LANSA Case Study

Porsche and LANSA Speed and Elegance in any language

All around the world, Porsche stands for design excellence and high performance. When Porsche Cars North America launched its stunning Porsche Boxster, it used LANSA to give its corporate staff and over 200 dealers in the USA and Canada a brand new high performance Vehicle Management System (VMS). Development and implementation started with Porsche Cars North America in 1998 and the same system has since been implemented in Germany, UK, Japan and other locations around the world.

Tony Chadwick, Chief Information Officer at Porsche Cars in North America, comments, "We succeeded in building a complex high quality application in a short time. I estimate that we developed the Vehicle Management System at least 3 times faster than we would have done with RPG. But it is not just a matter of comparing development times. With RPG we would not have achieved the same consistency and quality."

LANSA's Rapid User Object Modeling technology built a prototype to fast track management approval for the project and LANSA's multi-lingual support let Porsche Cars Japan quickly install and use the same system, with Europe soon to follow.

The Challenge

Tony tells the story, "With the introduction of our new Boxster and 911 models, we decided to redevelop our old vehicle management system."

"The existing twelve year old RPG based vehicle system needed to be replaced. The old system was not Year 2000 compliant, not suitable for international usage, not up to the increasing volume of orders and dealers and was very difficult to maintain. Because the car models were hard coded in the system it couldn't handle our new Boxster Model effectively."

"In addition, it was mostly based on batch processing and gave a slow turnaround for order validation and sales analysis."

The requirements

Ordering a Porsche is not as simple as entering an item number and a quantity, as Tony explains. "Our dealers have to 'configure' a car by selecting from over 2,500 combinations of options. These options describe the color (interior, exterior) of the car, materials used for the seats, even the type of gear lever. In some countries as many as eighty percent of our cars are made to order, while in others we can deliver mostly out of stock. The system needs to be flexible enough to handle both and still perform well. VMS also manages importation, pre delivery inspection, distribution and sales analysis."

"When we started to prepare the roll-out to the dealers our training department developed order entry user manuals for our dealers. A large part of the documentation and user manuals were automatically generated by LANSA."

"We wanted the new system to be a high quality application with a minimum of maintenance. It had to have a consistent user interface that included integration on a real time basis with our other applications (Infinium Financials, ASI warehousing and an in-house developed Warranty Claims system). Since Porsche Cars Japan and Europe would also use the new system it needed to have multilingual capabilities, including support for Double Byte Character Set (DBCS) languages such as Japanese."

The Project Steps

"Since we only had a short time frame for designing and developing the system, we decided to use LANSA's Rapid User Object Modeling tool to produce a prototype quickly. We have used LANSA since the early nineties, so we already knew it was an excellent AS/400 development tool."

Alan Christensen, a senior business analyst from LANSA USA recalls, "The first step was to use a JAD methodology supported by LANSA object modeling tool to understand the business dynamics and define the data model and business rules. Next we used LANSA's templates to generate the programs for a working prototype, as well as data conversion programs to populate the new files."

"In the second step we demonstrated the working prototype to Porsche's senior management and knowledge workers. Based on their feedback we mapped out some enhancements."

"In the third and final phase of the project we completed the business rules in LANSA's repository and fine tuned the LANSA templates to generate the programs according to Porsche's standards. We regenerated the VMS system, putting in more refinements and custom logic in iterative cycles."

The Implementation

Tony remarks, "The order entry part of the VMS was put through its paces by corporate users before being rolled out to a limited number of dealers. Stock and fleet cars, both with a predictable configuration, are ordered by Porsche Cars rather than the dealers."

"One of the modules of the VMS system, the Car Allocation module, went into production long before the other modules. Dealers can only order cars based on their allocation, so this is a very important step in the sales process. Car allocation was not automated by the old system and since we had to order the new Boxster cars before the implementation of VMS we decided to integrate this new module with the old system as well as delivering it with the new VMS system."

"Other modules of the system such as the order guide and sales analysis were gradually implemented by our corporate users."

"In June 1997, the first group of dealers went live with the new VMS and within a few weeks most of North America's 220 Porsche dealers were using the system. Training was easy because of the consistent user interface."

"Now that we have the right functionality in place, we are looking at using LANSA for the Web to Web enable our VMS application. That way our dealers can choose to use terminal emulation or a Web browser to access the same application."

The Benefits

Both Porsche corporate staff and the dealers have benefited from the new system.

Tony comments, "Customer service has improved with the new system. Our dealers can now quickly and accurately inform the customer about stock availability and delivery times. Some of the dealers even sit together with their customer behind the order entry screen to configure and order a car."

"Our marketing division is pleased with the new system as well," continues Tony. "Our new sales analysis system captures who will use the car, recording name, age, gender, address and profession. It can also record household income, geographic income, hobbies and number and age of children. We want to know exactly who our customers are, what magazines they read and where they live. We also keep this information about second and subsequent owners of a car. This helps us to better serve our customers and organize appropriate mailings and events. We have over 65% customer retention and with the new system it may even get better."

John Thompson, General Manager, World Systems, concludes, " A great improvement, and it paves the way for Porsche to enhance its customer service by way of Dealer Communications systems."

The Future

Tony concludes, "We have used LANSA since 1991 and we don't spend anywhere near as much time on maintenance as we did with our RPG based systems."

Company and System Information

- • Porsche Cars North America (PCNA) is the sole distributor of Porsche Cars and parts.
- Over 220 dealers in the US and Canada.
- Sales revenue for 1996 exceeded US $500 million
- PCNA has 225 employees
- Porsche Cars' Web address is www.porsche.com
- Porsche's VMS system is a series of LANSA engineered business application modules all sharing a highly integrated Object repository. The system provides PCNA (along with its dealers) the ability to manage all information regarding Sales and Distribution of Porsche cars in North America.
- One AS/400 model 510
- Corporate staff use 85 PCs in token ring and 25 laptops in field - no dumb terminals
- Dealers use dial-in communications to hookup dumb terminals to the system via a satellite network

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