# LANSA Case Study

## HFA's up-skilled RPG team on equal footing with Java team

The developers that maintain RPG applications that 'just work' are often underutilized when it comes to the more exciting new Web and Windows development projects. Yet it's often the RPG developers that have a deep knowledge of their company's business and IT systems, plus the maturity to understand what adds to business value and what doesn't.

At the Harry Fox Agency (HFA) IT management decided that its RPG team was far too great a resource to exclude from new development projects. HFA implemented a practical plan to up-skill its RPG developers and by doing so doubled its resources for new development projects, putting the RPG team on equal footing with the Java team.
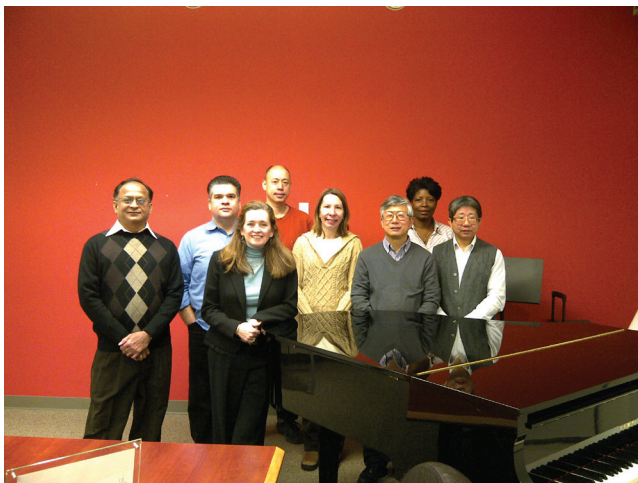
### RPG Team in Maintenance Mode

HFA is the USA's leading provider of rights management, licensing and royalty services for the music industry. With over 46,000 music publishing clients, HFA issues the largest number of licenses for the use of music in both physical and digital distribution formats.

HFA's business IT systems, mostly developed in-house, evolve around a few key areas: its inventory of musical compositions (songs), license requests from music distributors, license approvals by publishers, and royalty collection and distribution.

The song applications are mostly written in Java and run on Windows and Linux servers, while most of the licensing and royalty applications are RPG and IBM i-based. Until recently, the only application that wasn't RPG or Java-based, was eMechanical (eMech), the company's online license request solution for music distributors. It was developed by a LANSA consultant in 2005. HFA's own developers weren't trained in LANSA, nor involved in any LANSA projects, and since eMech was humming along happily, there was no need to get involved.

A few years ago Ellen Rosa joined HFA as the Project Manager for new application development, spanning both the RPG and Java platforms. Back then everybody was standing in line for the Java team, because the perception was that they were there to build all the new and exciting applications on Windows and Linux, while the RPG team was there to maintain legacy applications on the IBM i. As Rosa's focus was on new development, she had little interaction with the RPG team.



*Ellen Rosa with the RPG/LANSA development team.*

### "What really sold me was LANSA's rapid development and multi platform deployment."

More recently Rosa was promoted to Director of Core Applications Engineering and became more involved with the RPG team. She got a better understanding of the team's capabilities. "These guys have a deep understanding of our business and IT systems. They handle the guts of our processing. Plus they are extremely professional and disciplined in the whole process of writing good code, testing it and rolling it out to the users. If only the team had a better tool than RPG, they would be very capable of delivering modern applications," Rosa says.

In her new role, Rosa's goal was to modernize HFA's core IBM i applications and to better utilize the skills of the RPG team. The RPG team was enthusiastic about the plan and longing for something new to work with. One of the applications on top of the list for redevelopment was the Publisher Online Licensing Interface (POLI+), used by the publishers to accept/reject license requests and manage their transactions. Now replaced, the old POLI+ was HFA's last 5250 application for external users.

Since the eMech Web solution for music distributors was doing so well, LANSA came first to mind for redeveloping POLI+, but Rosa also gave consideration to IBM WebFacing, PHP and Java. WebFacing required little training, but was

### Snapshot

**Customer:** Harry Fox Agency is the USA's leading provider of licensing and royalty services for the music industry. www.harryfox.com

**Challenge:** The RPG team had a deep understanding of HFA's business and IT systems, but not the right tools to contribute to modern development

**Solution:** The RPG team up-skilled with LANSA.

**Key Benefits:** The team was productive in a very short time. Now applications are easier to maintain, evolve and expand.

