# Legacy is the new asset and RAMP provides a low-risk modernization path

INDUSTRY SHOWCASE
by MarJanna Frank

Enterprise systems are not built overnight. The logic, rules and database structures are often embedded within millions of lines of code and hundreds of files that have evolved over the years. Although many of these systems are past their prime from a technical view point, the intelligence encapsulated in these legacy assets is not something that can be or should be easily discarded.

The Rip and Replace approach is rarely a desirable option and IT departments that get involved in this often find themselves spending years tweaking code and parameters in the new system to get back to the functionality of the old system. Even worse, while people can usually size their investment in legacy code and functionality, they can overlook their investment in testing. The cost of properly testing a replacement application often exceeds the cost of design and development.

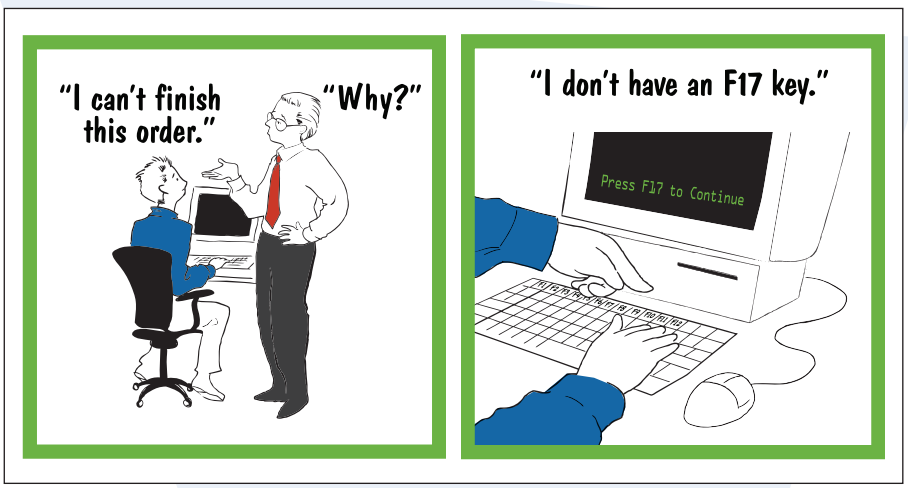
Many companies use LANSA to extend their legacy systems with new functionality, including Web self-service for customers and partners, Windows functionality, along with Web services and other forms of integration.

However, there comes a time when the core of the system itself needs modernizing. User productivity is often dragged down by the limitations of 24x80 character screen design, even after cosmetic refacing.

But modernization is not just about adding a GUI to improve user productivity. The maintenance effort that goes into these systems is disproportionately large, as the developers – if you can still find them – are hampered in capability and productivity by outdated tools.

For companies with a significant investment in existing System i applications and where refacing for looks alone is not enough, LANSA has developed the Rapid Application Modernization Process (RAMP).

RAMP is a unique stepped approach that provides a low-risk modernization path. First, you rapidly consolidate your existing applications into a graphical easy-to-navigate application framework, then incrementally replace legacy programs with new portable Visual LANSA components or add new functionality. All in the same visual application framework and in a time frame that makes sense to your organization.




## The End Destination is Portability

The end destination is a platform-independent Visual LANSA Framework application with Outlook style tree navigation and Windows rich-client or Web browser deployment. The framework gives all the search filters, results lists and navigation, while the tabs in this application contain your redeveloped programs alongside new functionality. Developers use Visual LANSA's productive 4GL and, where needed, LANSA Integrator for XML and Web service integration with other systems.

A key benefit of LANSA is its repository architecture where database related rules and definitions (field properties, display components, formula fields, validations, triggers, etc.) are stored centrally. Database changes require very little time to implement, as there are virtually no programs to change or recompile. This makes future system enhancement and maintenance easy.

## Modernization is a Journey – Not a Destination

If you don't have the need, or resources, for complete redevelopment in a single phase, your framework with tree navigation, search filters and lists would be similar. But some of the tabs in your framework would contain refaced programs, while others would link to redeveloped or new functionality.

