



BT100

Battery Capacity Tester

Software Help Manual



Software Introduction

The supplied software combines ***data acquisition*** and ***datalogger*** functionality.

Data acquisition is the process of storing readings to software running on a PC in Real-Time.

Datalogging is the process where the meter is taking and storing readings in its own internal memory. The meter can be connected to the PC to download the stored data.

System Requirements:

Windows 7, Windows 8.1, and Windows 10

Minimum Hardware Requirements:

PC Desktop or Laptop Computer with Pentium 90MHz minimum 32 MB RAM,
USB Port, 4 MB hard disk space to install Software and USB driver.
Recommended display resolution 1024 x 768 with High Color (16 bit)

Install Datalogger Software

Install the supplied Windows PC Datalogger Software by placing the supplied program disk in the PC CD-ROM drive or download the software from Extech.com. If the installation program does not automatically open and provide on-screen prompts, double click the **ExtechInstaller.exe** file included on the program disk.

Follow the on-screen prompts to complete the Software installation.



Install the USB driver



Menu items



Open

Open an existing saved data file



Play

Start a Real-Time recording



Interval Rate

Set you Sample rate for collecting Real-Time data



Download Data

Download recorded data from the meter to the PC.



Help

Software Help documents

Operation

Turn on the BT100 and connect the USB cable to the PC.

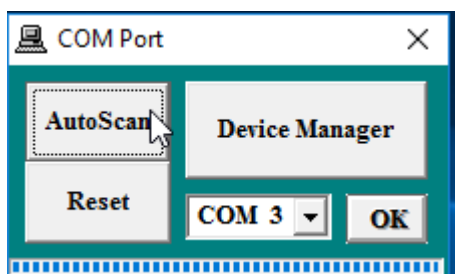
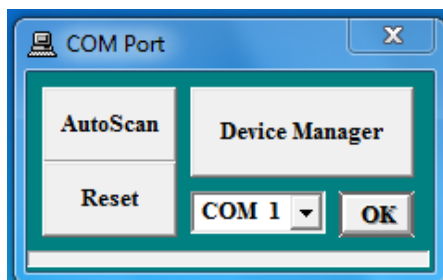
Click on the BT100 icon on your desktop to start the program.



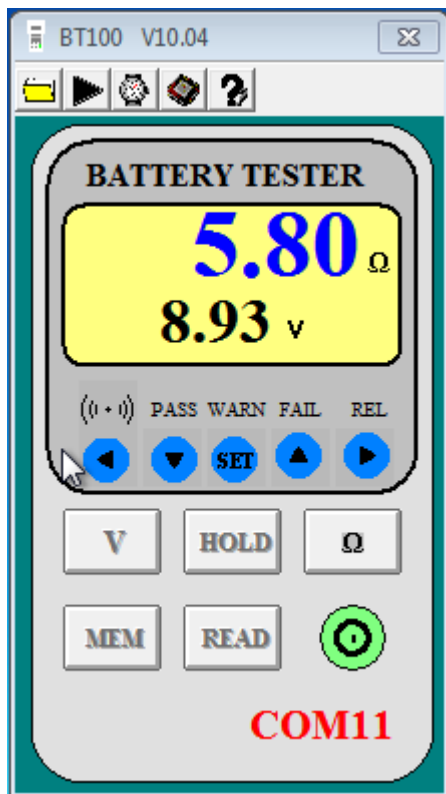
Click AutoScan to locate the COM Port that the BT100 is connected to.

Click OK

If Autoscan is unable to locate the correct COM port, Click on Device Manager and examine PORTS to see what COM port the meter is connected to.



The main software window will open and display the currently measured values



Real-Time Recording

Write down the Start Date and Time as this is needed when downloading the recorded data.

This meter does not have an internal clock.



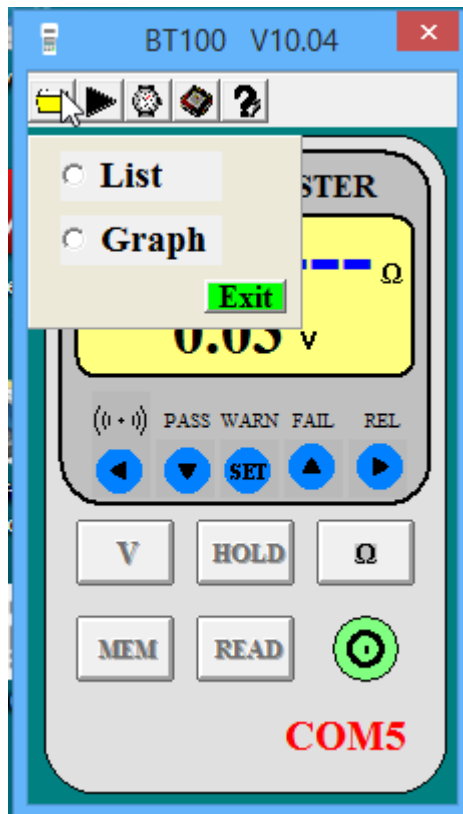
Click Sample rate button.

