Version **6.00.44.10** :

features of version 6.00.44.10 compared to version 6.00.44.00 :
   (Release date : 26.03.2026)

-   ADwinC V 1.0.30.23 :   *please see : C:\ADwin\ADwinC\Version.txt*
-   ADbasic / TiCoBasic include / library files :
    • new: support of **Pro II-Ain-F-16/20** , **Pro II-Ain-F-8/20**
    • bugfix: occasional problem at Pro-CPU-T12 on writing to TiCo modules, to **Pro II-LIN-2** , or to the "output FiFo" at **MIO-D12**, **AOut-1/16**, **DIO-32**, **REL-16**, or **TRA-16**
-   ADconfig.exe V 4.0.2.0 : bugfix: ScanAEI issue at Enet-1 (= „old" firmware versions 2.50 to 2.57)
-   ADpro.exe   V5.24.0 :   rudimental support of **Pro II-Ain-F-16/20** , **Pro II-Ain-F-8/20**

features of version 6.00.44.04 compared to version 6.00.44.00 :
   (Release date : 03.12.2025)

-   ADwinC V 1.0.30.22 :   *please see : C:\ADwin\ADwinC\Version.txt*
-   ADbasic 6 user interface V 6.4.0.27 , TiCoBasic user interface V 1.6.4.68
    • new: keyboard shortcut (Ctrl+Shift+- , Ctrl+-) for "Jump forward" and "Jump backward"
    • the free memory is displayed now in kibibytes (KiB) at T12 and T12.1
    • behavior of the keyboard shortcut Ctrl+Tab improved
-   ADbasic / TiCoBasic include / library files :
    • new: `Volt_To_Digit()`, `Digit_To_Volt()`
    • new: `Clamp_Long()`, `Clamp_Float()`
    • new: `Deg_to_Rad()`, `Rad_to_Deg()`, `Hypot()`
    • bugfix: `ArcTan2(y,x)` at negative x - values
    • bugfix: at the module **Pro II-LIN-2**
-   Developer software :
    • dotNET - driver V 1.0.80 :   Online Help reworked ; now also Dataindex 0 is allowed at T12, T12.1
-   ADconfig.exe V 4.0.1.0 : request to do a "Configure AEI" if an IP address is added or changed

features of version 6.00.44.00 compared to version 6.00.38.05 :
   (Release date : 29.04.2025)

-   ADwinC V1.0.24.20 : new programming language „C" for ADwin-systems
-   ADbasic 6 user interface V6.4.0.24 , TiCoBasic user interface V1.6.4.65
    • diverse improvements
-   ADbasic T12 and T12.1 compiler V6.0.44.0 :
    • new: `Selectcase` may now also be used in libraries
    • bugfix: certain `Case` - values at `Selectcase`
    • bugfix: if there is no space directly after the `If` instruction
-   ADwin operating system (ADwin121.BTL) :
    • bugfix: occasional problem at `GetData()`, `SetData()`
-   ADbasic / TiCoBasic include / library files :
    • *Profi-IRT, Ethernet/IP, Profibus, DeviceNet :* bugfix
    • *Gold III, ADwin-X* : bugfix CAN (if ID 29 bit)
    • *Gold II, Pro II* :   bugfix : `(P2_)Workload()`
-   Developer software :
    • Python - driver V 0.20.0 : *please see C:\ADwin\Developer\Python\README.txt*
    • Matlab driver V4.10.00 :   new: `Get_Lost_Events()`
    • dotNET driver V1.0.79 :   Online Help reworked
-   ADtools: TGraph V5.25:   default Startindex is 0, if TGraph is started from ADwinC
-   ADconfig.exe V4.0.0.0 :   new: Check connection , Show details
-   ADpro.exe   V5.23.1 :   internal modifications , windows behaviour

features of version 6.00.38.05 compared to version 6.00.38.00 :
   (Release date : 07.06.2024)

- ADbasic 6 user interface V6.4.0.19 , TiCoBasic user interface V1.6.4.60
  - diverse improvements and bugfixes (among other things at calling the Online Help)
  - widening of the Process Window so that eventually lost process cycles are not failed to see
- ADwin driver (ADwin32/64.DLL) V 3.0.484.1 :
  - T12: occasional problem : slower data transmission rate or communication loss or error 10061
- Developer software : dotNET driver V1.0.77 : Online Help reworked
- ADpro.exe   V5.22.4 : bugfix: *Pro II-Ain-F* modules are now initialized to "standard" mode

features of version 6.00.38.00 compared to version 6.00.37.00 :
     (Release date : 07.05.2024)

