

A Kaizen Approach to Data Management: Part Two

In part one of this series I introduce the process improvement concept of kaizen and how it can be used to improve data management at your survey shop. To recap, kaizen is a business technique that takes an evolutionary, step-by-step approach, as opposed to other concepts that strive for sweeping, revolutionary, all-at-once changes. The theory is that by taking small but important steps, you will, over time, create great improvements. What's more, the incremental nature of the concept provides less stress organizationally, both to your employees and to your ongoing business processes.

This second part of the series discusses kaizen approaches to database, file searches, data backup, data storage, and archiving/imaging your files.

Please note that I'm focusing on only one aspect of kaizen: its *incremental* approach to process improvement. Like any process improvement concept, kaizen has many facets. However, I believe that you can use this central tenet of kaizen to implement incremental process improvements such as the task of data management, as discussed in this series of articles. I encourage readers to learn more about kaizen and other process improvement concepts and apply them to reap benefits of improved quality and efficiency for your company.

Kaizen Your Database

Some years ago I was a new employee at a small survey shop in eastern Colorado. After a short stint in the field, my boss brought me inside to help get the office side of the company more organized. I remember my crew chief looking at me with eyes of pity as we heard the news of my transfer; "I feel sorry for you, the office is a real mess." Shortly I was to see how true his words were.

An almost daily occurrence was a seemingly fruitless search for files. The process went like this: someone would place an order for a survey, and although the boss knew that we had done a survey in the area before he didn't know exactly where. He would give me a section, township, and range to search for in our database, but "File not found" was the usual outcome. At this point the inevitable by-products of this frustration arose: gnashing of teeth, pulling of hair, and yelling of obscenities.

Much time was being wasted, both in the office looking for files and in the field, since we couldn't always make use of information from previous surveys.

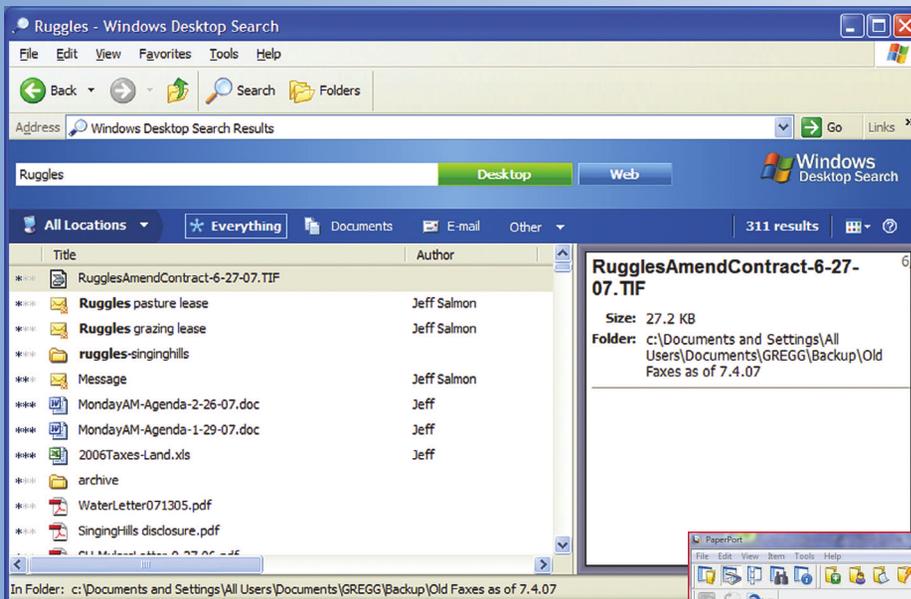
The answer to this problem is both easy and difficult. The easy part is obtaining a good database program. In the June 2007 issue of this magazine, software reviewer James White gives the readers a thorough rundown on Info-Retriever 2005, by Emerald Data, Inc. Having used the program for years, I can attest that it is a top-notch program for the task of managing your database. For more details on this product, refer to the above review and their website listed at the end of this article.

Now the hard part: keeping the database current. The problem we found was that previous staff members who had been responsible for this function apparently found it overwhelming. In the heat of everyday business, most of the job folders were simply filed away and were never entered into the database. So we took a two-pronged kaizen approach to remedy our problem. First, after invoicing a job, we entered all data into the database, with no exceptions. Second, we made a dedicated effort to go back through our old files, starting with the current year, then backwards to the earliest files. Make no mistake about it—this is a time-consuming task. But, once you've accomplished it and have an ongoing commitment to keep your database current, you'll find life is a lot easier.

Kaizen Your File Searches

Another technique that can be used as an adjunct to your database is to download and install one of the several excellent Desktop Search utilities available. Google Desktop, Copernic, and Microsoft's Desktop Search are examples. Any of these work considerably better than the default Windows search facility. I prefer Microsoft's Desktop Search for its integration into MS Outlook (**Figure 1**).

