



TI-*nspire*[™]

Getting Started with the TI-Nspire[™] CX Handheld

This guidebook applies to TI-Nspire[™] software version 3.0. To obtain the latest version of the documentation, go to education.ti.com/guides.

Important Information

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If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Getting started with the TI-Nspire™ CX handheld

The TI-Nspire™ CX handheld and the TI-Nspire™ CX CAS handheld are the newest handhelds in the TI-Nspire™ family of products. Featuring a backlit color display and a slimmer form, the handhelds provide touchpad navigation, dynamic graphing, and interactive computer features.

The handhelds and the TI-Nspire™ software share the same functionality, enabling you to transfer class assignments from the handheld to the computer or transfer documents to the handheld when you need to be mobile. Start assignments at school, then finish the work at home to take advantage of the software's full-color display and easy-to-use navigation. Use the software to download the latest software and handheld operating system updates as they become available to ensure you have the latest enhancements.

This guide covers both the TI-Nspire™ CX handheld and the TI-Nspire™ CX CAS handheld. While they operate identically in many ways, there are a few distinctions. If the TI-Nspire™ CX CAS handheld has additional functionality, it is pointed out and the CAS operation is described.

About CAS

With CAS, or the Computer Algebra System, you can:

- Perform both symbolic and numeric calculations.
- Factor and expand expressions and solve for common denominators.

TI-Nspire™ CAS technology makes it possible to recognize, simplify, and calculate math expressions, preserving the symbols including variables and terms such as "e" and π .

This ability to enter and view equations and expressions on screen as they appear in textbooks is especially useful for step-by-step, arithmetic, algebraic, and calculus calculations.

TI-Nspire™ CX handheld keys

esc Removes menus or dialog boxes from the screen. Also stops a calculation in progress.

Scratchpad Opens the Scratchpad for performing quick calculations and graphing.

tab Moves to the next entry field.

⇧shift Makes the next character typed upper-case.

ctrl Provides access to the function or character shown above each key. Also enables shortcuts in combination with other keys.

Use the **TI-Nspire™ Touchpad** as you would a laptop touchpad. You can also press the outer edges to move right, left, up, and down.

on Turns on the handheld. If the handheld is on, this key displays the home screen.

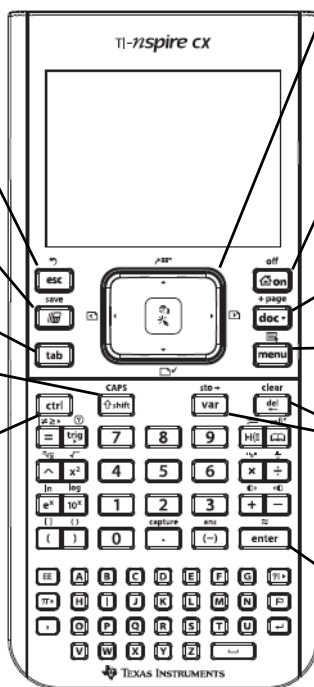
doc v Opens the Document menu.

menu Displays the application or context menu.

del Deletes the previous character.

var Displays stored variables.

enter Evaluates an expression, executes an instruction, or selects a menu item.



Note: A **▶** symbol on a key indicates access to multiple options. To access an option, press **[?▶]** repeatedly or use the arrow keys on the touchpad. Press **enter** or click to select the option.

Preparing the TI-Nspire™ CX handheld for use

The TI-Nspire™ CX handheld comes equipped with an Li-ion rechargeable battery. Like a cell phone or other similar device, charge the battery for at least four hours to ensure optimum performance. The handheld also comes with the following accessories:

- Standard mini-B to mini-B USB cable for transferring files to another handheld
- Standard A to mini-B USB cable for transferring files to and from a computer and for charging the battery

Charging the handheld

Use one of the following options to charge the battery in the TI-Nspire™ CX handheld:



- Connect the handheld to a computer using a standard A to mini-B USB cable. If the driver is not found when the handheld is connected to the computer, insert the CD to install the correct driver. To download software that includes a driver, go to education.ti.com/software.
- Connect to a wall outlet using a TI wall adapter (sold separately in Europe and Asia).
- Place the handheld or multiple handhelds in a TI-Nspire™ CX Docking Station or TI-Nspire™ Docking Station.

Note: For more information about recharging batteries, see *Configuring the TI-Nspire™ CX handheld*.



Turning on the TI-Nspire™ handheld for the first time

- ▶ After charging the battery, press  to turn on the handheld.

A progress bar is displayed while the operating system loads. Next, choose preferences for language and font size when prompted.

Note: To turn the handheld off, press  . The settings and memory contents are retained.

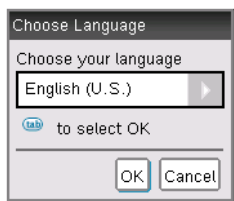
Using Automatic Power Down™








To prolong battery life, the Automatic Power Down™ (APD™) feature turns off the handheld after three minutes of inactivity. When this happens, press  to turn the handheld on and return to the last document or last menu accessed. To change the default setting, press  **5** **3** to access the **Handheld Setup** screen where you can change the **Power Standby** setting.

Note: For more information about setting up the handheld, see *Configuring the TI-Nspire™ CX handheld*.

Choosing a language

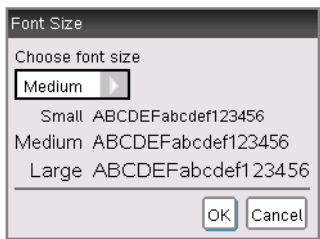
After the OS is loaded, select a preferred language.








1. Press  to open the drop-down menu.
2. Press  to scroll through the languages, then press  or  to select a language.
3. Press  to highlight the **OK** button, then press  or  to save the language selection.

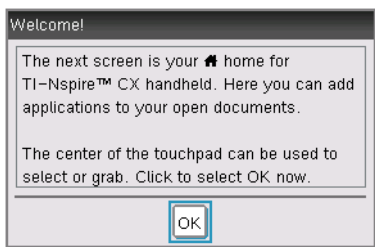
Choosing a font size


Next, select a font size for the display.

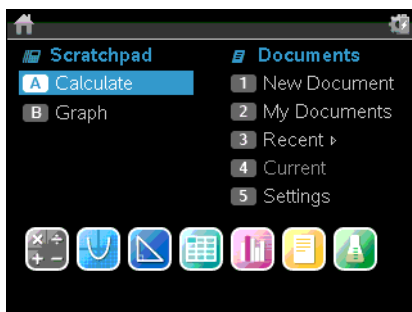


1. Press  to open the drop-down menu.
2. Press  to highlight the font size, then press  or  to select it.

- Press **tab** to highlight the **OK** button, then press  or **enter** to open the **Welcome!** screen.



- To continue, press  or **enter** to select **OK** and open the **Home** screen.



Adjusting the brightness of the backlighting




The screen on the TI-Nspire™ CX handheld is backlit making it easier to use in all lighting conditions. By default, the brightness setting is medium. To adjust the backlight brightness:

- **Dimmer:** Press and hold **ctrl** and tap **-**.
- **Brighter:** Press **ctrl** and tap **+**.



Using the TI-Nspire™ Touchpad

Use the Touchpad to navigate or complete any task that can be completed using the arrow and Enter keys. Use the touchpad to navigate in two ways:

- Use it like a computer touchpad by moving your fingertip in a sliding motion on the center area of the touchpad to activate and move the mouse pointer. Click or tap the center of the Touchpad to select a menu option or complete an action.

- Press the arrow keys on the outside edge of the Touchpad to nudge the mouse pointer up, down, left, or right, then click   or press  to complete an action.

If you hold down an arrow key, the mouse pointer continues to move in that direction.

Note: If the mouse pointer is visible on a command or file, click or tap  in the center of the touchpad to select that command or file. If the command or file is highlighted, move the pointer over that item or press  to select it.

When working in an application, use the touchpad to access more information about problems. For example, hovering over a Graphs & Geometry object displays information about variables used in that object and about tools that are available.

Some users prefer to customize their touchpad settings; to speed up or slow down their pointer, or to enable tap to click. To change the default settings for the touchpad, see *Configuring the TI-Nspire™ CX handheld*.


Understanding the Scratchpad

Use the Scratchpad to make quick calculations and graphs without affecting the current TI-Nspire™ document. For example, when you need a quick way to test a calculation before you add it to a document, you can open the Scratchpad application and perform the calculation. Then, you can either discard the calculation or add it to a document. For more information about the Scratchpad, please see *Using the Scratchpad*.




Using the Home screen







The **Home** screen provides a starting point for all activities performed on a handheld:

- Opening the scratchpad for quick calculations and graphing
- Creating new documents
- Opening and managing existing documents
- Opening the scratchpad for quick calculations and graphing
- Defining settings and viewing status
- Viewing hints for operating the handheld
- Accessing recent documents
- Returning to the current document

Note: To return to the **Home** screen from any other location, press .

Home screen options

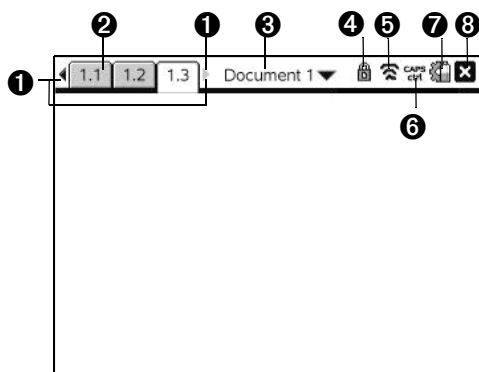
Menu Option	Purpose
Scratchpad Use the Scratchpad menu options to open a Calculator or Graph application without affecting your document. While in Scratchpad, press  to toggle between Scratchpad applications: Calculate and Graph.	
Calculate	Opens the Scratchpad with a Calculator application active. From the Home screen, type A .
Graph	Opens the Scratchpad with a Graph application active. From the Home screen, type B .
Documents To select options for working with documents, press the associated number or use the Touchpad to select an icon then press  or enter .	
New Document	Opens a new TI-Nspire™ document with available applications listed.
My Documents	Opens the file browser where you can open existing TI-Nspire™ documents or send files to others.
Recent	Lists the five most recently saved documents.
Current	Goes to the document that is currently open.
Settings	Check the status of the handheld and change settings.
Application icons To add a new page to the current document, select an application icon. If no document is open, a new document opens with the selected application on a new page.	
Calculator 	Adds a page to a document for entering and evaluating math expressions.

Menu Option	Purpose
Graphs 	Adds a page for graphing and exploring functions.
Geometry 	Adds a page for creating and exploring geometric shapes.
Lists & Spreadsheet 	Adds a page for working with data in tables.
Data & Statistics 	Adds a page and provides tools used to visualize sets of data in different types of plots and provides tools for manipulating data sets to explore relationships between the sets of data.
Notes 	Provides text editing functions for adding text to TI-Nspire™ documents for use as notes or to share with other users.
Vernier DataQuest™ 	Adds a page for collecting and analyzing data from sensors or probes.



To learn more about applications and documents, see the *Working with Documents on the TI-Nspire™ handhelds*.

The TI-Nspire™ handheld screen

The icons on the handheld screen provide information about the status of handheld operations and provide an easy way to access and change settings. This screen shows the icons, which are described below.



	Icon	Function
1		Page scrolling arrows - Use the touchpad and these arrows to scroll through the pages in a document.
2		Page tabs - Indicate the problem number followed by the page number. If problems are named, move the touchpad pointer over the tab to view the page name.
3		Document name - Shows the current document name. Click here to access the Documents menu. An asterisk by the document name indicates changes were made since the document was last saved.
4		Press to Test - Indicates that the handheld is in Press-to-Test mode.
5		Login status - Shows whether the handheld is searching for an access point (blinking), found an access point (solid), not communicating, connected and ready to log in (a blinking arrow), or logged in and charged (a solid arrow). Click here to view Settings & Status.
6		shift, ctrl, or CAPS status

	Icon	Function
7		Settings & status - Shows the level of the battery supply. Click here to change settings.
8		Close document - Click here to close the current document. If information is unsaved, save or discard when prompted.

Using Hints

Hints are quick tips available throughout the software on the handheld. There are several easy ways to access Hints:

- Press **ctrl** **trig**.
- Some dialog boxes contain a question mark icon. Click this icon to open Hints for that task.
- ▶ To scroll through the Hints, use the touchpad or arrow keys:
 - To page down, press **ctrl** **3**.
 - To page up, press **ctrl** **9**.
 - To go to the end of the Hints file, press **ctrl** **1**.
 - To go back to the beginning of the file, press **ctrl** **7**.

Using the Scratchpad

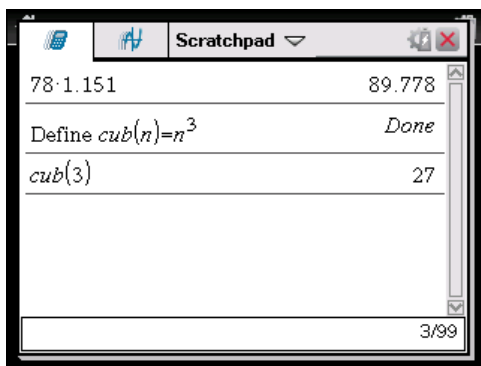
The Scratchpad is a feature of the TI-Nspire™ handheld that lets you quickly:

- Evaluate math expressions.
- Graph functions.

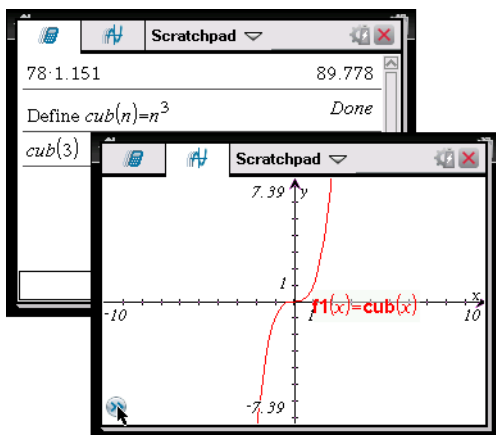
Opening and closing the Scratchpad

- ▶ From the Home screen, press  to open the Scratchpad.

The first time you open the Scratchpad, a blank page opens with the Calculator active.



- ▶ Press  to alternate between the Calculate and Graph pages.



- ▶ Press **[menu]** to see the Scratchpad Calculate or Scratchpad Graph menu. These menus are subsets of the TI-Nspire™ menus for the Calculator and Graphs & Geometry applications. For complete listings of those menus, refer to the documentation for those applications.
- ▶ Press **[esc]** to close the Scratchpad.

Calculating with the Scratchpad

From the Scratchpad Calculate page, enter a math expression on the entry line, then press **[enter]** to evaluate the expression. Expressions display in standard mathematical notation as you enter them.

Each evaluated expression and result becomes part of the Scratchpad history, displayed above the entry line.

Entering simple math expressions

Note: To enter a negative number, press **[(-)]** and then enter the number.

Suppose you want to evaluate $\frac{2^8 \cdot 43}{12}$

1. Select the entry line in the work area.
2. Type $2 \wedge 8$ to begin the expression.

2^8

3. Press **[▶]** to return the cursor to the baseline, and then complete the expression by typing:

[x] 43 **[÷]** 12

$2^8 \cdot 43 / 12$

4. Press **[enter]** to evaluate the expression.

The expression displays in standard mathematical notation, and the result displays on the right side of the page.

