Truck Instrument Cluster powered by Bevy

Florian Bartels

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Our software moves the world

Elektrobit is an award-winning, visionary global supplier of embedded and connected software products and services for the automotive industry.

We offer flexible, innovative solutions for car infrastructure software, connectivity and security, automated driving and related tools, and user experience.

In addition to our engineering services, we provide end-to-end automotive cyber security solutions with our partner Argus.

As a trusted partner of the world's leading car makers and suppliers, we have been pioneering software solutions for the automotive industry for over 35 years.

Our recent contributions span software integration for Ford SYNC and a revolutionized vehicle infrastructure architecture for the Volkswagen ID.3 to innovations in user experience and infotainment components for Sony Honda Mobility's AFEELA prototype.
Welcome to the future of mobility. Head to our website **elektrobit.com** for more success stories.

Company key facts

Ranked as top 3 automotive software companies in Germany two years in a row by Focus Money

Spans three continents and twelve countries with 24 offices worldwide

More than 4000 Elektrobit employees, and over 500 in our e.solutions GmbH joint venture

Our products

EB corbos

Adaptive AUTOSAR basic software, Linux operating system, hypervisor, operating system, and integrated development environment for HPCs

EB tresos

AUTOSAR-compliant basic software, hypervisor, operating systems, and tools for ECUs

EB zoneo

Efficient and reliable solution for safe, scalable, and secure in-vehicle communication

EB zentur

Automotive software solutions & development for end-to-end security

EB cadian

Vehicle life cycle management for connected cars through software updates over the air

EB robinos

Hardware-agnostic software components for automated driving

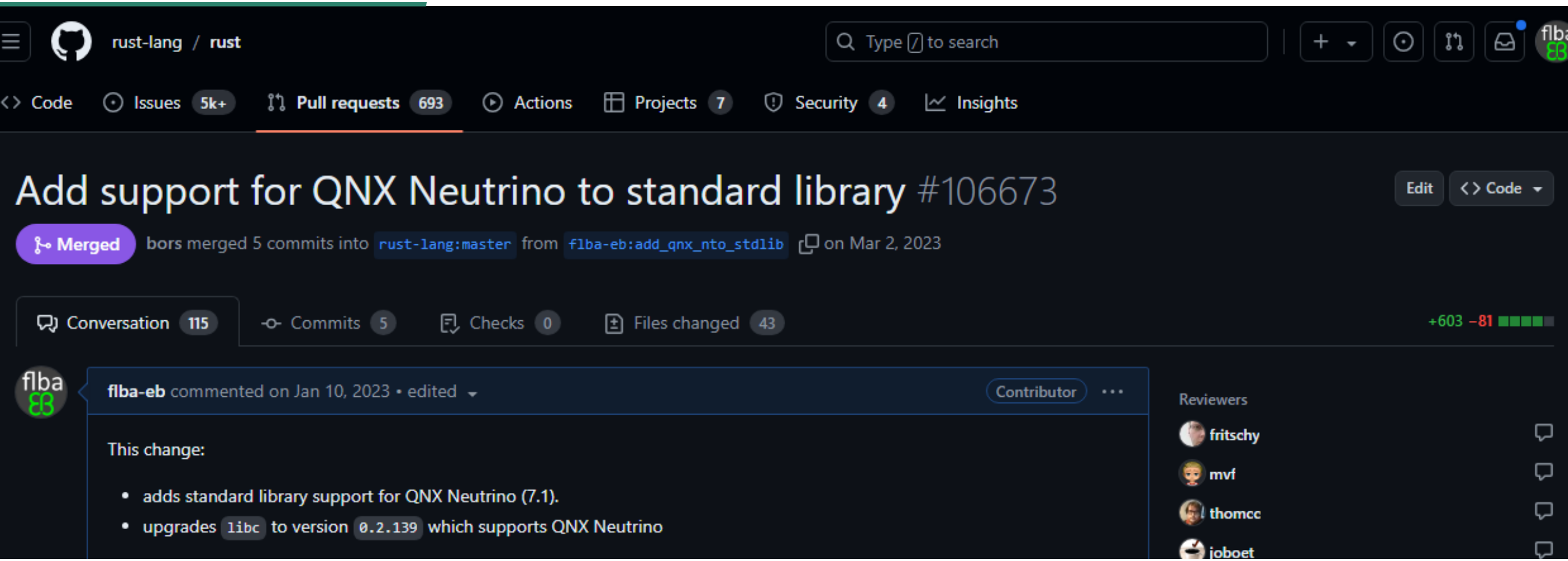
EB Cockpit System Solutions

Solutions for intelligent digital cockpits


© Sony Honda Mobility

How it started

Let’s add Blackberry QNX to Rust (stdlib)!



