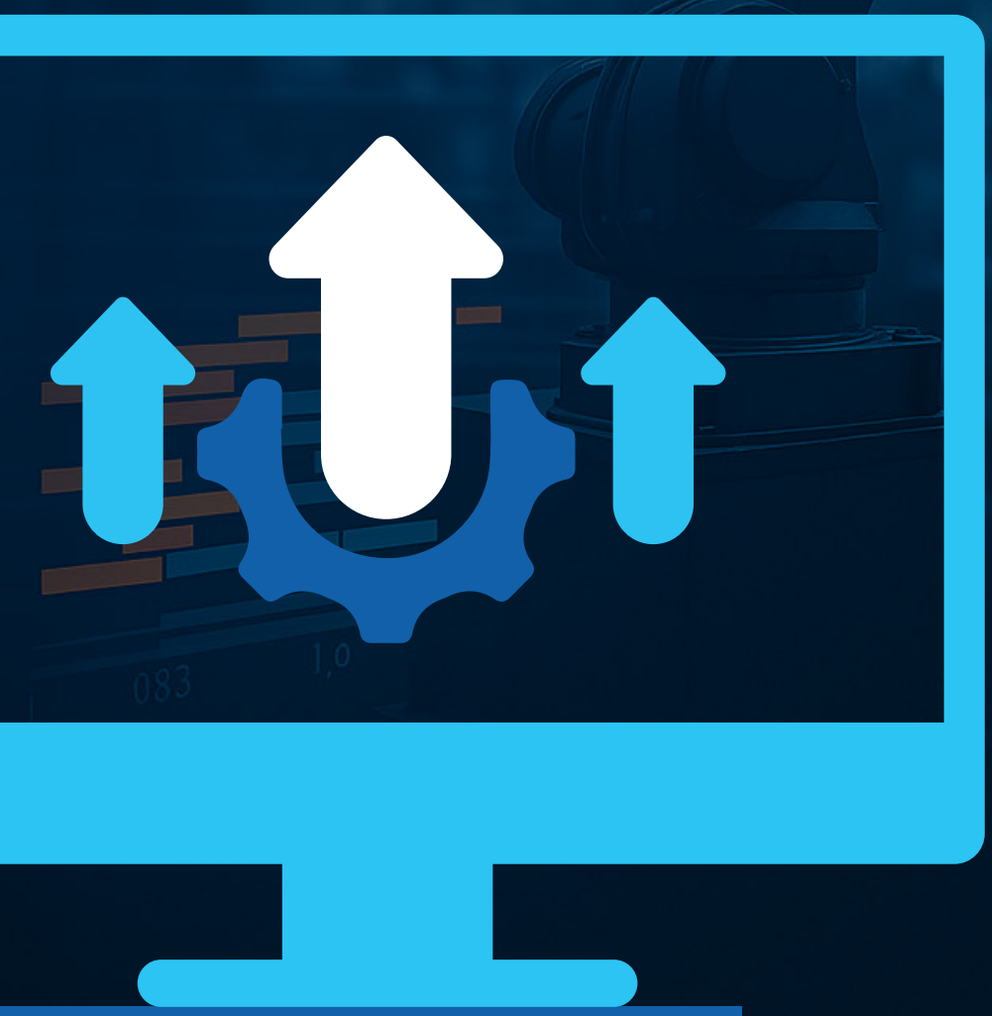
SOFTWARE PRODUCTS

brochure



optimize Your Production

EKS

Monitoring & Optimization

WWW.EKS-INTEC.COM

RF::SUITE

Contact US Now!

Want to learn how we can optimize your production?

Get in touch with our team — we're happy to provide a live demo, answer your questions, or support your next digitalization project.

EKS InTec GmbH

RF::SCOUT

Product overview

#SCOUT #analyse #optimise #ProcessAnalysis #interlock

INTRODUCTION

WHY RF::SCOUT?

In modern production environments, countless processes, movements, and signals run in parallel — whether live on the shop floor or simulated in virtual models. This complexity often makes it difficult to understand what's truly happening inside a production line. Small inefficiencies, hidden bottlenecks, or misaligned workflows can remain unnoticed and lead to higher costs, reduced output, or unexpected downtime.

