

## Installing Trimble Geomatics Office on Windows 7

This Technical Tip provides information on installing Trimble Geomatics Office (TGO) on a computer running the Windows 7 operating system. Trimble Navigation Limited does not support TGO on operating systems after Windows XP, so the information presented here is compiled from the experiences of Inland GPS and others.

Remember that when TGO was first introduced in late 1999, most users were running Windows 98 as individual users and no one gave much thought to computer security. Windows XP did not come out until 2001. Wave after wave of malware has drastically changed the cyberworld over the past decade-plus. Practices that were acceptable in 1999 are woefully inadequate today.

This document is based on an installation performed on a clean (no other Trimble software) Windows 7 Ultimate 64-bit computer, but it is expected that all will work the same when installing TGO on the 32-bit version of Windows 7. This document was created with User Account Control (UAC) set to the most-sensitive **Default – Always notify me when:** setting.

Because web URLs can and do change, in most instances this document does not contain actual hyperlinks to resources outside the control of Inland GPS. For those items this document provides general navigation information that should not quickly go out of date. Please advise Inland GPS if you have trouble finding any of the required files.

The steps you need to follow to get an up-to-date installation of TGO on a Windows 7 computer are -

### 1. First confirm you have adequate privileges to install software

Log on using an administrator account. Unless some special utility has been installed on the Windows 7 computer, it is believed that if you can change the time (not just the time zone) on the computer, you have the administrator privileges required to install software.

### 2. Installing TGO Version 1.6X from the CD

It makes no difference if your TGO CD is Ver 1.60 or Ver 1.62, you will end up with Ver 1.63 installed either way. (Note – your TGO CD must be at least Ver 1.60 – earlier versions of TGO cannot be updated by the process provided in this document.)

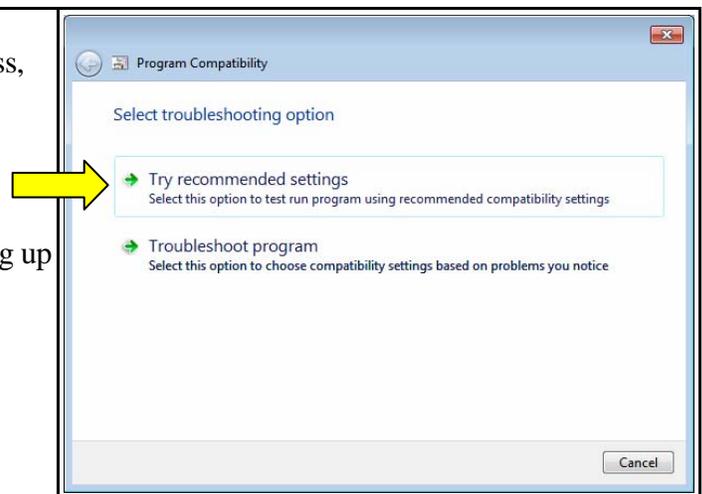
All indications are the critical detail in this whole process is to allow Windows 7 to determine the compatibility settings for each pre-Windows 7 setup/install/update program used in the process, so that is what we will do.

Insert the TGO Ver 1.6X CD into the computer. If the Autorun feature attempts to launch the installation process, click **Exit** to stop that.

View the contents of the CD in Windows Explorer.

Right-click on [CD Drive]:\SETUP.EXE and click **Troubleshoot compatibility** in the context menu to bring up the **Program Compatibility** dialog shown at right.

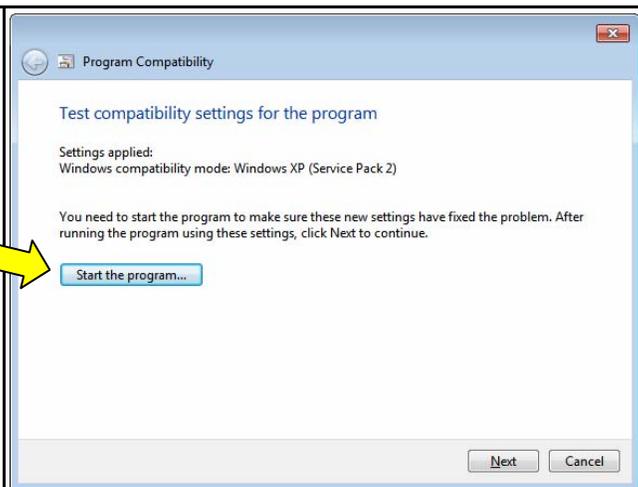
Click the **Try recommended setting** option.



