



GETTING STARTED GUIDE

GPS Pathfinder® Office software



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GPS Pathfinder Office® software

Version 5.60
Revision A
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USA

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GPS Pathfinder Office software

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Introduction

In this chapter:

- [About the GPS Pathfinder Office software](#)
- [Related information](#)
- [Technical assistance](#)

Welcome to the *GPS Pathfinder Office Software Getting Started Guide*. This guide describes how to get started using the Trimble® GPS Pathfinder® Office software.

Even if you have used other Global Navigation Satellite Systems (GNSS) or Global Positioning System (GPS) products before, Trimble recommends that you spend some time reading this guide to learn about the special features of this product.

This guide assumes that you are familiar with the Microsoft® Windows® operating system that you are using.

About the GPS Pathfinder Office software

The GPS Pathfinder Office software, together with its associated utilities, provides all the functionality you need to manage and process data collected using Trimble Mapping and GIS data collection systems. It provides the tools you need to correct, view, and edit GNSS data collected in the field, and to export it in a format suitable for your GIS, CAD, or database system.

The GPS Pathfinder Office software enables you to:

- create separate projects, letting you manage the data associated with these projects effectively and conveniently
- construct and edit data dictionaries, which are used to control the data collection operation and ensure that the collected data is complete, accurate, and compatible with your GIS, CAD package, or database
- convert data from a GIS, CAD package, or database format to the Trimble SSF format so that you can take the data back into the field to check and update it
- transfer files to and from field computers running data collection software
- edit collected data in the office
- configure the TerraSync™ software to suit your field data collection requirements
- display collected data in the office against multiple background files in vector or raster formats, including images from an ArcIMS or OpenGIS Web Map Server
- postprocess the GNSS data to improve its positional accuracy, including data collected using a GNSS receiver that has H-Star™ technology
- export the collected, postprocessed, and edited data to a GIS, CAD, or database format
- produce a scaled plot as a paper record of the data

For an overview of the utilities, see [Chapter 4, The GPS Pathfinder Office Software Utilities](#).

Using the GPS Pathfinder Office software in Viewer Mode

You can install and use the GPS Pathfinder in Viewer Mode, allowing free-of-charge use for data security and verification tasks that are usually performed on a laptop in the field. In Viewer Mode, the following utilities are disabled:

- Batch Processor
- Import
- Export
- Differential Correction
- ShapeCorrect
- Data Dictionary Editor

For information on installing the software in Viewer Mode, see [Installing the GPS Pathfinder Office software, page 30](#). For information on switching to or from Viewer Mode, search for the topic *License Administrator* in the *GPS Pathfinder Office Software Help*.

Related information

Other sources of related information are:

- Help – The software has built-in, context-sensitive inline Help that lets you quickly find the information you need. Access it from the Help menu. Alternatively, click the Help button in a window, or press **F1**.

- Release Notes – The release notes describe new features in this version of the software and any changes to the documentation, and provide any information not included in the product documentation. The release notes are provided as a PDF file on the Trimble website.
Go to www.trimble.com/mappingGIS/PathfinderOffice.aspx, then select *Technical Support / Documentation*.
- Website – For related information about the GPS Pathfinder Office software, go to the Trimble website www.trimble.com/mappingGIS/PathfinderOffice.aspx
- Trimble training courses – Consider a training course to help you use your GNSS system to its full potential. For more information, go to the Trimble website at www.trimble.com/Support/Index_Training.aspx.

Technical assistance

If you have a problem and cannot find the information you need in the product documentation, contact your [Trimble reseller](#).

Technical support

Go to the GPS Pathfinder Office software technical support page (www.trimble.com/mappingGIS/PathfinderOffice.aspx) on the Trimble website for the latest support information about the software, including:

- support notes detailing the latest support issues
- documentation
- the latest files available for download

Windows error reporting

If for any reason a Microsoft Windows Error Reporting dialog appears, indicating that the GPS Pathfinder Office software has encountered a problem and needs to close, you are asked whether you wish to send an error report to Microsoft.

Trimble recommends that you click **Send** and then click any subsequent links that are used to obtain additional information.

Trimble can access the report that is sent to Microsoft and use it to improve the GPS Pathfinder Office software.

Software Installation

In this chapter:

- Compatible GNSS products
- Platform requirements
- Registering the GPS Pathfinder Office software
- Installing the GPS Pathfinder Office software
- Activating the GPS Pathfinder Office software
- Updating the GPS Pathfinder Office software
- Managing licenses for the GPS Pathfinder Office software

This chapter describes how to install the GPS Pathfinder Office software for the first time.

To install the GPS Pathfinder Office software, you must:

1. Make sure your computer meets the minimum platform requirements for successful operation of the GPS Pathfinder Office software.
2. Register the Proof-of-Purchase Number (POPEN) that you received when you purchased the GPS Pathfinder Office software, and obtain an installation code.
3. Download the software and install it using the installation code you obtained when you registered your POPN.
4. Activate the software on the office computer.

Compatible GNSS products

For a definitive list of supported GNSS receivers and software, refer to the [Product Compatibility List](http://www.trimble.com) on www.trimble.com.

Platform requirements

The minimum platform requirements to ensure successful operation of the GPS Pathfinder Office software are:

- an Intel x86 architecture
- 300 MB of free disk space for a standard installation (with additional space for geoid and data files)
- one of the following Microsoft operating systems, including 64-bit variants:
 - Windows 8 or 8.1
 - Windows 7 (Ultimate Edition, Professional Edition, or Home Premium Edition SP1)
 - Windows Vista® (Ultimate Edition, Enterprise Edition, Business Edition, or Home Premium Edition SP2)
 - Windows XP (Professional Edition, or Tablet PC Edition SP 3)
- Internet Explorer version 6.0 or later
- a USB serial port (for communicating with a field computer running data collection software)

Note – *If you want to transfer data files to or from a device powered by the Windows Mobile® operating system, and you are using a Windows XP operating system, make sure you have installed the appropriate version of Microsoft ActiveSync® technology. If you are using Windows Vista or Windows 7, 8, or 8.1 a connectivity driver for Windows Mobile powered devices is included with your operating system.*

Downloading the GPS Pathfinder Office software

The GPS Pathfinder Office software and documentation are available to download from the Trimble website at www.trimble.com/mappingGIS/PathfinderOffice.aspx, under *Technical Support / Downloads*.

Registering the GPS Pathfinder Office software

Before you can install the GPS Pathfinder Office software, you must register the Proof-of-Purchase Number (POPON) that you received when you purchased the software. You will then receive an installation code that you must enter during the software installation process.

You can only register your POPON for the GPS Pathfinder Office software once. For information about obtaining your installation code when the software has already been registered, see [Obtaining your installation code after registration, page 27](#).

Trimble recommends that you register ***before*** beginning installation.

To register, you need:

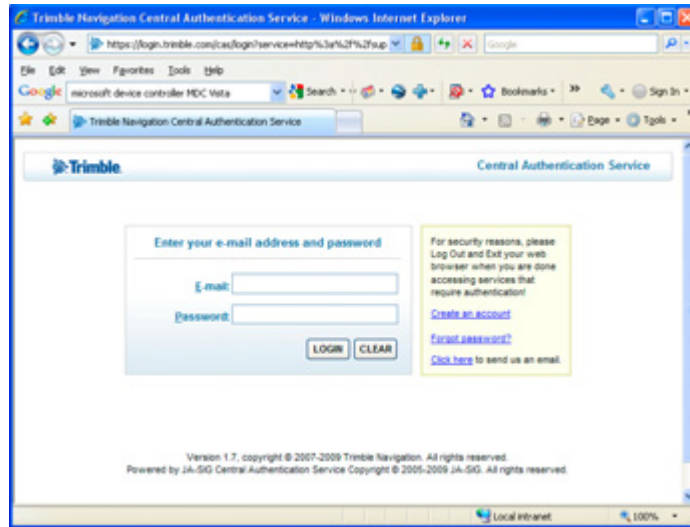
- the Proof-of-Purchase Number (POPON) supplied on the POPON certificate.
- Internet access (including a valid email address)

Note – *If you do not have Internet access, contact your local Trimble reseller for assistance.*

To register your POPN for the GPS Pathfinder Office software:

1. Go to the My Trimble account login page. To do this, open your Web browser and go to www.trimble.com/register.

Your default Web browser opens and displays the My Trimble account login page:

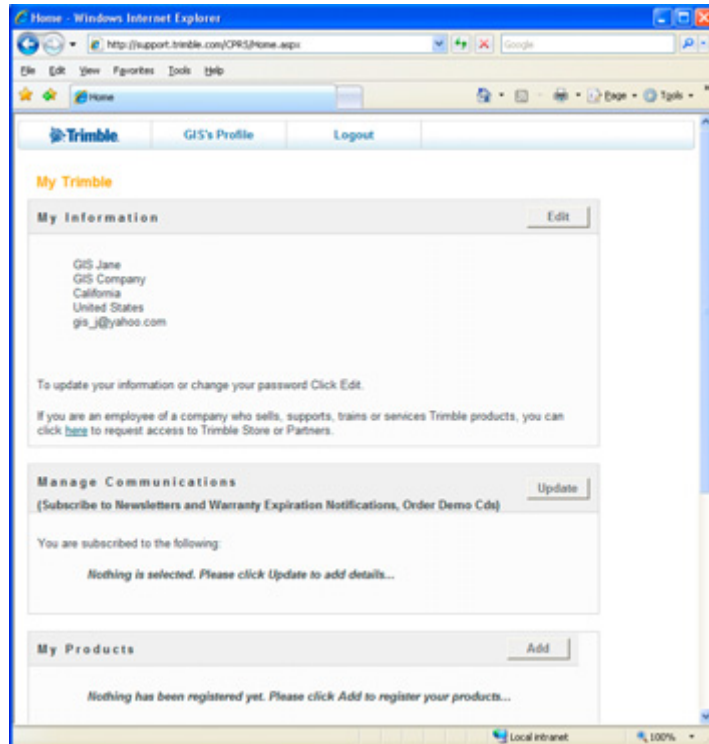


2. If you already have an account, skip this step and go to step 3 to log in.

To create your My Trimble account, click *Create an account*. Enter your contact details and then click **Save**. Your account is created and you are returned to the My Trimble account login page.

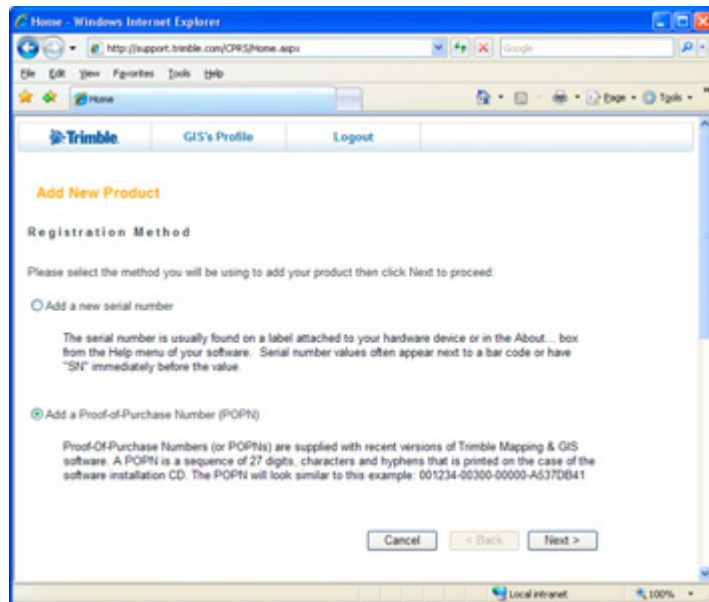
3. Enter your email address and password, and then click **Login**.

