



# BusinessObjects™ XI Release 2 Integration Kit for SAP® .NET SDK Guide

#### Patents

Business Objects owns the following U.S. patents, which may cover products that are offered and sold by Business Objects: 5,555,403, 6,247,008 B1, 6,578,027 B2, 6,490,593 and 6,289,352.

#### Trademarks

Business Objects, the Business Objects logo, Crystal Reports, and Crystal Enterprise are trademarks or registered trademarks of Business Objects SA or its affiliated companies in the United States and other countries. All other names mentioned herein may be trademarks of their respective owners.

#### Copyright

Copyright © 2005 Business Objects. All rights reserved.

#### Third-party contributors

Business Objects products in this release may contain redistributions of software licensed from third-party contributors. Some of these individual components may also be available under alternative licenses. A partial listing of third-party contributors that have requested or permitted acknowledgments, as well as required notices, can be found at:

<http://www.businessobjects.com/thirdparty>

# Contents

<b>Chapter 1</b>	<b>Introduction</b>	<b>7</b>
	About this guide	8
	Who should read this guide	8
	Business Objects information resources	8
<b>Chapter 2</b>	<b>Architecture</b>	<b>9</b>
	BusinessObjects XI Release 2 Integration Kit for SAP Framework	10
	<b>CrystalDecisions.SAP.Web.Parameter Assembly</b>	<b>13</b>
	<b>ParameterUtility Class</b>	<b>14</b>
	ParameterUtility Members	14
	Constructors	16
	ParameterUtility Constructor ()	16
	Methods	16
	CheckHierarchyNodeDependencies Method	16
	DeletePersonalizedValue Method	17
	Dispose Method	18
	GetPicklist Method	18
	Initialize Method	21
	IsBWParameter Method	22
	IsHierarchyNode Method	23
	LoadDefaultValueToReport Method	23
	LoadPersonalizedValueToReport Method	24
	SavePersonalizedValue Method	25
	ValidateHierarchicalParameters Method	26
	<b>PicklistGenerator Class</b>	<b>27</b>
	PicklistGenerator Members	27
	Constructors	28
	PicklistGenerator Constructor ()	28

## Contents

Properties	29
Count Property	29
Methods	29
Dispose Method	29
GetItem Method	30
<b>PicklistEntry Class</b>	<b>31</b>
PicklistEntry Members	31
Constructors	32
PicklistEntry Constructor ()	32
Properties	33
Children Property	33
Description Property	33
HaveChildren Property	34
IsForDisplay Property	34
Value Property	35
Methods	35
Dispose Method	35
<b>HierarchyNodeStatus Class</b>	<b>36</b>
HierarchyNodeStatus Members	36
Constructors	37
HierarchyNodeStatus Constructor ()	37
Properties	38
HierarchyError Property	38
HierarchyIndex Property	38
HierarchyNodeIndex Property	39
Methods	39
Dispose Method	39
<b>CrystalDecisions.SAP.Web.RRI Assembly</b>	<b>41</b>
<b>RRIReceiver Class</b>	<b>42</b>
RRIReceiver Members	42
Constructors	43
RRIReceiver Constructor ()	43
Properties	44

## Contents

Count Property .....	44
Methods .....	44
Dispose Method .....	44
GetItem Method .....	45
Initialize Method .....	46
<b>RRIEntry Class .....</b>	<b>47</b>
RRIEntry Members .....	47
Constructors .....	48
RRIEntry Constructor () .....	48
Methods .....	49
Dispose Method .....	49
Properties .....	49
High Property .....	49
Low Property .....	50
Name Property .....	51
Opt Property .....	51
Sign Property .....	52
<b>CrystalDecisions.SAP.Web.SSO Assembly .....</b>	<b>53</b>
<b>DataSourceSSO Class .....</b>	<b>54</b>
DataSourceSSO Members .....	55
Constructors .....	56
DataSourceSSO Constructor () .....	56
Properties .....	56
APSLogonToken Property .....	56
CMSLogonToken Property .....	57
DatabaseName Property .....	57
DataSourceIndex Property .....	58
DataSourceName Property .....	58
EnterpriseSession Property .....	59
ExternalID Property .....	59
LogonCount Property .....	60
Password Property .....	60
ReportID Property .....	61

