

Radare2 Cheatsheet

Basic commands

`s` seek to a different address
`b` change block size
`q` quit
`pd/px/p8` print disasm/hexdump/bytes
`pf` print formatted
`f name=addr` set flag to the given address
`-j` enter the Javascript repl
`?*~str` show commands with the given string

Command prefixes

`.` interpret output
`:` execute io command
`#` comment
``` ..... avoid evaluation of special chars  
`N` ..... repeat n times, being N a number

## Command suffixes

`j` ..... json  
`q` ..... quiet (simplest output)  
`*` ..... radare2 commands  
`,` ..... table format  
`?` ..... help for the command

## Command modifiers

`>` ..... redirect output to file or `$internalfile`  
`@` ..... temporal seek  
`@@` ..... repeat on every flag

## Binary information

`ie` ..... entropoint  
`is/ii/iE` ..... symbols/imports/exports

## Patching

`wx` ..... write hexpairs (`wv` for endian values)  
`wa` ..... write assembly  
`wo` ..... write in block  
`wtf` ..... write to file (use `wtff` for `@@`)

## Search

`/ lib` ..... search for string  
`/x 9090` ..... hexpairs  
`/ad ret` ..... instructions with `ret`  
`/m` ..... search for known magic headers  
`w lob @@/ lib` ..... write lob on every lib

## Analysis and xrefs

`af` ..... analyze function  
`aa` ..... analyze all program (`aaa`, `aaaa`, ...)  
`afn/afvn` ..... rename a function/variable  
`afl` ..... list functions  
`axt` ..... list xrefs to given address

## Disassembly

`pdf/pdr` ..... disassemble function/recursive  
`pdc` ..... pseudo-decompilation (see `pdd/pdg`)  
`pd/pi` ..... print disassembly/instructions  
`Cd` ..... define as data  
`CC` ..... add a comment in code

## Emulation (ESIL)

`aeim` ..... initialize emulation registers + stack  
`ae` ..... emulate ESIL expression  
`aes` ..... step into (see `ds`, but also `aesu?`)  
`aer` ..... for register manipulation (see `dr`)

## Debugging

(`r2 -d bin`)

`db` ..... set/manage breakpoints  
`dbt` ..... backtrace  
`ds/dso` ..... single step/step over  
`dr` ..... get/set register values (`dr` for telescoped)  
`doo/ood` ..... restart process

## Visual mode

(`V` for visual, `v` for panels, `!` to toggle)

`pP` ..... rotate modes (<tab> for submodes)  
`s/S` ..... perform step/step over  
`b` ..... browse (flags, config, classes, symbols, ...)  
`.` ..... seek to entropoint  
`i/A` ..... insert mode for hexa/write assembly  
`V_` ..... hud mode to seek flags while typing  
`Vd1` ..... visual bit editor  
`n/N` ..... seek to next/previous `scr.nkey` thing  
`x/X` ..... view xrefs/refs  
`hjkl` ..... move cur (HJKL for faster movement)

## Graph

(`VV` comand, `agfv`)

`agn/age/aggv` ..... custom handmade graphs  
`t/f/u` ..... follow true/false branch, undo

## Settings

(`e` command)

`edit` ..... use `cfg.editor` with `~/.radare2rc`  
`asm.emu/emu.str` ..... emulation analysis/show strings  
`asm.bytes` ..... show/hide bytes in disasm  
`bin.relocs.apply` ..... apply relocs  
`scr.color=n` ..... enable colors, where n = 0,1,2,3  
`anal.hasnext` ..... consider code is sequential