The *My Trimble* page for your account appears. It will look similar to the one shown below:



4. To register the GPS Pathfinder Office software, scroll to the *My Products* section and then click **Add**.

The *Registration Method* page appears:



5. Select the *Add a Proof-of-Purchase Number (POPNI)* option and then click **Next**.

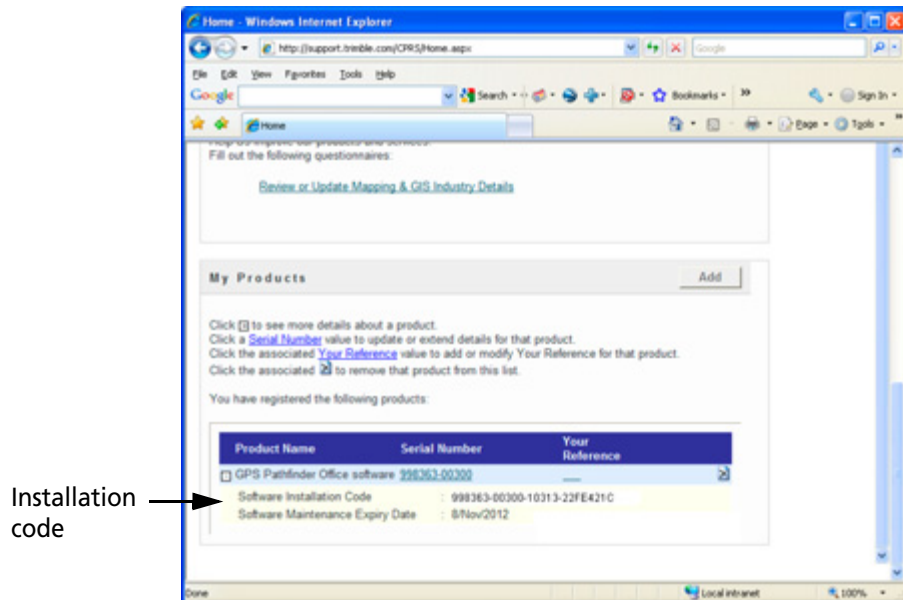
The *Proof-of-Purchase Number (POPN) Details* page appears:

6. Enter the Proof-of-Purchase Number (POPN).
7. If you want to enter your own reference code, for example a sales order number or an asset/inventory number, enter it in the *Your Reference* field.
8. Click **Next**.

Note – If a message warns that the POPN you entered has already been registered, click **Cancel** to cancel the registration process. Then obtain the installation code for your copy of the software and install the software. For more information, see [Obtaining your installation code after registration, page 27](#).

9. If this is the first time that you have registered a Trimble Mapping and GIS product, the *Mapping & GIS Industry Details* page appears. From the drop-down lists, select your organization type and most common market segment and then click **Save**.

You are returned to your My Trimble page, where the software you have just registered now appears in the My Products section:



- If the two lines below the GPS Pathfinder Office software do not appear, click the + beside the line for the GPS Pathfinder Office software that you have just registered.

The *Installation Code* field shows the installation code for the GPS Pathfinder Office software. Make a note of this code. You must enter this code when you install or reinstall the software.

Note – If you are entitled to an upgrade from a previous version of the GPS Pathfinder Office software, you can install the latest GPS Pathfinder Office version using the installation code that you obtained when you first registered the product. If you are **not** entitled to an upgrade, the installation program will not accept your installation code. Contact your local Trimble reseller to purchase a software maintenance option.

Obtaining your installation code after registration

To reinstall the GPS Pathfinder Office software, for example if you uninstall it from one computer and want to reinstall it to another, you must use the same installation code that you received when you registered the software before installing it for the first time.

If you do not know the installation code, do one of the following:

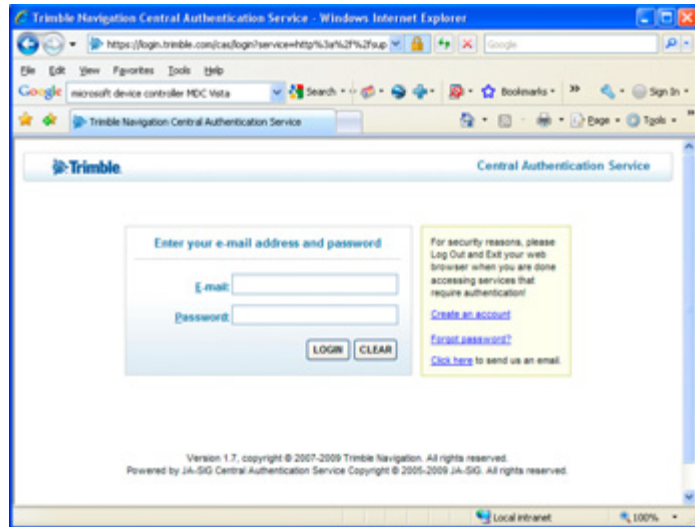
- If someone else at your company registered the software ask them for the installation code.

If you cannot find out who registered the software, contact your local Trimble reseller.
- If you registered your POPN for the software yourself, you can check your installation code from the My Trimble page of the Trimble website.

To do this:

- a. Open your Web browser and go to www.trimble.com/register.

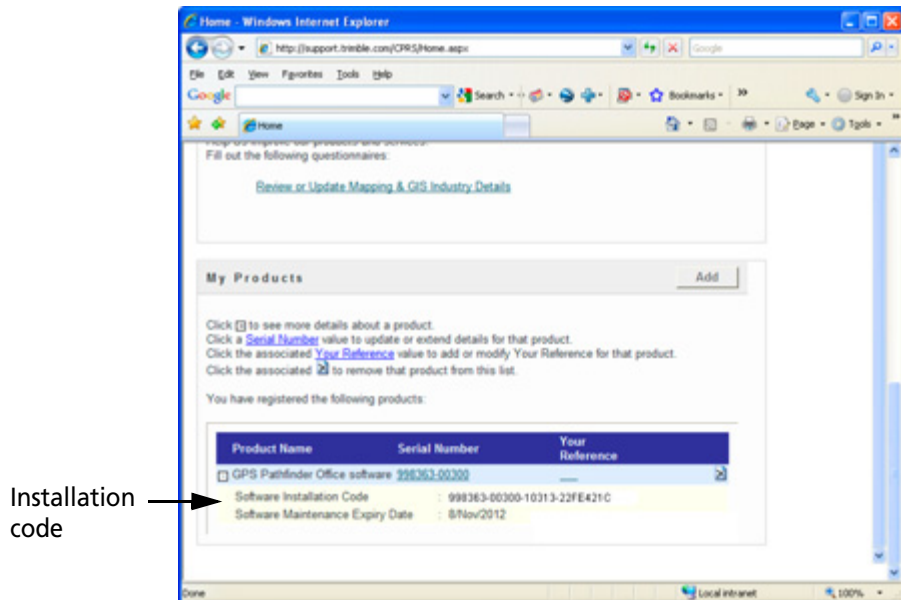
Your default Web browser opens and displays the My Trimble account login page:



Enter your email address and password and then click **Login**.

The *My Trimble* page for your account appears.

- b. Scroll to the My Products section, where any software that you have already registered appears:



- c. If the two lines below the GPS Pathfinder Office software do not appear, click the + beside the GPS Pathfinder Office software that you have just registered.

The *Installation Code* field shows the installation code for the GPS Pathfinder Office software. Make a note of this code. You need to enter this code when you install or reinstall the software.

Installing the GPS Pathfinder Office software

To install the GPS Pathfinder Office software, the computer must have Internet access.

Before you begin

Before you begin the installation process, make sure that:

- The computer meets the minimum requirements for installing the GPS Pathfinder Office software. For more information, see [Platform requirements](#), page 20.
- You have registered your POPN and have made a note of the installation code that you must enter during installation. For more information, see [Registering the GPS Pathfinder Office software](#), page 21.
- You have uninstalled any existing installation of the software from your computer.

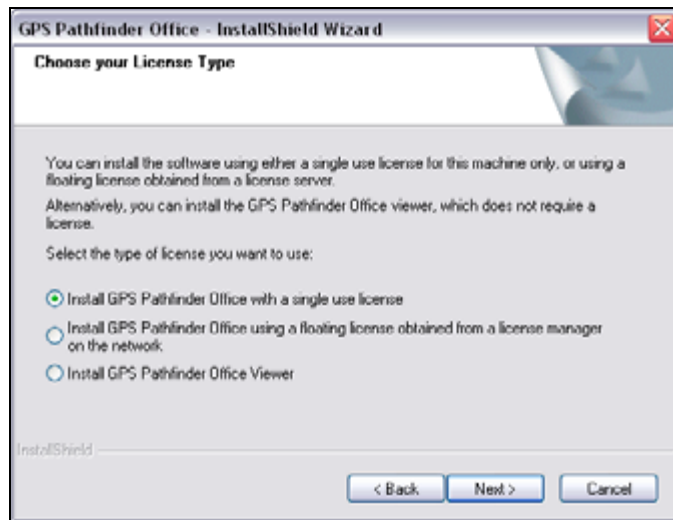
Running the installation program

To install the GPS Pathfinder Office software:

1. Go to www.trimble.com/mappingGIS/PathfinderOffice.aspx, select *Technical Support / Downloads*, and download the latest version of the software.
2. On the office computer, run the installation program.
3. On the *Setup* screen, click *Install*.
4. On the Installation screen, click *Install GPS Pathfinder Office*.
5. On the *Choose Setup Language* dialog, select the language that you require to run the installation. To run the rest of the GPS Pathfinder Office software in a language other than English, after installing the software you must download the appropriate language update from the Web using the Updater utility. For more information, see [Step 18](#) below.

6. Click **Next**.
7. In the *GPS Pathfinder Office InstallShield Wizard* click **Next**.
8. If you have previous versions of the GPS Pathfinder Office software installed on your computer, a message box appears listing any previous versions. Click **Yes** to uninstall the previous versions of the software. An uninstaller appears for each previous version found. Work through each step in the uninstaller and then return to the *GPS Pathfinder Office InstallShield Wizard*.
9. Read the software license agreement and then click **Yes** to accept it.
10. Enter your user name and your company name and then click **Next**.

The *Choose your License Type* page appears:



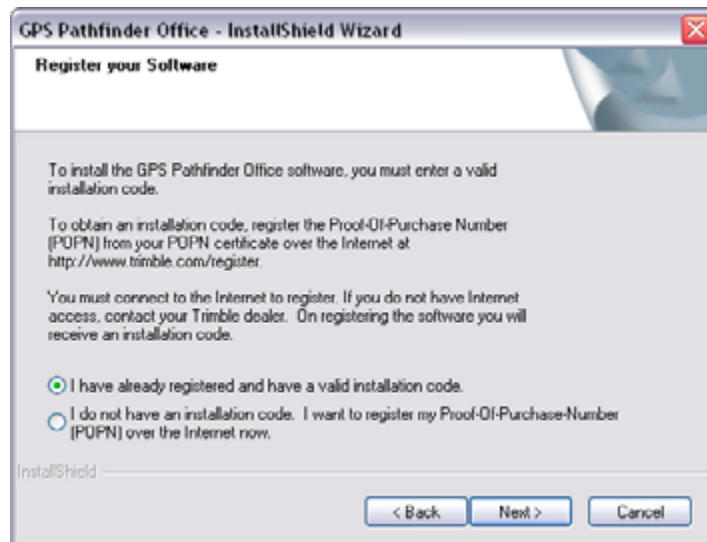
11. Do one of the following:
 - To install the software using a license that is for your installation of the software only, select the *Install GPS Pathfinder Office with a single use license* option and then click **Next**.

- To install the software using a floating license obtained from the Mapping & GIS License Manager software, select the *Install GPS Pathfinder Office using a floating license* option and then click **Next**. Go to [Step 14](#).
- To install the software in Viewer mode which does not require a license, select the *Install GPS Pathfinder Office Viewer* option and then click **Next**. Go to [Step 14](#).
(For more information on Viewer Mode, see [Using the GPS Pathfinder Office software in Viewer Mode](#), page 15)



Tip – You can change between running in Viewer Mode, using a single use license, and using a floating license at any time using the GPS Pathfinder Office License Administrator software. For more information search for the topic **License Administrator** in the *GPS Pathfinder Office Software Help*.

The *Register your Software* page appears:

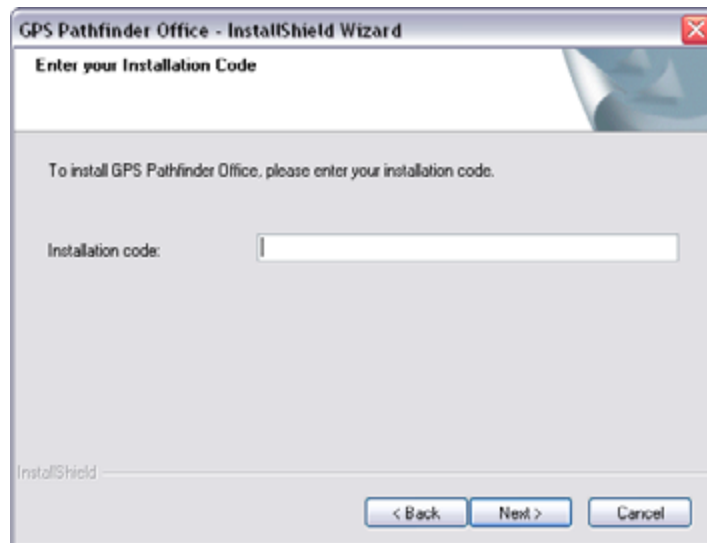


12. Do one of the following:

- If you have registered the software and obtained your installation code for the software, select the *I have already registered and have a valid installation code* option and then click **Next**.
- If you have not yet registered the software and do not have an installation code for the software, select the *I do not have an installation code. I want to register my Proof-of-Purchase-Number (POPN) over the Internet now* option and then click **Next**.