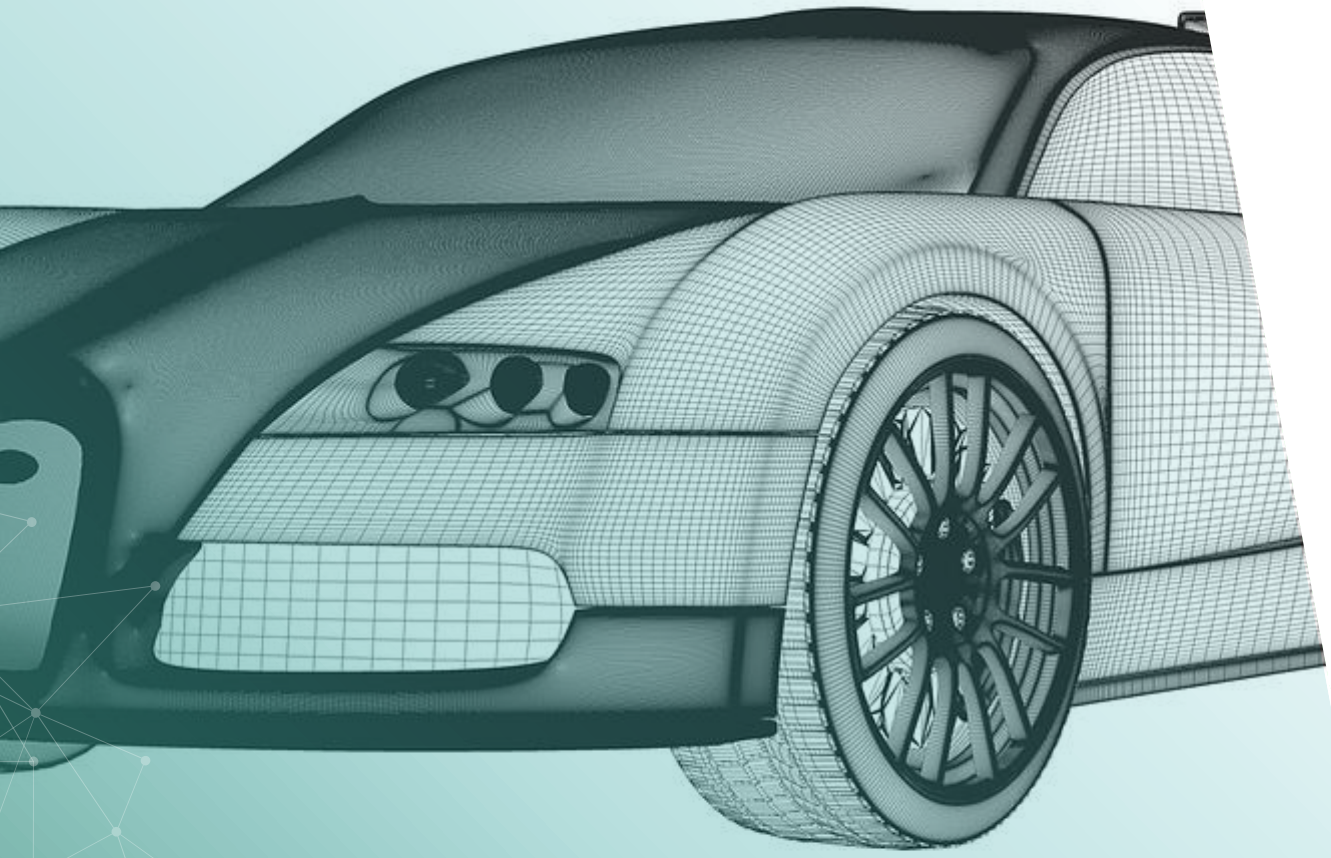

52
oxidize
Elektrobit

Bevy on QNX, Adreno 640

Things I wish would be working:

3D

i.e.: working combination of shader code, wgpu and shader compiler



https://pixabay.com/illustrations/bugatti-veyron-car-auto-vehicle-1651718/

Bevy for Instrument Clusters

Lessons learned, conclusion

- Using Bevy right after learning Rust a bit can be very productive (ECS prevents borrow checking issues?!)
- Not one single crash observed
- Dev: **“About as productive as with other HMI (*) tools”**

➔ It was a **successful experiment**!

