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**1 Device - Revision Record / What is new?**

**1.1 Hardware**

Released Revision	Released Date	Remarks
...	...	...
0078-1C2C	19.12.2000	...

**1.2 Firmware**

Released Revision	Released Date	Remarks
...	...	...
1.16	30.05.2000	...

**2 DTM - Engineer IT Device Type Manager**

**2.1 Supported devices**

Temperature transmitter TF12/TF212, Firmware 1.16

TF12/TF12-Ex Head-mounted transmitter

TF212/TF212-Ex Field device

**2.2 DTM Version record / What is new?**

Compatible to FDT 1.2 frame applications.

Reference junction type and value can be selected for both channels

Released Version	Released Date	Remarks
01.00.14		First release
01.00.15		Images and readme file updated
01.00.19		Print freestyle characteristic Parameter / Konfiguration
01.00.23	09.02.2004	New DTM Library version
01.00.24	01.09.2005	Setup-structure changed
01.00.25	14.02.2006	Bug fixing

**2.3 Requirements**

**2.3.1 PC-Hardware, Operating system**

- Minimum requirements
- Intel Pentium III Processor 450 MHz or compatible
- 256 MB RAM memory
- 300 MB free hard disk space
- Windows 2000 / XP
- Internet Explorer 5.0.
- Adobe Reader current version
- Administration rights

The ABB FDT 1.2 DTM TFx12-PA is released for Windows 2000 and Windows XP (Home / Professional) as PC / Notebook installation.

**2.3.2 Frame application / compatibility**

The ABB FDT 1.2 DTM TFx12-PA is released for DSV401 (SMART VISION) Release 3.

The FDT compatibility was tested with the dtmINSPECTOR Rev. 1.01.21.

Therefore the ABB DTM should be usable in all Frame Applications according to the requirements of FDT 1.2.

Please read also the respective Frame Application documentation.

### 2.3.3 Software package contents

The setup files are in the respective DTM sub directory.

- setup.exe
- ReadMe.txt
- ReadMe\_DE.txt

## 2.4 Installation and configuration

### 2.4.1 Installation

- Make sure that the minimum hardware requirements are met.
- Start Windows (with administrator rights!).
- Cancel all running programs.
- Insert CD-ROM.
- Start "Setup.exe" in the DTMDTM TFx12-PA (TF12,TF212)) directory of the CD or in the folder you choosed for the software up-loaded from the Internet.
- Follow the instructions.

### 2.4.2 Linking Device/SK2 and SK1 hints

- In case you intend to use PROFIBUS PA devices in a system application and you are using a DP/PA Linking Device allowing a DP Baud Rate > 93,25 kbaud, you need to convert the GSD-files of the PA-devices.  
The DP/PA Linking Device may be:
  - ABB Linking Device LD800P
  - P&F coupler SK-2

Following the installation of the DTM on your System, please localize the GSD-file of the respective device.

Normally it is stored under the following path:

\\Program Files\SMART VISION\SVDDesc\COM\_DPV1\...\\*.GSD  
The names of GSD-file contain usually the PNO-ID of the supported device.

Example:

The GSD-file for the 2600T(265xx) is stored in the directory:

Program

Files...\SMART\_VISION\SVDDesc\COM\_DPV1\0016\1\_04c2

Filename: ABB\_04C2.GSD

- Implementation of the new GSD-file:  
The converted GSD-file made available by ABB and to find as \*GSD\*.zip file on the CD-ROM in the device box or on the following Internet address <http://www.abb.com/instrumentation>

Please rename the original GSD-file

-> e.g. from "ABB\_xxxx.GSD" to "ABB\_xxxx.BAK"

Following this, rename the new GSD-file (e.g. YP00xxx.GSD) with the same name than the original GSD-file (ABB\_xxxx.GSD)

Restart setup:

Please restart the DTM setup with 'setup.exe'

### 2.4.3 Installed files

When ... is the home directory of SmartVision on your computer, then the following files are installed:

...\V\_HUB\TF12.dtd

...\Devices\0016\2\_04C4\DTM\_TF12\_TF212.If

...\Devices\0016\2\_04C4\README.TXT

...\Devices\0016\2\_04C4\ReadMe\_de.txt

...\Devices\0016\2\_04C4\Tf12\_049.chm

...\Devices\0016\2\_04C4\Tf12\_001.chm

...\Devices\0016\2\_04C4\TF12View.dll

...\SVDDesc\COM\_DPV1\0016\2\_04c4\readme.txt  
...\SVDDesc\COM\_DPV1\0016\2\_04c4\Fdt dereg.ini  
...\SVDDesc\COM\_DPV1\0016\2\_04c4\ABB\_04c4.GSD  
...\SVDDesc\COM\_DPV1\0016\2\_04c4\TF12\_001.htm  
...\SVDDesc\COM\_DPV1\0016\2\_04c4\TF12.svd  
...\SVDDesc\COM\_DPV1\0016\2\_04c4\TF12.fdt  
...\SVDDesc\COM\_DPV1\0016\2\_04c4\TF12\_049.htm

### 2.4.4 Uninstall instructions

For uninstalling in the operating system:

"Start-> Settings -> Control Panel -> Add/Remove Programs -> Install/Uninstall" -> Select the DTM and Uninstall.

