

Version history for S7A Driver Version 7.52

Build	Release date	Notes:
131	11.08.2022	 Fixed issues: The malfunctioning control tags !Poll and !Switch now work properly. Under certain conditions the S7ADrv background process could crash in PROFIBUS FMS configurations. When disabling a S7A device e.g. via Power Tool or by a !Mode:<device name=""> control tag, the data quality of some of the subordinated data blocks remained at 'GOOD' instead of changing to 'BAD'.</device> The data type 'CHAR' was not available in the Power Tool's data type drop down list when I/O address Syntax setting 'S7M komp.' was set for the channel.
130a	03.04.2022	 Fixed issues: In S5 TCP communication way with I/O address Syntax S7M komp. the address index for DB addresses was treated as a byte index instead of a word index.
130	30.11.2021	 Fixed issues: Writing analog values with hardware option HWOU or HWOS failed with 'general error' message in iFIX. Comparison of computer name in license validation module now works case-insensitive.
129	16.08.2021	 New functions: Runtime optimization in the shared memory access layer leads to a 25% performance increase in the WsacTask block processing. Fixed issues: Writing a bit of an analog FMS objekt with a single element failed. Memory leak in the nio parse function cound lead to a crash of the iFIX WsacTask when the iFIX database contained unresovable I/O adresses.
128	01.02.2021	Fixed issues: - iFIX blocks went off-scan after an interruption of communication.
127	16.09.2020	 Fixed issues: In simulation mode, a synchronous OPC read from device returned an error status for the first item of the read group. A reconnect of an interrupted PLC connection sporadically failed.
126	11.02.2020	New functions: - Support for iFIX 6.1 - Support for Windows Server 2019

125e	06.02.2020	Fixed issues:
		 Import of CSV file with a MPI/CIF channel failed S7-200 TCP/IP connection with standard TSAP "MW" failed.
125d	17.10.2019	 Fixed issues: Error message "AG-Link device pool is empty" poped-up when 25 channels of communication way "S7 TCP/IP" were configured, the channel template's communication way was set to "S7 TCP/IP" and another channel has been added.
125c	10.09.2019	 Fixed issues: Failed to write to a iFIX register block when the register block was a write-only block (e.g. when the block's value has been assigned via VBA script).
125a	19.08.2019	 New functions: The setup of the S7A driver now allows a "silent" or unattended installation.For detailed information see the application note InCoSol_S7A_App_Note_Silent_Installation.pdf
125	04.07.2019	 Fixed issues: iFIX Workspace crashed when multiple face plates were opened simultaneously. Read and write of Chinese characters failed.
124	29.10.2018	 Fixed issues: To finally fix another 49 day issue, the driver's heartbeat monitoring was redesigned. CSV import now automatically detects the separation character in the CSV file. A S7M CSV export files now can be imported directly without any adaption. S7 TCP/IP connection establishment failed when the driver started <i>before</i> the PLC was online/powered-up.
122	16.01.2018	Fixed issues: - iFIX alarm logging showed a limited number of COMM errors after a system runtime of 49 days.
121	29.11.2017	New functions: - Site license via license file is now available. Fixed issues: - Client Installation (only Power Tool) failed.
120	21.08.2017	 New functions: New Signal Conditioning Function FREA allows to read/write double precision real values. The tag/OPC item I/O address has to be set to a DBF address (e.g. DB2.DBF20) and the signal conditioning to FREA. The driver reads 8 bytes from the starting address and interprets these 8 bytes as a double float. Fixed issues: iFix Workspace could crash when I/O address column (A_IOAD) was configured in the Alarm Summary OCX and an active alarm with a S7A I/O address was displayed in the alarm list. Incomplete template data for S7 TCP/IP device.

