

Discoverer: A New World of Reporting

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Introduction - Oracle Discoverer is an under-utilized tool. Discover real-world tips for deploying Discoverer in an Oracle Applications environment. To be successful, you must move beyond the installation guide and consider the organization structure and the skill sets of the IT support staff. This paper discusses provides advice and best practices for a successful Discoverer installation in an Oracle Applications environment. Emphasis is placed on the staffing and project management decisions required ensure success. Actual production report examples and statistics will be used in this paper. The Discoverer version discussed in this paper is release 4i. The intended audience of this whitepaper is Project Managers and Technical/Functional Leads. Directors and Technology Managers may also find this paper helpful in planning for staffing needs and training requirements. This white paper has two appendixes at the end. Appendix A lists common Discoverer terminology while Appendix B is a compilation of sample reports used at GISD (including comments).

Legacy Reporting Limitations – Oracle Applications provides a large number of standard reports. However, these reports were developed during the late 20th and early 21st century. Information technology has advanced in the last 10 years resulting in an outdated appearance and functionality of these reports (Exhibit A). The outdated appearance is a result of using a single sized font without any style changes such as bold, underline and italics. Line and column spacing are often misaligned, with line wrapping occurring in awkward areas of the report. The result is a report that is difficult to read and cannot be used as formal presentation document.

In addition to the poor appearance of the legacy reports, functionality is limited. Legacy 6i/9i reports often contain too much information or are missing one critical piece of information. The most common report customization request is to add a piece of information to an existing report. For example, the AP Invoice Register (Exhibit A) is considered by many to be missing a Purchase Order reference.

The final limitation of existing legacy 6i reports is that they require technical expertise to develop and maintain. A fully trained Reports Developer must attend a five day PL/SQL training class and an additional five day Reports class. Additionally, the developer must be familiar with the Oracle Applications environment and database schema structure. An entire technical specialty has risen out of the need to develop and maintain legacy reports.

Enter Discoverer: A New World of Reporting – An often heard criticism of Modern ERP (Enterprise Resource Planning) systems is that “information cannot be pulled out of the system.” Business Intelligence and Discoverer seek to fill these perceived information inadequacies while addressing limitations discussed in the previous section. The Discoverer product comes in three distinct versions, Discoverer Plus Desktop, Discoverer 4i Plus and Discoverer 4i Viewer. Understanding the differences and the pros and cons of each version is critical to the successful implementation of Discoverer. Some organizations opt for all three types of Discoverer while other organizations settle on one version. In addition to the client versions of Discoverer, there is a System Administration version which must be installed on a Windows client. Since the System Administration application is required in all Discoverer installations, the client versions and their differences will be discussed below.

Discoverer Desktop (Exhibit B): This version of the Discoverer suite is the most versatile and feature rich. It must run on a Windows client. The targeted audience for this version are business analysts, budget analysts, financial analysts, project managers and senior managers and directors. In order to adequately use this version, each user must be familiar with Excel.

Advantages: The client runs on Windows and behaves as a traditional Windows application. Standard shortcuts, icons and menus are utilized. Performance is completely dependent on the client and is usually fast when used with a contemporary computer. As with any Windows application, stability can be an issue. Stability is primarily affected by the number of applications consuming RAM (Random Access Memory) and the length of the query. The Discoverer Desktop can hang occasionally on extremely long queries (queries which exceed an hour). Another advantage of the Discoverer Desktop is that it can be tightly integrated with Excel.

VBA (Visual Basic Application) code and macros can be written to automate formatting and other special reporting requirements.

Disadvantages: Each version of Discoverer Desktop requires a special license. The expense is often minimal since the number of users of this version tends to be low. Another disadvantage is that the Discoverer Desktop is a client application which must be installed and configured on each Windows desktop. Installation and configuration is a quick task for an experience Oracle technical resource but is often beyond the abilities of typical desktop support staff. The limited number of Discoverer Desktop users can make the installation a poor choice for network installations. More effort may be required to package the application than in performing the actual installation. At GISD, Oracle team members perform this duty.

Discoverer 4i Plus (Exhibit C): This version of Discoverer uses Java Swing technology as its code base. The version executes entirely through the network and the only required client software is an Oracle Applications JInitiator. Most Oracle Applications users have this plug-in and will not require any additional downloads.

Advantages: Several of the disadvantages of the Desktop version are addressed in Discoverer 4i Plus. There are no additional licensing costs for using Discoverer 4i Plus. This attribute encourages large scale adoption of Discoverer. Since it is completely browser based, there is no need for desktop support above what is required for Oracle Applications. Often, Discoverer 4i Plus is used by the same desktop user. This version can be used at a remote location if needed. Overall, this edition sacrifices some user experience for reduced support and licensing costs.

