The Free and Open Source Electronic Lab Notebook

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www.elabftw.net

Summary

- Why use an electronic lab notebook?
- Why use an open source solution?
- Why use eLabFTW?
- Why use Deltablot hosting?

Why use an ELN?

Problem:

Need to store metadata of experiments (what, when, where, who, why, how)

Why use an ELN?

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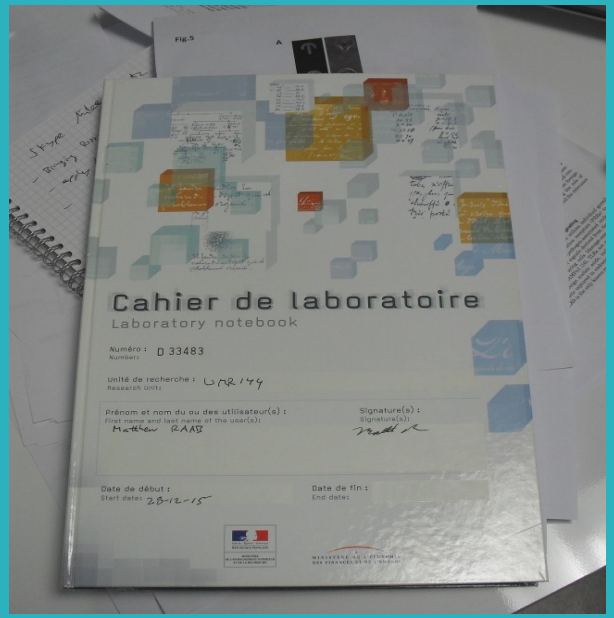
Solution:



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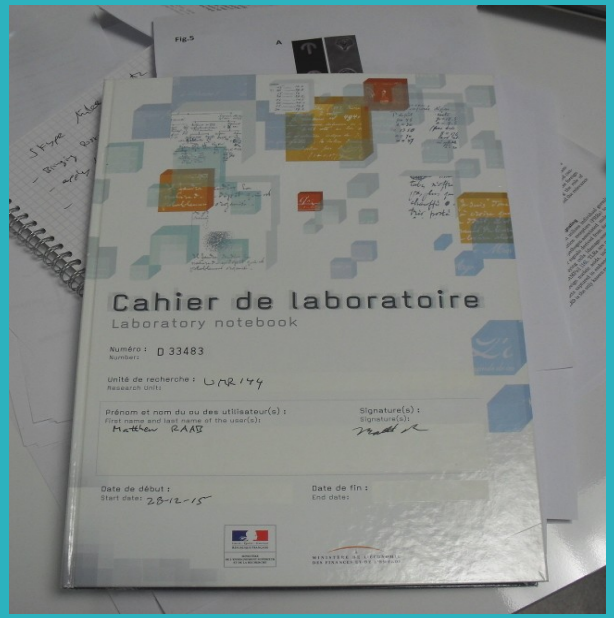


Limitations:

- Can be lost or burned
- No backups
- Often empty
- Not readable by others easily
- Can’t search for something
- Can’t input digital data

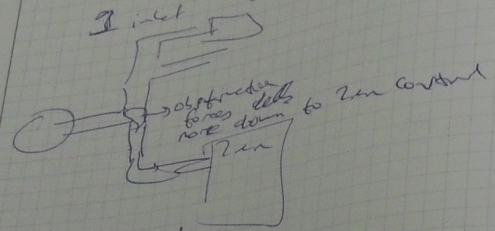
Fig.6

2nd Chip

All 4 tubes used

3 outlet

3 inlet



Eventually want to 200mBar.

Raised to inside microscope for heat, then every few min bring down to mix via stirbar

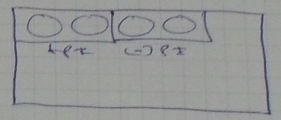
Problem! ① cells not getting into tubes in outlets I think they are stuck here

② cells in LTL are dead → from RT?

