

# **A Teacher's Guide to Updating Multiple TI-Nspire™ Handhelds**

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## Introduction

The TI-Nspire™ handhelds offer an upgradeable operating system (OS) that allows TI to periodically offer enhanced features for the product. This guide outlines four methods that can be used to update the OS in class sets of TI-Nspire handhelds.

OS updates are posted online where they can be downloaded and transferred to your handhelds using the tools and processes outlined in this guide. Be sure to check for updates each semester so you do not miss the latest improvements. Information about OS updates can be found at [education.ti.com/nspire/update](http://education.ti.com/nspire/update).

### Don't forget to update TI-Nspire computer software at the same time.

- » If you use TI-Nspire™ or TI-Nspire CAS Computer Software, be sure to update these applications at the same time to ensure compatibility when you send and receive TI-Nspire documents between your computer and handheld.
- » Once a TI-Nspire document is opened on a newer version of computer software or on a handheld with a newer version of the OS, the document will convert to the latest version and cannot be reopened in the earlier version.
- » Once a TI-Nspire handheld is updated to the newer version of the OS, it cannot be reverted to the earlier version of the OS.
- » To load a new OS version, you will need to have adequate free space for the OS file. To free space, please delete or transfer files to a computer.

There are several methods for updating class sets of handhelds:

- » Method I: Using Unit-to-Unit Transfer
- » Method II: Using TI-Nspire™ Navigator™ Teacher Software
- » Method III: Using TI-Nspire™ Docking Stations

For the four types of TI-Nspire handhelds, there are four types of TI-Nspire operating system files.

- » For **TI-Nspire CX handheld**, the OS file name is TI-Nspire.tco and can only be installed on TI-Nspire CX handhelds.
- » For **TI-Nspire CX CAS handheld**, the OS file name is TI-Nspire.tcc and can only be installed on TI-Nspire CX CAS handhelds.
- » For **TI-Nspire handheld**, the OS file name is TI-Nspire.tno and can only be installed on TI-Nspire handhelds.
- » For **TI-Nspire CAS handheld**, the OS file name is TI-Nspire.tnc and can only be installed on TI-Nspire CAS handhelds.

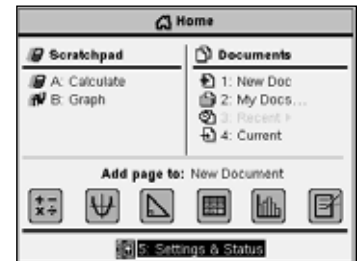
## Get Started

1. TI-Nspire keypads must be snapped in place to proceed with OS updates.
2. Find the version number on the handhelds by first identifying your home screen below.

Home screen for v1.0 to 1.7







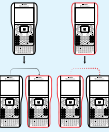
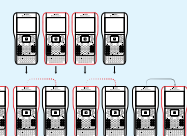
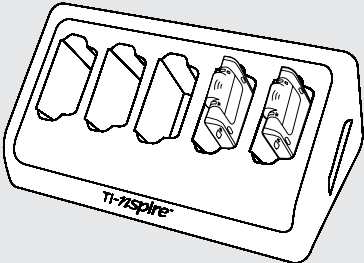
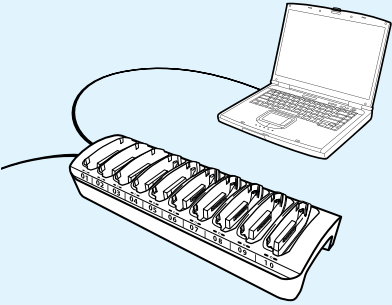
Home screen for v2.0 to 2.1



- » If your home screen is on the left, find the OS version by **HOME>8: System Info>5: About**.
  - » If your home screen is on the right, find the OS version by **HOME>5: Settings & Status>4: Status**.
3. If you own TI-Nspire handhelds with OS Version 1.4 or later, proceed to the Method Comparison Chart to identify the best way for updating your operating system.
  4. If you own TI-Nspire handhelds with Clickpad with an OS version 1.3 or earlier, the handhelds require a two-step OS update. First, update to v1.7 which you may obtain at [education.ti.com/calculators/downloads/US/Software/Find-OS](http://education.ti.com/calculators/downloads/US/Software/Find-OS), then update to v3.0 which you may obtain at [education.ti.com/nspire/update](http://education.ti.com/nspire/update). Proceed to the Method Comparison Chart to identify the best way for updating your operating system.

