

Crystal Reports XI

Understanding the CRConfig.xml File

Overview

This document provides information about the CRConfig.xml configuration file that is shipped with Crystal Reports XI. In particular, this document discusses the purpose of the CRConfig.xml file, when it is needed and the tag properties that are exposed by this configuration file.

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Introduction

In Crystal Reports 10 and earlier, the Java-based database drivers for JDBC, JNDI and XML connectivity were configured by modifying a file called CRDB_JavaServer.ini. This file allows you to configure properties of the Crystal Reports Database Java Server (CRDBJavaServer). The CRDBJavaServer facilitated communication between Crystal Reports and the Java-based data drivers.

On the developer side, the file crystalreportengine-config.xml was deployed with Java Reporting Component (JRC) applications in the **/WEB-INF/classes** folder. This was required to configure properties of some of the JRC's behavior such as the **reportlocation** and **timeout** properties.

Due to the overlap between CRDB_JavaServer.ini and crystalreportengine-config.xml, these two configuration files have been merged into a single file called CRConfig.xml in Crystal Reports XI.

By default, this file will be installed under the following directory:

C:\Program Files\Common Files\Business Objects\3.0\java\

NOTE	When Crystal Reports XI is installed, CRconfig.xml will be created and most properties will be set to default values including the Classpath .
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When is CRConfig.xml needed?

The CRConfig.xml is used in the following scenarios:

1. Designing and creating reports that use Java User Function Libraries (UFLs) or Java-based connectivity drivers such as the JDBC, JNDI, JavaBeans and native XML drivers.
2. Processing reports that utilize the Java-based connectivity drivers with BusinessObjects Enterprise (BOE), Crystal Reports Server (CR Server), Report Designer Component (RDC) and Crystal Reports for .NET (CR .NET). The CRConfig.xml file is also read from the location the file is installed to (... \Program Files\ Common Files\ Business Objects\ 3.0\ java) when generating reports requiring Java-based connectivity.
3. Processing reports in the Java Reporting Component (JRC). A copy of the CRConfig.xml file should be placed in the **/WEB-INF/classes** folder of the Web Application Archive (WAR). The JRC will read certain properties of the CRConfig.xml in this location the first time it processes a report.

Although the JRC does read many of the same configuration properties that are read by Crystal Reports, some of the configuration properties are not read by the JRC when the CRConfig.xml file is loaded.

See the following tables for information on which properties are read by Crystal Reports, the JRC or both.

NOTE	The JRC does not require or use the CRDBJavaServer mechanism. As the JRC is written entirely in Java, the JRC will make Java calls through the Java-based connectivity drivers.
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CRConfig.xml Property Reference Tables

The following tables contain a property matrix for the CRConfig.xml file and describe each property, its default value and which tool (*CR*, *JRC* or both) uses the property.

For the **Used By** column in the properties matrix, the following describes the notations:

- **CR** = Denotes that the property is used and read by the Crystal Reports designer, as well as by the processing servers for BusinessObjects Enterprise, Crystal Reports Server, Report Designer Component (RDC) and Crystal Reports for Visual Studio .NET.
- **JRC** = Denotes that the property is used and read by the Java Reporting Component.

Property	Default Value	Description	Used By
reportlocation	../..	<p>When creating a report source using the Java Reporting Component, the report's path can be specified by using either a relative or absolute path.</p> <p>When using relative paths, the path is specified relative to the location of the Java Reporting Component on the web server. For example, <code>../reports/sample.rpt</code> resolves to <code>/WEB-INF/reports/sample.rpt</code> where the Java Reporting Component JAR file is in <code>/WEB-INF/lib</code>. The value of the reportlocation tag becomes the new root directory that is used to determine the location of a report. If the reportlocation tag is not present, the Java Reporting Component uses absolute paths.</p>	JRC

