

DSV401 (SMART VISION), Version 4.01 Release 4

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*) The latest DTM400 Bundle Supplement Info is available on www.abb.com/fieldbus:
Enter here in the search field following No. "3KXD801400R3901".

1 DSV401 R4 (SMART VISION)

1.1 Requirements, compatibility, contents

1.1.1 PC-Hardware, Operating system

- Minimum requirement
- Intel Pentium III Processor 450 MHz or compatible
- 256 MB RAM memory
- 300 MB free hard disk space
- Windows 2000 / XP
- Internet Explorer 6.0.
- Adobe Reader latest version
- full administrator rights

DSV401 R4 (SMART VISION) is released for MS-Windows 2000 and XP (Professional) as PC / Notebook installation (No Server / Network version).

Please check the readme and supplementary information of the DTMs/DMA's for the supported operating systems.

1.1.2 Frame application / compatibility

DSV401 R4 (SMART VISION) is a frame application incl. FDT 1.2 interface.

1.1.3 DTM400 & DSV401 R4 CD-ROM contents

Device Management Tool:

- DSV401 R4 (SMART VISION) Version 04.01 Release 4

- incl. modules for HART devices

- Pressure: AS800
- Temperature: TEU471, TEU421, TEU211, TS01/TS11, TS02/TS102/TS202, BC1100-V17152 (Contrans I), S95.3U_x (Rüeger)
- Flowmeter: 10VT1000, FXE4000 (50XE4000), FXT4000 (10DT4000), FSM1000 (50SM1000), FXM1000 (50XM1000), FXM2000 (50XM2000)

- Positioners: TZID, SR3780 (Samson)
- Universal: HART Universal device driver
- HART adapter driver (Universal)

- DSV401 R4 (SMART VISION) documentation in PDF format
- Language available for: English and German

DTM400 Bundle:

- device list see*)
- for HART devices
- for PROFIBUS devices
- When performing a device scan with DSV401 (SMART VISION), the PNO-ID's of the found devices will be displayed.
- for MODBUS devices
- for FOUNDATION Fieldbus devices

Remote IO DTM

- DTMS900-DP for S900 PNO-ID: 0x04D2

CommDTM for adapter / modem:

- for USB HART modem
- is HRT CommDTM for NHA121-NX, NHA121-NO, is HRT USB, is HRT USBEX
- for USB PROFIBUS adapter as a 30-day demo version
- PROFIdtm for PROFibus



Driver software for Adapter / Modems:

- is Pro driver for NDA121-NO, is Pro USBx12
- is HRT driver for NHA121-NX, NHA121-NO,
is HRT USB, is HRT USBxX
- Supplementary information for DSV401 (SMART VISION)
and DTM/DMA
- Adobe Reader

**1.2 DSV401 (SMART VISION) Version record /
What is new?**

Released Version	Released Date	Remarks
03.00.00	14.09.1998	First release
03.01.17	15.10.1999	- Windows 3.1 - HART / Modbus communication
04.00.31	19.04.2000	- Complete updated version - PROFIBUS - Reusable device-application based on COM/DCOM technology. 32 bit application - Windows 95, 98, NT
04.00.34	08.06.2000	- Bugfix version
04.00.41	24.11.2000	- Bugfix version
04.00.43	01.01.2001	- Bugfix version
04.01 R1	01.03.2003	- FOUNDATION Fieldbus - FDT 0.98-1 - Windows 2000
04.01 R2	01.05.2004	- Windows XP and 2000 only - Bundle Licence - 29 x DTM/DMA
04.01 R2 SP1	01.10.2004	- New DTM FSM4000-PA
04.01 R2 SP2	23.06.2005	- New DTM ST2600 (261xx)-HART
04.01 R3	30.12.2005	- FDT 1.2 - Silent Setup for DTM/DMA - HART and PROFIBUS driver update - Efficient handling
04.01 R4	May 2008	- Bugfix - Update DTM400 device DTM's - Update is HRT driver [2.1.1] - Update is PRO driver [4.1] - New is HRT CommDTM [1.02.1100] - New PROFlusb CommDTM [2.04] - New DTM400 device DTM's: 364-HART, TTX300-HART, TTX200-HART CONTRAC-DPV1, FCM2000-PA

1.3 Supported periphery devices & tools

1.3.1 PC adapters

(Releases for Windows Operating Systems 2000, XP)

- PROFIBUS:

- NDA121-NO: USB 1 channel [ABB]
- is Pro USBx12: USB 1 channel [ifak System]
- PROFlusb: USB 1 channel [Softing]

PROFIBUS driver application notes:

- PROFlusb [Softing]:
- When using the Softing PROFlusb adapter install the relevant CommDTM. To be found in
<drive>:\Softing\PROFIdtm\ as a 30-day demo version.
For licensing please contact Softing directly.

