PROGRESS® DataDirect®

PROVIDE SEAMLESS CONNECTIVITY FOR ANALYTICS PLATFORMS

INTRODUCTION

Do your customers need to easily create reports using tools like Crystal Reports, Brio, Impromptu, Microsoft Access, and others? Do your customers need to quickly analyze data using tools like Microsoft Access, Excel, Brio, and others?

EII, EAI, and analytics platforms provide features to integrate data from various sources and perform processing on this data. They also provide custom presentation tools that allow users to implement a GUI and reports. But many fail to provide the connectivity required to get data into popular tools like Crystal Reports, Microsoft Access, Microsoft Excel, Business Objects and many others. These tools require ODBC, OLE DB or JDBC connectivity in order to bring data in without any custom programming [Figure 1].

IDEAL SOLUTION FOR OPENING UP YOUR PLATFORM TO MANY APPLICATIONS

An ideal solution for opening up your platform to many applications requires the support for ODBC and/or JDBC with following features:

1. **ODBC Compliant** - To provide access to your application data from off-the-shelf commercial tools like Microsoft Access, Crystal Reports, Brio, Excel, ADO, ADO.NET and hundreds of other applications. Options to support OLE DB and .NET as required.

2. **JDBC Compliant** - To provide access to your application data from off-the-shelf commercial tools like BEA WebLogic, IBM WebSphere, and many other Java based platforms.

3. **Powerful SQL Engine** – Tools that connect through ODBC or JDBC issue SQL queries. An enterprise quality SQL engine is a must to allow complex queries to be efficiently executed in cooperation with your engine.

4. **Flexibility** – Work with site-specific implementation of the system. This means the tables and columns displayed to the user are based on the current meta-data at the site.

5. **Performance** – Take full advantage of your data source's data processing capability to efficiently execute SQL queries submitted by the client.

HIGHLIGHTS:

▶ Up and running in less than 3 weeks

▶ Support for Microsoft Access and Excel

▶ Support for Crystal Reports, Brio, ADO and ADO.NET

▶ Optional support for OLE DB, .NET and hundreds of other apps

▶ Enterprise quality SQL engine

Figure 1: *Access to Data from Your Platform*

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6. **Platform Independence** – Allows the query processing to occur on any platform – including Solaris, AIX, Linux, HP-UX, NT, OS/390. Allows client's application to also run on any of these platforms. Allows use of C, C++, or Java for integration with your existing API.

7. **Quick Time To Market** – Quickly get a functional driver out to customers based on proven technology.

HOW TO QUICKLY IMPLEMENT A CUSTOM DRIVER FOR YOUR PLATFORM

Progress® DataDirect® OpenAccess™ SDK provides the framework and pre-built components to quickly allow one or more data source[s] to be exposed as a single logical data source that behaves like a SQL compliant RDBMS database with standardized APIs that include ODBC, OLE DB, ADO.NET and JDBC.

The OpenAccess components provide the ODBC, JDBC, OLE DB, or .NET APIs, SQL parsing, distributed query processing, aggregation, and a client/server protocol (if required). These components interact with the Interface Provider code that is implemented for a specific data source. The Interface Provider code implements the schema management, security, and the execution of the query against the data source (Figure 2).

The driver developed using the OpenAccess SDK product can enforce all the business rules, data conversions, security, and data configurations supported by your system.

With OpenAccess SDK, the amount of custom code required is minimal. OpenAccess handles all the client API related issues. The custom code, which we refer to as the Interface Provider (IP), consists of the implementation of a data access module and a schema management module. The schema manager module is responsible for using your meta-data to expose a schema. The data access layer is responsible for efficiently retrieving the required rows from your backend based on conditions in the query. The OpenAccess SQL engine supplies the required information and flexibility for you to optimize this processing.

YOUR DEVELOPMENT EFFORT

1. Design and code the schema manager (3 days)

2. Implement the data access module as required (10 days)

3. Do your QA (5 days)

4. Package up for distribution (2 days)

   Expected time of completion: **20 man days**

   Expected time for working prototype: **5 days**
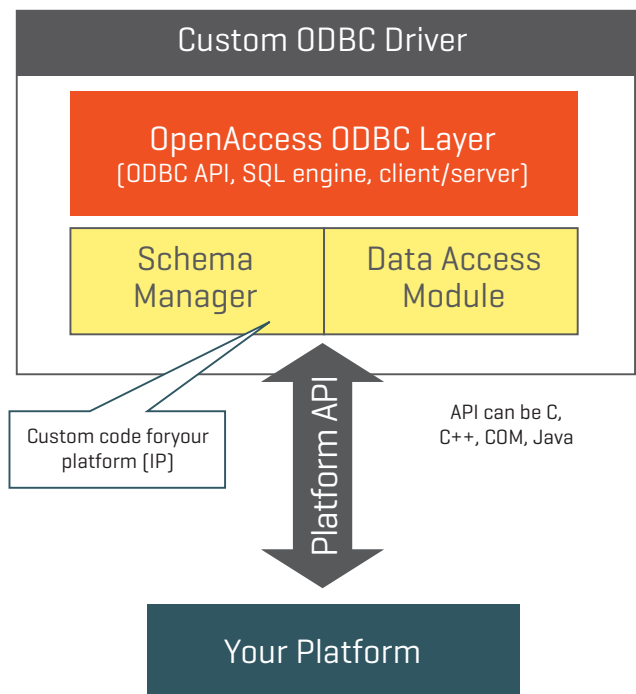
Figure 2:
Architecture for Custom ODBC Driver Implementation

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SUCCESS STORIES

Companies like Sagent Technology, Noetix, Nimble Technology, MetaMatrix, Baan and many others use OpenAccess SDK to open up their data sources to Windows, UNIX, and Java applications.

CONCLUSION

This use case provides an overview and details of using the OpenAccess SDK to implement a custom ODBC, JDBC, OLE DB, or .NET driver for your platform to allow commercial applications like Microsoft Access, Crystal Reports, Brio and any other ODBC, JDBC, OLE DB, or ADO.NET compliant application to access data from your data source. All supported standards are based on consuming the IP that is developed to adapt your data source to OpenAccess. So if you use OpenAccess to implement ODBC, it's just a matter of linking with the OLE DB flavor of OpenAccess to get OLE DB and linking with the JDBC flavor of OpenAccess to get JDBC – no code changes.

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