LessPass

stateless open source
password manager

Agenda

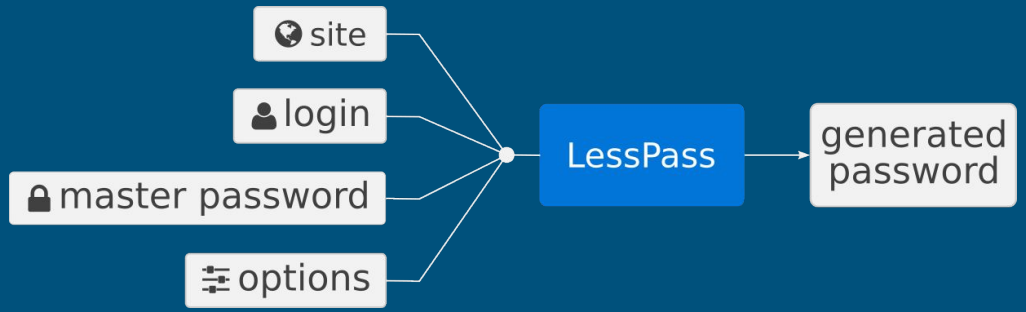
- Who are we?
- What is LessPass?
- How does it works?
- Community Driven Development
- Future is bright!
- Questions

Who are we?

What is LessPass?

LessPass computes a **unique password** using a site, login and a master password.

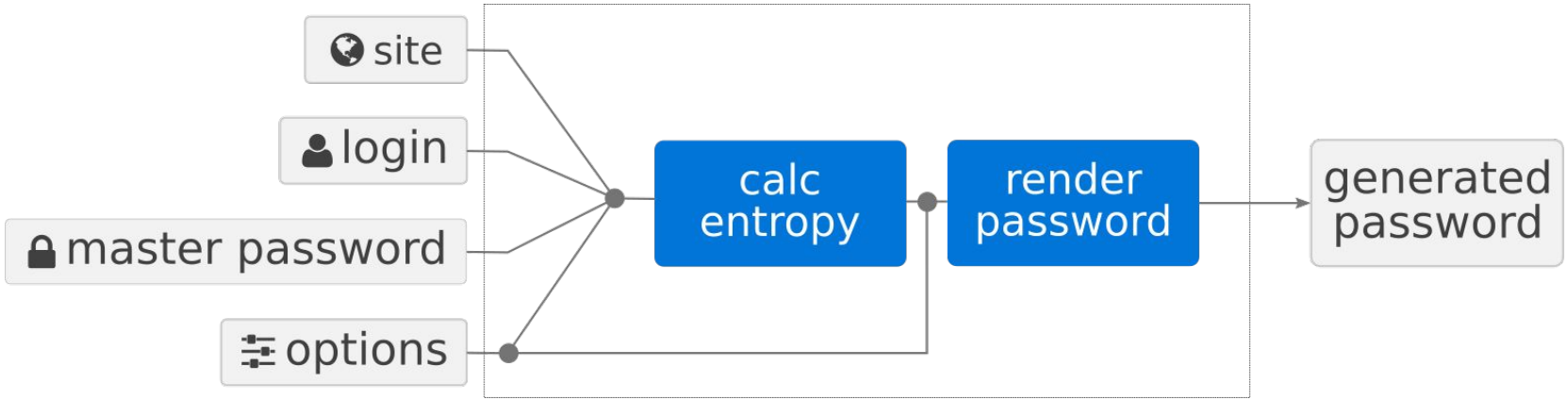
You **don't need to sync** a password vault across every device because LessPass works offline!



demo

If the gods of the demo are with us

How does it works?



How does it works?

site: lesspass.com
login: contact@lesspass.com
masterPassword: password
counter: 1

hex_entropy = **pbkdf2**({masterPassword}, {site} + {login} + {counter}, iterations=100 000, keylen=32Bytes, digest=sha256)
hex_entropy = 03948309b088a53cdea276fa32a05988e9a6f2b57ef80aec664f668789b37711
entropy = $1.6193363013391256e^{75}$

rules: ["lowercase", "uppercase", "numbers"]
Pool of chars: abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ0123456789

How does it works?