$\frac{2^8 \cdot 43}{12} \qquad \frac{2752}{3}$

Note: You can force a decimal approximation in a result by pressing **[ctrl]** **[enter]** instead of **[enter]**.

$$\frac{2^{8.43}}{12} \qquad 917.333$$

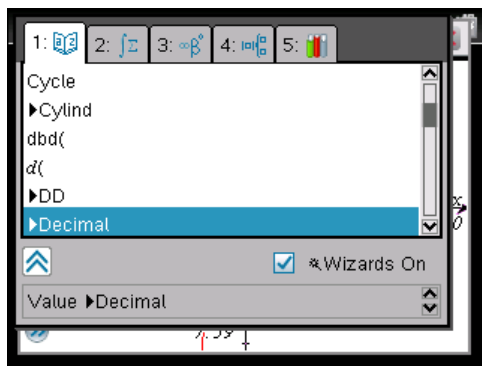
Pressing **ctrl** **enter** forces the approximate result.

Note: Results formatting can also be adjusted in Settings. See Working with documents on the TI-Nspire™ handheld for more information about Settings.

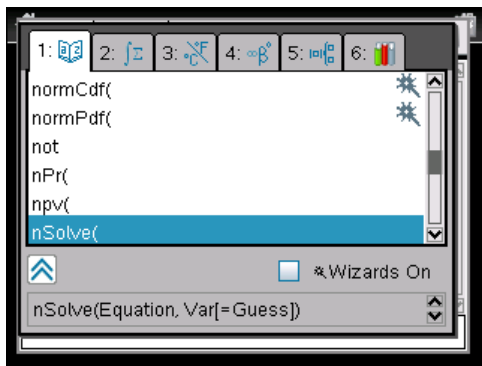
Inserting items from the Catalog

You can use the Catalog to insert functions and commands, units, symbols, and expression templates into the entry line.

1. Press **⌘** to open the Catalog. By default, the first tab is displayed, which lists all commands and functions in alphabetical order.



Catalog for a non-CAS handheld



Catalog for
a CAS
handheld

2. If the function you are inserting is visible in the list, select it and press **enter** to insert it.
3. If the function is not visible:
 - a) Press a letter key to jump to the entries that begin with that letter.
 - b) Press **▼** or **▲** as necessary to highlight the item you are inserting.
 - c) Click a numbered tab to list functions by category: math functions, symbols, math templates, library objects, and value for standard measurement units (CAS).
 - d) Press **enter** to insert the item into the entry line.

Using an expression template

Templates help you enter matrices, piecewise functions, systems of equations, integrals, derivatives, products, and other math expressions.

For example, suppose you want to evaluate

$$\sum_{n=3}^7 (n)$$

1. Press **⌘** to open the Template palette.
2. Select **∑** to insert the algebraic sum template.

The template appears on the entry line with small blocks representing elements that you can enter. A cursor appears next to one of the elements to show that you can type a value for that element.

$$\sum_{n=0}^0 (0)$$

- Use the arrow keys to move the cursor to each element's position, and type a value or expression for each element.

$$\sum_{n=3}^7 (n)$$

- Press **enter** to evaluate the expression.

$$\sum_{n=3}^7 (n) \quad 25$$

Inserting expressions using a wizard

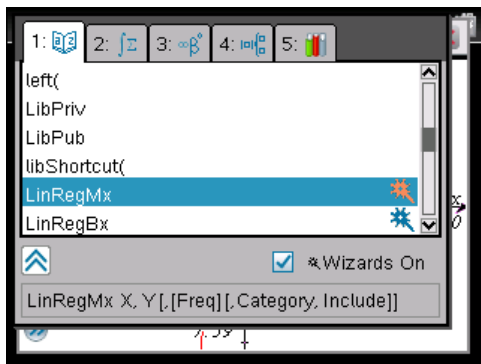
You can use a wizard to simplify entering some expressions. The wizard contains labeled boxes to help you enter the arguments in the expression.

For example, suppose you want to fit a $y=mx+b$ linear regression model to the following two lists:

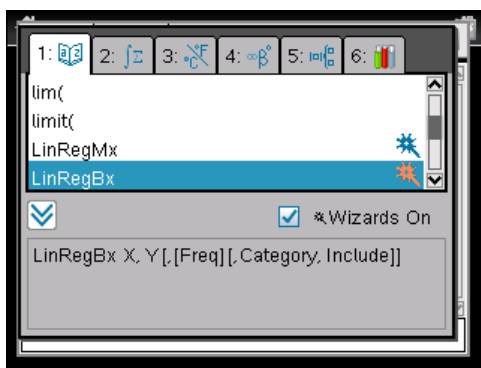
{1,2,3,4,5}

{5,8,11,14,17}

- Press **☰** **1** to open the Catalog and show the alphabetic list of functions.
- Click inside the list, and then press **L** to jump to the entries that begin with "L."
- Press **▼** as necessary to highlight **LinRegMx**.
- If the **Wizards On** option is not checked: Press **tab** **tab** to highlight **Wizards On**, press **enter** to change the setting, then press **tab** **tab** to highlight **LinRegMx** again.



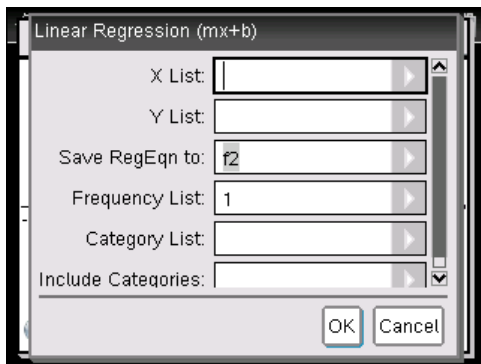
LinRegMx
function in a
non-CAS
handheld



LinRegMx
function in a
CAS
handheld

5. Press **enter**.

A wizard opens, giving you a labeled box to type each argument.



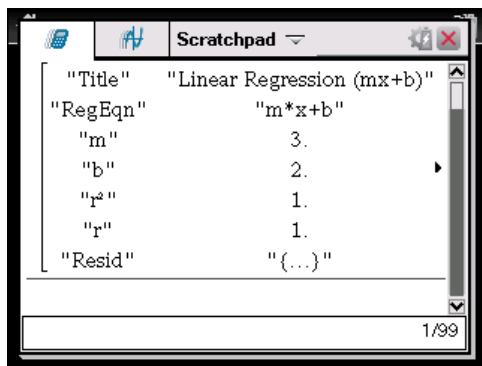
6. Type {1,2,3,4,5} as **X List**.

7. Press `[tab]` to move to the **Y List** box.
8. Type `{5,8,11,14,17}` as **Y List**.
9. If you want to store the regression equation in a specific variable, press `[tab]`, and then replace **Save RegEqn To** with the name of the variable.
10. Select **OK** to close the wizard and insert the expression into the entry line.

The expression is inserted along with statements to copy the regression equation and display the variable `stat.results`, which will contain the results.

```
LinRegMx {1,2,3,4,5},{5,8,11,14,17},1: CopyVar stat.RegEqn,f1:
stat.results
```

The Scratchpad then displays the `stat.results` variables.

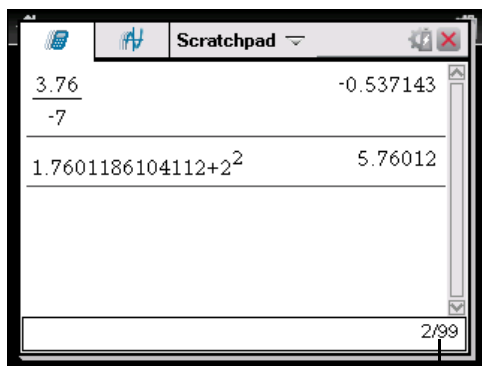


Note: You can copy values from the `stat.results` variables and paste them into the entry line.

Viewing the history

Each evaluated expression and result becomes part of the Scratchpad history, displayed above the entry line.

- ▶ Press `▲` or `▼` to scroll through the history.



- ① Current entry/total entries

Copying a history item to the entry line

You can quickly copy an expression, subexpression, or result from the history into the entry line.

1. Press \blacktriangle or \blacktriangledown to move through the history and select the item that you want to copy.
2. Optionally, select part of the expression or result by using **Shift** in combination with the arrow keys.



3. Press **enter** to copy the selection and insert it into the entry line.

reuseExpr02.noncas.gif

Clearing the history

When you clear the history, all variables and functions defined in the history retain their current values. If you clear the history by mistake, use the undo feature.

- From the **Actions** menu, select **Clear History**.
(Press **menu** **1** **5**.)

All expressions and results are removed from the history.

Editing Scratchpad expressions

Although you cannot edit a Scratchpad Calculate expression in the history, you can copy all or part of an expression from the history and paste it to the entry line. You can then edit the entry line.

Inserting elements into the entry line

1. Press **[tab]**, **◀**, **▶**, **▲**, or **▼** to position the cursor in the expression. The cursor moves to the closest valid position in the direction that you press.
2. Type the elements or insert them from the Catalog.

Selecting part of an expression

You can delete, cut, or copy a selected part of an expression.

1. Press **◀**, **▶**, **▲**, or **▼** to move the cursor to a starting point in the expression.
2. Press and hold **[⇧shift]** and press **◀**, **▶**, **▲**, or **▼** to select.
 - To delete the selection, press **[del]**.
 - To cut the selection to the Clipboard, press **[ctrl]** **[X]**.
 - To copy the selection to the Clipboard, press **[ctrl]** **[C]**.
 - To paste the selection to a new entry line in Scratchpad, press **[ctrl]** **[V]**.

Graphing with the Scratchpad

From the Scratchpad Graph page, click the Entry Line Expand button **»** to display the entry line and type an expression to graph. The entry line displays the required format for typing a function. The default graph type is Function, so the form $f1(x)=$ displays.

1. Choose **Graph Type** from the menu, and select a graph type.

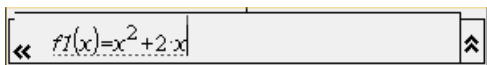
For example,

- To graph a scatter plot, press **[menu]** **[3]** **[4]**. Click var to choose variable to plot as x and y for sn .

- To graph a function, press **menu** **3** **1**.

The entry line changes to display the expression format for the specified graph type. You can specify multiple functions of each graph type.

- Type an expression and any other parameters required for the graph type.



- Press **enter** to graph the function, or press **▼** to add another function. If necessary, you can use press **menu** **4** to choose a tool on the **Window/Zoom** menu and adjust the viewing area.

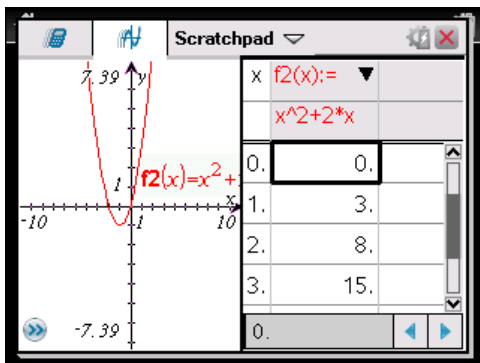
When you graph the expression, the entry line disappears to show an uncluttered view of the graph. If you select or trace a function, that function displays on the entry line. You can change a function by editing its expression or grabbing and changing the graph.

As you graph multiple functions on the axes, the label containing the expression displays for each. You can define and graph a maximum of 99 functions of each type.

- Use the **menu** key to explore and analyze the graphed function by tracing it, finding points of interest, or assigning a variable in the expression to a slider.

Viewing the function table

- To display a table of values for the current function, press **menu** **2** **5**.



- To hide the function table, click the graph and then press **menu** **2** **5**.

Changing the appearance of the axes

As you work with graphs, the Cartesian axes are displayed by default. You can change the appearance of the axes in the following ways:

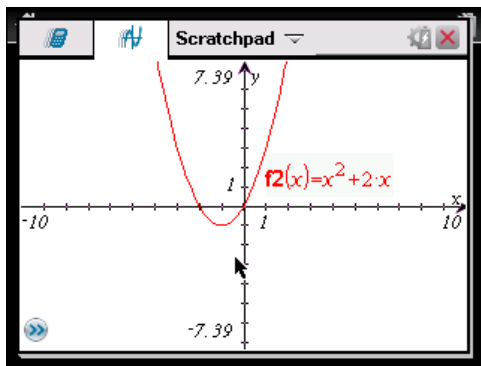
1. Press **menu** **4** and choose the Zoom tool to use.
2. Select the axes and press **ctrl** **menu** **3** to activate the **Attributes** tool.
 - a) Press **▲** or **▼** to move to the attribute to change. For example, choose the end style attribute.
 - b) Press **◀** or **▶** to choose the style to apply.
 - c) Change any other attributes of the axes as required for your work, then press **esc** to exit the attributes tool.
3. Adjust the axes scale and tic mark spacing manually.
 - a) Click and hold one tick mark, and move it on the axis. The spacing and number of tic marks increases (or decreases) on both axes.
 - b) To adjust the scale and tic mark spacing on a single axis, press and hold **⇧shift**, and then grab and drag a tic mark on that axis.
4. Change axis end values by double-clicking them and typing new values.
5. Adjust the location of the axes. To move the existing axes without resizing or rescaling them, click in and drag an empty region of the screen until the axes are in the desired location.
6. Change the axes' scales by pressing **menu** **4** **1**.

Type the values of your choice over the current values for x-min, x-max, y-min, and y-max and click **OK**.
7. Press **menu** **2** **1** to hide or show the axes.
 - If the axes are shown on the page, selecting this tool hides them.
 - If the axes are hidden on the page, selecting this tool redisplay them.

Tracing a graphed function

Graph Trace moves through the points of a graphed function, parametric, polar, sequence, or scatter plot. To enable the trace tool:

1. Press **menu** **5** **1** to move across the points in a graphed function in Trace model.



2. (Optional) To change the step increment for tracing, press

menu **5** **3**.

After you type a different step increment, the Graph Trace tool moves across the graph in steps of that size, instead of moving at the default step automatically defined with a function.

3. Use Graph Trace to explore a graphed function in the following ways:
- Move to a point and hover to move the trace cursor to that point.
 - Press **◀** or **▶** to move from point to point on the function's graph. The coordinates of each point traced displays.
 - Press **▲** or **▼** to move from one function's graph to another, or to a scatter plot. The point's coordinates update to reflect the new location of the trace. The trace cursor is positioned on the point of the new graph or plot with the closest x value to the last point identified on the previously traced function or graph. You can trace multiple functions as described in *Tracing all graphs*.
 - Type a number and press **enter** to move the trace cursor to that value on the function's graph.
 - Create a persistent point that remains on the graph while in Graph-Trace mode by pressing **enter** when the trace point reaches the point you want to label.
 - Trace through and identify the points at which the function has no defined x or y value (a discontinuity). The string *undef* displays instead of a value when you move over a point that is not defined for the function.

Notes:

- When you select or trace a function on the work area, that function displays on the Edit Line.
 - When you trace beyond the initially visible graph, the screen pans to show the area being traced.
4. Exit Graph Trace by pressing $\boxed{\text{esc}}$ or by choosing another tool.

Finding points of interest

You can use the tools on the **Analyze Graph** menu to find a point of interest in a specified range of any graphed function. Choose a tool to find zero, the minimum or maximum, the point of intersection or inflection, or the numeric derivative (dy/dx) or Integral on the graph.

1. Select the point of interest that you want to find on the **Analyze Graph** menu. For example, to find a zero, press $\boxed{\text{menu}}$ $\boxed{6}$ $\boxed{1}$.

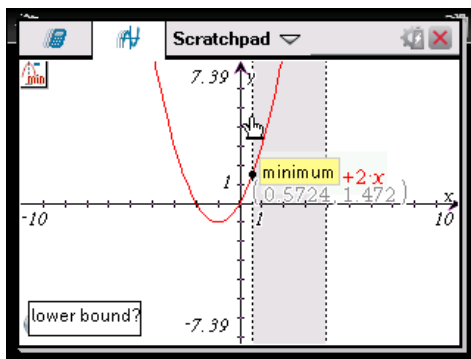
The icon for the selected tool displays at the top left on the work area. Point to the icon to view a tooltip about how to use the selected tool.

