

Calculator Memory Description

The HP-12C calculator has different memory areas dedicated to different functions. The memory areas are:

Memory Area	Description
Stack Registers	X, Y, Z, T and Last-X registers to track calculations. The Last-X is a special register to keep the previous content of stack-X after an operation or function (RPN mode only).
Financial Registers	n, i, PV, PMT and FV registers for financial calculations.
Storage Registers	20 General purpose registers numbered from 0 to 19.
Cash Flow Memory	100 registers to store the cash flow values and repetitions. The first 20 registers are the Storage Registers.
Program Memory	Stores keystroke sequences in a program for a total of up to 999 program steps or complete commands.
Statistic Data List	Additional memory area added in this implementation (not present in the real HP-12C calculator) to keep track of the statistical data entered with [Σ+] or corrected with [g] [Σ-] . To review or edit it use " X,Y Data Editor " in the Options topic.

Stack Registers X, Y, Z ,T and Last-X

During calculations the automatic Stack retains and returns intermediate results. The number that appears in the display is always the number in the Stack-X Register.

The **Last-X** is a special case. It contains different values depending on the calculator's entry logic selected, **RPN** or **ALG** (Platinum model only):

<p>“RPN” Entry logic</p>	<p>When a numeric function or operation is executed, a copy of the value that was in the X register is stored in the Last X register. Pressing [g] [LSTX] retrieves the Last X register to the Stack X register.</p>
<p>“ALG” Entry logic</p>	<p>The displayed number is copied into the Last X register when a new calculation commences either with digit entry (i.e., when one of the digits 0-9, the decimal point, or EEX is pressed) or with [g] [LSTX] itself. When [g] [LSTX] is actually executed in ALG mode, it simply swaps the value in the X-register with the value in Last X. Therefore, in ALG mode, it never lifts the stack and in general, it changes the value in Last X.</p>

Financial Registers:

The calculator has five special registers to perform financial calculations. These registers are: number of compounding periods (**n**), interest rate per compounding period (**i**), present value (**PV**), periodic payment value (**PMT**) and future value (**FV**). For more detail, please see the [Compound Interest](#) topic.

Storage Registers:

The calculator has 20 general purpose memory registers for storing (**STO**) or recalling (**RCL**) numbers involving the displayed stack-X register.

Cash Flows Register:

To store cash flow amounts 'CFj', and repetitions 'Nj', the calculator uses the 20 general purpose registers plus 80 additional registers and 100 special registers to store the number of repetitions (see the [Cash Flows](#) topic).

Program Memory:

Up to 999 program steps can be recorded independently from the other memory registers (see the [Programs](#) topic).

Storage Register Operations:

[STO] “0” to “9” : Stores the displayed number in register “0” to “9”.

[RCL] “0” to “9” : Recalls register “0” to “9” to the X-stack register.

[STO] [.] “0” to “9” : Stores the displayed number in register “10” to “19”.

[RCL] [.] “0” to “9” : Recalls register “10” to “19” to the X-stack register.

[STO] [+] “0” to “9” : Adds the displayed number to register “0” to “9”.

[RCL] [+] “0” to “9” : Adds register “0” to “9” to the X-stack register.

[STO] [-] “0” to “9” : Subtracts the displayed number from register “0” to “9”.

[RCL] [-] “0” to “9” : Subtracts register “0” to “9” from the X-stack register.

[STO] [x] “0” to “9” : Multiplies register “0” to “9” by the displayed number.

[RCL] [x] “0” to “9” : Multiplies the displayed number by register “0” to “9”.

[STO] [÷] “0” to “9” : Divides register “0” to “9” by the displayed number.

[RCL] [÷] “0” to “9” : Divides the displayed number by register “0” to “9”.

[STO] [y^x] “0” to “9” : Raises register “0” to “9” by the displayed number.

[RCL] [y^x] “0” to “9” : Raises the displayed number by register “0” to “9”.

Note: The Storage Register operations described above can be used in the same way with most of the variables of the Options Selection tools.

Financial Registers Operations:

Touching [**n**], [**i**], [**PV**], [**PMT**] and [**FV**] keys stores or calculates the corresponding value depending of the previous key pressed:

Previous Key	[n] , [i] , [PV] , [PMT] or [FV] pressed
[STO]	Stores the stack-X in pressed variable register.
[RCL]	Recall the pressed variable register to the stack-X.
[n], [i], [PV], [PMT] or [FV]	Calculates the pressed variable and display it.
Any Other	Stores the stack-X in pressed variable register.

As a special feature, the RLM's 12C calculators includes a tool to view, reset and backup the calculator's memory. To show it, press the **OPT** key and select the "System" menu and touch the "[Memo-ry](#)" option.