

Release Notes

TRIMBLE BUSINESS CENTER

Version 2.50



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Welcome to Trimble Business Center

Trimble® Business Center office software is ideal for processing and analyzing satellite and terrestrial survey data recorded in the field. The software provides numerous innovative and unique features, and it is easy to learn and use.

Installing or upgrading Trimble Business Center

Trimble Business Center (TBC) is available in two configurations, depending on the licence purchased: Standard or Advanced. For a description of the features available in each configuration, see "Licensed Features" in the online Help.

Also note that some features are not enabled unless you select the Trimble Survey Project option or the Field Data option during installation of the software.

TBC 2.50 licensing information is contained in either a HASP® hardware key (single-user licence) connected to your computer, or a HASP network key (multi-user licence) installed on your network. If no key has been installed, TBC allows you to import and view data only. It does not allow you to use any licensed features.

For installation or upgrade instructions, see the appropriate section below.

Note: After installation, be sure to click Help > Check for Updates to ensure you have the latest updates for Trimble Business Center, including the latest fully translated online Help.

New users installing TBC 2.50 (single-user licence)

If you are installing TBC for the first time, follow these steps:

Note: Do not insert the new HASP hardware key included in your installation package until instructed to do so in step 2.

1. Install TBC from the TBC Installation DVD.
2. Before running TBC, insert the new HASP hardware key you received in your installation package into an available USB port on your computer.

All licensed features in TBC will be available when you run the software. Your 1-year warranty begins the first time you run TBC.

New users installing TBC 2.50 Trial Version

If you are installing the *Trial Version* of TBC, follow the instructions provided in the letter containing your 19-digit code (product key).

New users installing TBC 2.50 (multi-user licence)

Note to Administrators: For instructions on installing a HASP network key (multi-user licence) and viewing and managing licence information, select Network Licensing Read Me on the Tools menu on the TBC Installation DVD.

If you intend to use a multi-user licence installed on your network, follow these steps:

1. Ensure the following:
 - Your computer can connect to the network server where the HASP multi-user network licence is installed.
 - There are no SuperPro or HASP hardware keys connected to your computer.
2. Install TBC from the TBC Installation DVD.
3. Run TBC.

The software automatically searches the network for a HASP network key. If a HASP network key is found and the multi-user licence limit has not been exceeded, the licence is available for use and all licensed features in TBC are available. If a HASP network key is not found or the multi-user licence limit has been exceeded, licensed features are not available and an appropriate message is displayed when you attempt to use them.

Optionally, you can verify whether or not you have access to the multi-user licence by selecting Help > About Trimble Business Center and then clicking the Licence button. For more information on using the Licence Manager dialog, press F1 with the dialog open.

Note that each time you run TBC, the software will need to automatically access the multi-user licence installed on the network.

TBC 2.30 and 2.40 users upgrading to TBC 2.50 (single-user or multi-user licence)

Install your downloaded version of TBC 2.50.

Note: This upgrade is available to users whose current warranty expiration date is 1 May 2011 or later. If your warranty expires prior to this date and you proceed with the installation, licensed features will not be available. Contact your dealer to purchase a warranty extension. Select Help > About Trimble Business Center > Licence to verify your warranty expiration date.

TBC 2.00 to 2.20 users upgrading to TBC 2.50 (single-user licence)

If you are upgrading from TBC 2.00 to 2.20, you must first obtain a new HASP hardware key, which is required to run TBC 2.50. To obtain the new HASP hardware key, contact your dealer or go to www.trimble.com/tbc_ts.asp and click the Downloads link to request the new key. Once you have received the key, follow these steps:

Note: Ensure your existing SuperPro hardware key is connected to your computer before performing this upgrade. Do not insert your new HASP hardware key until instructed to do so in step 2.

1. Install your downloaded version of TBC 2.50.
In the installation wizard, be sure to select the Licence Transfer option to install the program required to transfer licensing information from your SuperPro hardware key to your new HASP hardware key.
After installation of TBC is complete, the Transfer Licences program starts. This program is a wizard that steps you through the licence transfer process.
2. Before you click the Next button in the Transfer Licences dialog:
 - a. Ensure your computer is connected to the Internet to receive licensing information during the licence transfer process.
 - b. Insert the new HASP hardware key into an available USB port on your computer. DO NOT remove the existing SuperPro hardware key. It must remain connected to your computer during the licence transfer process to ensure licensing information contained in the SuperPro hardware key is copied to the new HASP hardware key.
3. Complete the steps in the Transfer Licences wizard.
After the licence transfer process is complete, you can remove the existing SuperPro hardware key. The key will remain valid for 30 days in case you encounter problems and need to reinstall the earlier version of TBC.
All licensed features in TBC 2.50 will be available when you run the software. Your new warranty will expire on 31 December 2011.