RF::SCOUT solves this by seamlessly connecting virtual and real data sources, including PLCs, robot programs, IoT sensors, and advanced recording systems like RecV2. Instead of dealing with scattered raw data, engineers and managers gain a unified, real-time view of the entire process chain.

KEY BENEFITS:

- Instantly reveal bottlenecks and cycle time delays
- Gantt charts, histograms, and cycle time graphs make workflows clear and tangible
- Interlock Checker + SHIFT prevent robot collisions — both in simulation and reality

Table Of Contents

What is RF::SCOUT?

RF::SCOUT transforms complex production and simulation data into clear, actionable insights — all in real time.

- Uncover bottlenecks and cycle time deviations before they become costly.
- Connect and analyze data from robots, PLCs, and virtual cells in one place

A SINGLE SOURCE OF TRUTH FOR YOUR PRODUCTION DATA

RF::SCOUT is an advanced process analysis and monitoring system designed to bring complete transparency to complex production environments.

By connecting directly to PLCs, robot programs, IoT devices, and virtual planning systems, it unifies data from both real and virtual sources into one clear, interactive platform.

Unlike traditional systems that only provide raw signal data or isolated reports, RF::SCOUT transforms this information into intuitive visualizations and actionable insights. Engineers and managers no longer need to rely on manual checks or guesswork — they gain a clear, data-driven understanding of what is really happening on the shop floor or in the simulation.

Designed for the entire production lifecycle

Whether you are planning a new line, optimizing an existing cell, or troubleshooting unexpected issues, RF::SCOUT supports every stage of the production lifecycle:

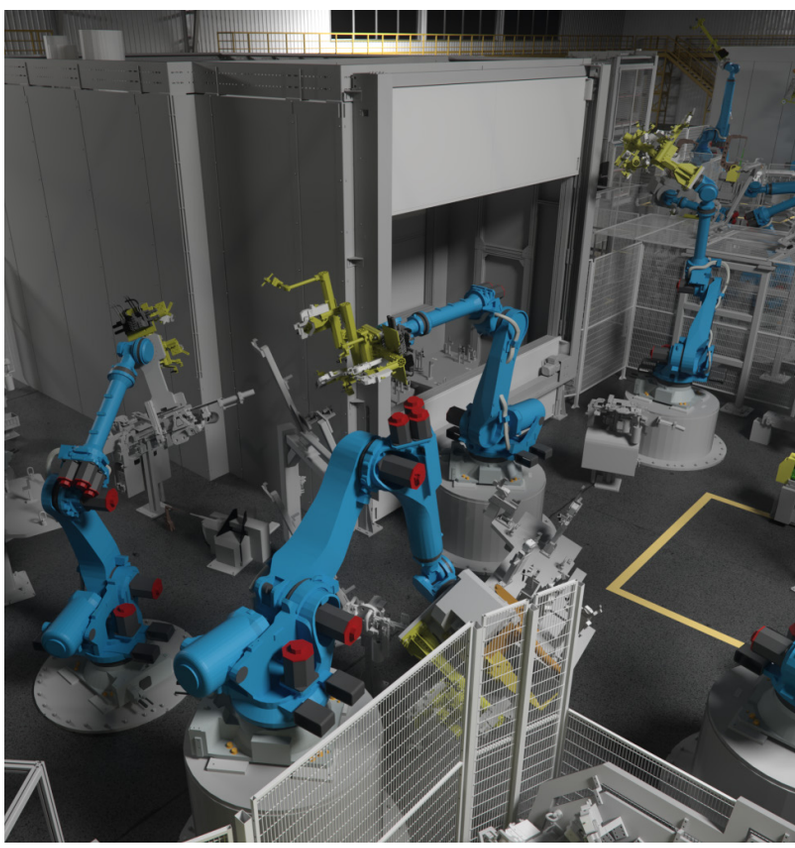
- **Planning & validation:** Compare virtual process plans against actual data, detect cycle time deviations early, and fine-tune workflows before they go live.

- **Commissioning & ramp-up:** Validate robot interlocks, analyze signal sequences, and ensure smooth handover from virtual to real operations.

