Version **5.00.28.01** :

most important features of version 5.00.28.01 compared to version 5.00.24.00 :
     (Release date : 27.11.2013)

- ADbasic 5 compiler V5.00.28 , TiCoBasic compiler V1.02.23 : diverse bugfixes
- ADbasic / TiCoBasic include / library files : support of the new modules :
     • *Pro II-Aout-1/16*
     • *Pro II-LS-2*
     • *Pro II-SPI-2-T , Pro II-SPI-2-D*
     • new : `Digout_FIFO_Write_Burst()`
- ADbasic sample programs :
     • standard sample programs now also for Pro II : *ProII_DMO1.bas, ProII_DMO2.bas, etc.*
- ADpro   V5.7 :   support of : *Pro II-AOut-1/16* ; detection of : *Pro II-LS-2*

most important features of version 5.00.24.00 compared to version 5.00.21.01 :
     (Release date : 08.05.2013)

- ADbasic 5 compiler V5.00.24 , TiCoBasic compiler V1.02.20 :
     • diverse bugfixes : powerfunction (only T9, T10)
- ADbasic 5 user interface V5.0.8.21 , TiCoBasic user interface V1.2.8.21 :
     • bugfix: occasional problem on programing the TiCo-Bootloader with big binary-files
- ADbasic / TiCoBasic include / library files : support of the new modules :
     • *Pro II-COMP-16*
     • *Pro II-ARINC-429*
     • *Pro II-MIL-1553*
     • *Pro II-DIO-32-TiCo2*
     • new : `P2_ECAT_Set_Mode()` (for *Pro II-EtherCAT-SL*)
- ADwin operating system (ADwin11.BTL) :
     • bugfix : problem at Low Prio processes in combination with Ethernet disruptions
- Developer software :
     • dotNET - driver : V1.0.57.0 : :
          ▪ new : examples for WPF (= Windows Presentation Foundation)
          ▪ Online-help reworked
     • Matlab driver V4.05.00 : new : `File2Data()`
- Fieldbus :   ADwin-EtherCAT.xml   (updated for firmware 2.0 of *Pro-II-EtherCAT*)
- ADpro   V5.6.0 :   support of : *Pro II AIn-F8/16 Rev. E04*

most important features of version 5.00.21.01 compared to version 5.00.17.01 :
     (Release date : 17.09.2012)

- ADbasic 5 compiler V5.00.21 , TiCoBasic compiler V1.02.19 :
     • diverse bugfixes (T9, T10) : strings, optimization 2
     • diverse bugfixes (T11) :   `Start_Process(), Start_Process_Delayed()`
- ADbasic / TiCoBasic include / library files :
     • ADwinPro2.inc :   support of the new module *Pro II-SENT-4*
     • EEPROM_Support.inc : bugfix : problem, which occured only with some hardware revisions
     • ADwinGoldII.inc , Fieldbus_TiCo.inc : fieldbus errorhandling / errorcodes update
     • MIO-D12_TiCo.inc :   support of the new module *Pro II-MIO-D12*
     • RS_LIN_TiCo.inc :   timing optimized
     • GoldIITiCo.inc :   bugfix : `PWM_Write_Latch()`
- Developer software :
     • Matlab driver V4.02.00 : EXE-files can now be generated with the Matlab compiler
- ADpro   V5.5.0 :   improved errorhandling, if hardware is damaged

most important features of version 5.00.17.01 compared to version 5.00.14.00 :
     (Release date : 28.11.2011)

- ADbasic 5 user interface V5.0.8.19 , TiCoBasic user interface V1.2.8.19 :
    - new at T9 to T11 : "Call Tree"
    - "Managing Projects" enlarged : files of any type can be added to a project, and
      diverse settings can be saved in the project file
    - new : "<Region>" (= foldable text range) and „Create Region from Block"
    - new : "documenting self-defined instructions and variables" (i.e.: adding extra information)
    - further diverse improvements and bugfixes
- ADbasic 5 compiler V5.00.17 , TiCoBasic compiler V1.02.17 :
    - bugfix : occasional problem at `MemCpy()` at two-dimensional arrays
    - bugfix: at T11 at Low Prio processes
    - bugfix: at TiCo at big jumps
    - diverse bugfixes among other things at FiFos, libraries (Float-division, TiCo)
- ADbasic / TiCoBasic include / library files :
    - new : `(P2_)Write_Fifo_Full`   (at: Gold II, Gold II TiCo, Pro II)
    - bugfix : `P2_Digin_FIFO_Read_Fast()`
    - bugfix : at T11 at LS-Bus
    - EEPROM_Support.inc : bugfix in timeout handling
- ADwin driver :
    - USB driver now also for 64 bit Windows operating systems
    - ADwin64.Dll : V3.0.464.2 : allows the access for 64-bit applications
- Developer software :
    - dotNET - driver : V1.0.57.0 : completely reworked Online-help
    - Matlab driver V4.01.03 : now identical notes are displayed just once
- ADlog   V1.2.0.0 :   new : now also ADsim-processes can be used
- ADpro   V5.4.5 :   support of : *Pro AIn-F-8/16 Rev. B , Pro II AIn-F8/16 (calibration)*
- ADtest   V5.1.0 :   calibration data can be backed up in files and restored

most important features of version 5.00.14.00 compared to version 5.00.10.00 :
   (Release date : 21.03.2011)

- ADbasic 5 user interface V5.0.6.78 , TiCoBasic user interface V1.2.6.78 :
    - new : "Fontsize" can be set for the source code window
    - further diverse improvements and bugfixes
- ADbasic 5 compiler V5.00.14 , TiCoBasic compiler V1.02.14 :
    - new : `Round()` (returns the nearest integer of a value of data type Float)
    - the start of the timebase for Low Prio processes was moved from the begin of INIT to the end (T9 to T11)
    - bugfix : occasional problem if the passed parameter of a macro is an addition of strings
    - diverse bugfixes among other things at libraries
- ADbasic / TiCoBasic include / library files :
    - new : support for *L16-PWM1* (this add-on has one PWM-output and one SPI-interface)
    - new : support for *Pro II-TC-8 ISO* (module for thermocouples)
    - new : `P2_Wait_Mux()`   (waits for the end of the multiplexer settling)
    - new : `P2_Digin_Fifo_Read_Fast()`   (Fifo values are written into an array)
    - new : `P2_Burst_CRead_Pos_Unpacked1,-2,-4,-8` (for *Pro II-AIn-F-8/14*)
    - new : EEPROM_Support.inc : (see: C:\ADwin\Tools\Ethernet Interface\Bootloader_eng.pdf)
    - diverse include and library functions : optimization (faster and smaller code)
- Developer software :
    - new : dotNET - driver : V1.0.52.0 BETA especially developed for Visual Studio .Net ; supports 32- and 64-bit
    - Labview driver V3.0 :
        - now 32- as well as 64-bit Labview is supported
        - new: File2Data.vi
    - SciLab driver V1.04.01 :
        - does now work also with new Scilab versions, e.g. 5.1.1 as well as 5.3.0-beta-4
        - optimized errorcode handling
    - Matlab driver V4.01.01 : if necessary , the function ADwin_Init is called automatically
    - ADwinActiveX V 4.0.0.0 : bugfix : occasional problem on Vista, Windows 7
- ADlog   V1.0.48.2 :   bugfix at the processes for Gold II (issue at some analog channels)
- ADEthFlash V3.10 :   the required firewall configuration is set automatically
- Fieldbus : new : ESI_ABCC_ECT_V_1_04.XML   (for *Gold-II- EtherCAT*)
- Installation routine : all default- registry- settings are now added also on 64-bit operating systems
- Linux, MAC OS Version 5.00.10.03 :
    - improvements, bugfixes : ADbasic compiler, library, generic driver, Scilab driver