New features

Following are the new features included in this version of Trimble Business Center.

Note: Some of the following features require an Advanced licence. Some also require that you select the Trimble Survey Project option or the Field Data option during installation of the software.

Learning

- **Start page** - The Start page has been enhanced to include the following links. In addition, you can select to have the Start page either remain open or closed when you open a new project.
 - **Workflow Guides** - Workflow guides are intended to provide fast-track instructions for most major tasks, including direct links to common commands.
 - **TBC News** - Keep up to date with what's new at Trimble Business Center, including announcements of software updates and upcoming events.
 - **Video demos on Facebook and YouTube** - View a growing library of short videos demonstrating various tasks in Trimble Business Center.

General

- **Share projects with Trimble RealWorks** - Create projects that can be opened in Trimble RealWorks, a powerful software application used to transform scanned data into 3D visuals. The combination of the survey post-processing capabilities of Trimble Business Center and the scanned data manipulation capabilities of Trimble RealWorks provides a near-seamless start-to-finish workflow for processing scanned data and creating 3D visuals that can be exported into CAD design packages. (You must select the Trimble Survey Project option during installation to use this feature. See "Create Projects to Share with Trimble RealWorks" in the online Help.)
- **Create plot boxes** - Specify rectangular areas of your data in the Plan View that you want to print, plot to scale, or capture a picture of. Once you create a plot box, it can be moved, rotated, scaled, and copied like other linear objects. (See "Create a Plot box and Print its Contents" in the online Help.)
- **Cloud point size** - Specify the pixel size of a point contained in a point cloud displayed in a graphic view. (See "Start-up and Display Options" in the online Help.)
- **New line string options** - You can create line strings using the following new line segment types: smooth curve, best fit arc, and tangent arc. (See "Edit a Line string's Horizontal Segments" in the online Help.)
- **Vector spreadsheet** - Point IDs are now editable in the Vector spreadsheet. (See "Vector Spreadsheet" in the online Help.)
- **Customized antenna.ini file** - In addition to the standard Antenna.ini file, you can use your own customized Antenna.ini file. This might be useful if, for example, you need to support local, user-defined antenna phase centre models for a specific antenna, or support separate phase centre models for individual antennas of the same type. (See "Use a Custom Antenna.ini File" in the online Help.)
- **Data Service enhancement** - Data Service, which enables third-party applications (for example, LinqPad) using Open Data Protocol (OData) to access project data based on customized queries, now allows access to azimuth, level, GNSS vector, and total station observation data. (See "Start Data Service Command" in the online Help.)
- **Project subfolders for JOB and JXL files** - When you import a Trimble Survey Controller Job (.job) file, Trimble Access Job file, or any JobXML (.jxl) file, a project subfolder is created in the project folder to contain the imported data file and any referenced photo image files. This ensures that when multiple files of the same type are imported, any referenced image files with the same name are stored separately and will not be overwritten.
- **Side shot calculations** - Specify whether to use single observations or the weighted mean of all observations to calculate positions for side shot points. (See "Computation Settings" in the online Help.)
- **Custom Exporter** - The Export Format Editor has been enhanced to allow you to export more point related information, along with azimuth, level, GNSS vector, and total station observation data. You can also include a header in your exported file. (See "Create or Edit a Custom Export Format Definition" in the online Help.)
- **Merge duplicate points on import** - Specify how to merge duplicate points on import: by point tolerance, by point tolerance multiplied by 3, or by custom tolerance. (See "Merge Duplicate Points on Import" in the online Help.)