Choose a sample rate for how often to make a measurement and click OK.



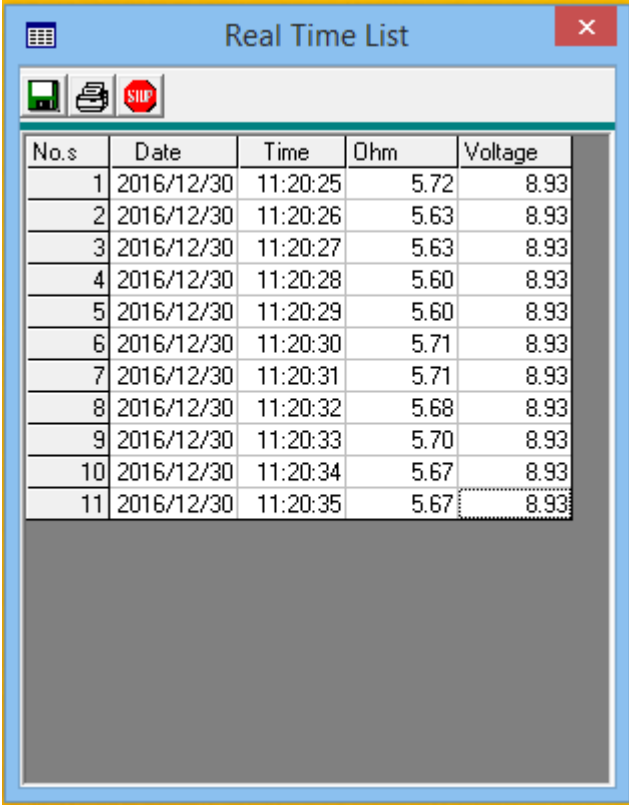
Click Real Time Play button

Choose to display the results in a List or in a Graph format.





The meter will start making measurements and displaying them.

Real Time Data List



| No.s | Date | Time | Ohm | Voltage |
|------|------------|----------|------|---------|
| 1 | 2016/12/30 | 11:20:25 | 5.72 | 8.93 |
| 2 | 2016/12/30 | 11:20:26 | 5.63 | 8.93 |
| 3 | 2016/12/30 | 11:20:27 | 5.63 | 8.93 |
| 4 | 2016/12/30 | 11:20:28 | 5.60 | 8.93 |
| 5 | 2016/12/30 | 11:20:29 | 5.60 | 8.93 |
| 6 | 2016/12/30 | 11:20:30 | 5.71 | 8.93 |
| 7 | 2016/12/30 | 11:20:31 | 5.71 | 8.93 |
| 8 | 2016/12/30 | 11:20:32 | 5.68 | 8.93 |
| 9 | 2016/12/30 | 11:20:33 | 5.70 | 8.93 |
| 10 | 2016/12/30 | 11:20:34 | 5.67 | 8.93 |
| 11 | 2016/12/30 | 11:20:35 | 5.67 | 8.93 |

