

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

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/r19/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						
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mpg	Mean	Std. dev.	MCSE	Median	Equal-tailed [90% cred. interval]	
_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

