ReCrystallize Pro

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ReCrystallize Software

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1. Quick Start

Steps to get ReCrystallize Pro up and running fast.

1. Ensure that the IIS web server is installed on your PC. On Windows Server, add the Web Server (IIS) Role in Server Manager. For desktop versions of Windows. find and enable IIS in Windows Features.

2. Run the ReCrystallizeProSetup.exe file to install ReCrystallize Pro.

3. install any database client software (e.g. Oracle client) and configure any ODBC System DSNs that may be needed by your reports.

- If your reports access your database through ODBC, create a System DSN with the same name and configuration as the one used to design the reports. (User DSNs are not available to the web publishing service.)

- Be sure to configure any ODBC connections using the 32-bit ODBC Data Source Administrator. Reports run in a 32-bit process by default, so they can't use 64-bit ODBC. If your Windows menu doesn't include a shortcut to the 32-bit ODBC tool, it is available at C:\Windows\SysWOW64\odbcad32.exe

- If your reports use a SQL Server database, configure the ODBC System DSN to use TCP/IP (not named pipes) and SQL Authentication (not NT Authentication). Your SQL Server must also be configured to allow SQL Authentication.

- If your reports use an Oracle database, install and configure the Oracle client software on the web server.

4. Copy your Crystal Reports .rpt files to the C:\ReCrystallizePro\Reports folder. This folder is mapped to /ReCrystallizePro/ in the IIS Default Web Site. To view reports in this folder, use a web address in the form

http://servername/ReCrystallizePro/webpage.aspx

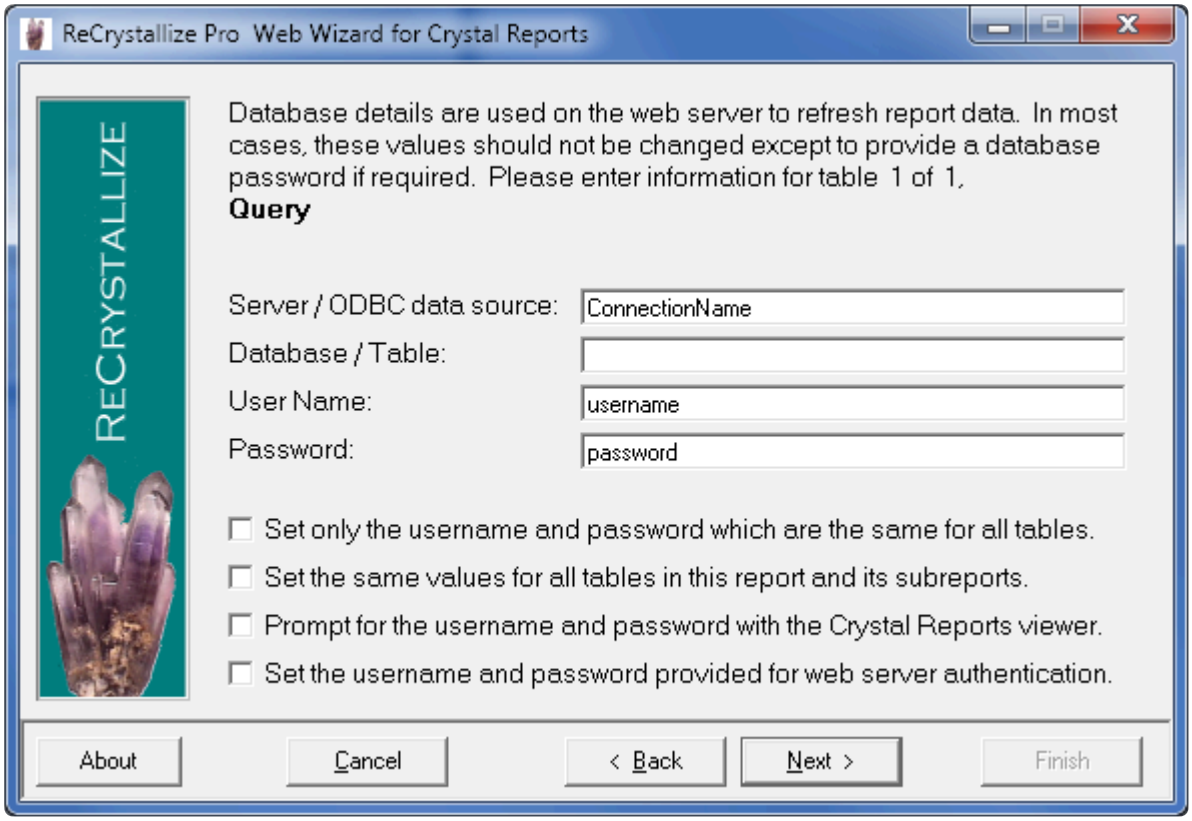
For example, to view a report on the local server, the web page might be

http://localhost/ReCrystallizePro/myreport-static.aspx

> The Reports folder under C:\ReCrystallizePro\ is the recommended location for reports. You may create subfolders beneath it. If you wish to locate reports in a different folder within your website, be sure to copy the web.config file from the Reports folder.

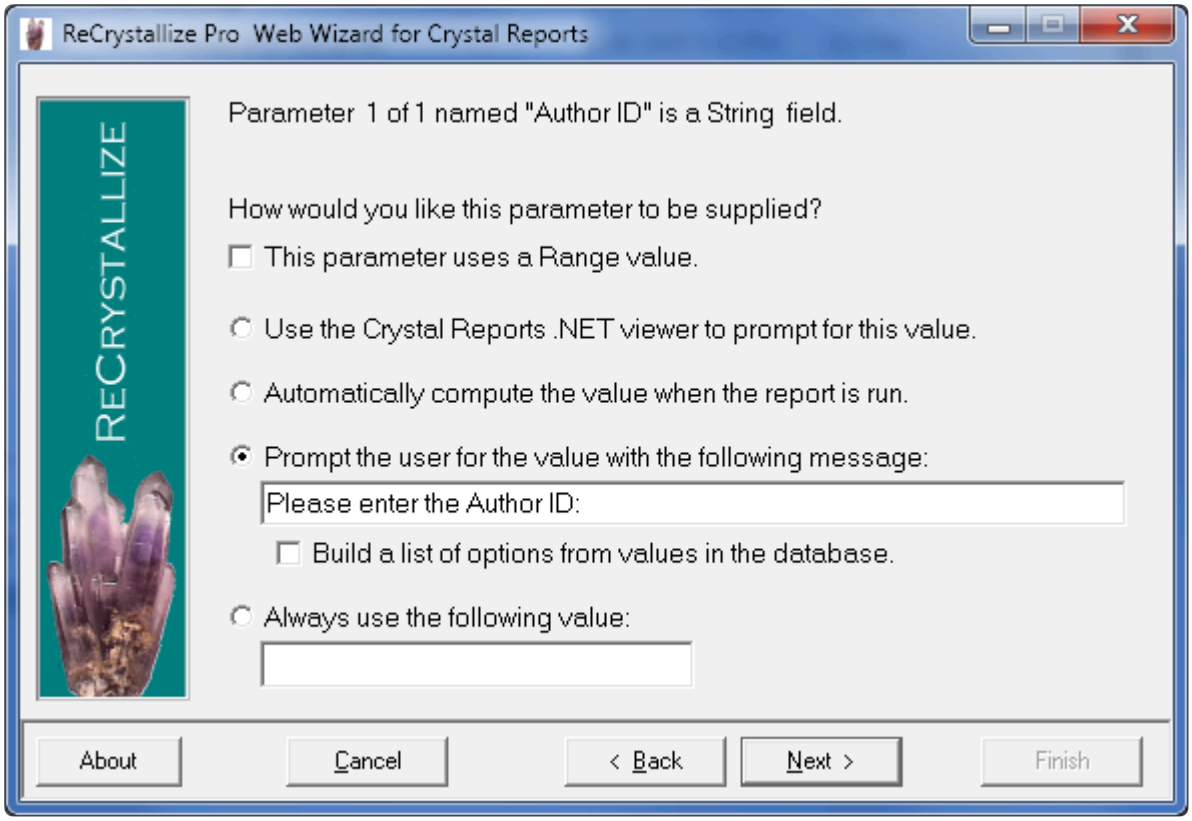
5. **Run the ReCrystallize Pro wizard** to create web pages to run your reports. A shortcut is available in the Windows Start Menu.

- Select the option to use ASP.NET.
- If you are using a ReCrystallize Pro evaluation license, select the “Static” option to display data that is saved in the .rpt file. To save data in the .rpt file, select the “Save Data with Report” option in the Crystal Reports file menu, refresh the report data, and save the report.
- The ReCrystallize Pro evaluation license will allow you to select the “Dynamic” option to display live data from your database, but will not create Dynamic web pages at the end of the process. Purchase a ReCrystallize Pro license at www.recrystallize.com to activate the trial version in place and unlock the full capability to view reports with live data. Your ReCrystallize Pro purchase is covered by a 30-day money-back guarantee, so you can be sure that live data works as expected in your environment. The purchase also includes any technical support that may be needed.

