G-LOG
Mobile Application

Node info.

GE◊SENSE

Node ID:	1133
Serial:	1133
Network ID:	Node without radio
Model:	LS-G6-VW-5-SA
Hw version:	4
Fw version:	2.1
Node date:	16 Mar 2015 11:01:34
Input voltage:	3.6 V
Temperature:	17 °C

Note: Some phones are not capable of powering the node, specially when performing a reading. If reading fails, set the internal switch to BATT mode in order to power the node with the internal batteries.

Dlog v1.2.5
Powered by Worldsensing

GE◊SENSE

Version 1.0.12
February 2015

CONTENTS

1. ABOUT THIS DOCUMENT

This user guide explains the features of the Android app G-LOG for on-site configuration and data download of the Geosense Wi-SOS 480 wireless nodes & Geologger (VW1C, VW5C & 485-SDI) dataloggers.

2. INITIAL STEPS

2.1. App installation

The last version of the app is available for Android terminals at:
http://wsop.cat/industrial/dlog/Glog.apk

To download the G-LOG app, the Android device must allow installing non trusted apps (Settings>Security>Unknown sources).

The minimum supported version for the G-LOG app is Android 3.1.

2.2. Connection

To connect the Android device to the datalogger, use the cable provided: USB On The Go cable (micro USB Male to USB Female)& regular USB to mini USB cable (USB male to USB mini male). Not all the Android devices have the option USB On The Go. Please, check before in the device specifications.

NOTE: Some Android devices may have the option USB On The Go locked. In order to unlock it, follow the steps:
    1. Connect the Android device to the electrical power network using the USB OTG cable connected to the Android charger.
    2. With the charger plugged, restart the device.
    3. In order to lock it again, repeat the same action using the standard USB cable provided with the Android device charger.

2.3. Power

If the datalogger does not have any battery, some Android devices have the capability of power the datalogger over the USB connection: in order to do so, internal power switch should be in the USB position.

3. GETTING STARTED

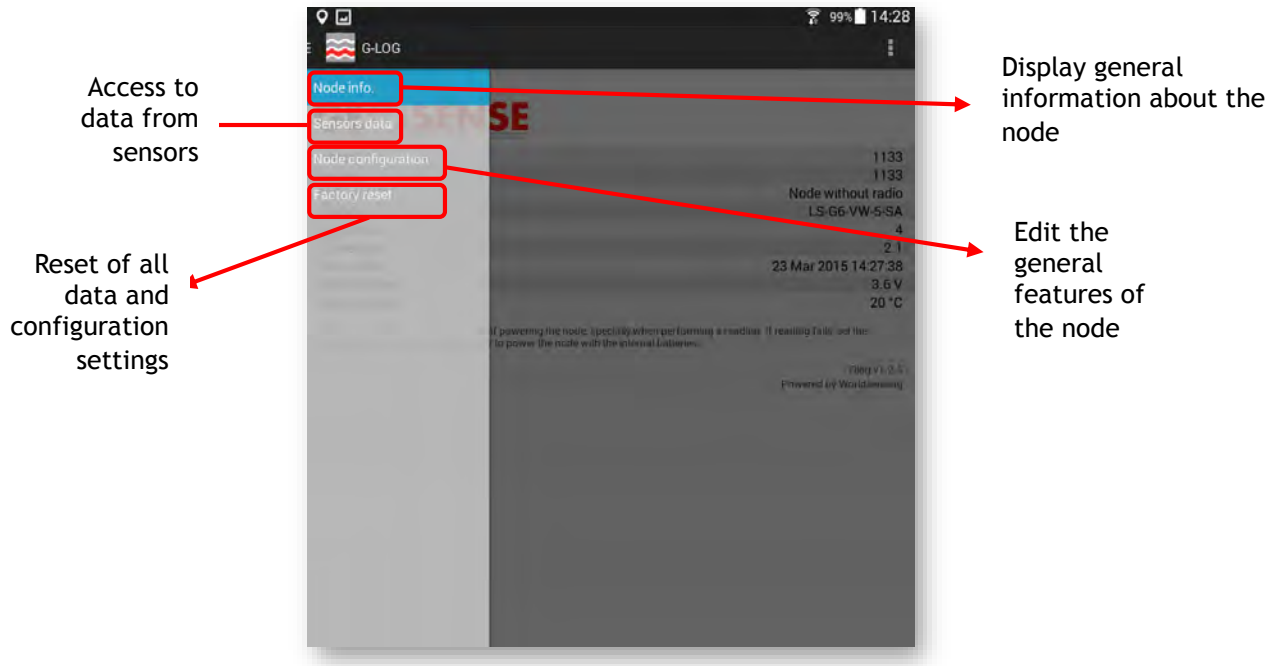Tap the G-LOG app button on your Android device to start using G-LOG.

