

Crystal Reports

Accessing Crystal Reports Parameter Fields with the RDC

Overview

This white paper explains how the Report Designer Component's (RDC) automation server can be used to access the new parameter fields in Seagate Crystal Reports 7. You will learn how the new parameter fields work, and most importantly, how to manipulate them using the RDC automation server.

This document assumes that the reader has general Visual Basic knowledge and general knowledge concerning Seagate Crystal Reports, the Report Designer Component and its Automation Server.

Contents

INTRODUCTION	2
RDC7 AUTOMATION SERVER	2
<i>AddCurrentRange() Method</i>	3
Sample Code:	3
<i>AddCurrentValue() Method</i>	3
Sample Code:	4
<i>AddDefaultValue() Method</i>	4
Sample Code:	4
<i>ClearCurrentValueAndRange() Method</i>	4
Sample Code:	4
<i>DeleteNthDefaultValue() Method</i>	5
Sample Code:	5
NOTES:.....	5
<i>GetNthCurrentRange() Method</i>	5
Sample Code:	5
NOTES:.....	6
<i>GetNthCurrentValue() Method</i>	6
Sample Code:	6
NOTES:.....	6
<i>GetNthDefaultValue() Method</i>	6
Sample Code:	7
NOTES:.....	7
<i>SetNthDefaultValue() Method</i>	7
Sample Code:	7
NOTES:.....	7
CONTACTING CRYSTAL DECISIONS FOR TECHNICAL SUPPORT	8

Introduction

One of the new features of Seagate Crystal Reports 7 is the enhanced parameter field. The new parameter fields allows for flexibility in reporting, while keeping the interface very easy-to-use. The following is a list of the features that parameter fields support.

- Multiple default values
- Multiple current values
- Discrete values
- Range values
- User-Pick List

All of the new features of the parameter fields can be access and manipulated by the RDC automation server.

RDC7 Automation Server

With all the new additions/enhancements to Seagate Crystal Reports 7, the Report Designer Component (RDC) also changed. Not only did the RDC Designer (interface) change to support all the existing features, plus all the new features of Seagate Crystal Reports 7, but it also changed the automation server so that it supported all the features (new and old) of Seagate Crystal Reports 7.

One of the new changes to the RDC automation server includes the new features of the parameter fields. The automation server can add/remove default/current, discrete/range values. The following methods can be used to manipulate parameter fields at runtime.

- AddCurrentRange
- AddCurrentValue
- AddDefaultValue
- ClearCurrentValueAndRange
- DeleteNthDefaultValue
- GetNthCurrentRange
- GetNthCurrentValue
- GetNthDefaultValue
- SetNthDefaultValue

The above methods are from the ParameterFieldDefinition object, which is accessible from the ParameterFieldsDefinitions collection. For sample code using the parameter field features, see the sample application "objmodel.exe" (self-extracting), which is installed in the default folder "C:\Program Files\Seagate Software\Crystal Reports\Sample\Rdc\ObjModel\". For more information of each method, please look in the online help file "crrdc.hlp", which is installed in the default folder "C:\Program Files\Seagate

Software\Crystal Reports\". Below you will find explanations and sample code for each of the above methods.

AddCurrentRange() Method

The AddCurrentRange method adds the current parameter range to the specified parameter field on a report.

ParameterFieldDefinition.AddCurrentRange (Start, End, RangeInfo as CRRangeInfo)

Parameter	Description
Start	Sets the start value of the range
End	Sets the end value of the range
RangeInfo	Use this to indicate whether the upper and/or lower bound of the range should be included

CRRangeInfo Constants	Value
CrRangeIncludeLowerBound	2
CrRangeIncludeUpperbound	1
CrRangeNoLowerBound	8
CrRangeNotUpperBound	4

Sample Code:

```
Dim strStartValue As String
Dim strEndValue As String
Dim constRangeInfoValue As CRAXDRT.CRRangeInfo

strStartValue = "Burnaby"
strEndValue = "Clearwater"
constRangeInfoValue = crRangeNoUpperBound

CRParameterField.AddCurrentRange strStartValue,
strEndValue, _ constRangeInfoValue
```

AddCurrentValue() Method

The AddCurrentValue method adds a value to the group of current values for the specified parameter field of a report.

ParameterFieldDefinition.AddCurrentValue (CurrentValue)

Parameter	Description
CurrentValue	Specifies the current value to be added.

