



TI-SmartView™  
for the  
TI-30X/TI-34 MultiView™  
Calculators  
(Windows® and Macintosh®)

This guidebook applies to TI-SmartView™ software for the TI-30X/TI-34 MultiView™ Calculators software version 1.1. To obtain the latest version of the documentation, go to [education.ti.com/guides](http://education.ti.com/guides).

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# Getting started

## Features

- **Two Calculator Options** — Select either the TI-30XS MultiView™ calculator model or the TI-34 MultiView™ calculator model. The TI-30XS MultiView™ calculator model is the default view.
- **Key Press History**— Review recently pressed keys from the key press history pane or on the large screen pane.
- **Additional Color Capabilities** — Additional Color Capabilities— Change the calculator image to use a different face plate option. The variety lets you increase visibility for the visually challenged.
- **Adjustable Screen Size**— Use the small, medium, and large screen sizes or customize the screen size. When you size the screen by dragging the window border, the size of the device image is sized automatically.

## Overview of the TI-SmartView™ software

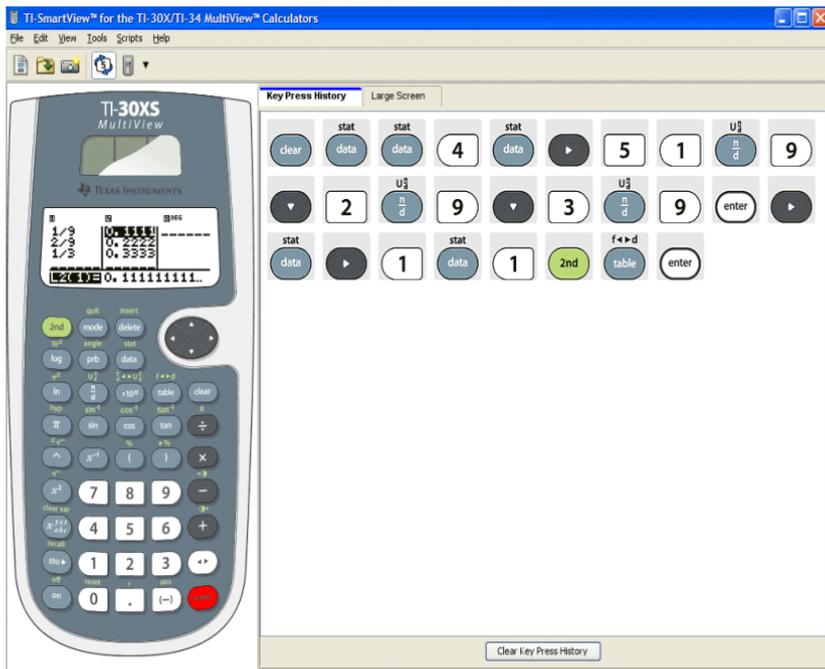
**Note:** *Throughout this document, all information that pertains to the TI-30XS MultiView™ calculator also pertains to the TI-30XB MultiView™ calculator.*

The TI-SmartView™ software gives you the functionality of the TI-30XS MultiView™ calculator and the TI-34 MultiView™ calculator on your computer. The entire functionality of both calculators is at your disposal.

TI-SmartView™ software lets you show the calculator to an audience without using calculator-specific projection equipment and gives you additional functionality that aids in presentations and demonstrations.

- Repeat demonstrations quickly and easily by using scripts to play back a series of keystrokes.

- View the history of your entries as well as a large version of the current calculator screen, and open a script by displaying the key press history window.
- Supplement the calculator screen by using the screen capture feature. Capture screen images as you develop a concept. You can review the history of screens with your students to provide a reinforcement of the steps taken in an activity. You can save the screen images and use them in other documents.



Emulator (Pane 1)

Key Press History tab (Pane 2)

## Things you need to know

**The mouse pointer takes the place of your finger pressing keys on the calculator.**

You must click the keys on the TI-SmartView™ emulator as you would press the keys on the calculator. The calculator image in the

TI-SmartView™ software is *not* fully interactive. For example, when you change mode settings, you might be tempted to click the mode setting on the calculator screen to select it. However, clicking on the screen does nothing. You must click the arrow keys to move the

cursor to the desired setting and then click  to select it.

### **Pressing selected keys multiple times in a row displays the key with a repeat counter.**

When you press certain keys multiple times in a row, one key is displayed in the key press history. This key has a number attached to it that shows the number of times the key was pressed.

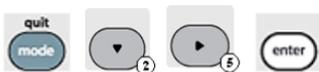


For example:

### **When you record a script, you record only key presses on the calculator. These key presses can be difficult to interpret, viewed by themselves.**

Changed wording from “that you” to “how you” and removed “to scientific”.

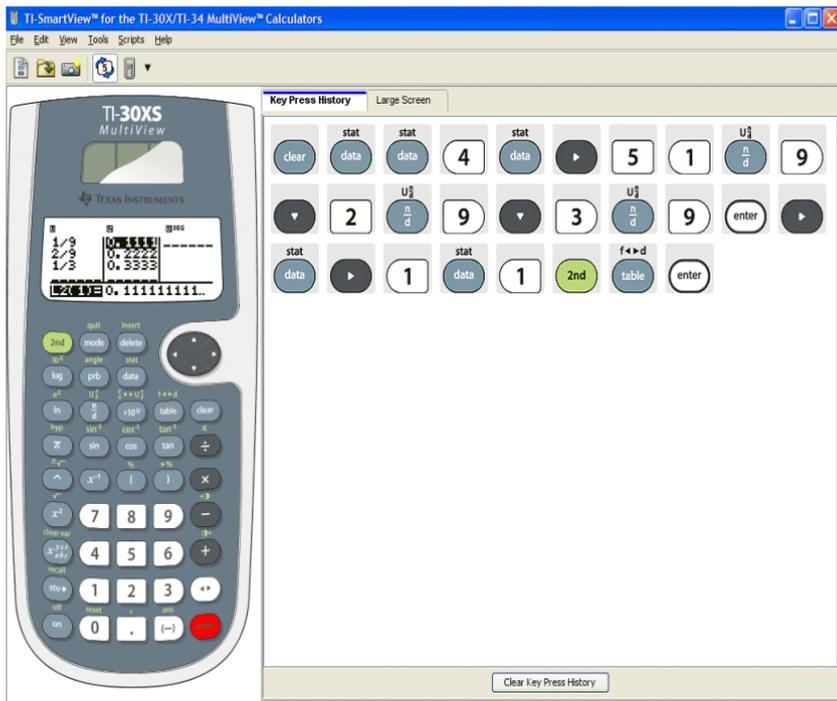
Because you record key presses, editing a script can be a little tricky. For example, if you change the mode to four decimal places, the



script records    . The script does not explicitly tell you how you changed the mode. For this reason, it can be quite helpful to step through a script one key press at a time, or to play the script back at a slower speed so that you can see exactly where an edit needs to be made.