The initialization of the node requires 20 sec. In case that the node is powered via USB, during these 20 seconds the connectivity will not be habilitated.

3.1. App layout

The app has 4 main sections: Node info, Sensors data, Node configuration and Factory reset.

Access to data from sensors

Reset of all data and configuration settings

Display general information about the node

Edit the general features of the node

3.2. Updating your app

The G-LOG app is updated remotely. If your Android device has an old version of the G-LOG, a pop-up message will appear in the screen. To download and update your Android device with the latest version of the G-LOG app, click OK.

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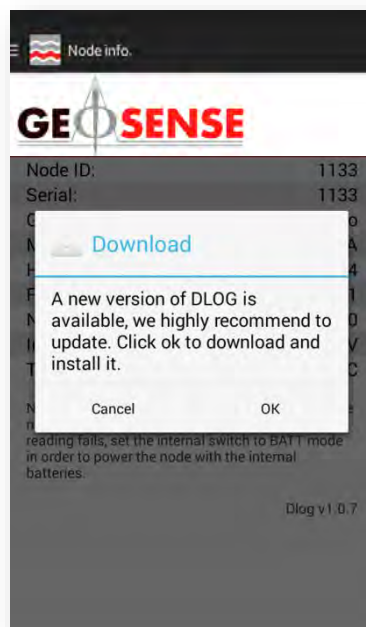
4. NODE SETTINGS

4.1. Node info

All the device/node information appears automatically. Node ID, Serial n°, Gateway ID (if the node is connected to a gateway for wireless transmission of the data), Model, Hardware version, Firmware version, Node date, Input voltage and Temperature.
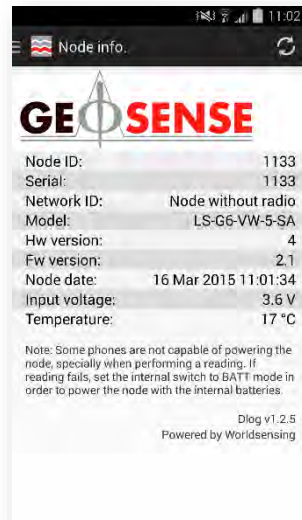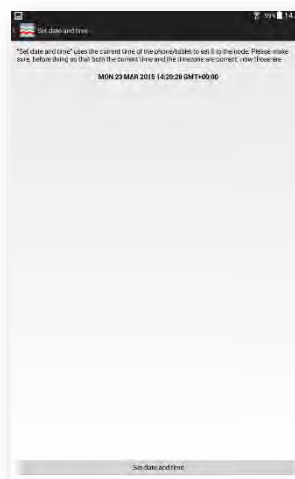

4.2. Node configuration

Node configuration allows setting different node configurations: Node ID, Date and time, and Sensor configuration.

Node ID   **Set date and time**

Node ID: edits the internal identification number of the node. After any change, press "Set node ID" to activate.

Set date and time: uses the date and time of the Android device to update the node.

