CHAPTER **5**

IMPLEMENTING PARAMETERS FOR DYNAMIC REPORTING

In this chapter

INTRODUCTION

A common goal of report design is providing a single report that can service very specific reporting requirements and also accommodate a large audience of business users. Parameter fields enable you to satisfy this requirement and provide three primary benefits:

- **An additional level of interactivity for business users when viewing reports**—A marketing report can prompt a business user for a specific brand or product line she wants to analyze.

- **Ability to segment reports in many different ways to reduce the number of reports necessary to service the demands of the business users**—A sales report can be segmented by district to service the needs of all district-level business users with one report.

- **Greater control over the report query for administrators by filtering the report results to include only the selected parameter value(s)**—A sales report can be filtered to include only data for the appropriate district. This also includes the capability to constrain the report query to avoid including excess or sensitive data.

In this chapter, you take a closer look at using parameters in your reports, as well as how parameter fields can be created and implemented. Like many of the Crystal Reports application features, working with report parameters is very logical but understanding the underlying mechanics facilitates the creation of effective reports.

This chapter covers the following topics:

- Understanding the value of parameters
- Creating and implementing parameter fields
- Creating and implementing dynamic and cascading parameter fields—new to XI
- Using parameters with record selections

UNDERSTANDING THE VALUE OF PARAMETERS

By using parameter fields that enable business users to select from a list of one or more parameter field values (such as district, country, or account type), you can make reports more valuable for business users while limiting the volume of data that the report retrieves. For example, a sales report is likely to be more valuable for a sales professional if it allows him to select his specific territory or district, while the report runs more efficiently because it retrieves only the desired data and not an unnecessarily large data set. Parameter fields can prompt users for a variety of information that can be used in a number of flexible ways within reports—good examples include controlling the sort order, grouping order, record selection (filter), report title and descriptions, report language, alerting thresholds, formula inputs, the N value for a Top/Bottom N sorting/grouping, and so on.

Parameter fields prompt report users to enter information by presenting a question that the user must answer before the report is executed. The information that the user enters

determines what appears in the resulting report and also how that report is formatted and presented.

One of the greatest benefits of parameter fields for report designers is the opportunity to have a single report service a large audience while also empowering the users to personalize the information they are viewing within the report. Parameter fields can be used in coordination with record selections so that a single report can be segmented many different ways. Parameter values that business users enter can also be used within record selection formulas to determine what data is retrieved from the database.

TIP

> New to version XI is the ability to set the N value of a Top/Bottom N grouping or sorting through a formula. Combining this new functionality with a user-driven parameter enables end users to drive the value of N in a given report. You do this by creating the parameter and then selecting it as the value of the formula for the selected Top/Bottom N formula.

For example, consider a World Sales Report for a large organization. This report could potentially include a tremendous amount of data. Not only is the report itself large, but also many of the business users are not concerned with the entire worldwide scope of the sales data. Rather than allow each salesperson to generate the report to include worldwide data, you can include a parameter dialog that asks the salesperson to select from a list of available countries, as shown in Figure 5.1. The report would then return the results for only these specific countries. Thus, by using a parameter field to enable the salespeople to select from a list of countries, the report becomes more valuable for the business users while also limiting the scope of the query by using the selected parameter value(s) to filter the report and reduce the volume of data retrieved.

Figure 5.1
Prompts enable business users to select values to populate the parameter field.

CREATING AND IMPLEMENTING PARAMETERS FIELDS

The process of using parameter fields in reports includes two distinct steps:

1. Creation of the parameter field.
2. Implementation of the parameter field into the report.

The remainder of this chapter uses the example mentioned earlier, the World Sales Report, to create and implement parameter fields into a report. The World Sales Report is one of the many sample reports that are provided by the Crystal Reports installation.

REVIEWING PARAMETER FIELD PROPERTIES

Before you learn how to create and implement parameter fields, it is useful to understand a few common input options and properties associated with creating parameter fields. Each of the following input properties is presented within the Create/Edit Parameter Field dialog, shown in Figure 5.2:

- **Name**—A logical name for the parameter field.
- **Value Type**—A list of available field types that correspond to how you want to use the parameter field within the report, including String (the default option), Boolean, Currency, Date, Date Time, Number, and Time.
- **List of Values Type**—New to XI, you now have the option of sourcing a list of values for the involved parameter from either a static list that does not change over time, or from a dynamic list that is updated regularly or is live. The dynamic list of values can also be cascading and include multiple levels of selection with increasing granularity and filtering as you move through the levels (for instance, selecting a Country leads to a filtered list of states/provinces for end-user selection at the next level and so on).
- **Static List of Values—Value Field**—A drop-down box available when Static is selected as the List of Values type that enables you to specify the list of available parameter values based on a database field. After a desired database field is selected here, you can add the values to the involved parameter through the Action drop-down list and by selecting the Append All Database Values option.
- **Static List of Values—Description Field**—A drop-down box available when Static is selected as the List of Values type that enables you to specify default parameter descriptions based on a database field. This is an optional field that is typically used to facilitate an end user's understanding of the parameter selection.
- **Static List of Values—Action drop-down box**—A list of options that enable the insertion of values from database fields, the clearing of all values, or the import and export of the existing list of values into text files.
- **Static List of Values—Value Table Field**—A table column that is available when Static is selected as the List of Values type that enables you to manually specify an entry for a value in the list of available parameter values.

