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EKS InTec GmbH

RF::EdDi

Product overview

#Education #DigitalFactory #Training

#VirtualCommissioning #EdDi #Academy #University

INTRODUCTION

WHY EDUCATION?

Training operators, maintenance, and programmers on real production equipment is costly, risky, and often limited by the availability of physical systems. RF::EdDi changes this by using existing virtual commissioning models as scalable training environments.

It eliminates the dependency on real machines, reduces training costs, and allows teams to learn in a safe, controlled, and repeatable environment—whether they are in the classroom or connected remotely

TARGET GROUPS:

- **Operations:**
  No plant occupancy, no risk, standardized qualification.

- **Maintenance:**
  Failure scenarios on-demand, escalation safety.

- **Plant Programmers:**
  Test programs with real signal and cycle behavior – without production downtime.

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What is RF::EdDi?

RF::EdDi transforms virtual commissioning models or custom digital models into realistic training environments, enabling safe, scalable operator and maintenance training with lifelike fault simulations.

- Practice real operating procedures in a virtual environment—anytime, anywhere.
- Experience realistic fault simulations to prepare for real-world challenges without risk.

IMMERSIVE TRAINING FOR CONFIDENT OPERATION

RF::EdDi uses virtual commissioning models as interactive training environments for safe and effective operator and maintenance qualification.

By repurposing existing engineering data, RF::EdDi delivers realistic fault simulations and guided training workflows, enabling teams to practice operating and troubleshooting production systems without the risks of live equipment. This creates a scalable, repeatable, and cost-efficient approach to training while bridging the gap between engineering and real-world performance.

Unlike traditional on-site training that depends on the availability of physical equipment, RF::EdDi provides a virtual platform where employees can build skills, explore complex error scenarios, and gain confidence before stepping onto the shop floor.

Realistic Fault Simulation

RF::EdDi changes the way industrial training is carried out by offering a safe and realistic environment where operators and maintenance teams can practice real production situations.

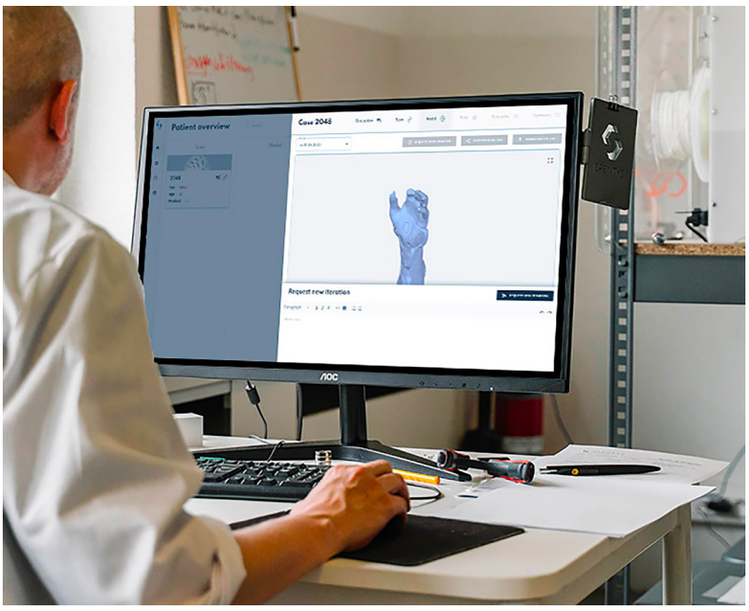
Instead of relying on manuals or watching colleagues work on live equipment, trainees use virtual models that reflect the logic, timing, and behavior of actual machines. New employees especially benefit, since many are hesitant to operate real systems out of fear of causing damage. in RF::EdDi, they can practice without that pressure.

In this environment, faults can be triggered on demand – from simple mistakes like a wrong start-up sequence to complex cases such as simultaneous errors or cascading system failures. By repeating these scenarios, employees learn to diagnose issues faster, apply the right procedures, and gain confidence in their decisions. This helps them prepare for unexpected situations and encourages a practical approach to problem-solving, where errors are treated as learning opportunities rather than risks to avoid.