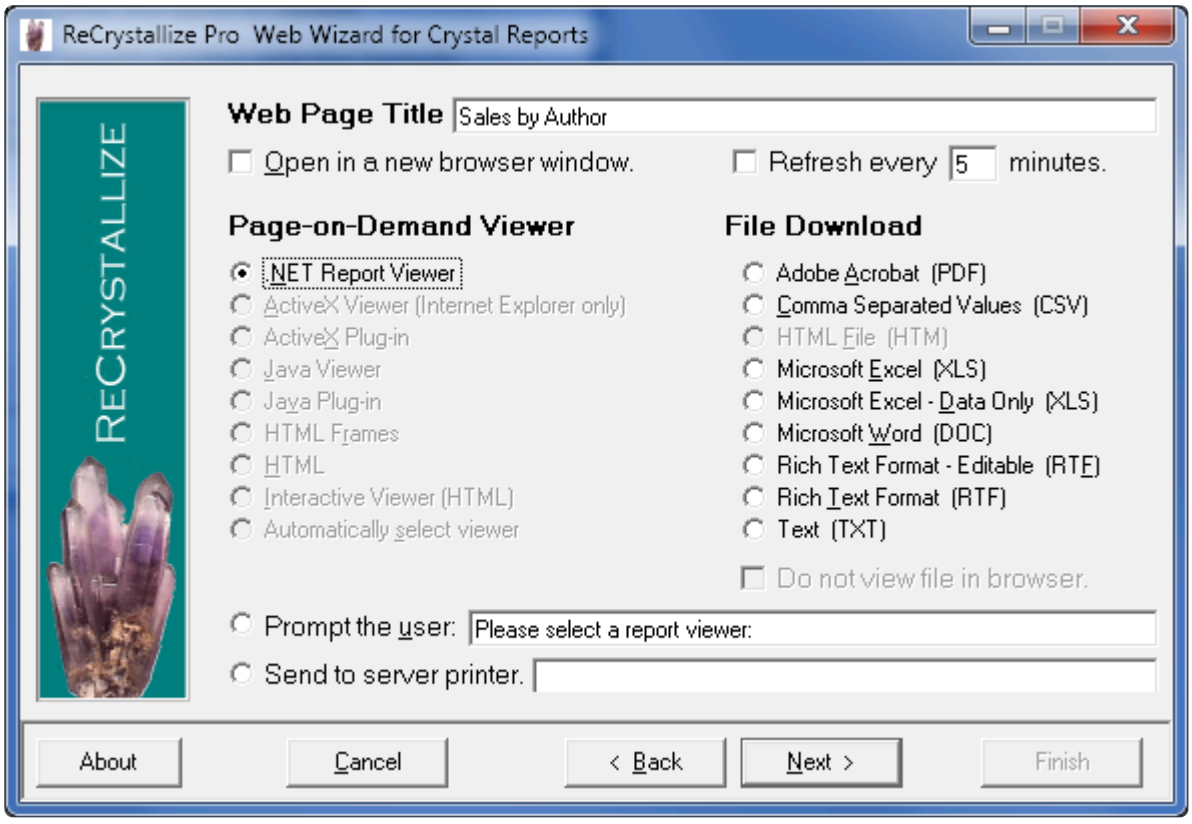


In most cases, the values on the Database screen should not be changed except to provide a database password if a password is required. (The Database screen is not displayed when using the Static option.)

- If using the Dynamic option, continue through the wizard for each parameter value required by the report. (Parameter screens will not be displayed when using the Static option.)



- Select a report viewer option. The Crystal Reports .NET viewer is recommended in most cases. Alternately, you may download the file directly as a PDF document, an Excel spreadsheet, or another type of file.



- Select display and behavior options for the report viewer.

- Click Finish and note the start page indicated on the Finish screen.
- Open your web browser to the start page for your report, for example

http://localhost/ReCrystallizePro/your-report-static.aspx

> Double-clicking to open the file from Windows Explorer will not allow the file to be processed by the IIS web server. The address when viewing reports in the browser must begin with http:// or https://. Addresses that begin with file:// or a drive letter such as C: are not correct and will not properly display the report.

2. Using ReCrystallize Pro

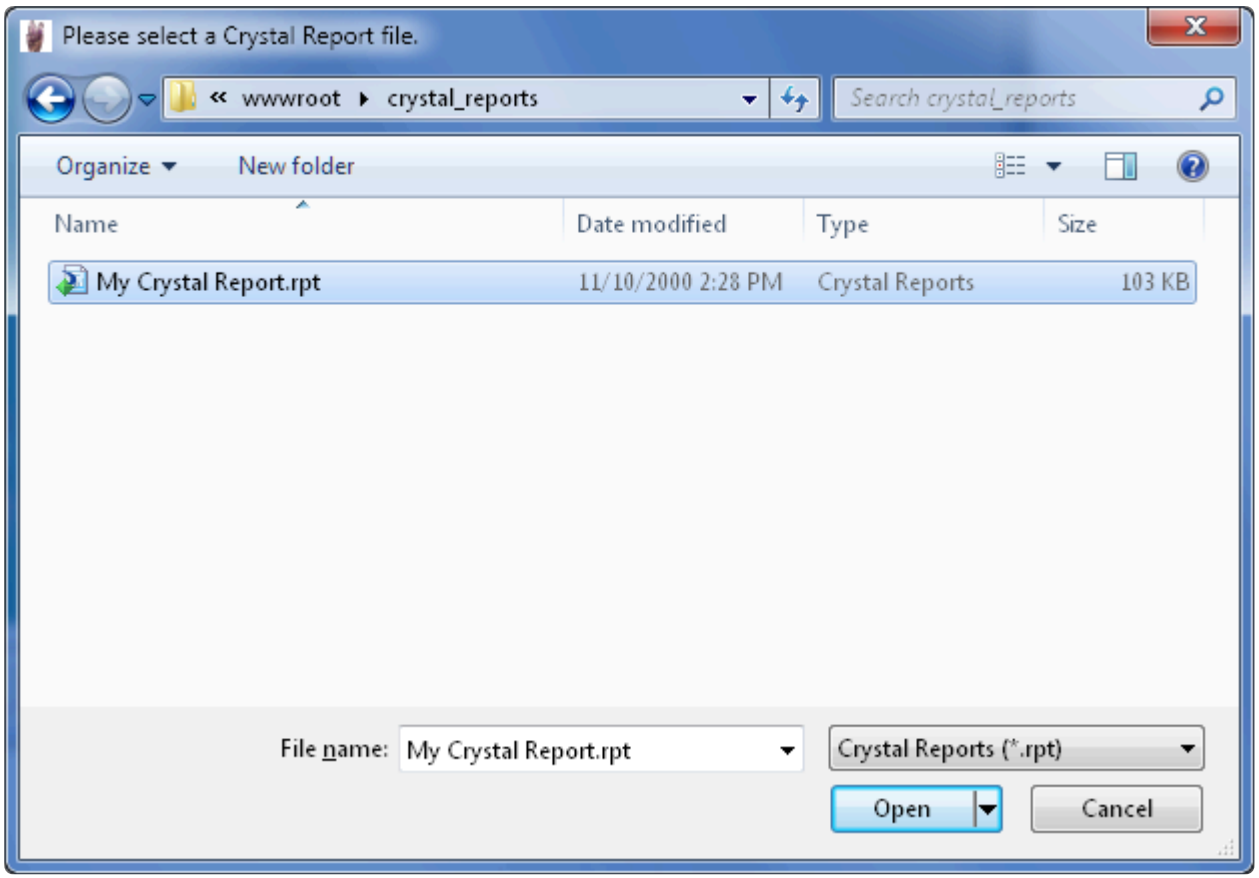
The following sections provide step-by-step guidance for publishing reports with ReCrystallize Pro.

2.1. Selecting your Crystal Reports file

Select the Crystal Report file that you wish to publish on the web. ReCrystallize Pro is configured to work with .rpt files in the folder

```
C:\ReCrystallize Pro\Reports
```

Copy your .rpt files to that folder before using ReCrystallize Pro. You may create subfolders beneath the Reports folder to organize your reports.



We recommend working with reports in the C:\ReCrystallizePro\Reports folder. If you wish to use another folder within your website, be sure to copy the web.config file from the Reports folder.

2.2. Choosing a method to run the report

ReCrystallize Pro offers three different approaches for running your Crystal Reports on the web. Some options may be unavailable depending on your version of ReCrystallize Pro.

ASP.NET with the Crystal Reports .NET Runtime (recommended)

Select “Use ASP.NET” to create web pages that use ASP.NET and Crystal Reports .NET components to process the report on the web server. ASP.NET is the most current method and is recommended in most cases.

This method uses the Crystal Reports .NET web viewer which will work with most web browsers and operating systems including many mobile devices that have full web browsers such as iPhone, iPad, and Android phones and tablets. ASP.NET also allows downloading reports directly as PDF, Excel, RTF and other formats.

ASP with the Crystal Report Designer Component

Select “Use ASP” to create web pages that use classic ASP with the COM-based Report Designer Component to process the report on the web server. This option is no longer recommended in most cases, but is available if you prefer to use classic ASP or the same report viewers available with previous versions of ReCrystallize Pro.

The ActiveX and Java web viewers are available with classic ASP, along with support for download reports directly to PDF, Excel, RTF and other formats.

