# **AT40x System Software Release Notes**

#### What is new in Version 2.4.3.1698?

AT40x 2.4.3.1698 is a minor firm- and software update to ensure uninterrupted operation of our Laser Trackers with the latest Windows 11 Build 24H2.

# **Tracker Pilot Improvements and Fixes**

- Resolves Tracker Pilot incompatibility issues with the latest Windows 24H2 Update (KB5046740).
- Updates the digital signature for Tracker Pilot and its installation package.

#### **Known Issues**

N/A

#### What is new in Version 2.4.2.32?

AT40x 2.4.2.32 is a minor firm- and software update that contains a more ruggedized init process to avoid failed initializations, that happened in rare cases.

Furthermore a bug in the Reflector ADM Offset Compensation wizard is fixed.

Remark: Only users working with custom reflectors with individually compensated ADM offset are affected by this fix.

Finally a very rare update problem has been fixed, which affected certain Dell computer models

### **General Firmware Improvements and Fixes**

More ruggedized system initialization process

### **Tracker Pilot Improvements and Fixes**

- Fixed issue in Reflector ADM Compensation wizard for Custom Reflectors
- Fixed update issue potentially happening on Dell computers in very rare cases

#### **Known Issues**

N/A

### What is new in Version 2.4.1.318?

AT40x 2.4.1.318 is a minor firm- and software update that contains a fix for an incompatibility with some Windows 10 application settings as well as a dedicated improvement for a redesigned hardware component of the AT403. This system software is compatible with all AT403, AT402 and AT401, an update of existing systems is not mandatory. More details can be found in the system documentation on the accompanied Product USB stick.

### **General Firmware Improvements and Fixes**

• Adjustment of the AIFM firmware to support new hardware revision

### **Tracker Pilot Improvements and Fixes**

• Fixed issue with "AppLocker" setting in Windows 10 preventing Tracker Pilot to launch.

#### **Known Issues**

N/A

### What is new in Version 2.4.1.307?

AT40x 2.4.1.307 is a minor firm- and software update that contains general improvements and bug fixes. This system software supports AT403, AT402, B-Probe and AT401. More details can be found in the system documentation on the accompanied Product USB stick.

### **General Firmware Improvements and Fixes**

- Adaptive measurement mode for autocollimation measurements using Mirror target to increase success rate
- More robust handling of selected compensation and target during booting

# **Tracker Pilot Improvements and Fixes**

 Hide WPA2 pass phrase on WiFi connection settings page for security reasons

#### **Known Issues**

- N/A
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#### What is new in Version 2.4.1.254?

AT40x 2.4.1.254 is a minor firm- and software update that contains general improvements and bug fixes. This system software supports AT403, AT402, B-Probe and AT401. More details can be found in the system documentation on the accompanied Product USB stick.

### **General Firmware Improvements and Fixes**

- Increased reliability of WiFi connection to Tracker
- Fixed the apparent loss or no selection of compensation upon booting
- Fixed the frozen level bubble in the controller after a move station
- Fixed Sensor LED feedback after fast measurements
- General firmware robustness improvements
- New B-Probe Firmware 2.2.1 with more reliable status indication and reduced consumption of batteries during sleep mode (it is still recommended to remove the batteries if not in use)

### **Tracker Pilot Improvements and Fixes**

- Full support for latest Windows 10 release versions (version 1809 as of May 2019)
- Issue with duplicated "Comment" field of checks and compensations has been fixed
- Initialization using the Quality Flag "Warning" was harmonized with the Outdoor measurement mode and is now better suited for unstable environments. There is no compromise on precision.
- It is possible now to measure stored positions using Outdoor measurement mode
- Added file version on Setup AT40x TrackerPilot file details

#### Known Issues

- After upgrading from versions 2.4.1.151 and 2.4.1.182 the compensation management bug might still appear since the fix is only in the new FW. Before upgrading make a backup of the compensations. If necessary, after the upgrade re-select the active compensation as Advanced user.
- Under rare circumstances after a failed attempt of upgrade it can happen that connection to Tracker is temporarily blocked. A reboot of the system is required in this case.

