

DESARROLLO DE PRODUCTOS INFORMÁTICOS (DPI) LOOKING TOWARDS THE FUTURE: HOW DPI WAS ABLE TO OVERCOME ALL IT'S CHALLENGES WITH CARAVEL™

Desarrollo de Productos Informáticos, S.A. (DPI) is a Spanish company that develops and markets software solutions for the financial industry. As solutions provider of investment management systems, DPI has maintained a leader position it has held for the past 18 years.

Its customer base, DPI includes the major investment institutions several of them belonging to the main banking groups of Spain.

After a detailed research within the available solutions and tools, DPI has selected Caravel™ as their most favorable option

DPI was born as independent company in 1992 founded by a group of highly qualified professionals. DPI has based its success on the specialization and the excellence of its products, all of them oriented to the AS/400® world.

Converting its systems to Java™, DPI has opened its product to any open platform bringing total technological independence and the chance to deploy a fully Internet architecture.

To be able to achieve this success, it was necessary to solve different market challenges: new platforms, better performance, lower costs and an easy transition of a technical team trained in legacy technologies.

Caravel™ helped DPI, his team and his customers to benefit from modern architecture and to find new opportunities.

DPI'S PRODUCTS

Until 2002, DPI based its developments on the AS/400® IBM® platform, using RPG as the main language. Today, its products constitute a suite of highly sophisticated applications, containing a total of 10,000 objects and having their essential strength in functionality and security.

The company's products are divided into 5 group of solutions: (1) Investment Fund General Management Application; (2) Management of Collective Investment Institutions; (3) Funds and Pension Plans Management; (4) Corporate and Mutual Trust Funds Application, and (5) Corporate Portfolio Management.

All these products share a common basic ledger application.

Along with the developed products, the company offers a range of complete maintenance and support services that ensure constant up-dating and functionality of the systems, 24 hours a day and 365 days a year.

This implies that DPI has a wide knowledge of his platform and a trained team of professionals with in-depth experience.

DPI's market share is the highest in its sector, having a customer base among the most skilled financial institutions operating in Spain. Presently, DPI's systems manage investments worth more than seven (7) billion Euros.

GROWING WITH THE INTERNET: CHANGES AND OPPORTUNITIES

The sector in which DPI develops its activity is extremely dynamic. Because a continuous delivery of new financial products that must be quickly incorporated into the companies portfolio, DPI's systems are under permanent update process. Therefore, DPI must have the capability of immediate answer for the users' new coming needs.

On the other hand, the daily increasing presence of investment operations over the Internet has changed the way of doing business, with the birth of specialized brokers with aggressive policies to penetrate the market.

Simultaneously, Internet model allows individuals to access directly the financial markets. It means the need for financial institutions to provide the capability to conduct transactions through the net. All software solutions should be designed in accordance with this new scenario.

The overall general interest in Java™ and open solutions is present among those who are responsible for Information Technology within the finance sector. Therefore for Internet architecture, Java™ is the first technological choice.

For DPI this change represented a market opportunity with great potential and the modernization process had to be carried out in the shortest period of time possible.

EVOLVING TO JAVA™

This evolution implied the transfer of DPI's in-depth know-how about the financial market and its technological needs, to newer platforms, and new ways of accessing information.

Even though the first obstacle was to convert the applications written in RPG to Java™ and to make them accessible through the Internet, this was not the main difficulty.

Simultaneously, it had to lead a group of highly qualified professionals in their transition from technologies based on RPG and OS/400® to the open systems: Java™, XML, Linux®, etc. This transition was focused at maintaining 100% of the team's productivity.

Finally, it had to guarantee further evolution of the applications, both the RPG version as well as the Java™ version. The technical team confronted the problem of having to maintain two versions simultaneously with ease.



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THE HARDWARE ADVANTAGE

Some DPI's customers wished to have the freedom of choice their platforms and architectures, instead of being forced to only one hardware supplier.

Open systems offered a substantial advantage over the hardware limitations linked to RPG.

Other customers wished to maintain the AS/400® platform, but felt the need to update RPG to modern languages. In this case, the new Java version was installed on the AS/400 platform. In both scenarios, DPI was in the position to offer satisfactory alternatives.

CARAVEL™, THE TECHNOLOGICAL ANSWER

The DPI technicians evaluated the diverse possibilities that would allow them to transform their systems.

The first approach, reprogramming in Java™, was turned down for reasons of high cost and length of time. A carefully estimation indicated that it would take about 200,000 hours to reprogram all the applications, which was considered an excessive amount of time. From the beginning, the conversion option was the best solution according to the summarized needs.

The initial election of Caravel™ was based on the ease of maintaining the generated code and offering a way for the technical team's transition to Java™.

Prior to beginning the project, BASE 100 achieved a PoC conversion with a significant part of DPI's applications. The technical team chose to use the accounting module, which is part of the basic package, for this sample conversion. The success of this experience triggered the signature of a contract to convert all of DPI's applications.

As a result, Caravel™ was the chosen solution both for the interface capability

and for the code readability.

CONVERTED SYSTEMS: AN OPEN MARKET

Caravel's conversion process allows DPI's solutions to be deployed throughout a wide variety of technological platforms that are practically limitless, offering its clients the most up-to-date technological solutions.

Another aspect that led DPI to adopt the Caravel™ solution was the fact that the converted applications automatically included a multi language option. The diversity of cultures and languages among DPI's customers made this aspect an important one.

Presently, DPI is expanding its commercial activity with new offerings for its current customers and by developing active plans to reach new customers throughout Europe. DPI has reinforced its leadership position by being able to successfully offer its applications on any platform.

TECHNICAL INFORMATION

Purpose	Financial Stock-market Software
Applications	<ul style="list-style-type: none"> • DPI Basic Ledger Package • Live Investment Fund Management Application • Management Funds and Pension Plans Application • Corporate and Mortgage Trust Funds Application • Corporate Portfolio Management Application • Module for S.G.I.I.C.
Type of RPG	RPG/400®

	Original Platform	Final Platform
Programming languages	RPG/400®	Java™, HTML, XML
Operating System	OS/400®	Windows, HP-UX, SUSE® LINUX®
Data Base	DB2/400	Oracle®, DB2®
Hardware	AS/400®	Multi-platform
Number of RPG objects	9,975 (equivalent to approx. 16.250.000)	

BASE100

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