# Method Comparison Chart

A brief overview of each method is provided in the following chart.

	Method I: Using Unit-to-Unit Transfer	Method II: Using TI-Nspire™ Navigator™ Teacher Software	Method III: Using TI-Nspire™ Docking Stations		
<b>Required Software</b>	TI-Nspire™ or TI-Nspire CAS Student or Teacher Software 	TI-Nspire or TI-Nspire CAS Navigator Teacher Software 	TI-Nspire or TI-Nspire CAS Teacher Software 		
<b>Required Hardware</b>	Unit-to-Unit Cable(s)	TI-Navigator™ Access Point TI-Nspire™ Navigator™ Cradles or TI-Nspire™ CX Wireless Network Adapters	TI-Nspire Docking Station connected to a teacher's computer and a power strip or wall outlet.		
<b>Handheld Compatibility</b>	All TI-Nspire™ handhelds	All TI-Nspire handhelds	<table border="1"> <tr> <td>TI-Nspire Docking Station All TI-Nspire handhelds</td> <td>TI-Nspire CX Docking Station TI-Nspire CX and TI-Nspire CX CAS handhelds only</td> </tr> </table>	TI-Nspire Docking Station All TI-Nspire handhelds	TI-Nspire CX Docking Station TI-Nspire CX and TI-Nspire CX CAS handhelds only
TI-Nspire Docking Station All TI-Nspire handhelds	TI-Nspire CX Docking Station TI-Nspire CX and TI-Nspire CX CAS handhelds only				
<b>Compatible Operating Systems</b>	Any OS version	OS Version 1.7.1 or later	<table border="1"> <tr> <td>OS version 2.1 or later</td> <td>OS version 3.0 or later</td> </tr> </table>	OS version 2.1 or later	OS version 3.0 or later
OS version 2.1 or later	OS version 3.0 or later				
<b>Connected Handhelds</b>	Various	Up to 40 handhelds	Up to 50 handhelds		
<b>Set-up Image</b>	<p>Update 1 unit</p>  <p>Update 2 more</p>  <p>Update 4 more</p>  <p>Update 8 more...etc.</p>				
<b>Notes</b>	Each handheld that receives an OS update is used to update another handheld. Continue until all are updated and rebooted.		You need version 2.1 or later of TI-Nspire and TI-Nspire CAS Teacher Software		

## Helpful Tips

### **Press-to-Test for the TI-84 Plus (with TI-84 Plus keypad in place) must be turned off prior to swapping keypads.**

- » If you use *Press-to-Test for the TI-84 Plus* (with TI-84 Plus keypads in place), you must turn it off prior to switching keypads and proceeding with OS updates.
- » If the keypad is switched while *Press-to-Test for the TI-84 Plus* is active, you may receive an “Invalid Keypad” error when you insert the TI-Nspire keypad.
- » The following web page provides links to instructions for disabling *Press-to-Test for the TI-84 Plus* or *Test Guard* functionality. Visit [education.ti.com/educationportal/sites/US/productDetail/us\\_testguard\\_20.html](http://education.ti.com/educationportal/sites/US/productDetail/us_testguard_20.html).

### **TI-84 Plus OS updates are included in the TI-Nspire OS process**

- » It is not possible to transfer a TI-84 Plus OS from a (regular) TI-84 Plus to a TI-Nspire with TI-84 Plus keypad inserted.