- ADbasic T12 and T12.1 compiler V6.0.38.0 :
  - new: `Process_Compile_Date()`, `Process_Compile_Time()`
- ADbasic / TiCoBasic include / library files :
  - Math.inc : new: `Rand()`, trigonometric hyperbolic functions (`SinH()`, `CosH()`, ...)
  - ADwinPRO2.inc , DIO32TiCo.inc: new: `(P2_)Digin_FIFO_Clear_Timer()`
  - ADwinGoldIII.inc : bugfix at Profi-IRT (<64 DWORDs)
- ADwin driver (ADwin32/64.DLL) V 3.0.483.1 : bugfix: occasional problem at invalid Devicenumber
- Developer software :
  - Python - driver V 0.18.1 : *please see C:\ADwin\Developer\Python\README.txt*
  - dotNET driver V1.0.77 : Online Help reworked
- Linux, MAC OS version : adwin-compiler-6.0.37, adwin-lib-6.2.1 : brought up to date

features of version 6.00.37.00 compared to version 6.00.34.00 :
     (Release date : 29.01.2024)

- ADbasic T12 and T12.1 compiler V6.0.37.0 :
  - new: `Debug_Lost_Events()`
  - diverse improvements and bugfixes
  - bugfix: occasional problem at Low Priority processes and program sections respectively
- ADbasic T9 - T11 compiler V5.0.54 , TiCoBasic compiler V1.02.43 :
  - diverse improvements and bugfixes ; strictly checking of `EndSub` vs. `EndFunction`
- ADbasic / TiCoBasic include / library files :
  - ADwinGoldIII.inc : ***Gold III*** support
  - CAN_FD_TiCo.inc , ADwinPRO2.inc :
    - new: `(P2_)CANFD_Set_Baudrate_Nominal_Sp()`, `(P2_)CANFD_Set_Baudrate_Data_Sp()`
    - bugfix at `CANFD_Set_LED()`, `(P2_)CANFD_Get_ID()` if ID 12 or 29 bit
  - ADwinPRO2.inc , DIO32TiCo.inc: support of the new module ***Pro II-DIO-32-TiCo*** Rev. F
  - ADwinPro2common.inc : bugfix at `P2_Run_Ethercat`
- ADwin driver (ADwin32/64.DLL) V 3.0.482.1 : bugfix: occasional problem at `Get/SetData()`, `Get/SetFiFo()`
- ADpro.exe   V5.22.2 :
  - support of *Pro II-DIO-32-TiCo* Rev. F
  - calibration of *Pro II-AIn-32/18* : improved and bugfixed
  - bugfix: occasional communication loss at T12
- ADtest.exe   V5.6.0 : support of analog and digital test functions of ***Gold III***

features of version 6.00.34.00 compared to version 6.00.30.00 :
     (Release date : 17.08.2023)

- ADbasic 6 user interface V6.4.0.5 , TiCoBasic user interface V1.6.4.47
  - new: button for copying Parameter values to clipboard
  - bugfix: messagebox of the IDE cannot be hidden any longer by the help window
- ADbasic T12 and T12.1 compiler V6.0.34.1 :
  - bugfix: occasional problem (gcc error) at generation of libraries with macros
  - bugfix: occasional problem at calculation precedence of several constants
- ADbasic T9 - T11 compiler V5.0.50 , TiCoBasic compiler V1.02.42 :
  - bugfix: occasional problem at calculation precedence of several constants
- ADbasic / TiCoBasic include / library files :
  - ADwinGold.inc: bugfix: `Run_ProfinetIO()`

