

User's manual of HPxx 1.0.

What is necessary to work with HPxx 1.0:

One Macintosh with at least 512Kb of memory and 100Kb of free memory. That's a minimal configuration, and it's possible that this configuration don't allow you to open a desk accessorie because there will have a shortage of memory!

How must you install HPxx 1.0 ?

The HPxx 1.0 program version don't need to be installed. At the first start of the program, a file named HPData will appear on your harddisk or on your floppydisk in the same directory like the program, Don't trash it because it contain the memory of the HPxx. You can also deplace the file HPData to your systemfolder.

HPxx 1.0.DA. This acc must be install with the font/DA Mover of Apple. For more informations, read your Documentation about the font/DA Mover.

Addendum for HPxx 1.1

HPxx 1.0 has no real bug but has problems with expressions like 0^0 , $0/0$,... The version 1.1 is now corrected.

Use of HPxx 1.0

HPxx is an RPN calculator, This method seems to be difficult but in fact, it offers many advantages!

Take an example: Try to compute the following operation: $(15+23) \cdot \text{Log } 15$

The steps are the same that if you works with your pencil and a piece of paper. At first, you must first compute $15+23$ and multipliate the result by $\text{Log } 15$.

Try this on the keyboard of HPxx. Open HPxx and type 15 on the keyboard of the Hpxx with the mouse or directly on your keyboard. The screen looks like:

4:	0
3:	0
2:	0
1:	15
EDIT DEG	

The Edit on the screen means you are editing a number.

Now, type the ENTER key or the return on your keyboard, the EDIT will disapear, that's mean that the number is on the stack^{1*} of the machine.

4:	0
3:	0
2:	0
1:	15
DEG	

Now type on the keyboard the second number (13 here):

4:	0
3:	0
2:	15
1:	13
EDIT DEG	

You can notice that the number 15 is push on the stack. Now add 15 and 13, push the + key. The result will appear in the stack at level 1.

4:	0
3:	0
2:	0
1:	28
DEG	

Now you are going to compute the $\text{Log } 15$. To do that, type the 15 number on the keyboard. The machine will push the last result on the stack.

4:	0
3:	0
2:	28
1:	15
EDIT DEG	

Now, push the Log key of your machine. The number 15 will be compute like $\text{Log } 15$.

^{1*} A stack is a memory with different levels.

4:	0
3:	0
2:	28
1:	1.17609125905568124
	DEG

Now to have the complete result of your expression, push the key: * .

4:	0
3:	0
2:	0
1:	32.9305552535590747
	DEG

That's all! You have just finished to compute your first RPN expression. This method allows you to see the intermediate result.

Try to type 4 or 5 on the keyboard and push ENTER after each of them.

4:	15
3:	21
2:	89
1:	587
	DEG

If you type on the + key several time, the number on the level 1 and on the level 2 of the stack will be add and the other numbers on the stack will move behind.

4:	0
3:	0
2:	15
1:	697
	DEG

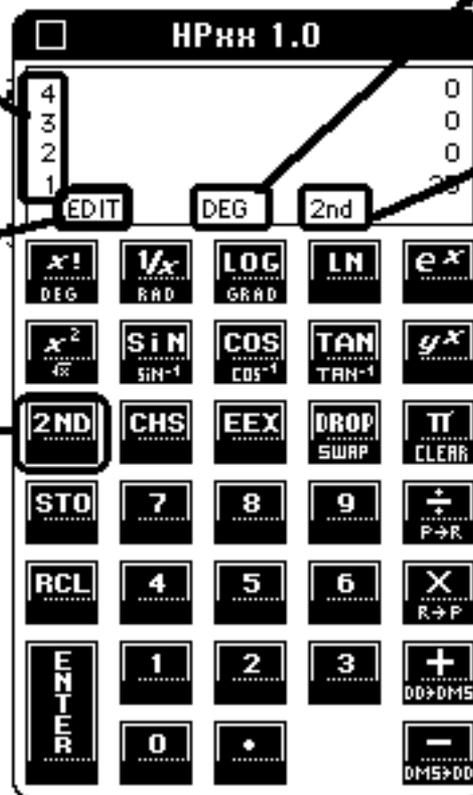
Functions of the HPxx 1.0

Mode : degree, rad, grad

Level on the stack

Edit mode

Key 2ND to access to the second function of some keys.



You push the 2ND key this will appear.

Describe of the differents keys:

How can you access the second function of a key?.