*Note: Involve your students in this process. In addition to saving you time, it may provide student leadership opportunities, or opportunities to recognize students' technical skills and ability. You may even want to illustrate mathematics concepts that are inherent in the process.*

### **Knowing when to disconnect the receiving handheld will help you quickly update a large number of handhelds.**

- » Updating the handheld OS involves two-steps:
  1. Receiving the OS installation file from the sending handheld or computer
  2. Disconnecting and waiting while the OS file installs the OS and the handheld reboots
- » During the second step, the receiving handheld can be disconnected.
- » When the installation progress bar can be seen on the receiving handheld, it is safe to unplug the receiving handheld.
- » Proceeding in this way allows you to immediately start a new transfer with another handheld.

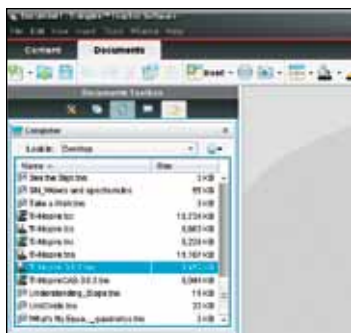
### **Help and Assistance**

- » If you have questions about any aspect of the processes described in this document, the software and connectivity tools or need troubleshooting assistance, contact TI-Cares. In the U.S. and Canada:  
**Call:** 1.800.TI.CARES (1.800.842.2737)  
**email:** ti-cares@ti.com

## Method I

### Step by Step: Sending Updates Using Unit-to-Unit Transfer

- » Download the latest OS from the TI website by going to [education.ti.com/nspire/update](http://education.ti.com/nspire/update). Save the OS to a place that will be easy to remember such as the Desktop. You want it to be easy to find when you go to transfer it to the handhelds.
- » Use TI-Nspire™ Teacher Software or TI-Nspire™ Student Software to update a single TI-Nspire handheld to act as the “seed” or “sending” unit for the unit-to-unit OS transfer. In TI-Nspire™ Computer Software, select the Content Explorer tab (far right) in the Documents Toolbox. In the Computer files window, find the TI-Nspire OS file that you downloaded to your computer.



- » Connect the TI-Nspire™ “seed” handheld to your computer using a USB cable. The TI-Nspire handheld should appear in the Connected Handhelds window at the bottom of the Content Explorer pane.
- » Drag the TI-Nspire OS file you saved to your computer on to the TI-Nspire handheld that is listed in the Connected Handhelds window. You will be notified that any unsaved documents will be lost. If you wish to proceed, select **YES**. The OS update will begin. When the handheld restarts, you will be ready to use this TI-Nspire handheld as your “seed” or “sending” unit to update other TI-Nspire handhelds.

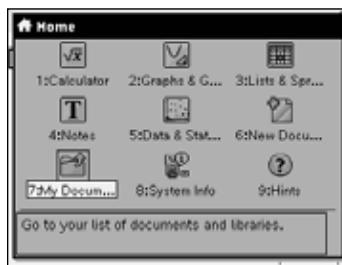


- » Save any unsaved documents on the “receiving” handheld.
- » Connect the handhelds using a unit-to-unit USB cable that comes with the purchase of TI-Nspire or TI-Nspire CAS handhelds. It does not matter which connector (A or B) plugs into which unit.

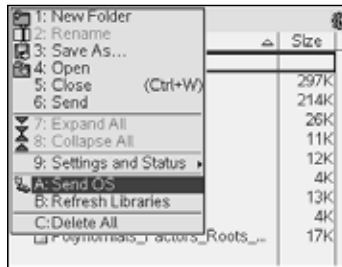
**Tip: This is often a convenient time to check and replace batteries on all handhelds or those that have low batteries.**

- » Ensure that the “receiving” handheld is on.

- » On the “sending” handheld, open the Document Browser: **HOME>2: My Documents** (If you are still using OS version 1.7 or previous go to **HOME>7: My Documents**).