Refacing in this context is not just providing a better looking screen. It also provides automated navigation (scripting) to get from one screen to another, abolishing the need for function keys and drastically reducing the number of keystrokes and screens.

As you continue on your modernization journey, you progressively replace refaced screens in the framework with new portable Visual LANSA functions. ➔

## Modernizing Key Business Systems

This article showcases some modernization projects where RAMP is being used to transition from the old to the new. First let's examine some System i modernization projects where companies have modernized in-house COBOL, RPG, Synon and LANSA applications, as well as packaged solutions that they have customized over many years.

Later in this article, we look at how a growing number of ISVs also use RAMP to rapidly deliver and market a modernized version of an existing solution, while progressively transforming it into a completely modernized and platform-independent solution.

**CHS Inc. used RAMP to modernize a large COBOL legacy application.**

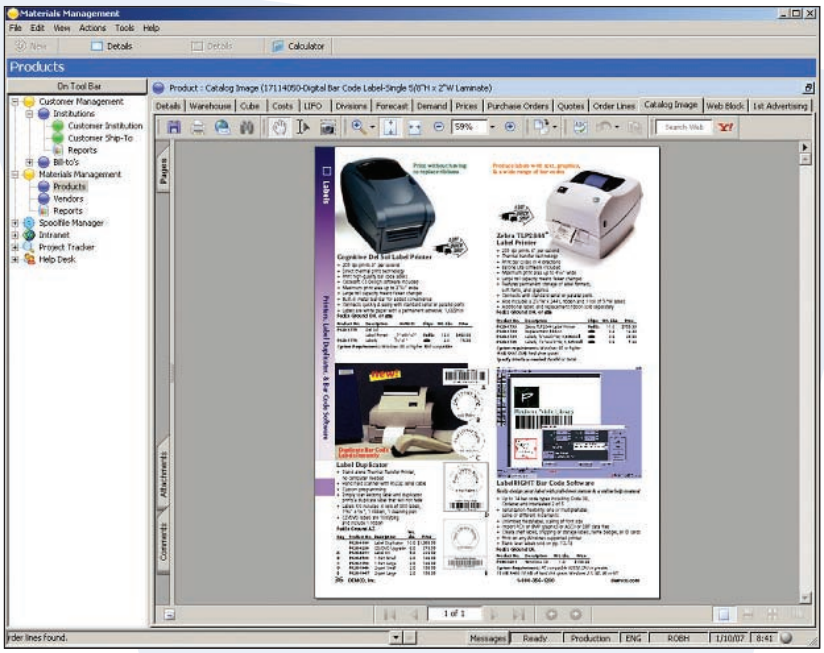
Formerly known as Cenex Harvest States, CHS is a diversified Fortune 200 company that supplies grain, food and energy products. Headquartered in Inver Grove Heights, Minnesota, USA, CHS is North America's largest cooperative refiner and manufacturer of lubricants, the third largest propane supplier and also operates over 800 convenience stores.

CHS's grain business is a major force in the U.S. and global markets, with a closely integrated network of grain elevators, marketing offices and export terminals. CHS is a partner in the USA's largest wheat milling operation and a leader in confection sunflower and oilseed processing. It also provides producers and local cooperatives with transportation, commodity brokerage, insurance, financing and government services.

The COBOL-based Contract Management Information System (CMIS) used by its Grain Marketing & Oilseed Processing divisions has grown in functionality over the years, but the user interface was archaic and unfriendly. Business is rapidly expanding and CHS decided to modernize CMIS with RAMP when faced with training the new employees its grain division acquired through market expansion.

CHS had already used LANSA for Web extensions, so a major advantage of RAMP was the ability to integrate the existing LANSA Web extensions and modernized 5250 screens in a single portal. Another plus for LANSA was its capability for language localization to support CHS's expansion into Europe and other non-English markets.

André Dubé, IT manager for CHS grain division, says, "With over 500 programs and more than 200 screens involved, RAMP was simply the best and least expensive way to modernize our core application with state-of-the-art technology and navigation. Why spend 10 times more to rewrite?"




