Title

pause — Program debugging command

Syntax  Description  Remarks and examples  Reference  Also see

Syntax

    pause { on | off | [message] }

Description

    If pause is on, the pause [message] command displays message and temporarily suspends execution of the program, returning control to the keyboard. Execution of keyboard commands continues until you type end or q, at which time execution of the program resumes. Typing BREAK in pause mode (as opposed to pressing the Break key) also resumes program execution, but the break signal is sent to the calling program.

    If pause is off, pause does nothing.

    Pause is off by default. Type pause on to turn pause on. Type pause off to turn it back off.

Remarks and examples

    pause assists in debugging Stata programs. The line pause or pause message is placed in the program where problems are suspected (more than one pause may be placed in a program). For instance, you have a program that is not working properly. A piece of this program reads

    ```stata
gen 'tmp'=exp('1')/'2'
summarize 'tmp'
local mean=r(mean)
```

    You think that the error may be in the creation of 'tmp'. You change the program to read

    ```stata
gen 'tmp'=exp('1')/'2'
pause Just created tmp /* this line is new */
summarize 'tmp'
local mean=r(mean)
```

    Let's pretend that your program is named myprog; interactively, you now type

    ```stata
    . myprog
    (output from your program appears)
    . pause on
    . myprog
    (any output myprog creates up to the pause appears)
    pause: Just created tmp
    -> . describe
    (output omitted)
    -> . list
    (output omitted)
    ```


The “->” is called the pause-mode prompt. You can give any Stata command. You can examine variables and, if you wish, even change them. If while in pause mode, you wish to terminate execution of your program, you type `BREAK` (in capitals):

```
. myprog
(output myprog creates up to the pause appears)
. pause: Just created tmp
. list
(output omitted)
. BREAK
sending Break to calling program...
---Break---
r(1);
```

The results are the same as if you pressed `Break` while your program was executing. If you press the `Break` key in pause mode (as opposed to typing `BREAK`), however, it means only that the execution of the command you have just given interactively is to be interrupted.

Notes:

- You may put many pauses in your programs.
- By default, `pause` is off, so the `pauses` will not do anything. Even so, you should remove the pauses after your program is debugged because each execution of a do-nothing `pause` will slow your program slightly.
- `pause` is implemented as an ado-file; this means that the definitions of local macros in your program are unavailable to you. To see the value of local macros, display them in the `pause` message; for instance,
  ```
  pause Just created tmp, i='i'
  `` `
  When the line is executed, you will see something like
  ```
  pause: Just created tmp, i=1
  --> . 
  ```
- Remember, temporary variables (for example, `tempvar tmp ... gen 'tmp'=...`) are assigned real names, such as `__00424`, by Stata; see `[P] macro`. Thus, in pause mode, you want to examine `__00424` and not `tmp`. Generally, you can determine the real name of your temporary variables from `describe`’s output, but in the example above, it would have been better if `pause` had been invoked with
  ```
  pause Just created tmp, called `tmp', i='i'
  `` `
  When the line was executed, you would have seen something like
  ```
  pause: Just created tmp, called __00424, i=1
  --> . 
  ```
- When giving commands that include double quotes, you may occasionally see the error message “type mismatch”, but then the command will work properly:
  ```
  pause: Just created tmp, called __00424, i=1
  --> . list if __00424=="male"
type mismatch
(output from request appears as if nothing is wrong)
--> . 
```
Reference

Also see

[P] program — Define and manipulate programs

[P] more — Pause until key is pressed

[P] trace — Debug Stata programs

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