



English

TI-GRAPH LINK™

FOR WINDOWS®

FOR THE TI-83 Plus

CONDENSED GUIDEBOOK

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Getting Started with TI-GRAPH LINK for Windows

System Requirements

The personal computer used to run TI-GRAPH LINK for Windows must meet the following hardware and software requirements:

Windows/Macintosh (Gray Cable)

- Microsoft Windows version 3.1 or later.
- MS-DOS® operating system version 3.1 or later (MS-DOS version 5.0 or later recommended).
- 486 PC or better with 8 MB available RAM.
- CD-ROM drive and one 3½-inch diskette drive.
- 256 color VGA.
- Hard disk with 1.5 MB available storage space.
- An available serial communication port configured as Com Port1, Com Port 2, Com Port 3, or Com Port 4.

Windows Only (Black Cable)

- (Same as above plus 486 PC or better with 8 MB available RAM (Windows 95/98); 16 MB available RAM (Windows NT).

Cable and Adapters

The instructional package includes the following cable and adapter:

- One gray TI-GRAPH LINK cable that connects to a TI-83 Plus and IBM-compatible computer.
- One 25-pin to 9-pin adapter.

The retail package includes the following cables:

- One black TI-GRAPH LINK cable that connects to an IBM-compatible computer.
- One unit-to-unit cable.

Connecting the TI-GRAPH LINK Cable

To connect the gray TI-GRAPH LINK cable between your PC and a TI-83 Plus:

1. Connect one end of the TI-GRAPH LINK cable to the PC serial port you will be using. If necessary, use the 25-pin to 9-pin adapter.
2. Connect the other end of the cable to the port at the bottom of the TI-83 Plus.
3. Insert all connectors firmly.

To connect the black TI-GRAPH LINK cable between your PC and a TI-83 Plus:

1. Connect the cable with the 9-pin connector to the PC serial port you will use. (If necessary, obtain a 9-pin to 25-pin adapter.)
2. Connect the other end of the black cable to one end of the unit-to-unit cable.
3. Connect the other end of the unit-to-unit cable to the port on the TI-83 Plus.
4. Insert all connectors firmly.

Installing the TI-GRAPH LINK Software

1. Start Microsoft Windows.
2. Insert the CD-ROM in your CD-ROM drive and follow the displayed instructions about installing the software.
 - Win 3.1x users need to run the TICD31 program from the TI Resource CD.
 - For 3½-inch diskette installations, proceed to step 3.
3. Assuming drive A is your 3½-inch drive, insert the TI-GRAPH LINK for Windows diskette in drive A.
4. For Windows 3.1x, from Program Manager, open the **File** menu and choose **Run**; for Windows 95, open the **Start** menu and choose **Run**.
5. Type **a:\TI83pusa.exe**.

Note: Several TI-GRAPH LINK versions may include a character in the setup file name to identify the International or Americas version. You may need to verify the exact name of the setup file on the Windows diskette.

6. Press **Enter** and follow the instructions that appear on your display.

Starting TI-GRAPH LINK and Testing the Connection

1. Open the TI-GRAPH LINK group on the PC, and then double-click on a TI-83 Plus program icon to start the application. The TI-83 Plus Menu Bar, Keypad, and Edit window are displayed.
2. On the PC, open the **Link** menu and select the communication serial port (Com Port 1, Com Port 2, Com Port 3, or Com Port 4) to which the cable from a TI-83 Plus is connected.
3. Open the **Link** menu to select the cable type: select **Windows/Macintosh** (Gray Cable) or **Windows Only** (Black Cable).
4. Open the **Link** menu. Select **Get Screen....**
5. Click on **Get Screen**.

The contents of a TI-83 Plus display appear in the window indicating that the communication link between a TI-83 Plus and the PC is OK.

Note: If you obtain an error message when you click on **Get Screen**, there is a communications problem between the TI-83 Plus and the PC.

- Make sure the TI-GRAPH LINK cable is connected to the correct serial communications port on the PC.
 - Make sure the correct cable type is selected in the **Link** menu.
 - Make sure all cable connectors are firmly inserted.
6. Click on **Done** to close the window.

Exiting the Program

You can close TI-GRAPH LINK in any of the following ways:

- Open the **File** menu and select **Exit**.
- Press **Alt+F** and then **X** on the PC keyboard.
- Double-click on the **Close** box in the upper-left corner of the screen.

