

# TRIMBLE BUSINESS CENTER

## Release Notes

Versions 3.20 (64-bit) and 2.97 (32-bit)

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## Welcome to Trimble Business Center

Trimble® Business Center office software is ideal for working with all types of geospatial data. The software provides numerous innovative and powerful features, and it is easy to learn and use.

## Installing or updating

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

**Notes:**

- Trimble Business Center (TBC) licensing information is contained in a Sentinel HASP hardware or software key connected to or installed on your computer. 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. To view your licence after installation is complete, select View License Manager on the Start Page. For a description of the features available in each configuration, see "Licensed Features" in the on-line Help.
- After installation, be sure to select Check for Updates on the Start Page to ensure you have the latest updates for Trimble Business Center.

▪ **New users installing TBC to use with a single-user licence:**

- a. Before you insert the new Sentinel HASP hardware key you received in your installation package, install TBC from the TBC installation package downloaded from the Trimble website.
- b. Before running TBC for the first time, insert the new Sentinel HASP hardware key into an available USB port on your computer.

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

▪ **New users installing the TBC Trial Version:**

Follow the instructions provided in the letter containing your 19-digit code (product key).

▪ **Existing users installing this version of TBC:**

Install TBC from the installation package downloaded from the Trimble website.

**Note:** This version is available to users whose current warranty expiration date is 1 April 2014 or later. If your warranty expires prior to this date and you proceed with the installation, licensed features will not be available. Contact your [Trimble distributor \(http://dealerlocator.trimble.com/\)](http://dealerlocator.trimble.com/) to purchase a warranty extension. On the Start page, select View Licence Manager to verify your warranty expiration date.

▪ **New users installing TBC to use with a multi-user licence installed on a network:**

- a. Ensure the following:
  - Your computer can connect to the network server where the Sentinel HASP multi-user network licence is installed.
  - There are no Sentinel HASP hardware keys connected to your computer.

- b. Install TBC from the TBC installation package downloaded from the Trimble website.
- c. Run TBC.

The software automatically searches the network for a Sentinel HASP network key. If a Sentinel 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 Sentinel 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 View Licence Manager on the Start Page. 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.

**Note to Administrators:** For instructions on installing a Sentinel 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.

## New features

Following are the new features included in the various licensing options for this version of Trimble Business Center.

**Note:** See "Licensed Features" in the on-line Help to help determine which of these new features are available with your licence.

### General survey

- **Average points** - Create a point in your project whose position is computed by the simple averaging of the 1D, 2D, and 3D coordinates of existing reference points.
- **Transform survey points** - Transform one or more survey points by moving, rotating, and/or scaling them in one operation by specifying transformation parameters and/or matching current point locations to new locations.
- **Explode merged points** - If your project includes a point that is the result of merging multiple points in the field (by making multiple side shot observations to the same point ID) or in Trimble Business Center (by using the Merge Points command or by renaming points), you can explode the merged point to re-create the component points used in the merge.
- **Simple mean options for side shot computations** - To exclude the effects of weighting when importing data into Trimble Business Center, select to compute side shot points using the simple mean of all observations or like observation types.
- **Baseline Processor updates** - The Baseline Processor now provides:
  - NGS CORS support for GLONASS
  - Improved code outlier detection
  - Importer for RINEX Galileo Ephemeris
- **Import "description1" and "description2" fields** - Use the custom importer to import an ASCII point file with "description1" and "description2" fields.

- **Include horizontal and vertical precisions in GIS export** - Export RTK horizontal and vertical precisions, along with the RTK observation date and time, to GIS software using the Geo-database XML and Shape file exporters.

## Machine Control

- **Machine Control functionality in 64-bit TBC** - The 64-bit version of TBC now includes all of the Machine Control functionality that was previously available only in the 32-bit version.
- **Machine Control ribbon tab in 64-bit TBC** - The 64-bit version of TBC now includes the Machine Control ribbon tab, which provides commands that enable you to manage field data for a job site.