Now the **Program Compatibility** dialog shows that Windows 7 has applied a Windows compatibility mode of **Windows XP (Service Pack 2)**. That is what we expected – please notify Inland GPS if you get something else.

Take a look at the Taskbar to see what is running, then click **Start the program...**

It is likely a new icon will now appear on the Taskbar, seems the installation prompts appear behind the **Program Compatibility** dialog. That is why the previous paragraph suggested checking what was already on the Taskbar.



Click on the new icon on the Taskbar and you will find a User Account Control (UAC) dialog asking if you want to allow **SETUP.EXE** to make changes to the computer.

Click Yes and the first of several TGO installation dialogs will appear (may have to click on the new icon on the Taskbar to move it to the front).

Respond to the installation dialogs and enter the necessary information as it is requested. Inland GPS recommends using the default installation options.

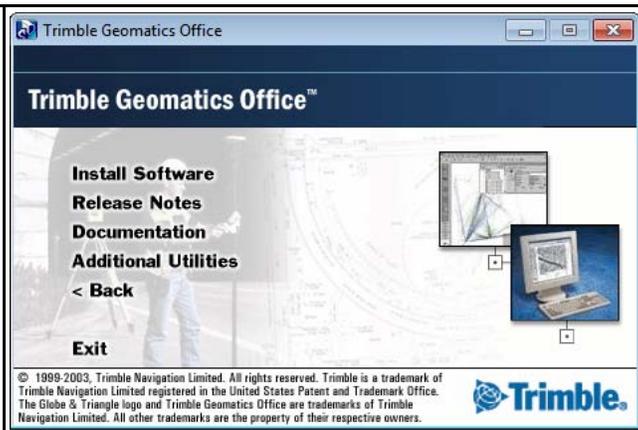


You should notice that the installation routine first installs Trimble Data Transfer, and then it continues to install TGO. (Remember to watch the Taskbar). Wait until the setup program says it is finished installing Trimble Geomatics Office (not just Trimble Data Transfer) and click **Finish**.

Now to clean up what we have left open so far. At the farthest right position on the Taskbar you will probably have the TGO dialog shown at right.

Click **Exit** to dismiss this dialog.

Next to the left on the Taskbar will probably be the **Program Compatibility** dialog, click **Cancel** to dismiss.



Now for the updates to get TGO up to date. Remember that the TGO Ver 1.62 was released back in July 2003 and a whole lot of products and software/firmware versions have come out since then.

### 3. Updating TGO to Ver 1.63

Using your web browser, open the Trimble web page at [www.trimble.com](http://www.trimble.com).

Follow the hyperlink sequence [Support & Training / Support A-Z List / Trimble Geomatics Office / Downloads / v1.63](#)

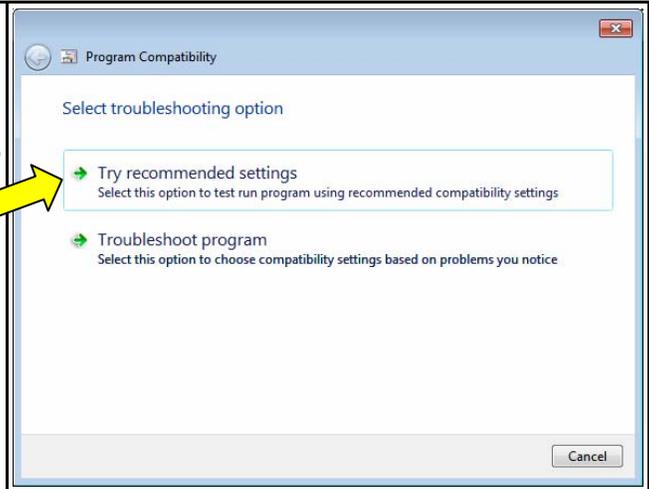
Click the [TGO v1.63 update](#) hyperlink and select the correct language. This page offers to perform a “One-Click Install” update but we will not use that because that method does not offer us the options we need.