## Contents

ScheduleTime Property	61
ServerName Property	62
SNCAvailable Property	62
SubReport Property	63
Username Property	63
Methods	64
Dispose Method	64
IsOfflineSNCName Method	64
<b>Appendix A Get More Help</b>	<b>67</b>
<b>Index</b>	<b>71</b>

Introduction

# 1

chapter

## About this guide

The BusinessObjects XI Release 2 Integration Kit for SAP .NET Software Development Kit (SDK) provides you with the necessary tools for building BusinessObjects XI Release 2 Integration Kit for SAP web applications. With this SDK, you can build web applications that take advantage of the integration between an SAP BW system and a BusinessObjects Enterprise system. It provides you with the ability to use SAP BW variables that appear as parameters in Crystal Reports. It also allows you to build applications that use Crystal Reports as Report-Report-Interface (RRI) receivers. Moreover, the SDK allows you to build applications that use Secure Network Communication (SNC) and password-less Single Sign On (SSO).

## Who should read this guide

This guide has been written with the web developer in mind. In particular, it is aimed towards those who are responsible for building custom web applications, and who have a clear understanding of .NET using either C# or VB.NET.

BusinessObjects Enterprise web applications can be written as an ASP.NET Web Application using either C# or VB.NET and can be deployed to any Windows machine running the .NET framework with IIS.

Additional resources for .NET developers who use products from Business Objects can be found at:

[http://www.businessobjects.com/products/dev\\_zone/net/default.asp](http://www.businessobjects.com/products/dev_zone/net/default.asp)

**Note:** The latest Business Objects viewers XI documentation is only available at:

[http://www.businessobjects.com/products/dev\\_zone/net/default.asp](http://www.businessobjects.com/products/dev_zone/net/default.asp)

## Business Objects information resources

For more information and assistance, see [Get More Help](#). This appendix describes the Business Objects documentation, customer support, training, and consulting services, with links to online resources.





Architecture



2  
chapter

## BusinessObjects XI Release 2 Integration Kit for SAP Framework

The BusinessObjects XI Release 2 Integration Kit for SAP SDK is an extension of the BusinessObjects Enterprise framework SDK. It builds on the functionality provided by BusinessObjects Enterprise and allows you to use the BusinessObjects XI Release 2 Integration Kit for SAP SDK to communicate with, and exchange information between, BusinessObjects Enterprise and SAP systems.

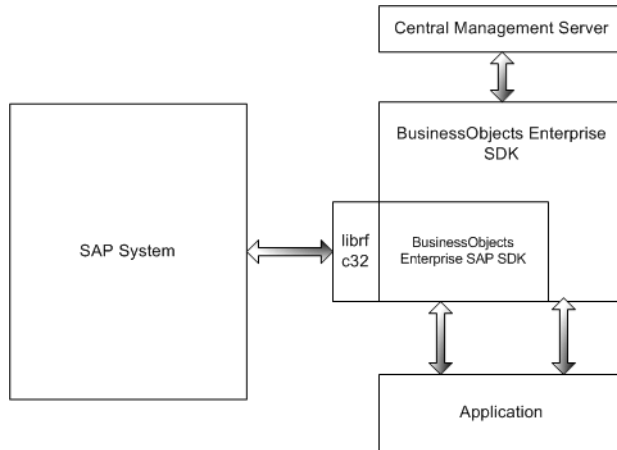
Direct communication with the SAP system is handled by the SAP connectivity library, `librfc32`. This component of the framework is provided by SAP and must be installed on top of your BusinessObjects Enterprise System. For more information on how to install the `librfc32`, see the *BusinessObjects XI Release 2 Integration Kit for SAP Installation Guide* (`installguide.pdf`), included in the `docs` directory on both Add-Ons Discs.

Another component of the framework is the Central Management Server (CMS). The CMS has four main functions:

- maintains security
- manages objects
- manages servers
- manages auditing.