119	25.04.2017	New functions:
		 New Signal Conditioning Function DEAD. With the DEAD signal condition you can specify an absolute or relative (percent of EGU span) dead band value for an iFIX tag with a floating point address. Dead band type (relative or absolute) and value is specified in the hardware option field in the following format:
118	08.01.2017	 New functions: Support for cifX card as PROFINET IO Device. Former version only support PROFINET IO Controller. Licensing via cifX serial number. KZ signal conditioning function (4 bit BCD encoding) now can be used for word (16 bit) and byte (8 bit) values.
117	15.09.2016	 New function: The Target dialog of the Setup has been extended by an option "Register S7ADRV as service" which allows to install the S7A driver as a service. When target type "Stand alone" is selected, the installation directory and the program folder name are set with default paths. In automatic block write mode the driver now waits 500 milliseconds before it writes the current content of the block write queue to the device. This delay timer is triggered every time a client writes a new value into the block write queue. Fixed issues: iFIX Mission control showed the wrong driver running state and running state couldn't be changed. Write operation to an OPC array item which refered to a FMS object failed.
116	27.07.2016	 New function: Support for Cimplicity HMI version 9.5 Fixed issues: Under certain circumstances the the driver interface returned an invalid timestamp value to iFIX which could cause an invalid alarm entry in the alarm summary window and the alarm file.
115	09.05.2016	Minor changes, enhancements and bug fixes.
114	04.04.2016	 New function: Support for Hilscher Ethernet LAN PROFIBUS DP Master Gateway, NHST-T100-DP/DPM (http://www.hilscher.com/en/products/product-groups/gateways/fo r-the-control-cabinet-ip20/lan-gateways/nhst-t100-dpdpm/?&tech Cats=2) allows to integrate the PROFIBUS DP into virtualized systems. Fixed issues: Hardware options for strings did not work for symbolic addresses. Symbolic addresses which contained a dot were rejected by the S7A address parser.

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113	10.12.2015	 Fixed issue: When NIO simulation mode was On, all analog tags were displayed as bad values.
112	20.11.2015	 New function: New signal conditioning function "S5TXSWAP" swaps the order of the characters within a S5 data word. This option can be used only for text blocks on S5 TCP/IP channels! Fixed issues: In redundant configurations the automatic switch back to the primary device or to the master device failed when more than one device was configured in the channel. A data block of a S5 TCP/IP channel could hang if an odd number of characters was written to a string variable.
111	12.11.2015	 Fixed issues: iFIX Workspace could crash when picture contained a alarm summary control which had the A_IOAD field configured as user defined column and an alarm with a S7A I/O address was active. Bit write operation to a S5 data block failed when Block Write Mode was set to "Automatic". A !Poll or !SyncPoll Request from iFIX could cause an error in iFIX Workspace when the Poll request was sent while a regular (cyclic) read request was pending. New functions: Driver now shows detailed error information for FMS errors. New Signal Conditioning Function LBHB which allows to read/write two consecutive Bytes of a FMS Object as an unsigned 16 bit word.
110	19.10.2015	 Fixed issues: When switching from primary to backup SCADA and vice versa the driver generated COMM errors for all digital database tags.
109	29.09.2015	 Fixed issues: A write operation to a register block (AR or DR) in a Tag Group Picture (opened by OpenTGDPicture subroutine) failed with error "Bad I/O address". New functions: Time limited software license (via license file) for evaluation purposes is available now.
108	15.09.2015	New functions: - Driver now supports PPI communication to S7-200 via Deltalogic's ACCON-Netlink-PRO.
107	20.08.2015	 Fixed issues: All Cimplicity HMI points failed when the S7A data block's start address was lower than the lowest Cimplicity point address refering to this S7A data block. Projected TCP/IP connections to a S7-200 failed because the driver used a wrong remote TSAP. New functions: Enhancements in S7A Setup. When the target iFIX 5.5 or 5.8 is selected, the loadable DAX block can be optionally installed along with the S7A driver.