- Consume entropy

**1.61933630133912$$56e^{75}$$** \ 62 = 2.611832744095364$$e^{73}$$ + 11
pool_of_chars[11] = l
l
2.611832744095364$$e^{73}$$ \ 62 = 4.212633458218329$$e^{71}$$ + 5
lf
4.212633458218329$$e^{71}$$ \ 62 = 6.794570093900$$53e^{69}$$ + 36
lfK
…
5.0192263089105$$67e^{53}$$ \ 62 = 8.095526304694$$463e^{51}$$ + 43
pool_of_chars[43] = R
lfK6bUhqrGODR (length 13)

How does it works?

- one char per rule with the same method

  $8.095526304694463e^{51} \setminus 26 = 3.113663963344024e^{50} + 12$
  m
  $3.113663963344024e^{50} \setminus 26 = 1.1975630628246248e^{49} + 14$
  O
  $1.1975630628246248e^{49} \setminus 10 = 1.1975630628246246e^{48} + 3$
  3

  Chars to add: mO3

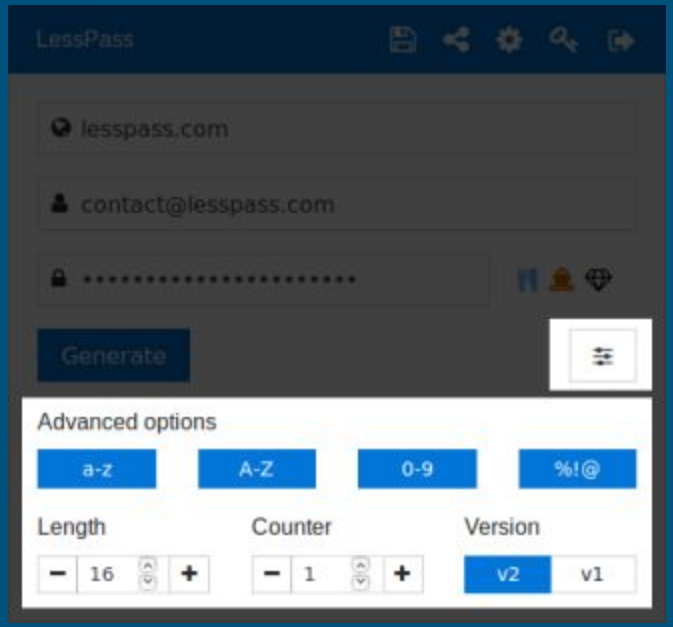
How does it works?

- Insert string pseudo randomly *mO3* in *lfK6bUhqrGODR*

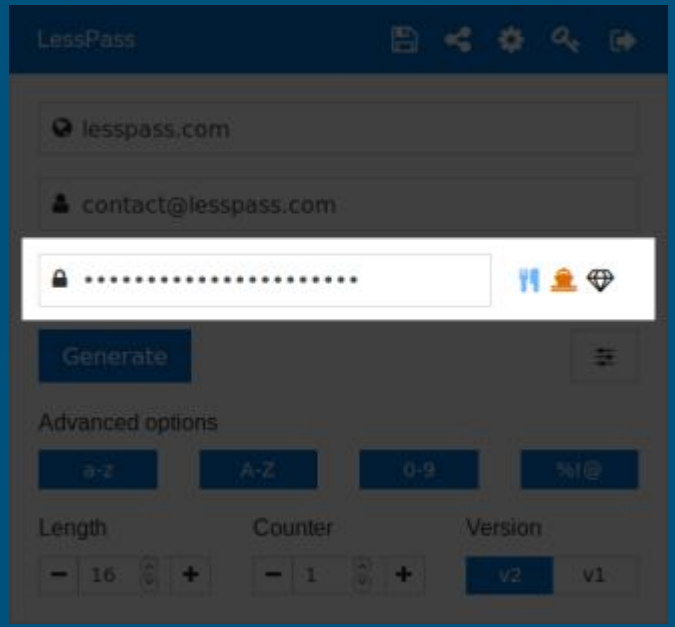
  $1.1975630628246246e^{48} \setminus 13 = 9.212023560189422e^{46} + 5$
  lfK6b + m + UhqrGODR

