

Data Collection with TI-SmartView™

Concepts

- Using the CBL 2™, probeware, and TI-SmartView™ to collect data

Materials

- TI-84 Plus
- Computer with TI-SmartView™
- CBL 2™/LabPro®
- Temperature Probe

Overview

TI-SmartView™ is a computer emulation of a TI-84 Plus calculator. This activity demonstrates how to collect data using a TI-SmartView™ on a computer connected to a CBL 2™ data collection device and a temperature probe.

Introduction

You can connect a Calculator-Based Laboratory™ 2 (CBL 2™) or Calculator-Based Ranger™ 2 (CBR 2™) device to your computer. By using one of the following applications on the TI-SmartView™ calculator, you can then collect and analyze real-world data.

- **DataMate** — Used for CBL 2™. This application comes with the CBL 2™ and needs to be transferred to TI-SmartView™ before you can use it.
- **EasyData™** — Used for both CBL 2™ and CBR 2™. This application is standard on TI-84 Plus calculators and is included with TI-SmartView™.

Note: On a TI-84 Plus, *EasyData™* launches automatically when you plug in a USB sensor. On TI-SmartView™, however, *EasyData™* does not autolaunch.

- **CBL/CBR** — Used for both CBL 2™ and CBR 2™. This application is standard on TI-84 Plus calculators and is included with TI-SmartView™.

Note: To connect a CBL 2™ or CBR 2™, you must use the USB Silver Edition cable. Other TI Connectivity Cables are not supported for this type of connection.

Procedure

If you want to use *DataMate* or *EasyData*™, be sure the application is already installed on TI-SmartView™.

To connect the device and run the application, follow the steps below:

1. Plug the cable's USB connector into any USB port on the computer, and plug the other end of the cable into the device's I/O port.
2. Click **Tools > Establish Connection**.
 - A dialog box lists all devices connected to the computer with a USB Silver Edition cable, such as a CBL 2™, CBR 2™, and a calculator.
 - If the device is not listed, check both ends of the cable to make sure they're connected properly. Then click **Refresh** to update the list.
3. Click the applicable device to highlight it, and then click **Select**.
4. TI-SmartView™ connects the device and displays **Device Connected** on the title bar.
 - Also, the **Establish Connection** menu item changes to **Disconnect**.
5. Click [APPS], and then run *DataMate*, *EasyData*™, or *CBL/CBR*.
6. Use the application to collect data. For additional information about each program:
 - *DataMate*, refer to the guidebook that came with the CBL 2™.
 - *EasyData*™, refer to the Applications chapter of the TI-84 Plus Guidebook, available on the TI-SmartView™ installation CD.
 - *CBL/CBR*, refer to the Applications chapter of the TI-84 Plus Guidebook.
7. When you are finished, click **Tools > Disconnect**.
 - You can use TI-SmartView™ when the CBL 2™ or CBR 2™ is connected, but it's a good practice to disconnect it when you're done. Don't simply unplug the cable.

Note: If you unplug the USB connector from the computer while the connection is active, the computer may lock up and need to be rebooted.

Notes: After a device is connected, you can switch the cable's plug to another device without reconnecting. Suppose you first use a CBR 2™ and then want to switch to a CBL 2™. Unplug the cable from the CBR 2™, and plug it into the CBL 2™.

Other than a CBR 2™, you can only use probes connected to a CBL 2™. TI-SmartView™ does not use direct-connect probes.

You can also collect data with a CBR 2™ separately, and then transfer that data to TI-SmartView™ for analysis.

For complete information about using the CBL 2™ or CBR 2™, refer to the guidebook that comes with the device.

Transferring *DataMate* to TI-SmartView™

If you use a CBL 2™, you should use the *DataMate* application that comes with the device. You only need to transfer it once.

1. Attach the CBL 2™ to the computer using the USB Silver Edition cable, and then establish a connection as previously described.
2. Click **[2nd] [LINK] [▶] [ENTER]** to put TI-SmartView™ into Receive mode.
3. Push **TRANSFER** on the CBL 2™.
4. The application and any supporting programs are transferred.
5. When the transfer is complete, press **[2nd] [QUIT]** on TI-SmartView™.
6. *DataMate* is now available from the TI-SmartView™ APPs menu.