- » Press **MENU**, then **A: Send OS**



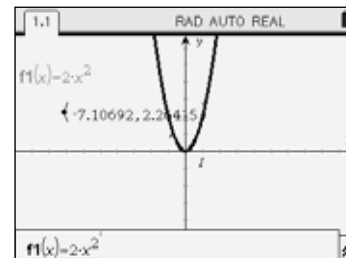
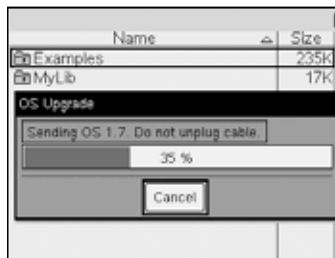
- » Wait for the handheld to send the file. This process takes about five minutes.

**Tip: If the transfer doesn't occur, you may have a faulty unit-to-unit connection or USB cable. Check your connection or try another cable.**

#### Sending Unit

#### Receiving Unit

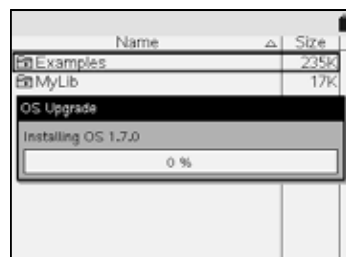
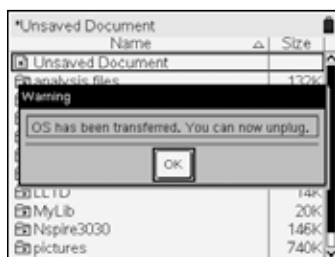
(Nothing changes on the receiving unit.)



- » Upon notification that “You can now unplug,” it is safe to disconnect the mini-USB cable from the “receiving unit” while the OS installs.

#### Sending Unit

#### Receiving Unit



- » Once the OS installation is complete on the “receiving unit,” you may plug it into another handheld to repeat the process and update another handheld.

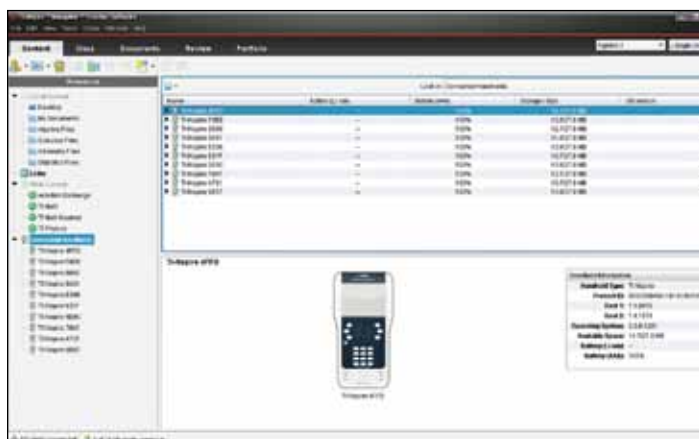
**Tip: Use a large table, so you can quickly scan all “receiving” handhelds for the progress bar.**

## Method II

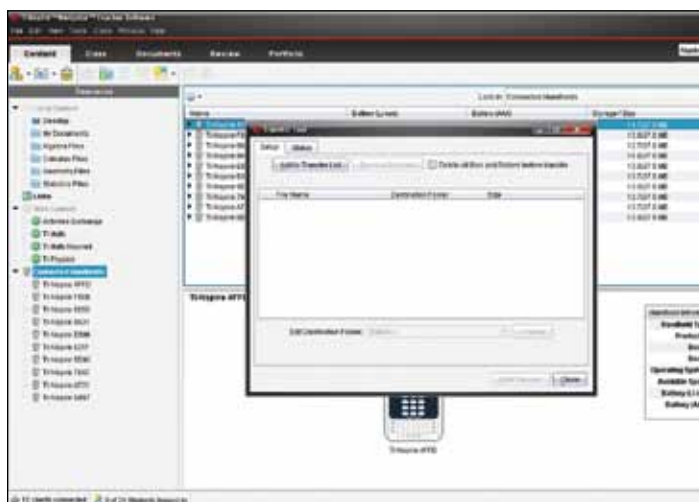
### Step by Step: Sending Updates Using TI-Nspire™ Navigator™ Teacher Software

You can install or update the operating system (OS) on a connected handheld using the **Transfer Tool**, but be sure to **End Class** before following these steps.

