



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/mgraupner/pdb-cheatsheet> for more information (Updated version).