- new : Python driver 0.9 ; 64 bit support for ADconfig

most important features of version 5.00.10.00 compared to version 5.00.08.06 :
  (Release date : 10.06.2010)

- ADbasic 5 user interface V5.0.6.68 , TiCoBasic user interface V1.2.6.68 :
    - new : user-defined, external shortcuts can be inserted into the ADtools-bar
    - new : in the context menu of the project window : "Open path in Windows Explorer"
    - new : the results of "Find : All Documents of Project" can be copied into the clipboard
    - "Autocomplete for instruction or variable" was improved
    - "Jump to Declaration" does work now also for user libraries
    - new in TiCobasic : button „R" (= Reset Tico)
- ADbasic 5 compiler V5.00.10 , TiCoBasic compiler V1.02.10 :
    - the DATA-number is now also displayed in the Debug Mode
    - bugfix : occasional problem at programs with codesize > 131072 bytes
    - diverse improvements and bugfixes among other things at libraries (ADbasic), `Min_Long, Max_Long` (TiCo)
- ADbasic / TiCoBasic include / library files :
    - improvements/bugfixes at : CAN, `(P2-)Workload`
    - new : `Wait_Mux, Mod` (integer remainder of a division)
    - new : EtherCAT support for *Gold-II- EtherCAT, Pro-II-EtherCAT, Pro-II-MIO-4-ET1*
- ADbasic / TiCoBasic sample programs :
    - FFT sample programs optimized for T11
    - new sample programs for : *Pro II-AIn-8/18, Pro II-F8/14,16,18, Pro II-PWM-16, Pro II-Cnt, Pro-CO4*
    - new Tico sample programs for Eventsource External
- ADwin driver :
    - new : ADwin64.Dll : V3.0.464.2 BETA : allows the access for 64-bit applications
    - new : ADsim32.Dll : allows access to internal parameters/signals of a compiled Simulink model
- Developer software :
    - new : Pyhton - driver
    - Matlab – driver V4.00.00 : now also Matlab 64-bit is supported
    - Delphi driver : support of Delphi 2009 and 2010
- ADtools V5.17 :   minor bugfixes (colours, large fonts)
- ADtest   V5.0.2 :   completely new developed testprogram for Light-16, Gold and Gold II , calibration for Gold II
- ADlog   V1.0.47.1 : bugfix in Min/Max function
- Fieldbus : new files :
    - ADwin-EtherCAT.xml   (for *Pro-II-EtherCAT, Pro-II-MIO-4-ET1*)
    - DDF_ABCC_ECT_V_1_03.XML   (for *Gold-II- EtherCAT*)
    - 324-8172-EDS_ABCC_DEV_V_2_3.EDS   (for *Gold-II-DeviceNet*)

most important features of version 5.00.08.06 compared to version 5.00.07.02 :
  (Release date : 28.09.2009)

- Windows 7 : tested and approved for this operating system
- ADbasic 5 compiler V5.00.08 , TiCoBasic compiler V1.02.09 Beta :
    - occasional problem if a `THEN` follows a FIFO
    - occasional generic error at `SEQ_READ8, SEQ_READ16` and `MEDIA_READ`
- ADwin operating system (ADwin11.BTL) :
    - bugfix : occasional problem on stopping of processes with Eventsource External
- ADbasic / TiCoBasic include / library files : support of the new modules :
    - Pro II-RTD-8
    - Pro II-FlexRay-2
    - Pro II-MIO-4
- ADconfig   V3.20 :   the configuration of illegal (UDP) ports is now prevented
- ADtools   V5.15 :   improvements and bugfixes (TButton, TMeter, TGraph, ADtools.exe)
- ADlog   V1.0.46.0 : enhanced ASCII record options
- L16Calib   V2.0 :   bugfix at calibration of Light-16
- Setup.exe   V5.0.0.6 :   faster installation procedure

most important features of version 5.00.07.02 compared to version 5.00.05.10 :

(Release date : 23.06.2009)

- last version with official support for Windows 98, ME
- ADbasic 5 user interface V5.0.6.27 , TiCoBasic user interface V1.2.6.27 Beta :
    - "Automatic quick info" : automatic display of (declaration-) information if mouse is over a source code element (variable, #Define, (Lib-) Sub, (Lib-) Function)
    - when typing a Sub/Function : information on their passed parameters are shown
    - "Scan Global Variables" button in the Parameter Window : now also global arrays are shown in the Info Window
    - Autocomplete now also at :
        o `#INCLUDE` together with include filenames, which fit to the selected ADwin- system
        o "Reserved Keywords"
        o many "Codesnippets"
    - now the Process Window also shows, whether the process code contains Debug- / Timing- information
    - printing of a code "selection" is now possible
    - further diverse improvements and bugfixes
- ADbasic 5 compiler V5.00.07 , TiCoBasic compiler V1.02.06 Beta :
    - diverse improvements and bugfixes among other things at Timing Analyser (T9,T10)
- ADbasic / TiCoBasic include / library files :
    - ADwinPro2.inc :   support of the new module : Pro II-AIn-F-8/16
    - several .inc files :   bugfix at : `P2_Read_Msg_Con()`, `Set_TiCo_RingBuffer()`
    - FFT.Li* :   bugfix at : `FFT()`, `FFT_INIT()` (only if several processes, only T11)
- ADwin driver (ADwin32.DLL) :   now up to 50 TCP/IP Devices can be used (before: 30)
- Developer software :
    - C - driver :   TiCoLoadBin (= sample program for loading TiCo binary files)
    - DASYLab driver :   new help file does work now also on Vista
    - Agilent VEE :   sample programs revised, new : Bas_Dmo6.vee
- ADtools   V5.13 :   diverse improvements and bugfixes
- ADEthFlash V3.8 :   bootloader now also accepts *11c.BTL (= ADsim) files
- ADpro   V5.4.3 : support of : Pro II-AIn-F-8/16
- Profibus :   V2.16 :   updated : Generic Station Description file (for Gold II and PRO II) : HMSB1811.gsd

most important features of version 5.00.05.10 compared to version 5.00.02.01 :
(Release date : 12.01.2009)

