

# **TIBCO Jaspersoft Studio**

# Design the richest reports and visualizations for TIBCO JasperReports with the most advanced design environment.

#### DID YOU KNOW?

Jaspersoft Studio began its life as iReport in 2001? After many re-architectures, it now lives as an Eclipse-based report designer called Jaspersoft Studio.

#### CUSTOMIZABLE AND EXTENSIBLE

Jaspersoft Studio is offered as both a commercial and a community-supported product. The editions differ in functionality but source code is available for both, allowing for customization and extensibility using Java.

Jaspersoft Studio creates jrxml files, compatible with JasperReports. They can be edited with Jaspersoft Studio in the IDE, with any text editor, or even programatically by a third-party tool.

#### AT A GLANCE

TIBCO Jaspersoft Studio is an Eclipse-based report and visualization designer for TIBCO JasperReports and TIBCO JasperReports Server. Available as an Eclipse plug-in or a standalone application, it helps you create sophisticated layouts containing 50+ types of charts, crosstabs, custom visualizations, images, maps, sub-reports, and much more.

Using Jaspersoft Studio, you can access your data through big data, CSV, Hibernate, Jaspersoft Domain, JavaBeans, JDBC, JSON, NoSQL, TIBCO Spotfire Information Links, XML, and custom sources—then publish your reports to JaspersReports Server, or use them in your own Java applications and export them as CSV, HTML, OpenOffice, PDF, PowerPoint, RTF, text, Word, XML, or XLS.

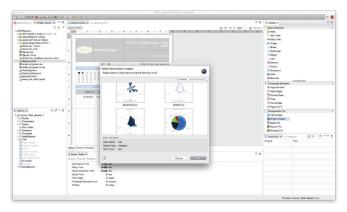
Jaspersoft Studio comes in two editions: Community and Professional. The Professional edition allows additional functionality like access to Spotfire maps and HTML5 charts, as well as professional support.

# **DESIGN AND LAYOUT**

Jaspersoft Studio has a powerful banded layout engine that supports the same layout XML tags as JasperReports. Report developers can place items on screen exactly as they want them to appear in the final pixel-perfect report regardless of output format. Users can place on-screen items using snap-to or an automated grid layout.

The program promotes re-usability of styles through externalized style sheets. Design once and re-use all reports to maintain a consistent look and feel. Deployments with many reports can make changes to the external style sheet just once to update all assets.

Many settings in a report are defined by formulas, such as conditions that hide an element or define special calculations or text processing. Formulas can be written in Groovy, Java, or JavaScript, and provide a powerful way for developers to gain control over report functionality. The formulas can be written by expert programmers and deployed to be re-used for many reports.



Complex report with barcodes, charts, images, and tables.

#### DATA VISUALIZATION

Jaspersoft Studio provides very flexible data visualization. HTML5 charts can be customized using thousands of properties for pixel-level control over every visualization.

Jaspersoft Studio uses the query language of your datasources, for example SQL, to create the first pass of data projection. Once data enters the tool, it can be transformed further using variables and groups, and each field can use custom logic to create the desired data transformation or projection.

\*Only available in Professional Editions

#### CHARTS, GRAPHICS, AND MAPS TO MAKE REPORTS COME ALIVE

Jaspersoft Studio supports over 50 graphics types including:

## **HTML5 CHARTS\***

Visualize data with interactive and customizable charts, including area, bar, bubble, column, dual-level pie, line, multi-axis, pie, scatter, spider, spline, stacked area, and time series. Each can be customized using thousands of properties that control every aspect.

#### **MAPS**

Create interactive map visualizations either using TIBCO maps\* or Google Maps. Use custom shapes, layers, and markers to display.

#### WIDGETS\*

Include bulbs, cylinders, columns, funnels, Gnatt Charts, gauges, spark lines, and thermometers

#### **CUSTOM VISUALIZATIONS**

Via the Custom Visualization component, any dynamically generated SVG visualization can be supported via third-party Javascript libraries like D3.js.

