Technical Note

E-861 Software Release 04.09.2014

Release date: 04 September 2014

Valid from: 04 September 2014

User login for direct software download via FTP*:

ftp://pi-ftp.ws

Username: f008c1cb

Password: E861te4q5d

***Because of the limited attachment size capacity of many mail servers the updates for the host software are not attached to this message. Download instructions are given at the end of this document. Please contact the PI Germany Sales Department if you want to get a CD ROM.**

Host Software:

Physik Instrumente (PI) GmbH & Co. KG, Auf der Römerstraße 1, 76228 Karlsruhe - Phone (+49) 721–4846-0, Fax (+49) 721-4846-1019, e-mail info@pi.ws

Name of Software	PIMikroMove
Version	2.17.1.0
Previous version	2.6.0.3
Changelog	**2.17.1.0** **fixed** • Empty warning message is no longer shown if module for Hexapod 3D View (hexdll.dll) is not installed **2.17.0.5** **What's new?** • AutoConnect: Does not change stage type if this is not possible (e.g. Hexapod platform axes) • AutoConnect: Does not select stages if controller can store settings to non-volatile memory • Display of Hexapod 3D view for non-standard geometries with command line argument "HexapodBaseType" • No permission for changing read-only parameter 0x11000b00 • Hexapod Platform Settings: Custom coordinate systems for Hexapod supported • Hexapod Simulation tool can be called from PIMikroMove, and changed configuration can be sent back to controller • Position Pad: When custom coordinate systems for Hexapod are activated, current range for Hexapod axes is used • Demo motion is stopped if Hexapod axis is (de)select • Scan 2D: Status of scan and maximum is displayed after scan, new "Go to max." button available • Scan 2D: Changed location of progress dialog, so 3D view is visible • PILine controller: Open-loop commanding possible with SVA **fixed** • Scan 2D: Allocation problems if too much data should be recorded • Scan 2D: Performance for Hexapod axes • State of axis not always displayed correctly for E-725 and E-753 • Several issues for C-863.10: Move to reference switch failed, state display not correct • Relative moves for axes of Hexapod with old firmware (DOS) • "Reference by reference" was not visible on axes tab for additional axes connected to Hexapod controller • Parameter Configuration window no longer hidden if single axis windows are displayed • Timeout if stop button on manual control pad was pressed • RBT in command entry does not close all windows related to the affected controller **2.16.2.1** **What's new?** • "Overflow" is displayed for axes that are in overflow state • Two PI devices with SN "0" are supported on USB (updated PI_GCS2_DLL is required in addition) **fixed** • Display of input channels is not always updated correctly • State on Hexapod Platform settings does not always change if a single axis is moved • Sending "SAI" in command entry may provoke error 23 ("illegal axis") **2.16.0.0** **What's new?**

	• Support for C-413 • Joystick control in Position Pad: Velocity control supported even if zero is not allowed for the velocity value (e.g. with Hydra and Pollux controllers) • "Show/Hide data recorder" menu entry has been changed to "Show data recorder" and will always show the data recorder window • "Show/Hide wave generator" menu entry has been changed to "Show wave generator" and will always show the wave generator window • Units are displayed in Axes table if available • Speed up 1D / 2D scan procedures • System parameters are displayed • Support of multi-line column labels • Parameter values are displayed with known list of possible values as combo box in Single-Axis window • Parameter values are displayed with known list of possible values as combo box in Axes table • "Auto Select" option has been added to cursor combo box, default selection • The mouse can always be used to track the cursors; activation and display of cursors have been combined **fixed** • Broken screenshots for 2D Scan window • Even if values in table have not been changed, new command is sent on Enter **2.15.3.0** **fixed** • In the data recorder window the "Configure" button was disabled for some controllers **2.15.2.2** **What's new?** • Support for Pollux controllers (needs PI_HydraPollux_GCS2_DLL) • Host Macros: added command "UNLOAD" which exits and unloads running macro • Position Pad: disabled Velocity control mode for Hydra and Pollux axes **fixed** • "RBT" in Command Entry with non-exclusive access will close the connection • "CST" in Command Entry with non-exclusive access sometimes will prevent stages from being displayed in GUI • C-702: Sometimes parameter description only shows "Unknown Parameter" • Wave Generator: problems with preview of wave forms • Wave Generator: state of wave generator is not always displayed correctly **2.15.0.0** **What's new?** • Single Axis window: Buttons were added to (re)store the displayed parameters to values from non-volatile memory • PiezoWalk parameters are displayed in PiezoWalk table • Axis/PiezoWalk tables: Number of steps is stored in INI file • Default step size for a NanoCube stage connected to a Hexapod controller is 0.001