#### What is new in Version 2.4.1.182?

AT40x 2.4.1.182 is a minor firm- and software update that contains general improvements and bug fixes. This system software supports AT403, AT402, B-Probe and AT401. More details can be found in the system documentation on the accompanied Product USB stick.

### **General Firmware Improvements and Fixes**

- Adjustment of AIFM firmware parameter to improve lifetime of internal boards
- Improvement of booting process to increase reliability of communication with WLAN board
- Improvement of update process to avoid compensation selection loss

### **Tracker Pilot Improvements and Fixes**

 Full support for latest Windows 10 release versions (version 1803 as of January 2019)

#### **Known Issues**

• In Tracker Pilot, "Comment" field of Checks and Compensations might pop-up two times. This has no influence in the creation of comments and will be addressed in the next release.

#### What is new in Version 2.4.1.151?

AT40x 2.4.1.151 is a minor firm- and software update that contains one dedicated bug fix. This system software supports AT403, AT402, B-Probe and AT401. It is recommended to install this release on all AT40x systems. More details can be found in the system documentation on the accompanied Product USB stick.

### **General Firmware Improvements and Fixes**

 Adjustment of AIFM firmware parameter to ensure a reliable initialization process that potentially failed under rare circumstances.

#### What is new in Version 2.4.1?

AT40x 2.4.1 is a minor firm- and software update that contains general improvements and bug fixes. This system software supports AT403, AT402, B-Probe and AT401. It is recommended to install this release on all AT40x systems. More details can be found in the system documentation on the accompanied Product USB stick.

### **New Functionality**

 New Quick Run-in and piezo motor check function (<Shift>-<F3>) for system showing slow movement during initialization

### **General Firmware Improvements and Fixes**

- Improved measurement success rate for measurements to autocollimation mirror at close distance
- Availability improvement for long-term operations
- WLAN SSID automatically generated by Tracker type and serial number on startup
- Security improvement for WPA2 WLAN encryption ("KRACK fix")
- Fix to prevent LAN module to distribute IPv6 addresses in a network
- Increased waiting time for DHCP network address in Automatic LAN mode
- Firmware update process has been made more robust to prevent sporadic AIFM updated failures observed with version 2.4.0

### **Tracker Pilot Improvements and Fixes**

- Full support for latest Windows 10 release versions
- Flash animations in wizards replaced by MP4 videos or images
- Export of a single compensation now supported
- Export of a single reflector now supported
- Export of targets from an AT401 system has been fixed
- Default Ve Compensation record no longer flagged with exclamation mark
- Fix to show inclination index parameters C & L in correct order in compensation reports, values were swapped in version 2.4.0
- Fix to prevent duplicate B-Probe probe files

#### **Known Issues**

 Under rare circumstances communication with WLAN board might be interrupted on controller boot (e.g. during update) and connection to Tracker could be hindered. A simple reboot of controller restores the system condition.

#### What is new in Version 2.4.0?

AT40x 2.4.0 is a major firm- and software update that contains many features supporting the new AT403 system as well general improvements for all AT40x systems and bug fixes. This system software supports AT403, AT402, B-Probe and AT401. It is recommended to install this release on all AT40x systems. More details can be found in the system documentation on the accompanied Product USB stick.

### **New Functionality**

- Support of new Tracker type AT403
- New measurement profiles "Continuous Time" & "Continuous Distance" for AT403
- Automatic LAN configuration mode for new AT Controller 400 type (plug & play)
- Support of new Wi-Fi module with AP mode for new AT Controller 400 type
- Retained sensor initialization after station move for AT403 (when warmed-up)

### **General Firmware Improvements and Fixes**

- B-Probe measurement success rate significantly improved
- Interface command handling and responsiveness accelerated (TPI & LMF)
- Interface connection time accelerated
- Target change time accelerated
- Improved reliability of OVC image

