Custom estimation tables

Jeff Pitblado

StataCorp LLC

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Estimation results

Estimation commands

Fit models and post their results to `e()`.

```
ereturn list
```

- Scalars
  - `e(N)` – sample size
  - `e(ll)` – log likelihood
- Macros
  - `e(cmdline)` – command as typed
  - `e(depvar)` – dependent variable
  - `e(title)` – estimation title
- Matrices
  - `e(b)` – fitted values
  - `e(V)` – estimated variance for `e(b)`

Estimation results

Coefficient table

Show fitted values, standard errors, tests, and confidence intervals.

```
matrix list r(table)
```

Columns conform with `e(b)`.
Rows are the displayed values:

- **b** – fitted values ($\widehat{\beta}$)
- **se** – standard error of **b**
- **z** or **t** – test for $H_0 : \beta = 0$
- **pvalue** – p-value for H_0
- **ll** – lower confidence limit
- **ul** – lower confidence limit
- **df** – degrees of freedom

Estimation results

System variables

Provide easy access to elements of **e(b)** and **e(V)**.

- **_b** – elements of **e(b)**
- **_se** – square root of diagonal elements of **e(V)**

Use **_b** with postestimation commands **lincom**, **nlcom**, **test**, and **testnl**.

Example

```
. use etable
. logit y1 x1 x2 i.f1
. logit, coeflegend
. lincom _b[y1:x1] - 2*_b[y1:x2]
. nlcom _b[y1:x1] / _b[y1:x2]
```

Estimation results

System variables new in Stata 17

Provide easy access to elements of **`r(table)`**.

- **`_r_b`** – **`b`** elements of **`r(table)`**
- **`_r_se`** – **`se`** elements of **`r(table)`**
- **`_r_z`** – **`z`** or **`t`** elements of **`r(table)`**
- **`_r_p`** – **`pvalue`** elements of **`r(table)`**
- **`_r_lb`** – **`ll`** elements of **`r(table)`**
- **`_r_ub`** – **`ul`** elements of **`r(table)`**
- **`_r_df`** – **`df`** elements of **`r(table)`**

In a future update

- **`_r_z_abs`** – absolute value of **`_r_z`**

Estimation results

System variables, continued

- `r(table)` is fleeting compared to the results in `e()`.
- `_r_b` and friends pull from a hidden copy stored with `e()`.
  - `estimates store`
  - `estimates restore`
  - `estimates save`
  - `estimates use`

Estimation results

Replay estimation results

_r_b and friends automatically update.

Example

```
. quietly logit

. display _b[x1]
1.322184

. display _r_b[x1]
1.322184

. quietly logit, or

. display _b[x1]
1.322184

. display _r_b[x1]
3.7516061
```

Estimation results

Estimation tables

Commands available before Stata 17:

- Stata
  - **estimates table**
  - **putexcel**
  - **putdocx table**
  - **putpdf table**
  - **dyndoc**, **dyntext**, and **markdown**
- Community contributed
  - **outreg2** by R. Wada
  - **outreg** and **frmttable** by J. L. Gallup
  - **estout** and **esttab** by B. Jann
  - **asdoc** by A. Shah
  - **markdoc** by E. F. Haghish
  - ...

Collections

New in Stata 17

`collect` is a suite of commands for building custom tables in Stata.

Basic workflow

- `collect get` – consume results into a collection
  - `collect [get]:` – prefix
- `collect layout` – arrange the results in your table
- `collect style` – control appearance and behaviors
- `collect query` – show collection properties
- `collect label` – manipulate and show labels
- `collect export` – your table to a document

Collections

collect get

Specify what results to consume.

Example

```
. quietly logit y1 x1 x2 i.f1
. collect get e()
. collect dir
```

```
Collections in memory
Current: default
-------------------
   Name    No. items
-------------------
default    72
-------------------
```

Collections

collect: prefix

Will get results from `e()` if they were created by running the prefixed command.

Example

```
. collect : logit y1 x1 x2 i.f1
```

Collections

Items and tags

`collect get` and `collect:` consume results by adding them as items to a collection.

- An item is a single number or string.
- Items are tagged for reference in style edits and the layout.
- Tags are composed from dimension-level pairs.