	• Removed support for controller macros for C-663.10 and C-863.10 ("native" firmware) • Default number of displayed decimal places for position is 3 but can be changed by user • Command Entry window does no longer require exclusive access to communication (exclusive access can be switched on/off by user) • Demo Motion window does no longer require exclusive access to communication • Parameter Manager window does no longer require exclusive access to communication, and can be called with F10 key • C-865 and C-866 are no longer supported by PIMikroMove • PI Update Finder can be called from Help menu • Layout of tables is restored on next start of PIMikroMove • Version of E7XX_GCS_DLL (needed for E-710) must be greater than 4.2.99 • Version of HEX_GCS_DLL (needed for Hexapod with GCS 1.0 firmware) must be equal to or greater than 1.0.2.4 • Wave Generator Tool: New WAV option for generation of noise is supported • A padlock symbol indicates that a parameter is write protected. Clicking on the parameter will open the password dialog. • Connection can be canceled during scan for baud rates (not with all controllers) • Data Recorder/Wave Generator: Graph cursors can be moved with arrow keys on computer keyboard • Data Recorder: Alternatively, the "record rate" can be entered as "sample time" • Single Axis window: New predefined parameter sets: "Dig. Piezo Ctrl. Tuning", "all", "PILine Frequency" • User can no longer choose "Relative Moves Only" state • displayed state of axis is always determined by controller state • More detailed version info is shown for stage databases • Controller macros: Lines with "MAC BEG", "MAC END" are ignored **fixed** • Hexapods with GCS 2.0 firmware: Initial travel range for Demo Motion is no longer limited to 95% by default • Fixed crash when last controller on USB DaisyChain was closed • Fixed connection window size (was too small for daisy chain controls) • Axis table: A warning now appears if step size / velocity is set to 0.0 • Fixed update issues of controls in Single Axis window (e.g. in some cases target slider was enabled for unreferenced axes) • Controls for referencing by limit switches are no longer displayed if controller does not support this (but stage has limit switches) • Fixed that some controllers (C-843, C-863.10 and C-663.10) caused a "Controller is busy" message after referencing • Fixed that sometimes "Writing Data of User Lookup Table 101" failed with USB connection • Data Recorder: Cursor Position window can now be resized and values can be copied to clipboard • Wave Generator: If an external trigger is selected as the start option for the wave generator, the wave generator can now be