- ADbasic 5 user interface V5.0.5.10 , TiCoBasic user interface V1.2.5.10 Beta :
    - new : automatic source code formatting (= "Smart format)"
    - new : formatting : "Align comments after source code"
    - new : additional frequency display of the current process
    - further diverse improvements and bugfixes
- ADbasic 5 compiler V5.00.05. , TiCoBasic compiler V1.02.03. Beta :
    - better syntax checking at the preprocessor
    - diverse improvements and bugfixes among other things at libraries and in Debug Mode
- ADbasic / TiCoBasic include / library files :
    - ADwinPro2.inc, DIO32TiCo.inc :   edge output FIFO for DIO-32-TiCo Rev E03
    - ADwinGoldII.inc, GoldIITiCo.inc : new: `Digin()`; new option: Gold II-Storage-16 (16 GB flash memory)
    - ADwinGoldII.inc :   new: `SEQ_READ8()`, `SEQ_READ16()`; bugfix: Profibus
    - String.Li* :   bugfix at function LNGTOSTR : inaccuracies at very big values
- ADwin driver (ADwin32.DLL) :   bugfix at Enet at `GetData()` (only if network timeout)
- Developer software :
    - ADwinActiveX   V 3.0.0.3 :
        o improved error handling at diverse functions
        o bugfix : memory problem at `GetData_String()` and at `Get_FPar_Block_Double()`
- ADconfig V3.18 :   bugfix : occasional problem at "Scan AEI"
                          now also 00-22-71-XX-XX-XX is selectable as default MAC addresse range
- ADtools   V5.10 :   TButton : new option : "Close all ADtools"
                          TButton : new option : transfer data from a file to a DATA
                          TParFPar : bugfix : at importing of comments
- ADpro   V5.4.2 :   minor changes
- ADlog   V1.0.45.3 :
    - new processes for Pro II-AIN-32/18 (16 and 32 channels)
    - new: "Moving X-Axis" (= softscrolling of the X-Axis at slow sample rates)

- bugfix at drawing of several windows, bugfix at configuration with several windows
- diverse improvements
- Profibus : new Generic Station Description file (for Gold II and PRO II) : HMSB1811.gsd

most important features of version 5.00.02.01 compared to version 5.00.00.01 :
   (Release date : 17.06.2008)

- ADbasic 5 user interface V5.0.2.0 :
    - improved operator guidance at the useage of libraries
    - bugfix at : Parameter Scan, 64-bit Windows operating systems
- TiCoBasic V1.2.2 Beta :   diverse improvements and bugfixes
- ADbasic / TiCoBasic include files :
    - ADwinGoldII.inc :   Profibus support and diverse improvements
    - GoldIITiCo.inc :   Gold II supports now also TiCo
    - ADwinPro1.inc, ADwPDIO.inc :   bugfix at DIGOUT
    - ADwinPro2.inc :   - the new module Pro II-PROFI-SL is now supported
                              - bugfix at P2_BURST_INIT
    - AInTiCo.inc :   the following new modules are now supported :
                              - Pro II AIN 32/18-D-TiCo
                              - Pro II AIN 8/18-L2-TiCo
- ADPro   V5.4.1 :
    - the TiCo on a module is stopped, and again started on closing of the window
    - support of : PRO II-CNT-D/-T/-I and all Pro I and Pro II-CAN-modules
    - diverse improvements and bugfixes : problem fixed at 64-bit Windows operating systems
- ADlog   V1.0.44.0 :
    - diverse improvements in the user interface and diverse bugfixes
    - moving average filter : "Values count" now up to 10000
- Setup.exe (V 5.0.0.2) :
    - bugfix : compiler was not found, if ADwin-software was not installed to C:\ADwin
    - faster startup of the ADbasic 5 user interface caused by the useage of NGEN
- JAVA   V1.2.2 :
    - multiple threads can now access the same ADwinDevice-Object („Thread safety")

most important features of version 5.00.00.01 compared to version 4.20.10.05 :
   (Release date : 02.04.2008)

- TiCoBasic V1.2.1 Beta :   diverse improvements and bugfixes
- ADbasic 5 V5.0.0.0 :
    - totally new user interface (see chapter "News in ADbasic 5" in the ADbasic help)
    - bugfix at : MEMCPY , calculations with the constant 0 , libraries
    - .NET-Framework 2.0 is now required
- ADbasic include files :
    - ADwinGoldII.inc :   Gold II is supported
    - ADwinPRO2.inc :   the following new modules are now supported :
                              - PRO II-CAN-2 , PRO II-CAN-2-LS
                              -.PRO II-LIN-2
                              - PRO II-RSx-2 , PRO II-RSx-4
                              - PRO II-PWM 16 , PRO II-PWM-16-I
                              - PRO II-CNT-D, PRO II-CNT-T, PRO II-CNT-I
                              - PRO II-TRA-16
- ADwin driver (ADwin32.DLL) :   bugfix at T11 at GetData() (only if count > 22.000.000)
- Developer software :
    - Matlab driver :   now Matlab version 7.6 (R2008a) is supported ; Processor_Type now also for T10, T11
- ADconfig V3.16 :   bugfix : visible / invisible window at „Configure AEI"
- ADPro   V5.4.0 :
    - support of : PRO II-DIO-32, PRO II-TRA-16, PRO II-OPT-16, PRO II-RSx-2, PRO II-RSx-4
    - .NET-Framework 2.0 is now required
- Pro-Storage V1.13 :   bugfixes ; the firmware version number is now displayed
- ADlog   V1.0.42.0 :
    - Gold II is supported
    - setting of the Samplerate was improved

- Fieldbus / Profibus : new file : 321-2932-HMS_1811.gsd
- Setup.exe (V 5.0.0.1) :
    • automatic deinstallation of an already installed ADwin-software
    • check if the Microsoft (R) .NET Framework 2.0 is installed
- One-Click-Install.bat (V1.0 Beta) : alternative installation of the ADwin Software via command line

most important features of version 4.20.10.05 compared to version 4.20.10.00 :
    (Release date : 27.07.2007)

- TiCoBasic V1.1.02 Beta : diverse bugfixes ; new : RINGBUFFER
- ADtools   V5.7 :   new : TGraphTiCo
- ADbasic include files :
    • ADwinL16.inc :   bugfix : SEQ_INIT() ; new (for CAN) : READ_MSG_CON()
    • ADwinPRO1.inc, ADwPEXT.inc, ADwGCAN.inc :   new (for CAN) : READ_MSG_CON()
    • ADwinPRO2.inc :   Pro II-DIO-32 Rev. E is now supported
- Developer software :
    • Matlab driver :   now also Matlab version 7.4 (R2007a) is supported ;
                              "Standalone Applications" (EXE) can be created
    • DASYLab driver :   new : support of DASYLab (version 7 , 8 and 9)
    • Testpoint driver :   Realtime Object 1.4.2 : new action : Fifo Full
- ADlog   V1.0.41.0 :
    • measurement processes for Pro, Pro II, Gold and Light-16 were optimized ; L16_MODE for Light-16 Rev.B

most important features of version 4.20.10.00 compared to version 4.20.08.02 :
    (Release date : 20.03.2007)