However, with regard to the BusinessObjects XI Release 2 Integration Kit for SAP SDK, the CMS primarily handles security. For more information about security and authentication, see the *BusinessObjects XI Release 2 Integration Kit for SAP User's Guide* (`userguide.pdf`), included in the `docs` directory on both Add-Ons Discs.

The following diagram illustrates the information flow between the components involved in the BusinessObjects XI Release 2 Integration Kit for SAP Framework:





# CrystalDecisions.SAP.Web.Parameter Assembly

The CrystalDecisions.SAP.Web.parameter Assembly contains four classes: [ParameterUtility Class](#), [PicklistEntry Class](#), [PicklistGenerator Class](#), and [HierarchyNodeStatus Class](#).

This assembly provides you with the ability to use the SAP BW variables that appear as parameters in Crystal Reports. Because of the potentially changing and user-specific nature of pick list values for SAP BW variables, dynamic pick list functionality is supplied. However, if for any reason it is not possible to fill the pick lists dynamically, the parameter values that are stored with the info object for the specified parameter are returned as an alternative.

A dynamic pick list provides you with a current list of possible values to choose from, for parameters that represent SAP BW variables. The values displayed in a dynamic pick list are retrieved from the SAP server and correspond to the user's rights associated with the query variable.

Furthermore, this assembly also allows you to load default and personalized SAP BW parameters into a report, save personalized SAP BW parameters into a report, and verify that the hierarchy and the hierarchy node relationship is valid.

## **Assembly Name**

CrystalDecisions.SAP.Web.Parameter

## **DLL Name**

CrystalDecisions.SAP.Web.Parameter.dll

# ParameterUtility Class

## See Also

[ParameterUtility Members](#)  
[CrystalDecisions.SAP.Web.Parameter Assembly](#)  
[PicklistEntry Class](#)  
[PicklistGenerator Class](#)  
[HierarchyNodeStatus Class](#)

## Namespace

CrystalDecisions.SAP.Web

## Inheritance

System.Object

System.MarshalRefByObject

**CrystalDecisions.SAP.Web.Parameter**

## Syntax [Visual Basic]

```
Public Class ParameterUtility _  
    Inherits MarshalByRefObject _  
    Implements IDisposable
```

## Syntax [C#]

```
public class ParameterUtility : MarshalByRefObject,  
    IDisposable
```

## Remarks

The [ParameterUtility Class](#) provides a number of methods that allow you to retrieve specific parameter information for a Report instance. However, you must first initialize the parameter helper class. This is achieved by calling the [Initialize Method](#).

## ParameterUtility Members

### Constructors

Constructor	Description
<a href="#">ParameterUtility Constructor ()</a>	Initializes a new instance of the <a href="#">ParameterUtility Class</a> .

## Methods

Method	Description
<a href="#">CheckHierarchyNodeDependencies Method</a>	Returns an instance of the <a href="#">HierarchyNodeStatus Class</a> that indicates the status of the hierarchy and the hierarchy node parameter for the specified index.
<a href="#">DeletePersonalizedValue Method</a>	Deletes the personalized value for the specified parameter.
<a href="#">Dispose Method</a>	Frees unmanaged resources held by an instance of this class.
<a href="#">GetPicklist Method</a>	Returns the pick list for the specified parameter.
<a href="#">Initialize Method</a>	Initializes the parameter helper with the specified report and logon credentials.
<a href="#">IsBWParameter Method</a>	Returns a boolean that indicates whether the parameter is a SAP BW parameter.
<a href="#">IsHierarchyNode Method</a>	Returns a boolean that indicates whether the parameter is a hierarchy node.
<a href="#">LoadDefaultValueToReport Method</a>	Loads the BW default variable value into the report as the current value of the parameter.
<a href="#">LoadPersonalizedValueToReport Method</a>	Loads the BW personalized value(s) into the report as the current value(s) of the parameter.
<a href="#">SavePersonalizedValue Method</a>	Sets the personalized value(s) as the current value(s) for the specified parameter in the report object.
<a href="#">ValidateHierarchicalParameters Method</a>	Returns an instance of the <a href="#">HierarchyNodeStatus Class</a> that allows you to determine whether the relationship between the hierarchy and hierarchy node parameter is valid.