*DEMCO used RAMP to modernize its green screen ERP system, avoiding the high cost and disruption that an ERP replacement would entail.*

"The modernized application is easy to learn and gives the user a complete view of all the information they are authorized to access in a productive tabular format. There is no more guessing as to which action or function to select, as buttons and tabs define all options and drop down tables display the appropriate field entry options. With navigating made simple, the casual user is no longer intimidated and cheat sheets are out."

**Cinram UK used RAMP to make its legacy system look and behave like Windows SAP.**

Cinram UK, a division of the world's largest manufacturer and distributor of prerecorded entertainment media, holds exclusive agreements with major brands including Warner Home Video, 20th Century Fox, MGM and EMI.

Cinram had won a major contract to manufacture and distribute CDs and DVDs for one of the largest players in their industry and had positioned the specialized nature of their IT system as a key differentiator to win the bid.

But the customer had been using a modern SAP system, so going back to "legacy" green screens from a graphical Windows front end became a major source of dissatisfaction. Although the system was functionally rich, fast and robust, the users just could not see past the limitations of the green screen interface.

The goal was to make the legacy system look and behave like SAP. RAMP was selected for the modernization project and within a year the goal was achieved.

Cinram's customer now enjoys the best of both worlds: the underlying strength of the existing core system married to a graphical front-end that has perceived parity with SAP. Cinram has also delivered better integration between the legacy system and desktop applications.

**Cookson Precious Metals improved productivity across 12 key business processes by 25 percent using RAMP.**

Cookson Precious Metals, a division of Cookson PLC, a FTSE 250 company, is the largest supplier to the U.K. jewellery trade with a catalog of over 10,000 products and annual sales of £280 million. Cookson has responded to falling prices and global competition by reengineering core business processes and sourcing from Asia – all of which introduces new complexities into managing their supply chain.

Cookson's core business system is a set of green screen applications. The business driver for modernization was to increase productivity in the sales order processing area, which handles over 1,000 inbound calls per day. The old green screen interface was cryptic and laborious as users needed to navigate through 31 screens to process a four-line order. Over twenty percent of inbound calls were order inquiries and without the right information

at their fingertips staff spent an average of several minutes on each call.

A new graphical front-end – built with RAMP – reduced the keystrokes needed to complete an order from 101 to 26, a 75 percent reduction. Likewise, an order status call can now be answered by looking at a single screen, instead of navigating 14 different green screens.

The total effect has been a 25 percent productivity improvement across 12 key business processes and a significant reduction in errors and training time for staff. New functionality includes a decision-support module that guides staff on whether to source locally or from Asia according to business rules set by management.

**DEMCO is an example of a long-time LANSA customer modernizing their core systems with RAMP.**

DEMCO Inc, based in Madison, Wisconsin USA, provides supplies, equipment and furniture to libraries and schools in North America and Europe. DEMCO uses LANSA for its core operational system and for customer and supplier facing Web sites.

Recently, DEMCO used RAMP to modernize its green screen ERP system, avoiding the high cost and disruption an ERP replacement would entail.

After seeing RAMP at Spring COMMON 2006, DEMCO commenced a modernization pilot. Mark Anderson, VP business development and IS, explains, "We were very pleased with the results, with positive benefits in the compression of navigation. In some areas, the number of screens was reduced by a factor of 30. Plus we could blend rich-client and browser functions seamlessly in the same framework."

After the success of the pilot project, DEMCO embarked on a full modernization project and is now progressively deploying the modernized functions throughout the organization. Anderson estimates that the costs for customizing, testing and implementing a packaged solution are 35 times higher than modernizing an existing system.

"Of the last three people we brought into the application development area, two were .NET developers. They've adapted well to this modernized environment and are enthusiastic about the structure and efficiency that the LANSA development environment provides," explains Anderson.

"The way is now clear for us to fully commit to Visual LANSA development for our core business system as opposed to 5250 development. For us, RAMP was – and still is – the best way to take a big application, get it modernized and set the stage for transition into the years to come, preserving what we've got and setting the stage for where we want to go with our business systems. Building new applications with the existing base already modernized, is very beneficial."