- **Live production & optimization:** Monitor cycle times, workloads, and resource utilization continuously to avoid bottlenecks and minimize downtime.

From data to action

RF::SCOUT's integrated tools — including Gantt charts, Interlock Checker, SHIFT alignment, Signalyser, and Sequencer — work together



seamlessly to create a unified analysis environment. The system empowers teams to quickly identify anomalies, verify process changes, and implement targeted optimizations, all backed by reliable, real-time data.

Instead of scattered information sources and time-consuming manual spreadsheets, you gain one powerful, intuitive platform that transforms raw production signals into clear, actionable strategies. This means faster decisions, fewer unexpected downtimes, and a stronger foundation for continuous improvement across your entire production lifecycle.

Data Sources and Connectivity

A unified data backbone

RF::SCOUT is designed to handle the complexity of modern production by integrating data from a wide range of sources — both real and virtual.

Instead of working with disconnected datasets or partial views, you can bring everything together into one cohesive analysis environment.

Connecting data for smarter decisions

Today's production environments generate huge amounts of data — from robot positions and PLC signals to simulation feedback. Without the right tools, this valuable information often stays isolated and unused.

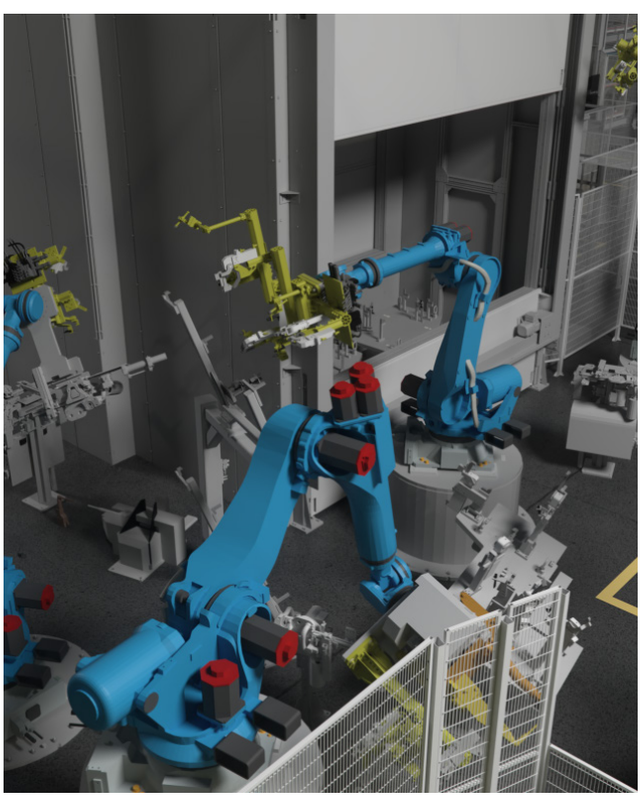
RF::SCOUT bridges this gap by creating a unified, transparent data foundation. All signals — from live production or virtual test environments — are collected, synchronized, and visualized in real time.

Instead of juggling different tools and manual reports, teams gain one central platform for all critical information. This integrated approach enables early problem detection and provides the context needed to understand root causes.

By aligning virtual models with reality and tracking signal flows, RF::SCOUT empowers data-driven decisions that enhance efficiency, quality, and safety across the entire production lifecycle.

FLEXIBLE DATA CONNECTIONS

RF::SCOUT is built to adapt to the diverse and dynamic data landscape found in modern production environments. Whether data comes from real machines, virtual simulations, or detailed historical records, the system can seamlessly collect, merge, and analyze it — providing a unified foundation for informed decision-making.



Live data from real production lines:
RF::SCOUT connects directly to PLCs, robot controllers, and sensors to capture live signals and machine states. This enables immediate monitoring and analysis, even while the plant is running.

Data from virtual commissioning and planning systems:
Whether from digital twins, simulation cells, or offline robot programs, virtual data can be analyzed and compared to real-world performance. This helps validate plans and prepare optimizations before implementation.

Recorded data (e.g., RecV2):
Historical data provides valuable insights into past cycles and events. RF::SCOUT supports buffered signal recording (up to 7 days) to allow detailed root cause analysis and trend evaluation.

