Title

collect stars — Add stars for significant results in a collection

Description

collect stars manages the creation of stars for indicating the significance of results in a collection. You can also add a note to the table to explain the significance represented by the stars.

Quick start

Specify three levels of stars based on p-values in _r_p in the result dimension

    collect stars _r_p 0.01 "***" 0.05 "**" 0.1 "*"

Same as above, and attach the stars to coefficients stored in _r_b

    collect stars _r_p 0.01 "***" 0.05 "**" 0.1 "*", attach(_r_b)

Same as above, and display a note explaining what the stars represent

    collect stars _r_p 0.01 "***" 0.05 "**" 0.1 "*", attach(_r_b) shownote

Clear the current stars specification

    collect stars, clear

Menu

Statistics > Summaries, tables, and tests > Tables and collections > Build and style table

Syntax

> collect stars *resultIDs* $\big[$ *#1* "*label1*"
>
> $\quad\big[$ *#2* "*label2*"
>
> $\quad\big[$ *#3* "*label3*"
>
> $\quad\big[$ *#4* "*label4*"
>
> $\quad\big[$ *#5* "*label5*" $\big]\big]\big]\big]\big]$ $\big[$, *options* $\big]$

resultIDs are levels in the result dimension whose values determine the stars to be applied.

Value-label pairs are rearranged such that *#1* < *#2* < *#3* < *#4* < *#5*.

For value *v* corresponding to one of the results in *resultIDs*,

> if $v \geq \#5$, no new stars value is created
>
> if $v < \#5$, the new stars value is set to "*label5*"
>
> if $v < \#4$, the new stars value is set to "*label4*"
>
> if $v < \#3$, the new stars value is set to "*label3*"
>
> if $v < \#2$, the new stars value is set to "*label2*"
>
> if $v < \#1$, the new stars value is set to "*label1*"

options	Description
Main	
name(*cname*)	specify stars for collection *cname*
clear	remove previous style properties
attach(*attachres*)	specify that stars be appended to items in *attachres*
fortags(*taglist*)	specify tags identifying items for which to generate new star items
result	tag new items with result[stars]
dimension	tag new items using stars[label]
Options	
$\big[$no$\big]$shownote	specify whether to display the stars note
increasing	compose stars note with increasing *p*-values; the default
decreasing	compose stars note with decreasing *p*-values
pvname(*string*)	specify a name for *p*-value in the stars note
delimiter(*string*)	specify label delimiter in the stars note
nformat(%*fmt*)	specify numeric format for cutoff values in the stars note
prefix(*string*)	specify a prefix for the stars note
suffix(*string*)	specify a suffix for the stars note

Options

> [Main]

name(*cname*) specifies the collection to which stars are to be applied. By default, stars are applied to the current collection.

clear removes existing collect stars properties.

attach(*attachres*) specifies that items with result levels in *attachres* be appended with the associated star label when rendered to a table.

fortags(*taglist*) specifies conditions for selecting which values are to be used to create stars. Values with tags in *taglist* will be used to generate new stars.

Within the *taglist*, if tags are joined by #, values having all of these tags are selected; if tags are separated by a space, values with any of these tags are selected.

> *taglist* contains
>
>> *tagspec*
>>
>> *tagspec taglist*
>
> *tagspec* contains
>
>> *tag*
>>
>> *tag*#*tag*[#*tag*[...]]
>
> *tag* contains
>
>> *dimension*
>>
>> *dimension*[*levels*]
>
> *dimension* is a dimension in the collection.
>
> *levels* are levels of the corresponding dimension.
>
> Distinguish between [], which are to be typed, and [ ], which indicate optional arguments.

result and dimension control how collect stars adds items when labeling significant results. These options are mutually exclusive.

> result specifies the factory default behavior, and this option is necessary only if the following dimension behavior is in effect and you want to change back to the result behavior.
>
> dimension specifies that dimension stars be added to the collection. Items will be tagged with stars[value], and the labels will be tagged with stars[label]. Use this option for layouts where results are to be stacked within columns, and use new dimension stars in the column specification of the layout.

> [Options]

noshownote and shownote control whether to show the stars note.

> noshownote suppresses the stars note. This is the default.
>
> shownote specifies to show the stars note.

increasing and decreasing control the order of p-values in the stars note.

> increasing specifies that the stars note be composed with increasing p-values. This is the default.
>
> decreasing specifies that the stars note be composed with decreasing p-values.

pvname(*string*) specifies a name for p-value in the stars note. The default is pvname(p).

delimiter(*string*) specifies the delimiter between labels in the stars note. The default is delimiter(",").

nformat(*% fmt*) specifies the numeric format for the cutoff values in the stars note. The default is nformat(%9.0g).

prefix(*string*) specifies the prefix for the stars note. The prefix is empty by default.

suffix(*string*) specifies the suffix for the stars note. The suffix is empty by default.

Remarks and examples

Stars are often used in tables to denote significance. collect stars allows you to include stars in your table based on other values, typically p-values that are already in your collection. You can attach the stars to a statistic, typically coefficients, or present them separately. Whichever style you choose, you will likely want to use the shownote option to add a note to your table explaining the significance level that the stars represent.

collect stars stores its specification among the collection's style properties. This means that the creation of stars for significant results can be made before collecting results, can be saved to disk via collect style save, and can be applied to other collections via collect style use. Additionally, you can check the current stars specification with collect query stars.