2. Click the graph you want to search for the point of interest, then click a second time to indicate where to start the search for the point.

The second click marks the lower bound of the search region and a dotted line displays.

Note: If you are finding the derivative (dy/dx), click the graph at the point (numeric value) to use for finding the derivative.

3. Press \leftarrow or \rightarrow to move the dotted line that marks the search region, then click the point at which you want to stop the search (upper bound of the search region).



SPG_POI.gif

4. Press **enter** at the point to start the search. The tool shades the range.

If the search region you specified includes the point of interest, a label for the point displays. If you change a graph that has points of interest identified, be sure to check for changes in points of interest. For example, if you edit the function on the entry line or manipulate a plot, the point where the graph intersects zero can change.

The labeled points of interest remain visible on the graph. You can exit the tool by pressing **esc** or choosing another tool.

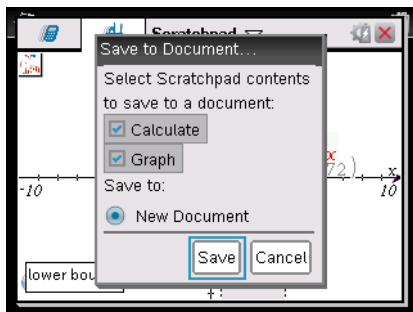
Working with variables in the Scratchpad

Scratchpad variables are shared between Scratchpad Calculate and Scratchpad Graph, but not with any TI-Nspire™ documents. If you use the same name for a Scratchpad variable and a variable in a document, no conflict occurs unless you attempt to copy expressions between documents and the Scratchpad.

Saving the Scratchpad contents

You can save the Scratchpad Calculate page, the Scratchpad Graph page, or both as a TI-Nspire™ document.

1. Press **doc**, then select **Save to Document**.
2. Press **enter**.
The Save to Document dialog box opens.



3. Select the page or pages to save.
4. If a document is open, select either New or Current document.
5. Click **Save**.
 - If you selected to save to an open document, the Scratchpad pages are added to the document.

- If you selected to save to a new document:
 - Click **Yes** when the Save dialog box opens.
 - Type a name for the document.
 - Click **Save** to save the new document.

Clearing Scratchpad contents

Complete the following steps to delete the calculations and graphing work from the Scratchpad application.

1. Press , then select **Clear Scratchpad**.
2. Press to delete the Scratchpad contents.

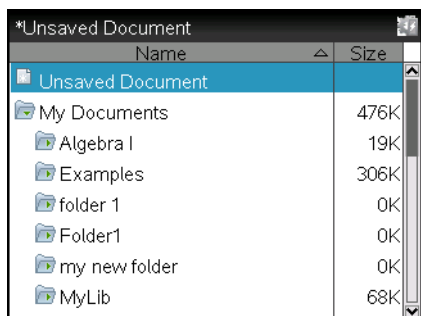
Working with documents on the CX handheld

All of the work you do with the TI-Nspire™ CX handheld is contained in one or more TI-Nspire™ documents, which you can share with other handheld users and with those using the computer software.

- Each document is divided into at least one, and up to 30, problems.
- Each problem contains at least one, and up to 50, pages.
- Each page can be divided into as many as four work areas.
- Each work area can contain any of the TI-Nspire™ applications (Calculator, Graph, Geometry, Lists & Spreadsheet, Data & Statistics, Notes, and Vernier® DataQuest).

Opening a document

1. From the Home screen, select My Documents or press **[2]**. The file manager opens.

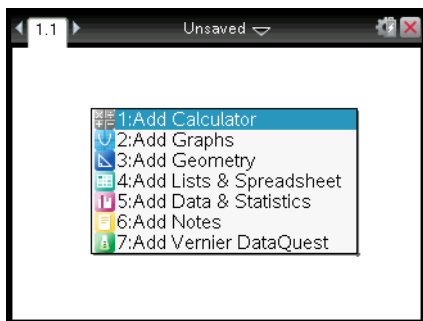


2. Navigate to the file you want to open.
 - Press **▼** to highlight the document name, then press **[F1]** or **[enter]** to open the document.
 - If the file is in a folder, press **▼** to highlight the folder, then press **[F1]** or **[enter]** to open the folder.
3. Press **[doc]** to open the Documents menu to access options for working with the open document.

Creating a new document

1. From the Home screen, select New Document or press **1**. You can also press **ctrl N**.

A new document opens with a list of applications.



Note: The tab at the top left of the screen indicates that this is the first page of the first problem.

2. Use **▼** and **▲** to highlight the application you want to add to the page, then press **enter** to open the page.

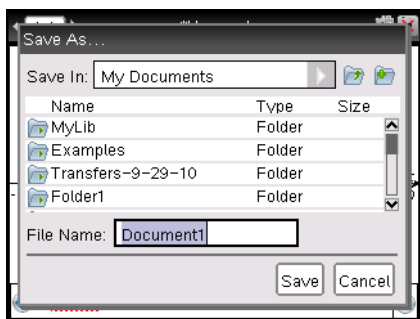
Saving a document

To save the document:

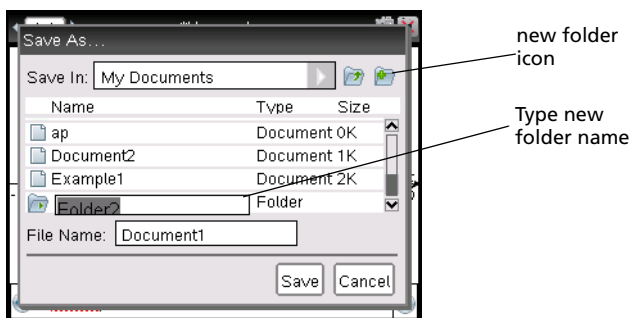
1. Press **doc ▼** to open the Documents menu, then select **File > Save**.

Note: You can also press **doc ▼ 1 4** or **ctrl S** to save a document. To save the document to another folder, press **doc ▼ 1 5**.

If you are saving the document for the first time, you will be asked which folder to save it to, and what to name the document. The default folder is My Documents.



2. Type a name for the document.
3. To save the document in a different folder:
 - a) Press **[⇧] [tab]** to navigate to the list of existing folders. The first folder in the list is selected.
 - b) Use the **▼** and **▲** to scroll through the list of folders.
 - c) To select and open a folder, press **[↵]**.
 - To save the document in a new folder:
 - a) Press **[tab]** until the New Folder icon is highlighted, then press **[enter]** to create a new folder. By default, the folder name is "Folder1."



- b) Type a name for the new folder, then press **[enter]** to save.
- c) Press **[enter]** again to open the folder. The File Name field becomes active.
- d) Type a name for the document.
4. Tab to the **Save** button and press **[enter]** to save the document.

Working with applications

Options for working with applications include:

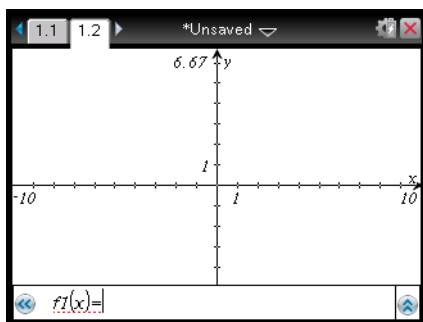
- Creating a new document and selecting an application
- Adding a new page and application to an open document
- Adding multiple applications to a page in a document

Adding an application





There are multiple ways to add an application to a page:




- When creating a new document, use the Touchpad or corresponding numbers to select an application from the list of applications.
- To add a new page and application to an open document, press **ctrl** **doc**, then select an application from the list.

For example, press **2** to add the Graph application to the page. The application opens in the work area.



You can also press **fn on**, then select an application from the Home screen by clicking one of the following application icons:

	Calculator
	Graphs
	Geometry
	Lists & Spreadsheet

	Data & Statistics
	Notes
	Vernier DataQuest™

Using multiple applications on a page

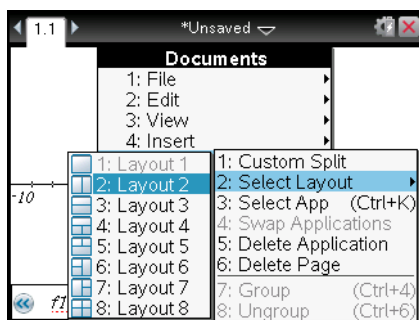
You can add up to four applications to each page.

When you create a new document, it contains space to add one application. If you need to add more than one application to a page, you can change the layout to accommodate as many as four applications.

You can choose a standard layout, provided as a menu item, or you can customize a layout to suit your needs.

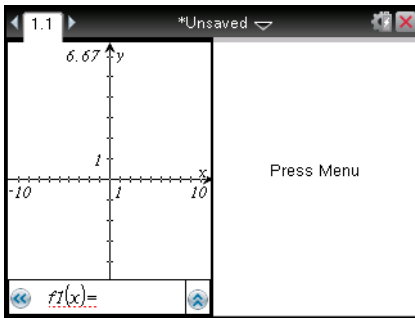
Choosing a standard page layout

1. Press **[doc]** **[5]** **[2]** to display layout options.

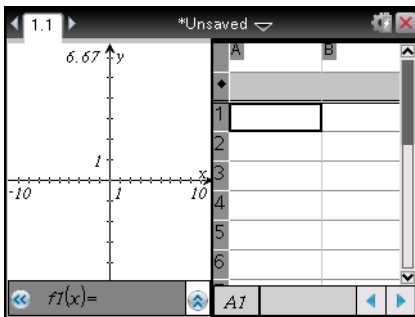


2. Press the number that corresponds to the layout you want.

For example, press **[2]** to create a two-pane layout, divided vertically on the page.



3. Press **ctrl** **tab** to move between panes. Bold lines around the pane indicate that the pane is active.
4. Press **menu**, then press the number of the application you want to add the new pane. For example, press **4** to add the Lists & Spreadsheet application.

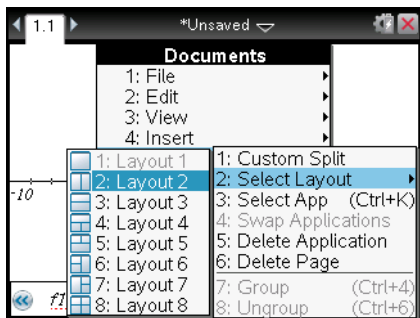


Note: If you need to change the layout of the page to add or delete applications, you can do so at any time. Make sure to first select the application you want to delete.

Creating a custom page layout

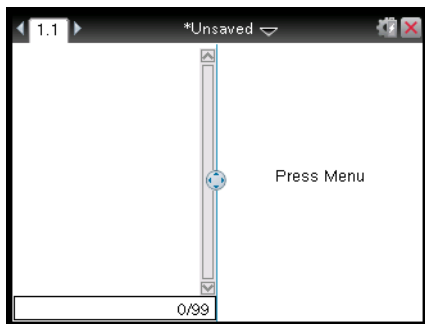
If the standard layouts do not meet your needs, you can customize the space allotted to applications on a page.

1. Press **doc** **5** **2** to display layout options.



2. Press **[1]** to select the custom split option.

The standard layout displays, with a blinking divider between the application panes.




3. Press **▲**, **▼**, **◀** or **▶** to move the divider to adjust the height or width of the panes in the layout.
4. Press **[+]** or **[-]** to select a defined layout:
 - Pressing **[-]** returns to a full page layout.
 - Pressing **[+]** once switches layout from a vertical layout to a horizontal layout. Press **[-]** to go back to a vertical layout.
 - Pressing **[+]** twice adds a third pane to the page. Pressing **[+]** multiple times enables you to choose between a vertical and horizontal page layout with three panes.
 - Pressing **[+]** five times adds a fourth pane to the page. Press **[-]** to cycle through the previous layout options.
5. Press **[Enter]** or **[Enter]** to accept the layout dimensions.


6. To select a pane, use the Touchpad to move your pointer and click inside the pane to make it active, then you can select an application.


Swapping applications on a page

If you want to change the position of applications on a page with multiple applications, you can do so by “swapping” the positions of two applications.

1. Press **doc** **5** **Page Layout** **4** **Swap Application**.

The selected application is surrounded by a heavy, flashing black border, and the Swap App cursor  displays on the screen.

Note: On a two-pane page layout, the selected application automatically swaps position with the opposite pane. Press  or **enter** to complete the swap.

2. Press **▲**, **▼**, **◀** or **▶** to position the cursor over the application you are targeting to swap.
3. Press  or **enter** to complete the swap.

Note: Press **esc** to cancel the swap.

Grouping applications

To group up to four application pages into a single page:

1. Select the first page in the series.
2. From the **Document** menu, select **Page Layout > Group**.

Press **doc** **5** **7**.

The next page is grouped with the first page. The page layout automatically adjusts to display all the pages in the group.

Ungrouping pages

To ungroup the pages:

1. Select the grouped page.
2. From the **Document** menu, select **Page Layout > Ungroup**.

Press **doc** **5** **8**.

The material becomes individual pages for each application.

Deleting an application from a page

1. Click the application you want to delete.
2. From the **Document** menu, select **Page Layout > Delete Application**.

Press **doc** **5** **5**.

The selected application is deleted.

If you want to undo the delete, type **Ctrl-Z**.

Using the Application menu

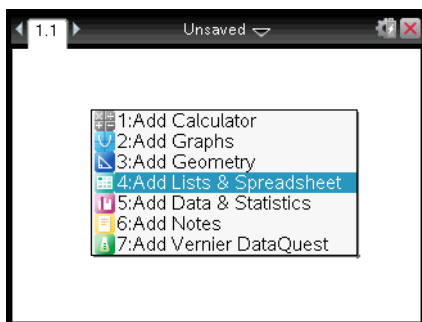
The Application menu enables you to select tools for working with a specific application. Each application has a unique menu.

Using the Application menu

1. From a blank page, press **menu** to display the Application menu. The menu displays applications that you can add to the page.

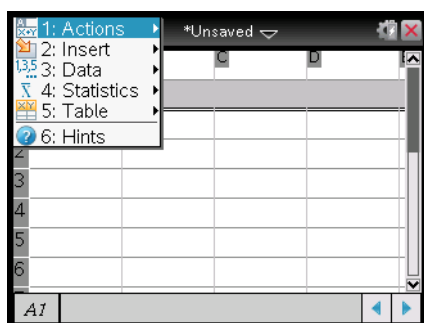


2. Press the number of the application you want to add to the page. For example, press **4** to add the Lists & Spreadsheet application.



3. Press **menu** to display the Application menu, which lists the options for working with the current application.

The example below displays the Application menu for the Lists & Spreadsheet application.



Context menus

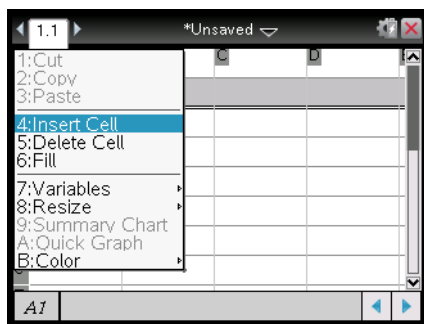
Context menus display options that are specific to the selected object or the current cursor location.

Using the Context menu

► To access a context-sensitive menu from an application, press

`ctrl` `menu`.

In the example below, the context menu displays options available for the selected cell in Lists & Spreadsheet.