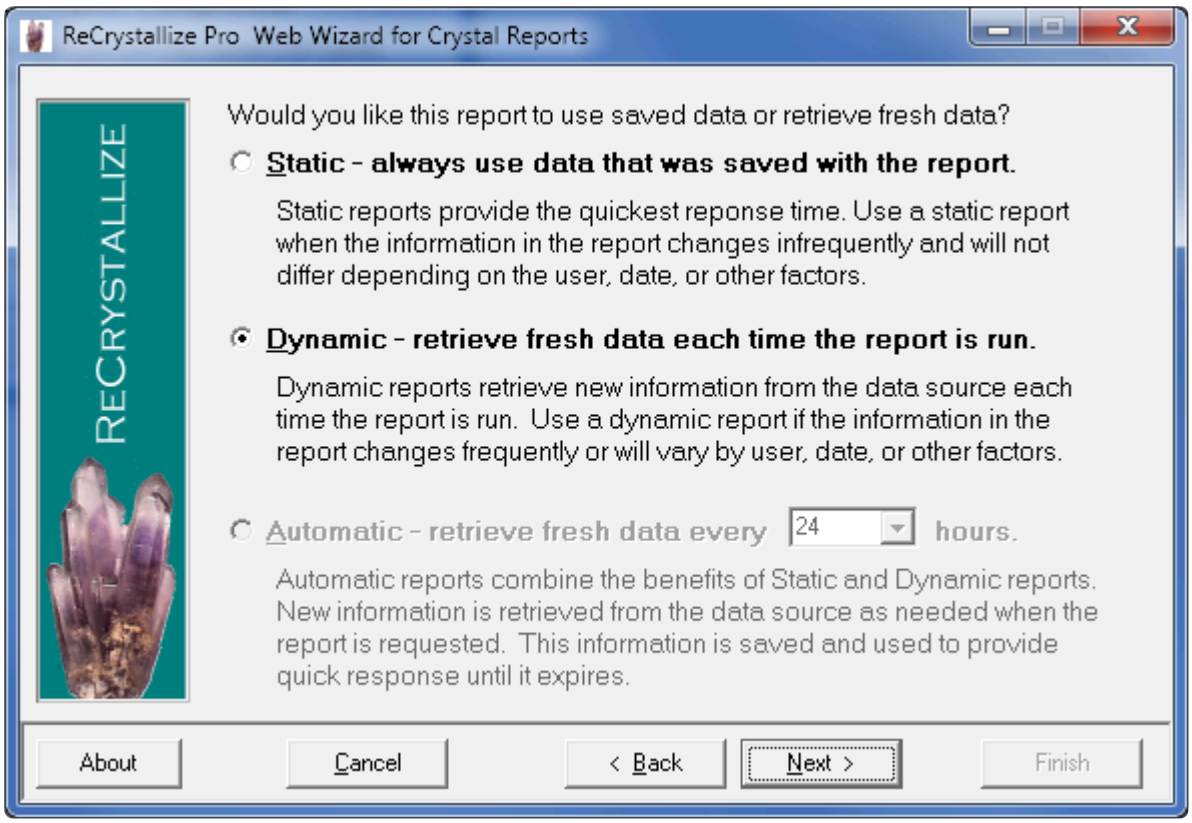
ASP with the Report Application Server / Crystal Enterprise Embedded

Select “Use ASP with the Crystal Report Application Server” to create web pages that use classic ASP with the Report Application Server / Crystal Enterprise Embedded to process the report on the web server.

The Report Application Server option remains available for customers who used it with previous ReCrystallize Pro versions, but is no longer supported and is not recommended in most cases. This method requires installation of the Report Application Server or Crystal Enterprise Embedded on the web server. The Report

Application Server / Crystal Enterprise Embedded was included as a separate installation with Crystal Reports versions 9 and 10.

2.3. Choosing a Static, Dynamic, or Automatic report



At this step, you may choose whether your report will use information that was saved with the report or retrieve fresh data from your database each time the report is run.

Select the “Static” option if you are publishing a report such as an annual financial report where the information does not change frequently and everyone who views the report will see the same information. Reports can be displayed more quickly using the Static option because querying your database isn’t required. It’s especially helpful for reports that take a long time to refresh in Crystal Reports.

To prepare a report (.rpt file) that will be used with the Static option, open the report in the Crystal Reports designer, refresh the report data , select “Save Data with Report” in the File menu, and then save the report.

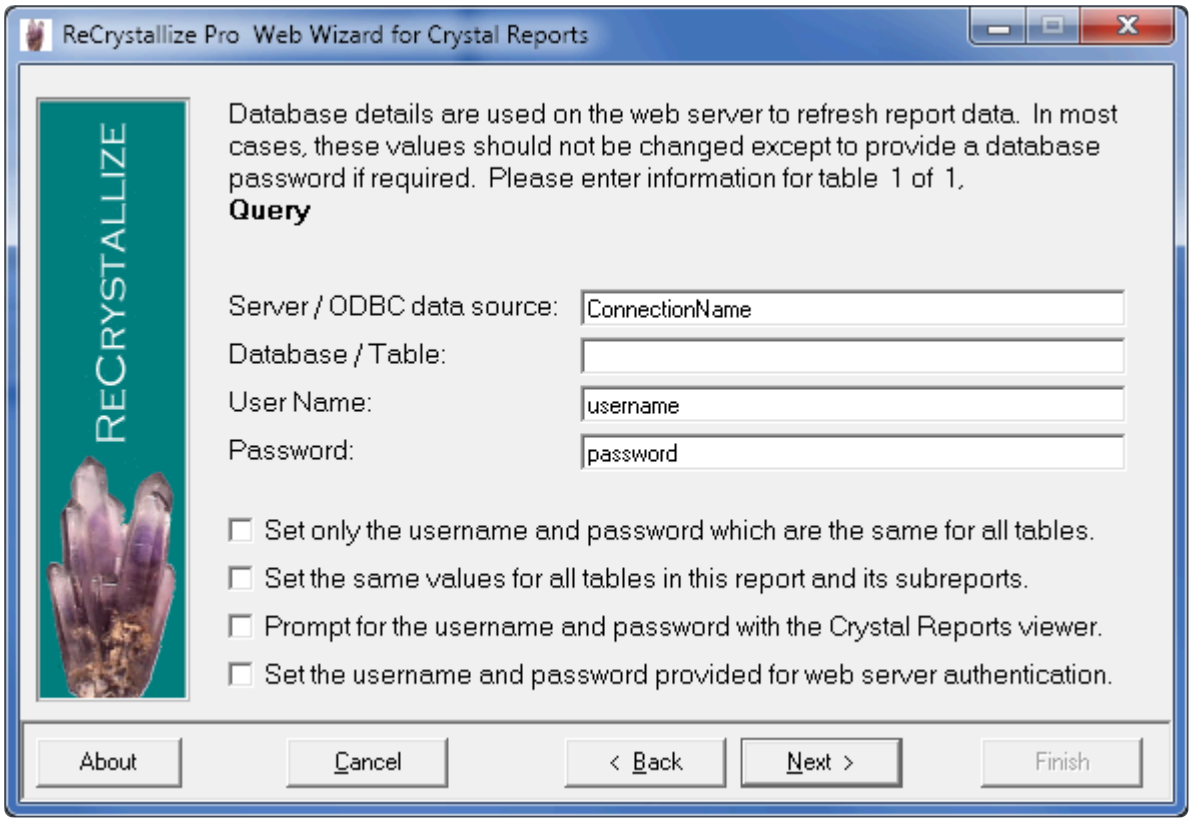
Select the “Dynamic” option if you are publishing a report that contains data that changes frequently, uses parameters to control the data included in the report, or

shows different data depending on the user’s identity. Your database will be queried for current data each time the report is run.

The “Automatic” option provides the same benefits of the ”Dynamic” option while improving report responsiveness and decreasing database access. The first time an Automatic report is requested with specific parameters, data is retrieved from the database and the report is presented to the user; at the same time, the report and data are saved to the web server file system. If the same report is requested again within the specified number of hours, it can be quickly retrieved from the web server file system without querying the database. If the specified number of hours as elapsed, the report is refreshed from the database. This method can greatly improve performance while still providing current data. This option is ideal for improving the performance of reports where the data changes daily or hourly.

The Automatic option is not currently supported. It may be reinstated in a future release.

2.4. Setting your data source



To connect to your database and retrieve fresh data for your report, details about how to access your data source are needed. The database connection details are used by your web server to access your database. Neither the connection details nor the login credentials provided on this screen are transmitted through the network to the client web browser. Since the database connection details are never sent to the client, they can’t be observed by third parties or by users who are viewing reports.

Using connection properties stored in the .rpt file, ReCrystallize Pro will correctly pre-fill the database connection details for the database that was used to create the report. Because the password is not stored in the .rpt file, it is never pre-filled. If the database requires a password, it must be entered on this screen.

! The pre-filled database connection details will be correct for the data source with which the report was designed. It is normal in some cases for one or more fields to be left blank. For Oracle databases, the Database/Table field is normally blank and should not be filled in.

Unless you are sure you need to run a report using a different data source, don’t

change the pre-filled values except to provide a password if one is required by your database.

ReCrystallize Pro can independently set and override database connection details for each table that is used in the report and its subreports. You may change the pre-filled values in order to point the report to a different database, provided that it has an identical structure as the original database (for example, moving from a development database to a production database). Use caution in making any changes since any incorrect changes will cause the report to fail. If your report fails to run correctly on the web after changing this information, try again using the default pre-filled values.

"Set only the username and password which are the same for all tables" will allow the web pages to log in to the database using the simplest method available. Selecting this option is recommended if it is available because it is least likely to introduce any errors into the database connection process. This option will not be selectable if ReCrystallize Pro determines that it may produce incorrect results for the specific report file.

