DISCOVERER 10G OR BI BEANS – WHICH IS RIGHT FOR YOU?

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INTRODUCTION

Discoverer release 10g uses BI Beans to present Oracle OLAP data. It gets its power from BI Beans. How does this strategy give Discoverer users the flexibility to analyze OLAP data? What features does this expose to the users over what has been available previously? Custom applications that use BI Beans have many of the capabilities that are in the Discoverer 10g application. When would you want to use Discoverer and when would you want to code an application directly in BI Beans? This presentation will contrast Discoverer 10g with custom-built BI Beans applications and discuss why you should consider these products.

BACKGROUND

BI Beans is the platform of choice for developing applications that can take full advantage of Oracle9*i* OLAP. Developers can use Java to develop any of the interface logic necessary for a business intelligence application. JDeveloper and BI Beans replaced Oracle Express Objects as the environment for building Oracle BI applications. While the switch from a proprietary language (Express Basic) with an industry standard (Java) was welcome, many companies stayed away from developing their own applications in JDeveloper. Many companies have been waiting for a pre-built application that exposes the power of BI Beans without having to code an application from scratch. A few consulting companies, including Vlamis Software Solutions, tried to fill this need by developing their own applications using BI Beans. Still, for the most part, Oracle clients have been waiting for "the technology stack to be complete" before adopting Oracle OLAP. In 2003, Oracle finally realized that it needed to develop an ad-hoc query tool based on BI Beans and extended Discoverer to directly access Oracle9*i* OLAP. This product will be released in 2004, finally delivering a tool for displaying and analyzing Oracle OLAP data.

DISCOVERER PLUS OLAP

First of all, some caveats. As this paper is being written, Discoverer 10g is still being developed. I have seen a prerelease of the software and it seems pretty much feature-complete. The software was demonstrated and discussed at OracleWorld 2003 (September, 2003). Still, until the software is released, some details may change. Be sure to visit our web site at www.vlamis.com for an update of this paper or the presentation as delivered at IOUG Live for an update. Alternatively, see any information posted on Oracle's otn.oracle.com web site.

At this time, Discoverer Plus 10g has two interfaces: the Discoverer Plus "classic" interface for analyzing relational data, and Discoverer Plus OLAP. Discoverer Plus OLAP looks a lot like other applications built with BI Beans because it is built with BI Beans. Data is presented via the crosstab bean and the graph beans; queries are edited by using the Query Builder BI Bean. It is exactly this "reuse" of code that enabled Oracle to create a very feature-rich product in such a short period of time. Oracle already had beans that provided the raw components necessary; it just needed to package these together into an application and integrate it with the rest of Discoverer

GENERAL FEATURES OF DISCOVERER PLUS OLAP

So what does this look like? Well, since the product is still in development, I can't show screen shots, but I can describe it. It has a standard menu bar, a toolbar for recently-accessed functions, a formatting toolbar that applies to graphs and crosstabs and a stoplight toolbar for applying stoplight formatting to crosstabs. Below this are two "navigation panes" on the left and a

presentation space for crosstabs and/or graphs to present the data. Each crosstab or graph has a toolbar that applies to that crosstab or graph.

These menu items let you open workbooks (crosstabs or graphs), edit the current query, insert new calculations and all of the features you would expect in navigating through Oracle OLAP data.

PLUS OR VIEWER

Delivery options are still being decided at the time of this writing, but there are two main interfaces. Discoverer Plus is fully-capable of allowing the user to generate new reports, add custom calculations, format data, and generally navigate through the data. This "thick" version runs via an applet that gets downloaded to the user's PC automatically from a browser. There is also a more stripped-down "thin" Viewer version that is designed for a user that simply wants to run reports developed by a report developer. Discoverer Viewer allows the user to rotate the report, and drill down into lower levels of detail, but it does not let the user create brand new reports, create new custom calculations, or edit or create a new query from scratch. However, you can save the results of your drill down, rotation, etc. as a new report, so perhaps this is not as limiting as you would think. While Discovere Plus is designed for a power user, Discoverer Viewer is designed for a user that simply wants to view the data and maybe save a derivation of a report being viewed. The big advantage of the thin version is that it only requires HTML in a browser to run. There is no installation or even an applet to download. These details may change by the time the product is released.

FEATURES UNIQUE TO DISCOVERER PLUS OLAP

Discoverer Plus OLAP does benefit from being in the Discoverer product line, in that Oracle has included some of the nice features in Discoverer in this product. Specifically, there is a summation tool that Discoverer users will recognize. It allows the user to add a "total" row or column to any crosstab. This allows a user to aggregate dimension values together to produce a total that is not part of the normal hierarchy. For example, a user can add a line to a report displaying data for DECEMBER, JANUARY, AND FEBRUARY that represents TOTAL WINTER. Of course, this totals all dimension values being displayed in the report, but it at least offers the user a way of calculating totals that were not anticipated by the person that designed the reporting hierarchies.

There is also a very nice "undo" feature that can works just as you would expect. This is a welcome enhancement and really helps in usability when exploring data.