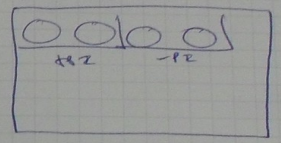
26 Aug 2016

Testing Cell Death THP-1 cells

20K cells

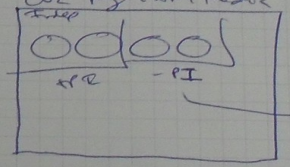


37°C 5% CO_2



37°C No CO_2

CO_2 Rg THP-1 media



25° No CO_2

→ Added PI next day waited 15 min, then imaged dead cells

Imaged every 1-2 hrs, then left all 3 in incubator O/N. Imaged again next day.

Conclusion → PI in media (2ug/mL) kills cells after a few hours. Not 1-2 hrs, but 3-5 hours

- CO_2 Indep media improves things a bit, but RT really isn't so bad for cells

Hard to read

Signature de l'utilisateur :
User's signature:

Témoin (prénom, nom) :

Signature de l'utilisateur :

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Now you want to use an ELN

Problem:

Which one?

“Should we use the free solutions out there?”
“But if it’s free, it means we are the product, right?”
“Those privacy policies mention too many times the word “marketing” to my taste”

Real world example from a commercial ELN:

tracking email invitations you send; and otherwise supporting your use of the Site. We may use your personal data for target advertising toward you based on things such as region, gender, position, interests, goals, habits, etc. and in order to meet legal obligations.

Now you want to use an ELN

Problem:

Which one?

Problem with long term sustainability of proprietary solutions.

→ Only an open source solution is viable in the (very) long term!

Now you want to use a free and open source ELN

Problem:

Which one?

Well, eLabFTW of course!
It’s the most popular, versatile, modern, and secure ELN out there!* ;)

*source: me

eLabFTW

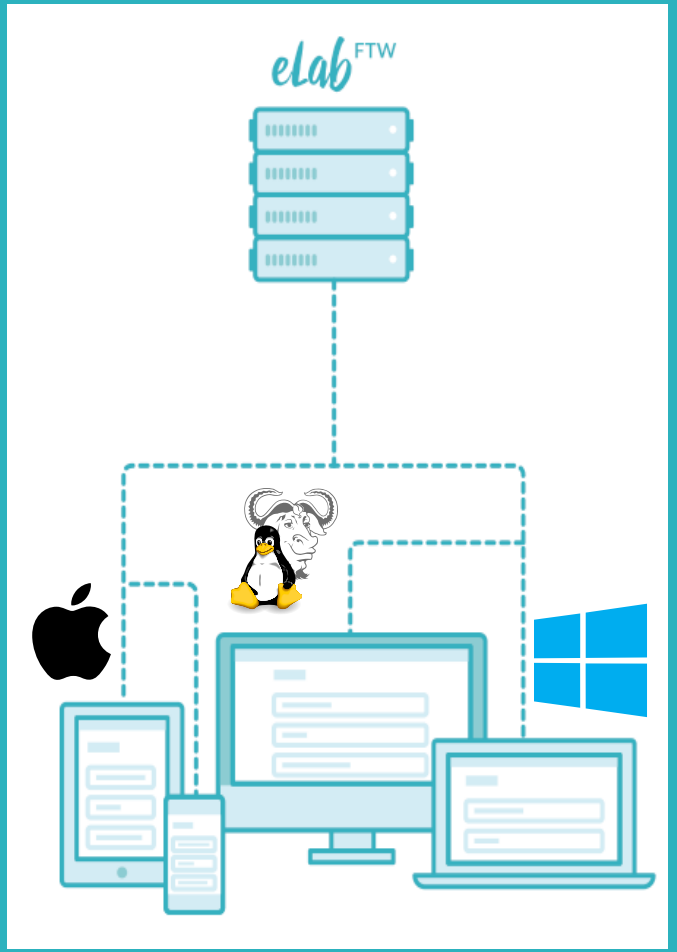
- Developed since 2012
- Free as in beer
- Free as in speech
- Vibrant users community
- Has all features you might expect and then some
- Modern codebase and interface
- Secure
- Popular all over the world
- Loved by users
- Recommended by CNRS
- Made in France

eLabFTW: key features

Web application: works across all operating systems

No client to install

Responsive design: works with all screen sizes
(no apps required)



eLabFTW: key features

Trusted timestamping

RFC 3161 timestamping for experimental data.