Q: Is there someone who wants to help me getting 3D running?

* Human Machine Interface („User Interface“)

Contact us

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Elektrobit – Our software moves the world

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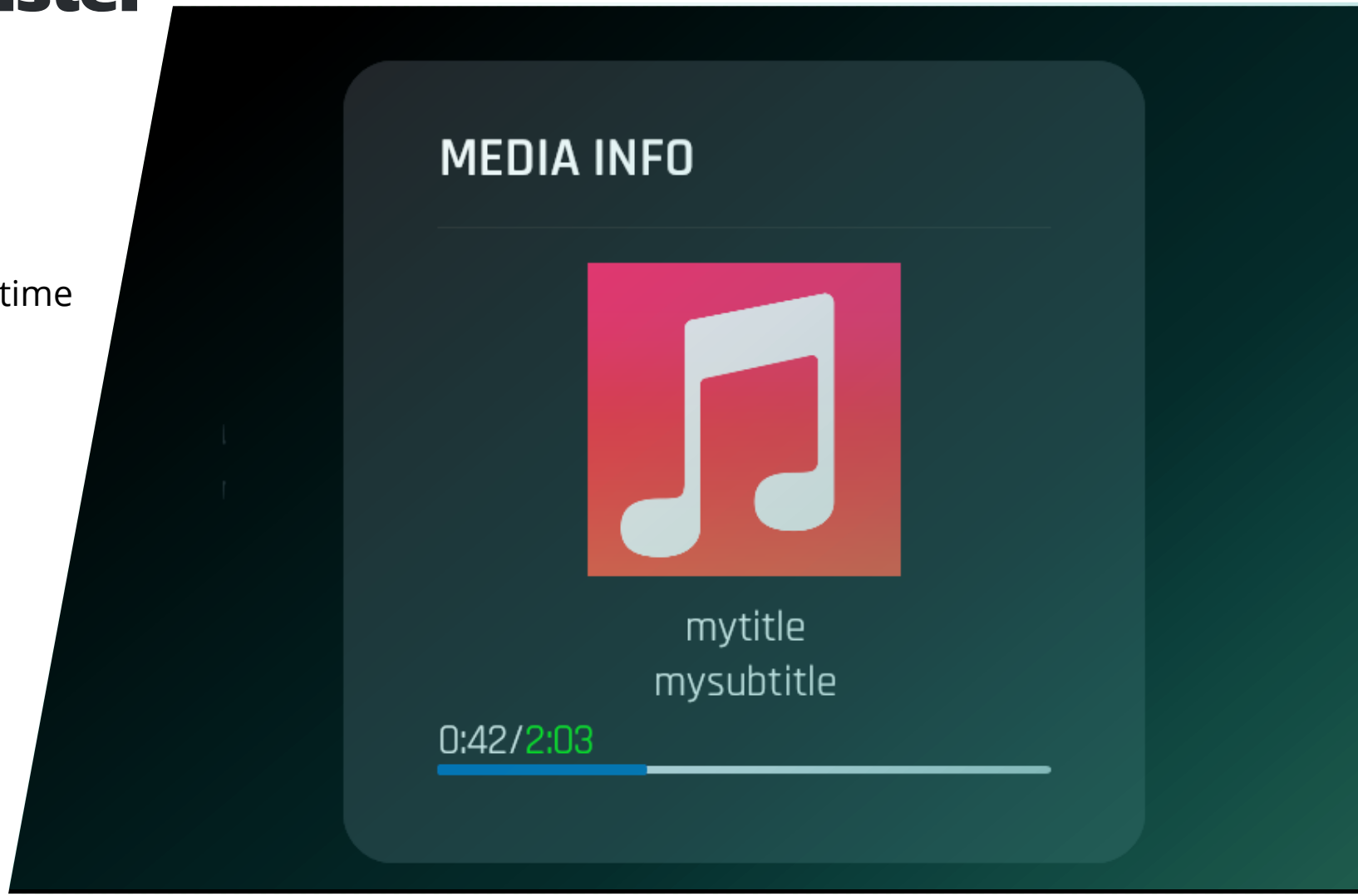
Bevy Instrument Cluster

Things that would make us (even) faster

UI nodes that allow arbitrary children

- e.g. rectangles
- Report unsupported types at compile time (instead of panic)



Bevy for Instrument Clusters

Q & A

- Why use a gaming engine for an instrument cluster?
- How much effort was it to regularly update to new Bevy versions?
- Would you use it in customer projects as well?
- Is it open source?