- HART:

- NHA121-NX: USB, FSK modem, [EEx ia] [ABB]
- NHA121-NO: USB, FSK modem [ABB]
- NHA102-NO: RS 232C, FSK modem [ABB]
- NHA201-NO: LCI-Adapter [ABB]
- is HRT USB, is HRT USBxX: USB, FSK modem [ifak System]

HART driver application notes:

- The USB driver supports also Baudrate 600 Bit/s.
Following devices can be operated:
- TS02/TS102/TS202
- BCI100-V17152 (Contrans I)
- S95.3U_x (Rüeger)

- The NHA102-NO Modems (RS 232C) are not suitable for TSx02 with „FSK 600 Baud“.

- FiFo has to be DEACTIVATED always for HART communication!
Start -> Settings -> Control Panel -> System -> Hardware
-> Device Manager -> Ports
-> Select Communication Port COMx -> Right Click
-> Properties -> Port Settings -> Enhanced -> Deactivate FiFo.

Reboot your computer!

ATTENTION:

If using the USB modem:
Should the FiFo not been deactivated install the relevant CommDTM. Setup.exe and license key (CDKey.txt) to be found in
<drive>:\ifak\isHRT FDT setup\
Afterwards set the "Operation Mode" to "FDT 1.2" below Options_Settings, choose the Operator „Planning Engineer" again, even if it is already selected.

- DEACTIVATE the double COMx port assignment for HART!
Make sure that the COMx port of the HART modem/adapter is not required for another driver (e.g. printer, telephone, modem, ...). If YES, please delete this virtual assignment. If it is not possible, assign a new free COMx port to the HART driver.
Start -> Settings -> Control Panel -> System -> Hardware
-> Device Manager -> Ports
-> Select Communication Port COMx -> Right Click
-> Properties -> Port Settings -> Enhanced
-> select free COMx port.

- FOUNDATION Fieldbus:

NI PCMCIA-FBUS: PCMCIA 1 channel [National Instruments]

FOUNDATION Fieldbus driver application notes:

- Drivers are part of the adapter content and must be installed separately.
- Processing multiple USB adapters is not supported.
- Further PC adapters on request!
- Please pay attention to manufacturer's actual documentation

1.3.2 Linking Device / Segment Coupler

PROFIBUS DP/PA:

For DSV401 R4 (SMART VISION) released Linking Device / Segment Coupler:

- LD 800P [ABB]
 - NDL100-NX, NDL100-NO [ABB]
 - SK1, SK2 [Pepperl+Fuchs]
 - Coupler 6ES7 157-0A*00-* [Siemens]
- Further on request!

1.3.3 ABB DTMs for DSV401 R4 (SMART VISION)

See chapter 1.1.3

Known problems and limitations:

- DTMs of the ABB DTM500 bundle are not released for the ABB Stand-Alone-Tool DSV401 Rx (SMART VISION).

1.3.4 3rd-Party DTMs for DSV401 R4 (SMART VISION)

Known problems and limitations:

- For 3rd party DTMs DSV401 R4 (SMART VISION) doesn't support "Save as" functionality as soon as min. one 3rd party DTM is listed in the project tree.
- Some 3rd party DTMs offer online communication related function(s) within their menu inside the Project editor although the operation phase is set to "Engineering". This online function is not supported by the DSV401 R4 (SMART VISION) project editor.
- CommDTMs
 - If using the "is HRT USB" and further CommDTM you must first switch on "FDT 1.2" mode. Open menu: Options > Settings > Operation Mode "FDT 1.2". Afterwards select Operator "Specialist > Planning Engineer" > OK.
 - Do not use the HART Diagnostics on CommDTM Channels.
- SAMSON 3780 DTM:

The DTM has problems to shut down, if connection cannot be established within project management operation. Thus DSV401 R4 (SMART VISION) will not be able to shut down itself or switch over to the project editor.
- CodeWrights based DTMs

do not start inside DSV401 R4 (SMART VISION), if these DTMs have no valid license.
- YOKOGAWA DTMs YTA70E V1.1, EJAV2.1 and probably all others:

Before one of these YOKOGAWA DTMs will be started the higher-level DTM (e.g. Remote IO or Comm-DTM) must also be started. That means that in the project manager tree in the knot of the overlying DTM first „More...“ must be called-up.