Compatible with European Regulation eIDAS 910/eu/2014 and qualified timestamping authorities.

eLabFTW: key features

Blockchain timestamping

Leverage the blockchain technology to timestamp and certify research data.

Address: ResearchCertificate | 0x3fb704dfDB72Fc06860D9F09124C30919488f13C

Decoded

Method Id	0xddf252ad
Call	Transfer(address indexed from, address indexed to, uint256 indexed tokenId)

Name	Type	Indexed?	Data
from	address	true	0x0000000000000000000000000000000000000000
to	address	true	0xc4d84f32cd6fd05e2e292c171f5209a678525002
tokenId	uint256	true	15640

Topics

[0] 0xddf252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef

[1] 0x0000000000000000000000000000000000000000000000000000000000000000

[2] 0x000000000000000000000000c4d84f32cd6fd05e2e292c171f5209a678525002

[3] 0x0000000000000000000000000000000000000000000000000000000000003d18

Data: 0x

Log Index: 0

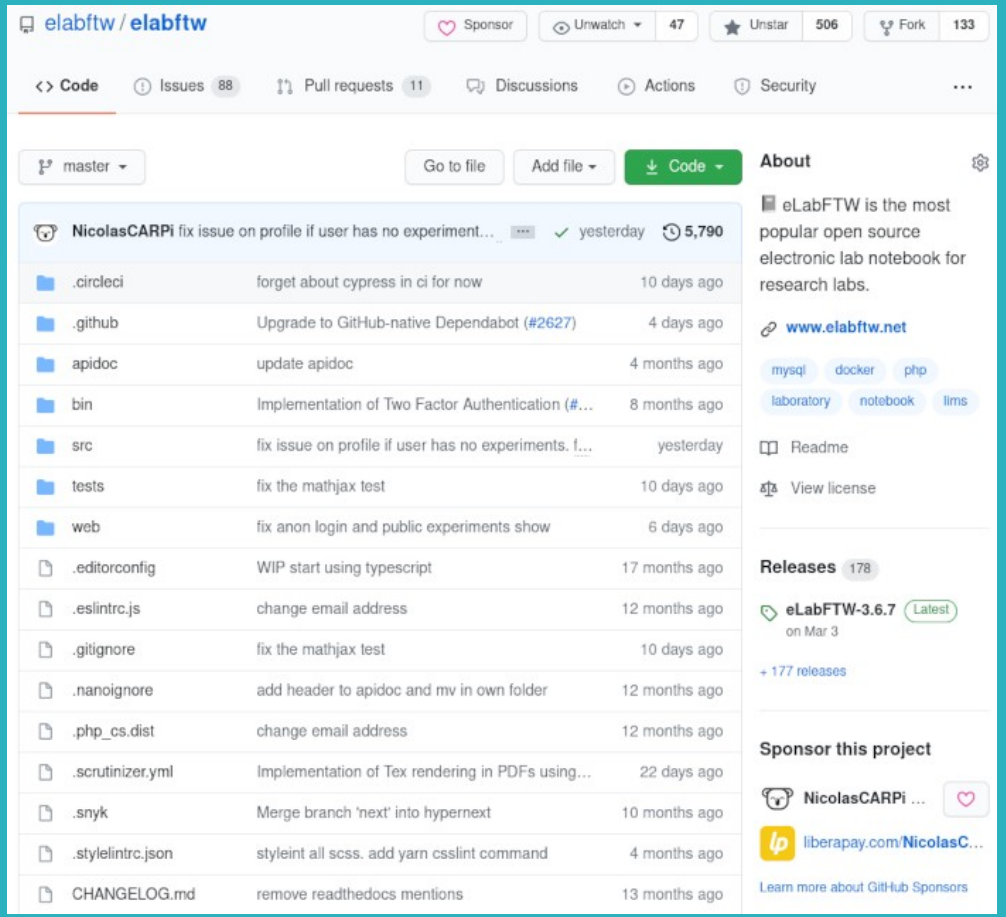
eLabFTW: key features

Completely Open Source

Access to the source code is immediate

Users contributions are welcome

Great community of users: ongoing discussions and contributions for the future of lab notebooks and eLabFTW



