






## Cash Flows Menu ( CFLO )



The CFLO menu does calculations using a series of cash flows of unequal amounts that occur at a regular time intervals.

The “Cash Flows” are stored in a list of values and repetitions. The list can be entered or edited directly in the calculator or using the **List Editor View**.

Once a list is entered, it can be named and saved for further use.

CFLO Menu Buttons	
	Shows the Cash Flow calculation menu to perform Net present value, internal rate of return and many other calculations.
	Shows the <b>List Editor View</b> to create a new list (the current list in memory will be lost).
	Shows the <b>List Editor View</b> to edit the current Cash Flow list.
	Shows a table view to Load a previously saved Cash Flow list.
	Saves the current cash flow list asking for a name to it.

## List Editor View

The screenshot shows a mobile application interface titled "List Editor". At the top, it displays "Carrier", a signal strength icon, the time "8:24 AM", and a battery icon. Below the title is a table with three columns: "#", "Value", and "Freq.". The table contains five rows of data. The second row (#1) is highlighted in blue. Below the table is a numeric keypad with buttons for digits 0-9, a decimal point, and an "INPUT" button. To the left of the keypad are four red buttons: "Add", "Delete", "Insert", and "Clear". At the bottom of the keypad are "Cancel" and "Done" buttons.

#	Value	Freq.
#0	9,000.00	1
#1	500.00	3
#2	1,000.00	4
#3	0.00	1
#4	1,500.00	3

Cash Flow value.

Cash Flow consecutive number of repetitions

Cash Flow index.

Selected Cash Flow

Add a new Cash Flow at the end of the list.

Remove the current selected cash flow.

Inserts a new cash flow entry at selected index.

Clears to zero the current selected cash flow.

Enters the current edited value into the list.

Close the view and discard all changes.

Enters the list and close the editor view.

# CALC Menu

CFLO-CALC primary menu







CFLO-CALC secondary menu



CFLO-CALC tertiary menu



## CFLO - CALC Menu Buttons

	Calculates the Internal Rate of Return of the current Cash Flow list.
	Stores or calculates the Interest rate to apply to obtain the Net Present Value of the cash flows in the current list.
	Stores or calculates the Net Present Value of the cash flows in the current list according to the Interest Rate value.
	Calculates the Net Uniform Series of payments that produces the same Net Present Value at the same Interest Rate.

## CFLO - CALC Menu Buttons



<b>NFV</b>	Calculates the Net Future Value of the cash flows in the current list according to the Interest Rate value.
<b>TOTL</b>	Calculates the sum of the cash flows in the current list, taking into account the frequencies (or repetitions) of each item.
<b>AVG</b>	Calculates the arithmetic mean of the cash flows in the current list, taking into account the frequencies (or repetitions) of each item.
<b>#CF's</b>	Calculates the Number of cash flows in the current list. This is the sum of repetitions not including the initial cash flow.
<b>PV (-)</b>	Calculates the Net Present Value of the Negative cash flows only. Used in the calculation of Modified Internal Rate of Return (see the example).
<b>FV (+)</b>	Calculates the Net Future Value of the Positive cash flows only. Used in the calculation of Modified Internal Rate of Return (see the example).
<b>SPPV</b>	Calculates the Single Payment Present Value: $\text{SPPV} ( i\% , n ) = ( 1 + i\% / 100 )^{-n}$
<b>SPFV</b>	Calculates the Single Payment Future Value: $\text{SPPV} ( i\% , n ) = ( 1 + i\% / 100 )^n$
<b>USPV</b>	Calculates the Uniform Series Present Value: $\text{SPPV} ( i\% , n ) = [ 1 - \text{SPPV} ( i\% , n ) ] / ( i\% / 100 )$
<b>USFV</b>	Calculates the Uniform Series Future Value: $\text{SPPV} ( i\% , n ) = [ \text{SPFV} ( i\% , n ) - 1 ] / ( i\% / 100 )$





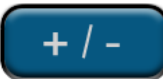

















### Example: An Investment with Grouped Cash Flows.

You are considering an investment that requires a cash outlay of \$9,000, with the promise of monthly cash flows as shown. Calculate IRR%. Also find NPV, NUS and NFV at 0.75% monthly interest rate.















Period	Amount	Period	Amount
0	(\$9,000)	6	\$1,000
1	\$500	7	\$1,000
2	\$500	8	\$0
3	\$500	9	\$1,500
4	\$1,000	10	\$1,500
5	\$1,000	11	\$1,500

### Solution:

First,   and input the list using whether “Input” key the list editor view:

Using “Input” key	Using List Editor
9000  	  9000 
500  3 	 500  3 
1000  4 	1000  4 
0  	0 
1500  3 	1500  3  

Now, proceed to calculations...

Keystroke	Description
	Shows the CALC menu.
0.75 	Stores the monthly interest rate. <b>I% = 0.75</b>
	Calculates the Net Present Value. <b>NPV = 492.95</b>
	Calculates the Internal Rate of Return. <b>IRR% = 1.53%</b>
	Calculates the Net Future Value. <b>NFV = 535.18</b>
	Calculates the Net Uniform Series. <b>NUS = 46.86</b>
	Calculates the Sum total. <b>TOTAL = 1,000.00</b>
	Calculates the Average. <b>MEAN = 90.91</b>
	Calculates the number of cash flows. <b>#CF's = 11.00</b>
 	Calculates Single Payment Present Value. <b>SPPV = 0.92</b>
	Calculates Single Payment Future Value. <b>SPFV = 1.09</b>
	Calculates Uniform Series Present Value. <b>USPV = 10.52</b>
	Calculates Uniform Series Future Value. <b>USFV = 11.42</b>



### Example: Modified Internal Rate of Return.





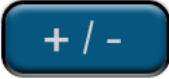



















An investor has an investment opportunity with the following cash flows:

Period	Amount	Repetitions
0	(\$180,000)	1
1	\$100,000	5
2	(\$100,000)	5
3	\$0	9
4	\$200,000	1












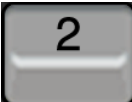







Calculate the MIRR using a safe rate of 8% per period and a reinvestment (risk) rate of 13% per period.

### Solution:















First,   and input the list using whether “Input” key the list editor view:

Using “Input” key	Using List Editor
180000  	  180000 
100000  5 	 100000  5 
100000   5 	100000   5
0  9 	 0  9 
200000  	200000  

Now, proceed to calculations...

Keystrokes	Description
	Shows the CALC menu.
8 	Stores the safe rate (8%). <b>I% = 8.00</b>
 	Calculates the Present Value of negative cash flows. <b>PV(-) = -451,737.14</b>
 	Stores the PV(-) value in memory register "1" for further use.
 13 	Stores the risk rate (13%). <b>I% = 13.00</b>
 	Calculate the Future Value of positive cash flows. <b>FV(+) = 4,252,936.45</b>
 	Stores the FV(+) value in memory register "2" for further use.
	Get the number of periods in the list. <b>#CF's = 20</b>
  	Get back to the FIN menu.
 	Set the Time-Value-of-Money secondary menu.
	Stores the number of periods. <b>N = 20</b>



Keystrokes	Description
  	Recalls PV(-) from register 1 and stores as present value. <b>PV = -451,737.14</b>
  	Recalls FV(+) from register 2 and stores as future value. <b>FV = 4,252,936.45</b>
 	Reset the TVM Payment value to zero. <b>PMT = 0.00</b>
	Shows the Time-Value-of-Money secondary menu.
  	Sets payment per year to <b>1</b> and <b>END</b> mode.
 	Exit to primary TVM menu and. Calculates MIRR. <b>I%YR = 11.86%</b>