- TiCobasic V1.1.01 :   Real-Time development tool for TiCo processors
                (The TiCo-processor is a standalone, free programmable add-on processor,
                which is currently used in certain *ADwin-Pro II*-modules)
- ADbasic V4.20.10 :
    • Windows Vista is supported (new HTML Help system)
    • bugfix at : CASEELSE
- ADwin operating system (ADwin11.BTL) :
    • bugfix: occasional problem caused by PC communication
    • bugfix: occasional problem on starting several processes
- ADbasic include files :
    • ADwPDIO.inc, ADwinPRO1.inc :   bugfix at PWM_ENABLE
    • ADwPEXT.inc, ADwinPRO1.inc :   bugfix at Profibus, Interbus
- Developer software :
    • Delphi driver : bugfix at Process_Status()
- ADconfig   V3.13 :   support of Windows Vista
- ADtools   V5.7 : :
    • Windows Vista is supported (new HTML Help system)
    • bugfix at TButton, TGraph, TLed
- ADEthFlash V3.7 :   support of Windows Vista
- ADPro   V5.3.2 :
    • SSI-Interface of CO4-D modules is supported
    • the four counters of CO4 modules are supported
    • backup and restore of calibriation data (modules AIn-F8/18, AIn-F8/14, AIn-8/18 and AIn-32/18)
- ADlog   V1.0.40.2 :
    • Windows Vista is supported (new HTML Help system)
    • bugfix : occasional problem on recording in Diadem-format
- Setup.exe V4.7 : installs current versions of the "Adobe Reader"
- Linux, MAC OS :   SciLab is now supported

most important features of version 4.20.08.02 compared to version 4.20.05.07 :
    (Release date : 16.11.2006)

- ADbasic V4.20.08 :

- bugfixes at : libraries, `STRING`s, `SHIFT_LEFT`, `SELECTCASE` und `MEMCPY`
  - bugfix at access to Pro-II bus
  - bugfix at programcode located in `DRAM_EXTERN` (only T11)
  - bugfix (at T9 and T10) on calculation of constants (1 / const.)
- ADwin operating system (ADwin11.BTL) :
  - bugfix: occasional damage of low prioritized processes caused by PC communication
- ADwin operating system (ADwin10.BTL) :
  - bugfix at the PC communication functions Fifo_Full, Fifo_Empty, Fifo_Clear
  - bugfix at code in `LOWINIT` at externally controlled processes
  - bugfix at : `TAN`
- ADbasic include files :
  - ADwinPRO1.inc :   LS-Bus support (T11)
  - ADwPEXT.inc :   LS-Bus support (T9 und T10)
  - ADwL16.inc :   LS-Bus bugfix and optimized
- Developer software :
  - Labview driver V2.2 :
    - changes because compatibility to Windows / Linux / Mac OS
- ADconfig   V3.9 :
  - Web Interface can be started from the Scan- window
  - „Ping" can be executed
  - bugfix : it was possible to create a duplicate Device No   (at Edit : USB/Link)
- ADPro   V5.2.2510 :
  - LS-Bus- module is supported
  - calibriation of the modules AIn-F8/18, AIn-8/18 and AIn-32/18
  - diverse improvements and bugfixes
- ADlog   V1.0.37.1 :
  - number of points per line increased from 10000 to 20000
  - higher performance at lower CPU-load
- Linux, MAC OS :
  - ADbasic- compiler V4.20.07.00 (only for Linux)
  - Linux / Mac-library (= shared library) V3.0.449 :
    - support of Mac OS X 10.4 for ADwin-systems with Ethernet-interface
  - Labview driver V2.2 (Linux and MAC)
  - numerous functional improvements

most important features of version 4.20.05.07 compared to version 4.20.04.04 :
   (Release date : 06.09.2006)

- ADbasic V4.20.05 :
  - bugfixes at :   `MEMCPY, SELECTCASE` (only at `CASE 0`)
  - bugfix on opening of ADbasic project files (*.ABP)
  - bugfix at instructions for the modules Pro-II-AOut- 8/16 and Pro-II-AIn-F-8/14
  - occasional problem with access to Pro-II bus
- ADbasic include files :
  - ADwinPRO2.inc :   bugfix at the modules AIn-8/18 and AIn-32/18
                      (concerns the instructions : `P2_SEQ_INIT` and `P2_BURST_READ_INDEX`)
  - ADwinPRO1.inc :   new : `TC_READ_B`
  - ADwPEXT.inc :   new : `TC_READ_B`
  - ADwPAD.inc :   bugfix for T10 at : `READ_ADCF8, READ_ADCF8_PACKED`
  - ADwL16.inc :   new :   support of the module HSM-24V (via LS-Bus)
- Developer software :
  - examples for Excel driver (ActiveX and Visual Basic)
  - SciLab V1.03.00 :   (on the CD-Rom for the first time)
  - Matlab :   warning "… case-sensitive match for 'adlab' … " fixed
- ADPro   V5.2.2406 : diverse improvements
- ADlog   V1.0.36 :
    - new : processes and configurations for Pro-II modules
    - diverse improvements

most important features of version 4.20.04.04 compared to version 4.20.03.07 :
   (Release date : 17.05.2006)

- ADbasic V4.20.04 :
    - bugfixes at : libraries, strings, `MEMCPY, SHIFT_RIGHT, SHIFT_LEFT`
    - bugfix at programcode located in `DRAM_EXTERN` (only T11)
    - bugfix at optimization level 2 (only T9 and T10)
    - bugfix at powerfunction (only at ^2 or ^3)
- ADwin11.BTL :
    - bugfix at SetData at certain values of Startindex and Count
    - bugfix at GetFifo (only at high prioritized processes with long lasting `EVENT` section)
- ADbasic include files :
    - ADwinPRO2.inc :   new : support of the modules AIn-8/18, AIn-32/18 and AOut-8/16 (Rev. E)
      (new instructions : `P2_ADC… , P2_SEQ… , P2_DAC… , P2_DAC4_PACKED, ...`)
    - ADwinPRO1.inc as well as ADwPEXT.inc : new instr. : `TCJ_DIG_TO_TEMP, TCK_DIG_TO_TEMP,`
      `PT100_DIG_TO_TEMP, PT100_DIG_TO_R`
- ADwin driver (ADwin32.DLL) :   bugfix at Get_Digout() and Set_Digout()
- ADtools : V5.5 : :
    - TGraph : new : FFT
    - now each tool can be moved by ADtools.exe and brought "on top" of the screen
    - new : ADstartpanel.exe
    - diverse bugfixes and improvements
- ADEthFlash V3.4 :   new : button for Bootloader dis-/enable (from ENET firmware 2.66 on)
- ADlog   V1.0.33 :
    - Start/Stop Communication Buttons are now located in the toolbar of the main window
    - math. functions improved
    - diverse improvements

most important features of version 4.20.03.07 compared to version 4.20.03.00 :
     (Release date : 30.03.2006)

- ADbasic include files :
    - ADwinPRO2.inc :   new : support of the module Pro-Ain-F-8/14 (Rev. E)
      bugfix at `CPU_EVENT_CONFIG()`
    - ADwL16.inc : new instructions for Rev. B : `SEQ_READ(), SEQ_INIT(), L16_MODE()`
      only DIO_02 :   `SSI_…()`
      only DIO_02 or DIO_03 : `DIGIN_LONG_E(), DIGOUT_LONG_E()`
- ADwinTCPIPserver V1.7.0 :   optimisation of data throughput
- Pro-Storage : Pro-Storage_MP.BAS :   bugfix at writing into a file
- L16Calib.exe V2.0:   now also suitable for calibration of the new L16 Rev. B
- ADconfig   V3.5 :   bugfixes at DHCP
- ADlog   V1.0.32 :
    - new : math. functions : Addtion, Substraction
    - new : two configurations with 16 channels for ADwin Gold
    - improved Zoom at several Y-axis
    - Recording mode : enhanced triggermodes
    - Recording mode : now also header line (with the names of the channels)

most important features of version 4.20.03.00 compared to version 4.20.01.08 :

