



Extending Crystal Reports' Technology into the Java World

Overview

Crystal Reports 9 extends its market leading reporting technology to the Java development platform. A brand new 100% Java SDK enables report creation, manipulation, and delivery inside Java / J2EE-based applications. The Java SDK works in conjunction with the Report Application Server, a new scalable report processing server. For more information on the Report Application Server, please check out our website for technical briefs.

Contents

CRYSTAL REPORTS FOR THE JAVA WORLD	2
JAVA SDK ARCHITECTURE	2
TIGHT INTEGRATION WITH J2EE	2
CONNECTIVITY TO CUSTOM JAVA DATA SOURCES	2
ZERO-CLIENT REPORT DELIVERY	2
SEAMLESS MIGRATION TO CRYSTAL ENTERPRISE SOLUTIONS.....	3

Crystal Reports for the Java World

The combination of the Report Application Server (RAS) and the Java SDK provides the ability to easily deliver rich, actionable content on the Java development platform. Since Crystal Reports 9 is backward compatible, both new and existing report files can be integrated into Java applications. Not only can reports be delivered in a paginated manner but also in the form of individual report elements, known as “Report Parts”, which fit well into portal-style front ends. Those same reports can also be delivered to wireless devices such as cellular phones and PDAs. In addition to delivering reports in their native format, report files can be exported to various popular file formats such as PDF, Excel, RTF, and XML.

Java SDK Architecture

The Java SDK is comprised of a number of Java classes representing a Crystal Report. These classes, packaged in a JAR file, can be used in full J2EE-based web applications using popular Java application servers and Java development environments. The SDK is modeled to be intuitive to any Java developer using as many standard Java conventions, concepts and classes as possible. Capabilities of the SDK include creating reports on the fly, opening existing reports, adding and removing sections, fields, charts, and many other report elements, manipulating report parameters and formulas, and applying design templates to produce richly formatted reports.

In web-based applications, the SDK resides on the application server, however all processing is delegated off to the Report Application Server to process. This Server can reside on the application server, but can also be offloaded to a dedicated report processing server. This lessens the load on the application server and increases the overall performance of the web application.

Tight Integration with J2EE

With Crystal Reports 9, Java developers can enjoy tight integration with J2EE. The SDK is fully supported for use in Java Server Pages (JSP), Servlets, and Enterprise Java Beans (EJBs). Popular Java application servers such as IBM WebSphere Application Server and BEA WebLogic Server are supported. Documentation comes in the standard “JavaDoc” format and various JSP samples will serve as a starting point for enterprise web developers.

Connectivity to Custom Java Data Sources

In addition to the rich Java SDK, Crystal Reports 9 includes a “Java Beans” data source driver which supports receiving data from a custom-built Java class. With this feature, developers can take complete control over the data access portion of the report processing by writing their own Java Data Provider. A Data Provider is simply a class that returns a resultset to Crystal Reports and can be written as a simple class, or a full blown Enterprise Java Bean.

Zero-Client Report Delivery

Not only does the Java SDK provide an interface for opening, manipulating, and processing report files, there are also a set of server-side report viewer components included. These interactive components render the report to pure HTML format, meaning that end users require nothing more than a standard web browser to view reports. This zero-client delivery reduces IT headaches by eliminating client-side control installation. The report viewer components themselves are customizable with respect to look and feel, functionality, and event handling. If reports require database logon credentials and parameter values, the report viewers provide an optional robust prompting user interface.

There are three report viewers included. The Report Page Viewer displays the report in a page-by-page style, exactly as the report would appear in the report designer. The Report Part Viewer is able to display one or more individual elements of a report. This is useful for presenting the key data from a report without taking up the layout of an entire page. Finally, the Interactive Viewer adds end user flexibility by providing an extended report viewing interface that includes the ability to perform searching, filtering, and exporting the report's data in an ad-hoc fashion.

Seamless Migration to Crystal Enterprise Solutions

Applications developed with the Java SDK will be easily upgradeable to the Crystal Enterprise Solutions Family which provides a backend storage, management, and delivery infrastructure for large businesses reporting needs. For more information on the Crystal Enterprise family of products, visit the following site: <http://www.crystaldecisions.com/products/crystalenterprise/default.asp>

The Java SDK will continue to be enhanced and is intended to provide a major part of Crystal Decisions' Java reporting solution, so your reporting investment will be protected in future versions of Crystal Decisions' products.

NOTE	Note: The full Report Application Server Java SDK is only available with certain versions of this product. Depending on the version of the product that you have purchased, you may either have access to the full functionality of the Report Application Server Java SDK or a subset of this functionality. Please consult Licensing for more information about the version of the product that you have purchased.
------	---

The information contained in this document represents the best current view of Crystal Decisions on the issues discussed as of the date of publication, but should not be interpreted to be a commitment on the part of Crystal Decisions or a guarantee as to the accuracy of any information presented.

This document is for informational purposes only and is not intended as a guarantee or warranty of any kind. The information is provided AS IS. CRYSTAL DECISIONS MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, IN THIS DOCUMENT. Crystal Decisions will not be liable for any damages (direct, indirect or consequential) to you for your consumption, use or reliance on the information provided herein.

© Copyright 2002 Crystal Decisions, Inc. All rights reserved. Crystal Reports, Crystal Enterprise, and Crystal Decisions are the trademarks or registered trademarks of Crystal Decisions, Inc. All other trademarks referenced are the property of their respective owners.

Specifications and product offerings subject to change without notice.