PROGRESS® DataDirect®

BUILDING CUSTOM ODBC DRIVERS WITH THE OPENACCESS SDK

INTRODUCTION

Many purpose built applications used by corporations are built on Progress from Progress Software. These applications are built in-house or supplied by ISVs. These specialized applications can be of greater value to corporations if the information they contain can be easily accessed by users of third-party reporting, analysis, and development tools. For example, users of Cognos and Excel for reporting would like to use these same tools with the data contained in the Progress based application.

Accessing business information from Progress applications requires one to go through business logic coded in the Progress language. But the business logic in Progress is not easily accessible by non-Progress client applications. For example, one cannot use Business Objects or Brio reporting tools to get to this data.

Recently Progress released its Open Client Toolkit to allow accessing Progress business logic through Java or .NET. This makes it possible for custom applications written in Java and .NET to integrate with Progress applications but it does not open it up to third party reporting and analysis tools. There are ODBC drivers available for the Progress RDMS but these go directly to the data stored in the database and not through the application-specific business logic.

The use of DataDirect® OpenAccess™ SDK to implement a custom ODBC or JDBC driver with full SQL capability is the best solution to make the information in Progress applications widely accessible to power users for custom reporting and analysis. Most of today's reporting, analysis, and database applications have the ability to interface to data sources through ODBC or JDBC. OpenAccess leverages this widespread support for ODBC to enable Progress application data to be accessed from the front-end tools the customers use (see Figure 1).

HIGHLIGHTS:

- Access Progress business logic through Java or .NET
- Make Progress app data accessible to power users
- Integrate your data with today's popular BI and reporting tools

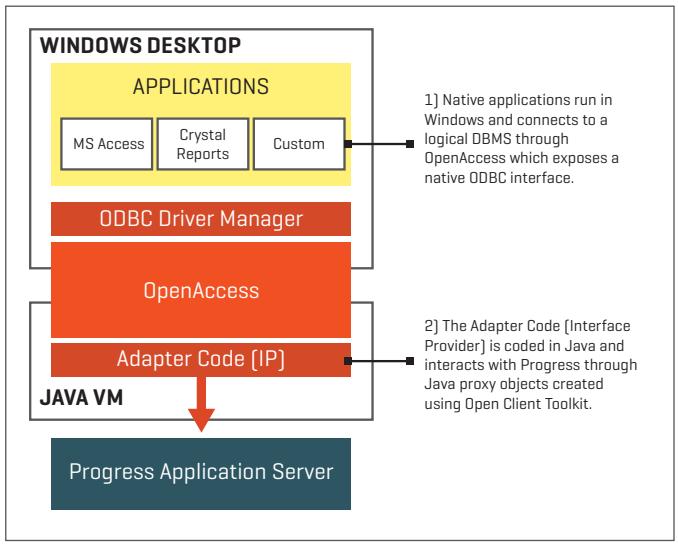

Figure 1: *OpenAccess Based Solution*

HOW TO QUICKLY ODBC-ENABLE A PROGRESS APPLICATION

OpenAccess SDK provides the framework and pre-built components to quickly allow the implementation of a custom JDBC and ODBC driver over any data source that is accessible through C, C++, Java, or .NET.

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OpenAccess allows the Adapter Code (IP) for the data source to be written in Java or .NET. This allows the re-use of existing proprietary Java or .NET API of the data source. To ODBC-enable a Progress application, first the Java proxy classes for the business logic to be used to access the data need to be created using the Open Client Toolkit. Then a Java class that implements the OpenAccess IP interface is coded to use these proxy classes to perform the requested data access and data dictionary operations. All the SQL processing, client/server communications (if required), and ODBC API implementation are handled by the OpenAccess software components.

CASE STUDY — SOFTWARE VENDOR ENABLES ACCESS FROM THIRD-PARTY TOOLS TO PROGRESS APPLICATION

Construction Industry Solutions Limited provides solutions to the construction industry through its flagship product COINS (COnstruction INdustry Solutions) (http://www.coins-global.com). Individuals, approaching 10,000 in number, use COINS on a daily basis to assist them in all areas of their business, from 3D modeling and design through contract management, financial, resource and site based commercial systems to procurement, facilities management and e-commerce applications.

The COINS application was built using Progress. Soon after, the company saw demand from customers to be able to use Crystal Reports, Microsoft Excel, and other analysis and reporting tools to access the business data contained in COINS. After evaluating various options, Construction Industry Solutions selected OpenAccess SDK for Java to implement a custom ODBC driver for COINS.

The approach was to implement the adapter code for OpenAccess in Java and access the Progress AppServer through Java proxy objects created using the Progress Open Client toolkit. Success with the custom ODBC solution at COINS triggered one of their licensees to consider a custom ODBC driver for a modified version of COINS they re-sell. This vendor sees two benefits – allowing end users to use any ODBC complaint application and being able to use the Crystal Reports bundled with Visual Studio.NET as the supplied reporting engine.

DEVELOPMENT EFFORT

1. Design and code the adapter code (IP) in Java, or .NET (14 days)
2. Do the QA (4 days)
3. Package up for distribution (2 days)

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

CONCLUSION

Implementing a custom ODBC or JDBC driver for a Progress application allows the information it contains to be accessed from hundreds of Windows and UNIX applications that are in use by corporate users. OpenAccess provides 99% of what is required to implement a virtual SQL layer with support for ODBC and JDBC over Progress business logic and procedures.