

## HASP Troubleshooting Guide



**Corporate office:**

Trimble Navigation Limited  
Engineering and Construction Division  
935 Stewart Drive  
Sunnyvale, California 94085  
U.S.A.

Phone: +1-408-481-8000

Toll free (in USA) +1-800-874-6253

Fax: +1-408-481-7744

[www.trimble.com](http://www.trimble.com)

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# HASP Troubleshooting

Your Sentinel HASP hardware or software key must be properly installed as described in the *Business Center - HCE Release Notes* to ensure all licensed features are available in the software. This document explains how to verify your license is correctly installed and resolve problems that might have prevented it from being installed correctly.

Note: See "Licensed Features" in the online Help for a list of features available with each license option.

## **Verify your Business Center - HCE license is installed correctly and your warranty is up to date:**

1. If you are using a Sentinel HASP hardware key, ensure it is plugged into your computer.
2. On the **Start Page** in Business Center - HCE, select **View License Manager**. The **License Manager** dialog displays.

**Note:** If you are trying to verify a network license but no features are listed in the **Features** list and the **Warranty expiration date** and **License version** fields are blank, your network license might be installed on a virtual computer. A Sentinel HASP network key cannot be installed on a virtual computer. Contact your system administrator for assistance.

3. Verify the date displayed in the **Build date** field is earlier than the date displayed in the **Warranty expiration** field.  
If you update to a newer version of Business Center - HCE after your warranty has expired, you lose all licensed features. Contact your dealer about extending your warranty.
4. Verify **Automatic** is selected in the **Search type** drop-down list.  
If **Automatic** is not selected:
  - a) Select it.
  - b) Click **OK** in the **License Manager**.
  - c) Restart Business Center - HCE and repeat this procedure.
5. In the **Features** list, verify the correct license is installed.  
If no license is installed (only the **Unlicensed Features** node is displayed), your Sentinel Admin Control Center software might not be installed correctly. Proceed to the next section.

**Note:** If you are trying to use a network license and you do not see it in the **Features** list, it is possible that none are available at this time because they are all currently in use. Contact your system administrator for assistance.

### Verify the Sentinel Admin Control Center is operating correctly:

When correctly installed, the Sentinel Admin Control Center manages access to Sentinel HASP hardware and software licenses on your computer. If the Sentinel Admin Control Center fails to operate correctly, licensed features will not be available.

1. In the **License Manager** dialog, click the **Sentinel Admin Control Center** link located at the bottom of the dialog.

The **Sentinel Admin Control Center** page should open in your default Web browser.

- If the page opens successfully, the Sentinel Admin Control Center is installed and running correctly.
  - If you are using a Sentinel HASP hardware key, it might not be installed correctly. Proceed directly to "Verify the Sentinel HASP hardware key is installed correctly."
  - If you are using a Sentinel HASP software key, the Sentinel HASP drivers might not be installed correctly. Proceed directly to "Re-install the Sentinel HASP drivers."
- If the page does not open, the Sentinel License Manager may not be properly installed, or it may be installed but not running. Proceed to step 2.

**Note:** If you click a link in the Sentinel Admin Control Center and the new page does not display correctly, press the **F5** key to refresh the view.

2. On your keyboard, press the **Windows** button and the **R** key.
3. In the **Run** dialog, type *services.msc* and click **OK**.
4. In the **Services** dialog, locate **Sentinel Local License Manager** and verify that its status is **Started**.
  - If the Sentinel Local License Manager service is not listed, Sentinel HASP runtime files are not installed. Proceed directly to "Re-install the Sentinel HASP drivers."
  - If the Sentinel Local License Manager service is listed but the status is not **Started**, click the **Restart the services** link. If the status is still not **Started**, there may be a problem with your personal firewall and/or antivirus software.

By default most personal firewalls and/or antivirus software will request permission to allow access for the Sentinel Local License Manager the first time it is run. If you select to allow access, there should be no problems. If you select to deny access, you will encounter communication problems. To resolve such problems, you must either disable the personal firewall and/or antivirus software completely or create a rule/exception to allow access to the Sentinel License Manager.

**Note:** Before you configure your personal firewall and/or antivirus software as described in the next two steps, you might want to use the Windows **Event Viewer** to view the event log for entries relating to the Sentinel Local License Manager service that provide an error message and/or further diagnostic information. To open the **Event Viewer**, select **Start > Control Panel > Administrative Tools > Event Viewer**.

See your Windows documentation for more information.