## INTERACTIVE TABLES, CROSSTABS, AND ELEMENTS

To build beautiful, useful, and complete reports, Jaspersoft Studio comes with elements that serve various design goals. Images are supported in many different formats, including SVG, loaded via URL, or even stored in a database as a BLOB. Decorative frames, lines, and ellipses can be drawn easily to add style and structure to reports.

Tables with their own datasets can be added to reports and be completely interactive when deployed to a compatible viewer like JasperReports Server or exported to a flat table in exports like CSV. Crosstabs allow numeric calculations on large amounts of data and can also be driven by sub-datasets. An entire palette of components is available, letting a user visually design any report with as intricate a design as needed.



Complex report with barcodes, charts, images, and tables.

# WIDEST SELECTION OF DATA SOURCES

To truly create visual representations of any kind of data, Jaspersoft Studio supports the widest selection of data sources of any report designer. Each report contains a main dataset and then supports any number of sub-datasets for the report to loop. Data source configuration is done visually, and because each data source type has its own query language, several query editors are available:

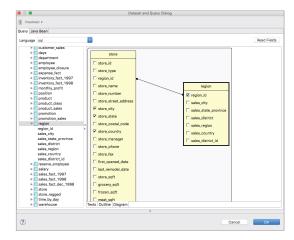
# MULTI-PAGE **DOCUMENTS**

Jaspersoft Studio Report Books are multiple reports and/or subreports bundled into a single object. A report book is created as a single .jrxml file, but rather than using the band paradigm to gather report elements, it defines several sections into which book parts — reports, subreports, cover pages, and tables of contents — are organized.

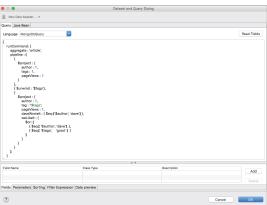
DATASOURCE TYPE	DESCRIPTION	EXAMPLES
SQL (JDBC/JNDI)	Traditional, columnar, or big data databases with SQL as a query language	Apache Hadoop, Impala, MySQL, Oracle, Postgres, Redshift, SQL Server, Teradata
Files	Delimited plain text files, spreadsheets	CSV, Excel, JSON, TSV, XML
NoSQL	Flexible non-columnar data storage with proprietary query languages	Cassandra, MongoDB
Spotfire Information Links	TIBCO Spotfire metadata layer	Spotfire web service
Domain	TIBCO Jaspersoft metadata layer	Domain web service
Custom/Java	Any JasperReports custom data source or Java data source	JavaBeans, POJO
Web Services	HTTP or file-based web services	JSON and XML via REST
OLAP	OnLine Analytical Processing cubes	XML/A Sources, Mondrian

# **QUERY EDITORS**

Each query language has its own editor based on the capabilities of the datasource. SQL is the most common editor and even includes a visual query design tool that helps with complex joins and parameterized queries.

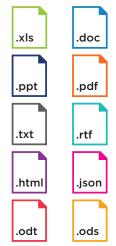


SQL Query Editor



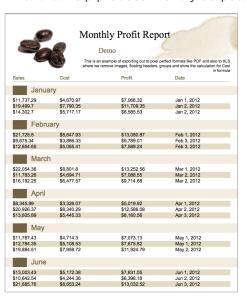
MongoDB Query Editor

#### SUPPORTED **EXPORT FORMATS**



#### **EXPORT TO ANY FORMAT FOR MAXIMUM REUSABILITY**

At the heart of Jaspersoft Studio are its powerful export capabilities. You can design reports once and deploy them to many formats without any redevelopment needed. For example, the same report design might be viewed on a web portal by one set of users, exported to Excel for another group, emailed by the JasperReports Server scheduler to yet another team, and consumed through an API by a third-party tool. Powerful export capabilities provide design time hints that help produce friendly outputs for each format.