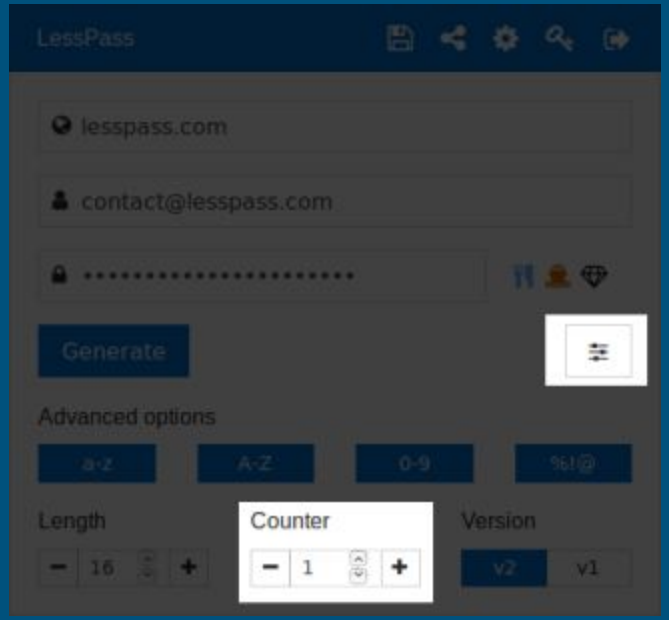
  $9.212023560189422e^{46} \setminus 14 = 6.58001682870673e^{45} + 0$
  O + lfK6bmUhqrGODR

  $6.58001682870673e^{45} \setminus 15 = 4.3866778858044 86e^{44} + 5$
  OlfK6 + 3 + bmUhqrGODR

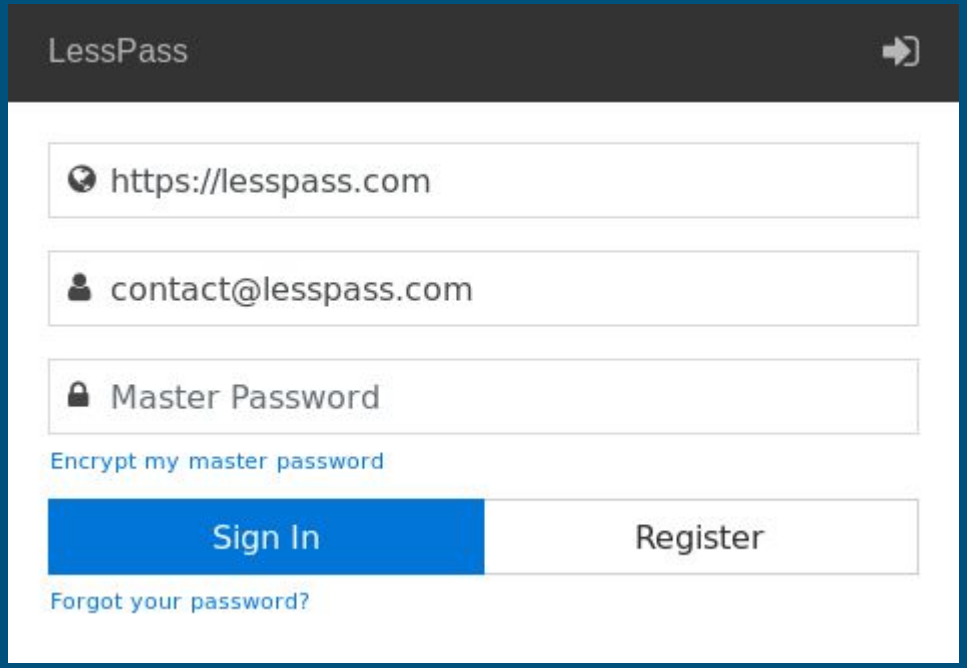

LessPass
lesspass.com
contact@lesspass.com
Generate
Advanced options
a-z
A-Z
0-9
%!@
Length
16
Counter
1
Version
v2
v1

"Eating on a boat is expensive".