5. Open your personal firewall and/or antivirus software and add the following service to the exclusions list:

*C:\WINDOWS\system32\hasplms.exe*

See the documentation for your personal firewall and/or antivirus software for instructions.

If there is an option to create a rule/exception based on a port number, allow port 1947.

**Note:** Because there are many personal firewall and antivirus software products on the market, it is not possible to list all the ways to configure each piece of software here. See the documentation provided with your firewall and/or antivirus software, or contact the vendor for details.

**Warning!** Disabling your personal firewall and/or antivirus software has security risks. See the documentation provided with your firewall and/or antivirus software, or contact the vendor for details.

If this does not solve the problem, contact Technical Support.

#### **Verify the Sentinel HASP hardware key is installed correctly:**

The Business Center - HCE installation wizard installs the drivers for the Sentinel HASP hardware key. To verify the drivers are installed correctly, follow these steps:

1. Ensure your Sentinel HASP hardware key is plugged into your computer
2. On your Windows desktop, select **Start > Control Panel > Device Manager**.
3. In the **Device Manager** dialog, verify the following items are listed under the **Universal Serial Bus controllers** node:
  - *SafeNet Inc. HASP Key*
  - *SafeNet Inc. Sentinel HL Key*
  - *SafeNet Inc. USB Key*
4. If a key is incorrectly installed, a warning icon displays with it in the list. The following table lists possible causes and solutions.

Cause	Solution
The key is in conflict with another USB device.	Remove the conflicting USB device. See your Windows documentation for more information.
A Sentinel driver is not installed or installed incorrectly.	Re-install the Sentinel HASP drivers as described in the next section, "Re-install the Sentinel HASP drivers."
The USB port is defective.	Re-insert the key and check if the key's LED light is on. If it is off, insert the key in another USB port or use a USB hub.  Note: You may need to wait a few seconds after inserting the key for the computer to detect the device.
The key is defective.	On the rare occasion you receive a defective key, contact your dealer for a replacement.

If this does not solve the problem, contact Technical Support.

### Re-install the Sentinel HASP drivers:

Business Center - HCE is packaged with the Sentinel HASP runtime installer and the Sentinel HASP Vendor Library. These are installed during the installation of Business Center - HCE. If the Sentinel HASP drivers become corrupted or are removed, the Sentinel HASP runtime installations can be re-installed manually as described here.

1. Use your Windows **Control Panel** to uninstall the Sentinel HASP Vendor Library (if it is installed).

**Note:** To perform the following steps, you must be logged on your operating system as a user with administrator rights. See your Windows documentation for more information.

2. Run the Sentinel HASP removal utility *aksinstdel\_windows.exe* as follows:

- a) Using your **Explorer** window, copy to your **Windows Desktop** the file *aksinstdel\_windows.exe* from:

<Business Center - HCE Installation DVD>\Business Center - HCE\ISSetupPrerequisites\HASP\_Runtime\_Environment\_Removal\_Tool\

If you installed Business Center - HCE from the Web, copy the file from the location to which you downloaded the installation package.

- b) Right-click the *aksinstdel\_windows.exe* icon on your **Desktop** and select **Run as administrator**.

The DOS command window displays, prompting you to run the removal utility.

- c) On your keyboard, press the **Y** key.

Progress for the removal displays in DOS command window. If the removal progress is not displayed and the DOS command window closes immediately, you do not have appropriate administrator rights to perform the removal. You must be logged on as a user with administrator rights. See your Windows documentation for more information.

3. Run the Sentinel HASP runtime installation program *haspdinst.exe* as follows:

- a) On your keyboard, press the **Windows** button and the **R** key.

- b) In the **Run** dialog, click the **Browse** button and navigate to:  
<Business Center - HCE Installation DVD>\Business Center -  
HCE\ISSetupPrerequisites\HASP\_Runtime\_Setup\_Cmdline\_v<Versio  
n>\haspdinst.exe

If you installed Business Center - HCE from the Web, navigate to the location to which you downloaded the installation package.

- c) In the **Open** field, type the following argument after the file path: -  
*install*
- d) Click **OK**.

4. Run the Sentinel HASP Vendor Library installation *setup.exe*:

- a) On your keyboard, press the **Windows** button and the **R** key.
  - b) In the **Run** dialog, click the **Browse** button and navigate to:  
<Business Center - HCE Installation DVD>\Business Center -  
HCE\ISSetupPrerequisites\HASP\_Vendor\_Library\setup.exe

If you installed Business Center - HCE from the Web, navigate to the location to which you downloaded the installation package.