Click the [click here](#) hyperlink toward the bottom of the page to download the file named **TGOffice163Update.exe**. Save the file to an appropriate location on your computer, such as the default Downloads folder.

View the folder containing **TGOffice163Update.exe** in Windows Explorer.

Right-click on **TGOffice163Update.exe** and click **Troubleshoot compatibility** in the context menu to bring up the **Program Compatibility** dialog shown at right.

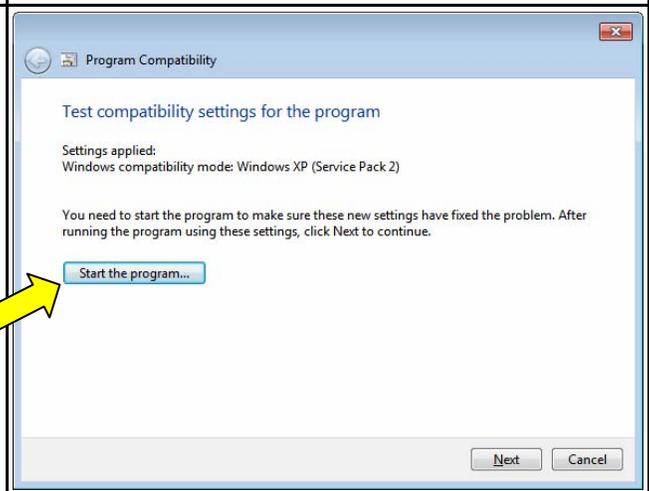
As we did in Step 2 above, click the **Try recommended settings** option.



The **Program Compatibility** dialog shows that Windows 7 has again selected a Windows compatibility mode of **Windows XP (Service Pack 2)**.

As before, take a look at the Taskbar to see what is running, then click **Start the program...**

It is likely a new UAC icon will now appear on the Taskbar, click on that icon to see the UAC dialog asking if you want to let **TGOffice163Update.exe** to make changes to the computer. Click **Yes**.



Another series of dialogs will now appear, the first of which will be as appears at right. Click **OK** to initiate the process.

Respond to the update dialogs as appropriate.

At the end of the update process, a **Maintenance Complete** dialog will appear. Click **Finish**.

Click **Cancel** to dismiss the **Program Compatibility** dialog that is probably still open.



#### 4. Updating coordinate systems

This step is not absolutely necessary, but it will bring in GEOID03 and do some other things that will make your survey life better so Inland GPS recommends including this step.

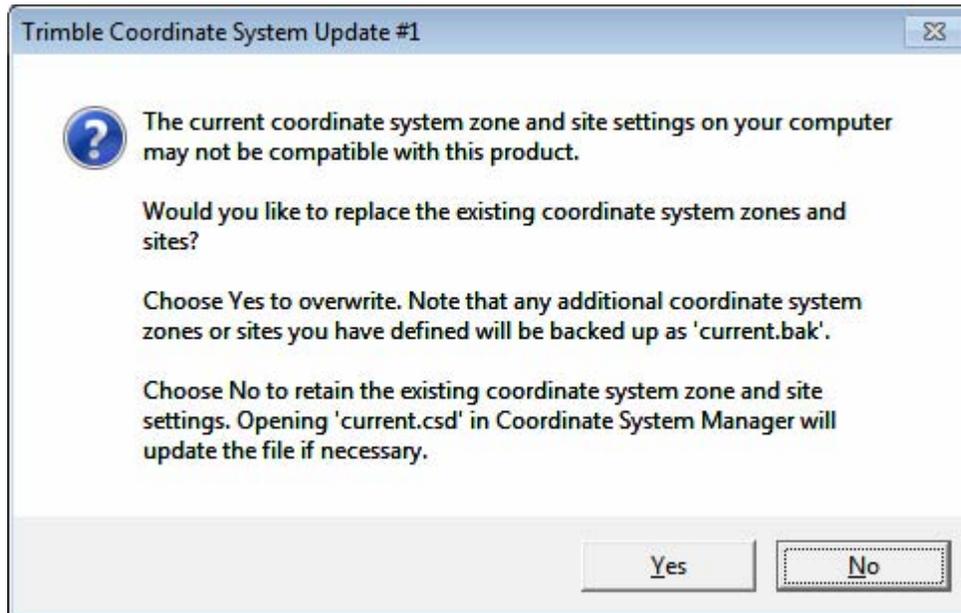
Using your web browser, open the Trimble web page at [www.trimble.com](http://www.trimble.com).