	restarted with any start option even when no trigger was received yet • Wave generator: Fixed problems that occurred if "Number of points" was 0 • Wave generator: Fixed problems with very large values **2.14.0.2** **What's new?** • E-871 • Host macros: new commands “CVAR”, “CVAR?”, “CCPY” and “CADD” to access controller variables from within host macros, “@” can be used to protect these variables • “Save to non-volatile memory” can be used without password, but will offer different options what to store • PositionPad: velocity can now be changed from within the position pad • Menu item “Add/Edit User Stage Type” is now called “Save Parameters as User Stage type” • Possible DIP switch configurations are shown when choosing serial or USB connection for controllers that use DIP switches to change the baud rate • Indicates if controller macros are running in the background **fixed** • Status update after “Save to non-volatile memory” – the current status was not updated correctly • “ctrl-A” in controller macro editor • Scroll bar was not shown in Single-Axis window if list of displayed parameters was updated • Problem when configuring data recorder trigger options for E-725 • Problem when data recorder options window was shown and data recorder window was closed • Syntax problems with comments in host macros **2.13.0.0** **What's new?** • C-884 • Tuning Tool, Wave Generator, Data Recorder: fonts used for labels and title can be defined by user • Support of USB devices (e.g. joysticks) connected to the controller • Display output frequency for C-867.* controllers **fixed** • Wave generator: Error 400 with E-517 • Several fixes in the user interface for controller macros • Problems when sending controller macros while the data recorder window is open • Wave generator does not display complete wave table after adding a new segment • Closing the last controller on a daisy chain will now ask the user to close (and free) the interface completely **2.12.0.1** **What's new?** • Hydra Pollux **fixed** • Digital I/O window does not always show the correct state of input channels at startup **2.11.0.1**

	What's new? • New controllers: E-710, E-761, E-516 • If a new controller is connected which provides sensor and piezo channels, the corresponding tab cards will automatically be arranged in the main window so that all axes and channels are visible. • New corporate design • Prepared for new version of online help **fixed** • Problems if C-863 is selected with wrong baud rate • Customized parameter settings in single-axis window were lost if command entry window is shown • E-517: position display was not updated • Speed up reading of data in Data Recorder window • E-753: problems with impulse in Data Recorder window **2.10.0.15** **What's new?** • Hexapod 3D View can be shown without connected Hexapod • Support new version of 3D View (hexdll.dll) for Hexapods with new visualization • Default range for analog inputs is 0..10 V • New dialog windows for embedded scans for C-887 controllers • Service tools for C-887 • New stop buttons in controller macro window • Scan2D: added control to change direction of scan • “Servo” mode for Hexapod Platform Settings is hidden by default **fixed:** • Host macros: Recursion now creates new instances of local variables • Wave generator tool: wave generator cycles cannot be changed for E-753 • Problems at startup if the last active host-macro has “.” in its name **2.9.0.4** **What's new?** • 3D View is shown as default for Hexapods New window “Hexapod Platform Settings” with all important controls for Hexapods in one window. Velocity and servo state are no longer shown with the single axes of the Hexapod platform but in this new window • “MultiMove” window can be docked • Move-to-end-of-travel-range buttons removed for Hexapod axes since travel range depends on current position **fixed:** • Various problems when connection was lost • Creation of custom joystick table, “parabolic” only created positive values • After stage type was deleted from user stages file, no entry with same name could be created without reconnecting **2.8.2.10** **fixed** • Fixed problems with Position Pad if only one axis is available
Update recommended for customers	- Who want to perform simple automation tasks without the need to program an application

	- Who want to learn the syntax of the GCS commands (via the Log window) - Who want to test the equipment before programming an application
Files	PIMikroMove.exe, PIMikroMove_SM148E.zip
Manual	PIMikroMoveUserManual_SM148E2110.pdf
Comments	PIMikroMove is a graphical user interface to the C-867, F-206, M-824, M-840, M-850, C-887, E-725, E-861, E-712, E-753, E-816, E-871, C-880, C-848, E-755, C-663, C-863, C-702 and C-843. • -Can be connected to more than one controller (board) at the same time (in the future more controllers will be supported). • Its command input facility represents an easy way to experiment with various commands. • Simple automation is also possible with host macro facility. More than one controller can be commanded inside one macro. • Position pad to control the motion of axes by mouse and joystick(s). • Data recorder to view, calculate FFT and export the data recorded with the C-663.11, C-863.11, C-867, E-755, C-702, E-861, E-725, E-712 , E-871 and E-753 internal data recorder. • 1D and 2D Scan to visualize data • 2D Auto find to find maximum of analog input value3D Visualization of Hexapod position