Collections

Scalar results

An item from `e(N)` has tag elements:

- `result[N]`
- `result_type[scalar]`
- `program_class[eclass]`

Macro results

An item from `e(cmd)` has tag elements:

- `result[cmd]`
- `result_type[macro]`
- `program_class[eclass]`

Collections

Matrix results

Also have tag elements for row and column names.

Example

```
. matrix list e(rules)

e(rules)[1,4]
    c1  c2  c3  c4
r1   0   0   0   0
```

An item from **`e(rules)["r1","c1"]`** has tag elements:

- **`result[rules]`**
- **`result_type[matrix]`**
- **`program_class[eclass]`**
- **`rowname[r1]`**
- **`colname[c1]`**

Collections

Special matrices

`e(b)` and `e(V)` are not consumed like other matrices.

`r(table)` is consumed using the new system variables.

`r(table)["b","y1:x1"]` is `_r_b[y1:x1]`

An item from this result has tag elements:

- `result[_r_b]`
- `result_type[matrix]`
- `program_class[eclass]`
- `coleq[y1]`
- `colname[x1]`

Collections

Example (list the dimensions)

```
. collect dims

Collection dimensions
Collection: default
-----------------------------------------
                   Dimension   No. levels
-----------------------------------------
Layout, style, header, label
                      cmdset   1
                       coleq   1
                     colname   9
           colname_remainder   1
                          f1   2
              program_class    1
                      result   44
                 result_type   3
                     rowname   1

Style only
                border_block   4
                   cell_type   4
-----------------------------------------
```

Collections

cmdset

Index for each set of results in the collection.

Example (list the levels/labels for cmdset)

```
. collect levelsof cmdset

Collection: default
 Dimension: cmdset
    Levels: 1

. collect label list cmdset, all

  Collection: default
   Dimension: cmdset
       Label: Command results index
Level labels:
           1
```

Collections

Example (add label to describe this results set)

```
. collect label values cmdset 1 "log(Odds ratio)"

. collect label list cmdset

  Collection: default
   Dimension: cmdset
       Label: Command results index
Level labels:
           1  log(Odds ratio)
```

Collections

coleq

Column equations taken from matrix results.

Look like a variable? Get the variable's label.

Example

```
. collect levelsof coleq

Collection: default
 Dimension: coleq
    Levels: y1

. collect label list coleq

  Collection: default
   Dimension: coleq
       Label: Depvars, parameters, and column equations
Level labels:
          y1  Binary outcome
```

Collections

colname

Column names taken from matrix results.

Look like a variable? Get the variable's label.

Example

```
. collect levelsof colname

Collection: default
 Dimension: colname
    Levels: x1 x2 0.f1 1.f1 c1 c2 c3 c4 _cons

. collect label list colname

  Collection: default
   Dimension: colname
       Label: Covariate names and column names
Level labels:
       _cons  Intercept
          f1  F_1
          x1  X_1
          x2  X_2
```

Collections

Factor variables

Become dimensions, if found in **`colname`**.

Their labels are also consumed.

Example

```
. collect levelsof f1

Collection: default
 Dimension: f1
    Levels: 0 1

. collect label list f1

  Collection: default
   Dimension: f1
       Label: F_1
Level labels:
           0  Off
           1  On
```

Collections

result

Filled with the names of results consumed from `e()`, and includes the `r(table)` system variables.

```
. collect levelsof result
(output too long, omitted)
```

`collect` has command-specific labels for many results.

```
. collect label list result, all
(output too long, omitted)
```

`_r_ci` is a special composite level in `result`, it’s items are composed from items tagged with `_r_lb` and `_r_ub`.

Collections

colname_remainder

Contains the remaining column stripe pieces when factor variables are removed.

Possibly useful for arranging/selecting interaction elements in the layout.

rowname

Similar to `colname`.

border_block and cell_type

Are not part of tags.

Used for style targeting.

Layout and appearance

collect layout

Use dimensions to select and arrange items into a table.

Without arguments, show the current layout information and possibly show you a table.