Follow the hyperlink sequence [Support & Training / Support A-Z List / Trimble Geomatics Office / Downloads / v1.63](#)

Click the [Coordinate System Update Download](#) hyperlink and save the file named **TrimbleCoordSystemUpdateSept2005.exe** to an appropriate location on your computer, such as the default Downloads folder.

Follow the same process (right-click / **Troubleshoot compatibility** / **Start the program...** / approve UAC dialog, etc.) for **TrimbleCoordSystemUpdateSept2005.exe** as was done for **TGOffice163Update.exe** in Step 3.

It is likely the following dialog will appear asking you to make a decision as to whether you want to replace the existing coordinate system zones and sites.



If this is a clean installation the correct response is **Yes**, but answering **No** will not have any adverse effect as explained in the last paragraph of the dialog. Nothing will be lost either way.

Even if you are doing a reinstall and want to save your existing zones and sites, **Yes** is a good response because the installation program saves the existing zones and sites in a file named **current.bak**.

You can use any text editor to copy essential information from **current.bak** to **current.csd**.

Or, it may be easier to rebuild your sites in Coordinate System Manager by simply opening the projects that use the desired sites and resaving the sites to Coordinate System Manager.

A dialog announcing the update process has finished will appear, click **Finish** to dismiss this dialog.

Click **Cancel** to dismiss the **Program Compatibility** dialog that is probably still open.

## 5. Updating Trimble Data Transfer

This step provides the converters and other files that tell TGO how to communicate with the devices and data-collector-software versions introduced since July 2003, so this step is necessary unless you are using only the older products.

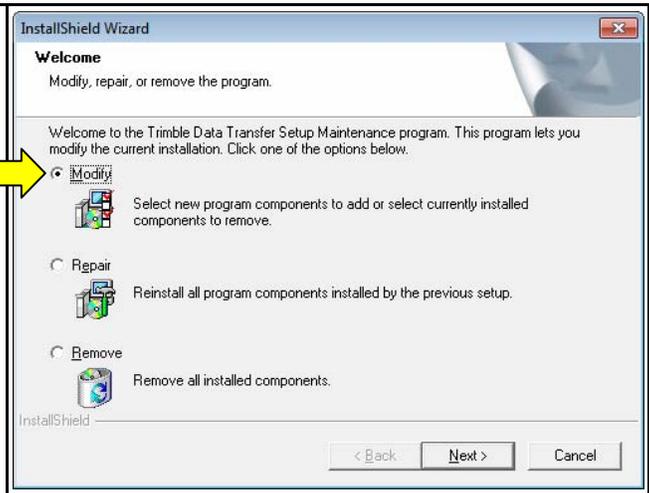
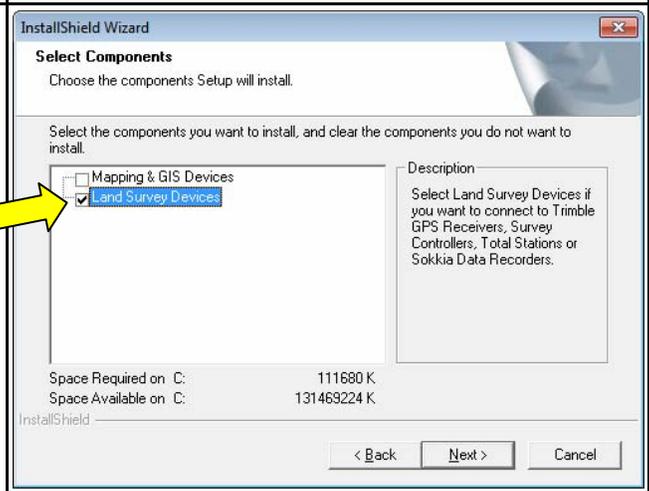
Using your web browser, open the Trimble web page at [www.trimble.com](http://www.trimble.com).

