Drive Manager for SIMATIC Presentation
Drive Manager for SIMATIC

Efficient drive engineering

Drive Manager for SIMATIC (DM4S-01)

- ABB Device tool integrated seamlessly to Siemens engineering suite SIMATIC STEP 7
- Configure and monitor ABB’s low voltage AC drives in the engineering environment

Engineering drives and PLCs in one environment
- Simplifies work
- Improves project engineering quality
- Saves commissioning time costs
- Less communication cabling
Drive Manager for SIMATIC device tool
Same communication link for control and monitoring

- Utilizes the common tools calling interface (TCI) of the PROFIBUS-DP PROFINET-IO specified by Profibus International organization
- Parallel communication with PLC master
  - Supervisor connection (PROFINET)
  - Class 2 master connection (PROFIBUS)
- No changes needed to the PLC program
Drive Manager for SIMATIC device tool
Integrated to engineering tool

- Add on tool easily installed into the Siemens Engineering tools
- ABB Drive manager starts from the network (HW) diagram
- Saves the drive parameter settings within the STEP 7 project

TIA portal | SIMATIC Manager V.5.5
Drive Manager for SIMATIC device tool

- Online and offline configuration of drives
- Monitoring of drive actual values
- Graphical monitoring of drive signals
- Parameter export to/import from the drive dedicated PC tools
- Saving drive parameter settings within the SIMATIC PLC project
- Same tool for all ABB drives and also for AC500

Ready-made features to your advantage
Drive Manager for SIMATIC device tool

Functions

- Export parameters
- Store parameters to DSP-file
- Copy parameters

Parameters

- Parameters of the drive
- Parameters of the project
- Parameters compare between drive & project
- Parameters open parameter file
- Parameters of the project

Firmware notifies if drive has different firmware

Display correct values in parameter group for V or mA

Drive state

Save parameters: changes are not persistent – you have to make them permanent

Copy parameters

Export parameters: store parameters to DSP-file

Exclude parameters from compare & copy
Drive Manager for SIMATIC device tool
Scope of offering

Engineering tools
• SIMATIC Manager V5.5 (V5.4)
• TIA portal V11-13

PLC HW
• CPU 300 (315, 317, 319)
• CPU 400 series
  NO SUPPORTED
• CPU1200/CPU1500

PC requirements
• Win 7 32/64 bit
• Windows XP with STEP 7 V5.4 SP

Network
• PROFIBUS
• PROFINET

Drive types
• ACS355
• ACS550
• ACS850, ACQ810
• ACSM1 (motion/speed)
• ACS880
• ACS580 (2015)
Drive Manager for SIMATIC device tool
Documentation & Installation package & Ordering

Documentation in ABB Library
- Quick start-up guide
- Product flyer
- Software updates

Small plastic box containing
- USB-stick
- Quick installation guide
- EULA
- License code (on the back side)

Ordering
- Product ordering code DM4S-01 (3AXD50000012272)
Efficient drive engineering with Drive Manager for SIMATIC device tool

Drive Manager for SIMATIC (DMAS-SA) offers machine builders and system integrators a device tool to configure and monitor ABB's low-voltage AC drives. Drive Manager is also available with ABB's ACS550 PLC and included in the Automation Builder engineering environment.

Drive Manager offers a function block library to enable easy integration of ABB low-voltage drives in the SIMATIC S7 environment. The function block library is available from the ABB website with the following titles:

- SIMATIC S7 configuration
- Drive Manager for SIMATIC

Ready-made features to your advantage:
- Setup enables engineering ABB's low-voltage AC drives from the SIMATIC environment without the need for a separate ABB specific tool.
- Drive Manager is also available with ABB's ACS550 PLC and included in the Automation Builder engineering environment.
- Function block library
- Online and offline configuration of drives.
- Monitoring of drive actual values
- Export to/Import from the drive dedicated PC tools.
- Saving drive parameter settings within the SIMATIC PLC project.
Drive Manager for SIMATIC device tool

Installation and registration

- Start program Setup.exe
- License number entering and online or offline registration is requested
- Updates can be delivered to users, who are having a license, via internet
Drive Manager for SIMATIC device tool
Quick start-up guide and on-line help

- Comprehensive instructions on installation and usage of the tool
- Guides to set up a project both for TIA portal and SIMATIC Manager 5.5

- Detailed online help
- Both in English and German language
Drive Manager for SIMATIC device tool
Tips and hints

Mandatory version updates for

- Drive Manager for SIMATIC tool: SW version 1.02
- FENA -11/12/21: SW version 3.03

Firewalls

- Connection to FENA-11/12/21 through PROFINET requires that company firewall protection accepts DriveManager - execution
  (ABB.DriveWare.DriveManager.TCIWrapper.exe)