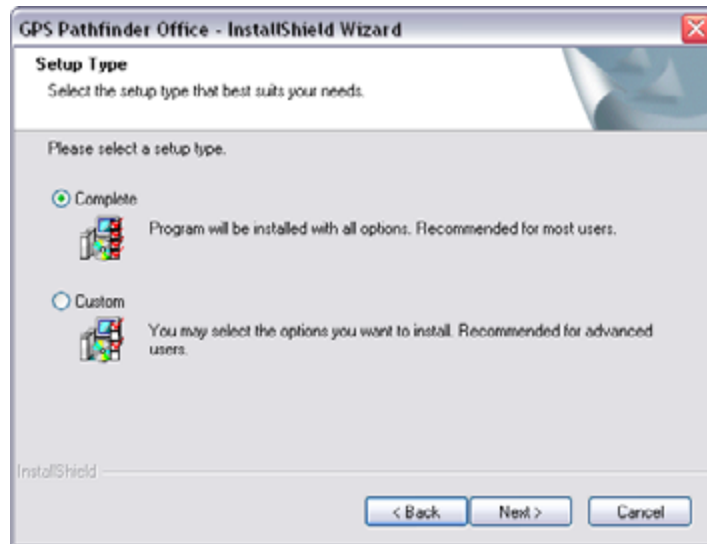
The Register page opens in your default Web browser, displaying the My Trimble account log in. For more information, see [Registering the GPS Pathfinder Office software, page 21](#).

The *Enter your Installation Code* page appears:



13. Enter the installation code that you received when you registered your POPN and then click **Next**.

The *Setup Type* page appears:



14. Select how you want to set up the software. To install:
 - the default setup of the software, select *Complete* and then click **Next**.
 - a custom setup of the software, select *Custom* and then click **Next**. Then do the following:
 - a. In the *Choose Destination Location* page, select the folder where the setup will install the program files and then click **Next**.
 - b. In the *Choose Trimble Shared Files Folder* page, select the folder where the setup will install common components used by the GPS Pathfinder Office software and other Trimble software products and then click **Next**.
 - c. In the *Select Features* page, select the features you want to install, and deselect the features you do not want to install.

In the list of components, clear the check box beside any components you do not want to install. For more information about any component, highlight it in the list. The Description field below the list provides a brief description of the highlighted component.

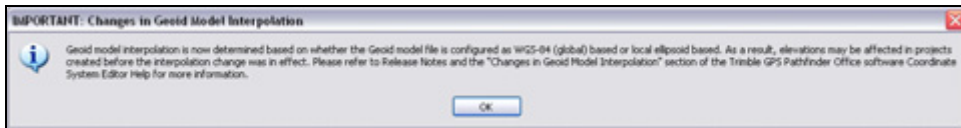
By default, all components are selected, and this is equivalent to selecting the *Complete* option in the *Setup Type* page.

d. Click **Next**.

e. In the *Upgrade Coordinate Systems* page, make sure the check box is selected and then click **Next**.

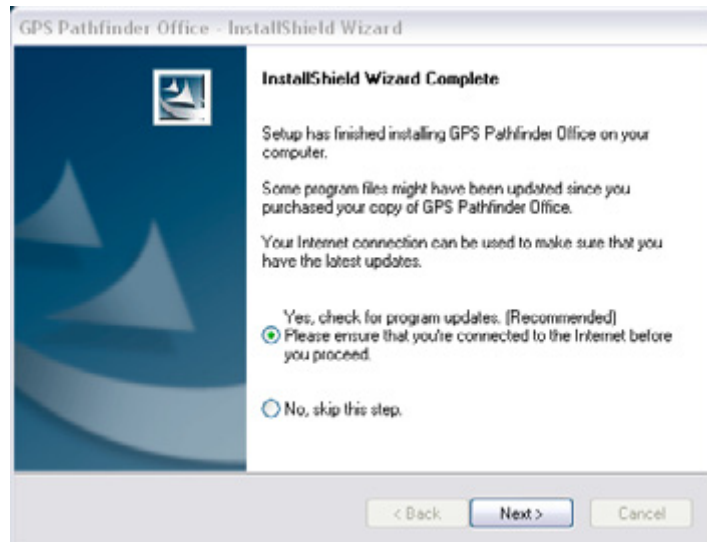
f. In the *Select Default Project Folder* page, select the default folder under which projects will be created and then click **Next**.

15. Select whether you want the Project Changer and Connection Manager utilities to automatically start each time you restart your computer, and then click **Next**.
16. The *Start Copying Files* page appears. Click **Next**.
17. A message displays, informing you of changes in Geoid Model Interpolation. Click **OK**.



Note – For further information, refer to the *GPS Pathfinder Office Help*, version.

The final page of the installation wizard shows *InstallShield Wizard Complete*:



18. Trimble recommends that you click the *Yes, check for program updates* option and then click **Next**.

The GPS Pathfinder Office Updater utility appears. Use the utility to download the latest software updates and documentation from the Trimble website.

If you selected a language other than English in the *Choose Setup Language* dialog (see [Step 5](#) above), and you want to run the rest of the GPS Pathfinder Office software in that language, the Updater utility checks for available language files in the appropriate language.

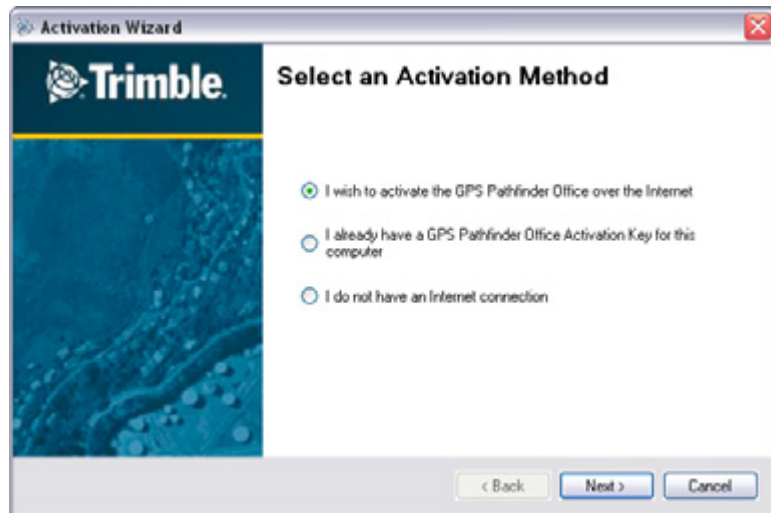
Once you download files, you can install them immediately, or you can run the Updater utility later and select the downloaded files that you want to install.

Activating the GPS Pathfinder Office software

For a single use license, the activation process starts when the installation is complete.

Note – To activate your software at any other time, use the License Administrator software. For more information, see [GPS Pathfinder Office License Administrator software, page 41](#).

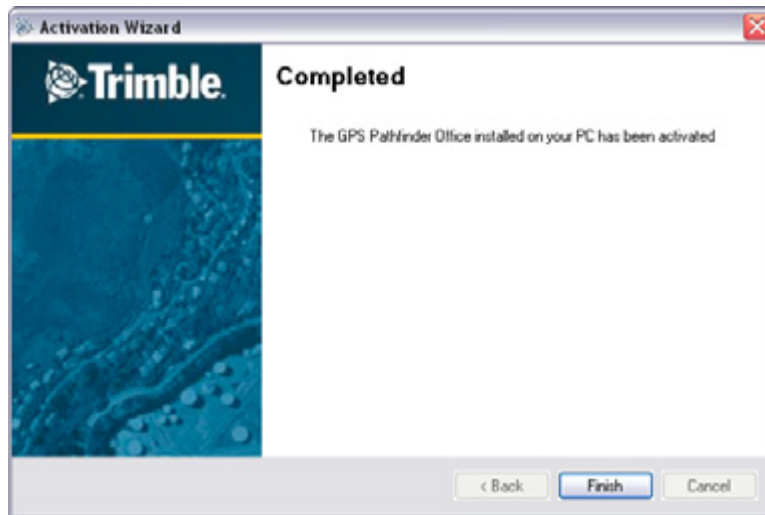
1. Enter your installation code and then click **Next**.
2. Select an activation method:



The options are:

Select this method	If...	
I wish to activate the GPS Pathfinder Office software over the Internet	Your office computer is connected to the Internet. Trimble recommends this method.	The activation process communicates directly with the Trimble Activation server and activates the GPS Pathfinder Office software on your computer.
I already have a GPS Pathfinder Office software Activation Key for this computer	If your Trimble Reseller has provided you with an Activation Key, or you have previously activated this Installation Code on the same computer and kept a record of the Activation Key.	<p>The Activation Wizard prompts you for the folder where the Activation Key is stored. This could be on a local or network drive, or an external memory card, such as a USB memory stick or SD card:</p> <p>Use the Browse button to navigate to the required folder.</p> <p>If the Activation Wizard cannot find an Activation Key for the computer in the selected folder, it will continue to prompt for a different folder.</p> <p>Activation succeeds only if the Activation Key matches the computer.</p>
I do not have an Internet connection	You do not have an Internet connection.	<p>Print out or write down the information that appears on the next screen, and send the information to your Trimble reseller. Your Trimble reseller will return the Activation Key on an electronic media (diskette, CD, SD card, or USB memory stick).</p> <p>Insert the media into the office computer that the software is installed on.</p> <p>Follow the steps as described above for I already have a GPS Pathfinder Office software Activation Key for this computer.</p>

- Click **Next**, and then click **Finish**. Activation is complete:



Activation troubleshooting

One of the following issues may occur:

- No valid Installation Code.
- The Installation Code is assigned to another computer

In these circumstances, enter a valid or previously unused Installation Code. If in doubt, contact your Trimble reseller.

Updating the GPS Pathfinder Office software

Trimble recommends that you check for software updates during the installation process (see [Step 18, page 36](#)).

To check for software updates at any other time, do one of the following:

- From the Windows Start menu, select *All Programs / Trimble / GPS Pathfinder Office / GPS Pathfinder Office Updater*.

- From the GPS Pathfinder Office main window, select *Help / Check for new GPS Pathfinder Office updates now*.

For more information about the GPS Pathfinder Office Updater utility, refer to the *GPS Pathfinder Office Updater Utility Help*.

Managing licenses for the GPS Pathfinder Office software

The Trimble Mapping & GIS License Manager software enables you to manage floating licenses for Trimble Mapping and GIS software products. You can use the Mapping & GIS License Manager software to:

- View floating license information
- Add new or updated licenses

The Mapping & GIS License Manager is installed on a network computer and communicates with the client machine where the License Administrator software is installed (see [GPS Pathfinder Office License Administrator software, page 41](#)).

Installing the Mapping and GIS License Manager software

Note – Microsoft .NET Framework 3.5 and Microsoft Chart Controls for Microsoft .NET Framework 3.5 must be installed.

1. Go to www.trimble.com/mappingGIS/PathfinderOffice.aspx, select *Technical Support / Downloads*, and download the latest version of the software.
2. On the office computer, run the installation program.
The Setup screen appears.
3. Click *Install*.
The Installation screen appears.
4. Click *Mapping & GIS License Manager*.

5. The Mapping & GIS License Manager installation wizard appears.

Follow the instructions on the screen to install the Mapping & GIS License Manager software.

Mapping and GIS License Manager Help

The *Mapping & GIS License Manager Help* is installed on the server machine with the Mapping & GIS License Manager software. It provides detailed information about using the software.

To view the Help, click the **Help** button provided in the *Mapping & GIS License Manager* window, or click **Start** on the Windows taskbar, and then select *All Programs / Trimble / Mapping & GIS License Manager / License Manager Help*.

GPS Pathfinder Office License Administrator software

The GPS Pathfinder Office License Administrator software is installed on the client machine when you install the GPS Pathfinder Office software.

To open the GPS Pathfinder Office License Administrator software, click *Start / All Programs / Trimble / GPS Pathfinder Office / GPS Pathfinder Office License Administrator*.

The GPS Pathfinder Office License Administrator displays information about the type of license used by your installation of the GPS Pathfinder Office software.

Use the GPS Pathfinder Office License Administrator to:

- Change the license manager that the GPS Pathfinder Office software obtains its license from.

For example, the license manager may be reinstalled on a different computer.