Follow the hyperlink sequence [Support & Training](#) / [Support A-Z List](#) / [Data Transfer Utility](#)

In the lower half of the page there are two hyperlinks. The upper link includes the term "One-Click Install" so we do not want to use that method because it will not offer us the options we need. Click the lower link to launch the download of the actual installer file named **DataTransferXXX.exe** (where XXX represents the version number,

which is expected to change during the life of this document). Save this file to an appropriate location on your computer, such as the default Downloads folder.

Follow the same process (right-click / **Troubleshoot compatibility** / **Start the program...** / approve UAC dialog, etc.) for **DataTransferXXX.exe** as was done for **TGOffice163Update.exe** in Step 3.

<p>The installer program will detect an earlier version of Trimble Data Transfer is installed on the computer and should suggest doing a <b>Modify</b> installation, as indicated on the dialog shown at right. That is what we want to do, so make sure the <b>Modify</b> button is selected and click <b>Next</b>.</p>	
<p>Trimble Data Transfer is also used with Trimble's Mapping &amp; GIS Devices.</p> <p>If you are only using the Trimble land-survey equipment there is no point in wasting space on things you will never use so check only the <b>Land Survey Devices</b> check box and click <b>Next</b> to launch the installation process.</p>	

A **Maintenance Complete** dialog will appear, click **Finish** to dismiss this dialog.

Click **Cancel** to dismiss the **Program Compatibility** dialog that is probably still open.

## 6. Running the Trimble Office Configuration File Update Utility

This step gives TGO what it needs to know to work with the GPS/GNSS receivers and antennas introduced since July 2003, so this step is necessary unless you are using only the older products.

Using your web browser, open the Trimble web page at [www.trimble.com](http://www.trimble.com).

Follow the hyperlink sequence [Support & Training](#) / [Support A-Z List](#) / [Trimble Configuration Utility](#)

Click the [Download Trimble Office Configuration File Utility](#) hyperlink to launch the download of the actual installer file named **TrimbleCFGUpdate.exe**. Save this file to an appropriate location on your computer, such as the default Downloads folder.

Follow the same process (right-click / **Troubleshoot compatibility** / **Start the program...** / approve UAC dialog, etc.) for **TrimbleCFGUpdate.exe** as was done for **TGOffice163Update.exe** in Step 3.

An **InstallShield Wizard Completed** dialog will appear, click **Finish** to dismiss this dialog.

Click **Cancel** to dismiss the **Program Compatibility** dialog that is probably still open.

## 7. Confirming compatibility settings for EXE files installed as part of TGO

The above-prescribed process should have made appropriate compatibility settings to the EXE files in the TGO installed on the computer. Some of those files are –

C:\Program Files (x86)\Trimble\Trimble Geomatics Office\TGOOffice.exe

C:\Program Files (x86)\Trimble\Trimble Geomatics Office\RoadLink – DTMLink\DTMLINK.exe

C:\Program Files (x86)\Trimble\Trimble Geomatics Office\RoadLink – DTMLink\TRLINK.exe

C:\Program Files (x86)\Trimble\Trimble Geomatics Office\System\FCEDIT.exe

Now we will confirm compatibility settings for these files. Since one of the objectives is to have a program that can be run (as much as possible) from a standard user account (no administrator privileges) we will change the settings for all users and will not set these files to require administrator privileges.

We will go through the steps using the first file in the preceding list as an example -

View the folder containing the file being checked in Windows Explorer.

