GPL in business

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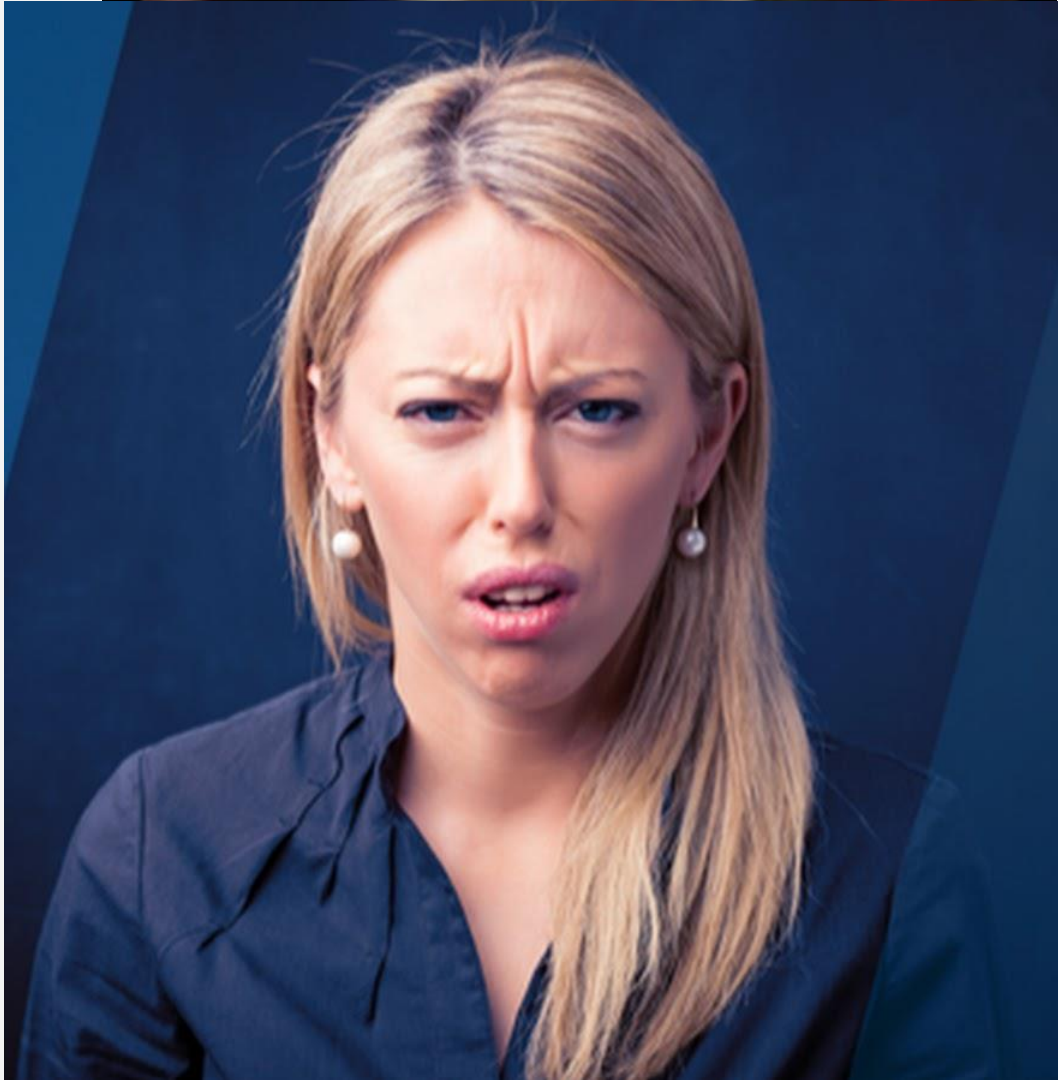
Whoa!

R is licensed:

- R: **GPL-2 | GPL-3**
- packages: GAGPL, BSD, LGPL, MIT, CA-SA i inne
- Rstudio: AGPL / Commercial
- Shiny: GPL-3



Optimization of continuous processes: IVY / SILO

CLIENT EDF Poland, Rybnik Power Station (and 150+ worldwide)

PROBLEM Coal combustion constitutes one of the biggest operational costs for power plants.

SOLUTION

- IVY and SILO are our predictive cotrollers.
- They use Artificial Neural Networks, Artificial Immunological Layer and Fuzzy Logic to optimize the combustion proces.