		<p>When using absolute paths, the Java Reporting Component will also look in the location of your web application's resources. For example, you can place your report into the classes folder and then specify the name of the report directly in your JSP file (with no path). In this case, the Java Reporting Component will find the report.</p> <p>To use absolute paths, ensure that the CRConfig.xml file does not contain a reportlocation tag.</p>	
timeout	10	<p>The timeout interval determines (in minutes) when inactive report sources are disposed. By default, the timeout interval is 10 minutes. You can configure the Java Reporting Component to have no timeout by setting the value to 0.</p> <p>The timeout interval only applies to inactive reports – reports that are being processed are not timed out as a result of exceeding this value. Each time a report source request is successfully completed, the timeout timer is reset. If a report source is not used within the timeout interval, it is disposed and its resources are made available to other processes.</p>	JRC
ExternalFunctionLibrary ClassNames		<p>The classname tag value is the fully qualified classname to the first Java function library.</p> <p>Repeat this tag for each Java function library that you want to reference.</p>	CR & JRC
keycode		The keycode tag specifies the key code used when running the Java Reporting Component.	JRC

DataDriverCommon

Property	Default Value	Description	Used By
JavaDir		The JavaDir property value contains the directory of your Java executable. If you have multiple versions of the JRE installed, this parameter points to the version that you want to use; for example: PATH=C:\apps\j2sdk1.4.2\bin	CR

		Alternatively, the path information may be configured as a user or system environment variable. In this case, if JAVA_HOME is defined as a variable, you can use \${JAVA_HOME} as in this example: PATH=\${JAVA_HOME}\bin	
Classpath		The Classpath property value contains a list of the classpaths to the Java-based CRDB JAR files (set when CR is installed) as well as all database-specific JDBC driver .jar files. Alternatively, the classpath information may be configured as a user or system environment variable. If this variable is not defined, it is equivalent to CLASSPATH=\${CLASSPATH}. Environment variables can also be included in a mixed path. Note: When using classpaths with long folder and/or file names that contain spaces, ensure that they are enclosed within quotation marks.	CR
IORFileLocation	\${TEMP}	The IORFileLocation property value provides a temporary directory for use by the JDBC driver. This location must exist and be accessible by the system; otherwise, the driver will fail to work.	CR
JavaServerTimeout	1800	The JavaServerTimeout property specifies the maximum amount of time the CRDBJavaServer will continue processing a request until it shuts itself down. The default value is 1800 seconds (30 minutes).	CR
JVMMaxHeap	64000000	The JVMMaxHeap property specifies the maximum amount of heap space that the JVM can allocate for running the Java server. This parameter is set to 64 MB of heap by default. Change this number to a higher value if you need to process a large amount of data.	CR
JVMMinHeap	32000000	The JVMMinHeap property specifies the minimum amount of heap space that the JVM can allocate for running the CRDB Java server. This parameter is set to 32 MB of heap by default.	CR
NumberOfThreads	100	The NumberOfThreads property value specifies the maximum number of threads a single CRDBJavaServer process will handle simultaneously.	CR

JDBC

Property	Default Value	Description	Used By
CacheRowsetSize	100	The CacheRowsetSize property specifies the number of rows to cache in memory.	CR, JRC
JDBCURL		<i>Optional.</i> The JDBCURL property value is the default JDBC connection URL that will be displayed in Crystal Reports when you create a new JDBC data connection. The exact format of the connection URL is specific to the database driver and is provided by the database driver vendor. For example, the connection URL for the Oracle JDBC driver is: jdbc:oracle:thin:@<hostname>:<port>:<sid>	CR
JDBCClassName		<i>Optional.</i> The JDBCClassName property is the default full classname of the JDBC driver that will be displayed in Crystal Reports when creating a new JDBC data connection. For example, the full classname of the Oracle JDBC driver is: oracle.jdbc.driver.OracleDriver	CR
JDBCUserName		<i>Optional.</i> The JDBCUserName property is the default user ID that will be displayed in Crystal Reports when creating a new JDBC data connection. The JDBC driver uses the user ID to connect to the database.	CR
JNDIURL		<i>Optional.</i> The JNDIURL property value is the default JNDI connection URL that will be displayed in Crystal Reports when you create a new JNDI data connection. The exact format of the connection URL is specific to the database driver and is provided by the database driver vendor.	CR
JNDIConnectionFactory		<i>Optional.</i> The JNDIConnectionFactory property is the name of the connection factory of the JNDI server. For WebLogic, it is weblogic.jndi.WLInitialContextFactory. For WebSphere, it is com.ibm.websphere.naming.WsnInitialContextFactory.	CR
JNDIInitContext		<i>Optional.</i> The JNDIInitContext property is the starting point for where to look for JNDI context on the JNDI server. For example, you can set JNDIInitContext=/ 	CR

