

Crystal Reports 8.0

URL Commands for the Web Component Server

Overview

This document discusses the various functions that can be performed on a web report using the URL commands available through the Crystal Reports Web Component Server (WCS). With these commands the user can specify:

- The Report Viewer in which to display the report,
- a group or record selection formula,
- database log on credentials,
- parameter values to pass to the report, or
- the format to which a report is to be exported.

The following is an example of using commands when requesting a report:

```
http://servername/virtualdirectoryname/reportname.rpt?sf={Customer.CustomerName}="WhistlerRentals"&promptonrefresh=1
```

Notice that each command is specified in the form:

```
command=value
```

Where “command” is the name of the command, and “value” is the value you assign to that command. You should also notice that the initial command is preceded by a question mark (?) and multiple commands are separated by an ampersand (&).

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Exporting Reports Through the URL Command Line

CMD# and EXPORT_FMT

Specifies that the report should be exported to the indicated format.

`cmd=EXPORT&EXPORT_FMT=<EXPORT_FMT representation>`

<<EXPORT_FMT representation > is one of the following:

Export Format	EXPORT_FMT Representation
HTML 3.2 (Extended)	U2FHTML:1
HTML 3.2 (Standard)	U2FHTML:2
Crystal Reports (RPT)	U2FCR:0
MS Excel 5.0 (XLS)	U2FXLS:3
Rich Text Format (RTF)	U2FRTF:0
MS Word (DOC)	U2FWORDW:0

For example: A user would like the report called test.rpt downloaded to his browser in Microsoft Word format. The URL (ISO - Latin encoded) would be the following:

`http://myserver/test.rpt?cmd=EXPORT&EXPORT_FMT=U2FWORDW%3A0`

Group and Record Selection Formulas

GF command (Group Selection)

This command specifies a group selection formula for the report called through the URL line. It is similar to SF command (selection formula). However, this command does not refresh report data if data is stored with the report.

GF=<formula>

<formula> is a selection formula in string format. For example:

GF=Sum({customer.Sales},{customer.Region})>10000

The above example selects all groups where the sum of all customer sales in each region is greater than 10,000.

NOTE	The command GF only works on summarized fields.
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SF command (Record Selection)

Specifies a selection formula. Will automatically refresh report data.

SF=<formula>

<formula> is a selection formula in string format. For example:

http://myserver/test.rpt?sf={studio.Studio}+%3d+“Universal”

The preceding URL address displays this report and selects only those records where the studio is Universal.

Specifying the Report Viewer

INIT

This commands specifies which Report Viewer should be used to display the report in the web browser. For example:

init=java

Below is a list of the possible values for the “init” command, with a description about each Smart Viewer:

Init Value	Description of Smart Viewer
java	Report Viewer for Java using browser JVM
java_plugin	Report Viewer for Java using Java Plug-in
actx	Report Viewer for ActiveX
nav_plugin	Report Viewer for Netscape Plug-in

html_frame	Report Viewer for HTML with Frames
html_page	Report Viewer for Standard HTML

If the INIT command is not specified, the Crystal Web Component Server will detect the type of browser requesting a report and will provide a default viewer for that browser. For instance, if the browser is Netscape Navigator 4.5, the Crystal Web Component Server will display the report using the Report Viewer for Java using Browser JVM.

Not all browsers support all methods of viewing reports. For instance, versions of Netscape Navigator and Internet Explorer earlier than 3.0 do not support Java applets or ActiveX controls.

Report Viewer for Java using Browser JVM

The Report Viewer for Java is a standard Java applet that can be placed inside an HTML page and viewed through any browser that supports Java. Netscape Navigator (version 2.0 and later) displays reports using the Report Viewer for Java by default. This Java Viewer must have access to either the Crystal Web Component Server (see Overview, Developer Help) or the Report Server Active Server Page (see Building Active Web Sites Index, Developer Help). The Crystal Web Component Server can be installed on any machine running Microsoft Internet Information Server (IIS), Netscape FastTrack Server, or Netscape Enterprise Server. The Report Server Active Server Page is installed with the Crystal Design-Time ActiveX Control.

