



HP Connectivity Kit

User Guide

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1 Introduction

HP Connectivity Kit is software that facilitates the creation and distribution of HP Prime content and establishes a classroom network of HP Prime calculators. The classroom network can then be used to broadcast the content you create. HP Prime content includes HP apps and their data, exam-mode configurations, formative assessments (polls), notes, and even messages to individual students. Poll responses can be aggregated and the results displayed for discussion purposes. You can monitor the network of HP Prime calculators and project a student display for discussion purposes.

You can use Connectivity Kit in any of the following modes:

- Connected from a computer running Connectivity Kit to one or more HP Prime calculators, using the USB cable included in the product package
- Connected wirelessly to one or more HP Prime calculators using the HP Prime Wireless Kit (purchased separately) to form an HP Wireless Classroom Network
- Connected to one or more virtual calculators on the same computer (HP Prime Virtual Calculator is a program that is available separately)

Whichever mode you choose, Connectivity Kit allows you to create and edit custom HP Prime content to extend and customize your HP Prime calculator. In addition, the HP Wireless Classroom Network provides features that enhance the HP Prime classroom experience.

Connectivity Kit provides the following capabilities:

- Manage content and data on one or more connected calculators
- Prepare custom HP Prime content
- Send HP Prime content to one, some, or all connected calculators
- Receive poll results from connected calculators and analyze the results
- Send a message to one, some, or all connected calculators
- Receive a message from a connected calculator
- Activate and deactivate exam mode on connected calculators
- Monitor and capture calculator activity
- Project one student display live to the class for the purposes of classroom discussion
- Update calculator software
- Back up and restore your calculator
- Clone one HP Prime calculator to another

For detailed information about the functionality of the HP Prime calculator, see the *HP Prime Graphing Calculator User Guide*.

2 Elements of the interface

When the software opens, Connectivity Kit presents three panes, as well as the familiar title, menu, and icon bars at the top of the window.

Calculator pane

When a calculator is connected, its name appears in the calculator pane. Click the expand arrow beside a calculator name to expand the list of content for the calculator. Double-click an object in the list to open an editor in the work area.

Content pane

The HP Prime content that is stored on your computer appears in the content pane, in folders dedicated to each type of content, such as exam-mode configurations and polls. As in the calculator pane, you can double-click a content item to open its editor in the work area.

Work area

The work area has two purposes. First, it is the area where the content editors appear. Second, it is the control center for the HP Wireless Classroom Network, where the Monitor and Messages windows appear.

Menu bar

The menu bar contains four menus: File, Edit, Window, and Help. Each of these four menus is described in detail in the following sections.

File menu

The **File** menu lists the following options:

- **Language**—Display a menu to choose a language for the software
- **Exit**—Close the software

Edit menu

The **Edit** menu lists the following options:

- **Cut**—Cut the selected data from the editor and place it in the clipboard
- **Copy**—Copy the selected data from the editor and place it in the clipboard
- **Paste**—Paste the clipboard contents at the cursor location
- **Preferences**—Open a dialog box that lists the following options:
 - Environment
 - Working folder—The default folder for the HP Prime calculator on your computer, as shown in the content pane

- Wireless 1 options—Choose either a channel or **Automatic Selection**, and then choose an SSID name for the sub-network based on your first antenna



NOTE: Each antenna can accommodate up to 30 HP Prime calculators.

- Wireless 2 options—Choose either a channel or **Automatic Selection**, and then choose an SSID name for the sub-network based on your second antenna, if any

Window menu

The **Window** menu lists the following options:

- **Close**—Close the active editor
- **Close All**—Close all editors
- **Tile**—Tile the editors
- **Cascade**—Cascade open editors
- **Next**—Move to the next editor
- **Previous**—Move to the previous editor
- **Messages**—Open or close the Messages window in the work area
- **Monitor**—Open or close the Monitor window in the work area
- **Calculators**—Open or close the calculator pane in the work area
- **Content**—Open or close the content pane in the work area
- **Proctor Mode**—Open or close the proctor mode pane in the work area

Help menu

The **Help** menu lists the following options:

- **HP Connectivity Kit User Guide**—Open this document
- **Go to HP.com**—Open the HP website
- **Update Calculator**—For an HP Prime calculator connected via USB, manually update firmware to the latest version
- **Check for Update**—Check for updates for the software
- **About HP Connectivity Kit**—Get information about the version of the software

Icon bar

The icon bar contains shortcuts for some of the most frequently used options in the menu bar. Move the pointer over an icon to see its title.

Calculators icon

Click the **Calculators** icon to open or close the calculator pane.

Content icon

Click the **Content** icon to open or close the content pane.

Save icon

If you are working in the calculator pane, clicking the Save icon saves the data in the active editor to the connected calculator.

If you are working in the content pane, clicking the Save icon saves the content in the active editor to your computer rather than to a calculator. Specifically, the content is saved to the working directory specified under Preferences in the Edit menu.

Save All icon

You might have multiple editors open in the work area, some with HP Prime content on your computer (from the content pane) and others with HP Prime content on your calculator (from the calculator pane). Clicking the Save All icon saves all of your work, in its current state, on the appropriate devices. If you close the software without saving your work, you will be prompted to Save All before closing.

New Content icon

Click the **New Content** icon to open a menu of new content types. You can choose one of the following:

- **Folder**—Creates a new folder or sub-folder
- **Poll**—Creates a new poll using the Poll Editor
- **Notes**—Creates a new note using the Note Editor
- **Program**—Creates a new program using the Program Editor
- **Exam Mode**—Creates a new exam mode using the Exam Mode Editor

Exam Mode icon

Click the **Exam Mode** icon to create or open an exam mode configuration.

Poll icon

Click the **Poll** icon to create or open a poll.

Proctor Mode icon

Click the **Proctor Mode** icon to open or close the proctor mode pane.

Monitor icon

Click the **Monitor** icon to open the Monitor window in the work area. This is a shortcut for opening the Monitor window via the Window menu.

Messages icon

Click the **Messages** icon to open the Messages window in the work area. This is a shortcut for opening the Messages window via the Window menu.

Classroom network ID

You connect the computer running Connectivity Kit to multiple calculators by either connecting the USB cable included with each HP Prime calculator to a USB port on the computer or to a USB hub or using wireless

adapters (purchased separately). When a number of calculators are connected wirelessly in a classroom setting, give your network a unique ID to distinguish it from other wireless networks in the vicinity.





1. In the Connectivity Kit menu bar, click **Edit** and select **Preferences**. The Preferences dialog box opens.
2. For each antenna connected to Connectivity Kit (up to a maximum of 2), there is a separate area: Wireless-1 and Wireless-2. In the SSID box for each antenna, enter a unique classroom ID. For example, if you have two antennas connected, you could enter *Miss May 1* as the SSID for Wireless-1 and *Miss May 2* as the SSID for Wireless-2.
3. Click **OK**.

3 Getting started

Naming a calculator

Before installing Connectivity Kit, make sure that the calculators you plan to use with Connectivity Kit have been named. This enables you to distinguish one connected calculator from another in the Connectivity Kit window.

To name a calculator, follow the steps below.

1. On the calculator, press  . The Home Settings screen opens.
2. Tap  to go to the second page of the screen.
3. Tap the **Calculator Name** box.
4. Use the calculator keys to enter the calculator name in the box.
5. Tap .

Installing Connectivity Kit

Whether you plan to use Connectivity Kit with a single HP Prime calculator connected via the USB cable or with an entire class connected wirelessly, you must first install Connectivity Kit. On the included product CD, locate the file `HP_Connectivity_Kit.exe`, and double-click it. Or, on the HP website, locate the file `HP_Connectivity_Kit.exe`, download it to your computer, and then double-click it. Follow the on-screen instructions to complete the installation.

Starting Connectivity Kit

If you installed the Connectivity Kit icon on your desktop, locate and double-click the icon to start Connectivity Kit.