4.3 Setup Wizard

For the first setup of the node it is recommended to use the setup wizard to make sure that all aspects of the setup are completed. Please see below steps for using the setup wizard.
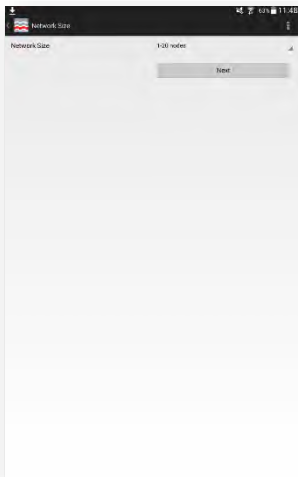
Network size:

Select the total number of nodes based on the network system

Sensor Configuration:

While this screen is part of the setup wizard, the sensor configuration can be changed individually (see section 4.4.)

Fill in the following information as needed:

- Sampling rate
- Turn channels on or off & set node specific settings (see below)

For VW
- Sweep range is to be set depending on the sensor
- A custom sweep range can be added if applicable

For Digital
- Add serial number of each sensor in the string (separated by commas)

Sensor Data:

This screen will show the following:

- Current sensor readings for channels that were turned on in the previous screen.
- Current barometer reading (in mbar)
- Sampling rate (set in sensor configuration)

To refresh the current ready press the refresh arrows in the top right hand corner of the screen. This feature can be used to check the operation the sensors during install and troubleshooting.

To download the data see section 5.0.

Radio Configuration:

This screen allows the node to be paired with the Gateway or used as a standalone logger.

If standalone
- Turn the radio enabled option to off

If using wirelessly with a gateway

Fill in the following:

- Turn the radio enabled option to on
- Select network region
- Fill in the network ID (Gateway number
- Fill in the network password (found on the gateway information sheet
- The remaining option are only used for troubleshooting & special applications.

Radio Signal Coverage

This screen allows the user to see if the node can communicate with the gateway (overall signal coverage).

Fill in the gateway number and the remote access password (Gateway information sheet)
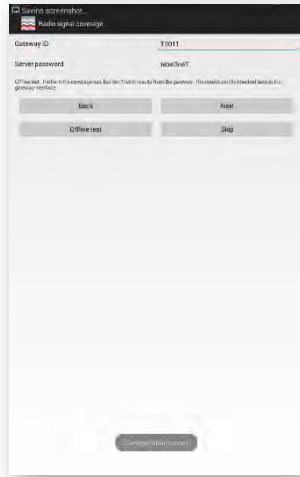
For immediate results the gateway and android devise should be connected to the internet (via LAN, Wi-Fi or SIM card). However, radio signal coverage can be tested when the gateway/android device does not have signal (see below)

With internet access

Press the next button to start a network coverage test (this test should take up to 2 minutes to complete)

Once the test is complete the results will show below. If at least one spread factor has 80% of packets received then the node will communicate with the gateway, however it should be noted that less nodes can be used within the higher spread factors.

Without internet access

Press the offline test button to start a network coverage test.

A token will be shown, which should be noted against the location of the test. Once all locations are complete the test results can be checked on the gateway visualisation software.

Once all steps have been completed the node is fully set up and will continue to log to the settings applied.

4.4 Sensor configuration

Different configuration parameters are required for each type of datalogger (Vibrating Wire, Digital, Voltage).

For the VW datalogger, the menu Sensor configuration permits to edit the sampling rate interval and VW sweep frequency for each sensor.

For the DIG datalogger, the menu Sensor configuration permits to edit the sampling rate, to select the communication protocol with the sensors (from given options), and to provide the bus addresses of the sensors if they are connected to the RS485 by a digital bus.

Also for the digital datalogger, be aware that all the recorded readings are kept even if you change the configuration. The readings are stored in the same order than the inserted addresses. If you don't keep track of the different addresses over time, we strongly recommend a factory reset. The last configuration is saved in the datalogger.