- ADwinPro2common.inc: bugfix at Profinet
  - ADwinPro2Arm.inc: new: `P2_SENT_Get_Errorbits()`
  - GoldIITiCo.inc: bugfix: `DAC()`, `WriteDAC()`
- ADwin operating system (ADwin12.BTL , ADwin121.BTL) :
  - bugfix: occasional problem „Timeout error on writing … in Function Load_Process"
  - bugfix: occasional problem („lost events" at process with Eventsource External) if also a High and a Low Priority process is running
- Developer software :
  - LabVIEW driver V3.1 :   "Sanitize_Floating_Point_Values" can be deactivated now
  - Python driver V 0.18.0 : new mode: useNumpyArrays
  - *please see also   C:\ADwin\Developer\Python\README.txt*
  - dotNET driver V1.0.77 : Online Help reworked
- ADtools: TFiFo V5.24:   bugfix: 64-Bit Float values have been stored as Integer-values
- ADpro.exe   V5.20.1 :
  - bugfix: *Pro II-DIO-32/1* : configuration of channels 12-16 and 28-32
  - bugfix: *Pro II-AIn* : (digital) limitation values added for calibration
- Profinet :   new file :   GSDML-V2.33-HMS-CompactCom-40-PIR-ADwin-20230320.xml
- EthernetIP: new file :   005A000000630200.eds   (for *Gold-II*)
- Linux, MAC OS version : adwin-compiler-6.0.32, adwin-lib-6.2.0 : brought up to date

features of version 6.00.30.00 compared to version 6.00.28.11 :
   (Release date : 13.12.2021)

- **Windows 11: tested and approved for this operating system**
- ADbasic 6 user interface V6.3.1.39 , TiCoBasic user interface V1.6.4.39
- ADbasic T12 and T12.1 compiler V6.0.30.1 : new: simple calculations can now be made at `Dim`
- ADbasic T9 - T11 compiler V5.0.49 , TiCoBasic compiler V1.02.41 :
  - bugfix: occasional problem if a constant contains a space
  - bugfix: occasional problem at Command Line Calling : Include file could not be found
- ADwin operating system (ADwin121.BTL) :   performance improvement
- ADwin driver (ADwin32/64.DLL) V 3.0.481.1 : check for invalid `DATA`-numbers improved
- Developer software :
  - Python driver V 0.17.2 : bugfix `File2Data()`
  - *please see also   C:\ADwin\Developer\Python\README.txt*
  - Java   V1.6.0 beta :   ADwin-X support , *please see C:\ADwin\Developer\Java\readme.txt*
  - Matlab driver V4.09.02 : bugfix
  - dotNET driver V1.0.77 : Online Help reworked

features of version 6.00.28.11 compared to version 6.00.28.03 :
   (Release date : 22.04.2021)

- ADbasic 6 user interface V6.3.1.19 , TiCoBasic user interface V1.6.4.19
- ADbasic / TiCoBasic include / library files :
  - new: `Calc_TicksToNs()`
  - new: `P2_Comp_Set_Voltage()` (for module "*Pro II-Comp-16*")
  - ADwinPro2TDrv… .inc: bugfix: T11/T12 timeout at permanent maximum TiCo DRAM usage
  - ADwinGoldII.inc :   bugfix at transfer-parameter `work_arr[]` of `Run_ProfinetIO()`
  - Libm_T12.a: bugfix: problem at `Exp()` with particular negative values
- ADwin operating system (ADwin11.BTL) : bugfix: occasional problem at starting of processes
- ADwin driver (ADwin32/64.DLL) V 3.0.480.1 : diverse improvements
- Developer software :
  - Matlab driver V4.09.02 : bugfix `Get_Par_Block()`
  - Python driver V 0.17.0 : bugfix `Data_Type()` (T12/ADwinX)
                              please see also   C:\ADwin\Developer\Python\README.txt
  - dotNET driver V1.0.77 : Float-QNANs are no longer converted/sanitized

features of version 6.00.28.03 compared to version 6.00.28.02 :
   (Release date : 01.09.2020)

- Pro II (PDF-) documentation reworked
- TiCoBasic user interface V1.6.4.4 : Online Help reworked
- ADlog V1.6.0 : Online Help reworked

most important features of version 6.00.28.02 compared to version 6.00.26.07 :
   (Release date : 27.07.2020)

