

runningsum() — Running sum of vector

Description
Diagnostics

Syntax
Also see

Remarks and examples

Conformability

Description

`runningsum(x)` returns a vector of the same dimension as x containing the running sum of x . Missing values are treated as contributing zero to the sum.

`runningsum(x, missing)` does the same but lets you specify how missing values are treated. `runningsum(x, 0)` is the same as `runningsum(x)`. `runningsum(x, 1)` specifies that missing values are to turn the sum to missing where they occur.

`quadrunningsum(x)` and `quadrunningsum(x, missing)` do the same but perform the accumulation in quad precision.

`_runningsum(y, x [, missing])` and `_quadrunningsum(y, x [, missing])` work the same way, except that rather than returning the running-sum vector, they store the result in y . This method is slightly more efficient when y is a view.

Syntax

numeric vector `runningsum(numeric vector x [, missing])`

numeric vector `quadrunningsum(numeric vector x [, missing])`

void `_runningsum(y , numeric vector x [, missing])`

void `_quadrunningsum(y , numeric vector x [, missing])`

where optional argument *missing* is a *real scalar* that determines how missing values in x are treated:

1. Specifying *missing* as 0 is equivalent to not specifying the argument; missing values in x are treated as contributing 0 to the sum.
2. Specifying *missing* as 1 specifies that missing values in x are to be treated as missing values and turn the sum to missing.

Remarks and examples

stata.com

The running sum of (1, 2, 3) is (1, 3, 6).

All functions return the same type as the argument, real if argument is real, complex if complex.

Conformability

`runningsum(x, missing)`, `quadrningsum(x, missing)`:

<i>x</i> :	$r \times 1$	or	$1 \times c$	
<i>missing</i> :	1×1			(optional)
<i>result</i> :	$r \times 1$	or	$1 \times c$	

`_runningsum(y, x, missing)`, `_quadrningsum(y, x, missing)`:

input:

<i>x</i> :	$r \times 1$	or	$1 \times c$	
<i>y</i> :	$r \times 1$	or	$1 \times c$	(contents irrelevant)
<i>missing</i> :	1×1			(optional)

output:

<i>y</i> :	$r \times 1$	or	$1 \times c$
------------	--------------	----	--------------

Diagnostics

If `missing = 0`, missing values are treated as contributing zero to the sum; they do not turn the sum to missing. Otherwise, missing values turn the sum to missing.

`_runningsum(y, x, missing)` and `_quadrningsum(y, x, missing)` abort with error if `y` is not **p-conformable** with `x` and of the same **eltype**. The contents of `y` are irrelevant.

Also see

[M-5] **sum()** — Sums

[M-4] **Mathematical** — Important mathematical functions

[M-4] **Utility** — Matrix utility functions

Stata, Stata Press, and Mata are registered trademarks of StataCorp LLC. Stata and Stata Press are registered trademarks with the World Intellectual Property Organization of the United Nations. Other brand and product names are registered trademarks or trademarks of their respective companies. Copyright © 1985–2023 StataCorp LLC, College Station, TX, USA. All rights reserved.

