Data Sheet
D-DAT-801_A (3KXD151801R1001_A)

Device Management and Fieldbus
Asset Vision Professional
DAT801

- **Integrated Extended Automation Environment:** Seamlessly integrates fieldbuses and field devices, enabling system level engineering and maintenance.
- **Freedom of Choice:** Supports a full range of FOUNDATION Fieldbus, PROFIBUS, and HART devices.
- **Information Availability:** The right information at the right time and place. All relevant device status and diagnostic information is available across the whole life cycle.
- **Plug and Produce:** Preconfigured field device objects extended with aspects to access asset information and documentation.
- **Complete Asset Optimization:** Provides a single interface for engineering and notification of plant maintenance and asset optimization information.
- **Automatic Monitoring of Maintenance Conditions:** Real-time monitoring and alarming of asset Key Performance Indicators (KPI) facilitates fast, reliable implementation of corrective actions.
- **Plant-Wide Adoption of Predictive and Proactive Maintenance Strategies:** Collects and analyzes real-time plant asset information to provide advanced warning of degrading performance and impending failure.
- **Consistent Reporting of Plant Asset Health:** Reporting features provide visualization of current health conditions via the Asset Vision Professional workplace.
- **Regulatory Enabled Calibration:** Provides 21 CFR Part 11 enabled calibration solutions with integration of Mobility Device Management Software (DMS).
- **Reduced Time to Repair via Optimized Work Processes:** Integration of computerized Maintenance Management System (CMMS) and DMS provides users with a single view, leading to an efficient maintenance response.

DAT801 - Asset Vision Professional

General

Asset Vision Professional is a software application from ABB that runs on a standalone desktop or laptop PC. Intended for engineering and maintenance personnel, Asset Vision Professional supports ABB and 3rd party devices communicating via HART, PROFIBUS, and FOUNDATION FIELDBUS. As a comprehensive asset optimization tool, it provides online and offline device configuration, parameter setting functions, online monitoring and tuning, diagnostic alerts, asset monitoring, calibration management, and integral work order processing.

HART device connection is made via point-to-point modem communications for offline bench parameterization and via multiplexers for online configuration and diagnostic alerts. PROFIBUS device connection is made via a point-to-point DP interface adapter for online and offline parameterization. FOUNDATION FIELDBUS connection is made via High Speed Ethernet using ABB's LD800HSE as the Link Active Scheduler supporting up to 4 H1 network segments. This connection can be used for pre-commissioning device set-up as well as for device configuration and online monitoring and diagnostics. Figure 1 shows each of these connections to a PC laptop.

Product Offering

Asset Vision Professional leverages off of ABB's existing 800xA System software by re-using its powerful device management capabilities. Greater integration at the field instrument level with a control system allows customers to start with a small maintenance based application like Asset Vision Professional and grow it into a larger 800xA control system using the same configuration data and navigation methods for both. In addition to support of the 3 major fieldbuses, Asset Vision Professional supports a number of other options. Integrated calibration using the Mobility hand-held calibrator is one. Additional options for adding asset condition monitoring and CMMS interface are provided in support of asset optimization. Another option for SMS messaging to cell phones and pagers is also supported.

Asset Vision Professional is based on well-defined standards such as OPC and FDT (Field Device Tool), and the fieldbus protocols FOUNDATION Fieldbus and PROFIBUS. These protocols cover a broad range of applications and are widely accepted in the market. Very often regional preferences or customer specific requirements determine the decision, to which fieldbus is used.

