



Complete Records Management Software Solution

Integrating Versatile Enterprise with a Robotic Box Retrieval System

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CASE STUDY

OVERVIEW

Zasio Enterprises, Inc. is a records management company, providing software and solutions for records professionals since 1987. Zasio Enterprises offers four software applications focused on records retention and retrieval to a broad customer base, including financial institutions, energy, government, and law firms.

Utah State Archives began using Zasio's Versatile records management system in 1991. The Archives took advantage of many of Versatile's features, such as records center management, but did not use it for managing retention schedules, since that function was already handled by a system known as APPX. In order to accurately apply transfer and disposition dates to boxes stored in Versatile, the record series contained in APPX had to be re-added into Versatile. In addition, they relied on a paper system to notify agencies when items should be destroyed.

Bringing the vision to reality required linking Versatile's records management features with APPX for organization-wide retention schedule integration. In November 2002, the State Archives awarded its RFP to Zasio Enterprises, Inc. for the upgrade to Versatile Enterprise, and integration of the three systems.

Zasio technicians worked with the Archives to determine technical requirements, design specifications, and develop a time frame for implementation. The Archives purchased a new Windows server to handle the increased computing needs, while Zasio began writing the components necessary to make the various systems communicate. The scope of the project was to upgrade the Versatile data from the older Btrieve database engine into the current version of Versatile, using Oracle for data storage, and modify Versatile to use APPX retention schedules and customer information. This required a significant investment of time on both the Archives' and Zasio's part. The Archives wanted Versatile to continue to manage both the temporary records that would eventually be destroyed and our historically valuable permanent collection.

In 2003 the Utah Legislature provided funding to build a new Archives building, to be completed by summer of 2004. The Division of Facilities Construction and Management determined that an automated, high-density records center would provide significant cost and space savings and reduce the risk of personal injury to employees. The vision included a completely automated process whereby users would search for a box in the records management application and its retrieval would be facilitated with very little human interaction. The building would house the permanent collection, and most of the division staff.

The Utah State Archives contracted with HK Systems to build and implement a robotic solution using triple-deep shelving and two robots to efficiently store and retrieve boxes. The Archives broke ground on the new center in June 2003. By August, Zasio was informed that automated storage had moved from possibility to reality, and that their product needed to interface not only with APPX, but also with the HK Systems robots.

After considerable discussion a viable plan was developed for the technical details and workflow required to link Versatile to the Automated Storage and Retrieval System (ASRS). In summary:

- The robot's database would maintain box number and shelf locations
- For each box request Versatile would send to the robot the box number and priority code.

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In HK's system, space management is complex. The aisles are the tracks that the robotic cranes use to run back and forth. Each aisle has a side A and a side B. Each aisle side has shelving units three deep. The shelving unit is called a container. There are six shelves on each container, eight boxes per shelf. Each shelf has two sides, with boxes facing opposite, each storing four cubic feet. All the containers are placed in a rack in a reserved spot for the container. Open rack positions in the middle of the storage room are used to shuffle containers out of the way when the second or third-deep container from any rack position is requested. The robot brings the entire container down to the work stand where staff members retrieve the box from the shelf position, and release the container back to the robot, which takes it back to its original rack location. Once the container is again in its rack, the robot repositions any containers that had to be shuffled.

Versatile's built-in box checkout process was ideally suited to the workflow necessary to integrate with the ASRS. Fulfilling a checkout request required two-way communication between the systems. The Versatile search process was enhanced so that requests for boxes in the archives storage room triggered a command to the ASRS to retrieve the boxes. Upon successful retrieval, the ASRS sends a response back to Versatile to complete the cycle, while the boxes are being delivered to the user. All the while, the checkout manager tracks each request and delivery, and informs administrators when boxes are overdue.