- ADbasic 6 user interface V6.3.1.4 , TiCoBasic user interface V1.6.4.4 :
  - bugfix: occasional (sporadic) problem at compilation of libraries
  - checking the window position on programstart was improved
- ADbasic T12 and T12.1 compiler V6.0.28.1 : improvements at `#If ADwin_System`
- T9 - T11 compiler V5.0.48 : bugfix: occasional (sporadic) problem at `Exit()` if in `Init:`
- ADwin operating system (ADwin9.BTL) : bugfix: occasional problem (timeout error 1 or 2) caused by SetData()
- ADbasic include files :
  - ADWinGoldII.inc : bugfix at `Run_ProfinetIO()`
  - ADwinpro2common.inc : bugfix at Profinet
  - ADwinX.inc : bugfix at Profinet and `SSI_Set_Clock()`
- Developer software :
  - Java V1.5.2 : functions are now „thread safe" , *please see also C:\ADwin\Developer\Java\readme.txt*
- ADlog V1.6.0 : support of processor T12.1 / *ADwin-X* ; diverse improvements and bugfixes
- ADtest.exe V5.5 : bugfix: calibration of *ADwin-X*
- Linux, MAC OS version : adwin-compiler-6.0.26, adwin-lib-6.0.0 :
  - support of the processor T12.1 / *ADwin-X*
  - build-environment was changed from autotools/automake to cmake
  - USB- and Link-interface are no longer supported

most important features of version 6.00.26.07 compared to version 6.00.26.01 :
   (Release date : 19.12.2019)

- Processor T12.1:
  - ADwinX.inc: new: `DAC32(), Write_DAC32()`
  - ADwin121.BTL:
    - Boot- time optimized in some constellations
    - SetData- accesses on startindex < 0 are now prevented
    - bugfix: in context with 100 Mbit/s mode
    - a password-protected ENET interface can only be reconfigured (with a NEW password),
      - if the ADwin-X system is not yet booted
      - or within one minute after the Boot
- ADbasic 6 user interface V6.3.0.9 , TiCoBasic user interface V1.6.3.9 :
  - diverse improvements and bugfixes (among other things at the display of error messages)
- Developer software :
  - Python driver V0.16.3 :
    - additional functions for ADwin-X
    - *please see C:\ADwin\Developer\Python\README.txt*
  - dotNET - driver V1.0.75 : diverse improvements
  - Java V1.5.1 : *please see C:\ADwin\Developer\Java\readme.txt*

most important features of version 6.00.26.01 compared to version 6.00.22.06 :
   (Release date : 10.09.2019)

- Processor T12.1:
  - ADwinX.inc: may now be used also in libraries
  - ADwin121.BTL: bugfix: occasional problem on configuring the ENET interface fixed
- ADbasic 6 user interface V6.3.0.5 , TiCoBasic user interface V1.6.3.5 :
  - now runs under dotNet Framework 2.0 as well as 4.0
  - further diverse improvements and bugfixes (among other things at Search in files)
- ADbasic 6 T12 and T12.1 compiler V6.0.26.1 :
  - `Selectcase`: the value range of the `Case` constants is no longer restricted to 0...255
  - new: `ArcTan2(), Read/Write_Data_X_Long/Float32/64()`
  - bugfixes among other things at `CPU_Sleep()` and libraries

- T9 - T11 compiler V5.0.47: improved compiler error messages
- Developer software :
    - DASYLab driver :
        - support of DASYLab 2016 (v14.x).   Hint: the driver in the directory "Release7_13" must be used for older DASYLab versions
        - now all functions are able to send and receive Double
        - bugfix at "Log errors"
- ADtools: TDigit V5.23: diverse bugfixes
- ADpro.exe   V5.19 :
    - now runs under dotNet Framework 2.0 as well as 4.0
    - bugfix: program hung if broadcasts are not allowed (e.g. in internet)
- ADcandb V3.1.0 :
    - now runs under dotNet Framework 2.0 as well as 4.0
    - improvements at calculation functions and `Transmit_Dyn()`

most important features of version 6.00.22.06 compared to version 6.00.22.03 :
    (Release date : 11.06.2019)

- Processor T12.1:
    - documentation and Online Help reworked
    - ADwin121.BTL: bugfixes:
        - occasional problem at Fifos
        - occasional problem at process with Eventsource External
- ADpro.exe   V5.18 :   bugfix : TiCo could not be stopped

most important features of version 6.00.22.03 compared to version 6.00.17.03 :
    (Release date : 02.04.2019)