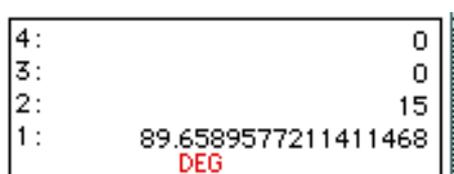
touche 2ND: With this key, you can access to the second function of a key. For example, if you push the 2ND key, a 2ND will appear on the screen.



4:	0
3:	0
2:	15
1:	168

DEG 2nd

Hit now the Tan touch. You have just compute Arctan or \tan^{-1} . That's the same for every keys which has a second function.



4:	0
3:	0
2:	15
1:	89.6589577211411468

DEG

General functions

- x! Compute the fact of the first number in the stack.
- 1/x: Compute the inverse of the first number in the stack.
- deg Put the machine on the degree mode. All angles will be understood like degrees.
- Rad Put the machine in the radian mode.
- grad Put the machine in the grade mode.
- x² Compute the square of x.
- √x Compute the \sqrt{x} .
- y^x Compute y^x where y will be at level 2 of the stack and x will be at level 1.
- ÷ Compute the division of the level 2 of the stack by the number at level 1.
- X Compute the multiplication of the last two numbers in the stack.
- + Compute the addition of the last two numbers in the stack.
- Compute the difference of the last two numbers in the stack. (level 2 - level 1)
- P->R Make the conversion from polar coordinates to cartesian coordinates.

The level 2 must contain the angle and the level 1 the length. The conversion will place the x to the level 2 of the stack and the y to the level 1.

R->P Make the conversion from cartesian coordinates to polar coordinates.

The level 2 of the stack must contain the x value and the level 1 must contain the y value. The conversion will place the angle at level 2 of the stack and the length to the level 1.

DD->DMS Make the conversion of the value at level 1 of the stack. (the radian, degree, grade will affect this command) in degrees minutes seconds.

DMS->DD Make the conversion of degrees minutes seconds to decimal degrees (or in the units defined by the radian, degree, ... mode)

Fonctions logarithmiques

- Log Compute the Log of the value in the level 1 of the stack.
- Ln Compute the Ln of the value in the level 1 of the stack.
- e^x Compute the EXP function.

Trigonometrics functions

- Sin Compute the Sinus of the numbers contained at level 1 of the stack. The result depend of the mode of the calculator (degre,radian or Grade).
- Sin⁻¹ Compute the function: Arcsin.
- Cos Compute the Cosinus of the numbers contained at level 1 of the stack. The result depend of the mode of the calculator (degre,radian or Grade).
- Cos⁻¹ Compute the function: Arccos.
- Tan Compute the Tan of the numbers contained at level 1 of the stack. The result depend of the mode of the calculator (degre,radian or Grade).
- Tan⁻¹ Compute the function: Arctan.

Special functions

- 2ND Allow you to access to the second function of some keys.
- CHS Change the sign of the value at level 1 of the stack..
- EEX To use ingenior notation: $x \cdot 10^y = x \text{ EE } y$.
- Drop Clear the number in the level 1 of the stack.
- Swap Necessary to change the invert the elements 1 and 2 of the stack.
- π Put the value of π .
- Clear Clear all the stack.
- STO Put the level 2 of the stack in a memory number specified by the level 1 of the stack. Be carefull: because the numbers allowed for the memory are only: 0,1,2,3,4,5,6,7,8, ou 9.
- RCL Read the memory number specified by the level 1 of the stack. (Be carefull: the number can only be between 0 and 9)
- ENTER if you are in the EDIT mode, this key will place your editing number in the level 1 of the stack else it will copy again the number to the stack.

Use of Cut,Paste and Copy.

These standard functions of the Mac are fully supported by HPxx 1.0., If you want, you can cut a result and put it in a word processor! These functions can be perform by the Edit menu or by the Command keys.

Memory of the HPxx 1.0

The program will create a file named HPdata on the disk in the same directory that HPxx itself. This file will contain the memory of the calculator but also every numbers in the stack (The stack is limited to 40 numbers). The content of the stack will never lost. For the deskaccessories, the file HPdata will appear in your system folder.

Don't forget that this program is shareware.

If you like it, send 9\$ (please no checks) directly to:

Willam Didier
37,Rue Damseaux
5030 Gembloux
Belgium (Europe)

You will receive a registration card of HPxx 1.0. And don't forget: if you pay your shareware fees you will have more quality programs cheaper that commercial software! If you don't pay you will then buy more commercial software with very high price to do the same task!