For all the dataloggers, after any change, press "Set configuration" to activate it.
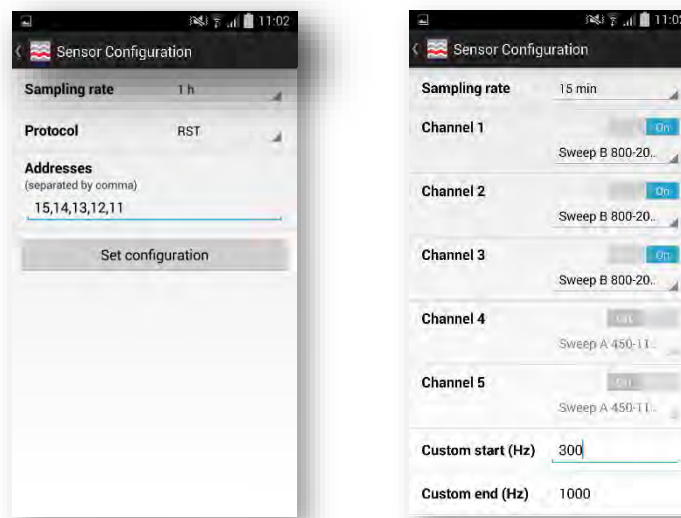
NOTE: by default, a new datalogger has all channels set as "Off" for battery saving. Turn to "On" all channels used in order to get data from the sensors.

5. SENSOR DATA

This screen shows the last reading of each node channel according to the previously stated sampling rate, and also the barometer integrated in the datalogger. On the top of the screen there are three buttons: "Download", a shortcut to "Node configuration" and "Take a reading now".

By selecting "Download" a data period has to be specified. Two separate .csv files are downloaded and can be sent by e-mail or stored at the Android device. One file includes the sensor readings, the other file includes the health data of the node.
By selecting "Take a reading now" a real time reading of all the active channels in the node is displayed.
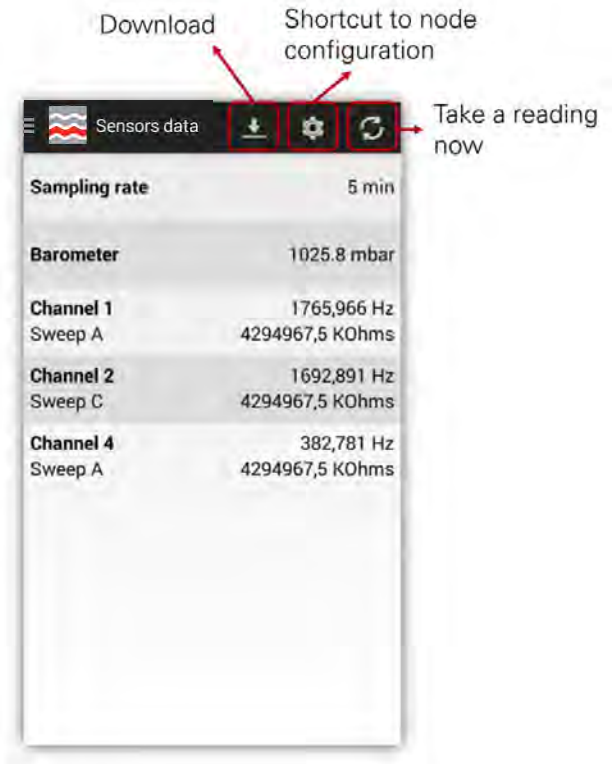
6. FACTORY RESET

 The factory reset button erases all the data stored at the node and resets the node to the factory configurations, including Node ID.
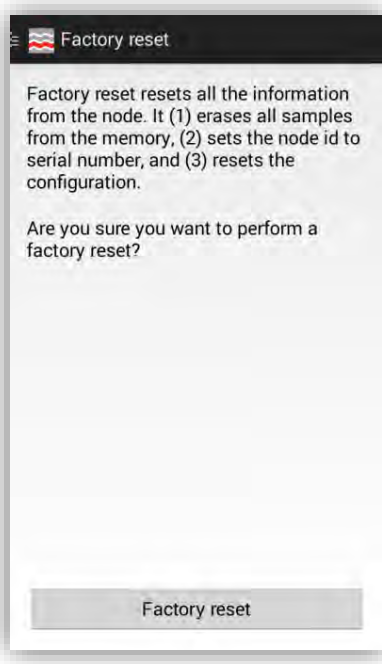
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