## **Choosing a display option**

By default, the TI-SmartView™ software displays the calculator and an optional pane of additional information. You can show or hide the optional pane, or change the type of information displayed in it.



The right pane includes tabs that you can click to see either the key press history, a large screen display of what the device image is displaying, or an open script. When you display the large screen, you can hide or show the key press history information at the bottom of the pane.

---

## Display Option

Click:

Key press history,  
large screen, and  
script pane

**View > Show/Hide Key Press History** or  to show or hide the pane.

---

## Scripts

**File > Open** or  to open an existing script.

**File > New Script** or  to open a new, blank script.

The close button on the script's tab  to close a script.

## Notes:

- Hiding the key press history pane does not clear the key press history.
- Hiding the key press history pane does not delete or close an open script.
- You can record a script without displaying the key press history pane.

## Changing the size of the TI-SmartView™ screen

When you first use the TI-SmartView™ software, a full-screen image for 1024 x 768 screen resolution is displayed. You can use whichever size you want, but the small, medium, and large versions are optimized for the following screen resolutions.

<b>If your screen resolution is:</b>	<b>Click:</b>
800 x 600	<b>View &gt; Size &gt; Small Emulator</b>
1024 x 768	<b>View &gt; Size &gt; Medium Emulator</b>
1280 x 1024	<b>View &gt; Size &gt; Large Emulator</b>

Changed “program” to “software”.

The calculator images in the TI-SmartView™ software are freely scalable. In addition to choosing small, medium, and large emulator sizes, you can click and drag the TI-SmartView™ window borders to display the application in a window that is a custom size.

## Changing the color of the face plate

You can change the face plate on the TI-SmartView™ calculator to improve visibility in the classroom. Options include Standard, Contrast, and Outline.

- ▶ Click **View > Color** and then click a color option.

## Changing calculator models

By default, the TI-30XS MultiView™ calculator is displayed the first time you start the TI-SmartView™ application. The next time you start the application, the last calculator model you used is displayed. However, if you launch the application by double-clicking on an emulator state file or a script file, the appropriate calculator model is displayed.

- ▶ Click **View > Calculator Model** and then click a calculator model.

## Saving and loading an emulator state

When you save the emulator state, a file is created that stores the calculator settings with all of the changes that you have made to its setup. Think of the emulator state file as representing a single calculator that you have used and then set aside. When you load an emulator state, you pick up that same calculator to use again. All of the changes that you made to the calculator are intact.

For example, you might want to demonstrate to your class setting up a number sequence on the home screen changing the mode settings to two decimal places. When you save your changes in an emulator state file, you simply load the file to show your demonstration. If you want to create different demonstrations for different classes, you can create multiple emulator state files. There is no limit on the number of emulator states that you can save.

**Note:** The key press history, screen capture images, any open script, the face plate color, and the emulator size are *not* saved in the emulator state file.

## Saving the emulator state

Emulator state files are specific to each calculator model. You cannot save a TI-30XS MultiView™ emulator state file as a TI-34 MultiView™ emulator state file or vice versa.

1. Click **File > Save Emulator State**.
2. In the dialog box:
  - a) Navigate to the folder in which you want to store the emulator state file.
  - b) Type a file name. Use a name that describes the emulator state.
  - c) Click **Save**.

The emulator state names will have the form *filename.30xmvstate* or *filename.34mvstate* where *filename* is the name you gave the file and 30xmvstate or 34mvstate indicates that the file is an emulator state created by the TI-SmartView™ software.

## Loading an emulator state

Because emulator state files are specific to each calculator model, you can only load an emulator state file for the active calculator model.

1. Click **File > Load Emulator State**.
2. In the dialog box
  - a) Navigate to the folder that contains the emulator state file.

Note: Only the emulator state files for the active calculator model will be displayed.
  - b) Click the emulator state name to highlight it.
  - c) Click **Open**.

## Restoring the emulator state

Restoring the emulator state returns the TI-SmartView™ software to the calculator factory-default settings. The optional right pane is shown. The key press history is cleared. If a script is open, it is stopped, but remains open.

1. Click **Tools > Restore Default State**.
2. In the dialog box, click **Yes** to confirm that you want to reset the emulator state.

# Working with images

## Capturing calculator screens

You can capture the current calculator screen image using the TI-SmartView™ screen capture tool. When you capture a screen, the Screen Capture window is displayed. In this window, you can view, manipulate, and save screen images.

- ▶ Click **Tools > Take Screenshot** or click  .

A border is automatically added to each image when you capture it, but you can remove it.

You can capture up to 44 screens at a time. Each unsaved screen image is stored in memory until you close the main TI-SmartView™ window. Closing the Screen Capture window does not discard unsaved screen images. To capture additional images, delete images from the Screen Capture window.

## Adding or removing a border

The toolbar button for adding or removing a border toggles between

add  and remove  depending on whether or not the selected image contains a border.

### Adding or removing a border on a single screen image

1. Click the screen capture image to select it.
2. Click **Edit > Remove Border** or click  to remove the border.  
—or—

Click **Edit > Add Border** or click  to add a border.

## Adding or removing a border from a group of screen images

1. If necessary, click  to switch to thumbnail view.
2. Select the group of images. You can either:
  - Click the first image you want to select, and then hold down **Ctrl** on the computer keyboard as you click each additional image.
  - Select a range of images by clicking the first image in the range, holding down **Shift**, and clicking the last image in the range.
3. Click **Edit > Remove Border** or click  to remove the border.  
—or—

Click **Edit > Add Border** or click  to add a border.

**Note:** To select all of the images, click **Edit > Select All**.

## Saving a screen image

You can save screen images in TIF, GIF, or JPEG formats. The images are saved in your My Documents folder unless you specify a different location to save them. All images are saved at the size they are currently displayed.