- ADbasic 6 T12 and T12.1 compiler V6.0.22 , ADwin121.BTL :
    - **support ot the new processor T12.1** (with 666 MHz , 1GByte, more details : see : C:\ADwin\Documents\Hardware\ ADwin-X\german\XA20_eng.pdf   )
    - libraries with name *.X.bas (X=0..9) are not longer allowed
    - bugfix: occasional problem, if the installation did not take place in the default path
- ADbasic 6 user interface V6.2.0.9 , TiCoBasic user interface V1.6.2.97 :
    - bugfix: Smart format was executed also in strings
    - further diverse improvements and bugfixes
- ADbasic T11 compiler V5.0.43 , TiCoBasic compiler V1.02.39 :
    - bugfix: occasional problem at macros (T9 to T11)
    - bugfix: occasional problem at `ProcessError` (TiCo, only at projects)
    - bugfix: occasional problem in Debug Mode (TiCo, only at projects)
- ADbasic / TiCoBasic include / library files :
    - support of the new module *Pro II-CAN-FD-2*
- Developer software :
    - dotNET - driver V1.0.74 :
        - `Boot` and `LoadProcess` do not longer require exclusive read-access on binaryfiles
    - Python driver V0.16.2 : please see C:\ADwin\Developer\Python\README.txt
    - JAVA   V1.4.0 : support of the processor T12
- ADpro.exe   V5.17 :   diverse improvements
- ADtest.exe   V5.4.0 :   diverse improvements and support of *ADwin-X-A20*
- Fieldbus : new files:
    - GSDML-V2.33-HMS-CompactCom-40-PIR-ADwin-20180620.xml   *(for ADwin-X and Pro II, Profinet)*
    - HMS CompactCom 40 EtherCAT 2_08.xml   *(for ADwin-X and Pro II, EtherCAT)*
    - HMSA1815.gsd   *(for ADwin-X and Pro II, Profibus)*

most important features of version 6.00.17.03 compared to version 6.00.15.01 :
    (Release date : 14.03.2018)

- ADbasic 6 user interface V6.2.0.79 , TiCoBasic user interface V1.6.2.78 :
    - faster start of the ADbasic / TiCoBasic user interface
    - the most important Process Options are now also displayed in the project window
    - adaption to the various Windows display settings now also for the tool icons

- Online Help system improved
- further diverse improvements and bugfixes
- ADbasic T12 compiler V6.0.17.1 , T11 compiler V5.0.40 , TiCoBasic compiler V1.02.35 :
  - new: `#Begin_Debug_Mode_Disable` , `#End_Debug_Mode_Disable`
  - new: `#If Processor` : several processor types can now be set in the same source code line
  - bugfix: generic error at processing of constants (T12)
  - bugfix: passing of String expressions to macros (T12)
  - improvement at Float constants at T11
  - bugfix at TiCo libraries
- ADbasic / TiCoBasic include / library files :
  - FFT functions at T12 : now you can choose between 64 or 32 bit functions
  - bugfix at T12: `P2_SSI_Set_Delay()`
  - new at Gold II : `Init_ProfinetIO()`, `Run_ProfinetIO()`
- ADwin operating system (ADwin12.BTL) : bugfix at very big Processdelay
- ADwin driver (ADwin32/64.DLL) : improved error handling
- Developer software :
  - dotNET driver V1.0.71 :
    - diverse improvements and bugfixes (`GetBtlDirectory, GetInstallationDirectory`)
  - Delphi driver : new: `Get_FPar_All_Double()`, `Set_FPar_Block_Double()`, `Get_FPar_Double()`, `Set_FPar_Double()`, `File2Data()`
  - Python driver V 0.16.0 : please see C:\ADwin\Developer\Python\README.txt
  - Matlab - driver V4.09.01 : Help-files updated because of ADsim-T12
- ADtools TProcess V5.24: error at the Processdelay/frequency input at T12 fixed
- ADlog   V1.4.1 :   occasional buffer overflow fixed
- ADtest   V5.2.0 :   bugfix: problem, if a new (Windows) user was added
- ADwin-Speed-Test V7.0.0.7 : improved error handling
- ADcandb V3.0.11 : bugfix at the bus monitor
- Fieldbus : new :   GSDML-V2.25-HMS-ABCC-PRT2P-20110511.xml   (für *Gold-II- Profinet*)

most important features of version 6.00.15.01 compared to version 6.00.08.01 :
   (Release date : 03.03.2017)

