BUSINESS CENTER – HCE
Powered by Trimble

Release Notes

Version 3.20
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Corporate Office

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Release Notice

These are the release notes for version 3.20 of Business Center - HCE software.

Product Overview

Welcome to the latest update of ***Business Center - HCE***, one of the suite of office software products contributing to Trimble's Connected Site™ solutions. This software is designed, in part, for construction contractors and engineers managing data for a connected construction site, and employing:

- Grade Control Systems (GCS)
- Paving Control Systems (PCS)
- Drilling and Piling Systems (DPS)
- Site Positioning Systems (SPS) that use Site Controller Software (SCS), including the Tablet Edition

Business Center - HCE (BC-HCE) facilitates the management of data for multiple field crews operating on a job site. You can import, review, and analyze digital designs, and then assign, manage, and track that information through the lifecycle of a construction project. Ask your dealer for the complete list of current features that come in the core product and in licensed add-on modules.

Languages

The program and its documentation are available in these languages:

- British English
- Chinese (Simplified)
- Danish
- Dutch
- French
- Finnish
- German
- Italian
- Japanese
- Norwegian
- Portuguese (Brazil)
- Russian
- Spanish
- Swedish
- US English

New in version 3.20

These features have been added or enhanced. You can now:

Ease-of-Use

- **Float Plan and 3D Views** – Undock the Plan View and the 3D View to move them to a second monitor to increase your working space. (See Float and Unfloat Views in the help.)

- **Use enhanced functions for External Services** – Create one or more account profiles for any service (such as the Connected Community or Bentley ProjectWise) to save time entering your user name, password, etc. when you login. You can easily set a default profile for each service and stay logged in to multiple services. (See External Service Options in the help.)

- **Use command line shortcuts** - There are three shortcuts when using the Command line:

  If you enter part of a command name followed by a question mark (?), all commands that include the name will appear in the Recent Commands List. For example, if you type "image?" on the Command line and press [Enter], these results will appear:

  - PlaceImage
  - ImageView
  - ImageBoundaries
  - GeoReferenceImage
  - CaptureImage

  Then if you press the up or down arrow, the next command in the Recent Commands List will be displayed on the Command Line.

  If you press [Shift] + the up or down arrow, the next command in the All Commands list of will be displayed on the Command Line.

CAD

- **Create vertical arcs in linestrings** - When you are create and edit vertical control points along a linestring, you can now select Arc as the type of vertical curve at a point, which allows you to define the vertical curve by specifying a radius. (See Vertical Linestring Options in the help.)

- **Use vector-based fonts** - Select from 42 stroke fonts that can be smoothly displayed, resized, and plotted to match other CAD programs. AutoCAD shape fonts are converted to stroke fonts when AutoCAD drawings are imported into Business Center - HCE, ensuring correct rendering and alignment. This allows for more seamless data exchange as well as better looking deliverables within the Advanced Drafting Module. (See Manage Text Styles and Create and Edit Text in the help.)

- **Set line weights** - View and edit line weights for CAD lines. Also, define a default line weight for a layer. This ensures more efficient workflows for working with linework as well as plotting these objects using the Advanced Drafting Module. (See Create and Edit a Layer in the help.)

Corridors

Navigate between stations along an alignment – Move to important stations based on: (See Move between Important Stations in the help.)

- a regular interval
- HAL and VAL points
- stored cross-sections
- corridor templates
- stations that you specify for cross-section plotting

- **Reuse corridor templates** - Save any corridor template as an XML file so that you or a colleague can reuse it by importing it into another project, speeding up your design work. Saved templates retain no connections to their previously referenced corridors; they simply contain reusable instructions. (See Reuse a Corridor Template in the help.)

- **Copy and paste from Microsoft Excel** – Copy from an Excel spreadsheet and paste into a station slope or station elevation table when you create a corridor template. (See various help topics on creating surface instruction types).

Corridor Mass Haul

- **Publish mass haul plans to VisionLink** - Seamlessly send your mass haul plans to VisionLink so you can track a job's progress. You can also define the names of master cut and fill zones contained in the mass haul plan that is published. (See Publish to VisionLink in the help.)

- **Archive mass haul plans** - Archive your mass haul plans when you publish to VisionLink so you can review them at a later date. (See Archive a Corridor Mass Haul in the help.)

- **Edit zone naming settings** - Classify mass haul earthworks zones into different areas or costs when you are transfer a corridor mass haul plan to VisionLink. Edit the name given to the mass haul earthworks zones by adding a prefix to all earthworks zones that fall within a specified station range.

