GeoMax TPS

Zoom90 Series

Installation Guide

**Version 1.3
English**

Table of Contents

1 INTRODUCTION

This guide provides complete step-by-step instructions for preparing the Zoom90 TPS series for measuring work. The instructions cover all the required installation tasks for the Zoom90 instrument, Getac handheld and Field Genius/Layout Pro software.

The latest versions of GeoMax documents and software referred to in this document are all available from the GeoMax Parner Area in the Zoom90 folder at: www.geomax-positioning.com/partner-area

Only the tasks required for the initial setup of a new Zoom90 system are described in this document. For further information regarding the operation of the Zoom90 components, please refer to the respective manuals.

- The Zoom90 Quick Guide is included with the container set. The comprehensive User Manual for the TPS instrument is available from the included Zoom90 CD and also from GeoMax Partner Area in the Zoom90 folder at www.geomax-positioning.com

- The appropriate uses of the included accessories are described in the Zoom90 User Manual.

- The Getac Quick Start Guide is supplied together with the Handheld. The complete User Manual can be downloaded from Getac's website at: http://en.getac.com/products/GETAC

- The Field Genius/Layout Pro manual and Release Notes for the current software version can be downloaded from MicroSurvey's Knowledgebase at: http://www.microsurvey.com /helpdesk

2 BATTERY CHARGING

2.1 ZOOM90 INSTRUMENT

Before using the instrument, the included ZBA400 battery should be charged. Insert the battery into the ZCH201 charger and plug the adapter into an AC power supply. Do not disconnect from power until the green FULL indicator flashes, indicating that the battery is fully charged. Once charged, insert the battery into the side cover slot of the Zoom90 instrument and switch on.

2.2 GETAC HANDHELD

The Getac handheld is supplied in a cardboard box which includes the handheld device, battery and charging adapter. Insert the supplied battery into the handheld's battery compartment. Charge the internal battery with the supplied adapter as shown below. While charging, the circled indicator on the front of the GETAC glows amber. Do not disconnect from power until the indicator glows green, indicating that the battery is fully charged.
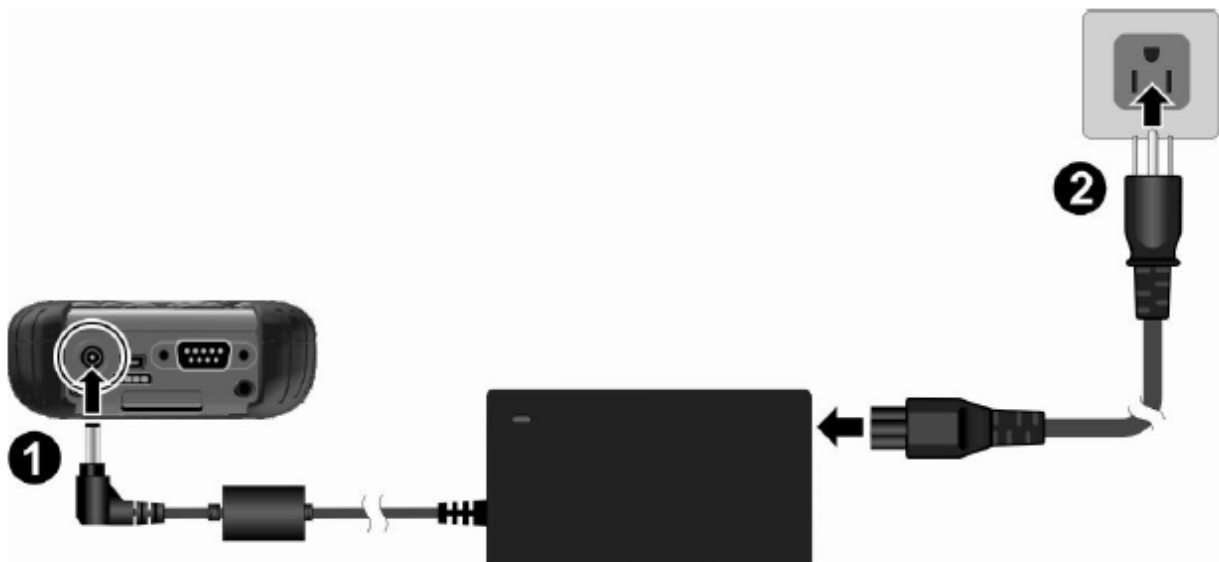
3 PREPARATION OF THE INSTRUMENT