Discoverer Plus OLAP also organizes crosstabs and graphs into "workbooks" that can combine multiple crosstabs or graphs into one workbook. The dimension selections and layouts of these individual elements can be linked or unlinked. This offers some additional flexibility when creating presentations since a crosstab and graph can be shown at the same time.

The navigation panes on the left let the user easily modify a query without having to specifically bring up the query editor. For example, to add a measure to a crosstab or graph, the user simply clicks and drags the measure to the crosstab or graph. Working in this way is very intuitive.

BUILDING WITH BI BEANS

If you want to change something about Discoverer, consider building your own application using BI Beans. Indeed, you could build your own "Discoverer" in JDeveloper using BI Beans (and a LOT of Java code!). BI Beans is an add-in to JDeveloper. When you purchase JDeveloper (also part of Oracle9*i* Developer Suite), you can download the BI Beans, and add the beans into the JDeveloper environment. Once the BI Beans are added to JDeveloper, you can use them just as any other Enterprise Java Bean when developing an application. Of course, you can choose to use a Java development

environment other than JDeveloper, but some of the wizards are only available within the JDeveloper environment, and you will lose the ability to view data live while developing if you use a development environment other than JDeveloper.

Building your own application allows you to build the application any way you want. You may use BI Beans to display or manipulate some of the data, but by building the application yourself, you can more easily integrate OLAP data with other data, whether than data is stored in Oracle or some other location. By building your own application, you can make the application look like and do whatever you want and integrate non-OLAP features in a single application.

GENERAL FEATURES OF BI BEANS APPLICATIONS

BI Beans applications generally display data using crosstabs or graphs. The crosstabs support drilling, rotating, drill-through, color-highlighting, and other typical operations. Graphs support drilling and rotating. There are over 50 graph types to choose from. Selection of data is typically performed using the Query Editor bean. This offers the user a great deal of power in selecting data, with pre-built templates that allow for selections such as "top 10", "all children of a node", and many, many more types of selections. There is also a calculation bean that allows the user to create their own custom measures with templates supporting most of the common expressions that users need to perform such as ratios, year-to-dates, and many, many more.

FEATURES UNIQUE TO BI BEANS

By using BI Beans, you have complete control over how your application looks and operates. While some of the specifics of how the crosstab, graph, and query builder beans look and operate cannot be changed, you have a great deal of flexibility over how these can look and operate. Toolbars and individual buttons can be turned off and features can be locked down. If you want to add an action to a crosstab, you can write your own handlers to do something like drill to the detail of a given cell via a right-click on a cell. Or, add a button that computes a forecast or brings up a "what-if" screen. Indeed, BI Beans applications can look totally different from Discoverer Plus OLAP. You can change many features of the crosstab and graph beans or even code your own screens that present the data in a totally different way.

You should also be aware that the 10g thin BI Beans (again, shown at OracleWorld 2003, but not released yet) have far more power than is exposed via the Discoverer Viewer. While the thin 10g BI Beans include a calculation builder, and a query editor that allows a user to change the query being displayed, these capabilities are not exposed in the Discoverer Viewer. In effect, you can build a more feature-rich viewer than the Discoverer Viewer. Just expect to spend some significant time and resources developing this. And, by the time you are ready to deploy your application and your users are enjoying the benefits, Oracle may have enhanced the capabilities of its Discoverer Viewer, negating this advantage.

WHICH IS RIGHT FOR YOU?

So which is right for your company? This really boils down to the classic "buy versus build" question so common in software selection processes. Discoverer is a complete application for your users, but don't expect to be able to change it significantly.

WHY CUSTOM-BUILD WITH BI BEANS?

If you select BI Beans, you will need to create an application yourself. This is actually, not that hard with the wizards built into JDeveloper. More importantly, you will be responsible for the installation, documentation, and quality assurance of your application. You will have more flexibility in how your application works and will be able to customize it to your exact needs, but expect to spend some significant time on deployment issues when developing your own application.

WHY DISCOVERER?

If you select Discoverer OLAP, you will be able to install a tool and immediately use it against your OLAP data. Your end users will be able to enjoy end-user help, and training on a standard product, with installation routines developed by Oracle. You will save the time you would have to spend developing your own application.

HOW ABOUT BOTH?

Of course, these decisions are not mutually exclusive. You may choose to use Discoverer for many of your users, since it may meet most of their needs. But, you may have an executive user community that needs specific screens that behave and present the data in a certain way. The same Oracle OLAP data used for Discoverer can be used for your custom-built BI Beans-based application.

WHAT ABOUT ENTERPRISE PLANNING AND BUDGETING?

This paper would not be complete without mentioning Enterprise Planning and Budgeting (EPB), an application still in development. EPB has been in the works for several years. It is being developed by the group responsible for Oracle E-Business Suite. As an Oracle Application, it will likely have more integration with other Oracle applications, but it is being designed to operate as a standalone tool as well. It is certainly worth looking into this as a possibility for analyzing Oracle OLAP data, but at the time of this writing, it is too early to draw any conclusions.

CONCLUSION

Finally, Oracle customers will have the choice of using an out-of-the-box application built by Oracle to analyze Oracle OLAP data, or building their own applications using BI Beans. There is a need for both capabilities. Is it better to buy a pre-built application or build one yourself? Only you can decide.