106	04.08.2015	 Fixed issues: On an OPC synchronous write operation with multiple items within the OPC group the write operation of the first item could fail when the polling rate of the respective driver data block was set lower than 1 second. In Auto Create Mode the driver extended a data block by 2 bytes instead of just one byte when a new byte address right behind the last address of the data block was added. New functions: The address range for memory areas "Inputs" and "Periphery Inputs" has been increased from 04095 to 016383.
105	11.06.2015	 Fixed issues: Digital signal transfer with timestamp failed on redundant systems with multiple devices in a channel. Occasionally the cyclic access to the license file failed (file was locked) and the driver switched in demo mode. Now the driver retries to open the license file up to 3 times (with a delay of 250 ms between the retries) before it switches to demo mode.
104	19.05.2015	 New functions: In "S7 TCP/IP" communication way the new PLC Type "S5 via S5-LAN++" was added. This allows to access a S5 PLC via the S5-LAN++ Gateway from manufacturer Process Informatik. For details see http://www.process-informatik.de/produkte/s5-lan⟨=en_&mt=1
103	05.05.2015	 Fixed issues: An error in "Fragmented polling on demand" disabled the initial polling of the data blocks. OPC interface now supports items of data type "Boolean Array" Bit write failed on FMS data blocks when byte order "Intel (LB/HB) was selected.
102	13.03.2015	 Fixed issues: Memory leak in S7ADRV.EXE process has been fixed. When resetting the device and data block statistics an error message box poped up.
101	10.02.2015	 New functions: Support for Cimplicity HMI version 9.0. The scans per second (how often the driver checks to see if a data block has to be polled) can now be set in the driver setup parameters. The default value is set to 10, means the driver scans all data blocks 10 times per second. Especially for very large driver configurations with thousands of driver data blocks, this modification reduces the CPU load of the S7A driver background process (S7ADRV.EXE) significantly. Fixed issues: Closing the Power Tool's Log Viewer Window could cause a high CPU load of the S7ADRV.EXE process.
100	05.01.2015	 New functions: Software (keyless) license is not hard-coded any longer. In former S7A versions each software license was built individually for the specific end-customer and computer name. Now the software license comes in form of a license file. An already installed demo version or an existing license on an USB key now easily can be changed into a software license. Our Web site offers a software license request form which can be used to request a software license for S7A version 7.52. The home window of the S7A Power Tool now immediately informs the user if the software is licensed or if it runs in demo mode.

	Version 7.51 ends with build 105, start of version 7.52 with build 100		
105	12.12.2014	 New function: Profibus FMS performance enhancement. Solved problems: Huge configurations with more than 240 devices and 6000 data blocks caused an address range overrun on Windows 7 64 bit systems. S7A driver process address range was reduced by reducing the thead stack size from 1Mb to 256k per thread. Malfunction of Profibus FMS configurations with two CIF cards. Device statistics form could cause a crash of the S7A Power Tool When S7M compatible I/O address mode was selected, the last byte of a data block of type BYTE was not addressable by a client (iFIX or OPC) 	
104	23.10.2014	 Solved problems: Bit addresses in the data monitor (e.g. M0.5) displayed the value of the first bit (0) of the addressed byte. In redundant configurations the automatic switch back to the primary device or to the master device failed when more than one device was configured in the channel. 	
103	23.07.2014	 Solved problems: The sporadic AGLink error "-1267:Data currently not available" doesn't cause a COMM error within the iFIX alarm system any more. This error occured in particular at data blocks with AG State and AG Info addresses. On CSV-File import the device slot number was not imported properly but the slot number was set to the default value 2. Fall back from backup to primary device failed when the primary and backup device had configured different TCP port numbers. The selected PLC type "S7-1500" always changed back to S7-300/400. 	
102	02.06.2014	 New functions: Additional properties page "Debug" in the Power Tool's Setup dialog. All debug options now can be set "on the fly", means any change in the debug settings takes effect immediately. Solved problems: When nio simulation mode was set "On", then the data block's quality bits were not set properly. 	
101c	23.05.2014	 Solved problems: When a client (e.g. iFIX) continuously sends more write commands than the driver and the PLC(s) can process, then the number of pending write requests in the write queue increases until the limit of the shared memory was reached. At this point the entire processing of the write requests was blocked. 	
101b	19.05.2014	 Solved problems: An import of an exported configuration file (CSV format) failed due to invalid resource id values in a S7 TCP/IP device. The driver now accepts the CSV separation characters "," or ";" for the CSV import files, independent on how the list separation character is set in the system's regional settings. The FDL device flag value was exported wrong. 	
101a	11.04.2014	Solved problem: - In certain circumstances a driver data block could hang, means it was not polled anymore.	

