floatround() — Round to float precision

Syntax

real matrix floatround(real matrix x)

Description

floatround(x) returns x rounded to IEEE 4-byte real (float) precision. floatround() is the element-by-element equivalent of Stata’s float() function. The Mata function could not be named float() because the word float is reserved in Mata.

Remarks and examples

: printf(" %21x\n", .1)  
  +1.9999999999999aX-004
: printf(" %21x\n", floatround(.1))  
  +1.99999a0000000X-004

Conformability

floatround(x):

  x:  r × c
  result:  r × c

Diagnostics

floatround(x) returns missing (.) if x < −1.fffffeX+7e (approximately −1.70141173319e+38) or x > 1.fffffeX+7e (approximately 1.70141173319e+38).

In contrast with most functions, floatround(x) returns the same kind of missing value as x if x contains missing; . if x == ., .a if x == .a, .b if x == .b, . . . , and .z if x == .z.

Also see

[M-4] utility — Matrix utility functions