

`set clevel` — Set default credible level

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Description

`set clevel` specifies the default credible level for credible intervals for all Bayesian commands (see [\[BAYES\] Bayesian commands](#)) that report credible intervals. The initial value is 95, meaning 95% credible intervals.

Syntax

```
set clevel # [ , permanently ]
```

`#` is any number between 10.00 and 99.99 and may be specified with at most two digits after the decimal point.

Option

`permanently` specifies that in addition to making the change right now, the `clevel` setting be remembered and become the default setting when you invoke Stata.

Remarks and examples

[stata.com](#)

To change the level of credible intervals reported by a particular command, you need not reset the default credible level. All commands that report credible intervals have a `clevel(#)` option. When you do not specify the option, the credible intervals are calculated for the default level set by `set clevel` or for 95% if you have not reset `set clevel`.

▷ Example 1

We use the bayesmh command to obtain the credible interval for the mean of mpg:

```
. use https://www.stata-press.com/data/r16/auto
(1978 Automobile Data)
. set seed 14
. bayesmh mpg, likelihood(normal(30)) prior({mpg:_cons}, flat)
Burn-in ...
Simulation ...
Model summary
```

```
Likelihood:
  mpg ~ normal({mpg:_cons},30)
Prior:
  {mpg:_cons} ~ 1 (flat)
```

```
Bayesian normal regression                MCMC iterations =    12,500
Random-walk Metropolis-Hastings sampling   Burn-in          =     2,500
                                           MCMC sample size =   10,000
                                           Number of obs    =     74
                                           Acceptance rate  =    .4195
Log marginal-likelihood = -234.09275       Efficiency       =    .2378
```

| mpg | Mean | Std. Dev. | MCSE | Median | Equal-tailed [95% Cred. Interval] | |
|-------|----------|-----------|---------|----------|--------------------------------------|---------|
| _cons | 21.30364 | .6429995 | .013186 | 21.30381 | 20.03481 | 22.5555 |

To obtain 90% credible intervals, we would type

```
. bayesmh, clevel(90)
Model summary
```

```
Likelihood:
  mpg ~ normal({mpg:_cons},30)
Prior:
  {mpg:_cons} ~ 1 (flat)
```

```
Bayesian normal regression                MCMC iterations =    12,500
Random-walk Metropolis-Hastings sampling   Burn-in          =     2,500
                                           MCMC sample size =   10,000
                                           Number of obs    =     74
                                           Acceptance rate  =    .4195
Log marginal-likelihood = -234.09275       Efficiency       =    .2378
```

| mpg | Mean | Std. Dev. | MCSE | Median | Equal-tailed [90% Cred. Interval] | |
|-------|----------|-----------|---------|----------|--------------------------------------|----------|
| _cons | 21.30364 | .6429995 | .013186 | 21.30381 | 20.24172 | 22.35158 |

or we could type

```
. set clevel 90
. bayesmh
```

Model summary

Likelihood:

```
mpg ~ normal({mpg:_cons},30)
```

Prior:

```
{mpg:_cons} ~ 1 (flat)
```

| | | |
|--|--------------------|--------|
| Bayesian normal regression | MCMC iterations = | 12,500 |
| Random-walk Metropolis-Hastings sampling | Burn-in = | 2,500 |
| | MCMC sample size = | 10,000 |
| | Number of obs = | 74 |
| | Acceptance rate = | .4195 |
| | Efficiency = | .2378 |
| Log marginal-likelihood = -234.09275 | | |

| | Mean | Std. Dev. | MCSE | Median | Equal-tailed [90% Cred. Interval] | |
|-------|----------|-----------|---------|----------|--------------------------------------|----------|
| mpg | | | | | | |
| _cons | 21.30364 | .6429995 | .013186 | 21.30381 | 20.24172 | 22.35158 |

If we opt for the second alternative, the next time that we fit a model, 90% credible intervals will be reported. If we wanted 95% credible intervals, we could specify `clevel(95)` on the estimation command, or we could reset the default by typing `set clevel 95`.

The current setting of `clevel()` is stored as the c-class value `c(clevel)`; see [P] [creturn](#).

◀

Also see

[BAYES] [bayes](#) — Bayesian regression models using the bayes prefix

[BAYES] [bayesmh](#) — Bayesian models using Metropolis–Hastings algorithm

[BAYES] [Bayesian estimation](#) — Bayesian estimation commands

[R] [query](#) — Display system parameters

[P] [creturn](#) — Return c-class values