ActiveBatch®

Customer IT Automation Success Story

D&H Distributing Finds the Path to Business Agility Through IT Automation

Company: D&H Distributing
Industry: Business to Business Technology Solutions
Customer Site: Harrisburg, PA
Brief Company Overview:
Founded in 1918, D&H Distributing is a leading technology distributor of IT and electronics, offering end-to-end solutions for today's reseller and retailer and the clients they serve across the SMB and consumer markets.

- IT and electronics distribution giant, D&H Distributing, facing constant IT and industry change
- Migration to Microsoft Dynamics AX reveals larger challenges; legacy automation tool presents obstacles to achieving IT and business agility
- ActiveBatch provides all-in-one architectural solution through a layered approach to automation
- Custom scripting simplified or eliminated, reliable development of workflows accelerated, and maintainability of workflows improved, enabling IT to focus on mission-critical priorities
- Company unifies automation under ActiveBatch to get in front of change

Situation: Industry Leader Realizes Its Need to Adapt

Jack Welch, the legendary CEO of GE, believes that for any organization to thrive, the rate of change on the inside needs to exceed the rate of change on the outside. Simply stated, every enterprise needs to be ahead of change. Yet changes brought about by technology, competition, and economic conditions are tough to anticipate. For IT organizations, it's essential to have agile tools and IT systems that can adapt quickly and easily to unforeseen events and unexpected opportunities, as well as to simplify critical processes when complexity sets in.

IT automation has the power to meet these challenges. The right IT automation platform can replace multiple automation tools, becoming a single, end-to-end answer for everything from integration problems to scalability requirements, limited developer resources, and rapidly shifting internal and external business conditions.

D&H Distributing, after a major change in its IT infrastructure, discovered firsthand how a strong IT automation solution can dramatically improve an organization. Located in Harrisburg, Pennsylvania, D&H is one of North America's largest IT and electronics distributors. It serves both the consumer and SMB markets via distribution hubs at its headquarters and in five other North American cities.

After many years of running its business using siloed, homegrown enterprise applications built through an older legacy technology development environment, D&H

decided to switch to Microsoft Dynamics AX, a more scalable and adaptable ERP (Enterprise Resource Planning) application. The new platform joined Cognos (Business Intelligence) and Microsoft Dynamics CRM (Customer Relationship Management) as D&H's core business applications.

Challenge: Dynamics AX Migration Points to Larger Needs

D&H's shift to Dynamics AX, however, laid bare a more fundamental problem—a unified approach to automation. "We found that many processes in Dynamics AX couldn't be executed using our existing automation solution," recalled Mike Everly, Chief Information Officer for D&H. "The application did not integrate with Dynamics AX nor, without huge amounts of scripting, could it handle the growing number of cross-platform processes and data sources we needed to accommodate."

Until that time, D&H had been using a competing enterprise scheduler as its main automation platform. Many of the workflows in the scheduler were executed via custom scripting, a time-consuming process.

"D&H's IT systems are not monolithic. We're very integrated," noted Everly. "Over time our environment had grown significantly in terms of data and business processes.

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That forced us to create one-off, scripted solutions for many automation tasks. What's more, our developers were challenged with building and automating end-to-end workflows that integrated different applications, particularly with Cognos for our BI users."

As Everly's team began migrating code from its legacy ERP system into AX, it became evident that a new automation solution was needed. He mentioned that the competing enterprise scheduler "is a good application, but it would have been expensive to keep" and added that "in the IT arena, it's critical that we manage costs while finding agile, scalable solutions that allow us to adapt to change. We knew if we didn't find a nimbler and better-integrated alternative, we would have a lot of work to do—work that we simply didn't have the time or funds to accommodate."

Solution: ActiveBatch IT Automation

While attending the Gartner Symposium ITxpo that year, the D&H team learned about ActiveBatch, the intelligent IT automation platform from Advanced Systems Concepts, Inc. (ASCI). "We saw a sign at [ASCI's] exhibit that said, 'Integration with Dynamics AX,'" recalled Everly. "That's when we started talking."

After a subsequent evaluation of ActiveBatch in comparison to a competitor, the D&H team selected ASCI's product. "We licensed the Dynamics AX Extension, which made integration with AX a matter of 'point-click,'" stated Ken Dabbs, D&H's Database Administrator. "ActiveBatch had many off-the-shelf extensions that made integration with our various enterprise applications easy."

ActiveBatch, well-known for its ability to simplify complex job processes in heterogeneous computing environments, is redefining the IT automation field. It moves organizations from an elemental approach, wherein developers implement specific tools to address individual needs on a piecemeal basis, to an architectural, layered approach where silos of automation are consolidated and coordinated within a single framework.

One of ActiveBatch's key attributes is its ability to connect with many of the industry's most important and heavily-used enterprise applications. With a single product, ActiveBatch aligns disparate applications, databases, and processes, giving IT a unified platform from which to manage and monitor its entire automation environment.

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"We realized ActiveBatch opened up new opportunities for us," said Dabbs. "Now we could manage dependencies, share data between systems, and take a more strategic approach to our IT workflows. It also had the potential to significantly reduce the amount of custom coding we typically had to do."

In addition to the Dynamics AX Extension, D&H licensed Extensions for Microsoft System Center Operations Manager (SCOM), SharePoint, Team Foundation Server (TFS), IBM Cognos BI, IBM DataStage, and VMware. ActiveBatch Extensions provide prebuilt functionality for faster and more reliable workflow development as well as specialized event automation capabilities to reduce latency time and improve job success. "By picking ActiveBatch for AX we instantly solved our Cognos integration problems as well," Dabbs observed.