eLabFTW: key features

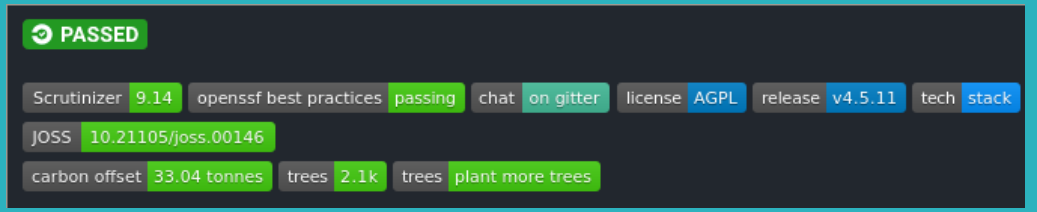
- Trusted timestamping (RFC 3161)
- Blockchain timestamping
- API access
- SAML/LDAP authentication
- Templates for experiments
- Database for products/protocols
- Export in ZIP, PDF, CSV, JSON
- QR codes
- Molecule editor
- Todolist
- Tex rendering
- Very customizable
- Translated in 17 languages

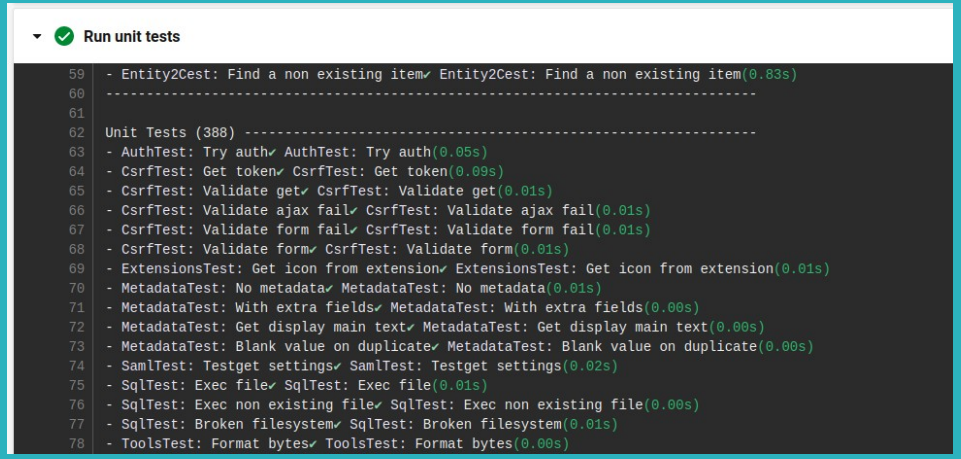
eLabFTW: key features

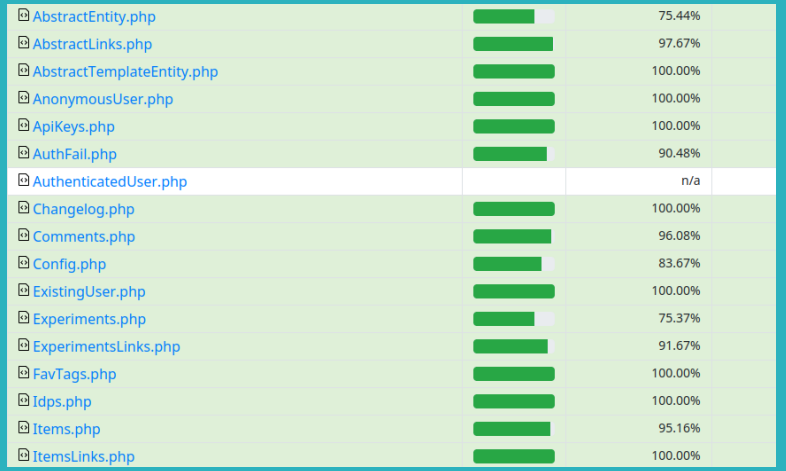
- Strictly no data leaking to third parties
- Confidentiality is guaranteed
- You stay in control of your data at all times
- Highly customizable

eLabFTW: quality software

- Test suite (unit, end-to-end, static analysis)
- Respects code standards
- Best practices followed
- Modern tooling used