Sample Code:

```
Dim strCurrentValue As String

strCurrentValue = "12"

'This specific parameter field is based on a NUMBER field
CRParameterField.AddCurrentValue CInt(strCurrentValue)
```

NOTES:

- For a parameter that is based on a Currency field, the CurrentValue has to be typecasted. For example, in Visual Basic, the functions CInt(), CLng(), and CDbI() would work, but CCur() will not work. (Use CDbI() for values containing decimals)

AddDefaultValue() Method

The AddDefaultValue method adds a value to the group of default values for a specified parameter in a report.

```
ParameterFieldDefinition.AddDefaultValue (DefaultValue)
```

Parameter	Description
DefaultValue	Specifies the default value to be added.

Sample Code:

```
Dim strDefaultValue As String

strDefaultValue = "17"

'This specific parameter field is based on a NUMBER field
CRParameterField.AddDefaultValue CInt(strDefaultValue)
```

ClearCurrentValueAndRange() Method

The ClearCurrentValueAndRange method clears the specified parameter field of all current values and ranges.

```
ParameterFieldDefinition.ClearCurrentValueAndRange()
```

Sample Code:

```
CRParameterField.ClearCurrentValueAndRange
```

DeleteNthDefaultValue() Method

The DeleteNthDefaultValue method deletes the Nth default value of the parameter field.

ParameterFieldDefinition.DeleteNthDefaultValue (Index as Integer)

RETURNS: TRUE (1) if the call is successful; FALSE (0) if the call fails.

Parameter	Description
Index	Specifies the indexed number of the default value to be deleted; 1- Based index

Sample Code:

```
'Deletes the second default value in the group
CRParameterField.DeleteNthDefaultValue (2)
```

NOTES:

- The index value is 1-based, not 0-based.
- The method will only accept Integer values, not String values.

GetNthCurrentRange() Method

The GetNthCurrentRange method retrieves the Nth value range from the specified parameter field in a report.

ParameterFieldDefinition.GetNthCurrentRange(Index as Integer, pStart, pEnd, pRangeInfo As _ CRRangeInfo)

Parameter	Description
Index	Index of the Nth value range to be retrieved; 1-Based value
pStart	Sets the start value of the range
pEnd	Sets the end value of the range
pRangeInfo	Use this to indicate whether the upper and/or lower bound of the range should be included

CRRangeInfo Constants	Value
CrRangeIncludeLowerBound	2
CrRangeIncludeUpperbound	1
CrRangeNoLowerBound	8
CrRangeNotUpperBound	4

Sample Code:

```
Dim strStartValue As String
```

```

Dim strEndValue As String
Dim constRangeInfo As CRAXDRT.CRRRangeInfo

'The variables are used to retrieve the range values
CRParameterField.GetNthCurrentRange 2, strStartValue, _
strEndValue, constRangeInfo

'Display each of the range values
MsgBox strStartValue
MsgBox strEndValue
MsgBox constRangeInfo 'Returns constant value, not name

```

NOTES:

- The index is 1-based, not 0-based.
- This method works a little differently than other methods, where this method uses variables as parameters to retrieve each value. Study the above code to understand how the values are being retrieved.

GetNthCurrentValue() Method

The GetNthCurrentValue method returns the Nth value from the specified parameter field of a report.

ParameterFieldDefinition.GetNthCurrentValue (Index As Integer)

RETURNS: The value of the specified parameter field

Parameter	Description
Index	Specifies the indexed number of the current value to be retrieved; 1 - Based value

Sample Code:

```

'Returns the first current value for the group
CEParameterField.GetNthCurrentValue(1)

```

NOTES:

- The index value is 1-based, not 0-based.

GetNthDefaultValue() Method

The GetNthDefaultValue method returns the Nth value from the specified parameter field of a report.

ParameterFieldDefinition.GetNthDefaultValue (Index As Integer)

RETURNS: The value of the specified parameter field

Parameter	Description
Index	Specifies the indexed number of the default value to be retrieved; 1 - Based value

Sample Code:

```
'Returns the first default value for the group
CEParameterField.GetNthDefaultValue(1)
```

NOTES:

- The index value is 1-based, not 0-based.

SetNthDefaultValue() Method

The SetNthDefaultValue method sets a default value for a specified parameter field in a report.

```
ParameterFieldDefinition.SetNthDefaultValue(Index As Integer,
NthDefaultValue)
```

Parameter	Description
Index	The index number of the default value to be set; 1 - Based value NthDefaultValue Sets the default value for the parameter field.

Sample Code:

```
'Creates/Replaces the 2nd default value with the String
"Concord"
CRParameterField.SetNthDefaultValue 2, CStr("Concord")
```

NOTES:

- The index number is 1-based, not 0-based
- The index number must already exist, or be the next available number. If the index number exists, then the default value will be overwritten with the new default value. If the index number is the next available number, then the default value is created.

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>