



## Bauerle and Company Ease the Tax Time Burden with Fusion ioMemory™ cards

### Solution Focus

- Financial Services
- Virtualization
- Information on Demand

### Summary of Benefits

- **7X improvement** in e-file processing
- **10X improvement** in print job processing
- **85% improvement** in file preview latency
- **94% improvement** in file open latency

### Products

- Fusion ioMemory PCIe card
- Dell PowerEdge R710 server

*"This card pays for itself. During our busy season, time is at a premium and these improvements are a lifesaver during what can be a stressful season."*

**Josh Holman, IT Manager,**  
Bauerle and Company, P.C.

### Background

Bauerle and Company, P.C. is a Denver-based accounting firm with the mission of helping businesses and individuals achieve both financial and personal success. The firm strives to become the trusted business advisor to their closely-held client businesses within the Colorado market by employing dedicated and talented accounting professionals. The staff provides services that span audit and tax to wealth management and IT solutions.

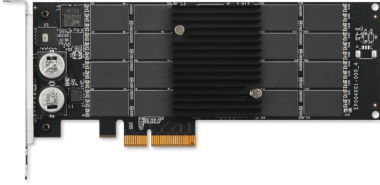
### The Challenge

As is common in the financial services sector, secure and accurate data access and storage are critical for analysis that is conducted on an ongoing basis. In the tax division at Bauerle and Company, the company deploys the Thomson Reuters UltraTax CS program. Because of the program design—which utilizes a flat file database—calculating taxes for a client company that has operations in all 50 states could result in read and write operations that increase exponentially with complexity. Although the Bauerle team has investigated using other tax software packages, the data integrity capabilities of Thomson Reuters and its superior ability to handle complex returns instill confidence in the users.

However, this flat file database structure was beginning to cause serious delays and inefficiencies for the firm. For example, when a CPA requested that a return be printed, the system had to scan through the database files multiple times to recalculate the forms which need to be printed. Due to the large number of read/write operations that were being created by the tax software application, it was common for the system to take as long as 30 minutes to execute this process prior to initiating the print job.

In addition, when submitting digital tax returns, the system needed to read the file several times before the data could be transferred. Although many of the files were only 3MB to 4MB in size, the process of conducting multiple reads and writes was slowing down the procedure.

"In one case, it took 2 hours for us to e-file a return for a company," explained Josh Holman, IT Manager at Bauerle & Company, told us. "We figured that we could reduce this to 20 or 30 minutes if we had the right equipment. It is my role to manage our infrastructure for my internal CPA customers. Therefore, our management asked me to find a new solution and set it up."



Fusion ioMemory™ PCIe card

*"In one case, the client's e-file used to take one and a half hours to transmit. This year, that same file took only 12 minutes to transmit end to end. Our staff were calling me because their jobs were running so fast."*

**Josh Holman, IT Manager,  
Bauerle and Company, P.C.**

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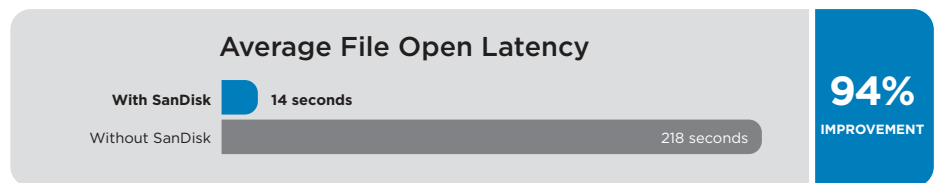
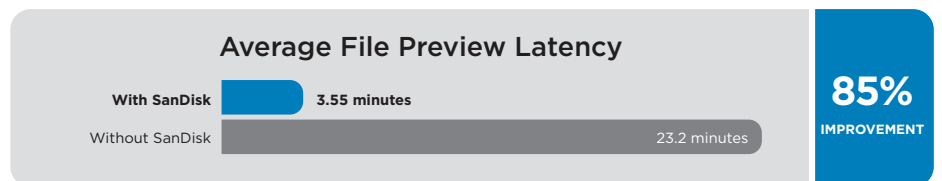
## The Solution

After tax season was over, Holman put a Fusion ioMemory 410GB\* PCIe card through a number of tests—timing processes from the program itself—because he was unable to obtain a synthetic benchmark that could simulate the actual workload. Throughout his testing, Holman was able to pinpoint the bottlenecks. By installing the Fusion ioMemory PCIe card into the terminal server, the same print job that used to take 30 minutes could now be executed in just three minutes.

With these stellar results in hand, Holman approached the firm's partner group with a proposal to solve the ongoing latency issues. The firm agreed to purchase a Dell PowerEdge R710 server, in which the Fusion ioMemory PCIe card would be housed. Holman continued to deploy Hyper-V to enable virtualization and the host operating system continues to run on spinning media, while Virtual Hard Disk (VHD) runs the Fusion ioMemory PCIe cards. Although the host operating system is aware of the Fusion ioMemory card, the virtual machine is not. The tax-associated data housed in the database is very small so the firm does not anticipate needing additional capacity over and above the Fusion ioMemory PCIe card for some time.

## The Result

Holman is pleased to report that efile transmissions are now completed in a fraction of the time that they used to take. According to Holman's in-house tests, file preview latency averaged 23.2 minutes prior to implementing the Fusion ioMemory card, and only 3.6 minutes on average after—an 85 percent improvement. File open latency averaged more than three and one-half minutes prior to implementing the Fusion ioMemory cards. With the card, the latency was reduced to just 14 seconds—a 94 percent improvement. "In one case, the client's e-file used to take one-and-a-half hours to transmit," commented Holman. "This year, that same file took only 12 minutes to transmit end-to-end. Our staff was calling me because their jobs were running so fast." Members of the IT team now are the "heroes" of the firm.



The firm has also seen positive financial results due to the deployment of the Fusion ioMemory PCIe card. "This card pays for itself," said Holman. "It has cut down on the time we spend waiting on the computers, so now we can get more done."

This new architecture has also improved efficiency. "Our CPAs are more efficient and productive during what can be a stressful and hectic tax season. Instead of clicking "print" and the computer not doing anything for 30 minutes, they are actually able to complete the print and e-file processes in a timely manner," said Holman.

After Holman achieved success with the Fusion ioMemory PCIe deployment, he approached the software developers at Thomson Reuters to discuss additional integration and solutions. This led to an invitation for Holman to speak at the 35th Annual Thomson Reuters Users' Conference—Synergy 2015—about how larger firms should consider setting up their tax application software. A recommendation to deploy Fusion ioMemory PCIe cards will be a central theme.

\* 1 GB = 1,000,000,000 bytes. Actual user capacity less.

The performance results and cost savings discussed herein are based on internal testing and use of Fusion ioMemory products. Results and performance may vary according to configurations and systems, including drive capacity, system architecture and applications.

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