101	31.01.2014	 New functions: Windows Server 2012 support The maximum length of the data block name has been extended from 12 to 20 characters. The maximum number of devices for Profibus FMS communication way has been extended from 16 to 32. Transfer of digital signals with timestamps (DS Option) now supports redundand iFIX SCADA pairs. New field Actual poll time in the data block statistics shows the actual poll time in case that overruns occur.
100	02.01.2014	 New functions: Fragmented polling on demand. The driver just polls the fragments of a data block which are currently requested by a client (iFIX, Cimplicity or OPC). New fields <i>Demanded bytes</i> and <i>Fragments</i> in the data block statistics show the actually requested bytes and the number of block fragments which are polled from the PLC.
	Version 7.50 en	ds with build 104a, start of version 7.51 with build 100
104a	20.09.2013	Solved problems: - Fixed an issue where just a single but not multipe devices in a PG-PC communication channel worked.
104	02.09.2013	Solved problems: - For a faster update of a written value, the driver now reads back the written value priorized.
103	07.06.2013	 New Functions: The driver now supports the Cimplicity point update criterias "Unsolicited" and "Unsolicited on change". For S7 TCP/IP connections the source IP address can now be set. The obsolete Data Scope was replaced by the Log Viewer. To avoid inconsistencies between the driver's data table and the Cimplicity domain table, all Power Tool functions which can modify the driver configuration (Menus "File new" and "File open" as well as the "Add" and "Delete" buttons for Channels, Devices and Data Blocks) are disabled when the Cimplicity project is running.
102	08.03.2013	 New Functions: The communication way "DP cifx/CIF50" now supports the CIF50-DPS Profibus DP Slave card. The Power Tool start page now shows the path and name of the currently loaded configuration file, the path and name of the active background process and whether it is running as regular process or as service. In case of an unavailable server background process, the Power Tool now pops up an information message box and automatically re-connects to the background server. The driver now supports the update criteria "On Demand On Scan" and "On Demand On Change" for Cimplicity HMI points. In conjunction with the driver's access time and secondary poll rate this feature allows to reduce the communication load to the devices (PLCs) to a minimum. Device-related control tags like !ConState now available in Cimplicity HMI.

101	18.02.2013 04.02.2013	 New Functions: When the driver is installed as Cimplicity driver on Windows 7 or Windows Server 2008 then it is automatically registered as a service. Running the S7A driver as service is mandatory for Cimplicity on Windows 7 or Server 2008! MPI/PB CIF communication way now also supports the new CIFX50-DP and CIFX50E-DP Profibus interface cards. New Functions: New communication way PROFINET using the Hilscher CIFX50-RE Realtime Ethernet interface.
		Version History for version 7.41
100	25.06.2012	 New Functions: Now the PLC type (S7-200, S7-300/400 or S7-1200) can be set individually for each device. The TCP Port number can be set for an S7 TCP/IP device Update to the more efficient AGLink communication library version 4. Solved problems In addition to the Pipe character () the Dollar character (\$) can be used as separator character in OPC Item IDs. Problem occured with Softing's Easy Connect OPC Tunneler. This tool do not allow the Pipe character within an OPC item ID. Now the Dollar character can be used instead.
		Version History for version 7.40
115b	16.12.2012	 Solved problems: In certain circumstances the driver background process (S7ADRV.EXE) could crash with an access violation. This issue can just occur in version 7.40 build 114b.
115a	23.11.2012	New functions: - The following signal conditioning functions have been added: LWRD: Converts the lower 8 bits of a 16 bit signed value to an unsigned 8 bit value HWRD: Converts the upper 8 bits of a 16 bit signed value to an unsigned 8 bit value FWRD: Converts the upper 8 bits of a 16 bit signed value to an unsigned 8 bit value FWRD: Converts a 16 bit signed value of an FMS object to an unsigned 16 bit value FDIN *: Converts two consecutive 16 bit signed values of an FMS object to a signed 32 bit value FDWR *: Converts two consecutive 16 bit signed values of an FMS object to an unsigned 32 bit value FREA *: Converts two consecutive 16 bit signed values of an FMS object to a 32 bit floating point (real) value All these signal conditioning functions are supporting both (read and write) data directions. * The block write mode of the respective data blocks has to be set to "Auto" when values has to be written.

