



## Integrated Architecture Demo Wall

### Integrated Architecture

To help customers to lower costs while improving performance, our Integrated Architecture offers a unique combination of enabling technologies. The Logix control platform uses highly sophisticated control, networking, visualisation and information technologies to address a full range of applications, while the FactoryTalk® suite of production management and performance software bridges the critical gap between the automation and information layers of an enterprise.

## Machine Builder Demo Racks

### Test and Simulate

How would you handle difficult tuning cases? Learn to recognise the problem, measure the effects and obtain the best possible performance including potential alternative solutions which may exist.

In cases requiring manual tuning, we can demonstrate and teach you how.

- **Resonant Load:** Manually tune a servo system using a robust, repeatable method with a resonant mechanical load
- **Winder/Unwind:** Manually tune a servo system with a robust, repeatable method of tuning where inertia is changing
- **Vertical Load:** Manually tune a servo system where sizing is marginal, and in tuning cases where gravity can hamper progress
- **Crank:** Manually tune a servo system where the load is varying throughout the cycle and where motion is non-linear in its characteristics
- **Rotary Knife:** Utilise registration inputs to effectively track high speed products

## Karlsruhe Competency Centre Take a closer look

## Contact Details

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LISTEN.  
THINK.  
SOLVE.®



The Rockwell Automation Competency Centre in Karlsruhe has been designed to help machine builders save time, money and resources by providing the engineering experience and support for their applications, and to provide optimum machine performance through advance testing and simulation processes. Visitors can see a range of demonstrations relating to the automation industry.

“The Competency Centre provided us with the hardware we needed and with a professional team. It has been a big help for our applications. The possibility to simulate all kinds of different situations, allowed us to develop a more robust and reliable software, with considerable savings in terms of time and costs.”

Vincenzo Martino, Electronic Director, Prasmatic

“We use the facility to prove concepts so we don't waste time and money later on.”

Lee Taylor, Electrical/Software Engineer at Emerson & Renwick



“All the rigs in this competency center represent technology that I use in our machines. The workshop really exceeded my expectations, excellent use of my time!”

Marco Put, Snr. R&D Engineer, VMI HOLLAND BV

## Robotics Demo

### Delta Robot

On the Control side visitors can see a Delta Robot driven by Allen-Bradley GuardLogix® PAC, providing high-end motion control capabilities together with advanced safety function that makes it the most complete automation controller today.

The robotics application display will help the understanding of:

- **Kinematics:** When to use Logix built-in functions, when to build your own, direct and inverse
- **Sizing:** Motor sizing of complex structures, variable load, varying inertia
- **Tuning:** Tuning of complex, inertia and load varying non-linear mechanism
- **Dynamics:** Acceleration requests of non linear mechanics
- **Trajectories:** How to build them, involving acceleration
- **Programming:** How to set-up a robotics application in Logix
- **Safety:** How to configure and handle robotics and packaging machinery safety devices directly from an Allen-Bradley GuardLogix Controller

In addition it will provide training and exercises at all levels, from beginners to experienced customers, and provide competency and trust in Rockwell Automation® products and their capability of driving robotics applications.

### SCARA Robot

- Logix5000 programming environment for Allen-Bradley GuardLogix with the integration of robotics and Safety in one controller
- Kinetix® motion control drive connects seamlessly with the Integrated Architecture™ products
- The customer can test the Rockwell Automation equipment and can see how easy and useful Logix is
- We are also able to demonstrate how easy robotics and safety integrate
- It provides proof that Rockwell Automation has the capability to allow the customer's machine to reach the velocity, smoothness and packs per minute required

## Linear Motion Demo

### Mechatronics

Whether the customer wants to build their own axis with linear motors, buy a standard solution with MP Series Integrated Linear Stages, or have a custom solution made for them, Rockwell Automation has the ability to supply the market with direct-drive linear motion solutions that provide high reliability and greater throughput.

Our solutions are also designed for seamless integration with RSLogix™ and Allen-Bradley® drives.



## Process Control Demo

### The Right Technology for the Future

Rockwell Automation Process Automation System represents a real leap forward in enterprise-wide integration technology. Whether you want to migrate from an existing, but no longer supported, DCS solution, or gain the benefits of a single plant-wide platform for the first time, you'll find that Rockwell Automation is the source to help you achieve your goals.

### Information and Control that Meets your Needs

Our plant-wide automation system encompasses – and surpasses – typical DCS functionality. This helps you meet your system, process control and plant-wide information needs – from a globally distributed database. Our system allows you to reduce start-up times, lessen downtime and helps you access plant and production information.



### Technical Equipment

- A fully operational control room demo with a cabinet, running server and client PCs
- A batch process simulation with 2 reactors with a web-based eProcedure interface
- Complete Integration of RSLogix5000, FactoryTalk View Studio and FactoryTalk AssetCenter including instrument management
- Integration of an Endress+Hauser HART enabled transmitter application

### Benefits

- Implementation of re-usable add-on instructions and phase manager
- Customised faceplates for HART enabled instruments
- Cascaded PID control with auto-tuning functionalities
- Batch recipes and batch operator interaction through the web-based eProcedure interface
- Manual or 'First available' batch path selection
- Trending
- Alarms and events
- Intelligent instrument diagnostics and configuration