

NoteMaker for HP Graphing Calculators

Applications supporting HP38/39/40G Graphing Calculators

Version 0.60 (Preview Release)

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Introduction

What is NoteMaker?

This software package is a collection of tools which can be used to create, edit and convert files created by the *HP38/39/40G* series of graphing calculators from *Hewlett Packard* (<http://www.hp.com/calculators>). *NoteMaker* is an easy-to-use utility for creating notes and programs for the calculators.

System Requirements

Java 1.4-compatible operating system*
Graphics card
HP38/39/40G calculator

NoteMaker and its associated programs are written in Java. This means you need to have the Java 2 Runtime Environment installed on your computer. Java is compatible with Windows, most Linuxes, and Mac OS X 10.2 or later. (I have tested this software on Microsoft Windows XP Home Edition, Knoppix 3.3, and Mac OS X 10.3.1 'Panther')

It is also helpful but not essential to have the Connectivity Kit and compatible software so that you can transfer files between the calculator and your computer. NoteMaker does not require this kit, because NoteMaker will not talk to the calculator. Additional software is required to connect the computer and calculator. This software is not made by me, and is not available for all operating systems.

How Do I Get Java?

First check whether you already have Java installed.

Windows Users

1. Open an MS-DOS Prompt or a Command Prompt from the Start Menu.
2. Type 'java -version' and press Enter.
3. After a few moments a message should be displayed.
If you get 'Bad command or file name' or 'The system cannot find the file specified' or similar, Java is NOT installed.
If you get a message mentioning 'Java 2 Standard Edition' Java is installed. Make sure the version number listed is 1.4 or higher. If not, you may need to upgrade your Java support in order to run NoteMaker.
4. Type 'exit' and press Enter to close the window.

Macintosh Users

If you are running Mac OS 9 or earlier, or earlier than Mac OS X 10.2, unfortunately you will not be able to run NoteMaker. Mac OS X 10.3 'Panther' comes with Java 1.4 already installed.

However, if you use Mac OS X 10.2, 'Jaguar' follow these steps to make sure Java 1.4 is installed.

1. Double-click on your hard drive on the Desktop (make sure you are in Finder).
2. Double-click on Applications.
3. Double-click on Utilities.
4. Double-click on Terminal.
5. In the window that appears, type 'java -version' and press Enter.
6. A message will appear.

If 'command not found' appears, Java is not correctly installed. You need to update Mac OS X.

If 'java version "1.3.1"' or similar appears, you need to update Mac OS X.

If "java version "1.4.1" or similar appears, your Java is correctly installed.

7. Press Command-Q to exit Terminal.

Linux Users

1. Open a console window. (If you don't know what this is, it is usually a black window icon, or an icon with a sea-shell on it).
2. Type 'java -version' and press Enter.
3. A message will appear.
If 'command not found' or similar appears, Java is not correctly installed.
If 'java version "1.4"' or similar appears, Java is installed. Other version numbers less than 1.4 may work, but you should update your Java support.
4. Type 'exit' and press Enter, or otherwise close the window.

If you determined that you need to install Java, go to <http://java.sun.com> and look for the Download Java links. Follow the instructions given for your operating system. (Mac users – simply run Software Update and install Java 1.4).

Installing NoteMaker

NoteMaker is distributed as a .zip file for all operating systems. You can install NoteMaker by simply unzipping this file into an empty folder. If you have installed NoteMaker in the past and are upgrading, make sure you allow overwriting of files when you unzip the file.

Most Java-compatible operating systems come with built-in zip file support (see your operating system documentation).

Running NoteMaker

NoteMaker can be run however you run other Java software. Try double-clicking `notemaker.jar`. Be aware that Java may take a few moments to load. If that does not work, open a Command Prompt/console/Terminal window and follow these instructions:

1. Change to the folder you installed NoteMaker.
2. Type 'java -jar notemaker.jar' and press Enter.
3. Some messages will appear, and hopefully the NoteMaker window will appear.

You may want to make a shortcut/alias to NoteMaker and place it on your desktop or in another convenient location.

My screen looks different to yours!