1. Click the screen image you want to save.
2. Click **File > Save Screen** or click .
3. In the dialog box:
  - a) Navigate to the folder in which you want to store the screen image file.
  - b) Select the file type for the appropriate image format.
  - c) Type a file name. Use a name that describes the screen image.
  - d) Click **Save**.

**Note:**

- If you have previously saved the selected screen image, clicking **File > Save Screen** or  overwrites the previous file. To save the file in a different location, with a different name, or as a different file format, you must click **File > Save Screen As**.
- To save all the images at once, click **File > Save All Screens**. When you do this, you select the location to save the files in the Save All window, but do not specify file names. Each screen image is saved with its default file name. If that name already exists, you are prompted whether to overwrite the existing file.

## Viewing screen images

When you capture a screen image, that image opens in the Screen Capture window. You can view the images individually or as a group of images, called thumbnails. A reference name is displayed under each image.

- ▶ To view screen image thumbnails, click **View > Thumbnails** or click  .
- ▶ To view individual screen images, click **View > Single Screen** or click  .

## Navigating among screen images

- ▶ To view the previous screen image, click **View > Previous Screen** or click  .
- ▶ To view the next screen image, click **View > Next Screen** or click  .

## Zooming in or zooming out

You can zoom in or out on any single image to view a larger or smaller version of it.

You can save a larger or smaller version of a screen image by zooming in or out before you save it. For example, to save an image that is larger than the standard size, zoom in until the image is the size you want and then save it.

- ▶ To display a larger screen image, click **View > Zoom In** or



- ▶ To display a smaller screen image, click **View > Zoom Out** or



## Dragging and dropping an image to another application

You can drag and drop any TI-SmartView™ screen image to paste it into another application. These images include the following:

- Saved or unsaved screen capture images
- The Large Screen image

**Note:** In the Screen Capture window, the selected image has a red border. However, the border on the Large Screen image does not change color when you select it.

To drag and drop a screen image into another application:

1. Adjust the sizes of the windows of the two applications so that both of them fit on the computer screen.
2. To drag-and-drop the image:
  - a) Click the screen image to select it.
  - b) Drag the screen image from the TI-SmartView™ software and then drop it into the other application.

## Using screen captures as a teaching tool

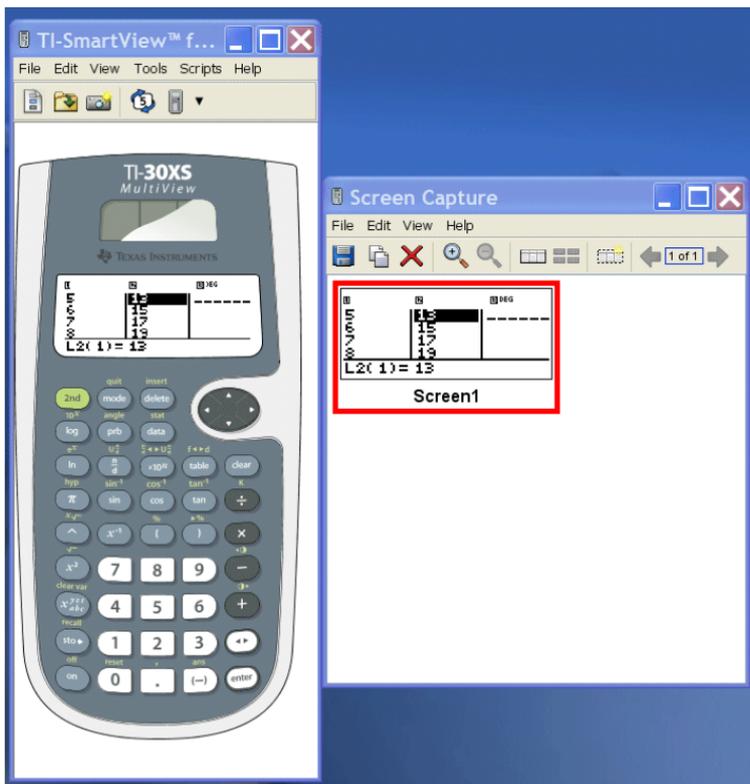
The screen capture window initially displays space for three screens to be viewed vertically, making it useful for reviewing the history of the screens with a class. For example, suppose you wanted to explore guessing a function with the class. You might proceed as follows, taking screen captures as you go.

### Note:

- You can complete this activity using either calculator model. You use the data feature on the calculators for the first part of the activity and use the table feature on the TI-30XS MultiView™ calculator and the Home screen on the TI-34 MultiView™ calculator to end the activity.
- To arrange the TI-SmartView™ windows so that both the calculator and the Screen Capture window are displayed,

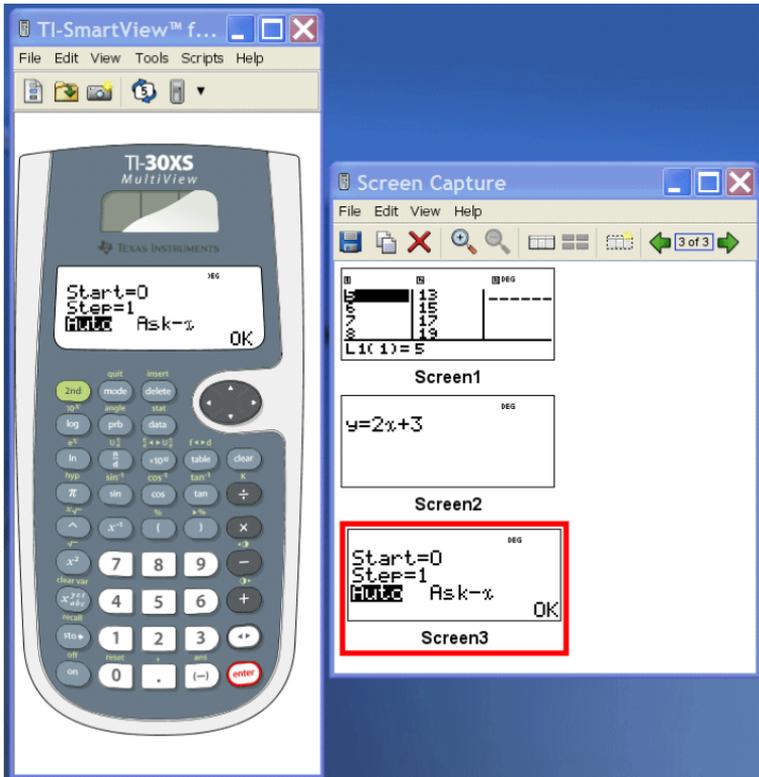
maximize the TI-SmartView™ window, click  to close the keypress history, and then, if necessary, position the Screen Capture window so that both the calculator window and the Screen Capture window are viewable together.

