strtoreal() — Convert string to real

Description Syntax Remarks and examples Conformability Diagnostics Also see

Description

strtoreal(S) returns S converted to real. Elements of S that cannot be converted are returned as . (missing value).

 $_$ strtoreal(S, R) does the same as above—it returns the converted values in R—and it returns the number of elements that could not be converted. In such cases, the corresponding value of R contains . (missing).

Syntax

```
real matrix strtoreal(string matrix S)
real scalar _strtoreal(string matrix S, R)
```

Remarks and examples

```
strtoreal("1.5") returns (numeric) 1.5.
strtoreal("-2.5e+1") returns (numeric) -25.
strtoreal("not a number") returns (numeric) . (missing).
```

Typically, strtoreal(S) and $_strtoreal(S, R)$ are used with scalars, but if applied to a vector or matrix S, element-by-element results are returned.

In performing the conversion, leading and trailing blanks are ignored: "1.5" and "1.5" both convert to (numeric) 1.5, but "1.5 kilometers" converts to . (missing). Use strtoreal(tokens(S)[1]) to convert just the first space-delimited part.

All Stata numeric formats are understood, such as 0, 1, -2, 1.5, 1.5e+2, and -1.0x+8, as well as the missing-value codes ., .a, .b, ..., .z.

Thus using strtoreal(S), if an element of S converts to . (missing), you cannot tell whether the element was valid and equal to "." or the element was invalid and so defaulted to . (missing), such as if S contained "cat" or "dog" or "1.5 kilometers".

When it is important to distinguish between these cases, use $_strtoreal(S, R)$. The conversion is returned in R and the function returns the number of elements that were invalid. If $_strtoreal()$ returns 0, then all values were valid.

Conformability

strtoreal(S): input: S: $r \times c$ output: result: $r \times c$ _strtoreal(S, R): input: S: $r \times c$ output: R: $r \times c$

result:

Diagnostics

strtoreal(S) returns a missing value wherever an element of S cannot be converted to a number.

 $_$ strtoreal(S, R) does the same, but the result is returned in R.

 1×1

Also see

[M-5] **strofreal()** — Convert real to string [M-4] **String** — String manipulation functions

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