Otherwise, do the following:

1. On the computer, open the **Start** menu.
2. Locate and open the **HP Calculators** folder.
3. Click **HP Connectivity Kit**.

Connecting a calculator via USB

To connect an HP Prime calculator to the computer running Connectivity Kit, use the USB cable included in the product package, and follow the steps below. It is best if your computer has an active Internet connection.

1. Start Connectivity Kit, if you have not done so already (see [Starting Connectivity Kit on page 6](#)).
2. The cable included in the HP Prime package has two connectors. Connect the micro-USB end to the micro-USB port on the top of the HP Prime calculator and then connect the standard USB plug to a USB port on your computer.

3. Turn on the HP Prime calculator. The HP Prime calculator will appear by name in the calculator pane; if it does not, try using a different USB port on your computer.
4. If the software of your HP Prime calculator cannot connect to Connectivity Kit, you will be prompted to update the software. Accept the software update, and the calculator will first update and then connect.

Connecting a calculator wirelessly

To connect an HP Prime calculator to the computer running Connectivity Kit, by using the HP Prime Wireless Kit (purchased separately), follow these steps:

1. Connect the antenna included with the HP Prime Wireless Kit to a USB port on your computer.
2. Start Connectivity Kit, if you have not done so already (see [Starting Connectivity Kit on page 6](#)).
3. Connect the wireless module to the micro-USB port on the top of the calculator.
4. Turn on the HP Prime calculator.
5. Tap the date/time in the upper right corner of the HP Prime display. A window opens, displaying the wireless status icon.
6. Tap this icon to connect to the classroom network. A menu opens. Click the list arrow to display the available networks, and then click the name of your network.

Connecting to the virtual calculator

If you start HP Prime Virtual Calculator on the same computer that is running Connectivity Kit, the virtual calculator connects automatically to Connectivity Kit.

Whichever method you use to connect, the HP Prime calculator will appear by name in the calculator pane, with an expansion arrow that you can click to see the contents of the HP Prime calculator.

4 Establishing an HP Wireless Classroom Network

This section describes how to establish an HP Wireless Classroom Network and provides details for troubleshooting wireless connections. If you plan to use Connectivity Kit with the USB cable only, you can skip this section.

About the wireless network

Connectivity Kit establishes your wireless classroom network using the following items:

- An antenna, provided in the HP Prime Wireless Kit, for connecting up to 30 HP Prime calculators. You can use up to three antennas in a single classroom network.
- The wireless module for the HP Prime calculator.
- An SSID name to identify each antenna in the network to an HP Prime calculator.
- A channel for each antenna to send and receive signals.

Connectivity Kit establishes the wireless network via one to three antennas to identify itself to the available HP Prime calculators. Each antenna in the Connectivity Kit network uses a default SSID name: HP_Class_1, HP_Class_2, and HP_Class_3. You can change these names to something more unique to make sure that two nearby networks do not have the same name and that your students can identify the correct antenna if more than one is available (see [Changing the SSID on page 9](#)). By default, Connectivity Kit chooses a default channel for each antenna to minimize interference. You can manually change the channel if it encounters interference from another antenna or other networks in the area.

Setting up a network with multiple antennas

1. Connect up to three antennas to USB ports on your computer.
2. Start **HP Connectivity Kit**.
3. On the menu bar, click **Edit** and then select **Preferences**. The Preferences dialog box opens.
4. If your class is using the HP Prime app on a tablet or other device, select **Enable Network** under IP Networking.
5. Verify that all devices running the HP Prime app and the computer running HP Connectivity Kit are on the same subnet, and then verify that UDP broadcast packets are not blocked by the network administrator.



NOTE: If you do not complete this step, the devices might not be able to discover HP Connectivity Kit and join the classroom network.

6. There are two areas in the dialog box for connections to HP Prime calculators: Wireless-1 and Wireless-2. For each connected antenna, the radio frequency (RF) version for that antenna is identified by number; open antenna slots are identified by the text **No adapter found**. Enter a unique SSID for each connected antenna.

For example, under **Wireless-1**, enter `My Class 1`. Under **Wireless-2**, enter `My Class 2`.



TIP: Optionally, you can manually select channels for each antenna.

7. Click **OK** to close the Preferences dialog box.
8. Connect the included wireless module to an HP Prime calculator, and then connect the calculator to the first antenna using the following procedure:
 - a. Turn on the HP Prime calculator.
 - b. Tap the top-right corner of the calculator display to open the Quick Settings menu.
 - c. Tap the wireless icon to open Page 4 of Home Settings.
 - d. Tap the **Network** box, and then tap the unique SSID of Wireless-1.
9. Repeat step 6 for up to 29 more HP Prime calculators.
10. If your class has more than 30 students, repeat step 6, but connect to the second antenna by selecting the unique SSID of Wireless-2 during step d. Repeat this step up to 29 times to connect a total of 60 HP Prime calculators.

Troubleshooting a wireless connection

If you follow the steps for a wireless connection (see [Connecting a calculator wirelessly on page 7](#)) and do not see the HP Prime calculator appear by name in the calculator pane, follow these steps:

1. Confirm that the calculator is on.
2. Verify that the wireless USB adapter is properly plugged in to the calculator.
3. On the HP Prime calculator, go to the fourth page of the Home Settings screen, or tap the top-right corner of the calculator display to open the Quick Settings menu and then tap the wireless icon. Verify that the calculator is connected to an antenna on the correct wireless network. The network name in the top box of page 4 of the Home Settings screen must match the unique SSID for the antenna in Connectivity Kit. Make sure that no more than 30 HP Prime calculators are connected to the same antenna. Tap the **Network** box (at the top of the display) to open a menu and select the correct antenna and network.

Changing the SSID

To confirm, edit, or change the SSID for each antenna of the classroom network on Connectivity Kit, follow these steps:

1. On the Connectivity Kit menu bar, click **Edit** and select **Preferences**.
2. In the **Preferences** dialog box, locate the first antenna in the Wireless-1 area. Find the **SSID** box near the bottom of the area. The name in that box is the current name for that antenna in your wireless classroom network.
3. To change the name, click the **SSID** box, delete the current name, and enter your own unique name for the antenna.
4. If you have multiple antennas, repeat steps 2 through 3 for each of the other antennas.
5. Tap **OK** when you are done.

Selecting a channel manually

By default, Connectivity Kit selects one of 13 channels automatically for each antenna on its wireless classroom network. If you encounter interference with a nearby network, you can change the channel used for each antenna on your wireless network to eliminate that interference. Use the following procedure.

1. Confirm that you have given each antenna in your wireless network a unique ID (see [Changing the SSID on page 9](#)).
2. If each antenna ID is unique and you are still seeing calculators that are not in your network, try selecting a different channel for your wireless network. Return to the **Preferences** dialog box and find the Wireless-1 area. Clear the check box next to **Automatic Selection**, and then select a different channel using the up and down arrows to the right of the **Channel** box. Tap **OK** to exit the **Preferences** dialog box.
3. You might need to repeat Step 2 until you find a channel for each antenna (including Wireless-2) that does not interfere with nearby networks.
4. You might have to restart Connectivity Kit.

5 Calculator pane

Introduction

Once you have connected an HP Prime calculator to Connectivity Kit, you can customize and extend your HP Prime calculator with data, programs, notes, apps, and so on by using the calculator pane.

This pane can be undocked from its default location and moved anywhere on your computer screen. You can also resize the pane to the dimensions that suit your needs. Finally, you can hide and reopen the calculator pane. When you reopen the pane, its size and location are the same as they were before the pane was hidden.

