METER WP4C Measurement Using Lavros Soilview Software User Guide

Contents

METER

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Product Information

Specifications:

- **Model:** WP4C
- **Manufacturer:** METER Group, Inc.
- **Software:** LABROS SoilView Software
- **Measurement Modes:** Fast, Precise

Product Usage Instructions

WP4C Measurement Process

1. Connect the WP4C via USB and turn it on.
2. Open LABROS SoilView Software and press the Show Devices button.
3. Follow the procedures described in the sections below based on your preferred file type for measurement data.

Adding WP4C Data Points to a *.bhdx File

1. Select the button with the ellipsis to open a *.bhdx file.
2. Select the *.bhdx file containing the WP4C data points to be added.
3. Select a default profile depending on the required measurement mode or create a custom profile in the Settings menu.
4. Start the measurement process following the instructions displayed on the software screen.
5. Continue measuring additional samples as needed.
6. Stop the measurement and save the file to ensure correct data storage.

Adding WP4C Data Points to an Excel File

1. Enter a sample name in the manager line.

Frequently Asked Questions (FAQ)

- **Q: Can I use the WP4C without connecting it to LABROS SoilView Software?**
  A: No, the WP4C measurement process requires a connection to the LABROS SoilView Software for data processing.
- **Q: How do I know which measurement mode to select?**
  A: Refer to the WP4C User Manual for detailed information on choosing the appropriate measurement mode based on your requirements.

WP4C MEASUREMENT

This application note describes how a WP4C measurement is processed using LABROS SoilView Software. For more details about the WP4C, please refer to the **WP4C User Manual**. For more information about taking a WP4C sample after HYPROP measurement, please refer to the **How to Create a Full Moisture Release Curve Using the WP4C and HYPROP** application note.

WP4C MEASUREMENT USING LABROS SOILVIEW SOFTWARE

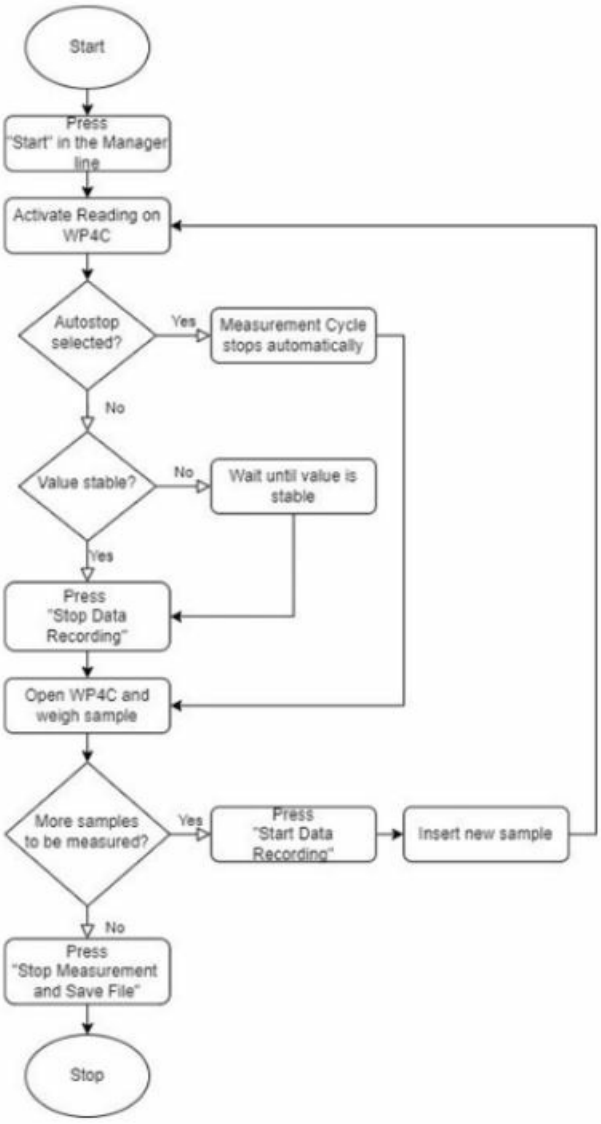


Figure 1 Workflow Overview

WP4C MEASUREMENT PROCESS

1. Connect the WP4C via USB and turn it on.
2. Open LABROS SoilView Software and press the Show Devices button.
3. The connected device appears in the device tree on the left of the software screen and a measurement line in the manager is created.