1.4 Installation and configuration

1.4.1 Installation

It is highly recommended to follow the instruction manual, chapter INSTALLATION AND PROGRAM START.

To find on the CD

<CD-drive>.\Documentation\DSV401 (SMART VISION)\Manual*.pdf

Note:

Following the installation the software will run 90 days in Demo Mode with all functions. In case the software will not be licensed within this time, it cannot be operated anymore. If the software is paid already, the license can be obtained free of charge from ABB.

- Make sure that the minimum PC/Notebook requirements are met.
- Start Windows (with administrator rights!).
- Cancel all running programs.
- Insert CD-ROM.
- Start "Setup.exe" in the root directory of the CD \disk1 (usually D:\disk1) or in the folder you chose for the software downloaded from the Internet.
- Follow the instructions.
- **THE SETUP INSTALLS ALL OF THE DTMs AVAILABLE ON THIS CD-ROM. THESE SETUPS ARE BEING EXECUTED IN SEQUENCE. THUS YOUR DESKTOP WILL BE VISIBLE IN BETWEEN THE SETUPS. DO NOT START ANY OTHER PROGRAMS IN THE MEANTIME AS THE SETUP ROUTINE COULD BE INTERRUPTED!**
- On your PC there must only one DSV401 be installed. If by mistake you installed two, please proceed as follows:
 1. - 4. see chapter 1.4.2
 5. Activate the program Regclean or a comparable one in the start menu.
 6. Re-install DSV401 and the required DTMs. You can choose the hard disk optionally.

Additional hints:

- Windows 2000/XP
 - The language settings (Start -> Settings -> Control Panel -> Regional Options) for 'Your local' and 'Menus and dialogs' have to be the same!
- Release notes concerning DTMs/DMA's
 - Please check the readme and Supplementary information of the DTMs/DMA's for the supported Operating systems.
- During the DTM installation a message can come up "Found write-protected file". Please confirm always with "Yes".

1.4.2 Uninstall instructions

Before uninstalling DSV401 (SMART VISION), deinstall all DTMs/DMA's first. For deinstalling in the operating system:

Start -> Settings -> Control Panel -> Software -> Install/Uninstall

1. First deinstall ALL DTMs/DMA's.

(but **NOT** "DTM Library Patch", "ABB DTM LIBRARY", "ABB DTM500" and "ABB DTM Contrac-LCI...")

That are the DTMs starting with:

600T, ABB Engineer IT DTM*, Engineer IT DTM*, ABB Engineer IT DMA*, ABB DTM* and DTM*.

2. Then deinstall the "ABB DSV4.01" installation
3. and finally "DTM Library Patch" first, then "ABB DTM LIBRARY" and "SV4License".
4. Delete the corresponding directory ..\SMART_VISION*.* below <drive>:\Program Files\.
5. Reboot your computer!

1.5 Update / Upgrade instructions

Uninstall is not needed before update / upgrade. It can be handled like a new installation, existing projects will be kept.

