

TI-SmartView[™] Emulator Software for MathPrint[™] Calculators

TI-34 MultiView[™] Calculator

Learn more about TI Technology through the online help at education.ti.com/eguide.

Legal Information

Important Information

Texas Instruments makes no warranty, either expressed or implied, including but not limited to any implied warranties of merchantability and fitness for a particular purpose, regarding any programs or book materials and makes such materials available solely on an "as-is" basis.

In no event shall Texas Instruments be liable to anyone for special, collateral, incidental, or consequential damages in connection with or arising out of the purchase or use of these materials, and the sole and exclusive liability of Texas Instruments, regardless of the form of action, shall not exceed the purchase price of this product. Moreover, Texas Instruments shall not be liable for any claim of any kind whatsoever against the use of these materials by any other party.

This scientific product application (APP) is licensed. See the terms of the license agreement.

© 2019 Texas Instruments Incorporated

Contents

| Introduction to TI-SmartView [™] Emulator Software for MathPrint [™] | |
|--|----|
| Calculators | I |
| Using the TI-SmartView™ Emulator Workspace for MathPrint™ | |
| Calculators | |
| Parts of the TI-SmartView™ Emulator Workspace | |
| Using the TI-SmartView™ Emulator Keyboard | 5 |
| Dragging and Dropping a Screen to Another Application | 5 |
| Resetting the Emulator | 6 |
| Saving and Loading a MathPrint™ Emulator State | |
| Choosing a Display Option | |
| Copying the Key Press History to Another Application | |
| Changing the Size of the TI-SmartView [™] Emulator Large Display Screen | |
| Emulator and Toolbar positions | |
| Always in Front | 14 |
| Using Screen Capture | 15 |
| Parts of the Screen Capture Workspace | |
| Dragging and Dropping a Screen to Another Application | |
| Computer Keyboard Mapping | 17 |
| Using the Computer Keyboard | |
| General Information | 24 |
| Online Help | 24 |
| Contact TI Support | |
| Service and Warranty | |

Introduction to TI-SmartView™ Emulator Software for MathPrint™ Calculators

The TI-SmartView[™] emulator software for MathPrint[™] calculators allows you to display a TI scientific calculator for your entire classroom.

Calculator Emulator Workspace

Allows you to:



- Choose Emulator
- Choose an emulator to work with.
 - − TI-30X Plus MathPrint[™]
 - − TI-30X Pro MathPrint[™]
 - − TI-30XS MultiView TI-30XB MultiView[™]
 - TI-34 MultiView™



- Hide/Show Large Emulator Display
 - Display Full Emulator View with or without a Large Display Screen panel.



- Hide/Show Key Press History
 - Displays images of keys pressed so students can follow along with the keys pressed.
- Launch a separate Screen Capture Window
 - Capture and save emulator screens as computer files similar to TI Connect™ CE Screen Capture.

See: Using the Calculator Emulator Workspace to help enhance your classroom presentations.

First Launch: Selecting Your Emulator Type

The first time TI-SmartView[™] for MathPrint[™] launches on your computer, a notification dialog will display.

| Available Emulators | × | Choose your emulator type using the pull down menu and select OK . |
|--|---|---|
| Select a default emulator: Available Emulators II-30X Plus MathPrint II-30X Pro MathPrint II-30XS MultiView II-34 MultiView II-34 MultiView II-34 MultiView | | Your selected emulator will display for your first presentation. |
| ОК | | |

TI-SmartView[™] for MathPrint[™] will always re-launch with the last state of the software. Once in the software, you can change the default emulator.

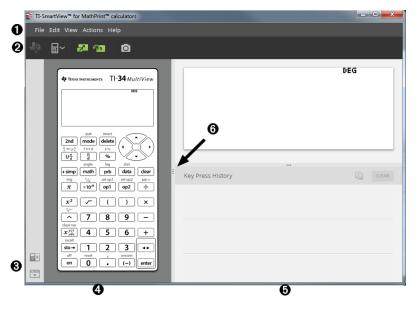
See: Choosing an Emulator Type.