Jobs Library, Workflow Assembler Reduce Risk, Scripting Time

ActiveBatch's easy to use, highly compatible, cross-platform orientation allowed D&H to reduce its complement of automation tools, eliminate unnecessary scripting, and connect applications and systems never before possible.

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Once in place, however, many of the platform's standard features proved equally valuable, enabling D&H's IT organization to adjust quickly to evolving needs.

High on the list of favorites, according to Dabbs, is ActiveBatch's Integrated Jobs Library, a repository of prebuilt, pretested building blocks known as *Job Steps* that can be easily assembled into workflows. ActiveBatch's Job Steps are actions that cover virtually all major applications, operating systems, and network types, significantly reducing the time and effort developers would otherwise spend on workload research, design, coding, and testing.

Like many large enterprises, D&H has a portfolio of isolated applications that were never designed to talk to each other. ActiveBatch's architectural approach, realized through its Jobs Library, allowed D&H to navigate the boundaries of these applications to create new processing opportunities and accommodate complex end-to-end workflows.

Dabbs states that up to 40% of its jobs could be assembled exclusively via the ActiveBatch Jobs Library. The remaining 60% involve some level of custom scripting—but even here, ActiveBatch has been a time-saver by allowing D&H to incorporate new or existing scripts along with ActiveBatch's pre-defined content, without having to write and test additional code.

"Our BI group needs to be able to receive files for the BI staging system," Dabbs recalled. "Before ActiveBatch, the process occurred one file at a time. Now, with ActiveBatch, the job consists of ActiveBatch's prebuilt actions for Cognos in conjunction with a custom script to put some additional logic into the job, which took about 30 minutes to write. Now, we can process multiple files at once, and it's done in less than five minutes."

Simplifying scripting is one benefit of ActiveBatch's Integrated Jobs Library—but designing and assembling Job Steps into workflows is another time-consuming task. For D&H, being able to quickly assemble jobs, triggers, and dependencies using ActiveBatch's workflow assembly capabilities reduces job failure risk while extending developer resources.

"If there are ten invoice jobs within AX, we can't run two at the same time out of the box," noted Adam Kramer, Manager of Production Support. "They must be sequential; if one runs over, it impacts other invoice jobs. ActiveBatch's assembler allows us to quickly build

workflows based on any kind of dependency, including event completion. ActiveBatch reduces lag time, improves resource utilization, and eliminates manual intervention." Added Everly, "We anticipate the efficiencies to be found in ActiveBatch's workflow assembler will significantly improve our execution rate over time."

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Reference Functionality Eliminates Unnecessary Work

In many large IT operations, developers spend countless hours building and/or revising workflows that include repetitive coding. As D&H found, Reference Functionality, an ActiveBatch exclusive, allows developers to reuse critical portions of the same job or plan for different workflows.

Instead of using cut-and-paste, users can make changes in a template and then pass the change automatically to each workflow that references the template.

Dabbs noted how Reference Functionality can markedly shorten development time, reduce coding clutter, and improve job management. "We have large portions of our job bases that are identical in logic, but different in key areas where variable substitution comes into play. About 50% of our warehouse jobs, for example, are executed with process steps. They follow four patterns— 'queue,' 'runtime user,' 'job being executed,' and 'additional parameters.'

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So, I built reference objects for those four. Literally that's it—I have four reference objects. I tie a schedule to it, and the job is built."

The availability of ActiveBatch's Reference Functionality gives the D&H team numerous advantages. In addition to allowing faster, more flexible, and more reliable workflow creation, the feature simplifies workflow maintenance. For Dabbs and his colleagues, this means the ability to execute changes quickly, do more with existing staff, and gain the time needed to work on higher-value tasks that deliver greater business value.

"If a change in our software impacts job parameters that need to be passed along, I can make the change in one spot," Dabbs continued. "If it's just some default setting or new executable, I change it in one place. Right now, I'm looking at seven branch locations and 800 jobs, 600 of which follow that pattern. Instead of having to touch 600 jobs, I can do just one."

Results: Less Complexity, Greater Agility

D&H initially planned on using ActiveBatch alongside its legacy automation platform. As it continues to migrate its ERP code to Microsoft Dynamics AX, however, it has decided to set a course for completely replacing its legacy schedulers with ActiveBatch.

"We're a sales-driven company. We have to be able to make the right decisions at the right time—some that involve Electronic Data Interchange," commented Everly. "EDI is a significant portion of our business transactions. If something doesn't run properly, we hear about it. It could be someone in purchasing who didn't get their report or some executive who needs yesterday's sales numbers. It has to happen, has to work, or it will impact operations."

Dabbs added that ActiveBatch's reliability, combined with its agility and power to extend staff resources, has earned it a place at the center of D&H's IT operations. "For IT, if you don't hear from anyone and no one is talking about your processing workflows, your automation platform is doing what it should—it's giving timely data," he observed. "Our people don't know ActiveBatch, but they know they're getting their data on time. For BI, it's like turning on the lights: if the lights come on, that's what matters. ActiveBatch is 'Lights up.'"

Everly, Dabbs, and Kramer agreed that ActiveBatch has saved time, removed integration roadblocks, and improved business services in a number of important operational areas. "ActiveBatch is clearly designed for change—its architecture allows us to see IT automation to proactively impact operations, rather than a way to simply react," Everly observed. "The ability to be on our toes, rather than our heels, lets us manage our changing business environment far more aggressively. That's what ActiveBatch has meant for us."

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