



Data Extraction: Leveraging Technology to Better Analyze Client Data

By Roy Kvalo, CPA/ABV/CFF/CGMA, CVA

There are many challenges to face when providing accounting services for a variety of clients that utilize a wide array of accounting application platforms. One particular challenge is how to efficiently transfer data from a client's general ledger software to the analytical software commonly used by CPAs, including electronic spreadsheets.

As recently as fifteen or twenty years ago, this process of transcribing client data to the accountants' work papers was performed with pencil and paper. To a certain extent, this manual process continues today for many accountants and their clients. In some instances the only difference is that the pencil and paper have been exchanged for a computerized spread sheet; the actual transfer of data is essentially still performed manually.

From Transcribing to Analyzing

A better approach is to utilize data extraction software, sometimes referred to as general audit software, such as ACL or IDEA to facilitate this process. While we find these tools very useful in traditional service areas such as audits, they have also become increasingly important in non-traditional service areas such as agreed upon procedures, consulting arrangements, and my personal favorite: forensic and fraud accounting.

While the automation of data transfer alone will certainly result in significant time savings, the real savings occur in the analytics. In addition to time savings, data extraction also affords us the ability to dig deeper into the accounting records and utilize detail that might otherwise escape manual analytical procedures.

What Does Benford's Law Have to Do with It?

In the analytical process, our general audit software helps us to search for inconsistencies in transactions by performing digital analysis based upon Benford's Law. Benford recognized that in lists of naturally occurring numbers from real-life sources of data, the leading digit appears to be distributed in a specific, non-uniform way. Examples of naturally occurring numbers would include sales amounts, check amounts and stock prices to name but a few. Benford realized that for almost any naturally-occurring data set, the number 1 would appear first about 30% of the time. Non-naturally occurring data, including pre-assigned numbers such as postal codes or UPC numbers, would not follow Benford's Law.

Knowing patterns like those exhibited in Benford's Law allows the data extraction software to look for the human element that helps reveal both accidental errors and intended aberrations.

How Your Data May Be Analyzed

Data extraction programs offer numerous avenues to explore an entity's records. Here are several ways that the extraction software can bring to light information that is hidden within the various fields and records of a company's accounting data.

- For analyzing accounts payable, we can correlate vouchers or invoices posted with the corresponding purchase order amounts, identify potential duplicate payments, and extract invoices posted with duplicate purchase order numbers.
- For accounts receivable, we can show variances between delivery documents and invoices, identify duplicate invoices, credits, or receipts in any order.
- For cash, we can identify suspicious disbursements, including large even-dollar amounts and disbursements that are paid off-cycle.
- For a sales analysis, we are able to extract sales data by any classification such as customer name, product type and sales region.
- In the General Ledger, we can identify potential duplicate postings, and

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analyze suspicious postings that are split among a large number of general ledger accounts. We can also identify odd posting dates and debit postings to credit accounts or vice-versa.

The benefits to discovering these types of errors are clear – mistakes can be found and quantified. An employee can be better trained in response to a specific type of repeated error, or it may be determined that the employee is not a good fit for that particular task or job. As for discovering aberrations indicative of employee fraud, the benefits are obvious. Employee fraud may go on for months or years before discovery – anything that helps in detecting fraud earlier is useful. Employees who are aware that prevention and detection processes are in place (including powerful data extraction) may be less inclined to attempt fraud in the first place.

How Fuzzy Matching Can Clear Up Data

“Fuzzy Matching,” sometimes referred to as distance matching, is a data extraction tool that determines the number of key strokes that would be needed to turn one description into another. This is an effective analytical tool that provides us with the ability to compare data such as customer addresses to employee addresses. We use fuzzy matching to detect vendors with more than one vendor number, multiple post office box addresses, omitted phone numbers, and/or names sounding like – or spelled like – known vendors. We can also match vendor and employee names, addresses and phone numbers, as well as company names, addresses and phone numbers.

In analyzing salaries and payroll, we can compare and summarize costs for special pay and overtime. We are able

to compare time card rates and pay to payroll, and indicate variances and extract payroll checks where the gross dollar amount exceeds a set amount. The program also helps us identify changes made to exemptions, gross pay, hourly rates and salary amounts. We can also identify payments to terminated or non-existent employees, verify commission calculations and find multiple payroll deposits to the same bank account. Again, these procedures may help identify a need for training or an in-depth investigation of possible employee fraud.

At Curchin, we have been utilizing data extraction software since the late '90s. This technology has evolved into the highly flexible software applications of today. Our clients and our firm have benefited by moving beyond simple transcription into true data analysis. ■

What is the Useful Life of Your Passwords?

By Carolyn Giunco Kvalo, CPA, CFE



Each day as we take in the news, whether it be via the television, radio, online news service or, dare I say it, the newspaper, there seem to be ever more concerning reports of data breaches, website hacking and computer viruses infiltrating our networks and undermining our feeling of security with respect to our own personal identity. It makes us wonder if we are doing enough to secure the access to our vital information.

A 2013 study by Pew Research Center's Internet and American Life Project indicates 51% of adults banked online in 2012 and 32% used their cell phones to perform financial transactions. In its April 30, 2014 report "Heartbleed's Impact", Pew reported that "39% of internet

users say they took steps to protect their online accounts by changing passwords or canceling accounts" in response to the security bug. Were you one of those 39%? Whether or not you took such actions, it seems like a good time for a refresher on online security.