3.1 OBTAINING SYSTEM FILES

When receiving a new instrument, it should be checked that the latest firmware version is installed. The installed version can be seen in the "GeoMax Toolkit" application installed. To accessed start "GeoMax Toolkit" and select "SysInfo" (2). Select the second tab-page to see the version information. If this version does not match the one available from GeoMax Partner Area, then the instrument should be updated.
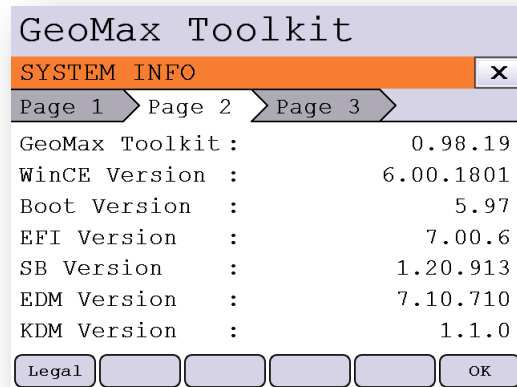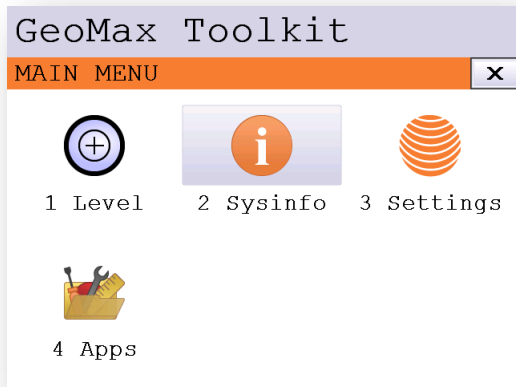
To customize the instrument for personel requirements, the respective languages can be installed. The required files can be obtained from GeoMax Partner Area in the Zoom90/Firmware folder and are in the following format:

Zoom90_EN.fw - The "main" OS and application firmware file where "EN" stands for "English".

GeoMaxToolkit_en_us.sus - An example language file. "en" indicates the English language and "us" stands for United States.
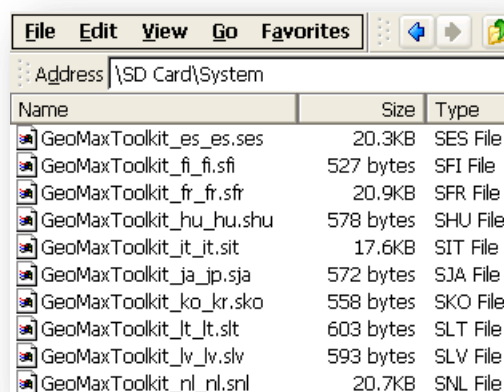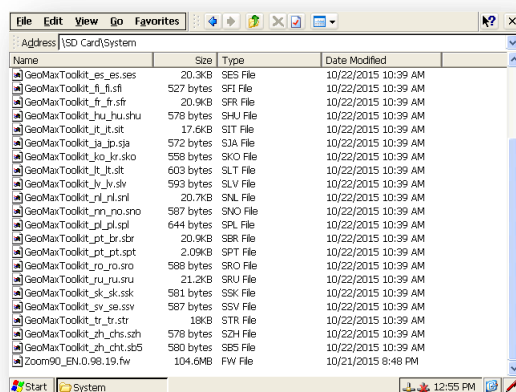
3.2 UPLOADING TO THE INSTRUMENT