LessPass
lesspass.com
contact@lesspass.com
Generate
Advanced options
a-z
A-Z
0-9
%!@
Length
16
Counter
1
Version
v2
v1

What about stupid rules?



Architecture

Supported platforms

Android

Chrome

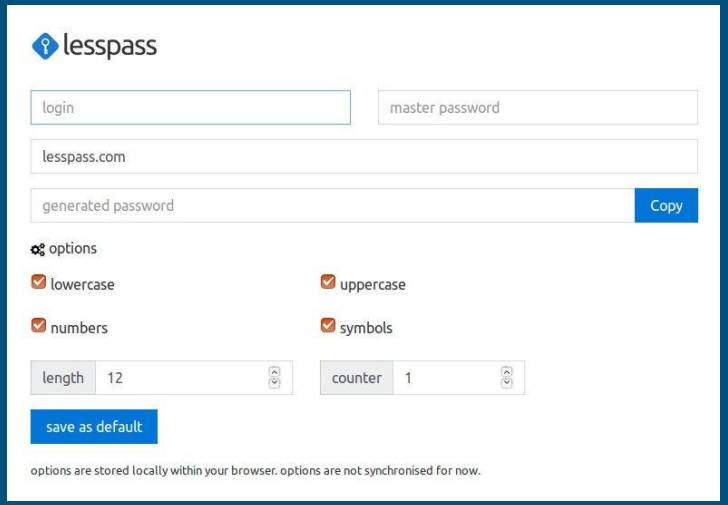
Cozy Cloud

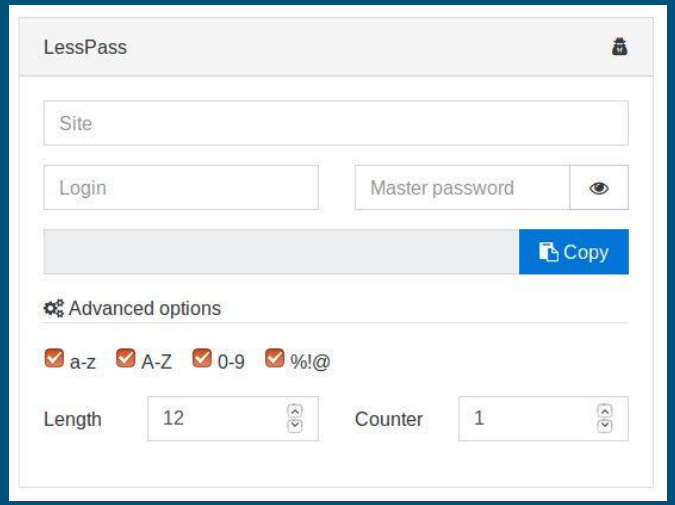
Firefox

Snapcraft

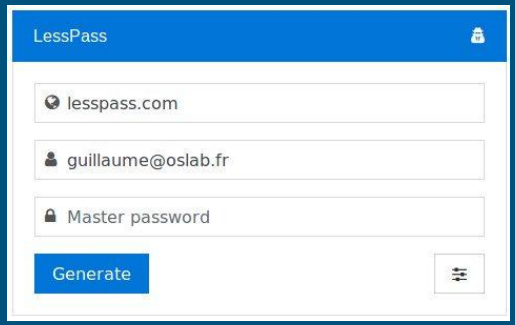
Terminal

Community Driven Development

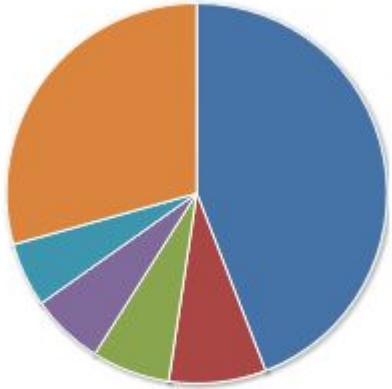

lesspass
login
master password
lesspass.com
generated password
Copy
options
lowercase
uppercase
numbers
symbols
length 12
counter 1
save as default
options are stored locally within your browser. options are not synchronised for now.


