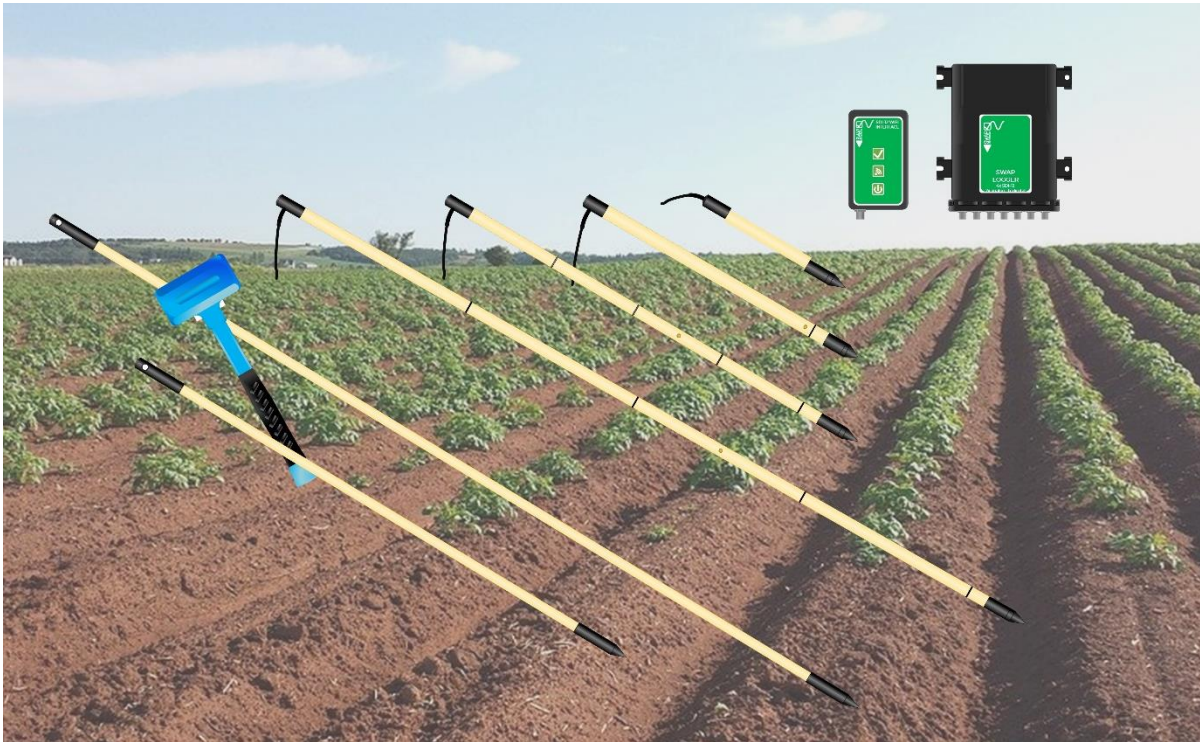# SWAP Wireless Interface & App

Quick start guide for SWAP Wireless Interface and App (SWI & App)

Version: 2021-V1

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About this quick start guide

This manual is originally written in English. Versions in another language of this manual are a translation of the original instructions.

Safety and Information symbols
Symbols used in this manual:

⚠️ **WARNING**
This symbol identifies a hazard that could lead to personal injury, including death.

⚠️ **CAUTION**
This symbol identifies a hazard that could lead to damage to the machine, damage to other equipment and/or environmental pollution.

⚠️ **ATTENTION**

Follow the instructions carefully to prevent errors or damage.

ℹ️ INSTRUCTION

Follow the instructions carefully to obtain optimal results and prevent errors.

Notices

Copyright
All rights reserved. No part of this quick start guide may be reproduced and/or published by print, photoprint, microfilm or any other means without the previous written consent of SWAP instruments BV. This includes translation into another language.

CE conformity
The SWI conforms to EC regulations regarding electromagnetic emissions and susceptibility when used according to the instructions contained within this quick start guide, and is CE marked by SWAP instruments B.V.

Design change
SWAP instruments B.V. reserves the right to change designs, specifications and technical data of its products at any time without prior notification.

Disclaimer
SWAP instruments B.V. is not responsible and/or liable for any damage to the environment and goods and/or personal injury due to the (incorrect) use of the products. SWAP instruments B.V. is also not responsible for the outcome of the measurement results.

Intended use and application
SWAP probes are intended to be used solely in scientific applications performing environmental measurements. Every other use should be consulted and confirmed in writing by the manufacturer prior to operational use.