1. Set up a pattern in L1 and L2.

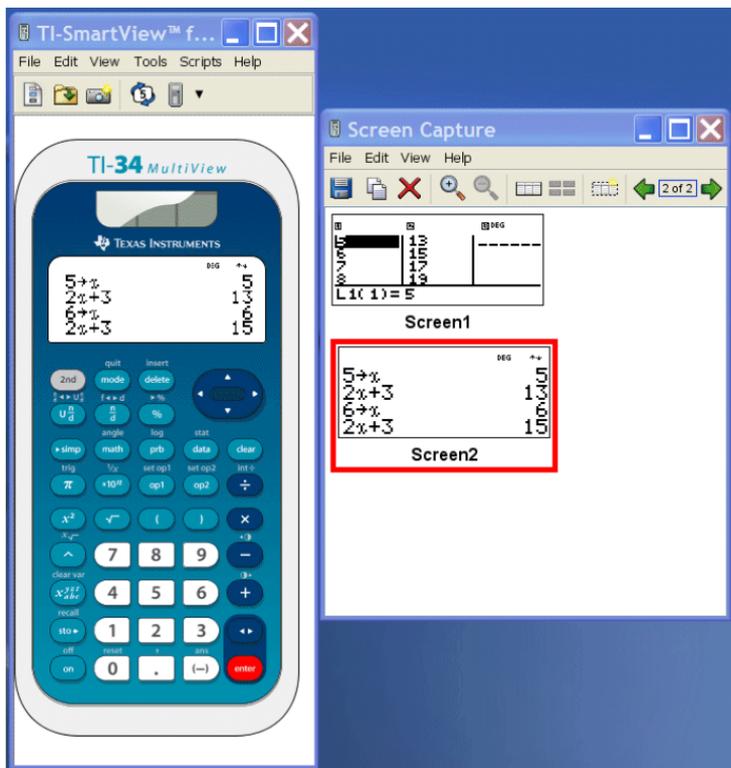


2. Ask the students to guess the function.

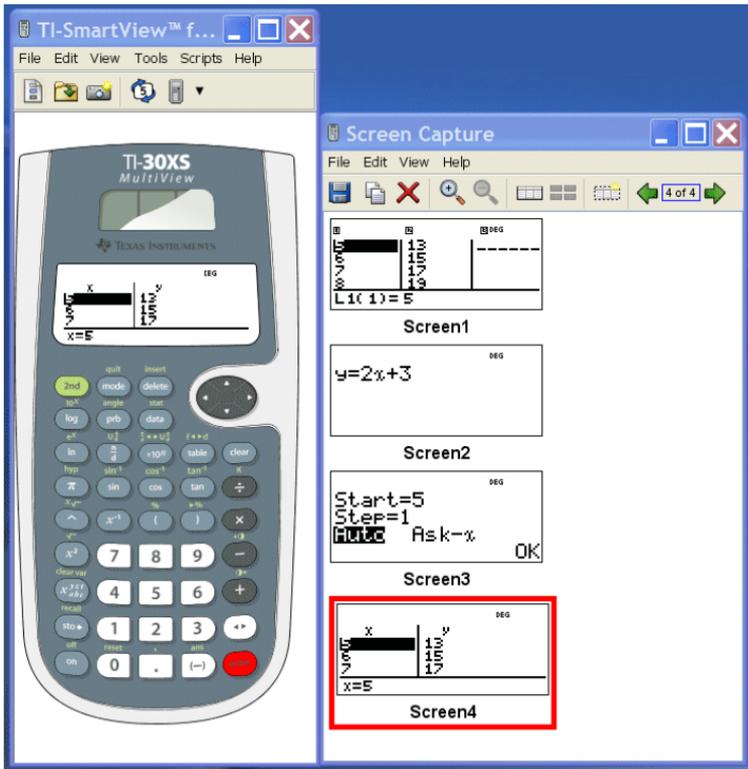
3. For the TI-30XS MultiView™ calculator, enter a student's guess in the table editor.



For the TI-34 MultiView™ calculator, students can test their answers on the Home screen.



4. Review the output to see if the guess was correct.



# Using key press history

## What is the key press history?

Each key you click on the calculator is recorded automatically in the key press history. You can see the key press history from the key press history pane and the large screen pane. Using the key press history to see a listing of all the keys you've used has several benefits, including:

- If a calculation gives unexpected results, you can view the key press history to see if you entered the correct data.
- If you perform a calculation and then find you need to perform it repeatedly, you can copy those keys from the key press history and paste them into a script. When you need to repeat the calculation, you can play the script instead of re-entering all the key presses.

The key press history shows some key sequences in a different form than they are shown in the user's guides for the calculators. For example, suppose you display the **STATS** menu.

- The user's guide shows the key sequence as  $\boxed{2nd}[\boxed{stat}]$ , where  $[\boxed{stat}]$  is the 2nd function of the  $\boxed{data}$  key.
- The key press history shows the key sequence as , the actual keys you click.

Similarly, suppose you select the **randint(** function from the **PRB RAND** menu.

- The user's guide shows the function as **randint(**.