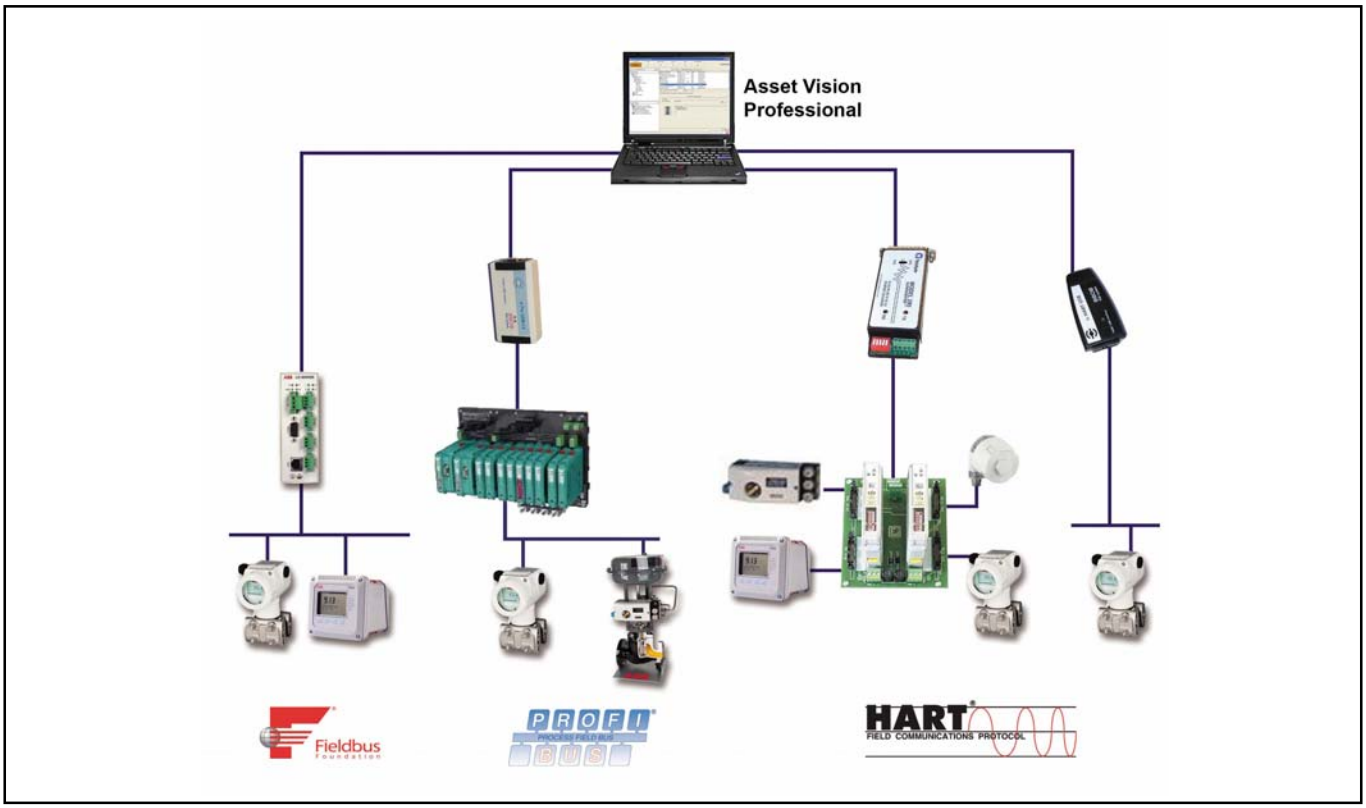

***Figure 1**. Asset Vision Professional Connections to a PC laptop*

ABB's strength is to offer the freedom to choose what best fits the application needs. Asset Vision Professional also covers HART devices. Although HART is not technically a fieldbus, HART devices support access to information via digital communication superimposed to the standard 4..20mA signals. Like fieldbus data, this information is exploited by system applications.

Through the use of context sensitive menus, Asset Vision Professional provides easy navigation through the entire plant, with all information available through context-sensitive menus. The device management aspects provide the means for device configuration and parameterization for up to 500 devices.

PC Requirements
The PC used to run Asset Vision Professional requires the following minimum hardware:

- 2 GB RAM
- 2.0 GHz Intel Pentium based processor
- >20 GB Hard Disk
- +R, - R, or RW DVD drive
- CD Drive (combo with DVD drive is supported)
- USB ports for HART modem connections (Bluetooth may be supported in the future for HART modems and should also be considered)
- 9-pin serial port for HART multiplexer connection (USB can be used instead with a USB to 9 pin serial port converter)
- USB ports for PROFIBUS adapter connections
- Ethernet port for FF HSE connection

The following pre-requisite software is required:

- MS Windows XP with Service Pack 2
- MS Office 2003 (Word and Excel)

The following PC laptops are approved for use with Asset Vision Professional:

- DELL Precision M4300
- DELL M65
- IBM T43p
- IBM T60p
- IBM T61p
- HP Compaq 6710b
- Panasonic ToughBook CF-19

PC Requirements *(continued)*

The following PC desktops are approved for use with Asset Master:

- DELL Power Edge 2900
- DELL Power Edge 2950
- HP ML350G5
- HP ML380G5
- IBM HS20
- IBM HS21
- NEC Express 5800 120rf1
- NEC Express 5800 120rf2

PC Accessories
The following products are needed in support of Asset Vision Professional connection to the fieldbuses:

HART

- USB Modem
  - NHA121-NX for Intrinsically Safe area (ABB)
  - NHA121-NO for Non-Hazardous area (ABB)
- Multiplexer
  - 2700G (Elcon - Pepperl & Fuchs)
  - KFD2 (Pepperl & Fuchs)
  - 4840 Series (MTL)

PROFIBUS

- USB Adapter
  - NDA121-NO (ABB)
- Linking Device
  - SK3 (Pepperl & Fuchs)

FOUNDATION Fieldbus

- Linking Device
  - LD800HSE (ABB)
- Power Conditioner
  - KLD2-PC-1.1.IEC (Pepperl & Fuchs)

	Code
Asset Vision Professional Base License (See Note A) Base Model - 1st to 9th Character	**DAT801-B0**

1 : OPC Client Connect 10th Character

None	**Y**
Enabled	**E**

2 : Audit Trail 11th Character

None	**0**
Enabled	**1**

3 : Advanced Access Control 12th Character

None	**Y**
Enabled	**E**

4 : Digital Signature 13th Character

None	**0**
Enabled	**1**

5 : SMS and E-Mail Messaging 14th Character

None	**Y**
Enabled	**E**

6 : Asset Monitors (in Increments of 10) 15th Character

None	**0**
10 Asset Monitors	**1**
20 Asset Monitors	**2**
30 Asset Monitors	**3**
40 Asset Monitors	**4**
50 Asset Monitors	**5**
60 Asset Monitors	**6**
70 Asset Monitors	**7**
80 Asset Monitors	**8**
90 Asset Monitors	**9**

