

HOW PERNOD RICARD PACIFIC MAKES PROGRESS



EXTRACTING MAXIMUM VALUE FROM ITS GRAPES

With an extremely perishable product and a supply network involving 500 independent growers, 3,000 individual vineyard blocks, 200 harvest operators, 95 independent trucking contractors, 6 corporate wineries, and up-to-16 contracted ones—Pernod Ricard Pacific introduced an initiative to tackle and eliminate inefficiencies. Because grape losses can occur at a number of points due to rain, temperature, or processing delays, improvements in supply chain efficiency and logistics can save millions of dollars.

To streamline its supply chain, the company adopted a service-oriented architecture (SOA) based on Progress® Sonic® ESB. This proved to be a vintage decision. Using SOA and Sonic ESB, Pernod Ricard Pacific has improved operations for its viticulture, winemaking, and grape logistics management systems—helping to maximize the value of its grape intake.



Pernod Ricard

CHALLENGE

Maximize revenues by turning grapes into wine with minimum loss along the way

SOLUTION

A streamlined supply chain—based on adopting a SOA with a Progress® Sonic® ESB backbone

BENEFIT

Extracted more wine from grapes—for higher revenues and greater profitability—by improving production throughput and supply chain efficiency

CONNECTING A DISTRIBUTED SUPPLY NETWORK

Pernod Ricard Pacific is the Australasian division of Pernod Ricard Group, the world's second largest wine and spirits company and parent company of Orlando Wines. The company faces a unique challenge every year in taking grapes off the vines, into the winery, and through the fermentation process. Grape value loss can occur at multiple points in the supply network. For example, harvested grapes awaiting transport can suffer prolonged exposure to rain or elevated temperatures.

Yet better capacity planning and operational coordination—to combat potential loss—is a considerable challenge. As a major wine producer, the company has a complex supply chain—including growers, vineyard blocks, harvest operations, trucking, and wineries—some owned by Orlando Wines, some independent. According to Ric Hayman, Innovation Manager with Business Information Services for Pernod Ricard Pacific, “It is easy to understand why we call it a supply network rather than a supply chain.”

The company embarked on an integration project to maximize the value of its highly perishable grape assets. It selected Progress Sonic ESB to connect multiple data sources to optimize its planning process and reap maximum returns for its winemaking business. A messaging-based enterprise service bus (ESB), Sonic ESB simplifies the integration and flexible re-use of business applications within an SOA. It eliminates the rigidity and fragility of point-to-point integration with a robust, event-driven architecture that can evolve, scale, and extend throughout the enterprise.

INTEGRATING DECISION SUPPORT

For a number of years, Orlando Wines used electronic messaging between its winery weighbridge equipment, laboratories, and centralized IT infrastructure. This messaging unified data on the truckload mass, grape composition, and grape origin essential for managing both grower payments and winemaking operations. It also provided maximum integrity and instant data availability.

Progress® SonicMQ® was at the heart of this system—named “WeighMaster”—providing the messaging technology platform. Based on the initial success of the WeighMaster system, Pernod Ricard Pacific maintained and expanded its use of Sonic and adopted an SOA to support its major IT-integration activities—including linking the company’s decision support software and the data it requires.

Commonwealth Scientific and Industrial Research Organization (CSIRO) supplied Pernod Ricard Pacific with software applications that link together to form a decision support and planning system for its viticulture operations. CSIRO, one of the largest research agencies in the world, is Australia’s national science agency. The organization uses mathematical, computational, and statistical techniques to develop new technologies for managing supply chains. By 2006, the value of the prototype CSIRO software had been proven, and CSIRO proposed the next generation of decision support tools for Orlando Wines.

Still integrating decision support software into the grape intake process in a way that could improve and accelerate decision making isn’t easy. Decision making is distributed throughout the organization as well, to allow viticulture specialists and wine making experts to successfully collaborate. And the data is intensive and specialized.

“Decision support software applications typically need to access large volumes of up-to-date data, even if the desired result (e.g., a pricing decision, a prediction, or a schedule) is relatively compact,” said Dr. Simon Dunstall, Leader, Adaptive Supply Networks for CSIRO. “The applications also need specialized data not usually required by common transactional business systems.” For example, dozens of rules govern the mixing of grapes from different sources into a fermentation tank.

LINKING DATA SOURCES AND APPLICATIONS

“SOA allows CSIRO to deliver optimization and statistical technologies in an easy, flexible, and fast way,” explained CSIRO’s Dunstall. “An enterprise service bus allows companies like Pernod Ricard Pacific to jump ahead of the competition very quickly and very effectively.”

“Our ESB provides the performance, scalability and continuous availability we need to analyze large quantities of information to make the optimal production decisions.”

*Ric Hayman,
Innovation Manager
Business Information Services
Pernod Richard Pacific*

“While we had internal resources that were capable of setting up the integration using Sonic ESB, most of them were already engaged in other projects, and we were resource constrained,” said Hayman. “So we approached Progress Professional Services to provide us with both development resources and project management. They were able to pull together a project team that was geographically distributed across three organizations and three different cities. And they were able to then pull together not only the development work, but the testing and all the project artifacts to quickly provide us with a system that works.”

