A Zephyr User Story

Franco Saworski
ProGlove

- First bare metal
  - Hardware components dictated by product
  - Bare metal prototypes became product
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- Then port to Zephyr
  - Externalize build system
  - Abstract architecture
  - Modular board support
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  - Modular board support
- From prototype to CE in twelve, later nine months
• Zephyr on the sensor unit from day one
• From prototype to CE in six months
Lessons Learnt

- Four years shipping industry grade products with small teams in startups
- First job bare metal
  - Did not scale
  - Reinventing the wheel
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  – Ported too many legacy dependencies
  – Did not upstream enough custom code
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- Second job native Zephyr
  - Still not upstreaming enough
  - Using off the shelf components where possible
  - Sticking them together with Zephyr
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Requirements

GOALS
STRATEGY
TEAM
IDEAS
INNOVATION
MARKETING
PERFORMANCE
BUSINESS
COMPETITION
PLAN
Requirements

Product

- Fast prototypes
- Fast iterations
- Fast to market
Requirements

Product

• Fast prototypes
• Fast iterations
• Fast to market
• Low resources
• Growing feature backlog
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Development
• Solid build system
• Solid architecture
• Solid interfaces
• Solid ecosystem
Requirements

Product
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Development
- Solid build system
- Solid architecture
- Solid interfaces
- Solid ecosystem
- Community
- Standards
The RTOS choice

- Hardware Support
- Toolchain
- Testing
- APIs / Interfaces
- Drivers
- Application libraries
- License
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- Zephyr
- mbedOS
- Contiki
- FreeRTOS
- (RiOT)
Looking back

- Zephyr meets all requirements
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- It helped me ship products fast
Looking back

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• It helped me ship products fast
• I was able to maintain products with small teams
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Thank you!
Questions?

Join the monthly Munich Embedded Meetup: https://groups.io/g/embeddedmeetup

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