Example (default layout is empty)

```
. collect layout

Your layout specification does not identify any items.
```

Layout and appearance

Syntax

```
collect layout (rowspec) (colspec)
```

where *rowspec* and *colspec* are composed from dimensions and their interactions (**#**).

Coefficient table layout

rowspec

```
coleq#colname
```

colspec

```
result[_r_b _r_se _r_z _r_p _r_ci]
```

Layout and appearance

Example (coefficient table layout)

```
. collect layout (coleq#colname) (result[_r_b _r_se _r_z _r_p _r_ci])

Collection: default
      Rows: coleq#colname
   Columns: result[_r_b _r_se _r_z _r_p _r_ci]
   Table 1: 6 x 5

-------------------------------------------------------------------------
               | Coefficient Std. error     z p-value        95% CI
---------------+---------------------------------------------------------
Binary outcome |
  X_1          |    1.322184   .5985862  2.21   0.027  .1489766  2.495391
  X_2          |   -1.064822   .5836827 -1.82   0.068 -2.208819   .079175
  Off          |           0          0
  On           |    2.049094   .3342964  6.13   0.000  1.393885  2.704303
  Intercept    |   -.7792675   .4344927 -1.79   0.073 -1.630858  .0723225
-------------------------------------------------------------------------
```

Layout and appearance

collect style header

Controls the appearance of dimensions and their levels in row and column headers.

Example (hide the equation)

```
. collect query header coleq

Dimension header styles
Collection: default
 Dimension: coleq
     Level:
Show title: hide
Show level: label

. collect style header coleq, level(hide)
```

Layout and appearance

collect preview

Shows a preview of your table.

Example (bye bye equation)

```
. collect preview

----------+---------------------------------------------------------
          |  Coefficient  Std. error     z  p-value        95% CI
----------+---------------------------------------------------------
X_1       |     1.322184    .5985862  2.21    0.027  .1489766  2.495391
X_2       |    -1.064822    .5836827 -1.82    0.068 -2.208819   .079175
Off       |            0           0
On        |     2.049094    .3342964  6.13    0.000  1.393885  2.704303
Intercept |    -.7792675    .4344927 -1.79    0.073 -1.630858  .0723225
----------+---------------------------------------------------------
```

Layout and appearance

Example (hide base levels of factor variables)

```
. collect query showbase

Display base levels
Collection: default
 Show base: all

. collect style showbase off

. collect preview

─────────────────────────────────────────────────────────────────────
          │  Coefficient  Std. error      z  p-value       95% CI
──────────┼──────────────────────────────────────────────────────────
X_1       │     1.322184    .5985862   2.21    0.027   .1489766  2.495391
X_2       │    -1.064822    .5836827  -1.82    0.068  -2.208819   .079175
On        │     2.049094    .3342964   6.13    0.000   1.393885  2.704303
Intercept │    -.7792675    .4344927  -1.79    0.073  -1.630858  .0723225
─────────────────────────────────────────────────────────────────────
```

Layout and appearance

Example (show factor variable f1)

```
. collect query header f1

Dimension header styles
Collection: default
 Dimension: f1
     Level:
Show title: hide
Show level: label

. collect style header f1, title(label)

. collect preview

-------------------------------------------------------------------------
          |  Coefficient  Std. error      z  p-value          95% CI
----------+--------------------------------------------------------------
X_1       |     1.322184    .5985862   2.21    0.027  .1489766  2.495391
X_2       |    -1.064822    .5836827  -1.82    0.068 -2.208819   .079175
F_1=On    |     2.049094    .3342964   6.13    0.000  1.393885  2.704303
Intercept |    -.7792675    .4344927  -1.79    0.073 -1.630858  .0723225
-------------------------------------------------------------------------
```

Layout and appearance

collect style row

Controls appearance and arrangement of row headers.

Example (remove binder on factor variables)

```
. collect query row
(output too long, omitted)

. collect style row stack, nobinder

. collect preview

----------------------------------------------------------------------
          |  Coefficient Std. error     z p-value        95% CI
----------+-----------------------------------------------------------
X_1       |     1.322184   .5985862  2.21   0.027  .1489766  2.495391
X_2       |    -1.064822   .5836827 -1.82   0.068 -2.208819   .079175
F_1       |
  On      |     2.049094   .3342964  6.13   0.000  1.393885  2.704303
Intercept |    -.7792675   .4344927 -1.79   0.073 -1.630858  .0723225
----------------------------------------------------------------------
```

Layout and appearance

collect style cell

Control appearance of cell contents in the table.

