

Crystal Enterprise 9

Configuring Crystal Enterprise to Run with Lotus Domino

Overview

This document illustrates how to configure Crystal Enterprise™ to use Lotus® Domino™ as the web server via a Common Gateway Interface (CGI) script or DSAPI. This allows users to schedule, view, and analyze reports based on Lotus Domino, IBM DB2™, SAP®, PeopleSoft® data, and more.

Contents

INTRODUCTION	2
LOTUS DOMINO, DSAPI AND THE COMMON GATEWAY INTERFACE	2
MANAGED VS. UNMANAGED REPORTS	3
<i>Managed Reports.....</i>	<i>3</i>
<i>Unmanaged Reports.....</i>	<i>3</i>
CONFIGURING LOTUS DOMINO TO USE DSAPI (DOMINO R5) WITH THE CRYSTAL ENTERPRISE WEB CONNECTOR	4
Manual Method #1	4
Manual Method #2.....	5
<i>Starting Crystal Enterprise Services.....</i>	<i>7</i>
<i>Viewing Managed Reports and Crystal Enterprise Applications</i>	<i>7</i>
<i>Viewing Unmanaged Reports.....</i>	<i>8</i>
CONFIGURING LOTUS DOMINO TO USE CGI WITH THE CRYSTAL ENTERPRISE WEB CONNECTOR.....	11
<i>Starting Crystal Enterprise Services.....</i>	<i>12</i>
<i>Viewing Managed Reports and Crystal Enterprise Applications</i>	<i>13</i>
<i>Viewing Unmanaged Reports.....</i>	<i>14</i>
INSTALLING CRYSTAL ENTERPRISE ON A DEDICATED SERVER	15
INTEGRATING REPORTS INTO A DOMINO APPLICATION	17
<i>Show report from an Action button.....</i>	<i>17</i>
<i>Passing parameters from the application to the report</i>	<i>19</i>
BEST PRACTICES FOR CRYSTAL ENTERPRISE INTEGRATION WITH DOMINO..	20
<i>Authentication.....</i>	<i>20</i>
<i>Which driver do I use?.....</i>	<i>20</i>
<i>Where do I find more information on driver configuration?</i>	<i>21</i>
<i>How do I avoid passing authentication information in the URL?</i>	<i>21</i>
<i>How does Crystal Enterprise work with Readers/Authors fields?</i>	<i>21</i>
<i>When trying to view the report I get a continuous (looping) logon screen</i>	<i>22</i>
ACKNOWLEDGEMENTS	23
SERVICES ASSISTANCE	23
CONTACTING CRYSTAL DECISIONS FOR TECHNICAL SUPPORT	23

Introduction

Many Lotus Domino users use Crystal Reports® to extract data from either Notes and Domino “.nsf” files or other data sources, like DB2, SAP, Oracle®, etc. The next step is to invoke that report directly from a Domino application. This, as well as many more features, such as scheduling, managing of reports, security, and more, is possible using Crystal Enterprise.

This technical brief assumes an understanding of Crystal Enterprise and Crystal Reports. In brief, Crystal Reports is a powerful report designer, and Crystal Enterprise is a web-based infrastructure and application server that allows you to integrate Crystal reports into web applications, including Domino.

This paper describes how to set up Crystal Enterprise in your Domino environment. The overview describes two ways of doing this integration depending on which version of Domino is in use.

NOTE

Version 9 of Crystal Enterprise does not support Domino 6 as a web server for report deployment. Data can still be extracted from Domino 6 using the native or NotesSQL driver, but either IIS, IBM Http Server or a different version of Domino would need to be used as a web server for Crystal Enterprise.

It is important to point out that there are two versions of Crystal Enterprise: Standard and Professional.

Crystal Enterprise Standard is a single server solution and all the components must be installed on one machine. Crystal Enterprise Professional is a multi-tier, scalable system that can be deployed on as many machines as required.

The information below assumes that everything is installed on a single server; however, if using Crystal Enterprise Professional, you have the option to install Crystal Enterprise on separate machines using the “expand” installation method. For more information on how to setup an environment that uses the Domino server, but has Crystal Enterprise running on a separate server, please read the section titled “Installing Crystal Enterprise on a Dedicated Server.”

The rest of this brief talks to how to integrate reports into your Domino application. The example used uses an action button in a Form or View to invoke a report.

Lotus Domino, DSAPI and the Common Gateway Interface

The Lotus Domino Web Server introduced the DSAPI in R5. This API allows 3rd party tools to interact with the Domino server. For more information on DSAPI, please see the Lotus API sample toolkit.

Crystal Enterprise can use DSAPI for communication from a browser to the web component server if you are using Domino version 5.x. If you are using a Domino server 4.x, then the Common Gateway Interface (CGI), which allows

you to create external programs (CGI programs) that interface with your server, is the right method to use. CGI provides a common groundwork so that any web server can communicate with any CGI script.

NOTE	Only Crystal Enterprise on the Windows platform will work with DSAPI. DSAPI is not available on Unix.
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With Netscape (Enterprise and Fastrack), Microsoft (Internet Information Server), or Apache web servers the Crystal Web Component Server installs NSAPI, ISAPI, or ASAPI libraries respectively to deliver reports over the Web. In the case of Lotus Domino, the Web Component Server relies on DSAPI, or a CGI script to deliver the report.

Managed vs. Unmanaged Reports

Crystal Enterprise allows you to view reports in two different environments: managed reports, and unmanaged reports. The next section describes how these two environments work.

Managed Reports

Crystal Enterprise “publishes” reports to its environment. When a report is published to Crystal Enterprise, it is added to the Crystal Enterprise system and becomes managed by Crystal Enterprise itself. Crystal Enterprise controls access to these reports with its own security model and enforces integrity within the overall system. These are managed reports. This also enables you to benefit from all the Crystal Enterprise features, including scheduling, viewing in different formats, and more.

Unmanaged Reports

Historically, when using Crystal Reports to publish reports using internet technology for either intra or internet deployments, report designers would build reports and post them to a virtual directory on a web server. These reports could either be saved with data or access the database when requested. To view one of these reports, the user would call the Crystal Report file (.rpt) via a URL. These are unmanaged reports.

Crystal Enterprise supports both managed and unmanaged reports. For more information on understanding managed and unmanaged reporting, please download the technical white paper at:

http://support.crystaldecisions.net/communityCS/TechnicalPapers/ce8_managed_unmanaged_rpts.pdf

Configuring Lotus Domino to use DSAPI (Domino R5) with the Crystal Enterprise Web Connector

This section describes how to get Crystal Enterprise up and running in the Domino R5 environment. We begin by configuring Domino to work with Crystal Enterprise, followed by starting the Crystal Enterprise services, and concluding by discussing how to view reports or Crystal Enterprise reporting applications.