To demonstrate, we first create a table of regression results displaying coefficients and p-values.

```
. use https://www.stata-press.com/data/r18/nhanes2
. quietly: collect: regress bpsystol bmi i.region age
. collect style showbase off
. collect layout (colname) (result[_r_b _r_p])
Collection: default
      Rows: colname
   Columns: result[_r_b _r_p]
   Table 1: 6 x 2
```

	Coefficient	p-value
Body mass index (BMI)	1.303719	0.000
MW	-.0659707	0.907
S	-.5170085	0.356
W	-.6045511	0.289
Age (years)	.5887217	0.000
Intercept	69.89029	0.000

Rather than showing the p-values, we can use collect stars to define the levels of the p-values stored in _r_p for which stars should be shown. Here we will use three stars for values less than 0.01, two stars for values less than 0.05, and one star for values less than 0.1. A new stars level in the result dimension is created and can be used in our table layout.

```
. collect stars _r_p 0.01 "***"  0.05 "**" 0.1 "*"
. collect layout (colname) (result[_r_b stars])
Collection: default
      Rows: colname
   Columns: result[_r_b stars]
   Table 1: 6 x 2
```

	Coefficient	stars
Body mass index (BMI)	1.303719	***
MW	-.0659707	
S	-.5170085	
W	-.6045511	
Age (years)	.5887217	***
Intercept	69.89029	***

It is unlikely that we want the level name stars to show in the column header. It would also be helpful to left-align the stars to be closer to the reported coefficients. We can do this with collect style header and collect style cell.

```
. collect style header result[stars], level(hide)
. collect style cell result[stars], halign(left)
. collect preview
```

	Coefficient
Body mass index (BMI)	1.303719 ***
MW	-.0659707
S	-.5170085
W	-.6045511
Age (years)	.5887217 ***
Intercept	69.89029 ***

Alternatively, we can directly attach the stars to the coefficient by specifying the attach() option and naming the result (_r_b) that we want the stars attached to.

```
. collect stars _r_p 0.01 "***"  0.05 "** " 0.1 "*  " 1 "   ", attach(_r_b)
. collect layout (colname) (result[_r_b])
Collection: default
      Rows: colname
   Columns: result[_r_b]
   Table 1: 6 x 1
```

	Coefficient
Body mass index (BMI)	1.303719***
MW	-.0659707
S	-.5170085
W	-.6045511
Age (years)	.5887217***
Intercept	69.89029***

Here we added extra spaces to force three characters following the number in each cell. This gives nice alignment when we are looking at the results in formats such as plain text and the Stata Markup and Control Language format. However, if you are exporting your table to other formats, you may prefer to leave the stars in a separate column and apply alignment and margin styles to achieve your desired look.

It is common to want to stack coefficients and their standard errors in a single column of an estimation table. While the default collect stars behavior tends to yield ugly tables for this layout, the solution is to use option dimension and put the new stars dimension in the column specification of the layout.

```
. collect stars _r_p 0.01 "***"  0.05 "**" 0.1 "*", attach(_r_b) dimension
. collect layout (colname#result[_r_b _r_se]) (stars)

Collection: default
      Rows: colname#result[_r_b _r_se]
   Columns: stars
   Table 1: 18 x 2
```

Body mass index (BMI)	
Coefficient	1.303719 ***
Std. error	.0395032
MW	
Coefficient	-.0659707
Std. error	.5633352
S	
Coefficient	-.5170085
Std. error	.559805
W	
Coefficient	-.6045511
Std. error	.5698782
Age (years)	
Coefficient	.5887217 ***
Std. error	.0112852
Intercept	
Coefficient	69.89029 ***
Std. error	1.142773

Although the stars we have chosen to represent the p-values may be common in practice, to be clear, we add an explanatory note below. Note that we do not have to respecify our labels; we are simply adding on to our current stars specification:

```
. collect stars, shownote
. collect preview
```

Body mass index (BMI)	
Coefficient	1.303719 ***
Std. error	.0395032
MW	
Coefficient	-.0659707
Std. error	.5633352
S	
Coefficient	-.5170085
Std. error	.559805
W	
Coefficient	-.6045511
Std. error	.5698782
Age (years)	
Coefficient	.5887217 ***
Std. error	.0112852
Intercept	
Coefficient	69.89029 ***
Std. error	1.142773

*** p<.01, ** p<.05, * p<.1

Stored results

collect stars stores the following in s():

Macros
    s(collection)   name of collection
    s(value1)   star cutoff value 1
    s(label1)   star label 1
    s(value2)   star cutoff value 2
    s(label2)   star label 2
    s(value3)   star cutoff value 3
    s(label3)   star label 3
    s(value4)   star cutoff value 4
    s(label4)   star label 4
    s(value5)   star cutoff value 5
    s(label5)   star label 5

Also see

[TABLES] **collect clear** — Clear all collections in memory

[TABLES] **collect drop** — Drop collections from memory

[TABLES] **collect query** — Query collection style properties