Name of Software	PI_GCS2_DLL
Version	3.1.2.0
Previous version	2.7.2.0
Changelog	Changes introduced by version 3.1.2 (July 16 2014) • fixed: fixed: Problems with status update for more than 3 wave generators (PI_IsGeneratorRunning) Changes introduced by version 3.1.1 (June 26 2014) • new: Support for E-709K006 • fixed: Problems with E-870 and USB when calling the DLL from PITerminal • fixed: Problems with stage assignment for Hexapod controllers Changes introduced by version 3.1.0 (May 28 2014) • new: added support for o PI_CTI(), PI_qCTI() o PI_TRI(), PI_qTRI() o PI_ADD(), PI_CPY() • fixed: handling if more than one C-884 controller is connected with USB Changes introduced by version 3.0.0 (Apr 28 2014) • new: support for C-413 • new: support of commands for new closed-loop control modes: o - PI_CTV(), PI_qCTV(), PI_CTR() o - PI_qCAV() o - PI_qCCV() o - PI_CMO(), PI_qCMO()

	○ - PI_qCMN(), PI_qCMX() • new: PI_CST() supports new parameter "Max. Motoroutput" for C-867 Changes introduced by version 2.16.0 (Dec 09 2013) • new: support for C-867.1U and C-867.2U • new: added functions PI_TryConnectRS232 and PI_TryConnectUSB • new: support of commands PI_qWGI() and PI_qWGN() • new: commands are splitted if number of arguments too high Changes introduced by version 2.15.0 (Jan 08 2013) • new: RS-232 DaisyChain Linux support. • new: Get Stagedatabase Info with qVER • new: support for pimicosstages2.dat for E-871 and C-863 • new: support for E-871 Changes introduced by version 2.14.1 (Aug 15 2012) • new: support for C-884 • new: separate header file with pointer declarations for dynamic linking • new: support for commands accessing HIDevices connected to the controller: ○ PI_qHIS(), PI_HIS() ○ PI_qHIE(), PI_qHIB(), PI_HIL(), PI_qHIL() ○ PI_HIN(), PI_qHIN() ○ PI_HIA(), PI_qHIA() ○ PI_HDT(), PI_qHDT(), PI_HIT(), PI_qHIT() • new: PI_qMAN() • new: PI_qJOG() and PI_JOG() • fixed: interface now only uses int Changes introduced by version 2.13.0 (May 03 2012) • new: support for E-870 • fixed: problems with PI_AddStage() when user has no write access to GCSTranslator path Changes introduced by version 2.12.0 (Mar 26 2012) • new: PI_SetNrTimeoutsBeforeClose(): Set number of accepted TCP/IP packet timeouts before socket is being closed • fixed: IsMoving now returns correct answer after axes have become (in)validated Changes introduced by version 2.11.0 (Feb 08 2012) • new: PI_EnumerateUSB(): DLL enumerates only PI devices depending on their USB VID • new: x64 support for USB and TCP/IP Changes introduced by version 2.10.1 (Oct 26 2011) • new: PI_EnableReconnect(): DLL tries to reconnect to TCP/IP Controller when connection was broken • new: support TCP/IP Daisychain