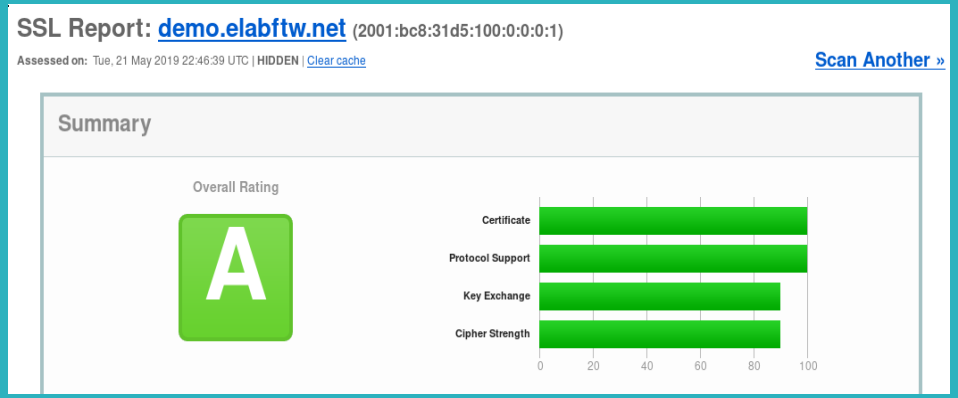




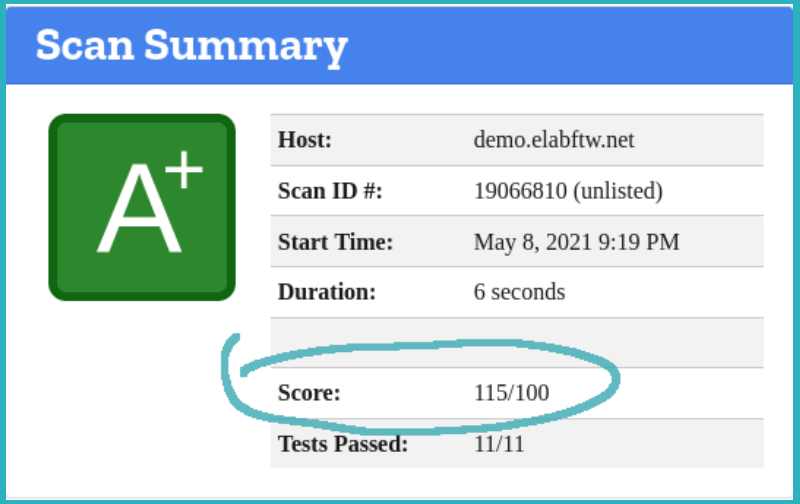
eLabFTW: secure software

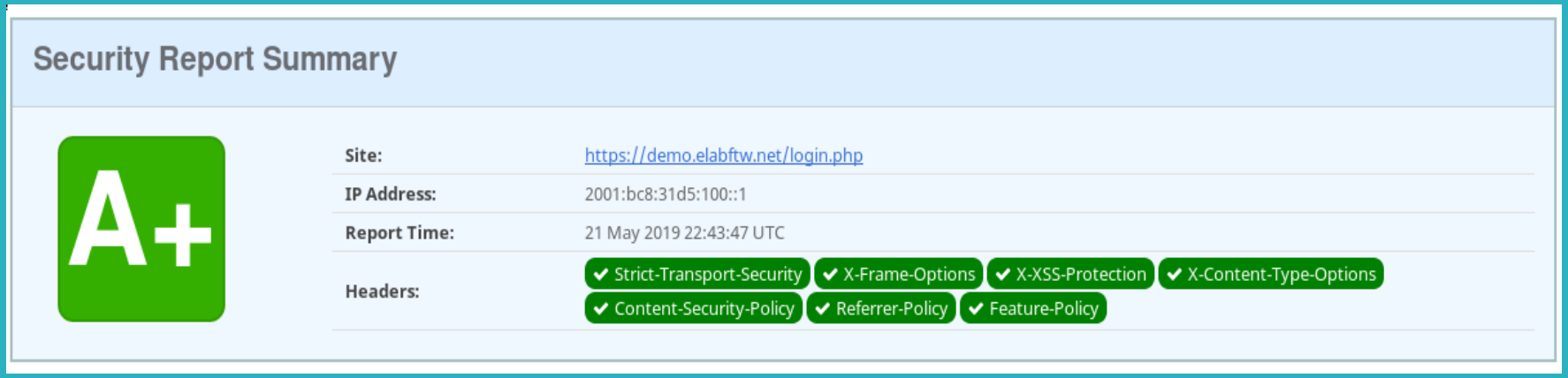
- Tight and secure configuration at different levels
- Vulnerability scans
- Signed releases
- Perfect score on Mozilla’s Observatory