The last emulator type in view will become the default and the last sizing of the window will display according to your last settings.

See: Changing the Size of the TI-SmartView[™] Emulator Large Display Screen

Using the TI-SmartView[™] Emulator Workspace for MathPrint[™] Calculators

The TI-SmartView $^{\rm M}$ emulator workspace for MathPrint $^{\rm m}$ calculator contains tools you can use to input calculations.



Parts of the TI-SmartView[™] Emulator Workspace

| 0 | File Edit View Actions Help | | | | |
|---|--|--|--|--|--|
| | Menu Bar - Use these menus to perform all emulator functions, including: | | | | |
| | File - exit or quit Actions - such as screen capture | | | | |
| | Edit - include copy key as font Help - Help and links | | | | |
| | View - change the displays | | | | |
| | Note: You can complete most of the actions in these menus by clicking icons in the toolbar. | | | | |
| 0 | | | | | |
| | Toolbar- Use these toolbar icons to: | | | | |
| | Select a different calculator model | | | | |
| | Toggle displays of Large Display Screen hide or show, and Key Press History on or off | | | | |
| | Capture current emulator screen | | | | |
| € | Choose Emulator and Tool Bar Positions | | | | |
| | Emulator position Left/Right to switch between left and right hand display of the scientific calculator screen. This is convenient when projecting on an Interactive White Board. | | | | |
| | | | | | |
| | • Tool Bar Top/Bottom - to toggle the tool bar between the top and the bottom of the screen. This is convenient when projecting on an Interactive White Board. | | | | |
| | Note: You can change the visual layout and/or position of elements to optimize access especially when using an Interactive White Board. | | | | |
| 4 | Emulator Panel - Use this panel to display the full emulator or the emulator keypad only view. | | | | |
| 0 | Large Display Screen Panel/Key Press History Panel - Use this panel to display a large version of the calculator screen and/or to display key press history. | | | | |
| | You have the following display options: | | | | |
| | Large Display Screen only Key Press History only | | | | |
| | Large Display Screen + Key Press Hide Large Display Screen | | | | |
| 6 | Resize Panels - Click and drag the vertical bar at the side of a panel to resize it. | | | | |

Using the TI-SmartView™ Emulator Keyboard

The mouse takes the place of your finger pressing keys on the computer keyboard.

Click the keys on the TI-SmartView[™] for MathPrint[™] emulator as you would press the keys on the scientific calculator.

You can hold down an arrow key to scroll the cursor continuously.

When you use an arrow key to move the cursor, you can hold down the key to scroll the cursor continuously, instead of having to press the key repeatedly. In the key press history, the icon for a repeating arrow key has a clock symbol attached to it.

Pressing an arrow key multiple times in a row displays an arrow with a repeat counter.

When you press an arrow key multiple times in a row, one arrow key is displayed in the

key press history; this arrow key device the anumber attached to it that shows the number of times the arrow key was pressed.

Dragging and Dropping a Screen to Another Application

You can drag and drop and paste any TI-SmartView[™] emulator for MathPrint[™] calculators screen into another application.

The TI-SmartView[™] emulator for MathPrint[™] calculators screens that you can drag and paste include the following:

- The screen above the keyboard in the Emulator Panel
- Large Display Screen Panel
- Saved or unsaved screen captures in Screen Capture Workspace

Resetting the Emulator

To reset the emulator:

- 1. Click Actions.
- 2. Click Reset Emulator.
- 3. Click Reset.



Resetting the emulator:

- Overwrites the current emulator state
- Clears key press history

Saving and Loading a MathPrint[™] Emulator State

When you save the MathPrint[™] emulator state, a file is created that stores the emulator settings with all of the changes that you have made.

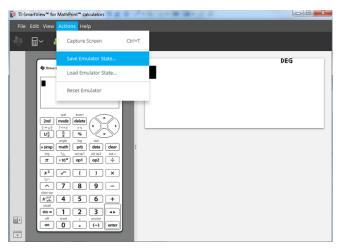
For example, you might want to set up a class presentation by entering data in a data editor and functions in the f(x) and g(x). When you save your changes in an emulator state file, you simply load the file to show your presentation. If you want to create different presentations for different classes, you can create multiple emulator state files.