- c) Click **OK**.

If this does not solve the problem, contact Technical Support.

## Enterprise Deployment Guide





**Corporate office:**

Trimble Navigation Limited  
Engineering and Construction Division  
935 Stewart Drive  
Sunnyvale, California 94085  
U.S.A.

Phone: +1-408-481-8000

Toll free (in USA) +1-800-874-6253

Fax: +1-408-481-7744

[www.trimble.com](http://www.trimble.com)

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# Overview

This document describes the various methods a system administrator can use to install (deploy) Business Center - HCE on multiple computers on their Windows-based network (enterprise) more quickly and efficiently than taking an Installation DVD to each computer and performing the installation manually.

The document includes the following sections:

- [Windows installer package file](#) (on page 3) - This section explains the purpose of the Windows installer package file Business Center - HCE.msi and how it is used in the deployment process.
- [Deployment methods](#) (on page 4) - This section describes several basic methods you can use to deploy Business Center - HCE.
- [Prerequisite programs](#) (on page 6). - This section lists the prerequisite programs that must be installed prior to installing Business Center - HCE.
- [Deploy using Msiexec.exe](#) (on page 8) - This section describes the command options and parameters used to run Msiexec.exe directly.
- Deploy software updates using Msiexec.exe - This section explains how to download software updates and deploy them using Msiexec.exe.
- [Deploy using Setup.exe](#) (on page 13) - This section describes the command options and parameters used to run Setup.exe.
- [Configure application and project settings](#) (on page 15) - This section explains how to customize Business Center - HCE application and project settings on enterprise computers after installation is complete.

***Note on licensing:***

To access licensed features in Business Center - HCE, each user must either have a Sentinel HASP single-user hardware key installed on his computer or have access to a Sentinel HASP multi-user key installed on a network server. For more information on network licensing, see the *Network Licensing Read Me* document.

***Note on installing on Windows 8 operating systems:***

The Microsoft .NET Framework 3.5, which is required to operate Business Center - HCE, is not installed by default with the Microsoft Windows® 8 operating system. During the installation of HCE on Windows 8 systems, you are prompted to install .NET Framework 3.5 before HCE installation can complete. When installing HCE remotely, it might be more efficient to install .NET Framework 3.5 manually on each client computer, prior to installing HCE. This ensures you do not need to respond to the prompt to install .NET Framework 3.5 during each installation of HCE.

To manually install .NET Framework 3.5 on a client computer running Windows 8, open the Control Panel and select Programs and Features. Then select "Turn Windows features on or off" and select the Microsoft .NET Framework 3.5.1 check box. This option requires an Internet connection.

# Windows installer package file

Your Business Center - HCE Installation DVD or Web download folder includes the Windows installer package file Business Center - HCE.msi. This file must be processed with the Windows installer program Msiexec.exe to install Business Center - HCE on a target computer. The Msiexec.exe program is included with your Windows operating system. You can run the Msiexec.exe program to remotely install and customize Business Center - HCE on any computer on your Windows-based network from a single Business Center - HCE.msi file.

Business Center - HCE.msi can be processed to install Business Center - HCE using either of the following methods:

- Msiexec.exe - Run the Windows installer program Msiexec.exe directly to process the Business Center - HCE.msi file. Use command options and parameters to customize the installation. Note that all prerequisite programs must be installed prior to running Msiexec.exe. For more information on running Msiexec.exe directly, see [Deploy using Msiexec.exe](#) (on page 8).
- Setup.exe - Run the Business Center - HCE installation program Setup.exe to (1) install all prerequisite programs and (2) invoke the Msiexec.exe program to process the Business Center - HCE.msi file. Use command options and parameters to customize the installation. For more information on running Setup.exe, see [Deploy using Setup.exe](#) (on page 13).

# Deployment methods

You can use any of the following methods to install (deploy) Business Center - HCE on computers connected to your Windows-based network:

- Network share
- Scripting
- .MSI deployment

**Note:** Users must have Administrator privileges to install Business Center - HCE, regardless of the deployment method. If they do not have Administrator privileges, the setup must be deployed using the Windows Run As command to execute the program as an Administrator. See your Windows documentation for more information.

## Network share

This deployment method incorporates the use of a "network share" folder that is accessible by other computers connected to the network. All of the Business Center - HCE installation files from the Business Center - HCE Installation DVD or the self-extract executable destination folder (for Web downloads) can be copied into the network share folder. Users can then be notified as appropriate to install Business Center - HCE remotely by double-clicking Setup.exe in the folder.