eLabFTW: secure software

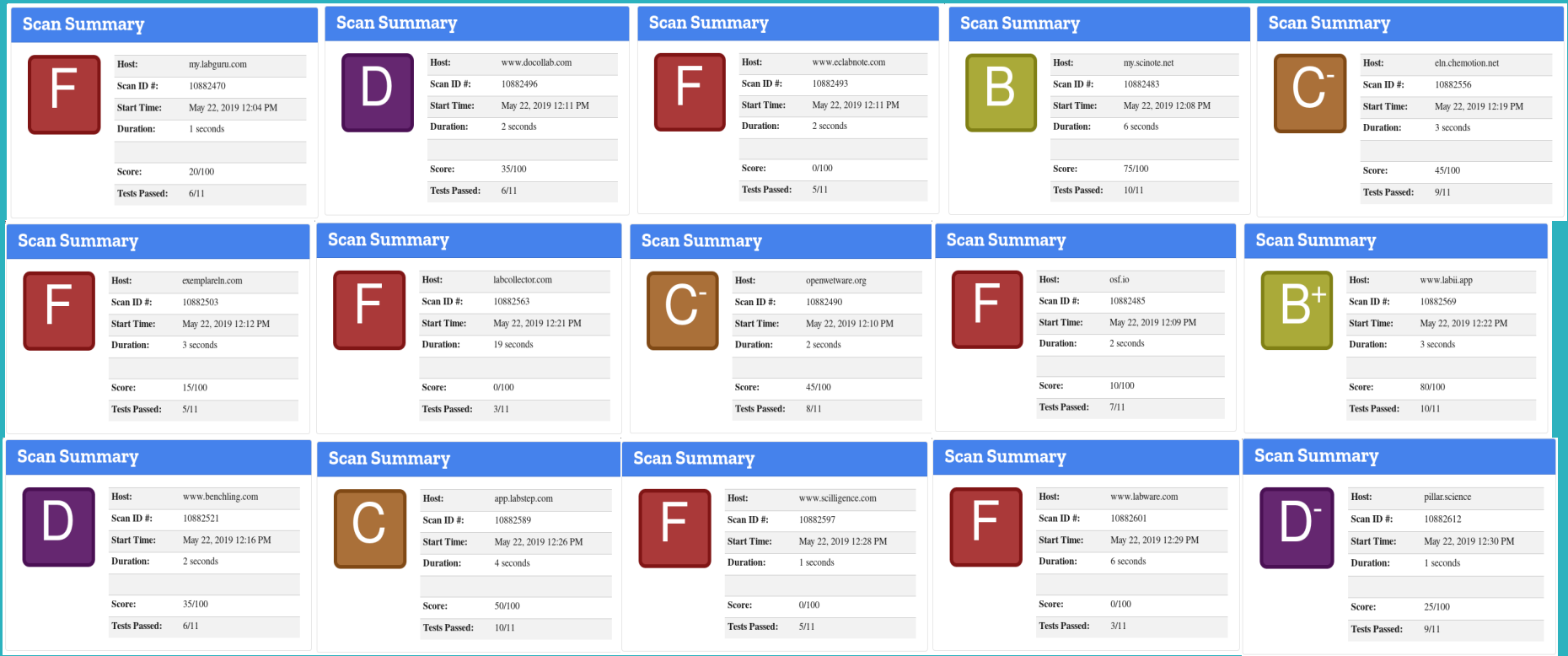


Source: Mozilla's Observatory





eLabFTW: secure software
... not like others...