- **Static List of Values—Description Table Field**—A table column that is available when Static is selected as the List of Values type that enables you to manually specify an entry for a description in the list of available parameter descriptions.

- **Dynamic List of Values—Prompt Group Text**—An optional title that is displayed to end users when they are prompted for the list of dynamic and potentially cascading report parameters. This is typically only used when cascading parameters are used, as it redundant otherwise.

- **Dynamic List of Values—Choose a Data Source**—A user selection enabling either creation of a new set of dynamic parameters or use of an existing list of values. The existing option will only be provided if existing lists of values are present in the report or you are attached to a BusinessObjects Enterprise repository that has them.

- **Dynamic List of Values—Value Table Field**—A table column that is available when Dynamic is selected as the List of Values type that enables you to specify the list of available parameter values based on a database field.

- **Dynamic List of Values—Description Table Field**—A table column that is available when Dynamic is selected as the List of Values type that enables you to specify the list of available parameter descriptions based on a database field.

- **Dynamic List of Values—Parameter Table Field**—A table column that is available when Dynamic is selected as the List of Values type that enables you to create a parameter in the underlying report that is automatically used in the creation of the involved cascading parameter.

- **Prompting Text**—A statement or question presented to the business user within the report prompt dialog for the parameter field.

- **Prompt with Description Only**—A Boolean option that allows the report designer to prompt end users with only a parameter value description (if set to True) or both the parameter value and description (if set to False).

- **Sort Order**—Enables specification of the sort order and the sort field that the parameter values are sorted on.

- **Default Value**—An option that allows the report designer to set a default value for the static list of values.

- **Allow Custom Values**—An option that enables the business user to enter a custom parameter (if set to True). If set to False, end users are only able to select predetermined parameter values.

- **Allow Multiple Values**—Enables the business user to enter more than a single value for the parameter field.

- **Allow Discrete Values**—Enables the business user to enter only a single value for the parameter field.

- **Allow Range Values**—Enables the business user to specify a range, using start and end values, for the parameter field.

- **Length Limit**—The minimum and maximum length limits for the parameter field.

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■ **Edit Mask**—Used to enter an Edit Mask for string data types rather than specifying a range of values. The Edit Mask can be any of a set of *masking characters* used to restrict the values you can enter as parameter values. (The Edit Mask also limits the values you can enter as default prompting values.) Table 5.1 provides a listing of the masking characters and instructions on how to use them.

TABLE 5.1   EDIT MASK CHARACTERS

Mask Character	Mask Description
A	Requires entry of an alphanumeric character for its place in the parameter value.
a	Enables an alphanumeric character but does not require the entry of a character for its place in the parameter value.
0	Requires a digit (0 to 9) for its place in the parameter value.
9	Enables a digit or a space but does not require such an entry for its place in the parameter value.
#	Enables a digit, space, or plus/minus sign, but does not require such an entry for its place in the parameter value.
L	Requires a letter (A to Z) for its place in the parameter value.
?	Enables a letter but does not require such an entry for its place in the parameter value.
&	Requires a character or space for its place in the parameter value.
C	Enables any character or space but does not require such an entry for its place in the parameter value.
. , : ; - / (separator characters)	Inserting separator characters into an Edit Mask is akin to hard-coding the formatting for the parameter field. When the field is placed on the report, the separator character appears in the field object frame, like this: L0L-0L0. This example epicts an edit mask for a Canadian Postal Code (such as M2M-2L5) with a forced display dash.
< or >	Forces subsequent characters in the parameter to be converted to lowercase (<) or uppercase (>).
\	Forces the subsequent character to be displayed as a literal.
Password	Enables the setting of the Edit Mask to "Password," so that subsequent conditional formulas can specify that certain sections of the report become visible only when certain user passwords are entered.

Now that you have been exposed to the primary parameter field properties, you will use these items while creating parameters for a World Sales Report, as referenced earlier in the chapter.
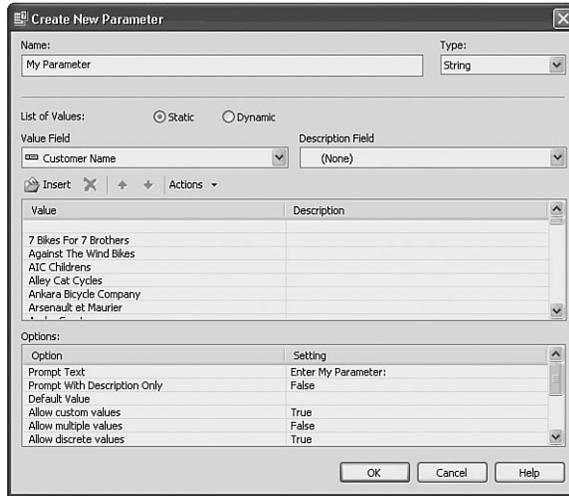
CREATING PARAMETER FIELDS

The first step in using parameters within a report is to create the actual parameter field and define the primary properties associated with it. In the following exercises, you will use the Field Explorer dialog to create three new parameter fields for the World Sales Report:

■ A manual text entry field to use as the report's title

■ A database field that prompts the business user to select one or more countries and use this selection to filter the data returned for the report

■ A Top N parameter field that specifies how many countries are displayed in the edited World Sales report.

