FAQ# 27-04080301
Modified 04/08/03

How to interface Crystal Reports 7 with current Oracle versions via ODBC

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Many Dynalivery customers continue to use Crystal Reports 7, which Seagate Software (now Crystal Decisions) first published in 1999. Crystal Reports 7 has the key benefit of simple and nearly free run-time (CREPE32.DLL) licensing. However, one of the challenges of using Crystal Reports 7 is that the database drivers embedded with the reporting software (both direct and ODBC) are becoming increasingly dated. At the time of the release of Crystal Reports 7, the current Oracle was version 7. The current Oracle is version 9i.

Many Dynalivery customers avoid this problem by using our Data Object Reporting (DOR) mechanism for building a data cache on a middle-tier server and then feeding it into Crystal Reports as XML. DOR enables customers to update their JDBC, .net, or similar database drivers on their middle-tier server without changing their report template (.rpt).

Another alternative for interfacing Crystal Reports 7 and the current Oracle version is to use ODBC database drivers. Yet the ODBC drivers from 1999 are unlikely to work fully with more recent Oracle 9i and successor databases. As current ODBC database drivers are available from Crystal Decisions, Oracle, Microsoft, Data Direct Technologies (formerly Intersolv and Mercant), Attunity, Openlink, and others, you have to choose carefully to find a good match for your projects. The various drivers differ in their licensing, technical compatibilities, performance, warranties, and available technical support.

Dynalivery's testing has shown you can get good results interfacing Crystal Reports 7 and Oracle 9i using the ODBC drivers packaged by Oracle with its Oracle 9i database software. We used the methodology in Sample #2 of the Crystal Decisions white paper listed below which is nearly identical to how the Crystal Reports 9 would work with Oracle 9i, using a direct (rather than ODBC) database driver. It incorporates Weakly Bound REF Cursors, PL/SQL stored procedures, and text data from DEPT (Department) and EMP (Employee) tables in the famous Scott/Tiger sample database. The relationship between SQL tables DEPT and EMP are as follows: Each Department has zero or more Employees and Each Employee works in exactly one Department. The Employees are represented by a linked subreport in a detail section of a main report.

Click here to download a zip file with the following samples: Crystal Reports 7 report template (.rpt), invoking Java application, PL/SQL stored procedures, and PDF report document output.

Resources:

Crystal Decisions White paper on Oracle Stored Procedures (Written 2001, Updated January 2003):
http://support.crystaldecisions.com/communityCS/TechnicalPapers/scr_oracle_stored_procedures.pdf

Oracle 9i PL/SQL: A Developer's Guide (2003 Apress Press Book by B. Lakshman):
http://www.apress.com/book/bookDisplay.html?bID=142
http://www.amazon.com/exec/obidos/ASIN/159059049X/qid%3D1049746789/sr%3D11-1/ref%3Dsr%5F11%5F1/002-2462616-9909609

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Third party ODBC drivers advertising compatibility with Oracle 9i:
http://www.attunity.com/products
http://www.datadirect-technologies.com/products/odbc/odbcrelhighlights.asp
http://www.openlinksw.com/

Suggestion: To the extent that an "out-of-the-box" ODBC driver of interest does not work acceptably, it might be worth engaging its vendor in a dialogue to customize it for you.