115	18.10.2012	 New functions: The system statistics display now shows the current number of references to connected clients like iFIX or OPC clients. Furthermore the current number of half-open TCP connections is displayed. Solved problems: On Windows 7 and Windows Server 2008 with active UAC (User Access Control) it might occur, that configuration changes have not been accepted due to unsufficient write permissions to the system registry. Driver stopped when iFIX was terminated even if other clients (e.g. iHistorian OPC collector) were connected. Now the driver ignores the iFIX stop request as long as other clients are connected. In S5-TCP/IP, when reading bytes from DB, the byte order was swapped. The number of so-called half-open TCP connections can be limited by a specific registry value. Microsoft introduces a limit (of 10) to restrict number of allowed simultaneous outgoing half-open TCP connections in Windows XP SP2(x86,x64)/SP3, 2003 Server SP1(x86)/SP2(x86,x64), Vista without SP(x86,x64) and with SP1(x86,x64) to prevent virus or malicious program to make unlimited infectious connections to other systems. This limitation could cause an issue in the S7A driver when more than 10 devices were configured and most of these devices are offline (PLCs are switched of or not reachable) and the network connection was interrupted (network cable was disconnected). Once the network was connected again, some or all of the connections to the online PLCs were not established due to a extensive number of outgoing half-open TCP connection attempts to the PLCs which are offline.
114b	31.08.2012	 Solved Problems: A performance problem with asynchronous write operations from the OPC server thread to the driver background process has been fixed.
114a	27.07.2012	 Solved Problems: Unable to select String Hardware Option "TOD_24H" in iFIX Database Manager. Unable to import CSV files which have been modified in Excel.
114	04.05.2012	 New Functions: The Hilscher CIF50 PB card as well as the cifX50 PB card can be used for Profibus DP. Solved Problems: OPC synchronous read/write failed when driver was installed as service on a Windows 7 or 2008 Server system
113a	02.04.2012	 Solved Problems: On Windows 7 and Server 2008 OPC each write operation took 5 seconds (run into timeout). Profibus DP/FMS: For compatibility reasons with the old CIF driver the byte order of words, double words and floats was changed.

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113	20.02.2012	 New Functions: Now the path for the log files can be set in the Power Tool Options. Furthermore the maximum number of log files (ring buffer) can be defined. The device section of the CSV export file now contains only the parameters for the particular communication way. S7A Online Help (S7A.CHM) was updated. Notes: The old Aladdin HASP keys (serial numbers 2008xxxx and lower) will not be supported any longer. For licenses with such an old key an upgrade is required to run this new version.
112f	06.02.2012	 Solved problems: String Hardware Options SPACEFILL and NULLTERM were ignored For configurations with multiple channels, the driver might show errors -1262 and -1275 for particular data blocks. This error occured on powerful systems with low CPU load.
112e	30.01.2012	 Solved problems: In certain circumstances writing values to the PLC could fail when the S7A driver was running longer than 50 days . During driver startup OPC read from cache failed as data not yet available.
112c	01.01.2012	Solved problems: - S7ASTRS.DLL caused a memory leak in iFIX TCPTASK.EXE.
112	26.09.2011	 New Functions: New communication way DP CIFX supports Profibus DP with Hilscher CIFX 50 DP interface. Support for Cimplicity version 8.2.
110	10.05.2011	 New Functions: The <i>View</i> Menu of the S7A Power tool has been extened by the menu item <i>Server Window</i>. In addition to Alt+Shift+S key sequence this is a second way to show/hide the window of the S7ADRV background process. Solved problems: A large number of concurrent write requests caused delayed processing of the write queue. When S7A driver and iFIX were registered as service, AR and DR register blocks just showed ????? instead of current value.
108	22.02.2011	 New Functions: Windows Server 2008 R2 (64 Bit) support Solved problems: Memory leak in OPC server closed Registration from service back to user process failed when the S7A service was stopped (not in running state).
107ь	13.01.2011	 Solved problems: Data monitor: AG-Info was displayed wrong(not as a string) OPC: Sync Read of a group of inactive items returned data quality BAD, out of service for all items except for the first item of the group. OPC-Server returned wrong data quality for DS (Digital Signal) items. OPC server returned wrong data type for items with a signal condition which returns a floating point value. Enhancements in the processing of digital signals (DS memory area) New Functions: S7ADRV's OLE function ReadData() now supports strings.