Field Data

- **Launch VisionLink from within Business Center - HCE** - Configure your credentials for one or more accounts so you can quickly launch VisionLink in a browser to view the status of a job. (See Create a VisionLink Project in the help.)

- **Create a VisionLink Project** - Create a VisionLink project for your connected site directly from within Business Center - HCE so you do not have to switch between products. (See Create a VisionLink Project in the help.)

- **Publish surfaces and linework to VisionLink** - Send design and surveyed surfaces and linework representing existing roads, rivers, and other linear features to VisionLink so you can view them in relation to your mass haul plans. (See Publish to VisionLink in the help.)

Drafting

- **Plot gridded plan sheets** – Create and plot an array of plan sheets with a selected grid style. (See Create and Edit a Boundary Set and Create and Edit a Sheet Set in the help.)

- **Manage grid styles** – Create and edit a variety of grid styles to control the labeling and plotting of dynaviews on plan grid sheets. (See Manage Grid Styles in the help.)

- **Create and use hatching** – Create a hatch pattern and apply it to an area on a sheet view to identify the area as having a specific material on screen and on plotted sheets. (See Create and Apply Hatching in the help.)

- **Create labeled contours** - Create surface contour lines that include elevation labels and colors. You can then adjust the positions of the contour labels for optimal plotting. (See Surface Create Contours at an Interval in the help.)

- **Label contours by crossing** - Label selected contour lines with their elevations where they cross a line indicated with a From and To point. (See Label Contours by Crossing in the help.)

- **Smooth curve feature coding** - Collect points with feature codes in the field and process them as a smooth curve. This creates a smooth curve that goes through all the points similar to splines. This allows for more efficient linework creation using feature coding and allows you to export better looking linework to third-party software packages.

- **Anti-alias option** - Use this Advanced Graphics option to diminish stair step-like lines ("jaggies") that you want rendered more smoothly. (See Advanced Graphics Options in the help.)

- **Show and hide individual point labels** - In addition to using the View Filter Manager to show and hide the point ID, feature code, and elevation labels (as applicable) for all points in your project when they are displayed in a graphic view, you can now use the point Properties pane to show and hide these point labels for one or more selected points. See "Show and Hide Labels for Selected Points" in the Help.

Piling

- **Run a Piling Quality Report** – See a summary and details on pairs of piles: the holes in a pile plan as compared to their corresponding as-built piles. Each as-built pile that is reported is qualified as passing, failing, or requiring action (based on the tolerances in Project Settings). (See Run a Piling Quality Report in the help.)

Point Clouds

- **Export sub-sampled point clouds** - Export sub-sampled point clouds to applications that cannot handle large point clouds. Business Center - HCE will perform a random spatial sampling to allow you to downsample points clouds for export to .e57 or .las.

Survey

- **Adjust a traverse** - Import, edit, create new, and adjust traverses. Choose stations and settings for each traverse, view closure information, balance angle and vertical misclosures, and perform a compass or transit adjustment. Preview adjustment results before you apply the adjustment, and review the Traverse Adjustment report after the adjustment has been applied. This allows for more flexibility in the office and reduces potential site re-visits. (See Create, Edit, and Adjust a Traverse in the help.)

- **Get data from Trimble InSphere Data Marketplace** - Search for and download geospatial datasets (maps) in TIF (.tif) or Shapefile (.shp) format that you can import into Business Center - HCE. Different types of data sets are available from a variety of sources, including United States Geological Survey (USGS), DigitalGlobe's Precision Aerial Imagery, Open Street Map, TIGER/Line GIS Data, Intermap, and more. This allows you to import background maps more easily as well as leverage any of the existing vector and raster data for design. In addition, it allows you to manage projects more effectively and supports enhanced collaboration efforts. (See InSphere Data Marketplace in the help.)

- **Import Esri Shapefiles (.shp)** - Import Esri Shapefiles (.shp), a popular geospatial vector data format for geographic information systems. You can see the feature information effectively and prepare data for stakeout. (See Import Esri Shapefiles (.shp) in the help.)

- **Use new geoid models and zones** - New geoid models for Canada (CGG2013), Poland (Pl-geoid-2011), and Norway (Norway14) are now available in Coordinate System Manager. To support the new geoid models, associated zones have been added or updated as necessary. In addition, some projection zones for Turkey have been updated.

- **Include zone number in coordinates** - Users of the Coordinate System Manager can define a UTM zone with a false easting between -34000000 to +34000000 to be able to include a zone number in coordinates.