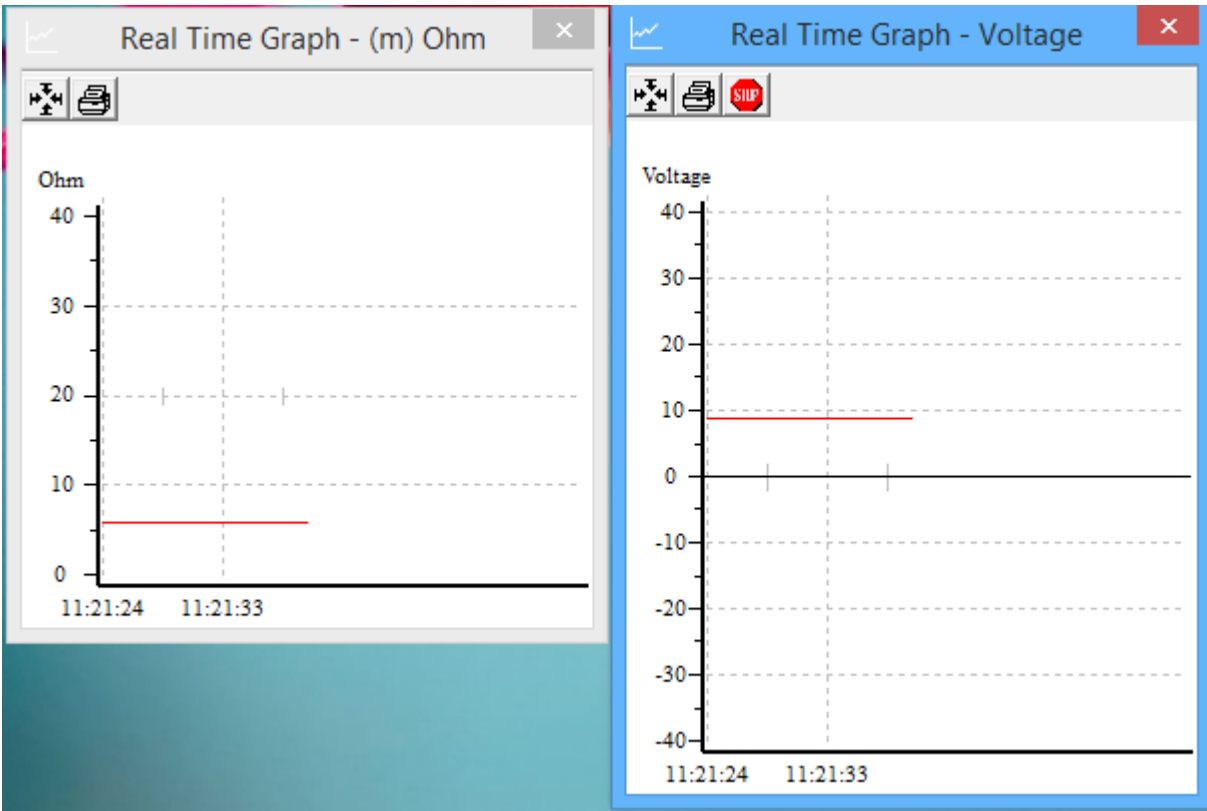
Click  Stop button to stop the Real-Time recording

Click  Save button to save the data to the PC.


Click  Print button to print the Data list

Real Time Graph recording

Two graphs will appear, a Resistance graph and a Voltage graph



Click  Stop button to stop the Real-Time recording

Click  Print button to print the particular graph

Click  Plot range button to change the Plot range values of the particular graph

The Plot Range dialog box contains the following settings:

| Units | Min. Limitation | Max. Limitation | From No.s | To No.s |
|-------|-----------------|-----------------|-----------|---------|
| Ohms | 0 | 10 | 1 | 16 |
| Volts | 0 | 10 | | |

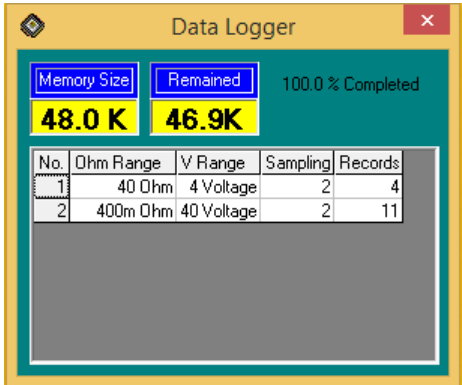
OK

Download Recorded Data from the Meter



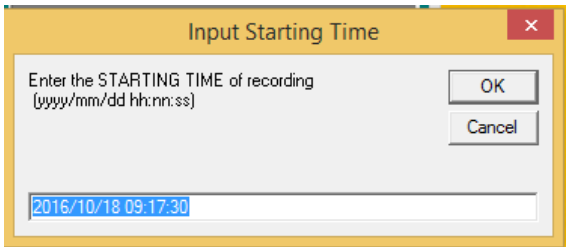
Click the Download data button.

The Data Logger window, shown below, will open.