LessPass
Site
Login
Master password
Copy
Advanced options
a-z
A-Z
0-9
%!@
Length 12
Counter 1

LessPass
现场
登录
主密码
生成

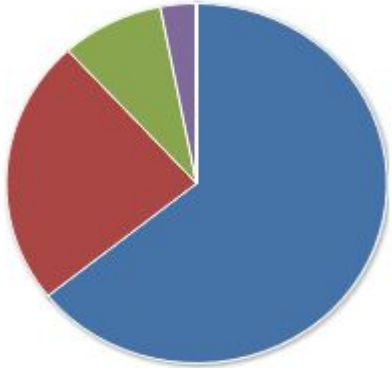

LessPass
lesspass.com
guillaume@oslab.fr
Master password
Generate

Top Languages

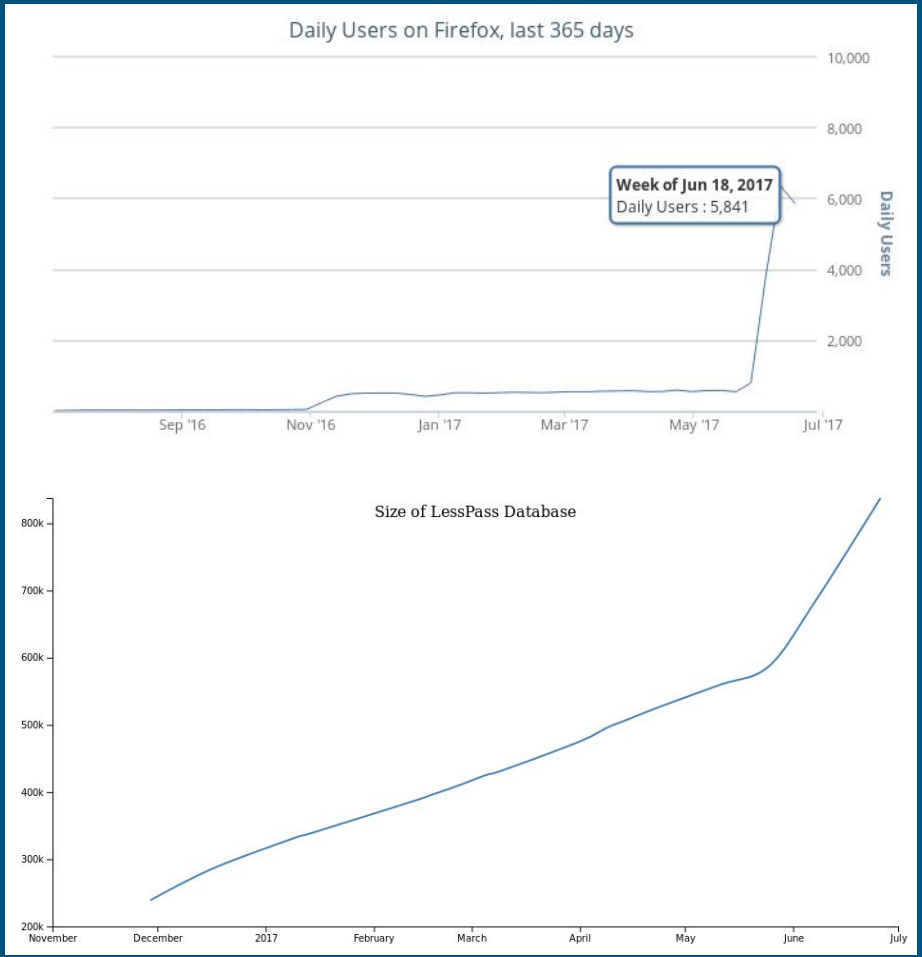


English (US) (en-us)	(44%)
Français (fr)	(8%)
Русский (ru)	(7%)
Deutsch (de)	(6%)
Español (es-es)	(5%)
Other	(29%)