		for WebLogic. The parameter starts to search from the top of the XML hierarchy tree. You can set this parameter to cell/nodes/localhost/servers/server1/jdbc for WebSphere if you created the connection in this node.	
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GenericJDBCdriver

Property	Default Value	Description	Used By
Option	No	The valid values of this property are "Yes" and "No". The GenericJDBCdriver settings defined in CRConfig.xml will only take effect if this is set to "Yes".	CR, JRC
DatabaseStructure	catalogs, tables	The DatabaseStructure property value specifies the structure of the database that the end user will connect to. The valid values of this parameter are: catalogs,schemas,tables schemas,catalogs,tables catalogs,tables schemas,tables tables For example, this option would need to be set to "schemas,tables" when connecting to PointBase, since PointBase supports schemas, but doesn't support catalogs.	CR, JRC
StoredProcType	Standard	The StoredProcType property controls how stored procedures are accessed. The valid values are "Standard" and "Oracle". Oracle stored procedures support cursor parameters.	CR, JRC
LogonStyle	Oracle	The LogonStyle property defines the type of logon screen that will appear. For example, if the property is set to Oracle, then the logon prompt in the CR designer will use Oracle terminology when prompting for logon information. The valid values of this parameter are: Standard, Oracle, SQLServer, DB2 and MySQL	CR, JRC

XML

Property	Default Value	Description	Used By
CacheRowsetSize	100	The CacheRowsetSize property specifies the number of rows to cache in memory.	CR, JRC
PreReadNBytes	4096	The PreReadNBytes property value determines the number of bytes to read from the XML doc for each logical read. This parameter is used to improve efficiency and to avoid reading one byte at a time; it is equivalent to block read size. The size should not be too small (at least 4096). Setting the value too high will affect memory usage.	CR, JRC
XMLLocalURL		<i>Optional.</i> The XMLLocalURL property value is the default connection URL for a local XML file. This default will be displayed in Crystal Reports when you create a new XML data connection.	CR
SchemaLocalURL		<i>Optional.</i> The SchemaLocalURL property value is the default connection URL for a local schema file. This default will be displayed in Crystal Reports when you create a new XML data connection.	CR
XMLHttpURL		<i>Optional.</i> The XMLHttpURL property value is the default connection URL for an HTTP XML file. This default will be displayed in Crystal Reports when you create a new XML data connection using HTTP(S).	CR
SchemaHttpURL		<i>Optional.</i> The SchemaHttpURL property value is the default connection URL for an HTTP schema file. This default will be displayed in Crystal Reports when you create a new XML data connection using HTTP(S).	CR

JavaBeans

Property	Default Value	Description	Used By
CacheRowsetSize	100	The CacheRowsetSize property specifies the number of rows to cache in memory.	CR, JRC
JavaBeansClassPath		The JavaBeansClassPath property specifies the CLASSPATH location of the JavaBean data sources.	CR

More Information

For more specific information on using the Java-based connectivity drivers for Crystal Reports, see the following technical documents:

- Crystal Reports XI Java Bean Connectivity

http://support.businessobjects.com/communityCS/TechnicalPapers/cr_xi_java_bean_connectivity.pdf.asp

- Crystal Reports XI JDBC Connectivity

http://support.businessobjects.com/communityCS/TechnicalPapers/cr_xi_jdbc_connections.pdf.asp

- Crystal Reports XI Java User-Defined Function Libraries (UFLs)

http://support.businessobjects.com/communityCS/TechnicalPapers/cr_xi_java_ufl.pdf.asp

Additional Resources

For more information and resources, refer to the product documentation and visit the support area of the web site at:

<http://support.businessobjects.com>

► www.businessobjects.com

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