- ADbasic V4.20.01 , ADwin11.BTL :
    - Conditional compilation with `ADWIN_SYTEM` (= `ADWIN_GOLD, ADWIN_L16, ADWIN_PRO`)
    - names of variables and `#DEFINE` may not contain special characters (+-*/^.;&|%$§#) any longer
    - bugfix at libraries at T11
    - bugfix at programcode located in `DRAM_EXTERN` (only T11)
    - bugfix at concatenation of strings
    - bugfix at setting of the Low Priority Level
    - bugfix at `#DEFINE`, which is used in a `SUB` or a `FUNCTION`
- ADbasic include files :
    - ADwpAD.inc :   new : `READ_ADCF4/8,  READ_ADCF4/8_PACKED`
    - ADwinPRO2.inc :   new : support of the module Pro-Ain-F-8/18
- ADbasic libraries :

- • String.Li* : bugfix at function `VALF` : Exponent was ignored, if it contained a "+" character
- ADtools : TProcess V5.3   supports the new Debug- Mode messages of the Pro-II-Bus
- ADPro   V5.1.2153 : diverse improvements
- ADlog   V1.0.27 :   diverse improvements

most important features of version 4.20.01.08 compared to version 4.01.19.00 :

- ADbasic version 4.20.01 , ADwin11.BTL :
  - • **support of the new processor T11** (with 300 MHz , more details : see document : C:\ADwin\Documents\Hardware\ADwin-PRO\english\Pro_T11_eng.pdf)
  - • new instructions (only T11) : - `START_PROCESS_DELAYED`, `RESTART_PROCESS`, `MEMCPY`, `CPU_SLEEP`, `P1_SLEEP`, `P2_SLEEP`
  - • maximum codesize (per process) is 1.000.000 Byte when using T11 processor
  - • bugfix at `Shift_Left`
  - • bugfix at string assignment and string addition (only when using a T10 processor)
  - • Parameter Scan did not work for Par_80, FPar_80
  - • now a warning is generated, if the operator " - " is directly following after the operators " / " or " ^ ".
- ADbasic include files :
  - • ADwinPRO1.inc :   new file for processor T11 (for well-known bus Pro I)
  - • ADwinPRO2.inc :   new file for processor T11 (for new Bus Pro II)
     new instructions : `CPU_EVENT_CONFIG`, `CPU_DIGIN`, `CPU_DIG_IO_CONFIG`, `CPU_DIGOUT`
  - • ADwinPRO_ALL.inc : new universal include file for all processors T4 to T11
- ADbasic libraries :
  - • String.Li* : bugfix at functions `LNGTOSTR` and `FLOTOSTR`
  - • FFT.Li* :   optimized version for T11, bugfix at function `FFT_Phase()`
- ADbasic sample programs :
  - • new sample programs :   Pro-AIn8-14_Seq.BAS, Pro-AIn8-14.BAS
- ADwin driver bugfixes :
  - • occasional problem with SetData function (ENET)
  - • occasional loss of PC physical memory on useage of function SetFifo (ENET)
- Developer software :
  - • Agilent VEE :   sample programs revised, new : Bas_Dmo7.vee
  - • Matlab :   ADlab.dll is now located in the directory "C:\ADwin\Developer\Matlab\ADwin"
- ADPro version 5.0.2077 :
  - • support of processor T11 ; improved user interface
  - • hint : ADpro_Old has to be used for processors T4 to T8
- ADlog   V1.0.24 :   diverse improvements ; reworked Online-help
- ADEthFlash V3.3 :   new : button for Bootloader dis-/enable (from ENET firmware 2.66 on)
- Setup.exe (version 4.3.0.0) :
  - • there is no more check, whether the user is a so-called "Administrator", but only, whether the user is a member of the Administrators' group
  - • check if Microsoft (R) .NET Framework 1.1 is installed
- JAVA   V1.2 :
  - • support of processor T11
  - • new methods : Set_Processdelay, Get_Processdelay
  - • the max. data transmission rate at GetData was increased (from ENET firmware 2.66 on)

most important features of version 4.01.19.00 compared to version 4.01.17.01 :

- ADbasic version 4.01.19 :
  - • bugfix at : "Compiler Options" -> "System" -> "ADwin-GOLD"
- ADlog   V1.0.21 : diverse improvements ; reworked Online-help

most important features of version 4.01.17.01 compared to version 4.01.15.00 :

- ADbasic version 4.01.17 :
  - • display of line and column number in the "Status Bar"
  - • new ADbasic systemvariable PROCESSDELAY (identical with GLOBALDELAY)
  - • bugfixes at #defines, #endif and optimization level 2

- • bugfix at : SIN, COS, EXP, LOG, LN, SQRT, TAN, ARCSIN, ARCCOS, ARCTAN
- • bugfix at : variable ^ constant ^ constant
- • bugfix :   Mark Controlblock did not work under Win XP
- ADbasic include files :
    - • ADwpext.inc : support of the new thermocouple- module TC-8 ISO
- ADbasic library files :
    - • Sting.Li9 / .LiA : bugfix at STRMID, STRLEFT, STRRIGHT, FLOTOSTR
- ADwin driver (ADwin32.DLL) :
    - • max. data transmission rate at GetData was increased from 4.8 to 6 Mbyte/s (from ENET firmware 2.66 on)
    - • bugfix : write permissions are no longer needed in the root- directory on the fixed disk (C:\ )
    - • bugfix : now also dots (= periods) are allowed in the path of the ADwin?.BTL
- Developer software :
    - • ADwinActiveX   V 3.0.0.1 :
        - o improved error handling now supports also Multi-Threading
        - o bugfix at Set_Language()
    - • Labview driver :
        - o improved error handling now supports also Labviews Multi-Threading
        - o the DLL-calls were made independent from the user-interface; therefore the user-interface is operable even during long-lasting DLL-calls (e.g. if ADwin-system is not accessible)
        - o calling convention of the VI's is no longer "as caller" but "standard" , therefore possibly higher speed
        - o from now on the current driver does only support Labview versions >= 6.0
        - o bugfix : at GetData_String
    - • Matlab driver :
        - o new : Get_Last_Error_Text, String_Length, Get/SetData_String, Get_DeviceNo, Show_Errors
        - o Online-help : 'help ADwin' can now be called in the 'Command Window'
    - • Testpoint driver : Realtime Object 1.4.1 :
        - o new action : Read Fifo Int32 : necessary for integer numbers greater than 16777215 (= 24-bit)
        - o Read Parameter All and Read Parameter Block are now returning signed values
- ADconfig V3.0 :
    - o completely new designed and clearly arranged user interface
    - o scanning of ADwin-systems (Scan_AEI) is now integrated into ADconfig
    - o context- sensitive Online- help
- ADEthFlash V3.2 as well as ADtools V5.1 :   adaptions for future processors
- ADlog   V1.0.19 :   diverse improvements
- JAVA   V1.1 :   bugfixes

most important features of version 4.01.15.00 compared to version 4.01.13.00 :