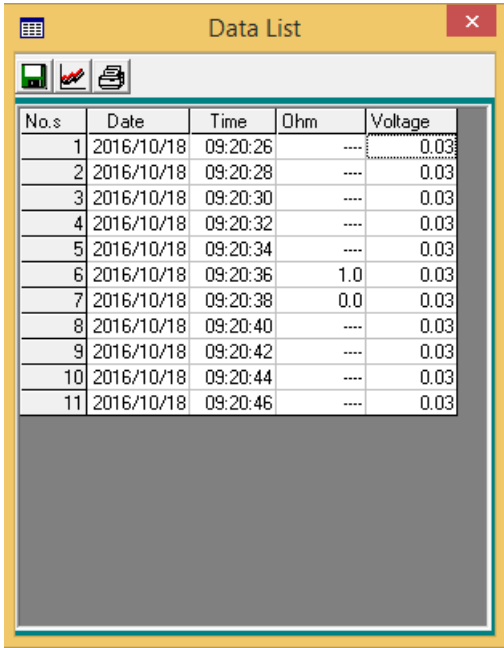



Click on a SET number to open the data file.


Input the Start Date and Time when the Data was recorded.

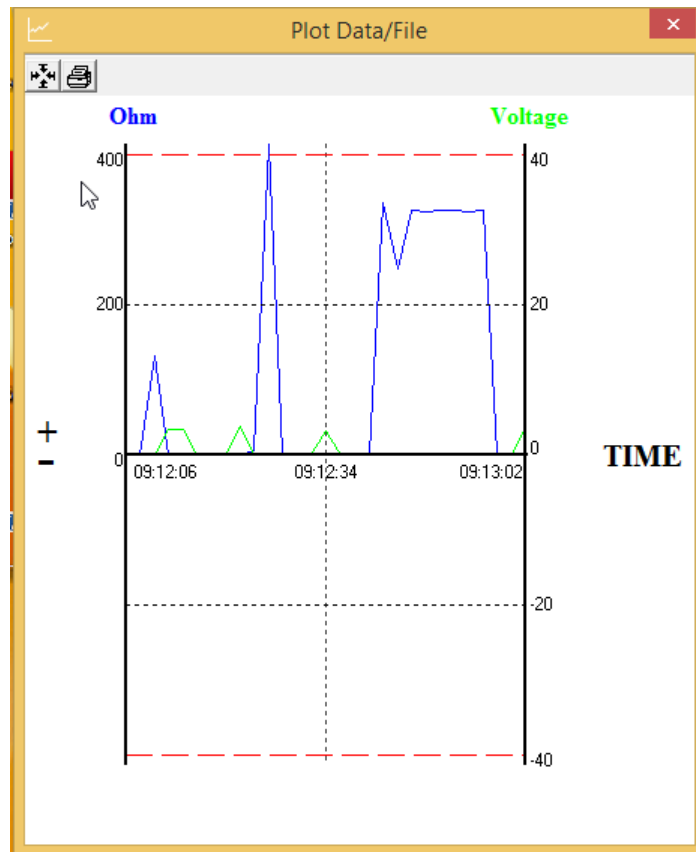


View your data in a List format




Click on the  Save button to save your data to the PC.

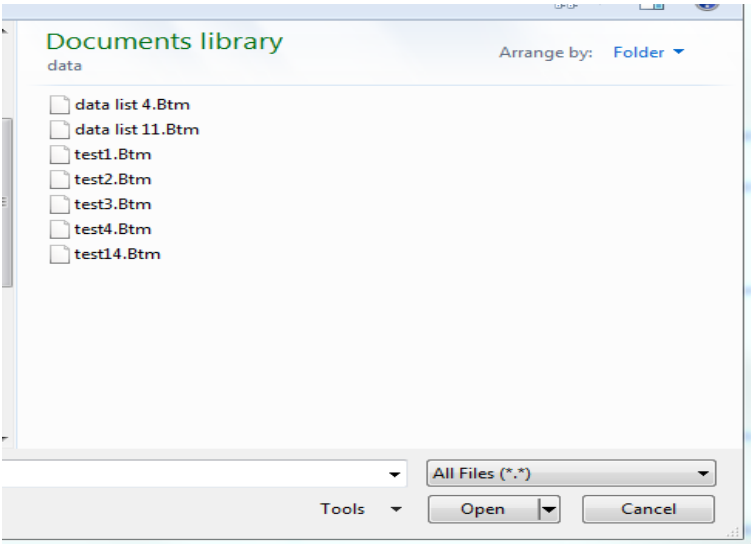
Click on the  Graph button to view the data in a graph format.



