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RZ Ecosystem Partner Solution
Codewerk PROFINET Integration

Solution Summary

Codewerk is your "one-stop-shop" development partner for implementing, testing and certifying PROFINET and its various application profiles (e.g., PROFIsafe, PROFIdrive, PROFIenergy) for all conformance classes A, B, C (IRT) and D (TSN) for suitable Renesas RZ/T2M and RZ/N2L series of MPUs.

Features/Benefits

- Integration / Porting of suitable PROFINET stacks into your Ethernet-capable system
- Codewerk's Embedded System Integration Check Framework (ESIC) for Continuous Integration (CI) and automated Continuous Testing (CT)
- Test environment with official PI test tools (ART, ETS, SPIRTA, Netload)
- Certification process guidance and support

Diagrams/Graphics

Your requirements — Host Platform, PN Profiles, Operating System → Customer-specific integration concept → PN stack adaptation

Our expertise — PN feature implementation, ESIC, PN profile integration → Certification process

Your result — PROFINET-certified product

Target Markets and Applications

- Industrial automation
- Industrial IoT (IIoT)
- Factory automation
- Process automation
- Railway sector

www.codewerk.de/Renesas-MPU

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WE'LL SPEAK PROFINET FOR YOU

i **Support for modern fieldbuses such as PROFINET is becoming increasingly important in industrial applications and networked plants.**

i **We take care of the design, implementation, integration, and certification of your hardware and software.**

i **With our continuous integration framework for system testing during development, you can rely on a secure and high-quality implementation.**

WHAT MOVES YOU:

More and more Industry 4.0 applications require PROFINET. As a Renesas MCU / MPU user, how can you expertly integrate PROFINET and achieve certification to sell your products on time?

WHAT ADDS VALUE FOR YOU:

With our help you can concentrate on your core competences again. Codewerk's carefree package covers the entire process of modifying an existing PROFINET stack for your selected Renesas MCU or MPU, your platform and/or (real-time) operating system. The final step is the certification in a PI-registered laboratory. We master all PROFINET conformance classes, including Class C (IRT) and Class D (PROFINET-over-TSN) and use all official test suites such as ART, ETS and SPIRTA to pre-test the integration. It's also possible to integrate individual PROFINET profiles like PROFIsafe, PROFIdrive, PROFIenergy, and PROFIprocess/PA.

WHAT WE DO DIFFERENTLY:

Many things! For example, we give you the freedom to choose between the Siemens PN (PROFINET) stack and the new PI community stack. Both prepare you for future tasks such as PROFINET-over-TSN. The decision is based solely on your requirements. In the process itself, we rely on continuous integration and powerful, automated testing with Codewerk's Embedded System Integration Check Framework (ESIC). Our goal is to maximize your functional reliability, time and budget with our expertise in industrial communication.

PROFINET INTEGRATION WITH CODEWERK IS…

SIMPLE   **PREDICTABLE**   **FUTURE-PROOF**   **CAREFREE**