The company used Sonic ESB as the integration backbone for the CSIRO software and other applications. Capacity planning and operational coordination start many months before the harvest. Pernod Richard Pacific’s systems must integrate data from multiple sources, including its viticulture system—with field data captured via PDAs and grape data from its automated sampling system.

“The service-based framework enabled us to bring different systems, different data and data formats, and different data protocols together to add value,” said Hayman. “It also allowed us to let independent providers of services and data to remain independent of one another and to be loosely coupled. We can add or remove them to the ESB without disturbing other parts of the backbone.”

MANAGING GRAPE INTAKE LOGISTICS

Growers, harvesters, carriers, winery staff, and viticulturists manage and execute the intake of grapes into wineries during vintage. Vintage is the harvest season for wine grapes and, for Orlando Wines, it usually spans late January to early May. Orlando Wines’ grape intake is large and complex. A grape supply of over 150,000 tons is made up of 37 varieties sourced from dozens of distinct winegrowing areas and every major Australian winemaking zone.

The bulk of this tonnage is from vineyards not owned by Orlando Wines. More than 500 growers have supply contracts with the company, and just over 3,100 individual harvest units (blocks) are managed by its viticulturists and logistics planners. The harvest on a block requires vineyard,

winery, transport, and harvesting resources to be aligned in space and time. In total, Orlando Wines deals with about 600 sub-contractors who provide growing, harvesting, and/or transport services over the span of vintage.

“Our planning process is extremely interactive, and it requires the availability of a huge amount of information in order to work out the best time to pick the grapes and start the supply chain process into our facilities,” said Hayman. “Our ESB provides the performance, scalability and continuous availability we need to analyze large quantities of information to make the optimal production decisions. With SOA, we can connect multiple technologies across multiple platforms to orchestrate a complicated planning process. Our ESB allows us to reuse services and to add new services over time.”

MORE EFFICIENT OPERATIONS, BETTER DECISIONS

“Each vintage intake is worth hundreds of millions of dollars,” said Hayman. “Although it’s not easy to identify specific direct return on the investment in the systems, any contribution to the reduction loss of the value of the grapes is worth potentially millions of dollars per year.”

He added, “Some of the early benefits we’ve seen almost immediately are better throughput of trucks at wineries because they don’t have to wait for a crusher to become available to process the grapes. We did not need to start a second crusher because we can more efficiently utilize a single crusher. Our intake is much better planned. We’re also seeing much easier access to independent contractors like transporters and harvesters. This has improved the efficiency of the grape intake.”

“The production of wine occurs in a rural setting,” stated Dunstall. “However, the pressures and the time constraints that apply to the winemaking industry are just as strong as they are in any other industry. And winemakers face an additional complication: weather patterns bring uncertainties and variability. Getting the right data to the right people at the right time allows them to make the best possible decisions, and Sonic ESB provides the integration necessary to bring together vast amounts of information to enhance decision-making.”

Sonic ESB has provided major advantages to Orlando Wines and Pernod Ricard Pacific. Each element of the CSIRO software is deployed as a service, with direct connectivity to all other ESB-enabled applications and data sources. So executives can gain easy access to standard services—such as databases and data transformation services. Just as important, the flexible and reconfigurable assembly of multiple services supports complex workflows for logistics and viticulture management.

According to Dunstall, “The message reading and guaranteed message delivery features of Sonic ESB are very important because they allowed CSIRO, Pernod Ricard Pacific, and Progress Software to design a system in which the real-world business processes were closely matched by the computational workflows. And there is no overhead dealing with contingencies in the data that may have otherwise existed.”

IMPROVED PRODUCTIVITY, FASTER RESULTS

The next vintage will see Orlando Wines making use of the full capability of its new ESB for the first time. For example, Orlando Wines will be able to orchestrate CSIRO software, data sources, and data translation services to respond to requests for customized grape maturity information and logistics plans from each of its 600 subcontractors. A grower communications portal known as GrapeWeb is one of the intended endpoints of this new logistics-oriented information stream. The XML-based format of data on the ESB also enables delivery to a range of clients—including mobile devices—to further improve productivity.

“Sonic ESB allows us to more efficiently manage supply chain and logistical operations, and it allows us to integrate multiple data sources to improve our decision-making,” said Hayman. “Our ESB allows us to achieve results far more quickly and flexibly that would otherwise be possible.”

PROGRESS SOFTWARE

Progress Software Corporation (NASDAQ: PRGS) is a global software company that enables enterprises to be operationally responsive to changing conditions and customer interactions as they occur. Our goal is to enable our customers to capitalize on new opportunities, drive greater efficiencies, and reduce risk. Progress offers a comprehensive portfolio of best-in-class infrastructure software spanning event-driven visibility and real-time response, open integration, data access and integration, and application development and management—all supporting on-premises and SaaS/cloud deployments. Progress maximizes the benefits of operational responsiveness while minimizing IT complexity and total cost of ownership.

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Rev. 09/09 | 6525-127891