- Change from running in Viewer Mode to using a single use license.
- Change from using a floating license to running in Viewer Mode.

You may want to switch from a floating license to Viewer Mode, for example, if you take your computer to a site office for several days of field work; the GPS Pathfinder Office software will not be able to communicate with the License Manager to obtain a floating license, so you must change to running in Viewer Mode. You can change it back once you return to the office.



CAUTION – If you change to a single use license, that license will be activated and associated with your computer.

- Activate the GPS Pathfinder Office software on a computer when using a single use license. For more information on activating the software, see [Activating the GPS Pathfinder Office software, page 37](#).

For more information, search for the topic **GPS Pathfinder Office License Administrator** in the *GPS Pathfinder Office Software Help*.

Basics of Operation

In this chapter:

- Starting the GPS Pathfinder Office software
- Features of the application window
- Map and Time Line windows
- Toolbars
- Shortcut menus
- Measurement units
- Configuring the GPS Pathfinder Office software
- Exiting the GPS Pathfinder Office software

This chapter describes the windows, toolbars, and menu commands that comprise the GPS Pathfinder Office software, and explains how to configure the time zone, open a project, and select a coordinate system.

Starting the GPS Pathfinder Office software

To start the GPS Pathfinder Office software, do one of the following:

- From the Windows *Start* menu, select *All Programs / Trimble / GPS Pathfinder Office / GPS Pathfinder Office*.
- Double-click the GPS Pathfinder Office shortcut icon on the desktop:
- The software opens and displays the main GPS Pathfinder Office application window (see [Features of the application window](#), page 45).



Setting the time zone

The first time you start the GPS Pathfinder Office software, you are asked to set the time zone. It is important to configure GPS Pathfinder Office for the local time zone. If you do not, the time records in field data files display as GPS time, which approximates Greenwich Mean Time. For more information, see [Setting the local time zone](#), page 62.

Selecting a project

When you first start the GPS Pathfinder Office after installation, the *Select Project* dialog appears.

A project consists of a set of folders on the computer that store the data files for a particular job. Projects let you separate the data into different areas on the computer so you can keep track of different jobs separately.

By default, all GPS Pathfinder Office software projects are located in the GNSS Projects folder. The location of the GNSS Projects folder depends on the type of Microsoft operating system running on your computer. If it uses the:

- Windows Vista or Windows 7, 8, or 8.1 operating system, the GNSS Projects folder is located in the `C:\Users\<username>\Documents` folder.

- Windows XP operating system, the GNSS Projects folder is located in the C:\Documents and Settings\<username>\My Documents folder.

Note – If you are using version 5.10 of the GPS Pathfinder Office software on a computer that had a version earlier than version 4.00 of the GPS Pathfinder Office software installed, the default project folder continues to be C:\Pfdata.

For more information, see [Selecting a project](#), page 63.

Features of the application window

When you start GPS Pathfinder Office, the main application window appears. The GPS Pathfinder Office application window (with the *Map* and *Time Line* window open) is shown in [Figure 3.1](#).

The ...	does the following ...
Title bar	displays the name of the software (GPS Pathfinder Office), followed by the name of the current data file, if a data file is open. In this case tutorial.ssf.
Toolbars	offer convenient access to frequently used operations and utilities. For more information, see page 55 .
<i>Map</i> window	shows the open file along with any background files.
<i>Time Line</i> window	shows a visual display of when the data was collected along a linear time axis.
<i>Position Properties</i> window	lets you view the positions of a feature. You can also delete a position.
<i>Feature Properties</i> window	lets you view a note and view and change the attributes, status, and offset of a feature.
Status bar	displays the coordinated system selected and the map coordinates of the current cursor position or selected feature.

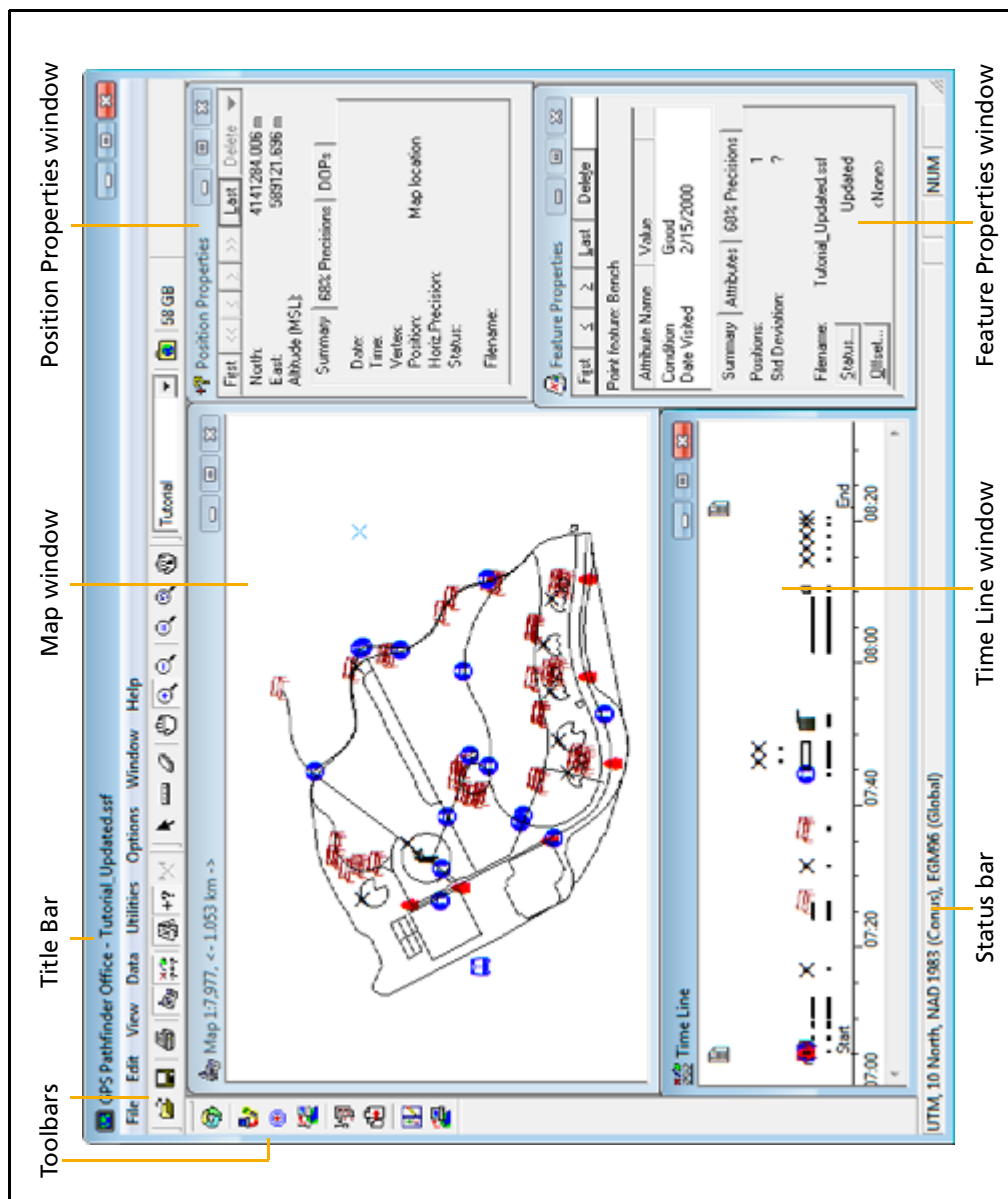


Figure 3.1 GPS Pathfinder Office application window

Map and Time Line windows

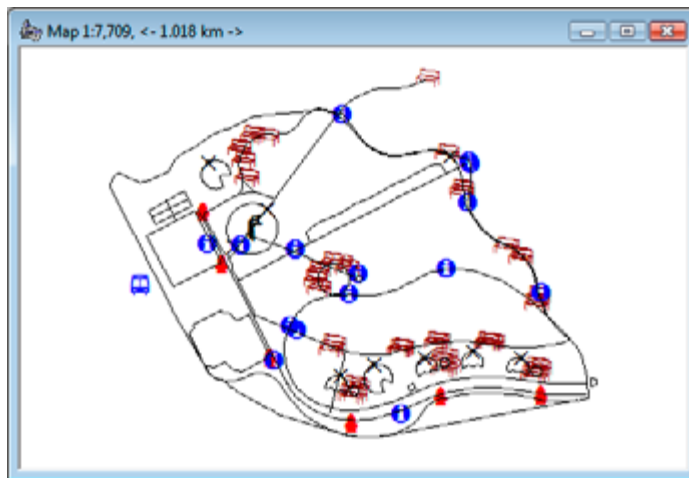
The GPS Pathfinder Office software makes extensive use of windows. There are two main windows:

- the *Map* window
- the *Time Line* window

These windows are described in more detail below.

Map window

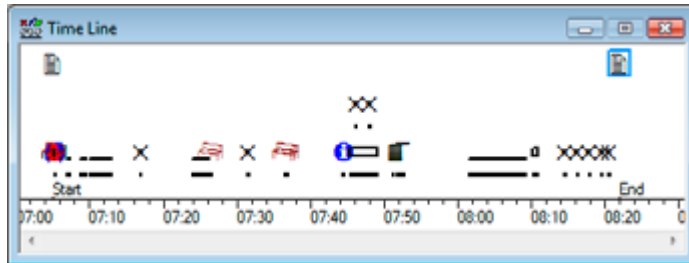
The *Map* window is the primary means of viewing your data. It provides a plan view of the area. The *Map* window can display the features you have collected, the waypoints in the current waypoint file, and any number of background maps:



You can select the features, waypoints, and notes to view information about them, or to change them.

Time Line window

The *Time Line* window provides an alternative view of your data. It displays the features and notes you have recorded in the current data file along a time axis (it does not display waypoints or backgrounds):



You can select the features and notes to view information about them, or change them.

Manipulating and moving the windows



You can manipulate the *Map* and *Time Line* windows like any other window. You can move them, resize them, zoom in and out, and 'pan' around the display.

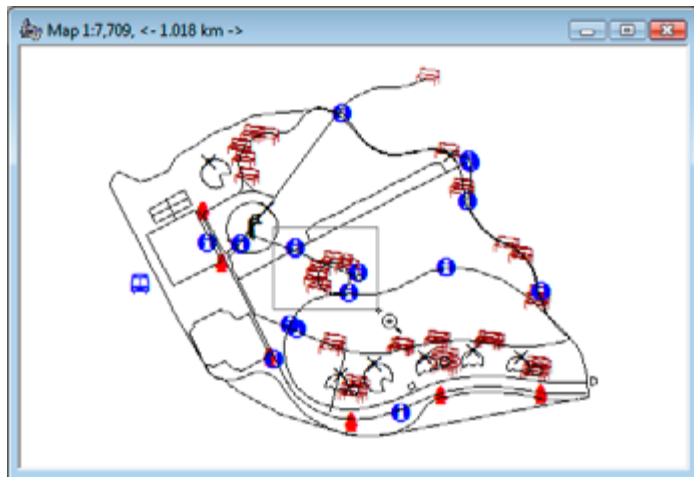
Zooming

In both the *Map* and *Time Line* windows, you can:

- zoom in to view information in greater detail
- zoom out to view a greater area
- zoom to extents to view all the information in the window
- zoom to the scale that the map was previously set to

To zoom in:

1. Click the *Zoom In* tool: . Alternatively, select *View / Zoom / In*.
The tool remains depressed.
2. Move the pointer over the window.
It now displays as a magnifying glass with cross-hairs  which mark the position of the pointer:
3. Do one of the following:
 - Click a position in the window.
The scale of the window is halved, and the position becomes the new center of the window.
 - Drag the pointer across the window until you produce a rectangle that contains the data you want to zoom in on:



The smaller the area, the greater the scale change.


Release the mouse button. The window zooms in on the rectangle you defined, so that the contents of the rectangle now occupies the whole window.

Zooming out is the opposite of zooming in and works in a similar way.


To zoom out:

1. Click the *Zoom Out* tool: . Alternatively, select *View / Zoom / Out*.

The tool remains depressed.


2. Move the pointer over the window. It becomes .
3. Do one of the following:
 - Click a position in the window. The scale of the window is doubled, and the position becomes the new center of the window.
 - Drag the pointer across the window until you produce a rectangle. The smaller the rectangle, the greater the scale change will be. Release the mouse button. The scale of the window changes, and the area previously displayed in the whole window now occupies the rectangle.

To zoom to extents:

1. Click the *Map* or *Time Line* window, to make it the active window.
2. Click the *Zoom Extents* tool: . Alternatively, select *View / Zoom / Extents*.