More

- **Set elevations below zero to positive/mirror elevations** - For marine applications, specify that elevations below sea level be displayed, reported, and plotted as positive numbers. (See Unit Settings in the help.)
- **Learn from updated training materials** - Find content more quickly and learn more easily from restructured and updated training videos and tutorials.

System support

- **Get support for Trimble Access Pipeline Module** - Import a pipeline job file collected via the Trimble Access Pipeline software module into Business Center - HCE, review and edit the pipeline attribute data as necessary, and export it to CSV files, providing a seamless review and edit workflow.
- **Export FAST Survey job with coordinate system** - Export FAST Survey formatted files with coordinate systems support.

Miscellaneous notes

- **VCE compatibility** - You cannot open a VCE project file created with this new version of BC-HCE in an older version of BC-HCE.
- **Windows 8 users** – Some components 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 BC-HCE. 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 require Microsoft .NET Framework 4.5, which is not supported by the Windows XP operating system. To run this version of BC-HCE, 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 BC--HCE 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 BC-HCE, 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 BC-HCE.

- **3D PDF** – The Create 3D PDF command causes texturized surfaces (that is, a surface to which a texture image has been added) to display as black in the PDF Reader when the surface shading is set to something other than "by elevation." To avoid this problem, select "Shading: by elevation" in the surface Properties pane for any texturized surface before creating a 3D PDF.

Known Issues

For a list of issues in external programs or operating systems that affect this software, select *Help* in the software. Then, click the *Index* tab and read the help topic entitled *Known Issues*.

Note: For last minute information about this product, see the *Read Me* file (in English), which can be accessed from the *Start Page* by selecting *Read Me*.

System Requirements - HCE (32-bit)

These recommendations are based on subjective evaluations for what constitutes desirable performance when assessing your current system, as well as when upgrading your system, or purchasing a new system.

For Recommended Performance:

Operating system:	Business Center - HCE can run in: • Microsoft Windows Vista (32- and 64-bit versions with Service Pack 2) • Microsoft Windows 7 (32- and 64-bit versions with Service Pack 1) • Microsoft Windows® 8 (32- and 64-bit versions) **Note:** If you are running this software on the 64-bit version of Windows Vista, ensure that the Windows Mobile Device software is installed; it is required to connect a device. If necessary, you can install it from the software installation DVD.
Processor:	Dual-core 1.80 GHz or greater; an i7 processor is recommended
Random access memory:	2 GB; 4 GB or more is recommended
Hard disk space available:	5 GB or more
Graphics memory:	Mid-range, discrete graphics card with minimum 512 MB and support for DirectX® 9.0 (avoid integrated graphics if possible); 2 GB is recommended
Monitor:	1280 x 1024 or higher resolution with 256 colors; 1920 x 1080 is recommended. Dual monitors will improve your user experience. This assumes that your DPI setting is *Normal* (96 DPI) and that your font size is also set to Normal.
I/O Ports:	USB 2.0 port for synchronizing data on a controller
Other:	Internet access is required for licensing (on page 11), the *Check for Updates* command, and the *Internet Download* command. Microsoft .Net Framework 4.5 **Note:** To run **Business Center - HCE** on a virtual machine, you must have at least two processors and 1 GB of memory (2 GB is recommended).

System Requirements - HCE (64-bit)

For Recommended Performance:

Operating system:	Business Center - HCE can run in: • Microsoft Windows 7 (64-bit version with Service Pack 1) • Microsoft Windows® 8 (64-bit version)
Processor:	Dual-Core 1.80 GHz; an i7 processor is recommended
Random access memory:	4 GB; 16 GB or more is recommended
Hard disk space available:	5 GB
Graphics memory:	Mid-range, discrete graphics card with minimum 512 MB and support for DirectX® 9.0 (avoid integrated graphics if possible); 2 GB or more is recommended *Note:* To display point cloud data, your graphics card must support OpenGL 3.2.
Monitor:	1280 x 1024 or higher resolution with 256 colors; 1920 x 1080 is recommended. Dual monitors will improve your user experience. This assumes that your DPI setting is *Normal* (96 DPI) and that your font size is also set to Normal.
I/O Ports:	USB 2.0 port for synchronizing data on a controller
Other:	Internet access is required for licensing (on page 11), the *Check for Updates* command, and the *Internet Download* command. Microsoft .Net Framework 4.5 **Note:** To run **Business Center - HCE** on a virtual machine, you must have at least two processors and 1 GB of memory (2 GB is recommended).

Installation

This software requires Microsoft .NET Framework version 4.5. The installation wizard will inform you if the required software is missing from your computer. If you need to install this software, it is available as a free download from the Microsoft downloads web page at: http://www.microsoft.com/downloads.

