



# Python Debugger Cheatsheet



## Getting started

**import pdb;pdb.set\_trace()** start pdb from within a script  
**breakpoint()** start pdb from within a script (since Python 3.7)  
**python -m pdb <file.py>** start pdb from the commandline

## Basics

**h(elp)** print available commands  
**h(elp) *command*** print help about *command*  
**q(uit)** quit debugger

## Examine

**p(rint) *expr*** print the value of *expr*  
**pp *expr*** pretty-print the value of *expr*  
**w(here)** print current position (including stack trace)  
**l(ist)** list 11 lines of code around the current line  
**l(ist) *first, last*** list from *first* to *last* line number  
**a(rgs)** print the args of the current function

## Miscellaneous

**!*stmt*** treat *stmt* as a Python statement instead of a pdb command  
**alias *map stmt*** map Python statement as a map command  
**alias *map <arg1 ...> stmt*** pass arguments to Python statement.  
*stmt* includes %1, %2, ... literals.

Save pdb commands to local **<./pdbrc>** file for repetitive access.

## Movement

**<ENTER>** repeat the last command  
**n(ext)** execute the current statement (step over)  
**s(tep)** execute and step into function  
**r(eturn)** continue execution until the current function returns  
**c(ontinue)** continue execution until a breakpoint is encountered  
**u(p)** move one level up in the stack trace  
**d(own)** move one level down in the stack trace  
**until** continue execution until the end of a loop or until the set line  
**j(ump)** set the next line that will be executed (local frame only)

## Breakpoints

**b(reak)** show all breakpoints with its *number*  
**b(reak) *lineno*** set a breakpoint at *lineno*  
**b(reak) *lineno, cond*** stop at breakpoint *lineno* if Python condition *cond* holds, e.g. *i==42*  
**b(reak) *file:lineno*** set a breakpoint in *file* at *lineno*  
**b(reak) *func*** set a breakpoint at the first line of a *func*  
**tbreak *lineno*** set a temporary breakpoint at *lineno*, i.e. is removed when first hit  
**disable *number*** disable breakpoint *number*  
**enable *number*** enable breakpoint *number*  
**clear *number*** delete breakpoint *number*

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See <https://github.com/nblock/pdb-cheatsheet> for more information.