

Program Editor

In this view you can enter or edit a program in a convenient way. To show it, press the **[f] [P/R]** keys in the calculator's keyboard or select "Program Editor" in the "Program" button in the Main menu.





The screenshot shows the Program Editor interface with the following components and callouts:

- Close the view:** Points to the "Close" button in the top left.
- Save Program and close the view:** Points to the "Save" button in the top right.
- Action Menu:** Points to the "Name: UG-12P-ALG-P21..." field.
- Current program line:** Points to the highlighted line 005 in the program listing.
- Program Listing:** Points to the table of program instructions.
- Dynamic Keypad to enter program instructions:** Points to the numeric keypad at the bottom.

#	Code	Keys
000	42, 26	F ALG
001	42, 34	F clear FIN
002	43, 7	G BEG
003	45, 2	RCL 2
004	10	÷
005	2	2
006	14	PMT
007	40	+
008	45, 5	RCL 5
009	15	FV
010	45, 3	RCL 3
011	45, 4	RCL 4
012	43, 26	G ADYS

Dynamic Keypad to enter program instructions:

n	i	PV	PMT	FV
y*	1/x	%T	Δ%	%
R/S	SST	R↓	X⇒Y	CLX
CHS	7	8	9	÷
EEX	4	5	6	x
STO	1	2	3	-
RCL	0	.	Σ+	+
=			F	G
Add	insert	Clear	Delete	

[ Name ▶]	Program Editor action menu.
 New	Clears the editor to enter a new program.
 Name...	Shows a pop-up view to name the program.
> Load	Shows a submenu to load a previously saved program.
 Delete	Delete the current program list.
[Close]	Close the Editor.
[Save]	Save the program to the calculator and close the editor.
[Add]	Add a new program line at the end of the listing.
[Delete]	Remove the selected program line from the listing.
[Insert]	Insert a new program line before the selected one.
[Clear]	Clears the selected program line.



Example 1:


Create a program that calculates Tax and Total of an entry Amount for each product for a distributor's invoice. Also calculates the total of all entries on the invoice assuming a tax rate of 6.75%.

Solution:

We will use the Storage registers to store the tax rate (R_0) and the total net amount (R_1), total tax (R_2) and total amount (R_3) of the invoice.

First, open the **Program Editor** touching the [f] [P / R] keys in the calculator's keyboard or, select the "New" option in the options's "Program" menu. Then, enter the program following the next sequence:

Keys	Comment
[ Name ▶]  New	Clears the program listing and let it ready to enter key-strokes.
[F] [RPN]	Set the calculation logic of the program to RPN.

Keys	Comment
[x]	Multiply the quantity and price of the current item.
[G] [PSE]	Pause to show the item amount in the display.
[STO] [+] [1]	Add the item amount to Storage Register 1.
[RCL] [0]	Recall the tax rate.
[%]	Calculates the Tax to add to the item.
[G] [PSE]	Pause to show the tax in the display.
[STO] [+] [2]	Add the item tax to Storage Register 2.
[+]	Calculate the item total amount.
[STO] [+] [3]	Add the total amount to Storage Register 3.
[ Name ►] Name...	Shows a Name entry form to name the program.
Type "Help-Ex-1" and [Done]	Name the program "Help-Ex-1".

After the above sequence, the Program Editor view should be as follow:

Program Editor		
Close		Name: Help-Ex-1 ►
		Save
#	Code	Keys
000	42, 16	F RPN
001	20	x
002	43, 31	G PSE
003	44, 40, 1	STO + 1
004	45, 0	RCL 0
005	25	%
006	43, 31	G PSE
007	44, 40, 2	STO + 2
008	40	+
009	44, 40, 3	STO + 3
010		

Finally, tap the [**Save**] button to close the view and save the program to the calculator's program memory and get ready to use it.