The system files are uploaded to the instrument directly from the SD card. Therefore copy all the downloaded files to the **System** directory on the SD card using a suitable card reader. Insert the SD card into the instrument and power on. To load the files onto the instrument, start GeoMax Toolkit and navigate to *MAIN MENU / APPS /* **UPDATE**. If the firmware needs upgrading, then install this first by selecting F1*. Firmware*. Then install the language file by selecting *F2. Language*.
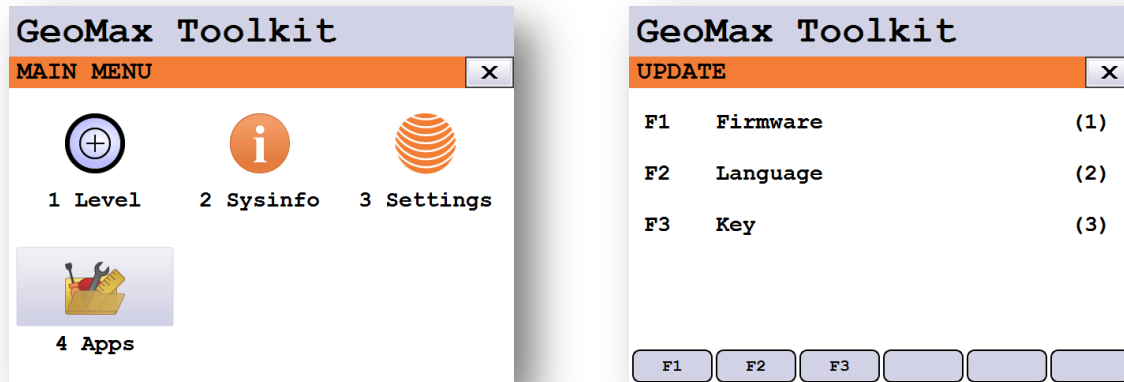
Note: Ensure that fully charged batteries are inserted when uploading firmware. This process can take some time and the power supply must NOT be interrupted during the loading process. During the update process, it could be that the instrument will automatically reboot a couple of times.

3.3 LOADING LICENCE KEYS

Some functionality is licence protected and requires the upload of a licence key. To upload a license key file select *MAIN MENU / APPS /* **UPDATE** */ F3.Key* and select the file for upload followed by pressing the (F6) OK button.

3.4 CONFIGURATION OF LONG RANGE BLUETOOTH HANDLE

If the optional ZRT82 long range Bluetooth handle was ordered with the Zoom90, then this component needs to be configured before use. Replace the standard instrument handle with the ZRT82. Swing the antenna into the upright position. To configure the handle, choose **MAIN MENU / SETTINGS / COMM**. If the handle is recognized then the option "Bluetooth Handle (ZRT82)" should be enabled. Now highlight this option and press the (F6) OK button.
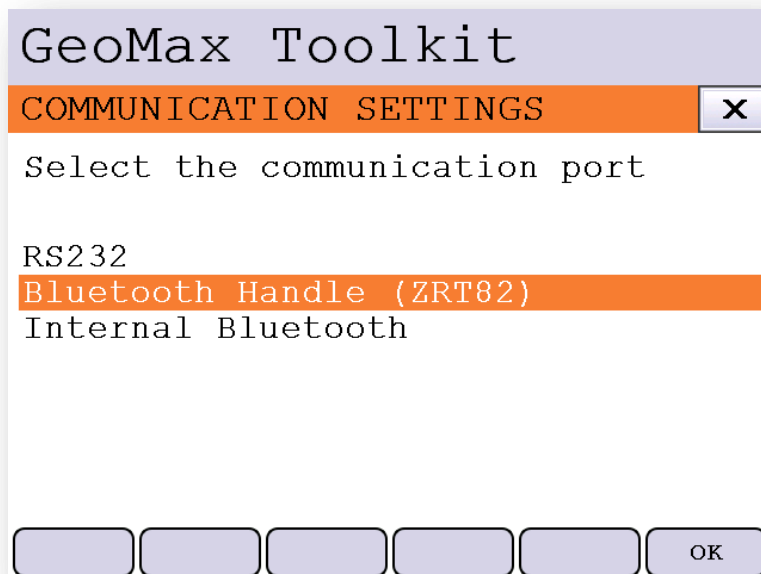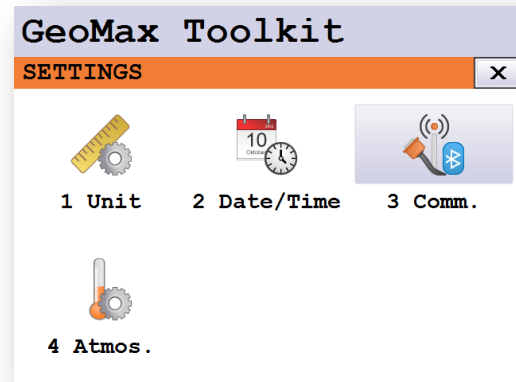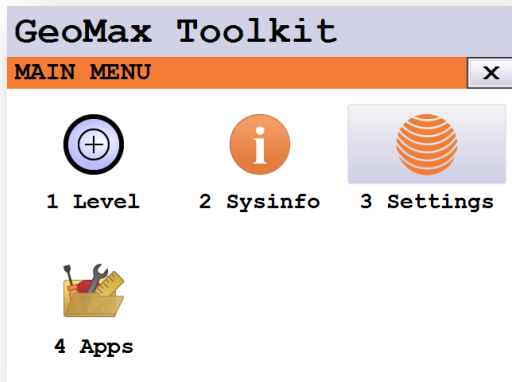
Your Zoom90 instrument is now ready to be used.