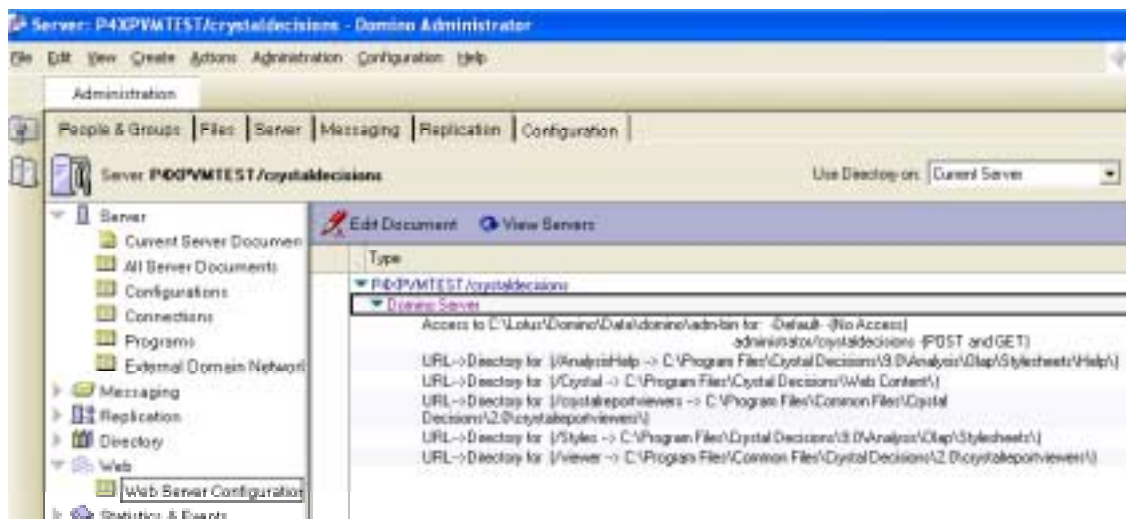
Crystal Enterprise can automatically configure your system to use DSAPI or you can do this manually. To have Crystal Enterprise automatically install the DSAPI filter, make sure that the Domino server is running (on the same server that you are doing the installation) when you install Crystal Enterprise. Crystal Enterprise will add some virtual directories and add the filter to the system, and will then stop and restart your http server.

If for some reason you cannot access the server document, you may need to proceed to manual method #2. If your Domino server is not running during your install of Crystal Enterprise, then try manual method #1.

Manual Method #1

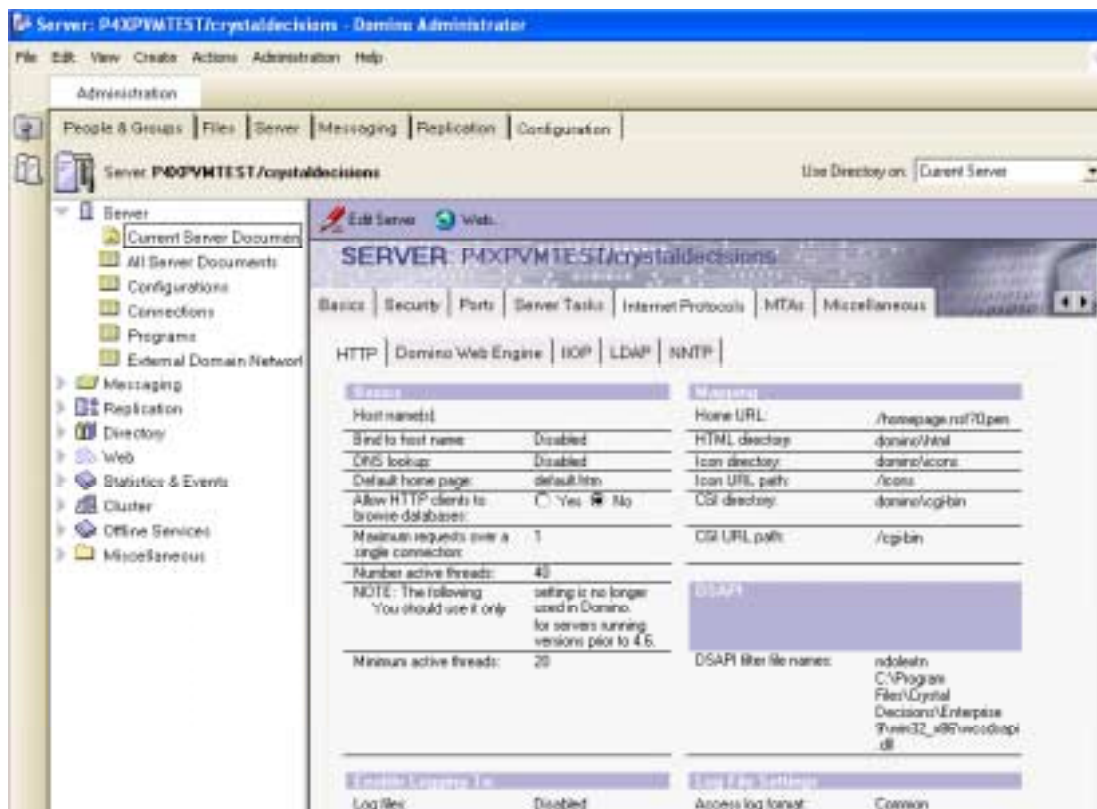
To manually configure the DSAPI filter setup, follow these steps.

1. Make sure that your Domino server is started.
2. In Windows Explorer go to your "Program Files\Crystal Decisions\Enterprise 9\win32_x86" directory. Run the file Cfgdomino.exe.
3. In both cases, to confirm that the setup has occurred, open your Domino Administrator, and go to the configuration tab.
4. Under the Web Server Configurations View, see that you have a several mappings for "Crystal" directories.



5. Also, in the Domino Administrator under the configuration tab, go to the Current Server Document View, Internet Protocols tab, Http tab, DSAPI

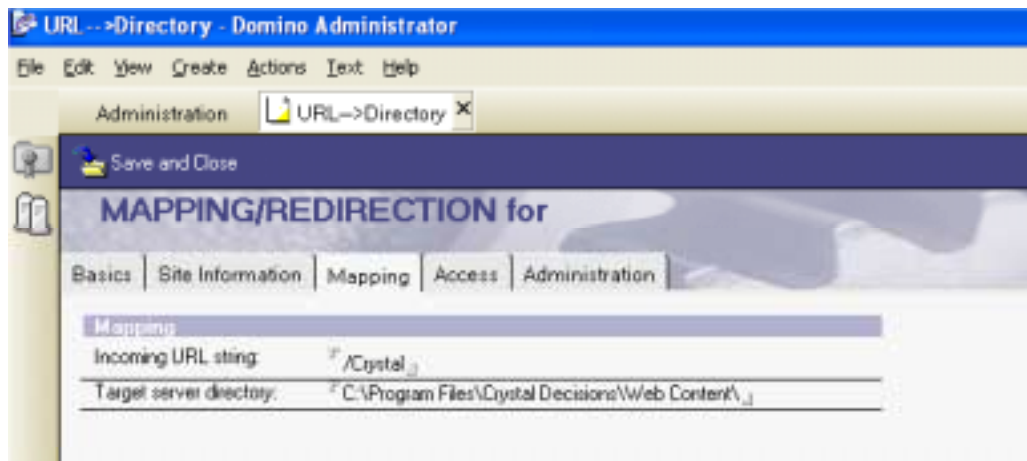
Filter heading. For “DSAPI Filter File Names,” make sure the path is set to your “WCSDSAPI.dll” file.