Working with problems and pages

The options on the **Documents** menu enable you to:

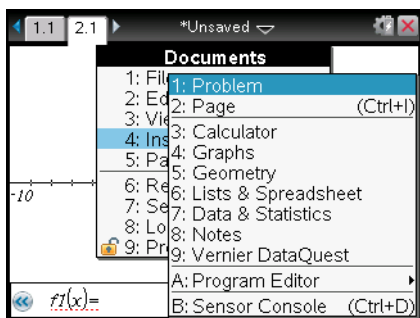
- Save a document
- Access edit functions such as undo, redo, cut, copy, paste, and delete

- Move between pages and open the page sorter view for documents with multiple pages
- Modify page layout, insert pages or problems, delete pages, and change settings
- Add problems, pages, and applications to open documents
- Access page layout options

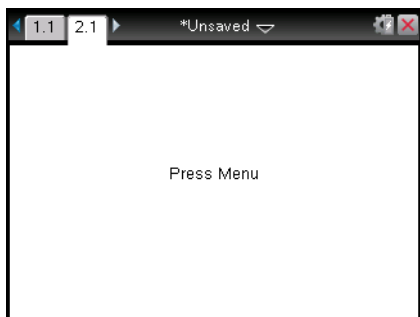
Adding a problem to a document

Adding problems to a document enables you to reuse variable names. A document can contain as many as 30 problems. To add a new problem:

1. Press **[doc]** **[4]** **[1]** to open the Insert options.



A new problem with one page is added to the document. The tab at the top left of the screen indicates that this is the first page of the second problem.



2. Press **[menu]** to open the Application menu, then press the number corresponding to the application you want to add to the new page.

Viewing and reordering pages in a document

The Page Sorter displays all of the problems in your document and all pages within each problem in thumbnail format. You can use the Page Sorter to rearrange and delete pages, copy a page from one problem and paste it into another, and apply templates to pages.

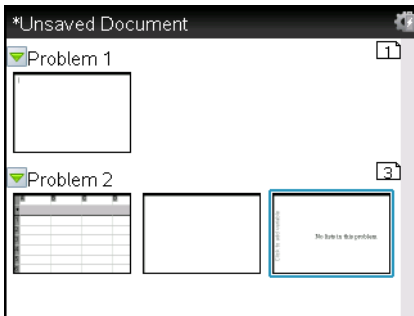
Viewing multiple pages with the Page Sorter

Although the handheld typically displays the pages in your document one at a time, the Page Sorter lets you see all of the problems in your document and all pages within each problem in thumbnail format. You can use the Page Sorter to rearrange and delete pages, and copy a page from one problem and paste it in another.

Opening the Page Sorter from a document

- ▶ Press **ctrl** ▲.

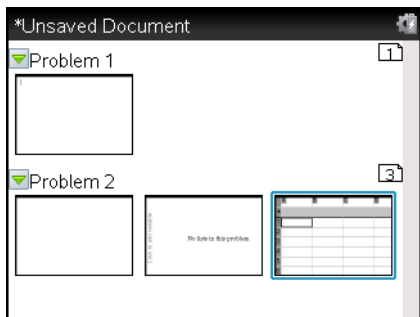
The Page Sorter screen displays all of the problems and pages in the current document.







Reordering pages in a problem

Use the Page Sorter (press **ctrl** ▲) to move a page within a problem with multiple pages:

1. Press the **◀** or **▶** key to select the page you want to move.
A heavy border around the page indicates that it is selected.



2. Either press and hold  or press **ctrl**  until the grab cursor  displays.
3. Press **←**, **→**, **▲** or **▼** to move the page to the desired position.
4. Press  or **enter** to finish the move.

Note: You can press **esc** to cancel.

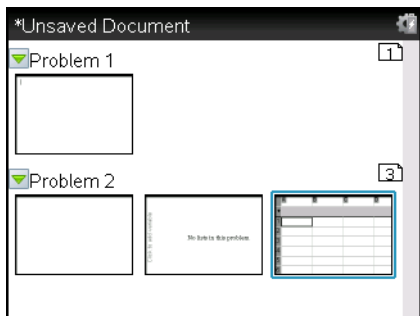
The page moves to the new location within the problem, and the counter adjusts accordingly.

Copying a page to another problem

To copy a page from one problem to another in the same document:

1. Press **ctrl** **▲** to open Page Sorter.
2. Press **←**, **→**, **▲** or **▼** to select the page you want to copy.

A heavy border around the page indicates that it is selected.



3. Press **ctrl** **C** to copy the page.

4. Press **←**, **→**, **↑** or **↓** to select the desired position in the problem where you will paste the page. The copied page will be placed after the page you select.
5. Press **ctrl** **V** to paste the page in the new location.
The page is copied to the new location within the problem, and the counter adjusts accordingly.

Note: If the page contains variables with the same names as the new problem, a conflict may occur. Rename the variables if necessary.

Copying a page to another document

To copy a page from one document to another document:

1. Press **ctrl** **▲** to open the Page Sorter.
2. Press **←**, **→**, **↑** or **↓** to select the page you want to copy.
A heavy border around the page indicates that it is selected.
3. Press **ctrl** **C** to copy the page.
4. Press **fn on** **2** to open My Documents.
5. Press **▲** and **▼** to highlight the folder containing the document you want to copy the page to.
6. Press **→** to open the folder, or press **menu** **3**.
7. Press the **▲** and **▼** keys to highlight the document.
8. Press **📄** or **enter** to open the document.
9. Press **ctrl** **▲** to display the Page Sorter.
10. Press **←**, **→**, **↑** or **↓** to move the page to the desired position in the document.
11. Press **ctrl** **V** to paste the page in the new location.

The page moves to the new location within the problem, and the counter adjusts accordingly.

Copying, pasting, and deleting problems

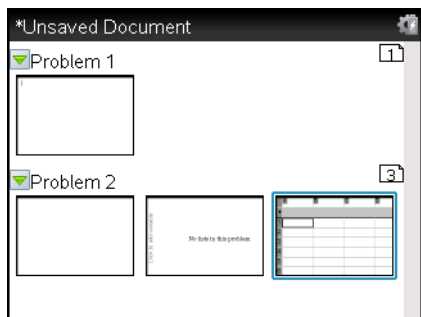
You can copy and paste a single problem from one location to another within the same document or a different document. You can also delete a problem from the document.

Copying and pasting a problem

To copy and paste a problem:

1. Open the Page Sorter.

Press **ctrl** **▲** or **doc** **3** **3**.



2. Select the problem. If there are multiple problems, you can press **menu** **2** to Collapse the Page Sorter to list the problems by number and title only.
3. Press **ctrl** **C**.
4. Go to the location where you want the problem to appear.
5. Press **ctrl** **V**.

A duplicate problem is placed in the new location.

Deleting a problem

To delete a problem from the document:

1. Select the problem from the Page Sorter.
2. Press **ctrl** **X**.

The problem is deleted from the document.

Renaming a problem

To rename a problem:

1. With the document active, open the Page Sorter.
Press **ctrl** **▲**.
2. Select the problem name.
3. Press **ctrl** **menu**.
4. Select **7** **Rename** and type the name.

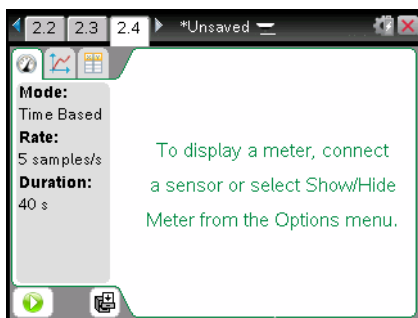
5. Press **ctrl** **S** to save the change.

Adding a page to a problem

Each problem can contain up to 50 pages. To add a new page to a problem:

- ▶ Press **ctrl** **doc** or **ctrl** **I** to add a blank page and select an application
—OR—
- ▶ Press **ctrl** **on** to display the **Home** screen, then point to the application you'd like to add to the new page and click or tap.

A new page is added to the current problem.



Note: The tab at the top left of the screen indicates that this is the second page of the second problem.

Moving through pages in a document

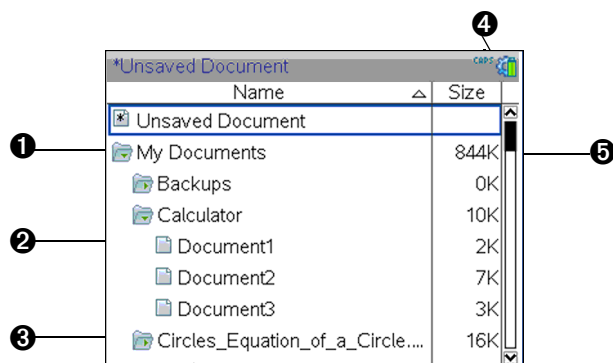
Tabs display up to three multiple pages. When a document contains more than three pages, arrows appear on the left and right of the tabs.

Use the following keys to navigate through your documents.

- **ctrl** **←** displays the previous page.
- **ctrl** **→** displays the next page.
- **ctrl** **▲** displays the Page Sorter.
- **ctrl** **▼** displays the previous view.
- Use the Touchpad to click on the arrows that appear on either side of the tabs to show additional pages in a document containing more than three pages.

Managing documents

My Documents is a file manager where you store and organize your documents. The example below illustrates the My Documents screen with its main parts labeled. Following the screen, you can find descriptions of each labeled part.



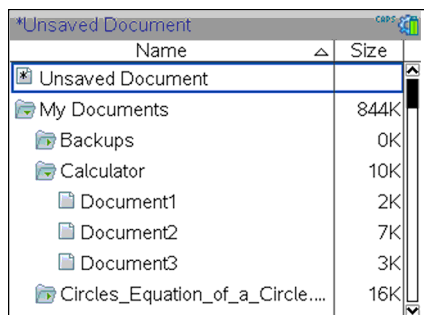
- 1 Expanded folder
- 2 Current, unsaved document
- 3 Collapsed folder
- 4 System status indicators
- 5 File size

Browsing files in My Documents

To open **My Documents**:

- Press **home** on **2**.

Note: If you are working in a page, press **ctrl** ▲ **ctrl** ▲.



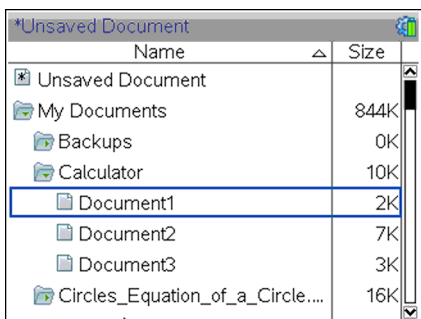
The **My Documents** screen opens, displaying all folders and files on the handheld.

- To sort columns by name or size, click that column head. Click again to change the sort from ascending to descending.
- To scroll through My Documents, click or grab the scroll bar.
- To expand a single folder, point to the folder and click on the folder icon or press **ctrl** **▶**. To collapse, click again or press **ctrl** **◀**.
- To expand all folders, press **menu** **7**. To collapse, press **menu** **8**.

Renaming folders or documents

To rename a folder or document:

1. Press the **▲** and **▼** keys to highlight the document or folder you want to rename.
2. Press **menu** **2**.



The document or folder name is highlighted.

3. Type a new name and press **enter** to complete the change.

Note: Press **esc** to cancel.

Creating folders

You can create folders two different ways:

- You can create a folder when you save a new document: The **Save** and **Save As...** menu commands allow you to enter a new folder name for the document.
- You can create a folder directly from the My Documents screen. Press **menu** **1**. Type a name for new folder, and press **Go** or **enter** to add it.

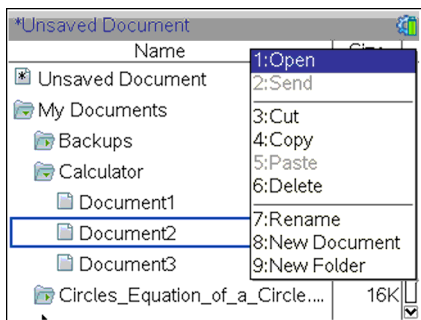
File and folder naming conventions

Folder names must be unique. File and folder names can be very long, and can include almost all characters, including spaces and punctuation.

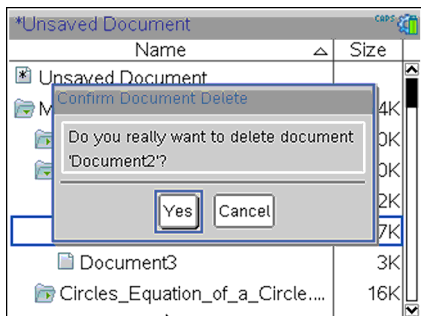
Note: If you are planning to transfer these documents to your computer for use in the TI-Nspire™ software, it is best to use names that are accepted on your computer. Avoid punctuation, \, /, or symbols.

Deleting documents and folders

1. Press **▲** and **▼** to highlight the document or folder you want to delete.
2. Press **ctrl** **menu** **6** or press **del**.



A dialog box displays, confirming that you want to delete the file or folder.



3. Press **enter** or **enter** to select **Yes**.


The document is deleted.

Duplicating documents and folders



Use Copy **ctrl** **C** and Paste **ctrl** **V** to duplicate documents and folders.

To copy a document to another folder, select the desired folder, then paste.

Recovering deleted documents

Most operations performed in My Documents can be undone. Press  **Z** (Undo) to cancel the last operation until the deleted document is restored.

Closing a document

1. To close a document, press  **1** **3** or  **W**.

If you have changed the document, you will be asked whether you want to save those changes.

2. Click **Yes** to save the document or click **No** to abandon the changes.

Understanding the TI-Nspire™ tools


This section provides an overview of the tools used when working with TI-Nspire™ documents on a handheld, including variables, catalog, symbols, and math templates.

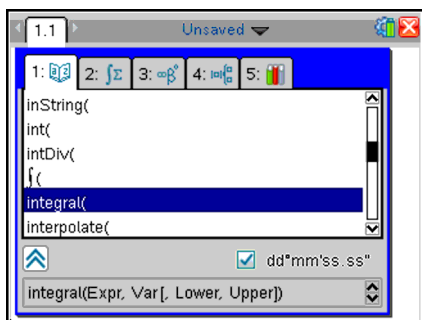
Creating TI-Nspire™ variables

Variables can be any portion or attribute of an object or function created within an application. Examples of attributes that can become variables are the area of a rectangle, the radius of a circle, the value contained in a spreadsheet cell or the contents of a column, or a function expression. When you create a variable, it is stored in memory within the problem. You will find more information about variables in the chapter titled *Using Variables*.

Using the catalog

Use the catalog to access a list of TI-Nspire™ commands and functions, units, symbols and expression templates. Commands and functions are listed alphabetically. Commands or functions not beginning with a letter are found at the end of the list (&, /, +, -, and so on). To open the catalog:

1. From an open document, press  to open the catalog.



2. Press the number key corresponding to the appropriate tab.

For example, press **2** to show a list of math functions.

3. Press **▼** until the item you want to insert is highlighted.

A syntax example for the selected item displays at the bottom of the screen.


Note: To see additional syntax examples of the selected item, press **tab**, and then press **enter** to maximize or minimize the Help. To move back to the selected item, press **⇧shift** **tab**.