3.5 INSTALLING USB DRIVERS FOR THE ZOOM90.

The Zoom90 is equipped with a USB connector behind the side-cover. This USB connection can be used to connect the Zoom90 to a PC and have it detected as a mass storage device. Having this option is usefull for dragging and dropping files between your Zoom90 and the Dekstop PC. Also these USB drivers will be needed if you want to make an ActiveSync or Window Mobile Device Center connection to install 3rd party software onto the unit.

To install the drivers, do the following:

1) With your Internet browser, navigate to the GeoMax download page.
2) Download the Zoom90 USB drivers.
3) Make sure the Zoom90 is not connected to the PC
4) Run the SetupZoom90_USB_xx.EXE
5) Follow the instructions on the screen.
6) When ready, press FINISH.
7) Connect the Zoom90 to the PC with a USB cable.
8) Power ON the Zoom90

Your PC will then try to recognize the Zoom90 and associate the appropriate drivers with it.

3.6 INSTALLING 3RD PARTY SOFTWARE ONBOARD THE INSTRUMENT.

With the Zoom90 it is possible to install applications onto the unit if they were specifically designed for it. If the received application installer is in .CAB format, it means that it has to be transferred to the Zoom90 first before it can be installed. There are multiple ways of doing this, but the easiest thing would be to put the .CAB file directly onto a USB-Stick and put this stick into the Zoom90 USB port. Then on the desktop screen of the Zoom90, double-tap on the MY DEVICE icon. Navigate to the USB stick and press ENTER. Now highlight the .CAB installer and press ENTER to start the installation. Follow the instructions provided on the screen.

If the received file is however an .EXE file, then it means that it would need to be run from the Desktop PC side. Make sure that the instrument is powered ON and connected to the Desktop PC. (See previous chapter). If the instrument is properly connected, run the .EXE file and follow the instructions on the screen.

Note: At the present time, the most common applications working with the GeoMax Zoom90 instruments are:

- MicroSurvey FieldGenius   (.EXE file = Start from Desktop PC)

- LSE X-Pad   (.CAB file = Start from Zoom90)

- Carlson Software SurvCE   (.EXE file = Start from Desktop PC).

4 PREPARATION OF THE HANDHELD

4.1 SETTING UP THE HANDHELD

Once the battery is fully charged or while connected to AC power supply, press the power button of the handheld. Follow the steps of the wizard to setup Windows and the touch screen. The Windows software on the supplied Getac Handheld is only available in English language. Microsoft restricts the installation of alternative languages with this operating system.

4.2 CONNECTING TO THE PC

To establish communication between the handheld and your PC, the Windows Mobile Device Centre needs to be installed. For Windows XP the communication software Microsoft ActiveSync is required. These softwares can be downloaded from Microsoft's website. After the software installation, connect the handheld to your PC with the USB cable supplied with the Getac as shown below.

The device drivers will now automatically be installed. If the Windows **Found New Hardware Wizard** starts, click the Close button. After the drivers are installed, the Mobile Device Centre or ActiveSync will automatically start. The contents of the Getac internal memory can be seen with Windows Explorer and are defined as a drive named **Portable Device**.

4.3 INSTALLATION OF FIELDGENIUS/ LAYOUT PRO

Download the latest version of GeoMax Field Genius/Layout Pro from from GeoMax Website at http://www.geomax-positioning.com/Downloads.htm?cid=15613

Here the latest installation version and Release Notes of FieldGenius/Layout Pro is available. Download the *Devices Installation* and save onto your PC.