To begin your exercise, open the World Sales sample report within the Crystal Reports designer. You can quickly access all the sample reports from the Sample Reports link on the Crystal Reports start page. This sample report should be installed in the following directory, unless you have chosen an alternative location for the sample reports during the Crystal Reports XI installation process:

C:\Program Files\Business Objects\Crystal Reports 11\Samples\en\Reports\General Business

After you have opened this sample report, you can begin the steps necessary to create the parameter field objects in the following way:

1. Remove the existing report title text object. After you have opened the World Sales Report, navigate to the Design tab view, highlight and delete the text object currently used as the report's title that reads World Sales Report, located in the Report Header A section. You will use your parameter field, created below, to populate the report title.

2. Open the Field Explorer dialog by either clicking the appropriate toolbar button or using the View menu.

3. Open the Create Parameter Field dialog. To do this, right-click on Parameter Fields within the Field Explorer and either select New from the pop-up menu or click on the New button at the top of the Field Explorer.

TIP

In addition to using the right-click menu to create a new parameter field, you can use the Field Explorer's toolbar commands to create, edit, rename, and delete parameter fields. The operations available on this toolbar depend on what you have selected in the Field Explorer dialog. Also new to XI is the ability to sort the parameter's display order to end users through the Parameter Order dialog displayed in Figure 5.3. This option is accessed from the right-click menu on the Parameter sections of the Field Explorer.

Figure 5.3
Use the Parameter Order dialog to control the order that parameters are presented to the end user.
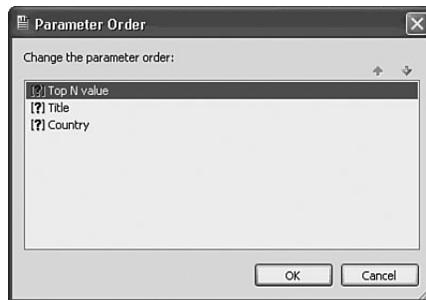
4. You first create a manual text-entry parameter field to enable the business user to define a title to display on the report. Within the Create Parameter Field, enter `Title` in the Name property, ensure String is the selected Value Type, and provide a meaningful prompting text so that the business user understands how the entered value is used, such as, **Enter a title to be used for this report**.

5. Ensure that both the Allow Discrete Values and the Allow Custom Values properties under the Options area are set to True and click OK to return to the Field Explorer.

6. You should now see the `Title` parameter field listed under Parameter Fields in the Field Explorer. Insert this Title field onto the report in the Report Heading using either the right-click menu option or by dragging and dropping the field onto the report. The results are shown in Figure 5.4.

7. You now create two more parameter fields to use later in the chapter when discussing how to use parameter fields in coordination with record and Top N selections. Once you learn this technique, you can enable your end users to select filters on the involved report data according to their selected parameter values.

8. Open the Create Parameter Field dialog. To do this, highlight the Parameter Fields item and click the New toolbar button inside the Field Explorer dialog.

Figure 5.4
The Field Explorer is used to access, edit, and create parameter fields.
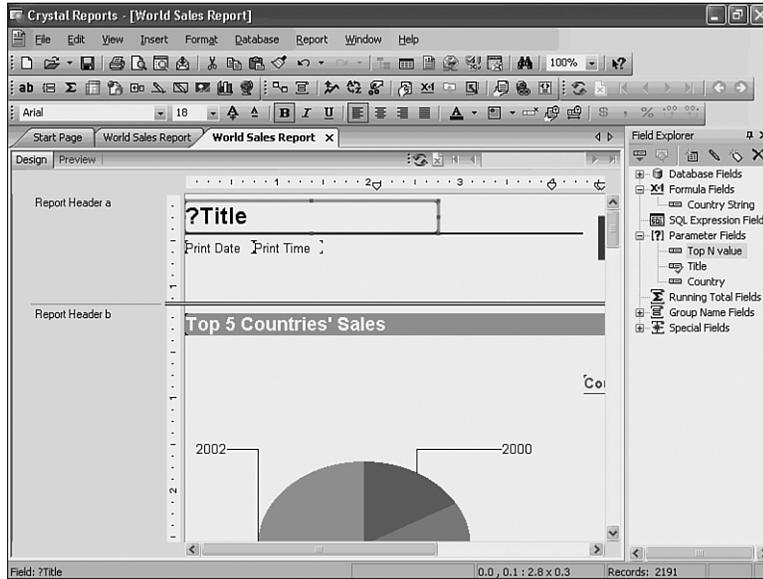
9. Define the key properties for the first parameter object. Within the Create Parameter Field dialog, enter `Top N Value` in the Name property, select Number as the Parameter Type, and provide a meaningful prompting text so the business user understands how the entered value will be used, such as, **Please select the top N selling countries to display on this report**.

10. Ensure that both the Allow Custom Values and Allow Discrete Value(s) properties under the Options area are set to True. The Allow Multiple Values property should be set to False.