Many planning challenges were overcome during this process. By February 2004, HK made Zasio aware of the testing schedule to assure that this interface would work and that the robot would respond correctly to demands. All along the construction process, the needs of the HK system drove events. The architects couldn't design the part of the building where the storage system was housed until HK gave them the specifications of their racking system, and HK didn't have all the specifications until they and the Archives agreed about what would go into that racking system. The physical rack and the software that manages the rack are developed simultaneously and are interdependent, so knowing how the software was going to work was critical to meeting construction deadlines placed on the Archives by the Legislature and DFCM. Just to complicate factors, the old Archives building had to be vacated in time to build a heating plant in its place to support new office buildings on Capitol Hill that were built to house the Legislature and Governor while the capitol itself underwent extensive renovation.

Testing began in May 2004, starting with independent testing of the robotic system, followed by external requests from Versatile's checkout management process. HK and Zasio worked closely together to resolve bugs and enhance workflow. By July 2004 all major goals had been met, including upgrading Versatile for Windows to Versatile Enterprise, training users, and implementing the interface with HK's ASRS.

Meanwhile the integration of Versatile with the APPX retention schedule system was also underway. Many decision points were encountered during this process, such as which schedules would be monitored by Versatile, which date fields would be used for disposition date calculations based on the wording of each schedule, how to synchronize changes between Versatile and APPX, and how to display Versatile box information within APPX. Zasio staff worked with APPX developers to modify reports and input processes to take advantage of the new information coming from Versatile. Additional modifications were made after going live with the system to enhance the overall process and resolve details that were not apparent during initial testing.

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The Archives moved into the new building in August 2004, with the formal dedication taking place in October of that same year. Boxes were moved from the records center to the ASRS over the course of several months, concluding in April 2005. A special storage room was setup in the Versatile records management system, called Archives, which represented the automated storage system. Any boxes assigned to this room within Versatile triggered a message to HK's system indicating the ASRS was receiving a new box, and the box data was entered into a queue for systematic assignment of location information. When the physical boxes arrived at the Archives, their barcodes were scanned into the ASRS, thus finalizing the transfer process.

Once in the system, boxes became available for search and retrieval to the various state agencies. The method for searching depends on each user's function and what application each is familiar with. Research Center staff, being more familiar with APPX, search by record series classification within that application, review the Versatile box data that is now available through APPX, and select a new option that creates an email message. The email is automatically populated with the record series classification and agency information, and provides a form in which to enter the exact box numbers requested, comments, and the name of the recipient. The date/time stamps on the email serve as automatic tracking tools for the requests. Both the ASRS operator and Research Center staff receive copies of the request for redundant tracking. In addition to the email message, the ASRS operator is paged for immediate notification of the request. The receiving operator then uses Versatile's checkout manager to request the box or boxes from the ASRS, or the request may be entered directly into the HK system. Versatile users have the convenience of searching and requesting boxes directly from their workstations.

Versatile supports multiple search methods, including full text Boolean operators, date ranges, record series classification, state agency, user-defined fields, and more. In addition to the box search and request functions now available through Versatile directly to the automated records center, users and administrators may now take full advantage of the powerful retention scheduling functions available within Versatile. Integrating Versatile with APPX allows administrators to easily create reports of boxes eligible for destruction or transfer.

In summary, Versatile Enterprise adds extraordinary value to the Utah State Archives by giving users throughout the state the power to perform their own searches and have the results automatically retrieved for them, with minimal burden on Archives. As time goes on the Archives staff will be able to tap into even more functionality available through Versatile that had thus far been ignored. The seamless integration of three separate systems required a great deal of coordination and effort by multiple parties, but the resulting efficiencies will be long lasting and widespread throughout the State of Utah.

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Zasio Enterprises, Inc. is one of the nation's leading records management software and consulting companies. The firm was founded based on one vision: to provide organizations in both the public and private sector with affordable computer software that establishes total life cycle management and control over their records. This vision was realized by the introduction of Versatile®, the company's flagship product. This product literally made records management history during the 1990s, because it was the first records management software system to incorporate functionality for the management of both active and inactive records into a single system. This capability met with strong market acceptance—today Versatile is installed in hundreds of organizations throughout North America and in numerous other countries. In 1995, the company extended the range of its records management services when it established its Records Management Consulting Division. The strategic objective behind this decision was to offer a total solution.

ZASIO

RECORDS & DOCUMENT MANAGEMENT EXPERTS

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