Delve Go debugger

CONCEPTS

dlv debug and dlv test build with optimizations off; for dlv exec build with -gcflags="all=-N -l" yourself.

Launch debug, test, exec
↓ break + continue
Stopped goroutine, frame
↓ inspect
Inspect print, locals, stack
↓ next / step
Resume continue, restart

Enter repeats the last command; short aliases: b, c, n, s, so, p, bt, grs, bp.

START A SESSION

dlv debug [*<pkg>***]**
Build and debug a main package

dlv debug -- *<args>*
Debug with program arguments

dlv test [*<pkg>***]**
Build and debug a test binary

dlv test -- -test.run *<TestName>*
Debug a single test

dlv exec *<binary>* **-- ***<args>*
Debug a prebuilt binary

dlv attach *<pid>*
Attach to a running process

REMOTE AND HEADLESS

dlv debug --headless --listen=:2345
Run only the debug server

dlv connect *<host>***:***<port>*
Attach the terminal client

BREAKPOINTS

break *<func>*
Break at a function (b)

break *<file>***:***<line>*
Break at a line

break *<loc>* **if ***<cond>*
Break when a condition holds

breakpoints
List breakpoints (bp)

BREAKPOINTS (cont.)

clear *<id>*
Delete one breakpoint

condition *<id>* *<expr>*
Add a condition later (cond)

RUN CONTROL

continue
Run to the next breakpoint (c)

next
Step over the next line (n)

step
Step into calls (s)

stepout
Run until the function returns (so)

restart
Restart with the same arguments (r)

exit
Quit the debugger (q)

INSPECT DATA

print *<expr>*
Evaluate an expression (p)

locals
Show local variables

args
Show function arguments

display -a *<expr>*
Print on every stop

GOROUTINES

goroutines
List goroutines (grs)

goroutine *<id>*
Switch to a goroutine (gr)

STACK AND SOURCE

stack
Show the call stack (bt)

up / down
Move one frame up / down

frame *<n>*
Select a frame

list
Show source around current line (l)