

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](#)