

ASNA Case Study

SWBC, a 50-year-old insurance company based in San Antonio had growing concerns about finding RPG programmers to maintain and enhance its critical financial/insurance package.

To resolve this challenge, SWBC, in conjunction with the ASNA Services Team, used ASNA Monarch to migrate its RPG application to .NET.



SWBC San Antonio headquarters

SWBC offers a wide range of insurance, mortgage, and financial services. With 2300 employees, it provides a full slate of financial and insurance services in all 50 states in the US. Twenty years ago SWBC acquired a custom financial/insurance RPG package.

Over the years, that package was tweaked and tuned to meet SWBC's exact business challenges. Given concerns about RPG talent availability and the app having IBM i Power 9 dependence, SWBC needed to take steps to ensure a fruitful future for the application.

This is the story of how SWBC solved its RPG programming challenge by migrating their RPG application to .NET with ASNA Monarch.

Read all about Monarch and the ASNA application migration process at asna.com/en/migration

Email us at info@asna.com

SPAIN

Rambla Can Mora 18, bajos
08172 Sant Cugat
Barcelona, Spain
+34 902 365 787

US

14402 Blanco Rd, Suite 101
San Antonio, TX 78216
USA
800-289-2762 or 210-408-0212

SWBC is ready for another 50 years with ASNA Monarch

Gary Dudley and Charlie Amato first met in elementary school in La Porte, Texas. These two grade school kids didn't know it then, but their paths would cross again in college and, years later, again working for the same insurance company. In 1976, they pooled their entrepreneurial spirits and founded their own insurance company, SWBC (for Southwest Business Company).

Today, Gary and Charlie remain heavily involved with the company and over the years have steered it through partnerships and expanded services to offer a wide range of insurance, mortgage, and financial services. In those 50 years, SWBC has grown to 2,300+ employees and now provides a full slate of services to businesses, families, and financial institutions in all 50 states in the US.

Human and technical challenges

Twenty years ago, as SWBC was moving into the auto and mortgage insurance business, it acquired a custom RPG application to manage its credit insurance business. Originally written in RPG III, this application had morphed over the years to include a significant

amount of ILE RPG and free-format RPG. This application performs processes such as calculating insurance premiums, processing claims, and issuing claim payments to clients. Several applications push data to the database using various custom back-end RPG processes.

While the custom application served SWBC well, two rapidly approaching factors signaled that the application was reaching its end-of-service date:

- The application was written with IBM i Power 9 dependencies, and IBM retired the Power 9 box in early 2026.
- The SWBC programming team is of a certain age with retirement imminent. Continuing this critical RPG dependence would put SWBC at risk when its RPG team retired.

As SWBC pondered its options for replacing the custom application, it was clear that there wasn't time to rewrite the application and, given that the application had been tailored very specifically to SWBC workflows and processes, an off-the-shelf solution also wasn't the answer. Migrating the custom RPG application seemed like the best option.

Faced with a shrinking pool of RPG developers, SWBC chose to migrate its legacy applications to .NET using ASNA Monarch.

Keith Weekley, SWBC's Director of Applications Development, succinctly said, "After explaining this dilemma to our management team, they asked me if I wanted to migrate the application to another language on another platform. My answer was a resounding 'No, I don't want to do that. But... we need to do that.'"

Keith told management that RPG talent was already hard to find and, given the demographics of RPG programmers, would only become harder to find in the future. Keith said, “I knew that a migration would be challenging, but I also knew that it would serve the business best for the future. Migrating the applications to the Microsoft .NET platform will extend the life of the application, make it easier to find programming talent in the future, and reduce the operating cost of the applications.”

Faced with a shrinking pool of RPG developers, SWBC chose to migrate its legacy applications to .NET using ASNA Monarch. This strategic move not only solved the talent shortage but also provided a modern, extensible platform designed to serve the business for years to come.

Persisting RPG logic with ASNA Monarch

After pondering migration offerings, Keith decided that ASNA Monarch offered the best path forward for SWBC to preserve their RPG logic on a new platform. SWBC had a good Microsoft infrastructure already established. There wouldn't be any major challenges there. The plan was to migrate the application from the Power 9 to Microsoft .NET platform without any functionality or interface changes. Keith's intent aligned with a very important Monarch tenet: Get to success quickly, then extend and enhance the migrated application on a stepwise basis.

Because SWBC was migrating its application off the IBM i, another major benefit that Monarch offered was its ability to migrate the existing IBM i DB2 database to Microsoft SQL Server. ASNA Monarch offers this as an optional, seamless part of its migration process. For shops who elect to migrate only their application and leave the database on the IBM i (and you would be surprised how many do that), Monarch accommodates that as well.

“Knowing that we ultimately wanted C#, it was natural that we would want to target Microsoft SQL Server for the application’s database. Monarch not only made this easy to do but did so with pleasant surprises like support for library lists, multiple members, QTEMP, and many other IBM i DB idioms,” said Weekley.

Plan your work, work your plan

Beyond its extensive migration capabilities, Monarch also offers superb analytical tools to help evaluate the existing application so that a good migration plan can be established. One of Monarch’s core purposes is to reveal a migration’s hidden surprises—such as missing sources, obsolete objects, third-party dependencies.

Can your business keep your critical IBM i RPG program running after your RPG programming team retires? We can help you with that. Email us at info@asna.com to set up a conversation.

A resolution plan is created for these speedbumps before the migration begins. A resolution plan is created for these speedbumps before the migration begins.