1.6 Known problems and limitations

- Windows 2000 / XP
DSV401 R4 (SMART VISION) is executable for Windows versions only which are based on Latin language / writing.
NON Latin Windows versions are e.g.:
Japanese, Chinese, Korea and ect.
For this countries please install the US Windows version!
- Windows XP – Device driver installation
During the device driver installation in Win XP an error message can occur if the driver is not signed by Microsoft. Switch the Driver signing option from “Block” to “Warn” (to find in System → Hardware → Driver Signing) and install the device driver again.
- Windows 2000
At the end of the DSV401 R4 (SMART VISION) setup an error message pops up saying 'Machmn1.exe cannot be started.'
Confirm the message with OK. There is no bad effect.
- If a message component Microsoft Office 2000 SR-1 Professional is not responding, please proceed in the following manner:
deinstall old DTMs/DMA's, start MS-WORD, put in your initials (if you are asked for it), close MS-WORD, install DTMs/DMA's, reboot PC / Notebook, start DSV401, start DTMs/DMA's.
- Settings-Operator
When you set the “Operation Mode“ to “FDT 1.2“ below Options_Settings, choose the Operator „Planning Engineer“ again, even if it is already selected. Otherwise the Operator “Maintenance“ will selected automatically when the windows closed.
- Settings-Operator
Different to the manual write protection for the Project Data does not work in case of operator type “Operator“.
- Settings Password
Because of the FDT 1.2 Implementation in DSV401 R4 (SMART VISION) new user classes have been added for which new passwords can be defined. The user class “Planning ...“ in operation mode “FDT 1.2“ and user class “Specialist“ in operation mode “Standard ...“ share the same password.
- Address modification:
If you need to change an address of an already connected device, please use the context sensitive menu at the related project tree entry rather than doing this within the live list inside the CServer dialog.
- DSV401 R4 (SMART VISION) crashes if you try to configure a device with PROFIBUS address 126
- ABB DTMs
See chapter 1.3.3
- 3rd party DTMs
See chapter 1.3.4
- Project consistency check:
DSV401 R4 (SMART VISION) checks if DTMs referred inside a project file are installed each time a project is loaded. Any missing DTM is listed on a separate form. The mouse cursor icon shows “hour glass“ although it is possible to confirm and close the form by clicking the “OK“ button.
- Using 2 serial com ports at the same time may cause mix up of tag names. Thus SMART VISION must not be used in production environment while the described operation mode is active.
- Some DTMs can exhaust computer resources (GUI handles), if some of these DTMs become active at the same time (Menu “More...“). Any related problems can be solved by restarting the PC.
- S900:
Before establishing communication with S900, you either need to update the live list from the communication server dialog or you need to have an active PROFIBUS Master Class 1 performing data exchange with S900.
- S900:
DSV401 R4 (SMART VISION) doesn't supporte “Save as“ functionality as soon as min. one DTMS900-DP is listed in the project tree.
- S900
Do not use the HART Diagnostics on HART capable S900 analog modules.
- S900
Project tree could provide connected devices also if they are actually NOT connected.
- S900
The import succeeds if the elements in the Project Tree are rearranged so that the S900 Node to which the import must happen is at the bottom of the tree. Steps to be followed:
1) After inserting the S900 module to the “isPro“ in Project editor, select the “isPro“ in the project tree.
2) Press and hold the CTRL key and use the Down Arrow key to move the element, one step at a time, to the bottom of the tree structure.
3) After the “isPro“ is at the bottom of the tree, now proceed with the S900 Import functionality.
4) After the import succeeds, the project can be rearranged once again if required.
- TH01(-EX), TH101(-EX)
Only configurable via HART 5.1 and HART-Universal if NO sensor is connected.
For further information refer to data sheet THx01(-EX):
3KDE115080R10xx, 3KDE115090R10xx
- It is not permitted to start other software products at the same time with DSV401 R4 (SMART VISION), which accesses the necessary interfaces.
- Project editor:
FIRST select a device in the right selection field (device list) and thereafter integrate it in the project tree by Drag & Drop.
- CServer pb_ispro or CommDTM for PROFIBUS:
At the simultaneous operation of DSV401 R4 (SMART VISION) as Master class 2 and Master class 1 the following has to be observed:
Please make sure that in Master class 1 the bus parameters are suitable for multi-master operation and that all connected masters use these parameters.
That means in DSV401 R4 (SMART VISION) these parameters must be taken over in the CServer and/or communication DTM (CommDTM).
- CServer pb_ispro and CServer pb_if_03
It is not possible to save the tick mark field „For DP/PA Coupler “ below the flag „Bus Parameters“.
- Simulation
Simulation is not always shown in Yellow within Project Tree.
- Runtime error 401
Error can occasionally occur when several devices are performing uploads and downloads in parallel. DSV401 R4 (SMART VISION) needs to be restarted.