From the calculator pane in Connectivity Kit, you can do the following:

- View and edit Home settings
- Back up, restore, and clone your HP Prime calculator
- View the contents of the calculator
- Drag and drop HP Prime content from the calculator pane to the content pane
- Drag and drop HP Prime content from your computer to a calculator in the calculator pane
- Open editors in the work area

Calculator context-sensitive menu

After the HP Prime calculator appears by name in the calculator pane, right-click the name of the HP Prime calculator to open its context-sensitive menu. The following options are available:

- **Preferences**—Edit many of the settings on the first two pages of the calculator’s Home settings
- **Rename**—Change the name of the calculator (from Page 2 of the Home settings)
- **Get screen capture**—Copy or save the current display of the calculator
- **Backup**—Back up the calculator to your computer
- **Clone from here**—Clone this calculator to another calculator
- **Restore**—Restore the calculator from a backup file you saved to your computer
- **Properties**—See the version date and number of the calculator software
- **Refresh**—Refresh the display of this calculator to Connectivity Kit

Using the calculator pane

Click the expand arrow to the left of the name of an HP Prime calculator to display a list of content types on the calculator. The list includes the following:

- Application Library
- CAS Vars
- Complex (vars)
- Exam Configurations

- List
- Matrices
- Notes
- Programs
- Real (vars)
- Variables

The content types with expand arrows (for example, Application Library) are categories of content. Click an expand arrow to see the list of content in that category. Click a content object to select it. Right-click a content object to open a context-sensitive menu. The menu varies from object to object, but the usual options include the following:

- **Open**—Opens the object and its editor.
- **Send to class**—Sends the object to all calculators currently in the calculator pane. If one or more calculators are selected in the Monitor window, the content is sent to the selected calculators only.
- **Delete**—Deletes the object or clears the contents of a built-in object.

If you have HP Prime content on your desktop, you can drag it to a calculator in the calculator pane to copy it to that calculator; if the file has multiple types of HP Prime content (apps, programs, notes, and so on), the different content objects will be sorted and saved to the appropriate locations. You can drag HP Prime content from your desktop to the content pane. In the content pane, you can right-click content objects and select **Send to class**. You can also drag content from the content pane to a calculator in the calculator pane to copy the item to that calculator only.

You can drag a calculator name from the calculator pane to your desktop. A folder with that name will appear on your desktop, containing all of that calculator's settings and data.

The editors

Each HP Prime content type has its own dedicated editor. See [The editors and the work area on page 14](#) for more details on using the editors to create and edit the various HP Prime content types.

6 Content pane

Introduction

The content pane is where you keep the HP Prime content on your computer. The content pane displays the contents of the working folder, as listed in Preferences in the Edit menu. Within this folder are all the HP Prime content files you have saved to your computer.

This pane can be undocked from its default location and moved anywhere on your computer screen. You can also resize the pane to the dimensions that suit your needs. Finally, you can hide and reopen the calculator pane. When you reopen the pane, its size and location are the same as they were before the pane was hidden.

As in the calculator pane, you can perform the following tasks in the content pane:

- View the HP Prime content that is stored on your computer
- Drag and drop HP Prime content from your computer to Connectivity Kit
- Drag and drop HP Prime content from the content pane to a calculator in the calculator pane
- Drag and drop HP Prime content to the Monitor window to distribute it to the class
- Right-click a content object and select **Send to class** to distribute it to the class
- Open editors in the work area for HP Prime content

Unlike the calculator pane, the content pane allows you to perform the following additional tasks:

- Create and edit class polls
- View and project poll results
- Broadcast a poll
- Broadcast poll results

When broadcasting polls, poll results, or HP Prime content, you can choose to broadcast to the entire class, a single group within the class, or a single HP Prime calculator.

It is important to keep in mind that the content pane contains the HP Prime data and content that is stored on your computer, while the calculator pane shows many of the same types of content stored on an HP Prime calculator. In both panes, when you double-click an object, the object will open in its own editor in the work area. See [The editors and the work area on page 14](#) for more details on each editor.


7 The editors and the work area

Introduction

The work area contains all open editors for HP Prime content. It also contains the Monitor and Messages windows when you have those windows open.

The editors

Each HP Prime content type (note, program, app, and so on) has its own special editor, designed to make it easy for you to create and edit custom content to customize and extend your HP Prime calculator. The following sections describe each editor in turn.



 **NOTE:** The following sections assume that you are opening the editors from the calculator pane. However, the behavior is the same if you open an editor from the content pane. The only difference is where the HP Prime content is stored.


When you save from an editor in the calculator pane, the content is stored on an HP Prime graphing calculator or a virtual calculator. When you save from an editor that you opened from the content pane, the content is stored to your computer in the default working folders in the content pane.

Renaming a calculator

You can use Connectivity Kit to give your HP Prime calculator a name or change its name.

1. In the calculator pane, locate the name of the calculator you want to rename.
2. Right-click the calculator name, and select **Rename**.
3. Type the new calculator name, and press the [Enter](#) key.

To confirm that the connected calculator has been renamed, press  , and tap



 to move to the second page of the Home Settings screen. You will see the new calculator name in the Calculator Name box.

Editing Home settings

You can use Connectivity Kit to edit Home settings on your HP Prime calculator. For detailed information about the Home settings in the HP Prime calculator, see the *HP Prime Graphing Calculator User Guide*.

To edit the Home settings on your HP Prime calculator:

1. In the calculator pane, locate the name of the calculator whose settings you want to edit.
2. Right-click the calculator name, and select **Preferences**. The Preferences dialog box opens.
3. Edit the settings.
4. Click **Save**.

To confirm that the settings have been edited in the connected calculator, press   to open the **Home Settings** screen. You will see the edited settings in the pages of the screen.

Backing up data and settings

You can use Connectivity Kit to back up the data and settings of a connected calculator:

1. In the calculator pane, locate the name of the calculator whose data and settings you want to back up. Click the expand arrow next to the calculator's name.
2. Right-click the calculator name, and select **Backup**. A Backup dialog box opens.
3. Navigate to the location in which you want to save the backup zip file.
4. Give the backup zip file an appropriate file name.
5. Click **Save**.

Restoring data and settings

You can use Connectivity Kit to restore the data and settings of your HP Prime calculator from a backup zip file saved to your computer.

1. In the calculator pane, locate the name of the calculator that you want to restore. Click the expand arrow next to the calculator's name.
2. Right-click the calculator name, and select **Restore**. A **Restore** dialog box opens.
3. Navigate to the location in which you saved the backup zip file you now want to restore.
4. Click the backup zip file.
5. Click **Open**.

After you click **Open**, the name of the calculator whose data and settings you are restoring will disappear momentarily from the list of calculator names in the calculator pane. When the data and settings have been successfully restored, the name of the calculator will reappear at the end of the list of calculator names.

Cloning a calculator

You can use Connectivity Kit to clone data and settings of one HP Prime calculator and apply them to another HP Prime calculator:

1. In the calculator pane, locate the name of the calculator whose data and settings you want to clone. Click the expand arrow next to the names of these calculators.
2. Right-click the calculator name, and select **Clone from here**.
3. Locate the name of the calculator to which you want to apply the cloned data and settings.
4. Right-click the calculator name, and select **Clone to here**.

After you select **Clone to here**, the name of the calculator to which you are applying the cloned data and settings will disappear momentarily from the list of calculator names in the calculator pane. When the data and settings have been successfully cloned, the name of the calculator will re-appear at the end of the list of calculator names.

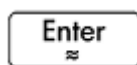
Editing real variables

You can use Connectivity Kit to edit real variables (A–Z and θ) on your HP Prime calculator.

The real variable editor in Connectivity Kit has two columns. The left column contains the variable names, and the right column contains the values assigned to the variables. By default, each complex variable is assigned a value of 0. To edit real variables:

1. In the calculator pane, locate the name of the calculator whose real variables you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, double-click **Real**. The Real variable editor opens in the editor pane.
4. In the editor, click the cell to the right of the name of the variable you want to edit.
5. Use the computer keyboard to enter the desired value for the variable in the cell, and press Enter. The highlight cursor moves to the next variable in the editor.
6. Repeat steps 4 through 5 for any other real variables you want to edit.
7. Click the **Save** icon in the icon bar.