## Ease of use

- **3D mouse navigation enhancements** - It is now easier than ever to navigate in the 3D View using a mouse or trackpad. For example:
  - Three-button mouse:
    - Left drag = Select
    - Centre drag = Rotate
    - Right drag = Pan
    - Centre wheel = Zoom
    - Left click + [Alt] (optional) = Set centre of rotation
  - Two-button trackpad (with support for two-finger scrolling):
    - Left drag = Select by area
    - Right drag = Pan
    - Right drag + [Ctrl] = Rotate
    - Two-finger scroll = Zoom
- **Select objects by polygon** - Use the Select by Polygon command to select objects that lie inside, outside, or crossing a specified polygon or closed line.
- **Define command short cuts** - Select short cut keys that you can use to quickly launch the commands you run the most.

## CAD

- **Create rectangles** - Use the Create Rectangle command to quickly draw rectangular polylines.
- **Updated Create Arc feature** - Create arcs by specifying the start points, radius, and length of the arc segment.
- **Append tracked lines** - Create portions of a line string from tracked lines. When you are creating or editing a line string, use the Append Tracked Line command to track (and duplicate in the line string) any portion of an existing line.
- **Export Trimble SketchUp files using version options** - Specify the version of Trimble SketchUp when exporting SKP (.skp) files, allowing you to open exported files with older versions of SketchUp.
- **New CAD blocks functionality** - Import and create CAD block definitions, and insert instances of CAD blocks into your project. Also, remove unused CAD block definitions from your project.

## Surfaces

- **Shade surface triangles by slope** - Use the Shade by Slope Range surface property to shade only surface triangles whose slopes fall within a specified range. The shading type (by elevation, surface colour, or material) remains defined per view, but the triangles that fall outside the specified range are not shaded. This shading can help you quickly find areas of a design surface that have slopes that are too steep or too shallow.
- **Swap surface triangles** - Use the Swap Surface Triangles command to switch the edge between two triangles to use the opposite vertices. Changing the formation of triangle edges can help when working to design specific slopes, such as for hydraulic flow considerations.
- **Make a multi-segment surface slice** – In the Surface Slicer View, you can now hold [Ctrl] or [Shift] to draw a polyline as the slicing line, enabling you to see a multi-linear cross-section of one or more surface in the view.
- **Skip the hole check on LandXML import** – When you import a surface in a LandXML file (.xml), you can now disable the check for holes in the surface. In the Import pane, selecting No in the "Check for holes" setting makes importing faster. If the surface has holes, but no check is done, surface triangles are formed across the hole outside the surface edge break line.
- **Export surface slope arrows** - Slope arrows shown on surface triangles are now included when you export a surface to a CAD file (.dxf), if the arrows are set to visible for the surface.

## Point clouds

- **Point cloud options** - In the Options dialog, specify the maximum number of points for surfaces and volume measurements, and the maximum number of points to display to better balance performance and accuracy.
- **Point cloud regions** - Import all scanned point clouds into a default point cloud region. Then, if necessary, use the Point Cloud ribbon tab to easily create additional point cloud regions from the default region by drawing region borders in a graphic view (using a rectangle, polygon, or freehand selection). You can apply specific rendering to a region or select it for export.
- **Point cloud clipping** - Using the Point Cloud ribbon tab, easily draw borders (using a rectangle, polygon, or freehand selection) around a group of scanned points, then select to clip (hide) the selected points or hide all of the unselected points to enhance the viewing of the point cloud.
- **Scan point size selection** - Using the Point Cloud ribbon tab, select the size of the scan points to display in the graphic views
- **Export point cloud files** - Select to export entire point cloud regions or select to export just specific scan points by drawing a border around them in a graphic view (using a rectangle, polygon, or freehand selection).
- **Point Cloud ribbon tab** - Use the new Point Cloud ribbon tab to make scan point selections, clip scan points, create point cloud regions, specify rendering options, and specify the displayed point size. In addition, measure volumes, create surfaces, and measure distances and angles when working with point clouds.

