Support a Customer to Sell SECS/GEM-Compliant Equipments with FabLink®

© V-TEK/Royce

"With Kontron AIS we had a real partner helping us to understand, to implement and to deliver SECS/GEM-compliant interfaces on time and within cost."

Mitch Jacobs,
CEO, V-TEK Inc.

V-TEK INC.   **ROYCE** INSTRUMENTS

FabLink®

V-TEK/Royce
Minnesota, USA

Platform:
C# controlled tool,
FabLink® V6.0

Project:
Training for SECS/GEM, implementation of the interface between FabLink® and the equipment in C#

Kontron AIS services:
Training for SECS/GEM standards, FabLink® and C#

Goals

❯ SEMI-compliant SECS/GEM interface

❯ Explaining how to fulfill customers SECS/GEM expectations

Challenge

❯ Implementing a customizable FabLink® integration

❯ First company-wide equipment with SECS/GEM

Result

❯ Implementation of a solution for a Die Sorter and future tools

❯ State-of-the-art SECS/GEM interface

Royce Instruments is a global leader in designing precision assembly tools and high-accuracy, low-force bond test equipment for the semiconductor industry. Now V-TEK/Royce is able to provide GEM-compliant equipments to their customers. During a custom training and hands-on session, an Kontron AIS engineer explained the world of SECS/GEM to the customer and gave support during an initial implementation. As example we implemented FabLink® on a Die Sorter during the training. After two weeks all GEM functionalities where implemented on the tool. After the detailed briefing, V-TEK/Royce was able to implement a full SECS/GEM interface with only a very small amount of additional support.

The implemented base is useable for any kind of new SECS/GEM interface. The big outcome is, that now all customers of V-TEK/Royce are able to buy equipments with full capacity of SECS/GEM based on FabLink® by Kontron AIS GmbH.

Generic SEMI-compliant SECS/GEM interface with FabLink® API

FabLink® helps our customers to be SEMI-compliant with little effort. Therefore, FabLink® takes care of the standard communication. It also offers many interfaces for an easy integration of the equipment software (C#, OPC, S7 communication, Profibus, TwinCAT ADS, CAN-Bus, Ethernet).

To configure the interface, Kontron AIS provides the FabLink® Designer, which helps the customer to document the interface with only very little effort.

In this project, we implemented the interface between FabLink® and the tool in C#. We not only implemented the standard functionalities like sending events and parameter. We have also extended the interface by additonal remote commands, recipe management, terminal services and customized stream functions. All those functionalities were directly added to the existing C# solution of the equipment. In order to maintain a high reusability for upcoming projects, we have also shown how these functionalities can be implemented.

Kontron AIS not only supports device suppliers by implementing the SECS/GEM interface, but also assists semiconductor manufacturing companies with new tools to integrate them into their corporate systems. With this experience, we are able to show the expectations of semiconductor factories on SECS/GEM interfaces and ensure that the customers of new developed tools are pleased with the interface.

