Sustainable Software Goal
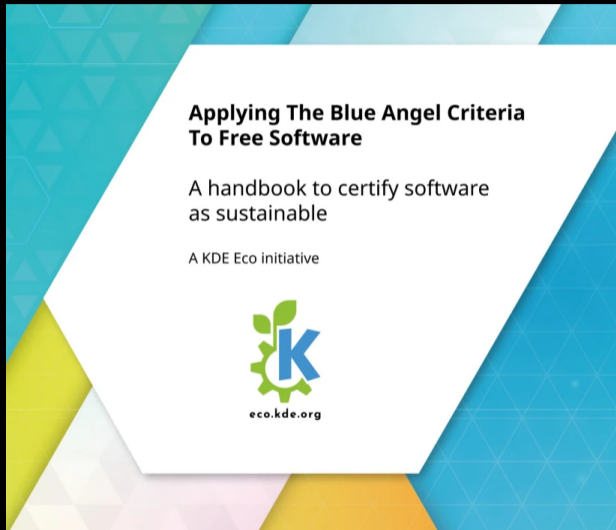

Akademy 15 July 2023

Slides available under "presentations":

invent.kde.org/teams/eco/sustainable-software-goal

KDE Eco Handbook – eco.kde.org/handbook

KDE Eco – In The House Of Lords

KDE Eco – In The German Parliament

Report From The German Parliament's "Sustainable by Design" Conference

Wednesday, 26 April 2023 | Cornelius Schumacher

In March 2023, a conference on Green Digitisation, "Nachhaltig by Design - für eine klimaneutrale Zukunft", took place at the German Parliament. I was invited as an expert due to KDE's experience obtaining the Blue Angel ecolabel for Okular. The Green Party organized the conference, and participants from a wide range of organizations attended, contributing their views and expertise.

The first part of the conference featured keynotes and panels where subject matter experts and political representatives discussed the challenges surrounding sustainable digitisation. Cory Doctorow (Invidious link) spoke about how we lose control of our digital lives as big vendors force changes on users and legal regulations hinder our ability to prevent this. Mojib Latif (Invidious link) presented a scientific perspective on climate change, emphasizing the urgency of taking action to mitigate long-term harmful effects on our global living conditions. Germany's Vice Chancellor, Robert Habeck (Invidious link), provided insight into current political activities and stressed that energy-efficiency isn't getting the required attention yet.

https://eco.kde.org/blog/2023-04-26-sustainable-by-design/

Season of KDE – Heise.de

- **3 Projects** – 3 Mentees
  - **KdeEcoTest** – Mohamed Ibrahim
  - **Blue Angel** – Rudraksh Karpe
  - **Selenium Scripting** – Nitin Tejuja

heise online › Linux und Open Source › Season of KDE 2023: Weitere Schritte zur nachhaltigen Desktop-Umgebung

Season of KDE 2023: Weitere Schritte zur nachhaltigen Desktop-Umgebung

Acht Studierende haben in zwölf Wochen die Benutzerfreundlichkeit einiger KDE-Anwendungen verbessert und an der Energiemessung von Software gearbeitet.

Lesezeit: 3 Min. | In Pocket speichern

(Bild: lovelyday12/Shutterstock.com)

08.05.2023 11:55 Uhr

Von Tim Schürmann

https://www.heise.de/news/Season-of-KDE-2023-Weitere-Schritte-zur-nachhaltigen-Desktop-Umgebung-8989974.html
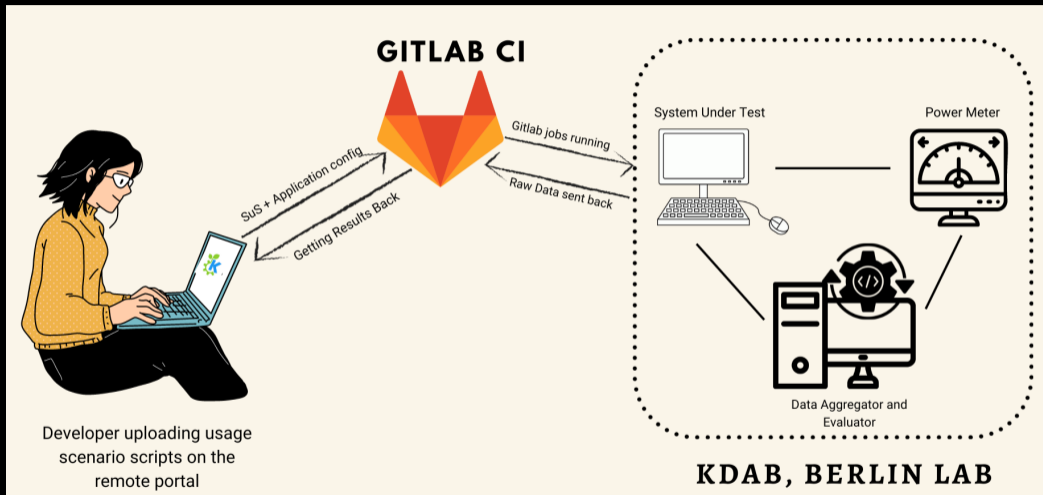
Three KDE Goals – In One Project

