

GDB cheat sheet

call gdb

`gdb prog, gdb --args prog [progargs]`
`r, run [args]` run the program
`attach <pid>, detach` attach/detach gdb to/from process

navigating

`c [ignore count]` continue
`s, step [count]` continue until different src line
`n, next [count]` like step, do not follow function calls
`u, until [loc]` like next, but only src line below
`fin, finish` continue until current function returns
`advance <loc>` continue until location is reached
`si, stepi, ni, nexti` like step and next for machine instr

breakpoints

`break <loc>` set a breakpoint
`break ... if <cond>` set a conditional breakpoint
`tbreak ...` like break, but only for one shot
`watch <expr>` stop when <expr> changes its value
`clear <loc>` delete breakpoint at location
`d, delete` delete all breakpoints, watchpoints, etc
`handle <signal> [opt]` set how signals are handle. opt can be [no]stop, [no]print, [no]pass
`dis [N]` disable breakpoint N resp. all

examine data

`frame <addr>, frame #` move to stack frame and print info
`select-frame` like stack, but without printing info
`bt, bt N, bt -N` print backtrace (call stack)
`bt full` like bt, but with local variables
`info f, info frame` print verbose info of the selected frame
`info args, info locals` info on function args, local variables
`info registers` print registers. Also: `p/x $pc, x/i $pc`
`$pc, $fp, $sp` program cntr, frame pntr, stack pntr
`info address <symb>` get address of symbol
`info symbol <addr>` get the name of the symbol at addr
`p, print <expr>` print value of given expr
`p *array@len` print array of given length
`x <addr>, x/N <addr>` print N bytes from memory
`display <expr>` display expr whenever gdb stops
`set pretty print on` print arrays nicer

show code

`list <loc>` print source lines
`list` list more source
`disas [/m] start,+len` show disassembled source code

location <loc>

`linenum` the line in the current source file
`-offset, +offset` \$offset lines before/after current line
`filename:linenum` given line in given source file
`function` start of given function
`*address` given address