- **OPUS import and the Project Coordinate System** - When you import an NGS OPUS (.xml) file that specifies a different coordinate system than the coordinate system specified in the project, you are given the choice to convert or not convert the coordinate to the project's coordinate system.
- **Create and edit text** - Add textual annotations and labels to your data to help you identify objects. Text that you import or create can also be edited using the Edit command. (See "Create and Edit Text" in the online Help.)
- **Create cut/fill maps** - Create a map that indicates areas to cut and fill (based on a specified tolerance). The cut and fill areas can be indicated by shading and/or a grid of values labelling the elevation differences between two surfaces, such as an original and a design surface. On the grid, measurements are colour-coded to indicate where earth needs to be cut or filled. (See "Create a Cut/Fill Map" in the online Help.)
- **Add legends** - Create a colour key for any surface or cut/fill map to help you understand what each colour denotes when on the surface or map is shaded. (See "Add a Legend to a Surface or Map" in the online Help.)
- **Create surface elevation grid** - Create a grid that labels the absolute elevations of a surface. Use surface elevation grids in conjunction with contour lines to make changes in terrain more evident. This functionality was previously included in the Create Surface Cut/Fill Grid command. (See "Create a Surface Elevation Grid" in the online Help.)
- **Coordinate system routines** - Coordinate system routines have been enhanced to use the configuration setting in a geoid model file, indicating whether it is global (WGS-84) or local ellipsoid based, to determine how to handle the model.

Images

- **Image handling** - Image handling has been greatly improved to dramatically reduce the amount of memory (RAM) required to display rasterized images.
- **Trimble VX-generated image quality** - Improve the quality of VX images by balancing photo exposures and blending photo edges in panoramas. (See "Process Images" in the online Help.)
- **Trimble VX-generated image panoramas** - Create panoramas from VX images for viewing in Internet-based 2D maps and 3D Earth browsers (for example, Google™ Earth). (See "Process Images" in the online Help.)
- **Grey scale image display** - You can optionally select to display photo images in grey scale (black and white) rather than colour to improve performance with very large or multiple colour photo images that have been imported into a project. (See "Advanced Graphics Options" in the online Help.)
- **Media files** - Easily view and manage media files (for example, photo images) assigned to points and line strings. (See "Work with Media Files" in the online Help.)
- **Image capture enhancements** - When capturing the content of the Plan View as a georeferenced image or a KML file that can be viewed in Google™ Earth, you can optionally use a plot box to select the content you want to capture. You can also select the resolution at which to save the file, and the file's name and location. (See "Capture an Image from the Plan View" in the online Help.)

Geographical Information System (GIS)

- **KML/KMZ file export** - Export 3D geographic coordinates, photos, and other geographic data contained in your project to a KML (Keyhole Markup Language) file that can be opened and viewed with Internet-based 2D maps and 3D Earth browsers (for example, Google Earth). (See "Export KML Earth Browser Files (.kml/.kmz)" in the online Help.)
- **Feature Code Processing** - The feature code processing functionality has been enhanced as follows:
 - Feature definitions are now imported into the project from a feature definition (.fxl) file, instead of being referenced from the project.
 - When you process feature codes for a line feature, the resulting line is a fully editable line string with feature attributes.
 - After feature processing, feature names and attributes are displayed in the properties pane for the point or line string to which the feature is attached. You can change the feature or any attribute values without reprocessing the feature codes.

(See "Work with Feature Data" in the online Help.)
- **Export ESRI shape files** - Export ESRI shape files (.shp/.shx/.dbf/.prj) containing point, line, and feature data using the WGS-84 standard. The resulting shape files can be imported into geographical information systems (GIS). (See "Export ESRI Shape files" in the online Help.)
- **Geodatabase file conversion** - The Feature Definition Manager allows you to import geodatabase (.xml) files and convert them to feature definition (.fxl) files. (See "Importing Geodatabase Files" in the online Help.)
- **Geodatabase XML exporter** - You can now use the Geodatabase XML exporter to export point and feature data (including attribute data) from your project without first having to process feature codes.

Construction

- **Job site data protection** - Use the "Protect other site files and external designs" option in Project Settings to prevent accidentally overwriting site units, site map objects, avoidance zones, feature code files, and job site designs in your data synchronization area when you import job site and design data by adding an external job site or design to your project. (See "Prevent Overwriting Job Site Data" in the online Help.)
- **Import job site design data** - When you add an external job site or design to your project, you will no longer automatically synchronize that data with the files in the data synchronization area (potentially overwriting correct data on controllers). Now the Add External Job Site option in the Job Site Manager and the Add External Job Site Design command simply import the external data into your project without writing it out to the data synchronization area and the assigned site controllers; this requires that the job site data protection described above is enabled. (See "Add or Import External Job Site Data" in the online Help.)
- **Copy field data to USB flash drive** - The new control boxes CB450 and CB460 use a USB flash drive instead of a data card as the data storage device. Use this new command to export data to the USB flash drive. (See "Copy Field Data to a USB Flash Drive" in the online Help.)

