Milestones

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In This Issue:

We're Back...

Actually, we never left, but it's been a while since we've communicated with our clients and friends in newsletter fashion. A lot has certainly changed in that time. For one, we've changed the company name from Management Control Systems to Milestone Computer Solutions, LLC to be a little more reflective of the services we offer and the growth and progress we've experienced over the last few years. There are additional faces around, too—more on them as time goes on.

One thing that hasn't changed is our commitment to providing our customers with excellent Information Technology solutions and support. To those customers, this seems like a great time to do something we don't do nearly often enough—to say thank you for your business and the trust you've placed in us.

We're also going to blame those customers for keeping us so busy that we've let the newsletter slide for awhile. Seriously, we've missed doing it and always had plans to bring it back as a vehicle for giving you timely, concise and useful information on a variety of computer and information management topics. In this and coming issues, we'll explore a lot of things: case studies, application areas, strategies for improving the effectiveness of your information systems, hardware and software products, productivity tips and tricks, and more. We'll also throw in a little news from MCS to let you know what we're up to.

So, enjoy. And please let us hear from you with feedback on the newsletter and how we can make it more useful to you.

Case Study

PAI Upgrades Membership/ Training Database

Piedmont Associated Industries (PAI) is an employer membership organization that serves businesses and industries by providing training, consulting, auditing, surveys, information and other services in various areas including:

- Human Resources and Compliance
- Organizational development, leadership, and supervision
- Information Technology
- Safety and OSHA
- Recruiting and placement.

Member organizations pay annual dues which also gives them discounts toward training and other services, as well as many other member benefits. Most all of PAI's services are also available to non-members, although at a higher rate.

See sidebar on page 3 for more information on PAI.

The Problem

When PAI first contacted MCS in the Spring of 2002, they were suffering from a problem that many organizations have

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PAI…continued

— their data was not very reliable and existed in different applications within the organization. They had two “home-grown” databases, one in Access ’97 and the other in Access 2000, that were minimally connected together. One tracked membership and contact information, and the other was used for class schedules, registration information, rosters, and the like.

Further, these two systems allowed for no integration with PAI’s accounting software. For example, in order to bill a student for a class, a roster had to be printed from the database and manually entered into the accounting system. This made for twice the data entry with the additional potential for errors. Even worse, some classes were not getting billed at all because there were no mechanisms to ensure that the roster was printed and given to the accounting department.

“…THEY WERE SUFFERING FROM A PROBLEM THAT MANY ORGANIZATIONS HAVE—THEIR DATA WAS NOT VERY RELIABLE…”

Membership renewals were also “falling through the cracks” because the databases had no way to flag approaching renewal dates or make sure those renewal dates were updated appropriately with each new membership cycle. Some companies were receiving member benefits with PAI and never being billed for renewal while their membership had expired several months prior. Companies were also, in some cases, paying for services using member credits or vouchers (prepaid blocks of training) that had been exhausted or had expired.

There were many examples of not being able to easily provide customers with the information they needed. For instance, individuals often requested transcripts of all the training they had ever taken at PAI. The existing database had no mechanism for tracking students if they changed from one company to another. As long as a student stayed with the same company, a transcript could be printed for that student. However, if the student switched to another member company, a transcript would need to be printed for the two individual companies.

In general, the user group had (1) a lack of faith in the data they were getting and (2) a long list of features they wanted added to the system to allow them to do their jobs more effectively and meet customer needs.

The Solution

As is always the case with a custom database application, the first step is to define exactly what the requirements of the application are—what exactly does it need to do. Numerous reviews were held with PAI personnel to document current functionality and to review the ‘wish lists’ of new features. These potential new features were prioritized and, in some cases, eliminated or shifted to a later phase of implementation.