To confirm that the new value of a variable has been saved to your connected HP Prime calculator, go to the Prime Home view, press the key combination that corresponds to the variable you edited, and press



. You will see the new value of the variable in the history. For example, if you set the real variable

B to be 32, when you press



, you will see 32 in the history.

Editing complex variables

You can use Connectivity Kit to edit the complex variables Z1–Z9 and Z0.

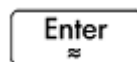
The complex variable editor in Connectivity Kit has two columns. The left column contains the variable names. The right column contains the values assigned to the variables. If a variable has no value assigned to it, a 0 appears in the right column beside that variable name.

Complex variables can be entered in the editor as either (x,y) or $x+yi$ (where x is the real part of the complex number, and y is the imaginary part).

To edit complex variables on your HP Prime calculator:

1. In the calculator pane, locate the name of the calculator whose complex variables you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. Click **List** to see L0–L9. Double-click one of these lists to open its List Editor.
4. In the editor, click the first cell to edit it.
5. Use the computer keyboard to enter the desired value for the variable in the cell, and press Enter. The highlight cursor moves to the next variable in the editor.
6. Repeat steps 4 through 5 for any other complex variables you want to edit.
7. Click the **Save** icon in the icon bar.

To confirm that a variable has been edited in the connected calculator, go to the Home view, press the key combination that corresponds to the variable you edited, and press



. You will see the edited

value of the variable in the history. For example, if you set complex variable Z0 to be $5+3*i$, when you press





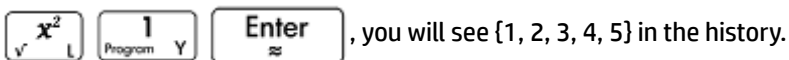
Editing list variables

You can use Connectivity Kit to edit the list variables L1–L9 and L0.

To edit a list variable:

1. In the calculator pane, locate the name of the calculator whose list variables you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, double-click **List**. The list variable editor opens in the editor pane.
4. In the editor, click the cell below the name of the variable you want to edit.
5. Use the computer keyboard to enter the first element of the list into the cell, and press Enter. The highlight cursor moves to the next element in the list.
6. Use the computer keyboard to enter the second element of the list into the cell, and press Enter.
7. Repeat steps 5 through 6 for the other elements in the list, and repeat steps 4 through 6 for any other list variable you want to edit.
8. Click the **Save** icon in the icon bar.

To confirm that a list has been saved to your HP Prime calculator, go to the Home view, press the key combination that corresponds to the list you edited and press . You will see the edited value of the variable in the history. For example, if you set list variable L1 to be {1,2,3,4,5}, when you press 



Editing matrix variables


You can use Connectivity Kit to edit the matrix variables M1–M9 and M0.




You can edit only one matrix variable at a time in the matrix variable editor. The number of rows and columns in the editor depends on the number of rows and columns in the matrix variable you are editing. When you edit data in the final column or row, the editor creates a new column or row in case you need it.

To edit a matrix variable:

1. In the calculator pane, locate the name of the calculator whose matrix variable you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, click the expand arrow beside **Matrices** to expand a list of the names of matrix variables.
4. In the second expanded list, double-click the name of the matrix variable you want to edit. A matrix variable editor opens in the editor pane.
5. Click the top left cell.
6. Use the computer keyboard to enter the desired value into the cell, and press [Enter](#).

7. Move to another cell in the editor by either clicking the cell or pressing the arrow keys on the computer keyboard.
8. Use the computer keyboard to enter the desired value into this cell, and press [Enter](#).
9. Repeat steps 7 through 8 for the other elements in the matrix.
10. Click the **Save** icon in the icon bar.

To confirm that a matrix has been saved to your HP Prime calculator, go to the Home view, press the key combination that corresponds to the variable you edited and press . You will see the edited value of the variable in the history. For example, if you set matrix variable M1 to be $[[1,2],[3,4]]$, when you press



  , you will see $[[1, 2], [3, 4]]$.

Editing and creating programs

You can use Connectivity Kit to edit and create programs for your HP Prime calculator. For detailed information about programming, see the programming chapter of the *HP Prime Graphing Calculator User Guide*.


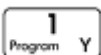
To edit a user program on your HP Prime calculator:

1. In the calculator pane, locate the name of the calculator whose user program you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, click the expand arrow beside **Programs** to expand a list of names of user programs. (If there is no expand arrow beside **Programs**, the calculator has no user programs.)
4. In the second expanded list, double-click the name of the user program you want to edit. A program editor opens in the editor pane.
5. Use the computer keyboard to edit the program in the editor.
6. Click the **Save** icon in the icon bar.

To confirm that the program has been saved to your HP Prime calculator, press   to open the Program Catalog. You will see the program name in the catalog. Tap the name, and you will see the edited and saved program.

To create a user program:

1. In the calculator pane, locate the name of the calculator in which you want to create the new user program.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, right-click **Programs** and select **New**.
4. An edit box appears. Enter a name for your new program and press the Enter key. The program editor opens with your new program.
5. Use the computer keyboard to enter the program in the editor.
6. Click the **Save** icon in the icon bar.


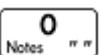
To confirm that the program has been created on your HP Prime calculator, press   to open the Program Catalog. You will see the program name in the catalog. Tap the name, and you will see the edited and saved program.

Editing and creating notes


You can use Connectivity Kit to edit and create notes for your HP Prime calculator.


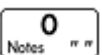
To edit a note on your HP Prime calculator:

1. In the calculator pane, locate the name of the calculator whose note you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, click the expand arrow beside **Notes** to expand a list of names of notes. (If there is no expand arrow beside **Notes**, the calculator has no notes.)
4. In the second expanded list, double-click the name of the note you want to edit. A note editor opens in the editor pane.
5. Use the computer keyboard to edit the note in the editor.
6. Click the **Save** icon in the icon bar.

To confirm that the edited note has been saved to your HP Prime calculator, press   to open the Note Catalog. You will see the note name in the catalog. Tap the name and you will see the edited note.

To create a note and save it to your HP Prime calculator, follow these steps:

1. In the calculator pane, locate the name of the calculator in which you want to create the note.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, right-click **Notes** and select **New**.
4. An edit box appears. Enter a name for your new note and press . The note editor opens with your new note.
5. Use the computer keyboard to add the note text in the editor.
6. Click the **Save** icon in the icon bar.

To confirm that the note has been created on your HP Prime calculator, press   to open the Note Catalog. You will see the name of the note in the catalog. Tap the note name to see the note text.

Editing app content

You can use Connectivity Kit to edit the data in any HP app and then save it to your HP Prime calculator. In this manner, you can create examples and send them to your HP Prime calculator, and then connect your HP Prime calculator to another HP Prime calculator and send that app along.

The data in an HP app is stored in app variables and contained in a file with the hpapp extension. Each app also has its own program and its own note, contained in files with the respective extensions hpappprgm and hpappnote. These files can be edited through the main App Editor. Each app editor in Connectivity Kit has tabs for the different types of app content that you can edit. All app editors have **Modes**, **Program**, **Info** (Note),

Files, and **Variables** tabs. App editors might also have some or all of the following tabs: **Results**, **Symbolic**, **Plot**, and **Numeric**.

After you make changes to an app, the title in the affected editor shows an asterisk after the app name to remind you to save your changes. Similarly, the app name in the Application Library in Connectivity Kit shows an asterisk. Click the **Save** or **Save All** icon to save your work before continuing.

For example, the Function app editor has a Symbolic tab with the variables F1(X), F2(X), and so on. The Plot tab has Xmin, Xmax, and the other variables associated with the Plot view. You edit these variables to set up the app with the functions you want and the Plot view settings, and so on. Then you save the whole app to your HP Prime calculator.

In addition to an app editor, each app has folders for its own files and variables. These become visible when you click the expand arrow for the app. The Variables folder contains any user-defined variables associated with an app. Right-click the **Variables** folder to open its context-sensitive menu. The options include the following:

- **Add**—Adds a new variable
- **Clear**—Deletes all user app variables

Right-click the **Files** folder to open its context-sensitive menu. The options include the following:

- **Add file**—Adds a user file to the app



NOTE: HP does not recommend adding large files.