Java runs on many different computers and tries to look friendly to users on these systems. Because of this, your screen may not look the same as pictures in this document and in the help files. Don't worry – this is supposed to happen. You should be able to recognise the key features of each window. For illustration, here are some screenshots showing NoteMaker running on Windows XP, Linux and Mac OS X:

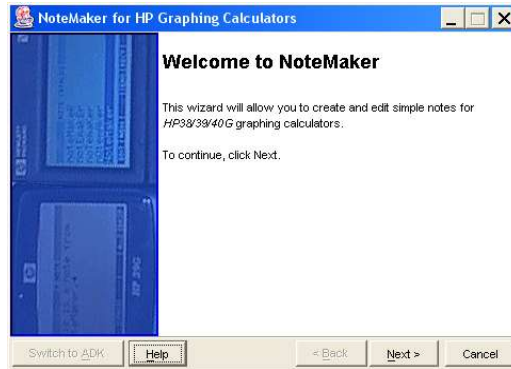


Illustration 1 Windows XP Home

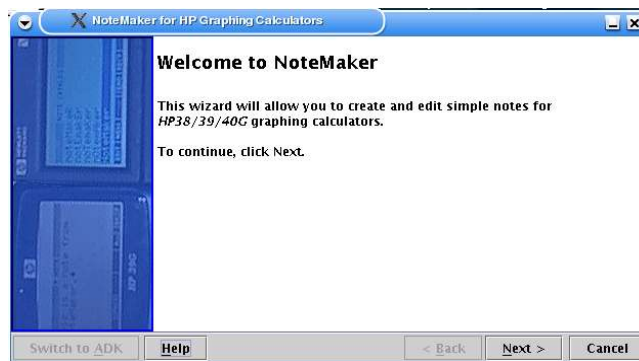


Illustration 2 Knoppix Linux

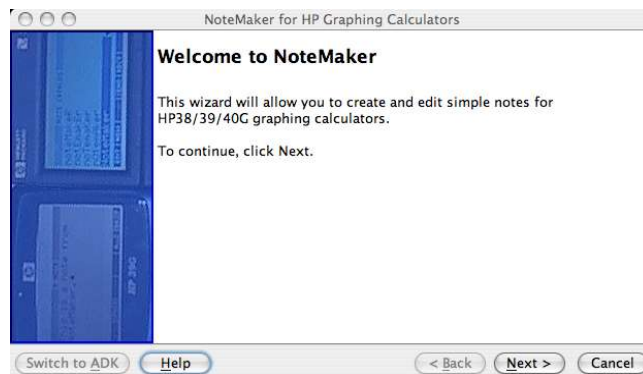


Illustration 3 Mac OS X

The screenshots throughout the rest of this document were taken from NoteMaker running on the Linux platform.

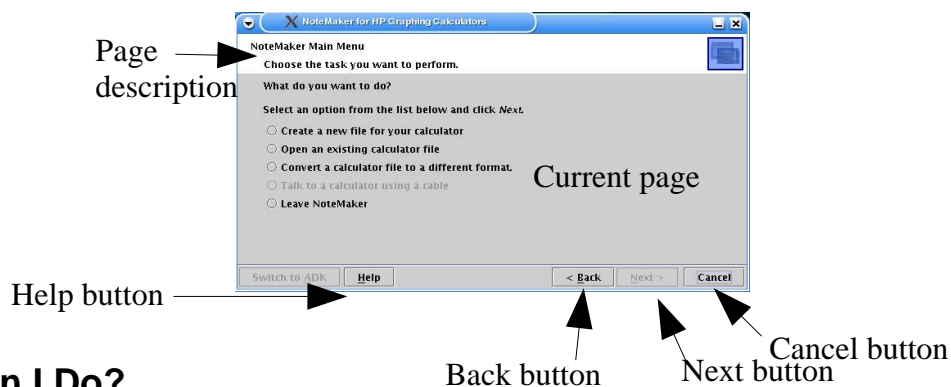
Using NoteMaker

Once NoteMaker is loaded, you're ready to get some work done. First let's analyse what NoteMaker looks like and how it acts.

NoteMaker's Behaviour

NoteMaker looks and behaves like a wizard on Microsoft Windows (for example, the New Shortcut Wizard). Basically, it means any procedure is broken down into a series of steps. You are asked for a small piece of information at a time and guided through the procedure. You navigate by pressing the **Back** and **Next** buttons which are always on the screen. Also always on the screen is a **Help** button (which brings up NoteMaker Help) and the **Cancel** button which allows you to leave NoteMaker at any time.

NoteMaker is designed to be logical and easy to use for a beginner with little knowledge of computers.



What Can I Do?

The first page you see is the Welcome page. This welcomes you to NoteMaker and tells you how to use the program. Click **Next** and you proceed to the main menu. This gives you all of the options for NoteMaker.