Report Viewer for Java using Java Plug-in

The Report Viewer for Java using Java Plug-in supports Netscape 2.0 and higher, as well as Internet Explorer 3.02 and higher. It works in much the same way as the Java Viewer using Browser JVM works, however, the Java Plug-in Viewer uses its own Java runtime files rather than those that are included with the web browser displaying the report. This Java Viewer must have access to either the Crystal Web Component Server (see Overview, Developer Help) or the Report Server Active Server Page (see Building Active Web Sites Index, Developer Help). The Crystal Web Component Server can be installed on any machine running Microsoft Internet Information Server (IIS), Netscape FastTrack Server, or Netscape Enterprise Server. The Report Server Active Server Page is installed with the Crystal Design-Time ActiveX Control.

Report Viewer for ActiveX

The Report Viewer for ActiveX is an ActiveX control that can be placed inside an HTML page and viewed through any browser that supports ActiveX. Microsoft Internet Explorer version 3.02 and later displays reports with the Report Viewer for ActiveX by default. The Report Viewer for ActiveX can also be used inside any development environment that supports ActiveX controls. For more information on using the ActiveX viewer when developing applications, refer to the Technical Reference Guide.

Microsoft Authenticode 2.0 certifies the Report Viewer for ActiveX. This certification requires Microsoft Internet Explorer 3.02 or later in order to open the ActiveX control. If you do not have a recent version of Internet Explorer,

refer to the Microsoft web site to upgrade or use a different Report Viewer when designing your web sites.

Report Viewer for Netscape Plug-in

The Report Viewer for Netscape Plug-in supports Netscape Navigator 3.0 and higher. The Report Viewer for Netscape Plug-in can also be used inside any development environment that supports ActiveX controls. For more information on using the ActiveX viewer when developing applications, refer to the Technical Reference Guide.

Report Viewer for HTML with Frames

The Report Viewer for HTML with Frames is not an actual viewer component that can be configured. Instead, the Crystal Web Component Server or the Crystal Automation Server translates a report into a set of web pages using HTML 3.2 format. Web browsers with support for HTML 3.2 table tags will be able to view such documents (i.e., Netscape Navigator 2.0 or later, Microsoft Internet Explorer 2.0 or later). Browsers supporting font colors and table cell background colors will render a more accurate view of actual report objects (Netscape Navigator 3.0 or later and Internet Explorer 2.0 or later).

The HTML Frame Viewer will create one frame at the left side of the screen for the Group Tree pane, and a larger frame at the right for the report itself. At the top of the HTML page will be the third frame, which contains the navigation buttons for the report.

Report Viewer for Standard HTML

The Report Viewer for Standard HTML is also not an actual viewer component that can be configured. Instead, the Crystal Web Component Server or the Crystal Automation Server translates a report into a set of web pages using HTML 3.2 format. Web browsers with support for HTML 3.2 table tags will be able to view such documents (i.e., Netscape Navigator 2.0 or later, Microsoft Internet Explorer 2.0 or later). Browsers supporting font colors and table cell background colors will render a more accurate view of actual report objects (Netscape Navigator 3.0 or later and Internet Explorer 2.0 or later).

The HTML Page Viewer will simply render the report onto one simple HTML page, without a Group Tree for navigation.

Logging On To Your Database

User# and Password#

Crystal Reports Web Component Server allows the user to enter the username and password for the report's data sources directly through the URL line. Crystal Reports 8 will allow the user to give login credentials for the main report and for any and all subreports.

User#

This command specifies user IDs for logging on to SQL, ODBC, or password protected databases used by the report.

user#=<userid>

<userid> is a string. For example:

user0=SmithJ

If the report accesses more than one password protected database, multiple user IDs can be passed by incrementing the USER index number. For example:

user0=SmithJ&user1=JohnS&user2=JSmith

USER# is normally used in conjunction with PASSWORD# command. This command is described next. Make sure user IDs appear in the URL in the same order that the password protected databases appear in the report. If user IDs are not passed using the URL address, the user will be prompted for logon information at runtime.