All of the installation files, including the Business Center - HCE.msi file and the Setup.exe program, are delivered in the following folder:

- Installation DVD: <DISK>\Business Center - HCE
- Web download (default): C:\Business Center - HCE <version> Setup

**Note:** Users must have Read permissions to access the network share.

## Scripting

This deployment method incorporates the use of an installation script (typically a text file) containing a set of commands that can be executed on a computer with no user interaction. The installation script can be used to run Msiexec.exe or Setup.exe with the appropriate command-line options and parameters necessary to configure the installation as required.

You can run an installation script using any of the following methods:

- Run the script manually at each individual workstation.
- Notify each user with instructions on running the script.
- Set up the script so that it automatically runs on login.

For more information about using the Msiexec.exe program to install Business Center - HCE, see [Deploy Using Msiexec.exe](#) (on page 8).

For more information about using the Setup.exe program to install Business Center - HCE, see [Deploy Using Setup.exe](#) (on page 13).

### **.MSI deployment**

This deployment method incorporates an enterprise deployment tool that supports the installation of Business Center - HCE on multiple computers using the Business Center - HCE.msi file.

For more information about using Microsoft enterprise deployment methods, see your Microsoft documentation.

For more information about using the Msiexec.exe program to install Business Center - HCE, see [Deploy Using Msiexec.exe](#) (on page 8).

# Prerequisite programs

The following table lists programs that must be installed prior to installing Business Center - HCE, and programs that can optionally be installed, depending on your needs.

If you deploy using Setup.exe, the prerequisite programs are automatically installed as necessary using a built-in bootstrap application.

If you deploy using Msiexec.exe, you must first install the prerequisite programs listed here. This can be accomplished using a bootstrap application. The prerequisite programs can be downloaded from the vendor website or accessed from the following folder:

- Installation DVD: <DISK>\Business Center - HCE\ISSetupPrerequisites
- Web download (default): C:\Business Center - HCE <version> Setup\ISSetupPrerequisites

Prerequisite	Required?	Reboot required?	Subfolder in ISSetupPrerequisites folder
.NET Framework 4.0 (see note below)	Yes	Yes	dotNetFramework40Full
Windows Installer 4.5 (see note below)	Yes	Yes	Windows_Installer_45
Microsoft Report Viewer 2010 SP1	Yes	No	ReportViewer2010SP1
Sentinel HASP Runtime (version 5.95)	Yes	No	HASP_Runtime_Setup_Cmd line_v595
Sentinel HASP Vendor Library	Yes	No	HASP_Vendor_Library
Microsoft ActiveSync 4.5	Yes, if you are installing Office Synchronizer with Windows XP	No	ActiveSync45
Microsoft Windows Mobile Device Center 6.1	Yes, if you are installing Office Synchronizer with Vista or Windows 7	No	WMDC61x86 (32 bit) or WMDC61x64 (64 bit)
.NET Framework 4.0 language pack	No	No	dotNetFramework40LangPack
Microsoft Report Viewer 2010 SP1 language pack	No	No	ReportViewer2010SP1LangPack

**Note:** The .NET Framework and Windows Installer programs require that the computer be restarted after installation. Therefore, it is recommended that these prerequisite programs be installed first.

# Deploy using Msiexec.exe

The Windows Installer executable program Msiexec.exe can be used to install, modify, and perform other operations on the Business Center - HCE.msi file. Msiexec.exe is located in the Windows System folder (typically C:\Windows\system32).

The Business Center - HCE.msi program is located in the following folder:

- Installation DVD: <DISK>\Business Center - HCE
- Web download (default): C:\Business Center - HCE <version> Setup

**Note:** Prior to installing Business Center - HCE on a computer, you must install the prerequisite programs listed in [Prerequisite Programs](#) (on page 6). This can be accomplished using a bootstrap application.

## Windows Installer command line options and parameters

Standard Windows installer command line parameters are used to run Msiexec.exe. The typical usage is:

```
msiexec /Option <Required Parameter> <Optional  
Parameter>
```

See "Command Line Examples" later in this section for examples of various commands using this syntax.

## Common Windows Installer options

The following table lists the available installer options.

Option	Parameters	Description
/i	Package (.msi file)	Installs the product
/x	Package (.msi file)	Uninstalls the product
/q	n   r	Determines how the Installation Wizard is displayed during installation: n = The Installation Wizard does not display. r = The Installation Wizard displays in read-only mode.