NoteMaker allows you to:

- Create a new note, program or standard aplet for the HP38G or the HP39/40G series of calculators.
- Edit an existing note, program or standard aplet that you have downloaded from the calculator or the Internet.
- Convert calculator files between formats. For example, you can convert your HP38G notes to HP39G ones if you buy a newer calculator.

Be aware that, as the name suggests, you can only edit notes in NoteMaker. This means when you edit an aplet, you can only change the text that appears when you press **NOTE** on the calculator.

NoteMaker supports all of the special characters that the calculator provides, so you can view your files as they would appear on the calculator (unlike other programs such as Notepad).

Getting Help

There are many ways of getting help for using NoteMaker.

- Read this document
Make sure you've read this document if you are unsure as to how to perform a task.
- Read the help

For information about what to do in NoteMaker, click the `Help` button (in the bottom left-hand corner) on the screen you do not understand.

- Read the 'tool-tip'
Try holding your mouse still over a text-box or button for a couple of seconds to get a pop-up description of its purpose.

Below are some walkthroughs of using NoteMaker to perform common tasks.

Creating a Note

This illustrates how you can create a new note in NoteMaker.

1. Load NoteMaker.
2. Click `Next` to get to the main menu.
3. Click on the round button next to “Create”...
4. Click `Next`.
5. Select the calculator that you own and click `Next`.
6. Select the type of file you want to create and click `Next`.
7. Enter a title for the file. Unlike the file name, which is used by your computer, this name appears if you transmit the file to your calculator. Note that there is a maximum size of this name, and you will be warned if the name you choose is too long.
8. Click `Browse . . .` and select where you would like to save your file. Type the file name in the text box and then press `Save`.
9. Click `Next`. (You will be warned if you try to overwrite an existing file).
10. The editor will appear. See the section below on editing files.

Editing an Existing Note

NoteMaker will edit any existing note, program or standard applet downloaded from the calculator or from a compatible program such as HP's Applet Development Kit. Here is the procedure:





1. Load NoteMaker.
2. Click `Next` to get to the main menu.
3. Click on the round button next to “Open”...
4. Click `Browse . . .` and select the file you wish to open. If NoteMaker cannot read your file, you will be told here and asked to select a different file. Click `Next`.
5. The editor will appear.

Using the NoteMaker Editor

The NoteMaker editor page works much like any other simple text editor with a couple of additions. The NoteMaker editor allows you to edit the file, insert special characters and change the title of the file.

Basic Editing

The NoteMaker is made up of a large text area which contains the contents of the calculator file and a toolbar with the following buttons (in order):

-  Save
This button saves your file and allows you to continue working. As in other programs, it is highly recommended that you save your file often so you don't lose your changes. NoteMaker will warn you if you try to exit without saving your file.
-  Cut
This button (available only when some text is selected) will remove the selected text and place it on the clipboard. You can move text around by cutting it and later pasting it in the new position.
-  Copy
This button (available only when some text is selected) will copy the selected text to the clipboard. You can duplicate text (for example repeated program segments) by copying it and later pasting it in different positions.
-  Paste
This button (available only when there is text on the clipboard) will put the text on the clipboard into the file at the current position. Note that any selected text will be replaced!
- Special Characters
Pressing this button displays the Insert Special Characters page, which is described below.
- Title
This button allows you to change the title of the file, as it will be displayed on the calculator.

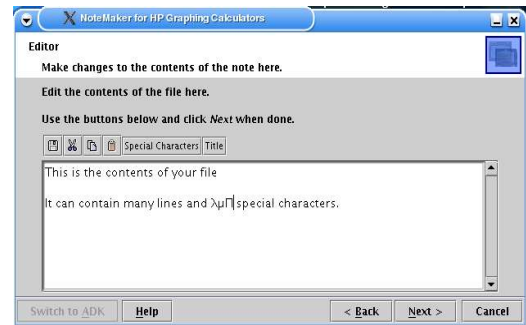


Illustration 4 Editor page

Click **Next** on the editor page when you have finished editing your file. This will save your changes and display the “Completing NoteMaker” screen.

- Click **Back** on this screen to return to the editor.
- Click **Next** on this screen to return to the main menu.
- Click **Cancel** to exit NoteMaker.

Special Characters

NoteMaker supports all of the special characters provided on the calculators. By clicking the **Special Characters** button on the editor page, you can add these characters to your file. The characters are presented in the same order as they appear on the calculator (as closely as possible).

Simply click the character you want to insert in the large box, and it will be added to the text box. The contents of the text box is inserted into your file at the current position (replacing any selected text) when you click **Next**.

Click **Back** to return to the editor without making any changes.