Password#

This command specifies passwords for logging on to SQL, ODBC, or password protected databases used by the report.

password#=<pwd>

<pwd> is a string. For example:

password0=secret

If the report accesses more than one password protected database, multiple passwords can be passed by incrementing the index number. For example:

password0=secret&password1=mystery&password2=unknown

PASSWORD# is normally used in conjunction with USER# command. For example:

user0=SmithJ&password0=secret&user1=JohnS&password1=mystery

Make sure passwords appear in the URL in the same order that the password protected databases appear in the report. If passwords are not passed using the URL address, the user will be prompted for logon information at runtime.

User#@subreportname

For subreports, you will need to explicitly log on to subreports if the subreports' data sources are password protected. The correct format for logging on to subreports is the following:

user0@subreportname=SmithJ

The subreportname portion of this parameter must be identical to how it appears in the Crystal Reports Designer. For instance, if the subreport is shown in the Designer as subreport1.rpt, then you will want to log on as follows:

user0@subreport1.rpt=SmithJ

However if the subreport is shown in the Designer as subreport1, then you will want to log on as follows:

user0@subreport1=SmithJ

The command `user0@subreport` is mostly used in conjunction with the command `password0@subreportname` to specify the username and password for a particular subreport. This is described further in the next section.

Password#@subreportname

This command is used to pass a password value to a subreport for a specified user. The syntax for this command is:

```
password0@subreportname=value
```

Also, the `subreportname` portion of this parameter must be identical to how it appears in the Crystal Reports Designer. For instance, if the subreport is shown in the Designer as `subreport1.rpt`, then you will want to log on as follows:

```
password0@subreport1.rpt=secret
```

However if the subreport is shown in the Designer as `subreport1`, then you will want to log on as follows:

```
password0@subreport1=secret
```

`Password0@subreportname` and `user0@subreportname` are mostly used in tandem to specify the username and password for the particular subreport.

An example of this code is:

```
http://myserver/test.rpt?user0@subrpt1=SmithJ&password0@subrpt1=secret
```

Passing Parameter Values to the Report

Prompt#

Specifies values for parameter fields in the report. Parameter field values are assigned to parameter fields in the order that the parameter fields exist in the report. For Crystal Reports 7, the `PROMPT#` command also includes Stored Procedure parameters.

```
PROMPT#=<parameter_field_values>
```

`<parameter_field_values>` is a string. For example:

```
prompt0=CA
```

If the report contains more than one parameter field, multiple parameter field values can be passed by incrementing the `PROMPT` index value. For example:

```
prompt0=CA&prompt1=1000
```

Make sure parameter field values appear in the URL in the same order that the parameter fields and the Stored Procedures appear in the report. If parameter field values are not passed using the URL address, the user will be prompted to provide values at runtime.

If you have linked subreports, the parameters in the subreports used for those links do not have to be set. Any other parameters in a subreport do have to be set. To find out the order to set the parameters for a report with subreports,

browse to the report without specifying any parameter values. You will be prompted for each parameter required for the main report and any subreports. Note the order of the prompts, and then use this order in your URL (the first parameter prompted for becomes prompt0, the next one prompt1, etc.)

Parameter Values on Refresh

PromptOnRefresh

Specifies whether a report should prompt for parameter field values when refreshed.

promptOnRefresh=<value>

where <value> is 0 or 1. For example:

promptOnRefresh=1

Reports that have the promptOnRefresh command applied will not have their pages shared. Caching will occur at the end-user's machine.

Contacting Crystal Decisions for Technical Support

We recommend that you refer to the product documentation and that you visit our Technical Support web site for more resources.

Self-serve Support:

<http://support.crystaldecisions.com/>

Email Support:

<http://support.crystaldecisions.com/support/answers.asp>

Telephone Support:

<http://www.crystaldecisions.com/contact/support.asp>