

JasperReports™

JasperReports is the world’s most popular open source Java reporting library. You can easily embed it into any Java application to deliver sophisticated print or web reporting. You can also use it to create output to files for further processing in applications like Excel. For users with more sophisticated report management requirements, reports designed for JasperReports can be easily migrated to the JasperSoft stand-alone report server, JasperDecisions.

Flexible Report Layout

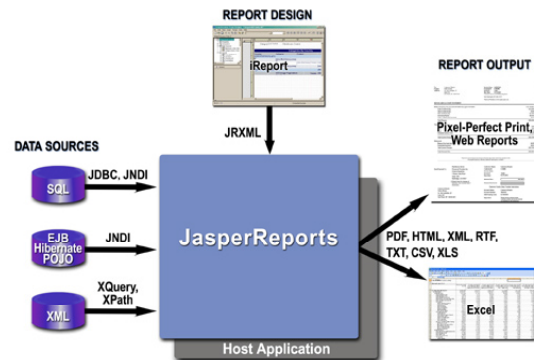
JasperReports enables you to create almost any kind of report imaginable. Reports are built from a number of independently defined and formatted sections: Title, Page Header, Column Header, Group Header, Detail, Group Footer, Column Footer, Page Footer, and Summary. A report can contain any number of nested groups. On each group break, JasperReports inserts a Group Footer and the Group Header for the next group automatically, enabling multiple levels of sub-totals.

Sections can contain layout elements like lines, rectangles, images, and static or dynamic text fields, as well as source data and computed data. All report elements can be precisely positioned and sized, allowing for pixel-perfect printed and web-based report layouts. Both single- and multiple-column reports are available. Data can be presented in flexible free-form, tabular, crosstab (matrix), or chart formats.

JasperReports easily handles the most complex report requirements through its support for subreports. Any report can be used as a subreport within another report, and any number of sub-reports can be nested inside a report. Sub-reports can in turn contain other sub-reports down to any level of nesting desired, enabling arbitrarily complex report layouts.

Flexible Output Options

JasperReports delivers operational information to wherever you need it: onto the screen, onto the printer, and to other applications. Output formats include PDF, HTML, XLS, CSV, RTF (Word), TXT or XML files. Many JasperSoft customers use Microsoft Excel for further manipulation of the report data. JasperReports pro-



JasperReports Architecture

vides an embeddable Java Swing viewer for viewing report output and the report design.

Flexible Data Sources

Data used to populate a report may be supplied either as input parameters from a parent application, or a from a data source defined within JasperReports. JasperReports includes JDBC-wrapped data providers for Relational Databases (RDBMS), JavaBeans (EJB, Hibernate), plain old Java objects (POJO), and XML data sources. A single report may use data from multiple data sources, which may be of different types.

Comprehensive Charting

Many users prefer easy to understand graphical displays. JasperReports supports an extensive array of chart types through its built-in comprehensive charting

capabilities. External charting and graphics libraries can easily be used with JasperReports.

Drill Down Analysis

Reports can contain hyperlinks, enabling you to create OLAP-style drill-down reports. These allow users to see a high level view of the data and drill-through to areas of interest. This feature can also be used to create a clickable table of contents for fast and easy access to report sections.

Custom Calculation and Variables

JasperReports provides a comprehensive set of built-in variables and calculations, which can be extended with custom expressions.

Expressions provide the report developer with a way to perform calculations, create or compute groupings, generate report text, or to further customize the appearance of objects. Expressions can reference report parameters, report fields and report variables. They can be implemented in either Java or Groovy, an open-source Java-like scripting language.

JasperReports has various types of built-in calculation methods including count, sum, average, max, min, standard deviation, and variance. Calculations can be performed at various levels of scope, including at the report, page, column, or group level. Calculations can also be used to define the values of report variables that can be referenced throughout the report. Because they are implemented using arbitrarily scalable algorithms, there is no risk of overflow or underflow. Reports can also call out to your own specialized calculations.

JasperReports provides a number of useful built-in variables that help with layout. They include the current page number, total number of pages, current column number, total number of records processed, number of records processed when generating the current column, and the number of records that make up the current group.

Internationalization

JasperReports fully leverages the support for internationalization provided by the Java platform, including locales. It supports all world languages via Unicode (UTF-8), and also supports other native encodings, such as ISO-8859-1 (Latin 1) for Western European languages. It also supports internationalization via resource files.

As a result, a given report may be displayed in different languages and formatted for different locales.

Graphical Report Designer

Several report designers are available for JasperReports. JasperSoft sponsors the most popular of these, iReport, which provides an intuitive interface for designing reports.

Requirements

JasperReports has few external dependencies:

- Java JDK 1.3 or higher
- JDBC 2.0 driver (if RDBMS used)

Services and Support

JasperSoft supports JasperReports with a full suite of service and support offerings. Technical support is available either on a per-case or an annual basis.

JasperSoft conducts regular online training classes via Webex. These classes were developed by the architect of JasperReports and are delivered either by him or by a senior JasperSoft consultant. Training can also be delivered at your location using your own data. The classes are practical, with hands-on examples, and enable engineers to be productive with JasperReports immediately.

If you are new to operational reporting and need more direct assistance, JasperSoft Professional Services consultants can work with you to evaluate your needs and help you develop optimal reporting solutions. For information about our support and services offerings, visit jaspersoft.com.

Commercial Licensing

JasperReports is offered as open source software under the Lesser GNU Public License (LGPL). This license allows you to freely embed JasperReports in any application. For embedding in commercial products, and for customers who prefer the reassurance, commercial licensing is also available from JasperSoft.

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