4. Press **enter** to insert the item.







About the catalog window

The catalog window uses these tabs to categorize commands, special characters, and templates in documents:


1: [Symbol palette]		Contains all commands and functions, in alphabetical order
2: [Math functions]		Contains all math functions
3: [Special characters]		Provides a symbol palette for adding special characters
4: [Math templates]		Contains math templates for creating two dimensional objects, including product, sum, square root, and integral

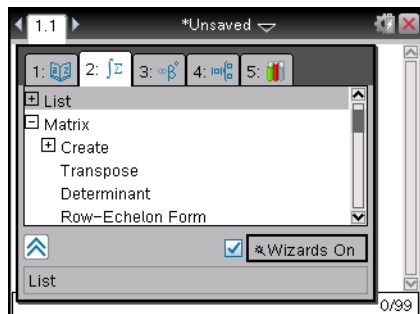
5: 	Shows public library (LibPub) objects
--	---------------------------------------

CAS:

1: 	Contains all commands and functions, in alphabetical order
2: 	Contains all math functions
3: 	Provides the values for standard measurement units
4: 	Provides a symbol palette for adding special characters S
5: 	Contains math templates for creating two dimensional objects, including product, sum, square root, and integral
6: 	Shows public library (LibPub) objects

Using wizards

Some catalog functions have a wizard to help you enter function arguments. To use a wizard, press **tab** until the **Wizards On** box is highlighted. Press  or **enter** to select the check box.

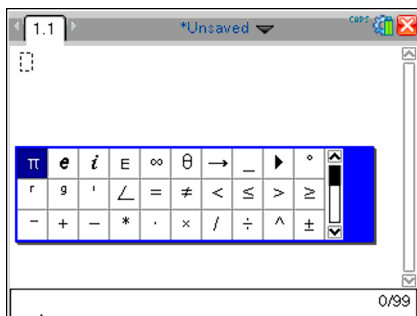


Using special characters or math templates

Entering special characters

The symbol palette contains a subset of the objects found in the catalog. To open the symbol palette:

1. In an open documents, press **ctrl** .

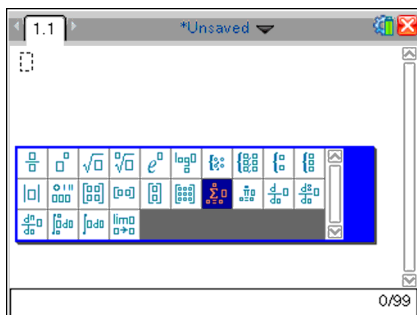



2. Press **←**, **→**, **▲** or **▼** to select a symbol.
3. Press **enter** to insert the symbol.

Entering math expressions


Use math expression templates to create two-dimensional objects such as summation, integral, derivative, and square root. To open the math expressions palette:

1. In an open document, press .






2. Press **←**, **→**, **▲** or **▼** to select an expression.
3. Press  or **enter** to insert the expression.

Entering international language characters

Use the  key to enter specially accented or punctuated characters in applications such as Notes that allow text input.

1. Open an application such as Notes that allows text input.
2. Type the desired text.
3. Position the cursor after the letter that you want to accent. For example, "e" while in the French locale.

Press  on the keypad. Notice that the "e" changes to "é." Keep pressing  until you find the accented version of e that you want. Press  or the next letter of your text to accept the character and continue typing.

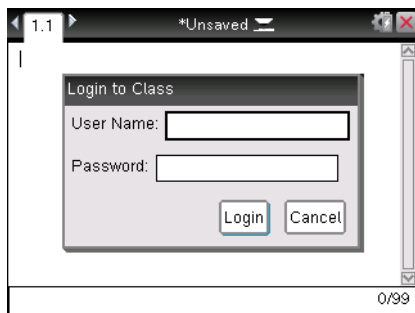
Working in a TI-Nspire™ Navigator™ Teacher Software classroom

If you are in a classroom where TI-Nspire™ Navigator™ Teacher Software is used, you will need to log in to class and answer questions sent to your handheld by the teacher. The teacher can also pause and restart your handheld. When paused, you will receive a message on your handheld. You cannot use your handheld until the teacher releases the handheld from pause mode.

Logging in to class

Complete the following steps to connect to a classroom session.


1. From the Home screen, press **5** **5** to open the **Login to Class** dialog box. From an open document, press **doc** **8**.







2. Type your user name and password and click **Login**.

TI-Nspire™ handheld login status icons

The icons on the TI-Nspire™ CX, TI-Nspire™ CX CAS, TI-Nspire™, and TI-Nspire™ CAS handheld screens indicate the communication status between the handheld and the access point, wireless adapter, wireless cradle, or TI-Navigator™ network. The icons indicate status as follows.

Icon	Status	Meaning
	Blinking	The handheld is searching for an access point.

Icon	Status	Meaning
	Solid	The handheld has found an access point.
	Solid	The handheld is not communicating with the adapter or cradle. Unattach the handheld from the adapter or cradle, wait for the icon to disappear, and then reattach the handheld to the adapter or cradle.
	Blinking	The handheld is connected to the network and is ready to login.
	Solid	The handheld is logged in to the network and is fully charged.

Pausing a class session

There are times when a teacher may want to pause a class. Pausing a class suspends all activity on your handheld. When the teacher resumes class, the message clears and you are able to use the handheld.

Responding to Quick Poll questions

When your teacher sends a Quick Poll question, the question opens as a new document on your handheld, on top of any document you may currently have open. When Quick Poll is active, the option appears on the Home screen below the Scratchpad options.

Answering a Quick Poll question

If the teacher gives permission, the Quick Poll tool allows you to temporarily exit the question to perform calculations or access other documents to determine the answer to the question. For example, you can access the Scratchpad to perform a function, or you can access the Lists and Spreadsheet application and copy data from there to a List question type. To calculate and submit your answer, complete the following steps:

1. Press  to access the **Home** screen.

2. Choose an application.

Note: To return to the Quick Poll without accessing any documents, choose **Quick Poll**.

3. When you are finished, click the Quick Poll icon on the top of the handheld screen to return to the Quick Poll tool.
4. To submit your answer to the teacher, press **doc** and choose **Submit Answer**.

Note: Choose **Clear Answer** to clear your answer and try again.

When you respond to a poll, your response is immediately sent to the teacher's computer and teachers can keep track of student responses in real time. When you submit your answer, their computer is updated with the answer you submitted. Your teacher may have set the poll to allow you to submit your answer more than once. If so, you can continue to respond to the poll and submit it, until your teacher stops the poll.

Responding to different question types

- ▶ For Multiple Choice questions, use **tab** to navigate to your response. Press **enter** to mark your response.
- ▶ For Open Response questions, press **tab** to move the cursor to the answer box, and type your response.
- ▶ For Equation questions, press **tab** to move the cursor to the answer box, and type your response. If a graph is included with the question, when you press **enter**, the function you entered shows up on the graph. Your cursor will still be in the answer box. You cannot manipulate the graph itself. The graph updates when you type an answer and press **enter**.
- ▶ For Coordinate Points: (x,y) questions, press **tab** to move the cursor to the x-field answer box. Type your answer, and press **tab** to move to the y-field box. Type your answer.

If a graph is included with the question, when you press **enter**, the function you entered shows up on the graph.

You can use **ctrl** **menu** to access the Window and Zoom functions while you are working on the graph.

- ▶ For Coordinate Points: Drop Points questions, press **tab** to move the cursor to a point on the graph. Press **enter** to drop a point at that location.

If you need to delete a point, press **ctrl** **Z** to undo the action.

- ▶ For Lists questions, press **tab** to move the cursor to the first cell of the list. Type your answer, and press **tab** to move to the next cell. Type your answer.

The behavior in a Lists question closely matches the behavior of the Lists and Spreadsheet application, with the following exceptions. In a Lists question, you cannot:

- Add, insert, or delete columns
- Change the header row
- Enter formulas
- Switch to Table
- Create plots

Clearing your answers

After you answer a Quick Poll, you may decide you want to change your answer before you submit it to your teacher.

1. Press **menu** to access the **Check Answer** menu.
2. Click **Menu > Clear Answers > Current Question** or **Document**.
 - **Current Question** clears your answers for the active question.
 - **Document** clears your answers for all questions contained in the active document.

—OR—

If you answered the question and are ready to submit it, you still have time to clear your answer before you submit it to your teacher.

- ▶ Press **doc** and choose **Clear Answer** to clear your answer and try again.

Configuring the TI-Nspire™ CX handheld

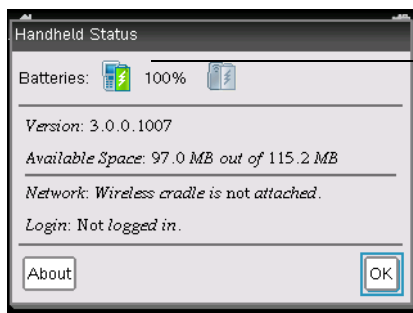
This chapter provides information needed to:

- Maintain batteries used in the handheld
- Change the default settings
- Attach a wireless module when the handheld is used in the classroom

Checking battery status

To check the status of the TI-Nspire™ Rechargeable Battery in a handheld:

1. Press **[on]** to access the **Home** screen.
2. Press **[5]** **[4]** to open the **Handheld Status** window.



Battery status is shown here.

3. Click **OK** or press **[enter]** to close the window.

Note: From an open document, press **[docv]** **[7]** **[4]**.

Recharging the handheld

To recharge the TI-Nspire™ Rechargeable Battery in a handheld, connect it to either of the following power sources:

- A standard USB cable connected to a computer
- A TI USB wall charger (sold separately)
- A TI-Nspire™ CX Docking Station if in a classroom setting

The amount of time required to fully charge the battery may vary, but charging normally takes about six hours. It is not necessary to remove the TI-Nspire™ Rechargeable Battery from the handheld to recharge it. The handheld operates normally while it is attached to a charging source.

Recharging your battery from a computer

To recharge a handheld from a computer, a TI-Nspire™ USB driver must be installed. USB drivers are standard with any TI-Nspire™ software, which includes:

- TI-Nspire™ Teacher Software
- TI-Nspire™ CAS Teacher Software
- TI-Nspire™ Student Software
- TI-Nspire™ CAS Student Software
- TI-Nspire™ Navigator™ Teacher Software

To download software that includes a driver, go to education.ti.com/software.

Understanding the priority of power sources

When the TI-Nspire™ Rechargeable Battery is fully charged, the handheld draws power in the following order:

- First, from a connected external power source, such as:
 - A computer connected through a standard USB cable
 - An approved wall charger (sold separately)
- Second, from the TI-Nspire™ Rechargeable Battery

Disposing of used batteries safely and properly

Do not mutilate, puncture, or dispose of batteries in fire. The batteries can burst or explode, releasing hazardous chemicals. Discard used batteries according to local regulations.

Changing handheld settings

Use the options on the Settings menu to change or view the following settings:

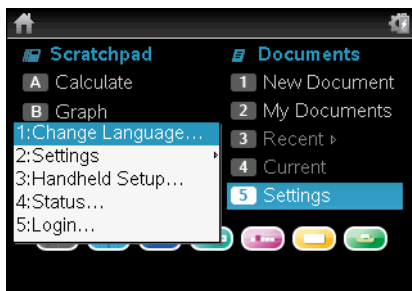
- Change language
- Settings (General and Graphs & Geometry)
 - Define or restore settings for open documents and the Scratchpad
 - Define or restore default settings for the handheld
- Handheld Setup
- Status
- Login

Note: Not all options are accessible at all times. Options that are unavailable are grayed out.

Opening the Settings menu

- ▶ From the Home screen, press **[5]** or use the touchpad to select **Settings**.

The Settings menu opens.



Changing the preferred language

Complete the following steps to change the preferred language:

1. From the Home screen, press **[5]** or select **Settings** to open the menu.
2. From the menu, select **Change Language** or press **[1]** to open the Change Language dialog box.



3. Press **▶** to open the drop-down menu.
4. Press **▼** to highlight a language, then press **[1]** or **[enter]** to select it.
5. Press **[tab]** to highlight the **OK** button, then press **[1]** or **[enter]** to save the language selection.

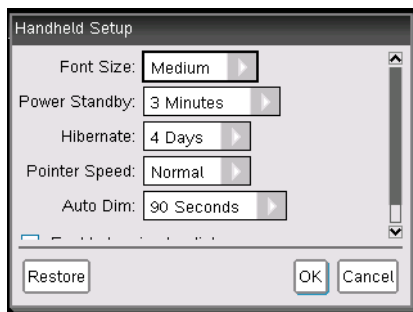
Customizing the handheld setup

Handheld setup options enable you to customize options to suit your needs.




- Font size (small, medium, or large)
- Power standby. (1, 3, 5, 10, or 30 minutes)
 - Use this option to extend battery life
 - By default, the handheld automatically powers down after three minutes of inactivity.
- Hibernate (1, 2, 3, 4, 5 days, or never)
 - Use this option to extend battery life.
 - By default, the handheld hibernates after four days.
 - When hibernating, the handheld saves current work in memory.
 - When you turn the handheld on again, the system reboots and opens saved work.
- Pointer speed (slow, normal, or fast)
- Auto dim (30, 60, or 90 seconds and two or five minutes)
- Enable tapping to click

Changing Handheld Setup options

1. From the **Home** screen, press **[5]** **[3]**. The Handheld Setup dialog box opens.



2. Press **[tab]** until the desired category is highlighted.
3. Press **▶** to view the list of possible settings.
4. Press **▼** to highlight the desired setting.

- Press  or **enter** to select the new setting.
- When you have changed all the settings to suit your needs, press  until **OK** is highlighted, then press  or **enter** to apply your changes.

Note: Click **Restore** to return the handheld to the factory settings.

Customizing General settings

General settings control how the handheld displays and interprets information in TI-Nspire™ documents and in Scratchpad. All numbers, including elements of matrices and lists, are displayed according to the general settings. You can change the default settings at anytime and you can also specify settings for a particular document.

General settings and their possible values are listed in the following table.

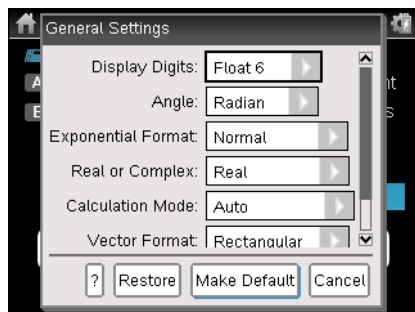
Field	Values
Display Digits	Float Float1 - Float12 Fix0 - Fix12
Angle	Radian Degree Gradian
Exponential Format	Normal Scientific Engineering
Real or Complex	Real Rectangular Polar

Field	Values
Calculation Mode	Auto CAS: Exact Approximate Note: Auto mode displays an answer that is not a whole number as a fraction except when a decimal is used in the problem. Exact mode (CAS) displays an answer that is not a whole number as a fraction or in symbolic form, except when a decimal is used in the problem.
Vector Format	Rectangular Cylindrical Spherical
Base	Decimal Hex Binary
Unit System (CAS)	SI Eng/US

Changing the default General Settings

Complete the following steps to select general settings that are applied to all TI-Nspire™ documents and to Scratchpad.

1. Save and close any open documents.
2. From the Home screen, press **5** **2** **1** to open the General Settings dialog box.

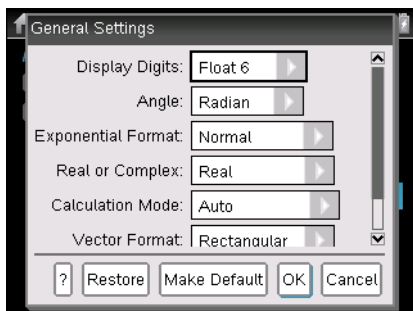


- Press **tab** to move through the list of settings. Press **▲** to move backward through the list.
A bold line around a box indicates it is active.
- Press **▶** to open the drop-down menu to view the values for each setting.
- Press the **▲** and **▼** keys to highlight the desired option, then press **⏏** or **enter** to select the value.
- Click **Make Default** to save all the settings as default settings that will be applied to all future TI-Nspire™ documents, PublishView™ documents, and to Scratchpad.
 - Select the question mark to open Help.
 - Select Restore to restore the original factory settings.