Top Platforms



Windows	(64%)
Linux	(24%)
Mac OS X	(9%)
Android	(3%)
BSD	(<1%)
Other	(<1%)



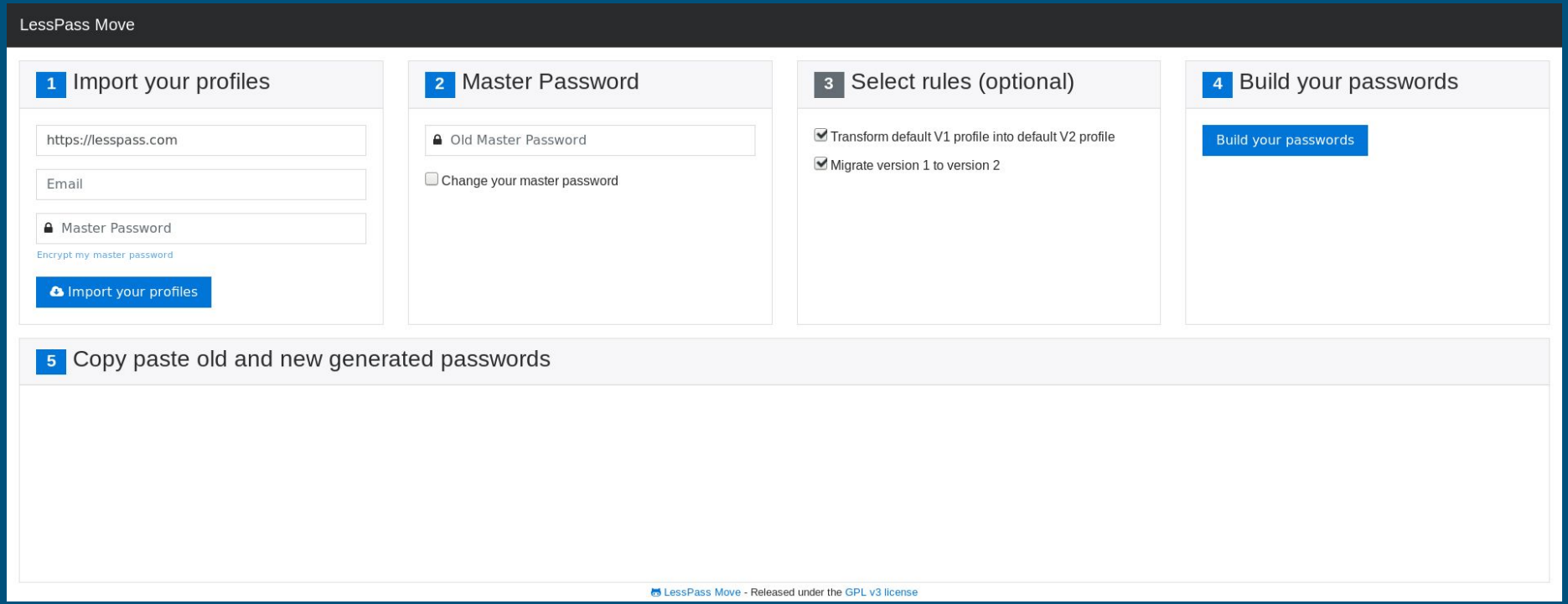
Y **Hacker News** new | threads | comments | show | ask | jobs | submit

LessPass: sync-less open source password manager (lesspass.com)

412 points by mgliwka

Future of LessPass

LessPass Move



https://lesspass.com

Questions?

@edouard_lopez @guillaume20100