With the handheld connected to your PC, run the installer file *fieldgenius-devices-v.v.v.v-xxu.exe* where *v.v.v.v* is the version number and *xx* the language. The PC will attempt to connect to the handheld and install the Field Genius/Layout Pro software. Follow the instructions of the Windows installation wizard. At the Device Selection window, select the data collector type as **Windows Mobile 6.**
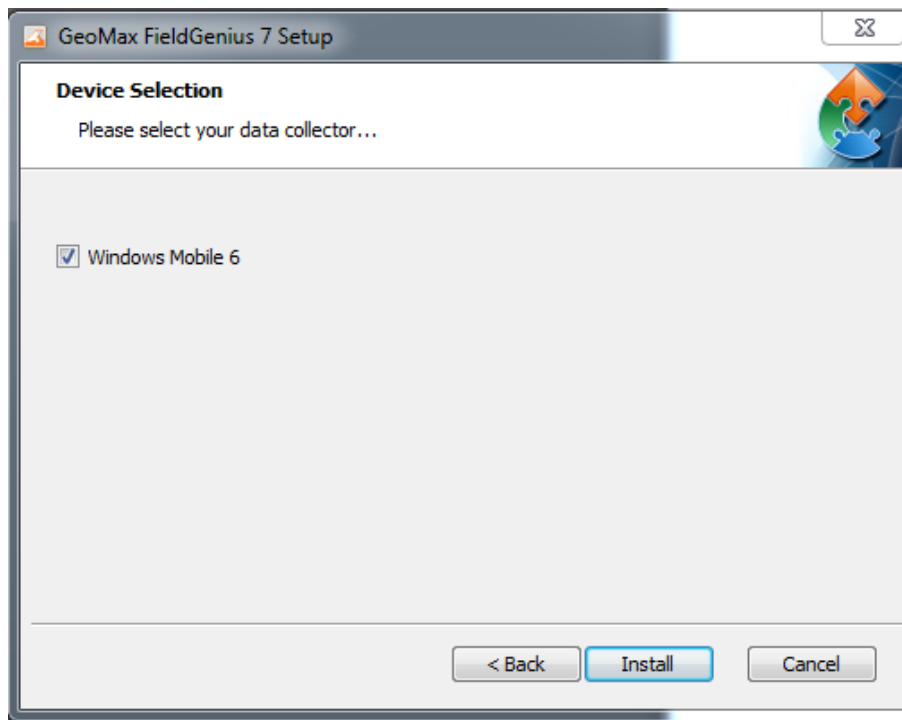
When prompted by the handheld for where to install, choose **Device**. Once the installation process is completed, the Field Genius/Layout Pro software can be started by selecting it from the Windows Start Menu.

4.4 REGISTRATION OF FIELDGENIUS/ LAYOUT PRO

When FieldGenius/ Layout Pro is started, a registration window with the Device ID is displayed as shown below. It is possible to use Field Genius/Layout Pro without registration by tapping **Run Demo Mode**. This provides full functionality, but is limited to the storage of 30 points.

To register your version of FieldGenius, an activation key needs to be entered. The displayed Device ID together with the GUID (global unique identity) is used to obtain the key. The GUID can be found on the printed Field Genius/Layout Pro card that was supplied together with your Zoom90 equipment.
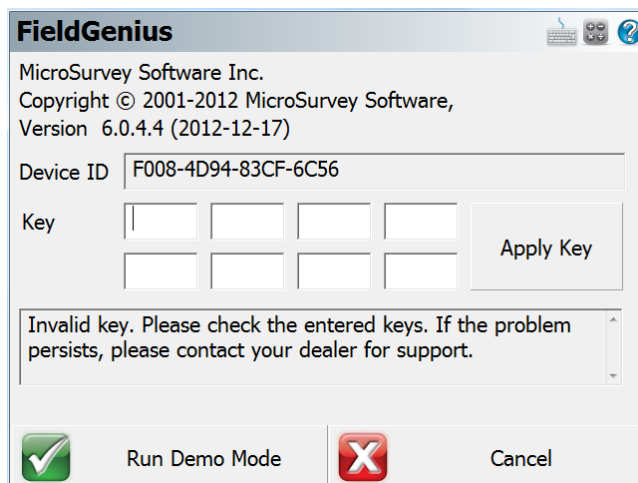
The activation key can be generated by using MicroSurvey's webportal, at the link http://microsurveylicenseserver.com/ValidateSerialNumber.aspx. This webportal is shown in the screenshot below. At the blank serial number field, enter your GUID and click **Submit**. At the next screen, enter the Device ID shown on the handheld. The activation key will then be displayed in the password field. Enter this key into the handheld at the provided fields and click **Apply Key**.

