RELEASE NOTES

Trimble Positions Desktop add-in

These release notes provide important information about the Trimble® Positions™ Desktop add-in version 10.2.0.1. Please read these release notes carefully.

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Introduction

Welcome to version 10.2.0.1 of the Trimble® Positions™ Desktop add-in. The Trimble Positions software suite adds support for Trimble high-accuracy GNSS receivers using Esri ArcGIS for Windows Mobile and ArcPad technology.

An add-in for the Esri ArcGIS for Desktop 10.1 or 10.2 application, the Trimble Positions Desktop add-in is used to set up the required projects, devices, and sessions, and for the day-to-day management of data collected by the Trimble Positions Mobile extension, a custom field application built using the Trimble Positions toolkit, or by the Trimble Positions ArcPad extension, including postprocessing of collected GNSS data.

For detailed information on installing, configuring, and using the Trimble Positions Desktop add-in, see the *Trimble Positions Desktop Add-in Administrator's Guide* and the *Trimble Positions Desktop Add-in User Guide*.

New in this release

This section describes what's new in the Trimble Positions Desktop add-in version 10.2.0.1

- **Esri ArcGIS 10.2 support**. The Trimble Positions Desktop add-in now supports Esri ArcGIS for Desktop 10.2 in addition to 10.1.

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- **Trimble GeoExplorer® Geo 7 series and the Geo 7 rangefinder module support.**

  - The Geo 7 series' orientation sensors are used to rotate the Skyplot, and to show the current heading in the Navigation section, even when stationary.

  - The Geo 7 rangefinder module, together with the orientation sensors, can be used to collect position offsets and record attribute information for distance and angle measurements.

- **Legacy workflow support.** This version adds basic support for a few legacy workflows that have been requested: create data dictionary (DDF) from the layers in the current map document (for the TerraSync™ software), and create a projection file (PRJ) from the coordinate system used in the current map document (for the GPS Pathfinder® Office software). These are both available from the **Create...** button in the projects administration area. The projection file export feature is the same as that provided in the separate add-in referenced in the GPS Pathfinder Office support note PRJ File Extraction Add-In for ArcMap.

- **Field-to-office session notes.** Mobile users can now enter descriptive text about the session and this text will be visible to the Positions Desktop add-in user. The columns visible in the sessions grid of the dockable window have been adjusted to display start time, end time, and these notes.

- **Populating device names from the field.** For large organizations that have named their devices using the standard Windows Mobile registry key, this data can be used to populate the device name visible in the Trimble Positions Desktop add-in. Please contact your Trimble reseller or consult the Trimble Positions Development Team Blog for more information.

- **Improved usability.** This version includes various enhancements designed to improve the usability of the software. Such enhancements include better labeling for functionality that applies to ArcPad versus ArcGIS for Windows Mobile workflows, clearer messaging in the integrated mobile cache synchronization tools, integrated check for proper modifications to the ArcMap.exe.config file prior to postprocessing, session grid groupable by day portion of start date/time (to group sessions by the day they were collected), and directly editable QuickProject check-in path.

- **Improved diagnostics**. Additional information is now included in the log file to assist in troubleshooting.

Issues addressed

This section describes issues that have been addressed in the Trimble Positions Desktop add-in version 10.2.0.1.

- **Configuration log contained numerous DROP TABLE errors**. Previous versions of the Trimble Positions Configuration application would log unnecessary DROP TABLE errors in the TrimblePositionsConfig.log file. This is now fixed.

- **Exiting ArcMap while a session is open**. Due to a documented Esri/Microsoft .NET issue, ArcMap 10.1 add-ins did not have the ability to stop the ArcMap close process. A message was added in the previous version alerting the user to this condition. This functionality has been restored in ArcMap 10.2 and the Trimble Positions Desktop add-in will now properly prevent the close of ArcMap if a session is open.

- **Workspace validation**. The workspace validation that is used to identify projects compatible with the current map document was previously case-sensitive. This may have caused problems in multi-user configurations. This is now fixed.