There are two possible ways to create a WP4C measurement file. The procedures for these options are described in the Adding WP4C Data Points to a *.bhdx File and Adding WP4C Data Points to Excel File sections.

SETTING MENU

Figure 2 Settings Window Button

Use the drop-down menu where a default profile for each measurement mode may be selected. Load this as a default WP4C measurement profile by selecting the checkbox at the bottom of the Settings window.

To create an owner profile use the four buttons described in Figure 3. As a measurement parameter, the Measurement mode is set using the drop-down menu. Using Continuous mode, the count of WP4C data points may be selected
as well as the tolerance. If the count of the measurement cycle is e.g. set to three and the tolerance is set to 0.2 pF, the software verifies if the last three recorded data points are within the tolerance of +/- 0.2 pF. Select the Autostop checkbox to stop the measurements automatically.

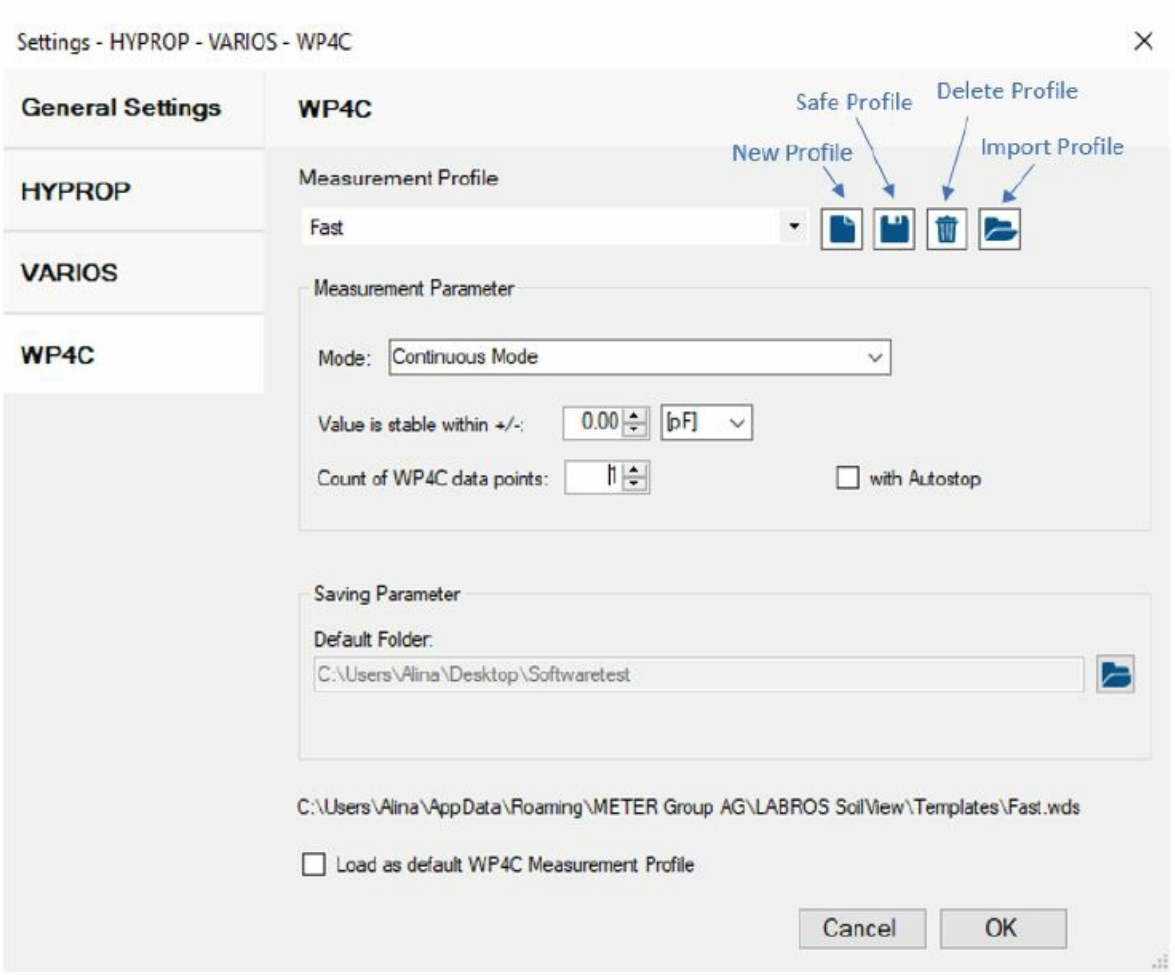


Figure 3 Create Template

ADDING WP4C DATA POINTS TO A *.BHDX FILE

1. Select the button with the ellipsis as depicted in Figure 4.

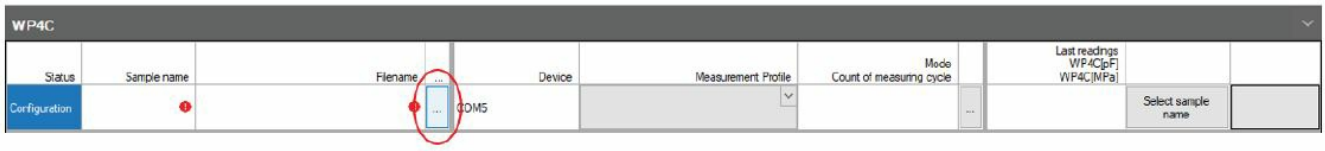


Figure 4 Open *.bhdx File

2. Select the *.bhdx file for the WP4C data points that need to be added.
3. Select one of the default profiles depending on the required measurement mode, or create an owner profile in the Settings menu (Figure 3). For more information about measurement modes, refer to the WP4C User Manual.
4. Select Start.
5. A new measurement tab opens with a message asking to close the WP4C measurement chamber, turn the knob to Read mode, and press Done.
6. The status of the measurement and the next steps to perform are displayed in the upper right corner of the software screen, see Figure 5.