- » Download the latest OS from the TI website by going to [education.ti.com/nspire/update](http://education.ti.com/nspire/update). Save the OS to a place that will be easy to remember such as the Desktop. You want it to be easy to find when you go to transfer it to the handhelds.
- » Open your TI-Nspire™ or TI-Nspire CAS Navigator™ Teacher Software. In the left panel of the Content workspace, you should see all connected handhelds. If you click on Connected Handhelds you can verify the OS on each handheld to see if there needs to be an update.

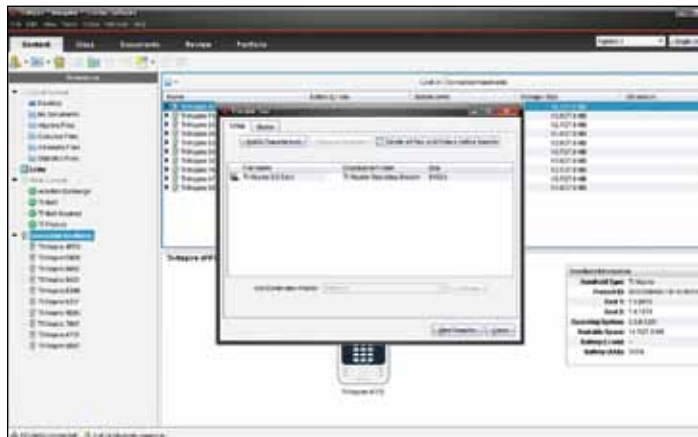


- » From the Tools Menu, select **Transfer Tool**. Click on **Add to Transfer List**.

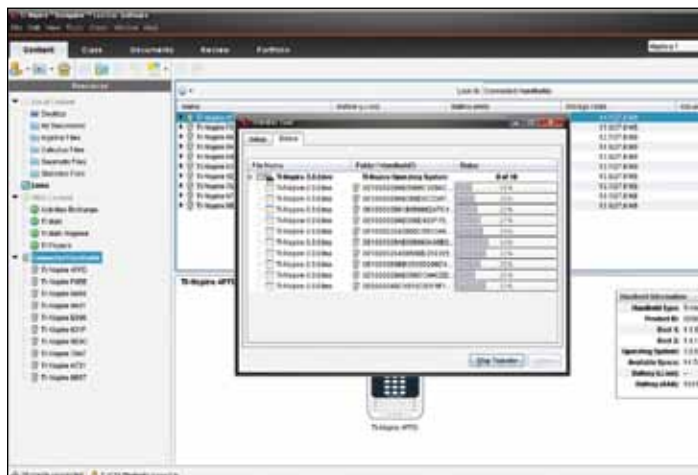


- » Navigate to the folder where the operating system file is located.

- » Select the file name and press the **Select** button. The OS file name will appear in the Transfer Tool queue.



- » Click **Start Transfer**. A progress screen is displayed.



- » The OS transfer will be sent to any TI-Nspire handheld that is associated with your TI-Navigator™ Access Point.