Changing General Settings in a TI-Nspire™ document


Complete the following steps to change general settings for an open TI-Nspire™ document. You can apply the settings to the current document only or choose to make the settings the default settings for the open document and all future documents.


- To access **General Settings** from an open document, press **⏏** **5** **2** **1**.

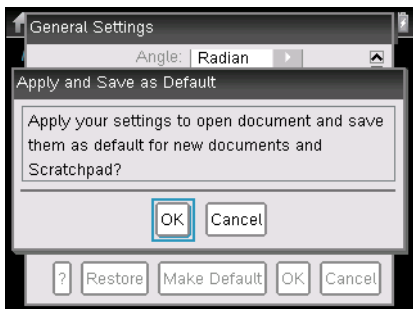


- Press **tab** to move through the list of settings. Press **▲** to move backward through the list.
A bold line around a box indicates it is active.
- When you reach the desired setting, press **▶** to open the drop-down menu to view values for each setting.

4. Press the \blacktriangle and \blacktriangledown keys to highlight the desired option, then press  or **enter** to select the value.

5. Click **OK** or press  or **enter** to apply the new settings to the open document and return to the Home screen. When you click OK, the settings are only applied to the open document.

To apply the new settings to this document and documents created in the future, select **Make Default** and press  or **enter**.

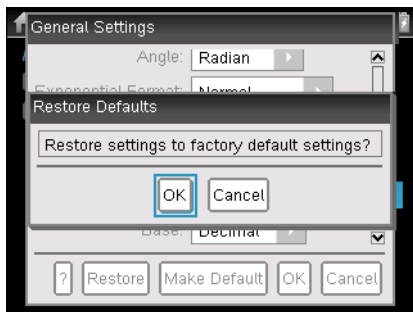


- Click **OK** to apply the settings to any open documents and save the settings as defaults for new documents and for Scratchpad.

Restoring General Settings

Complete the following steps to restore the original factory settings to open or new documents and to the Scratchpad.

1. From the Home screen, press **5** **2** **1** to open the General Settings dialog box.
2. Use the Touchpad or press **tab** to select Restore, then press **enter**. The Restore Defaults dialog box opens.



3. Select **OK** to restore settings to the factory default settings.
4. Press **OK** or **esc** to return to the **Home** screen.

Customizing Graphs & Geometry settings

The changes made to Graphs & Geometry settings apply to graphs and geometry in open documents and in subsequent new documents. When you customize application settings, your selections become the default settings for all of your work in the Graphs & Geometry application.

The following table lists the Graphs & Geometry application settings with selectable values and descriptions of operation for enabled checkboxes.

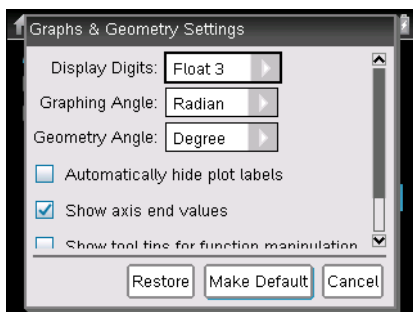
Field	Values
Display Digits	Auto Float Float1 - Float12 Fix0 - Fix12
Graphing Angle	Auto Radian Degree Gradian
Geometry Angle	Auto Radian Degree Gradian
Checkbox	Operation when checked
Automatically hide plot labels	Plot labels display only when a plot is hovered, selected, or grabbed.
Show axis end values	Displays a numeric label at the least and greatest values visible on an axis.
Show tool tips for function manipulation	Shows helpful information as you manipulate function graphs.
Automatically find a point of interest	Shows zeros, minima, and maxima for graphed functions and objects while tracing function graphs.

Changing default Graphs & Geometry Settings

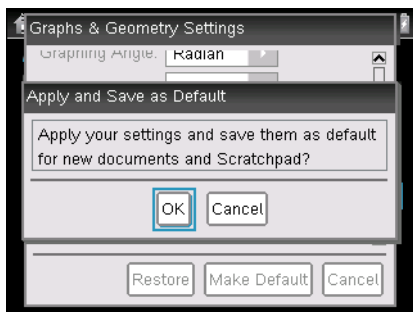
Complete the following steps to change the Graphs & Geometry Settings and make these settings the default for all new documents and Scratchpad.

1. Save and close any open documents and close Scratchpad.
2. From the Home screen, press **[5] [2] [2]**.

The **Graphs & Geometry Settings** dialog opens.



3. To change the Display Digits, Graphing Angle, and Geometry Angle, press **[tab]** to select an option, then click **▶** to open the drop-down menu. Press **▼** to view the values, then press **[↓]** or **[enter]** to select a value.
4. In the lower half of the dialog, click a checkbox to enable or disable an option.
5. Highlight and click **Make Default**. The Apply and Save as Default dialog box opens.

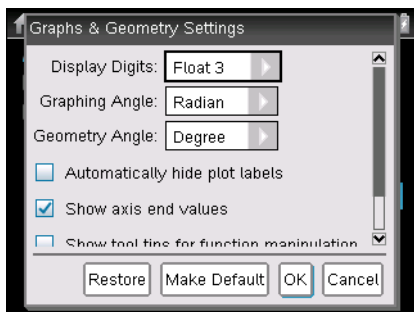


6. Click **OK** to save your settings as default for new documents and Scratchpad.

Changing Graphs & Geometry settings in TI-Nspire™ documents

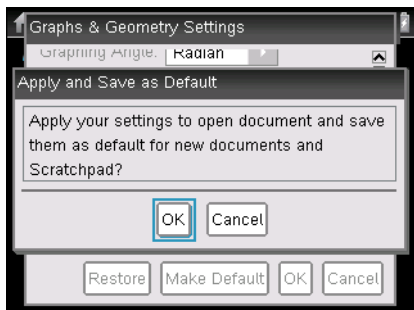
Complete the following steps to change Graphs & Geometry settings for an open TI-Nspire™ document. You can apply the settings to the current document only or choose to make the settings the default settings for the open document and all future documents.

1. From an open document, press $\left[\text{Home} \right]$ $\left[5 \right]$ $\left[2 \right]$ $\left[2 \right]$. The **Graphs & Geometry Settings** dialog box opens.



2. Click \blacktriangleright to open the drop-down menu for Display Digits, Graphing Angle, or Geometry Angle settings, then press \blacktriangledown to view the values. Press $\left[\text{Enter} \right]$ or $\left[\text{Home} \right]$ to select a value.
3. In the lower half of the dialog, click a checkbox to enable or disable an option.
4. Click **OK** or press $\left[\text{Home} \right]$ or $\left[\text{Enter} \right]$ to apply the new settings to the open document and return to the **Home** screen. When you click **OK**, the settings are only applied to the open document.

To apply the new settings to the current document and all future documents, click **Make Default** and press $\left[\text{Home} \right]$ or $\left[\text{Enter} \right]$.

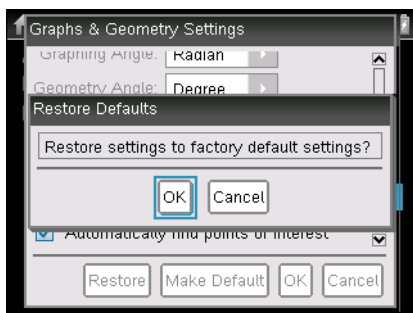


Click **OK** to apply the settings to any open documents and save the settings as default for new documents and Scratchpad.

Restoring Graphs & Geometry Settings

Complete the following steps to restore the original factory settings to open or new documents and to the Scratchpad.

1. From the Home screen, press **[5] [2] [2]** to open the **Graphs & Geometry Settings** dialog box.
2. Use the Touchpad or press **[tab]** to highlight **Restore**.
3. Press **[enter]**. The Restore Defaults dialog box opens.



4. Click **OK** to restore Graphs and Geometry settings to the factory default settings.
5. Press **[esc]** to return to the **Home** screen.

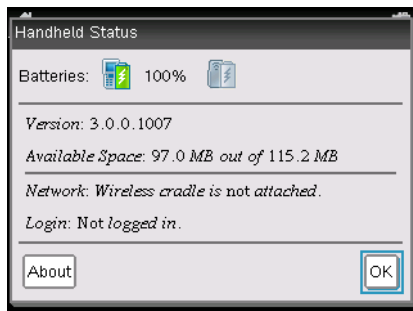
Viewing handheld status

The **Handheld Status** screen provides the following information about the current state of the handheld:

- Battery status for the rechargeable batteries
- Software version
- Available space
- Network (if any)
- Your student login name and whether you are logged in
- About

Opening the Handheld Status screen

1. From the Home screen, press **[5] [4]**. The **Handheld Status** screen opens.

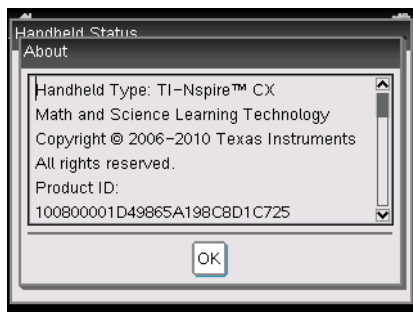


2. Click **OK** to close the Handheld Status screen.

Viewing handheld details on the About screen

The About screen provides additional information about the handheld type, the operating system (OS) version, and the product ID.

1. From the Home screen, press **[5] [4]**. The **Handheld Status** screen opens.
2. Click **About** to view details about the handheld.



3. Click **OK** to close the **About** dialog box.
4. Click **OK** to return to the Home screen.

Replacing TI-Nspire™ Rechargeable Battery

When you replace the battery, complete the following steps to insert the TI-Nspire™ Rechargeable Battery into a handheld.

1. Use a small screwdriver to release the panel from the back of the handheld.
2. Remove the panel.
3. Insert the white connector into the jack located at the top of the battery compartment, as shown.
4. Thread the wire into the case to secure it. Insert the rechargeable battery into its compartment.
5. Replace the back panel and fasten the screws with a screwdriver.

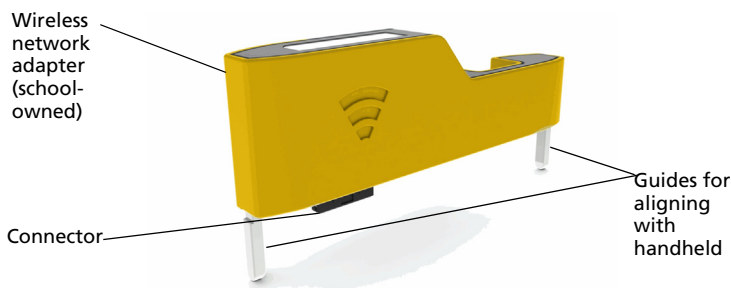
Using wireless communication hardware

Teachers using TI-Nspire™ Navigator™ Teacher software in the classroom can use wireless network adapters along with the TI-Nspire™ access point to establish wireless communication between TI-Nspire™ CX handhelds and their computer. The wireless cradle can be used to establish a wireless connection between the teacher's computer and any TI-Nspire™ handheld. This section provides information about how to attach wireless communication hardware to a TI-Nspire™ handheld.

Attaching a wireless adapter to a handheld

The TI-Nspire™ CX wireless network adapters work with the TI-Nspire™ CAS and TI-Nspire™ CX CAS handhelds. The battery in the TI-Nspire™ CX handheld powers the wireless adapter. To connect the handheld to the wireless adapter:

1. Position the wireless adapter on top of the handheld so the connector on the adapter lines up with the connector on top of the handheld.



2. Slide the adapter into position, making sure the guides on the sides of the adapter slide into the grooves on the sides of the handheld.

Sideview of handheld

Groove to align wireless adapter



3. Firmly press the adapter into place so that the adapter sits on top of the handheld as shown in the following illustration.

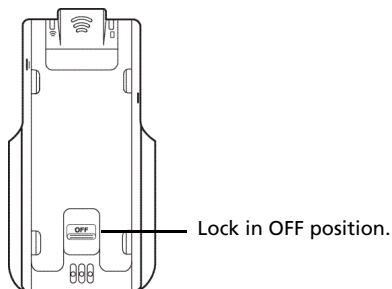


Note: The TI-Nspire™ CX handheld can be charged with the wireless adapter attached.

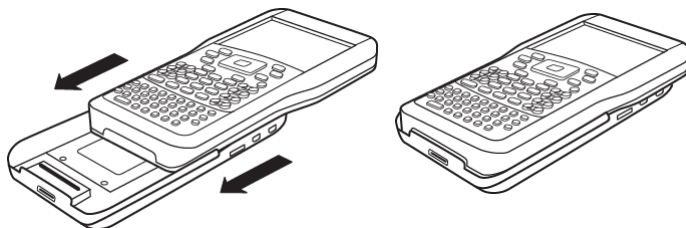
Attaching a wireless cradle to a handheld

The wireless cradles can also be used with all TI-Nspire™ handhelds to wirelessly connect to the teacher's computer. To connect a handheld to a wireless cradle:

1. Slide the lock on the back of the cradle to the OFF position.

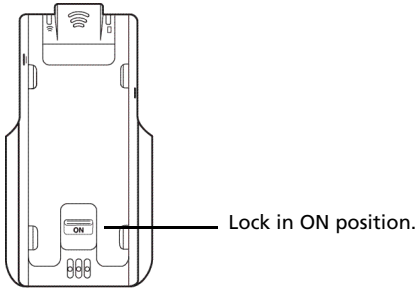


2. To attach the handheld, face the screen upward and slide the handheld onto the top of the TI-Nspire™ Navigator™ wireless cradle. Be sure that both sides of the handheld are inserted into both of the side guides.



3. Press firmly to make a good connection. When properly connected, the TI-Nspire™ CX handheld appears to be sitting on top of the cradle.

4. Lock the handheld in place by sliding the lock on the back of the cradle to the ON position.



Connecting handhelds and transferring files

This chapter describes how to connect one TI-Nspire™ handheld to another, how to connect handhelds to a computer, and how to transfer files between them.

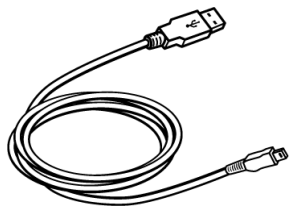
The TI-Nspire™ handhelds have a USB port that enables connectivity with another TI-Nspire™ handheld or with a computer.

Note: When using the TI-Nspire™ TI-84 Plus keypad, you can connect with another TI-Nspire™ handheld using the TI-Nspire™ TI-84 Plus keypad or a TI-84 Plus using the USB port or the I/O port.

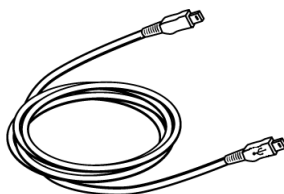
Connecting handhelds

Using USB cables

You can use USB cables to connect two TI-Nspire™ handhelds, to connect a TI-Nspire™ handheld to a computer, or to connect one TI-Nspire™ handheld using TI-Nspire™ TI-84 Plus keypad to another.



TI-Nspire™ USB connection cable to connect handheld to a computer.

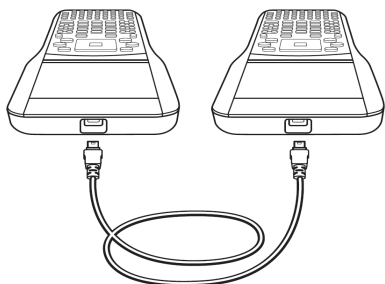


TI-Nspire™ handheld mini-USB cable to connect two TI-Nspire™ handhelds.