Note: Please make certain that the Device ID is entered correctly the first time, since an activation key cannot be generated again with a different ID.
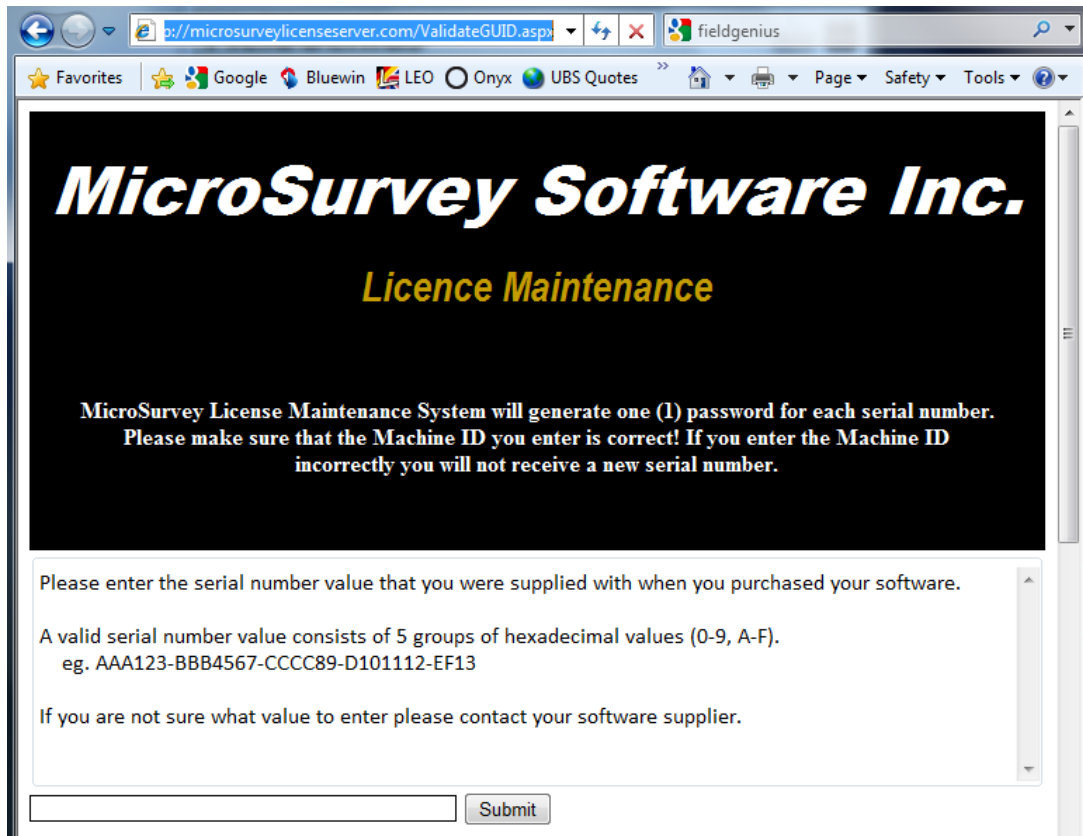
4.5 CONNECTION TO THE INSTRUMENT