## Constructors

### ParameterUtility Constructor ()

#### Applies To

[ParameterUtility Class](#)

#### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Initializes a new instance of [ParameterUtility Class](#).

#### Syntax [Visual Basic]

```
Public Sub New()
```

#### Syntax [C#]

```
public ParameterUtility();
```

## Methods

### CheckHierarchyNodeDependencies Method

#### Applies To

[ParameterUtility Class](#)

#### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Returns an instance of the [HierarchyNodeStatus Class](#) that indicates the status of the hierarchy and the hierarchy node parameter for the specified index.

#### Syntax [Visual Basic]

```
Public Function CheckHierarchyNodeDependencies( _  
    ByVal paramNumber As Integer _  
) As HierarchyNodeStatus
```

#### Syntax [C#]

```
public HierarchyNodeStatus CheckHierarchyNodeDependencies(  
    System.Int32 paramNumber  
);
```



**Parameters**

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter.

**Return Value**

Returns a reference to the [HierarchyNodeStatus Class](#).

**Remarks**

This method should only be used in conjunction with hierarchy node parameters.

**DeletePersonalizedValue Method****Applies To**

[ParameterUtility Class](#)

**See Also**

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

**Description**

Deletes the personalized value for the specified parameter.

**Syntax [Visual Basic]**

```
Public sub DeletePersonalizedValue( _  
    ByVal paramNumber As Integer _  
)
```

**Syntax [C#]**

```
public void DeletePersonalizedValue(  
    System.Int32 paramNumber  
);
```

**Parameters**

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter.

## Dispose Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Frees unmanaged resources held by an instance of this class.

### Syntax [Visual Basic]

```
Public Sub Dispose()
```

### Syntax [C#]

```
public void Dispose();
```

### Remarks

Frees unmanaged resources such as files, streams, and handles. Use this method to free resources held by an object, or to prepare an object for reuse.

Objects must ensure that calls to this method are propagated along the containment hierarchy. For example, suppose that an object allocates another object into memory. If the original allocating object is to be disposed, then the allocated object must also be disposed.

## GetPicklist Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

[PicklistGenerator Class](#)

### Description

Returns an instance of [PicklistGenerator Class](#) for the specified parameter.

### Syntax [Visual Basic]

```
Public function GetPicklist( _  
    ByVal paramNumber As Integer, _  
    ByVal returnAsFlattened As Boolean _  
    ) As PicklistGenerator
```

## Syntax [C#]

```
public PicklistGenerator GetPicklist(  
    System.Int32 paramNumber,  
    System.Boolean returnAsFlattened  
);
```

## Parameters

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter.

returnAsFlattened

A boolean that indicates whether the nodes will be returned in a flat structure, or in a hierarchical tree structure. This parameter affects variables that are hierarchy nodes. Variables that are not hierarchy nodes are always returned in a flat structure.

True - Indicates that the nodes are returned in a flat structure, regardless of the parent-child relationship.

False - Indicates that the nodes are returned in a hierarchical tree structure, adhering to the parent-child relationship.

## Return Value

Returns a reference to the [PicklistGenerator Class](#).

## Remarks

A pick-list generator creates a list of values for use as parameters for the report. Furthermore, if the parameter you specify is a hierarchy node variable, and this parameter is associated with a hierarchy variable, then the pick-list generator and its values change depending on the hierarchy variable's current value. This behavior is called cascading parameters.

The following example shows a hierarchical structure for two distinct sales regions. The hierarchy variable represents a country and the hierarchy node variable represents the corresponding territorial information for that country.

### Canada

Ontario

Ottawa

Toronto

British Columbia

Victoria

Vancouver

### **United States**

California  
    Los Angeles  
    San Francisco  
New York  
    Buffalo  
    New York City

If you set the hierarchy variable to Canada and call the [GetPicklist Method](#) for the hierarchy node variable, you are returned the following pick list:

### **Canada**

Ontario  
    Ottawa  
    Toronto  
British Columbia  
    Victoria  
    Vancouver

If you switch the hierarchy variable to the United States and call the [GetPicklist Method](#) for the hierarchy node variable, you are returned the following pick list:

### **United States**

California  
    Los Angeles  
    San Francisco  
New York  
    Buffalo  
    New York City

### **Note:**

- A flat structure indicates that the nodes are represented on the same level.
- If for any reason it is not possible to fill the pick lists dynamically, the parameter values that are stored with the info object for the specified parameter are returned as an alternative.