"Set the same values for all tables in this report and its subreports" will cause the web pages to set the connection details for all tables in the report and its subreports so they will use the same values provided on this screen for the first table. Selecting this option can save time by skipping additional database connection screens when a report has numerous tables that all use the same connection and login details. If ReCrystallize Pro determines that using this option is likely to produce incorrect results, it will not be selectable.

"Prompt for the username and password with the Crystal Reports viewer" will cause the Crystal Reports .NET Viewer to prompt each user viewing the report for the database username and password. The database connection details will not be pre-set. This option is not recommended in most cases, but could be useful in cases where each web user viewing the report has a unique account login in the database and can access information under the unique database account.

"Set the username and password provided for web server authentication" will cause the web pages to attempt to log in to the database using the same username and password that each web user supplies during web server authentication. This option is not recommended in most cases, but could be useful in cases where each web user viewing the report has a unique account login in the database and can access

information under the unique database account. For this option to work correctly, the IIS web server must be set to require Basic Authentication which prompts the web user for a username and password.

2.5. Setting your report parameters

For each parameter used in your report, ReCrystallize Pro offers options to control how the parameter value will be set.

For some parameter types, ReCrystallize Pro can automatically set the parameter to a specified value. For example, you may wish to always set a Date parameter to the current date.

ReCrystallize Pro can prompt the user to select a value using a message you supply. You may provide a list of default values or build a list of current value options from the database.

For parameter values that do not change, you may specify a constant value that will always be used to set the parameter.

If the parameter was set in Crystal Reports to require a Range value, such as a date range, check the box labeled “This parameter uses a Range value.”

The option “Use the Crystal Reports .NET viewer to prompt for this value” is available for ASP.NET. If this option is selected, the Crystal Reports .NET Viewer will prompt the web user to set the parameter value. The prompts will appear similar to parameter prompts in the Crystal Reports designer and will use the prompting text that was entered when designing the report. Select this option to utilize dynamic and cascading parameters configured during report design in Crystal Reports. Selecting this option will require selection of the Crystal Reports .NET Viewer later in the ReCrystallize Pro wizard.

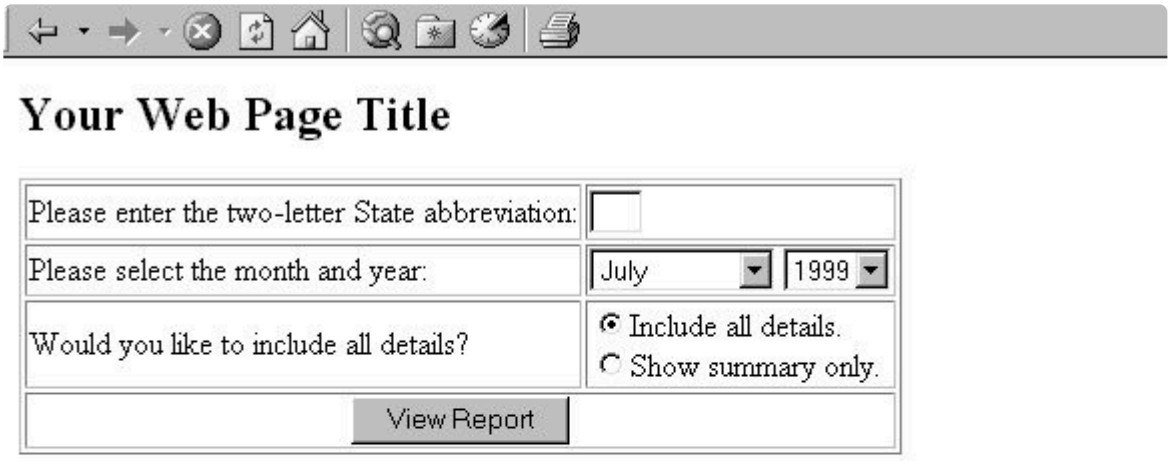
> ! The “Use the Crystal Reports .NET viewer” option will not work correctly if an immediate file download (PDF, Excel, and so on) is selected. It will allow exporting of these file types using the .NET viewer toolbar.

The option “Automatically compute the value when the report is run” is available for some parameter types. It will cause ReCrystallize Pro to calculate a value for the parameter each time the report is executed. For example, it can automatically set a date parameter to the current date or the first day of the month.

When “Prompt the user for the value with the following message” is selected, ReCrystallize Pro will create a simple web form to prompt for parameter values. The

web form will be part of a separate parameters web page that will act as the starting page to view the report. The web form may include text entry fields, checkboxes, radio buttons, or listboxes; you can select input elements appropriate for each parameter. Users viewing the report will first select or enter values for each parameter on the parameters page and then submit the parameters form to view the report.

A sample parameter selection web page created by ReCrystallize Pro.