The window now displays all the information for the visible layers in the currently-open files. The previously selected tool remains selected.

To zoom to the previous scale:



1. Click the *Map* or *Time Line* window, to make it the active window.
2. Click the *Zoom Previous* tool . Alternatively, select *View / Zoom / Previous*.

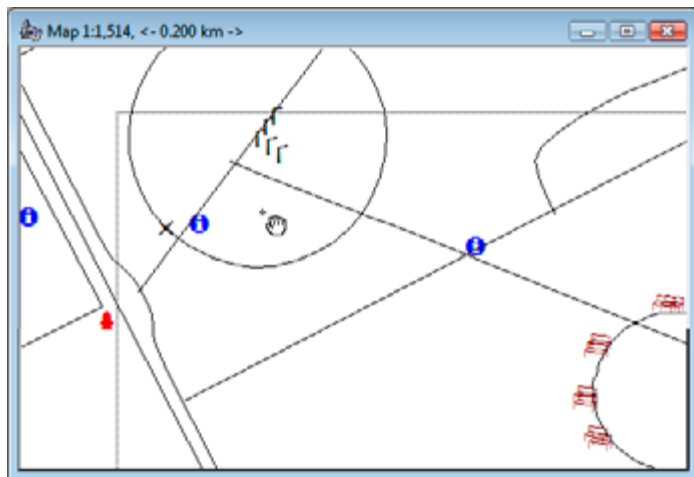
The window now displays information at the scale used before you last zoomed or panned.

Panning

To view a different area or time period of the data file, pan around the *Map* and *Time Line* windows. You can also configure the windows so that they pan automatically to include the currently selected item.


To pan across the window:

1. Click the *Pan* tool: . Alternatively, select *View / Pan*.
The tool remains depressed.
2. Move the pointer over the window.
The pointer becomes .
3. Do one of the following:
 - Click a position in the window. That position becomes the new center of the window.
 - Drag the pointer in the direction and for the distance you want to pan. A dotted border indicating the amount the window view will move appears as you drag the pointer:



Release the mouse button. The contents of the window shifts in the direction and for the distance indicated by the dotted border.

To automatically pan the *Map* or *Time Line* windows to any selected item:

1. Click the *Auto-pan to Selection* tool . Alternatively, select *View / Auto-pan to Selection*.

A check mark (✓) appears beside the menu command.

2. Do one of the following:
 - Select a feature using *Edit / Find Feature* or *Data / Feature Properties*. The *Map* or *Time Line* window (whichever is active) automatically pans so that the item is displayed.
 - Select a waypoint using *Data / Waypoint Properties*. The *Map* window automatically pans so that the item is displayed.



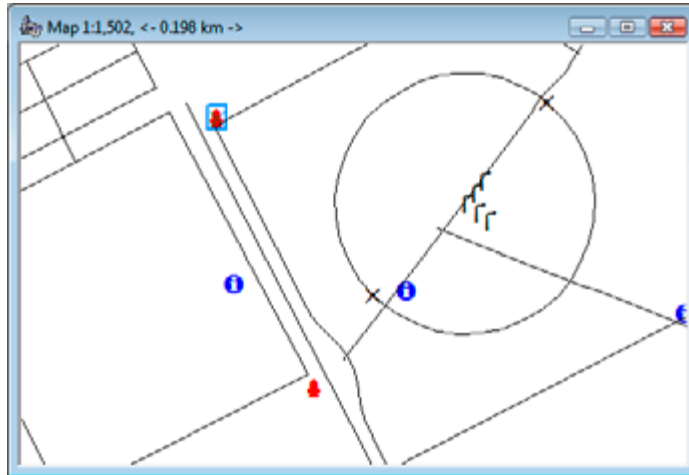
Tip – You can use this option to locate a feature or waypoint which is hard to find on the *Map* or *Time Line* window.

Selecting an item

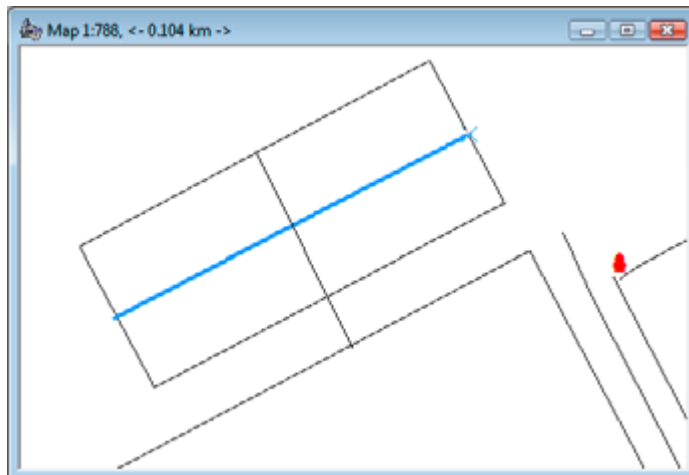
You can select items displayed on the *Map* or the *Time Line* window. Only one item (one feature, note, or waypoint) can be selected at a time.

- If a feature is selected in the *Map* or *Time Line* window, it is selected in both windows. It also appears in the *Feature Properties* window. (If the *Feature Properties* window is not open, double-click a feature.)
- If a waypoint is selected on the *Map* window, it is also selected in the *Waypoint Properties* window.
- If a note is selected in the *Time Line* window, it is also selected in the *Feature Properties* window.

A selected point feature, waypoint, or note has a frame around it, for example the fire hydrant symbol near the top of the window in the Map window shown below:



A selected line or area feature is drawn with a thicker line type, for example the line across the centre of the rectangle shown below:



To select an item, do one of the following:

- Double-click the item to select it. The *Feature Properties* window or *Waypoint Properties* window opens.
- Click the item using the *Select* tool. It is shown as selected and the window it is in becomes the active window, if it was not already.
- Use the arrow keys on your keyboard to move the cursor over the map, and press the space bar to select a feature or map point.

Saving the window layout

When you run the GPS Pathfinder Office software for the first time, a default arrangement of windows appears on the screen. You can change this, so that the GPS Pathfinder Office software starts with the windows you want open.

You can set up the windows you want to open automatically when the GPS Pathfinder Office software starts. To set the window layout for subsequent sessions:

1. Resize and position the GPS Pathfinder Office windows so that they are the way you want them.
2. From the *Options* menu choose *Save Window Layout on Exit* so that it has a check mark (✓) beside it.
3. Exit the GPS Pathfinder Office software.
4. Each time you subsequently start the GPS Pathfinder Office software, it recreates the last arrangement of windows that you had when you closed the software.

Toolbars

Tools with related functions are grouped together in different toolbars. Some tools display a dialog; other tools change the pointer, and some start utility programs.

The GPS Pathfinder Office software has four toolbars:

- Standard



For more information, see [page 57](#).

- Project



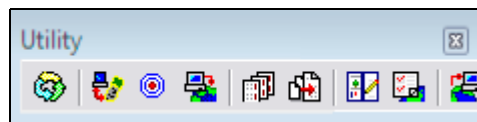
For more information, see [page 58](#).

- Mouse



For more information, see [page 58](#).

- Utilities



For more information, see [page 59](#) and [Chapter 4, The GPS Pathfinder Office Software Utilities](#).

Displaying a toolbar

You can show or hide a toolbar.

To display a toolbar, select *Options / Toolbars*. From the pullout menu, select the toolbar you want to display.



Tip – To display the *Toolbar* submenu you can also right-click on the edge of the toolbar area.

If a toolbar is visible, a check mark (✓) appears beside its name. Select the toolbar in the submenu to remove the checkmark. The toolbar disappears.

Select an un-checked toolbar to make the toolbar appear again.

Floating a toolbar

You can move a toolbar from its ‘docked’ position and create a ‘floating’ toolbar, so that the toolbars are in a more convenient location for you.

To create a floating toolbar:

1. Place the mouse anywhere within the area of the toolbar, **but not** directly over a button.
2. Click once and hold the mouse down (the toolbar is depressed).
3. Drag the toolbar away from its docked position while continuing to hold the mouse down.
4. Release the mouse at a position where you want to place the floating toolbar.

To move a floating toolbar to any position on the desktop, drag the toolbar by its title bar.

To change the shape of a floating toolbar, use its window border to resize it.

To close a floating toolbar, click the close box in the top right corner of the toolbar.

To return the toolbar to its previously docked position, double-click its title bar. Alternatively, drag it back to the toolbar area. Toolbars can be docked in any order.

Selecting a tool in a toolbar

To select a tool in the toolbar, do one of the following:

- Click the tool (button) on the toolbar.
- Select the equivalent menu command.











Tip – Position the pointer over any tool. A small yellow popup window (ToolTip) appears, showing the name of the tool. Additional information appears in the status bar at the bottom of the application window.

Standard toolbar

The *Standard* toolbar contains tools for file and window operations:



Tool	Description	Equivalent menu command
 Open	Opens a data file(s).	<i>File / Open</i>
 Save	Saves a data file.	<i>File / Save</i>
 Plot Map	Prints a data file.	<i>File / Plot Map</i>
 Map	Opens the <i>Map</i> window.	<i>View / Map</i>
 Time Line	Opens the <i>Time Line</i> window.	<i>View / Time Line</i>
 Feature Properties	Opens the <i>Feature Properties</i> window.	<i>Data / Feature Properties</i>
 Position Properties	Opens the <i>Position Properties</i> window.	<i>Data / Position Properties</i>
 Waypoint Properties	Opens the <i>Waypoint Properties</i> window.	<i>Data / Waypoint Properties</i>

Project toolbar

The *Project* toolbar contains items to help you manage projects:








Item	Description
	Displays the name of the folder set for the present project. Change the project by selecting a project name from the drop-down list.
	Opens the folder named in the Current Project drop-down list box in a Windows Explorer view.
	Displays the amount of free disk space on the drive where the current project is stored.

Mouse toolbar

The *Mouse* toolbar contains tools for the mouse and view actions:








Tool	Description	Equivalent menu command
	Select Lets you select an item in the <i>Map</i> or <i>Time Line</i> window. The pointer always appears as an arrow. Click on an item in the <i>Map</i> or <i>Time Line</i> window to select that item.	<i>Edit / Select</i>
	Measure Lets you measure distances between two or more points, and areas within a polygon.	<i>Data / Measure</i>
	Delete Block Lets you delete all positions within a selected rectangle.	<i>Edit / Delete Block of Positions</i>
	Pan Lets you pan across the contents of the <i>Map</i> or <i>Time Line</i> windows, so that a different part of the window is displayed.	<i>View / Pan</i>





Tool	Description	Equivalent menu command
	Zoom In Lets you zoom in on a part of the <i>Map</i> or <i>Time Line</i> window. This magnifies the display by decreasing the scale.	<i>View / Zoom / In</i>
	Zoom Out Lets you zoom out on the <i>Map</i> or <i>Time Line</i> window. This lets you see a greater area by increasing the scale.	<i>View / Zoom / Out</i>
	Zoom Extents Acts on the <i>Map</i> or <i>Time Line</i> window (whichever is the active window). It changes the scale so that the window displays all the information for the visible layers in the currently open files.	<i>View / Zoom / Extents</i>
	Zoom Previous Lets you undo the last zoom or pan command and return to the previous view.	<i>View / Zoom / Previous</i>
	Auto-pan to Selection Configures the <i>Map</i> and <i>Time Line</i> windows to always display the currently selected item.	<i>View / Auto-pan to Selection</i>

Utility toolbar

The *Utility* toolbar contains tools for opening utility programs:



Tool	Utility	Equivalent menu command
	Batch Processor utility	<i>Utilities / Batch Processor</i>
	Trimble Data Transfer utility	<i>Utilities / Data Transfer</i>
	Differential Correction wizard	<i>Utilities / Differential Correction</i>
	Export utility	<i>Utilities / Export</i>
	Grouping utility	<i>Utilities / Grouping</i>

Tool	Utility	Equivalent menu command
	Combine utility	<i>Utilities / Combine</i>
	Data Dictionary Editor utility	<i>Utilities / Data Dictionary Editor</i>
	TerraSync Studio utility	<i>Utilities / TerraSync Studio</i>
	Import utility	<i>Utilities / Import</i>

For an overview of the utilities available in the GPS Pathfinder Office software, see [Chapter 4, The GPS Pathfinder Office Software Utilities](#).

For full details on the utilities in the GPS Pathfinder Office software, see the *GPS Pathfinder Office software Help*.

