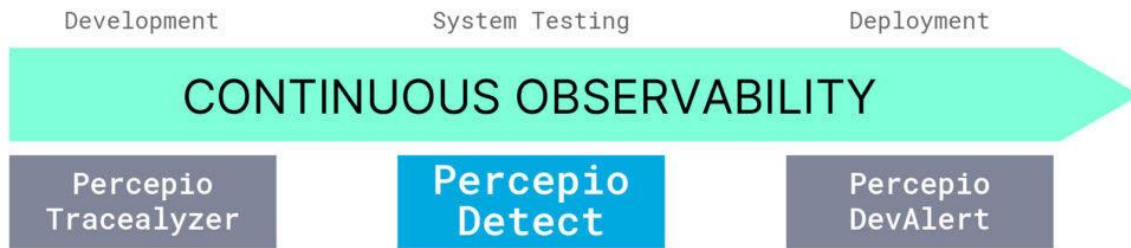![Percepio logo - CONTINUOUS OBSERVABILITY]

FOR IMMEDIATE RELEASE

Caption: Percepio Detect enhances the observability ecosystem for embedded systems, bridging development, testing, and deployment with tools like Tracealyzer and DevAlert, ensuring unmatched software quality and reliability.

High-res image available: *https://percepio.com/press/photos/Percepio-Detect.png*

Percepio® Launches Percepio Detect™: Spearheading Observability Driven Development for Embedded Software

Västerås, Sweden, 21 January 2025 – Percepio AB, a leader in continuous observability solutions for embedded systems and edge devices renowned for its award-winning product Tracealyzer®, announces the launch of **Percepio Detect**, a groundbreaking tool that redefines how embedded software developers tackle testing, debugging, and observability challenges. Supporting the new best practice of Observability Driven Development (ODD), Percepio Detect enables next-generation DevOps for embedded software by seamlessly extending the capabilities of existing Continuous Integration and Continuous Testing (CI/CT) processes. Designed for edge devices and real-time systems, Percepio Detect empowers developers with real-time anomaly and brittleness risk detection, and actionable debugging insights, while offering businesses a quantum leap in product quality and reliability.

New Capabilities for Embedded Development and Testing Teams

Percepio Detect is engineered to make life easier for embedded software engineers by addressing critical challenges in modern development workflows:

- **Detect Anomalies Early**: Monitor runtime performance during testing to identify subtle "near misses" and other stability risks that might otherwise evade detection.
- **Debug Faster and Proactively**: Automatically capture detailed diagnostic snapshots – complete with core dumps, call stacks, and system traces – on the first occurrence of issues, saving days or weeks of debugging time. Analyze real forensic data from the system under actual execution and occurrence of anomalies.
- **Empower Teams**: With a centralized server dashboard and remote access, teams can collaborate seamlessly to resolve issues in real time, even on production hardware.

"This tool is like adding an advanced early warning system to your embedded software projects. Percepio Detect ensures developers catch anomalies before they escalate into costly problems," said Johan Kraft, CTO and founder of Percepio AB. He added: *"For example, you would know when the watchdog timer has timed out, but more critically for quality assurance, you'd be notified if defined safety margins are breached."*

Observability is Needed Beyond Cloud-Native Environments

Percepio Detect represents a transformative opportunity to stay ahead in the competitive and heterogenous embedded systems market, where increasing complexity and connectivity demand advanced observability solutions from the start of every project. With comprehensive testing of products before market release becoming impracticable, every software-centric business needs to adhere to the Observability Driven Development paradigm.

- **Rapidly Growing Market Opportunity**: With the global market for embedded systems projected to surpass $200 billion by 2026, demand for observability solutions is booming across industries – not just in safety-critical applications.
- **Scalable On-Premises Solution**: Built to accommodate diverse hardware and software configurations, Percepio Detect integrates seamlessly into local development environments without relying on cloud services. This offers unparalleled flexibility, data privacy and security.
- **Return on Investment**: By reducing debugging cycles and preventing reliability issues in production, Percepio Detect delivers substantial time and cost savings, increasing profitability for organizations. It also helps companies meet emerging cybersecurity regulations that require continuous monitoring of system behavior and performance. Designing with observability in mind from the outset can save businesses from costly risks downstream.

Andreas Lifvendahl, CEO of Percepio AB, commented, "*While cloud-native companies like Dynatrace and Splunk focus on large-scale IT environments, we're bringing deep observability to the edge, where real-time insights are critical.*" He continued: "*Percepio Detect demonstrates our commitment to enabling Observability Driven Development (ODD) for the embedded community, helping them achieve faster, more reliable development-and-test iterations and higher quality software.*"

Addressing the Cascading Complexity of Embedded Systems

The rise of RTOS-based embedded systems has brought new complexities, including multithreading errors and sporadic stability issues. Traditional testing methods often fail to address these challenges effectively. Percepio Detect fills this gap by delivering proactive observability tailored to the nuances of embedded systems, making it an essential tool in today's development, CI/CT and deployment lifecycles.

In summary, Percepio Detect provides companies in the embedded space these unique differentiators:

- **Proactive Stability Monitoring**: Alerts for anomalies such as timing violations and watchdog timer safety margin breaches, along with detection of software performance degradation.
- **Seamless Integration**: Runs entirely on local servers, ensuring data privacy and simplicity, and enabling team collaboration through shared dashboards that link anomaly alerts to diagnostic payloads.
- **Complementary Ecosystem**: Works in synergy with Percepio Tracealyzer for visual debugging and analysis of diagnostic payloads, and can easily be extended with Percepio DevAlert for device monitoring post-deployment, creating a comprehensive observability feedback loop for embedded systems.

Meet Percepio at Embedded World 2025

Percepio invites customers and press to meet with representatives at the Embedded World show in Nuremberg, March 11-13, 2025. Percepio will co-exhibit with the Zephyr Project c/o The Linux Foundation (Hall 4 / Booth 4-170) and Logic Technology B.V (Hall 4 / Booth 4-238).

For more information about Percepio Detect and how it transforms embedded systems development, visit https://percepio.com/detect/.

About Percepio

Percepio AB offers continuous observability for critical edge and embedded software systems throughout the product lifecycle, enabling accelerated software development, higher software quality, and lower deployment risks. During application development, Percepio Tracealyzer® offers real-time observability through advanced software tracing and visualization, reducing time-to-market and improving software quality at launch. During system testing, the new Percepio Detect™ enhances these capabilities with proactive observability and anomaly detection, supporting next-generation DevOps for embedded software by seamlessly integrating with Continuous Integration and Continuous Testing (CI/CT) processes. In deployed operation, Percepio Detect bridges seamlessly with Percepio DevAlert®, providing secure observability in deployment and maintenance phases, ensuring continuous improvement of product reliability, security, and performance. The technology is a scalable on-premises solution that supports a diverse range of devices, from small IoT nodes to powerful multicore SoCs.

Percepio collaborates with leading vendors of processors and operating systems within embedded systems and IoT such as Arm, Infineon, NXP Semiconductors, STMicroelectronics, Renesas Electronics, Wind River Systems, and Lynx Software Solutions. For more information, visit percepio.com.

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