CASE STUDY

Arkansas Electric improves productivity by over 50% using ARCAD-Transformer to convert to Free Form RPG

Electric Cooperatives of Arkansas
We Are Arkansas

The Customer

Arkansas Electric Cooperative Corp. (AECC) was created in 1949 to provide Arkansas' electric cooperatives with a reliable and affordable power supply. Based in Little Rock, AECC is now one of the top generation and transmission cooperatives in the nation with assets of about $1.8 billion and annual energy sales of about $767 million. It provides reasonably priced wholesale electricity to the state's 17 electric distribution cooperatives. Working in conjunction with AECC is Arkansas Electric Cooperatives, Inc. (AECI). This diversified statewide cooperative provides services such as construction, right-of-way maintenance, electrical equipment sales, high voltage equipment testing, governmental affairs, safety and loss control and communications. The utility sales department warehouse of AECI maintains a multi-million dollar inventory to serve its customers quickly and has yearly revenues of approximately $110 million. ◆

IT Background

AECC/AECI has 665 employees, 37 of whom are in the IT division. Seven of these employees handle development for their business and financial systems, with four developers specifically working on applications for the IBM i system. Kody Robinson, a 2014 Computer Information Systems graduate from the University of Arkansas at Monticello and developer at AECC/AECI said that he searched AECC/AECI out after college. Having worked on the operational side of a data center in a bank that used an IBM i, Kody was familiar with the platform. Given Kody's education and past experience and the fact that he was familiar with the IBM i, AECC/AECI offered him a position in the company, which Kody gladly accepted.

AECC/AECI runs its business software on the IBM i platform and is currently using RPG, CL, SQL, and PHP for their business financial systems (BFS) application development. The IT/BFS team's responsibilities include warehouse inventory, customer orders, billing, and accounting and financial reporting applications. ◆

Bridging the generation gap

Robinson said. He noted that in some cases, there was more than a 20-year age difference between him and his colleagues, with retirement on the horizon for some of them. "When I first started here, I was looking at programs that were written back in the '80s in fixed based column format." Seeing that code and comparing it to newer programming trends, an initiative was launched to migrate the cooperative's code in order to continue to provide reliable support for the cooperatives' business processes.

When asked how this dynamic of new versus old was working out, Kody said that, "being new to the RPG world, the two senior developers teach me what they know, and they ask me questions about the things I learned in school like PHP, SQL, and HTML. It's a good relationship. The complimentary mixture of strong business knowledge and sound programming standards with newer technologies is very good for all of us." ◆

ARCAD SOFTWARE

Moving to Free Format RPG

AECC/AECI started the move to develop in Free Format before using ARCAD-Transformer RPG. The BFS department implemented ARCAD-Transformer in late 2014. Kody did some basic IF statements here and there but relied heavily on the Transformer-RPG tool to get him to the end point of where he is today. Kody said slowly but surely the other BFS developers are employing newer programming languages.

A transition like this is a large commitment for any size company so when we asked Kody how open the senior development staff was to transitioning to ARCAD-Transformer RPG, his response was: "Transformer RPG was a direction we needed to follow so they were very open to the idea. My director, Barbara Harris, was 100 percent on board. However, we didn't want to do too much at once. We wanted to move toward the cutting edge but not fall off the edge."

AECC/AECI wanted to reduce the learning curve involved with bringing in new, non-native developers, adopt the latest standards and technologies, improve developer productivity and move to a modular code process.

With Kody leading the effort to learn how the new Free Format code functioned, the department decided to gradually implement the coding format, ensuring all team members are knowledgeable with the tool. This plan ensures that many programmers will be able to operate smoothly within the Free Format code. AECC/AECI is converting legacy code to Free Format in a methodical manner. New programs that need to be written and any new projects are completed in Free Format. ◆

Using ARCAD-Transformer RPG

Per Kody, "There are some pretty complex RPG programs that were originally developed for the IBM System 34. If a change is needed to one of those older programs, I will use ARCAD-Transformer RPG to convert that section of the code that needs to be changed into Free Format. I will then use the converted code syntax and write it back into the program in Free Format. In this case, I am using ARCAD-Transformer RPG as both a conversion tool and a teaching tool." AECC/AECI codes new programs in Free Format and will continue to implement other programing changes here and there. "We haven't really taken on the 10,000-line

programs that have been in existence over the past thirty years. We are getting there and ARCAD-Transformer RPG will help us get that done."

Kody used ARCAD-Transformer RPG about a month after he saw his first set of RPG code and wrote his first program from scratch very shortly thereafter. "I was comfortable in a very short period of time; and, for me, the learning curve was very small. I no longer have to worry about running across the hallway several times a day to ask a question about fixed format, which helps me be much more productive throughout the day. I can now spend most of my time coding and can write three programs in the time it took to do one program with the older tools. Before ARCAD- Transformer RPG, I would spend half my day trying to figure out how to do something in Free Format which was frustrating. I have found that my productivity has increased by at least 50 percent", he stated. "For example, if someone in the accounting department called and needed a report, it would typically take me up to three days to complete the report because I was not used to the column-based reporting. Now I can write it in less than a day, which is a 66 percent improvement. Transformer RPG is working for our purposes. We have been able to increase productivity, which ultimately reduces cost."

AECC/AECI evaluated other vendor products in addition to ARCAD-Transformer RPG. The evaluation team weighed the pros and cons and determined that ARCAD Software best met the cooperative's needs. Once Transformer RPG was purchased, the first program was implemented within a month. ◆

Next Steps

The evaluation team was impressed with ARCAD Software's suite of modernization and ALM solutions that AECC/AECI is contemplating using in the future. "We don't want to get ten solutions from ten different companies when we can stick with one and build a good business relationship with them. Our team has experienced phenomenal customer support from ARCAD Software's staff. They know who we are and are always ready to help." ◆

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