**Francis Marion University (FMU) is using RAMP to progressively modernize a large RPG-based student administration system that includes S/36 code.**

FMU, one of 13 state-supported universities in South Carolina, USA, provides strong liberal arts based programs for both undergraduate and graduate studies. Over the years, FMU has used LANSA to extend its RPG-based student administration system with self-service Web access by students and faculty members for registration, class scheduling, grade enquiries, degree audits, financial aid applications and more. FMU is now modernizing its core system with RAMP and Visual LANSA.

FMU faculty and administrative staff used IBM Client Access and BOSaNOVA terminal emulation to access the student administration system's 5250 screens, but that did not make it any easier to get to the data.

The new RAMP-ed module has sophisticated searching and sorting of student records, with tabs to quickly point-and-click to the required details. Student information has been extended with photo IDs to reduce the risk of identification theft and an email tab that offers easy integration with MS Office.

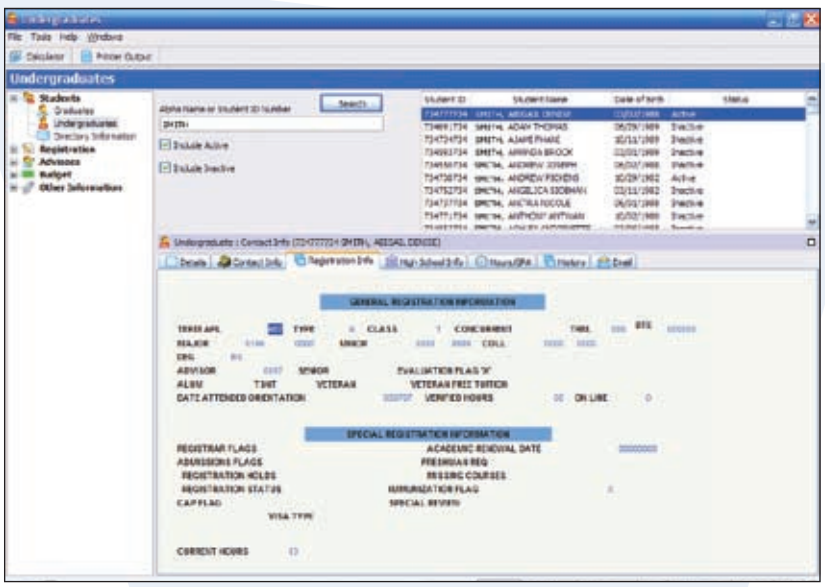
"Now that our users have seen the first RAMP-ed module, expectations have been set very high," say Robin Moore, director of campus applications and data services. "Eventually we want to have an environment where there is no reliance on RPG and deployment is graphical and cross-platform. Our student administration system includes about 8,000 programs and 4,000 files. Using RAMP, we can cost effectively modernize and redevelop those modules that have a high priority and gradually get there."

"The project was easy and straight forward, even though this was our first Windows rich-client implementation. Two staff members worked on the project with my help. We purchased RAMP in May 2007, did the RAMP training, worked together with the faculty members on the requirements and deployed the first GUI module in September 2007."

**Gannett used RAMP to create a portal to multiple System i servers for several hundred customer service staff.**

Gannett Co., Inc. is a leading international news and information company with revenues of $7.4 billion. Gannett is the largest newspaper publisher in the USA, with 85 daily newspapers, including USA TODAY, and daily paid circulation of approximately 7.2 million. It also has nearly 1,000 non-daily publications, 23 television stations and a large U.K. newspaper publishing operation.

Since 1998, Gannett has managed circulation, advertising and marketing for most of its newspapers with a LANSA-based application called Genesys. The newspapers run Genesys and other applications independently on 56 System i servers. Internal users access the system with green screen and




*Francis Marion University is using RAMP to progressively modernize a large RPG-based student administration system to give faculty and administrative staff point-and-click access.*

Windows clients, while external users have Web access – all developed with LANSA.

Gannett used RAMP as a temporary solution to enable a rapid consolidation from many down to three customer service call centers, allowing time to create new custom call center software. RAMP gave over 300 customer service representatives access to all newspapers and System i servers from one application window with a single sign on.