11. Create another parameter called Countries. Within the Create Parameter Field dialog, enter `Countries` in the Name property and provide a meaningful prompting text so that the business user understands how the entered value will be used, such as, **Please select one or more countries for this report**.

12. Ensure that both the Allow Multiple Values and Allow Discrete Value(s) properties under the Options area are set to True, as shown in Figure 5.5.

SETTING DEFAULT VALUES FOR PARAMETER FIELDS

You now want to define the Countries parameter field to include all database values within the Country field of the Customer table. This can be accomplished by mapping the parameter field to this database field and quickly importing these values. This enables the business user of the report to select one or more country values from the available list.

Figure 5.5
Use the Create/Edit
Parameter Field
dialog to create and
edit parameter fields.
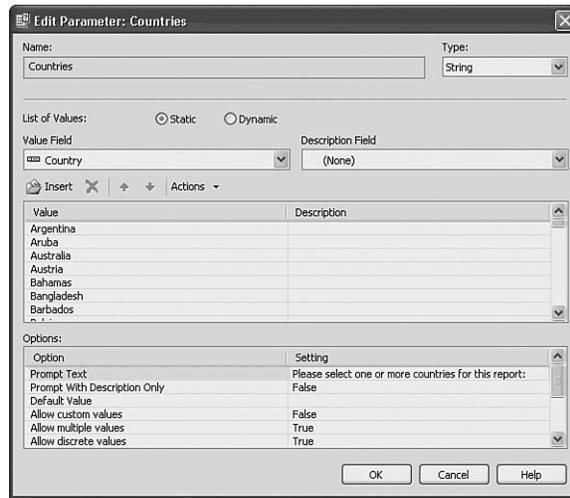
When setting default parameter values for a static parameter, a list of default values can be read from the database or entered manually to provide the business user with a list of available values from which to choose. With static parameters, the Crystal Reports application enables you to define the default values list when you are designing reports, and no direct database connection exists to populate the prompting parameter field list when the business users run the report. New to XI, Crystal Reports now enables the creation of dynamic parameters that access an underlying database in real-time when a business user is running the report. These will be covered later in this chapter. For now, populate the static Country parameter by following these steps:

1. Access the Create/Edit Parameter dialog if you have closed it by highlighting the Countries parameter and clicking on the Edit toolbar button. In the Value drop-down list, select the Country field from the Customer table and then select the Append All Database Values action from the Actions drop-down list. All countries listed in that table will be added as parameter options for this report parameter, as shown in Figure 5.6.

   Continuing the process started above, now add descriptions to the default values that you have added to the parameter field.

2. Locate and highlight the USA value in the Default Values list. Click in the Define Description field located just beside the Values field displaying USA.

3. Add **United States of America** as the description for USA and click OK to close the Edit Parameter dialog. If you want, repeat this step for any additional default values.

4. Click OK to return to the Field Explorer. You should now see the Countries and Top N Values parameter fields listed under Parameter Fields in the Field Explorer. These parameters are now part of your Crystal Report but will not become functional filters until you attach them to record selection criteria, as described in the next section.

Figure 5.6
The Edit Parameters dialog enables you to define the default selection values for parameter fields.

T I P

There are a few considerations to keep in mind when working with parameter fields, such as

- Any parameter field prompting text more than one line in length will automatically word wrap.

- The creation of a pick list enables the business user to select parameter field values from drop-down boxes instead of needing to enter them manually.

- A parameter field does not have to be placed in a report to be used in a record or group selection formula. You can create the parameter field and then enter it in your formula as you would any other field.

IMPLEMENTING PARAMETER FIELDS

You have now completed the first task necessary to use parameter fields within a report—creating the actual parameter field objects. This section, and the exercises included here, discuss how to apply these parameter fields and make use of them to provide the business user of the report with a more dynamic and interactive reporting experience.

First, add the parameter fields created earlier, called Title, Countries, and Top N Value to be displayed on the report. This example demonstrates how different parameter fields can be used to add useful commentary or descriptive information to a report. Continue working with the same report, the World Sales Report and follow these steps:

1. Add and position the Title, Countries, and Top N Value parameter objects onto the report. Open the Field Explorer dialog and expand the Parameter Fields list. Click on the Title parameter field, drag it onto the report, and drop it into the upper-left corner of the Report Header A section, shown in Figure 5.7 in a size 20 Arial font. Place the Countries and Top N Value parameter in the same section with size 10 Arial font.