- ADbasic version 4.01.15 :
    - • new samples :   RS232_send_string.BAS, RS232_receive_string.BAS
- ADwin operating system :
    - • ADwin10.BTL :   bugfix at ADBasic instruction START_PROCESS()
    - • ADwin9.BTM :   issue with Link- Bootloader fixed
- Developer Software :
    - • Delphi driver :   bugfix : wrong return values at function ADBoot() (at processors T2, T4, T5, T8)
                                                as well as function Processor_Type() (at T5 and T9)
    - • Matlab driver :   bugfix: function 'Get_Globaldelay' : value was taken from processnumber+1
    - • C - driver :   sample programs revised
    - • Testpoint driver : systemobject 1.3.8 :
                                new option „Load Standardprocesses" (i.e. loading of ADwins9.btl is possible)
    - • ADwinActiveX   V 2.0.0.11 :
        - - **New :** sample programs for VB.NET and C#.Net
        - - Intouch sample programs adapted to Intouch 9.0
    - • **New :** GUI_development.pdf :   advice for developers on the drivers and samples of the different
                                development environments
- ADwinTCPIPserver V1.6.3 :
    - • Bugfix : big data throughput caused a timeout at 'SetData'
    - • now several PCs can access an ADwin-system via the ADwinTCPIPserver
    - • Help- file completely revised
- ADEthFlash V3.0 :   Online info about EEprom Support now also for ADwin Ethernet interface 2
- ADtools   V5.0 :   at all ADtools :   buxfix at the DeviceNo (only if last used DeviceNo does not exist any more)
    - • TPoti: the Focus-color and the NonFocus-color is now selectable
    - • ADtools.exe : the recent used path is remembered on saving and opening *.def files
- ADlog   V1.0.11 :   datalogging software for ADwin systems

- ADbasic measurement processes reworked
- higher performance of the graphic display
- X-axis can be shown in a date / time formatted manner
- diverse bugfixes and improvements
- Help- file now also in English

- **Linux** : completely reworked : ADbasic- compiler V4.01.11 and driver V3.0.446 (now also ENET support)

most important features of version 4.01.13.00 compared to version 4.01.10.02 :

- ADbasic version 4.01.13 :
    - bugfix : at `SHIFT_LEFT, SHIFT_RIGHT, ABS, SIN, COS, EXP, LOG, LN, SQRT, TAN` if one of these functions uses itself as a function parameter
    - bugfix : accuracy of calculations at division by a constant
    - bugfix : printing in „landscape"- orientation
    - bugfix : at optimization level 2 on calculation with constant expressions
    - new Compiler Option :   Remember Device No.
- ADbasic Include files :
    - ADwpdio.inc : new subroutine : `RTC_GET()`
    - ADwpAD.inc : bugfix : `BURST_CREAD ()`
    - ADwpext.inc : bugfixes : `RS_RESET(), WRITE_FIFO(), GET_LINE_STATUS()`
    - ADwGCAN.inc : new file for CAN-expansion at ADwin-GOLD
    - PRO-STORAGE_SP.inc : bugfix : `MEDIA_RD_`…
- ADwin driver bugfixes :
    - occasional problem with SetData function on ENET – fixed only together with firmware >= 2.53 and 2.64 respectively
    - occasional problem with GetFifo function (ENET)
- Developer Software :   Testpoint driver :
    - Realtime Object 1.3.8 : bugfix : Read Parameter returned only unsigned values.
    - A/D Object 1.3.5 :   bugfix : at Sample A/D Action (all 16-bit values < 32768 were miscalculated)
- ADEthFlash V2.9 :   EEprom Support now also for ADwin Ethernet interface 2
- ADtools V4.9 :   diverse buxfixes at TGraph, TDigit, TPoti, TPar_Fpar
    - TGraph :   new : now up to 16 analog channels and 32 digital channels
    - TGraph :   new : importing of data from a textfile
    - TGraph :   new : timer can be disabled by pressing the SHIFT- key during startup
    - TGraph :   new : values can be edited by double-clicking in the Textwindow
    - TProcess :   new : ADbasic Debug Errors are displayed
    - TProcess :   new : PM, DM, DX and Codesize are displayed
    - TProcess :   new : Globaldelay can be set also in frequency units (Hz, kHz, MHz)
    - TPar_Fpar : new : comments can be imported from ADbasic #defines.
- ADlog V1.0 :   datalogging software for ADwin systems**.   (on the CD-Rom for the first time)**

- **JAVA** V1.0 : JAVA- interface for ADwin-systems with Ethernet interface **(on the CD-Rom for the first time)**

most important features of version 4.01.10.02 compared to version 4.01.01.21 :

- ADbasic version 4.01.10 :
    - bugfix : if the same Fifo is used several times within an expression
    - diverse bugfixes at optimization level 2 (e. g. at : `Digin()`)
    - bugfix : at integer expression VARIABLE * CONST / CONST or VARIABLE / CONST * CONST
    - now more than 128 characters are allowed for file-/pathname
    - bugfix : occasional problem with libraries
    - bugfix : on task-switch among several low prioritized processes
    - improved checking of the function parameters at : `Fifo_Full(), Fifo_Empty(), Fifo_Clear()`
    - improved checking of the file, which is passed to the `IMPORT` instruction
- ADwin operating system (ADwin9.BTL, ADwinS9.BTL , ADwin10.BTL) :
    - bugfixes at the communication process and at the process-scheduling of low priority processes
- Developer Software :
    - Matlab driver :   new function Data_Length()
    - C - driver :   sample programs revised

- ADwinActiveX   V 2.0.0.10 : bugfix at function "Boot": If property Exception_Enable is used, then no exception was initiated.
- Pro-Storage V1.8 :   bugfixes ; now also FLOAT can be stored/loaded

most important features of version 4.01.01.21 compared to version 4.01.0106 :

- ADbasic library files : new : FFT library now also for T10 (FFT.Lia)
- ADbasic include files :
  - ADwpdio.inc : new : instructions for the COMP16 module ; bugfix on Pro-Storage (RTC)
  - ADwpext.inc :   corrected : SET_RS()
  - ADwpda.inc :   new instructions for memory option (for example Pro-Aout-4/16-M2)
- ADwin driver bugfixes and optimizations :
  - occasional problem with SetData function on ENET
  - occasional problem with access from several PCs to one ADwin-system (ENET)
  - better usage of the transmission bandwith on simultaneous access from one PC to several ADwin-systems with the same TCP/IP port.
  - ENET optimizations at SetFifo function , especially active with Win9X/ME PCs
- ADwin operating system (ADwin9.BTL, ADwinS9.BTL , ADwin10.BTL) :
  - Bugfix : on starting a second process
- Developer Software :
  - VisualBasic driver : return value of the function Get_Globaldelay
  - Testpoint driver :   A/D Objekt now also for GOLD and L16
  - Labview driver :   Acquire.vi now also for GOLD and L16
  - InTouch driver :   sample programs are on the CD for the first time
  - Matlab driver :   some functions returned a duplicate result
- GoldCalib   V1.0   this is the calibration program for ADwin-Gold-ENET/USB
- Pro-Storage V1.6 :   now also module addresses > 99
- ADEthFlash V2.2 :   supports now also firmware 2.52

most important features of version 4.01.0106 compared to version 4.00.0600 :