SoK 2023 Selenium-AT-SPI KDE Eco Power Measurement Proof Of Concept: Achieving Three KDE Goals With One Stone!

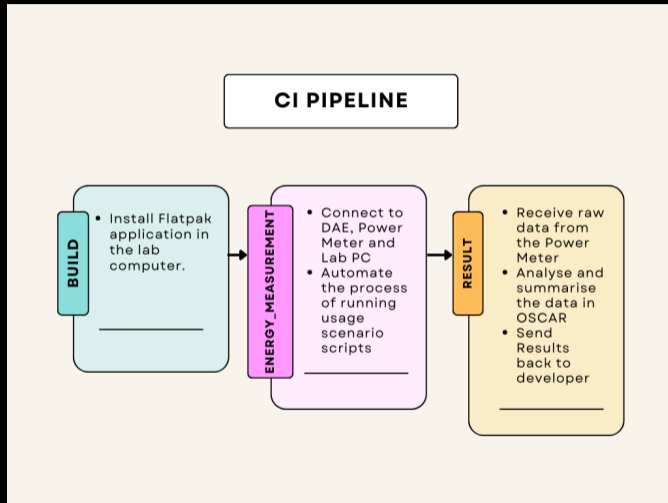Thursday, 4 May 2023 | Emmanuel Charruau

Why Use Selenium-AT-SPI

Last year, Okular, KDE's advanced document reader, became the first software product ever to receive the Blue Angel eco-label. This certification recognises Okular as having a sustainable software design.

https://eco.kde.org/blog/2023-05-04-sok23-kde-eco-selenium-sum-up/

KEcoLaB

https://eco.kde.org/blog/2023-06-13-gsoc23-energy-measurement-lab/

KEcoLaB

Awesome Sustainable Software List

Resources

Software

Lists

- Open Sustainable Technology - Comprehensive list of open source projects in environemntal sustainability
- Green Software - List of research, tools, code, libraries, and training for building environmentally sustainable software by Green Software Foundation
- DDSC's Sustainable Data Science Guide - List of resources on sustainable data science

Projects

- kube-green - Kubernetes addon that automatically shuts down resources
- CO2.js - Tool for estimating emissions of apps, websites, software by Green Web Foundation
- Mojo - New programming language meant to be a more efficient version of Python for AI developers, by creator of LLVM and Swift

🔗 Software-Driven Energy Consumption

Sustainable Software Design

- The Karlskrona Manifesto for Sustainability Design - Thoughts about principles and commitments for sustainable design
- The era of green software - Talk about sustainability in the world of software and computing

Green Coding

- Green Coding - Paper about green coding concepts

Measurement Tools

- Green Coding Measuring Tools - Overview of tools to measure energy consumption and carbon emissions of software
- Green Metrics Tool - Tool to measure resource usage of software by Green Coding Berlin
- German: "Energieverbrauch von Software: Eine Anleitung zum Selbermessen" - Instructions how to do a basic measurement of energy consumption of software

https://invent.kde.org/teams/eco/sustainable-software-goal/-/blob/master/awesome-sustainable-software.md

Akademy Talks

Sustainable Software:

- Sat. 12:30-13:00: Measuring Energy Consumption Of Software, Volker
- Sun. 14:30-15:10: Selenium GUI Testing, Harald
- Mon. 10:00-11:00: Measuring Software's Energy Consumption, Volker & Joseph

Related:

- Sat. 15:15-15:55: Flatpak & KDE, Albert
- Sat. 16:25-17:05: Documentation Goals & Techniques For KDE And Open Source, Thiago
- Sat. 17:55-18:35: KDE Embedded - Where Are We?, Andreas
- Sun. 16:30-16:40: Fun With Charts: Green Energy In System Monitor, Kai

KDE ECO – To-Dos

- Test Selenium guide
- KDE Eco badge
- Eco tab
- How can you help?

KDE Goals – Coming Up

- Crossover presentations across Goals?
- Joint Sprint (next year)
- Your ideas?