Figure 5.7
Drag and drop the parameter fields into the left side of the Report Header A section.
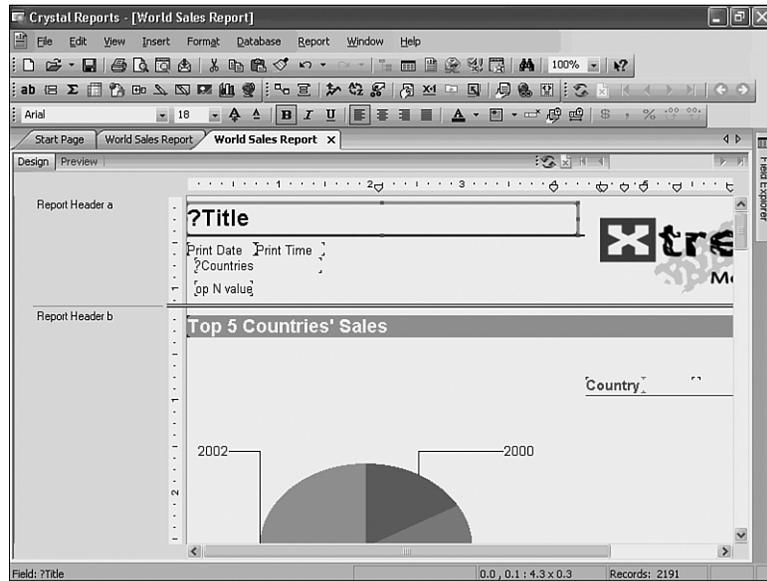
2. Preview the report. To view how this parameter is now used within the generation of the report, run the report by clicking on the Refresh toolbar button (represented by the two blue arrows indicating a counter-clockwise rotation). As shown in Figure 5.8, the report now prompts the business user to enter a value that will be used as the report's title.

N O T E

If you have already run the report at least once and then select to refresh the report, you will also see the Refresh Report Data dialog that asks you to select from the following two options:

• Use Current Parameter Values

• Prompt for New Parameter Values

To enter or select new values for any existing parameter fields, you need to select the second option—Prompt for New Parameter Values.

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Figure 5.8
Parameter fields offer a means to add additional interactivity for the business users within the report.

USING PARAMETERS WITH RECORD SELECTIONS

Now that you have completed the task of implementing a parameter field within a report, you learn how a parameter field can also be used to filter the data retrieved by a report. Parameter values that business users enter can be used within record selection formulas to determine what data is retrieved from the database.

In the following exercises, use the same World Sales Report to implement the Countries parameter field (created earlier in the chapter) to filter the report results by including the parameter field within a record selection definition (using the Select Expert dialog). In this case, you enable the business user of the report to select one or more country values to be included in the record selection, thus filtering the report results to include only the desired data. The following steps demonstrate how a single report can be segmented many different ways:

1. Open the Select Expert dialog by clicking the Report menu and choosing Select Expert.

2. Create a new record selection definition. Within the Select Expert dialog, click on the <New> tab to create a new record selection definition. This opens the Choose Field dialog. Choose Customer.Country from the Report Fields list and then click OK to return to the Select Expert dialog.

3. Define the selection formula. Select Is Equal To from the drop-down list on the left, and then choose the {?Countries} option from the drop-down list on the right, as shown in Figure 5.9.

NOTE

> Parameter Field objects are denoted with the question mark, ?, and enclosed in brackets, {}. This convention is used within various application dialogs, including the formula workshop and record selections, to signify that these objects are parameter fields.

Figure 5.9
Parameter fields can be added to record selection formulas quickly via the Select Expert dialog.
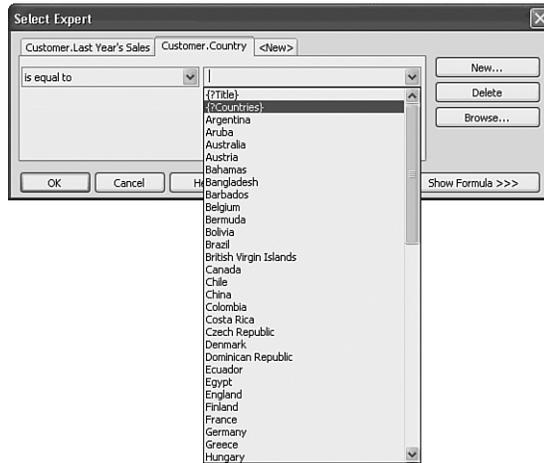
4. Preview the report. To view how this parameter is now used within the generation of the report, run the report by clicking on the Refresh toolbar button. As shown in Figures 5.10 and 5.11, the report now prompts the business user to select from a list of country values that is used to filter the data retrieved by the report and present only the requested values in the report.

