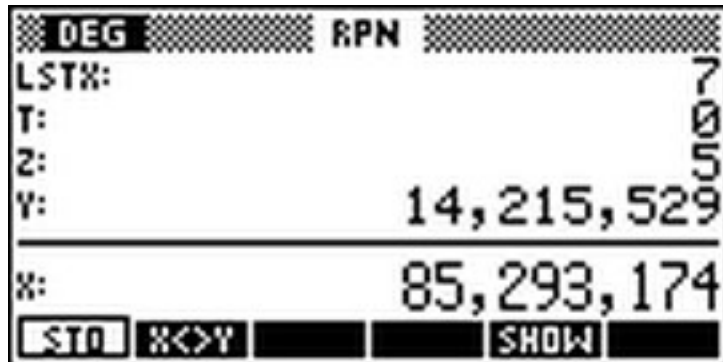


RPN Aplet Basic Instructions

Thursday, November 9th 2017

Thank you for trying this RPN aplet. It works similarly as any traditional RPN HP calculator; it has a 4-level stack (real numbers only in this version).



You'll need an HP39gs or HP40gs (I haven't tested it with this model yet). A standard USB to mini USB cable (A-Male to Mini-B) and the HP connectivity software. If you run Win10 on your computer you might experience problems running the connectivity software, I had to install it in compatibility mode (Win XP SP3) and then install the USB driver from the HP50G connectivity bundle. I can provide more details if needed.

To load this particular aplet into your calculator, launch the Conn3x (HP39g Connectivity software) in your PC, connect the USB cable between the computer and calculator and go to the Aplet Library in your calculator, then hit "RECV", go down in the menu and select HP39/40 (USB). Now, go back to Conn3X, a new window (Send file to 39g (by Wire)) should have popped up, navigate to the RPN file and select it. After few seconds it should be transferred to the HP39gs:



Just press START to launch it.

I'm not going to explain how RPN works since there is a lot of available information to learn it:

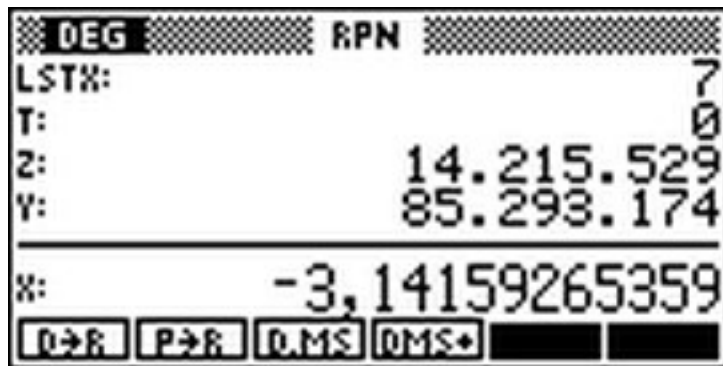
http://h20331.www2.hp.com/Hpsub/downloads/35_02_RPN_Mode.pdf

Don't resist it, once you learn RPN you will not look back!

As I said most of the calculator will work as any typical RPN calculator however there are some particular things that you should know...

To roll up or down the stack use the up and down keys respectively.

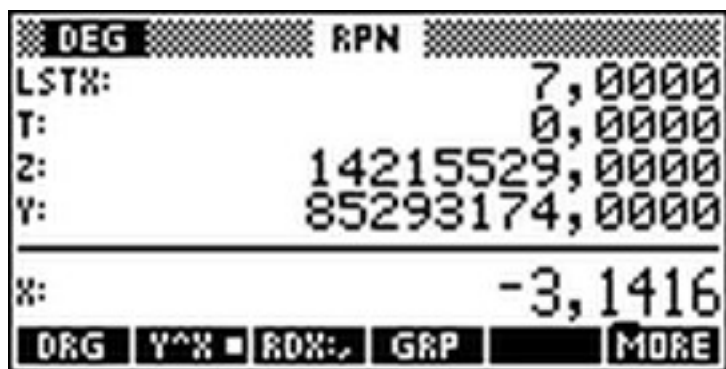
You'll notice that some menu keys have a clear background, that means that pressing that key after SHIFT will provide the inverse function, i.e. SHIFT STO actually executes the RECALL function. While P-R gives you the polar to rectangular conversion, SHIFT P-R takes the rectangular X-Y coordinates and returns the vector absolute value and angle.