	• new: full support of USB in x64 binary • new: speeded up CST command • new: Read Timeout can be set • new: if more (axis - double value) pairs are returned than were queried, pick the correct ones (qPOS, qVEL, qMOV, ...) • fixed: DLL closes Daisychain automatically on unload • fixed: DLL returns correct line endings in EnumerateUSB function Changes introduced by version 2.10.0 (Oct 10 2011) • fixed: DLL does not crash any more when it is unloaded before all daisy chain connections have been closed • fixed: DLL does not return -1004 in certain configurations with E-709 any more Changes introduced by version 2.9.0 (Mar 07 2011) • new: support for PI Hexapod controllers with GCS Firmware • new: SPA function to support 64 bit integer values • new: functions for MAC (N)START with argument • new: version without GUI functions for better compatibility with C# • fixed: parameter Window Time is stored in Userstage File for C-863 controllers Changes introduced by version 2.8.0 (Jan 21 2011) • new: support for Mercury Controllers with GCS Firmware (C-663.11, C-863.11)
Update recommended for customers	-
Files	PI_GCS2_DLL.dll, PI_GCS2_DLL.h, PI_GCS2_DLL.lib, PI_GCS2_DLL_x64.dll, PI_GCS2_DLL_x64.lib
Manual with file date	PIGCS_2_0_DLL_SM151E210.pdf, 30 April 2014
Comments	➢ The PI_GCS2_DLL.dll is needed for PIMikroMove.exe. Customers who wish to develop their own host software can use the DLL, lib and header files to import the DLL and let it handle the communication via RS-232 and TCP/IP.

Name of Software	GCS LabVIEW drivers
Version	6.0.2.0
Previous version	5.8.1.0
What's new?	6.0.2 (Diverse, 64bit) - C867_/E861_/E709_/E755_Configuration_Setup.vi's: DaisyChain could not work - C702_Simple_Test.vi: RS232 settings cluster order was wrong - C843_Simple_Test.vi: "C-843 version" set to "2-channel" to prevent communication issues - C-843_UnknownStage.vi: name of default PWM stage must be "DEFAULT_STAGE-P" (was "DEFAULT_STAGE_P") - New VI C880_All_VIs - C880_Configuration_Setup.vi initializes Global 1 and 2 now. 6.0.0 (Hexapod) - Setup copies correct GCSTranslator.dll (x32 or x64) from sub folder to Low Level folder now - Show_Save_Load_XYZ_Data.vi: first frame was not initialized. - GCS Array functions are now implemented in GCSTranslator.dll, not as CINs anymore (64bit compatibility) (~~Wurm, Christian~~) - closed. - 2D Scan.vi: "Array name" must be empty string when writing data with GCSArray - TAD?.vi new code for sensor assignment - GCS II Syntax adaption and no check if axes are connected for scan&align VIs (AAP,FAA,FAM,FAS,FIO,FLM,FLS,FSA,FSC,FSM) - #4.vi: uses "to upper case" now to parse answer to prevent problems with different firmware versions - DRC?.vi: now size of all four output arrays is adapted - #27.vi: command is now sent also if incoming error was true, GCS II support - New VIs: VAR, VAR? - General wait.vi calls Wait for axes to stop.vi now for GCS II M-8X0 and F-206 - General wait for movement to stop.vi: "All axes" was not handled correctly - MAR! calls MOV automatically for GCS I Hexapod firmware - SCT.vi: Syntax adaption for GCS II - INI.vi and INI hexaxes and wait until finished.vi call FRF automatically for GCS 2.0 - CSV?.vi queries ERR? for GCS 1.0 if incoming error was FALSE and Receive String reported error. - Find Host Address.vi: missing shift register **- All VIs are LabVIEW 8.6 now** - MAC START.vi and MAC NSTART.vi support new parameter "Arguments" now - F206_Configuration_Setup.vi, M8X0_Configuration_Setup.vi: support GCS II Hexapod firmware now