### **Tracker Pilot Improvements and Fixes**

- Harmonization of Tracker Pilot functions between AT40x and AT9x0
- New "Quality Check" feature to allow initializing under unstable environmental conditions, i.e. vibrations
- New "Level Check" and "Ve Compensation" wizards to check and improve the levelling performance, similar to AT9x0 Tracker Pilot
- New function "Store Positions" / "Measure Positions" available in DRO and check wizards to facilitate repeated measurements to fixed points
- Redesigned network settings pages for legacy AT Controller 400 models
- Tolerancing of B-Probe stylus compensation considers longer stylus configuration accordingly
- B-Probe tip compensation possible during warm-up period
- Support File creation without connection
- Support File creation from any page by HotKey function

#### What is new in Version 2.3.2?

AT40x 2.3.2 is a minor firm- and software update that contains general improvements and bug fixes. This system software supports both AT402 with B-Probe and AT401. It is recommended to install this release on all AT40x systems. More details can be found in the system documentation on the accompanied Product USB stick.

### **General Firmware Improvements and Fixes**

- Improvement of leveling performance (height measurements) at larger distances.
- Fix for a systematic deviation in Two Face Check that occurred in Fast measurement profile at steep angles upwards.
- Fix for Meteo Station switching to manual mode unintendedly when disconnecting the Object temperature sensor.
- Occasionally systems became blocked in long term operations, reporting "Server Busy". This has been fixed.

### **Tracker Pilot Improvements and Fixes**

- Fix for manually entered temperature values in Fahrenheit units which were not applied correctly.
- State of Power Override switch was not displayed correctly on the Support Info page. This is now fixed.
- An incompatibility between Leica Update Manager and Tracker Pilot, causing the Tracker Pilot to crash is now fixed.
- System warm-up flag now correctly handled after "Sleep" state.

#### What is new in Version 2.3.1?

AT40x 2.3.1 is a minor firm- and software update that contains general improvements and bug fixes. This system software supports both AT402 with B-Probe and AT401. It is recommended to install this release on all AT40x systems. More details can be found in the system documentation on the accompanied Product USB stick.

### **Tracker Pilot Improvements and Fixes**

- Tracker Pilot runs now on Windows 10
- A new "Intermediate" user has been introduced that can compensate targets only. This user has its own password which can be changed and administered with the Administrator user

### **General Firmware Improvements and Fixes**

 Under rare circumstances, after removing the object sensor of the meteo station the readings did not work anymore properly

#### What is new in Version 2.3?

AT40x 2.3 is a minor release of firm- and software update that contains general improvements and bug fixes. This system software supports both AT402 with B-Probe and AT401. It is recommended to install this release on all AT40x systems. More details can be found in the system documentation on the accompanied Product USB stick.

## **General Firmware Improvements and Fixes**

- The tolerance for the standard deviation of the tip coordinates in B-Probe Tip Compensation has been changed to show a "Total Standard Deviation" instead of components to be in-line with tolerances in other compensation wizards.
- B-Probe Tip Compensation allows entering smaller values for the tip diameter than 0.1mm. Please note that for the Scribe Stylus – M2 (576219) it is recommended to use a tip diameter of 0.2mm according to the mechanical specification of the tip.
- Accepted range for manual input of temperature values for Meteo Station has been enlarged to accept values between -40°C and +60°C.
- Fixed bug for automatic readings of temperature values if ambient falls below -10°C. Automatic readings now take the last known reading above -10°C.
- Occasionally the OVC window opened with a blank window not showing the OVC image. This has been fixed.
- Fixed bug to allow disabling the inclination sensor when sensor is not in working range.
- Robustness improvement for long range measurements.
- Temperature correction model of internal temperature sensor on AT Controller 400 adapted to reflect latest hardware revision.

- Axes Compensation wizard adapted to support new hardware revision of AT402.
- New service function that allows setting the zero direction of Hz angle.
- Fixed issue for occasional AT Controller 400 boot failures.
- Improved service, diagnostics and reporting functionality.

