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The BI Watch: Pulling the Rabbit Out of the Hat

by Richard Hackathorn

As a child, I was fascinated by magicians who seemed to pull something out of nothing. This was especially true when the "something" was a cute bunny. In the midst of a technical briefing on the new features of BusinessObjects 6.5, I experienced that same feeling.

While describing the architectural merger with Crystal Reports and Crystal Enterprise, a brief mention was made of the Data Mart Accelerator for Crystal Reports, which is an extension of BusinessObjects Data Integrator 6.5. It quickly builds a data mart based a historical repository of past Crystal reports.

No big deal, right? Wrong!

A 2003 survey indicated that customers using Crystal Enterprise typically manage approximately 150 reports, each of which archives an average of 27 historical "instances."¹ It is important to realize that each instance not only contains the meta data for the report, but also the actual content. All those numbers are preserved as a snapshot of how the business is performing. For key financial data, this satisfies the purpose of an important cover-your-rear (CYR) audit trail. In addition, this also satisfies the ever-present need for simple trend analysis for most other users. Just think of the thousands of corporate worker-bees who are scanning past reports and manually copying numbers into Excel spreadsheets.

For customers of Crystal Enterprise, does the Data Mart Accelerator offer something of value from nothing? Are we pulling a rabbit out of a hat?

The history of report executions (meta data + content) captures many key information requirements for operational metrics about the business. Realize that 75 percent of these reports are directly accessing transactional systems. The people who designed these reports were not thinking about advanced performance analytics from an enterprise data warehouse. They probably cannot spell "analytics" and are not motivated by its business value. However, standard corporate reports directly from transactional systems accomplished something special. These reports are tied closely to people's job responsibilities. In addition, these reports contain the numbers with which everyone is familiar and the numbers reported to the government agencies. They are more than reports; they are similar to an x-ray of the business.

An early user of the Data Mart Accelerator was the internal development group for Crystal Reports in Vancouver. Ju Wu, chief architect at Business Objects, explained their need for trend analysis and project tracking, based on their software exception reports. They had initially extracted data from these reports into Excel by manually cutting/pasting and importing text files, both of which were painful processes. They also tried exposing report instances directly as an OLEDB data source but encountered performance issues in doing so.

By using the Accelerator, a data mart for project management was rapidly created and made accessible to all 300 engineers in their group. Now, increasing numbers of the engineers are exploiting the data mart for a variety of requirements. This approach is scalable to larger user communities and extensible to other facets of project tracking such as vacation schedules. In addition, it allows for drilling down to the details with direct links to the original reports as the ultimate CYR.

The Data Mart Accelerator is an excellent start in assisting Crystal customers along the BI maturity curve. However, as a long-term solution, it has two problems.

First, the data mart should architecturally become the single source of analytic data, rather than continuing to use the reports as a bridge. We need a mechanism to easily redirect the Crystal report to utilize the data mart as its source, rather than the transactional systems. The extraction processes should be consolidated with the

Data Integrator.

Second, this will build a one-off mart. However, will this tool allow a company to leapfrog into an enterprise data warehouse? Because Crystal customers have an average of 150 reports, can 150 data marts eventually evolve into one integrated warehouse? What if Business Objects enhanced the Data Mart Accelerator to blend five or 50 report instances into a single data mart? You could then continue that process until you have an integrated data warehouse.

Now that's a cute bunny!

References:

1. Research mentioned is a data sheet for Data Mart Accelerator at:
http://www.businessobjects.com/global/pdf/products/dataintegration/dmac_info_sheet_final.pdf?ref=DI65_latest.

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