Example (fixed format for coefficient estimates)

```
. collect style cell result[_r_b _r_se _r_ci], nformat(%7.4f)

. collect preview

----------------------------------------------------------------
          |
          | Coefficient Std. error     z p-value       95% CI
          |
----------+-----------------------------------------------------
X_1       |      1.3222     0.5986  2.21   0.027  0.1490  2.4954
X_2       |     -1.0648     0.5837 -1.82   0.068 -2.2088  0.0792
F_1       |
  On      |      2.0491     0.3343  6.13   0.000  1.3939  2.7043
Intercept |     -0.7793     0.4345 -1.79   0.073 -1.6309  0.0723
----------------------------------------------------------------
```

Layout and appearance

Example (estimates table layout)

```
. collect layout (coleq#colname#result[_r_b _r_se]) (cmdset)

Collection: default
      Rows: coleq#colname#result[_r_b _r_se]
   Columns: cmdset
   Table 1: 13 x 1

-------------------------------
              |
              | log(Odds ratio)
--------------+----------------
X_1           |
  Coefficient |          1.3222
  Std. error  |          0.5986
X_2           |
  Coefficient |         -1.0648
  Std. error  |          0.5837
F_1           |
  On          |
  Coefficient |          2.0491
  Std. error  |          0.3343
Intercept     |
  Coefficient |         -0.7793
  Std. error  |          0.4345
-------------------------------
```

Layout and appearance

Example (add parenthesis around standard errors)

```
. collect style cell result[_r_se], sformat("(%s)")

. collect preview

──────────────┬────────────────
              │ log(Odds ratio)
──────────────┼────────────────
X_1           │
  Coefficient │          1.3222
  Std. error  │        (0.5986)
X_2           │
  Coefficient │         -1.0648
  Std. error  │        (0.5837)
F_1           │
  On          │
  Coefficient │          2.0491
  Std. error  │        (0.3343)
Intercept     │
  Coefficient │         -0.7793
  Std. error  │        (0.4345)
──────────────┴────────────────
```

Layout and appearance

Example (hide result levels)

```
. collect query header result

Dimension header styles
Collection: default
 Dimension: result
     Level:
Show title: hide
Show level: label

. collect style header result , level(hide)

. collect preview

──────────┬────────────────
          │ log(Odds ratio)
──────────┼────────────────
X_1       │          1.3222
          │        (0.5986)
X_2       │         -1.0648
          │        (0.5837)
F_1       │
  On      │          2.0491
          │        (0.3343)
Intercept │         -0.7793
          │        (0.4345)
──────────┴────────────────
```

Stars

collect stars

Label significant results.

Example (commonly used labeling rules)

```
. collect stars _r_p .01 "**" .05 "*"
```

Example (where are the stars???)

```
. collect preview

--------------------------
          | log(Odds ratio)
----------+---------------
X_1       |         1.3222
          |       (0.5986)
X_2       |        -1.0648
          |       (0.5837)
F_1       |
  On      |         2.0491
          |       (0.3343)
Intercept |        -0.7793
          |       (0.4345)
--------------------------
```

Stars

collect stars

Adds items tagged with **`result[stars]`** by default.

Example (update the layout)

```
. collect layout (coleq#colname#result[_r_b _r_se stars]) (cmdset)

Collection: default
      Rows: coleq#colname#result[_r_b _r_se stars]
   Columns: cmdset
   Table 1: 11 x 1

---------------------------
          | log(Odds ratio)
----------+----------------
X_1       |          1.3222
          |        (0.5986)
          |               *
X_2       |         -1.0648
          |        (0.5837)
F_1       |
  On      |          2.0491
          |        (0.3343)
          |              **
Intercept |         -0.7793
          |        (0.4345)
---------------------------
```

Stars

collect stars

Can attach labels to items tagged with a different **`result`**.