"We picked RAMP from LANSA because no other solution could have done the job. The first center was opening as soon as the phones could be installed. All we had was a cryptic, code-based green screen application that used almost every available function key and could only handle one newspaper," said Peter Olsen, manager of Genesys development at Gannett.

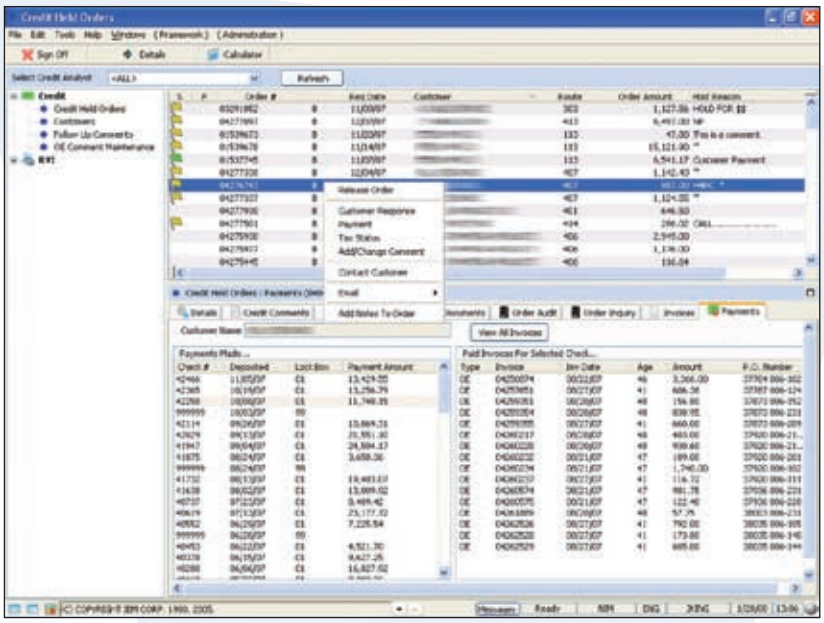
"Yet RAMP managed all that potential chaos, providing a tree view to select newspapers, using simple drop-down lists instead of codes, spelling out abbreviations, and automating screen navigation. RAMP reduced training time and errors. It also reduced call handling time, which was a major part of this project's ROI."

**Norfolk Iron & Metal (NIM) redeveloped 90 percent of its Credit Hold Orders application and snapped the remaining applications into a single Visual LANSA Framework portal**.

NIM, headquartered in Norfolk, Nebraska, is one of the top 30 steel services providers in the USA. Family owned and run since 1908, NIM has expanded to 550 employees and has additional service centers at Emporia in Kansas, Greeley in Colorado and Rock Island in Illinois. Services include laser cutting, plasma cutting, shear cutting, press baking, band sawing, coil lining, shot blasting and temper passing, all using state-of-the-art processing equipment. NIM's deep inventory allows for fast turnaround and its fleet of over 100 semitractors and 200 trailers has 85 percent next-day delivery success rate.

To continue to support its dynamic and fast operations, NIM is planning to modernize and redevelop its entire RPG-based in-house ERP system using Visual LANSA Framework and RAMP.

As a first step, NIM modernized its Credit Hold Orders application. This application involves a lot of communication between the credit analyst, sales reps and customers and was a prime candidate to benefit from new Windows functionality and tight integration with MS Office and Outlook.



*Norfolk Iron & Metal redeveloped 90 percent of its Credit Hold Orders application and snapped the rest of the application into a single Visual LANSA Framework portal.*

Held orders are now available in a grid that can be filtered and sorted. All the information the credit analyst needs to release an order is available via the tabs from a single consolidated screen. Users just right click on a customer name to start Outlook with the customer and order details already prefilled in a template message.

The entire process of invoicing, applying payments and releasing orders has been streamlined. Invoices can now be generated, viewed and emailed in PDF format and the payment module integrates with check scanning software.

Jason King, IS manager at Norfolk Iron and Metal, says, "About 90 percent of the Credit Hold Orders application has been redeveloped with Visual LANSA Framework and we used RAMP to snap the less frequently used applications into the same Framework. This 90/10 approach gave us more time to focus on rebuilding and improving the areas that are used frequently."