Now that we have the above program in the calculator's program memory, Calculate the total of an invoice with a 6.75% of tax rate:

Product 1 : 13 items at \$68.5 each

Product 2 : 18 items at \$72.9 each

Product 3 : 24 items at \$85.0 each

Product 4 : 5 items at \$345.0 each

Solution:



Keys	Comment
[f] [Σ]	Clears the storage registers 1 to 6
6.75 [STO] [0]	Store the tax rate in register 0.
13 [Enter] 68.5 [R/S]	Input the Product 1 data and run the program: 890.50 for item amount 60.11 for tax amount 950.61 for total amount
18 [Enter] 72.9 [R/S]	Input the Product 2 data and run the program: 1,312.20 for item amount 88.57 for tax amount 1,400.77 for total amount
24 [Enter] 85.0 [R/S]	Input the Product 3 data and run the program: 2,040.00 for item amount 137.70 for tax amount 2,177.70 for total amount
5 [Enter] 345.0 [R/S]	Input the Product 4 data and run the program: 1,725.00 for item amount 116.44 for tax amount 1,841.44 for total amount
[RCL] [1] [RCL] [2] [RCL] [3]	Sum of the items amount. Result = 5,967.70 Sum of the tax amount. Result = 402.82 Sum of the total amount. Result = 6,370.52

Example 2: Variable Tax Rate Program in ALG mode

The following program calculates income tax and the net value applying different tax rates depending on the test value stored in R_0 . If the value is less than or equal to a test value, the tax rate stored in R_1 is used, otherwise the tax rate stored in R_2 is used.

Enter the program in the calculator following the next sequence:

Keystrokes	Description
[f] [P / R]	Shows the Program Editor view
[F] [clr.PRG]	Clear the current program.
[F] [ALG]	Set the ALG calculation logic for the program.
[=]	Enter the displayed result to lift the stack.
[RCL] 0	Recall the test amount for comparison.
[X \leftrightarrow Y]	Swap stack-X and stack-Y
[-]	Enter the minus operation
[G] [X \leq Y]	Compare the entered value with the test value.
[G] [GTO] 009	Execution continues at line 009 if the entered value is less than or equal to the test value.
[RCL] 2	Recall the tax rate for amounts greater than the test value.
[G] [GTO] 010	Jump to line 010 to calculate the tax amount
[RCL] 1	Recall the tax rate for amounts less than or equal to the test value
[%]	Calculate the tax amount applying the proper tax rate to the entered value.
[G] [PSE]	Pause execution to display the tax amount
[=]	Subtract tax amount from the entered amount and program stops showing the net amount.

Keystrokes	Description
[ Name ►]  Name...	Shows a Name entry form to name the program.
Type "Help-Ex-2" and [Done]	Name the program "Help-Ex-2".

After the above sequence, the Program Editor view should be as follow:

Program Editor		
Close		Name: Help-Ex-2 ►
		Save
#	Code	Keys
000	42, 26	F ALG
001	36	=
002	45, 0	RCL 0
003	34	X↔Y
004	30	-
005	43, 34	G X≤Y?
006	43, 33, 009	G GTO 0 0 9
007	45, 2	RCL 2
008	43, 33, 010	G GTO 0 1 0
009	45, 1	RCL 1
010	25	%
011	43, 31	G PSE
012	36	=

Finally, tap the [**Save**] button to close the view and save the program to the calculator's program memory and get ready to use it.

If the test value is \$20,000; the tax rate for values less than or equal to test value is 20%, and for greater values is 25%. What is the tax amount and the net amount for \$15,000; \$20,000 and \$25,000 incomes?

Keys	Comment
20000 [STO] [0] 20 [STO] [1] 25 [STO] [2]	Store the test value in register 0. Store the tax rate to apply for value \leq test value. Store tax rate to apply for value $>$ test value.
Type 15000 [R/S]	Input the income value and run the program: 3,000.00 pause to show the tax amount 12,000.00 program stop showing the net amount
Type 20000 [R/S]	Input the income value and run the program: 4,000.00 pause to show the tax amount 16,000.00 program stop showing the net amount
Type 25000 [R/S]	Input the income value and run the program: 6,250.00 pause to show the tax amount 18,750.00 program stop showing the net amount