## Command line parameters

Command line parameters can be used to customize the installation by using the format <Parameter>=<Value>. The following table lists the available parameters. If a parameter is not specified on the command line, the default parameter value shown in the table is used.



Parameter	Value	Default	Description
INSTALLDIR	Path	C:\Program Files\<software brand name>\Business Center - HCE	Specifies the Business Center - HCE install location
FDM	1 or "" (true or false)	1 (true)	Installs Feature Definition Manager
SYNC	1 or "" (true or false)	1 (true)	Installs Office Synchronizer
TUTORIAL	1 or "" (true or false)	1 (true)	Installs Trimble Business Center Tutorials
ADDLOCAL	Feature (see Features table below)		Adds a feature to the installation
REMOVE	Feature (see Features table below)		Removes a feature from the installation
TRANSFORMS	Language transform (see Language table below)	1033.mst (English – US)	Applies Windows Installer database to modify settings of an installation

### Features for ADDLOCAL and REMOVE parameters

The ADDLOCAL and REMOVE parameters can be used to install or remove specific features. If more than one feature is to be added or removed, use a comma to separate the features (for example, ADDLOCAL=Feature , Feature2). The following table lists the available features for the ADDLOCAL and REMOVE parameters.

Feature	Adds or Removes
Program_Files_Chinese	Files for running the program in Chinese (Simplified)
Program_Files_Czech	Files for running the program in Czech
Program_Files_Dutch	Files for running the program in Dutch
Program_Files_EnglishUK	Files for running the program in English (United Kingdom)
Program_Files_EnglishUS	Project templates for United States-based projects
Program_Files_Finnish	Files for running the program in Finnish
Program_Files_French	Files for running the program in French
Program_Files_German	Files for running the program in German
Program_Files_Italian	Files for running the program in Italian
Program_Files_Japanese	Files for running the program in Japanese
Program_Files_Korean	Files for running the program in Korean
Program_Files_Norwegian	Files for running the program in Norwegian
Program_Files_Portuguese	Files for running the program in Portuguese
Program_Files_Russian	Files for running the program in Russian

Program_Files_Spanish	Files for running the program in Spanish
Program_Files_Swedish	Files for running the program in Swedish
Program_Files_T_Chinese	Files for running the program in Chinese (Traditional)
Help_Files_Chinese	Chinese (Simplified) online help and user documentation
Help_Files_Czech	Czech online help and user documentation
Help_Files_Dutch	Dutch online help and user documentation
Help_Files_EnglishUK	English (United Kingdom) online help and user documentation
Help_Files_Finnish	Finnish online help and user documentation
Help_Files_French	French online help and user documentation
Help_Files_German	German online help and user documentation
Help_Files_Italian	Italian online help and user documentation
Help_Files_Japanese	Japanese online help and user documentation
Help_Files_Korean	Korean online help and user documentation
Help_Files_Norwegian	Norwegian online help and user documentation
Help_Files_Portuguese	Portuguese online help and user documentation
Help_Files_Russian	Adds or removes Russian online help and user documentation
Help_Files_Spanish	Spanish online help and user documentation
Help_Files_Swedish	Swedish online help and user documentation
Help_Files_T_Chinese	Chinese (Traditional) online help and user documentation
Trimble_Modules	Shared Trimble software modules
External_Modules	Third-party files required for running the software

### Languages for the TRANSFORMS parameter

The TRANSFORMS parameter can be used to modify the language of the installation. A transform file (.MST) with the name of the locale ID is required. The following table lists the supported languages.

Language	Locale ID (LCID)
Chinese – Simplified	2052
Chinese – Traditional	1028
Czech	1029
Dutch	1043
English - UK	2057
English - US	1033
Finnish	1035
French	1036
German	1031
Italian	1040
Japanese	1041

Korean	1042
Norwegian	1044
Portuguese (Brazil)	1046
Russian	1049
Spanish	1034
Swedish	1053

### Command line examples

The following examples demonstrate how to deploy and modify the Business Center - HCE installation using Msiexec.exe.

