

=== File printout ===

File name: README.md
File size: 6635 bytes
File sha256: 80ba900ad7124505890832516a99ed90cad810bfb838c886c05f0623859c510d
Printed: 2021-07-22T12:03:01 Pages: 3 Random ID: 0d175372

Bytes are printed as ASCII chars if possible. Spaces (0x20) are printed as " ", newlines (0x0a) are printed as "¶". All other bytes are printed as "¿xx", with "xx" being the value of the byte as hex number, e.g., "¿09" for a tab, "¿0d" for a carriage return.

Text printed in bold is not part of the file. On the left is the line number, on right a per line checksum (CRC-16-IBM). Lines longer than 80 chars are wrapped.

Created with txt4print version 0.1 - for additional information see <https://github.com/lobaro/txt4print>

===== BEGIN OF FILE =====

| | | |
|------|--|------|
| 0001 | #·txt4print¶ | ec90 |
| 0002 | ¶ | 473f |
| 0003 | `txt4print`·is·a·minimalistic·tool·that·is·meant·for·printing·small·important·¶ | 934c |
| 0004 | text·files·recoverable·(e.g.,·private·keys).¶ | 4cb5 |
| 0005 | ¶ | 473f |
| 0006 | It·creates·a·pdf·file·that·can·be·printed·out·to·have·an·offline·copy·of·¶ | 0fa2 |
| 0007 | important·files,·that·can·be·stores·securely·and·safely·(e.g.,·a·bank's·safe).¶ | d15d |
| 0008 | The·resulting·paper·should·be·recoverable·with·a·basic·texteditor·by·anyone·¶ | cc34 |
| 0009 | with·a·basic·understanding·of·computers·(e.g.,·a·sysop,·or·a·programmer).¶ | 31b3 |
| 0010 | ¶ | 473f |
| 0011 | We·do·not·guaranty·anything,·if·you·use·this·software!·There·is·no·warranty!¶ | 211a |
| 0012 | ¶ | 473f |
| 0013 | **Test·your·recovery·process!**¶ | fbf4 |
| 0014 | ¶ | 473f |
| 0015 | The·script·is·designed·to·work·on·a·limited·linux·system·with·no·network·¶ | 3a32 |
| 0016 | connection·(for·keeping·secrets·safe).¶ | 42c5 |
| 0017 | ¶ | 473f |
| 0018 | ##·How·does·it·work?¶ | be92 |
| 0019 | The·script·takes·a·textfile·as·input·and·creates·a·pdf·file·to·be·printed·¶ | b760 |
| 0020 | (yes,·on·paper).·You·store·that·in·a·safe·place.¶ | 320c |
| 0021 | Should·you·ever·lose·all·of·your·digital·copies·of·that·file,·you·take·that·¶ | 05d3 |
| 0022 | paper·from·your·safe·location·and·type·it·back·into·a·computer·using·your·keyboa | 0b0d |
| 0023 | rd.¶ | 473f |
| 0024 | On·the·pdf·there·are·all·bytes·of·the·input·file·printed·in·a·way·that·they·¶ | 844a |
| 0025 | can·be·typed·back·into·a·computer·using·any·text·editor·.Care·is·taken,·so·¶ | c2b7 |
| 0026 | that·all·bytes·can·be·identified·.It·uses·a·font·with·distinctive·letters·¶ | 3cab |
| 0027 | (Number·zero·0·versus·letter·O,·Number·1·versus·lower·case·L:·l·and·upper·case·i | c38d |
| 0028 | :·I).¶ | 2ec4 |
| 0029 | Spaces·and·newlines·are·printed·explicitly·.All·other·non-printable·bytes·are·¶ | 7545 |
| 0030 | printed·as·hex·numbers·.No·byte·is·ignored·.For·each·line·a·CRC·checksum·is·¶ | f310 |
| 0031 | included,·so·that·mistakes·can·be·spotted·easily·in·files·with·many·lines.¶ | 473f |
| 0032 | ¶ | 17e6 |
| 0033 | The·printout·contains·the·name·of·the·file·printed,·it's·size·in·bytes,·and·a·¶ | bbf4 |
| 0034 | sha256·checksum,·so·that·you·can·verify·you·do·not·make·any·mistakes·typing.¶ | 8c5a |
| 0035 | It·also·has·the·date·and·time·of·printing·and·a·4·byte·random·ID·.The·ID·is·¶ | 00a9 |
| 0036 | printed·on·enery·page,·next·to·the·page·number,·so·that·you·can·easily·sort·¶ | 85ef |
| 0037 | pages·of·multiple·printouts·if·they·ever·get·mixed·up.¶ | 473f |
| 0038 | ¶ | b473 |
| 0039 | The·printout·also·contains·brief·instructions·on·what·it·is·and·how·data·¶ | f920 |
| 0040 | is·represented·on·it·.This·should·allow·recreation·of·the·files·from·the·¶ | 4f43 |
| 0041 | printout·alone,·even·when·this·documentation·will·no·longer·be·available·¶ | 904d |
| 0042 | online.¶ | 473f |
| 0043 | ¶ | 8edd |
| 0044 | ##·Examples¶ | ad7f |
| 0045 | Get·a·feel·for·what·it·looks·like,·here·are·some·examples:¶ | |
| 0046 | *·[An·example·CA·Certificate](examples/example-ca-cert.crt.pdf)·([original·file] | fa42 |
| | (examples/example-ca-cert.crt)).¶ | |