	- Select host address: Reset Cancel Button on VI start - CSV?.vi resets error now if code = -2 for GCS 1. - MWG.vi calls MOV.vi for GCS 2.0 or higher. - New VIs: #11, VLS, VLS? - VEL/VEL? send VLS/VLS? for GCS II firmware if All axes? = TRUE and Axes Identifier = FALSE - HELP.vi calls HLP? now for Controller name = Hexapod and syntax = GCS II - Wait for axes to stop.vi has timeout now - VMO.vi sends VMO? for GCS II Hexapod - GCSTranslate Error.vi: error codes list updated - PI Receive String.vi : Timeout handling changed for DLL communication. - E710_Configuration_Setup default value for ATZ changed to FALSE 6.0.1beta (Mercury) - PIOpen Interface of one system.vi: Register USB DaisyChain could not work - USB_DaisyChain for Mercury_GCS did not work under certain circumstances 5.9.0 (Mercury) - E861_Simple_Test.vi and Sample_ApplicationX.vis support USB_DaisyChain now - Ask for Communication Parameters.vi: if System No. > 4: dialoag controls flicker - Select DaisyChain Device.vi supports multiple controller names now (for Mercury_GCS) - BuildChannelQueryCommandSubstring.vi: Case "none" set to default - BRA?.vi sets error now if controller name is not defined. - DIO?.vi: checks answer of Query Pattern? = TRUE for "0x" now and returns correct value. - GCSTranslate Error.vi: error codes list updated - Ask for Communication Parameters.vi: System No. indicator did not show number if font size was too large. - JLT?.vi: allows to add JoystickIDs and JoystickAxes now (new feature for Mercury_GCS) - New controller: Mercury_GCS (Controller names.ctl), new DLL name: PI_GCS2_DLL (PI Open Interface) - PI Terminal.vi: COM Port indicator on front panel was limited to COM 1-9 - Set logging mode.vi: Shows selected path now in "Path in" indicator - #4.vi: Output connector was missing. - #4.vi: checks if answer contains "0x" now and returns correct number then. - Support for Mercury_GCS added - Select USB Device supports multiple controller names now (for Mercury_GCS)

	5.8.0.a (E-709) - E709_Configuration_Setup.vi: Interface RS232_DaisyChain added (C867K012/K013 only) - Select Daisychain Device: E-709 added, default "Controller name" case = None. - Joystick VIs JAS?, JAX, JAX?, JDT, JLT, JLT?, JON, JON? valid for E-709 (in C-867K012/K013 only) now 5.8.2 (E-712) - COM Port Control width was too narrow for COM Port numbers larger than 9. - RNP.vi: Control "NexlineChannel" renamed to "PiezoWalkChannel" - New VIs: HPV?, PUN? (E-712) - E-712 supports DRL?, DRT, DRT?, OSM, OSN?, RNP now - GCSTranslate Error.vi: error codes list updated - E-712, E-725, E-753 and E-755 use PI_GCS2_DLL now instead of E7XX_GCs2_DLL - Close Connection if Open.vi: ignores VISA Close error now - 2D Scan.vi: "save panel" ambiguous file name and wrong extension, "save data" array name missing - OSN?.vi: wrong answer for "All axes?" = FALSE (E-712, E-755) - E712_Configuration_Setup and E861_Configuration_Setup.vi: GeneralWait.vi after SVO ON added - Configuration_Setup.vi's: ERR? query after referencing VI added - everal High Level VIs: COM Port selection increased (was: 9, now: 30) - REF.vi, MNL.vi, MPL.vi, controller scanning algorithms, hexapod initialization: faster stop event registration
Recommended for customers	- Who have problems with the previous version - Who want to control the E-861 together with any other PI controller with LabVIEW
Files	GCS_LabVIEW: 1D Scan.vi E861_All_VIs.vi E861_Configuration_Setup.vi E861_Sample_Application_1.vi E861_Sample_Application_2a.vi E861_Sample_Application_DaisyChain.vi E861_Sample_Application_Events.vi E861_Sample_Application_OpenLoop.vi E861_Simple_Test.vi Joystick_Operation.vi PI Terminal.vi Show_Save_Load_ XY_Data.vi Low-Level folder: Analog control.llb Communication.llb File handling.llb GCSTranslator.dll General command.llb Joystick.llb Limits.llb Macros.llb