For companies, this means employees arrive at the real plant already prepared to handle critical situations - without risking production downtime or equipment safety.

- **Practice real-world errors** such as sensor malfunctions, interlock violations, or misconfigured devices in a safe virtual environment.
- **Develop troubleshooting skills** through repetition and scenario-based exercises.
- **Remove the fear of mistakes** by turning every error into a safe opportunity to learn.

User-Friendly Training Without Engineering Knowledge



Traditional training methods often fall short because they demand specialized technical knowledge or depend on engineering tools never intended for the people who actually run or support the equipment. RF::EdDi removes this barrier with a training interface built specifically for operators, maintenance teams, and PLC programmers. It focuses on the real shop-floor tasks, workflows, and fault scenarios—without burdening trainees with unnecessary complexity.

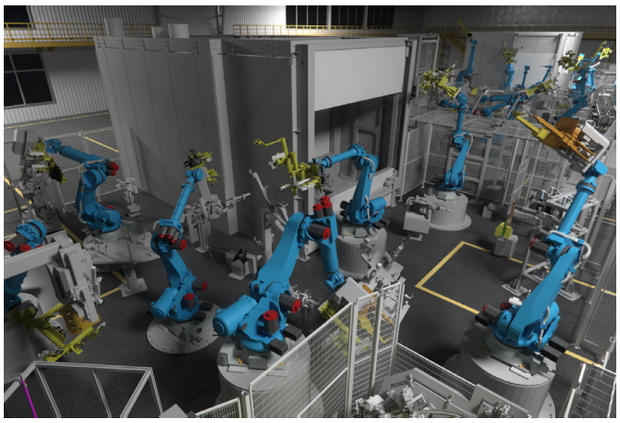
With RF::EdDi, there is no need to learn simulation software or CAD environments. Instead, trainees work with a simple, intuitive system that keeps the focus where it belongs: learning how to operate, maintain, program, and troubleshoot production equipment effectively. This accessibility makes it ideal for large-scale training initiatives such as operator onboarding, requalification programs, or cross-departmental training. Companies can quickly roll out standardized training packages, ensuring every employee receives consistent instruction regardless of prior experience.

- **Intuitive, role-based interface** designed specifically for operators and maintenance teams.
- **Scalable training** for onboarding, reskilling, and standardized qualification programs.
- **No engineering knowledge required**—focus purely on process, equipment, and safe operation.

INDESTRUCTIBLE TRAINING ENVIRONMENT

Risk-Free Learning for Maximum Confidence

Training on live production equipment often comes with strict limitations. Sessions must be carefully scheduled to avoid interrupting production, increasing equipment wear, or risking costly mistakes. As a result, teams rarely get the chance to explore critical fault scenarios or practice complex procedures under realistic conditions.



RF::EdDi removes these barriers by providing a virtual training environment where equipment behaves exactly like its real-world counterpart—without the risk of downtime or damage. Trainees can repeat exercises as often as needed, deliberately trigger faults, and test different solutions until they are confident. This turns training from a one-time event into an ongoing learning process that builds real expertise.

Because virtual training is independent of physical machines, companies can keep qualification programs running—even during peak production or testing periods or when equipment is offline or maintenance. Teams stay productive, assets remain protected, and training scales seamlessly across the organization.

TRAIN WITHOUT LIMITS: PRACTICE ENDLESSLY, RESET INSTANTLY, AND MASTER OPERATIONS IN A SAFE, RISK-FREE ENVIRONMENT.

REMOTE AND WEB-BASED ACCESS

Train anywhere, anytime with browser-based access

RF::EdDi eliminates the need for physical presence or dedicated training rigs. Teams can access fully interactive training environments directly through a web browser, whether they are in a central plant, a remote facility, or working from home.

