Trimble Business Center

Release Notes

Version 3.82

www.trimble.com

Welcome to Trimble Business Center

Trimble® Business Center (TBC) is a geospatial office software that enables users to complete field-to-finish workflows efficiently and with confidence. In a single software package, users can edit, process, and analyze GNSS, total station, level, scanning, terrestrial, and aerial imaging data to achieve the most accurate horizontal and vertical results. Users can also create a variety of deliverables, from 2D topographic plans, to surface and contour maps, to complex alignment/corridor designs.

Installing or updating

For installation or update 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 connected or installed, TBC allows you to import and view data only. It does not allow you to use any licensed features. To view your license after installation is complete, select View License Manager on the Start Page. For a description of the features available in each licensed configuration, see "Licensed Features" in the online 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 license:**

  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.

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

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

  Important Note! This version is available to users whose current warranty expiration date is **1 November 2016 or later**. If your warranty expires prior to this date and you proceed with the installation, licensed features will not be available. Contact your distributor to purchase a warranty extension. In the TBC ribbon, select Support > License Manager to verify your warranty expiration date.

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

  a. Ensure the following:

     - Your computer can connect to the network server where the Sentinel HASP multi-user network license 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 license limit has not been exceeded, the license 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 license 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 license by selecting View License Manager on the Start Page. For more information on using the License 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 license installed on the network.

  Note to Administrators: For instructions on installing a Sentinel HASP network key (multi-user license) and viewing and managing license 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. See "Licensed Features" in the online Help to determine which of these new features are available with your license and to read more information about them. To view context-sensitive help at any time while using TBC, press F1.

Scanning module

- **Plane Definition Manager** - Use the Plane Definition Manager to create and edit a plane that can be used to define a cutting plane view. You can create a plane using any of the following orientation options:
  - Plane perpendicular to the East, North, or Elevation axis
  - Plane parallel to the active view
  - Vertical plane defined by two points
  - Inclined plane defined by three points
  - Vertical plane based on a horizontal orientation

  You can name plane definitions in order to save and reuse them as necessary. In addition, you can specify a plane's origin point and, optionally, apply a lock to prevent changes. If necessary, you can invert a plane.
- **Create cutting plane views** - Use the Cutting Plane View command to create a 2D view based on a user-defined plane to check any surface, point cloud, or 3D shell (for example, a light pole or building outline) by "slicing" through the data. You can move the plane along its axis in the 3D View as necessary to obtain the appropriate offset from the plane's origin point. When working with point clouds, you can define the plane's thickness to hide or show scan points as necessary to obtain the optimal view.

  After creating a cutting plane view, you can do any of the following:
  - Create CAD geometry (points, line work, text, and edits) on the cutting plane view for such things as building façades, bridge infrastructures, and so on.
  - Print the cutting plane view in TBC using a dynaview in a sheet set.
  - Select CAD geometry created on the cutting plane view and export it to other CAD applications using DXF/DWG exporters.

Known issues

Following are known issues in this version of TBC:

- **View refresh** - If you change focus from TBC to another application window on your desktop and then return focus to TBC, it is possible that the tab view will be black. In addition, if you "float" your cursor on the view, a string of cursor icons will be drawn. This is a graphic view refresh issue and can be resolved simply by panning or zooming on the view.

- **Cannot check in detachable HASP license early** - A HASP network key can be configured to allow users to check out a "detachable" instance of the multi-user license for a limited period of time, allowing the user to run the software without being connected to the network. In earlier versions of TBC, a detachable license could be checked back in (canceled) early, prior to the expiration date and time, making it available for other users. However, at this time, a detachable license cannot be checked in early (a system-time error message is displayed) and is checked in only on the expiration date and time. Then it is available for use by other users.
- **Windows 10's Anniversary Update** - Upgrading to Windows 10's Anniversary Update (version 1607) with the HASP drivers installed can cause the HASP license system to stop working for TBC. To resolve the problem, you must reinstall the HASP drivers. See the *HASP Troubleshooting Guide* for instructions.
- **Microsoft Edge web browser** - When TBC reports are displayed in a Microsoft Edge web browser, the links to objects within the application no longer work. It is recommended that you use a different browser to view TBC reports.
- **KMZ panoramas** - KMZ (.kmz) panorama files created in TBC do not display in Google Earth version 7.0 and later. For them to display correctly, it is recommended that you use an earlier version of Google Earth. Or, use the option to generate Google Earth KML Powered by InSphere.
- **HASP license key and Intel C602 chipset** - The HASP license key required to run TBC is not compatible with the Intel C602 chipset used in some server/workstation environments. The use of the HASP license key in combination with the C602 chipset will cause the application to crash.
- **SitePulse** - SitePulse has not been updated to support the newer VCL format created in this version of TBC. If you are using SitePulse, do not upgrade until you have installed an updated version of SitePulse.

