

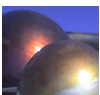
# ArcBITS Newsletter

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### ArcSys Hot Tip

Once a month, make a backup copy of your data base on to a flash drive. These drives are now available in 8GB sizes—which is huge by our standards. Go to the folder on your server where the backups are kept. Look for the most recent \*.vtf file. Right click, click on copy. Insert your flash drive. Wait for the message to appear about opening the folder to view. Right click, click paste. It could several minutes to copy the file.



## Software On Trial

Salt Lake City  
By Mike Archuleta

I'm sitting in a holding room at the U.S. District Court waiting for my turn to testify in a trial regarding a physician, Dewey MacKay of Brigham City, Utah. My part is a tiny speck of information in the trial, and in most ways has nothing to do with the real issues at hand. Nevertheless, here I am, playing the waiting game.

A little background: For users of the MegaWest Appointment Scheduling Software, you may be familiar with a concept known as "re-synchronizing". Basically, there are three components to the data base structure of scheduling. One file is a list of individual appointments, a second is an index of how the appointments are related on a given date for a specific provider, and a third contains the template or time information.

Back in the 1980s, we thought it would be a great idea to allow doctors to easily change their time templates. If the appointments were 15 minutes apart and the doctor wanted to change to 20 minute slots, then why not? The only issue was how to deal with appointments already scheduled in the future. Thus, the idea of resynchronization was born. Initially, this was an intensive process. It took quite a bit of computer time, and staff would be instructed to stay out of the scheduling software while it was performed.

As the years rolled by and larger clients

started using MegaWest, this approach was not viable. This led to the concept of dynamic resynchronization. That is, if someone brought up a schedule and the time slots did not "jive" with what was listed on the template, then that day would be resynchronized within a few seconds.

There was, however, a little gotcha which would bite people from time to time. If there was no template defined for a given date, then the timeslots would all default to the first appointment time of the day, usually 7 or 8 am. This problem would typically occur when we were creating new logons and trying to share data files between the logon accounts.

With this as background, here are the events that happened in March 2007. We were involved in creating a new logon account for the business where Dr. Mackay used to work. We shared two of the three files, but never copied the time templates into the new logon account. If a staff member tried to look up an appointment for Dr. MacKay in the new logon, in the absence of the template all of his appointments were set to 7 am. Boom!

So there I was, in court, under oath, trying to give a succinct explanation of the computer error which accounted for Dr. MacKay's appointments all being listed as 7 am. (The underlying problem was that he was seeing between 80 to over 100 patients a day.) Fortunately, the billing side supported that, for the people who were scheduled, there was a matching charge.

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## Software on Trial (continued)

This has made me take a long and serious look at decisions made over the years about software design. The idea of permitting a doctor to easily change a template was good, but the implementation approach was definitely flawed — on several fronts.

Never in a million years did I think, back in the 80s, that I would have to explain to a federal judge why the MegaWest appointment scheduler could create a computer error and lose original appointment times. (If you are still using MegaWest, this becomes another reason to encourage you to make the transition to Red Planet.)

Here are the lessons I learned.

- Have backups. At a minimum, keep one backup for each year end. This becomes quite difficult (and burdensome) when there are changes in technology and you make system upgrades. If you backed up on DAT tapes or 1/4 inch tapes, do you still have access to a device that can read them? In the case of this trial, the tapes were available, but there was no longer easy access to a machine to read them. If we could have read the old backup tapes, the original appointment times could have been shown.
- Have audit trails. MegaWest has a few, but Red Planet is really robust. And, with Red Planet, the story can be reconstructed as to why the data got to where it currently is. Conversely, with software tools, data can be rebuilt to a prior point in time.
- When a major disruption is noted—as in old appointment times resynchronized to 7am—don't ignore it. Take the appropriate actions to restore data from the previous night's backup. In this case it seemed minor, but who

knew that a federal prosecutor would be asking “why” four years later.

- If you have multiple logon accounts, question us very carefully about sharing files. Even in the Red Planet world, there are complexities when you share files. The audit trail is not shared between logons and you may be misled when trying to answer a question.
- Keep a journal. Doesn't matter if it is computerized or not, but making notes about major events can be helpful when trying to figure out what happened in the past.
- Make sure staff feel personally accountable for the data. It is important that every field of data be filled accurately and that people understand why.
- Beware of using software where there is no way of knowing how you got from point A to B. This includes your critical accounting functions such as payroll, general ledger and accounts payable. Red Planet has the audit trails to assist in answering these questions. Does yours?
- Be prepared for the unknown. Will the partners in a business have a harsh break-up down the road? Will someone in the business be accused of embezzlement? Will an attorney be requesting subpoenas for your data—in human-readable form? Will a patient be wanting to know who has had access to their data for the past 10 years?