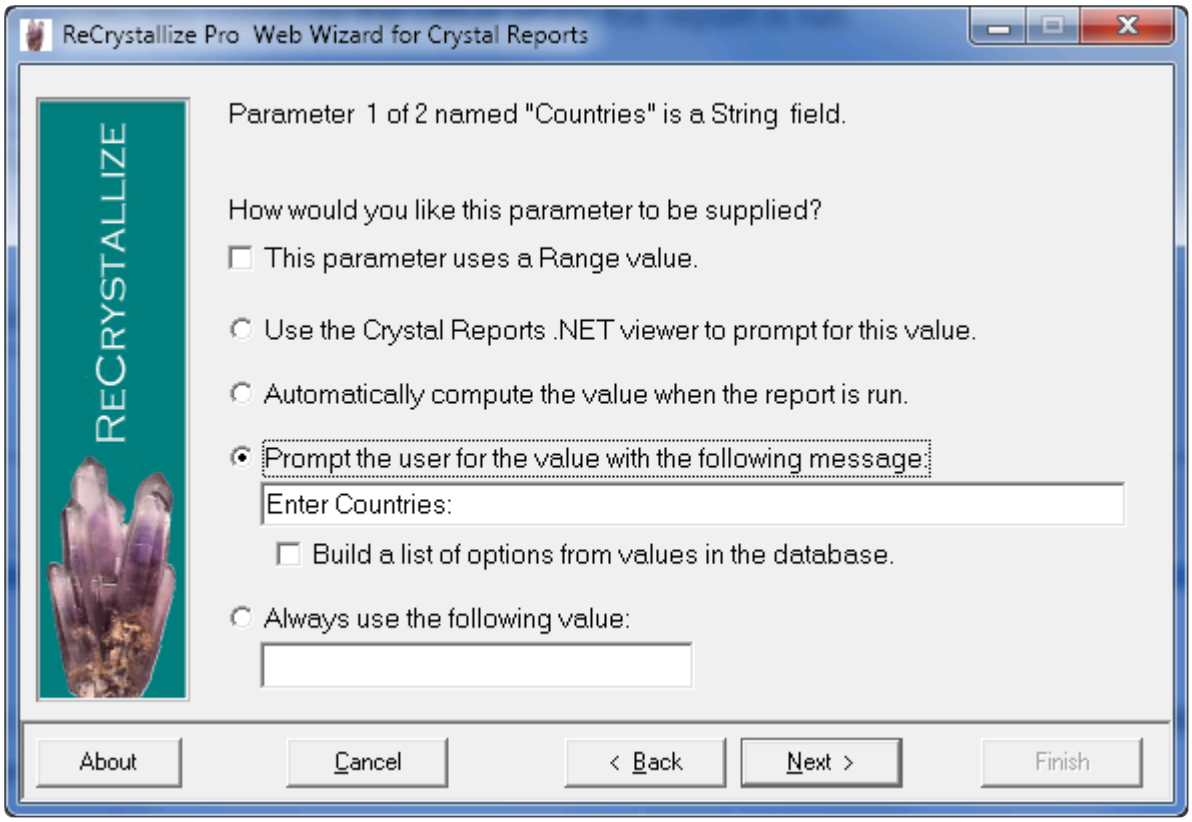


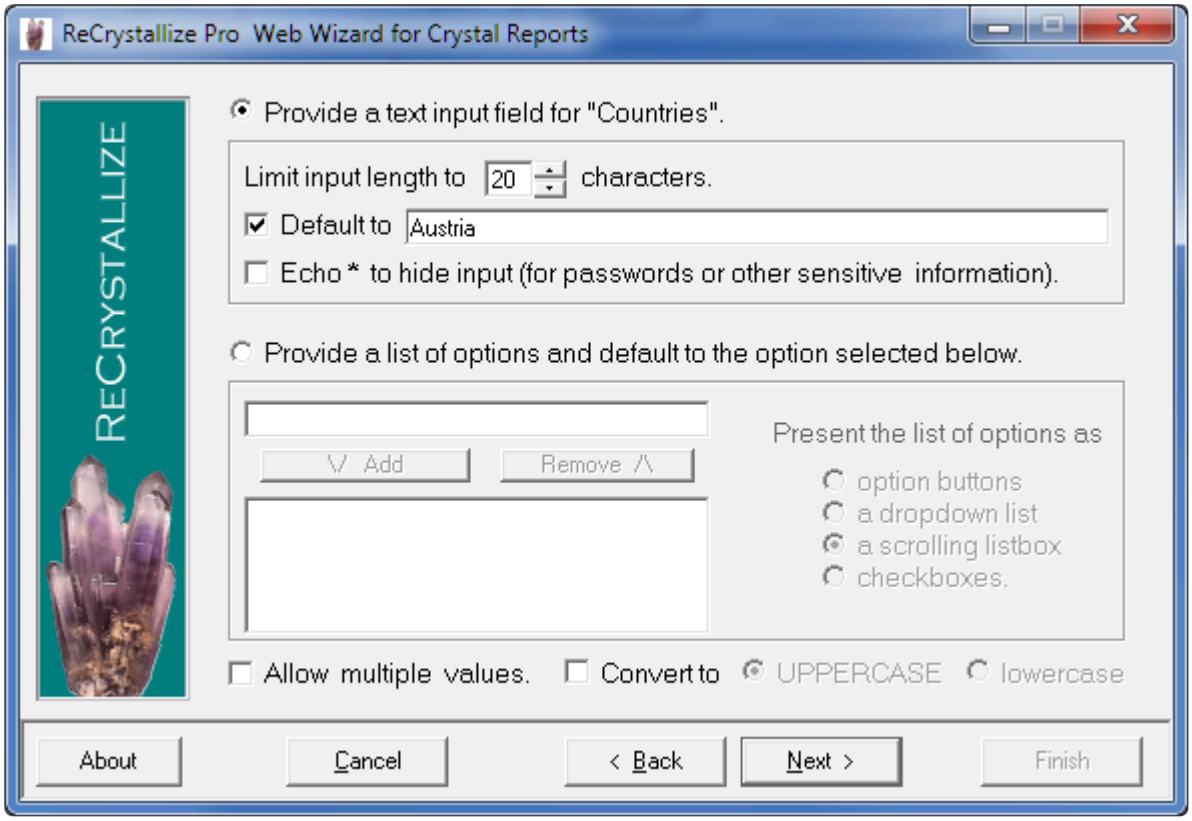
The parameter web page that ReCrystallize Pro creates may be customized using software that can edit ASP and ASP.NET or using a text editor.

You may bypass the parameter web page by passing parameter values on the URL (HTTP GET), or sending the values from your own form to the dynamic.asp page (POST). Using this technique, you can call ReCrystallize Pro web pages from you own application or web site without disrupting the user experience. Examine the form fields on the parameter web page that ReCrystallize Pro creates to determine the expected field names and values for each parameter. See http://www.recrystallize.com/merchant/supportfaq/supportfaq0024.htm for additional details and examples.

This example shows a String parameter that will use a text input field with the

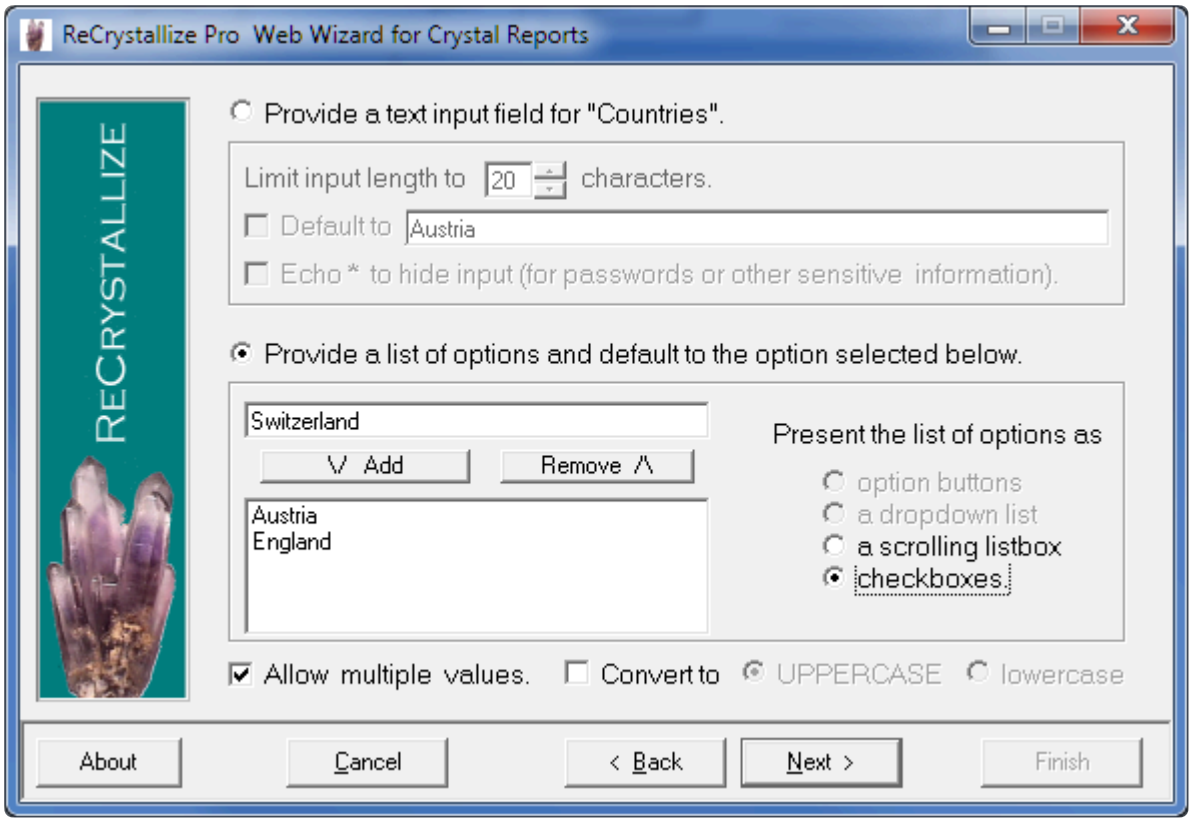
default value “Austria”.



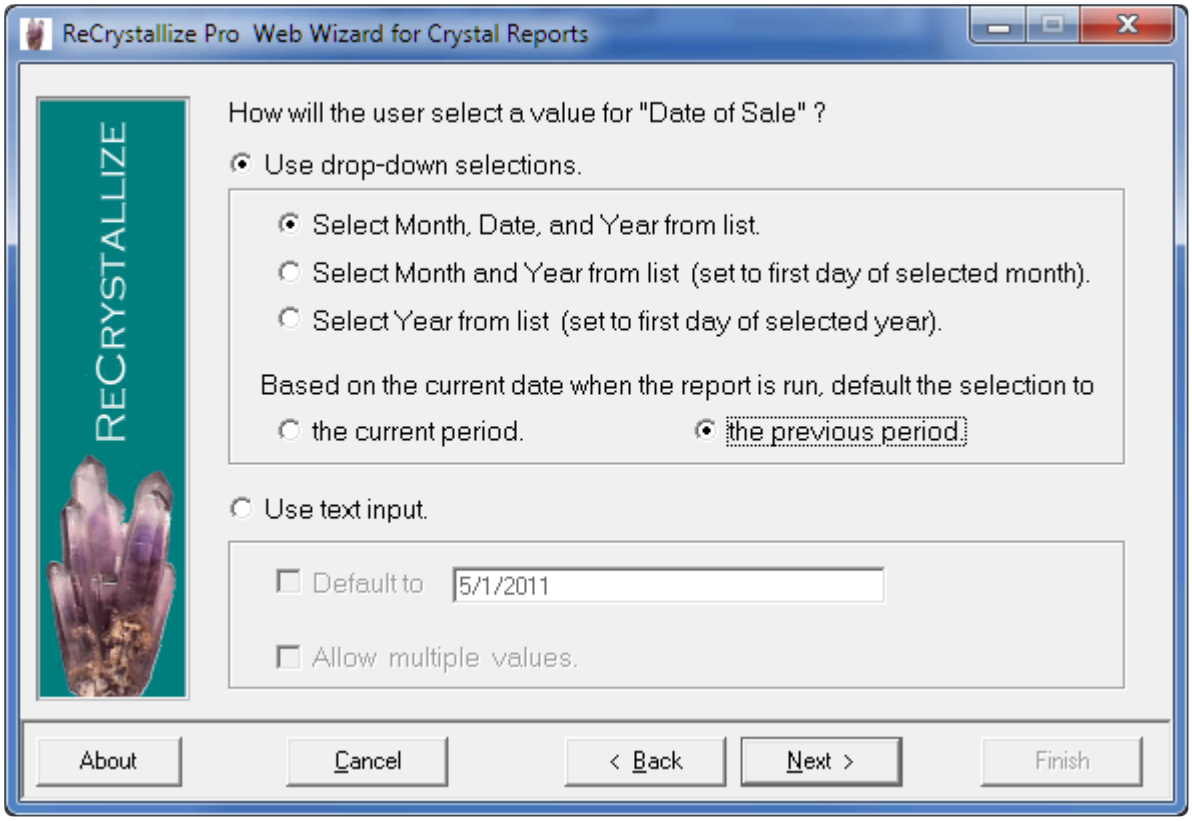


This example shows the same parameter using checkboxes to allow the user to

select one or more values.



In this example, ReCrystallize Pro will provide drop-down selections from which the user may choose the month, date, and year values. The default value will be set to the previous day.