**Receiving Files
from a
TI-83 Plus**

To receive items from a TI-83 Plus:

1. Open the **Link** menu and select **Receive....** After a few moments a window displays the data contents of the TI-83 Plus.
2. Select the item that you want to receive on the PC and click on **Add**. Repeat this step if you want to receive multiple items, or click on **Add All** to receive all listed TI-83 Plus items.
3. (*Optional*) To receive the files to a group, click on **To Group** (☐ means individual files, ☒ means one group file).
4. Click on **OK** when you have selected all the files that you want to receive.
5. Select a directory on the PC in which you want to store the received TI-83 Plus items.
6. Click on **OK** when you are ready to receive the files from a TI-83 Plus.
 - If **To Group** in step 3 is ☒, enter a new file name to replace the default name. Keep the file extension to remind you that this is a TI-83 Plus group file.
 - If a TI-83 Plus name contains special characters (such as α or β), TI-GGRAPH LINK prompts you to enter a substitute name for the file.
 - If an incoming TI-83 Plus item has the same name as an existing file, you are prompted to overwrite, rename, skip to the next item, or cancel without receiving any more items.Select an option. Repeat as necessary until all items have been received.
7. Click on **OK** to return to the desktop display.

Sending Files to a TI-83 Plus

Note: TI-GRAPH LINK for the TI-83 Plus uses a new "Silent Link" technology. All linking commands are processed from your computer.

You can send individual or group files to the TI-83 Plus User Memory or User Archive. Group files are received differently as indicated below.

- **User Memory:** A group file is sent to the TI-83 Plus as multiple individual items.
- **User Archive:** A group file is sent to the TI-83 Plus User Archive as a single item.

Note: Free memory in the TI-83 Plus must be contiguous and at least equal to the size of the group file, and may require you to perform a Garbage Collection. Detailed information about these items can be found in the TI-83 Plus Guidebook, Chapter 18: Memory and Variable Management.

To send individual and Group files from your PC to a TI-83 Plus User Memory:

1. Open the Link menu, click on **Send To** and select **RAM**.

The **Send Files to TI-83 Plus** window opens to display a list of TI-83 Plus files. Proceed to step 2 below.

To send individual and Group files from your PC to a TI-83 Plus User Archive:

1. Open the Link menu, click on **Send To** and select **Archive**.

The **Send Files to TI-83 Plus Archive** window opens to display a list of TI-83 Plus files.

2. Select the file that you want to send to a TI-83 Plus and click on **Add**. Repeat until all the files that you want to send are listed.

Sending Files to a TI-83 Plus

3. Click on **OK** to transmit the files.

A window displays a list of the files that were received by a TI-83 Plus.

- If a file from the PC has the same name as an existing TI-83 Plus item, you are prompted to overwrite, rename, skip to the next item, or cancel without sending any more items.
- If a file is protected on the TI-83 Plus, you will be prompted to skip to the next item, rename the file, or quit without sending any more items.

Select an option. Repeat as necessary until all items have been sent to the TI-83 Plus.

4. Click on **OK** to return to the desktop display.

About Flash Software

Flash refers to the software on the calculator. Software can be downloaded, upgraded, and deleted. Software includes:

- **Operating System (OS):** A TI-83 Plus cannot operate properly without the OS. A calculator OS may be upgraded.
- **Application Software (Apps):** This supplementary software can be run on the calculator. Apps may be downloaded, upgraded, or deleted.
- **Certificates:** “Permission slip” for purchased software on CD-ROM's and diskettes, as indicated. Certificates may be downloaded.

Tip: Before starting any Flash operation, perform a Garbage Collection on the TI-83 Plus.

Note: For detailed information about Flash software, see your calculator guidebook or visit the TI calculator page on the world-wide web at <http://www.ti.com/calc/flash>.

Receiving Flash Application Software (Apps) from a TI-83 Plus

TI-GRAPH LINK lets you receive (backup) TI-83 Plus software Apps from a TI-83 Plus to your PC. Apps are run-only files; they cannot be edited nor grouped.

To receive Apps from a TI-83 Plus:

1. Open the **Link** menu and select **Receive Flash Software....**

The **TI-83 Plus Flash Files of Type:** file selection window displays a list of Apps files (*.8xk) currently on the TI-83 Plus.

2. Select the Apps that you want to receive from the TI-83 Plus on your PC and click on **Add**.

The selected Apps are added and displayed in the **File Selected:** area.

3. Click on **OK** to display the **Target Directory** window, and then select the directory where you want to receive the Apps.
4. Click on **OK** to receive the Apps from the TI-83 Plus.

The **Receiving...** window displays a list of the Apps received by the PC.

5. Click on **OK** to return to the desktop display.

**Sending
Application
(Apps) or
Certificates to a
TI-83 Plus**

TI-GRAPH LINK lets you send TI-83 Plus Flash software (Operating System (OS), Application Software (Apps), and Certificates) to a TI-83 Plus. OS, Apps, and Certificates are run-only files; they cannot be edited nor grouped.

To send Apps or Certificates from your PC to a TI-83 Plus:

1. Open the **Link** menu, select **Send Flash Software**, and then select **Applications and Certificates....**

The **Send Flash Software to TI-83 Plus** window displays a list of TI-83 Plus Apps (*.8xk) that are available on the PC. The **TI-83 Plus Flash Files of type:** window lets you choose the following software types:

- applications (*.8xk)
 - certificates (*.8xq)
2. If necessary, go to the directory in which your TI-83 Plus Flash software is located.
 3. Select a file and click on **Add** to add the file name to the **File Selected** window. Repeat until all the files that you want to send have been selected.
 4. Click on **OK** when you have selected all the files that you want to send.