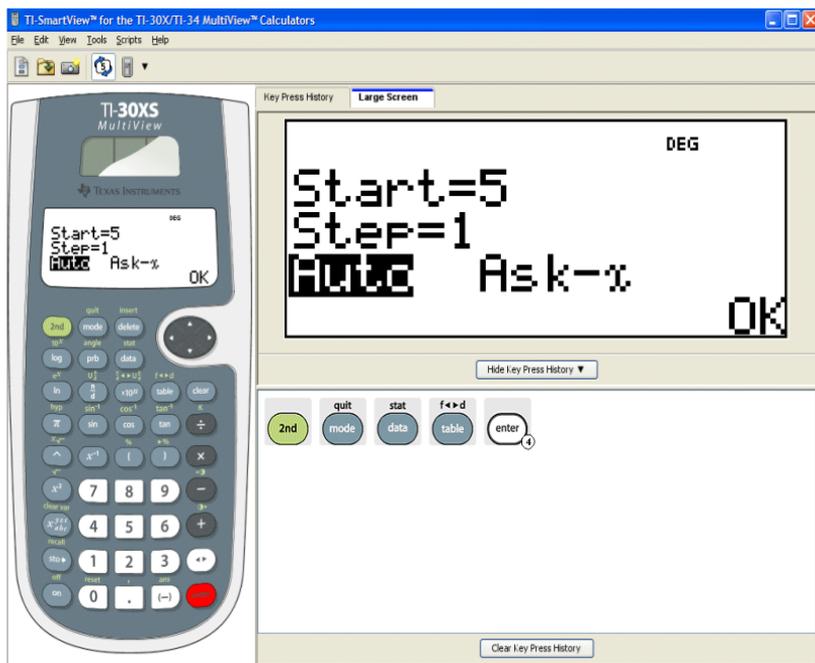
- The key press history shows     because those are the keys you click.

## Showing or hiding the key press history

- Click **View > Show/Hide Key Press History** or click  .

When the TI-SmartView™ right pane is showing, you may need to click the Key Press History tab to activate it. The right pane also shows tabs for Large Screen and any open scripts. The active tab has a colored line across its top.

You can also view and clear the key press history from the large screen pane. Click **Show Key Press History** or **Hide Key Press History** to show or hide the list of keys pressed.



When the key press history is shown on the large screen pane, you can click **Clear Key Press History** to clear the list of keys pressed.

Hiding the right pane does not clear the contents of the key press history or an open script.

## Clearing the key press history

- ▶ Click **Edit > Clear Key Press History**, or click **Clear Key Press History** on the key press history or large screen pane.

Clearing the key press history does not affect the contents of an open script in the TI-SmartView™ right pane.

## Copying the key press history to another application

You can copy all or only a selected portion of the key press history to another application such as a word processor. You can copy the key graphics as they are shown in the key press history pane, or you can copy the key presses as font text characters.

**Note:** When you copy as font text characters, those characters use either the TI30EmuKeys font or the TI34EmuKeys font. These fonts are installed on your computer automatically when you install the TI-SmartView™ software.

### Copying keys as graphics

1. Select the keys you want to copy. To select all the keys, click **Edit > Select All**.
2. Click **Edit > Copy**, switch to the other application, and paste the keys at the appropriate location.

**Note:**

- You can also drag the selected keys to the new application.
- You can resize the keys after you copy or drag them to a new application.

### Copying keys as font text characters

1. Select the keys you want to copy. To select all the keys, click **Edit > Select All**.
2. Click **Edit > Copy As Font**.
3. Switch to the other application, and paste the characters at the appropriate location.

In some applications, the pasted characters may be shown in the font that is in effect at that location, so they may not look anything like calculator keys.

4. If necessary, apply the TI30EmuKeys font to the characters. See the help file for the application you are using for details on how to apply a font to the characters.

**Note:** The script icons for text points, delays, pauses, and Go To Home commands cannot be copied as font text characters. They are ignored when you paste the copied characters into the other application.

# Using a script

## What is a script?

A script is a series of key presses on the calculator that can be stored and played later. When you save a script, you can open it later and play it without having to re-enter all of the key presses.

## Overview of using a script

Create,  
record,  
and save  
the script

Play  
the  
script

Close  
the script

You can also:

- Insert text points.
- Insert pauses and delays.
- Insert a Go To Home command.
- Edit a script to make changes.

You can:

- Play the script normally.
- Step-through one key at a time.
- Manually pause the script.
- Adjust the playing speed.

After performing one or more calculations on the calculator, you can create a script that performs those same calculations without repeating the key presses to record a new script. You can:

- Copy keys from the key press history and paste them into the script.

- Edit the script as necessary so the keys work properly in the context of that script.

## Showing or hiding the script pane

The open script is shown in the TI-SmartView™ right pane, which is also used to show the key press history. To toggle the right pane on and off:

- ▶ Click **View > Show/Hide Key Press History** or click  .

The right pane shows tabs for the Key Press History, Large Screen, and an open script. The active tab has a colored line across its top. Click the appropriate tab to show its contents.

Hiding the right pane does not clear the contents of the open script or the key press history.

## Recording a new script

1. Click **File > New Script** or click  .

The TI-SmartView™ right pane opens automatically if it is not already open, and a new blank script appears in the pane. The new script has a tab at the top of the pane, with a colored line across its top to indicate it is active. The tab shows the script's default name, which is Script 1, Script 2, etc.

**Note:** Only one script can be open at a time. If a script is already open, you must close it before you can record a new script.

2. Click **Scripts > Record** or click  on the script's toolbar.
3. Click the keys on the calculator to record the key presses for your script.

4. When you are finished, click **Scripts > Stop** or click .

**Note:**

- You can also insert Go To Home commands, text points, delays, and pauses in a script.
- You can help ensure that your script plays properly under various conditions by following a few simple guidelines explained below in “Tips for recording a script.”
- You can reuse key sequences that you previously entered in the calculator. Copy the keys from the key press history and paste them into the script.

## Tips for recording a script

If you record a script assuming the calculator will always have its current settings, you may have problems later if you play the script with different calculator settings. Therefore, it is a good practice to add the necessary settings directly into the script. The following tips can help you create scripts that play correctly in a variety of situations.

At the beginning of a script:

- Insert a Go To Home command to ensure the script starts on the calculator’s home screen. This lets your script begin at a known starting point, regardless of what screen is shown on the calculator when you play the script.

- Press    to reset the memory to its defaults.

When selecting an item from a menu:

- Press the number or letter for that item. Suppose you need **r** (for radians) from the DMS menu. The script runs faster if you use



At the end of a script:

- Insert a Pause command. This is particularly useful if a script displays text points that you want the user to see after the script finishes. Otherwise, text points are closed automatically at the end of a script.

**Note:** When resetting the memory, clear only the applicable portion of

the memory. Using     to reset all RAM is not required in most situations.

## Playing a script

After recording a new script or opening an existing one, you can play it. You cannot play a script while you are recording it.

1. Select the tab for the appropriate script. The active tab has a colored line across its top.
2. Click **Scripts > Play** or click .

## Adjusting the script speed

You can vary the speed at which each key press in a script is executed, from Slow (approximately one key press every 5 seconds) to Fast (approximately one every 1/2 second).