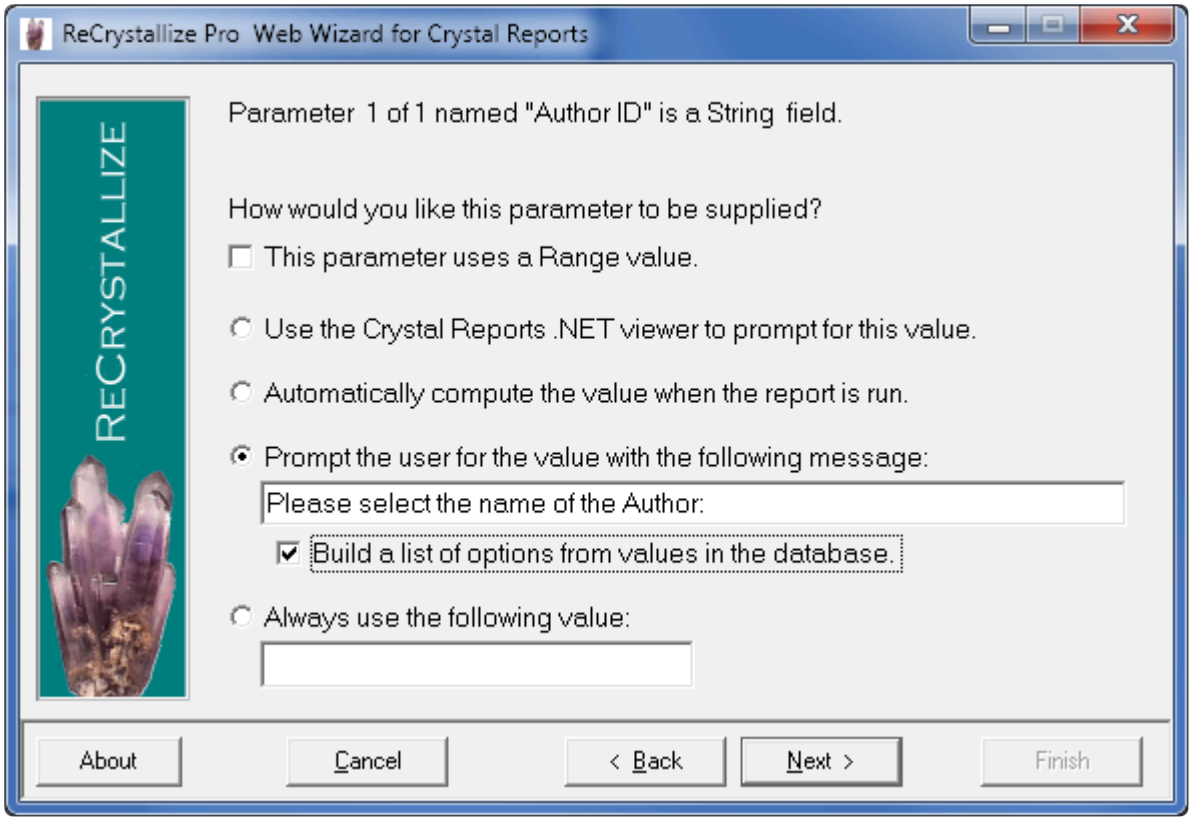
If the “Use text input” option is selected, ReCrystallize Pro will provide a text input field where the user can enter a date value as text. Valid date text formats include “5/1/2011”, “1-May-2011”, and “May 1, 2011”.

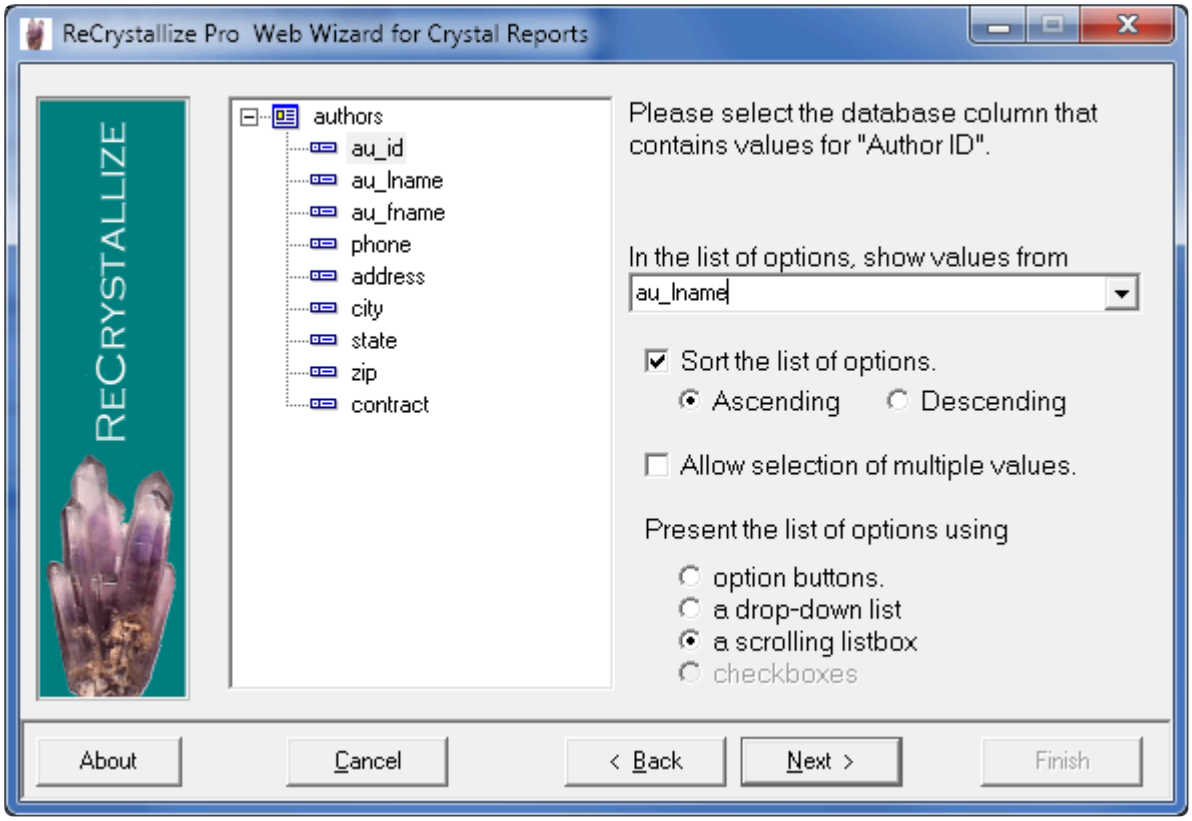
2.5.1. Prompting for parameters using value options from your database

For ASP.NET, selecting “Use the Crystal Reports .NET viewer to prompt for this value.“ will support dynamic and cascading parameters as configured in the Crystal Reports designer.

If “Prompt the user for the value with the following message“ and “Build a list of options from values in the database” are selected, ReCrystallize Pro will construct the parameter prompt using values retrieved from the database each time the report is viewed. This option may be desirable if you are using classic ASP, using ASP.NET with another viewer option such as direct PDF download, or if you prefer to have greater control and customization of how the parameter prompt is presented.

You may select one column in a table for the display value and another column for the actual parameter value that will be passed to the report. For example, in a table of products that contained both a product name and UPC code, you could select the column “ProductName” to be displayed for the user while passing the value from the column “UPCcode” to the parameter.





Sales by Author

Please select the author's last name.	Bennet Blotchet-Halls Carson DeFrance del Castillo Dull Green Greene Gringlesby Hunter
Show Publisher Information	☑
View Report	