In conjunction with the SWBC RPG subject matter experts, Monarch’s analytical tools also helped create a detailed migration planning guide. Applications were broken down into “migration chunks” called Game Plans. For each game plan, the ASNA team migrated the code, performed any remediation needed, compiled the code, and performed the initial testing. The ASNA Team then handed each game plan off to the SWBC team where they performed another round of testing. If problems arose, the SWBC team attempted to remediate the code to correct the issue. If unsuccessful, the SWBC team would hand the problem to the ASNA team for

remediation. This walk-before-run approach ensured the SWBC team was familiar with each Game Plan as it was migrated.

Partnering with ASNA's team made the most sense to SWBC. It is certainly possible for a team to learn how to use ASNA Monarch on its own, but that adds time to the project and isn't a useful skill for the team post-migration. Deployment is performed by the SWBC team.

Why target RPG for your migration?

While SWBC acknowledged that retiring RPG programmers is going to be an issue, it also acknowledged that its RPG team isn't retired yet and does have a few years to work. And that was a very good thing because the heads of those RPG programmers contain a wealth of specialized, siloed knowledge about SWBC's RPG applications, its

For a solution aimed at removing your RPG dependence, the concept of targeting RPG to move away from RPG may seem ridiculous at first. It's not for many shops.

workflows, and its workarounds. This knowledge is not known by anyone else. Before the RPG team heads to the beach, their knowledge and experience is going to be critical for a successful migration.

For this reason, SWBC was delighted to hear about ASNA Monarch's Encore RPG migration option. For a solution aimed at removing your RPG dependence, the concept of targeting RPG to move away from RPG may seem ridiculous at first. It's not for many shops

The conventional wisdom of virtually every other IBM i migration tool is to migrate from RPG directly to a high-level language,

immediately leaving RPG behind. For many shops, this approach is troublesome because its technical dissonance can often exclude or at least hobble RPG programmers from effectively participating in the migration process.

ASNA Monarch's signature differentiator is that it can first migrate an RPG application to a .NET version of RPG called Encore RPG. It

No other vendor offers an RPG target for their migrations. They force your team to immediately jump to a new high-level language—which must be learned before proceeding.

produces fully compatible MSIL bytecode and is interoperable with .NET. Encore RPG puts the RPG programmers front and center into the RPG migration. And, if your team has C# programmers, Encore RPG serves as a great way to bridge your RPG and C# teams.

Beyond enabling RPG programmers, Encore RPG has one other trick up its sleeve. With zero friction, any Encore RPG migration solution can easily later be saved as a C# solution. When the RPG team does hit the beach, and it's time to hand off the migration to your C# team, canonical C# is just a few clicks away.

No other vendor offers an RPG target for their migrations. They force your team to immediately jump to a new high-level language—which must be learned before proceeding.

Says Weekley of Encore RPG, "The Encore RPG interim solution allows our RPG programming team to maintain and enhance the applications after migration, without needing to learn C#. Without changing any application functionality, we can easily convert the

migration to C# for our C# programmers. The Encore RPG option was very much a leading reason why we chose ASNA Monarch.”

If you have a good C# team at the ready, you can skip the Encore RPG path and migrate directly to canonical C#.

Filling in the gaps

RPG applications don't live in a vacuum-there is often a lot more than RPG processes embedded in an enterprise application. As part of the application assessment, Monarch identifies the application's functional gaps-things the application does that aren't directly RPG-related. An application migration must resolve these gaps.

This SWBC project comprised 972k lines of RPG and CL and 1200 display files. Monarch automated the migration of this core part of the project. The functional gaps that remained included:

- MS Excel spreadsheet integration
- MS Word integration
- Email integration
- FTP replacement
- IFS integration

Some of these challenges were resolved with third-party components, but most were hand-coded by the ASNA Services Team. The FTP functionality, which was originally done with an in-house Delphi application, was swapped out for a Web Service that bridges the migrated application with the IBM i. Although the migrated project is hosted on Windows with SQL Server, SWBC has many other applications that continue to run on the IBM i. Web services were also added to facilitate .NET integration with IBM i processes.

Monarch migrates IBM i display files to HTML using Microsoft ASP.NET Razor pages. This provides an experience that most users prefer; in most cases, all of the other applications they use are also browser-based. While Monarch provides an improved user interface, its functionality, including function keys and tab order, is preserved. This avoids the hidden cost of off-the-shelf solutions by avoiding the need to retrain your users to use the application.

Our users will be able to use the application without any training needed, since the functionality of the applications has not changed. This represents a cost and time savings for the business.”

Weekley notes the payoff of this approach, “Our users will be able to use the application without any training needed, since the functionality of the applications has not changed. This represents a cost and time savings for the business.”

The new solution also streamlined several workflows, especially document-related workflows. The application now automatically saves all reports from the system in PDF format to a network folder for the users and streamlined a letter-printing process to save users time and effort. A small adjunct facility was added to replace an old in-house Delphi application that converted spool files to PDF. These processes replace and improve all of the original application’s document handling capabilities.

Weekley concludes, “We are very pleased with our newly migrated Monarch application. This represents an important first step in preparing to avoid an RPG programming resource gap. By retaining the code in RPG, our current programming staff can continue to develop and maintain the application while we prepare for a

transition to C#. This approach helps ensure the long-term viability of the application."

ASNA Monarch transformed SWBC's legacy RPG application into an application that Gary, Charlie, and the rest of the SWBC team can rely on for another 50 successful years, running the business on the backbone of a new, reliable application.