User qualification
Users should be physically and mentally fit, qualified and trained to use the equipment with respect to personal and environmental safety. The user should be equipped with all needed safety and wellbeing gear for both indoor as outdoor applications.

1. Quick start Guide

Thank you for using our products. Much effort has been made to offer you these products, indented for high quality soil ORP measurements during its lifetime. We welcome your comments at SWAPinstruments.com.

2. Care and safety

⚠️ Before use, connect and insert a 9V battery in the SWI.

⚠️ Take care when attaching cables to ensure that the connectors are completely dry, clean, undamaged and properly aligned before pushing the parts together.

3. App installation

The SWAP instruments app can be obtained from the Google Play Store. Follow the instruction below.

	Step 1
	✓ Install the SWAP instruments app on your Android cell phone.
	✓ Allow the SWAP instruments app to get access to your location.
	✓ ACCEPT.

4. App functions

In this chapter the app functions are highlighted. The app is based on a project structure. Various location can be added to a project. Follow the instructions below.
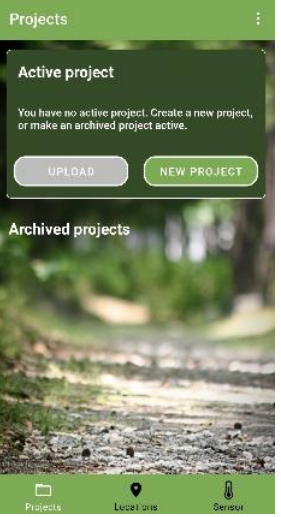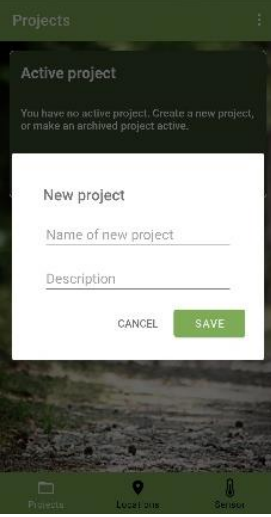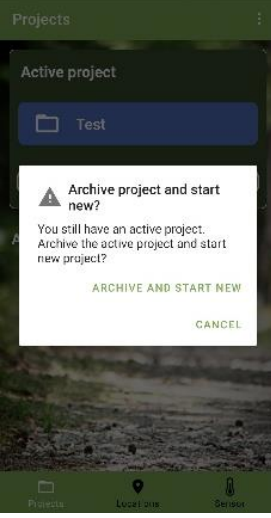
4.1 About and log out

In this menu, information about this app can be found and can be logged out.

About and Log out
⋮

✓ Click ⋮

✓ The submenu's 'Log out' and 'About' appear.

✓ Click 'About' for information about this app.

✓ Click 'Log out' for logging out.

4.2 Creating projects

In the Projects menu, projects can be created, archived and made active.

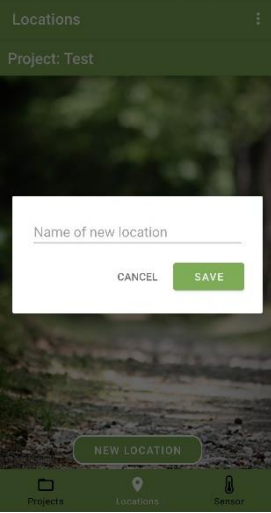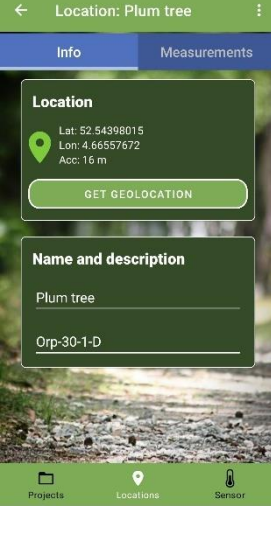

Step 2

Projects

📁

✓ Click 'Projects' to create a new project or to make an archived project active. When performing measurements, only 1 project can be active.

✓ Click 'New project' to create a new project.

	Step 3
	✓ Enter the name of the new project.
	✓ Enter a description of the project (called 'Test' in this example).
	✓ Click 'Save'.
	✓ This project is now the Active project.
	Step 4
	✓ When a new project is created, when there is already an Active project, by Clicking 'New project', the following text appears: 'Archive project and start new? You still have an active project. Archive the active project and start new project? Cancel or Archive and start new.
	✓ By Clicking 'Archive and start new', a new project can be created. The active project will be archived. Archived project can be made active again by selecting an Archived project and by Clicking 'Make project active'.

4.3 Adding locations to a projects

In the Locations menu, locations can be added to an active project.