Manual Method #2

If the above manual method still does not enter the appropriate values into your server document, please try these manual steps.

1. Open your Domino Administrator, and move to the Configuration tab. Open your server document.
2. Select the Edit Server button.
3. Select the Internet Protocols tab.
4. Select the HTTP tab.
5. On the right side, find the heading “DSAPI”. Enter the path to the file, Wcsdsapi.dll. The default is: Program Files\Crystal Decisions\Enterprise 9\win32_x86\ wcsdsapi.dll
6. Now you need to create your virtual directories. At the top of the page, you will see a button titled “Web.” Select the button and you will receive a drop down list. Select “Create URL Mapping/Redirection.”
7. The Basics tab needs to be set to: URL → Directory



8. The Mapping tab needs to read as follows:
Incoming URL string: /Crystal
9. Target server directory: C:\Program Files\Crystal Decisions\Web Content\
(For target directory, enter the location of your web content directory if it is different than the default.)
10. Save and Close.
11. We need to create another virtual directory. Repeat Steps 6 & 7 above.
12. This time enter the following values:
Incoming URL string: /viewer
13. Target server directory: C:\Program Files\Common Files\Crystal Decisions\2.0\crystalreportviewers/
(For target directory, enter the location of your Viewers directory if it is different than the default.)
14. Save and Close.
15. We need to create one more virtual directory. Repeat Steps 6 & 7 above.
16. This time enter the following values:
Incoming URL string: /crystalreportviewers
17. Target server directory: C:\Program Files\Common Files\Crystal Decisions\2.0\crystalreportviewers/
(For target directory, enter the location of your Viewers directory if it is different than the default.)
18. Exit the Administrator.
19. Restart the Domino http server in the Domino Console: Tell Http Restart

For more information on how to setup the Web Connector for Crystal Enterprise, please see "Configuring Windows Web Connectors" in the Crystal Enterprise Installation Guide.

Starting Crystal Enterprise Services

Before viewing your reports and Crystal Enterprise applications, you must start the Crystal Enterprise services. This can be done in two ways.

1. From the Windows Control Panel → Administrative Tools, select the Services icon (in Windows NT you will find the Services icon in the root of the Control Panel). Make sure that you start the following services:

- Crystal APS
- Crystal Cache Server
- Crystal Input File Repository Server
- Crystal Output File Repository Server
- Crystal Page Server
- Crystal Report Job Server
- Crystal Web Component Server

2. These same services can also be started in the Crystal Configuration Manager. Start → Programs → Crystal Enterprise 9 → Crystal Configuration Manager.

Viewing Managed Reports and Crystal Enterprise Applications

As described above, managed reports are operated inside the Crystal Enterprise environment. Crystal Enterprise includes several sample reporting applications which each include their own source code. You can either use these sample applications, create your own, or integrate your own Crystal Enterprise code into other web applications, such as a Domino application.

To view some reports, open the Crystal Enterprise Launchpad from the Crystal Enterprise Program Group.

1. Start → Programs → Crystal Enterprise 9 → Crystal Launchpad.
2. You should see a page that has the option to view ePortfolio, the Crystal Management Console, download the Offline Viewer, as well as other developer samples and help documentation.

NOTE

If you do not see the Launchpad page, try restarting your Domino server and ensuring that all of your Crystal services are up and running.

Click on the ePortfolio link. A list of folders that contain either reports or other subfolders will appear. Navigate through the folders until you find a report you want to view. Selecting the report will allow you to view the report on demand or schedule it.

3. For more information on how ePortfolio works, please see the *ePortfolio User's Guide*.

As mentioned, these are only samples. You can take code from ePortfolio or any of the sample applications to create the basis of your own application. You can also use the Web Wizard (also in the Crystal Enterprise Program Group) or you

can step through the Web Developer's Help, which is accessed through the Crystal Launchpad or from Windows Explorer.

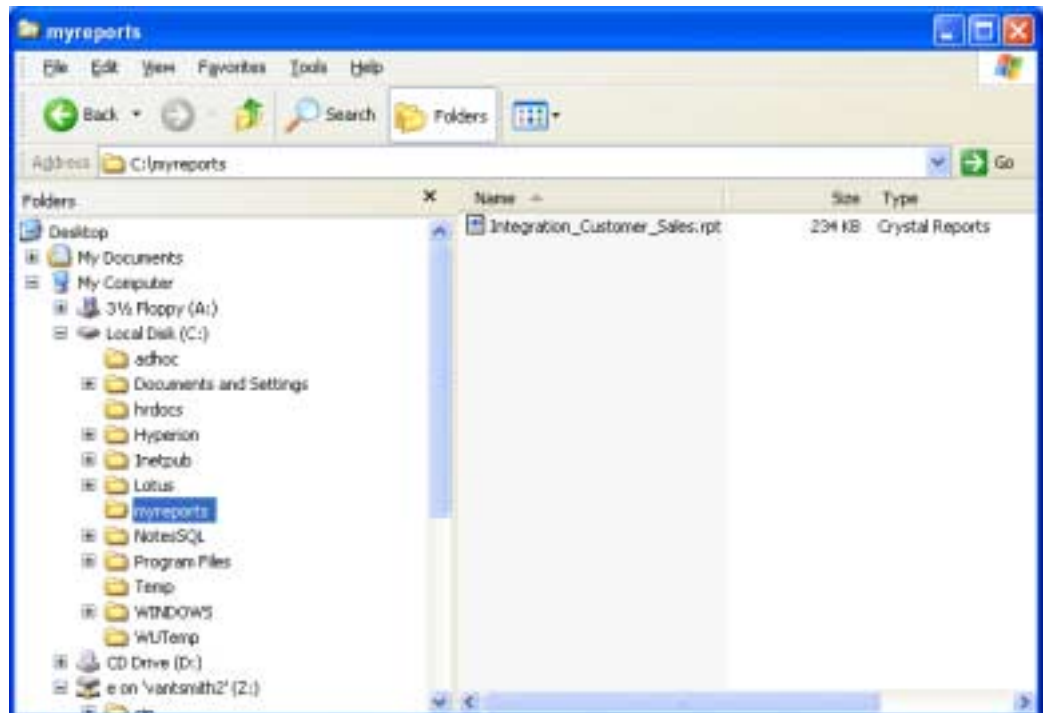
There are several places to add reports (created with Crystal Reports) to the Crystal Enterprise system. Use any of the following methods to add your reports:

- In Crystal Reports – save the report to Enterprise Folders.
- In the Crystal Management Console (CMC) – Administrators Only.
- Crystal Publishing Wizard – Windows application installed with Crystal Enterprise (Start→Programs→Crystal Enterprise)

Viewing Unmanaged Reports

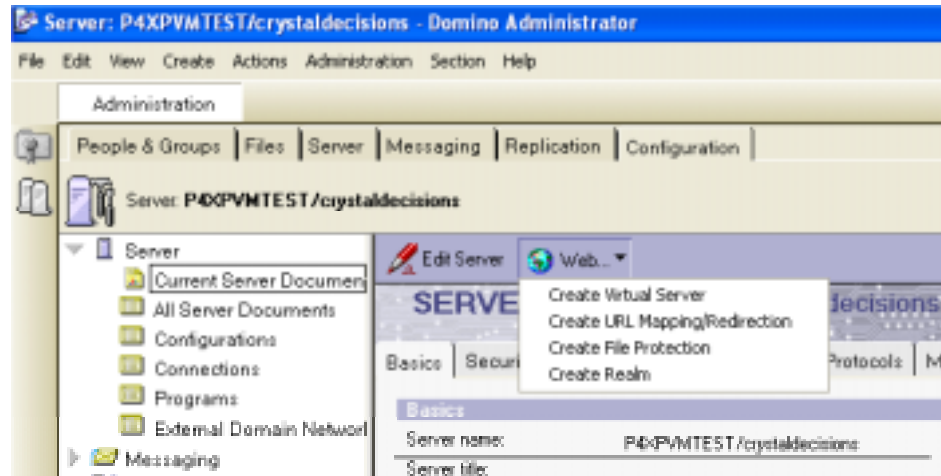
Unmanaged reports operate in a similar way as previous versions of Crystal Reports web solutions did. The concept is simple: the report created in Crystal Reports is invoked via a URL. Follow the steps below to view your own reports.

