



In this issue:

Cummings Promoted	2
Business Development Director Added	2
Strategic Alliance Focus Enhanced	2

MEC News

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MEC Southwest Enhances Capabilities



Fernando Gomez

MEC Southwest in Tecate, Mexico has implemented a number of improvements over the last few months. According to Pirouz Pourhashemi, MEC Southwest's general manager, the primary driver is business expansion. These improvements include a Fuji SMT line and onsite program management.

"Our Tecate operation was originally focused on offering a low cost labor market solution to existing customers with mature product who saw offshore migration as a necessary step. In that model, program management was handled by the program manager at the originating facility and our SMT equipment was appropriate for the technology being assembled. However, some new customers want an immediate Mexico solution and we are aligning our support infrastructure to address those re-

See **Capabilities** on page 4

About MEC

MEC provides electronic design, prototypes and manufacturing companies in the medical, transportation, military, HVAC and a variety of other industries. MEC operates over 135,000 square feet of manufacturing in Canby, Oregon; Milwaukee, Wisconsin; and Tecate, Mexico. In addition to EMS services, it offers *product development* services through its MEC Innovation business unit and quickturn prototyping through its Screaming Circuits business unit.

Innovation's Team Fills The Gap

MEC has three distinct business units: Screaming Circuits, Innovation and MEC EMS. Screaming Circuits focuses on prototypes, Innovation focuses on product development engineering support and MEC EMS focuses on volume production. The business units can work separately or combine to support a variety of customer needs. The goal is for each to focus on the core services needed by customers in each stage of their product's lifecycle. In this month's issue, we focus on Innovation.

The Customer Equation

Innovation's services are designed to integrate with its customers' engineering teams. In some cases, the Innovation team may be the lead product development engineering resource, but in other cases

See **Innovation** on page 3

Mike's Corner

Allow me to introduce to you MEC's newest effort to provide information we hope you find useful. This newsletter will be produced quarterly, and is designed to provide our customer and supplier partners timely updates on what is happening at MEC that may affect interactions with our business partners. Though our strong preference is to always communicate directly with you, there are times when that may fall short or a bit more detail is needed. This newsletter is one tool we hope will overcome those occasions. We'll try to be brief, to the point, and sensitive about providing you only information that is useful to you. So enjoy this first issue, and give us feedback if you feel so inclined.



Andrew Shepardson uses Creo Elements/Direct to design MEC's proprietary Universal Electro-Mechanical Interface Fixture for functional test of early prototypes, proto/pilot units and low-medium volume production electronic assemblies.

P. Michael Foshre
President



Joe Zacari

Screaming Circuits Enhances Strategic Alliance Focus

Screaming Circuits' primary focus has always been streamlining new product development by simplifying the prototyping process. This focus on making engineers' jobs easier has also resulted in strategic alliances with Sunstone Circuits and the Circuit Design EcoSystem. The success of these alliances and the likelihood that other alliances may be formed has driven the need for a dedicated resource to manage these relationships.

Joe Zaccari has been hired as strategic partnership manager, with the mission of development and management of partnerships to drive growth by enhancing the depth and breadth of Screaming Circuits' service offerings.

Joe has been involved in the electronics manufacturing and design industries for 30 years, holding individual contributor and management positions in engineering, program management and operations.

As a recognized subject matter expert, Joe has presented on reliability issues related to lead-free/tin whiskers, hazardous materials, component obsolescence and electronic systems design issues at domestic and

See **Zacari** page 4

Cummings Promoted to Vice President of Sales



Rick Cummings

Rick Cummings has been promoted to vice president of sales. Previously he served as a director of business development. He is responsible for managing the sales and

marketing activities for all three of MEC's business units: Screaming Circuits, MEC Innovation and MEC EMS.

"Rick has done an excellent job over the last two years as a member of our sales team. His combination of extensive EMS sales expertise combined with a strong OEM technical background now make him the logical choice to take our sales organization to the next level," said P. Michael Stoehr, president & CEO of MEC Companies.