**Note:** Any file names and file paths that include spaces must be enclosed in quotes ("...") on the command line.

#### Default

The following command installs Trimble Business Center with the default settings.

```
msiexec.exe /i "Trimble Business Center.msi"
ADDLOCAL=Program_Files_EnglishUS,Trimble_Modules,External_Modules /qr
```

- Install directory: C:\Program Files\Trimble\Trimble Business Center
- Language: US English
- Features: Tutorials
- Utilities:
  - Feature Definition Manager
  - Office Synchronizer

#### Localization

The following command installs Trimble Business Center in German:

```
msiexec.exe /i "Trimble Business Center.msi"
ADDLOCAL=Program_Files_German,Trimble_Modules,External_Modules,Help_Files_German TRANSFORMS=1031.mst /qr
```

- Install directory: C:\Program Files\Trimble\Trimble Business Center
- Language: German
- Features: Tutorials
- Utilities:
  - Feature Definition Manager
  - Office Synchronizer

#### Minimal

The following command installs only the Trimble Business Center program to an alternative folder:

```
msiexec.exe /i "Trimble Business Center.msi"  
INSTALLDIR="D:\Trimble Business Center"  
ADDLOCAL=Program_Files_EnglishUS,Trimble_Modules,External_Modules FDM="" SYNC="" TUTORIAL="" /qr
```

- Install directory: D:\Trimble Business Center
- Language: US English
- Features: None
- Utilities:
  - None

## Uninstall

The following command lines uninstall Trimble Business Center and related utilities silently:

```
msiexec.exe /x "Trimble Business Center.msi" /qn  
msiexec.exe /x "Feature Definition Manager.msi" /qn  
msiexec.exe /x "TBC Tutorials.msi" /qn  
msiexec.exe /x "Office Synchronizer.msi" /qn
```

**Note:** While it is possible to uninstall Business Center - HCE silently using the /qn option, the full installation requires the /qr option due to some Windows Installer sequences and actions that need to run in the display mode.

# Deploy using Setup.exe

The Business Center - HCE installation program Setup.exe installs the Business Center - HCE.msi file along with all prerequisite programs (see [Prerequisite Programs](#) (on page 6)). In addition, Setup.exe, does the following:

- Installs or updates the Windows Installer engine on the target system
- Provides end users a choice of the language in which to run the installation

## Setup.exe command line options and parameters

The Setup.exe program is located in the following folder:

- Installation DVD: <DISK>\Business Center - HCE
- Web download (default): C:\Business Center - HCE <version> Setup

The Setup.exe program accepts all of the command-line parameters used to customize how the Business Center - HCE.msi program installs the Business Center - HCE.msi file as described in [Deploy Using Msiexec.exe](#) (on page 8). The typical usage is:

Setup.exe /Option<Parameter>

### **Common Setup.exe Options and Parameters**

The following table lists the available options and parameters.

Option	Parameters	Description
/S	For silent install mode use: /v/qn	Suppresses the Setup.exe initialization window and/or runs the installation silently
/v	Msiexec.exe parameters For more information, see <a href="#">Deploy Using Msiexec.exe</a> (on page 8).	Passes parameters to Msiexec.exe
/L	Locale ID (LCID) For more information, see the Language table in <a href="#">Deploy Using Msiexec.exe</a> (on page 8).	Specifies the setup language

## Command line example

The following command installs Trimble Business Center in Spanish with the default settings:

```
Setup.exe /S /L1034  
/vADDLOCAL=Program_Files_Spanish,Trimble_Modules,External_Modules,Help_Files_Spanish /v/qn
```

- Install directory: C:\Program Files\Trimble\Trimble Business Center
- Language: Spanish
- Features: Tutorials

- Utilities:
  - Feature Definition Manager
  - Office Synchronizer

# Configure application and project settings

This section describes how to most easily and efficiently configure Business Center - HCE on multiple network computers to use the same application and project settings.

## Configuration files location

All of the configuration files listed in this section are, by default, stored in the following folder:

- Windows XP or earlier: C:\Documents and Settings\<user name>\Application Data\Business Center - HCE\<version number>
- Windows Vista or Windows 7: C:\Users\<user name>\AppData\Roaming\Business Center - HCE\<version number>

## Project templates

Any project can be saved in Business Center - HCE as a project template that can be used by other users in your organization to create new projects with the same project settings. The saved template can include any of the following:

- Company, user, and file information, such as field and office operators, contact numbers, and addresses
- Coordinate system information, such as a datum transformation and geoid model
- Unit settings, such as coordinate formatting
- View settings, such as a plot scale and grid line definition
- View filters and selection sets
- Computational settings, such as horizontal and vertical tolerances

Each custom project template is stored in a <project name>.vct file in the default location listed in "Configuration files location" earlier in this section.

To share a project template, you can copy the <project name>.vct file into the equivalent folder on each target computer, or to the Template folder defined in the File Location options (Tools > Options) in Business Center - HCE. For more information, see the "File Location Options" topic in the online Help.