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107a	09.12.2010	 Solved problems: The Power tool hangs when trying to open the template dialog and an invalid backup communication way was stored in the registry Driver backgroud process could crash when an import (CSV) file was opened which contains a PPI Netlink channel.
107	26.11.2010	 New Functions: S7-200 PPI protocol with Hilscher NetLink now be supported. When the signal condition of a OPC item has a target data type which is different to the source data type (such as EXP and HWOU/HWOS), then the target data type is becoming the cannonical type of a OPC item. Solved problems: Due to the previous design of the common write queue of the driver, it was not possible to return the status of a write operation back to the requesting OPC client. The design and functionality of the write queue was extended. Now the OPC client gets a response (successful or failed) for any single write request it sent to the driver. Furthermore an offline device do not influence the write requests to other decices any more. The Power tool hangs when trying to open the template dialog once the template data have been saved.
106a	21.10.2010	 Solved problems: Blockage of write request queue due to offline devices. The driver now discards all write requests to devices which are offline for the periode of device's Delay time. The delay time has to be expired before it retries to send a new write request. The radio button labels of the iFIX Register Offset group on the channel configuation dialog were swapped. When byte offset was selected, actually element offset was active and vise versa.
106	14.09.2010	New functions: - Extended Manual block write mode which copies the written values into the input data area. Solved problems: - Improved installation for Cimplicity HMI
105	02.08.2010	 New functions: Windows 7 and Windows 2008 Server support The slot numer of S7 TCP/IP connections now can be set to 0 (zero) which is required for the new S7-1200 PLCs. Native interface for CIMPLICITY HMI 8.0 and 8.1 added Solved problems: Automatic switching from primary to backup device failed when the connection to the PLC failed during a so-called "read before write" request. When Auto create option was active it could happen that the bit number of digital tags were set to zero by the driver's parser routine although it was greater than zero in the tag's I/O address or OPC-Item-ID.

103	03.12.2009	 New Function: New Memory Area "Periphery Inputs" allows to read the periphery input bytes of a S7-PLC Solved problems: Driver read wrong PLC memory area when starting address of data blocks were greater zero. Tick counter overrun in OPC server dll fixed. This error could cause the lost of data change notifications from the OPC server to the OPC client when the update rate of the OPC group was set very short (< 100 ms). This issue was fixed in S7AOPC.DLL. The fixed version of this dll has build id 103a Registration of S7AOPC.DLL failed when installation path contained space(s) (e.g. C:\Program Files\Ge Fanuc\Proficy iFIX) This issue was fixed in S7AUninstall.exe. The fixed versions of these files have build id 103a
102	16.11.2009	 Internal version, not distributed to customer New Functions: Profibus FMS support with Hilscher CIF50 PB The error message "Failed to read/write from/to IP Addr. xxx.xxx.xxx! Error: -yyyy" now will be suppressed when the reduced iFIX alarm logging is active. The driver automatically detects the rack with the currently active (master) CPU when S7-400H is connected and a backup device is configured. The driver now supports S7-DB numbers up to 32767 and DB addresses (index within a DB) up to 65535
100	17.06.2009	Initial Release