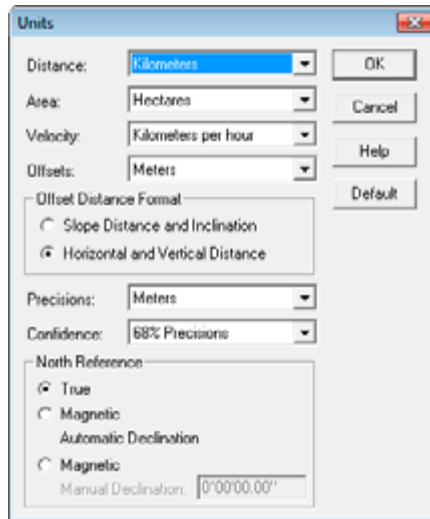
Shortcut menus

Shortcut menus in the GPS Pathfinder Office software appear when you right-click items. The items that appear in the shortcut menu depend on the item selected.

For example, right-click a feature in the *Map* or *Time Line* window to display menu options such as *Zoom In*, *Zoom Out*, *Pan*, *Delete*, *Properties*, and *Symbol*.

Measurement units

To select the units used to display or enter numeric values used by the GPS Pathfinder Office software, select *Options / Units*. The *Units* dialog appears:



Use the *Units* dialog to choose units for distance, area and velocity, as well as the formats for display of offsets and bearings. The default values and options are shown above.

To set units for coordinates and heights, and the reference for altitudes, select *Options / Coordinate System*.

Values that you enter into a field are often in a particular unit, for example meters. The field displays an abbreviation for the unit after the value, so that you know the current units.



Tip – To convert data into the configured units, simply enter the value followed by the abbreviation for the units it is in. For example, if meters is the configured unit, and you enter 10 ft, it is converted to 3.048 m. This applies only to fields that contain distances, offsets, heights, or coordinates.

Table 3.1 lists the available units and their abbreviations.

Table 3.1 Unit abbreviations

Unit	Abbreviation
Meters	m
Feet	ft
Inches	in
Kilometers	km
Millimeters	mm
Miles	mi
Namibian meters	nam
Yards	yd
Nautical Miles	nm
US Survey Feet	USft

Configuring the GPS Pathfinder Office software

There are three options in the GPS Pathfinder Office software that are important to configure before you use it:

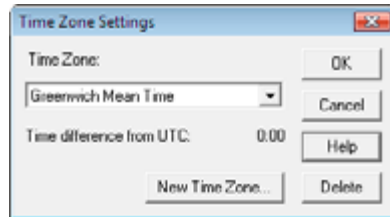
- set the local time zone
- select a project
- select a coordinate system

Setting the local time zone

You must configure the GPS Pathfinder Office software for the local time zone. If you do not, the time records in field data files display as GPS time, which approximates Greenwich Mean Time. Normally, you set the local time zone once (and whenever summer time changes are necessary).

To set the local time zone:

1. The first time you start the GPS Pathfinder Office software, a message may appear, asking you to set the time zone.
2. Click **Yes**.
3. The *Time Zone Settings* dialog automatically appears. If it does not, select *Options / Time Zone*. The *Time Zone Settings* dialog appears:



4. From the *Time Zone* field, select the time zone for your current location.



Tip – If the local time zone is not available, click **New Time Zone**. The *Add Time Zone* dialog appears. Enter the name of the time zone and the offset from Greenwich Mean Time. For example, if the time zone is 9 hours and 45 minutes behind Greenwich, enter -9:45 as the offset. Click **OK**.

5. Click **OK** to save the time zone settings and close the dialog.



Tip – To display GPS times at any stage, select Greenwich Mean Time (+0:00) instead of the local time zone.

Selecting a project

A project is a set of folders on the computer that store the data files for a particular job. They let you separate the data into different areas on the computer so that you can keep track of different jobs separately.

You must decide how you want to use projects to separate the data. You may want to have a different project for each different site you are working on, or you may have a project for each of your clients.

Note – *If you include invalid characters, such as ?, +, >, or “”, when naming a new project, you will receive an error message.*

A project defines where certain types of files are stored on the computer. Each project can point to a different set of folders. The types of files that are distinguished by projects are:

- data files, including files created by importing from a GIS
- base files
- exported GIS or CAD format files
- backup copies of field data files

Each of these file types can be assigned a different default folder. By default, this folder is selected whenever you open or save one of the above types of files. In most cases you are not limited to just this folder, but it serves as a useful default.

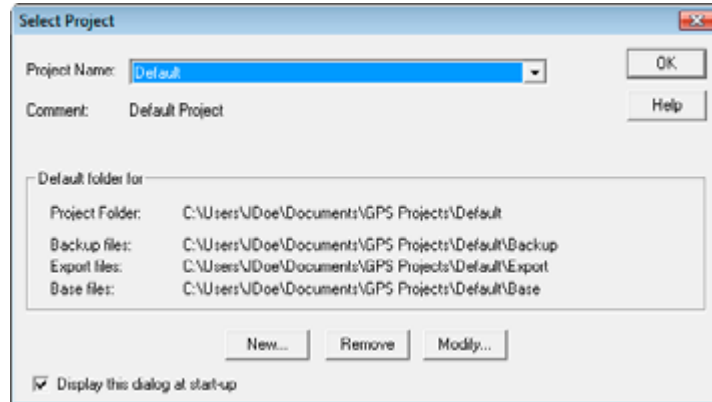
The types of data that are **not** distinguished by projects are:

- data dictionaries
- TerraSync Studio files
- waypoint files
- background files
- configuration files

These five types of files can be stored in projects if you want. However, if you change projects the default folder will not change. Usually these types of files are stored separately from project data so that they can be accessed easily by all projects.

To select a project:

1. When you start the GPS Pathfinder Office software, the *Select Project* dialog appears automatically:

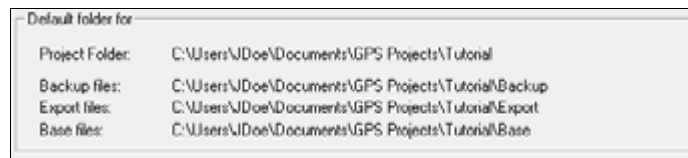


If this dialog does not appear, select *File / Projects* to display it.



Tip – To stop the *Select Project* dialog appearing each time you start the GPS Pathfinder Office software, clear the *Display this dialog at start-up* check box.

2. From the *Project Name* field, select the required project.
3. The default folders area will look similar to the following:



This area shows the folders that are defined for the selected project. [Table 3.2](#) describes the purpose of each folder.

Table 3.2 Contents of the folder

The folder ...	is defined as ...	Description
project	GNSS Projects\ProjectA	This is the main project folder where the data files are stored. Whenever you open, save, or import a data file, this folder is selected by default.
backup	GNSS Projects\ProjectA \Backup	A folder within the main project folder. This is the folder where backup copies of the field data are kept. Backup copies are made when files are transferred from a field computer to the office computer.
export	GNSS Projects\ProjectA \Export	A folder within the main project folder of GNSS Projects\ProjectA. This is the folder where any exported GIS or CAD format files are created by default.
base file	GNSS Projects\ProjectA \Base	A folder within the main project folder of GNSS Projects\ProjectA. When selecting base files for differential correction, by default, the software looks in this folder. If you have one central folder for all base files, you can define this folder explicitly when creating your own projects. For example, if all of the base data resides on a network folder, n:\Basedata, enter this folder in the Base files field. The same rule holds for the other folders of a project.

4. Click **OK** to accept the project.

For an introduction to projects, and for more information on the *Select Project* dialog, search for the topic **Projects** in the *GPS Pathfinder Office Software Help*.

Selecting a coordinate system

You need to use a coordinate system that is suitable for the area in which you are collecting data. For example, in order to display collected GNSS positions in relation to a background map, the GPS Pathfinder

Office software must be able to relate GNSS latitude and longitude coordinates to north and east coordinates on the map. It is also critical that you have the correct coordinate system selected when you:

- enter waypoint coordinates
- print or plot the map
- export coordinates to a GIS or CAD package
- import features from a GIS or CAD package
- enter manual positions

In the GPS Pathfinder Office software you can choose the correct coordinate system by selecting a coordinate system and an associated zone, or by selecting a local site. To properly specify a system, you need to select a zone and/or datum. Your choice affects the display of the field data, but not the data itself.

For an introduction to the concepts of coordinate systems and zones (and the associated concepts of a datum, an ellipsoid, and a geoid), search for the topic **About Coordinate Systems and Datums** in the *GPS Pathfinder Office Software Help*.



Tip – The currently selected coordinate system is displayed in the status bar.

1. Select *Options / Coordinate System*. The *Coordinate System* dialog appears:



2. Set the required values and then click **OK**.

Exiting the GPS Pathfinder Office software

To exit the GPS Pathfinder Office software:

1. Select *File / Exit*. If a data file is still open and there are unsaved changes, a message appears asking if you want to save your data.
2. Click **Yes** to save and close the data file and quit the GPS Pathfinder Office software.

The GPS Pathfinder Office application window closes.

The GPS Pathfinder Office Software Utilities

In this chapter:

- The Batch Processor utility
- The Check SSF Files utility
- The Configuration Manager utility
- The Combine utility
- The Connection Manager utility
- The Coordinate System Manager
- The Data Dictionary Editor utility
- The Data Transfer utility
- The Differential Correction Wizard
- The Export utility
- The Grouping utility

- The Import utility
- The ShapeCorrect utility
- The SSF Record Editor
- The SSF to RINEX utility
- The TerraSync Studio utility
- The GPS Pathfinder Office Updater utility

This chapter describes the utilities that are available in the GPS Pathfinder Office software.

For full details of how to use the utilities, see the *GPS Pathfinder Office software Help*.

The Batch Processor utility

Note – *The Batch Processor utility is disabled if you are running the GPS Pathfinder Office software in Viewer mode.*

The Batch Processor utility is designed to automate repetitive tasks that must be performed after you have collected field data. You can set up the Batch Processor utility to:

- download data files from your data collector.
- differentially correct your files.
- format your files for your particular GIS system.
- import and process your files with your GIS software, depending on the power of its own batch or macro language.

You can save your settings as a batch setup to use in future sessions. A batch setup will store information about, and specific settings for, the Data Transfer, Differential Correction, Export, and User Command functions you select. It will also associate a particular project with a batch setup.

The Batch Processor utility is also closely linked to the Connection Manager utility (see [page 71](#)). You can set up the Connection Manager to automatically detect and download data files from a connected data collector, and then run a batch setup automatically.

The Check SSF Files utility

The Check SSF Files utility checks a data or almanac file in .ssf, .cor, .phs, or .imp format for invalid or corrupt position records. The Check SSF Files utility looks at all records in the file and checks that:

- values are valid and in the correct sequence
- the necessary information and variables are present
- files are complete

A position record is considered invalid if one of the following conditions is met:

- $-p/2 > \text{latitude} > p/2$
- $-p < \text{longitude} < p$
- $-100000 \text{ meters} > \text{altitude} > 100000 \text{ meters}$

The Configuration Manager utility

The Configuration Manager utility provides all the functionality you need to create a configuration file that can be sent to a field computer running the TerraSync software.

A configuration file contains instructions that define, and optionally lock, the configuration of the TerraSync software. The configuration determines how data is collected, entered, displayed, and communicated with external devices. The Configuration Manager provides supervisors with extensive control over data collection operations carried out in the field.

The Combine utility

The Combine utility combines two or more data files into a single data file. It combines (concatenates) all records from each input file.

Combine data files so that you can edit them together. Although the GPS Pathfinder Office software lets you open multiple data files, you can only edit the data if you open a single data file.

The Connection Manager utility

The Connection Manager utility monitors a selected device. When it detects that a device is connected it automatically runs the selected batch processor setup.

Before using the Connection Manager utility, you must select an existing batch setup, or create a new batch setup, in the Batch Processor utility (see [page 70](#)) to do the tasks you need to do, such as differential correction and export. The Connection Manager utility uses the Batch Processor utility to perform the tasks that you select. The Batch Processor utility always uses the specified batch setup to process files.

The Connection Manager utility is automatically disabled when the Data Transfer utility (see [page 74](#)) is running.

The Coordinate System Manager

The Coordinate System Manager software is a handy editor that gives you access to your geodetic database. Use it to edit coordinate systems and to create a site.

