



Homeheat and Business Intelligence—Part Four:

Let's Get Going

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It's pure coincidence, but as I sit down to write the wrap-up to our series on business intelligence, I find myself back at my friend's lake house—where I wrote the first article just after Thanksgiving. The lake's still frozen, but it's warm enough that I'm having trouble staying indoors. Nevertheless, the deadline looms and we need to get this all wrapped up as the season ends. The next few months provide an opportunity to make managing your next season seem like a whole new job.

My partner in Technology Assistance Group (TAG), Bob Levins, and I have discussed the uses of business intelligence (BI) in the petroleum business in the past three articles, but the question may remain, "Why should a home heat company use BI?"

In our experience, there are two problems with the way performance is measured within most oil companies. The first is that there is very little correlation between operational activities and month-end numbers. This does not mean that people do not care about performance. It means that they do not see the connection between their day-to-day activities and the results on the financial statements. Second, the data that management needs to review, to track what is happening throughout the month, is not readily available. What we do see are spreadsheets, typically only at month-end, displaying summary numbers, pulled together from different sources and primarily for sales and statistical information.

Today, it is possible to produce reports from up-to-date information, to present those reports in multiple formats so that the users see the data in a way

they understand it—a way that matches their job function. Everyone in the organization can now be on the same page, looking at the same numbers, working towards the same goal. Automation, consistency and multiple methods of deployment are all important, but the most important benefit is that information can be presented in time to do something about it.

BUSINESS INTELLIGENCE

BI is a different kind of automated reporting. Most of what you get in traditional reporting is summary-level—sales, gross and net profit. Buried below that level is all the detail—every sale, every expense—that goes to create the summaries. You, your accountant, your banker, your suppliers rely on the summary data, the accounting reports. However, that is not how you do business.

DETAILS, DETAILS...

Your business happens at the detail level, the individual delivery, the service call, the rack pickup, the time clock swipe. These are the thousands of actions that comprise your real business and it is at that level that you earn revenue and incur expenses. It is at that level—and that level only—that you can change the way you do business and improve the summary picture—the bottom line. But all that detail is just what prevents you from seeing clearly what is going on.

Once you grow beyond the "mom and pop" level, you lose direct access to all the detail. You no longer know how long it really should take to run a route that you've never run. For larger firms, faced with details in the hundred thousands or millions, gut instinct is a dangerous illusion. This is the dilemma BI was created to solve. BI is an automated way to sort through that mass of details and quickly bring the problematic ones to your attention.

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Further, the summary-level data is also “period-level”. That is, most of the reports you see are from a completed period. Again, that is not where you do business. All activity is at the detail level and today. There is nothing you can do about past performance. Without access to the right details, there is nothing you can do to prevent costly future problems.

FOR EXAMPLE

Time for some examples. First, getting to the details. An operator of a few dozen convenience stores suspected that the explanations he was getting for excessive overtime were not based on hard facts. He knew what information was necessary, but there were several thousand time clock swipes in a pay period. We gave him what he needed to be able to manage the situation in a report that arrived by email at 7AM every morning. He was able to save \$60,000 in payroll expenses over the next 45 days.

Next, getting timely information. At one of our earliest installations, the first TAG reports were available on the president’s PC less than two weeks into the month. These were margin reports and they were coming in lower than expected. A little investigation showed that his fleet was picking up under the wrong contract—an error easily corrected. Our customer said that he would never have known until the financials came out days after the month was over and would have lost a month’s worth of additional margin.

BI makes it possible to manage intelligently. Before you can manage, however, you may have to face some surprising facts. I was reading an article recently about a new BI system in another industry. The company ran a new customer profitability report and discovered that their biggest and best customer, the one to which they gave the very best service, was costing them \$50,000 a year.

Customer profitability is, in fact, one of the most important views of your data that BI can provide. In the last two articles, we discussed service and delivery BI applications. Put them together and you can see how valuable an individual customer is. Imagine you have a report that shows, for each customer, the gross margin from fuel, the revenue from a service contract and the number of service calls (times your average cost per call). That will show you how much that customer is worth to you—or how much keeping it is costing you. Great information, but lots of detail. Now, imagine a smaller report that lists customers on which you are losing money (or making very little) and whose service or fuel contracts are up for renewal in the next month. Here you have something you can work with, what the BI industry calls “actionable information”.

BACK IN CONTROL

Actionable information is the key. Instead of multi-hundred page reports, or unaudited spreadsheets where calculation errors easily creep in, you have concise reports of situations that need to be managed—that need your attention. You are back in control.

So, how do you get there? What is involved in getting these valuable BI reports? The first step is to create a data warehouse. This is a simple process. All your operational data sits in a database (unless you have an older system that used separate files to hold data). Creating a data warehouse just means creating another database and copying your transaction records to it. All the deliveries and service calls are copied—gallons, dollars, cost, time, parts—all that detail is copied to the new database. There, it can be sorted, analyzed, played with (what if...) without impacting the normal day-to-day activity in your primary source system.

Next step is to decide what you want to work on and to prepare the appropriate views (reports) of your data. You may already know an area of your business that needs attention. You may want to start with service call analysis, delivery performance, or margins. Whatever it is, you know what you really need to see in order to manage that aspect of your business—ask for the data that will let you take action.

Once these new BI reports are available, they have to be tested against the source system. If you are going to make decisions based on this information, you have to be confident of its accuracy. Interestingly, we often find that the BI reports are more accurate than the reports from the source system. Over the years, the source reports have been adjusted and data may have been excluded. We run a straightforward listing of data and then have to uncover the reasons why it does not match.

Finally, when all the users are satisfied of the accuracy of the BI reports, a process is set up to get those reports delivered. Different processes can be used depending on a user’s job and location. Reports can be emailed, placed on the company intranet, or viewed with special BI software. This software makes it easy to “drill down” from a summary level into the detail and find the specific transactions that are causing a problem.

It is not so important whether you buy a set of reports designed for your part of the petroleum industry, or have a custom set developed. What is critical is simply to get started. Use consultants such as TAG, or develop your BI reports in-house, but start now while there is still time before next season. Learn what it feels like to be back in control of your business.