Example (attach stars to the fitted values)

```
. collect stars _r_p .01 "**" .05 "*" , attach(_r_b)

. collect layout (coleq#colname#result[_r_b _r_se]) (cmdset)

Collection: default
      Rows: coleq#colname#result[_r_b _r_se]
   Columns: cmdset
   Table 1: 9 x 1

───────────┬────────────────
           │ log(Odds ratio)
───────────┼────────────────
X_1        │        1.3222*
           │       (0.5986)
X_2        │        -1.0648
           │       (0.5837)
F_1        │
  On       │       2.0491**
           │       (0.3343)
Intercept  │        -0.7793
           │       (0.4345)
───────────┴────────────────
```

Stars

Future update to Stata 17

- `collect stars` information will be stored in the style.
- `collect` will apply the `stars` labeling rules to subsequently collected results.
- New option `dimension` to add `stars` as a dimension instead of a level of `result`.

Stars

Example

```
. collect stars, dimension

. collect dims

Collection dimensions
Collection: default
─────────────────────────────────────────
                   Dimension   No. levels
─────────────────────────────────────────
Layout, style, header, label
                      cmdset   1
                       coleq   1
                     colname   9
           colname_remainder   1
                          f1   2
               program_class   1
                      result   45
                 result_type   3
                     rowname   1
                       stars   2

Style only
                border_block   4
                   cell_type   4
─────────────────────────────────────────

. collect levelsof stars

Collection: default
 Dimension: stars
    Levels: label value
```

Stars

Example (add stars dimension to the layout)

```
. collect layout (coleq#colname#result[_r_b _r_se]) (cmdset#stars)

Collection: default
      Rows: coleq#colname#result[_r_b _r_se]
   Columns: cmdset#stars
   Table 1: 9 x 2

-------------------------------------------------
          |  log(Odds ratio)  log(Odds ratio)
----------+--------------------------------------
X_1       |           1.3222                *
          |         (0.5986)
X_2       |          -1.0648
          |         (0.5837)
F_1       |
  On      |           2.0491               **
          |         (0.3343)
Intercept |          -0.7793
          |         (0.4345)
-------------------------------------------------
```

Stars

collect style column

Controls appearance and arrangement of column headers.

Example (center duplicate column headers)

```
. collect query column

Column header styles
   Collection: default
 No delimiter: on
    Delimiter: " # "
 At delimiter: " @ "
Bar delimiter: " | "
       Binder: "="
   Duplicates: repeat
     Position: top
  Extra space: 0
        Width: asis

. collect style column, dups(center)
```

Stars

Example

```
. collect preview

-------------------------------------
            |  log(Odds ratio)
-------------------------------------
X_1         |      1.3222     *
            |    (0.5986)
X_2         |     -1.0648
            |    (0.5837)
F_1         |
  On        |      2.0491    **
            |    (0.3343)
Intercept   |     -0.7793
            |    (0.4345)
-------------------------------------
```

Stars

Example (left align the stars labels)

```
. collect style cell stars[label], halign(left)

. collect preview

---------------------------------
          |  log(Odds ratio)
----------+----------------------
X_1       |     1.3222 *
          |   (0.5986)
X_2       |    -1.0648
          |   (0.5837)
F_1       |
  On      |     2.0491 **
          |   (0.3343)
Intercept |    -0.7793
          |   (0.4345)
---------------------------------
```

Stars

Example (add odds ratios results)

```
. quietly logit, or

. collect get e()

. collect label levels cmdset 2 "Odds ratio"

. collect preview

----------------------------------------------
          |  log(Odds ratio)    Odds ratio
----------------------------------------------
X_1       |       1.3222 *        3.7516 *
          |     (0.5986)        (2.2457)
X_2       |      -1.0648          0.3448
          |     (0.5837)        (0.2012)
F_1       |
  On      |       2.0491 **       7.7609 **
          |     (0.3343)        (2.5944)
Intercept |      -0.7793          0.4587
          |     (0.4345)        (0.1993)
----------------------------------------------
```

Title and notes

Future update to Stata 17

We will add support for a custom title and notes.

collect title

Specify a custom (common) table title.