Once requirements are defined, the second step is to design a database that allows maintaining and accessing the information needed to meet those requirements effectively. It always seems true that, if you get the database design correct in the beginning, the actual application programming flows quite smoothly. In fact, you should be able to easily respond to requests for new queries, reports, and analyses down the road that the users haven’t even thought about yet. Conversely, if the database design isn’t right, programming the application requirements is a struggle to compensate for and work around the bad design. For this reason, we also made it a point to review our preliminary database design with PAI before beginning to write any code. These reviews (as they always do) pointed out some fields and other pieces of information we were missing and some relationships in the data that we hadn’t previously understood.

Actually, one other decision had to be made early in the process. When dealing with an existing application that has problems and/or needs additional functionality, you always face the question of do we try to patch and enhance the existing software or do we, in effect, start from scratch to write a new one. In this case, given the desire to integrate the two databases and clean up some database design problems, the general lack of confidence in the existing application, and the long list of features to be added, the decision was pretty clear cut. Trying to patch the existing software would just take a less than satisfactory application and cover it with a whole lot of ugly Band-Aids that would make it difficult to maintain and further extend down the road. The only way (and this is very often the case) to produce an application that would effectively meet PAI's present and future needs would be to build it from the ground up. The primary objectives of the project became to:

- Merge the training and membership databases into one integrated database (in Access 2000).
- Bulletproof the membership renewal, billing, and credit-tracking processes.
- Add accounting functionality to the Access application to simplify and error-proof billing and accounts receivable functions.
- Add the agreed upon new features to the application.

Building the Database

Even though we were starting with a new database design and a new program, PAI certainly couldn't start with an empty database. We had to find ways to load the old data while at the same time cleansing any existing data that was felt to be incorrect or suspect.

This became a several-pronged approach:

- For historical data that was deemed to be relatively reliable, we simple wrote import routines that would convert the existing data into the new data structures. For example, previous class registration (what individual from what company took what class on what date) fell into this category.
- For member and contact information, we began by supplying them with spreadsheets exported from the current data. PAI then contacted practically every member company to get this information (addresses, phone numbers, location information, company size, who the appropriate contact people were in various categories, etc.) up to date. When the process was complete, we simply imported the updated spreadsheets into the new database.
- Critical pieces of information, such as member renewal dates, were carefully reviewed by PAI personnel to make sure they were correct in the new database.
- With the added accounting functions, came several additional pieces of information that needed to be initialized as the new database went live (account balances, open invoices, and member credit balances, for example). This was handled through a combination of normal data entry screens in the new application, some one-time mass data entry screens developed just to get the data

About PAI

Piedmont Associated Industries (PAI) is an employers' association: created by employers for employers. Since 1950, PAI has had the privilege to serve business and industry in the Triad area. Our continuing purpose is to promote the progress and development of our member organizations. The complexities and speed of change in the current business climate makes it difficult for any organization to succeed alone. Membership in PAI aligns you with a family of hundreds of employers of all sizes. We support our members' efforts by keeping them advised of changes in employment regulations, educating leaders and supervisors in positive management practices, and encouraging the friendly exchange of information and knowledge among the membership. Our members include manufacturing, service, healthcare, government, non-profit agencies, and professional firms. For over half a century Triad businesses have depended on PAI membership as a vital part of their success for one reason… PAI's focus is our members' success. PAI was created to find answers and practical solutions to your challenges.

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PAI…continued

initialized, and some under-the-hood manual entry of data directly into the database.

Accounting Integration

Clearly, adding accounting functionality to the new system was a very important part of meeting project objectives. Without linking the new database to accounting and removing the possibilities for missed or incorrect billings, many of PAI's problems wouldn't be resolved.

All billable services provided by PAI to a member company are now entered into the new system, and invoices are generated and sent out directly from it, based on those services. Payments are received and tracked from within it, as well. Member credits can be applied against invoices as de-

PAI staff member, Vanessa Laster, working in the PAI database.

sired, and the application keeps track of member account and credit balances. When payment is received for a dues bill, the program automatically updates the member's renewal date and credit balance so this information stays updated and correct.