Note: The key press history, screen capture shots, the emulator view, and the emulator size are not saved in the emulator state file. Please take note the MathPrint™ emulator state files may be large. Contact your IT department if your storage capacity is an issue.

Saving the MathPrint[™] Emulator State

Managing, saving and loading an emulator state file is available for each MathPrint[™] emulators. The TI-34 MultiView[™] emulator state file can only be loaded on the TI-34 MultiView[™] emulator.

1. Click Actions > Save Emulator State....



- 2. In the dialog box:
 - a) Navigate to the folder in which you want to store the MathPrint[™] emulator state file.
 - b) Type a file name. Use a name that describes the MathPrint[™] emulator state.

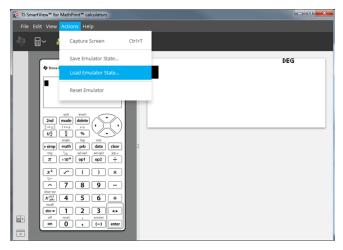
Note: The MathPrint[™] emulator state files will have a pre-configured filename with the file extension, *.s34 indicating the TI-34 MultiView[™] calculator emulator state created by the TI-SmartView[™] MathPrint[™] emulator software.

c) Click Save.

Loading a MathPrint[™] Emulator State

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

1. Click Actions > Load Emulator State.



- 2. In the dialog box:
 - a) Navigate to the folder that contains the emulator state file.

Note: Only the MathPrint[™] emulator state files for the active calculator model will be displayed.

- b) Click the MathPrint[™] emulator state name to highlight it.
- c) Click Open.

Choosing a Display Option

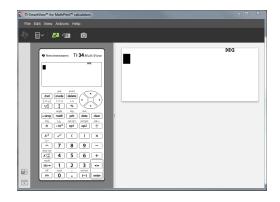
You can customize your display to show or hide optional panels and change the type of information displayed in each one. By default, the TI-SmartView™ emulator software for MathPrint™ calculators displays the calculator emulator workspace in Large Display Screen.

Displaying the Calculator Screen





 Click again to Show Large Display Screen panel.



Choosing an Emulator Type



to choose an emulator type.



Each emulator type displays its relevant calculator model.

Changing the Calculator Faceplate

To change the faceplate:

- 1. Click View.
- 2. Hover over Calculator Faceplate.
- 3. Click on a calculator faceplate name.

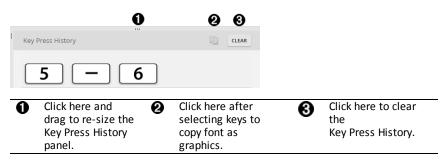
Dark Outline Light TEXAS INSTRUMENTS TI-34 MultiView TEXAS INSTRUMENTS TI-34 MultiView TEXAS INSTRUMENTS TI-34 MultiView 2nd mode delete 2nd mode delete 2nd mode delete ÷ • 113 nd Ua % simp math prb data ▶ simp math prb data ×10ⁿ π ×10ⁿ op1 op2 ÷ × x2 × ._ () 8 9 7 8 9 ~ 8 4 5 6 + X abc 4 5 6 + x abc 6 + 3 4۲ •► 2 3 3 sto → 1 4۲ 0 (-) enter 0 (-) enter • 0 (-) enter . on

Showing or Hiding the Key Press History

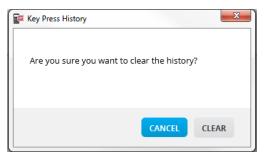


Click to show or hide key press history.

Click CLEAR in the panel next to Key Press History to clear the history.



When you press clear, you will see this information box:



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 2 as they are shown in the key press history panel, or you can copy the key presses as font text characters 2 - 6.