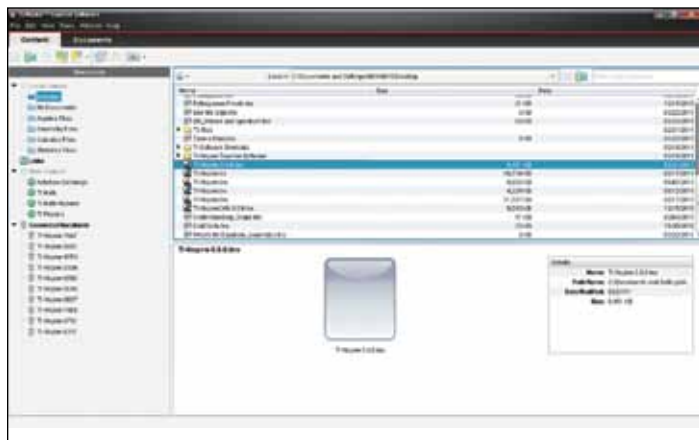
## Method III

### Step by Step: Sending Updates Using TI-Nspire™ Docking Stations

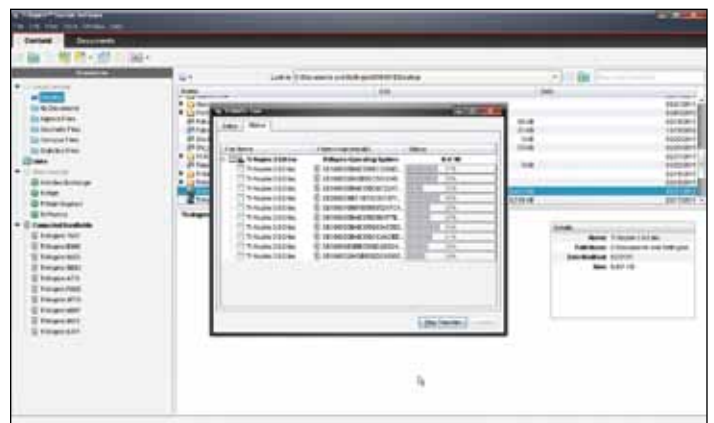
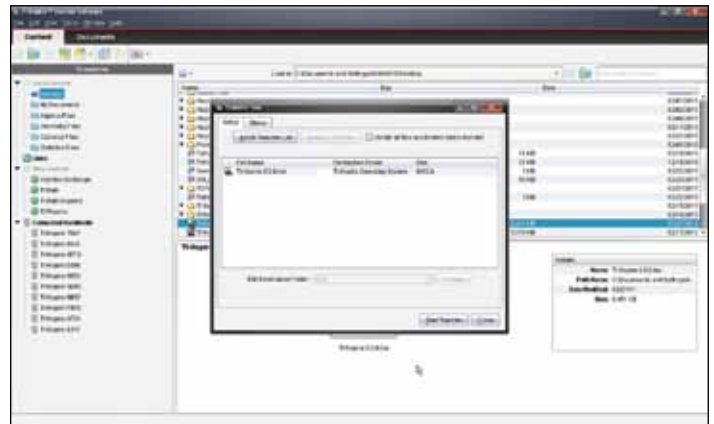
- » Download the latest OS from the TI website by going to [education.ti.com/nspire/update](http://education.ti.com/nspire/update). Save the OS to a place that will be easy to remember such as the Desktop. You want it to be easy to find when you go to transfer it to the handhelds.
- » Put the handhelds in the docking station(s). You can transfer the OS to up to 50 handhelds if you have multiple docking stations. Make sure the docking stations are connected to the computer via a USB cable and connected into a power source.
- » Open your TI-Nspire™ or TI-Nspire CAS Teacher Software. In the left panel of the Content Workspace, you should see all connected handhelds. If you click on **Connected Handhelds** you can verify the OS on each handheld to see if there needs to be an update.



- » Click on desktop under **Local Content** in the left panel and locate the current OS that you just saved previously in the upper right panel. Drag and drop the OS file to **Connected Handhelds** in the left panel.



- » The Transfer Tool will open and press **Start Transfer**. As the OS is being transferred, the green light on the Docking Station will be blinking and you will see the green updating bar in the computer software.



- » When the transfer is complete, the green light on the TI-Nspire Docking Station will be lit up in solid green and the handheld can be removed. If you have any other handhelds to be updated, place the next handheld in the open slot and the handheld will immediately begin downloading the new OS. Even with only using one docking station, an entire class set of 30 handhelds should take around 15 minutes to update if a teacher or student is continually switching the handhelds out as each one is finishing updating.
- » When all handhelds are updated, click **Stop Transfer**.