### **Tracker Pilot Improvements and Fixes**

- WLAN IP Address can no longer be set to be the same as the LAN IP Address to prevent blocking the communication completely.
- Tracker Pilot restores 'last good manually entered' temperature values in case Meteo Station stops due to reading failure.
- Refresh of readings on Inclination Sensor page was not done automatically.
   Fixed.
- Fixed bug to prevent creating custom reflectors with unrealistic large reflector diameter value.

#### **Known Issues**

- Tracker Pilot: New installation claims missing Windows components in rare cases. This can easily corrected by clicking on "This program worked correctly" or installing Adobe Flash Player prior to the installation of Tracker Pilot
- Long range outdoor measurements: In instances when a long range measurement does not succeed due to stronger environmental fluctuations, the system will not become "Ready" automatically. It is recommended to lock onto the reflector using the OVC.

#### What is new in Version 2.2?

AT40x 2.2 is a minor release of firm- and software update that contains general improvements and bug fixes. This system software version supports both AT402 with B-Probe and AT401. It is recommended to install this release on all AT40x instruments. More details can be found in the system documentation on the product CD.

### **General firmware Improvements and fixes**

- Support of new Leica Red-Ring Reflector 7/8 " (RRR) has been added
- The reliability of auto inspect procedures has been improved in case nominal positions were far off from the target to be measured.
- An unexpected warm-up message has been thrown after restarting a fully warmed instrument, this has been corrected.
- Reflector positions are now also displayed when not being initialized; this can be helpful if the system shall be roughly located before the init sequence takes place.
- Spiral Search parameters were not applied correctly in some circumstances.
   This is fixed.
- The meteo station data handling has been improved when one of the measured values (temperature, pressure or humidity) is invalid or unavailable.
   In those cases the readings are temporarily set to manual input and the values of the last available reading remain active.
- The target change mechanism between B-Probe and reflector targets has been improved.
- Laser pointer was not directly to the desired nominal position in special circumstances, this has been improved.
- A beam offset issue, showing on some dedicated systems, has been fixed so that Power Lock and visible laser beam are always aligned
- Compensation ID handling has been improved, avoiding a situation where no active compensation is selected at startup. This has happened in cases where comps have been deleted manually.
- In rare situations, the communication to the sensor was lost and "NA" on the controller page was displayed. This has been fixed.
- Error handling: B-Probe, in case of an invalid 6Dof measurement due to covered LED the error 113406 "6dof measurement failed" is now displayed instead of 113401 "No probe detected".
- Update Procedure has been further improved.
- An issue with slightly shifted DRO values issue after beam break observed in rare cases on 1st generation AT401 sensors has been fixed.
- Outdoor measurement profile allows now handheld operation until 30m.

### **Tracker Pilot Improvements and fixes**

- If 3rd party software was disabling the OVC usage, Tracker Pilot would not show the OVC button anymore, this has been fixed.
- In Scale Bar check, the default object temperature in manual case is now taken from active meteo input rather than being zero.
- The allowed range of meteo data input in Fahrenheit temperature units has been corrected.
- When switching from automatic to manual meteo station input, Tracker Pilot GUI was not refreshed properly, this has been fixed.
- Discovery mechanism has been improved in order to reliably find both systems connected to LAN and WLANs.
- When creating a support file (sfile) the version number is included in the sfile name.

#### What is new in Version 2.1?

AT40x 2.1 is a minor release of firm- and software update that contains support of the Leica B-Probe, the all new entry level hand held probing device that runs with any Leica Absolute Tracker AT402 as well as general improvements and bug fixes. This system software version supports both AT402 and AT401. It is recommended to install this release on all AT40x instruments. More details can be found in the system documentation on the product CD.