- **Add icon**—Adds an image to identify the app in the Application Library

If you add a PNG file named icon.png to the Files folder, that file is used as the icon for the app in the Application Library. Using the Add icon option simplifies this process. The Add file option opens a browser where you can select an image file from your computer memory.








NOTE: HP does not recommend adding large files or a large number of files.

For detailed information about the app objects for each app, see the *HP Prime Graphing Calculator User Guide*.

To edit app content on your HP Prime calculator:

1. In the calculator pane, locate the name of the calculator whose app content you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, click the expand arrow beside **Application Library** to expand the list of app icons.
4. In the second expanded list, double-click the icon of the app whose content you want to edit. The app editor opens in the editor pane.
5. In the app editor, click the tab that contains the app object you want to edit.
6. Edit the object as required.
7. If you want to edit another app object, click the tab that contains it.
8. Edit the object as required.
9. Repeat steps 7 through 8 for any other app objects you want to edit.
10. Click the **Save** icon in the icon bar.

To confirm that the HP app has been saved to your HP Prime calculator, press , tap the icon of the app whose content you edited. Go to each view of the app to see the content you edited. If you edited the Info

note, press   to see it; if you edited the app program, press   to open the Program Catalog, and then open the app program to see your changes.

Exam-mode configurations

The functions and features of the HP Prime calculator can be temporarily restricted for examination purposes. The process of restricting one or more HP Prime calculators for an examination is referred to as exam-mode configuration.

Exam-mode configuration can be done on one HP Prime calculator and then started on that HP Prime calculator or sent to another HP Prime calculator. Or you can use Connectivity Kit to define, start, and stop an exam-mode configuration.

Using Connectivity Kit, you can define one or more exam-mode configurations, start a configuration on an connected HP Prime calculator, start the same exam-mode configuration on all wirelessly connected HP Prime calculators, and stop an exam-mode configuration on one or more connected HP Prime calculators.


The exam-mode configuration editor in Connectivity Kit lets you set the following parameters:




- Whether the exam-mode configuration file is read-only.
- The time after which the exam mode will time out.
- The default angle format (or none).
- A password to deactivate the exam mode.
- Whether the calculator memory is kept, erased, or hidden when the exam mode is activated. Select **Keep and restore** to keep the calculator memory when the exam mode is activated and then restore it to the same state after exam mode is deactivated.
- Whether the three LED lights on the calculator blink while it is in exam mode.
- Whether a security code is required to start exam mode. The proctor creates the code and gives it to the students at the start of the exam. The code determines how the lights blink in exam mode.

After setting these options as you prefer, you then select the functions and features you want to disable while the calculator is in exam mode. Click **Start** to activate exam mode on all connected HP Prime calculators. Click **Stop** to deactivate exam mode on all connected HP Prime calculators. When the exam-mode configuration is open and ready to start, click **Proctor Mode** to open the proctor mode pane. Also, you can select your new exam-mode configuration from the proctor mode pane. For detailed information about exam-mode configurations, see the **HP Prime Graphing Calculator User Guide**.

To edit an exam-mode configuration on your HP Prime calculator:


1. In the calculator pane, locate the name of the calculator whose exam-mode configuration you want to edit.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, click the expand arrow beside **Exam Configurations** to expand the list of names of exam-mode configurations.
4. In the second expanded list, double-click the name of the configuration you want to edit. The exam-mode configuration editor opens in the editor pane.
5. Select the features you want to disable during the examination. Click an expand arrow to expand the list of features that you can disable.
6. Click the **Save** icon in the icon bar.




To confirm that the exam-mode configuration has been edited in the connected calculator, press 

, and tap  twice to move to the third page of the Home Settings screen. In the **Configuration** list, select the name of the configuration. You will see the edited configuration settings on this page, and if you tap  you will see the functions you selected to disable.

To create a new exam-mode configuration for your HP Prime calculator:

1. In the calculator pane, locate the name of the calculator for which you want to create a new exam-mode configuration.
2. Click the expand arrow beside the calculator name to expand the list of content for the calculator.
3. In the expanded list, click the expand arrow beside **Exam Configurations** to expand the list of names of exam-mode configurations.
4. In the second expanded list, right-click **Custom Mode**, and select **Copy**.
5. A new exam mode named Custom Mode Copy appears. Right-click **Custom Mode Copy**, select **Rename**, and then enter a name for your new exam-mode configuration.
6. Double-click the name of the new configuration. An exam-mode configuration editor opens in the editor pane.
7. Select the features you want to disable during the examination. Click an expand arrow to expand the list of features that you can disable.
8. Click the **Save** icon in the icon bar.

To confirm that the exam-mode configuration has been created on your HP Prime calculator, press 

, and tap  twice to move to the third page of the Home Settings screen. In the Configuration list, select the name of the exam-mode configuration. You will see the edited configuration settings on this page, and if you tap  you will see the functions you selected to disable.

Deleting, resetting, and clearing HP Prime content objects

HP Prime content objects have rules regarding deletion. For example, an HP app that you have saved with a new name can be deleted from the App Library, but a native HP app can only be reset to factory defaults and cannot be deleted entirely. Similarly, the Home variables can be cleared of their current contents but cannot be deleted entirely. Conversely, notes and programs can be deleted from memory. There must always be at least one exam-mode configuration. This configuration can be reset, and any additional exam-mode configurations can be deleted. To delete, reset, or clear an HP Prime content object, right-click it and select the appropriate option (clear, reset, or delete) from the menu. Pressing the Delete (or Backspace) key on your computer keyboard might delete HP Prime content such as polls, poll results, notes, and programs.

8 Updating the HP Prime software

You can use Connectivity Kit to update the software of an HP Prime calculator. Updating software will ensure that the calculator has any new features included in the latest version.

To update calculator software, the calculator must be connected with a cable to the computer on which Connectivity Kit is running. Calculator software cannot be updated if the calculator is connected to the computer via a wireless network.

Updating calculator software does not result in loss of current data and settings of the calculator, but it is recommended that you save a backup of the data and settings just in case. Refer to [Backing up data and settings on page 15](#) for details of how to do this.

Downloading new software

You must check periodically to see if updated software has been released. To check for an update, your computer must have an active Internet connection. To check to see if there is an update to your existing software, follow these steps:

1. Connect the HP Prime calculator to your computer using the included USB charging cable.
2. Start **HP Connectivity Kit**.
3. In the Calculators pane, right-click the name of the HP Prime calculator you want to update and select **Properties**.
4. Make a note of the version number and then click the **OK** button.
5. Click the **Help** menu and select **Check for update**.
6. The Check for update pop-up box appears. You will see various messages as Connectivity Kit looks for an update. If it finds one, it will ask if you want to download it.
7. If the version number is later than the version number you noted in step 5, click the **Download** button; otherwise click the **Cancel** button.

Updating the software

To update the HP Prime software, follow these steps:

1. Connect the HP Prime calculator to your computer using the included USB charging cable.
2. Start **HP Connectivity Kit**.
3. Click the **Calculators** pane.
4. In the Calculators pane, right-click the name of the HP Prime calculator you want to update and select **Update firmware**.
5. The Update firmware pop-up box will appear in the calculator tab and the calculator display will change to Recovery Mode. You will see various messages as the software files are updated on your HP Prime calculator. After the software has been successfully updated, the HP Prime calculator will reset itself and you will be able to use it and access any new features.

Troubleshooting a software update

If for any reason the software does not update successfully, try the following steps:

1. Reset the HP Prime calculator by inserting the end of a paper clip into the reset hole in the back of the calculator.
2. Connect the USB cable to a different USB port on your computer.
3. Repeat steps 2 through 5 in [Updating the software on page 23](#).