	B11 ‡			
	A	В	C	E
	Sales	Cost	Profit	Date
2	\$11,737.29	\$11,737.29	\$7,066.32	Jan 1, 2012
3	\$19,499.7	\$19,499.7	\$11,709.35	Jan 2, 2012
	\$14,302.7	\$14,302.7	\$8,585.53	Jan 2, 2012
5	\$21,728.8	\$21,728.8	\$13,080.87	Feb 1, 2012
5	\$9,675.34	\$9,675.34	\$5,789.01	Feb 3, 2012
7	\$12,654.65	\$12,654.65	\$7,589.24	Feb 3, 2012
3	\$22,054.36	\$22,054.36	\$13,252.56	Mar 1, 2012
,	\$11,783.26	\$11,783.26	\$7,088.55	Mar 2, 2012
0	\$16,192.25	\$16,192.25	\$9,714.68	Mar 2, 2012
	\$8,345.99	\$8,345.99	\$5,019.92	Apr 1, 2012
2	\$20,926.37	\$20,926.37	\$12,586.08	Apr 2, 2012
3	\$13,605.89	\$13,605.89	\$8,160.56	Apr 3, 2012
4	\$11,787.43	\$11,787.43	\$7,073.13	May 1, 2012
5	\$12,784.35	\$12,784.35	\$7,675.82	May 1, 2012
5	\$19,884.51	\$19,884.51	\$11,924.79	May 2, 2012
7	\$13,003.43	\$13,003.43	\$7,831.05	Jun 1, 2012
В	\$10,642.54	\$10,642.54	\$6,398.19	Jun 2, 2012
9	\$21,685.76	\$21,685.76	\$13,032.52	Jun 3, 2012
0	\$22,426.08	\$22,426.08	\$13,467.9	Jul 1, 2012
1	\$11,599.41	\$11,599.41	\$6,998.47	Jul 1, 2012
2	\$16,221.39	\$16,221.39	\$9,774.71	Jul 3, 2012
3	\$14,932.19	\$14,932.19	\$8,992.79	Aug 1, 2012
4	\$22,294.44	\$22,294.44	\$13,376.05	Aug 3, 2012
5	\$8,972.41	\$8,972.41	\$5,394.24	Aug 4, 2012
6	\$10,686.66	\$10,686.66	\$6,437.73	Sep 1, 2012
7	\$20,276.86	\$20,276.86	\$12,195.16	Sep 2, 2012
8	\$12,862.45	\$12,862.45	\$7,729.96	Sep 3, 2012
9	\$20,285.73	\$20,285.73	\$12,190.58	Oct 1, 2012
0	\$13,077.79	\$13,077.79	\$7,849.66	Oct 2, 2012
1	\$8,978.75	\$8,978.75	\$5,400.03	Oct 2, 2012
2	\$15,285.04	\$15,285.04	\$9,169.31	Nov 1, 2012
3	\$26,152.76	\$26,152.76	\$15,689.64	Nov 2, 2012
4	\$11,925.91	\$11,925.91	\$7,147.	Nov 4, 2012
5	\$16,839.01	\$16,839.01	\$10,088.38	Dec 1, 2012
6	\$26,577.85	\$26,577.85	\$15,963.41	Dec 2, 2012
7		\$13,548.78	\$8,167.72	Dec 4, 2012

One design can be exported to multiple formats. In this case, a pixel-perfect report has been exported as both a PDF and an Excel file that includes formulas.

#### **PUBLISHING REPORTS**

Jaspersoft Studio is the tool to use to design reports (in the JRXML format), but it is not the ideal tool to publish them for end user consumption. It can be used to create standalone reports that will be viewed in Java applications that embed the JasperReports Library, or reports can be easily published with one click to the JasperReports Server web application where users can interact with them directly.

To facilitate publishing to JasperReports Server an easy-to-use publishing workflow is included in the tool. Simply authenticate to JasperReports Server and publish data sources, fonts, images, input controls, report definitions, and any other resource that you need for your reports and visualizations.

#### ABOUT TIBCO JASPERSOFT

TIBCO Jaspersoft empowers people around the world every day to make better decisions faster by bringing them timely, actionable data inside their apps and business processes through an embeddable, cost-effective reporting and analytics platform.



**Global Headquarters** 

3307 Hillview Avenue