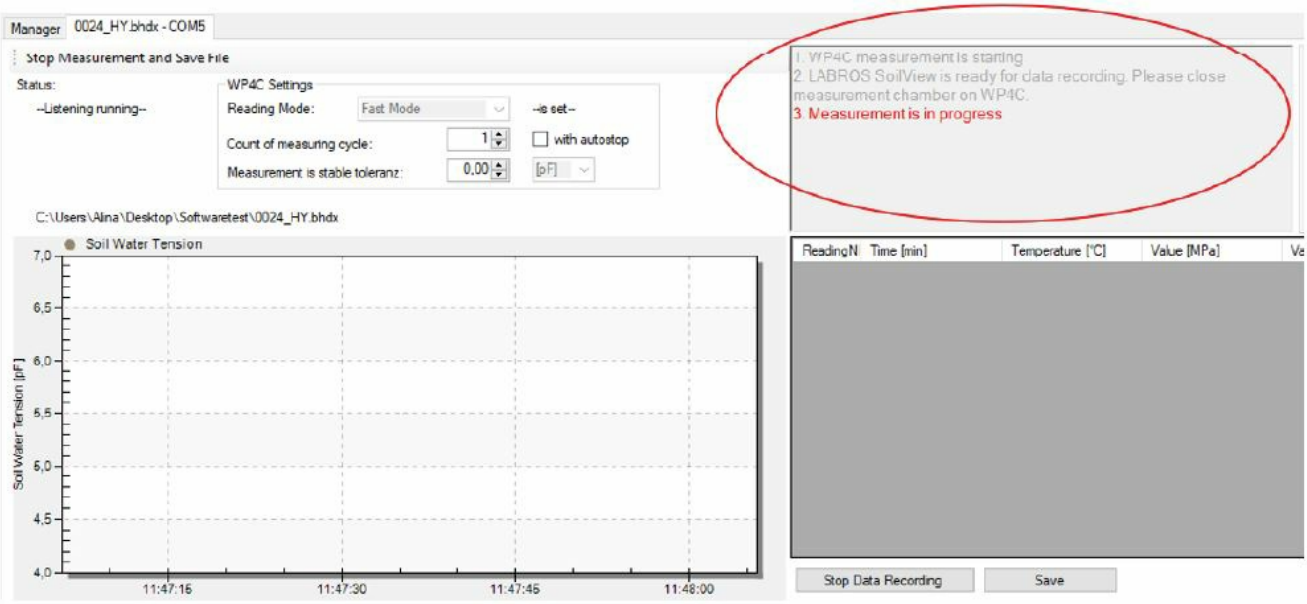


Figure 5 Measurement Status

7. The single-point measurements are displayed in the upper right table.
8. When using Fast or Precise mode only one data point is recorded and the measurement stops automatically. When using Continuous mode the software records as many data points as defined in the profile Count of WP4C Data Points. The software will verify if the data points are within the defined tolerance; if so stop the measurement by pressing the button Stop Data Recording. The software stops automatically if Autostop is selected. The average is calculated and displayed in the lower table on the right (Figure 6). If the values are not within the defined tolerance the measurements continue.
9. Once measuring has stopped the soil sample must be removed from the measurement chamber and weighed immediately.

   The wet weight of the sample as well as the tare weight of the cup may be entered directly into the lower table on the right (Figure 6).