Rick was previously a senior business development executive for Benchmark Electronics, Inc. He was earlier associated with Merix Corporation and Tektronix Corporation in sales management, quality management and engineering positions.

Director of Business Development Added



Scott Pohlmann

Scott Pohlmann has joined the Company as a director of business development. He is responsible for sales at all three of MEC's business units: Screaming Circuits, MEC Innovation and MEC EMS. His

responsibilities include teaming with MEC's national network of manufacturer's representatives.

"Scott brings a broad base of contract manufacturing and OEM expertise to his new position. He has over 20 years' experience in manufacturing electronic assemblies for the automotive, computer and commercial electronics markets. In addition to his electronics manufacturing services (EMS) sales experience, he has a wealth of experience in production management and process development for electronics manufacturing companies," said Rick Cummings, MEC vice president of sales.

Scott was previously a sales manager at Surya Electronics, Inc. He was earlier associated with Phoenix Company, Omron Automotive Electronics, Xycom and Philips Circuits Assemblies in sales management and production management positions.

Innovation (continued from pg. 1)

Innovation's engineers fill gaps in the customer's engineering resources. Key capabilities that address these requirements include:

- The ability to work with minimal documentation and/or upgrade the documentation as part of a product development process
- Fine-tune design areas that the customer's team doesn't have expertise in such as determining tolerances on mechanical fabricated parts
- Iterate designs by providing prototype build support or handling other details associated with testing the design
- Provide low cost test strategy or fixturing options
- Provide overflow engineering support (either onsite or at Innovation) that simply fill gaps in the customer's internal resources.

Unlike many engineering firms who ramp up to support large projects with contract personnel, Innovation focuses on maintaining a core team that works over a range of projects. Some engineers support EMS-related activities, while others are working Innovation-specific projects. This approach level loads the core team and maintains personnel and expertise consistency over time. Most importantly, it allows the team to do one-off engineering projects or smaller support projects because the bulk of the operation's overhead cost is absorbed by EMS-related projects. Additionally, because the team has significant interface with manufacturing activities, there is a strong focus on design for manufacturability and testability than might be found at a standalone product development firm.

Key areas of applications expertise include:

- Embedded systems for industrial controls
- Motor controller design
- Test system design.

Project Examples

Innovation's focus of working as an

extension of its customers' engineering teams can take many forms. Here are a few examples:

One-Off Engineering Project

The customer wanted a test system capable of measuring print quality in industrial settings. The system needed to be capable of testing a variety of printing system configurations. A challenge was that portions of the system contained proprietary electronics that were under development at the customer. As the customer's team changed assumptions, those changes could impact the entire system. However, the design timeline required that Innovation's portion of the system needed to be designed in parallel with the customer's internal design activities, rather than following completion of the customer's design.

System design was complete in less than five months. Innovation developed new controllers and an electromechanical handling system for ink input and output. The team addressed changes in the assumptions related to the customer's design as they occurred.