- Update / Upgrade instructions
First uninstall DTMMV2600-MODBUS ≤ V01.02.01 before update / upgrade DSV401 R3 and above via operating system:
Start -> Settings -> Control Panel -> Software -> Install/Uninstall
- Update / Upgrade instructions
"Old" Driver, DTMs or integrated Modules
When you update older SMART VISION Version 4.00 up to 4.01 R3 by the DSV401 R4 and above it can happen that you find in the Device list in the Project editor some "old" Driver, DTMs or integrated Modules.
This Driver / DTMs / Module are no longer usable with DSV401 R4 and above.
List of "old" DTMs:
 - 600T (PA DTM)
Please uninstall the DTMs via operating system:
Start -> Settings -> Control Panel -> Software -> Install/Uninstall
List of "old" Driver / Modules:
 - 0: ABB Automation Products MUX (Driver)
 - TH02/TH102/TH202 (HART Module)
If you want to delete this components you must first uninstall the complete DSV401Rx (SMART VISION) & DTMs and install the DSV401R4 (SMART VISION) & DTMs again.
Please follow the workflow below 1.4.2
- Connecting to a device might open a dialogue behind the device (DTM) windows. Please check.

1.7 Getting help / further information

1.7.1 Common

- Press "F1" for online-help.
- For technical problems the international ABB hotline: +49(0)551/905-534 or
eMail: CCC-Support.DEAPR@de.abb.com
are available.

1.7.2 Important notes for the usage of DTMs/DMA's

- Even though DTM/DMA interfaces have been comprehensively tested, unusual and unpredictable circumstances can occur which could cause abrupt termination of the DTM/DMA frame application. It is always a good idea to save your work using 'save' or 'save as' DTM/DMA features frequently in order to avoid data re-entry and recovery in the event of any unexpected program termination.
- An interrupted Download (Data transfer to the field device) may result in an inconsistent dataset in the device. It is recommended to load a valid dataset from the harddisk into the DTM/DMA after the device connection has been re-established.
Then download the device data to the device again.
- DTM/DMA supplementary information is available on this CD under:
<CD-drive>:\Documentation\DTM DMA Supplementary Information\<DTM/DMA-name>.pdf or in the respective DTM/DMA ReadMe.txt files.
It describes all relevant information.
→ Updated documentation: see chapter 1.8.

1.8 How to get the latest info & software?

- The latest "Supplementary Info" to be founded on:
www.abb.com/fieldbus
Enter here in the search field following No. "3KXD631114R3901"
- Please use one of the following ways to get the Software:
 - Available on the newest DTM400 & DSV401 R4 (SMART VISION) CD-ROM
 - As download on www.abb.com/fieldbus
Enter here in the search field following No. "3KXD631114S0050"

1.9 Licensing the DSV4xx (SMART VISION)

The licensing has to be seen as part of the software installation. Therefore please start Windows with administrator rights!

The DSV401 (SMART VISION) license component "ABB Automation Products SV4.01" can be found as follows:

Start -> Programs -> SMART VISION -> Register.

Checking the 'Base' check-box makes the Request key of the "ABB Automation Products SV4.01" appears.

Please note that this key depends on the PC/Notebook DSV401 (SMART VISION) is installed on. In order to obtain the license key please press the button 'order form', fill it up and send it via email, FAX (FAX No. you will find on the form) or to your local ABB office.

Important

In case the DSV401 (SMART VISION) has been ordered already, please fill in the order number outlined on the back of the CD case in order to obtain the license key free of charge.

When you send out the license form without an order number, it will be sent to your local ABB-representative who will contact you.

Missing margin settings inside the page setup of the Internet Explorer is temporarily set.

When you receive the license key, recall the license registration Dialog box as administrator and then click "ABB Automation Products SV4.01" to license, also click on 'Base' check box and type in the license key into the license box and click "O.K."

Example for "initial licensing" and "Licensing transfer" see manual.

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ABB Automation Products GmbH
Borsigstr. 2
63755 Alzenau
Germany
Tel: +49 551 905-534
Fax: +49 551 905-555

ABB Inc.
125 E. County Line Road
Warminster, PA 18974
USA
Tel: +1 215 674 6000
Fax: +1 215 674 7183

ABB Instrumentation spa
Via Statale, 113
22016 Lenno (CO)
Italy
Tel: +39 0344 58111
Fax: +39 0344 56278