Geometrics MagEx Release Notes

Version 1.2.2736

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Changes

1. The instrument log file, named “geometrics.log”, is now written to the instrument’s SD card rather than to the USB drive. This change was made after testing showed that SD cards are significantly more reliable than USB cards, particularly under conditions of changing temperatures and multiple writes. The resulting increased reliability is judged to outweigh the less convenient physical access to the SD card, compared to the USB drive.
2. GNSS location and time data plus some instrument health data are now periodically written to the log file.
3. Refer to the release notes for MagNav for information about changes in the Android app that affect the user experience with MagEx.

Version 1.0.2099

This is an update to the prior release for the Geometrics MagEx magnetometer. Three softwares accompany the instrument:

- Geometrics MagEx 1.0.2099 – This software runs inside the instrument.
- Geometrics MagNav 3.1.4230 – The Android app running on the Getac tablet that accompanies the instrument.
- Geometrics Survey Manager 3.2.1395 – This software runs on a 64-bit, Windows 10 or Windows 11 desktop or laptop computer.

Installation

On a new customer instrument, MagEx Instrument software and MagNav are already installed on the instrument and on the Getac tablet. The delivered project also includes a copy of Survey Manager, which is to be installed on a Windows computer.Copies of all of these softwares can also be found on the Geometrics web site.

Installing Survey Manager

1. Run the Survey Manager setup program

Installing MagNav

This is only necessary for customers upgrading an existing system.

1. Copy the MagNav APK file onto a USB drive.
2. Insert the USB drive into the socket in the Android tablet.
3. Open the Android file manager app, navigate to the APK file on the USB drive, and select it.
4. Follow the prompts to install and run the app. Accept the permissions that are requested.

Installing Instrument Software

This should not usually be necessary; the latest version of the instrument software is installed on new systems, and updated versions can usually be installed by over-the-air upgrade from the MagNav app, as follows:
An instrument with an earlier version of the software can be updated automatically from the new version of MagNav:

1. Install the new version of Survey Manager.
2. Install the MagNav app as described above. Turn on the instrument and connect to it with the MagNav app. A few seconds after connection the app will show a message saying that the instrument software should be updated. It will offer one of two options:
    a. Over-the-air upgrade – The update can be transmitted directly from the Android tablet to the instrument. Accept the upgrade; wait until the instrument has rebooted; reconnect and restart MagNav.

b. Separate install – MagNav says to install the software directly on the instrument, because automatic upgrade is not available. Use the MagEx setup program to install the new instrument software on the instrument's USB drive; after rebooting the instrument reconnect with MagNav. Subsequent updates will occur through the over-the-air channel.The separate embedded software install program is also available if the over-the-air upgrade is not available or does not function correctly. In this case please execute the instrument software setup program to load the new program onto the instrument's USB drive. Then insert the USB into the socket in the battery component of the instrument and restart the instrument. The new software will be installed during the new startup.

Changes in this release

MagNav and the instrument software include minor UI changes plus several improvements relating to reliability and performance. Survey Manager includes improvements relating to the use of the software on non-US English systems and other internal improvements.

Bundle 1.0.2067

This is the initial customer release of the MagEx magnetometer. Three softwares accompany the instrument:

- Geometrics MagEx Embedded 1.0.2067 – This software runs inside the main instrument.
- Geometrics MagNav 3.0.4188 – This is an Android app, which runs on the Getac field-rugged Android tablet that accompanies the main instrument.
- Geometrics Survey Manager 3.1.1385 – This software runs on a 64-bit, Windows 10 or Windows 11 desktop or laptop computer.

Installation

On a new customer instrument, MagEx Embedded and MagNav are already installed on the instrument and on the Getac tablet. The delivered project also includes a copy of Survey Manager, which is to be installed on a Windows computer.Copies of all of these softwares can also be found on the Geometrics web site. Pre-release customers who have an instrument with an earlier release should follow these installation instructions:

1. Install the new version of Survey Manager.
2. Install the MagNav app. Turn on the instrument and connect to it with the MagNav app. A few seconds after connection the app will show a message saying that the instrument software should be updated. It will offer one of two options:

a. Over-the-air upgrade – The update can be transmitted directly from the Android tablet to the instrument. Accept the upgrade; wait until the instrument has rebooted; reconnect and restart MagNav.
b. Separate install – MagNav says to install the software directly on the instrument because automatic upgrade is not available. Use the MagEx setup program to install the new instrument software on the instrument's USB drive; after rebooting the instrument reconnect with MagNav. Subsequent updates will occur through the over-the-air channel.The separate embedded software install program will remain a standard component of MagEx releases; even though the over-the-air upgrade will be the default channel for upgrading the instrument, some upgrade scenarios will continue to require the separate install.

Issues

Issue: (FIXED in 1.2099) MagNav-75 – Sometimes the start button in the MagNav navigation tab does not start acquisition – the screen remains stopped, and the instrument doesn't collect data. The user can start acquisition by exiting the survey and trying again. This issue is intermittent and not common. A fix has been found and implemented and will be included in the next release of this software.