision Professional contains the following predefined permissions:

- **Administrate**  
Allows users to perform Aspect Object System administration. For example, add new users.
- **Approve**  
Allows approval of a double authentication.
- **Batch Configure**  
Allows users to configure a batch operation.
- **Break Reservation**  
Allows users to break a reservation or check-out.
- **Configure**  
Allows users to configure an aspect.
- **Download**  
Allows users to download programs to a controller or to other equipment.
- **Enter Environment**  
Allows user to enter an environment.
- **First Signature**  
Permission to make the first digital signature for an aspect.
- **Modify Alarm Hiding**  
Permission to modify alarm hiding configuration.
- **Modify History**  
Allows modification of version history.
- **Operate**  
This is the default permission for OPC write operation. Permits a user to operate Asset Vision Professional. Normally, the Operate permission is assigned to the Operator Group.
- **Operator Configure**

Allows an operator to do some configuration work.

- **Read**  
This is the default permission for read operation. Permits a user to read information.
- **Second Signature**  
Permission to make the second digital signature for an aspect.
- **Security Configure**  
Permits a user to change/add permission on Aspect Objects.
- **Shutdown**  
Permits a user to shutdown an area. Not used in the default setting.
- **Supervise**  
Permits a user to supervise the process.
- **Tune**  
Permits a user to tune a process



There may be additional permissions depending on installed system extensions.



Asset Vision Professional extends the default permission settings in 800xA. [Table 5](#) shows the permission settings in Asset Vision Professional.

*Table 5. Permission Settings in Asset Vision Professional*

<b>Group</b>	<b>Permission</b>
Maintenance Engineers	Operate, Operator Configure, Shutdown, Security Configure, Administrate, Supervise, Configure, Tune, Download, Approve, Modify History, First Signature, Second Signature, Operator Configure
Maintenance Supervisors	Operate, Operator Configure, Supervise, First Signature, Second Signature
Maintenance Technicians	Operate, Operator Configure

## User Role Bindings and Structure Visibility

User Role Bindings configuration on aspect category level defines the available aspects and structures to the user logged in with a specific user role. [Table 6](#) shows the available aspects and structures for the logged in user.

*Table 6. User Role Bindings – Structure Visibility*

<b>Structures</b>	<b>Administrator</b>	<b>Maintenance Engineer</b>	<b>Maintenance Supervisor</b>	<b>Maintenance Technician</b>
Admin	X	X		
Aspect System	X	X		
Asset	X	X	X	X
Control	X	X	X	X
Documentation	X	X	X	X
Functional	X	X	X	X

Table 6. User Role Bindings – Structure Visibility (Continued)

<b>Structures</b>	<b>Administrator</b>	<b>Maintenance Engineer</b>	<b>Maintenance Supervisor</b>	<b>Maintenance Technician</b>
Graphics	X	X		
Library	X	X		
Location	X	X	X	X
Maintenance	X	X		
Node Administration	X	X		
Object Type	X	X		
Obsolete	X	X		
Product	X	X		
Product Type	X	X	X	X
Scheduling	X	X	X	X
Service	X	X		
System	X	X		
Users	X	X	X	X
Workplace	X	X		

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## Section 3 Asset Optimization

Asset Optimization consists of system extensions to the 800xA Base System. Asset Optimization functionality includes Asset Condition Reporting, Asset Monitoring, Computerized Maintenance Management System (CMMS) Integration, and DMS Calibration Integration to the Asset Vision Professional. This optimizes the use of plant equipment and processes. When integrated with SMS and e-mail Messaging, Asset Optimization provides a method for sending messages based on alarm and event information to user devices such as mobile telephones, e-mail accounts, and pagers. When integrated with FOUNDATION Fieldbus Device Management, or PROFIBUS & HART Device Management, Asset Optimization provides a method for detecting field device problems.