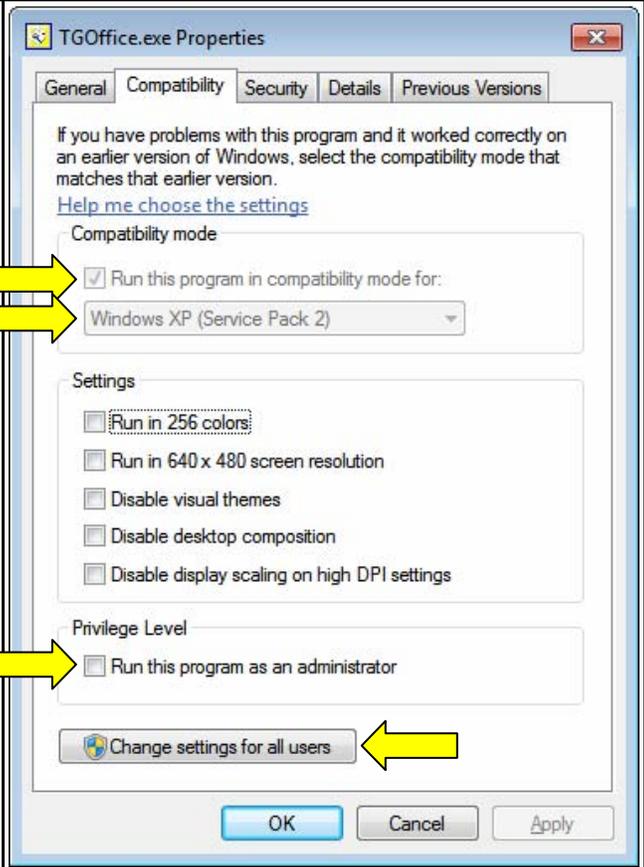
Right-click on the file's icon and click **Properties** in the context menu to bring up the **Properties** dialog.

Click the **Compatibility** tab and your screen should appear like the image at right.

Under **Compatibility mode** confirm the **Run this program in compatibility mode for:** box is checked and that **Windows XP (Service Pack 2)** has been selected.

Under **Privilege Level**, make sure the **Run this program as an administrator** box is not checked. (Clear the checkbox if it happens to be checked.) We want all the installed EXE files to run with the privileges of a standard user account.

If you need to change any settings, click the **Change settings for all users** button toward the bottom of the dialog to bring up the dialog in the following row. When finished, click **OK** until you are back at Windows Explorer.



Repeat the process to confirm (and change as necessary) the compatibility settings for the other installed EXE files in the preceding list. It is expected you will find the **Privilege Level** for **FCEDIT.exe** is set to **Run this program as an administrator**. This .exe is for TGO's Feature and Attribute Editor utility and is one of the main challenges with running TGO under Windows 7. Until experience instructs otherwise, it is believed best to clear that selection.

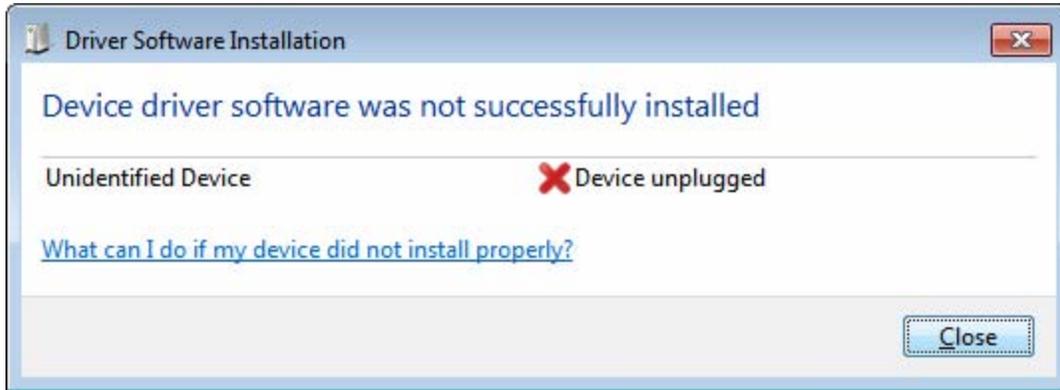
## 8. Installing Windows Mobile Device Center

Windows Mobile Device Center is the Windows Vista/Windows 7 replacement for Microsoft ActiveSync. You will need this if you are working with any of the Trimble data collectors that communicate with the computer via ActiveSync (or what appears to them to be ActiveSync).

Using your web browser, navigate to <http://support.microsoft.com/kb/931937>

Hyperlinks on that page will assist you in downloading the installer file for the correct version of Windows Mobile Device Center. After downloading, use that file to install Windows Mobile Device Center on your computer.

As Inland GPS was preparing this document, the Windows Mobile Device Center installation program attempted to make contact with something that it never found and the following warning appeared –



As it turns out this message only meant that the installation program did not see anything for which it could install drivers, which is what one would expect because nothing was attached to the computer.

### 9. Restarting the computer

After all this installing and updating, now it is probably a good time to restart the computer.