- **Validator showed warning message if projected coordinate system used WGS84 datum**. The validator is used to check the current map document for compatibility with Trimble Positions workflows. Previously it would include a warning message if the map document was using a projected coordinate system regardless of datum. This has been fixed to only generate a warning if the datum is not WGS84.

- **Log file showed messages from other applications and vice-versa**. The Trimble Positions Software Suite uses the Apache 'log4net' library for its logging functionality. As this is a very powerful and common library, it is used by many other software packages, including other ArcMap add-ins. In previous versions of the Trimble Positions Desktop add-in, log messages from other add-ins may have appeared in the PositionsDesktopAddIn.log file and vice-versa. This is now fixed.

- **Fields with aliases at the feature class level could not be used for metadata transfer**. Fields within a feature class can be aliased at both the feature class and layer (map document) level. If fields aliased at the feature class level were specified for metadata transfer, they would not be properly populated in previous versions. This is now fixed.

- **Features in 3D feature classes were not updated in certain cases**. In some cases, Z-enabled (3D) feature classes may not have been updated through the *Update Features* functionality due to how the 3D capability of the feature class was identified. This is now fixed.

- **Fully qualified name for TrimbleSessions feature class was not correct in certain user schema scenarios**. In enterprise geodatabase environments, users may connect to the geodatabase with user-specific credentials. This can create scenarios where TrimbleSessions gets created in user-specific schemas that other users may not have access to. The new version displays a warning message if TrimbleSessions is found in a different schema and also fixes an issue where the incorrect fully qualified name for TrimbleSessions is generated when the user is missing appropriate permissions.

- **Could not postprocess a session spanning multiple hours against a base station having a separate NAV file URL template**. An issue with previous versions of the Trimble Positions Desktop add-in prevented users from postprocessing a session that spanned multiple hours against a base station that has a separate NAV file URL template. Users would get a message about partial coverage. This is now fixed.

- **Nested point collection during line streaming was problematic in data from Positions ArcPad extension**. The previous versions of the Trimble Positions Desktop add-in did not always properly handle nested point features collected during a streamed line feature in ArcPad. This was dependent on the screen workflow that the user employed in ArcPad and may have also resulted in the point geometries being included in the streamed line feature. This is now fixed.

- **Shared vertex between line and area features was problematic in data from Positions ArcPad extension**. There is a specific screen workflow in ArcPad that can result in a vertex being shared between a line and area feature. This caused problems for the Trimble Positions Desktop add-in. This is now fixed.

- **Digitized sub-parts did not display properly in position tree/list in certain cases**. In some cases, manually digitized points and verteces did not properly display in the position list (or tree) of a feature. This is now fixed.

- **Out of memory exception during postprocessing**. Previous versions of the Trimble Positions Desktop add-in may have exhibited a problem during postprocessing when the session data (from an imported TrimblePositions.ssf) was of a particularly large size. This is now fixed.

- **Missing Z coordinate in base station data caused a problem in postprocessing**. The new version of the Trimble Positions Desktop add-in will properly handle the case of base station data missing a Z coordinate.

- **Note field in TrimbleSessions feature class caused problems in personal geodatabases**. The field name *Note* is not supported in personal geodatabases and when GNSS enabling a personal geodatabase (for the ArcGIS for Windows Mobile workflow), the field name is switched to *Note_*. This causes problems for other components which are expecting the field to be named *Note*. This is now fixed.

- **Positions Desktop add-in crashed in certain floating license scenarios**. In certain floating license configurations, the Trimble Positions Desktop add-in would be unable to borrow a license and this would cause an ArcMap crash when the user tried to enable the Trimble Positions Desktop add-in. The underlying issue relates to the Trimble Positions License Manager missing a required certificate. This is now fixed.

New in previous releases

This section describes what was new in earlier versions of the Trimble Positions Desktop add-in.

- **Localization**. The Trimble Positions Desktop add-in is now available in the Japanese language, in addition to French, German, Spanish (South American), and Portuguese (Brazilian) languages.