"We want to bring Windows functionality to our entire ERP, but we will not touch a lot of the applications for the time being. The end result we are aiming for is that all our programs will have been rewritten for Windows, using Visual LANSA Framework. RAMP is the tool that we are using to get there."

**PartyLite used RAMP to boost user productivity and feedback while its core application is redeveloped with Visual LANSA Framework**.

PartyLite Worldwide, Inc., with its European IT center at Heidelberg, Germany and its American IT center at Plymouth, Massachusetts, is one of the fastest growing direct sales companies in the world with 65,000 independent sales consultants selling premium fragranced candles and a wide range of decorative accessories to consumers through the party plan method of direct selling.

PartyLite has customer service centers in its European countries of operation with 8 to 15 staff that felt slowed down by the 5250 applications used to handle calls from sales consultants. The main request was to modernize the screens and consolidate data displayed over multiple 24x80 screens. After modernization with RAMP the application offers easy sorting and searching of consultants and orders, based on multiple criteria. The application also has new functionality, such as integrated Internet access to track and trace parcels.

Hartmut Vietzke, application manager for PartyLite's European operations, says, "Now customer service can give a quick and accurate answer when consultants call about the status of their order."

"Our goal is to redevelop the entire application in Visual LANSA Framework. Going through the RAMP stage was helpful, because even though parts of the programs are still refaced, it let us improve productivity in our call centers quickly. Also, because the current Windows version is far easier to use than its 5250 predecessor, the users are getting

enthusiastic, resulting in better feedback to us regarding what should be included in the next stage."

"With no previous Windows development skills, the project took about one man month spread over three calendar months. We now feel very comfortable with Visual LANSA Framework and we look forward to the next project."

**Strattec Security Corporation used RAMP to streamline allocation of backorders by modernizing its System21 solution.**

Strattec, headquartered in Milwaukee, Wisconsin, USA, is the world's largest producer of automotive locks, keys and related security access control products for global automotive manufacturers. Formerly a division of Briggs & Stratton, Strattec's heritage goes back nearly 100 years to the early days of the automobile. Strattec ships products to customer locations around the world and provides full service aftermarket support.

Strattec uses System21 (formerly from JBA now Infor) and wanted to modernize parts of this application to provide better productivity to users. One particularly time consuming procedure for staff was determining which items in shipments from their plants needed to be allocated to fill backorders and which items could be kept in stock.

The 5250 application required many steps, including printing the list of received goods and manually checking each item on the list to see if there were backorders and then enter the quantity to be allocated. Staff had to switch menus several times, exit screens and write down customer numbers for pick slip sorting later in the process.

The RAMP-ed process automatically checks all confirmed shipments for items on backorder and displays the relevant item receipts and backorder information. The user only has to confirm the stock allocation and pick slips are automatically generated in the desired sequence.

"In the old system, a shipment took on average 162 minutes to process," says Nick D'Allessandro, technical lead at Strattec Security. "Now in the RAMP-ed version a shipment takes on average 24 minutes to process. We are very pleased with the solution because we didn't have to change the way the process works, we just streamlined it and made it six times faster."

## Getting Modernized Solutions Quickly to Market

Independent Solution Vendors (ISVs) can benefit tremendously by redeveloping existing applications in Visual LANSA to support cross-platform and hosted ASP deployment, in multiple languages from a single set of source code. RAMP lets ISVs quickly create a solution that is marketable to new prospects and existing customers, while progressively releasing rearchitected modules. This approach also provides a low-risk modernization path for existing customers.

**American Health Care Software Enterprises Inc. (AHC) is modernizing 20 million lines of Synon Cool/2E and RPG code with RAMP.**

AHC, an IBM business partner located in Burlington, Vermont, USA, is a solution provider to the American healthcare industry with over 125 accounts that include nursing and retirement homes, home care providers, assisted living apartments, outpatient clinics and other healthcare providers.

AHC's Harmony Health Care Management System offers fully integrated software suites that can be used standalone or in combination, including Continuum of Care, Clinical Care, Home Infusion, Human Resources and Finances. Harmony has over 20 million lines of Synon Cool/2E and RPG code with over 8,000 screens, many of which were originally refaced with Seagull and later with Web2E.