| | *·[The·CA·Certificate's·private·key](examples/example-ca-cert.key.pdf)·([origina | |

```

l.file](examples/example-ca-cert.key))&ndash;.encrypted.with.passphrase."unsecu
re".¶
0047 *[The.source.code.of.txt4print](examples/txt4print.py.pdf)¶
0048 *[The.source.of.this.README](examples/README.md.pdf)¶
0049 ¶
0050 ##.Single.file.binary¶
0051 This.is.meant.to.be.used.as.a.single.file.binary..You.can.create.that.using.¶
0052 `pyinstaller`.On.my.x86_64.Linux.the.binary.is.about.7.MiB.big.¶
0053 ¶
0054 ....$.pip.install.pyinstaller¶
0055 ....$.pyinstaller-F.txt4print.py¶
0056 ¶
0057 ##.Advice¶
0058 ***Do.not.trust.anything.I.say.here!*.I.am.no.expert.in.this.area,.I.just.¶
0059 ..want.to.solve.this.problem.for.myself..If.you.really.depend.on.what.is.in.¶
0060 ..your.data--go.on,.read.this,.fine..Those.are.thoughts.I.came.up.with.when.¶
0061 ..thinking.about.that.problem,.maybe.they.help.you..**But.do.not.rely.on.¶
0062 ..this!***If.it.is.so.important,.you.should.seek.professional.advice.¶
0063 ***Test.your.recovery.process!*.Yes,.really..Type.the.file.back.into.your.¶
0064 ..computer,.using.only.the.print.out,.and.a.freshly.set.up.computer.without.¶
0065 ..any.other.data.from.your.infrastructure..That.is.the.case.you.are.preparing.¶
0066 ..for.here,.so.make.sure.that.you.have.everything.for.that.¶
0067 *.Use.a.laser.printer!.Seriously,.try.printing.a.page.with.a.laser.printer.and.¶
0068 ..with.an.ink.printer,.and.then.pour.a.glass.of.water.over.them.¶
0069 *.Use.good.paper.¶
0070 *.If.you.print.private.keys,.only.print.them.encrypted..Do.you.trust.my.script?¶
0071 ..Even.if.you.do,.there.is.a.lot.of.soft.and.hardware.involved.on.the.way.¶
0072 ..to.having.the.paper.in.your.hand..What.about.the.pdf-viewer?What.about.the¶
0073 ..printer?¶
0074 *.Think.where.you.print..You.might.want.to.skip.the.public.wlan-printer.in.¶
0075 ..your.co-working.place..Do.printers.keep.copies.of.what.they.print?I.don't.¶
0076 ..know...¶
0077 *.If.you.have.longer.files,.print.single.sided..It.makes.finding.mistakes¶
0078 ..a.lot.more.convenient.¶
0079 *.Put.the.paper.in.a.case.that.protects.it.(from.viewing,.even.when.put.¶
0080 ..towards.light.sources--but.also.from.damage;dirt,.water,.etc)..The.case.¶
0081 ..should.also.seal.it!.You.will.want.to.know.if.anyone.opened.it.and.looked.¶
0082 ..at.it..Sign.the.seal.with.your.own.handwriting.or.something--I'm.no.¶
0083 ..expert.for.that...¶
0084 *.Put.the.paper.somewhere.that.you.will.have.access.to.in.tenth.of.years,.but.¶
0085 ..chose.a.place.that.is.physically.separated.from.your.primary.storage..I'm.¶
0086 ..talking.kilometers.here,.natural.desasters.are.a.thing,.and.when.your.computer
s.¶
0087 ..all.drown.in.a.flood,.you.do.not.want.your.private.key.backup.destroyed.with.t
hem.¶
0088 ..Do.your.parents.have.a.safe?How.about.that?Just.hand.them.an.envelope.and.te
ll.¶
0089 ..them.to.keep.it.really.save.and.never.touch.it,.until.you.say.you.need.it.back
.¶
0090 *.Store.multiple.copies.in.different.places..If.it.is.for.your.company,.keep.in.
mind.¶
0091 ..that.desaster.might.strike.when.one.of.you.went.on.holidays--or.might.have.pa
ssed.¶
0092 ..away..Those.things.happen..It.is.sad.enough.without.your.friends.taking.the.¶
0093 ..company.to.the.grave.with.them.¶
0094 *.When.your.keys.are.encrypted,.also.store.copies.of.your.passphrases!.Preferabl
y.in.¶
0095 ..places.different.from.the.printouts.¶
0096 *.A.neat.way.to.build.passphrases.is.[Diceware][diceware].¶
0097 *.You.can.use.a.USB-Stick.with.[Tails.Linux][tails].to.have.a.dedicated.¶
0098 ..system.for.working.with.your.keys..Only.keep.them.there.in.the.persistent.¶
0099 ..storage..`txt4print`.was.written.to.be.used.on.a.tails.system.that.has.no.¶
0100 ..network.connections..That's.why.we.needed.the.single.binary.version.¶
0101 *.If.you.want.to.spread.responsibility.for.your.secret.keys.over.multiple.¶
0102 ..people,.where.e.g.,.3.out.of.5.people.need.to.come.together.to.use.them,.¶
0103 ..take.a.look.at.[gfshare][gfshare]..I.have.not.used.it.myself,.but.the.