Example

```
. collect title "Logistic regression parameterizations"

. collect preview

Logistic regression parameterizations
---------------------------------------------------
          |
          |  log(Odds ratio)   Odds ratio
----------+----------------------------------------
X_1       |        1.3222 *         3.7516 *
          |      (0.5986)         (2.2457)
X_2       |       -1.0648           0.3448
          |      (0.5837)         (0.2012)
F_1       |
  On      |        2.0491 **        7.7609 **
          |      (0.3343)         (2.5944)
Intercept |       -0.7793           0.4587
          |      (0.4345)         (0.1993)
---------------------------------------------------
```

Title and notes

collect style title

Controls the appearance of table titles.

Example

```
. collect query title

Table title styles
      Collection: default
    Common title: Logistic regression parameterizations
     Font family:
       Font size:
      Font color:
     Font weight: normal
      Font style: normal
    Font variant: normal
  Font strikeout: normal
  Font underline: none
        SMCL tag:
     LaTeX macro:
Background color:
Foreground color:
 Shading pattern:
```

Title and notes

collect notes

Specify table notes.

Example

```
. collect notes "** p<=0.01, * p<=0.05"

. collect preview

Logistic regression parameterizations
----------------------------------------
          |
          |  log(Odds ratio)  Odds ratio
----------+-----------------------------
X_1       |      1.3222 *      3.7516 *
          |    (0.5986)      (2.2457)
X_2       |     -1.0648        0.3448
          |    (0.5837)      (0.2012)
F_1       |
  On      |      2.0491 **     7.7609 **
          |    (0.3343)      (2.5944)
Intercept |     -0.7793        0.4587
          |    (0.4345)      (0.1993)
----------------------------------------
** p<=0.01, * p<=0.05
```

Title and notes

Example (more notes)

```
. collect notes "Append notes by default."

. collect notes 0: "Prepend notes by subtle indexing."

. collect notes 2: "** p<=0.01, * p<=0.05 -- replace by index too."

. collect preview

Logistic regression parameterizations
----------------------------------------
          |  log(Odds ratio)  Odds ratio
----------+-----------------------------
X_1       |     1.3222 *      3.7516 *
          |   (0.5986)      (2.2457)
X_2       |    -1.0648        0.3448
          |   (0.5837)      (0.2012)
F_1       |
  On      |     2.0491 **     7.7609 **
          |   (0.3343)      (2.5944)
Intercept |    -0.7793        0.4587
          |   (0.4345)      (0.1993)
----------------------------------------
Prepend notes by subtle indexing.
** p<=0.01, * p<=0.05 -- replace by index too.
Append notes by default.
```

Title and notes

collect style notes

Controls the appearance of table notes.

Example

```
. collect query notes

Table note styles
      Collection: default
          Note 1: Prepend notes by subtle indexing.
          Note 2: ** p<=0.01, * p<=0.05 -- replace by index too.
          Note 3: Append notes by default.
     Font family:
       Font size:
      Font color:
     Font weight: normal
      Font style: normal
    Font variant: normal
  Font strikeout: normal
  Font underline: none
        SMCL tag:
     LaTeX macro:
Background color:
Foreground color:
 Shading pattern:
```

Estimation tables

Workflow review

- **`collect get`** – consume results into a collection
- **`collect layout`** – arrange the results in your table
- **`collect style`** – control appearance and behaviors
- **`collect query`** – show collection properties
- **`collect label`** – manipulate and show labels
- **`collect export`** – your table to a document

Estimation tables

Challenges

- Too many commands?
- Learn a new language to specify a layout.
- Some behaviors cannot be coded generically in styles.
  - Show factor variables without a binder.

Estimation tables

New command: etable

Simple syntax for building estimation tables.

Inspired by community contributed table commands.

Intended to replace **`estimates table`**.

Available in a future update to Stata 17.

Estimation tables

etable default behaviors

- Collect from the current estimation results.
- Create a collection named **`ETable`**.
- Show dependent variable in the column header.
- Hide equation names.
- Report coefficients.
- Report standard errors with parenthesis.
- Report the number of observations.