The **Sending...** window displays the progress of the files as they are sent to the TI-83 Plus.

5. Click on **OK** to return to the desktop display.

Upgrading the Operating System (OS) of a TI-83 Plus

To perform a calculator upgrade of the OS on your TI-83 Plus:

1. Open the Link menu, select **Send Flash Software**, and then select **Calculator Upgrade**.

The **Upgrade TI-83 Plus Operating System** window displays a list of TI-83 Plus OS files (*.8xu) that are available on the PC.

2. If necessary, go to the directory in which your TI-83 Plus Flash OS is located.
3. Select a file and click on **Add** to add the file name to the **File Selected** window.

Note: You can only send one OS file at a time; once started, an OS transmission cannot be canceled. Additionally, upgrading the OS erases the contents of RAM memory; therefore, all data previously stored in RAM will be lost.

4. Click on **OK**.

The **Sending...** window displays the progress of the upgrade to the TI-83 Plus.

5. Click on **OK** to return to the desktop display.

**Printing
Opened
TI-83 Plus Files**

To print a TI-83 Plus program or data file that is displayed in an Edit or Data window:

1. Open the **File** menu and select **Open....** Go to the directory in which your TI-83 Plus files are located.
2. Select the file that you want to print, then click on **OK** to open the file in an Edit or Data window.
3. Open the **File** menu and select **Print Document....**

The standard Windows Print dialogue box will open to let you select print options.

4. Click on **OK** to print the file.

**Printing Saved
TI-83 Plus Files**

TI-GGRAPH LINK lets you print all saved TI-83 Plus files except application variables (*.8xv) and ASM-compiled programs.

To print TI-83 Plus program or data files:

1. Open the **File** menu, select **Print**. Go to the directory in which your TI-83 Plus files are located.
2. Select the file that you want to print, then click on **OK**.

The Windows Print dialogue box will open to let you select print options.

3. Click on **OK** to print the file.

**Making a
Backup of a
TI-83 Plus**

To backup a TI-83 Plus, we recommend that you receive all files from the appropriate calculator and save them to a group file. See "Receiving Files from a TI-83 Plus on page 6 and click on **Add All** in step 2 and **To Group** in step 3.

**Sending a
Backup Group
File to a TI-83
Plus**

To load a group file that contains all files that were received when you made a backup of a TI-83 Plus. See "Sending Files to a TI-83 Plus" on page 7 and select the appropriate group file in step 2.

Support and Service Information

Customers in the U.S., Canada, Puerto Rico, and the Virgin Islands

For general questions, contact Texas Instruments Customer Support:

phone: **1-800-TI-CARES (1-800-842-2737)**
e-mail: **ti-cares@ti.com**

For technical questions, call the Programming Assistance Group of Customer Support:

phone: **1-972-917-8324**

Customers outside the U.S., Canada, Puerto Rico, and the Virgin Islands

Contact TI by e-mail or visit the TI **calculator** home page on the World Wide Web.

e-mail: **ti-cares@ti.com**
Internet: **www.ti.com/calc**

Product Service

Customers in the U.S. and Canada Only

Always contact Texas Instruments Customer Support before returning a product for service.

Customers outside the U.S. and Canada

Refer to the leaflet enclosed with this product or contact your local Texas Instruments retailer/distributor.

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Visit the TI **calculator** home page on the World Wide Web.

www.ti.com/calc

Refer to the leaflet enclosed with this product or contact your local Texas Instruments retailer/distributor.

Warranty Information

Customers in the U.S. and Canada Only

One-Year Limited Warranty for Electronic Product

This Texas Instruments (“TI”) electronic product warranty extends only to the original purchaser and user of the product.

Warranty Duration. This TI electronic product is warranted to the original purchaser for a period of one (1) year from the original purchase date.

Warranty Coverage. This TI electronic product is warranted against defective materials and construction. **THIS WARRANTY IS VOID IF THE PRODUCT HAS BEEN DAMAGED BY ACCIDENT OR UNREASONABLE USE, NEGLIGENCE, IMPROPER SERVICE, OR OTHER CAUSES NOT ARISING OUT OF DEFECTS IN MATERIALS OR CONSTRUCTION.**

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Legal Remedies. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or province to province.

Warranty Performance. During the above one (1) year warranty period, your defective product will be either repaired or replaced with a reconditioned model of an equivalent quality (at TI’s option) when the product is returned, postage prepaid, to Texas Instruments Service Facility. The warranty of the repaired or replacement unit will continue for the warranty of the original unit or six (6) months, whichever is longer. Other than the postage requirement, no charge will be made for such repair and/or replacement. TI strongly recommends that you insure the product for value prior to mailing.

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