As part of a long-term modernization plan, AHC will initially modernize and extend their Harmony application with RAMP. Over time, Harmony will be reengineered with LANSA to create a highly graphical solution that can be deployed to multiple platforms and on a Software as a Service (SaaS) basis.

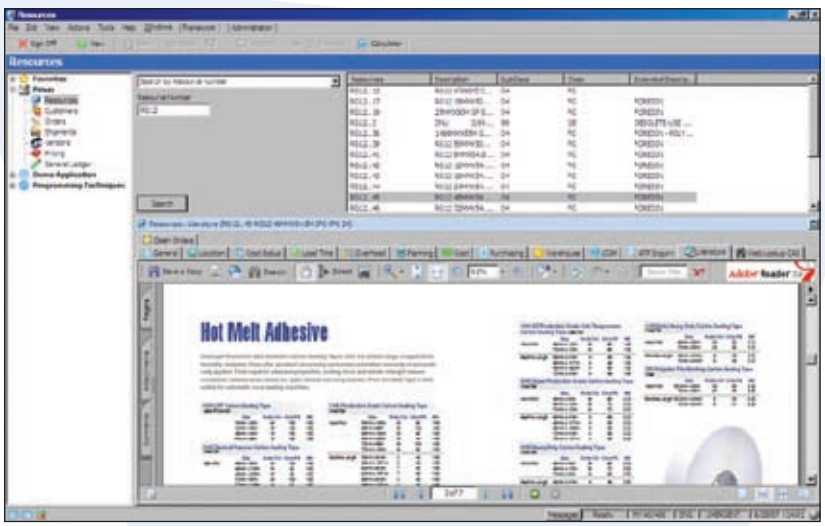
Marcia DeRosia, president American Health Care Software Enterprises, Inc., explains, "Harmony is a very large application with several integrated application modules. I have long-serving and very knowledgeable staff who understand the application, the healthcare industry and Synon, but not necessarily modern development languages."

"If we were to redevelop Harmony in .NET or Java, I would have to recruit different staff and we would probably be looking at a five-year project before we have something marketable. With LANSA, we can get there much quicker and with our current staff who can continue to support our existing product line during the transition."

"Equally important is that, as RAMP lets us combine modernized and new functionality in a single integrated framework, we can take new functionality, like electronic care records, to market while we are still in the modernization stage. We protect the investment of our existing clients in the database on the System i and provide them with options for the future."

**Control Systems Software (CSS) chose RAMP to modernize a member-driven RPG agribusiness solution.**

CSS, based in Urbanvale, Iowa, USA, is the member-owned and -driven developer of the CONTROL agribusiness solution. CONTROL is a fully integrated system that includes POS, bulk fuel, inventory, commodities management and financial

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modules, with interfaces to a range of industry solutions, such as scale and feed interfaces, agronomy applications and more. Members take an active role in determining enhancements and after extensive evaluations RAMP was chosen to help CSS modernize the RPG-based solution.

Carol Stewart, CEO of CSS, says, "While the text-based interface works well and many long time users like it, new hires expect a GUI interface. RAMP's efficient navigation structure will be more productive for our members, but we will give individual users a choice of green screen or GUI. The Favorites facility will also make it easy for management to find their way to information, as they can bookmark the functions that are relevant to them. The Visual LANSA Framework will also give us faster development down the line."