A number of reports were also added to facilitate the process including open invoices, cash receipts, aging, member account and credit statements, and sales analysis reports. Of course, we didn't set out to write an entire accounting package. Accounts payable and general ledger are still handled from their old system, but from the sales and receivables side, the only required tie to their accounting system is now making summary entries into it at month end from reports generated from the Access database.

To facilitate billing for classes in the new system, all that's necessary is for the class to be flagged as having been held. There is no need for re-entry of data and the invoice that's generated automatically includes a detailed list of all students taking the class from that company from the class registration information. This also eliminates the chance of a class not getting billed for. Additionally, users can print detailed and summarized billing reports for each class which helps PAI determine what classes to schedule more often or less frequently for the next calendar.

Tracking Members

Tracking member renewals is much more efficient with the new system. Now, users can print reports that will show who is past due and who is coming up for renewals. Usage reports are also available to show what training and other services the member has received from PAI during the previous membership period. This helps PAI demonstrate the value they've provided for the organization and allows them to better assist a company with planning for the next membership cycle.

Many other member-related reports have been added to the new system to allow PAI to analyze membership by county, SIC codes, company size, and other parameters.

Working More Efficiently

Many of the requests for new features from the user group were simply things that would allow them to do their jobs more efficiently.

For example, sending confirmations to students registering for classes was previously a very time consuming job because someone had to type individual letters to each student. Now, users can hit one button and generate, via mail merge, a letter to each student and the person from the member company that registered them for any desired date range. Cancellation letters are generated using the same process.

Another example revolves around communications to member companies and targeted individuals within those organizations which is an important service provided by PAI. In addition to a monthly newsletter, PAI regularly sends out updates on HR concerns, legislative issues, upcoming class and seminar information, and other areas. These may go out by regular mail, fax, or e-mail. To facilitate this process, each individual in the database can be flagged with contact codes (HR, Information Systems, Top Site Official, etc.) as well as their preferred method of communication. When preparing a communication, the user can target the audience by selecting the set of contact codes to whom it should be sent (see Figure 1). The system then automatically prepares either an Excel file of all appropriate recipients for faxing or mailing (which can then be loaded into their fax software or mail merge) or an Outlook distribution list for mass e-mailing purposes.

Summary

Work began on the PAI application in mid-May, 2002. The new database was implemented in August. Throughout this time, regular reviews were held with the user group to review progress, demo new features, let them test-drive the software, and solicit their input to make sure the final product matched their needs and expectations. This also served to smooth the implementation process and minimize training requirements when we went live with the new database.

Like most software, the application continues to be enhanced. It has given PAI a number of benefits including:

- Providing reliable information that the users believe in
- Eliminating double-entry of information and providing other tools to enhance user productivity
- Replacing 'islands of information' with an integrated, comprehensive database
- Allowing PAI to be more responsive to their customers as well as providing additional internal information.