By decentralizing training, companies reduce logistical challenges and make learning far more accessible. Trainees no longer compete for limited equipment time; instead, they can log in, train, and return to their tasks seamlessly. New training modules can be deployed instantly whenever equipment or processes change, ensuring that every operator remains up to date.

Advantages of Remote Training

- Global training access without travel or equipment constraints
- Standardized qualification programs across multiple locations
- Rapid content updates rolled out to the entire workforce

SEAMLESS RF::SUITE INTEGRATION

A training platform connected to real engineering data

RF::EdDi is a fully integrated part of the RF::SUITE ecosystem, using the same data foundation that drives Virtual Commissioning. This ensures training environments match the real production system with complete accuracy, from PLC logic to robotic behavior.

Complete Integration

This integration does more than just connect training to engineering data—it creates a continuous feedback loop between both disciplines. Every training session becomes an opportunity to gather valuable insights from real operator behavior. Repeated mistakes, misunderstood procedures, or areas of hesitation can be identified and fed back directly to engineering teams.

By closing this loop, system design can be refined to remove sources of error, improve usability, and optimize workflows before they impact production. As a result, training not only prepares operators for existing systems but also drives ongoing improvements across the entire manufacturing environment. This synergy between engineering and training creates a self-reinforcing cycle of efficiency, accuracy, and operational excellence.

FROM VIRTUAL COMMISSIONING TO DIGITAL TRANSFORMATION

Unlocking the Next Stage of Digital Value

Virtual Commissioning is not the finish line—it is the starting point. By transforming validated digital plant models into interactive training environments, RF::EdDi turns engineering results into a powerful resource for workforce development and paves the way for true digital transformation.

This transition eliminates one of the biggest obstacles in industrial training: the lack of safe, accessible equipment for realistic practice. Traditional training often depends on either dedicated training rigs, which are costly and limited, or on repurposed production equipment, which disrupts operations and carries the constant risk of damage. With RF::EdDi, teams train on an accurate, fully functional digital twin—free from scheduling conflicts, hardware constraints, or the fear of making mistakes.

For operators, this approach removes one of the most significant psychological barriers: the fear of interacting with complex, expensive machinery for the first time. By learning in a virtual environment, they gain confidence long before stepping onto the shop floor. This is not only ideal for onboarding new hires but also for retraining experienced staff, qualifying operators on new systems, or preparing apprentices for their future roles.

At the same time, training provides a clear entry point into Virtual Commissioning. Every training model is already a virtual model of the real system. By working with it, companies immediately see how logic, timing, and equipment behavior can be validated before start-up. This way, training not only develops people—it also demonstrates, in a tangible way, the possibilities of Virtual Commissioning and opens the door for broader use of digital plant models.

COMBINED TECHNOLOGIES

Beyond training, this workflow establishes the first step toward true digital transformation. A plant's virtual model is no longer just a commissioning tool—it evolves into a living asset that supports continuous learning, standardizes knowledge across the workforce, and strengthens day-to-day operations.

By linking Virtual Commissioning and RF::EdDi, companies build a seamless bridge from project delivery to long-term digital value creation.

FROM THEORY TO PRACTICE

Automotive Industry

A leading automotive manufacturer uses RF::EdDi to qualify both internal employees and external service providers on existing and new production standards. To achieve this, more than 80 training stations were deployed worldwide, enabling the qualification of over 50 PLC programmers every month. This ensures consistent standards across global operations and secures a scalable, future-proof training process.

OUTCOME:

80+ global training stations established.

50+ PLC programmers qualified every month.

Standardized training for both employees and suppliers.

Another major automotive OEM extends its Virtual Commissioning process by transforming digital models into training systems. Already, around 10 digital twins have been converted into training environments, covering as many production scenarios as possible.

The long-term goal is to expand this process so that every Virtual Commissioning model can be seamlessly transformed into a training system, ensuring maximum reuse of engineering data and broad workforce qualification.

KEY RESULTS:

- **10 digital twins transformed into training systems**
- **Wide coverage of production scenarios**
- **Strategic roadmap: all VC models to become training models**

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.

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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.