Note – *Remember that geodetic information is of a highly technical and specialized nature. You should fully understand what you are doing and know the significance of each piece of data. Trimble recommends that you only attempt to edit coordinate systems if you have land surveying or geodetic expertise. If not, ask someone with this expertise to do the work for you.*

This software is supplied with a number of Trimble surveying and mapping systems. For most users, the projections, zones, and datum transformations that are supplied with those systems will be all they need. If you use the Coordinate System Manager software as well, however, you have the freedom to:

- browse – know what parameters you are using as you work
- change – although you cannot edit the definitions that are supplied, you can duplicate records and use the duplicated record to make changes
- create – establish a site if you are working in an area that is not adequately covered by the definitions provided

Use the Coordinate System Manager to:

- create or edit a site, zone, datum, ellipsoid, or geoid
- select the projection used by a zone
- select the ellipsoid of any datum
- specify vertical and/or horizontal adjustments to a zone and save them as a named site
- select a geoid model
- assign the files to be used by a geoid model or datum transformation

The Data Dictionary Editor utility

Note – *The Data Dictionary Editor utility is disabled if you are running the GPS Pathfinder Office software in Viewer mode.*

The Data Dictionary Editor utility enables you to create and maintain data dictionaries for use on a field computer running the TerraSync software.

A data dictionary structures data collection; it does not contain the actual information collected in the field (positions and actual attribute values for each occurrence of a feature).

A data dictionary should contain all the features (and their attributes) for which you want to collect information relevant to a particular project or job. It is important to understand data dictionaries and how they are used in the field to control feature and attribute collection. A data dictionary prompts you to enter information; it can also limit what you enter to ensure data integrity and compatibility with your GIS or CAD system. Although data dictionaries are not always required for field work, they do make collecting, updating, and postprocessing data easier and faster.

The Data Dictionary Editor utility enables you to work with data dictionaries for the TerraSync software version 5.00 and later, and for version 4.1x and earlier. For the TerraSync software version 5.00 and

later, conditional attributes and selective attribute repeat functionality is available, as well as the ability to test the data dictionary in the TerraSync software.

When you open an existing data dictionary for versions of the TerraSync software earlier than 5.00, you are prompted to update it to the new data dictionary format. If you upgrade the data dictionary to the new version, you will not be able to use the data dictionary with the TerraSync software version 4.1x and earlier.

When you create a new data dictionary, you must specify if it is for the TerraSync software version 5.00 and later, or version 4.1x and earlier.

Note – *The Data Dictionary Editor supports the import of text files, but all imported data dictionaries are of the old version and must be saved and re-opened to be converted to the new version.*

Trimble strongly recommends that you test your data dictionary in the TerraSync software. You can test your data dictionary periodically as you design it, and when you have defined all required features, attributes, and conditions in your data dictionary.

For data dictionaries for the TerraSync software version 5.00 and later, if you have a licensed version of the TerraSync software on the same computer as the one running the GPS Pathfinder Office software, use the **Preview in TerraSync** button to test the data dictionary.

You need to transfer a data dictionary to a field computer so that your field crews can use the dictionary in the field to collect data. Use the Data Transfer utility to do this.

The Data Transfer utility

The Data Transfer utility enables you to transfer data between a variety of data collection devices and an office computer. It runs on the Windows 8.1, 8, 7, Windows Vista, or Windows XP operating system.

The Data Transfer utility uses a device definition to store information about each individual piece of equipment (called a device) you connect to it. The first task when transferring files to or from a device is to create a device definition for it with the Add Device wizard.

Once a device definition exists for a device, you can use Data Transfer to transfer files to or from it whenever it is connected to your office computer.

The Data Transfer utility is part of various Trimble office software applications. Which software you run the Data Transfer utility from affects the types of devices it can connect to, the file types you can transfer, and the way the Data Transfer utility works.

Data Transfer can run in two modes: standalone and component. The Data Transfer Utility Help contains topics to help you transfer data in both modes.

The Differential Correction Wizard

Note – *The Differential Correction Wizard is disabled if you are running the GPS Pathfinder Office software in Viewer mode.*

The Differential Correction wizard allows you to differentially correct GNSS field data.

Differential correction removes errors in GNSS data caused by various factors. It improves the accuracy of GNSS positions to approximately submeter from around ten meters, depending on the receiver and data collection technique used.

The Export utility

Note – *The Export utility is disabled if you are running the GPS Pathfinder Office software in Viewer mode.*

The Export utility enables you to convert SSF format files into another format that can be read by a GIS or CAD system. It enables you to export point, line, and area features and their attributes, GNSS positions that are not in features, note and velocity records, and external sensor records to a variety of other formats.

The following export formats are supported:

- ARC/INFO Generate
- AutoCAD DXF
- Configurable ASCII
- dBASE
- Esri Shapefile
- Esri File Geodatabase
- GRASS
- IDRISI Vector
- KML/KMZ
- MapInfo MIF
- MGE ASCII Loader (MGAL)
- Microsoft Access MDB
- MicroStation DGN
- PC ARC/INFO Generate
- PC-MOSS

If your database requires data in a format that is not supported, it may accept an ASCII file. The Export utility also provides a user-configurable ASCII template editor for creating your own ASCII formats.

The Grouping utility

The Grouping utility enables you to group GNSS positions into features that can be recognized by the GPS Pathfinder Office software. This is useful if your datalogger does not support data dictionaries, or if for some reason you do not want to work with a data dictionary.

You can also use it to convert Not In Feature GNSS positions into features.

The Grouping utility scans a set of data files and creates a new data file composed of features. Although the data is usually collected without a data dictionary and therefore contains no features, data in files that contain features can be grouped.

The Import utility

Note – *The Import utility is disabled if you are running the GPS Pathfinder Office software in Viewer mode.*

The Import utility converts files from a GIS compatible format back to the Trimble SSF format. You can review or edit imported files in the GPS Pathfinder Office software, or take them into the field for validation or update. The file can then be re-exported into the original GIS or database format.

The following GIS formats are supported for import:

- AutoCAD DXF
- dBASE
- Esri Shapefile
- Esri File Geodatabase format
- MapInfo MIF
- Microsoft Access MDB

The ShapeCorrect utility

Note – *The ShapeCorrect utility is disabled if you are running the GPS Pathfinder Office software in Viewer mode.*

The ShapeCorrect utility enables you to improve the accuracy of your Esri AXF or Shapefile with postprocessed differentially corrected GNSS positions.

When you collect or edit features using a field computer and the Esri ArcPad software, ArcPad logs the feature information in ArcPad data files (either an AXF file or Shapefiles). The Trimble GPSCorrect™ extension for Esri ArcPad software simultaneously logs extra GNSS position and measurement information for the features in an SSF file. You must differentially correct the SSF files and then merge the corrected GNSS information into the original ArcPad data files to improve the accuracy of the positions in the ArcPad data files. You can do this using the Differential Correction wizard (see [page 75](#)) and the ShapeCorrect utility provided in the GPS Pathfinder Office software.

The ShapeCorrect utility adjusts the positions in the ArcPad data files with the corrected GNSS positions from the corrected SSF (.cor) file. For any of the GNSS positions that were corrected successfully by the Differential Correction wizard, the ShapeCorrect utility matches the positions from the SSF file with their corresponding positions in the ArcPad data file, and then adjusts the location of the positions in the ArcPad data file using the corrections from the .cor file.

The ShapeCorrect utility does not adjust any position that does not have a corresponding position in the .cor file. These are:

- original (unedited) positions in the ArcPad data file
- manually created or edited positions in the ArcPad data file
- positions that could not be corrected in the SSF file

The SSF Record Editor

The SSF Record Editor allows you to view, filter, and edit a Standard Storage Format (SSF) file.

Note – *Data files created by Trimble Pathfinder mapping products are in the SSF format. Not all SSF format files carry a .SSF file name extension. Other extensions include .cor, .phs, .imp, and .wpt.*

The SSF Record Editor allows you to view SSF format files in detail. The ability to alter the coordinates of a GNSS position record is intentionally omitted. You can use the editor to delete or undelete a position, but you cannot change the coordinates of that position.

The SSF to RINEX utility

The SSF to RINEX utility converts Trimble Standard Storage Format (SSF) files into the Receiver INdependent EXchange (RINEX) format. You can use this utility to convert base station files produced by Trimble GNSS receivers into the RINEX format, for use by non-Trimble applications.

Note – *Only GPS and GLONASS data is supported.*

The TerraSync Studio utility

The TerraSync Studio utility enables you to configure the TerraSync software user interface. The user interface can only be configured using the TerraSync Studio utility in the TerraSync software version 5.00 and later.

The options you select in the TerraSync Studio utility determine if certain user interface items are visible or hidden in the TerraSync software, making the software easier to use in the field. The settings are stored in a configuration file (for example, Setup.stu). You can create and maintain any number of named TerraSync Studio files (*.stu).

To apply the customised settings to the TerraSync software, use the Data Transfer utility to send the *.stu file to the required mobile devices. The Data Transfer utility will rename the transferred file to TerraSync.stu, and overwrite any previous version which may exist on the mobile device. Only one TerraSync.stu file is used on any mobile device. It is stored in a known folder and used from there if it exists.

The GPS Pathfinder Office Updater utility

The GPS PathfinderOffice Updater utility makes it easy for you to get the latest updates to the GPS Pathfinder Office software. Use this utility to download the latest software updates, language files, and documentation from the Trimble website.

Troubleshooting

In this chapter:

- Map and Time Line window display
- Printers and plotters
- Internet problems
- Web Map Server problems
- General issues

This appendix describes problems that can occur and explains how to solve them.

For information on the latest support issues, go to the [GPS Pathfinder Office software webpage](#), and select *Technical Support / Support Notes*.

Map and Time Line window display

Table A.1 lists symptoms related to the display in the *Map* or *Time Line* windows, possible causes, and their fixes.

Table A.1 Map and Time Line window display errors

Symptom	Cause	Solution
The coordinates displayed appear to be incorrect.	You are using the Latitude/Longitude coordinate system and you selected the wrong datum.	In the <i>Coordinate System</i> dialog, select <i>Latitude/Longitude</i> and specify the correct datum.
	You are using the UTM coordinate system and you selected the wrong UTM zone.	In the <i>Coordinate System</i> dialog, set <i>System</i> to <i>UTM</i> and specify the correct zone.
	You are using the UTM coordinate system and you selected the wrong datum.	In the <i>Coordinate System</i> dialog, set the <i>System</i> to <i>UTM</i> and specify the correct datum. Note – The current UTM datum for the U.S.A is NAD 1983. Older UTM coordinates use NAD 1927 datum, which will need converting beforehand.
	You selected the wrong coordinate system or zone.	In the <i>Coordinate System</i> dialog, select the correct coordinate system and zone.
	You are using the wrong coordinate units.	In the <i>Coordinate System</i> dialog, select the correct coordinate units.
The background file has the wrong scale, it is too large or too small	When loading a background file, the GPS Pathfinder Office software uses the coordinate units specified in the <i>Coordinate System</i> dialog to interpret the coordinates in the file. If the units configured in the GPS Pathfinder Office software are different from the units specified in the background file then the background will have the wrong scale.	Check the coordinate units used in the background file. Change the configured units in the <i>Coordinate System</i> dialog. Then reload the background file.

Table A.1 Map and Time Line window display errors (continued)

Symptom	Cause	Solution
GNSS information is not overlaying correctly on the background file.	When loading a background file, the GPS Pathfinder Office software uses the coordinate system you specified to interpret the coordinates. If this coordinate system is different from the one used by the background file, GNSS positions will not overlay correctly.	In the <i>Load Background Files</i> dialog, highlight the background file and check its associated coordinate system. If necessary, change the configured system with the Change button in <i>File / Background</i> .
The waypoints entered previously from a paper map are not in the correct position on the map and their coordinates appear incorrect.	The coordinate system used on the paper map and the coordinate system configured in the GPS Pathfinder Office software when you entered the waypoints were different. You must use the same coordinate system in the GPS Pathfinder Office software as the coordinate system used on the paper map.	Re-enter the coordinates from the paper map using the correct coordinate system in the GPS Pathfinder Office software.
The <i>Map</i> window appears to be empty, yet you know you should have data displayed in it.	You zoomed to extents and you have a waypoint file with waypoints a long way away from where you are currently. This can make the background map and SSF file very small in the <i>Map</i> window.	If you do not need the waypoints in the current waypoint file, close the file. Alternatively, select <i>View / Layers / Waypoints</i> and clear the <i>View</i> check box; this hides the display of waypoints on the <i>Map</i> . Then select <i>View / Zoom / Extents</i> or the Zoom Extents tool and you should see the data clearly in the <i>Map</i> window.
You lost where you are on the <i>Map</i> window.	The <i>Map</i> is zoomed in or panned away from the current position.	Select the <i>Map</i> window and then select <i>View / Zoom / Extents</i> or the Zoom Extents tool. The <i>Map</i> window zooms to extents.
Information in the background file is not displayed on the <i>Map</i> .	You turned some layers off.	Select <i>View / Layers / Background</i> and turn the appropriate layers on.