9 HP Wireless Classroom Network

HP Connectivity Kit can be used with up to 30 HP Prime calculators and the HP Prime Wireless Kit (purchased separately) to create the HP Wireless Classroom Network. The HP Wireless Classroom Network allows a teacher to use Connectivity Kit as follows:

- Monitor and capture the students' HP Prime displays
- Project one student's HP Prime display for discussion purposes
- Broadcast HP Prime content to the class
- Start and stop exam-mode configurations for the entire class
- Display poll results for discussion purposes and send poll results back to the class

In addition, students can use the HP Prime message center to respond to a poll, send the teacher a message, or raise a quick flag for help. All of these features are explained in the following sections.

10 Preparing class content

From the content pane in Connectivity Kit, you can prepare HP Prime content for classroom distribution, including the following:

- Home variables (lists, matrices, and so on)
- HP apps with their data
- Notes and programs
- Exam-mode configurations
- Formative assessments (polls and quizzes)
- Poll or quiz results

The content created here is saved to your computer in the working folder you specify in the **Preferences** dialog box in the **Edit** menu.

You edit HP Prime content in the content pane exactly the same way as in the calculator pane (see [Calculator pane on page 11](#)). The focus in these sections is on creating exam-mode configurations and polls for distribution to a class.

Preparing exam-mode configurations

The functions and features of the HP Prime calculator can be temporarily restricted for examination purposes. The process of restricting one or more HP Prime calculators for an examination is referred to as exam-mode configuration.

Creating and editing exam-mode configurations can be done in the content pane, and the configuration can be saved to your computer. You can select a configuration and then start or stop the configuration for the whole class.

Click the **Exam Mode** icon in the icon bar to open or create an exam mode configuration. Or, click the **New Content** icon and then select **Exam Mode**.

The exam-mode configuration editor in the content pane of Connectivity Kit lets you set the following:

- A name for your configuration.
- Whether the exam-mode configuration file is read-only.
- The time after which the exam mode will time out.
- The default angle format (or none).
- A password to deactivate the exam mode.
- Whether the calculator memory is kept, erased, or hidden when the exam mode is activated. Select **Keep and restore** to keep the calculator memory when the exam mode is activated and then restore it to the same state after exam mode is deactivated.
- Whether the three LED lights on the calculator blink while it is in exam mode.

After setting these options as you prefer, you then select the functions and features you want to disable while the calculator is in exam mode. You can disable any or all of the following:

- HP apps
- Saved apps
- Physics constants
- The Help system
- Units
- Matrices
- Complex number operations
- The CAS
- Connectivity (I/O)
- Notes and Programs
- New Notes and Programs
- The Math menu

For the HP apps, you can disable all of them or just a selection, as you see fit. Select the **System Apps** check box to disable all HP apps or click the expand arrow beside it to expand the list of HP apps. Select the app you want to disable. For each app, you can also disable one or more of its app functions. Click the app's expand arrow to see the list of app functions.

For the Math menu, you can disable an entire category of functions (for example, Probability) or just a single function or command (for example, Combinations). Click the expand arrow next to **Mathematics** to expand the list of categories to get started.

When you are finished, save the configuration. You can then start and stop the configuration for the whole class using the exam-mode editor of Connectivity Kit.

To edit and save an exam-mode configuration:

1. Click the expand arrow beside the **Exam Modes** folder to expand the list of names of exam-mode configurations.
2. If you want to edit an existing configuration, double-click the name of the configuration and proceed to step 5.
3. To create a new configuration, right-click an existing configuration, and then select **Copy**. A copy will appear with a default name. Type in a name for the new configuration, and then press **Enter**.
4. Double-click the name of the new configuration.
5. Use the computer keyboard and the mouse to create or edit the configuration in the exam-mode configuration editor.
6. Click the **Save** icon in the icon bar.

Proctor mode

Proctor mode is designed to facilitate starting and stopping an existing exam-mode configuration. To start proctor mode, click the **Proctor Mode** icon. The proctor mode pane opens and displays a message that any HP Prime calculator will be placed into exam mode immediately upon connection to HP Connectivity Kit.

To select an exam-mode configuration, click **Open**. To start proctor mode, click **Start**. The proctor mode pane turns green when proctor mode is activated.

After proctor mode is activated, any HP Prime calculator that is connected to HP Connectivity Kit via USB or wireless starts the selected exam-mode configuration. A list is displayed after each HP Prime calculator is connected and the exam-mode configuration has successfully started. The calculator is then removed from the list. When all calculators have successfully started the exam-mode configuration, click **Stop** to deactivate Proctor mode, and then click the **Proctor Mode** icon to hide the proctor mode pane.

To open the proctor mode pane from the content pane, right-click an exam-mode configuration, and then select **Proctor Mode**. The proctor mode pane opens with the selected exam-mode configuration open and ready to activate as soon as students connect to HP Connectivity Kit.

Preparing a class poll


You can use Connectivity Kit to create a poll or quiz and save it to your computer for later distribution to the class. Or you can create a quick one- or two-question poll to inform instructional decisions or enhance class discussion.

To open or create a poll, click the **Poll** icon. Or, click the **New Content** icon and then select **Poll**.

Connectivity Kit has a dedicated editor for creating and editing polls. The poll editor in the content pane allows you to do the following:

- Name your poll
- Give your poll a descriptive title
- Enter general instructions for the entire poll
- Choose the number of questions in the poll (select up to 10 questions)
- Select a type for each question and create or edit each question
- Save the poll

The poll editor has the following boxes to help you create a poll:

- **Title**—Enter an optional title for your poll
- **Instructions**—Enter an optional set of instructions for the entire poll
- **Questions**—Choose 1 to 10 questions for your poll (each question appears in its own tab)
- **Immediate popup**—Select this box if you want the poll to pop up automatically when it reaches the student's HP Prime calculator, or clear it if you prefer the poll to be accessed by pressing  and selecting the poll by name
- **Can only send once**—Select this box if you want the student to respond only once to the poll, or clear it if you want students to be able to update their responses after they are first sent in

Each question tab has the following boxes:

- **Question**—Enter the question stem here
- **Can go back**—Select this box if you want the student to be able to go back to this question after moving to the next question, or clear it if you do not want the students to return to this question after answering it and moving on
- **Type**—Select an option to set the question's response type. You can choose among the following response types:
 - **Multiple choice**—Response is five types of fixed multiple-choice responses
 - **Number**—Response is a single real number

- **Point**—Response is an x-y pair
- **Expression**—Response is an expression represented as a string
- **Text**—Response is entered as text
- **Selection**—Response is one or more options selected from a response set of 2 to 6 options
- **Choose**—Response is a single option selected from a response set of 2 to 6 options

If you select Number, Point, or Expression, the question is complete at this point.

If you select a multiple choice response type, a second row of options is displayed, as shown in the previous figure. Specify the particular response set by clicking an option in this second row. You can choose among the following types of multiple-choice response sets:

- **ABCDE**—A set of 2 to 5 response blanks which you fill in
- **Yes/No**—Yes or No are the only two responses
- **True/False**—True or False are the two responses
- **Likert Scale (3)**
- **Likert Scale (5)**


If you select a Yes/No or True/False response set, the Answer boxes are auto-populated with the relevant options, and the question is complete at this point. If you select an ABCDE response set, enter the responses into the **Answer** boxes, beginning with the first two (A and B). If you select one of the Likert Scale options, you will see a third set of radio buttons from which to choose your response set:

- **Agreement**—Level of agreement with the question’s statement
- **Confidence**—Level of confidence
- **Occurrence**—Always, sometimes, or never true questions
- **Custom**—Likert Scale response set created by you

If you select Selection, you must define the number of responses in the Answer field and then enter each response.

If you select Choose, you must define the number of responses in the Answer field and then enter each response.

