

Maximizing ERP investments through modernization





SMC is a global leader in pneumatic technology, providing industrial environments with technology to support automation over the past 50+ years. With subsidiaries in 53 countries, SMC delivers first-class business solutions to customers through superior products and customer service. To achieve its goal of advancing automation, SMC develops high-quality, reliable solutions to assist automation in industrial environments and familiar areas of everyday life.

Challenge

The Australian subsidiary of SMC relies on a highly customized ERP solution called Masterpack. Based on Rocket® UniVerse and Rocket® System Builder, it has seen decades of development but lacked the user interfaces and cross-platform integrations that are the hallmark of today's modern systems. As a result, productivity, accuracy, and user satisfaction suffered.

Every night, an intermediary tool synced data input during the day back to Masterpack, a time-consuming and infrastructure-demanding process. Rather than having information available in real-time, employees had to wait for the overnight process to run before being able to access it. These delays and bottlenecks slowed operations and could potentially create downstream issues for customers, with important information like inventory counts being unavailable to sales teams.

Other challenges included the incompatibility of Masterpack with contemporary mobile devices, forcing warehouse staff to rely on outdated hand-held scanners. Maintenance and repair costs for the scanners were skyrocketing, and IT staff spent too much time on the warehouse floor resolving issues.

The Challenge

SMC needed to modernize its ERP and improve its user experience without undertaking a disruptive and costly re-platforming project.

Overall, SMC needed to improve user experiences by adding new tools and functionalities without undertaking a long, risky, and expensive re-platforming project.

Further complicating this challenge was a problem familiar to many organizations that have invested in MultiValue (MV): their experienced administrators were retiring, and skilled developers were becoming difficult to find.

Replacing an ERP is very difficult – now, our ERP can continue to facilitate data storage and handling, saving us that time and money so we can still fulfill our vision for the future of the business with modern capabilities."

AMARENDRA RAKESH
Business System Manager, SMC Corporation

Solution

Once the experienced MV developers collaborated with the teams familiar with web-based tools and scripting languages, SMC developed their vision for automation. To enable it, SMC searched for ways to interface with Masterpack, building on top of its proven infrastructure. Initially leveraging Rocket® U2 REST web services to connect Masterpack with Microsoft365 PowerApps, SMC created a gateway that sends and receives requests from applications to Masterpack and vice versa. With Rocket U2 REST, SMC could link any object to Masterpack with customized apps tailored to their needs. This enabled SMC to replace outdated scanners and eliminate the associated maintenance expense. SMC deployed Android-based scanners in warehouses, streamlining critical processes such as scanning, picking, and dispatching.

Success in improving warehouse operations was just the beginning for SMC. In 2021, it implemented the Rocket® MultiValue Integration Server (MVIS) to enable future API projects and add Python scripting capability to its modernization toolset. With this upgrade, SMC was ready to scale its efforts and take on additional operational challenges.

Order entry automation is one use case where SMC deployed an API-based integration enabled by MVIS. MVIS accepts REST-based requests from third-party applications and sends the information to Masterpack. Data is then processed, and either a success or error message is sent via MVIS to the end user. This streamlines critical functions and sets the stage for future innovations.

The Solution

With Rocket U2
REST and MVIS, SMC
continued to utilize its
ERP while implementing
innovative API-based
solutions to modernize
operations.

Results

With MVIS, SMC has given new life to Masterpack by web-enabling it with APIs. Masterpack continues to serve as the backbone of the IT infrastructure, while SMC's users enjoy modern experiences that enable them to be more productive and efficient in their work. As an example, automating sales order entry has reduced process time by 95%, from 20 minutes to less than one minute.

Information is now being sent back and forth in real time, replacing the overnight process used before MVIS. When a user completes a task via a browser, it is communicated to Masterpack in real time. Since data is now sent directly, without intermediary processes and systems, overall performance has significantly improved. This real-time process also means teams in finance, sales, and customer service have the information they need at their fingertips, including via mobile devices in the field.

"It was a revelation for our business because no one imagined you could have Masterpack on your phone," notes Rakesh. "The success we had with MVIS-enabled API integrations freed up IT resources, saved money, improved efficiency, and boosted productivity."

MVIS has allowed SMC to address its human resource challenges as well. Since finding new talent with web-based skills is much easier than those with MV experience, SMC has a solution that accelerates transformation efforts and the related return on investment.

SMC also decommissioned two servers dedicated to completing that overnight transfer, reducing costs and resolving bottlenecks.

With MVIS, it is possible to build a highly secure environment with similar opportunities for automation across the entire business. SMC's Australian subsidiary is setting global benchmarks for innovation and optimization as other SMC offices learn from its advancements. The company can now deliver the best possible user experiences and maintain competitiveness, all while maximizing return on investment in its existing ERP.

Impact

Modernization

SMC was able to create real-time interfaces within its existing ERP system to drive productivity and user experience improvements via REST APIs.

Time Savings

Leveraging Python scripting, SMC reduced the order entry process from 20 minutes to less than a minute.

Scalability

SMC created a development platform that supports scaling at a global pace with minimal resources and disruptions to business operations.

The future won't wait—modernize today.

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