In any case first uninstall all DTMs before uninstalling the frame application SMART VISION.

## 2.5 Update- / Upgrade instructions

- Uninstallation is not needed before update / upgrade. It can be handled like a new installation, existing projects will be kept.
- By using a DP/PA Linking Device allowing a DP Baud Rate > 93,25 kbaud:  
When updating / upgrading the PROFIBUS PA-DTM it is necessary to re-integrate the converted GSD-file for Linking Devices in the PA-DTM again!  
Workflow see chapter "Linking Device/SK2 and SK1 hints"  
Hints regarding new versions may be found under <http://www.abb.com/Fieldbus>

## 2.6 Known problems and limitations

- If starting of a DTM fails with a runtime error 6 which occurs together with a control SV4\_digital.OCX, the PC needs to reboot.
- To be able to communicate acyclically with the DTM TF12/TF212, the DPV1 Timeout time has to be set to min. 30 sec.
- For the use under Freelance and/or Control Builder F V6.2:  
When the device is connected, a menu on the device can be opened by a right click.
- The following functions are not supported online:
  - Management
  - Edit
  - Force
  - Asset Management
- When using the DTM, in the parameter window 'Bus Times' more than the Baud rates supported in the GSD file of the TF12 are displayed as usable. Now as before 31,25 / 45,45 and 93,75 kB/s can be used.  
Moreover, the display of the times for maxTsdrr is wrong. However, the wrong display of the GSD file parameters does not affect the bus communication with the TF12 negatively.
- The device data are not read automatically from the device. Instead the loading of the device data has to be started manually by calling the menu Device -> Load from device.
- Damping does not work at all.
- When switching the unit, dependend values are not converted. Instead each value must be converted manually if required.
- When switching to voltage linear or resistance linear the transducer block unit is not set to mV or Ohms respectively.  
This unit must be set to mV or Ohms manually before saving or downloading the changes.
- The reference junction temperature (TB1\_\_EXTERNAL\_RJ\_VALUE, TB1\_\_EXTERNAL\_RJ\_VALUE2) might be rejected even if it is not used (e. g. when resistance measurement is selected). This error can safely be ignored in that case. If an external reference has been selected, then the value must be within the valid range (see documentation) and the download must be repeated.

- Wire compensation (TB1\_\_COMP\_WIRE, TB1\_\_COMP\_WIRE2) errors can safely be ignored when something other than 2 wire connection is selected for the appropriate channel.
- The reference junction type (TB1\_\_RJ\_TYPE, TB1\_\_RJ\_TYPE2) is rejected when thermocouple type B is selected. This error can safely be ignored, as no reference junction is used for thermocouple type B.
- When the linearisation type for channel 2 (TB1\_\_LIN\_TYPE2) is rejected, then it is necessary to download a 2- or 3-wire measurement-setting for channel 1 first. Afterwards the parameters can be set to the originally set parameters and then downloading the parameters must be repeated!
- The DTM must not be launched in several frame applications at the same time.
- When changing the sensortype the DTM does not update the sensor limits. These are not updated until writing the parameters to the device and reading them back from the device.
- When using a user curve with linearisation table it is required to manually calculate the polynomial coefficients manually by clicking "Calculation of polynomial coefficients" before downloading the coefficients to the device.
- As only the polynomial coefficients are stored within the device, it is impossible to read the table back from the device. If the linearisation table is still needed after downloading the coefficients to the device, it must be saved into a file.

## 2.7 Getting help / further information

- Press 'F1' for online help. Help concerning the implementation of the DTM in the FDT Frame Application (e.g. SMART VISION, ...) can be found in the respective documentation.

### Hints regarding commissioning

- When using SMART VISION in parallel to a cyclic master make sure the baudrates and bus parameters match as the cyclic master may crash otherwise. The network address of SMART VISION must be larger than that of the cyclic master.
- When a device has been connected for the first time, and an upload was done, it is recommended to save all data using the menu file/save as dataset. (database suffix \*.dat)
- Initialisation of the DTM for the TF12/TF212:  
For starting the DTM, the DTM for the TF12/TF212 as PA device has to be used when creating the project tree. For initialisation the point "More" has to be selected in the menu under "Device". Depending on the operating speed of the PC this could take some seconds.
- Configuration of the TF12/TF212:  
The DTM is started by clicking the right mouse key or via the menu point "Device", in each case with "Edit".  
Changed data are displayed in blue and underlined. Using the command "Save data to device" these data will be sent to the device.
- Hints regarding the usage of PA DTMs together with the segment coupler outlined below:
  - ABB Linking Device LD800P (Baudrate DP up to 12 MBit/s)
  - P&F SK2 (Baudrate DP up to 12 MBit/s)-> In this case a conversion of the GSD file will be mandatory.  
Respective hints can be found in the supplementary information in the root directory of the CD\Documentation\PROFIBUS (usually D:\Documentation\PROFIBUS)
- In case the DTM will be used with an ABB AC800M controller, a HWD-file needs to be generated for implementation. For instructions refer to the information within the AC800M documentation.