To prepare a poll or quiz in the content pane:

1. To create a new poll, click the **Poll** icon.
— or —
Click the **New Content** icon and then select **Poll**.
2. Delete the default name and enter your own, or press  to accept the default name.
3. Use the computer keyboard and the mouse to edit the poll or quiz in the poll/quiz editor.
4. Click the **Save** icon in the icon bar.
5. Close the poll editor.

You can return to edit the poll at any time by double-clicking the name of the poll in the content pane.

Preparing a custom HP Prime app

You can use HP Prime apps to send examples and numerical data to students. HP Prime apps can be extended via programs to help students explore mathematical concepts. These apps can be created or downloaded and then distributed to students either one at a time via USB or all at once using the wireless classroom network. HP recommends using HP Connectivity Kit to distribute apps to one or more HP Prime calculators.

Each default HP Prime app (Function, Advanced Graphing, Geometry, and so on) can be used as a template. You can enter content such as definitions, expressions, text notes, programs, and data into this template. Then, save the customized app with a new name.

For example, you can copy the numerical data known as Anscombe's Quartet (in a spreadsheet format), and then paste that data into the Statistics 2Var app on your virtual HP Prime calculator. Then, save the app with the name Anscombe. You can now send Anscombe to your class via the wireless classroom network. Because Anscombe is based on the Statistics 2Var app, it has the same functions as that app: you can create scatter plots based on the data in the app, compute and draw lines of best fit, and so on.

In most cases, the changes you make to an app are made using either your physical or virtual HP Prime calculator. You can also use the app editors in HP Connectivity Kit. However, there are a few changes that you can make only by using the virtual HP Prime calculator and Connectivity Kit. See the following sections.

Adding a background

The Plot view of most HP Prime apps can contain an image as a background. This image is selected and configured on page 3 of Plot Setup.

To add a background to your HP Prime app:

1. In HP Connectivity Kit, open an HP Prime calculator in the calculator pane.
2. On the selected HP Prime calculator, open **Application Library**.
3. Right-click the app, and then select **Add background**.
4. In the window that opens, select an image file.
5. The image opens in a new window. A red rectangle outlines the part of the image that will be used as a background. Move the rectangle to select a different part of the image. You can also zoom in or zoom out.

 **TIP:** A preview is displayed in the bottom-right corner of the window.

6. To select the image inside the red rectangle, click **OK**.
7. In the calculator pane, double-click the app to open the app editor, and then click the **Save** icon. You can see your image file in the Files tab.
8. Save your changes, and then close the app editor.

The image is now the background in your app. To use your image, go to page 3 of Plot Setup. The image is saved to the Files tab of your app editor. In HP Connectivity Kit, double-click the app and click the **Files** tab to see your image file.

Adding an icon

By default, the icon for a new app is the same as the icon for the base app used as a template. You can use another image as the icon for your new app.

To add a custom icon to an app:

1. In HP Connectivity Kit, open an HP Prime calculator in the calculator pane.
2. On the selected HP Prime calculator, open **Application Library**.
3. Right-click the app, and then select **Add app icon**.
4. In the window that opens, select the image to be used as the app icon.
5. In the calculator pane, double-click the app to open the app editor, and then click the **Save** icon. You can see your icon file in the Files tab.
6. Save your changes, and then close the app editor.

The image file is saved to the Files tab of your app editor with the name icon.png.

Adding a file

You might want to attach resource files to an app.

To add a file to an app:

1. In HP Connectivity Kit, open an HP Prime calculator in the calculator pane.
2. On the selected HP Prime calculator, open **Application Library**.
3. Right-click the app, and then select **Add file**.
4. In the window that opens, select the file.
5. In the calculator pane, double-click the app to open the app editor, and then click the **Save** icon. You can see your file in the Files tab.
6. Save your changes, and then close the app editor.

Distributing an app to the class

You can distribute an app to other HP Prime calculators connected to HP Connectivity Kit via the USB cable or using the wireless classroom network. Also, you can distribute an app from either an attached HP Prime calculator or the content pane.

To distribute an app from an HP Prime calculator:

1. In HP Connectivity Kit, open an HP Prime calculator in the calculator pane.
2. On the selected HP Prime calculator, open **Application Library**.
3. Right-click the app, and then select **Send**.

To distribute an app from the content pane:

1. In the calculator pane, select the app and perform a drag-and-drop operation to save it to either the content pane or a folder in the content pane.
2. In the content pane, right-click the app, and then select **Send** to send it to all connected HP Prime calculators.

11 The Monitor window

Introduction

The Monitor window is designed for classroom use. Open this window to see thumbnail images of the displays of all HP Prime calculators connected to Connectivity Kit. The thumbnail images refresh periodically so that you can quickly monitor what your students are doing with their HP Prime calculators. You can use the Monitor window to accomplish the following classroom tasks:

- Monitor student progress
- Capture and save a student display
- Project a single student's display for discussion purposes
- Distribute HP Prime content
- Distribute a poll and collect results
- Display and project poll results for discussion purposes
- Distribute poll results as lists
- Start and stop an exam-mode configuration for testing purposes

Monitoring the class

To monitor the activity of all connected calculators, click the **Window** menu and select **Monitor**, or click the **Monitor** icon on the right side of the icon bar. The Monitor window will open, showing the screens of all connected calculators. To refresh the screens, right-click in the editor pane and select **Refresh**. To automatically refresh the student displays every few seconds, right-click in the **Monitor** window and select **Automatic Refresh**. You can deselect automatic refresh using the same steps.

To adjust the size of the calculator thumbnail images, right-click in the **Monitor** window and select **Image Size**. A sub-menu opens from which you can choose small, medium, or large.

Capturing a student's calculator display

You can capture and save the display of a student's calculator from the Monitor window. Right-click the thumbnail of the image you want to save, and then select **Save As**. A Save As dialog box opens. Navigate to where you want to save the image, give it an appropriate name, select the file type (.bmp, .png, or .jpg), and then click **Save**.

To copy the image to the clipboard, right-click the thumbnail and select **Copy to Clipboard**. You can now paste the image into a document.

Projecting a student's calculator display

Any thumbnail of an HP Prime display can be selected for projection via a digital classroom projector. Right-click the thumbnail, and then select **Project**. The student's display will appear in its own window. You can right-click in the Project window to select a size for the projected image, or you can perform a click-and-drag operation on the bottom-right corner to resize the Project window. The projected image updates quickly so that the student can operate their calculator and the class can follow in real time. While a student's calculator

display is being projected, the rest of the thumbnail images are frozen and will not update until the Project window is closed.

Distributing HP Prime content

The Monitor window can be used to send HP Prime content to one or more student HP Prime calculators in the class. To broadcast content to your class, follow these steps:

1. In the content pane, click the expand arrow beside the folder containing the specific content item you want to broadcast.
2. After you see the specific content item you want to broadcast (a poll, an HP app, an exam-mode configuration, and so on), drag it into the **Monitor** window.




NOTE: You can also right-click the item, and then select **Send** from the menu.


The content is sent immediately to each HP Prime calculator in the HP Classroom Network. If you want to send content to only one HP Prime calculator, first select the thumbnail of that calculator in the Monitor window, and then follow the previous procedure. To send content to a group of HP Prime calculators, press and hold the **Ctrl** key on your computer keyboard while you select the calculators in the group. Then, follow the previous procedure.

Accessing HP Prime content





After content is sent to one or more student HP Prime calculators, the students can access that content. If the content is a list, matrix, note, or program, the students can access it by going to the proper catalog or library.

For example, if you send them a new HP app, they can find it by pressing  to go to their App library.


Taking a poll on an HP Prime calculator

What happens with poll content items depends on whether the Immediate Popup box was selected when creating the poll. If Immediate Popup was selected, the HP Prime calculator displays the poll by opening the Message Center. If Immediate Popup was not selected, the student receives no notification when a poll has been delivered. Instead, the student must access the poll by pressing  to open the menu, and then selecting the poll by its title from the list. The poll will then open in the Message Center.