For further information, refer to:

- *3BUA000118R5021 - Industrial<sup>IT</sup> 800xA Asset Optimization Configuration*
- *3BUA000150R5021 - Industrial<sup>IT</sup> 800xA Asset Optimization Operation*

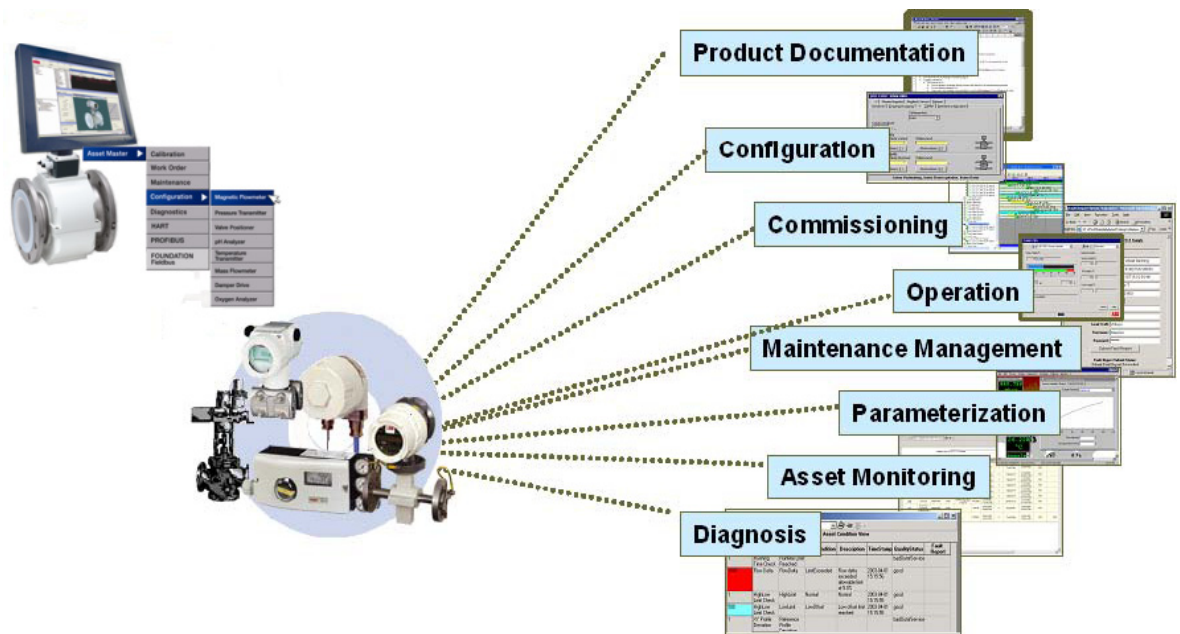
The documents can be found on DVD1 in the *Released Documentation\800xA* folder. Alternatively, the latest version of the documents can be downloaded from [ABB Solutions Bank](#).



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## Section 4 Device Management & Fieldbuses

Device Management software products are available for PROFIBUS, HART, and FOUNDATION fieldbus protocols. Device Management PROFIBUS & HART is designed to be used for PROFIBUS DP, PROFIBUS PA and HART protocol. The various components of PROFIBUS & HART are shown in [Figure 1](#).



*Figure 1. Components of the Device Management PROFIBUS & HART*

Device Management PROFIBUS & HART allows access to the internal data and information of field devices. This access can be used for Asset Monitoring,

calibration, DTMs for configuration and diagnosis, etc. For an efficient engineering, the field device objects should be well prepared to offer such functionality as well as for Computerized Maintenance Management System (CMMS) interfaces and to access the manuals.



For further information, refer to:

- *3BDD011934R5021 - Industrial<sup>IT</sup> 800xA Device Management PROFIBUS and HART Configuration*
- *3BDD011938R5101 - Industrial<sup>IT</sup> Fieldbus Basic PROFIBUS DTM Configuration*
- *3BDD011939R5101 - Industrial<sup>IT</sup> Fieldbus Basic HART DTM Configuration*
- *3BDD012902R5021 - Industrial<sup>IT</sup> 800xA Device Management FOUNDATION Fieldbus Configuration*
- *2PAA102573R5021 - Industrial<sup>IT</sup> Device Library Wizard User manual*

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## Section 5 Access Management

For process critical operations, an aspect category can be configured to grant an explicit authentication operation before the operation can be performed.

Two different authentication operations are supported:

- Reauthentication guarantees that an operation is performed by the correct person. Requiring a reauthentication immediately before a change can be performed guarantees that no one can use a workplace, if an operator temporarily leaves it.
- Double-authentication is used for operations that are critical to the quality of the product or required by regulation. It is used where the operator's knowledge is limited or where it is required that another operator verifies the change before it is implemented.