Identity Theft 911 recommends the following for safe online and mobile banking as well as other online activity:

- Use a "strong password" - Roger Grimes, a leading computer security expert, suggests in his blog, Security Adviser, that length is more important than complexity for determining strength of a password. The minimum length of a "strong password" is 12

characters, considered to provide protection for a minimum of 90 days, 15 characters for administrator passwords. Those 3 extra characters may extend the protective life of the password to 1 year. In addition, Eric Griffith, PC Mag.com feature editor, indicates that simply adding one capital letter to the end of your password can significantly increase the time it will take to crack your password, and doing that and adding another special character, i.e. ^, could extend the useful life of the password to well beyond a century.

- Set mobile devices to lock automatically after a few minutes. A password or PIN will be needed to reactivate the device.

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- Use mobile device security features – Leave built-in mobile security features in place. Never hack or jailbreak phones which opens them to security risks.
 - Update security software – Keep all software, including antivirus protection updated, and enable firewall protection on your mobile device.
 - Encrypt stored data – Use encryption software like Kaspersky on your phone
 - Get smart about Wi-Fi – Avoid financial transactions over unsecured Wi-Fi networks. Use encrypted networks with a password. Keep Bluetooth off when not in use.
- These are just a few reminders for improving and updating your mobile and online security. Remember, legitimate inquiries about your accounts are seldom made via e-mail due to the security risks involved. Never provide your account numbers, passwords or other vital information to any unsolicited request. ■

Firm News



Featured Employee: Elizabeth Mackanic



Elizabeth Mackanic, CPA, MBA, began her accounting career after graduating from Rider University (Rider) with a B.S. degree in Accounting. She later earned her MBA from Rider as well. After working for a larger public accounting firm, she joined The Curchin Group (Curchin) in August 2012 and is currently a Supervisor in the Audit Department. Elizabeth primarily supervises audit engagements for not-for-profit organizations and closely-held businesses, as well as providing tax services to corporate and individual clients.

Elizabeth chose Curchin because of the “small-firm feel with larger-client opportunities and the ability to achieve a good work/life balance.” At Curchin, she enjoys building relationships with her clients, appreciates an office team that is easy to work with and has access to talented people within the firm from whom she can learn.

In her time off, Elizabeth is an avid New Jersey Devils fan and likes to travel to warm destinations, having recently returned from vacation in Hawaii. ■

Teeing Up for the 2014 Curchin Open Mini Golf Tournament for Charity



The Curchin Group is now accepting essay submissions to determine the two beneficiaries of the Ninth Annual Curchin Open, a nine hole indoor miniature golf tournament for charity, to be held November 5th at the firm’s Red Bank office. All 501c(3) organizations located in Monmouth and Ocean counties are eligible to submit a 250-500 word essay detailing their mission, why they should be chosen, and how the funds will be used for the greater good. Curchin Group partners will select the winners by June 30, based on the quality of the essay, the reputation of the organization and the proposed use of Curchin Open proceeds. Interested local non-profits can visit www.curchin.com for more

details about the submission process. Essays will be accepted until May 31st.

All proceeds will benefit the two locally-based charities that will be selected through the essay submission. Since the event started in 2005, the firm has raised more than \$105,000.

Curchin is offering sponsorship opportunities to local businesses that would like to help the selected charities. For more information, contact Peter Pfister at ppfister@curchin.com or at 732-747-0500. ■



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From left to right: Bob Fouratt, Peter Pfister, Carolyn Kvalo, Lynn Conover, Dave Ferullo

THE CURCHIN GROUP Celebrating over 55 years in Monmouth County, New Jersey, The Curchin Group helps small to mid-sized businesses and individuals reach their financial goals through providing a broad range of Assurance; Tax; Financial Planning; Business Advisory Services; and Litigation & Valuation Services. The firm is dedicated to giving solid financial advice, sustaining long-term relationships with its clients and employees and giving back to the surrounding community. For more information about Curchin, please contact Bob Fouratt at 732.747.0500 or bfouratt@curchin.com. ■

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Firm News

Curchin Group and Partner Peter Pfister Win 2013 Award for Innovation and Management Excellence for INPACT Americas

Curchin Partner Peter Pfister was presented with the 2013 Award for Innovation and Management Excellence (AIME) for chairing the Annual Curchin Open Miniature Golf Tournament (Curchin Open), during the INPACT Americas Partners Forum Fall Conference, held November 13-16, 2013 in Scottsdale, Arizona. INPACT Americas asked member accounting firms to share an idea, innovation or best practice with their peers, culminating with a presentation during the Partners Forum Fall Conference. Peter's presentation on the 8-year history of the Curchin Open was voted the winner of the award by the INPACT Americas members in attendance at the conference. ■

The Curchin Group Raises Over \$2,200 at the Making Strides Against Breast Cancer Walk

The "Curchin Cares" team raised \$2,293 toward its participation in the Making Strides Against Breast Cancer Walk on the boardwalk in Point Pleasant, New Jersey on Sunday, October 20, 2013. Included on the team were the following Curchin staff members and their families and friends: Carolyn Giunco Kvalo (Team Leader), Roy Kvalo, Sabrina Kvalo, Jeffrey Newman, Dan Geltzeiler, Lynn Curchin Geltzeiler, Phil Geltzeiler, Michael Goldsmith, Stephanie Yee, Elizabeth Mackanic, Barbara Willis, Carol Lynn Miller, Christine O'Neil, Michael Adago, Mark Sikora, Ivana Kazmierski, and Elizabeth Regan. ■