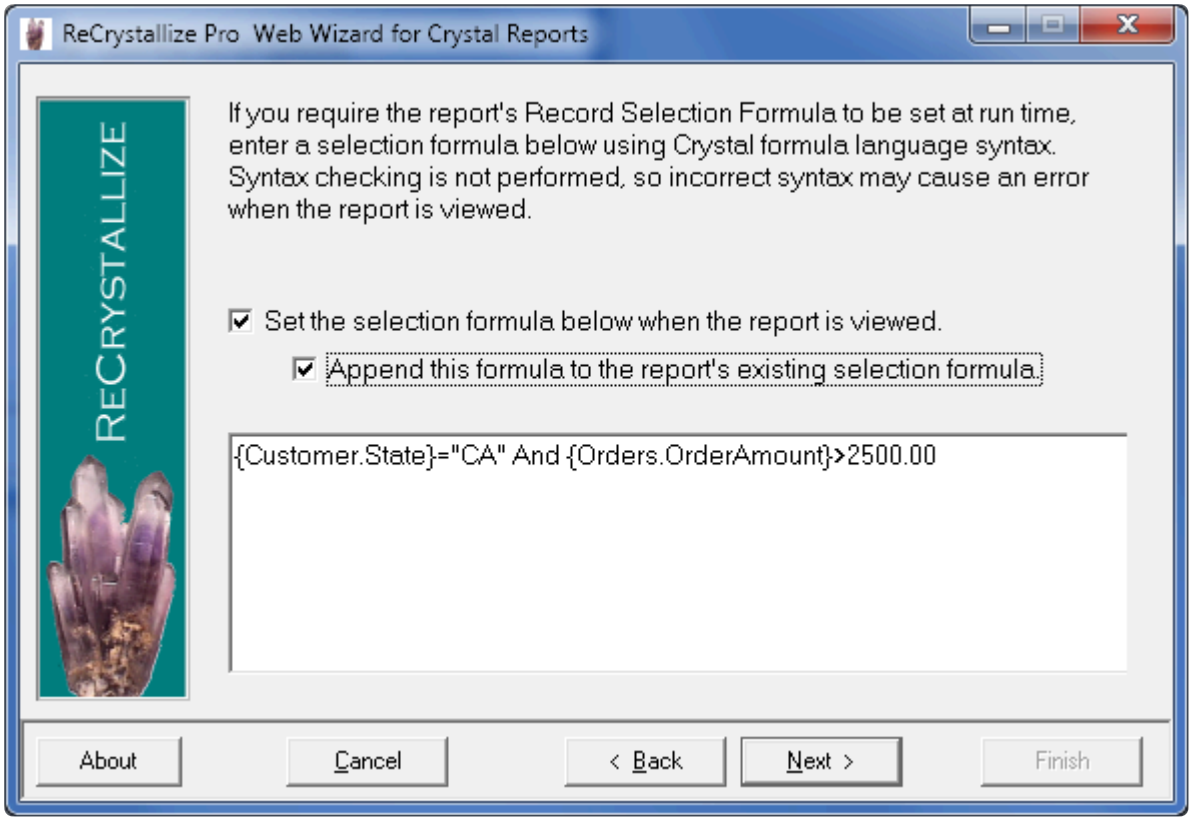
2.6. Setting a Record Selection Formula

ReCrystallize Pro provides an option for setting the report's Record Selection Formula. The Record Selection Formula acts as a filter to determine which records from the database are included in your report. This option is recommended for advanced users only. In many cases, a better approach is to create the Record Selection Formula in the Crystal Reports designer and include one or more parameter values in the formula; data in the report can then be filtered by setting the parameter values.

If you wish to set a Record Selection Formula, enter the formula on this screen using the same formula syntax required in the Crystal Reports designer.

> ! ReCrystallize Pro does not perform syntax checking for the Record Selection Formula, so you must ensure that the formula you enter is correct or an error will result when viewing the report.

The Record Selection Formula entered on this screen will completely replace the existing Record Selection Formula in the report. To add a condition to the report's existing Record Selection Formula instead of replacing it, select "Append this formula to the report's existing selection formula."

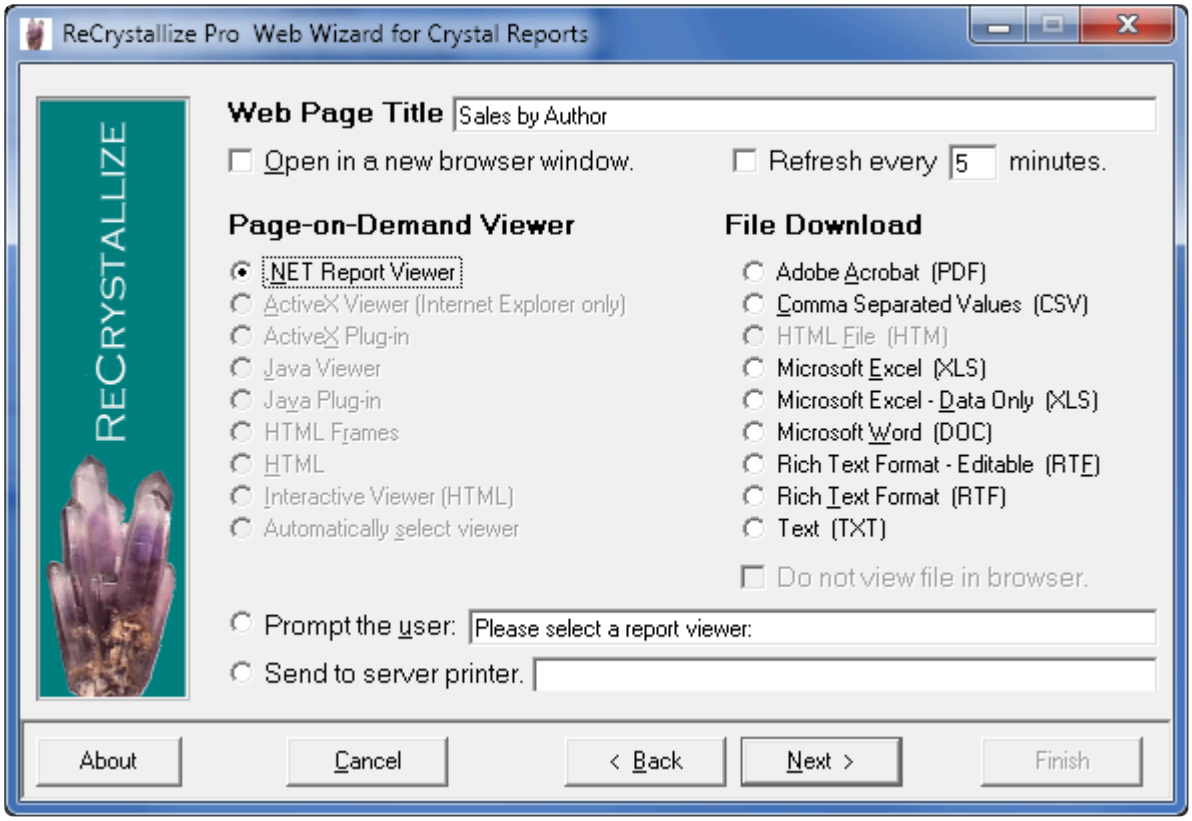

ReCrystallize Pro Web Wizard for Crystal Reports
ReCrystallize
If you require the report's Record Selection Formula to be set at run time, enter a selection formula below using Crystal formula language syntax. Syntax checking is not performed, so incorrect syntax may cause an error when the report is viewed.
Set the selection formula below when the report is viewed.
Append this formula to the report's existing selection formula.
{Customer.State}="CA" And {Orders.OrderAmount}>2500.00
About
Cancel
< Back
Next >
Finish

2.7. Choosing a report viewer and viewer options for ASP.NET

The Crystal Reports .NET Report Viewer will display reports properly in most web browsers, including many mobile devices that include full web browsers such as iPhone, iPad, and Android-based devices. Unlike older viewer controls used with classic ASP, the .NET Report Viewer does not require any client-side software to be downloaded or installed. The .NET Report includes a toolbar for printing the report and exporting (saving) the report to formats including PDF, Excel, and RTF.

Instead of viewing the report in the .Net Report Viewer, it may be immediately exported and transferred to the browser in several file formats including PDF, Excel, and RTF. The “Do not view file in browser” option will cause the file to be downloaded and saved rather than opened for viewing; this option may not be effective in all cases due to differences in web browser and browser add-in configurations.

The “Send to server printer” option will print the report directly to a printer that is configured on the web server instead of opening the report for viewing in the browser. When using this option, enter the printer name precisely as it appears in Devices and Printers or the Printers folder on the web server.



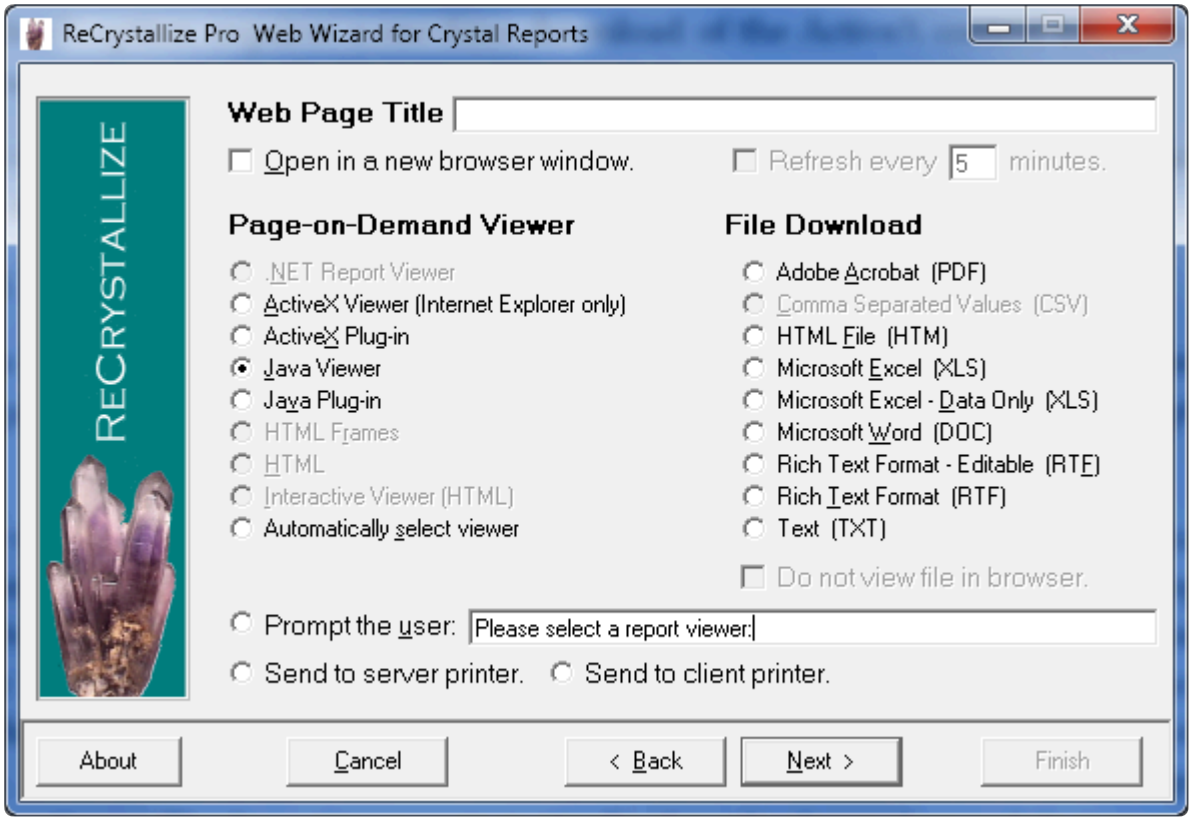
The Crystal Reports .NET Viewer Options screen allows you to control which toolbar options available when viewing the report and to control some behaviors of the .NET Report Viewer.