Connecting two TI-Nspire™ handhelds with the mini-USB cable

You can connect two handhelds as long as both handhelds are using the same keypad. You cannot connect a handheld using the TI-Nspire™ TI-84 Plus keypad to a handheld using the native TI-Nspire™ keypad.

The TI-Nspire™ handheld USB port is located in the center on the top of the TI-Nspire™ handheld.



The USB port is located on the top of the TI-Nspire™ CX handheld on the right side when holding the handheld with the screen facing you.



Port for connecting a wireless adapter

USB port on the CX handheld

To connect the handhelds:

1. Firmly insert either end of the mini-USB cable into the USB port.
2. Insert the other end of the cable into the receiving handheld's USB port.

Connecting the TI-Nspire™ handheld to a computer

1. Firmly insert the mini-USB end of the cable into the port at the top of your handheld.



2. Firmly insert the USB end of the cable into the USB port of the computer.

Transferring files to and from handhelds

You can send documents, Operating System (OS) files, and folders to another TI-Nspire™ handheld.

Rules for transferring files and folders




- You can transfer documents and Operating System (OS) files.
- Operating systems are not interchangeable between different handheld types. For example, you cannot transfer a CAS operating system to a non-CAS handheld.
- If a document with the same name as the one you are sending already exists on the receiving TI-Nspire™ handheld, the document will be renamed. The system appends a number to the name to make it unique. For example, if Mydata existed on the receiving TI-Nspire™ handheld, it would be renamed Mydata(2).




Both the sending and receiving handhelds will display a message that shows the new name.

- There is a 255-character maximum length for a file name, including the entire path. If a transmitted file has the same name as an existing file on the receiving handheld and the file names contain 255 characters, then the name of the transmitted file will be truncated to enable the software to follow the renaming scheme described in the previous bullet.
- All variables associated with the document being transmitted are transferred with the document.
- Transmissions will time out after 30 seconds.

Caution: Some older TI-Nspire™ handhelds cannot receive folders; only files. If you receive an error in sending to an older TI-Nspire™ handheld, see *Common error and notification messages*.

Sending a document or folder to another handheld

1. Ensure the two handhelds are connected.
2. Open the My Documents file browser and navigate to the file or folder you want to transfer.
3. Press the ▲ and ▼ keys on the Touchpad to highlight the document or folder you want to send.
4. Press    to select **Send** from the Documents menu.

TI-Nspire™ handheld: Press   .

5. The file transfer begins. A progress bar displays to allow you to follow the transfer. There is also a cancel button on the Sending... dialog to enable you to cancel the transmission while it is in progress.

At the end of a successful transmission, the message “<Folder / File name> transferred as <Folder / File name>.” displays. If the file had to be renamed on the receiving handheld, the message will display the new file name.







Receiving a document or folder

No action is required by the user of the receiving TI-Nspire™ handheld. Handhelds are automatically powered on when the cable is attached.

At the end of a successful transmission, the message “<Folder / File name> received.” displays. If the file had to be renamed, the message will display the new file name.


Caution: Some older TI-Nspire™ handhelds cannot receive folders; only files. If you receive an error in sending to an older TI-Nspire™ handheld, see *Common error and notification messages*.

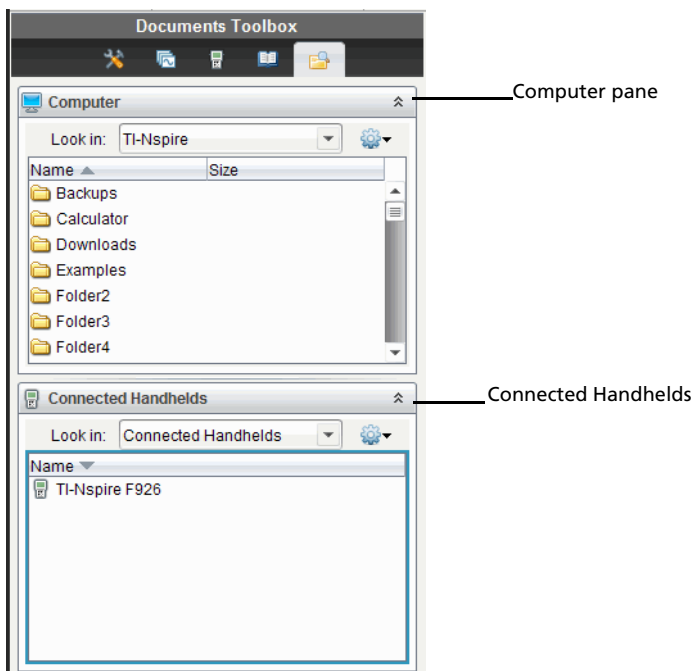
Canceling a transfer

1. To cancel a transmission in progress, press **Cancel** on the dialog of the sending handheld. The user of either handheld can also press . (TI-Nspire™ handheld: press .
2. Press  or  to cancel the transmission error message. TI-Nspire™ handheld: press  or .

Transferring files between computers and handhelds

In the Documents Workspace, teachers and students can use the “drag and drop” method to quickly transfer files and folders from a computer to a handheld or transfer files from a handheld to a computer.

1. Connect the handheld to the computer using a standard A to mini-B USB cable.
2. In the TI-Nspire™ software, open the Documents Workspace.
3. In the Documents Toolbox, click  to open the Content Explorer.



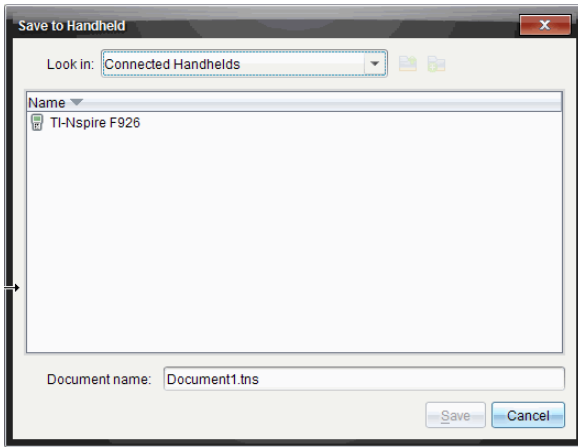
4. Navigate to the folder that contains the file you want to transfer.
 - To transfer a file from a handheld to the computer, select the file, then “drag and drop” the file to a folder in the Computer pane.
 - To transfer a file from the computer to a handheld, select the file, then “drag and drop” the file to a connected handheld.

Note: Those using the TI-Nspire™ Teacher Software or the TI-Nspire™ Navigator™ Teacher Software can also use options in the Content Workspace to transfer files from a handheld to a computer.

Using the Save to Handheld option

In the Documents Workspace, you can also use the Save to Handheld option on the File menu to transfer a file to a connected handheld when you want to save a file to a specific folder on the handheld.

1. Ensure the handheld is connected to the computer.
2. In the Computer pane, navigate to the folder where the file is located.
3. Select the file.
4. Select **File > Save to Handheld**. The Save to Handheld window opens.



5. Double-click the handheld name, then navigate to the folder where you want to save the file.
6. Click **Save**. The file is saved to the selected folder and the Save to Handheld window closes.

Handling errors resulting from sending folders

If you receive an error after attempting to send, it may mean the receiving handheld has an operating system that does not support the transfer. To resolve this, update the receiving handheld's OS and try the send again.

Common error and notification messages

Shown on**Message and Description**

Sending handheld

"This folder structure is not supported on the receiving handheld. The receiving handheld's OS may need to be updated, which you can do by selecting Send OS from the My Documents menu."

OK

If you get an error when sending a folder to an older TI-Nspire™ handheld, try updating the OS on the receiving handheld. If the error persists, you may have to send the files individually.

Sending handheld

"Transfer failed. Check cable and try again."

OK

This message is displayed if a cable is not attached to the sending handheld's link port. Remove and then reinsert the cable and try the document transmission again.

Select **OK** to cancel the transmission message.

Note: The sending handheld may not always display this message. Instead, it may remain BUSY until you cancel the transmission.

Shown on**Message and Description**

Sending handheld

"Receiver does not have enough storage space for file transfer."

OK

This message indicates that the receiving handheld does not have enough memory to accept the file being transmitted.

The user of the receiving handheld must free space to obtain the new file. To do this:

- Delete unneeded files.
- Store files on a computer for later retrieval, then delete them from the TI-Nspire™ handheld.

Sending handheld

"<folder>/<filename>
transferred as
<folder>/<filename(#)>."

This message is displayed at the end of a successful transfer when the file had to be renamed because a file already exists on the receiving handheld with the original name. The transmitted file is renamed by appending a number to the end of the name. Rename numbering always begins with (2) and can increment by one, as needed.

Shown on**Message and Description**

Sending handheld

"<folder>/<filename>
transferred as
<folder>/<new filename>."

This message indicates that a new folder was created on the receiving handheld to contain the transmitted document.

Receiving handheld

"<folder>/<filename(x)>
received."

This message indicates that the receiving handheld has a document with the same name as the document being sent.

Receiving handheld

"<new folder>/<new filename>
received."

This message indicates that a new folder has been created to contain the transmitted document.

Shown on**Message and Description**

Receiving
handheld

“Transfer failed. Check cable
and try again.”

OK

This message indicates that the cable is not correctly attached to the receiving handheld’s link port. Remove the cable then reattach it and try the transmission again.

Select **OK** to cancel the transmission message.

Memory and file management


The TI-Nspire™ CX handheld comes equipped with 192 MB of memory. Of the total memory, 128 MB is dedicated to Flash storage and 64 MB is RAM. When the operating system is loaded, and as documents are created and stored on the handheld, memory is used and you may find that you need to free or restore memory after several months of use. If there is insufficient memory on the handheld, use one of the following options to restore space on the handheld:

- Delete documents and folders you no longer use
- Back up files and folders to another handheld or computer
- Reset the memory, which deletes ALL files and folders on the handheld.

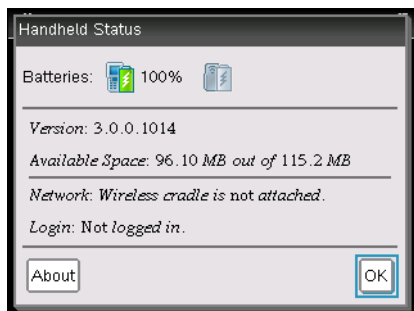
Checking available memory

Complete the following steps to view the amount of memory (in bytes) used by all documents and variables on your handheld.

1. From the Home screen, select **Status** from the **Settings** menu.

Press  on **5** **4**.

The Handheld Status window opens.



2. View the *Available Space* field to determine how much memory is available on the handheld.
3. Click **OK** to return to the Home screen.

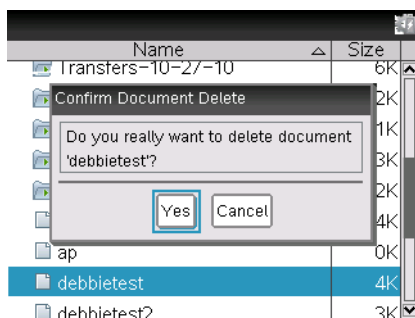
Freeing memory

To free or recover memory, delete documents and/or folders from the handheld. To keep the documents and folders for later use, transfer them to another handheld or to a computer using the TI-Nspire™ software.

Deleting files from the handheld

1. Press **on** **2** to open the **My Documents** file browser.
2. Press **▲** or **▼** to select the folder or document you want to delete.
3. Press **del** or press **ctrl** **menu** **6**.

A dialog box opens, asking you to confirm the deletion.



4. Press **enter** to confirm or **esc** to cancel.

The folder/document is permanently removed from the handheld.


Backing up files to another handheld

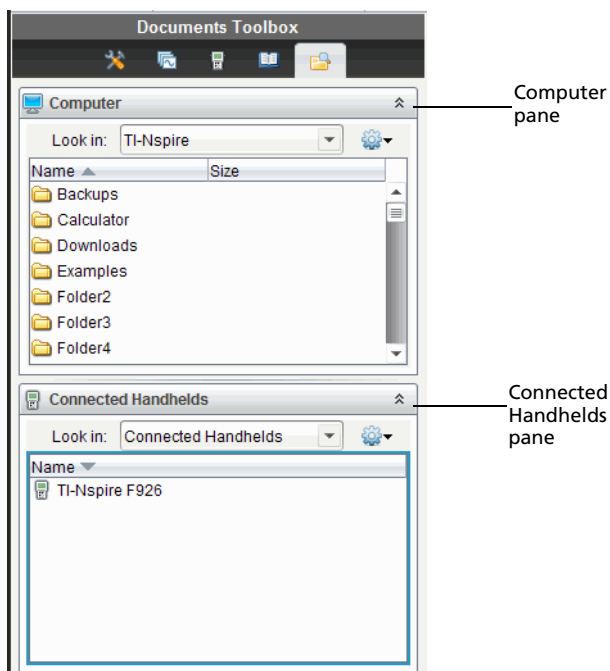
1. Connect the two handhelds using the USB-to-USB connectivity cable.
2. Press **on** **2** to open **My Documents** on the sending handheld.
3. Press the **▲** and **▼** keys to highlight the document you want to send.
4. Press **menu**, then select **Send** or press **ctrl** **menu** **2**.
5. When the file transfer is complete, a message is displayed on the receiving unit.

Transferring files to a computer

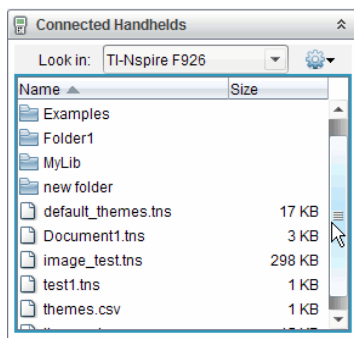
Use the TI-Nspire™ software to transfer files and folders from a handheld to a computer.

1. Connect your handheld to the computer using a standard A to mini-B USB cable.

- In the TI-Nspire™ software, open the Documents Workspace.
- In the Documents Toolbox, click  to open the Content Explorer.



- In the Computer pane, navigate to the folder where you want to save the files.
- In the Connected Handhelds pane, double-click the handheld name to view the folders and files on the handheld.



6. Select the file or folder you want to save to the computer.
 - Click the file to select one file or folder at a time.
 - To select all files on the handheld, select the first file in the list, hold down the **Shift** key, then click the last file or folder in the list.
 - To select random files, click the first file, then hold the **Ctrl** key while selecting additional files.

Note: If you select multiple files, it is saved as lesson bundle (.tilb file).





7. Drag the files to the folder in the Computer pane or select **File > Save as**. The files are copied to the folder on the computer.
8. Verify that the files you need are available on your computer, then delete the files from the handheld.

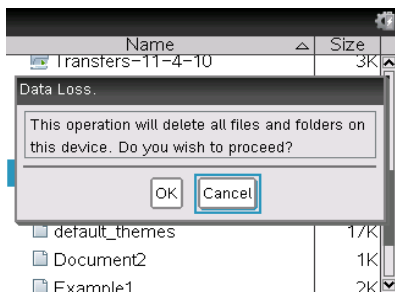
Note: Those using the TI-Nspire™ Teacher Software or the TI-Nspire™ Navigator™ Teacher Software can also use options in the Content Workspace to copy files from a handheld to a computer.

Resetting the memory

Complete these steps only if you want to delete ALL files and folders on your handheld.

Caution: Before you reset all memory, consider restoring sufficient available memory by deleting only selected data. If you reset all memory, the pre-installed applications on your handheld will remain, but any applications that have been downloaded in TI-84 mode will be deleted.

1. After making certain you want to clear all files, press  on  to open the **My Documents** file browser.
2. Press  to open the context menu.
3. Select **Delete All** or press . The Data Loss dialog box opens.