#### **New Features**

- Support of Leica B-Probe
- Sensor LED behavior has been aligned to the AT901 (green LED if Tracker sees a reflector, red if target is lost and no measurement acquisition will be possible)

### **Tracker Pilot Features, Improvements and fixes**

- Tip Field Check and Scale Bar Field Check for Standards users have been introduced
- Probe Sensor Check for Advanced users has been introduced
- Tip Compensation for Advanced users has been introduced
- Probe Target parameter Import/Export for Advanced user has been added
- Probe channel setting feature is provided (up to 4). This allows changing the Tracker-Probe IR communication channel if multiple systems are to be used in one room simultaneously.
- Auto-Discover mechanism has been implemented in order to automatically find all trackers on a network without previously knowing its IP addresses (AT402 only)
- Quicker target selection has been added (by double-clicking entries)
- Compensation controls on Windows 8 OS have been improved
- Setup OK/Not OK messages are now always evaluated correctly also if any measurement has been be deleted
- More information in DRO measurement recorder csv file is provided (timestamp, target, accuracy, ...)
- Cleaner message has been introduced in case meteo station is reporting problems
- Reflector Tilt flag behavior has been adapted and is kept as is and not unchecked on Tracker Pilot start
- Consistent usage of diameter (rather than radius) has been introduced in order to align against typical usage in measurement application software packages

# TPI, general firmware Improvements and fixes

- Outdoor Mode improvements have been implemented allowing now up to 20m handheld measurements in rough environment.
- Inclination use case has been improved
- Laser Beam is no more jumping away unexpectedly
- Controller Synchronization has been improved
- Potential Compensation lost issues were fixed
- Lock-on behavior to Reflectors in near range has been improved (e.g. RRR1.5" in outdoor could fail to lock on in approx. 3m distance)
- TPI Extensions to support B-Probes similar to T-Probes have been added
- Tip Comp, Tip Check and Scale bar Check are available via TPWizardSDK to remotely call wizards from any third party software
- List of pending impediments is now provided if using TPWizardSDK

#### What is new in Version 2.0.1?

AT40x 2.0.1 is a service release of firm- and software update that contains support of the new Leica Absolute Tracker AT402 as well as general improvements and bug fixes. This system software version supports both AT402 and AT401. It is recommended to install this service release on all AT40x instruments. More details can be found in the system documentation on the product CD.

#### **New Features**

- Support for AT402 (older versions than 2.0.1 cannot be installed onto AT402 systems)
- Both TrackerPilot and TPI are now Windows 8 compatible (Standard, Pro, Enterprise, Windows RT is not supported)

### **Tracker Pilot Improvements and fixes**

- Startup connection time has been decreased by almost 50% (16s vs. 30s in previous versions)
- Font problem on XP computers has been fixed showing rectangles instead of characters
- Standard users can now add and delete scale bars
- Scale bar nominal data handling with French or German regional settings has been fixed
- Better user feedback is provided in case of general FTP problems
- Better user feedback is provided if support website was called while no default browser was set
- Potential "no such compensation" messages when performing an OVC comp have been fixed
- Wrong parameter 1 or 2 messages when setting sliders to max or min on OVC dialog have been removed
- Tracker pilot seemed to be frozen when connection was started directly after an upgrade
- MeteoStation settings: when switching from automatic to manual mode last automatic readings are now used instead of default value
- Quicker response provided on connection page while connection between tracker and controller is interrupted

### TPI, general firmware Improvements and fixes

- Mirror Reflector measurement is now also possible if Fast mode is selected
- Switching Power Lock Off/On while not being initialized does not cause system to loose search mode any more

- Under rare circumstances an unstable measurement contained a small RMS in fast mode, this has been fixed
- Inclination sensor off use cases have been improved
- Better handling of internal threads enable a smoother shut down process
- Spiral Search was not always starting reliably upon find command, this has been fixed.
- While using the TPI in a not recommended way "frozen" measurement values could be produced in certain situations, this has been fixed
- Go and measure use cases have been improved in order to avoid distance measurement failed problems even if reflector is in field of view of Power Lock
- Coordinate system of electronic bubble on Controller MMI has been turned
- GetMeteoStationInfo command answer time has been decreased from 3s to 0.01s

#### What is new in Version 2.0.0

AT401 2.0 is a major firm- and software update that delivers a lot of new functionality with main focus on usability and simplicity. Version 2.0 can be installed on any existing AT401 at no extra cost. More details can be found in the system documentation on the product CD.