When starting FieldGenius, the *Project Manager* screen is displayed each time. Create a new project by tapping the appropriate icon and enter a project name. The onscreen keyboard can always be accessed by double tapping on the editable field. The screens that follow are used to set the default settings for this project.
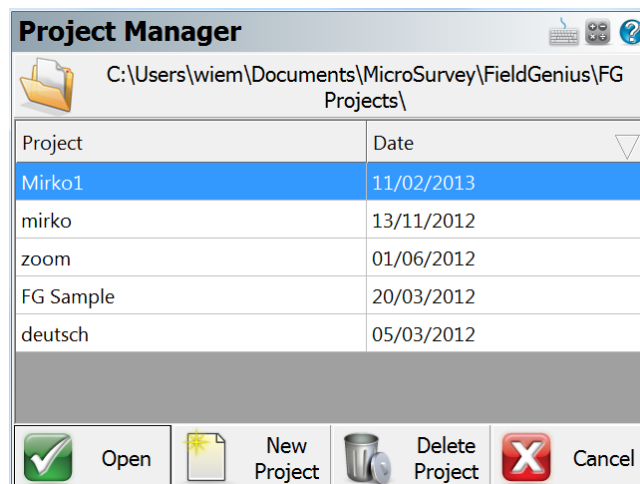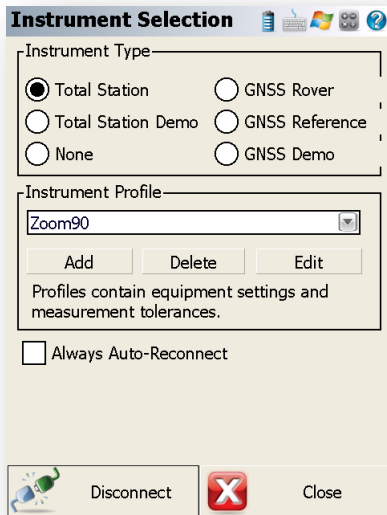
At the *Instrument Selection* screen, a connection to the instrument can be made. Ensure that the instrument is switched on and select Instrument Type as **Total Station**. In the Instrument Profile window, tap Add and enter a name for your instrument. Save the name and then tap Edit to configure the profile.

At *Model & Communication* select the Make as **GeoMax**, Model as **Zoom90** and Port as **Radio**. In *Radio Settings*, make sure to set the *Connection Method* to *Long Range Bluetooth*.
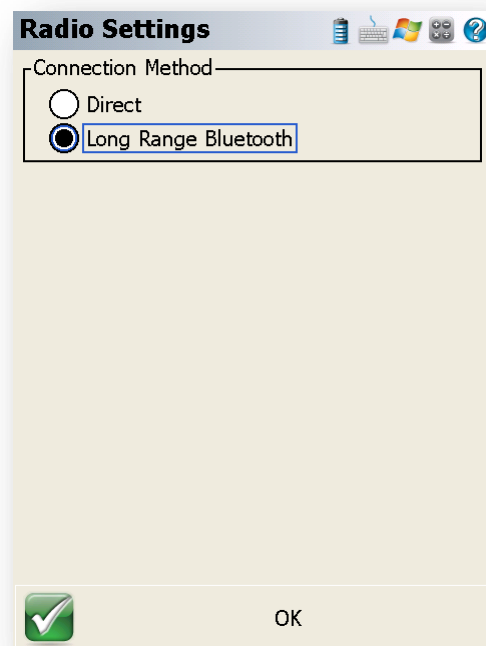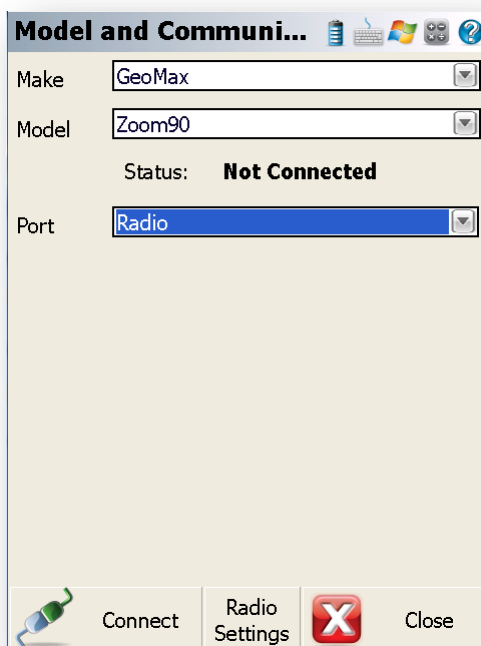
When everything has been configured correctly, tap *Connect*. The map view will then be shown and you are ready to measure. For further information on using Field Genius/Layout Pro for total station measurements, refer to the Field Genius/Layout Pro instruction manual.