4. Click **OK** to confirm that you want to clear the handheld memory.

Updating the handheld operating system

To take advantage of the latest handheld features and updates, download the latest operating system files from the Education Technology web site (education.ti.com). You can update the operating system (OS) on TI-Nspire™ handhelds using a computer and the following software:

- TI-Nspire™ Teacher Software
- TI-Nspire™ Student Software
- TI-Nspire™ CAS Teacher Software
- TI-Nspire™ CAS Student Software
- TI-Nspire™ Navigator™ Software

In the classroom, you can use the TI-Nspire™ Docking Stations to upgrade the OS on multiple handhelds at the same time.

You can also transfer the OS from one TI-Nspire™ handheld to another or from one TI-Nspire™ CX handheld to another. However, handheld operating systems are not interchangeable. You cannot transfer a CAS operating system to a non-CAS handheld and you cannot transfer a TI-Nspire™ handheld operating system to a TI-Nspire™ CX handheld.



What you need to know

- If there is not enough room on the receiving handheld for the upgrade, a message is displayed. See *Memory and file management* for more information about restoring memory.
- OS upgrade operations do not delete user documents. The only time documents are affected by an OS installation is if the receiving handheld has a corrupted OS. In this situation, documents may be affected by OS restoration. It is a good practice to back up important documents and folders before installing an updated operating system.

Warning: Upgrading the operating system will delete all TI-84 applications and files. Before installing an OS upgrade, you should use TI Connect to back up all TI-84 applications and files to a computer. You can copy them back to the handheld when the OS upgrade is complete.

Before you begin

Before beginning an OS download, ensure that batteries are at least 25 percent charged.

- To check the status of the rechargeable battery in TI-Nspire™ CX handhelds, press  on **5** **4** to open the **Handheld Status** dialog.
- To check the status of both the rechargeable battery and the AAA batteries in TI-Nspire™ handhelds, press  on **5** **4** to open the **Handheld Status** dialog.

When in OS download mode, the Automatic Power Down™ (APD™) feature does not function. If you leave your handheld in download mode for an extended time before you begin the downloading process, your batteries may become depleted. You will then need to replace or recharge the batteries before downloading the OS.


Finding operating system upgrades

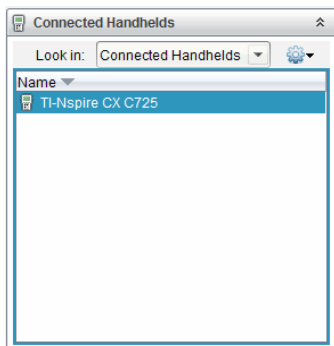
For up-to-date information about available OS upgrades, check the Texas Instruments web site at <http://education.ti.com>.

You can download an OS upgrade from the Texas Instruments web site to a computer, and use a USB cable to install the OS on your TI-Nspire™ handheld. You will need an Internet connection and the appropriate USB cable to download the updates.

Checking for handheld OS updates

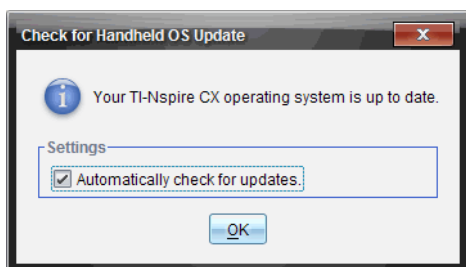
When using TI-Nspire™ software, you can quickly determine if your handheld OS is up to date when the handheld is connected to a computer.

1. Open your TI-Nspire™ software and ensure your handheld is connected to your computer.
2. In the Documents Workspace, click  to open Content Explorer.
3. In the Connected Handhelds pane, select a connected handheld.



4. Select **Help > Check for Handheld OS Update**.


- If the operating system is current, the Check for Handheld OS Update dialog is displayed indicating that the operating system on the handheld is up to date.




- If the operating system is not current, the dialog box contains a message indicating that a new version of the operating system is available.
5. To turn off automatic notifications, deselect “Automatically check for updates.” By default, this option is turned on.
6. Click **OK** to close the dialog box.

Upgrading the Operating System

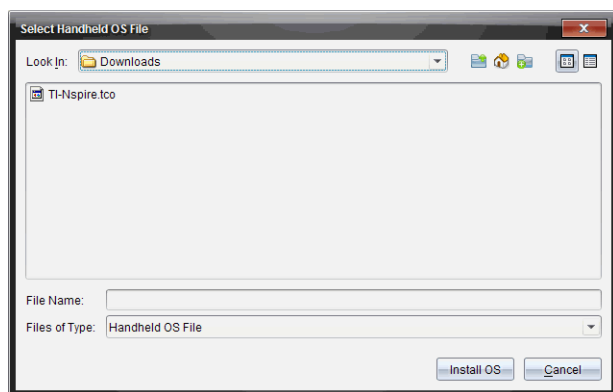
In the TI-Nspire™ software, you can select to upgrade the operating system on a connected handheld from the following workspaces and menus:

- In all versions of the software, you can select **Help > Check for Handheld OS Update**. Select a connected handheld in the Content Explorer to activate this option. If the OS on the handheld is not current, the dialog indicates that there is an updated version of the operating system. Follow the prompts to update the operating system.
- In all versions of the TI-Nspire™ software, you can use options available in the Documents Workspace:
 - Open Content Explorer, select the handheld name, then click  and select **Install OS**.
 - OR—
 - Select **Tools > Install Handheld OS**.
- Those using teacher versions of the TI-Nspire™ software can use options available in the Content Workspace:

- In the Resources pane, right-click the name of a connected handheld, then select **Install Handheld OS**.
—OR—
- Select the handheld name in the Preview pane, click  in the Preview pane, then select **Install Handheld OS**.
—OR—
- Right-click the handheld name and select **Install Handheld OS**.

Completing the OS upgrade

When you select to update the OS on a handheld, the Select Handheld OS File dialog box is displayed.



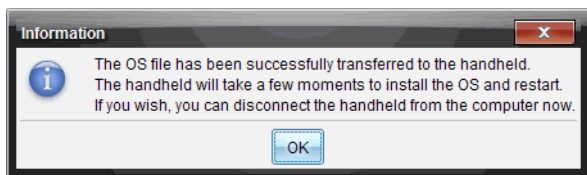
The file displayed for selection defaults to the file type required for the selected handheld.

1. Select the OS file:
 - If you are upgrading a TI-Nspire™ CX handheld, select TI-Nspire.tco
 - If you are upgrading a TI-Nspire™ CX CAS handheld, select TI-Nspire.tcc
 - If you are upgrading a TI-Nspire™ handheld, select TI-Nspire.tno
 - If you are upgrading a TI-Nspire™ CAS handheld, select TI-Nspire.tnc
2. Click **Install OS** to download the OS and update the handheld. The confirmation message *"You are about to upgrade your handheld operating system. Any unsaved data will be lost. Do you want to continue?"* is displayed.

- Click **Yes** to continue. The Installing OS dialog opens indicating the progress of the download. Do not disconnect the handheld.



- When the download is complete, the Information dialog opens indicating that the OS file has been successfully transferred to the handheld. You can disconnect the handheld.



- Click **OK**. The updated operating system is installed on the handheld. When the update is complete, the handheld reboots.
- On the handheld, follow the prompts to:
 - Choose a preferred language
 - Select a preferred font size
- When the Welcome screen opens, click **OK**. The Home screen is displayed.

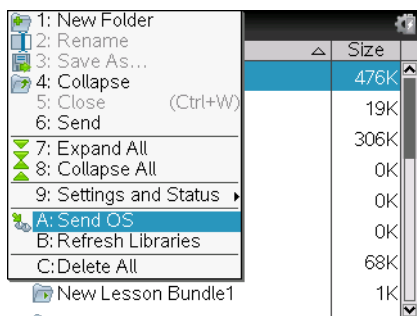
Transferring the Operating System from another handheld

Note: You cannot transfer the OS on a TI-Nspire™ handheld to a TI-Nspire™ CX handheld and you cannot transfer the OS on a CAS handheld to a non-CAS handheld. The operating systems are not the same and are not interchangeable.

To transfer the OS from one handheld to another:

- Ensure any open documents on the receiving handheld are closed.

2. Connect the two handhelds using a USB mini-B to mini-B USB cable.
3. On the sending handheld, select My Documents from the Home screen.
4. Press **[menu]**, then select **Send OS**.
On a TI-Nspire™ handheld, press **[menu]**.



5. On the receiving handheld, the message, "You are receiving an OS Upgrade. Unsaved changes will be lost. Would you like to continue?" is displayed along with Yes and No response buttons. Select Yes to receive the OS upgrade.
 - If **Yes** is not selected within 30 seconds, the handheld automatically responds with No, and the transmission is cancelled.
 - It is important to save and close all open documents before performing an OS Upgrade. Continuing with an OS Upgrade on a handheld with an open, unsaved document will cause the loss of that data.
6. While the upgrade is in progress, the following messages are displayed on the receiving and sending handhelds:
 - "Receiving OS. Do not unplug cable."
 - "Sending OS. Do not unplug cable."
7. After the transfer completes, the sending handheld receives a completion message and you can unhook the cable. The OS is automatically installed on the receiving handheld. During the installation process, the "Installing OS <version number>" message is displayed on the receiving handheld.
8. When the installation is complete, the "OS <version number> has been installed. Handheld will now restart." message is displayed. The restart is initiated. If the sending handheld is still attached to the cable, the successful transmission message remains displayed on that handheld's screen.

Important:

- For each receiving handheld, remember to back up information as necessary and install new batteries.
- Be sure the sending handheld is on the **Send OS** screen.

Upgrading the OS on multiple handhelds

In the classroom, use the TI-Nspire™ Docking Station to upgrade the OS on multiple handhelds at the same time.

In the teacher versions of the TI-Nspire™ software, you can transfer files from the computer to multiple handhelds from the Content Workspace. See *Using the Content Workspace* for more information about transferring files to connected handhelds.

OS Upgrade Messages

This section lists the information and error messages that can be displayed on handhelds during an OS Upgrade.

Shown on:	Message and Description
Sending handheld	<div data-bbox="356 738 729 958" style="border: 1px solid black; padding: 10px; text-align: center;">"Receiver does not have enough storage space. Make <xxxK> available."</div> <p>This message indicates that the receiving handheld does not have enough memory available for the new OS. The space requirement is shown so you know how much memory must be cleared for the new operating system. Files can be moved to a computer for storage to free the necessary space.</p>

Shown on: **Message and Description**

Sending handheld

"Receiver must change batteries before upgrading the OS."

This message indicates that the batteries in the receiving handheld need to be replaced. Send the OS Upgrade once the batteries are replaced.

Sending handheld

"Receiver has a newer OS and cannot load this OS."

OK

This message indicates that the receiving handheld has a newer OS version than the one being transmitted. You cannot downgrade an OS.

Sending handheld

"Upgrade not accepted by receiver."

OK

This message indicates that the receiving handheld refuses the upgrade.

Sending handheld

"OS has been transferred. You can now unplug."

OK

This message indicates that the transfer is complete and it is safe to unplug the cable from the sending handheld.

Shown on: Message and Description

Sending handheld

"Sending OS. Do not
unplug cable."

This message, along with a progress bar, is displayed while the OS Upgrade is being transferred.

Both handhelds

"Transfer failed. Check cable
and try again."

OK

The sending and/or receiving handheld is not properly connected. Reinsert the cable into each handheld, then try the transmission again.

Receiving
handheld

"You are receiving an OS
Upgrade. Unsaved changes
will be lost. Would you like
to continue?"

Yes No

This message is displayed when an OS Upgrade is about to begin. If you do not select Yes within 30 seconds, the system automatically responds with No.

Shown on:	Message and Description
------------------	--------------------------------

Receiving handheld

"Receiving OS. Do not unplug cable."

This message, along with a progress bar, is displayed while the OS Upgrade is being transferred.

Receiving handheld

"Installing OS."

This message is displayed when the transfer is complete. It is shown to keep you informed of the handheld's status.

Receiving handheld

"OS has been installed.
Handheld will restart."

OK

This information message displays briefly before the handheld automatically reboots.

Receiving handheld

"Install was corrupted.
Handheld will reboot. You will need to retry OS upgrade."

OK



An error occurred during the transmission, and the installation was corrupted. The handheld will reboot. After the reboot, reinstall the OS Upgrade.

Using Keyboard Shortcuts



Keyboard shortcuts



Use the following keyboard shortcuts to perform common functions. You can also perform all shortcuts performed by selecting options from menus.


Getting Help



Open Hints  

Editing Text



Cut  

Copy  



Paste  


Undo  



Redo  



 


Toggle approximate and exact results  

Change key to include appropriate accent 

Inserting Characters and Symbols in a document



Display character/symbol palette  



Underscore  

Display math template palette 

Backslash (\)  

Manual data capture point  

Clear  

Caps Lock  

Store  

Square brackets	
Curly brackets	
Display Trig symbol palette	
Equals symbol	
Display pi symbols palette (π , $/$, θ , and so on),	
Display equality/inequality palette ($>$, $<$, \dots)	
Display marks and letter symbols palette ($?$ $!$ $\$$ $'$ $"$ $:$ $;$ $_$ \backslash)	
Square root	
log	
ln	
ans	

Managing Documents

Open document menu	
Open document	
Close document	
Create new document	
Insert new page	
Select application	
Save current document	

Navigation

Top of page	
End of page	
Page Up	

Page Down	
Up a level in the hierarchy	
Down a level in the hierarchy	
Context menu for selection	
Extends selection in direction of arrow	Any arrow

Navigating in Documents

Displays previous page	
Displays next page	
Displays Page Sorter	
Exits Page Sorter	
Switch between applications on a split page	
Moves focus backward within page	

Wizards and Templates


Add a column to a matrix after the current column	
Add a row to a matrix after the current row	
Integration template	
Derivative template	
Math template palette	or
Fraction template	

Modifying Display

Increase contrast	
Decrease contrast	
Power off	

Using Application-Specific Shortcuts

Select all in Notes or Program Editor	
---------------------------------------	--

Check syntax and store (in Program Editor)	ctrl B
Insert Data Collection console	ctrl D
Find (in Program Editor)	ctrl F
Hide/Show Entry Line (in Graph or Geometry)	ctrl G
Go To (in Lists & Spreadsheet, Program Editor)	
Find and Replace (In Program Editor)	ctrl H
Insert math expression box (in Notes)	ctrl M
Open the Scratchpad	
Recalculate (in Lists & Spreadsheet)	ctrl R
Add Function Table (in Lists & Spreadsheet, Graph, and Geometry)	ctrl T
Group/ungroup	ctrl 4 / ctrl 6

Appendix: Service and Support

Battery Precautions

Take these precautions when replacing batteries.

- Do not leave batteries within the reach of children.
- Do not mix new and used batteries. Do not mix brands (or types within brands) of batteries.
- Do not under any circumstances use rechargeable AAA batteries in your handheld.
- Install batteries according to polarity (+ and -) diagrams.
- Properly dispose of used batteries immediately.
- Do not incinerate or dismantle batteries.

Disposing of Batteries

- Do not mutilate, puncture, or dispose of batteries in fire. The batteries can burst or explode, releasing hazardous chemicals. Discard used batteries according to local regulations.

Texas Instruments Support and Service

For general information

For more information about TI products and services, contact TI by e-mail or visit the TI Internet address.

E-mail inquiries: ti-cares@ti.com

Home Page: education.ti.com

Service and warranty information

For information about the length and terms of the warranty or about product service, refer to the warranty statement enclosed with this product or contact your local Texas Instruments retailer/distributor.

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