### 10. Launching TGO and running utilities for first time

Log on once more with an administrator account.

The Release Notes for Trimble Geomatics Office Ver 1.60 (the latest Release Notes that include installation information) indicate that TGO’s Feature and Attribute Editor, RoadLink, and DTMLink modules must first be run under administrator privileges, so start those utilities while logged on with an administrator account.

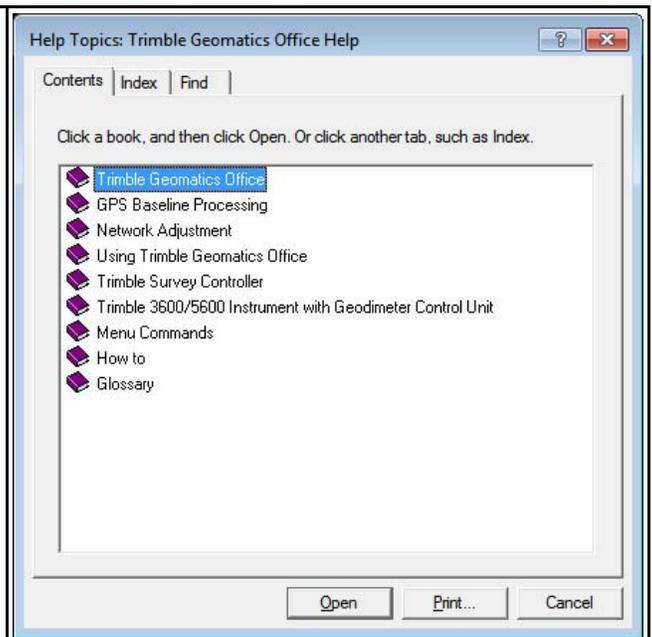
### 11. Try using TGO’s built-in help

Earlier attempts to install TGO by manually specifying the compatibility settings for the various setup and update files resulted in less-than-satisfactory operation of the built-in help. An error message appeared announcing Help had failed to launch. Windows 7 suggested a remedy, but the Microsoft-specified fix did not provide the usual navigation and search options found in the Windows XP installations.

Using the above-detailed procedure, selecting **Help Topics** from the **Help** menu produces the expected dialog shown at right, with the expected navigation and search tools.

It was noticed that when TGO Help is invoked by pressing F1 there appears a notification about a failure running a macro. Other than that, TGO Help seems to operate as expected.

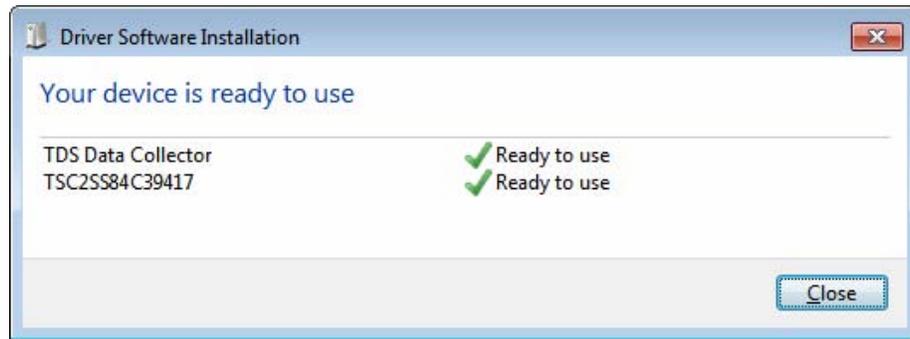
Please advise if your experience is different.



## 12. Connecting your Windows Mobile data collector to the computer

While still logged on with administrator privileges, connect your Windows Mobile data collector to the computer via the USB cable.

Windows Mobile Device Center should detect the data collector and install the necessary drivers. When that process is finished you should soon see a dialog like the following image –



## 13. Confirming that everything works with a standard user account

Many organizations require users to run without administrator privileges, and that practice is a good security enhancer for everyone.

Log off the computer, then log on using a standard user account (without administrator privileges) and confirm that all TGO functions and utilities work.

TGO and its associated utilities (the utilities in the **Utilities** menu, along with DTMLink and RoadLink) should run fine under a standard user account with normal user privileges with the likely exception of Feature and Attribute Editor (FAE).