- **Trimble Positions Mobile extension offset support**. The Trimble Positions Desktop add-in now supports feature geometry data collected using offsets with the Trimble Positions Mobile extension version 10.1.1.1. This includes support for simple left-/right- offsets alongside a path or perimeter and complex distance-bearing offsets for point features or polyline and polygon vertices.

- **Development Team Blog.** The Trimble Positions Software Suite Development Team Blog is now available at http://positionsblog.trimble.com. Be sure to visit and sign-up to this blog. It was started by the Trimble Positions product development team as a way to better communicate directly with dealers and customers. Please check back frequently for new content.

- **Support for ArcGIS for Desktop Basic edition**. The Trimble Positions Desktop add-in now supports the ArcGIS for Desktop Basic edition, with the following limitations:

  – For ArcPad workflow with Trimble Positions ArcPad extension: Limited or no support for enterprise geodatabases and ArcSDE services; refer to Esri documentation.

  – For ArcGIS for Windows Mobile workflow with Trimble Positions Mobile extension:

    – Cannot enable or synchronize attachments.

    – Cannot add GlobalID fields through the User Interface to allow synchronization.

    – Degraded performance when collecting session data in the field.

- **Polyline geometry extension support**. The Trimble Positions Desktop add-in now supports the geometry created with the Trimble Positions Mobile extension version 10.1.1.1 after extending an existing polyline feature in the field.

- **Built-in Mobile Cache creation and synchronization**. The Trimble Positions Desktop add-in now has integrated support for creating and synchronizing the Mobile Cache without needing to use the Esri Mobile toolbox. This streamlines workflow within the Trimble Positions solution.

- **Map extent used to sort base stations when creating a profile**. The Trimble Positions Desktop add-in now allows you to sort the base station list by proximity to the current map extent when creating a postprocessing profile.

- **Deletion of previously downloaded base station data**. The Trimble Positions Desktop add-in now allows the user to delete and re-download base station data. This is sometimes necessary when a previously downloaded base station file is corrupted or incomplete.

- **Virtual PC installations support**. The Trimble Positions Desktop Configuration tool now supports activation on virtual PCs. Virtual PC installations are useful when the user wishes to install more than one otherwise conflicting application software versions on a single physical PC.
- **Citrix and roaming profiles support**. The Trimble Positions Software Suite now supports the concepts of roaming profiles and per-user configurations on the desktop. This is useful in larger enterprise organizations where software applications and user configurations are centrally managed. Per-machine configurations are also still supported.
  The Trimble Positions system configuration is stored in one of the following folders, dependent on profile type and operating system:

Profile type	Windows 7	Windows XP
Per-user (roaming)	C:\Users\<username>\AppData\Roaming\ Trimble\Positions\10.1	C:\Documents and Settings\<username>\Application Data\Trimble\Positions\10.1
System (local)	C:\ProgramData\Trimble\Positions\10.1	C:\Documents and Settings\All Users\Application Data\Trimble\Positions\10.1

- **Base station management support**. The Trimble Positions Desktop Configuration tool now supports base station management, including updating the CBS List from the Trimble FTP server, loading of user-defined base stations defined and used in GPS Pathfinder Office and Trimble GPS Analyst™ extension, and saving of user-defined base stations defined in Trimble Positions Desktop add-in.
- **Localization.** The Trimble Positions Desktop add-in is now available in French, German, Spanish (South American), and Portuguese (Brazilian) languages.
- **Educator license program**. The Trimble Positions Desktop add-in is now available within the educator license program.

This section describes what was new in the Trimble Positions Desktop add-in version 10.1.1.

- **ArcPad workflow support.** Version 10.1.1 of the Trimble Positions Desktop add-in supports data collected using ArcPad with the Trimble Positions ArcPad extension version 10.0.1. This includes support for AXF check-in/-out and the handling of QuickProjects created in ArcPad.
- **Juno® 5 series support**. Version 10.1.1 of the Trimble Positions Desktop add-in supports GNSS measurements from a Juno 5B or 5D receiver.