1. With this method, reports do not need to be added to the system as they are being used in an unmanaged environment. Put the reports that you want to access through your application into a directory. For example, copy your reports into a directory called “myreports.”

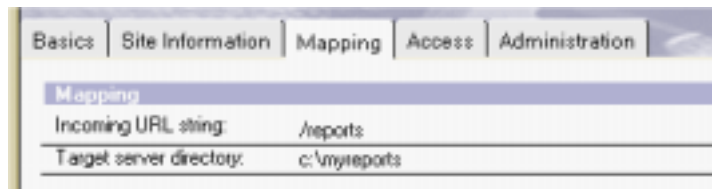


2. Now make a virtual directory for that directory. For example, create a virtual directory called “reports.” In Domino Administrator, go to the Configuration tab and select the Current Server Document View. Select the

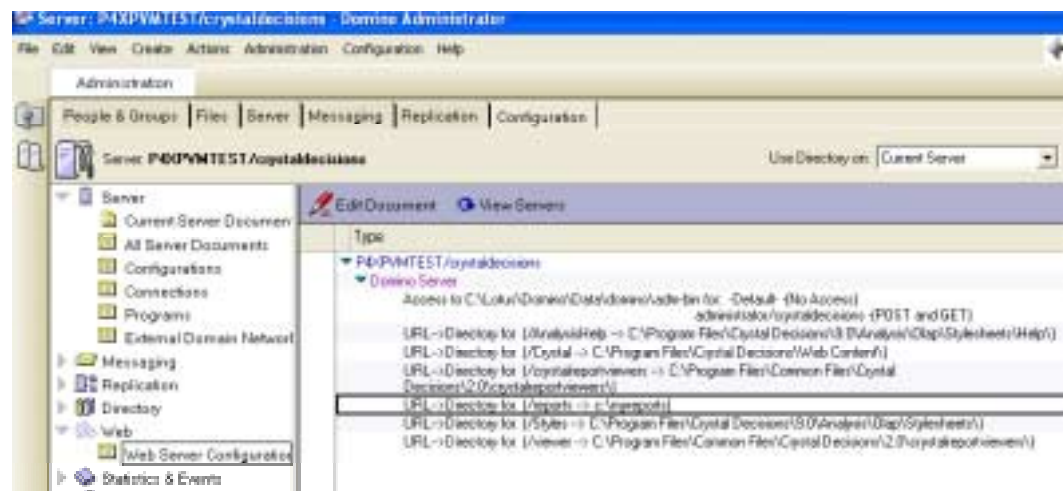
button titled “Web...” Select the “Create URL Mapping/Redirection” option.



- In the Mapping/Redirection dialog on the mapping tab, enter the directory name for the URL in the “Incoming URL String” field. In this example, use “/reports.” In the field below, titled “Target Server Directory,” enter the name and path for the directory you created in Step 1 (we used “C:\myreports”).

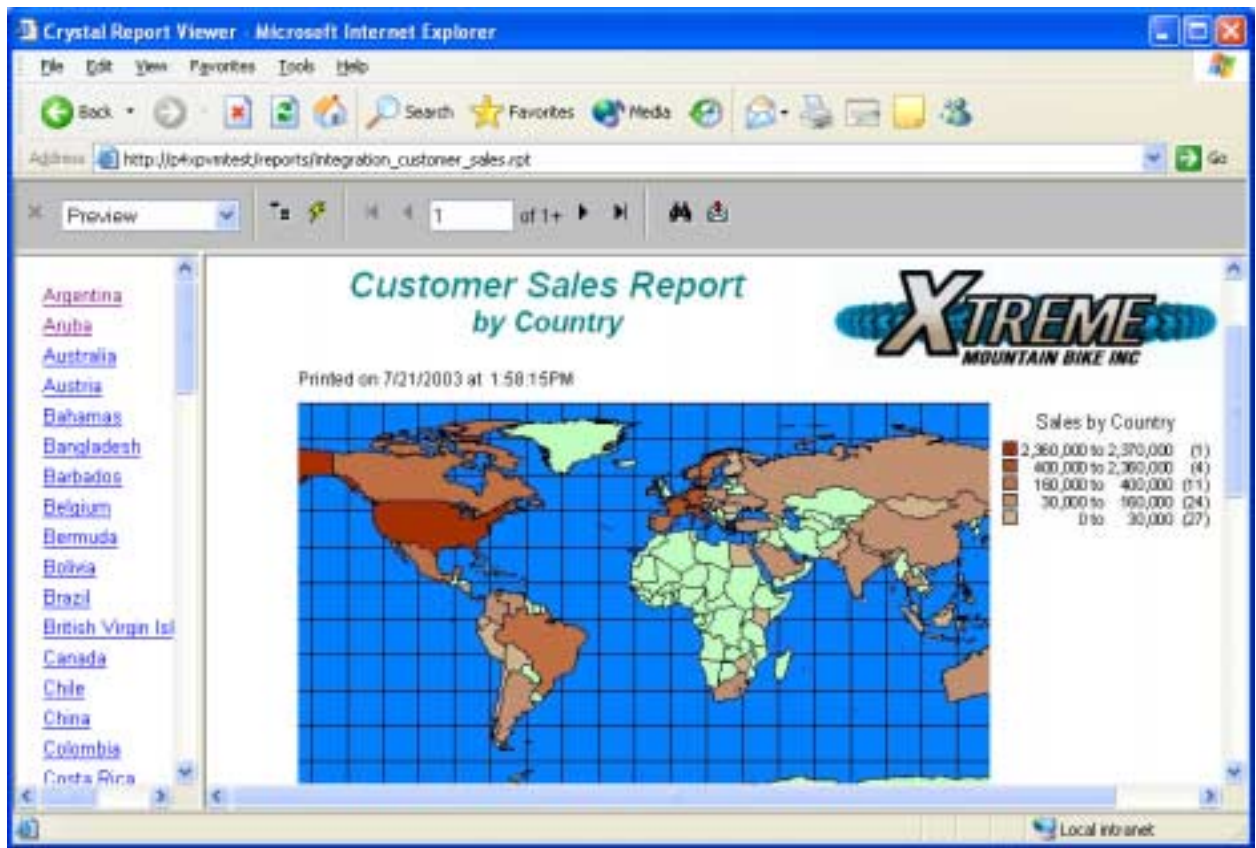


- To ensure that you have the correct mapping, go to the Web Configuration View in Domino Administrator. It should appear similar to this.