After the Message Center opens with a poll, the student navigates and responds to the poll using the touch menu buttons at the bottom of the HP Prime display. The touch menu buttons available for use in a poll are as follows:


-  —Opens an edit line for entering a value or calculation as a response to a question
-  —Selects or clears a check mark for an option in a multiple choice question
-  —Sends the poll responses to Connectivity Kit
-  —Navigates from page to page in the poll

The exact appearance of the last double menu button depends on how many questions the poll contains as well as whether the **Can go back** option for the current question was selected when the poll was written.

The student can leave the poll to use the calculator and then return to answer the question. For example, the student can press  to go to the Home view and make a calculation. Then, the student can press



and select the poll by title from the list to return and answer the question.

The student can view a poll after it has been submitted by pressing  to open the menu, and selecting the poll by its title. If the **Can only send once** option was selected when the poll was created, the students cannot edit their responses and resubmit them after the poll has been submitted the first time.

The calculator can store only one poll at a time. When a new poll is received from Connectivity Kit, the previous one is deleted.

Receiving responses and analyzing results

As the students respond to a poll, you can view the aggregated responses. When a poll is created and saved, a Results object with the same name is created in the content pane. For example, a poll named funnypoll.hppoll has a Results file named funnypoll.hpreult. To view the current state of the results of your poll, click the **Results** icon or double-click the name of your Results file in the content pane. The Results window for your poll opens.

The Results window has one tab for each question in the poll. In addition, an All tab aggregates the responses for all of the questions in the poll in an app that can be distributed to the class. The graphical representation on each tab varies depending on the response type.

Depending on the response type, you might be able to choose from a range of different graphical representations. A drop-down menu at the bottom-right corner of the question tab allows you to select an appropriate graphical representation of the aggregated poll results for that question. Each tab also has a table of all student responses to the question.

Note that a student's response is included in the aggregation only if they have submitted it. Note also that if you are viewing the results for a question, the results automatically update as more students submit their responses to the question.

You can use poll results to make instructional decisions during a lesson or you can project the results to the class to enhance classroom discussion.

Sending results to the class

Just as you can broadcast HP Prime content to the class, you can also return poll results to the class.

To open a poll results file, double-click the file. The results from each question are displayed in separate tabs, with an All tab containing the aggregate results for the poll. Each tab contains a **Send to class** button. To send results for an individual question to the class, select **Send to class**. The results for each question are stored in the version of the Statistics 1Var app with the same name as the poll, followed by `_1` for the first question, `_2` for the second question, and so on.

The All tab contains the aggregate results for the entire poll. There is a check box next to each question.

To send aggregate results to the class:

1. Select a question to include its results.
2. In the **Type** field, select either Statistics 1Var or Statistics 2Var. This creates a version of the Statistics 1Var or Statistics 2Var app with the same name as the poll, by default. You can enter a different name.

3. Preview the results when they appear in the preview pane.
4. Click **Send to class**.

Start and stop exam mode

An exam-mode configuration allows you to temporarily disable features and commands on your students' HP Prime calculators for testing purposes. You can use Connectivity Kit to start or stop an exam-mode configuration on one or more HP Prime calculators. For information on how to create or edit an exam-mode configuration, see [Preparing exam-mode configurations on page 26](#).

To start an existing exam-mode configuration for your class, follow these steps:

1. Open the Monitor window.
2. Double-click the specific exam-mode configuration you want to use.
3. The exam-mode configuration editor opens with your selected exam-mode configuration. Take a moment to verify that the time duration, password, memory option, and option to blink LED lights are set correctly.
4. Click the **Start** button in the editor.

If you chose **Blink LED** in the configuration, all the HP Prime calculators in your class will have the same set of LED lights on at the same time. The configuration will change every 5 to 10 seconds but will always be identical for the same exam-mode configuration. The students will see the title bar in their display change from blue to orange to indicate to them that an exam-mode configuration is active.

To stop exam mode, click the **Stop** button in the editor or tell the students the password to enter on the third page of Home Settings.

To use proctor mode to activate exam mode:

1. In the content pane, right-click an exam-mode configuration, and then select **Proctor Mode**.
2. The proctor mode pane opens with the selected exam-mode configuration ready to activate when students connect to HP Connectivity Kit. Click **Start** to activate proctor mode.

The proctor mode pane turns green when proctor mode is activated.

After proctor mode is activated, any HP Prime calculator that is connected to HP Connectivity Kit via USB or wireless starts the selected exam-mode configuration. A list is displayed after each HP Prime calculator is connected and the exam-mode configuration has successfully started. The calculator is then removed from the list. When all calculators have successfully started the exam-mode configuration, click **Stop** to deactivate Proctor mode, and then click the **Proctor Mode** icon to hide the proctor mode pane.

Sending an exam-mode configuration

You can send an exam-mode configuration to a set of HP Prime calculators without activating it. It can be activated later on each calculator.

To send an exam-mode configuration without activating it, select the exam-mode configuration from the content pane and then follow the instructions in [Distributing HP Prime content on page 33](#).

You can also send an exam-mode configuration from one calculator to another. Select the exam-mode configuration on one calculator and drag it to the other calculator.

In either case, the exam-mode configuration can then be activated on the HP Prime calculator by going to the third page of Home Settings and tapping **Start**.

12 The Messages window

Introduction

The Messages window is also designed for classroom use. Open this window to send a message to one student, a group of students, or the entire class. Students can reply to your message individually or send you a message of their own. In addition, a student can raise a flag for help. Note that a student cannot send a message to another student or receive a message from another student.

Sending messages


To send a message, follow these steps:

1. Open both the **Monitor** window and the **Messages** window.
2. Select recipients for your message in the **Monitor** window.

If you want to send a message to the entire class, be sure that none of the thumbnail images are selected in the Monitor window. If you want to send a message to a single HP Prime calculator, click its thumbnail image in the Monitor window to select it; you can add more HP Prime calculators by holding down the **Ctrl** key on your computer keyboard as you click additional thumbnail images.

3. Enter your message in the entry box at the bottom of the Messages window.
4. Click the **Send to class** button when your message is complete.

HP Prime Message Center



On the student's HP Prime calculator, the message appears in the Message Center. When you send a message to the students, the Message Center will open automatically and display your message to the student. A student can always open the Message Center manually by pressing  and selecting **Messages**.


The Message Center has three menu buttons:

- **Reply**—The student can tap this button to open an edit line to enter a reply. The student will see Cancel and Send buttons. They can tap **Send** to send their reply to you.
- **Help**—The student can tap this button to raise a help flag next to their HP Prime calculator name on your computer.
- **OK**—The student can tap this button to exit the Message Center.

Sending a reply or message from an HP Prime calculator

A student can reply to your message following these steps:

1. In the Message Center, they tap **Reply**.
2. Then, they press   to lock alpha mode on and enter their message.
3. They tap **Send** to send their message or **Cancel** to return to the Message Center without sending their message.

The student's message will appear in the Message window history, labeled with their HP Prime calculator name. A student can send you an unsolicited message by pressing  and selecting **Messages**, and then following the previous procedure.


Sending a quick message

You can send a quick message without using the Messages window. The steps are as follows:

1. In the Monitor window, select the thumbnail images of the HP Prime calculators to which you want to send the message.
2. Right-click one of those thumbnail images and select **Send Message**.
3. A Message box will appear. Enter your message in the entry line and tap the **Send** button.

Using this method, your message does not appear in the Messages window history.

Raising and clearing help flags

A student can send a request for help from a calculator connected to Connectivity Kit by pressing , selecting **Messages**, and then tapping the **Help** menu button. When a student asks for help, a flag appears beside the thumbnail image of their calculator in the Monitor window. The help flag appears as a question mark in a blue circle at the top left of the thumbnail image.

You can clear the flag by right-clicking the thumbnail image and selecting **Reset Help**. If you want to reset multiple student help flags, hold down the **Ctrl** key on your computer keyboard while you select each student. After you have selected all the students you want, right-click one of their thumbnail images and select **Reset Help**.

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