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## Overview

### The need

To eliminate deployment failures and outages, Kenco wanted to create a more intelligent and collaborative application lifecycle management process for its IBM i team.

### The solution

The company implemented a solution consisting of a suite of IBM® Rational® software along with the ARCAD-Rational Power Pack solution.

### The benefit

The solution reduced manual work, improved developer productivity and minimized build and deployment errors.

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# Kenco uses automation to streamline development

*IBM Rational and ARCAD software provide a collaborative, automated software development process*

Kenco provides integrated logistics solutions that include distribution and fulfillment, comprehensive transportation management, material handling services, real estate management and IT—all engineered for operational excellence. Woman-owned and financially strong, Kenco has built lasting customer relationships for more than 60 years. Kenco's focus is on common-sense solutions that drive uncommon value.

## Resolving software development challenges

Kenco wanted to accelerate the delivery of its custom-developed software. Its existing software development tools did not meet all of the company's needs. In addition, issues with the existing processes for software configuration management, builds and deployments caused software deployment failures and random outages. "Some of the biggest problems we had were related to deployments," says Don Johnson, senior solutions architect, Kenco. "When you deploy RPG programs that are compiled incorrectly, the application will have errors." As a result, testers would spend time troubleshooting issues with the deployment rather than testing the code.

To resolve these challenges, Kenco wanted to create a more collaborative application lifecycle management process. The company believed that adhering to such processes would accelerate software delivery, reduce outage frequency and ultimately help improve product quality.



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*“You don’t have people working in two or three different tools to get the job done. It’s difficult to tell where Rational Team Concert stops and ARCAD starts.”*

—Scott Lancaster, director, IT application development, Kenco

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## **Creating a unified, collaborative development process**

Kenco engaged IBM Business Partners Oxford International, Inc. and ARCAD Software to unify its development processes by installing a suite of IBM Rational software along with the ARCAD-Rational Power Pack.

The solution includes the following Rational applications:

- IBM Rational Team Concert™ software, which provides automated lifecycle management, collaboration, planning and reporting
- IBM Rational Developer for Power Systems™ software, which equips developers with advanced programming and productivity features, such as enhanced interactive debugging, application diagrams and source-member compare capabilities. The application integrates with and lets developers use different programming-productivity features within the Rational Team Concert software.

The solution also includes the following four components of the ARCAD-Rational Power Pack:

- ARCAD-Audit software, used during the repository build phase, which lets developers remove obsolete components and detect potential anomalies
- ARCAD-Observer software, which provides impact analysis capabilities, directly accessible from within the Rational applications
- ARCAD-Builder software to enhance the Rational Team Concert post-build process with specific IBM i features such as database upgrades and dependency checking. The ARCAD-Builder module also helps minimize maintenance by updating the cross-reference information for just those components that are part of a build. The application eliminates the need for build scripts by automatically recompiling dependent objects and deploying them to the specified library for that build definition.
- ARCAD-Deliver software, which lets developers automatically update the company’s 20 libraries with any file changes, reducing manual work

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## Solution components

### Software

- IBM® Rational® Developer for Power Systems™
- IBM Rational Team Concert™
- ARCAD-Rational Power Pack

### IBM Business Partner

- ARCAD Software
  - Oxford International, Inc.
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Oxford International first delivered a two-day training course on Rational Developer software to the company's developer team. The Business Partner also helped Kenco customize the Rational application using a simple process template to support project planning and software management and to streamline the software development processes. ARCAD Software then stepped in to help Kenco with the deployment of the solution. "ARCAD helped us create a repeatable process so we have consistency with our QA, user acceptance, local production and other production environments," says Scott Lancaster director, IT application development, Kenco. "They helped us with consistency and a standardized cycle." Working with ARCAD Software, Kenco has rolled out the solution to more than 30 applications.

## Improving testing productivity and minimizing downtime

By engaging ARCAD Software to implement the solution, Kenco gained significantly enhanced software quality and software developer productivity. Using the Rational and ARCAD software, Kenco improved application-build productivity by 20 percent and deployment productivity by 20 percent. Rational and ARCAD software together provide the company with a consistent, dependable and efficient process for managing the code and objects that make up its applications.

Builds are more consistent, helping the company's testing team focus on application development defects rather than fighting application deployment problems. In fact, the improved development and user acceptance deployments have reduced the testing cycle by at least eight hours per release. "It has smoothed out our testing, because we would deploy changes to the testing environments," says Johnson. "We would have

testers wasting their time, up to eight hours on an average deployment, finding defects that weren't in the code but in the deployment. Now, they're testing the application rather than the deployment."

### **Enhancing application quality by eliminating manual tasks**

Using the Rational and ARCAD software, Kenco eliminated manual tasks it previously relied on to support dependency analyses, software builds and production deployments. For example, prior to implementing the solution, the company required one full-time employee to dedicate eight hours each week to resolving technical deployment issues. Now, these issues are resolved automatically. "We would take a long time on a deployment because there was so much manual effort in it," says Lancaster. "Now, you submit the jobs through ARCAD, it does all the grunt work and puts it out on the back end with higher quality." Because these manual tasks are now automated, developers and testers are free to focus on more value-generating tasks. "Implementation and deployment processes don't add value," says Lancaster. "Programmers and developers and testers now focus on bringing more business value to the application."

The ARCAD and Rational applications are tightly integrated, making them easy to use. "We pretty much do everything out of this Rational toolset," says Lancaster. "The plug-ins that ARCAD provides to manage the objects, the deployment, it's all right there in that same toolset. You don't have people working in two or three different tools to get the job done. It's difficult to tell where Rational Team Concert stops and ARCAD starts."

Kenco anticipates that the solution will continue to deliver benefits. “We are continuing to grow the solution’s usage across 30 applications,” says Johnson. “We have some training that ARCAD has done with us recently and we have more training that we’re going to do with them. It’s a really big jump in the right direction from where things were 10 years ago.”

### **For more information**

To learn more about IBM Rational software, please contact your IBM representative or IBM Business Partner, or visit the following website: [ibm.com/software/rational](https://ibm.com/software/rational)

To learn more about the ARCAD-Rational Power Pack solution, now available through the IBM Passport Advantage program, visit the following website: [ibm.com/software/products/us/en/arpp](https://ibm.com/software/products/us/en/arpp)

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