5. Close the Domino Administrator and stop and restart your Domino http server.
 - tell http quit
 - load http
6. Ensure all the Crystal Enterprise services are started.
7. Start your web browser.
8. Type in the URL for your report. It should be in this format:

http://servername/reports/reportname.rpt



You can also add your username/password to the URL (so that you are not prompted), a selection formula filter, or tell Crystal Enterprise what viewer you want to use (e.g., ActiveX, Java, DHTML, etc.).

For more information on how to add these to your URL, please read the technical brief, "URL Commands Available for the Web Component Server for Crystal Reports 8" (filename: scr8_urlcmds.pdf), available at:

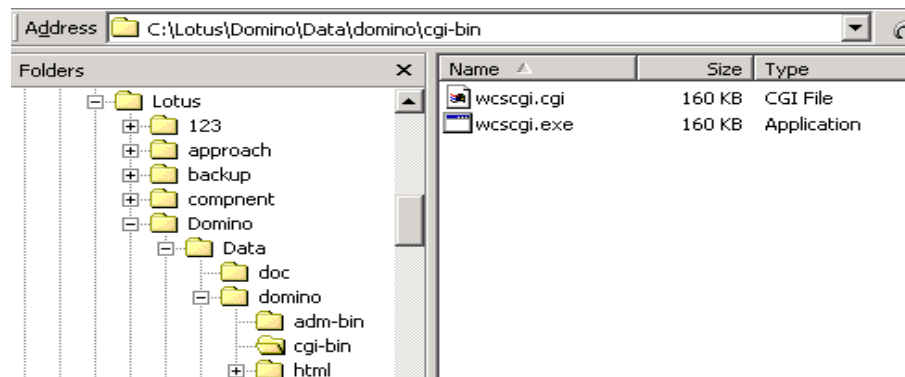
http://support.crystaldecisions.net/communityCS/TechnicalPapers/scr8_urlcmds.pdf

Configuring Lotus Domino to use CGI with the Crystal Enterprise Web Connector

This section describes how to get Crystal Enterprise up and running in the Domino version 4.x environment. (If you want to use CGI rather than DSAPI, this can also work with R5). First, we configure Domino to work with Crystal Enterprise, then we start the Crystal Enterprise services, and finally we will discuss how to view your reports or Crystal Enterprise reporting applications.

To configure Crystal Enterprise to work with CGI, you must do so manually as there is no automated process.

Copy the Wscgi.exe and Wscgi.cgi files into the Lotus Domino cgi-bin directory. This allows the Domino Web Server to use the cgi script with Crystal Enterprise. If you did a default install, you will find the original Wscgi.exe in the default directory, C:\Program Files\Crystal Decisions\Enterprise 9\win32_x86



1. Once the Wscgi.exe program has been copied into the cgi-bin directory, you must then create a Virtual Directory in Lotus Domino to store your Crystal Reports.
2. This step will go through mapping the URL to the report. For more information on how to do URL mapping in Domino, please see Domino's online help.

There are two types of entries required in the Domino Administrator Client database to run the Web Component Server. First, there are four directory mappings. These are created in the Administration Database with the Create-Mapping URL→Directory menu command:

	URL Path	Directory
1	/viewer	C:\Program Files\Common Files\Crystal Decisions\2.0\crystalreportviewers\
2	/crystalreportviewers	C:\Program Files\Common Files\Crystal Decisions\2.0\crystalreportviewers\
3	/crystal	C:\Program Files\Crystal Decisions\Web Content\

4	/reports	C:\myreports
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- Entry 1 & 2 are required, as this is the directory where all of the viewer clients are stored. When a browser requests a report, the Crystal Page Server interprets the browser and automatically loads the appropriate viewer (Java, ActiveX, DHTML, etc).
- Entry 3 and 4 are critical because they set the current directory on the server whenever a request comes in for a report. The actual name of the directory in this case is "c:\myreports." It is activated via the URL redirection described below.

The name of the path is what the browser will reference. This can be whatever you want it to be, and does not have to exist as an actual directory. In fact, it should not be the same as the actual directory in which the reports reside (in this case, "/reports").

In Directory Mappings, you can optionally specify the IP address to which the mapping applies. This is only necessary if you are running multiple Virtual Servers and wish to restrict reporting access to one of them. All of the Directory Mappings should also be set to **Read** access and not **Execute**. The comment field is optional but recommended for easy reference.

The second type of entry is a URL Redirection entry. You must use this URL to activate the CGI program, Wcscgi.exe, located in the default cgi-bin directory. It is created in the Domino Administrator Client with the Create – URL → URL menu command:

URL Path	URL to URL
/ceapp/*	/cgi-bin/Wcscgi.exe/*

This redirection entry is used to mask the CGI script directory.

3. Stop and restart your Domino http server.
 - tell http quit
 - load http

Starting Crystal Enterprise Services

Before you can view your reports and Crystal Enterprise applications, you need to start the Crystal Enterprise services. This can be done two ways.

1. From the Windows Control Panel → Administrative Tools, select the Services icon (in Windows NT you will find the Services icon in the root of the Control Panel). Make sure that you start the following services:

Crystal APS
 Crystal Cache Server
 Crystal Input File Repository Server
 Crystal Output File Repository Server
 Crystal Page Server

Crystal Report Job Server
Crystal Web Component Server

2. These same services can also be started in the Crystal Configuration Manager. Start → Programs → Crystal Enterprise 9 → Crystal Configuration Manager.

Viewing Managed Reports and Crystal Enterprise Applications

As described above, managed reports operate inside the Crystal Enterprise environment. Crystal Enterprise includes several sample reporting applications which each include their own source code. You can use these sample applications, create your own, or integrate your own Crystal Enterprise code in other web applications, such as a Domino application. In the DSAPI method section of this document, we explained how easy it is to start the ePortfolio sample application; however, with CGI, some changes are required.

With CGI, you must enter additional information into the URL. This information tells the Domino server where to execute the CGI script. Recall that we created the “ceapp” redirection. This is the piece that needs to be added to the URL to make ePortfolio work correctly. Rather than editing this yourself, download ePortfolio for Domino 4.x from the Crystal Decisions Tech Support site at:

http://support.crystaldecisions.net/communityCS/FilesAndUpdates/CE8_cgi_LotusDomino4.zip

Follow the install instructions located in the zip file.

NOTE	If you do not download this version of ePortfolio, the Launchpad page applications will not work.
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After installing ePortfolio for CGI, you can begin viewing reports by launching the Crystal Enterprise Launchpad from the Crystal Enterprise Program Group.

1. Start → Programs → Crystal Enterprise 9 → Crystal Launchpad.
2. You should see a page that has the option to view ePortfolio, the Crystal Management Console, download the Crystal Offline Viewer, as well as other developer samples and help documentation.

NOTE	If you do not see the Launchpad page, try restarting your Domino server and making sure that all your Crystal services are up and running.
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Click the ePortfolio link. A list of folders that contain either reports or other subfolders will appear. Navigate through the folders until you find a report you want to view. Selecting the report will allow you to view the report on demand or schedule it.