Estimation tables

Example (default etable)

```
. quietly logit

. etable

------------------------------
                          y1
------------------------------
x1                        1.322
                        (0.599)
x2                       -1.065
                        (0.584)
f1
  1                       2.049
                        (0.334)
_cons                    -0.779
                        (0.434)
Number of observations      200
------------------------------

. estimates store m1

. etable, estimates(m1)
(same table)
```

Estimation tables

Use option **`showstars`** to label significant coefficients.

Example

```
. etable, showstars
─────────────────────────────────
                           y1
─────────────────────────────────
x1                       1.322 *
                       (0.599)
x2                      -1.065
                       (0.584)
f1
  1                      2.049 **
                       (0.334)
_cons                   -0.779
                       (0.434)
Number of observations     200
─────────────────────────────────
```

Estimation tables

Example (etable default stars properties)

```
. collect query stars

Stars style
Collection: ETable
      Type: dimension
   Results: _r_p
    Attach: _r_b
For tags:
    Rule 1: .01 **
    Rule 2: .05 *
    Rule 3:
    Rule 4:
    Rule 5:
```

stars() option

Change labels and where to attach them.

Estimation tables

etable replaces its collection and consumes from the current estimation results.

Example

```
. quietly logit, or

. etable

------------------------------
                          y1
------------------------------
x1                       3.752
                       (2.246)
x2                       0.345
                       (0.201)
f1
  1                      7.761
                       (2.594)
_cons                    0.459
                       (0.199)
Number of observations     200
------------------------------
```

Use option **append** to add results to collection **ETable**.

Estimation tables

Build model comparisons quickly.

Example

```
. quietly regress y2 x1 x2 i.f1

. estimates store m2

. etable, estimates(m1 m2) showstars
────────────────────────────────────────────
                           y1         y2
────────────────────────────────────────────
x1                       1.322 *
                       (0.599)
x2                      -1.065
                       (0.584)
f1
  1                      2.049 **
                       (0.334)
_cons                   -0.779
                       (0.434)
x1                                  0.691
                                  (0.363)
x2                                 -0.920 *
                                  (0.355)
f1
  1                                 3.079 **
                                  (0.206)
_cons                              -0.879 **
                                  (0.276)
Number of observations     200        200
────────────────────────────────────────────
```

Estimation tables

Use option **showeq** to show equations.

Example

```
. etable, estimates(m1 m2) showstars showeq
--------------------------------------------
                           y1         y2
--------------------------------------------
y1
  x1                     1.322 *
                       (0.599)
  x2                    -1.065
                       (0.584)
  f1
    1                    2.049 **
                       (0.334)
  _cons                 -0.779
                       (0.434)
y2
  x1                                0.691
                                  (0.363)
  x2                               -0.920 *
                                  (0.355)
  f1
    1                               3.079 **
                                  (0.206)
  _cons                            -0.879 **
                                  (0.276)
Number of observations     200        200
--------------------------------------------
```

Estimation tables

Use option **replay** to apply edits to collection **ETable**.

Use option **eqrecode()** to recode equations.

Example

```
. etable, replay eqrecode(y1 = y y2 = y)
--------------------------------------------
                              y1        y2
--------------------------------------------
y
  x1                      1.322 *    0.691
                        (0.599)    (0.363)
  x2                     -1.065     -0.920 *
                        (0.584)    (0.355)
  f1
    1                     2.049 **   3.079 **
                        (0.334)    (0.206)
  _cons                  -0.779     -0.879 **
                        (0.434)    (0.276)
Number of observations      200        200
--------------------------------------------
```

Estimation tables

Example (hide the common equation)

```
. etable, replay noshoweq
--------------------------------------------
                           y1         y2
--------------------------------------------
x1                       1.322 *    0.691
                       (0.599)    (0.363)
x2                      -1.065     -0.920 *
                       (0.584)    (0.355)
f1
  1                      2.049 **   3.079 **
                       (0.334)    (0.206)
_cons                   -0.779     -0.879 **
                       (0.434)    (0.276)
Number of observations     200        200
--------------------------------------------
```