For information on creating a project template, see the "Create a Project Template" topic in the online Help.

## Application options

Application-wide options, such as startup preferences, default file locations, Internet download parameters, and display properties can be shared by copying the Options.bin file into the equivalent folder on each target computer. The Options.bin file is stored in the default location listed in "Configuration files location" earlier in this section.

**Note:** All folder locations for the File Location option must exist on all computers you are configuring.

For more information on setting application options, see the "Choose Application Options" topic in the online Help.

## Toolbar layouts

Customized toolbars can be shared by copying the .Layout file into the equivalent folder on each target computer. The .Layout file is stored in the default location listed in "Configuration files location" earlier in this section.

## Reports

To share customized reports on the network, you can save the report layout file (.RDLC) to a shared location on the network. You can then create or customize a report using the path to the .RDLC file. Finally, you can copy the report definition file (.RDF) from your computer into the equivalent folder on each target computer. The .RDF file is stored in the default location listed in "Configuration files location" earlier in this section.

For more information, see the "Create, Customize, and Run a Report" topic in the online Help.

## Internet data providers

If you have customized the list of data providers, you can share the list of sites by copying the INetDownload.xml file from your computer into the equivalent folder on each target computer. The INetDownload.xml file is stored in the default location listed in "Configuration files location" earlier in this section.

For more information, see the "Add New Data Providers" and the "Add New Trimble IP-Enabled Receivers" topics in the online Help.



## Network Licensing Read Me



**Corporate office:**

Trimble Navigation Limited  
Engineering and Construction Division  
935 Stewart Drive  
Sunnyvale, California 94085  
U.S.A.

Phone: +1-408-481-8000

Toll free (in USA) +1-800-874-6253

Fax: +1-408-481-7744

[www.trimble.com](http://www.trimble.com)

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# Overview

This document provides information concerning the installation and configuration of a SafeNet® Sentinel HASP network key with a multi-user license.

Users can use the license on an as-needed basis, up to the limit of concurrent users (seats) allowed by the license.

Typically, users must be connected to the network to use the license. However, the Sentinel HASP network key can be configured to allow users to check out a "detachable" license seat for a limited period of time, allowing the user to run the software without being connected to the network.

## To install a Sentinel HASP network key:

Note the following:

- You cannot install the Sentinel HASP network key on a virtual computer.
- You can install the Sentinel HASP network key on:
  - Windows® Server 2003, 2008, or 2012
  - Windows XP
  - Windows Vista
  - Windows 7
  - Windows 8

Before installing the Sentinel HASP network key on your server, ensure you have the following:

- Business Center - HCE Installation DVD
- 19-digit update code (included with your DVD packaging)
- Internet connection (required to verify your update code)

To install the Sentinel HASP network key, follow these steps:

1. Insert the Business Center - HCE Installation DVD into the server computer on which you want to install the Sentinel HASP network key.
2. Select **Install related tools and utilities individually** on the main menu of the Installation DVD.
3. On the **Related Tools and Utilities** menu, select **Update network license**.  
An installation wizard steps you through the installation of the **Update Network License** program.
4. On the last screen of the installation wizard, ensure the **Update network license** check box is checked and click the **Finish** button.  
The **Update Network License** dialog displays.
5. In the **Update Network License** dialog, enter your 19-digit update code and click the **Update** button.
6. When the update is complete, click the **Open Sentinel HASP Admin Control Center** link to view and manage licensing information.

Note: To open the Sentinel Admin Control Center when the **Update Network License** dialog is not displayed, open a browser window and enter the address [http://server\\_name:1947](http://server_name:1947).

#### **To view licensing information:**

In the Sentinel Admin Control Center, select the **Sentinel Keys, Products**, or **Features** link in the **Options** navigation pane. Click the **Help** link located in the lower-right corner of each page for additional instructions.

Note: If you click a link in the Sentinel Admin Control Center and the new page does not display correctly, press the **F5** key to refresh the view.

#### **To configure access to the license:**

Before users can access the multi-user license on the Sentinel HASP network key, you must configure the license to allow remote access. Follow these steps:

1. In the Sentinel Admin Control Center, select the **Configuration** link in the **Options** pane to display the **Configuration** tab set.
2. Select the **Access from Remote Clients** tab.
3. Check the **Allow Access from Remote Clients** check box.
4. Click the **Submit** button.