	Step 5
	Locations
	✓ Click 'Locations' to add locations to an Active project
	✓ Click 'New location'.

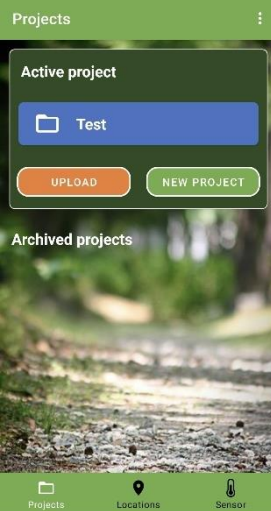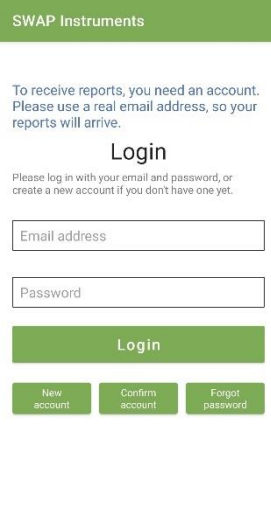|	
	Step 6 ✓ Enter name of the location (called 'Plum tree' in this example). ✓ Click 'Save'.
	Step 7 ✓ A location is created. ✓ By clicking the location name ('Plum tree' in this example), the coordinates of the location can be added and the name and description (Orp-30-1-D in this example) of the location.
	Step 8 ✓ Click 'Get Geolocation' to add the coordinates of the location based on the cell phone GPS. ✓ To add a new location 'Click Locations'.

4.4 Performing measurements

In the Sensor menu, measurements can be performed with a connected SWAP instruments probe.

	Step 9 **Sensor** 🌡 ✓ Click 'Sensor' to perform the measurements. ✓ Connect your sensor to the SWI. See Chapter 4.6 – Connecting a SWAP instruments probe with the SWI - for instructions. ✓ Turn on the SWAP device. ✓ Click 'Connect'. ✓ When no sensor is connected, the following message is displayed: Can't find SWAP device. Please make sure it is turned on and click 'Connect' again.
	Step 10 ✓ Click 'Measure' to start measuring. ✓ 5 measurements will be performed. ✓ The standard deviation of the measurement is displayed. ✓ The measured data can be saved at any time by clicking 'Save'. ✓ Click 📈 to open the graph with the measurement data.

4.5 Uploading your data

In the Projects menu, the measured data can be uploaded to Amazon cloud and e-mailed to a registered e-mail address.

	Step 11 **Projects** 📁 ✓ Click 'Projects' to upload the data of the active project. ✓ Click 'Upload'. ✓ When the data are uploaded, the following message is displayed: 'Data has been uploaded successfully'. ✓ The data are sent as an Excel file to the registered e-mail address. (see below).
	Step 12 ✓ When uploading is done for the first time, an account has to be created first. ✓ Enter the e-mail address where the report (measured data) has to be send to. ✓ Create a password.

4.6 Connecting a SWAP instruments probe with the SWI

Functionalities of the SWI.

SWI	
	✓ Connect a SWAP probe to the SWI. ✓ ⚠️Take care when attaching cables to ensure that the connectors are completely dry, clean, undamaged and properly aligned before pushing the parts together. ✓ Make sure that the SWI is paired with Bluetooth on your cell phone. When this is done for the first time, enter the code 1234.

On/off button 	✓ Press the on/off button to turn the SWI on. ✓ The ✅ icon will turn red for ~ 2 seconds, and then green. ✓ The SWI shuts down automatically when it is not used for 15 seconds. ✓ Now it is possible to connect a SWAP instruments probe with the app by clicking 'Connect' in the app in the sensor menu (see Chapter 4.4).
Communication Button 	✓ When clicking 'Measure' in the app in the sensor menu (see Chapter 4.4), this button will start to flicker blue. ✓ This means the SWI communicates with the app on the Android cell phone.
Power button 	✓ When this power button is red for ~ 2 seconds, the SWI is just turned on. ✓ When this power button is green, the SWI is on. ✓ When tis power button shows a red flickering light, the power of the battery is low. Replace the battery immediately to avoid erroneous readings.

5. Trouble shouting

The following (error) messages can appear.

1. Could not parse data from device

✓ Check if the SWI is switched on.
✓ Check if the SWAP instruments probe is connected (correctly) with the SWI.

⚠️Take care when attaching cables to ensure that the connectors are completely dry, clean, undamaged and properly aligned before pushing the parts together.

✓ If there is moist in the connector(s), dry the connectors.