By default, the Crystal Reports .NET Viewer exports reports to PDF format for printing. When the “Use ActiveX printing if supported” option is selected, the PDF export step will be bypassed so that the printing process is similar to a native Windows application. A web browser that supports ActiveX, such as Internet Explorer running on Windows, must be used for this option to be effective. The web browser may prompt the user for approval to download and install an ActiveX control or may block installation of the ActiveX control depending on the browser’s security settings. When using a web browser that does not support ActiveX, the report will be exported to PDF for printing.

ReCrystallize Pro Web Wizard for Crystal Reports
ReCrystallize
Crystal Reports .NET Viewer Options
Show Toolbar
Export button
Print button
Parameters panel toggle button
Group Tree toggle button
Page Navigation controls
Drill Up button
Stop button
Refresh button
Zoom control
Search
Advanced Search
Help button
Progress bar
Crystal Reports Logo
Close Current View button
Parameter prompt on refresh
Allow Drill-down
Pop-up menu
Viewer window border / header
Preview / subreport tabs
Preview background edge
Show Group Tree.
Open links in new window or tab.
Use ActiveX printing if supported.
Height
Width
Zoom
100%
100%
100%
About
Cancel
< Back
Next >
Finish

2.8. Choosing a report viewer and viewer options for classic ASP

When using classic ASP, ReCrystallize Pro provides several viewer page-on-demand viewer options for displaying the report in the web browser. The Java viewer is recommended for greatest compatibility with different browsers and operating systems. In addition to the page-on-demand viewer options, reports may be immediately exported and transferred to the browser in several file formats including PDF, Excel, and RTF. Available viewer options and file download formats vary depending on the version of Crystal Reports.



- ActiveX Viewer –The ActiveX viewer may be used if your reports will be viewed using only Internet Explorer running on Windows. It provides the best user experience on Internet Explorer and the most faithful reproduction of the report's layout. If you need to support Internet Explorer on Windows along with other browsers, consider using the Java viewer or the "Automatically select viewer" option.

  ActiveX works with Internet Explorer only.

The ActiveX viewer requires a one-time download of the ActiveX control to each client PC. The download will occur automatically the first time it is needed. A manual setup file is also available for pre-installation of the ActiveX viewer.

Some versions of Internet Explorer may prompt for user approval up to three times when the ActiveX control is initially downloaded and installed. The ActiveX viewer may not install automatically when using Internet Explorer 9 or later, requiring pre-installation or manual installation to load properly.

- ActiveX Plug-in (Crystal Reports 8.x and 9.0 only) – Similar to the ActiveX viewer, the ActiveX Plug-in works with older versions of Internet Explorer and Netscape Navigator on Windows. Downloading and installing the plug-in before use is recommended. The ActiveX Plug-in is no longer supported and is not recommended for modern browsers.

- Java Viewer – The Java viewer is recommended to support multiple browsers and operating systems while providing a consistent user experience. The Java viewer works with Internet Explorer, Firefox, Safari, Opera and most other browsers on most operating systems. Like the ActiveX viewer, the Java viewer faithfully reproduces the page layout of reports. Unlike the ActiveX viewer, the Java viewer may require a download each time it is used which can slow down report viewing over low-bandwidth connections. The Java viewer automatically downloads on demand, but may prompt the user for permission to run or to access the computer’s printer.

- Java Plug-in – Similar to the Java viewer, the Java Plug-in works with some older versions of Microsoft Internet Explorer, Netscape Navigator, and other browsers using the Sun Java Virtual Machine which must be downloaded and installed prior to use. The Java Plug-in is no longer supported and is not recommended for modern browsers.

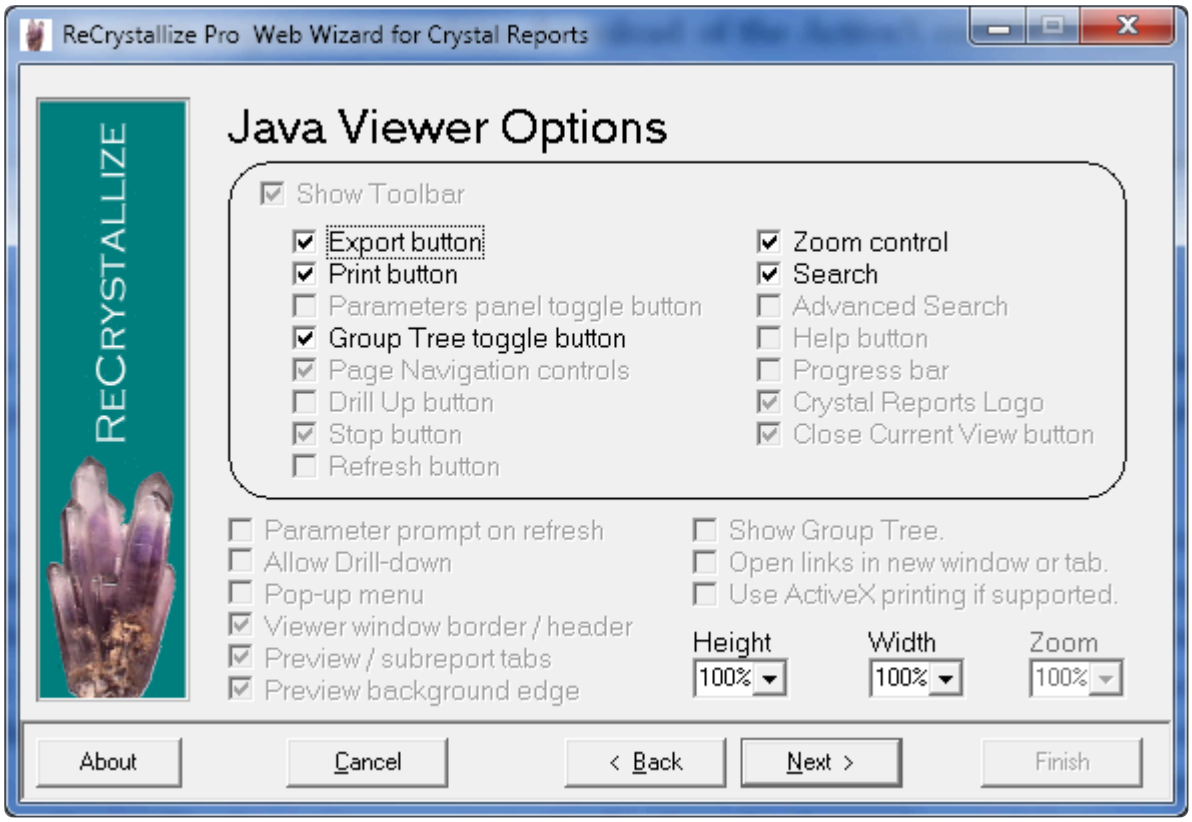
- HTML with Frames – The HTML with Frames option uses an HTML frameset for group tree and navigation controls. Some report formatting may be lost. When printing, each report page must be printed separately using the browser’s print function. HTML is not available with the Report Application Server / Crystal Enterprise Embedded; use the Interactive Viewer instead.

- HTML – The HTML viewer option renders the reports using standard HTML.

Some report formatting may be lost. When printing, each report page must be printed separately using the browser's print function.

- Interactive Viewer – The Interactive Viewer is available when using the Report Application Server / Crystal Enterprise Embedded. It is a pure HTML viewer that does not require download or installation of controls or applets. Printing an entire report is accomplished through export to PDF, which will preserve report formatting and layout for printing.

The Viewer Options screen allows you to control which toolbar options are available when viewing the report and to control some behaviors of the report viewer. Available options vary depending on which viewer is selected. Viewer options are not available for file downloads.



2.9. Creating the web pages for your report

When you click the Finish button, ReCrystallize Pro will produce the web pages for viewing your report. The web page files will be located in the same directory as your report (.rpt file). We recommend placing the files beneath

```
C:\ReCrystallize Pro\Reports
```

Open the page displayed in the text box to begin viewing the report. You may copy the name of the web page to the clipboard by clicking the copy button located next to the text box on this screen.

2.10. Using your web browser to run/view your report

After you click Finish, ReCrystallize Pro will indicate which file you should use to begin running your report. Clicking the copy button next to the filename will copy the filename to the Windows clipboard.

To view the report, enter the address of the file into the web browser address bar in the form of an Internet URL. For example,

```
http://yourserver/ReCrystallizePro/yourreport-dynamic.aspx
```

Do not double-click the file in Windows Explorer or enter the address as a file location such as

file://C:\ReCrystallizePro\Reports\yourreport-dynamic.aspx

because opening the web page as a file will not allow the web pages to be processed by the IIS web server.

3. Troubleshooting Resources

Check the ReCrystallize Pro support Frequently Asked Questions at

https://www.recrystallize.com/merchant/supportfaq.htm

for solutions to common issues.