- Windows 10: tested and approved for this operating system
  - bugfix: Device No and IP settings could get lost on major Windows 10 updates
  - bugfix: occasional crash of ADbasic user interface while using the Online Help (bug caused by Windows help system)
- ADbasic 6 user interface V6.2.0.23 , TiCoBasic user interface V1.6.2.23 :
  - new: Prebuild / Postbuild actions
  - new: switching between already used jump targets
  - new Online Help system
  - adaption to the various Windows display settings (e.g.: fontsize 125 and 150 %)
  - maximum line length was increased to 2048 characters
- ADbasic T12 compiler V6.0.15.1
  - decreased compile time for big programs
  - improvements of Stacktest and stack consumption in connection with Debug Mode
- ADbasic compiler V5.00.38 , TiCoBasic compiler V1.02.32 :
  - T11: codesize is now displayed split into PM, EM, DX
  - bugfix for libraries, among others for relative paths
- ADbasic / TiCoBasic include / library files:
  - bugfix: at Flexray at T12
  - new: `P2_LS_Reset(), LS_Reset()`
- ADwin driver (ADwin32/64.DLL) :
  - occasional problem fixed at `.IsFifo` at USB
  - the memory location of the ADconfig-data (e.g. Device No, IP) was changed => an (old) copy of the ADwin32/64.dll must not be located in the application directory!
- Developer software :
  - dotNET driver V1.0.62 :
    - new: Restricted Mode can be queried
    - `GetUsedStackSize` now provides also values from `Finish` section
    - `GetFreeMem` provides values in bytes also at T12
- ADcandb V3.0.10 : diverse bugfixes
- Linux, MAC OS Version 5.00.10.03c : adwin-lib-5.0.10 :

- support of the processor T12
- adwin-lib driver can be compiled with GCC5 now

most important features of version 6.00.08.01 compared to version 6.00.03.01 :
     (Release date: 25.05.2016)

- ADbasic 6 T12 compiler V6.0.8.1
     - bugfix at libraries
- TiCoBasic compiler V1.02.29 :
     - new: Debug Mode
- ADbasic 6 user interface V6.1.0.10 :
     - new: Stacktest (only T12)
- ADbasic / TiCoBasic include / library files :
     - bugfix: `WriteDAC32(), P2_Wait_mux()`
     - new: `P2_LIN_Ch_Msg_Read_Cnt(), P2_LIN_Msg_Read_Status()`
     - new: `P2_TiCo_Get_Process_Error(), TiCo_Get_Process_Error()`
- ADwin operating system (ADwin12.BTL) : changes for Stacktest ; bugfix : cache management
- ADwin driver (ADwin32/64.DLL) : bugfix: `Workload()` (only T12)
- Developer software :
     - dotNET - driver V1.0.59.0 : T12 support (double – functions)
     - Matlab - driver V4.09.00 : T12 support (double – functions) ; creation of Standalone EXE now feasible
     - Labview driver V3.1 :   adaptions and new functions at T12
     - C-driver V2.01 :   bugfix and small corrections
- ADtools TProcess V5.20: bugfix: Processdelay conversion at T12
- ADpro   V5.14 :   bugfixes: *Pro II-CNT, Pro-DIO*
- ADcandb V3.0.7 :   now also for T12

most important features of version 6.00.03.01 compared to version 6.00.01.01 :
     (Release date : 18.09.2015)

- ADbasic 6 T12 compiler V6.0.3.1
     - occasional problem fixed at optimization >= 2
     - bugfix at libraries, whose filename contains a space or a period
- ADwin driver (ADwin32/64.DLL) : USB : memory access violation fixed at `Boot()` function

most important features of version 6.00.01.01 compared to version 5.00.29.00 :
     (Release date : 17.07.2015)