3D models and symbol lists:
For functions like Interlock checking and SHIFT alignment, RF::SCOUT uses 3D plant models (RF::YAMS files) and detailed robot backup data to accurately analyze movements and interactions.

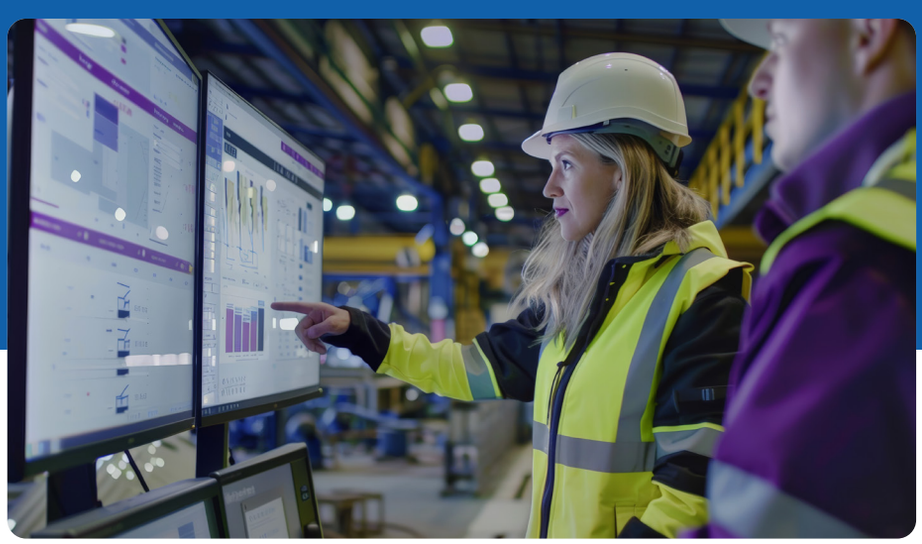
PROCESS ANALYSIS

Turn data into clear process insights

Production data is only valuable if it can be understood and transformed into action. RF::SCOUT turns complex signal and timing data into clear, visual process maps, making every step transparent and easy to analyze.

With intuitive Gantt charts and cycle time analyses, teams can quickly identify bottlenecks, idle times, and inefficiencies. Comparing planned simulations to real results helps validate designs early and optimize processes before issues arise.

This clarity empowers teams to make data-driven decisions, improve stability and throughput, and achieve smoother, more efficient production — right from the start.



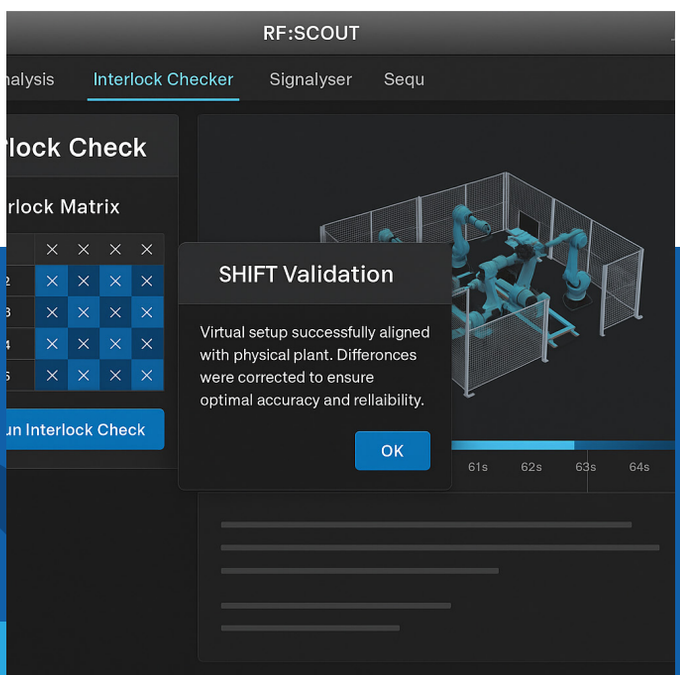
With RF::SCOUT, process analysis goes beyond static charts. You can interactively drill down into each operation, evaluate cycle variations, and understand how even small delays impact overall performance.