Note: When you copy keys as font text characters, those characters use the TI34EmuKeys font. Only primary key fonts paste. Second key fonts do not paste from the copy as font feature in TI-SmartView[™]. You can manually insert second features using the installed font. This font is installed on your computer automatically when you install the TI- SmartView[™] for MathPrint[™] calculators software.

Copying Keys as Graphics or Font Characters

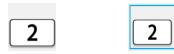
- 1. Select the key(s) you want to copy.
 - To select keys in the Key Press History panel, use one of the following methods:

| | Кеу | Method |
|---|------------------------------|--|
| - | A single key: | Click on a key. |
| - | Multiple keys: | Click on a key. Press and hold Ctrl on your computer keyboard. Click other keys to select multiple keys. |
| - | Multiple keys in a sequence: | Click on a key. Press and hold Shift on your computer keyboard. Press another key. Note : This allows you to select those two keys plus all of the keys in between them. |
| - | All keys: | Click on a key. Right click. Click Select All . |

Note: This is what a key looks like before and after you select it.

Before:

After:



- 2. Select keys
- 3. Click Edit>Copy (to copy keys as graphics)

or

Click Edit>Copy As Font (to copy keys as the primary font character) 5 – 6.

- 4. Switch to another application.
- 5. Paste the keys at the appropriate location.

Note:

- You can also drag the selected keys as graphics to the other application.
- You can re-size the key graphics after you paste them into a new application.
- In some applications, the characters pasted as a font may be shown in the font that is in effect at that location, so they may not look anything like scientific calculator keys. If necessary, apply the **TI34EmuKeys** font to the characters. See the help file for the destination application you are using for details on how to apply a font to the characters.

Changing the Size of the TI-SmartView™ Emulator Large Display Screen

On the Large Display Screen panel, click and drag the edge of a panel to change the size.

| II-SmartView™ for MathPrint™ calculators | |
|---|--|
| File Edit View Actions Help | |
| ∛ ≣~ 2 ∞ © | |
| φ Τουσι Ιουπολακτισ TI-34 MultiView Image: State St | |
| | |

Note: All of these are left/right actions except the Key Press History which is pull up or down to size.

Emulator and Toolbar positions

-

Emulator position Left/Right - to switch between left and right hand display of the scientific calculator screen. This is convenient when projecting on an Interactive White Board.

Tool Bar Top/Bottom - to toggle the tool bar between the top and the bottom of the screen. This is convenient when projecting on an Interactive White Board.

Always in Front

Select this option in the View Menu to keep the TI-SmartView™ emulator for MathPrint™ calculators windows in front of any other computer software window open. Similar to having the calculator sitting on your desk on top of your papers! Position the window on your computer desktop where it is best to remain "Always in Front."

To turn off "Always in Front," deselect the menu item in the View menu. There is no toolbar icon for this feature and no indicator other than the menu check mark when active.

Notes:

The TI-SmartView[™] emulator for MathPrint[™] calculators workspace window and Screen Capture windows will both be "Always in Front" and toggle in front depending on their position.

"Always in Front." is not recommended when in full screen since all other windows will be behind the full screen of TI-SmartView[™] emulator for MathPrint[™] calculators.

Using Screen Capture

You can capture the current scientific calculator screens using the TI-SmartView™ emulator for MathPrint™ calculators screen capture tool.

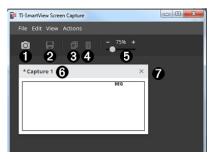
To use screen capture:

►



on the toolbar.