- ADbasic 6 **T12** compiler V6.0.1 , ADwin12.BTL :   (on the CD-Rom for the first time)
     - **support ot the new processor T12** (with 1 GHz , 1GByte, more details : see :
          C:\ADwin\Documents\Hardware\ADwin-PRO\english\ProII-HW_eng.pdf   )
- ADbasic 6 user interface V6.0.0.17 , TiCoBasic user interface V1.5.0.17 : T12 support
- ADbasic / TiCoBasic include / library files :   T12 support
     - ADwinPro2.inc : bugfix: `P2_SPI_Master_Set_Clk_Wait()`
- ADwin driver (ADwin32/64.DLL, ADTCP32/64.DLL) : higher ENET data transmission rate
- Developer software :   T12 support (double – functions)
     - C - driver V2 :   now also support of multi-threading applications
     - C - driver V1 :   still available for compatibility reasons
- ADlog   V1.3.0 :   T12 support
- ADEthFlash V3.11 :   T12 support
- ADconfig   V3.27 :   bugfix at the input field of „Network Timeout"
                         Subnet Mask is checked more strictly
- ADpro   V5.12 :   rudimental T12 support
- ADwin-Speed-Test V6.0.0.1 : more values for "Number of values to be transferred"
- ADcandb V3.0.6.26779

most important features of version 5.00.29.00 compared to version 5.00.28.09 :
     (Release date : 22.12.2014)

- Kallisté for ADwin V2.6.6.42 :   (on the CD-Rom for the first time)
- ADcandb V2.1.4.18658 :   (now also available on this CD-Rom)
- ADbasic 5 compiler V5.00.29 , TiCoBasic compiler V1.02.24 : diverse bugfixes :
    - occasional problem, if (Far-)East languages are used in Regional Settings of Windows
    - TiCo libraries
- ADbasic 5 user interface V5.2.0.21 , TiCoBasic user interface V1.4.0.21 :
    - now also the column widths of the Project Window are memorized
    - new at TiCoBasic: progress bar at programing of the Bootloader
- ADbasic / TiCoBasic include / library files :
    - EEPROM_Support.inc :   new: ENET3 / S-ATA / USB-support
    - ADwinPro2.inc :   bugfix: `P2_SENT_Set_Serial_Message_Data()`
    - MIO_TiCo.inc, SPI_TiCo.inc : bugfix: `MIO_Get_Digout_Long()`, `Get_Digout_Long()`
- ADwin driver (ADwin32/64.DLL) : ENET interference immunity of `Boot()` function was improved
- Developer software :
    - Matlab - driver V4.08.00 : bugfixes at ADwin_Init (error messages: „winqueryreg" and „wd")
- ADtools TFiFo   V5.17 :   bugfix: the Units of the columns have not been memorized
- ADtools TString V5.17 :   bugfix: Windows font sizes 125 and 150 % have not been supported
- ADlog   V1.2.1 :   internal performance improvements
- ADconfig   V3.25 :   improved error message at wrong password
- ADpro   V5.12 :   detection of : *Pro II-DIO-8-D12*
- ADwin-Speed-Test V4.20.0.0 : improved error messages
- last version with official support for Windows 2000, Windows NT
- Linux, MAC OS Version 5.00.10.03b : adwin-lib-5.0.7 :
    - bugfix: adwin-lib driver was not compilable on some Linux versions

most important features of version 5.00.28.09 compared to version 5.00.28.01 :
   (Release date : 02.04.2014)

- TiCoBasic include file :
    - AOut_TiCo.inc :   support of the new module :   *Pro II-AOut-8/16-TiCo*
- Developer software :
    - SciLab - driver V1.05.00 : now also support of the 64-bit SciLab version
    - Matlab - driver V4.06.00 : bugfix at Test-License key
- ADconfig   V3.24 :   improved errorhandling
- ADpro   V5.7 :   support of : *Pro II-AOut-8/16(-TiCo) Rev.E10*

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 :
    - improved error handling now supports also Multi-Threading
    - bugfix at Set_Language()
  - Labview driver :
    - improved error handling now supports also Labviews Multi-Threading
    - 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)
    - calling convention of the VI's is no longer "as caller" but "standard" , therefore possibly higher speed
    - from now on the current driver does only support Labview versions >= 6.0
    - bugfix : at GetData_String
  - Matlab driver :
    - new : Get_Last_Error_Text, String_Length, Get/SetData_String, Get_DeviceNo, Show_Errors
    - Online-help : 'help ADwin' can now be called in the 'Command Window'
  - Testpoint driver : Realtime Object 1.4.1 :
    - new action : Read Fifo Int32 : necessary for integer numbers greater than 16777215 (= 24-bit)
    - Read Parameter All and Read Parameter Block are now returning signed values
- ADconfig V3.0 :
  - completely new designed and clearly arranged user interface
  - scanning of ADwin-systems (Scan_AEI) is now integrated into ADconfig
  - 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