To transfer data between this software and a site controller, Microsoft ActiveSync version 4.1 or later is required. If you need to install Microsoft ActiveSync, it is also available as a free download from Microsoft.

Note: For Microsoft Windows Vista and Windows 7 users, ActiveSync technology is not required. The communication functionality is included.

Notable Licensing Conditions

Note that the End User License Agreement for Business Center - HCE allows the licensed user the following freedoms (as excerpted from that agreement) in regard to the installation and use of the software on multiple computers.

You are allowed to install and use and to allow others to install and use the Business Center - HCE software in its "Core Product" configuration on any number of personal computers or network servers, including those of your employees, subcontractors and independent consultants, but solely for your internal business needs in connection with your use of Trimble products.

You are referred to the entirety of the End User License Agreement for additional details, and that agreement shall take precedence over the characterizations made herein. It is available from within the software's user interface by picking *About Business Center - HCE* from the menu and then clicking *View the End-User License Agreement*.

The intention of this provision is to allow and encourage those who have licensed the software to deploy it freely throughout their organization as needed to effectively support the Trimble products and systems with which it serves as an integral component. You are additionally allowed and encouraged to share the software as needed with third parties with whom you do business, where there is a need for data exchange or other form of software interoperability in connection with your use of Trimble products.

Any such third party will be required to accept the terms of the End User License Agreement during the installation of the Business Center - HCE software on that party's computer.

Installing Licensed Modules

Licensed modules with added functionality are available for *Business Center - HCE*. For a description of the features available in each module, see Licensed Features in the help system.

Licensing information is contained in either a HASP® hardware key (single-user license) connected to your computer, or a HASP network key (multi-user license) installed on your network. If no license has been installed, you can use only unlicensed features. For installation or upgrade instructions, see the appropriate section below.

To install a single-user license:

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

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

    All licensed features for your version of BC-HCE will be available when you run the software. Your 1-year warranty begins the first time you run the program.

To install a multi-user license:

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

If you intend to use a multi-user license 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 license is installed.
    - There are no SuperPro or HASP hardware keys connected to your computer.
2. Install BC-HCE from the installation DVD.
3. Run the program.

The software automatically searches the network for a HASP network key. If a HASP network key is found and the multi-user license limit has not been exceeded, the license is available for use and all of its licensed features in BC-HCE are available. If a HASP network key is not found or the multi-user license limit has been exceeded, the 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 **About Business Center** and then clicking the **License** button. For more information on using the **License Manager** dialog, press **[F1]** with the dialog open.

Note: Each time you run the software, it will need to automatically access the multi-user license installed on the network.

Related Utilities

SCS Data Manager and Office Synchronizer are two additional programs installed with Business Center - HCE.

Registration

The first time you start this software, you will be asked to register with the MyTrimble system. Although it is not required that you register, doing so will enable Trimble to contact you with information about the product. If your company has an existing account, enter the appropriate email address. If this email address is not recognized, and you need to create an account, the next dialog box will allow you to enter the required information for your new account.

Retaining User Settings When Upgrading

As you use the program, many of your settings and other customizations are saved as files in an application data folder. These settings, which remain constant regardless of which project is open, include:

Application settings	These program-wide settings include startup preferences, default file locations, and display properties. Application settings are primarily found in the *Options* dialog.
Custom Import and Export Format Definitions	These include changes to how file formats are defined in the *Import Format Editor* and *Export Format Editor*.
Project Templates	These include project settings, coordinate systems, view filters, selection sets, and data that you have saved as project templates.
Internet Download Configurations	These include new data provider groups and Internet sites that you have added to the *Internet Download command*.
Baseline Processing and Network Adjustment Styles	These include combinations of project settings that you have defined as templates for baseline processing and network adjustment.

When you upgrade from your current version of the program to a newer version, the installation program searches for previous files containing these settings and customizations. If any are found, the *Copy Settings* dialog appears.

To retain previous settings and customizations:

1. In the *Copy* column, uncheck the box for each old file that you do not want to retain in the upgrade.
2. Check the box for each old file that you do want to use to overwrite the new file.
3. Click *Copy Selected Files*. The previous settings and customizations that you selected are copied to the new installation.

Note: Any files that conflict with the files in the new installation are marked with a red flag and are not selected by default.
Note: It is always a good idea to confirm your project and application settings in the new installation to make sure that any new options in the current version are set to the defaults you want.
Note: Customized menus and toolbars cannot be saved when you upgrade.