

```

. clear

.
. /*
> Back to Fan's Stata4Econ or other repositories:
> - http://fanwangecon.github.io
> - http://fanwangecon.github.io/Stata4Econ
> - http://fanwangecon.github.io/R4Econ
> - http://fanwangecon.github.io/M4Econ
> - http://fanwangecon.github.io/CodeDynaAsset/
> - http://fanwangecon.github.io/Math4Econ/
> - http://fanwangecon.github.io/Stat4Econ/
> - http://fanwangecon.github.io/Tex4Econ
>
> Stata matrix basic generation and matrix slicing
>
> 1. Generate Matrix
> 2. Replace single cell values from matrix
> 3. Replace subset of matrix by row or column array
> 4. Row and Column Names
> 5. Retrieve matrix row and column values
>
> */
.
. ///--- Start log
> set more off

. capture log close

.
. cd "${root_log}"
C:\Users\fan\Documents\Dropbox (UH-ECON)\Profile Paper\Paper Profile April 2016\img\DataDescriptive\test

. global curlogfile "~\Stata4Econ\matrix\define\basic"

. log using "${curlogfile}" , replace
(note: file C:\Users\fan\Stata4Econ\matrix\define\basic.smcl not found)


---


name: <unnamed>
log: C:\Users\fan\Stata4Econ\matrix\define\basic.smcl
log type: smcl
opened on: 12 Aug 2019, 17:02:32

. log on
(log already on)

.
. ///--- Generate matrix with all 0
> scalar it_rowcnt = 4

.
. scalar it_colcnt = 6

.
. scalar bl_fillval = 0

.
. matrix mt_bl_estd = J(it_rowcnt, it_colcnt, bl_fillval)

.
. ///--- Give Matrix Row and Column Names
> matrix rownames mt_bl_estd = hhfe vilfe provfe morecontrols

.
. matrix colnames mt_bl_estd = reg1 reg2 reg3 reg4 reg5 reg6

.
. ///--- Assign value to matrix cell single
> matrix mt_bl_estd[rownumb(mt_bl_estd, "hhfe"), colnumb(mt_bl_estd, "reg1")] = 1

.
. matrix mt_bl_estd[2,2] = 3

.
. ///--- Assign value to 4th row, 3rd to 6th
> matrix mt_bl_estd[4,3] = (9,8,7,6)

.
. ///--- Assign value to 4th column, 2nd 3rd values
> matrix mt_bl_estd[2,4] = (-3\ -44.3)

.
. ///--- Obtain value from matrix
> scalar bl_hhfe_reg1 = mt_bl_estd[rownumb(mt_bl_estd, "hhfe"), colnumb(mt_bl_estd, "reg1")]

.
. di bl_hhfe_reg1
1

```

```
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. di el(mt_bl_estd, rownumb(mt_bl_estd, "hhfe"), colnumb(mt_bl_estd, "reg1"))
```

```
1
```

```
.
. ///--- Select a column from matrix
> matrix mt_bl_estd_colreg1 = mt_bl_estd[1..., colnumb(mt_bl_estd, "reg1")]
```

```
. matrix list mt_bl_estd_colreg1
```

```
mt_bl_estd_colreg1[4,1]
```

```
      reg1
      hhfe 1
      vilfe 0
      provfe 0
morecontrols 0
```

```
.
. ///--- Get Row and Column Names
> global st_colnames : colnames mt_bl_estd
```

```
. di "${st_colnames}"
reg1 reg2 reg3 reg4 reg5 reg6
```

```
. global st_rownames : rownames mt_bl_estd
```

```
. di "${st_rownames}"
hhfe vilfe provfe morecontrols
```

```
.
. ///--- Show Matrix
> matrix list mt_bl_estd
```

```
mt_bl_estd[4,6]
      reg1  reg2  reg3  reg4  reg5  reg6
      hhfe 1      0      0      0      0      0
      vilfe 0      3      0     -3      0      0
      provfe 0      0      0  -44.3      0      0
morecontrols 0      0      9      8      7      6
```

```
.
. ///--- End Log and to HTML
> log close
      name: <unnamed>
      log: C:\Users\fan\Stata4Econ\matrix\define\basic.smcl
      log type: smcl
closed on: 12 Aug 2019, 17:02:32
```

```
. capture noisily {
. log2html "${curlogfile}", replace
```

```
HTML log file ~\Stata4Econ\matrix\define\basic.html created
. }
```

```
. ///--- to PDF
> capture noisily {
. // translator query smcl2pdf
. translator set smcl2pdf logo off
. translator set smcl2pdf fontsize 8
. translator set Results2pdf pagesize letter
. translator set smcl2pdf lmargin 0.4
. translator set smcl2pdf rmargin 0.4
. translator set smcl2pdf tmargin 0.4
. translator set smcl2pdf bmargin 0.4
. translate "${curlogfile}.smcl" "${curlogfile}_smcllog.pdf", replace translator(smcl2pdf)
(file C:\Users\fan\Stata4Econ\matrix\define\basic_smcllog.pdf written in PDF format)
```

```
.
. // translator query Results2pdf
. translator set Results2pdf logo off
. translator set Results2pdf fontsize 8
. translator set Results2pdf pagesize letter
. translator set Results2pdf lmargin 0.2
. translator set Results2pdf rmargin 0.2
. translator set Results2pdf tmargin 0.2
. translator set Results2pdf bmargin 0.2
. translate @Results "${curlogfile}_results.pdf", replace translator(Results2pdf)
```