Open a Saved Data File

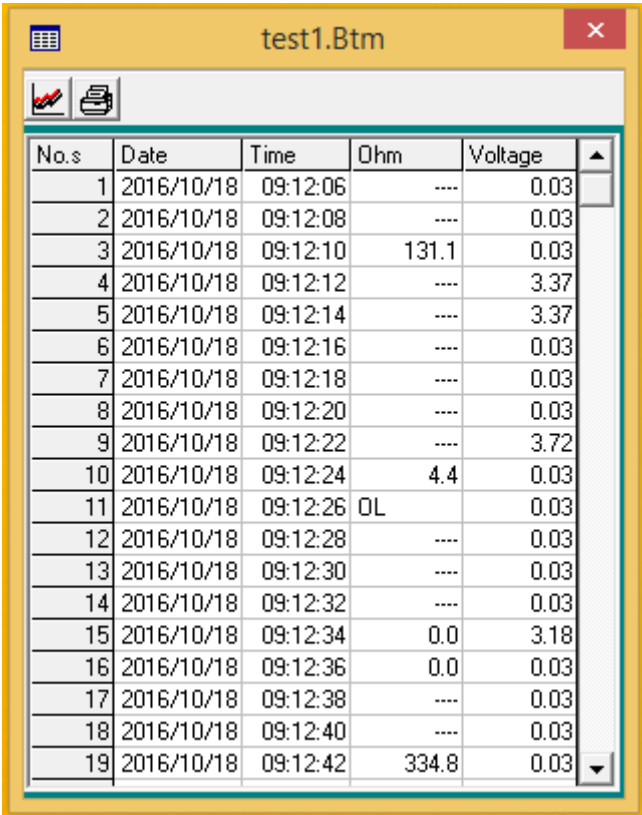
Click  Open data file button.

The Open file window appears.




Select a filename and then click the Open button.


The Data file will be displayed in a List format.




| No.s | Date | Time | Ohm | Voltage |
|------|------------|----------|-------|---------|
| 1 | 2016/10/18 | 09:12:06 | ---- | 0.03 |
| 2 | 2016/10/18 | 09:12:08 | ---- | 0.03 |
| 3 | 2016/10/18 | 09:12:10 | 131.1 | 0.03 |
| 4 | 2016/10/18 | 09:12:12 | ---- | 3.37 |
| 5 | 2016/10/18 | 09:12:14 | ---- | 3.37 |
| 6 | 2016/10/18 | 09:12:16 | ---- | 0.03 |
| 7 | 2016/10/18 | 09:12:18 | ---- | 0.03 |
| 8 | 2016/10/18 | 09:12:20 | ---- | 0.03 |
| 9 | 2016/10/18 | 09:12:22 | ---- | 3.72 |
| 10 | 2016/10/18 | 09:12:24 | 4.4 | 0.03 |
| 11 | 2016/10/18 | 09:12:26 | OL | 0.03 |
| 12 | 2016/10/18 | 09:12:28 | ---- | 0.03 |
| 13 | 2016/10/18 | 09:12:30 | ---- | 0.03 |
| 14 | 2016/10/18 | 09:12:32 | ---- | 0.03 |
| 15 | 2016/10/18 | 09:12:34 | 0.0 | 3.18 |
| 16 | 2016/10/18 | 09:12:36 | 0.0 | 0.03 |
| 17 | 2016/10/18 | 09:12:38 | ---- | 0.03 |
| 18 | 2016/10/18 | 09:12:40 | ---- | 0.03 |
| 19 | 2016/10/18 | 09:12:42 | 334.8 | 0.03 |