**Product Used:** Visual LANSA.

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rejected because it was too limited for taking POLI+ forward. PHP was determined to have a bigger learning curve than LANSA, and Java even more so. "Java is not for everyone, you might just as well train RPG programmers to become brain surgeons," says Rosa.

## Redeveloped in Two Months

LANSA was selected as the development platform for the new POLI+ Web project, but not just because the tool was already lying around. "What really sold me was its rapid development, plus the fact it runs on multiple platforms," says Rosa. Rosa and her team also found it a major benefit that LANSA can call RPG programs and that LANSA has native access to DB2/400 data. HFA has a huge amount of RPG code that is well written, presenting great business value. Taking advantage of existing back-end practices made good business sense.

All six members of the RPG team undertook training in Visual LANSA Web Application Modules (WAMs), a much newer development method than used for the six year old eMech solution. Three of the developers were taken away from their regular maintenance duties and given the job of developing the new POLI+ Web application. At the beginning of the project, a LANSA consultant was available for mentoring and best practice guidance, helping the team to do things right from the start and meet the tight project deadline.

"POLI+ is a large application," explains Rosa. "There are 10 tabs, each with a range of interactive update and query functions. The developers rewrote this large application completely in LANSA within two months. New functionality was added as well."

LANSA's graphical and event driven WAMs present a totally different development paradigm to RPG, but even so, the tool was picked up quickly by the team. "Our developers can do RPG in their sleep and whip up a database maintenance program in no time. Using LANSA they are able to program with almost the same time estimate as with RPG, maybe just slightly more at this stage, because they are still relatively new to LANSA," says Rosa.

"The RPG developers loved the challenge and felt energized by the project," continues Rosa. "They could not stop working. I got emails at all hours of the night when they discovered something new."

The new POLI+ application went live soon after development was completed and was very well received by the publishers. "We got a ton of compliments," says Rosa."They even tweeted about it on Twitter."

Rosa attributes the success of the project to a combination of the developers' experience, maturity and willingness to innovate, with an attention to quality and business value that other development options often struggle to produce.

## Productivity and Moral Boost

"By training our RPG team in a modern and practical development tool, we doubled our development resources," says Rosa.

## Company and System Information

- HFA is the leading US provider of licensing and royalty services for the music industry. Representing over 46,000 publishers, HFA licenses the largest percentage of the mechanical and digital uses of music in the United States.
- HFA's system consists of a combination of Linux and Windows servers as well as an IBM iSeries Power#6 server.
- For more information visit: www.harryfox.com

## "LANSA enabled us to very quickly modernize an application and make it easier to maintain."

The doubling of resources is extremely welcome as HFA needs to continuously update its systems to keep up with the fast changes in its industry. Since the digital music revolution there are a huge number of players, many license type varieties such as downloads, streaming and ringtones, plus licenses are often issued for a single song rather than an entire album. As a result, HFA's processes are now far more complicated and data volumes have sky-rocketed as much as 800% over the last year.

HFA Senior Vice President and CIO Louis Trebino explains, "While complexity and volumes have gone up dramatically, revenues have not increased to the same extent. So productivity and efficiency are more important than ever. In our industry we need a very fast speed-to-market approach to support new types of transactions and services. Anything we want to do in Java is generally a fairly extensive development effort. With proper foresight and planning that's okay, because we can schedule for it. In the past when we identified an opportunity that needed action quickly, Java was not always the best choice. RPG was much quicker, but it lacked the graphical and cross platform capabilities."

"And that's where LANSA really came into play and enabled us to very quickly modernize a core application and make it much easier to maintain, evolve and expand in functionality. We have proven we can take a quite substantial core application that was dated in terms of appearance and flexibility, and very quickly modernize it for the Web, take its code forward and position it for growth."

## Business Needs Determine the Tool

"Historically the RPG team was ignored when it came to new development efforts, because no one wanted the legacy applications they produced. Now, with LANSA in place, the RPG team is on equal footing with the Java team. Business considerations, productivity and resource availability determine the choice of tool and platform," says Trebino.

Many, if not all, one-off user requests that require new development on the IBM i are now handled with LANSA instead of RPG. The RPG team has also started on its next big LANSA project: a new Audit Uplift system for internal users, this time with a rich Windows interface rather than a browser interface.

"The Audit Uplift project had been on the table for two years, but we kept putting it off because it was going to be an extensive effort using Java, estimated to take at least twelve months development. Now, using LANSA, we're well on the way to what we expect to be a 6 month development effort. There was simply no business reason to do this project in Java," concludes Trebino.

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