Table A.1 Map and Time Line window display errors (continued)

Symptom	Cause	Solution
Information in the SSF file is not displayed on the <i>Map</i> or <i>Time Line</i> .	You turned some layers off.	Select <i>View / Layers / Features</i> and turn the appropriate layers on.
Notes in the SSF file are not being displayed the <i>Time Line</i> .	You turned the notes layer off.	Select <i>View / Layers / Notes</i> and turn the notes layer on.
SSF files that have carrier and code processed data and are loaded as background files, appear slightly different in the <i>Map</i> window to how they appear when opened in the foreground—point features may not match exactly the file.		Display the positions in the foreground instead. To do this, select <i>File / Open</i> .
Waypoints in the waypoint file are not being displayed on the <i>Map</i> .	You turned the waypoint layer off.	Select <i>View / Layers / Waypoints</i> and turn the waypoint layer on.
You cannot see notes or nested points on the <i>Time Line</i> .	The <i>Time Line</i> window has been resized so that the notes and nested point features are hidden.	Resize the <i>Time Line</i> window vertically.

Printers and plotters

Table A.2 lists possible causes and fixes for problems relating to printing and plotting.

Table A.2 Printer and plotter errors

Symptom	Cause	Solution
The plot contains more information than appears in the <i>Map</i> window.	By default, the scale of a plot is rounded down to a regular value. Compare the scale displayed in the <i>Map</i> window with the scale displayed on the plot.	Change the scale value to a different value in the <i>Plot</i> dialog.
Background raster files do not appear on the plot.	Pen plotters cannot display background raster files.	Select a printer such as a laserjet or inkjet printer, if available.
Some text does not appear on the plot, or is colored incorrectly.	Some non-postscript printer drivers do not display colored rotated text correctly. Dark colors display as black and light colors display as white. Non-rotated text is always displayed as black.	Edit the background file which contains the rotated text and convert all text into a dark color. Contact the printer manufacturer for an upgrade for the printer driver, if available.
The edges of the plot are clipped off.	Plotters and printers with a non-printable margin of greater than 1cm are not supported.	In the printer options, select a page size smaller than the physical size of the paper.
When running GPS Pathfinder Office in Chinese, Korean, or Japanese, text does not print properly.		In the <i>Plot Map</i> dialog, click Set Font to set an appropriate font before plotting.
My background Web Map does not print properly.	Some Web Map Servers impose limits on the size of the image that can be requested. Such limits can easily be exceeded when using the Plot Map functionality in GPS Pathfinder Office. This is due to a combination of printer resolution and image extents.	In the <i>Load Background Files</i> dialog, select the Web Map background and click Save As . Create a new background image at a reduced resolution, and then load the new file as a background file.

Internet problems

If Base Provider Search cannot download the required files, then:

1. Check that your internet connection is working.
For more information, see [Connection problems](#), page 86.
2. Determine why the files are not present on the Internet server.

For more information, see [Files not present on the Internet server](#), page 87.

Connection problems

A helpful rule for problem solving is that if Microsoft Internet Explorer works, then the Base Provider Search option in the Differential Correction wizard will also work. That is, if Internet Explorer can access and download base files from the chosen Internet base data provider, then this establishes that Windows is set up correctly to work with the Internet.

Internet Explorer uses the Windows settings, as does the Differential Correction wizard. Some other Internet browsers do not use the Windows settings; they use their own settings. Using a browser other than Internet Explorer does not help with troubleshooting Differential Correction problems.

If Internet Explorer cannot download the base files, then there is a problem with the Windows setup. You may need help from your System Administrator or Internet Service Provider (ISP) to resolve the problem.

Note – *After changing the Windows Internet settings, you must close and restart the Differential Correction wizard for the changes to take effect.*

Table A.3 lists possible causes and solutions for problems relating to Internet connections.

Table A.3 Internet connection errors

Symptom	Cause	Solution
You cannot connect to the Internet. A timeout error occurs, or it fails to dial up the ISP.	The Internet configuration for Windows is not set up correctly. Perhaps the modem is not installed correctly, or Dial Up Networking is not set up correctly.	Check the Windows Internet settings. Try using Internet Explorer to determine whether it can access and download the base files. For further assistance, contact the System Administrator or ISP.
Failure to dial into the ISP.	The ISP may be busy with other customers, leaving no spare lines free.	Try again, immediately or later. Consider changing to an ISP that has more lines.
The Internet connection is very slow.	The Internet server is very busy, or the ISP is busy, or the line is noisy.	Try again, immediately or later.
You can connect to the Internet but not to the base station server.	A firewall is preventing you making the connection, or the base station is offline.	Contact your System Administrator or ISP to enable connectivity through the firewall. Contact the base station administrator to enquire the status of the base station.

Files not present on the Internet server

If your Internet connection is working correctly, then the problem may be that the files which the GPS Pathfinder Office software expects are not yet present on the Internet server. There are many possible reasons for this.



Tip – The most likely reason that file(s) are not present on the server is that the base station logs data periodically (for example, hourly) and has not yet made the file(s) you need available.

You may want to contact the administrator of the base station to see if anything has changed.

Trimble regularly updates base provider information. To get the latest provider information:

1. Start the Differential Correction wizard.
2. In the Select Base Data page, select the *Base Provider Search* option and click **Select**. The *Select Base Provider* dialog appears.
3. Click **Update List**. A progress dialog indicates that base providers are being downloaded.

Once download is complete, the list of base providers in the Select Base Provider is updated.

4. Choose the base provider you want to use and then click **OK** to return to the Differential Correction wizard.
5. Select the *Confirm base data and position before processing* checkbox and then click **Next**.
6. Select your output and file naming options, and then click **Start**.
7. Check the Differential Correction Report in the progress window to see if the base files have been downloaded from the selected base provider.
 - If the files have been downloaded, click **Confirm** to continue with postprocessing the data.
 - If the files have not been downloaded, use the **Back** buttons to return to the Select Base Data page and select a different base provider.

[Table A.4](#) lists possible causes and solutions for problems relating to files on the Internet.

Table A.4 Internet file errors

Symptom	Cause	Solution
You cannot find a local Internet base data provider in the list.	The base data provider list is not up to date.	Click New in the <i>Internet Search</i> dialog, and select the <i>Copy the most up-to-date list from Trimble's Internet site, and select from it</i> option in the <i>New Provider</i> dialog.
	Even the latest list does not contain a local provider.	Create a new provider in the <i>Internet Search</i> dialog, and select the <i>Enter the details yourself</i> option in the <i>New Provider</i> dialog. You may need to contact the local provider to ask for some of the important details.
Failure to copy files from the Internet (error code 500 or 550).	This is a general Internet error code. The most likely causes are that the file or directory does not exist on the server, or that the server was not found.	<p>The file may not exist because it is too old. Most base providers only keep one to three months of data online before archiving. The file may not exist if it is outside the hours logged by the server. For example, some base stations only log data for normal working hours. Also, the base station may have been put out of service during the required time period.</p> <p>It is possible that the specified directory is incorrect, perhaps because the provider has changed the server configuration.</p> <p>If you entered the Base Provider details, check that the server address is correct. Also check that the proxy server is set up correctly. In most cases, you can use Internet Explorer to double-check the required URL (Internet address). If necessary, contact the base data provider.</p>

Web Map Server problems

If you cannot connect to a Web Map Server using the GPS Pathfinder Office software, do the following:

- Check that your Internet connection is working. For more information, see [Internet connection problems](#), page 90.
- Check that the Web Map Server is responding. For more information, see [Web Map Server connection problems](#), page 91.

Internet connection problems

A helpful rule for problem solving is that if Microsoft Internet Explorer can access and download information from a chosen website, it should be possible to connect to a Web Map Server. This establishes that Microsoft Windows is set up correctly to work with the Internet.

Internet Explorer uses the Windows settings. Some other Internet browsers, such as Netscape, do not use the Windows settings; they use their own settings. Using a browser other than Internet Explorer does not help with troubleshooting Web Map Server problems.

If Internet Explorer cannot access or download information from the Internet, then there is a problem with the Windows setup. You may need help from your systems administrator or Internet Service Provider (ISP) to resolve the problem.

For information about possible causes and solutions for problems relating to Internet connections, see [Table A.3](#) on [page 87](#).

Web Map Server connection problems

Before you contact Trimble Support with any Web Map Server queries, work through the solutions described in this troubleshooting section.

[Table A.5](#) provides possible solutions for some difficulties that you may encounter when using a Web Map Server..

Table A.5 Problems when connecting to a Web Map Server for the first time

Symptom	Cause	Solution
The message Error connecting to Web Map Server appears immediately after any operation.	It is likely that you have an Internet connection problem.	See Internet connection problems, page 90 .
The message Resolving server <URL> appears a few seconds after the progress dialog.	It is likely that the URL is invalid.	Try using a known URL.
The message Waiting for the server to respond appears for a long period of time in response to a request.	It may mean that the Web Map Server, or some of its services, are temporarily unavailable.	Try again later.
The message Cannot get services - do not use this site appears.	The GPS Pathfinder Office software does not support the PNG images that are being sent by the Web Map Server.	Select a different server.

Table A.6 Problems when reconnecting to a Web Map Server

Symptom	Cause	Solution
When reconnecting to a Web Map Server, you may experience the messages Error connecting to Web Map Server or Waiting for the server to respond as described above.	This may be because of problems with the Web Map Server.	<p>Try again later, or use other tools to validate the Web Map Server state. For example, to check the status of the Web Map Server, visit the URL using a Web browser or contact the Web Map Server host directly to check for any known problems or server downtime.</p> <p>Remove the existing URL from your Backgrounds list and create a new Web Map component for the same server using the Web Map wizard.</p>

Table A.7 Problems when connected to a Web Map Server

Symptom	Cause	Solution
Some or all of the selected layers are not visible in the Map view of the GPS Pathfinder Office software.	Some or all of the layers have been removed from the Web Map Server, or their configuration has changed, since you last visited that URL. Some Web Map Servers set layers to be visible only for certain scales.	Return to the Web Map wizard and change or reselect these layers. Select All Layers in the Web Map wizard and zoom in and out to determine which layers are visible at particular scales. You can then deselect the unwanted layers.
The coordinates displayed for your selected layers in the Web Map wizard are either not shown or they are not sensible values.	The coordinates for the selected layers received from the Web Map Server may be invalid for the corresponding GPS Pathfinder Office coordinate system.	Use the Internet and other resources to find the actual coordinate system for each server/service/layer (for more information, see below) and ensure that the Web Map Server and GPS Pathfinder Office coordinate systems correspond. Use the Web Map wizard to change the coordinate systems until the <i>Layers</i> dialog displays sensible coordinates.
Web Map Server layers do not appear in the GPS Pathfinder Office software.	The coordinate system received from the Web Map Server is not the same as the coordinate system in GPS Pathfinder Office.	Most layers on ArcIMS map servers are in WGS-84 (Lat/Long). If in doubt, try this as the corresponding GPS Pathfinder Office coordinate system. For OpenGIS, the Web Map Server coordinate system is described using the European Petroleum Survey Group (EPSG) standard EPSG codes. The most commonly used code is EPSG: 4326, which corresponds to WGS-84 (Lat/Long). The EPSG website (www.epsg.org) has a link to a Microsoft Access (.mdb) database that lists all the EPSG codes and a description of the corresponding coordinate system. Note – If you have problems opening the .mdb file provided, try importing the tables contained within the database into an empty .mdb database.

If after working through these solutions you still need to contact Trimble Support, make sure you have all your files and relevant information available from the Web Map Server, including:

- the correct URL
- the service chosen
- layers selected
- the GPS Pathfinder Office software coordinate systems used

General issues

Table A.8 lists general problems, their possible causes, and fixes.

Table A.8 General issues

Symptom	Cause	Solution
The GPS Pathfinder Office software has locked up.	A corruption has occurred while running Windows software.	Restart Windows, and restart the GPS Pathfinder Office software.
You cannot find the window you want to use.	The window has scrolled off the desktop.	Maximize the application so that you can see more of the windows. You can also select <i>Windows / Cascade</i> to cascade the windows on the desktop so that you can see them.
The GPS Pathfinder Office software is not behaving as expected, and you cannot find the symptom in this Appendix.	Settings in the registry or configuration files may be incorrect.	Reinstall the software. For more information, refer to Chapter 2, Software Installation .
The file that you are trying to transfer using the Data Transfer utility will not transfer.	The Data Transfer utility may not be able to transfer the file because of certain characters in the filename (in particular, Asian language characters)	Ensure that the correct system locale and code page settings are used, using the Windows Regional Settings. For more information, refer to the Windows Help.



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