

**timer** — Time sections of code by recording and reporting time spent

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## Description

`timer` starts, stops, and reports up to 100 interval timers. Results are reported in seconds.

`timer clear` resets timers to zero.

`timer on` begins a timing. `timer off` stops a timing. A timing may be turned on and off repeatedly without clearing, which causes the timer to accumulate.

`timer list` lists the timings. If `#` is not specified, timers that contain zero are not listed.

## Syntax

*Reset timers to zero*

```
timer clear [#]
```

*Turn a timer on*

```
timer on #
```

*Turn a timer off*

```
timer off #
```

*List the timings*

```
timer list [#]
```

where `#` is an integer, 1–100.

## Remarks and examples

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`timer` can be used to time sections of code. For instance,

```
version ...
sysuse auto, clear
timer clear
timer on 1
mycmd1 ...
timer off 1
...
timer on 2
mycmd2 ...
timer off 2
...
timer on 1
mycmd3 ...
timer off 1
end
```

## 2 timer — Time sections of code by recording and reporting time spent

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In the code shown above, we used `timer clear` to reset all timers to 0. Then we ran some commands under timer 1 and other commands under timer 2. We can now use `timer list` to see the timings:

```
. timer list
   1:      0.12 /      2 =      0.0620
   2:      0.11 /      1 =      0.1097
```

The output for timer 1 shows the total time elapsed is 0.12 seconds; each time we turn on the same timer without clearing, the time is accumulated. We turned the timer on and off two times, which gives us an average time of 0.0620 seconds. We interpret the values for timer 2 similarly; in this case, we only turned the timer on once, and the time elapsed is 0.11 seconds.

## Stored results

`timer list` stores the following in `r()`:

Scalars

<code>r(t1)</code>	value of first timer
<code>r(nt1)</code>	# of times turned on and off
<code>r(t2)</code>	value of second timer
<code>r(nt2)</code>	# of times turned on and off
.	
.	
.	
<code>r(t100)</code>	value of 100th timer
<code>r(nt100)</code>	# of times turned on and off

Only values for which `r(nt#) ≠ 0` are stored.

`r()` results produced by other commands are not cleared.

## Also see

[P] [rmsg](#) — Return messages

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