Existing Customer Support

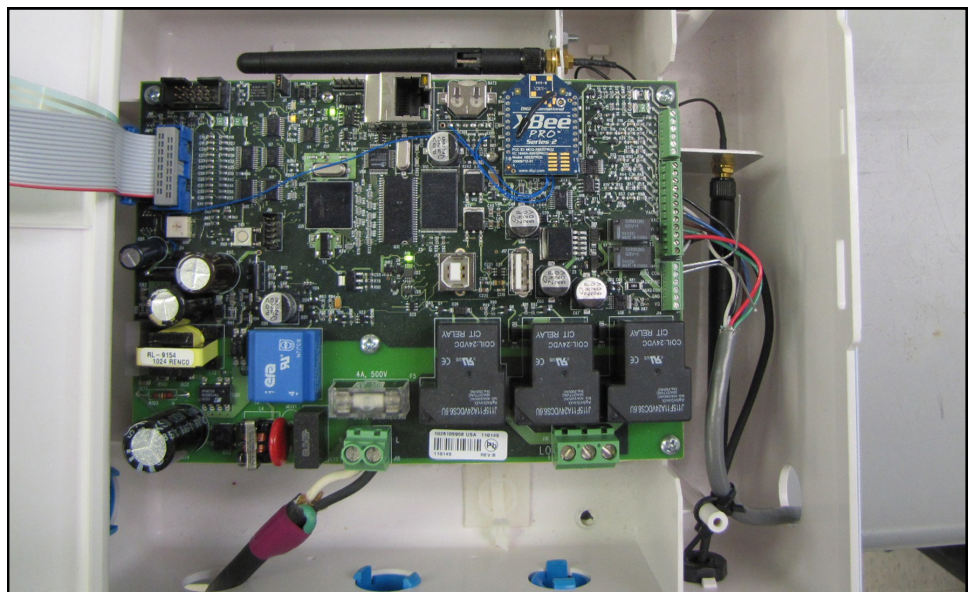
Innovation's niche is adding functionality or providing recommendations for technology enhancement, as well as manufacturability/testability recommendations. There is a strong focus on partnered services. In one such arrangement, MEC serves as a design,

prototype and small volume manufacturing partner. High volume manufacturing is managed elsewhere. The customer's engineering teams have been downsized, but they are still charged with delivering manufacturable/testable new products to their manufacturing team. Innovation operates as an extension of their engineering team, providing prototypes and low volume production through its sister companies. The customer meets its lean staffing goals and fills the gap between product development and volume production.

Incremental Support

An audio systems manufacturer had no electronics expertise. Innovation provides them with electronics design capability. This type of incremental support service is feasible with established companies with ongoing requirements.

There is much uncertainty in today's economy and many companies have downsized critical engineering resources. Yet companies can't cease product development without losing market share. In the examples above, customers tap Innovation's engineering resources to fill in the gaps left by corporate austerity measures. The flexibility of Innovation's business model helps ensure that this replacement "team" is composed of highly qualified engineers able to add value to each project.



Innovation engineers designed this pool pump control which interfaces with a home's wi-fi system and can be remotely controlled. MEC has completed prototype and pilot production.

Capabilities (continued from pg. 1)

quirements, as well,” he said.

Fernando Gomez has transferred to the Tecate facility as a program manager. Previously, he was manufacturing manager at MEC Northwest in Canby, OR. He was earlier associated with Radisys Corporation, Fujitsu Computer Products of America and Encore Filipinas Micro Electronics, Inc., in range of manufacturing management positions.

He received a Bachelor of Science degree in business management and an M.B.A. in business administration technology management from the University of Phoenix.

“We are fortunate to have someone of Fer-

nando’s caliber laying the foundation for a strong program management model. His combination of manufacturing expertise, continuous improvement initiative execution and business management skills align well with the needs of our customer base. Our switch to onsite program management will streamline communications and support a robust NPI process,” Pirouz added.

The facility has also added a new screen printer, Fuji SMT line and reflow oven. AOI capability was added earlier in the year. Stator winding machines have also been added to fully automate motor assembly processes.

“MEC wanted to standardize equipment platforms among our three facilities. The addition of this line completes that process. Now customers can transfer tooling and programming seamlessly between facilities. The winding machines fully automate what was previously a semi-automated process,” Pirouz said.

Fernando added that the facility was seeing PCBAs with 0402s and higher placement counts. The new equipment enhances the operation’s ability to support this trend. He noted that RoHS-related NPIs were increasing in the facility as newer products were added and older products were updated to address RoHS 2014 requirements.

Zacari (continued from pg. 2)

international conferences. He is active on several industry organizations including the PERM (Pb-free Electronics Risk Management consortium) and is on the board of the ECC

Corporation.

Prior to Joining Screaming Circuits Joe was Vice President of Sales and Industry

Relations for Corfin Industries LLC in Salem, New Hampshire.



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