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▲ **Figure 1** Microsoft's Desktop Search utility is a tremendous improvement over the standard search facility built into Windows XP

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Kaizen Your Data Backup

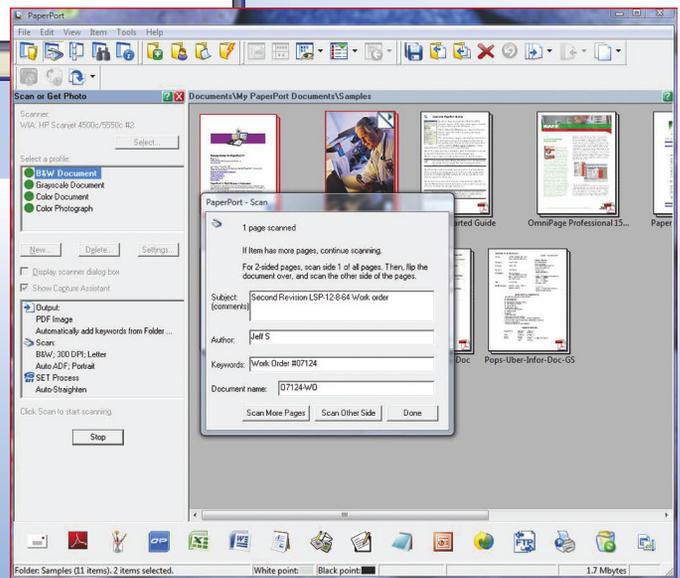
Because your data is the lifeblood of your company, keeping it safe is paramount. If you are using Windows XP Professional you have a data backup program already installed. Just click on All Programs, then Accessories, and then System Tools. There you will find System Backup, a fairly useful and easy-to-use data backup utility.

Another technique for data backup is Mirroring or Cloning. Acronis makes a number of highly-rated products using this technique. The idea is to create an exact duplicate of your hard drive that includes not only data, but applications as well. Most data backup programs focus on backing up data only. The idea is that you already have your software applications stored away safely and can re-install them as needed.

However, in the case of wholesale hard drive destruction; either by mechanical problems or a virus, you will find that rebuilding a PC is extremely time-consuming. This is where products like Acronis' True Image come in handy. These products make an exact duplicate of your hard drive. They allow you to restore your PC's hard disk without spending all day searching for software applications, re-installing them and their updates, not to mention all your survey and office data.

Kaizen Your File Storage

Storing your data is a really important part of a comprehensive data protection program. Backing it up is the first part, keeping it safe is the next step. At my current job data backup is a part of my weekly tasks. Our kaizen approach can be summed up in a few words: off-site storage. We use both DVD-RWs and a portable hard drive as our backup storage mediums (see "Make Your Own Portable Hard Drive" sidebar). Most importantly, we physically remove the data from our office and store it at another safe location. This way, if our office is damaged by a disaster (theft or fire leap to mind) we still have our data.



▲ **Figure 2** Nuance's PaperPort is a full-featured, easy-to-use imaging program that lets you assign keywords and descriptions to your PDF files for faster searches

Kaizen Your Archives through Imaging

Another data management issue that I was confronted with at my old survey shop was the physical storage of job files. As time progressed, we simply ran out of room for our file cabinets. Additionally, due to the various locations of file cabinets, we found the task of physically retrieving file folders to be increasingly problematic. After some thought, we decided to enter the world of imaging, albeit at an entry-level stage.

Imaging, simply defined, is the process of converting hard copy files into electronic form via scanning technology. To accomplish this you need a sheet-fed scanner and imaging software. I use a Hewlett Packard Scanjet 5550c, which HP's website informs me is discontinued. A good replacement would be the HP Scanjet 5590 with a MSRP of \$299. Most brand name scanners will work of course; just be sure they have an automatic document feeder (ADF) and are capable of scanning legal-sized (8.5" x 14") documents.

Next is the software. Often, the scanner will come with imaging software. Unfortunately, this software is outdated or simply not up to the task at hand. Having used imaging software for years, I find that PaperPort from Nuance is quite handy and I recommend it (**Figure 2**). PaperPort has many fine features, including duplex scanning and scanning directly to Adobe Acrobat's PDF format.

Now as to the process: We integrated the archiving process into our database operations. After invoicing a job, we entered the file's data into our database and then scanned it into an Acrobat PDF file. Similarly, we imaged our legacy documents as we entered them into our database. We created a subdirectory by year and then saved the archived files there for easy retrieval. If you are using Info-Retriever 2005, you can attach the archived PDF file to your database and open it directly in Info-Retriever. Now that's kaizen!

Resources

For more information on the products in this article, check out their websites:

- Info-Retriever 2005: www.agtcad.com/products/retriever
- Google Desktop: www.google.com
- Copernic: www.copernic.com or www.download.com
- Microsoft's Desktop Search: www.microsoft.com/windows/downloads/default.mspx
- Acronis: www.acronis.com
- PaperPort: www.nuance.com
- For great prices and service for a wide variety of hardware and software products, I really like www.newegg.com

Make Your Own Portable Hard Drive

Here's a handy way to create a portable hard drive from parts readily available in your office and/or nearby PC store. When our PC died on us, fortunately the hard drive was in good condition. On my monthly visit to our local PC retailer I picked up a portable hard drive enclosure for about \$25. Then, using only simple instructions and a screwdriver, we created a handy, low-cost portable hard drive using the old one. If you don't have an extra hard drive lying around, you can purchase a bare drive for a reasonable price online; I



▲ Disassemble the enclosure and attach the hard drive's data and power cables to the enclosure. Now reassemble the case and you are done.

just bought an OEM Western Digital 320 gigabyte drive for \$81 delivered at www.newegg.com. This is less expensive than the portable hard drives you can buy pre-assembled.

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