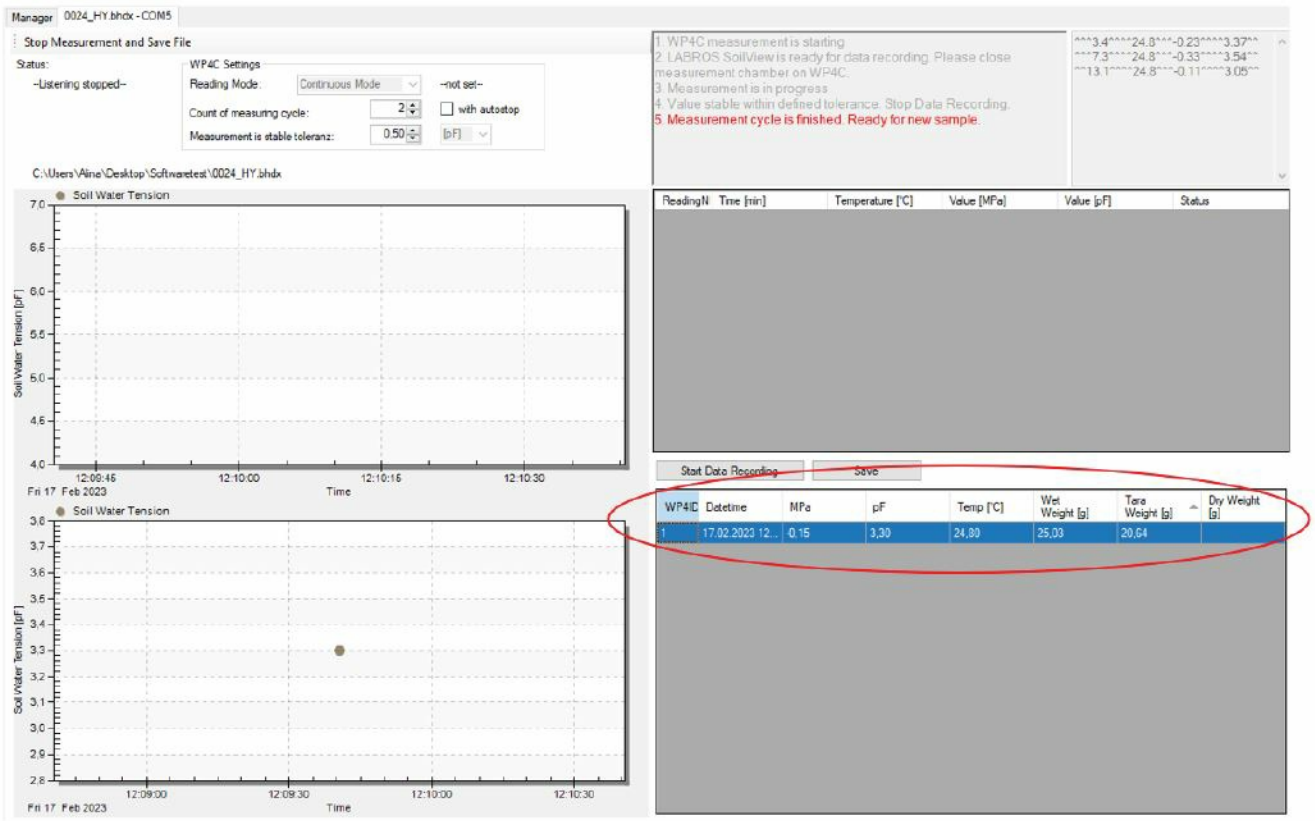


Figure 6 Result Table

10. The next sample may then be measured by inserting a new sample, pressing Start Data Recording, and following steps 5—9. When all samples referring to the *.bhdx file are measured, select the Stop Measurement and Save File button, see Figure 7. All values in the lower table are entered into the *.bhdx file.
    NOTE: The Stop Measurement and Save File must be selected for the file to be finished and saved correctly.

