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About This User Manual

General

Any security measures described in this User Manual, for example, for user access, password security, network security, firewalls, virus protection, etc., represent possible steps that a user of an 800xA System may want to consider based on a risk assessment for a particular application and installation. This risk assessment, as well as the proper implementation, configuration, installation, operation, administration, and maintenance of all relevant security related equipment, software, and procedures, are the responsibility of the user of the 800xA System.

This User Manual describes the installation procedure of the Basic PROFIBUS DTM with PROFIBUS Builder expansion in detail. For latest information see also the corresponding Release Notes.

User Manual 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.

Feature Pack

The Feature Pack content (including text, tables, and figures) included in this User Manual is distinguished from the existing content using the following two separators:
Feature Pack Functionality

<Feature Pack Content>

Feature Pack functionality included in an existing table is indicated using a table footnote (*) :
*Feature Pack Functionality

Feature Pack functionality in an existing figure is indicated using callouts.

Unless noted, all other information in this User Manual applies to 800xA Systems with or without a Feature Pack installed.

**Warning, Caution, Information, and Tip Icons**

This User Manual 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 that could result in *electrical shock*.
- Warning icon indicates the presence of a hazard that 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 that 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 the *System Guide, Functional Description (3BSE038018)*. The listing includes terms and definitions that apply to the 800xA System where the usage is different from commonly accepted industry standard definitions and definitions given in standard dictionaries such as Webster’s Dictionary of Computer Terms. Terms that uniquely apply to this User Manual are listed in the following table.

The following is a list of terms associated with the Basic PROFIBUS DTM that the user should be familiar with. The list contains terms and abbreviations that are either unique to ABB or have a usage or definition that is different from standard industry usage.

<table>
<thead>
<tr>
<th>Term/Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic PROFIBUS DTM</td>
<td>DTM for PROFIBUS devices, additionally serving as a runtime environment for device specific DTMs, that have been built with the PROFIBUS DTM Builder</td>
</tr>
<tr>
<td>Device Type Manager (DTM)</td>
<td>Software component (device driver) for configuring, diagnosing, forcing, displaying the measured variables, and so on of a field device. It is familiar with the way the device works and supplies device-specific documentation.</td>
</tr>
<tr>
<td>Device Description Language (DDL)</td>
<td>Interpretable language for the formal description of device parameters</td>
</tr>
<tr>
<td>Frame Application (FA)</td>
<td>Frame application (run time environment) in accordance with the FDT specification for operating DTMs</td>
</tr>
</tbody>
</table>
Released User Manuals and Release Notes

A complete list of all User Manuals and Release Notes applicable to System 800xA is provided in System 800xA Released User Manuals (3BUA000263*).

System 800xA Released User Manuals (3BUA000263*) is updated each time a document is updated or a new document is released. It is in pdf format and is provided in the following ways:

- Included on the documentation media provided with the system and published to ABB SolutionsBank when released as part of a major or minor release, Service Pack, Feature Pack, or System Revision.
- Published to ABB SolutionsBank when a User Manual or Release Note is updated in between any of the release cycles listed in the first bullet.

A product bulletin is published each time System 800xA Released User Manuals (3BUA000263*) is updated and published to ABB SolutionsBank.

### Term/Acronym Description

<table>
<thead>
<tr>
<th>Term/Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Device Tool (FDT)</td>
<td>The FDT concept 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 a single system. Currently supporting fieldbus protocols for PROFIBUS and HART.</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>PROFIBUS DTM Builder</td>
<td>Software product consisting of an application editor to define device-specific PROFIBUS DTMs, to be executed by the Basic PROFIBUS DTM. This functionality is not released and is only for ABB internal use.</td>
</tr>
</tbody>
</table>
Important information is available in the file “Release Notes.pdf” on the product CD-ROM. The file contains setup information, system requirements and other latest information on the product.
Section 1  Introduction

Product Overview

DTM is a software component, which is usually supplied by the manufacturer together with the intelligent field device. The DTM is familiar with the way the field device works (plausibility), offers graphical user dialogs, manages device configuration and diagnostics, and supplies the device-specific documentation.

ABB provides a Basic DTM ("Basic PROFIBUS DTM") for PROFIBUS field devices without a dedicated DTM. It enables the field devices to be operated in a frame application conforming to FDT 1.2.