The training took place on-site at V-TEK and, like all of our trainings, it was customized to the costumers needs and requirements. During the intial SECS/GEM introduction software developers, management and salesforce learned the principles and ideas of a SEMI compliant interface. The additional hands-on session was realized agile to respond to open questions and to support an initial implementation.
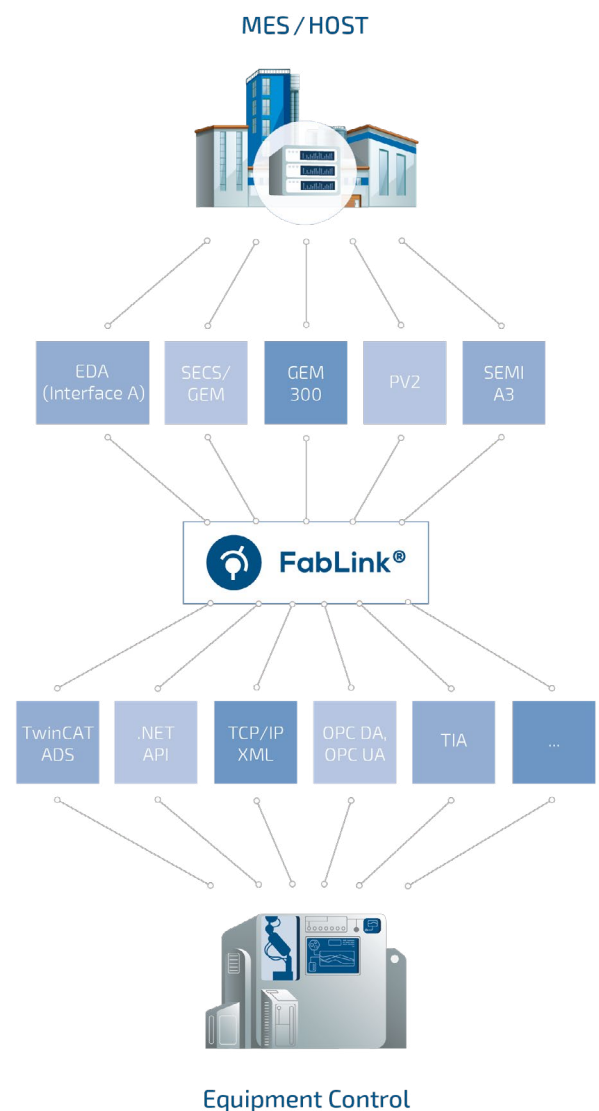
Figure: Intergration of production equipment in a factory

About V-TEK, Inc.

V-TEK, Inc. through its V-TEK and Royce Instruments product lines is a leading manufacturer of precision packaging, inspection and bond testing equipment for the electronics, automotive, aerospace, medical, micro-molding and micro-stamping industries. For over 30 years, V-TEK has been a major provider of precision packaging services, supplies and rework/inspection. With a high performing, dedicated and innovative team, V-TEK is known globally for its superior service, technical support, customer satisfaction and quality, with locations in Minnesota, California and Mexico. In 2013, V-TEK Incorporated purchased Royce Instruments. Royce's proficiency in the bond testing and die sorting industry made them a seamless addition to their semiconductor manufacturing processes.

For more information please visit: **www.vtekusa.com**

About Royce

Going on more than three decades, Royce Instruments equipment continues to be utilized throughout the world by the leading semiconductor and photonics manufacturers, assembly subcontractors, computer manufacturers, aerospace companies, and by the world's largest auto and medical electronics device manufacturers. As customers' technology and product offerings evolve, Royce continues to expand and develop equipment to meet their needs.

Royce equipment provides outstanding accuracy to meet the full range of bond test and die sorting requirements and the team of engineers have a deep understanding of the real-world needs and technical challenges customers face. Because bond testing and die sorting are the sole focus, Royce is able to dedicate itself to developing and supplying advanced, high-precision solutions for customers' operation. Aside from providing robust, accurate equipment, Royce is equally acknowledged for providing a high level of customer support that starts with initial installation and continues for the life of the instrument. Responsive service and support is provided worldwide by the network of authorized and highly trained distributors.

For more information please visit: **www.royceinstruments.com**

About Kontron AIS GmbH

For over 30 years, we have been setting the benchmark in industrial software development. Our proven software products and customized digitalization solutions are backed by an experienced team of more than 250 employees. We enable machine and equipment builders as well as factory operators to break new ground in automation and secure long-term competitive advantages. Together with our customers, we implement intelligent digitalization strategies worldwide, paving the way for the smart manufacturing of tomorrow.

As a subsidiary of Kontron AG, we provide comprehensive IoT solutions from a single source – covering both hardware and software. Our global network ensures project management, service and support on a global scale.

For more information please visit: **www.kontron-ais.com**