Installation and configuration

- **In this release, the schema for the Trimble Positions Desktop database has changed**. To upgrade your schema, run the Trimble Positions Desktop Configuration application and click *Test current configuration*. All existing data and settings will be preserved. This must be done prior to running the Trimble Positions Desktop add-in version 10.2.0.1 and cannot be undone without support from Trimble.
- This version of the Trimble Positions Desktop add-in supports both Esri ArcGIS for Desktop 10.1 and 10.2. You must install the Esri software before installing the Trimble software.
- If you have installed an earlier version of the Trimble Positions Desktop add-in on your system, uninstall it completely before installing the new version.
- The settings folders where the configuration files and Jet databases are stored have not changed in this release. They continue to use the *10.1* name in the folder tree.

Known issues

This section describes known issues with the Trimble Positions Desktop add-in version 10.2.0.1.

Installation and configuration

- If you uninstall the Trimble Positions Desktop add-in when the Esri ArcGIS for Desktop software is running, the add-in successfully uninstalls, but some files that are used during operation may be left in the file system. Trimble recommends that you exit the Esri ArcGIS for Desktop software before you uninstall the Trimble Positions Desktop add-in.

- During the installation process, the Trimble Positions Desktop add-in installer attempts to modify the ArcMap.exe.config.xml file in the C:\Program Files (x86)\ArcGIS\Desktop 10.1\bin folder. Depending on permissions, this can sometimes silently fail. If the Trimble Positions Desktop add-in controls are disabled (grayed out) when you start Esri ArcGIS for Desktop 10.1, close Esri ArcGIS for Desktop and manually edit the ArcMap.exe.config.xml file (using a suitable text editor, for example, Microsoft® Notepad) to make the <startup> tag, located at the start of the XML file, appear as follows:

```
<startup useLegacyV2RuntimeActivationPolicy="true">
  <supportedRuntime version="v4.0" />
  <!--<supportedRuntime version="v4.0.30319"/>-->
  <supportedRuntime version="v2.0.50727" />
</startup>
```

- If you disable and re-enable the Trimble Positions Desktop add-in, Trimble recommends exiting and restarting the Esri ArcGIS for Desktop software.

- If the Trimble Positions Desktop add-in is not accessible on your computer after installation and activation/licensing, make sure the Trimble Positions Desktop add-in is allowed to be loaded:

  a. Start Esri ArcGIS for Desktop, click *Customize / Add-In Manager...*, click the *Options* tab, and then select *Require Add-Ins to be digitally signed by a trusted publisher*. Click **Close**.

  b. Click *Customize / Add-In Manager...*, and then click the *Add-Ins* tab. The Trimble Positions Desktop add-in should now appear in the list. Click **Close**.

  c. Click *Customize / Extensions...,* and select *Trimble Positions Desktop* to enable it for use. Click **Close**.

Floating License Manager

- Requirement for Microsoft Chart Controls for Microsoft .NET: The Mapping & GIS License Manager requires both Microsoft .NET Framework 3.5 and Microsoft Chart Controls for Microsoft .NET Framework 3.5 to be available on the target computer.

  The Microsoft Chart Controls for Microsoft .NET Framework 3.5 can be downloaded from http://www.microsoft.com/download/en/details.aspx?id=14422

- Occasionally, the Floating License Manager appears to not be available. This can be caused by the Trimble Mapping & GIS License Service failing to start on the server due to lack of resources. If you encounter this problem often, do the following:

  1. Click Start, right-click *Computer* and then click *Manage*.

  2. In the *Computer Management* utility, select *Services and Applications / Services*.

3. Locate the *Trimble Mapping & GIS License Service* entry, right click and then select *Properties*.

4. On the *General* tab, if *Startup type* is not already set to Automatic, select Automatic and then click **Apply**.

5. Select the *Recovery* tab, and make sure that *First failure*, *Second failure*, and *Subsequent failures* are set to Restart the Service. Click **Apply** and then click **OK**.