FDT Concept

The FDT concept defines the interfaces between device-specific software components provided by the device supplier and the engineering tool of the control system manufacturer. The device-specific software component is called DTM (Device Type Manager).

The FDT concept can be applied to any other application for handling field devices. However, the focus of the FDT lies on engineering, commissioning, diagnostics and documentation of fieldbus based control systems.

Configuration

The configuration of the Basic PROFIBUS DTM is described in Device Mangement, PROFIBUS DTM (3BDD011938*).
Prerequisites and Requirements

The DTM requires both a frame application and shared components conforming to FDT 1.2 and one of the following windows operating systems:

- Windows 8.1.

Target Group

The Installation manual is designed specifically for application engineers, commissioning engineers and maintenance personnel. It eases the installation of the Basic PROFIBUS DTM software.

The users of this document should be familiar with the basics of operating computers and installing software.
Section 2  Installation

System Prerequisites

To operate the Basic PROFIBUS DTM, the system pre-requirements described in Prerequisites and Requirements on page 14 are mandatory.

This DTM will not function in a frame application conforming to Version 0.98 of the FDT specification. The FDT versions differ in the expanded number of interfaces, their meaning and data management.

Pre-Installation Requirement

Disable the IPS (Intrusion Protection System) in the Virus Scanner before starting the DTM installation.

Installation Directory

The DTM files will be stored in the following path and directories, unless specified otherwise.

For English settings:
C:\Program Files (x86)\ABB Industrial IT\Engineer IT\DTM\PROFIBUS DTM Builder

For German settings:
C:\Programme (x86)\ABB Industrial IT\Engineer IT\DTM\PROFIBUS DTM Builder
Language Setting

The language set for the outputs of the DTM (DTM application, dialog boxes and so on) depends upon the language support of the DTM and the language requested by the frame application.

For ABB automation systems, the language corresponds to the operating system language. The DTM gets the language information from its frame application, for example, Fieldbus Builder PROFIBUS/HART. English is the default setting if the DTM does not support the local language. The DTM cannot change the current language during runtime.

The Install Shield software installation tool always opens in English.

Backup

ABB recommends creating periodic back-ups of important data, using standard software. In the event of any damage to primary storage media, these backups will help ensure continual functioning of the system. Make sure that the backups are properly labelled and carefully maintained.

Initial Installation

Step 1: General Information

To install the PROFIBUS DTM Builder component through command prompt, do the following steps:

1. Run the command prompt (administrator login) and change it to the drive where the builds are copied, for example D drive would be D:/.

2. Enter `cd <space> Path`.  
   Enter the folder path where the build is available.

3. Enter `msiexec <space> i <space>"MSIname"` and press enter.  
The system prepares for installation.
Figure 1. Windows Installer
4. Follow the instructions on the screen and then click **Next**.

*Figure 2. Install Shield Wizard*
5. Enter the User Name and the Company Name and then click **Next**.

*Figure 3. Customer Information Screen*
6. Click **Install** to start the installation process.

*Figure 4. Installation start-up*
Section 2  Installation

Step 1: General Information

7. Click **Finish** to complete the installation process.

![Installation Complete](image)

*Figure 5. Installation complete*

Integrity and version checks are done during installation to ensure that all components can be installed. For each component a progress bar is displayed indicating the progress of the installation.

If a previously installed version of a component is detected, then a message window notifies the user about the version conflict. In this case follow the instructions described in **Versioning Conflicts** on page 22.
Versioning Conflicts

If a previously installed version of a component is detected, then a message window notifies the user about the version conflict.

![Version Conflict Window]

Figure 6. Version conflict of software components

Before starting the setup, the conflicting software components have to be removed.

Before removing any software component, ensure that it is not the latest version of that component. Do not remove latest versions, if present, of software components from the PC. In such a case, installation of an older version is automatically cancelled. The newer versions of the Basic PROFIBUS DTM components are compatible with the older versions of other components.

To remove the conflicting software component, it has to be selected in the shown window. Uninstall with the [Uninstall] button. The installed software gets uninstalled. The PROFIBUS DTM Builder setup continues automatically after all conflicting software have been removed.