7 : Asset Monitors (in Increments of 100) 16th Character

None	**Y**
100 Asset Monitors	**A**
200 Asset Monitors	**B**
300 Asset Monitors	**C**
400 Asset Monitors	**D**

8 : PC, Network and Software Monitoring 17th Character

None	**0**
Enabled	**1**

9 : Maximo CMMS Integration (See Note B) 18th Character

None	**Y**
Enabled	**E**

10 : SAP CMMS Integration (See Note B) 19th Character

None	**0**
Enabled	**1**

11 : Calibration Management Integration (See Note B) 20th Character

None	**Y**
Enabled	**E**

DAT801-B0

Code

12 : HART DTM Device Aspect Objects (in Increments of 10 - See Notes C, D & E) 21st Character

None	**0**
10 HART Devices	**1**
20 HART Devices	**2**
30 HART Devices	**3**
40 HART Devices	**4**
50 HART Devices	**5**
60 HART Devices	**6**
70 HART Devices	**7**
80 HART Devices	**8**
90 HART Devices	**9**

13 : HART DTM Device Aspect Objects (in Increments of 100 - See Notes C, D & E) 22nd Character

None	**Y**
100 HART Devices	**A**
200 HART Devices	**B**
300 HART Devices	**C**
400 HART Devices	**D**

14 : FOUNDATION Fieldbus Device Aspect Objects (in Increments of 10-See Notes C,D & E) 23rd Character

None	**0**
10 FOUNDATION Fieldbus Devices	**1**
20 FOUNDATION Fieldbus Devices	**2**
30 FOUNDATION Fieldbus Devices	**3**
40 FOUNDATION Fieldbus Devices	**4**
50 FOUNDATION Fieldbus Devices	**5**
60 FOUNDATION Fieldbus Devices	**6**
70 FOUNDATION Fieldbus Devices	**7**
80 FOUNDATION Fieldbus Devices	**8**
90 FOUNDATION Fieldbus Devices	**9**

15 : FOUNDATION Fieldbus Device Aspect Objects (in Increments of 100-See Notes C,D & E) 24th Character

None	**Y**
100 FOUNDATION Fieldbus Devices	**A**
200 FOUNDATION Fieldbus Devices	**B**
300 FOUNDATION Fieldbus Devices	**C**
400 FOUNDATION Fieldbus Devices	**D**

16 : PROFIBUS DTM Device Aspect Objects (in Increments of 10 - See Notes C, D, & E) 25th Character

None	**0**
10 PROFIBUS Devices	**1**
20 PROFIBUS Devices	**2**
30 PROFIBUS Devices	**3**
40 PROFIBUS Devices	**4**
50 PROFIBUS Devices	**5**
60 PROFIBUS Devices	**6**
70 PROFIBUS Devices	**7**
80 PROFIBUS Devices	**8**
90 PROFIBUS Devices	**9**

17 : PROFIBUS DTM Device Aspect Objects (in Increments of 100 - See Notes C, D, & E) 26th Character

None	**Y**
100 PROFIBUS Devices	**A**
200 PROFIBUS Devices	**B**
300 PROFIBUS Devices	**C**
400 PROFIBUS Devices	**D**

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	Code
Asset Vision Version 5.0 DVD/CD Set	**3KXD151801L0001**
USB Hardware Machine ID Dongle	**3KXD151801L0010**
Asset Vision Professional Version 5.0 Basic Configuration and Operation Manual - hard copy	**3KXD151801R4201**
Asset Vision Professional Version 5.0 Installation Manual - hard copy	**3KXD151801R4401**
Asset Vision Professional Version 5.0 Advanced Configuration Manual - hard copy	**3KXD151801R4501**

Note A) Includes support for configuring up to 10 HART, FOUNDATION Fieldbus and PROFIBUS devices.
Includes support for monitoring up to 10 assets.
Software is licensed against one of the physical Ethernet addresses or a USB connected hardware machine ID dongle.
Includes supply of DVD Set and Installation Manual.
The 30 available devices and 10 asset monitors supplied with every Asset Vision Professional must be accounted for in determining the max no. of supported devices/asset monitors.
Note B) Does not include supply of CMMS or DMS software which must be purchased separately.
Note C) Combined Maximum No. of HART, FOUNDATION Fieldbus and PROFIBUS devices cannot exceed 500.
Note D) Maximum number of devices connected per fieldbus varies by use as follows:
HART via Modem - 15
HART via Multiplexer for non-concurrent use with other fieldbuses = 500
HART via Multiplexer for concurrent use with other fieldbuses = 225
FOUNDATION Fieldbus via HSE Link = 120
PROFIBUS via Adapter = 120
Note E)Refer to other price lists for components such as HART calibrators, modems and multiplexers, PROFIBUS adapters and linking devices, and FOUNDATION Fieldbus linking devices.

Notes:

Notes:

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 120,000 people.

www.abb.com/instrumentation

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