

Proxmark3 Cheat Sheet

This cheat sheet contains many useful commands to help you get started with Proxmark3.
Big thanks to Alex Dib, Philippe Teuwen and Iceman over on the RfidResearchGroup GitHub for their cheat sheet!

iClass

Reverse Permute Master Key
hf iclass permute r 3F90EB E09 1CF7B6F

Simulate Reader
hf iclass reader

Dump hf iclass dump k AFA785 A7D AB33378

Read Block hf iclass readblk b 7 k AFA785 A7D AB33378

Write to Block hf iclass writeblk b 07 d 6ce099 fe7 e614fd0 k AFA785 A7D AB33378

Print Keystore hf iclass managekeys p

Add Key to Keystore [0-7] hf iclass managekeys n 0 k AFA785 A7D AB33378

Encrypt Block hf iclass encryptblk 000000

Load Dump hf iclass eload f iclass _ta gdu mp- db8 837 02f 8ff 12e 0 .bin

Simulate hf iclass sim 3

Simulation notes:

- 0 <CSN> simulate the given CSN
- 1 simulate default CSN
- 3 Full simulation using emulator memory

Simulate iClass Sequence

```
pm3 > hf iclass dump k AFA785 A7D AB33378
pm3 > hf iclass eload f iclass _ta gdu mp- db8 837 02f 8ff 12e 0 .bin
pm3 > hf iclass sim 3
```

Clone iClass Legacy Sequence

```
pm3 > hf iclass readblk b 7 k AFA785 A7D AB33378
pm3 > hf iclass writeblk b 07 d 6ce099 fe7 e614fd0 k AFA785 A7D AB33378
```

Generic Commands

High Frequency Search hf search

Low Frequency Search lf search

Measure Antenna Characteristics hw tune

Check Version hw version

Check overall status hw status

Mifare

Check for Default Keys hf mf chk *1 ? d default t_k eys.dic

Dump hf mf dump 1

(0=Mini, 1=1k, 2=2k, 4=4k)

Write to Block hf mf wrbl 0 A FFFFFFF FFFFFFF d3a285 9f6 b88 040 0c8 010 020 000 00016

Hardnested Attack hf mf hardnested 0 A FFFFFFF FFFFFFF 0 A w

Load Dump hf mf eload 353C2AA6

Simulate Run autopwn hf mf sim u 353c2aa6 hf mf autopwn

Simulate Mifare Sequence hf mf sim u 353c2aa6

Run autopwn hf mf autopwn

Simulate Mifare Sequence

```
pm3 > hf mf chk *1 ? d default t_k eys.dic
pm3 > hf mf dump
pm3 > hf mf restore 1 u 4A6CE843 k hf-mf- A29 558 E4- key.bin hf-mf- A29 558 E4- dat a.bin
```

```
pm3 > hf mf eload 353C2AA6
pm3 > hf mf sim u 353c2aa6
```

Clone Mifare 1K Sequence

```
pm3 > hf mf chk *1 ? d default t_k eys.dic
pm3 > hf mf dump
pm3 > hf mf restore 1 u 4A6CE843 k hf-mf- A29 558 E4- key.bin hf-mf- A29 558 E4- dat a.bin
```

Indala

Read lf indala read

Demodulate lf indala demod

Simulate lf indala sim a00000 00c 2c436c1

Clone to T55x7 lf indala clone a00000 00c 2c436c1

Clone to T55x7 c1

Lua Scripts

Lua Scripts (cont)

Format script run format Mifare -k

Mifare card -x

Options

k <ke y> : the current six byte key

n <ke y> : the new key

a <ac ces s> : the new access

x : execute the commands

HID Prox

Read lf hid read

Demodulate lf hid demod

Simulate lf hid sim 200670012d

Clone to T5577 lf hid clone 200670012d

Convert Site & Facility code to Wiegand lf hid wiegand 0 56 150

Brute force HID reader

Options

a <fo rma t> : 26|33| 34 | 35| 37| 40| 44| 84"

f <FC> : 8-bit value, facility code"

c <CN> : (optional) Starting Number, max 65535"

d <de lay> : delay in m s. Default 1000ms "

v : verbose logging, show all tries"

pm3 > lf hid brute a 26 f 224

pm3 > lf hid brute v a 26 f 21 c 200 d 2000

Raw Data

2c436c1

00c 2c436

iClass loclass attack

Extract custom iClass key (loclass attack)

```
pm3 > hf iclass sim 2
pm3 > hf iclass loclass f iclass _ma
pm3 > hf iclass dump k <Kc us> e
```

Verify custom iClass key

```
pm3 > hf iclass lookup u 010a0f fff 7ff12e0 p feffff fff fffffff m 663489
raw samples [512-4 0000]
791 53c41b9 f default t_i cla ss_k
ey s.dic e
```

List script list

Scripts

Convert script run dumptoemul -i fileendRebi
bin to apk.bin
.eml

Get samples data samples <si ze>

Save data save <fi len am
samples e>

Load samples data load <fi len am
e>

raw samples [512-4 0000]
791 53c41b9 f default t_i cla ss_k

Hitag

Read lf hitag info

Hitag
inform-
ation

Act as lf hitag 26

Hitag
reader

Sniff lf hitag sniff

Hitag
traffic

Simulate lf hitag sim c37818 lc_ a8

Write to lf hitag writer 24 4996021
Block

Simulate Hitag2 sequence

```
pm3 > lf hitag reader 21 5671336
8
```

```
pm3 > lf hitag sim c37818 lc_ a8
f 7.ht2
```



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Page 1 of 3.

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T55XX

Detect lf t55xx detect

T55XX

Demodu lf t55xx config FSK

lation

Config

Write to lf t55xx wr b 0 d 00081040

Block

Factory lf t55xx wipe

Reset

Tag

Modulation Types

<FS K|F SK1 |FS K1a |FS K2| FSK -

2a| ASK |PS K1| PSK 2|N RZ| BI| -

BIa>

EM is ASK

HID Prox is FSK

Indala is PSK



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Page 2 of 3.

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