## 2.8 How to get the Software (driver)?

Please use one of the following ways to get the Software (driver):  
Available on the newest DTM & DSV401 (SMART VISION) CD-ROM

As download from <http://www.abb.com/Fieldbus>

- >[select Fieldbus protocol]
- >[select field device]
- >[select device group / name]
- use link read more / downloads
- > go to flag "Fieldbus & HART Files"

The Aspect Object (\*.afw) online file contains all driver and information. For the \*.afw file

- > go to flag "Downloads"

## 2.9 Licensing the DTM

The DTM is usable unlimited without any license in every Frame Application.

## 3 DD/EDD

### 3.1 Supported devices

Siemens Simatic PDM Version >= 5.02 (incl. ServPack 1)

### 3.2 Requirements

TF12/212 Siemens PDM-Driver  
with CD-marking: 22.11.2001

Order No. 7957848

### 3.3 Installation and configuration

Start your Frame application and follow the instructions.

### 3.4 Getting help / further information

in the Siemens-Simatic PDM-Software the TF12/TF212 can be found in the PA-device list under

Sensors- Temperature - ABB Kent Taylor - TF12

### 3.5 How to get the Software (driver)?

You can order the TF12/TF212-PDM-Driver at:

ABB Automation Products GmbH  
Borsigstr. 2  
63755 Alzenau  
Germany

Fon.: +49 551 905-534

Fax: +49 551 905-555

[CCC-support.deapr@de.abb.com](mailto:CCC-support.deapr@de.abb.com)

TF12 / TF212 Siemens PDM-Driver

Order No.: 7957848

## 4 GSD

### 4.1 Supported devices

Temperature transmitter TF12/TF212

- TF12/TF12-Ex      Head-mounted transmitter
- TF212/TF212-Ex    Field device

For Segment coupler with Baud rates

45,45 or 93,75 KBaud : (e.g. ABB-NDL100-N, P&F-SK1,...)

GSD-File: ABB\_04c4.gsd

For Segment coupler with Baud rates

45,45 to 12 MBaud : (e.g. ABB-LD800P, P&F-SK2,...)

GSD-File: YP0n04c4.gsd

(rename in ABB\_04c4.gsd necessary)

The GSD-Files can be found on the product CD-ROM, which is part of every TF12/TF212 supply.

The Aspect Object (\*.afw) online file contains all driver and information. For the \*.afw file  
-> go to flag "Downloads"

### 4.2 GSD Version record / What is new?

Released Version	Released Date	Remarks
....	...	....
01.03	31.05.2001	Bug fixing
01.01.00	14.07.2004	Bug fixing, Version format acc. NAMUR
01.01.01	23.02.2006	Bug fixing

### 4.3 Known problems and limitations

Note:

The following diagnosis-bits in the GSD-file will not be supported:

- Unit\_Diag\_Bit( 1) = "Hardware failure mechanic"
- Unit\_Diag\_Bit( 2) = "Motor-Temp. too high"
- Unit\_Diag\_Bit( 3) = "Electronic-Temp. too high"
- Unit\_Diag\_Bit( 7) = "Selfcalibration failed"
- Unit\_Diag\_Bit( 8) = "Zero Point Error"
- Unit\_Diag\_Bit( 9) = "Power Supply failed"

Unit\_Diag\_Bit(13) = "Service required"

Unit\_Diag\_Bit(14) = "Characterisation invalid"

### 4.4 Getting help / further information

ABB Automation Products GmbH

Borsigstr. 2  
63755 Alzenau  
Germany

Tel.: +49 551 905-534

Fax: +49 551 905-555

[CCC-support.deapr@de.abb.com](mailto:CCC-support.deapr@de.abb.com)

### 4.5 How to get the Software (driver)?

Please use one of the following ways to get the Software (driver):

Available on the newest CD-ROM / disc in the field device box.

As download from <http://www.abb.com/Fieldbus>

->[select Fieldbus protocol]

->[select field device]

->[select device group / name]

use link read more / downloads

-> go to flag "Fieldbus & HART Files"

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<http://www.abb.com/instrumentation>

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Printed in the Fed. Rep. of Germany (01.2006)

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