## Aerial photogrammetry

- **Faster photogrammetry deliverables** - Create photogrammetry deliverables (point clouds, orthomosaics, and elevation rasters) two to four times faster due to the optimization of the algorithm.
- **Advanced UAS** - Use the new Advanced UAS command to adjust aerial photo stations and create point clouds, elevation rasters (DTM or DSM), and orthomosaics in a single procedure.
- **Split large orthomosaics** - Trimble Business Center can split orthomosaics of large areas into smaller sections to support the technical limitation for large TIFF files and still generate deliverables.
- **Create DTM-based (classic) orthomosaics** - Using the new Advanced UAS command pane, create classic (non-true) orthomosaics based on the DTM elevation type. (The previous version of Trimble Business Center supported only DSM-based orthomosaics.)
- **Create DTM-based point clouds** - Using the new Advanced UAS command pane, create point clouds based on the DTM elevation type. (The previous version of Trimble Business Center supported only DSM-based point clouds.)
- **Faster aerial photogrammetry processing** - Using the new Advanced UAS command pane, select the Quick Fit option to perform a quick orientation of aerial photo stations, making it faster and easier to select control points for the adjustment process.

## Terrestrial photogrammetry

- **Trimble V10 calibration check** - Perform a camera calibration check for a Trimble V10 Imaging Rover using calibration data that was collected with the instrument. View the calibration-check results in the Import report and the new Camera Calibration Report.

## Miscellaneous notes

- **Translated Help and Tutorials** - If you install Trimble Business Center in a language other than English, you may see some topics in the on-line Help and tutorials in English rather than the installed language. This is the result of translated versions of the topics not being ready at the time Trimble Business Center was packaged for delivery. Select File > Help > Check for Updates to determine if newer, fully-translated versions of the Help or tutorials are available for download.
- **Tutorials PDF** - If you click the Tutorials link on the Start page and receive a message indicating the required Adobe Flash Player is not installed on your computer, the link to the installation page contained in the message may not work correctly. Go to <http://helpx.adobe.com/acrobat/kb/reader-acrobat-flash-player-download.html> to download and install the Flash Player.
- **Windows 8 users** – Some components in Trimble Business Center require Microsoft .NET Framework 3.5 to operate. If the .NET Framework 3.5 is not installed, you are prompted to install it when you install Trimble Business Center. If your computer is connected to a domain that does not allow you to directly connect to Windows Updates on the Internet to enable and install .NET 3.5, you may need to change your group policy settings. See your system administrator for assistance.

## System requirements (32-bit version)

- **Windows XP users** – Some components in Trimble Business Center require Microsoft .NET Framework 4.5, which is not supported by the Windows XP operating system. To run this version of Trimble Business Center, you must install a different operating system. See "System requirements" for complete operating system requirements.
- **Known issue with KMZ panoramas** - KMZ (.kmz) panorama files created in Trimble Business Center do not display in Google Earth version 7.0 and above. For them to display correctly, it is recommended that you use version 6.2 or earlier.
- **TabletSync transfers** - If you use TabletSync to transfer large files (for example, panoramas) into TBC, it can take a long time for the upload to complete. As an alternative, you can shorten the transfer time by copying the files from the tablet onto a USB memory stick and copying the files from the stick into TBC.

## System requirements (32-bit version)

|                             |  |
|-----------------------------|--|
| Operating system:           | Microsoft Windows® 8 (32- and 64-bit versions)<br>Microsoft Windows 7 (32- and 64-bit versions with Service Pack 1)<br>Microsoft Windows Vista (32- and 64-bit versions 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 512 MB memory or more  |
| Monitor:                    | 1280 x 1024 or higher resolution with 256 or more colours (at 96 DPI)  |
| I/O Ports:                  | USB 2.0 port   |

## System requirements (64-bit version)

|                             |   |
|-----------------------------|---|
| Operating system:           | Microsoft Windows® 8 (64-bit version)<br>Microsoft Windows 7 (64-bit version with Service Pack 1) |
| 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 512 MB memory or more                         |
| Monitor:                    | 1280 x 1024 or higher resolution with 256 or more colours (at 96 DPI)                             |
| I/O Ports:                  | USB 2.0 port  |