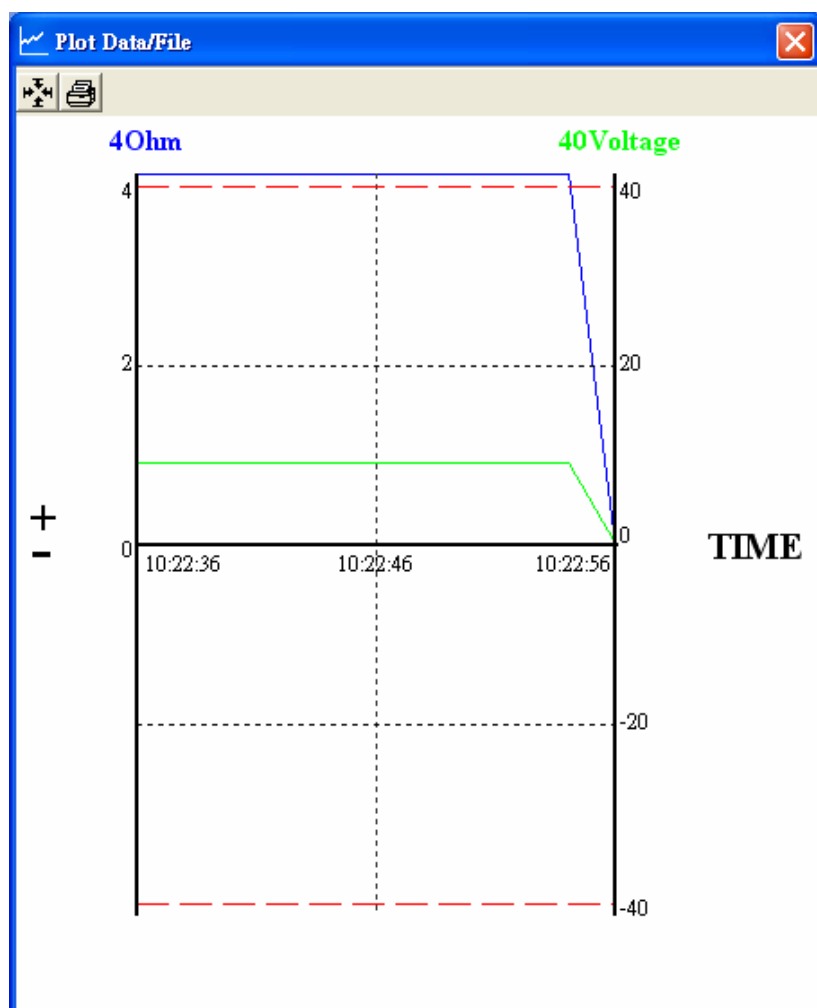
Display Data in a Graph Format

Click the  Open data file button. The Data List will open.

Click the  Graph button to view the data in a graph format.

Click the  Plot range button to change the X-Y Axis values

Click the  Print button to print the graph



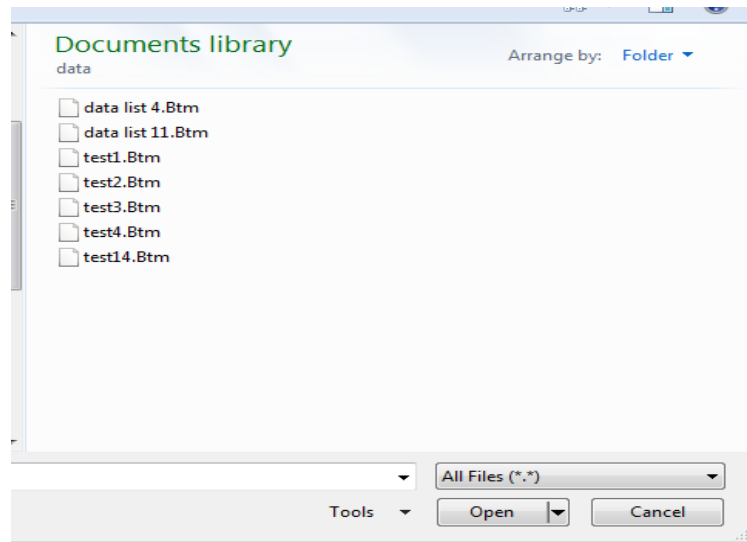
Convert a Saved Data File to Excel format

If you want to graph your data in Excel, here is a procedure that will allow you to perform that operation.

Open Microsoft Excel, choose OPEN FILE, set the Filename to ALL FILES (*.*)