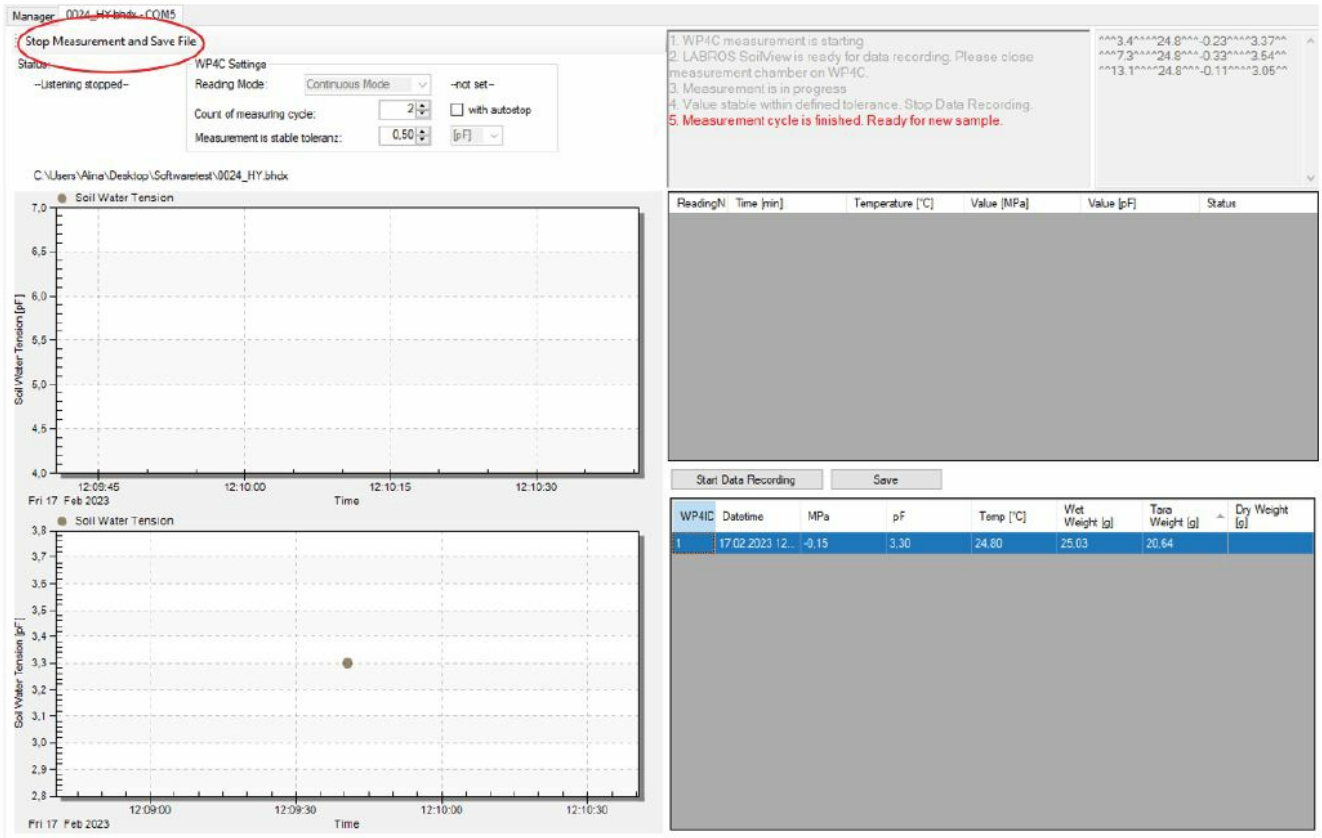


Figure 7 Stop Measurement and Save

11. The measurement can be removed from the manager by selecting Remove from Manager.

ADDING WP4C DATA POINTS TO AN EXCEL FILE

1. Enter a sample name in the manager line (Figure 8).

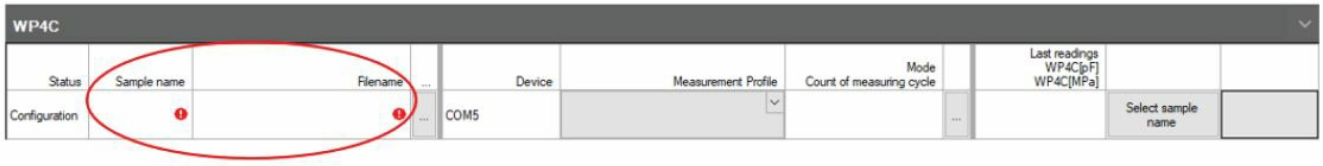


Figure 8 Enter Sample Name and Filename

2. Follow steps 3—10 in the Adding WP4C Data Points to a *.bhdx File section.
3. When all samples have been measured select the Stop Measurement and Save button. This button must be selected to finish and save the file. All values in the lower table are entered into the Excel file.
4. The measurement may be removed from the manager by selecting Remove from Manager.

WP4C EVALUATION

WP4C EVALUATION USING LABROS SOILVIEW-ANALYSIS SOFTWARE

To evaluate both file options, the LABROS SoilView-Analysis Software is used. For more detailed information about the LABROS SoilView-Analysis Software please refer to the LABROS SoilView-Analysis for HYPROP User Manual.

EVALUATING A *.BHDX FILE

