

# TRC Breaks Through the Paper Barrier

WebDocs™ and Enterprise Workflow™ help TRC to reduce costs and improve the speed and accuracy of business processes.

## Background

They may not know it, but many passengers and drivers probably owe their lives to work done by Transportation Research Center Inc. (TRC). Based in East Liberty, Ohio, TRC provides comprehensive automotive research, development, and testing services and facilities to manufacturers, industry organizations and government agencies worldwide. From a campus encompassing approximately 4,500 acres and 12 buildings, TRC earned revenues of \$44.4 million in fiscal 2006, a 12% increase from the previous year. The aspect of TRC's operations that is probably most familiar to the general public, its Impact Laboratory Operations, performed 395 crash tests in fiscal 2006, a 12.5% increase over the previous year.

Founded by the State of Ohio, the center began testing in 1974. In 1979, Ohio State University's College of Engineering was contracted to manage the center. In 1988, TRC was set up as an independent, non-profit company, the establishment of which helped to induce a major automotive manufacturer to set up shop in the state.

## Challenge

One of TRC's 12 buildings, a climate-controlled structure about the size of an average barn, was filling up, but not with vehicle test equipment, nor with employee workstations. It was filling up with paper. After more than 30 years of testing, TRC had accumulated a lot of proposals, test reports, land maps, leases, correspondence and other documents. Because it may be necessary to refer to these documents in the future, they cannot be thrown out.

The space requirement is one of the more obvious costs of storing paper, but paper also has other drawbacks. It has to be filed, moved and managed manually. And, when you're talking about a barn-full of documents, the costs of that manual processing can be substantial. What's more, in a paper-based world, efficient document management depends on files being where they are expected to be. That is not always the case. Hours may be wasted searching for documents that are misfiled or that are sitting on someone's desk.

Some of TRC's business processes are complex. That complexity is compounded when the processes include the movement of paper. Consider what happens when a customer comes to TRC with a request. First, a project

manager or engineer develops a proposal letter and a Customer Contract Report (CCR). The CCR is a detailed description of the proposal, including the associated costs. Before being sent to the customer, the CCR and proposal letter are sent up the chain of command at TRC. At each stage, the project manager may have to explain how he or she derived the costs. After all approvals have been received, the completed documents are sent to the customer. If the customer adds or changes anything, the costs have to be reworked and the approval process repeated.

Because the proposal letter, CCR and supporting documents were paper-based, moving them around the company was a slow and cumbersome task. Often, documents were driven around the campus to obtain the required approvals. To reduce the amount of paper-shuffling, projects were often reviewed and approved in meetings that unnecessarily tied up a lot of people.

Furthermore, because paper flows can't be fully automated, mistakes were sometimes made and documents were occasionally misdirected. This resulted in delays in the company's work processes.

TRC wanted a way to get its paper costs under control, while also automating workflows to make them faster and less error-prone. The company achieved its objectives with WebDocs and Enterprise Workflow from RJS Software Systems.

## Solution

WebDocs, which is available in versions that run on Microsoft Windows-based servers as well as IBM System i servers, allows organizations to electronically store and manage document images and other files, such as PC files, emails and computer-generated reports. The documents can then be accessed using up to 10 keys or through a full-text search. When the documents are stored, the keys can be entered manually or WebDocs can automatically extract them from barcodes or textual data appearing within the images. Once loaded into the system, authorized personnel can use a standard Web browser to access the images over the Internet from anywhere in the world.

Enterprise Workflow automates the movement of information, virtually eliminating the practice of manually managing and distributing paper documents. The

included Workflow Designer facilitates the building of workflows, the assignment of users and tasks, and the control of who has the authority to view and act on information. Enterprise Workflow automatically forwards documents from person to person until the process is complete. All workflow activity is tracked and logged to record the flow's history. The software also measures the efficiency of business processes, allowing companies to adjust and optimize the way they work.

TRC runs WebDocs and Enterprise Workflow on a System i-based Tomcat server.

TRC's reasons for choosing RJS over the alternatives revolved primarily around four issues: cost, integration, flexibility and ease-of-use and installation.

When looking for a solution, TRC evaluated three other vendors in addition to RJS and found RJS to be the most price-competitive. "When we looked at the other three, they were selling more than what we wanted and we had to take it all," said John Ravotti, A/S 400 Systems Administrator at TRC. "RJS allowed us to select from a package based on our needs. We were able to pay for just what we wanted, rather than paying for everything when we only needed 45% of it."

Integration was also important to TRC. The solution it bought had to work with the company's existing applications such as its project management and accounting systems. WebDocs and Enterprise Workflow fit that bill well.

The ease of installation and management of the software was another important reason why TRC chose RJS. Rather than the four or five people who would have been required to set up and manage one of the alternatives, one person was able to complete the implementation of the RJS software very quickly.

TRC first used WebDocs and Enterprise Workflow to tackle the proposal workflow described above. Now, all of the documents are stored as electronic images in WebDocs and routed automatically to the appropriate people by Enterprise Workflow. Thus, the labor-intensive and error-prone paper-pushing that used to be an essential part of the process has been eliminated. In addition, TRC is using Enterprise Workflow to route Microsoft Word and Excel documents from shared network drives. After the documents are reviewed and approved, they are stored in WebDocs.

TRC is also working its way through the imaging of the paper in the "barn." Once the documents are stored in WebDocs, they become immediately accessible online by

anyone who needs them. Rather than hunting through files stored in another building, authorized personnel can now use indexed search criteria to retrieve documents without ever leaving their desks.

## Results

TRC has received numerous benefits from the RJS software, one of which is particularly easy to quantify: paper cost reductions. Every two months the company used to go through about 40 boxes of white paper at a cost of \$33.92 per box and 23 boxes of bright white paper at a cost of \$74.90 per box. Just six months on and with only a few of its business processes automated through WebDocs and Enterprise Workflow so far, TRC's paper consumption has dropped to 30 boxes of white and 10 boxes of bright white paper every two months. That works out to a savings of more than \$1,300 every two months or almost \$7,900 per year. TRC expects that paper use will drop considerably more in the future as the company brings additional work areas and processes, including accounting, invoicing, purchasing and human resources, into the system.

Paper cost reductions may be the most obvious and tangible benefits, but they are far from the only ones. For example, TRC used to require about ten days to approve proposals. With the help of WebDocs and Enterprise Workflow, that is now down to about one day.

In addition, all of the problems that every company faces when they try to manage paper have now disappeared for those documents that have been brought into the RJS solution. For instance, TRC occasionally used to lose documents. That doesn't happen anymore now that everything is online. Electronic storage also eliminates the time that used to be spent filing, finding and forwarding paper. Furthermore, unlike paper, electronic documents can be safeguarded easily using the company's normal data backup processes.

Documents are also going to take up a lot less space at TRC in the future. As the company methodically works its way through the imaging of the documents in the "barn," the paper is shredded and recycled as soon as TRC is confident that it has been successfully stored in WebDocs.

Despite this still being early days for TRC's use of WebDocs and Enterprise Workflow, "We've already been reaping rewards from it," declared Ravotti. "But it's going to get even greater as we go along."

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