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Figure 5.10
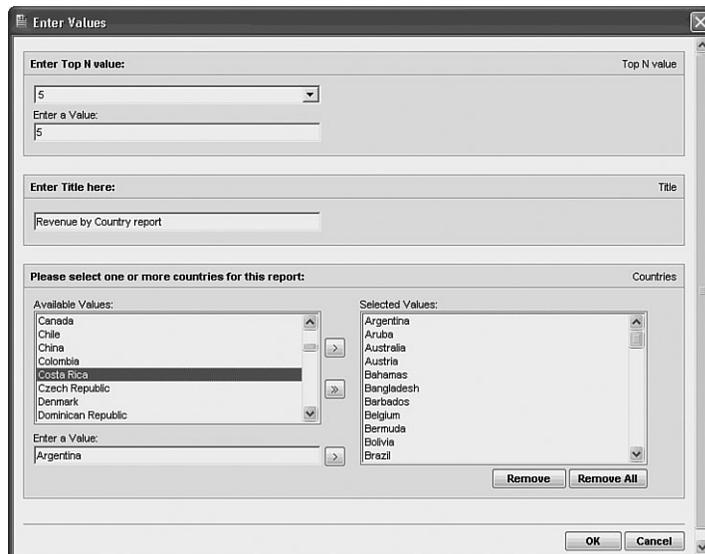Business users can now select one or more countries to be included in the report results.
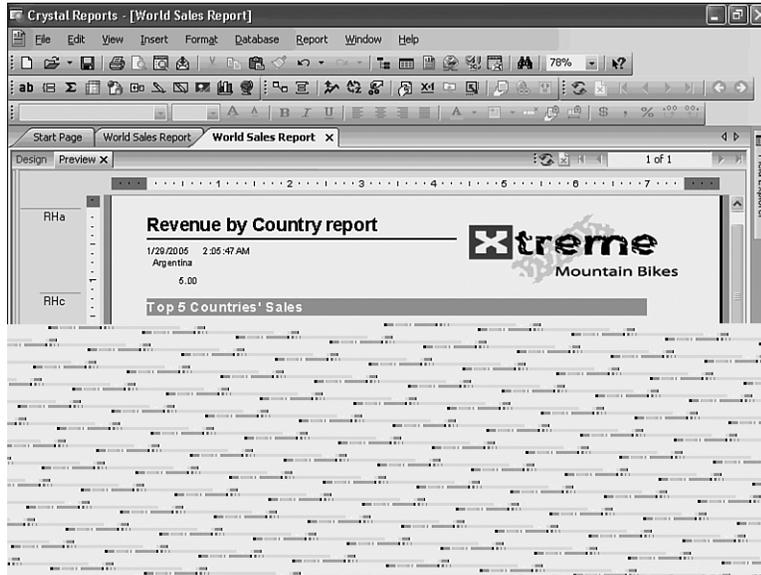
Figure 5.11
Based on the selected parameter field values, the report results display only the desired data.

TIP

As Figure 5.11 highlights, when adding a multivalue parameter (Countries in this case) to a report for display, only the first value is displayed. This is because the multiple values of the parameter are stored in an array and the Parameter field only shows the first element of the array by default. To show different values, you can create a formula with the parameter and an index (for instance, `{?Countries}[2]` to show the second country in the list). To show all the values, you could create a formula like this:

```
Local StringVar CountryString := "";
Local NumberVar i;
For i := 1 To Ubound({?Countries}) Do
(
    CountryString := CountryString + ", " + {?Countries}[i]
);
CountryString
```

# USING PARAMETERS WITH TOP/BOTTOM N GROUP SELECTIONS

New to version XI, you can now use a parameter to dynamically affect the value of a top or bottom group selection (for instance, top five countries for sales or top five selling products). You have already completed the task of implementing a parameter field called Top N Value within this chapter's sample report. Now you learn how this parameter field can also be used to filter the data retrieved by a report.

In the following steps, use the same World Sales Report to implement the Top N Values parameter field (created earlier in the chapter) to filter the report results by including the

parameter field within a formula definition that specifies the Top (or Bottom) N value (using the Group Sort Expert dialog). In this case, you enable the business user of the report to select a value that will filter the report results to include only the specified number of top-selling countries' data. The following steps demonstrate how this single report can be used to display multiple Top/Bottom N views:

1. Open the Group Sort Expert dialog displayed in Figure 5.12 by clicking the Report menu and choosing Group Sort Expert. Ensure you are positioned on the Country Group tab.

Figure 5.12
The Group Sort Expert enables specification of a dynamic Top/Bottom N value through the x+2 button.
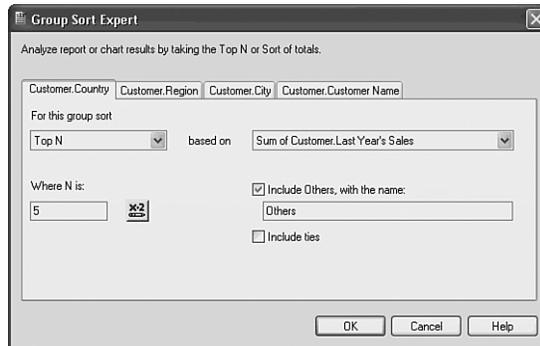
2. Ensure the Top N sorting order is selected in the first drop-down box and it is based on the Sum of Last Years Sales. Click on the x+2 button beside the Top N value box. This will bring up the Formula Workshop where you add the `{?Top N Value}` parameter field to the formula. You have now connected the selected number of top-selling countries that will be displayed in the report to the N value specified by the end user through the Top N Value parameter.

3. Change the value of the various parameters and refresh the report a few times to see the impact of an end user changing just these three parameters.

NOTE

After the parameters have been created and implemented into a report, no extra effort is required for parameters to also work within the BusinessObjects Enterprise solution. See Part V, "Web Report Distribution—Using BusinessObjects Enterprise and Crystal Reports Server," for more details on BusinessObjects Enterprise.

CREATING AND IMPLEMENTING DYNAMIC AND CASCADING PARAMETERS

New to version XI, Crystal Reports now provides the ability for report parameters to be based on dynamic values derived directly from a database or from the BusinessObjects Enterprise repository (if using BusinessObjects Enterprise). This new functionality enables

end users to select from the most recent list of elements dynamically retrieved from the database at run time.