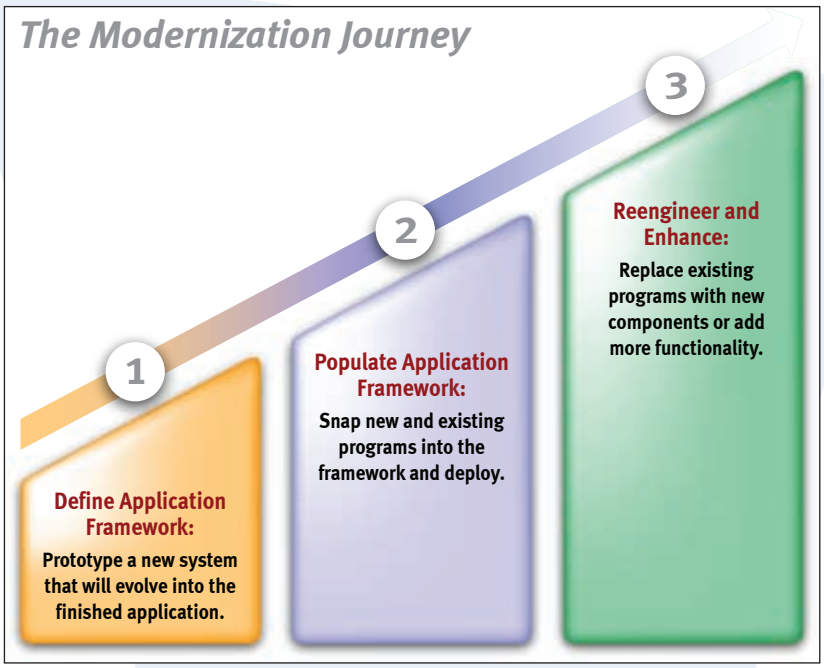
**Precision Solutions Group, Inc. (PSGI) is using RAMP to modernize PRISM, a suite of ERP software targeted at process manufacturers.**

PSGI, based in Walpole, Massachusetts, USA, was founded in 2003 with the specific goal of extending the life of its customers' legacy enterprise systems. PSGI helps companies achieve greater efficiency, significant cost savings and higher ROI by getting more out of their existing investment in business systems.

PSGI provides customer support and professional services for the majority of North American-based companies running the PRISM process ERP application and a growing number of JD Edwards World customers as well. Customers have already benefited from PGSI's service offerings as well as products that work with PRISM and provide business intelligence, mobile computing, RFID, product life cycle management and supply chain planning solutions. PSGI is now using RAMP to modernize PRISM, ensuring it continues to meet the needs of its users.

Larry Dube, president and co-founder of PSGI, explains, "PRISM serves its users extremely well delivering the functionality they need to run their businesses. Our primary mission is to extend the life of PRISM through expert customer support and consultancy services and a continuous stream of enhancements and add-on products."

"Now, using RAMP and with the PRISM user community's assistance, we can provide a modernization framework that cost effectively satisfies today's business requirements and offers a path for future development in a fraction of the time and cost of migrating to a new application."




*RAMP provides a low-risk modernization path that lets you rapidly consolidates existing System i applications into a graphical, easy-to-navigate application framework, then incrementally replace legacy programs with portable Visual LANSA functions.*

"Past efforts to modernize PRISM failed for two reasons – too much emphasis was put on simply developing a GUI version of what users already had and the customizations at each customer site were not accounted for."

"The PRISM user community has reacted extremely positively, because in addition to GUI screens and better access to information, we are also providing more functionality and better integration with other software, databases and hardware platforms."

"Most importantly, RAMP has methods for modernizing PRISM that take into consideration the customizations that users have made."

"Not only are we moving PRISM forward, but we are also moving our customers forward by delivering the most cost effective and low risk modernization path available today. RAMP provides the framework in which we can continue to enhance and support PRISM for years to come."

**Rippe & Kingston Systems is using RAMP to modernize their leading maintenance management solution used by hundreds of companies.**

Rippe & Kingston Systems, a highly successful software development, consulting and services firm based in Cincinnati, Ohio USA, has been a LANSA Partner since 1989. Rippe uses LANSA for several of its solutions and as an integral part of its services.

"Our METHOS application is a leading product for plant and facility maintenance but it had a 5250 interface," says Thom Davidson, president of Rippe & Kingston. "The market demands more than just screen scraping and a rewrite was not a good answer because of time, money and risk of losing capabilities in the process."

"With RAMP we can now deliver Web and client/server capabilities for METHOS without risk. In addition to the very rapid delivery model, we have a dramatic improvement in application navigation, simplification and expansion of our business into the ASP model. We can also plug RAMP functions directly into any leading portal, including our own e.ssential portal." ■

RAMP
from LANSA