FAE is very unpredictable on a standard user account – sometimes all functions work fine, sometimes some functions work, and sometimes no functions work.

The separate Inland GPS Technical Tips document titled [Feature and Attribute Editor on Windows 7](#) provides some possible solutions for using that portion of TGO from a standard user account.

You will probably have to set up one or more Devices in Trimble Data Transfer, just follow the dialogs provided as if using Windows XP.

## 14. Installing additional utilities

Some additional things you may want to install –

GEOID09 – see [Installing GEOID09 in TGO](#)

OPUS Importer – see [Adding OPUS Importer to TGO Ver 1.6X](#)

### **Other considerations –**

#### **Unpredictable results?**

Initial results coming in from the field indicate users have encountered widely varied results with installing and using TGO under Windows 7. Everything works fine for some users, while the efforts of others are met with failure at every turn. Without knowing much more about the specifics of each instance Inland GPS cannot offer any suggestion as to why the results are so inconsistent.

#### **Conflicts with other Trimble applications?**

Some Trimble applications use shared files, usually those found in the **C:\Program Files (x86)\Common Files\Trimble** path. That certainly can lead to conflicts that are impossible to predict. If you encounter a problem that seems to happen if a particular application is launched before TGO, it may help to restart the computer after shutting down the first application.

### **Install normally?**

At least one TGO user has told Inland GPS they simply installed TGO on a Windows 7 computer as if they were installing on Windows XP (no compatibility-mode settings). Inland GPS attempted that use that method and encountered several fatal error messages. It is not believed possible to perform a business-as-usual installation of TGO on Windows 7. Your mileage may vary.

### **No “Convert to DAT” when right-clicking TOX file?**

It has been noticed that the handy “Convert to DAT” context-menu (right-click) option does not appear when you right-click on a T00, T01, or T02 file. Tried reinstalling Data Transfer, using compatibility mode, and the other normal things but was not able to obtain the same context menu as is found when Data Transfer is installed on Windows XP. The workaround is to 1.) Make a folder on the hard drive with a name like “PC Card” and put the TOX file(s) to be converted there, 2.) Create a new survey device in Data Transfer of type “Survey Data Card” that points to the folder created in the previous step, and 3.) Run Data Transfer, point it to that new device, look for files of type “5000 Series Receiver Files” paying attention to where they are going (the Destination field) and do the Transfer. That will make DAT files appear in the selected Destination but the naming may be messed up because the TOX extension may remain in the middle. Another option is to use the newer version of the Convert to RINEX utility (the one that comes with Trimble Business Center), that utility can convert TOX files directly to RINEX files.

### **Set compatibility mode to Windows XP (Service Pack 3)?**

The first version of this document instructed users to set compatibility mode to **Windows XP (Service Pack 3)** even though information received from some TGO users indicated that they had better results setting compatibility mode to **Windows XP (Service Pack 2)**. Later it was observed that the Windows 7 compatibility wizard suggested using **Windows XP (Service Pack 2)** for each of the Trimble-provided files used above.

If you cannot resolve a certain problem, setting compatibility mode to **Windows XP (Service Pack 3)** would certainly be worth a try.

### **Virtual machines**

Another way to run TGO under Windows 7 is to use the XP Mode virtual machine that is available in the Professional, Ultimate, and Enterprise editions of Windows 7. If you have a different edition of Windows 7 it may be possible to use another virtual machine such as the free VMWare Player. If you go this route, make sure your USB connections work as expected. Apparently many virtual-machine users experience USB problems.

### **The big picture**

Anyone can obtain a completely adequate computer running Windows XP Pro for less than \$100.00, so if you are determined to continue using TGO you may want to consider that option. Microsoft has said they are going to continue to provide security updates for Windows XP Pro until sometime in 2014.

### **An unsolved mystery and something else to try if all else fails**

While preparing the first version of this document it was discovered that Grid Factory would not work with a certain standard-user account on the test Windows 7 computer, even when that user account was elevated to be a member of the Administrators group. Inland GPS finally deleted the problem account, made a new standard-user account, and found Grid Factory worked fine with the new standard-user account. The lesson here is that if you encounter a difficult problem, one thing to try is to create a new user account and see if the problem appears in that account as well.