VPN Connection

- Talk2M and Tosibox tested
- Check that VPN router does not deny new additional IP connection to device
Drive Manager for SIMATIC device tool
Plenty of useful features

- Monitor the drive status like Running, Stopped, EXT1/EXT2 and Running direction
- Monitor the drive parameter groups and parameters
- Monitor the drive firmware version and properties
- Monitor the drive parameter values along with the parameter attributes like parameter minimum and maximum settings, parameter units and parameter protection status
- Edit the drive parameter values
- Open the offline drive parameter settings (project view) and compare to the online drive parameters.
- Graphical monitoring (export curve data as cvs-data)
- Export the drive parameters from Drive Manager to the respective stand-alone drive tool parameter file formats (.dsp, .dwp, dcparams, etc)
- Import the drive parameters (.dsp, .dwp, dcparams, etc) to the Drive Manager and compare the parameter values of the file with the project view file
- Update and save a group or a single parameter to the drive
- Save or restore drive parameter setting values to SIMATIC Manager project
ABB Drive Library for PROFIBUS
Ready made blocks

Simatic S7 profibus DP control block for ABB Drives

- Start/stop & references & actuals
- Drive types: ACS 355, 350, ACS800, ACS850, ACSM1, ACS550, ACS880
- Application types: Speed/Frequency control or Torque control
- SIMATIC Manager version 5.5
- Soon available also TIA portal V13
- PROFIBUS/PROFINET (DPV0&DPV1)
- Available in ABB Document library
FEATURES
Basic Features
Monitoring Drive Status

Status of the drive can be monitored
Parameter groups of the connected drive can be monitored and modified
Basic Features
Handling Project Parameters

- Offline/project parameter view can be used for offline configuration
Online drive parameter values and project parameter values can be compared.
Basic Features
Copying Values Between Drive and Project

Offline values can be copied to drive and vice versa, if required

<table>
<thead>
<tr>
<th>Parameter name</th>
<th>Drive (connected)</th>
<th>Project</th>
<th>Copy</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 SPEED REF MOD</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 SPEED REF RAMP</td>
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<td></td>
<td></td>
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<tr>
<td>25 SPEED ERROR</td>
<td></td>
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<tr>
<td>28 SPEED CONTROL</td>
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<tr>
<td>32 TORQUE REFERENCE</td>
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<td>1 TORQ REF1 SEL</td>
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<td>2 TORQ REF ADD SEL</td>
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<td>3 TORQ REF IN</td>
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<tr>
<td>4 MAXIMUM TORQ REF</td>
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<tr>
<td>5 MINIMUM TORQ REF</td>
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<td>6 LOAD SHARE</td>
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<tr>
<td>7 TORQ RAMP UP</td>
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<tr>
<td>8 TORQ RAMP DOWN</td>
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</tbody>
</table>

To Project  ➡️  To Drive
Parameters can be exported to a file
Values can be imported from a file and can be copied to project.

- Browse to File
- Select to copy
- Copy to project
Use “Make changes permanent” to retain values in drive after reboot
Basic Features
Refresh a Particular Group or all Parameters

Right click on a particular group and select the required option to refresh accordingly
Basic Features
Refresh All Parameters

Use Refresh-button to refresh all parameters in the view
Basic Features

Monitoring

- Graphical monitoring of the drive parameters
- Maximum 12 signals
- Scan time 250ms
- Saving data in CSV format to file
Choose the parameters that has to be monitored from Parameter list
Selected parameters are seen under Selected parameters list
Basic Features
Monitoring (Contd..)

- Selected parameters are seen at bottom of the Monitoring
- Visible check box has to be selected based on the requirement of visibility of the parameter in the graph
- Min and Max values of a parameter can be changed.
- Select Alarm High and Alarm low to set alarms for low and high values
- Check Autoscale to monitor a specific parameter with an automatically adjusting Y axis scale based on previously recorded values of the parameter (Shows proper display of the graph for parameter if the scale is too large to analyze the graph)
Plotting color of the parameter can be selected as required from the color column.
After selecting required parameters, click to start monitoring the parameters.
Basic Features
Monitoring (Contd..)

Click to pause monitoring parameters.
Basic Features
Monitoring (Contd..)

Click  ■  to stop monitoring parameters.
Basic Features
Monitoring (Contd..)

- From the Active Signal drop-down list, select a parameter to monitor as active signal
- Saving data to CSV-file

![Diagram showing Active Signal drop-down list and monitoring parameters]
Drive Manager for SIMATIC device tool
Efficient drive engineering

High lights for engineering
✓ One connection point for all drives in network
✓ Less communication cabling
✓ Same tool and interface for different ABB drives
✓ Simplifies workflow
✓ Improves project engineering quality
✓ Saves commissioning time and cost
Power and productivity for a better world™