Description

matrix rowjoinbyname and matrix coljoinbyname join matrices along one dimension while matching names in the other dimension.

Syntax

Join matrix rows while matching on matrix column names

matrix rowjoinbyname **A** = *matrix_list* [, *options*]

Join matrix columns while matching on matrix row names

matrix coljoinbyname **A** = *matrix_list* [, *options*]

matrix_list is a list of Stata matrices, including matrices from e() and r().

options	Description
missing(#)	missing-value code for unmatched elements; default is missing(.)
noconsolidate	do not consolidate equations and terms

Options

missing(#) specifies that elements not matched across all matrices in *matrix_list* be set to #. The default is missing(.).

noconsolidate prevents consolidating of equations and terms along the matching dimension. By default, the elements along the matching dimension are reordered so that equations, factor-variable terms, and time-series–operated variables appear together.

Remarks and examples

▷ Example 1

Suppose we want to stack coefficients from a regression model run against different samples. For example, let's fit a regression of mpg on the levels of rep78 for domestic cars and put the coefficients in a matrix named bdom.

```
. sysuse auto
(1978 automobile data)
. regress mpg i.rep78 if foreign == 0
```

Source	SS	df	MS		Number of obs	=	48
					F(4, 43)	=	4.95
Model	334.819444	4	83.7048611		Prob > F	=	0.0023
Residual	727.097222	43	16.9092377		R-squared	=	0.3153
					Adj R-squared	=	0.2516
Total	1061.91667	47	22.5939716		Root MSE	=	4.1121

mpg	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
rep78						
2	-1.875	3.250888	-0.58	0.567	-8.431041	4.681041
3	-2	3.013451	-0.66	0.510	-8.077203	4.077203
4	-2.555556	3.214564	-0.79	0.431	-9.038342	3.927231
5	11	4.112084	2.68	0.011	2.707192	19.29281
_cons	21	2.907683	7.22	0.000	15.1361	26.8639

```
. matrix bdom = e(b)
```

Next fit the same model on foreign cars and put the coefficients in a matrix named bfor.

```
. regress mpg i.rep78 if foreign == 1
```

Source	SS	df	MS		Number of obs	=	21
					F(2, 18)	=	0.26
Model	22.7301587	2	11.3650794		Prob > F	=	0.7706
Residual	773.555556	18	42.9753086		R-squared	=	0.0285
					Adj R-squared	=	-0.0794
Total	796.285714	20	39.8142857		Root MSE	=	6.5556

mpg	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
rep78						
4	1.555556	4.37037	0.36	0.726	-7.626252	10.73736
5	3	4.37037	0.69	0.501	-6.181807	12.18181
_cons	23.33333	3.784852	6.16	0.000	15.38165	31.28501

```
. matrix bfor = e(b)
```

Based on the output from regress, we know that these two row vectors, bdom and bfor, do not have the same number of columns. If you try to join the rows using the \ operator, you will get a conformability error.

```
. matrix b = bdom \ bfor
conformability error
r(503);
```

Use `matrix rowjoinbyname` to join these two row vectors, and their column names will get matched automatically.

```
. matrix rowjoin b = bdom bfor

. matrix list b

b[2,6]
            1.          2.         3.          4.         5.
         rep78       rep78      rep78       rep78      rep78       _cons
y1           0      -1.875         -2  -2.5555556         11          21
y1           .           .          0   1.5555556          3   23.333333
```

◁

Also see

[P] **macro** — Macro definition and manipulation

[P] **matrix** — Introduction to matrix commands

[P] **matrix define** — Matrix definition, operators, and functions

[U] **14 Matrix expressions**