For more information on how ePortfolio works, please see the *ePortfolio User's Guide*.

As mentioned, these are samples. You can take code from ePortfolio or any of the sample applications to create the basis of your own applications. Alternatively, you can use the Crystal Web Wizard (also in the Crystal Enterprise Program Group) or step through the Web Developer's Help, which can be accessed through the Crystal Enterprise Launchpad or from Windows Explorer.

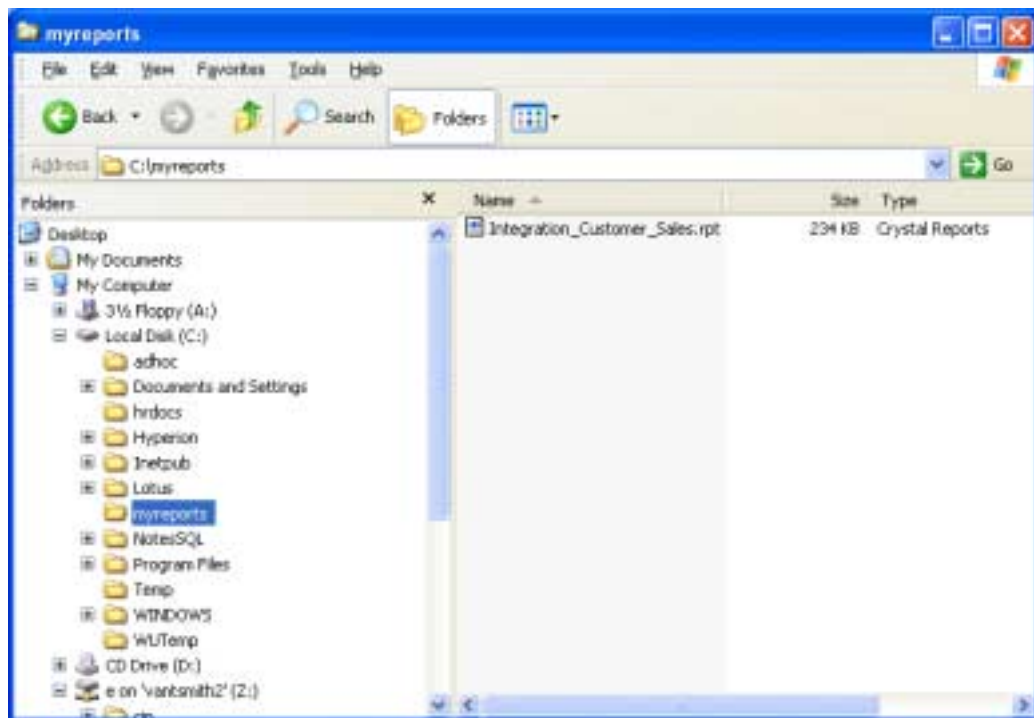
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- In Crystal Reports – save the report to Crystal Enterprise
- In the Crystal Management Console (CMC) – Administrators Only
- Crystal Publishing Wizard – Windows application installed with Crystal Enterprise (Start->Programs->Crystal Enterprise)

Viewing Unmanaged Reports

Unmanaged reports operate in a similar way as previous versions of Crystal Reports web solutions did. The concept is simple: the report created in Crystal Reports is invoked via a URL. Follow the steps below to view your own reports.

1. With this method, reports do not need to be added to the system as they are in an unmanaged environment. Put the reports that you want to access through your application into a directory. Copy your reports into a directory called “myreports.”



2. Make sure all the Crystal Enterprise services are started.
3. Start your web browser.

4. Type in the URL for your report. It should be in this format:

`http://servername/cgi-bin/wcscgi.exe/reports/reportname.rpt`

or

`http://servername/ceapp/reports/reportname.rpt`

You can also add your username/password to the URL (so that you are not prompted), a selection formula filter, or tell Crystal Enterprise which viewer you want to use (e.g. ActiveX, Java, DHTML, etc).

For more information on how to add these to your URL, please read the technical brief, "URL Commands Available for the Web Component Server for Crystal Reports 8" (filename: scr8_urlcmds.pdf). Available at:

http://support.crystaldecisions.net/communityCS/TechnicalPapers/scr8_urlcmds.pdf

Installing Crystal Enterprise on a Dedicated Server

You can install the Crystal Enterprise software on the Domino server (Windows operating system) or on a separate server (with a Windows operating system) and have it communicate to the Domino Server to deploy reports. In an environment where you are expecting a heavy load for either reporting via Crystal Enterprise or running Domino applications, it's recommended that you have separate dedicated servers to run these applications. In fact, for a fault tolerant environment with fail over, you will want to also install Crystal Enterprise across multiple servers. Diagram 1 demonstrates how a multiserver environment is setup.