### **Measurement Process improvements**

- In order to simplify the usage of the Laser Tracker system, measurement profiles have been introduced (Fast, Standard, Precise and Outdoor). No more complicated measurement parameters and time settings have to be adjusted by the user. The modes are backwards compatible, meaning if visually not yet implemented in the application software, it uses the new modes based on the passed measurement time.
- Native stable probing and Two Face modes have been introduced
- Previous PowerLock modes have been removed (deprecated) in order to gain simplicity and are replaced by a new outdoor mode profile.
- DRO (reflector position events) frequency has been increased to 5Hz in order to get the same building experience as with AT901 Trackers
- General stationary measurements (in any profile) as well as automated inspect routines (go and measure) are significantly faster
- A random issue with showing U95 = 0 on fast (previously 500ms)
   measurements has been solved
- A new auto-collimation Target (new reflector type) has been introduced that can be added in TrackerPilot. The new target type can be activated in any 3rd party software package; system performs then an autonomous autocollimation measurement
- Internal process communication has been improved in order get a smoother overall experience
- If PowerLock is enabled, any find command is now starting a rectangular search using the PowerLock's field of view in case the defined search radius is not reached while no target was found yet
- Re-locking to a target after a point laser command is now possible like with an AT901or older sensor (PowerLock is temporarily off in order to allow pointing, but the system still allows to lock on manually)

# **Controller (ATC400) Improvements**

- The Controller MMI has been simplified and visualizes
  - An easier to understand main page
  - If it is ready to get connected to a client by using new booting and shutdown screens
  - Impediments if the system is not ready to measure (e.g. missing battery in sensor, not initialized, not leveled enough)

- Current battery levels, also if powered from mains
- o If hot swap is possible (means super caps are charged) or not
- If environmental parameters from the internal Meteo Station are actively used or ignored by the connected application
- Object Temperature or Air Temperature sensor has been connected and recognized
- o Complete LAN configuration (including SSID, DHCP and IP address)
- Serial Number and Firmware version of Instrument
- The new measurement profile
- The controller switches between Imperial and metric units on meteo page by clicking the right hand side controller button >1s
- Wired Network settings can be toggled between DHCP and Static settings by click and hold he right hand side controller button during startup
- The controller provides a software access point like network functionality in order to create networks without separate access points. This is very useful if operating with interactive remote controls like AT remote app.
- Hot Swap processes have been improved and stabilized
- With new generation of ATC 400 controllers:
  - Power Override switch for wake up and shutdown from external provided
  - Super Caps are also charged if being on external Power

### **TrackerPilot Check and Comp improvements**

- The following new functionality has been introduced into TrackerPilot
  - A new graphical user interface (GUI) to greatly simplify the usage of Tracker Pilot
  - The coordinate system representation for measurements can be changed in settings pages for the DRO page (Cartesian, Cylindrical, Spherical)
  - A new concept of a default reflector has been introduced, making sure there is never a situation with no reflector being set
  - A separation between field checks and sensor checks including a new adjustable tolerance extension for field checks
  - Redundant station setup into ADM compensation wizard
  - A new scale bar field check including scale bar admin page
  - High U95 blunder check with automatic re-measure action in Tracker Pilot
  - Configurable sound events
  - User guidance refinements and convenience like enhanced guidance, stable probing and go and measure capabilities in Wizards
  - Reporting refinements
  - Angle and ADM Sensor Check measurements can be turned into compensations when out of tolerance without re-measuring
  - Flexible setup in Angle/ADM compensation and sensor check wizards in case no tripods are available

- Confusing results were removed from data tables while still keeping details available on a secondary view
- Measurement Recorder on main DRO page that supports three different coordinate system types and data export for post processing
- New TP Wizard SDK for fixed install checks and compensation calls
- Reporting and Data path can be configured
- Improved reconnect functionality in Tracker Pilot and controller FW upon re-connecting over TCP/IP
- A possibility for ATR zero pixel compensation for Advanced users has been introduced
- Go And Measure (Auto-inspect) is now possible in all wizards if nominal data is provided. This allows to do unattended checks and even comps

