

Title

matrix rowjoinbyname — Join rows while matching on column names

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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
Model	334.819444	4	83.7048611	F(4, 43)	=	4.95
Residual	727.097222	43	16.9092377	Prob > F	=	0.0023
				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
Model	22.7301587	2	11.3650794	F(2, 18)	=	0.26
Residual	773.555556	18	42.9753086	Prob > F	=	0.7706
				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](#)

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