This detailed insight enables continuous optimization and supports proactive improvements instead of reactive fixes.

INTERLOCK CHECKER & SHIFT

Collision-free planning and real-world alignment

In complex robotic cells, robots often share workspaces and operate in close coordination. Even small programming errors or overlooked motion overlaps can lead to collisions, unexpected stops, or serious damage. The Interlock Checker ensures that all robot programs are checked for potential conflicts before they run. This proactive validation minimizes risks, saves on costly repairs, and ensures a smoother, safer production startup.



Match simulation to real-world accuracy

With SHIFT, virtual models can be precisely aligned to real-world conditions. Instead of relying on manual adjustments or assumptions, SHIFT compares deviations between the virtual cell and the actual plant and applies targeted corrections. This ensures that simulations accurately represent reality and that all motion paths remain valid during real operation.

Together, Interlock Checker and SHIFT reduce the risk of costly downtime, improve safety, and make it easier to validate new processes or changes before they affect production. This combination empowers engineers to transition from planning to live operation faster, with greater reliability and fewer surprises.

SIGNALYSER & SEQUENCER

Deep signal insights made simple

Understanding process signals in detail is key to diagnosing errors and optimizing automation sequences. RF::SCOUT's Signalyser acts like a digital oscilloscope, allowing you to inspect every signal in its raw form or even at bit level. This makes it easy to uncover hidden timing issues, unexpected signal changes, or subtle process delays that could otherwise disrupt operations.

The Sequencer complements this by helping you break down and reorganize long signal recordings into specific, manageable steps — for example, individual gripping, moving, or placing actions. Instead of wading through endless data logs, you can isolate critical moments and understand exactly what happened and when.

Together, Signalyser and Sequencer enable precise troubleshooting and provide a clear, structured view of even the most complex automation tasks. This supports faster problem resolution, smoother optimizations, and a more confident approach to process improvement.

Smart Data Monitoring & Recorder

RF::SCOUT's Recorder captures all relevant signals and events — continuously and in full detail. Whether diagnosing sudden machine stops or analyzing long-term trends, you always have access to the past.

With up to seven days of signal history and integrated analysis tools, you can detect hidden inefficiencies, validate changes, and stay ahead of problems — with full transparency.