Configuring a Jet database on Windows XP

• When you have selected the 'automatic' setting, the Trimble Positions Desktop Configuration utility creates a Trimble Positions office database in the appropriate roaming or local Trimble Positions system configuration folder. The Trimble Positions system configuration is stored in one of the following folders, dependent on profile type and operating system:

Profile type	Windows 7	Windows XP
Per-user (roaming)	C:\Users\<username>\AppData\Roaming\ Trimble\Positions\10.1	C:\Documents and Settings\<username>\Application Data\Trimble\Positions\10.1
System (local)	C:\ProgramData\Trimble\Positions\10.1	C:\Documents and Settings\All Users\Application Data\Trimble\Positions\10.1

In some cases, when the Trimble Positions Desktop add-in is installed on a computer running the Windows XP operating system, the Trimble Positions system folder will be initially set as read-only. This prevents the Microsoft Access ODBC driver from opening the Trimble Positions office database MDB file as it cannot create an LDB file, and the error message Failed to connect to the office database is displayed when ArcGIS for Desktop running the Trimble Positions Desktop add-in is started.

To resolve this problem, open the properties dialog for the Trimble Positions system folder, deselect the Read-only control, and select to apply this change to subfolders and files. Restart ArcGIS for Desktop for these changes to be applied.

Note – The Trimble Positions system folder and the Jet database mdb file should not have read-only permissions set. If the Trimble Positions system folder is read-only, the ODBC connection will fail: if the Trimble Positions office database MDB file is read-only, connection to the database will succeed, but the first insert or update operation will fail.

Trimble Positions Desktop add-in database

• Transient database connection problems may affect the Trimble Positions Desktop add-in. If you experience such a problem, close and re-open Esri ArcGIS for Desktop. Avoid leaving Esri ArcGIS for Desktop inactive for long periods of time

Differential correction

• When setting up the Trimble Positions Desktop add-in for the first time, populating the Community Base Station list (CBS list) of base stations may take some time, during which the software appears to not be responding and the dialog may flicker.

- When using base stations that require a separate GLONASS navigation file to be downloaded, you must first make a copy of the base station and add the GLONASS navigation file as an additional navigation file address. If GLONASS navigation files are not available, the GLONASS ephemeris data from the receiver is used instead (if available).
- Trimble Positions Desktop add-in version 10.2.0.1 does not support multiple base station groups for sessions collected using Trimble H-Star™ receivers.
- If the differential correction process is cancelled during a lengthy base station data download, it is best to close and restart the application before reattempting differential correction.

Map and layer projections

- For proper spatial integration of feature layers and Trimble Positions GNSS positions, all editable feature layers in a specific coordinate system in a map should have the same datum transformation method defined.

Real-time spatial reference

- The Esri ArcGIS for Windows Mobile application ships with a reduced set of spatial references. Make sure that any spatial reference defined in a field configuration exists in Esri ArcGIS for Windows Mobile before deployment. See the relevant Esri documentation for further information.

Checking-in ArcPad files from network drives

- Trimble Positions Desktop add-in may fail to make a backup copy of an AXF file if the backup folder is located on a network drive. If this situation occurs, a record is added to the log file but the user is not notified.

Counter-clockwise polygon features

- Polygon features collected in a counter-clockwise direction will not properly import to an enterprise geodatabase. You must import directly into a file geodatabase and then import the file geodatabase into the enterprise geodatabase.

Technical assistance and documentation

If you have problems using the Trimble Positions Desktop add-in, the following documentation should be your first point of reference:

- The Trimble Positions Desktop Add-in Administrator's Guide.
- The Trimble Positions Desktop Add-in User Guide.

If you still cannot find a solution to the problem, contact your Trimble reseller.

Legal notices

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Release Notice

This is the November 2013 release (Revision A) of the *Release Notes*. It applies to the Trimble Positions ArcPad extension version 10.2.0.1. For a complete list of all relevant legal notices regarding this product, refer to the Trimble Positions Desktop add-in End User License Agreement.