#### **To configure the license for checkout:**

If you want to allow users to use the multi-user license without being connected to the network (that is, check out a "detachable" license seat), follow these steps:

1. In the Sentinel Admin Control Center, select the **Configuration** link in the **Options** pane to display the **Configuration** tab set.
2. Select the **Detachable Licenses** tab.
3. Check the **Enable Detaching of Licenses** check box.
4. In the **Reserved Licenses** fields, specify the number of license seats, or percent of total license seats, that you want to reserve for office use and *not* allow for checkout.
5. In the **Max. Detach Duration** field, enter the maximum number of days the license seat can be checked out, up to a maximum of 30 days.

Users can request to check out a license seat for this amount of time, or some amount of time less than this.

Note: Business Center - HCE limits the user's license duration request to a maximum of 30 days. So although you can enter a value greater than 30 in this field, the user will still be limited to a maximum license duration of 30 days.

6. Click the **Submit** button.

**To enable a user's computer to use a network license installed on a server located on a different subnet:**

When the server computer (on which the Sentinel HASP network key is installed) and a user's computer (which needs to access a network license) are on different subnets, the server must be specified on the user's computer. On the user's computer, complete the following steps:

1. In Business Center - HCE, select the **License Manager** link on the **Start Page**.
2. In the **License Manager** dialog, click the **Sentinel Admin Control Center** link located in the lower-left corner of the dialog.  
The **Sentinel Admin Control Center** page displays in a browser window.
3. In the **Options** navigation pane, select the **Configuration** link to display the **Configuration** tab set.
4. Select the **Access to Remote License Managers** tab.
5. In the **Specify Search Parameters** field, enter the server name or IP address.
6. In the **Options** navigation pane, select the **Sentinel Keys** link and verify the network license is displayed.
7. Click the **Submit** button.

**To enable a user's computer to check out a detachable license seat:**

Users must configure their own computers to allow the checkout of detachable license seat from the Sentinel HASP network key using the following steps. Note that these steps are provided to users in a message dialog when they are denied a detachable license request.

Note: The following procedure is intended for license users to perform on their own computer.

1. In Business Center - HCE, select the **License Manager** link on the **Start Page**.
2. In the **License Manager** dialog, click the **Sentinel Admin Control Center** link located in the lower-left corner of the dialog.  
The **Sentinel Admin Control Center** page displays in a browser window.
3. In the **Options** navigation pane, select the **Configuration** link to display the **Configuration** tab set.
4. Select the **Detachable Licenses** tab.
5. Check the **Enable Detachable Licenses** check box.
6. Click the **Submit** button.

### **To detach the last network license:**

When Business Center - HCE is running and the **License Manager** is set to search a network, a license is automatically checked out. If there are additional licenses, the **Check Out** button in the **Detachable License** section is enabled and you can detach a license so that you can run Business Center - HCE off the network. However, if there is only one license available when you run Business Center - HCE it gets used and the **Check Out** button is unavailable (grayed out). Use this procedure to obtain the last network license:

1. Open the **License Manager**.
2. Select **Local Hardware** in the **Search type** list, and click **OK**.
3. Close and restart Business Center - HCE.
4. Return to the **License Manager**. No features are shown as licensed, but the **Check Out** button is enabled.
5. Click **Check Out**.
6. In the **Check Out License** dialog, select the server, specify the duration you need, and click **OK** to detach the license.
7. In the **Search type** list, select **Local Software** and click **OK**.
8. Restart Business Center - HCE. You should now have access to the last network license on your computer.

### **To perform other administrative tasks:**

The Sentinel Admin Control Center provides numerous features that allow you to view and manage licensing information. For additional help, select **Help** in the **Options** navigation menu. Or, click the **Help** link located at the lower-right corner of the pages.

### **To update a Sentinel network license:**

You can update the multi-user license on your Sentinel HASP network key to include new features, increase the maximum allowed number of concurrent users (license seats), or extend the warranty. Follow these steps:

1. Contact your dealer to request the update(s).  
After your request has been processed, you will receive an email containing your 19-digit update code. A separate code is required for each update you request.
2. On your server computer desktop, select **Start > All Programs > Trimble > Licensing > Network License Update**.  
The **Update Network License** dialog displays.
3. Copy the new 19-digit update code from the email and paste it into the field in the **Update Network License** dialog, then click the **Update** button.
4. When the update is complete, click the **Open Sentinel HASP Admin Control Center** link to view and manage licensing information as necessary.

Note: To open the Sentinel Admin Control Center when the **Update Network License** dialog is not displayed, open a browser window and enter the address [http://server\\_name:1947](http://server_name:1947).