Disadvantages: Since Discoverer 4i Plus is a browser based application; it is completely dependent on the network. If a network outage or degradation occurs, the application can become agonizingly slow and eventually time out completely. Another disadvantage is that user experience in any browser based application is slower than what can be obtained through a client application. Some minor functionality has been left out of this edition. Finally, Java has progressed through multiple iterations since being introduced. It is not uncommon for multiple Java applications to be executed on the desktop. Each application may require and inadvertently update the Java stack creating a stability issue.

Discoverer 4i Viewer (Exhibit D): The final version of Discoverer clients is the Viewer. This variant is based on Java Server Pages (jsp). It is intended for a wide audience and offers little in the way of advanced analysis and reporting. The audience for this variant is typically clerks, field personnel and other personnel engaged in day to day operational duties. GISD uses this tool to distribute employee numbers and campus assignment locations. Basic Purchasing information is often passed via Discoverer Viewer.

Advantages: Similar to Discoverer 4i Plus, this variant is purely browser based. Additionally, a JInitiator is not required. This feature allows for the smallest possible desktop footprint and an ideal reporting solution for someone who accesses the system through the self-service framework. Since major functionality has been removed, training is negligible and information can be accessed through a tightly defined parameter driven path.

Disadvantages: Discoverer Viewer is limited to specific pre-defined report. While not as static as the standard 6i legacy reports, this edition is a shadow of the reporting flexibility of Discoverer Desktop and 4i Plus. The Java issues discussed in the previous section also apply to the Viewer as well. However, the server pages are not as susceptible to Java and browser versions as the standard Oracle Professional Interface Pages.

Explorers of a Brave New World, Staffing the Implementation: The installation of Discoverer is a moderately complex task but not beyond the means of an experienced Oracle technical professional. The actual intricacies of installation and setup are beyond the scope of this paper. However, a few considerations are covered in the next section: Implementation Considerations. It is the people who will be performing the installation and follow up support that is critical to the success and adoption of Discoverer. Rolling out a new product requires management support and approval. However, the eventual success of Discoverer will depend on the adoption and use of the application. This paper's author has interviewed several Discoverer installations and has discovered a common thread of marginal use. The usual behavior is for the IT department to install the application and turn it over to the user community without explanation. The user community typically does not have the time to fully explore and lead the adoption effort. The end result is that this tremendous tool sits idle and unused. In order to prevent this scenario from occurring, two key types of personnel are critically needed; the super/power users and the Discoverer champion.

Super users: The super users are typically the same employees who will use the Desktop edition. They are involved in analytical and control functions within the organization. Discoverer requires some dedication and computer savvy to master. A good super user is one who is comfortable with Excel. Discoverer resembles Excel in both layout and functionality. Therefore, Excel competence is a strong indicator that a potential super user can master some of the technical intricacies of Discoverer. Other qualities include a willingness to teach and help others. The early adopting super user can be a strong advocate to a successful adoption.

Discoverer Champion: The single most critical element to a successful Discoverer rollout is the champion. The word champion was deliberately because it accurately reflects the dogged determination of this individual. The champion needs strong technical skills, especially PL/SQL. The champion does not need to be the organization's strongest technical resource. In fact, the technical superstar is probably poor choice for this role. This role requires a person with that unique blend of both technical expertise and marketing genius. The champion has to be able to communicate, listening is extremely important, as well as understand the technical capabilities of Discoverer. In the early stages of post-implementation; the champion's mission to seek out business needs and use Discoverer to fill those needs.

Once the super users and champion have been identified, they need to attend training. One of the best training avenues is through Oracle University. Super users will need to attend a two day user's class. The champion should attend the two days user class in addition to a three day administrator's class. These trained individuals are the nucleus for the Discoverer user community. At GISD, the Discoverer user community includes: 1 Discoverer Champion, 2 Discoverer Developers/Administrators, 20 Discoverer Desktop Users and 200 Discoverer Viewer Users.

Implementation Considerations: Once the super users and champion have been selected, the next phase is the installation and configuration of Discoverer. As stated previously, it is not the intent of this paper to explore the technical details of installation. Instead, general guidance and advice will be given. Discoverer is a standalone product and can be used for custom applications. However, if the intent is to install the tool in an Oracle Applications environment, Discoverer needs to be installed in applications mode (*Metalink note 139516.1: Discoverer 4i with Applications 11i*). Applications mode provides a security model which mirrors and utilizes the user's Oracle Application's responsibilities.

An optional, *and highly recommended*, installation step is to implement the BIS (Business Intelligence System, see patch 2921686) functionality. The BIS functionality provides a starting point for Discoverer reporting. BIS installation provides pre-built views, business areas and a few workbooks for all of the major Oracle Application modules. The installation can save hundreds of development hours.

One final optional installation component is the Discoverer Metadata Business Area (*Metalink note 259122.1*). This installation will create a business area which contains information on the EUL (End User Layer). After installation, Discoverer management reports can be created regarding performance and usage. The worksheets from this business area can be used to measure user adoption, the critical success factor in Discoverer

