radare2 Reverse engineering toolkit

CONCEPTS

Commands are short letter chains: append ? to any prefix (a?, p?, pd?) to list what it offers.

Open r2 file
↓ aaa
Analyse functions, xrefs
↓ s / pdf
Inspect seek + print
↓ w / ood
Patch or debug write, step

Almost everything acts at the current seek; use cmd @ addr to run it elsewhere without moving.

OPEN AND ANALYSE

r2 -A *<file>*
Open and run full analysis

r2 -d *<file>*
Open under the debugger

r2 -q -c '*<cmds>***' *<file>***
Run commands and quit

aaa
Deeper analysis of calls and refs

afl
List functions

axt *<addr>*
Find references to an address

BINARY INFO

iI
Binary info and protections

iz
Strings in data sections

ii
Imported functions

SEEK AND PRINT

s *<addr>*
Seek to address, flag or function

pdf
Disassemble current function

pd *<n>*
Disassemble n instructions

SEEK AND PRINT (cont.)

px [len]
Hexdump

<cmd> **@** *<addr>*
Run cmd at addr without seeking

<cmd>~*<text>*
Grep the output

VISUAL MODE

V
Enter visual mode

VV
Graph view of function

p / P
Cycle print modes

Enter
Follow jump or call

x / X
Xrefs to / from here

:
Run a command

q
Back to shell

SEARCH

/ *<text>*
Search for a string

/x *<hex>*
Search hex bytes

WRITE AND PATCH

wx *<hex>*
Write hex bytes

DEBUGGER

ood [args]
Reopen file in debug mode

dc
Start or continue

db *<addr>*
Set breakpoint

ds [n]
Step into

dr
Show registers