An additional new powerful feature provided in version XI is the ability to link these dynamic parameters together in a cascading manner. These cascading parameters enable end users to select parameter values by entering information at multiple levels, with all levels leading to dynamic filters being applied to all subsequent level parameters. The most common example of this is where a City parameter might be filtered based on the linked Country parameter as described earlier in the chapter. Specifically, if Canada is the only country selected, only cities in Canada are available for selection in the linked City parameter. These dynamic, cascading parameters are set through the same Create Parameter dialog used for static parameters.

The following steps will take you through a practical example of the creation and implementation of a dynamic, cascading set of prompts:

1. Open the sample Chap5 report or the one you have previously created in this chapter, and after removing the Country record selection and the Top N Value formula, delete the existing Countries parameter.

2. Create a new Parameter called Cities with type String and select the Dynamic List of Values type.

3. Ensuring the New radio button is selected, click on the Value field of the parameters table and you are prompted with a drop-down list box where the Country field from the Customer table is selected.

4. Ensure the Allows Multiple Values property is set to True and the Allows Custom Values property is set to False. You have now created Country as the highest level parameter of this group.

5. Now click on the Value field in the next row of the parameters table and you will be prompted with a drop-down list where you select the City field from the Customer table. Ensure the Allows Multiple Values property is set to True and the Allows Custom Values property is set to False. You have now created City as the second and currently lowest-level parameter of this group.

6. To complete the parameter creation process, click on the Parameters fields for each of the Country and City rows in the parameter table. The prompting text of Click to Create a Parameter changes to the specific parameter name consisting of the top level parameter name suffixed by the involved field name. Figure 5.13 highlights what this should look like.

7. Now add a new record selection through the Record Select Expert that filters the report where the City field from the customer table is equal to the newly created parameter `{?Cities - City}`.

8. Finally, refresh the report and you are faced with the parameter selection screen shown in Figure 5.13. Note that as you add countries to the list of countries selected in the Cities parameter group, the list of available cities in the City parameter is dynamically

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filtered. After testing the filtering process, select USA, Canada, and Ireland as countries with only Las Vegas, Philadelphia, Vancouver, Toronto, and Dublin as selected cities. Click OK and your report resembles something similar to Figure 5.14.

Figure 5.13
The Create/Edit Parameter dialog enables rapid creation of dynamic and cascading parameters.
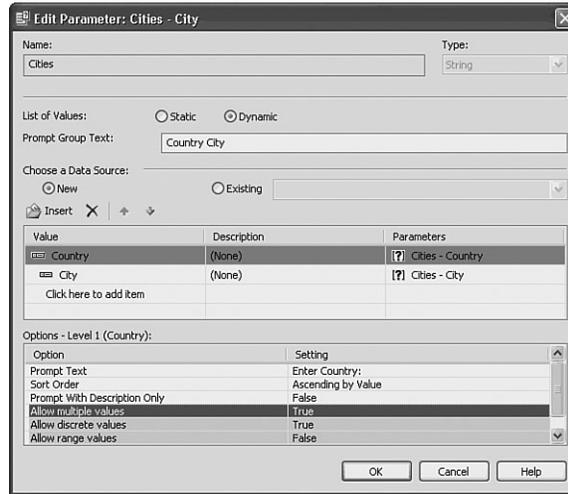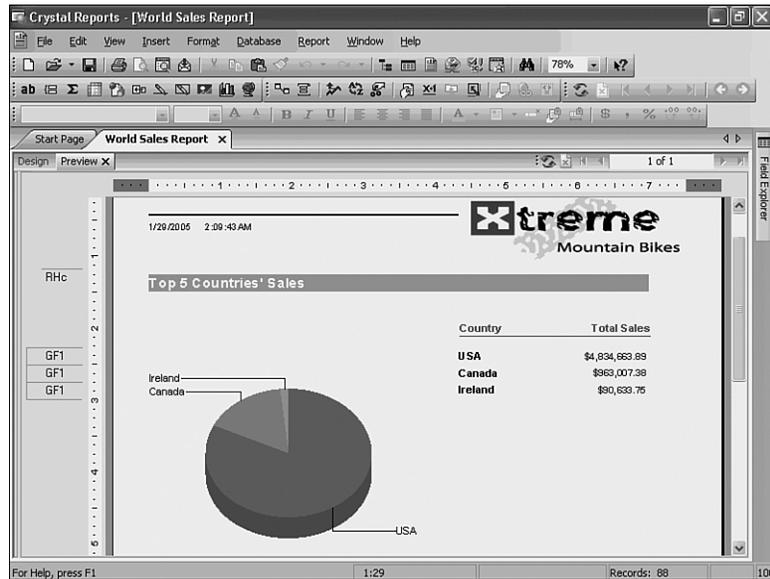

Figure 5.14
The new dynamic and cascading parameter feature enables increased productivity in report design and a better end-user experience.

This new powerful cascading parameter feature enables increased end-user productivity through reduced and focused selection sets. When designing reports, careful consideration should be given to use of these dynamic and cascading parameters versus the static parameters. Dynamic parameters are ideally geared for data sets that change frequently. Static

parameters might be best used when the involved list of values does not change often because no additional database hits will be required.

TROUBLESHOOTING

PARAMETER REUSE ACROSS REPORTS

Is there a way to store parameters so I can reuse them across multiple reports?