1. Click **Scripts > Adjust Script Speed**.
2. In the submenu, click a speed in the displayed range.

**Note:**

- You can also use the slider in the script's toolbar. Drag the slider to the appropriate position.



- The speed setting affects every key press in the script, which may not be what you want. Suppose the script enters numbers such as 425,237,234. Setting the speed to one key press every 2 seconds takes 18 seconds to enter the number. Instead, you may want to use a faster speed and insert pauses or delays at certain points in the script.

## Saving a script

After recording a new script or editing an existing one, save the script so you can use it again later. Script files are specific to each calculator model. You cannot save a TI-30XS MultiView™ script file as a TI-34 MultiView™ script file or vice versa.

1. Select the tab for the appropriate script. The active tab has a colored line across its top.

2. Click **File > Save Script** or click .

For an existing script that was saved previously, the new version automatically overwrites the existing one. For a new script, the Save As dialog box opens.

3. If you see the dialog box:
  - a) Navigate to the folder in which you want to store the script file.

- b) Type a file name. Use a name that indicates the purpose of the script.
- c) Click **Save**.

Scripts names have the form *filename.30xmvscript* or *filename.34mvscript* where *filename* is the name you gave the file and 30xmvscript or 34mvscript indicates that the file is a script created by the TI-SmartView™ software for either the TI-30XS MultiView™ calculator model (30xmvscript) or the TI-34 MultiView™ (34mvscript) calculator model.

**Note:** If you do not want to save the changes you made to an existing script, close the script instead of saving it. Click the **X** in the script tab to close the script. When prompted whether to save the changes, click **No**.

## Saving a copy of a script

Sometimes you may need a script that is similar to an existing one but with some changes. Instead of recording a new script, it may be easier to copy the existing script, edit it, and save it with a new name.

You cannot save a TI-30XS MultiView™ script file as a TI-34 MultiView™ script file or vice versa

1. Open the script you want to copy. The active tab has a colored line across its top.
2. Click **File > Save Script As**.

**Note:** Do not click .

3. In the dialog box:
  - a) Navigate to the folder in which you want to store the copy.
  - b) Type a file name. Use a name that indicates the purpose of the script.
  - c) Click **Save**.

**Note:** If you change a script and want to keep those changes in the existing script, click **File > Save Script** or  before selecting **Save Script As**. Otherwise, the changes are saved in the copy but not in the original script.

## Opening an existing script

After a script is recorded and saved, you can open it later and play the script again, edit it, or save a copy of it.

1. Click **File > Open Script** or click  .  
**Note:** If a script is already open, you must close it before you can open another one.
2. In the dialog box:
  - a) Navigate to the folder that contains the script file.
  - b) Click the script name to highlight it.
  - c) Click **Open**.

The script opens in the TI-SmartView™ right pane. A tab with the script name appears at the top of the pane along with tabs for Key Press History and Large Screen. You can click any of those tabs to jump from one to the other. The active tab has a colored line across its top.

### **Note:**

- The most recently used scripts are listed at the bottom of the **File** menu. Click a script name to open it. If another script is already open, you must first close it before you can open a new script.
- Because you can adjust the size of the TI-SmartView™ window, the right pane may not always be fully visible. When this happens, left and right arrows appear on the right of the tab area. Click these arrows to scroll left and right along the available tabs.

## Closing a script

When you are finished using a script, you may want to close it. This removes the script tab from the right pane. If the script is not saved, you are prompted whether to save it.

### Note:

- Since only one script can be open at a time, you must close the open script before you can record a new script or open an existing script.
- If you change calculator models, any open script will be closed.
- ▶ Click **File > Close Script** or click the **X** on the script tab.



## Stepping through a script

You can step through a script one key press at a time. This is the same effect as if you had used pause commands to halt the script between every key press. Depending on the length of the script, you may want to step through all or only parts of it.

### Stepping through a script from the beginning

In the script pane, instead of playing the script:

1. Click **Scripts > Step Through** or click  to start the script.

**Note:** Do not click **Scripts > Play** or .

The script pauses automatically after every key press.

2. Click  repeatedly to step through each key press.

3. After stepping through a series of key presses, you can click  to play the remaining key presses continuously.

### Stepping through part of a script

In the script pane:

1. Click **Scripts > Play** or click .
2. Click **Scripts > Pause** or click  to pause at a location before you want to start stepping through.
3. Click **Scripts > Step Through** or click  repeatedly to step through each key press.
4. After stepping through a series of key presses, you can click  to play the remaining key presses continuously.

You can repeat steps 2 - 4 as often as necessary to step through different parts of the script.

### Stopping a script while stepping through it

While you are stepping through a script, **Scripts > Stop** or  may not be available. If not, you can:

1. Click  to play the script.
2. Then click .

## Stopping a script

When you finish recording a script, you need to stop recording. When you play a script, you may want to stop the script manually at some time before it would normally end.

- ▶ Click **Scripts > Stop** or click .

Unlike when you pause a script, you cannot continue playing the script from the location where it stopped. You can only replay the script from the beginning.

## Pausing a script

At various times while a script is running, you may want to halt it temporarily. For example, you may want to view an intermediate result before continuing with another operation that changes the calculator screen. You can either pause the script manually or insert a pause command directly into the script.

### Pausing the script manually

In the script pane, while the script is playing:

- ▶ Click **Scripts > Pause** or click .

The **Play**  button changes to **Pause**  when you play the script. After you pause the script, the button changes back to **Play**. Click **Play** again when you are ready to continue the script.

## Inserting a pause command in the script

In the script pane:

1. Click the location where you want to insert the pause.  
The cursor appears at that position.
2. Click **Scripts > Insert Pause** or click  at the bottom of the script pane.

 appears in the script to mark the location of the pause. When you play the script, it always halts at this pause command.

To continue, click **Scripts > Play** or click .

## Deleting an existing pause command

Delete the  icon the same way you would delete any other key press in the script.

## Inserting a delay into a script

In some cases, you may want to delay the script a specified period of time before it continues to the next key press. For example, you may want to display a result for a few extra seconds before the script executes the next key press.

### Inserting a delay

In the script pane:

1. Click the location where you want to insert the delay.  
The cursor appears at that position.

2. Click **Scripts > Insert Delay** or click  at the bottom of the script pane.



appears in the script to mark the delay.

A delay has the same effect as a blank key press. It lasts as long as a single key press (as determined by the script's speed setting) and has no other effect on the script.