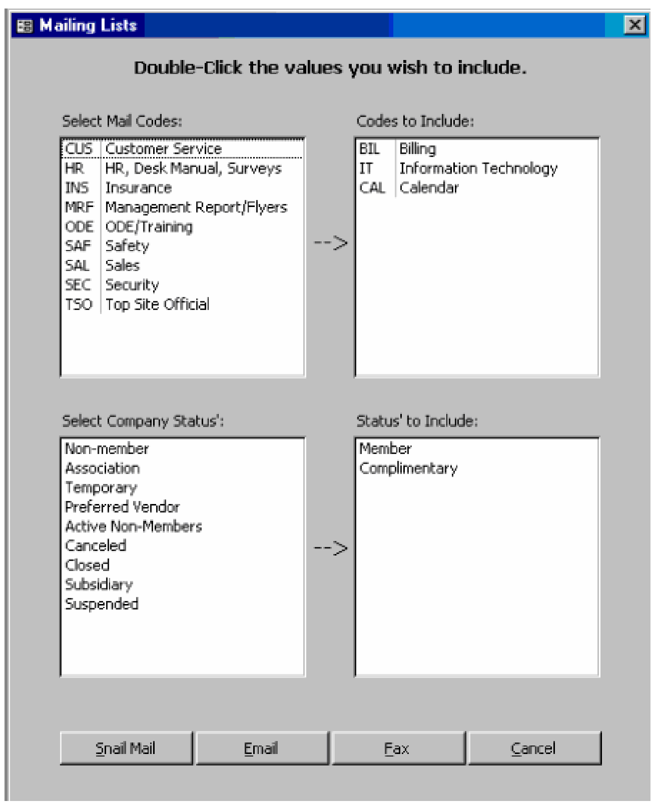


Figure 1—PAI Mailing List Screen

Shortcuts—Tips and Tricks

Are You A Mouse-A-Phobe?

Would you be more productive if you never had to take your hands off the keyboard to touch that gray thing that sits beside it? If pointing and clicking and dragging and dropping are not your idea of the best or fastest way of making things happen on your computer, consider the following keyboard shortcuts:

- Instead of clicking the Start button, try <Ctrl>-<Esc> or just press the <Windows> key (the one with the Windows logo on it if your keyboard is so equipped).
- To choose an item from the menu, type the underlined letter in the item's name or the first letter if none is underlined. Note that if two items in the same list begin with the same letter, you may have to type the letter twice to get to the second choice.
- Holding down the <Alt> key while repeatedly pressing <Tab> will cycle you through all your open applications. This is particularly helpful if, for example, you have an old DOS application open in full screen mode and can't get to your taskbar to switch to another app.
- Pressing <Windows>-M will minimize all open applications. <Shift>-<Windows>-M will restore all apps so minimized.
- <Alt> or <F10> accesses the current window or application's menu bar. From there, you can choose menu options by using the arrow keys or typing the underlined letter.
- <Shift>-<F10> or the <Application> key (that's the one that looks like a mouse pointer pointing at a menu option) will bring up the context menu for a selected item (a file in a folder for example) just as if you'd right-clicked on it.
- <Alt>-<F4> will close the current window or application in most cases.
- Try <Windows>-<E> to open Windows Explorer.
- <Windows>-<Pause> will take you directly to the System Properties dialog.

The following are not necessarily universal, but they work in most Windows applications:

- <Ctrl>-C to copy something to the clipboard.
- <Ctrl>-V to paste the clipboard's contents
- <Ctrl>-X to cut an object from it's current location and place it on the clipboard.
- <Ctrl>-S to save your work.
- <Ctrl>-A to select everything in the current window (all the files in a folder, an entire document, etc.).
- <Ctrl>-B to turn bold on or off.
- <Ctrl>-I to turn italics on or off.
- <Ctrl>-U to turn underlining on or off.
- <Ctrl>-<Home> to go to the beginning of a file, document or the contents of a folder.
- <Ctrl>-<End> to go to the end of a file, document or the contents of a folder.
- <Ctrl>-F to launch the program's find or search feature.

Around MCS—The Home Page

ClientWare—The Attorney's Software

We've recently released version 3.9 of ClientWare with a number of new features and reporting capabilities. If you're an attorney with a practice area in either criminal or family law, you owe it to yourself to find out how ClientWare can improve the productivity of your practice and save you money.

ClientWare is a client management database that allows you to maintain client and case information, court schedules, billing/payment information, and trust fund transactions and to retrieve that information easily. It can be run on standalone PC's or as a multi-user application across your network. Supported client and network operating systems include Windows XP/2000/NT, Windows 95/98/Me, and Novell.