Good software will not prevent problems, but when difficult times come, at least you won't be wasting your time on data-related questions.

## Timely Access

One requirement of Meaningful Use is providing the patient the capability of electronically accessing either a summary of their medical chart or the last visit. The content of either is at the discretion of the medical staff and is handled by Red Planet. On connecting over the Internet to a workstation that has very, very limited

access to your server, the screen on the right appears:

If all the information matches, then the data is presented.

PATIENT PORTAL 20:34:08 29 AUG 2011

Patient account: 65592  
 Date of birth: 11/13/1967  
 SSN: \*\*\*\*\*  
 E-mail: \_\_\_\_\_  
 Display a Summary or Visit: SUMMARY  SUMMARY  VISIT   
 Enter date, if choosing a Visit: \_\_\_\_\_

OK Cancel

ALPINE MEDICAL GROUP, LLC -- 12:31:54 29 AUG 2011  
 1060 E 100 S STE.L10  
 SALT LAKE CITY UT 84102  
 801-328-1260

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 JIM HERRERA 11/19/1967

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 Active Medications

| Prescription                 | Dose   | Frequency                                     | Date     |
|------------------------------|--------|---|----------|
| ASA 1,000 MG / CAFFEINE 65 M | 81 mg  | 1 po qd                                       | 05/26/09 |
| LIPITOR                      | 20 mg  | 1 po qhs                                      | 06/21/10 |
| TOPROL XL 100 MG (METOPROLOL | 50 mg  | 1 po qd                                       | 06/21/10 |
| LISINAPRIL                   | 20 mg  | 1 po qd                                       | 06/22/10 |
| HYCODAN (HOMATROPINE METHYLB | 60Z    | 1-2 TSP Q6 PRN COUGH AVOID DRIVING IF SEDATED | 08/25/09 |
| HYCODAN (HOMATROPINE METHYLB |        | 1 tsp PO QID PRN cough                        | 08/09/10 |
| ALPRAZOLAM                   | 0.5 mg | 1-2 po bid prn                                | 06/21/11 |
| TRAMADOL                     | 50MG   | 1-2 PO Q 6 HRS PRN PAIN                       | 06/21/11 |
| DIABETA                      | 2.5 MG | BY MONTH EVERY MORNING                        | 07/05/11 |
| ERYTHROMYCIN                 | 400 MG | BY MOUTH EVERY 6 HOURS                        | 07/05/11 |
| ORAL SUSPENS                 |        |   |          |
| INDOMETHACIN RECTAL SUPPOSIT | 20 MG  | 1 TIME PER DAY                                | 07/05/11 |
| CYCLOBENZAPRINE HYDROCHLORID | 20 mg  | TABLET BID                                    | 07/05/11 |
| CIPRO                        | 500 MG | 1 PO BID X 10 D                               | 03/18/11 |
| NITROGLYCERIN 0.4 MG/ACTUAT  |        | 1 SPRAY SL PRN CP MR Q 5 MIN                  | 03/18/11 |
| DIABETA 2.5 MG ORAL TABLET   |        | X 2   | 07/02/11 |
| ERYTHROMYCIN ETHYLSUCCINATE  |        | 1 TAB AM                                      | 07/02/11 |
| LASIX 20 MG ORAL TABLET      |        | EVERY 6 HRS                                   | 08/02/11 |
| KLOR-CON 20 MEQ EXTENDED REL |        | ONE PER DAY                                   | 08/02/11 |
|                              |        | 2 X DAY                                       | 08/02/11 |

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 Problem List

| Date     | Diagnosis | Problem                 | Status |
|----------|-----------|-------------------------|--------|
| 08/01/11 | 414.01    | CORONARY ARTERY DISEASE | Active |

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 Medication Allergies

| Date     | Type | Medication       | Reaction  | Status |
|----------|------|------------------|-----------|--------|
| AUG 2011 | Drug | all CODEINE      | hives.    | ACTIVE |
| SEP 2011 | Drug | all AMPICILLIN   | diarrhea. | ACTIVE |
| SEP 2011 | Drug | all IBUPROFEN    | hives.    | ACTIVE |
| JUL 2011 | Drug | all SULFONAMIDES | hives.    | ACTIVE |

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 Recent Lab Results