The recorded WP4C data points are displayed in the Evaluation register located in the Add WP4 Data Points table. The gross dry mass of the sample, the gross wet mass, and the tare mass of the sample cup must be entered.

EVALUATING EXCEL FILE

To add the recorded WP4C data points saved in an Excel file to a *.bhdx file in LABROS SoilView-Analysis, the respective *.bhdx file must be opened. The data points are loaded by selecting Add Points From File and clicking the right-hand mouse button on the Add WP4 Data Points table located in the Evaluation register (Figure 9). The gross dry mass of the sample, the gross wet mass, and the tare mass of the sample cup must be entered.

NOTE: Do not change the format of the created Excel file.

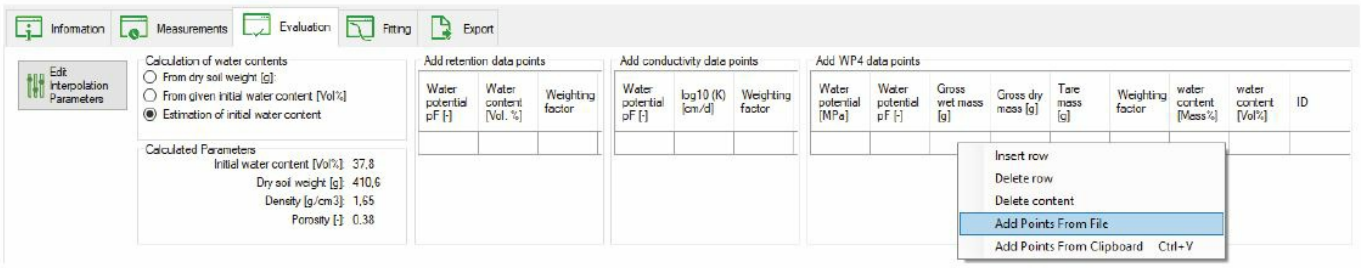
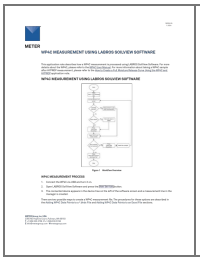


Figure 9 Add Points From File

Documents / Resources

	METER WP4C Measurement Using Lavros Soilview Software [pdf] User Guide WP4C Measurement Using Lavros Soilview Software, WP4C, Measurement Using Lavros Soilview Software, Using Lavros Soilview Software, Lavros Soilview Software

References

- METER Group
- User Manual