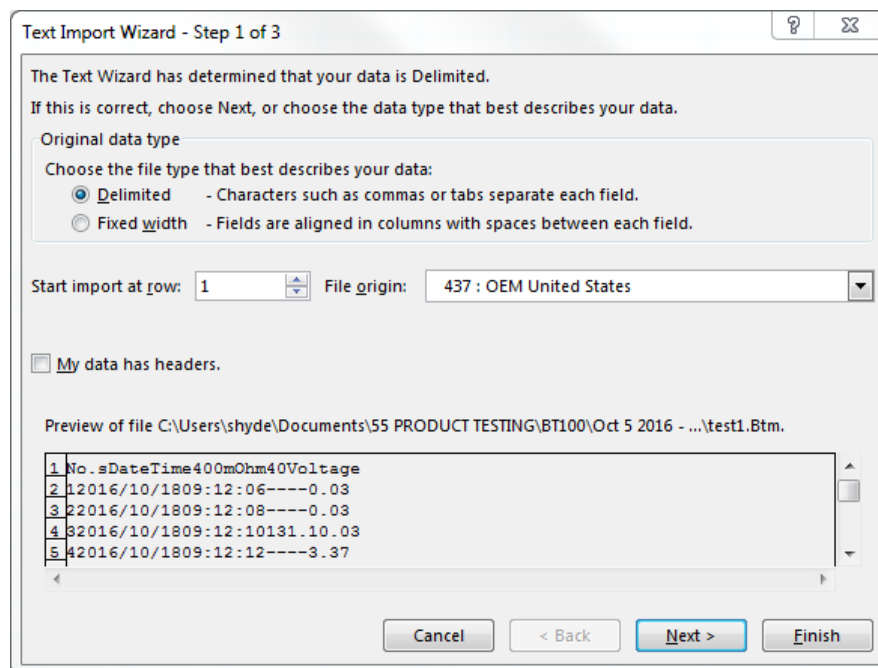
Navigate to the **My Documents/BT100** folder and Select and Open a saved BT100 data file.

Example, Test1.Btm

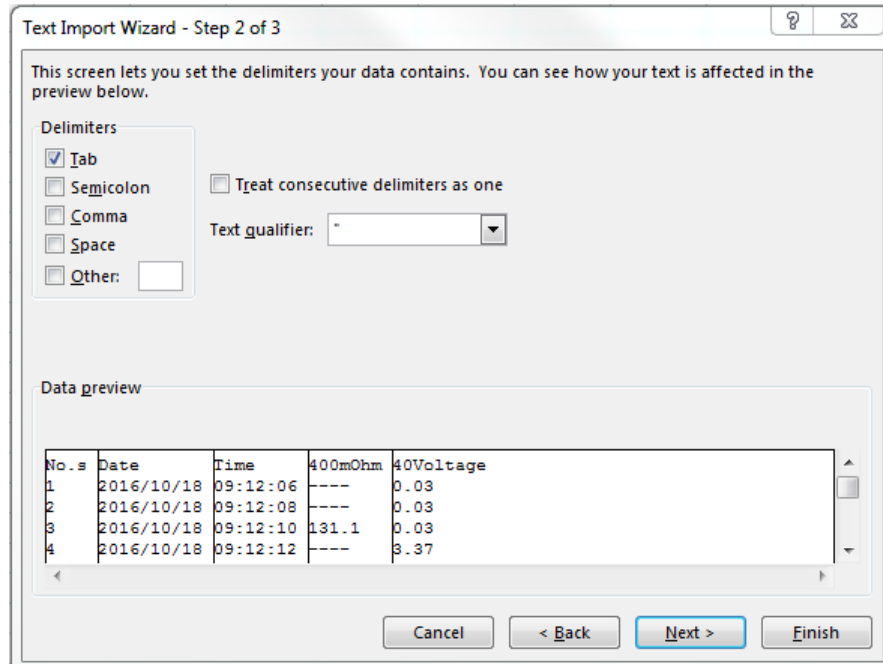


The "Text Import Wizard" will appear

Choose Delimited and Click Next>



Choose TAB and click Next >



This screen lets you set the delimiters your data contains. You can see how your text is affected in the preview below.

Delimiters

- ☒ Tab
- ☐ Semicolon
- ☐ Comma
- ☐ Space
- ☐ Other:

☐ Treat consecutive delimiters as one

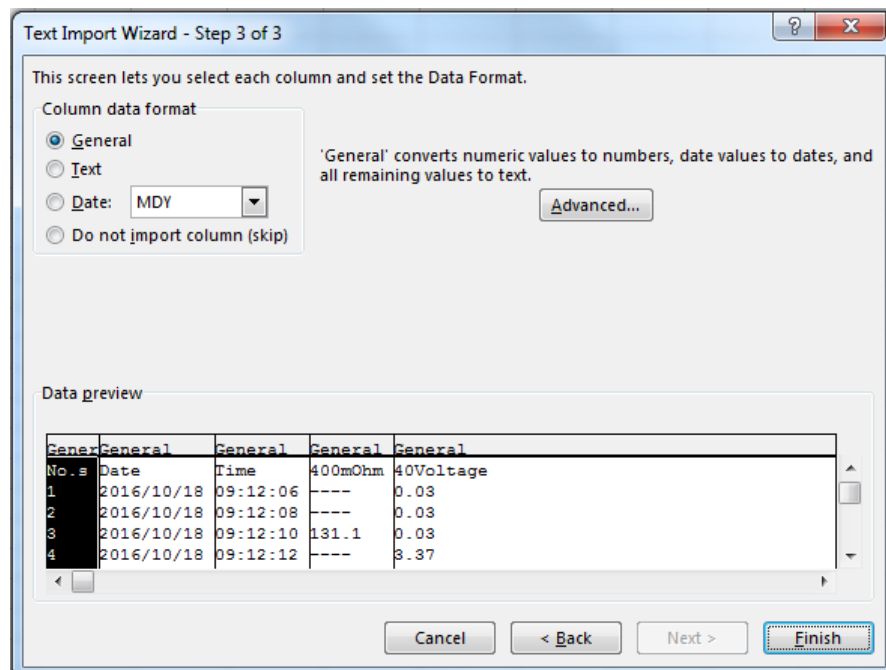
Text qualifier:

Data preview

| No. | Date | Time | 400mOhm | 40Voltage |
|-----|------------|----------|---------|-----------|
| 1 | 2016/10/18 | 09:12:06 | ---- | 0.03 |
| 2 | 2016/10/18 | 09:12:08 | ---- | 0.03 |
| 3 | 2016/10/18 | 09:12:10 | 131.1 | 0.03 |
| 4 | 2016/10/18 | 09:12:12 | ---- | 3.37 |

Buttons: Cancel, < Back, Next >, Finish

Click "Next"



This screen lets you select each column and set the Data Format.

Column data format

- ☒ General
- ☐ Text
- ☐ Date: MDY
- ☐ Do not import column (skip)

'General' converts numeric values to numbers, date values to dates, and all remaining values to text.

Advanced...

Data preview

| No. | Date | Time | 400mOhm | 40Voltage |
|-----|------------|----------|---------|-----------|
| 1 | 2016/10/18 | 09:12:06 | ---- | 0.03 |
| 2 | 2016/10/18 | 09:12:08 | ---- | 0.03 |
| 3 | 2016/10/18 | 09:12:10 | 131.1 | 0.03 |
| 4 | 2016/10/18 | 09:12:12 | ---- | 3.37 |

Buttons: Cancel, < Back, Next >, Finish

Click **Finish** to complete.

Your data will be displayed in a table format.

Save-As the file as an Excel file type (.xls)

| | A | B | C | D | E |
|----|------|------------|---------|---------|-----------|
| 1 | No.s | Date | Time | 400mOhm | 40Voltage |
| 2 | 1 | 10/18/2016 | 9:12:06 | ---- | 0.03 |
| 3 | 2 | 10/18/2016 | 9:12:08 | ---- | 0.03 |
| 4 | 3 | 10/18/2016 | 9:12:10 | 131.1 | 0.03 |
| 5 | 4 | 10/18/2016 | 9:12:12 | ---- | 3.37 |
| 6 | 5 | 10/18/2016 | 9:12:14 | ---- | 3.37 |
| 7 | 6 | 10/18/2016 | 9:12:16 | ---- | 0.03 |
| 8 | 7 | 10/18/2016 | 9:12:18 | ---- | 0.03 |
| 9 | 8 | 10/18/2016 | 9:12:20 | ---- | 0.03 |
| 10 | 9 | 10/18/2016 | 9:12:22 | ---- | 3.72 |
| 11 | 10 | 10/18/2016 | 9:12:24 | 4.4 | 0.03 |
| 12 | 11 | 10/18/2016 | 9:12:26 | OL | 0.03 |
| 13 | 12 | 10/18/2016 | 9:12:28 | ---- | 0.03 |
| 14 | 13 | 10/18/2016 | 9:12:30 | ---- | 0.03 |
| 15 | 14 | 10/18/2016 | 9:12:32 | ---- | 0.03 |
| 16 | 15 | 10/18/2016 | 9:12:34 | 0 | 3.18 |
| 17 | 16 | 10/18/2016 | 9:12:36 | 0 | 0.03 |
| 18 | 17 | 10/18/2016 | 9:12:38 | ---- | 0.03 |
| 19 | 18 | 10/18/2016 | 9:12:40 | ---- | 0.03 |
| 20 | 19 | 10/18/2016 | 9:12:42 | 334.8 | 0.03 |
| 21 | 20 | 10/18/2016 | 9:12:44 | 246.5 | 0.02 |
| 22 | 21 | 10/18/2016 | 9:12:46 | 325.6 | 0.03 |

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