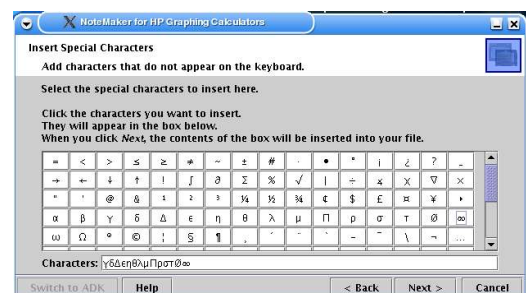


Illustration 5 Special Characters page

More Advanced Features

Converting Files

NoteMaker can be used to convert notes between calculators and between object types. By selecting “Convert” from the main menu you can convert files between HP38G and HP39/40G calculators and between applet, note and program types.

Be aware that this is a very simple translation, and is intended only to being applied to textual objects. This tool has limitations as described in the online Help for the Conversion Options page. Basically, expect only notes to be preserved, and only standard notes, programs, and applets (not games or libraries) can be converted. NoteMaker may or may not recognise whether a conversion will succeed.

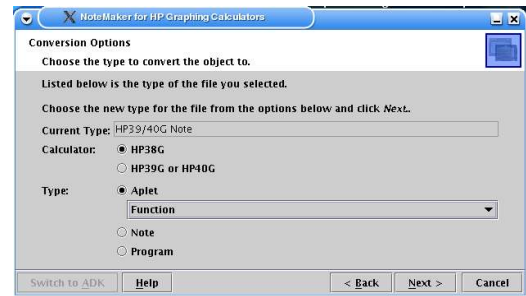


Illustration 6 Conversion Options page

To convert a file, follow this procedure:

1. Load NoteMaker, and select “Convert” from the main menu. Click Next.
2. Click Browse . . . and locate the original file. Select it and click Open, then click Next.
3. Verify that the current type for the file displayed onscreen is correct.
4. Choose the appropriate conversion options (for example, click HP38G to convert the file to HP38G format).
5. Choose Next and click Yes on the warning that appears.
6. Choose the destination file. You should change the destination file in case the conversion fails.
7. Click Next. If the “Completing” page appears, the conversion should have been successful.

Quickly Browsing Calculator Files

NoteMaker comes with a second utility called ViewNow which can be used to quickly view (but not edit) calculator directories. This allows you to check the contents of a download from the Internet without installing it on your calculator.

ViewNow has one single window, with a separate view for the HP38G and HP39/40G calculators.

Launch ViewNow by double-clicking on viewnow.jar in the NoteMaker folder. Otherwise type 'java -jar viewnow.jar' from the command line in the NoteMaker folder. You may wish to make a shortcut to this file.

Once ViewNow has loaded, click Browse . . . and select the folder to view. Note that you must select the folder and not any particular calculator file. Notice the indication of whether calculator files have been detected in the current folder in this window. Click Open and ViewNow will examine the directories.

ViewNow will create a tree containing all of the calculator objects found. Click the calculator tab you are interested in, then click on the object. A description or the contents of the object will be shown in the bottom panel. The folders can be opened and closed by double-clicking on them.

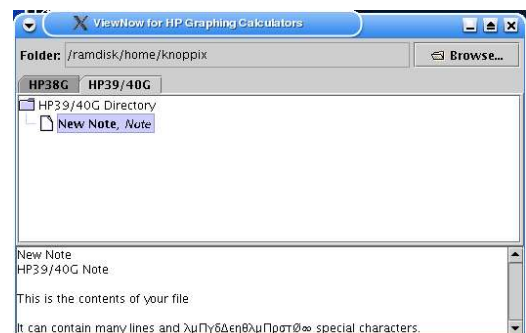


Illustration 7 ViewNow window

HPGCalc Font

NoteMaker should be able to faithfully display most, if not all, of the characters used on the HP graphing calculators. If you have problems, or want the representation to be more accurate, you can install the TrueType font included in the package. This font contains only the characters available in the calculators, but attempts to display them identically to the calculator's display.

This font can also be used in other programs such as Microsoft Word. You will need to use features such as Insert|Symbol... (or similar) or Character Map in order to access the special characters. Please follow your operating system documentation for how to install TrueType fonts.

Appendix

Getting Updated Versions or Source Code

Updated versions of this program will be posted as necessary on my web site at http://www.geocities.com/jking_ok. The source code is also available on this site. If you choose to implement software using my code, please send me an e-mail and let me know. If you have any problems, comments or suggestions about this software, please let me know. There is an e-mail contact form available on my web site as given above.

Agreement

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