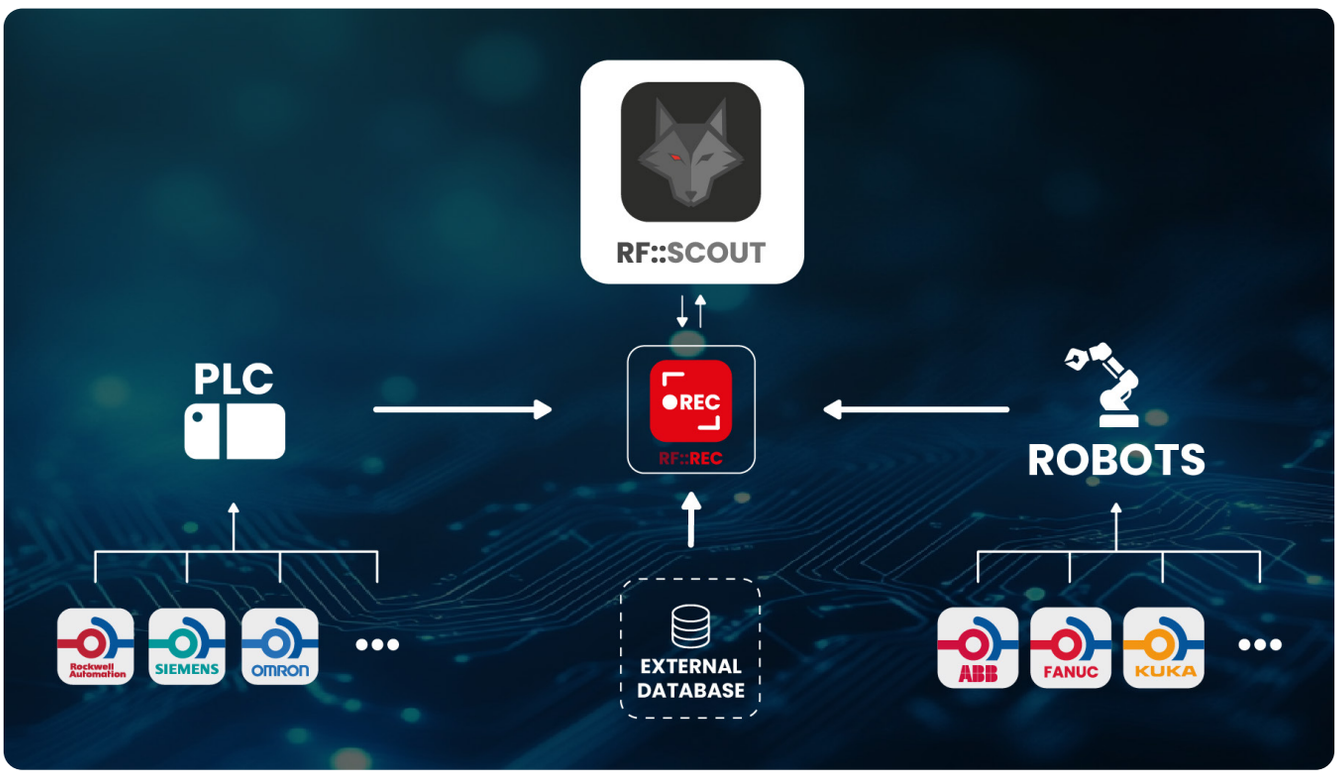
SMART DATA MONITORING & RECORDER

Your continuous data memory

Unexpected faults and inefficiencies often hide in the details — and if no data is recorded, they can remain invisible forever. With RF::SCOUT's Smart Data Monitoring & Recorder, all relevant signals and events are continuously captured and stored.

Whether you need to analyze a sudden machine stop or track a gradual drift in cycle times, the Recorder keeps a full history of your processes. Even signals from up to seven days ago can be reviewed in detail, providing valuable insights into both acute failures and long-term trends.

By combining this continuous data recording with RF::SCOUT's powerful analysis tools, you can proactively identify risks, validate changes, and document improvements with confidence. Instead of reacting to surprises, your team works with complete transparency and always stays one step ahead.



FROM THEORY TO PRACTICE

How RF::SCOUT Uncovered Hidden Bottlenecks Before SOP

In a recent automotive production project, RF::SCOUT was deployed during the virtual commissioning phase of a fully automated assembly line.

The goal: identify and resolve potential timing conflicts and system inefficiencies before the line went live.

By integrating signal data from PLCs, robot programs, and simulation environments, RF::SCOUT provided a synchronized, real-time view of all planned process steps. Through its intuitive Gantt visualization and cycle time analysis, engineers were able to quickly detect overlapping signals, unnecessary delays, and an unexpected idle period in one of the robot cells.

Further investigation using the Interlock Checker revealed a logic flaw in the safety interlocks that could have caused a shutdown under specific conditions — an issue that had not been identified during prior tests.

Thanks to RF::SCOUT, these issues were not only detected but also clearly visualized and documented. The engineering team was able to reprogram and test the solution virtually, saving several days of potential troubleshooting on site. When physical commissioning began, all process timings were aligned, critical signals were verified, and production started without delay.

WHAT'S NEXT FOR YOUR PRODUCTION?

RF::SUITE

One Suite. Endless Possibilities.

The RF::SUITE is your modular toolbox for the digital factory. Each product is tailored to specific challenges — from simulation, signal tracking and commissioning to resource planning, asset management and AI-driven optimization.

Built on a shared foundation, all tools work seamlessly together. Whether you're validating virtual processes, optimizing live production, or managing factory-wide data flows, RF::SUITE scales with your needs and grows with your goals.

Whether you're planning a new line, commissioning a virtual twin, troubleshooting live signals, or optimizing performance across plants — the RF::SUITE provides the right tools for each step.

EKS InTec GmbH
Danziger Straße 3,
88250 Weingarten, Germany

+49 (0) 751 3 62 16-0

info@eks-intec.de
www.eks-intec.de

Contact US Now!

Want to learn how RF::SCOUT can optimize your production?

Get in touch with our team — we're happy to provide a live demo, answer your questions, or support your next digitalization project.