



Caption: The Percepio Detect dashboard, shown here with example data from the GitHub demo, now also supports IAR Embedded Workbench®.

High-res image available: <https://percepio.com/press/photos/Percepio-Detect-2025-2.png>

Percepio Detect 2025.2 Makes Firmware Freezes Visible

New release delivers faster debugging, smaller core dumps, expanded IAR Embedded Workbench® and Arm support, and TaskMonitor for automatic anomaly detection

Västerås, Sweden – 25 November 2025 – Percepio AB, a leading provider of observability solutions for embedded and edge systems, today announced the release of Percepio Detect 2025.2, the latest upgrade to its advanced observability platform. The release introduces TaskMonitor, a user-inspired feature that automatically turns firmware freezes, overloads, and timing anomalies into actionable insights – helping developers diagnose elusive issues on resource-constrained devices faster than ever.

Detect 2025.2 builds on Percepio’s self-hosted observability platform, offering unlimited on-device monitoring with “security-camera-style” trace capture that records only when unusual events occur. The upgrade also brings improved support for Armv8-M cores like Arm Cortex-M33, tighter integration with IAR Embedded Workbench®, and smaller, more efficient core dumps.

User-Inspired Innovation

The TaskMonitor feature is a firmware monitor that continuously tracks CPU activity per thread, automatically detecting freezes, overloads, and timing anomalies that traditional debugging tools often miss. Traces captured by the TaskMonitor feature can be analyzed in Tracealyzer®,

Percepio's visualization tool for embedded software behavior, providing detailed insight into anomalies and system operation.

This new technology was developed in response to a real-world developer challenge: intermittent freezes that required power cycling, which does not leave any diagnostic data in RAM. Traditional tools offered no way to trigger logs or breakpoints on the absence of events, leaving developers with no insight into rare, timing-related issues.

“The TaskMonitor was inspired by real customer pain points and addresses a common diagnostic blind spot,” said Johan Kraft, CTO and founder of Percepio. *“With new Armv8-M and IAR Embedded Workbench support, Detect 2025.2 gives developers immediate clarity into the most difficult software issues.”*

Key Enhancements in Percepio Detect 2025.2

- **TaskMonitor – Automatic detection of CPU load anomalies**
Runs inside device firmware and continuously tracks CPU activity per thread. When an anomaly occurs, due to a freeze, overload or other bug, Detect stores a trace automatically within milliseconds for later analysis.
- **Support for Armv8-M-Based Microcontrollers like Arm Cortex-M33**
Enables modern secure MCUs to leverage Detect’s crash diagnostics and anomaly detection.
- **More compact core dumps**
Optimized core dump handling reduces memory usage; example dumps are as small as 332 bytes, enabling fast capture and upload even on bandwidth- or memory-constrained systems.
- **IAR Embedded Workbench integration**
Offers a streamlined setup and workflow for one of the industry’s most widely used embedded development environments.

Availability

Percepio Detect 2025.2 is available immediately for FreeRTOS-based systems, with Zephyr and Embedded Linux support in active development.

More Details and Resources:

- [From Crashes to Clarity](#) – Percepio blog on the Detect 2025.2 release
- [Hands-on Continuous Observability examples on GitHub](#)
- [Updated Tracealyzer integration guide](#) for IAR Embedded Workbench
- Percepio White Paper on [Embedded Continuous Observability](#)

About Percepio

Percepio AB provides industry-leading observability solutions for embedded and IoT software, including [Tracealyzer®](#), [Percepio Detect](#), [DevAlert®](#), and the new [Percepio View/Profile](#) tools. These solutions help developers accelerate time-to-market, improve code quality, and reduce

system downtime through continuous observability, deep visual diagnostics and real-time feedback.

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Reader Enquiries

Percepio AB
Andreas Lifvendahl
Phone: +46 70 516 7802
andreas.lifvendahl@percepio.com
percepio.com

Press Contact

Monika Cunnington
Phone: +31 617 840 559
monika@cunningtoncorner.com

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