Estimation tables

Example (change column header to command names)

```
. etable, replay column(command)

----------------------------------------------
                              logit    regress
----------------------------------------------
x1                          1.322 *    0.691
                          (0.599)    (0.363)
x2                         -1.065     -0.920 *
                          (0.584)    (0.355)
f1
  1                         2.049 **   3.079 **
                          (0.334)    (0.206)
_cons                      -0.779     -0.879 **
                          (0.434)    (0.276)
Number of observations        200        200
----------------------------------------------
```

Estimation tables

Example (select your model statistics)

```
. etable, replay mstat(ll) mstat(N)
────────────────────────────────────────────
                          logit     regress
────────────────────────────────────────────
x1                       1.322 *    0.691
                       (0.599)    (0.363)
x2                      -1.065     -0.920 *
                       (0.584)    (0.355)
f1
  1                      2.049 **   3.079 **
                       (0.334)    (0.206)
_cons                   -0.779     -0.879 **
                       (0.434)    (0.276)
Log likelihood         -109.82    -354.82
Number of observations     200        200
────────────────────────────────────────────
```

Estimation tables

Example (show variable and factor value labels)

```
. etable, replay varlabel fvlabel
--------------------------------------------
                          logit     regress
--------------------------------------------
X_1                      1.322 *    0.691
                       (0.599)    (0.363)
X_2                     -1.065     -0.920 *
                       (0.584)    (0.355)
F_1
  On                     2.049 **   3.079 **
                       (0.334)    (0.206)
Intercept               -0.779     -0.879 **
                       (0.434)    (0.276)
Log likelihood         -109.82    -354.82
Number of observations     200        200
--------------------------------------------
```

Estimation tables

Example (add title and note)

```
. etable, replay ///
>         title(Model comparison, font(, bold)) ///
>         note("** p<=0.01, * p<=0.05", font(, italic))
```

```
Model comparison
--------------------------------------------
                              logit     regress
--------------------------------------------
X_1                           1.322 *    0.691
                            (0.599)    (0.363)
X_2                          -1.065     -0.920 *
                            (0.584)    (0.355)
F_1
  On                          2.049 **   3.079 **
                            (0.334)    (0.206)
Intercept                    -0.779     -0.879 **
                            (0.434)    (0.276)
Log likelihood              -109.82    -354.82
Number of observations          200        200
--------------------------------------------
** p<=0.01, * p<=0.05
```

Estimation tables

Save your style for use as a starting point in a future analysis.

Example

```
. collect style save my-et-style, replace
(style from ETable saved to file my-et-style.stjson)
```

set etable_style

You will be able to set a custom default style for **`etable`**.

Estimation tables

Rebuild the table using our new style.

Example

```
. collect clear

. etable, estimates(m1 m2) style(my-et-style)
--------------------------------------------
                          logit     regress
--------------------------------------------
X_1                      1.322 *
                       (0.599)
X_2                     -1.065
                       (0.584)
F_1
  On                     2.049 **
                       (0.334)
Intercept               -0.779
                       (0.434)
X_1                                0.691
                                 (0.363)
X_2                               -0.920 *
                                 (0.355)
F_1
  On                               3.079 **
                                 (0.206)
Intercept                         -0.879 **
                                 (0.276)
Log likelihood         -109.82   -354.82
Number of observations     200       200
--------------------------------------------
```

Estimation tables

Not part of the style

- Items
- Labels
- Equation recodes
- Custom title
- Notes

Estimation tables

Example (add stuff not in the style)

```
. etable, replay ///
>         eqrecode(y1 = y y2 = y) ///
>         title(Model comparison) ///
>         note("** p<=0.01, * p<=0.05")

Model comparison
────────────────────────────────────────────
                          logit     regress
────────────────────────────────────────────
X_1                      1.322 *    0.691
                       (0.599)    (0.363)
X_2                     -1.065     -0.920 *
                       (0.584)    (0.355)
F_1
  On                     2.049 **   3.079 **
                       (0.334)    (0.206)
Intercept               -0.779     -0.879 **
                       (0.434)    (0.276)
Log likelihood         -109.82    -354.82
Number of observations     200        200
────────────────────────────────────────────
** p<=0.01, * p<=0.05
```

Estimation tables

Things todo for the Stata 17 update

- Automatic note for **`stars`** labels?
- **`etable`** support for named scalar expressions?
- Documentation and dialogs for these new features.