You can store dynamic and cascading parameters' List of Values, and even their associated update schedules, in the repository. However, this is only available for use with the Crystal Reports Server or BusinessObjects Enterprise products.

CRYSTAL REPORTS IN THE REAL WORLD— CUSTOM FILTERING

Sometimes a report needs to return all records for a parameterized field where a record selection filter has been created on this parameter. Although it would certainly be possible to create a parameter and select all valid values for the parameter, there certainly must be a better way—and there is. In this example, a filter is added to a report so that if a user enters a specific value or a list of values, only those values are returned. Alternatively, if the user enters an asterisk (*, or other predefined symbol such as All Values), all values are returned. The following steps highlight this capability:

1. Open the sample report Chap 5.rpt created in the first half of this chapter. Set the Allows Custom Values property to True and Change the Top N sort condition to All in the Group Sorting Expert.

2. From the Report menu choose Selection Formulas, Record. Remove the following line of text.
   ```
   {Customer.Country} = {?Countries}
   ```

3. Replace the text with the following (as shown in Figure 5.15):
   ```
   (If {?Countries} = "*" Then
       True
   Else
       {Customer.Country} = {?Countries};)
   ```

   Click Save and Close.

When prompted for a new parameter value, remove any existing values, enter the * symbol as a manual custom entry, click the Add (>) button to add the symbol to the list of values, and click OK. You should see something like in Figure 5.16.

Figure 5.15
The updated Record Selection Formula Editor enables the end user to select All Values with one easy selection.
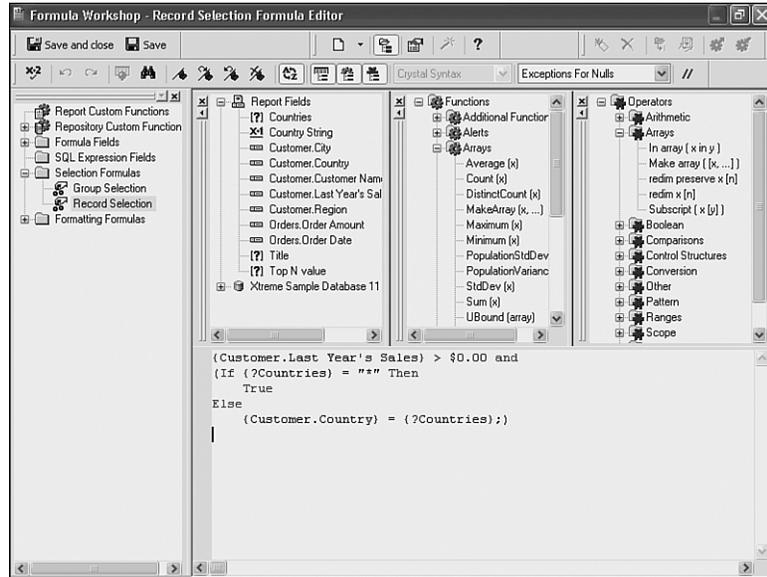

NOTE

Another way to implement an All Values parameter option for the report consumer is to create a record selection through the Record Selection dialog that uses the `is like` operator instead of the `equals to` operator. Using this operator enables you to use the `*` and `?` wildcards in your filter. By having end users enter `'*'` or providing that as one of the default parameter selection options, the users can specify All Values without needing to add them all independently. One thing to watch for here is that parameters that allow multiple values do not by default allow themselves to be mapped to in the Record Selection dialog with the `is like` operator. A viable workaround, however, is to map the record selection to the parameter using the `equals to` operator and then edit the formula record selection manually and replace the `=` operator with the `like` operator.

Figure 5.16
The report returns all values when * is passed in as a parameter. In this photo, the chart has been edited slightly from the original report but you can clearly see that all countries were returned.

5
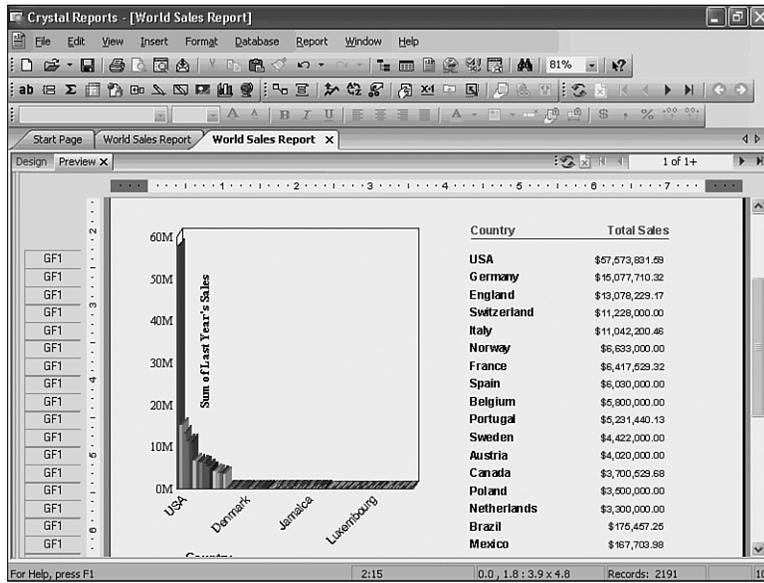
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