OUTCOME

- 0.27% better efficacy
- Less equipment stress
- **$300k saved yearly**
  - 4380 tons of CO_2 less ($22k USD saved)
  - 1565 tons of coal less ($140k saved)
  - 665 tons of ammonia less ($135k saved)

GPL vs Business (VRIO)

GPL Free Software

Free as in Freedom

- **Freedom**:
  - 0: to run the program as you wish, for any purpose
  - 1: to study how the program works, and change it
  - 2+3: to redistribute copies, also of your modified versions

Copyleft: derivative work must be open-source and distributed under the same license terms

  - "**Liberty or Death**": can't avoid publishing

VALUE
RARITY
I MITABILITY
ORGANISATION

Dev GPL clash

- You have to share
- Difficulties with some business models (multiple clients)

- They have to share with me
- You really own what you bought

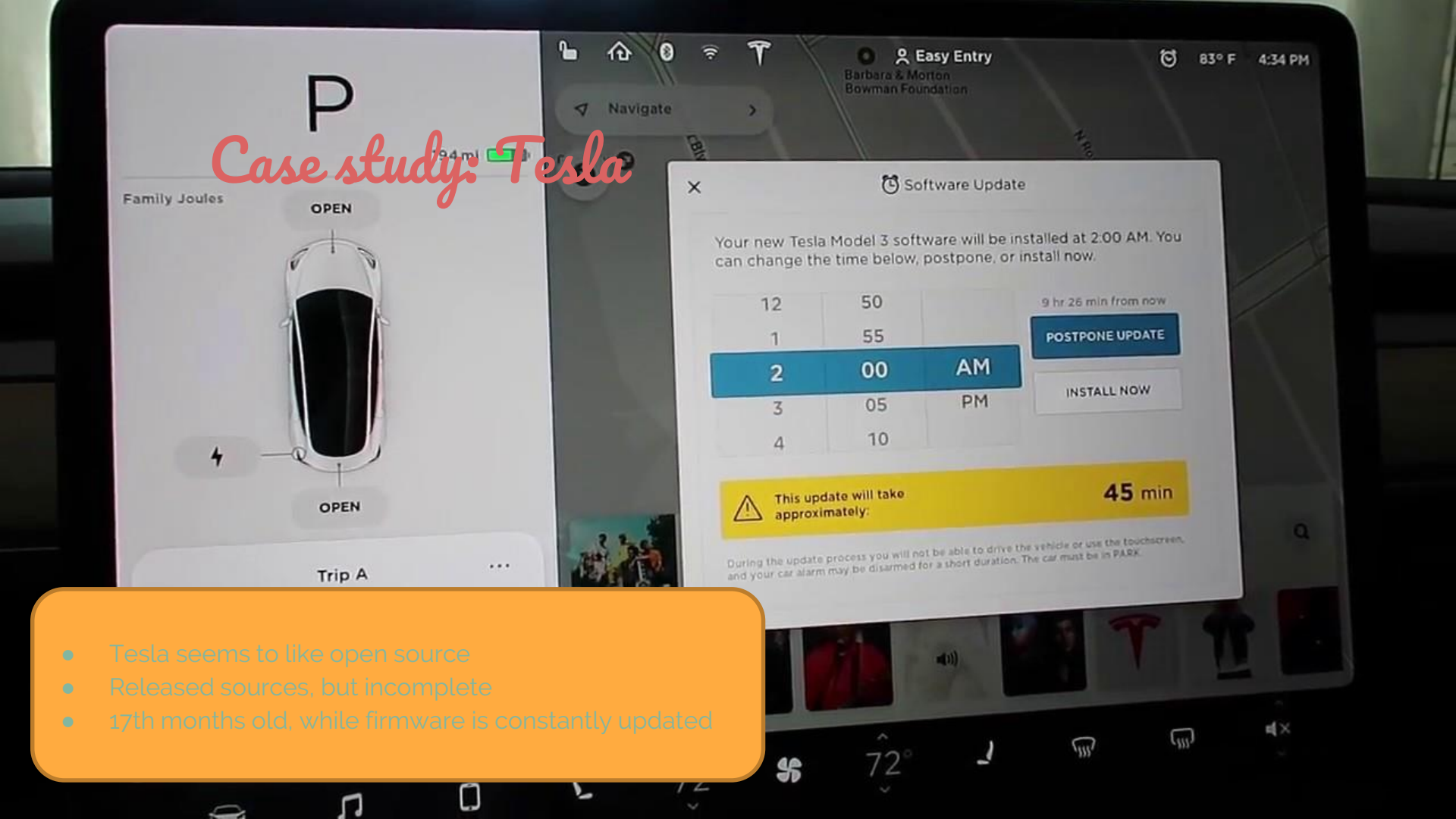
What works for others?

1. Many companies collaborate on product / standard: Linux
2. Internal use / One client business model
3. Bundle
    1. With hardware (smart TVs, cars)
    2. With software (Google's Android)
4. Support, professional services, addons (RedHat, RStudio)
5. SaaS model
6. Obfuscation of source code / source delivery
7. Pardons

How about Data Science?

1. Internal use
2. Source Data doesn't have to be redistributed
    1. Models are treated as data derivative
    2. (we are not artists but craftsmans ☹)
3. Modularization (APIs)
4. Scripts do not fall under GPL (vide Perl case)
5. B2B sales: only customer needs to get the code (promise)

Case study: Tesla



- Tesla seems to like open source
- Released sources, but incomplete
- 17th months old, while firmware is constantly updated