ClientWare offers extensive reporting capabilities, including court calendars, internal management forms, and many commonly used North Carolina State forms that can be automatically printed based on the information already contained in your database. You can also generate a variety of client letters, customizable with your letterhead/logo and other information. A partial list of reports includes:

<u>State Forms</u>

- SBI/DCI Network Pin Form
- Limited Driving Privilege Impaired Driving
- Limited Driving Privilege Willful Refusal
- Waiver of Counsel
- Fee Application Order for Payment Judgment Against Indigent or Parent/Guardian
- Limited Driving Privilege Pretrial Revocation
- Petition for Limited Driving Privilege Pretrial Revocation
- Subpoenas

<u>Internal Forms</u>

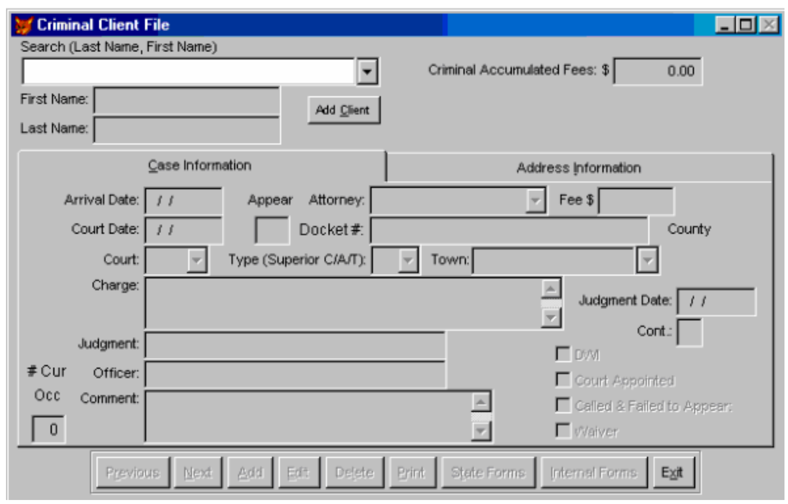
- Speeding Reduction Authorization
- Motion to Re-Calendar
- Motion and Order Recalling Orders for Arrest or Forfeiture

<u>Client/Case Management Reports</u>

- Court Calendars
- Follow-up Reports
- Client Reporting by Arrival Date
- Client Reporting by Court
- Client Reporting by Individual Client

<u>Billing and Related Reports</u>

- Fee Summaries
- Invoicing
- Payments
- Outstanding Balances
- Receivable Summaries
- Trust Account Activity
- Trust Account Balances



ClientWare Client Information Screen

ClientWare is priced at $795 (per location but includes an unlimited number of users at that location) plus tax. This also includes one free hour of telephone support. It can also be customized to fit your unique needs.

A free, full-featured demo is available on CD. Or, feel free to contact us about coming out and doing a live demonstration of ClientWare in your office. You can also download a copy of the ClientWare user's manual from our website.

Who Is MCS…

MCS has provided our clients with Information Technology solutions since 1980. Our primary focus is developing **custom database applications** to help you turn data into information to support business processes and improve decision-making. We work in a number of Microsoft database/development platforms including Access, Visual Basic, Visual FoxPro, and SQL Server.

Through the years, we've added other service areas:

- Helping you to **outsource** all or parts of your **IT functions-**networking, software and hardware installations, e-mail, virus protection, backups, and other areas.
- Developing **dynamic, database-driven Internet applications** to bring your website to life and enable it for e-commerce and enhanced communication with your customers and other business partners.
- **Automated/portable data collection.** Whether you're on the factory floor, in the warehouse, in the office, or on the road, capturing accurate data cost-effectively is the first step in turning that data into information. In addition to writing software to support these applications, we're resellers for various ADC equipment including bar-code printers, scanners, PDA's, and other portable/wireless devices from a number of manufacturers. This means that, from hardware to software, we can provide you with turnkey solutions in this area.

We understand that information is a critical resource for every organization. Our fundamental goal is to help our customers use that resource more effectively. We truly believe in delivering solutions—not just software, hardware, and services. We pride ourselves on listening carefully to understand our customers' unique needs, working with them as partners, and providing the systems, training, and ongoing support necessary for success.

Contact us for a free consultation to see how we can be of service to you.

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"To glorify God by serving others with excellence, value, and integrity while sharing the love of Christ."

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