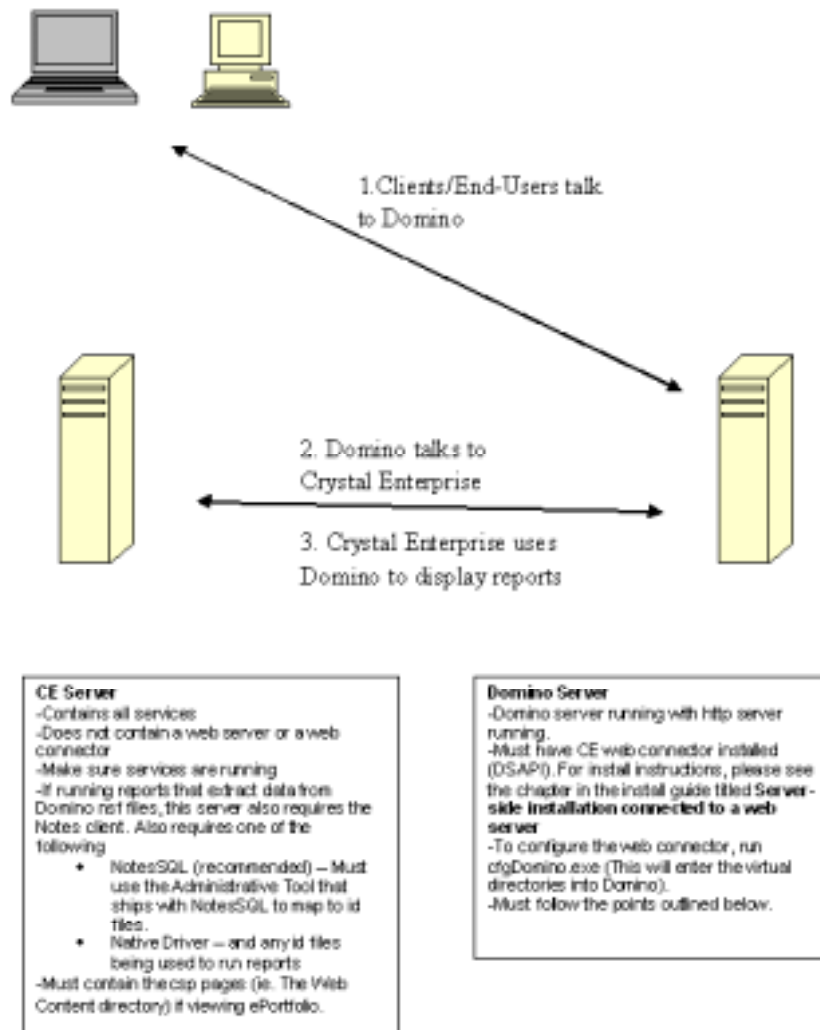

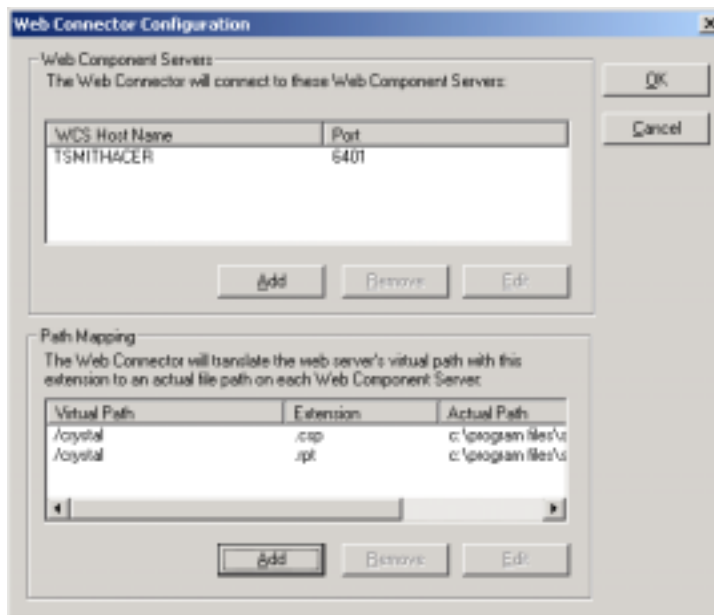


Diagram 1 – Crystal Enterprise / Domino multi-server environment

To configure the web connector, please follow the steps below:

1. On the Domino Server run the Crystal Configuration Manager (CCM)
2. Select the configure web connector button. 
3. Add the CE server name for the WCS Host Name.
4. Add the virtual mappings that point to mappings that match the mappings in the Domino Server web virtual directory mappings. Note that this “actual path” is not valid on the Domino server, but is valid on the CE server. See screenshot below



To test that your environment is setup correctly, open the Crystal Enterprise launchpad and view a report.

1. Start → Programs → Crystal Enterprise 9 → Crystal Launchpad.
2. You should see a page that has the option to view ePortfolio, the Crystal Management Console, download the Offline Viewer, as well as other developer samples and help documentation. Click on the ePortfolio link. A list of folders that contain either reports or other subfolders will appear. Navigate through the folders until you find a report you want to view. Selecting the report will allow you to view the report on demand or schedule it.
3. For more information on how ePortfolio works, please see the *ePortfolio User's Guide*.

Integrating Reports into a Domino Application

After a report has been created, the next step is to get that report out to the business users. This section describes how to integrate your reports into a Domino application. In this example, we will use the unmanaged report method, combined with an action button in a Domino View to serve up the report. We will also show an example of how to pass a value from a Domino Form to a report.

Show report from an Action button

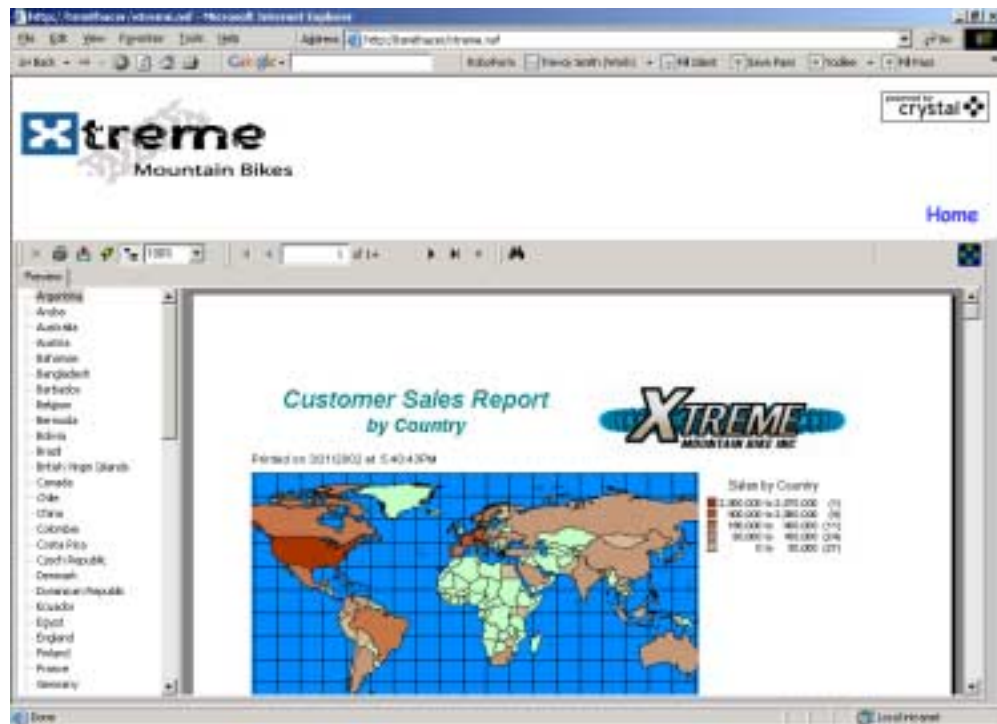
The Xtreme application is a Domino application that contains Bicycle Manufacturers' sales information. One of the Views that we have created, CustomerView, contains an action button. The user can select the action button, which will cause the report to run and display in a report viewer. The report was originally created in Crystal Reports and then placed into the directory

C:\myreports. Since we have created a virtual directory for this directory called “reports”, we will use this in the URL that is used in the action button.



The formula we use under the action button is as follows:

@URLOpen("http://servername/reports/Integration Customer Sales.rpt?user0=administrator/crystaldecisions&password0=password")



This can also be accomplished by calling an agent that invokes a URL.

Passing parameters from the application to the report

In this example, we have a field in a Form named "Customer_ID". On the Form, we have an Action Button that will invoke the report. The "Customer_ID" field is now incorporated into the URL to allow us to filter the data on the value of "Customer_ID". In the example shown, we are passing the value of "6" to the report. The report has a parameter built into it and a selection formula that reads "{customer_ID} = ?ParameterField." In the URL to invoke the report, we simply make the prompt (aka parameter) equal to "Customer_ID."