```

```

6751
cdc0
2133
473f
2d20
04c6
e157
473f
003b
ca00
473f
75d8
ebd1
ddad
8e9e
71e1
6cac
6ada
8254
ee7f
759b
52da
2c6e
769d
6296
f11a
f612
d221
0732
9b07
2329
2033
3f4f
6d76
7d57
e428
8ab3
a299
85a8
7cc3
a4cf
3aea
35e7
883d
55aa
6b3e
49bd
d1fd
8d07
9e5c
8574
6b86
13c4
844f
f8f3
a21d
b248
7e51

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| | | |
|------|---|------|
| 0104 | ..people.making.tails.use.it.for.their.signing.keys,.see.¶ | 4f5e |
| 0105 | ..[the.tails.doc][tailsdoc].¶ | d059 |
| 0106 | ..¶ | cde9 |
| 0107 | [diceware]:.https://en.wikipedia.org/wiki/Diceware¶ | 84af |
| 0108 | [tails]:.https://tails.boum.org/¶ | 2d5b |
| 0109 | [gfshare]:.https://git.gitano.org.uk/libgfshare.git/¶ | bb3b |
| 0110 | [tailsdoc]:.https://tails.boum.org/doc/about/openpgp_keys/index.en.html#index2h1¶ | 30f3 |
| 0111 | ¶ | 473f |
| 0112 | ##.Limitations¶ | d316 |
| 0113 | The.is.no.warranty.for.anything!.¶ | d98f |
| 0114 | ¶ | 473f |
| 0115 | The.script.was.written.for.a.printing.small.ASCII.text.files,.and.will.not.be.very.useful.¶ | fab9 |
| 0116 | for.other.files..It.supports.long.lines.and.many.lines.and.binary,.non-ASCII.data,.¶ | bdee |
| 0117 | but.you.will.not.be.happy.typing.those.back.in.¶ | 020e |
| 0118 | ¶ | 473f |
| 0119 | This.script.will.not.work.on.Windows,.since.the.font.inclusion.trick.will.not.work.there.¶ | fb07 |
| 0120 | | ffff |
| | ===== END OF FILE ===== | |