### **General improvements**

- A new, easier to understand versioning concept has been introduced: major, minor, service release number, build number (e.g. 2.0.0.x)
- Leica Update Manager (LUM) is provided to get quick notifications to latest firmware and update downloads. LUM can be installed together with TrackerPilot or on a temperature (e.g. supervisor) computer which has ensured internet connectivity

# **TPI (Tracker Programming Interface) SDK improvements**

- New native stable and two face modes
- New Profiles (Backwards compatibility)
- Removed/deprecated Power Lock modes
- New target Type Mirror
- New shutdown command
- Ported Best Fit Transformation calls, added new status
- TP Wizard SDK improvements
- Object temperature changed events over TPI

Refer to the Release Notes on the Product CD in directory SoftwareDevelopmentKit

#### **Software Installation**

No copy protection is required at all.

#### Installation of Tracker Pilot Software on a Client PC/Notebook

Only if Tracker Pilot, the program to check and compensate the AT40x, is not yet installed at all on the client PC that you connect to the sensor, and only then, you need to install it using the "Setup TrackerPilot.exe" which you find on the product USB stick or on the Leica web site. Make sure the version you install corresponds to the AT40x system firmware. If it does not, Tracker Pilot will warn you about a version mismatch.

Once Tracker Pilot is installed on a PC, you should never\* (see exception below) update it again this way on that PC. See next chapter how to update it together with the entire system software and firmware.

\*Important Note: there is an exception: if you update an AT40x from version 1.0.373.0 (released July 2010) on a client PC running a Tracker Pilot matching version 1.0.373.0, you need to uninstall Tracker Pilot, install the new version with the new "Setup TrackerPilot.exe", and then install the update package as described in the next chapter.

#### **Installation of System Software Updates**

- any software updates later, regardless whether these will be sensor, controller and/or Tracker Pilot updates, are provided as a packet, being just a single file with all updates inside; its extension is ".Update", e.g. "AT40x Software V2.0.0 0.Update". You will select this packet from within your actual Tracker Pilot, "Update" function. Everything including the Tracker Pilot is then updated. Thus you never need to uninstall Tracker Pilot, nor should you ever update Tracker Pilot with a "Setup TrackerPilot.exe" installation\* (see exception above).

In other words: Sensor-, Controller- and Client Software are provided as a single packet to achieve consistent software deployment on these 3 platforms. Updates are done on all platforms in a single process. But note:

- controllers are exchangeable. So, if you plug-in a controller replacement with a different software version, a version mismatch is given and needs to be cleaned by doing a packet update.
- The Tracker Pilot Software on your client PC will then notify the version mismatch. It also reports a mismatch of itself with controller and/or sensor firmware as soon as you connect to a system.

A system software update may take up to 2 hours plus a few minutes to install it, depending on the modules being updated. Follow carefully the instructions that will accompany the new software package.

# **Documentation / Help**

For the Tracker Pilot Software a manual in PDF format with navigation features is available on the Product USB stick. It is the help system of the Tracker Pilot software at the same time.

# **Table of Hints for Using the System**

Description	Recommendation
WLAN operation consumes significantly more power.	If you connect your PC and the AT 401 by Ethernet cable, switch the AT 401 WLAN completely off from within Tracker Pilot software.
The LAN connection to the ATC 400 controller needs continuous communication.	It is not recommended to unplug cable or break the WiFi connection as long as client software is connected to the controller.  However Tracker Pilot software can detect this and re-connect after a while.
The compensations are safely stored on the sensor. Your product USB stick contains the original compensations of your sensor as backups.	If you add compensations, make sure that you export them to have backups. If you are not sure about where the product USB stick is going to reside, export all compensations to have backups.
To view compensation and field check reports, at least Acrobat Reader V 9.0 is necessary.	

Leica Geosystems AG, June 06, 2016