For a longer delay, insert more than one. For example, suppose the script speed is set for one key press every second. To delay five seconds, insert five delays.

**Note:** If you do not know how long to delay the script, consider inserting a pause instead. After the script pauses, it does not start

again until you click **Scripts > Play** or click  to continue.

### Deleting an existing delay



Delete the  icon the same way you would delete any other key press in the script.

## Inserting a text point into a script

If you use a script to show a presentation, you may want to display a text screen at certain locations to explain a result or describe what the script will be doing next.

## Inserting a new text point

In the script pane:

1. Click the location where you want to insert the text point.  
The cursor appears at that position.
2. Click **Scripts > Insert Text** or click  at the bottom of the script pane.
3. In the dialog box:
  - a) Type the text using your computer's keyboard.
  - b) Click **Enter**.

**T** appears in the script to mark the text point.

### Note:

- When you run the script, the text is displayed in a separate text pane that opens below the script.
- The text from all text points in the script is placed one after another in the text pane. As necessary, you may need to scroll to see all the text.
- You can change the size of the displayed text by dragging the slider located in the area between the script pane and the text pane.

## Editing an existing text point

In the script pane:

1. Double-click the  marker.  
The Text Point Dialog box opens.
2. Edit the text as necessary.
3. Click **Enter**.

## Deleting an existing text point

Delete the **T** marker the same way you would delete any other key press in the script.

## Inserting a Go to Home command

A script executes each key press in sequence. However, these key presses may have different effects depending on what screen (Home, Table, etc.) is shown on the calculator when you play the script. By using a Go To Home command at the beginning of a script, you can ensure that it begins on the Home screen.

### Inserting a new Go To Home command

In the script pane:

1. Place the cursor at the beginning of the script.
2. Click **Scripts > Insert Go To Home Screen** or click  at the bottom of the script pane.



appears in the script to mark the location of the command.

**Note:** You can insert a Go To Home command at any location in your script. While you are recording key presses inside a script, however, it is usually better to record the actual key presses used to display the Home screen.

### Deleting an existing Go To Home command

Delete the  icon the same way you would delete any other key press in the script.

## Editing a script

Editing a script is similar to editing a text document. For example, you can drag the mouse to highlight a series of keys the same as you would drag to highlight text in a word processor. (You can also hold down **Shift** and use the arrow keys on your computer keyboard.)

### Inserting key presses or script elements (pauses, delays, etc.)

With the script shown in the right pane:

1. Click **Scripts > Record** or click .
2. Click the location where you want to insert the keys or script elements.

**Note:** Be sure to position the cursor after you start recording. If you position the cursor first, it automatically jumps to the beginning of the script when you start recording.

3. You can:
  - Click the keys you want to insert.  
– or –
  - Use the buttons at the bottom of the script pane to insert a text point, delay, pause, or Go To Home command.
4. When you are finished, click **Scripts > Stop** or click .

### Deleting key presses or script elements

With the script shown in the right pane, either:

- Place the cursor immediately to the left of the items you want to delete. Then press **Delete** on your computer keyboard.  
– or –

- Place the cursor immediately to the right of the items you want to delete. Then press **Backspace** on your computer keyboard.  
– or –
- To delete multiple items at one time, highlight the items. Then click **Edit > Cut** or click  on the script's toolbar.

## Moving items to a different location

With the script shown in the right pane:

1. Highlight the items you want to move.
2. Click **Edit > Cut** or click .
3. Click the location where you want to insert the items.
4. Click **Edit > Paste** or click .

**Note:** You can also use the mouse to drag the highlighted items to the new location.

## Copying items to a different location

With the script shown in the right pane:

1. Highlight the items you want to copy.
2. Click **Edit > Copy** or click .
3. Click the location where you want to insert the copy.
4. Click **Edit > Paste** or click .

**Note:** You can also hold down **Ctrl** on your computer keyboard and use the mouse to drag a copy of the highlighted items to the new location.

## Copying a script to another application

You can copy all or only a selected portion of a script to another application such as a word processor. You can copy the key graphics as they are shown in the script pane, or you can copy the key presses as font text characters.

**Note:** When you copy as font text characters, those characters use the TI30EmuKeys or TI34EmuKeys font. These fonts are installed on your computer automatically when you install the TI-SmartView™ software.

### Copying keys as graphics

1. Open the appropriate script.
2. Select the keys you want to copy. To select all the keys, click **Edit > Select All**.
3. Click **Edit > Copy**, switch to the other application, and paste the keys at the appropriate location.

### Copying keys as font text characters

1. Open the appropriate script.
2. Select the keys you want to copy. To select all the keys, click **Edit > Select All**.
3. Click **Edit > Copy As Font**.
4. Switch to the other application, and paste the characters at the appropriate location.

In some applications, the pasted characters may be shown in the font that is in effect at that location, so they may not look anything like calculator keys.

5. If necessary, apply the TI30EmuKeys or TI34EmuKeys font to the characters.

**Note:** The script icons for text points, delays, pauses, and Go To Home commands cannot be copied as font text characters. They are

ignored when you paste the copied characters into the other application.

## Using common scripts

If you have access to scripts written by other people, you can open and play those scripts on your own computer. Texas Instruments provides a number of scripts that perform commonly used operations. By using available scripts and viewing their content, you can get ideas about how to create additional scripts for automating your own operations.

Check the Texas Instruments web site at [education.ti.com](http://education.ti.com).

# FAQs and keyboard shortcuts

## Frequently asked questions

### **I clicked on the calculator screen to select an option, but nothing happened. Why?**

On the calculator image in the TI-SmartView™ software, use the mouse to click keys the same as you would use your finger to press keys on a real calculator. And just like on a real calculator, you cannot press the screen to select an option, even though it is very tempting on a computer. You must click the same keys you would press on the calculator.

### **I am having trouble editing a script. How do I figure out where I need to be in the script to make a change?**

Because scripts record key presses, it might be easier to step through

the script by clicking  on the script toolbar or to change the script's playback speed so that you can see exactly where you need to make the change.

### **The TI-SmartView™ calculator is too big for my computer screen. How do I change the size?**

Click **View > Size** and then select a smaller size. In addition to choosing small, medium, and large sizes, you can click and drag the TI-SmartView™ window borders to display the application in a window that is a custom size.