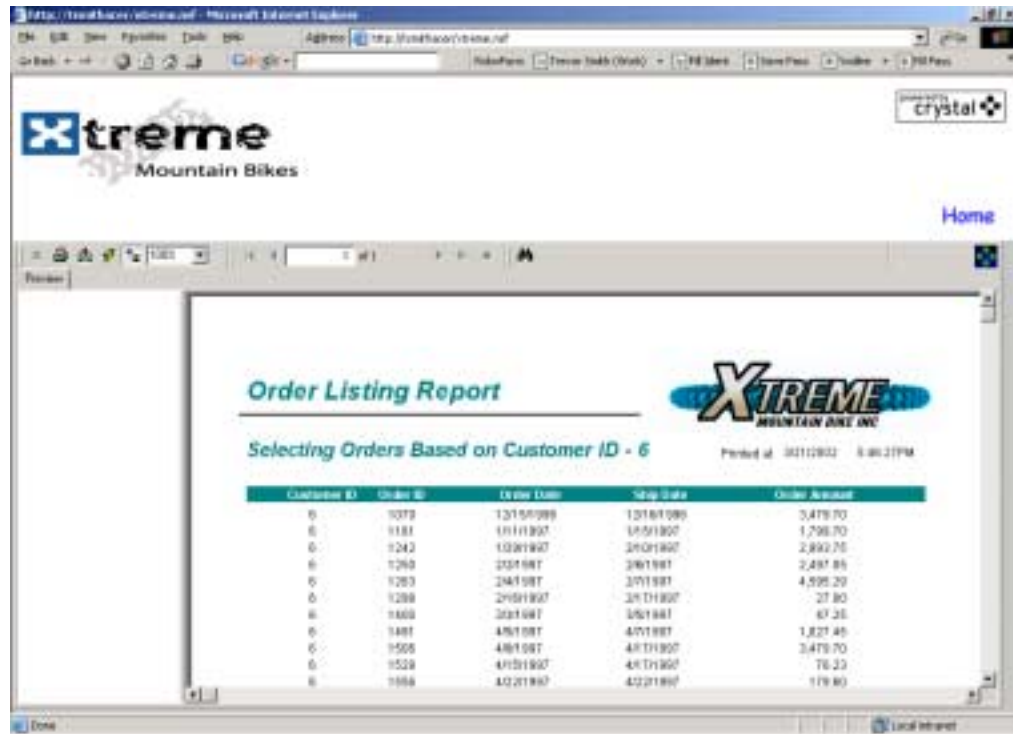


The formula under the Action Button is as follows:

```

@URLOpen("http://servername/reports/integration%20order%20listing.rpt?prompt0=" + @Text(Customer_ID) + "&user0=administrator/crystaldecisions&password0=password")

```



The screenshot shows a web browser window with the URL <http://localhost:8080/ce9a/ce9a.nsf>. The page displays the 'Xtreme Mountain Bikes' logo and a report titled 'Order Listing Report'. The report is filtered by 'Customer ID - 6' and was printed on 03/11/2003 at 8:00:21 PM. The report contains the following data:

Customer ID	Order ID	Order Date	Ship Date	Order Amount
6	1072	12/15/99	12/16/99	3,479.70
6	1181	1/11/00	1/15/00	1,706.70
6	1242	1/30/00	2/02/00	2,892.70
6	1260	2/17/00	2/18/00	2,487.86
6	1283	2/18/00	2/18/00	4,995.20
6	1288	2/18/00	2/18/00	27.80
6	1400	2/21/00	2/21/00	67.35
6	1481	4/11/00	4/11/00	1,827.40
6	1505	4/11/00	4/11/00	3,479.70
6	1528	4/15/00	4/15/00	70.23
6	1666	4/22/00	4/22/00	119.80

Best Practices for Crystal Enterprise Integration with Domino

Authentication

There are two layers of authentication in Crystal Enterprise. Crystal Enterprise has the concept of user/group security that limits certain people to seeing certain folders/reports. This layer also integrates with Windows security or LDAP.

The second layer of security occurs at the database level. If a report is based on DB2, Oracle, SAP, Domino, etc., when it is scheduled to run, you must authenticate against that database. In the case of Domino, both the native driver and NotesSQL driver are required to use a Notes ID to authenticate.

It is recommended that you read the technical brief on Domino connectivity for more information on how each driver uses authentication. It is important to note that you must use the Administrator Tool if using the NotesSQL driver. Please download this technical brief from the following location:

http://support.crystaldecisions.com/communityCS/TechnicalPapers/ce9_lotusdomino.pdf

Which driver do I use?

When using Crystal Enterprise it is recommended that you use the NotesSQL ODBC driver for the following reasons:

- Multiple report concurrent processing

- Better Performance
- Readers/Authors field support
- Support for Subforms

Where do I find more information on driver configuration?

Please download the following technical brief:

http://support.crystaldecisions.com/communityCS/TechnicalPapers/cr9_lotusdomino.pdf

How do I avoid passing authentication information in the URL?

To avoid passing authentication information in the URL, you have a number of choices depending on how you integrate Crystal Enterprise.

Unmanaged Reporting (as in the example above)

- Use a single “report” id for all reports and hard code it into the URL.
- Allow it to prompt the user. If you leave the authentication pieces out of the URL, the report will prompt the user for authentication. Using our example above, the formula/URL, would appear as follows:
`@URLOpen("http://servername/reports/Integration Customer Sales.rpt")`

Managed Reports

- Pass the authentication in a CSP page.
- Hardcode the authentication into the Crystal Management Console.

For more information on Managed Reports vs. Unmanaged Reports, please download the following technical brief:

http://support.crystaldecisions.com/communityCS/TechnicalPapers/ce8_managed_unmanaged_rpts.pdf

How does Crystal Enterprise work with Readers/Authors fields?

To support Readers and Authors fields with Crystal Enterprise you need to use NotesSQL version 3.02a and higher. The 3.02b driver is included in the Crystal Enterprise 9 product.

When trying to view the report I get a continuous (looping) logon screen

Make sure you read the technical brief on how to configure your native or NotesSQL driver. The brief is available at:

http://support.crystaldecisions.com/communityCS/TechnicalPapers/cr9_lotusdomino.pdf

Other tips

Native Driver:

- Make sure the report can run in the Crystal Report Designer on the Crystal Enterprise (Page Server/Job Server) Server.
- For every user running the report, the ID file being used must be in the Notes\Data directory.
- Use the hierarchical name format for a user name (i.e. Trevor Smith/CrystalDecisions).
- Make sure you have a Lotus Notes Client on your computer.
- In your computer's path statement, remove any references to "\\Seagate Software\Notes\""

NotesSQL Driver:

- Make sure the report can run in the Crystal Report Designer on the Crystal Enterprise (Page Server/Job Server) Server.
- Use version 3.02a (and greater) of the NotesSQL driver.
- Use the NotesSQL Administrative Tool to map Notes IDs to their physical location.
- Use the hierarchical name format for a user name (i.e. Trevor Smith/CrystalDecisions).
- Run the Page Server/Job Server under a user name account, rather than the default localsystem account (configurable in the Windows Control Panel or Crystal Configuration Manager).
- Do not hardcode a user name/password in the DSN.
- If the report was created on a different computer than the Crystal Enterprise server (Page Server/Job Server), make sure that the DSN that the report was created with also exists on the Crystal Enterprise server. The DSN must be the same and the Administrative Tool must also be used.
- In your computer's path statement, remove any references to "\\Seagate Software\Notes\"".

Acknowledgements

Thank you to Rob Novak, president of Strategic Net Applications, for contributing content to this Technical Brief. Please visit Strategic Net Applications at: <http://www.snapps.com>

Services Assistance

If you would like to have Crystal's professional services assist you in deploying Crystal Enterprise, please let us know at lotusreporting@crystaldecisions.com

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>