This window appears:



Parts of the Screen Capture Workspace

| Û | Capture | Click here to take an emulator screen capture. Actions > Capture Screen | |
|---|---------|--|--|
| | | Note : A border is automatically added to each image when you capture it, but you can remove the border by clicking View > Hide Screen Capture Borders . (If you have multiple images, this removes the border from every image.) | |
| | | With screen capture you can: | |
| | | capture up to 44 screens at a time, (to capture additional images, delete images from the Screen Capture window) | |
| | | automatically store screen captures in memory until you close the main TI-SmartView[™] for MathPrint[™] calculators window. | |
| | | Closing Screen Capture gives a prompt to save your screen captures. You can start a new Screen Capture session during a TI-SmartView [™] for MathPrint [™] calculators session. | |
| 0 | Save | Click here to save selected screen captures. File > Save As | |
| 0 | Сору | Click here to copy selected screen captures to the clipboard. Edit > Copy | |
| 4 | Delete | Click here to delete selected screen captures. Edit > Delete | |
| 0 | Resize | Slide the dot along the bar to adjust the current screen capture preview size. View > Scale Screen Captures Note: Screens save at the percentage in view. | |
| 6 | Rename | Rename a screen capture by highlighting the title and typing in a new name. | |
| 1 | View | View screen captures here. | |
| | | | |

Dragging and Dropping a Screen to Another Application

You can drag and drop and paste any TI-SmartView[™] emulator for MathPrint[™] calculators screen into another application.

The TI-SmartView[™] emulator for MathPrint[™] calculators screens that you can drag and paste include the following:

- The screen above the keyboard in the Emulator Panel
- Large Display Screen Panel
- Saved or unsaved screen captures in Screen Capture Workspace

Computer Keyboard Mapping

You can use your computer keyboard to press a key instead of pressing that key on the TI-SmartView[™] emulator keyboard image.

Using the Computer Keyboard

To press an emulator key using your computer keyboard, use the table below to find the computer keyboard key associated with the emulator key.

- TI-30X Pro MathPrint[™] or TI-30X Plus MathPrint[™] keyboard shortcuts
- TI-30XS-30XB MultiView[™] keyboard shortcuts
- TI-34 MultiView[™] keyboard shortcuts

TI-30X Pro MathPrint[™] or TI-30X Plus MathPrint[™]

Example: To display the mode screen in the emulator, press [W] on the computer keyboard as shown in the table below.



TI-30X Pro MathPrint[™] keyboard shortcuts:

TI-30X Plus MathPrint[™] keyboard shortcuts:

| [Q] | [W] | delete] | 〔←〕 | ⊙ [^] |
|-----------------|------------|--------------|--------------|-------------|
| [n log [R] | [T] | [Y] | [↓] © | [→] |
| e° 10° [U] | [1] | [P] | [A] | [Backspace] |
| [D] | [F] | [G] | tan-1 [H] | ÷ [/] |
| [J] | [K] | [] [)] |) [(] | × [*] |
| [L] | 7 [7] | 8 [8] | 9 [9] | |
| [Z] | 4 [4] | 5 [5] | 6 [6] | (+) |
| | 1 [1] | 2 [2] | 3 [3] | •= [c] |
| on [V] | 0 [0] | [.] | (-) [B] | [Enter] |

*Note:

On the MAC computer keyboard,

- Press [Delete] for delete].
- Press [Backspace] for clear].

| 2nd [Q] | [W] | delete] [Delete] * | [←] | ^[↑] ® |
|--------------------------------|---------------|--------------------------|--------|------------------|
| [In log [R] | [math] [T] | [¥] | © € | [→] |
| e ⁿ 10 ⁿ | EE [1] | [P] | [A] | [Backspace] * |

TI-30XS/30XB MultiView™

Example: To display the mode screen in the emulator, press [W] on the computer keyboard as shown in the table below.



TI-30XS MultiView[™] keyboard shortcuts:

| | | | | ~ |
|---------------------------------|-----------------|---------------------|---------------|----------------|
| 2nd | mode | delete | • | |
| [Q] | [W] | [Delete] | [←] | [↑] |
| | | or | or | or |
| | | [Ctrl]+ [Delete] | [Ctrl]+[←] | [Ctrl]+[↑] |
| log | prb | data | \odot | ۲ |
| [R] | [T] | [Y] | [↓] | [→] |
| | | | or | |
| | | | [Ctrl]+[↓] | [Ctrl]+[→] |
| ln | Ē | ×10# | table | clear |
| [U] | [1] | [P] | [A] | [Backspace] |
| | | | | or |
| | | | | [Ctrl]+ |
| | | | | [Backspace] |
| | | | | Mac®: |
| | | | | [Clear] |
| π | sin | cos | tan | ÷ |
| [D] | [F] | [G] | [H] | [/] |
| [0] | | [0] | [] | [7] |
| | x ⁻¹ | | D | × |
| [1] | [K] | [Shift]+[(] | [Shift]+[)] | [Shift]+[*] |
| x ² | 7 | 8 | 9 | |
| [L] | [7] | [8] | [9] | [-] |
| x ^{yst} _{abc} | 4 | 5 | 6 | + |
| [Z] | [4] | [5] | [6] | [Shift]+[+] |
| | | | | |
| sto > | 1 | 2 | 3 | •• [C] |
| [X] | [1] | [2] | [3] | [0] |
| on | 0 | • | () | enter |
| [V] | [0] | <u>[.]</u> | [B] | [Enter] |
| | | | | or |
| | | | | [Ctrl]+[Enter] |

*Note:

On the MAC computer keyboard,

- Press [Delete] for delete].
- Press [Backspace] for clear].

| 2nd [Q] | [W] | delete] [Delete] * | [←] | [↑] ⊛ |
|--------------------------------|---------------|--------------------------|--------|------------------|
| [In log [R] | [math] [T] | [¥] | © € | [→] |
| e ⁿ 10 ⁿ | EE [1] | [P] | [A] | [Backspace] * |

TI-34 MultiView™

Example: To display the mode screen in the emulator, press [W] on the computer keyboard as shown in the table below.



TI-34 MultiView™ keyboard shortcuts:

| [| delete | | |
|--------|---|---|---|
| | | ~ | Θ |
| wj | | | [↑] |
| | | | or |
| | [Delete] | [Cuij+[←] | [Ctrl]+[1] |
| a I | % | \odot | ۲ |
| [T] | [Y] | נ√ו | [→] or |
| | | | [Ctrl]+[→] |
| | | [Ctrl]+[↓] | |
| math | prb | data | clear |
| [1] | [P] | [A] | [Backspace] |
| | | | or |
| | | | [Ctrl]+ |
| | | | [Backspace] |
| | | | Mac®: |
| | | | [Clear] |
| ×10# | op1 | op2 | ÷ |
| [F] | [G] | [H] | [/] |
| √ | Π | Π | × |
| [K] | [Shift]+[(] | [Shift]+[)] | [Shift]+[*] |
| [7] | 8 | 9 | - |
| [7] | [8] | [9] | [-] |
| 4 | 5 | 6 | + |
| [4] | [5] | [6] | [+] |
| n | 2 | 3 | • |
| [1] | [2] | [3] | [C] |
| 0 | • | () | enter |
| _ | | | [Enter] |
| | | | or |
| | | | [Ctrl]+[Enter] |
| | [T] [math] [I] [F] [K] [7] [7] [4] [4] [1] | W] [Delete] or [Ctrl]+ [Delete] a % [T] [Y] a % [T] [Y] math prb [1] [P] [K] [Shift]+[(] [K] [Shift]+[(] [7] [8] [7] [8] [4] [5] [1] [2] [1] [2] [1] [2] [1] [2] | W] [Delete] $[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ |

*Note:

On the MAC computer keyboard,

- Press [Delete] for delete].
- Press [Backspace] for clear].

| 2nd [Q] | [W] | delete] [Delete] * | € [←] | د∱1 © |
|---------------|---------------|--------------------------|----------|------------------|
| In log [R] | [math] [T] | [¥] | © [↓] | [→] |
| [U] | EE [1] | [P] | [A] | [Backspace] * |

General Information

Online Help

education.ti.com/eguide

Select your country for more product information.

Contact TI Support

education.ti.com/ti-cares

Select your country for technical and other support resources.

Service and Warranty

education.ti.com/warranty

Select your country for information about the length and terms of the warranty or about product service.

Limited Warranty. This warranty does not affect your statutory rights.