- **Curve support in SCS work order files** - Line and line string curve segments (smooth curve, best fit arc, and tangent arc) now appear as 'curved to fit' chords following the path of the curve when imported or exported within SCS900 work order files (.spj). (See "Import SCS Work Order Results Files" in the online Help.)
- **Support for PCS900 / AccuGrade for Paving version 2.0** - This version includes support for the CB460 display, and USB synch instead of a data card. PCS900 and AccuGrade for paving version 2.0 are now available for selection in the Create Controller dialog, and in the Export command, under Settings > Controller Type for the Machine Site Map exporter and Machine Job Site Design exporter. (See "SCS, GCS, PCS Functional Compatibility Chart" in the online Help.)
- **Support for GCS900 / AccuGrade version 11.3 and 12.00** - This version includes support for the GCS900 and AccuGrade control system version 11.3 (on the CB430 display) and version 12.0 (on the CB450/CB460 display). GCS900 and AccuGrade version 11.3 and 12.0 are now available for selection in the Create Controller dialog, and in the Export command, under Settings > Controller Type for the Machine Site Map exporter and Machine Job Site Design exporter. (See "SCS, GCS, PCS Functional Compatibility Chart" in the online Help.)
- **Support for Cat Grade Control Controller type** - Cat Grade Control is the software for factory fit systems (version 12.0) and is identical to AccuGrade v12.0. The Cat Grade Control machine type is now available for selection as Controller Type in the Create Controller dialog, and in the Export command, under Settings > Controller Type for the Machine Site Map exporter, Machine Avoidance Zone exporter and Machine Job Site Design exporter. (See "SCS, GCS, PCS Functional Compatibility Chart and Controller Manager Options" in the online Help.)

Resolved issues

This version of Trimble Business Center includes the following enhancements, which are intended to resolve known issues.

Note: These enhancements were also included in patches available for version 2.40 prior to this release.

- **CAD files**- Exported CAD files now display point labels correctly positioned next to points in AutoCAD.
- **Side slope instructions** - The side slope instruction used to create corridor templates is no longer restricted to cut/fill slopes of 0% to 6000%.
- **Coordinate system transformation** - Coordinate system transformation errors no longer occur when transforming a system with site calibration to a system that also has site calibration.

Miscellaneous notes

- **Export Format Editor** - Due to changes to the Export Format Editor, custom-defined format definitions created with versions of Trimble Business Center prior to version 2.40 cannot be used and will not be displayed in the Export pane or Export Format Editor dialog for selection. You must recreate the definition with the newer version of the software.
- **Feature processing** - If you open a project in which feature codes were processed in a version of Trimble Business Center prior to version 2.50, note the following:
 - The feature definitions originally used to process the feature codes are reconstructed in the project's feature definition library.

If the project included two or more features with the same name but different definitions, the feature name for each additional variation is appended with a number. For example, if two feature definition (.fxl) files were originally used to process the feature codes and each included a feature named "tree" but with different attributes, two features would be created in the project's feature definition library: "tree" and "tree1." Each of these features would have its own unique set of attributes.
 - If a point feature is associated with a point, the point feature name and attributes are displayed in the Properties pane for the point. If an additional point feature is associated with the point (referred to as a "secondary feature"), you must select to view the Properties pane for the point feature itself, not the point to which it is associated.
 - Each feature line is converted to a line string. The line feature name and attributes are displayed in the Properties pane for the newly created line string. If offset lines are specified for the line feature, additional line strings are created. Any symbols defined for the line feature are deleted during conversion; line feature symbols are not supported in Trimble Business Center.

For more information, see "Work with Features" in the online Help.

System requirements

Operating system:	<ul style="list-style-type: none">▪ Microsoft Windows® 7 (32- and 64-bit versions)▪ Microsoft Windows Vista (32- and 64-bit versions with Service Pack 2)▪ Microsoft Windows XP (32-bit version with Service Pack 3; 64-bit version with Service Pack 2)
Processor:	Dual-core 1.80 GHz or better recommended
Random access memory (RAM):	2 GB or more recommended
Hard disc space available:	5 GB or more recommended
Graphics:	DirectX 9 (or higher) compatible graphics card with 256 MB memory or more
Monitor:	1024 x 768 or higher resolution with 256 or more colours (at 96 DPI)
I/O Ports:	USB 2.0 port