Scan Summary

Host:	my.labguru.com
Scan ID #:	10882470
Start Time:	May 22, 2019 12:04 PM
Duration:	1 seconds
Score:	20/100
Tests Passed:	6/11

Scan Summary

Host:	www.docollab.com
Scan ID #:	10882496
Start Time:	May 22, 2019 12:11 PM
Duration:	2 seconds
Score:	35/100
Tests Passed:	6/11

Scan Summary

Host:	www.eclabnote.com
Scan ID #:	10882493
Start Time:	May 22, 2019 12:11 PM
Duration:	2 seconds
Score:	0/100
Tests Passed:	5/11

Scan Summary

Host:	ny.scinote.net
Scan ID #:	10882483
Start Time:	May 22, 2019 12:08 PM
Duration:	6 seconds
Score:	75/100
Tests Passed:	10/11

Scan Summary

Host:	eln.chemotion.net
Scan ID #:	10882556
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Duration:	3 seconds
Score:	45/100
Tests Passed:	9/11

Scan Summary

Host:	exemplareln.com
Scan ID #:	10882503
Start Time:	May 22, 2019 12:12 PM
Duration:	3 seconds
Score:	15/100
Tests Passed:	5/11

Scan Summary

Host:	labcollector.com
Scan ID #:	10882563
Start Time:	May 22, 2019 12:21 PM
Duration:	19 seconds
Score:	0/100
Tests Passed:	3/11

Scan Summary

Host:	openwetware.org
Scan ID #:	10882490
Start Time:	May 22, 2019 12:10 PM
Duration:	2 seconds
Score:	45/100
Tests Passed:	8/11

Scan Summary

Host:	osf.io
Scan ID #:	10882485
Start Time:	May 22, 2019 12:09 PM
Duration:	2 seconds
Score:	10/100
Tests Passed:	7/11

Scan Summary

Host:	www.labii.app
Scan ID #:	10882569
Start Time:	May 22, 2019 12:22 PM
Duration:	3 seconds
Score:	80/100
Tests Passed:	10/11

Scan Summary

Host:	www.benchling.com
Scan ID #:	10882521
Start Time:	May 22, 2019 12:16 PM
Duration:	2 seconds
Score:	35/100
Tests Passed:	6/11

Scan Summary

Host:	app.labstep.com
Scan ID #:	10882589
Start Time:	May 22, 2019 12:26 PM
Duration:	4 seconds
Score:	50/100
Tests Passed:	10/11

Scan Summary

Host:	www.scilligence.com
Scan ID #:	10882597
Start Time:	May 22, 2019 12:28 PM
Duration:	1 seconds
Score:	0/100
Tests Passed:	5/11

Scan Summary

Host:	www.labware.com
Scan ID #:	10882601
Start Time:	May 22, 2019 12:29 PM
Duration:	6 seconds
Score:	0/100
Tests Passed:	3/11

Scan Summary

Host:	pillar.science
Scan ID #:	10882612
Start Time:	May 22, 2019 12:30 PM
Duration:	1 seconds
Score:	25/100
Tests Passed:	9/11

eLabFTW: supported software

Free support on GitHub
PRO support available from Deltablot
Hosting available from Deltablot

→ Best of both worlds: supported open source

https://www.deltablot.com

contact@deltablot.email

eLabFTW: get hosted!

Hosting a web service can be tricky if you don’t have the right knowledge.

HSTS, SSH, TLS, CSP, Docker, Nginx, Backups, updates, protecting against threat actors, staying online...

Don’t worry about all of that, and use Deltablot’s hosting!

See Deltablot hosting solution

Get in touch:
contact@deltablot.email

eLabFTW: links

Main website:	https://www.elabftw.net
Documentation:	https://doc.elabftw.net
Live demo:	https://demo.elabftw.net
Source code:	https://github.com/elabftw/elabftw
Commercial website:	https://www.deltablot.com/elabftw