- ADbasic version 4.01.01 :
  - Mark Controlblock now also for SELECTCASE
  - new functions : CAST_FLOATTOLONG(), CAST_LONGTOFLOAT()
  - bugfixes :
    - at optimization level 2
    - constant –2147483648 was not accepted
    - problem with Fifo (Float) as LValue
    - Open All Includes did not work in certain cases
    - Debugmode did not work in LowInit section
    - problem on handling with strings
    - on ADC instruction if the first function parameter is not a constant
    - error on nested libraries with T10 if array is in external memory (DX)
- ADbasic include files :
  - ADwinpro.inc : new function : CPU_DIGIN()
  - ADwpdio.inc : new: Pro-Storage : PCMCIA- memory and real-time clock
- Developer Software :
  - Testpoint driver : support of the T10 processor
  - Labview driver :   paths adapted for Labview 7 and sample programs
  - C - driver : reworked
- ADEthFlash V2.1 :   support of ADwin Ethernet interface 2

most important features of version 4.00.0600 compared to version 4.00.0500 :

- ADbasic version 4.00.06 :
  - bugfix : old incompatible libraries are now rejected
  - FFT– library newly generated with ADbasic 4
- ADconfig V2.7 :
  - bugfix (problem, if all Device_No have been deleted)
- ADPro Version 4.1 :
  - support of the new Pro-AIN 8/14, Pro-AIN-32/14, Pro-AIn-8/16 Rev C, Pro-AIn-32/16 Rev C

most important features of version 4.00.0500 compared to version 3.20.1200 :

- ADbasic version 4.00.05 :
    - T10 Processor (80 MHz) is now supported (*1)
    - Projectmanagement : A projectfile can be created, which is able to open several ADbasic files (*1)
    - new optimisations for T10 : up to 10 % less program memory (PM) needed, compared with the T9
    - support also of the ADwin-Gold-ENET and ADwin-Gold-USB (both Rev. B1 or greater)
    - for ADwin-Gold : multiplexer settling time changed from 1,5 to 2,5 µs for the**ADC12** instruction. Programs with the ADC12 instruction now need more CPU- time and eventually have to be reworked.
    - Load Standardprocesses : If "No" => approx. 11 kByte bigger free program memory (PM)
    - Default Settings for Directory (BTL, INC, LIB) now also for several Users under NT, W2K, XP
    - commandline functionality
    - improved user interface :
        - all 80 PARs/FPARs in Parameter window
        - simultaneous control over all 10 processes in the "Processes Window" (*1)
        - new button: "Enable cyclic update"
        - new button: "Parameter Scan" (*1)
        - system (Gold, Pro, Light-16, ..) is now selectable. (= replacement for: "16 bit resolution")
        - shortcuts für Boot, Compile, Start, Stop, Parameter Scan, (Un-)Comment Block, In-/Outdent
        - permanent display of the options :
            - Process X delay   (= former called : (Global-) Delay)
            - Initial Processdelay   (= former called : (Global-) Delay)
            - Device No. , Eventsource , Priority , Process number , Optimize Level
    - new instructions :
        - Sleep()
        - AT DM_LOCAL, AT DRAM_EXTERN can optionally be specified on BYREF parameters of libraries (for the reason of code optimisation
        - #IF PROZESSOR = T10 THEN
    - bugfixes :
        - #DEFINE now also allowed on strings
        - at powerfunction (^) , at optimisation level 2, at IMPORT instruction
    - revised editions of ADbasic Manual and Tutorial
    - revised edition of context- sensitive ADbasic Online Help

      *1 = a new ADbasic4 license is necessary for this feature

- ADbasic include files :
    - Adapted for processor T10 :   ADwpAD.inc, ADwpDA.inc, ADwpDIO.inc, ADwinPro.inc, ADwpEXT.inc
    - ADwpAD.inc : new for Pro-AIN-F-X/14 (Rev B2) : BURST_CSTART(),BURST_CREAD(),SYNC_MODE()
                        new instructions for sequence control : SEQ_…()
                        support of new Pro- AIN 8/14 , Pro- AIN 32/14
    - ADwGcnt.inc : new for ADwin-Gold-ENET/-USB (Rev. B1 or greater) with CO1 Option : CNT_GETSTATUS() , CNT_RESETSTATUS() , CNT_SE_DIFF()
- ADbasic Library files : new : ADwpEXT_lib.Li9, ADwpEXT_lib.LiA
- ADwin driver bugfixes :
    - occasional problem (errorcode 2000) with SetFifo function on ENET
    - occasional problem with path-/filename with function ADwin_Debug_Mode_On
- ADwin operating system (ADwin9.BTL, ADwinS9.BTL) :
    - ADwinS9.BTL : approx. 11 kByte bigger free program memory (PM)
- Developer Software :
    - Labview driver :   improvements on Stopdac, Startdac, Acquire, Process_Status
    - Delphi Treiber :   improvements on Get_last_error_text
- ADtools V4.6 : TProcess : Processor T10 is now supported ; bugfixes at TPoti and TPar_FPar ; improvements at TGraph
- ADEthFlash V2.0 :   Processor T10 is now supported
- ADPro Version 4.0 :   Processor T10 is now supported
- ADtest V1.7 : (settings are now stored in the registry in location „HKEY_CURRENT_USER")
- ADwinTCPIPserver V1.2 : on errors, now errorcodes are displayed
- ADbootload V3.4 :   bugfix

most important features of this version compared to version 3.20.0804 :

- ADbasic version 3.20.12 :
  - Bugfixes on libraries and `Sleep` instruction in optimization level 2
  - Bugfix on sin-, cos- and powerfunction (^) at processes with low priority
- ADwin driver :
  - improved USB driver
- ADwin operating system (ADwin9.BTL) :
  - Bugfix on Booting the ADwin-Pro system (undefined behaviour)
- Developer Software :
  - Matlab driver : (license key for this is required).
- ADtest V1.6 : (settings are now stored in the registry in location „HKEY_CURRENT_USER")
- ADwinTCPIPserver V1.1 : (for the first time on the ADwin-CD)

most important features of this version compared to version 3.20.0703 :

- ADbasic version 3.20.08 :
  - Bugfixes on libraries and on calculations with signed constants
  - The default setting for "16 Bit resolution" is now "Yes"
- ADbasic include files improved :   ADwL16.inc , ADwgcnt.inc , ADwpad.inc
                                    ADwpDIO.inc   (new: instructions for Pro-CO4 , Pro-DIO-32 (Rev B))
- ADbasic example "Bas_Dmo7.bas" improved
- FFT– library available for the first time in : C:\ADwin\ADbasic3\lib
- ADwin driver improvements :
  - On using the functions GetData_Float / GetFifo_Float / GetFPar_All , possibly existing invalid bit patterns (e.g. because of not initialized data) are now set to Q-NAN
- Developer Software :
  - improvements in Labview and C – driver
  - **ADwinActiveX V 2.0** available for the first time in : C:\ADwin\Developer\ActiveX
    Therefore for the first time a driver for the developer environment :
    - **Visual Studio .NET**: C#, VC++ 7, VB.NET
    As well as for the developer environments :
    - Visual C++ 6, Visual Basic 6 , Borland Delphi , Borland C-Builder , Agilent VEE, etc.
- ADPro Version 2.9 : The revision identifier is now displayed for all (i.e. also old) modules
- Windows Installer Engine version 2.0 :
  - The new engine version will be installed automatically, if necessary.
  - Problem on deinstalling older versions (Error 1316) is now fixed
  - Service pack 6 is now required for WinNT (SP6 is available on CD in directory : NT4_SP6a).