R Reality – licensing transitions

Package	Declared license	"GPL-2 only" direct import/ depends	"GPL-3 only" direct import/ depends	Direct "GPL-2 | GPL-3" or "GPL >=2" import dependencies	Directly uses "GPL-2 only" components	Directly uses "GPL-3 only" components	Indirectly uses "GLP-2 | GLP-3" components (such as R)
data.table	MPL-2.0			R	no	no	yes
DBI	LGPL (≥ 2)			R	no	no	yes
dplyr	MIT		assertthat, rlang, tidyselect	R, Rcpp	no	yes	yes
lattice	GPL (≥ 2)			R	no	no	yes
ggplot2	GPL-2	gtable	lazyeval, rlang	R, digest, MASS, mgcv, withr	yes	yes	yes
magrittr	MIT				no	no	yes
MASS	GPL-2 | GPL-3			R	no	no	yes
Matrix	GPL (≥ 2)			R, lattice	no	no	yes
Rcpp	GPL (≥ 2)			R	no	no	yes
rlang	GPL-3			R	no	yes	yes
rmarkdown	GPL-3	stringr		R	yes	yes	yes
sp	GPL (≥ 2)			R, lattice	no	no	yes
stringr	GPL-2			R, stringi	yes	no	yes
survival	LGPL (≥ 2)			R, Matrix	no	no	yes
tibble	MIT		pillar, rlang	R, fansi	no	yes	yes
zoo	GPL-2 | GPL-3			R, lattice	no	no	yes

Case study: dplyr

hyandell commented on Nov 21, 2016

Hi dplyr folk,

I noticed that dplyr depends on assertthat and lazyeval, both written by Hadley. dplyr is MIT licensed, but the other two are GPL-3 licensed, which would seem a concern (i.e. assertthat/lazyeval licensing affecting dplyr's license).

Would it be possible to relicense assertthat and lazyeval?

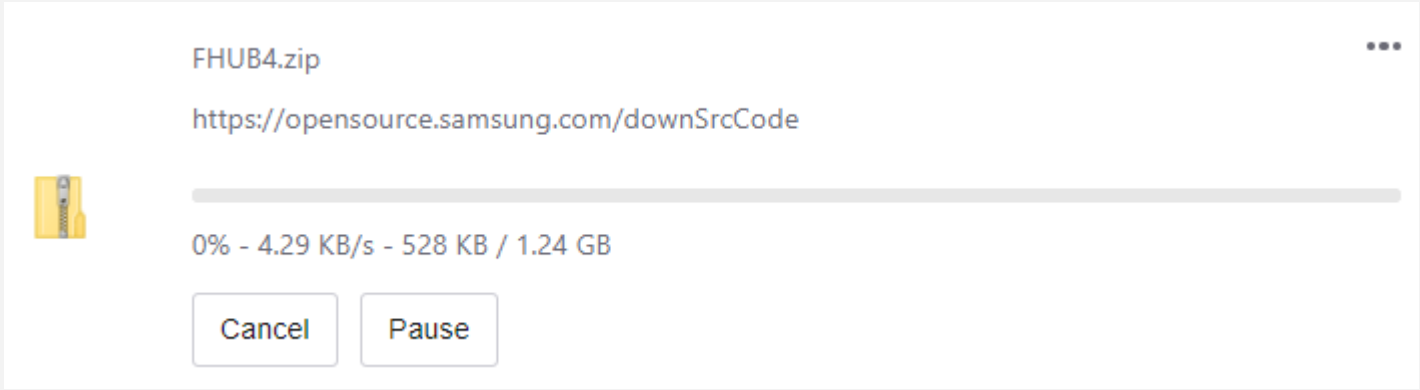
hadley commented on Dec 13, 2016 Member

As far as I know, run-time dependencies are fine. We're not linking to assertthat or lazyeval, and we're not distributing them with dplyr.

hadley closed this on Dec 13, 2016

Case study: Samsung

- I tried to download a source code for refrigerator twice:



Both attempts failed.

Case study: Skoda

Third Party Copyright Notices
Contact address: http://www.skoda-auto.com/softwareinfo

Some products identified by the above model incorporated into this car contain, dependent on type and version, software components that are subject to different licenses, especially open source licenses. Listed below, you will find the open source software components that are used together with the copyright notices, the applicable licenses and the original license texts, which may include warranty disclaimers and an exclusion of liability. The open source software components listed below have been developed by third parties and are copyright protected; they are delivered free of charge. You may use these components under the terms and conditions of the applicable licenses.
The source code for particular open source components incorporated into the product mentioned above may be obtained from ŠKODA AUTO.
Please visit the above contact address for more information.
ŠKODA AUTO will provide you with the source code for a charge covering the cost of performing such distribution (such as the cost of media, shipping, and handling) in accordance with the terms and conditions of the applicable license.

Skoda reply

GPL-2 | GPL-3 source code in Skoda products

Odebrane ×

Support Škoda-info <support@skoda-info.cz>
do kamil

Dear Mr. Sijko,

thank you for your interest.

Unfortunately source code in our infotainment units is not open source and we cannot provide it to you.
We also have to inform you, that any interference in code in your vehicle can affect your car warranty.

Best regards,

František Branda

Informační linka ŠKODA AUTO
800 600 000
infoline@skoda-auto.cz

What if?

- Who can sue?
  - Owner of copyright or representative
  - Client (?)
- What is the damage?
- Court decides individually (in PL).

Thanks!

Does anyone have any questions?

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Transition Technologies S.A.

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