### **I was using the screen capture feature earlier. Now, I want to use it again, but the screen capture window won't display. Why?**

When you select **View > Always in front**, the main TI-SmartView™ window is always in front of other windows. If you have moved or resized this window, the screen capture window could be behind it.

Some of the keys show a 6 in the key press history or in a script. What does that mean?

When you press selected keys multiple times in a row, the key press history or script displays one keystroke with a counter in the corner. The counter indicates the number of times the key was pressed. This feature makes it much easier to see how many times the key was

pressed. For example, it is easier to read  than it is to read



## Using the computer keyboard

You can use the computer keyboard to enter data into the TI-SmartView™ software. You cannot simply use the keys like a QWERTY keyboard to type letters. By default, the keys are shortcuts to a corresponding key on the calculator.

**Note:** You can use the keyboard to access second functions, but you must use **[2nd]** the same as you would on the calculator.

### Computer keyboard shortcuts

Using your computer keyboard, you can press the key(s) listed below the calculator key icons instead of clicking those keys on the TI-SmartView™ calculator image. For example, you can press Y on

your computer keyboard instead of clicking  on the calculator image to display the data editor.

**Note:** Two shortcuts are listed for **[clear]**, , , , , **[enter]**, and **[delete]** in the following tables. When you are editing a script, you must press **[Ctrl]** plus the key because the keys on the computer keyboard are available to use for editing purposes. For example, when you are editing a script, you must press **[Ctrl] + [Delete]** on your



computer keyboard to press  on the calculator. If you press [Delete], the item to the right of the cursor in the script is deleted. However, if you are editing the keypress history, you can press either [Delete] or [Ctrl] + [Delete] on the computer keyboard.

## TI-30XS MultiView™ keyboard shortcuts:

<b>2nd</b> [ Q ]	<b>mode</b> [ W ]	<b>delete</b> [Delete] or [Ctrl]+ [Delete]	 [ ← ] or [Ctrl]+[ ← ]	 [ ↑ ] or [Ctrl]+[ ↑ ]
<b>log</b> [ R ]	<b>prb</b> [ T ]	<b>data</b> [ Y ]	 [ ↓ ] or [Ctrl]+[ ↓ ]	 [ → ] or [Ctrl]+[ → ]
<b>ln</b> [ U ]	$\frac{n}{d}$ [ I ]	$\times 10^n$ [ P ]	<b>table</b> [ A ]	<b>clear</b> [Backspace] or [Ctrl]+ [Backspace]  Mac®: [Clear]
$\pi$ [ D ]	<b>sin</b> [ F ]	<b>cos</b> [ G ]	<b>tan</b> [ H ]	$\div$ [ / ]
$\wedge$ [ J ]	$x^{-1}$ [ K ]	( [Shift]+[ ( ]	) [Shift]+[ ) ]	$\times$ [Shift]+[ * ]
$x^2$ [ L ]	<b>7</b> [ 7 ]	<b>8</b> [ 8 ]	<b>9</b> [ 9 ]	$-$ [ - ]
$x^{yzt}$ [ Z ]	<b>4</b> [ 4 ]	<b>5</b> [ 5 ]	<b>6</b> [ 6 ]	$+$ [Shift]+[ + ]
<b>sto</b>  [ X ]	<b>1</b> [ 1 ]	<b>2</b> [ 2 ]	<b>3</b> [ 3 ]	 [ C ]
<b>on</b> [ V ]	<b>0</b> [ 0 ]	$\cdot$ [ . ]	(-) [ B ]	<b>enter</b> [Enter] or [Ctrl]+[Enter]

TI-34 MultiView™ keyboard shortcuts:

<b>2nd</b> [ Q ]	<b>mode</b> [ W ]	<b>delete</b> [Delete] or [Ctrl]+ [Delete]	 [ ← ] or [Ctrl]+[ ← ]	 [ ↑ ] or [Ctrl]+[ ↑ ]
<b>U<sup>n</sup><sub>d</sub></b> [ R ]	<b>n<sub>d</sub></b> [ T ]	<b>%</b> [ Y ]	 [ ↓ ] or [Ctrl]+[ ↓ ]	 [ → ] or [Ctrl]+[ → ]
<b>► simp</b> [ U ]	<b>math</b> [ I ]	<b>prb</b> [ P ]	<b>data</b> [ A ]	<b>clear</b> [Backspace] or [Ctrl]+ [Backspace]  Mac®: [Clear]
<b>π</b> [ D ]	<b>x10<sup>n</sup></b> [ F ]	<b>op1</b> [ G ]	<b>op2</b> [ H ]	<b>÷</b> [ / ]
<b>x<sup>2</sup></b> [ J ]	<b>√</b> [ K ]	<b>(</b> [Shift]+[ ( ]	<b>)</b> [Shift]+[ ) ]	<b>×</b> [Shift]+[ * ]
<b>^</b> [ L ]	<b>7</b> [ 7 ]	<b>8</b> [ 8 ]	<b>9</b> [ 9 ]	<b>-</b> [ - ]
<b>x<sup>yzr</sup><sub>abc</sub></b> [ Z ]	<b>4</b> [ 4 ]	<b>5</b> [ 5 ]	<b>6</b> [ 6 ]	<b>+</b> [ + ]
<b>sto►</b> [ X ]	<b>1</b> [ 1 ]	<b>2</b> [ 2 ]	<b>3</b> [ 3 ]	<b>◀▶</b> [ C ]
<b>on</b> [ V ]	<b>0</b> [ 0 ]	<b>.</b> [ . ]	<b>(-)</b> [ B ]	<b>enter</b> [Enter] or [Ctrl]+[Enter]

# Legal information

## Texas Instruments Support and Service

For general information

**Home Page:** [education.ti.com](http://education.ti.com)

**KnowledgeBase and e-mail inquiries:** [education.ti.com/support](http://education.ti.com/support)

**Phone:** (800) TI-CARES / (800) 842-2737  
For U.S., Canada, Mexico, Puerto Rico, and  
Virgin Islands only

**International information:** [education.ti.com/international](http://education.ti.com/international)

### For product (hardware) service

**Customers in the U.S., Canada, Mexico, Puerto Rico and Virgin Islands:**  
Always contact Texas Instruments Customer Support before  
returning a product for service.

**All other customers:** Refer to the leaflet enclosed with this product  
(hardware) or contact your local Texas Instruments  
retailer/distributor.

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