most important features of this version compared to version 3.20.0109 :

- ADbasic version 3.20.07 :
  - Bugfixes on strings, libraries, ADC12, optimization level 2, power function (^)
  - Escape sequences for strings
  - Constants are now combined/calculated at compile-time, no longer at runtime. This is valid for all optimization-levels. Advantage : programs are executed faster. But **ATTENTION** : waiting times (e. g. for multiplexer settling time) , which have been implemented by program code containing calculations with constants, are now shorter. They have to be reworked respectively.
- ADbasic include files :   ADwpEXT.inc (new instruction because CAN-LS : `GET_LINE_STATUS`
                              ADwL16.inc   (for ADwin-L16-DIO1 and ADwin-L16-CO1)
- ADwin driver bugfixes :
  - improved errorhandling for diverse functions
  - improved USB driver (errorhandling)
- ADwin operating system (ADwin9.BTL) :
  - decrease in the influence of the process- timing, which could be caused by :
    - `BEGIN_CRITICAL_SECTION` (often used in : ADwin-Pro)
    - or division in a process with low priority
- Developer Software :
  - improvements in Visual Basic, Labview and C - driver

- ADPro Version 2.7 : new : identification/calibration of new module Pro-AIN-F-4/14, Pro-AIN-F-8/14
- L16Calib   V1.0   this is the calibration program for ADwin-Light16
- ADconfig V2.2 : (configuring of several Devices is more user friendly now)
- ADtools V4.4 :
  - new : TString (for displaying and editing of ADbasic- strings)
  - TPar_FPar : new : individual labelling of each Par / FPar-line
  - Bugfixes
- ADfind_dll V 1.0   searches for all ADwin- DLL and BTL files, which are stored on the PC

most important features of this version compared to version 3.20.0101 :

- ADwin driver feature :
  - higher data transfer rates with GetData_Long, ..._Float, ..._String, ..._Double on ENET, if firmware of the ADwin ENET interface >= 2.5 and if <= 1750 data are transferred from the ADwin- system
- ADwin driver bugfixes :
  - occasional problem (windows- protection fault) with GetData function on networks, which have a lot of traffic
  - occasional problem (wrong errorcode) with SetFifo function on ENET
- ADPro version 2.6 : new : identification of new counter module Pro-CO4
- ADbasic include files :   ADwpAD.inc   (because of new Pro-AIN-8/16-RB , Pro-AIN-32/16-RB ,
                                                              Pro-AIN-F-4/14, Pro-AIN-F-8/14)
                        ADwpDIO.inc   (new: instructions for Pro-CO4 (and SSI))
- Developer Software :
  - Testpoint driver version 1.3.6 with the following new actions :
    - Get_Last_Error
    - Read Parameter All, Read Parameter Block
  - Labview driver version 2.0 with the following new functions:
    - errorhandling conformable with Labview (error wiring via Error In, Error Out : based on Get_Last_Error, Get_Last_Error_Text)
    - Get_Par_Block, Get_FPar_Block
    - GetData_String, SetData_String, String_Length
    - Process_Status, Data_Length, Set_Globaldelay, Get_Globaldelay, Set_Language
- ADEthFlash V1.5   (new : EEprom support)
- ScanAEI V1.2   (new : If DIL-switch 1 is present, the version number is displayed with an appended ".1")
- ADtools : bugfixes on Tgraph and TProcess
- ADconfig V2.1 :   easier user guidance for the configuration of Ethernet

most important features of this version compared to version 3.00.3011 :

- Window XP support (new USB driver)
- ADbasic version 3.20.01 : new :
  - Libraries   (see : ADbasic3.20-lib_eng.pdf)
  - String functions (see : ADbasic manual : ADbasic3_eng.pdf)
  - „Syntax Color"   (highlighting of ADbasic keywords, comments, etc.)
  - Autoindent
  - multiple "Undo" and "Redo"
  - "Open All Includes" (opens all files, which are included by the **#INCLUDE** command)
  - "Tabsize" now adjustable (Default Tabsize = 2 , therefore it may be necessary to check the format of those ADbasic programs, which are usingTABs)
  - On right mouseclick :
    - (Un-)Comment Block   (changing multiple codelines to comments and vice versa)
    - Indent/Outdent
    - Mark Controlblock   (on right mouseclick on a line, which contains **IF , ELSE** or **ENDIF,** the whole textblock of the **IF – ELSE – ENDIF** structure will be highlighted ; the same is also valid for : **DO .. UNTIL, FOR .. NEXT**)
  - Info window   (shows several compiler- error messages and warnings)
  - diverse bugfixes (e.g. at **SELECTCASE**)
- ADPro version 2.4 : new : calibration function now has adjustable gain; binary input possible; ability to switch between UNI/BIP voltage ranges;   identification of new module AIN32/16RB
- ADtest V1.4 : last used Device No. is now saved
- ADconfig V2.0 :   diverse improvements, timeout now adjustable with resolution of 100 ms

- ADwin driver :
  - better error handling
  - bugfix at Set_Fifo (error occurred only with Ethernet, if Float Data were converted to Long DATA(s))
  - bugfix at process-scheduling of low priority processes
- Developer Software :   Visual Basic , Delphi and C – driver with the following new functions :
  - Get_Last_Error, Get_Last_Error_Text
  - Get_Par_All, Get_FPar_All
  - GetData_String, SetData_String, String_Length
  - Process_Status, Data_Length, Set_Globaldelay, Get_Globaldelay, Set_Language
  - etc.
- ADtools V4.1 (new : TFifo and TBin)
- ScanAEI V1.0   (scans all ADwin-Ethernet interfaces, which are located in the same TCP/IP- subnet
                                                                               as the PC)
- Linux : latest driver and (for the first time) XADbasic_beta (= ADbasic-GUI)

most important features of this version compared to version 3.00.2735 :

- ADPro version 2.2 : new : calibration function for Rev. B modules
- ADtest V1.3 : now also GOLD and Light-16 is supported ; Info window shows all installed ADwin software packages
- ADconfig version 1.7 : now available : 4-digit Linkaddress
- ADbasic : diverse bugfixes on : DAC- instruction, libraries, external event, integer division
- diverse updates and bugfixes on : ethernet, profibus, ADserver.exe, standard processes,   Bootloader (Link), process-timing of low priority processes, communication problem on very big blocktransfer of data under WinNT and Win2000 fixed, problem on starting and stopping of processes under Testpoint fixed
- developer software :
  - Labview driver adapted for Labview 6.0
- for the first time on CD : ADbasic development system and drivers for Linux

most important features of version 3.00.2735 compared with version 3.00.2733 :

- ADEthFlash V1.2 (for programming the bootloader and updating the firmware of ADwin-systems with Ethernet interface)
- ADTools V 3.6
- Significant improvement of the transfer rate of ADwin-light-16

most important features of version 3.00.2733 compared with version 3.00.2332 :

- support of ADwin-systems with Ethernet interface
- under Win2000 also ADPCMCIA and PCI is now supported.
- under Win2000 the ISA-LINK cards are managed now in the "Device Manager".
- new ADbasic instruction : **SELECTCASE**
- "16 Bit resolution" is now the default setting in the ADbasic Compiler Options
- improvements in the accuracy of calculations with the power- function (^)
- improvements of the functionality and the (transfer rate) performance of USB