	Old commands.llb Optical or Analog Input.llb PZT voltage.llb Scan support.llb Special command.llb Support.llb Version.txt
GCSTranslator.dll needed	GCSTranslator.dll Vers. 1.6.1.21 (01 Feb 2012) or higher
Manual	E861_GCSLabVIEW_PZ208E.pdf
Comments	This LabVIEW driver set is based on the PI General Command LabVIEW driver set. If you also own one of the following PI systems, you can request the system-specific VIs for those systems from the PI Sales Department: Analog controller, C-702, C-843, C-843.PM, C-848, C-865, C-866, C-867, C-884, C-880, C-887, E-516, E-517, E-709, E-710, E-712, E-725, E-753, E-755, E-761, E-816, E-870, E-871, E-861, F-206, Hydra, M-840, M-850 or Mercury

Name of Software	PI LabVIEW Merge Tool
Version, File date	6.6.0
Previous version	5.8.1
What's new?	- Supports LV drivers up to version 6.6.0
Recommended for customers	- Who want to control more than one PI controller via LabVIEW on one system.
Files	MergeDrivers.llb README.txt Sub-folder "DLL_Versions": - Sub-Folder "GCSTranslator_win32": - GCSTranslator.dll - Sub-Folder "GCSTranslator_win64": - GCSTranslator.dll Sub-folder "MergeSupport": - dir.mnu - Sub-folder "Low Level": - Analog control.llb - Communication.llb - Controller Algorithms.llb - Controller display.llb - dir.mnu - E761_DirectAccess.llb - File handling.llb - General command.llb - implicit.txt - Joystick.llb - Limits.llb - Macros.llb - Multix.llb - obsolete.txt - Old commands.llb - Optical or Analog Input.llb

	- PZT voltage.llb - Scan support.llb - Special command.llb - Support.llb - Version.txt - WaveGenerator.llb
GCSTranslator.dll version	Vers. 1.6.1.21 (01 February 12)
Manual	PILabVIEWMergeTool_SM154E.pdf
Comments	To ensure an unobstructed use of the PI LabVIEW driver sets of multiple controllers, it is necessary to merge all PI LabVIEW driver sets together using the PI LabVIEW Merge Tool. This procedure guarantees that only one PI LabVIEW driver set consisting of the latest vis is present on the system.

Updating Software

Prerequisite

- ✓ Active connection to the Internet.
- ✓ If your PC uses a Windows operating system:

  If the PI Update Finder program is not on your product CD:
  You have downloaded the PI Update Finder from our Update Portal (http://www.update.pi-portal.ws).

  You have the PIUpdateFinder_EN_A000T0028.pdf Technical Note for the PI Update Finder on hand. You can find the document on the product CD in the “Manuals“ directory.

- ✓ If the PC to be updated is **not** directly connected to the Internet:
  You have Technical Note Updating_software_without_internet_connection_EN_A000T0032.pdf for the PI Update Finder at hand. You can find the document on the product CD in the “Manuals” directory.
- ✓ If your PC uses a Linux operating system:

  You have the user name and password for the E-861 at hand. Both of these are provided by this document.

Updating PC-software in Windows

- ➢ Use the PI Update Finder:

When the PC to be updated is directly connected to the Internet: Follow the instructions in the A000T0028 Technical Note.

When the PC to be updated is not directly connected to the Internet: Follow the instructions in the A000T0032 Technical Note.

Updating the PC software on Linux

1 See “Update recommended for customers” above to decide if an update is advisable for your application. If yes, proceed with the steps listed below.

2 Open FTP download site (ftp://pi-ftp.ws).

3 Navigate to the CD Mirror directory and download the latest version of the product CD.

4 Save the downloaded archive file on the PC.

5 Unpack the file to a separate installation directory.

6 In the directory with the unpacked files, go to the linux subdirectory.

7 Unpack the archive file in the linux directory by entering the command tar -xvpf <name of the archive file> on the console.

8 Read the accompanying information (readme file) on the software update.

9 Log onto the PC as a superuser (root rights).

10 Install the update.