Miscellaneous notes

- **Export Autodesk® ReCap® files** - To export an Autodesk ReCap file, you must have ReCap 360™ Pro installed on your computer with a current purchased license (not a trial version). If Recap 360 Pro was not installed on your computer prior to installing TBC, you must install it and then link it to TBC by opening the *RCP* folder in the downloaded TBC Installation folder and double-clicking *Trimble_ReCap_Plugin.exe*.
- **Disabling a laptop integrated graphics card** - If you are using a laptop computer with both an integrated (on-board) graphics card (for example, Intel®) and a discrete graphics card (for example, NVIDIA®) enabled, TBC may freeze when you are working with point cloud scan registration. To avoid this problem, you must select to disable the integrated graphics card and use only the discreet graphics card when working with scan registration. Follow these steps:

a. Open your Windows Control Panel, select BitLocker Drive Encryption, and select to suspend protection - if it is turned on. This is required to make the BIOS change required to disable the integrated graphics card.

b. Restart your laptop computer and select to enter the BIOS setup utility as soon as the first image displays (prior to Windows launching) by pressing the appropriate shortcut key (for example, F1, F2, F10, ESC, or DEL). The BIOS shortcut is typically displayed briefly on the screen during startup.

c. Once in the BIOS setup utility, navigate to the location of the graphics card control and use the appropriate method to disable the integrated graphics card. The method for doing this will vary depending on the BIOS setup utility. You can search the Internet for specific instructions.

   For example, for a Dell® laptop implementing NVidia Optimus™ technology, you would select Settings > Video > Switchable Graphics in the BIOS setup utility, and then uncheck the Enable Switchable Graphics check box.

d. Save changes and exit the BIOS setup utility to continue computer startup.

e. If BitLocker Drive Encryption was suspended, turn it back on.

Additional notes:

- Your laptop computer consumes more power when using the discrete graphics card exclusively. If it is running in battery mode, you should re-enable the integrated graphic card when you are done working with scan registration.
- Do not use Device Manager to disable the integrated graphics card. Device Manager disables the card just for Windows, not for the entire motherboard, causing the integrated graphics card to still load first.
- Some laptops do not allow you to disable the integrated graphics card.

- **ArcGIS versions and Windows operating systems** - When using TBC to connect or write data to an ArcGIS Enterprise Geodatabase provider, see your ArcGIS user documentation to determine which versions of the ArcGIS products are supported on the various versions of the Windows operating system.
- **OpenCL Runtime driver** - OpenCL Runtime is a graphics accelerator driver required when TBC is performing automatic tie point matching or dense point cloud creation. If the driver is not installed, an error message is displayed indicating OpenCL Runtime cannot be found. In this case, you must download OpenCL Runtime from https://software.intel.com/en-us/articles/opencl-drivers#phiwin and install it on your computer using the instructions provided.
- **VCE compatibility** - As a general rule, you cannot open a VCE project file created in a newer version of TBC in an older version of TBC.
- **Windows 8 users** – Some components in TBC 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 TBC. 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.

For more information, see http://technet.microsoft.com/en-us/library/dn482065.aspx

- **Windows XP users** – Some components in TBC require Microsoft .NET Framework 4.5, which is not supported by the Windows XP operating system. To run this version of TBC, you must install a different operating system. See "System requirements" for complete operating system requirements.
- **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.
- **TSPX file format -** TBC no longer supports the creation of TSPX (.tspx) files used to open TBC project data in Trimble RealWorks. As a workaround, you can export whole point clouds (not scans) to an .e57 or .las file format, which can be imported into RealWorks. You can export other types of data to an appropriate format (for example, points to .jxl, linework to .dxf, and images to.jpg) that also can be imported into RealWorks.
- **Proxy server settings** - If you receive an error when trying to access an external server to process data (for example, export KML graphic files to Trimble InSphere for use in panoramas displayed in Google Earth), you may need to specify a proxy server for your LAN using Internet Properties > Connections > LAN settings > Proxy Server.

System requirements

Operating system:	Microsoft Windows® 10 (64-bit version)
	Microsoft Windows 8 (64-bit version)
	Microsoft Windows 7 (64-bit version with Service Pack 1)
Processor:	Dual-core 1.80 GHz or better recommended
	Quad-core 2.80 GHz or better (for example Intel i7-860 2.8 GHz) recommended for Aerial Photogrammetry Module and Scanning Module
Random access memory (RAM):	2 GB or more recommended
	32 GB or more recommended for Aerial Photogrammetry Module and Scanning Module

Hard disk space available:	5 GB or more recommended 100 GB or more on solid-state drive required for Aerial Photogrammetry Module and Scanning Module
Monitor:	1280 x 1024 or higher resolution with 256 or more colors (at 96 DPI) *Note:* TBC may not display correctly on a 4K monitor using a high resolution display setting. Try reducing the monitor's resolution to 1920 x 1080.
I/O Ports:	USB 2.0 port required if HASP hardware key is used
Graphics:	DirectX 11 compatible graphics card with 512 MB memory or more OpenGL version 3.2 or later required when working with point cloud data (latest version recommended) 2 GB graphics card (for example, NVIDIA GTX 670) required when working with UAS data (Aerial Photogrammetry) and/or point cloud data

Important!

It is critical that you keep your graphics driver(s) updated if you are working with point cloud data.

Whether your computer has one or multiple graphics cards installed, you must ensure each has been updated with the latest driver provided by the card's manufacturer. The best way to determine if your driver needs to be updated and, if so, perform the update is to visit the card manufacturer's website. For more information, see "Update and Configure Your Graphics/Video Driver" in the online Help.

(If, instead, you decide to update your driver using the Windows Device Manager and the "Search automatically" option, the program may suggest using a Microsoft-approved WHQL version of the driver. However, to ensure you have the latest bug fixes and new features for your graphics card, it is recommended that you use the latest manufacturer version instead.)