Under MODES there are several options:

DRG cycles between Degree, Radian and Gradian mode.

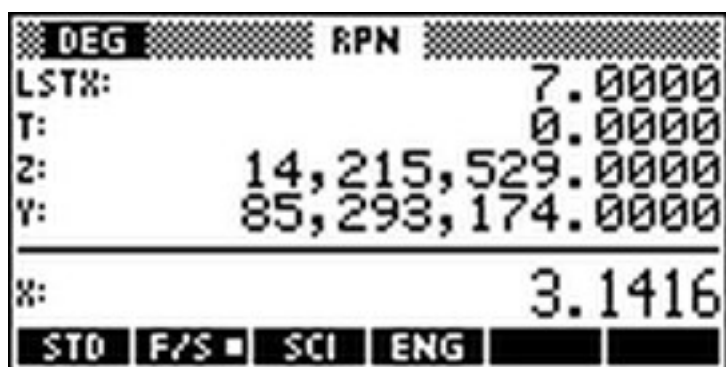
Y^X / X^Y : Most HP calculators do Y^X but the HP39 has printed " X^Y " on the key, you can switch the behavior that you prefer from here. Default is Y^X .



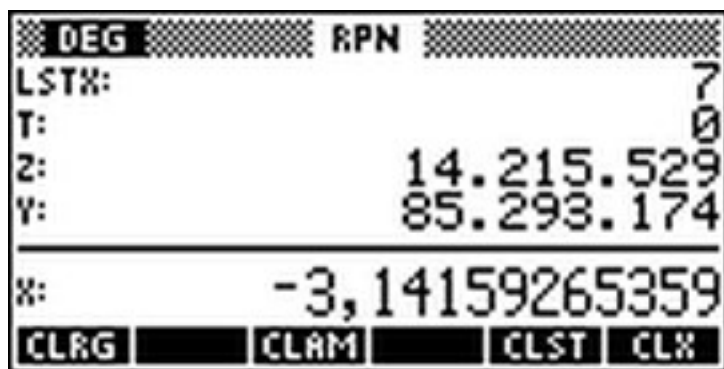
RDX switches the decimal point from a period to a comma. To enter a decimal point you can use the "." or "," key regardless of the mode selected.

GRP separates the numbers shown on the display in group of thousands. Depending on the RDX mode the digits are separated by commas or dots.

Under MORE you'll find the display mode Standard (it shows all the relevant decimals available), F/S is fixed number of decimal and switches to SCI mode when needed to show more digits. Sci is the usual scientific mode and Eng is similar to Sci but the exponents are always a multiple of 3.



Under the CLEAR menu you can delete all the registers (from A through Z), the entire application memory (be careful, it doesn't ask you to confirm, it just does it), clear the stack (if you want to delete Last X too just press "+", "-", or "*" after CLST).



After STO is not mandatory to hit ALPHA, you can just press the desired A through Z key. STO followed by "+" will add the content of Stack X to the memory location selected.

Similarly you can do RCL + to add the content of a memory location to Stack X. Under MEMORY there are some shortcuts if you only use memory location "A".

ABS will take Cartesian values in Stack X and Y and will return the absolute value of the vector in Stack X. ARG is similar but returns the angle of the vector. You might want to use R-P (remember: SHIFT P-R) under the angle menu, this will return the value and angle in a single step.

To exit the application press ON and then HOME.

I spent a significant amount of time removing bugs but I'm sure there are still present. Use it at your own risk and my suggestion is that you make a backup of anything that you consider important in your machine.

If you want to report a bug, please email me (acapde@hotmail.com) with enough information to duplicate it. If I can't duplicate it I can't fix it :(

I've tested this applet with an HP39gs (HP39-E) rev. 2.22. It should work on HP40gs but haven't tried it, let me know if it runs well.

This is pretty much it for now, hope you like it.

Andres Capdevila