For further information, refer to:

- *3BSE037410R5021 - Industrial<sup>IT</sup> 800xA System Administration and Security*
- *3BDS011222R5021 - Industrial<sup>IT</sup> 800xA System Configuration*

The documents can be found on DVD1 in the folder *Released Documentation\800xA*. Alternatively, the latest version of the documents can be downloaded from [ABB Solutions Bank](#).







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## Section 6 OPC Data Access

Asset Vision Professional OPC functionality consists of two main functions, OPC Support and OPC Connect. This chapter deals with OPC Support. This function enables OPC Clients to connect with the Asset Vision Professional to allow the clients to read and write OPC data from or to the Asset Vision Professional.

Asset Vision Professional OPC Support is typically used by an OPC Client to exchange data between Asset Vision Professional and third party software applications.



Asset Vision Professional license with ‘OPC Client Connection’ feature enabled needs to be purchased to get Asset Vision Professional OPC Support.



Accessing the Asset Vision Professional OPC Servers generate load in the system that affect normal operation. Especially adding items and performing read and write operation might affect other functions in the system.

Asset Vision Professional OPC Support exposes interfaces for OPC Data Access and OPC Alarm and Event. Refer to the 800xA Engineering Concepts manual for a definition and explanation of OPC.



In order to use OPC Support, both hardware and software must be configured. For further information, refer to:

*3BDS011222R5021 - Industrial<sup>IT</sup> 800xA System Configuration*

The documents can be found on DVD1 in the *Released Documentation\800xA* folder. Alternatively, the latest version of the documents can be downloaded from [ABB Solutions Bank](#).



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## Section 7 PC, Network and Software Monitoring

Standard PC and network equipment are used extensively in automation systems. The efficient behavior and status of these equipment have a significant impact on the performance, reliability, and functional availability of an automation system and thus the industrial process are controlled.

The PC, Network and Software Monitoring (PNSM) software independently monitors the status of Information Technology (IT) Assets. By default, the IT Asset status is viewable via the Asset Vision Professional System Status Viewer, or through the standard faceplates provided with each of the predefined IT Assets. The PNSM when used in conjunction with Asset Optimization Asset Monitoring, generates alarms based on error conditions, and IT Asset status is viewable via the Asset Viewer and Asset Reporter.

Once PNSM is installed in the Asset Vision Professional System, the data can be used to:

- Generate alarms
- Produce historical reports
- Update live trends and graphics

Basic Computer Monitoring builds upon this framework to simplify the process of monitoring the workstation nodes in an Asset Vision Professional System. Workstation nodes are monitored for key health indicators and alarms are generated if monitored values deviate from expected limits.



For further information, refer to:

- *3BUA000447R5021 - IndustrialIT 800xA Asset Optimization, PC, Network and Software Monitoring, Configuration*
- *3BUA000446R5021 - IndustrialIT 800xA Asset Optimization, PC, Network and Software Monitoring, Operation*

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## Appendix A Terminology

This appendix lists the terms associated with Asset Vision Professional. We recommend you to understand these terms.

*Table 7. Terms Associated with Asset Vision Professional*

<b>Term</b>	<b>Description</b>
Aspect	An aspect describes the properties of an Aspect Object. Some examples of aspects are name, device management, DMS, and asset monitor.
Aspect Category	Specialization of an aspect type. For example, the Asset Monitors aspect type includes all Basic Asset Monitor aspect categories.
Aspect Object	A computer representation of real objects such as pumps and valves or a number of virtual objects such as service or object type. An Aspect Object is described by its aspects and is organized in structures.
Aspect Object Type	Defines certain characteristics that are shared between several object instances, such as a basic set of common aspects. This makes it possible to create and efficiently reuse standardized solutions to frequently recurring problems. For example, rather than building an object from scratch for every valve in a plant, define a set of valve types and create all valve objects of these instances.
Aspect system	A software system, which implements one or several aspect types by providing one or several aspect system objects.

Table 7. Terms Associated with Asset Vision Professional (Continued)

Term	Description
Authentication	The process by which the system validates the user logon information. The user name and password are compared against an authorized list. If the system detects a match, access is granted to the extent specified in the permissions list for that user.
Event	A detectable occurrence, which is of significance to an Aspect Object. May or may not be associated with a condition. For example, the transitions into HighAlarm and Normal conditions are events, that are associated with conditions. However, operator actions, system configuration changes, and system errors are examples of events, that are not related to specific conditions. OPC Clients may subscribe to be notified of the occurrence of specified events.
Industrial <sup>IT</sup>	Industrial IT is ABB's solution for business processes. It allows seamless integration of systems for plant automation, plant optimisation and common business processes at run time.
Node	A computer communicating on a network. For example, the Internet, Plant, Control or I/O network. Each node typically has a unique node address with a format depending on the network it is connected to.

Table 7. Terms Associated with Asset Vision Professional (Continued)

Term	Description
OLE for Process Control (OPC)	OPC is based on the Microsoft COM/DCOM technology. DCOM permits data exchange across computer boundaries.
OPC	OLE (Object Linking and Embedding) for Process Control, a standard interface for data, event and history access based on COM.
PC	Personal Computer. Computer running the Windows operating system.
Permission	A permission (or access mask) groups a set of operations that require the same authority. For each operation defined for an aspect, the aspect category specifies the permission needed to use that operation.
Security	<p>Security controls an users authority to perform different operations on Aspect Objects, depending on several parameters:</p> <p>The user credentials, as provided by Windows.</p> <p>The node where the user is logged in. This makes it possible to give a user different authority depending on where the user is located, e.g. close to the process equipment, in a control room, or at home accessing the system through Internet.</p> <p>The object the user wants to perform the operation on.</p>
Server	A node that runs one or several Services.
Structure	A hierarchical tree organization of Aspect Objects that describes the dependencies between the real objects. An Aspect Object can exist in multiple structures, for example both in a Functional Structure and in a Location Structure.
System	Collects all data of a project. Administrated by the Configuration Wizard.



You should familiarise yourself with the following list of terms which refer to the FOUNDATION Fieldbus terminology.

*Table 8. FOUNDATION Fieldbus Terminology*

<b>Term</b>	<b>Description</b>
Fieldbus	A Fieldbus is a digital, two-way, multi-drop communication link among intelligent measurement and control devices. It serves as a Local Area Network (LAN) for advanced process control, remote input/output and high speed factory automation applications.
Fieldbus device	Device connected through an Asset Master supported fieldbus. Examples are smart sensors and actuators, but also controllers, robots, variable speed drives, etc., when these devices are connected through a supported fieldbus.

The following is a list of terms associated with HART that you should be familiar with.

*Table 9. HART Terminology*

<b>Term/Acronym</b>	<b>Description</b>
Device Type Manager (DTM)	Software component (device driver) for configuring, diagnosing, forcing, and displaying the measured variables, etc. of a field device. It is familiar with the way the device works and supplies device-specific documentation.
Fieldbus device	Device connected through an Asset Vision Professional supported fieldbus. Examples are smart sensors, actuators, controllers, robots, variable speed drives, etc.

Table 9. HART Terminology (Continued)

Term/Acronym	Description
Field Device Tool (FDT)	The FDT describes the interface between a Frame Application and the device-specific software (DTM = Device Type Manager) of the device manufacturer. It enables devices produced by different manufacturers and different fieldbuses to be integrated in to a single system. PROFIBUS and HART fieldbus protocols are supported currently.
Highway Addressable Remote Terminal (HART)	Digital communication protocol developed for applications in industrial process control.

The following is a list of terms associated with Asset Optimization that you should be familiar with.

Table 10. Asset Optimization Terminology

Term/Acronym	Description
AO	Asset Optimization.
Asset Vision Professional	Provides a user interface for the maintenance personnel to support their daily workflow efficiently.
Asset Monitor	Application responsible for retrieving data from, and interacting with, multiple data servers, OLE for Process Control ® (OPC®) servers, etc.). It analyzes the data and when necessary, issues an Asset Condition Document and notifies the user of the detected condition.
Device Management System (DMS)	DMS database software. Provides calibration and configuration management through the companion DHH810-MFT Series Calibrator/HART Communicator, and DHH800-MFC HART Communicator.

*Table 10. Asset Optimization Terminology (Continued)*

<b>Term/Acronym</b>	<b>Description</b>
Fieldbus device	Device connected through an Asset Vision Professional supported fieldbus. Examples are remote I/O, smart sensors, actuators, controllers, robots, variable speed drives, etc., when these devices are connected through a supported fieldbus.
Simple Network Management Protocol (SNMP)	A network management standard that defines a strategy for managing TCP/IP and Internet Packet Exchange (IPX) networks.

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Printed in USA (November 2008)

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3KXD151801R4501