## Initialize Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Initializes the parameter helper with the specified report and logon credentials.

### Syntax [Visual Basic]

```
Public sub Initialize( _  
    ByVal reportObject As CrystalDecisions.Enterprise.Desktop.Report, _  
    ByVal cmsLogonToken As String, _  
    ByVal bwUser As String, _  
    ByVal bwPassword As String, _  
    ByVal bwTicket As String _  
)
```

### Syntax [C#]

```
public void Initialize(  
    CrystalDecisions.Enterprise.Desktop.Report reportObject,  
    System.String cmsLogonToken,  
    System.String bwUser,  
    System.String bwPassword,  
    System.String bwTicket  
);
```

### Parameters

**reportObject**

A [CrystalDecisions.Enterprise.Desktop.Report](#) that specifies the report instance.

**cmsLogonToken**

A String that specifies the CMS logon token.

**bwUser**

A String that specifies the BW user.

**bwPassword**

A String that specifies the BW password.

**bwTicket**

A String that specifies the BW ticket.

## Remarks

To log on to the system you must provide one of the following authentications:

- BW logon ticket.
- BW user and password.

If for any reason it is not possible to fill the pick lists dynamically, the parameter values that are stored with the info object for the specified parameter are returned as an alternative.

## IsBWParameter Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Returns a boolean that indicates whether the parameter is a SAP BW parameter.

### Syntax [Visual Basic]

```
Public function IsBWParameter( _  
    ByVal paramNumber As Integer _  
) As Boolean
```

### Syntax [C#]

```
public System.Boolean IsBWParameter(  
    System.Int32 paramNumber  
);
```

### Parameters

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter.

### Return Value

Returns True if the parameter is a SAP BW parameter; returns False if the parameter is not a SAP BW Parameter.

## IsHierarchyNode Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Returns a boolean that indicates whether the parameter is a hierarchy node.

### Syntax [Visual Basic]

```
Public function IsHierarchyNode( _  
    ByVal paramNumber As Integer _  
) As Boolean
```

### Syntax [C#]

```
public System.Boolean IsHierarchyNode(  
    System.Int32 paramNumber  
);
```

### Parameters

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter.

### Return Value

Returns True if the parameter is a hierarchy node; returns False if the parameter is not a hierarchy node.

## LoadDefaultValueToReport Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Loads the BW default variable value into the report as the current value of the parameter.

### Syntax [Visual Basic]

```
Public function LoadDefaultValueToReport( _  
    ByVal paramNumber As Integer _  
) As Boolean
```

### Syntax [C#]

```
public System.Boolean LoadDefaultValueToReport(  
    System.Int32 paramNumber  
);
```

### Parameters

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter that you want to load the default value for.

### Return Value

Returns True if the default variable value is loaded into the report as the current value; returns False if the default variable value is not loaded into the report as the current value.

## LoadPersonalizedValueToReport Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Loads the BW personalized value into the report as the current value of the parameter.

### Syntax [Visual Basic]

```
Public function LoadPersonalizedValueToReport( _  
    ByVal paramNumber As Integer _  
) As Boolean
```

### Syntax [C#]

```
public System.Boolean LoadPersonalizedValueToReport(  
    System.Int32 paramNumber  
);
```



## Parameters

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter that you want to load the personalized value for.

## Return Value

Returns True if the personalized value is loaded into the report as the current value; returns False if the personalized value is not loaded into the report as the current value.

## SavePersonalizedValue Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Sets the personalized value(s) as the current value(s) for the specified parameter in the report object.

### Syntax [Visual Basic]

```
Public sub SavePersonalizedValue( _  
    ByVal paramNumber As Integer _  
)
```

### Syntax [C#]

```
public void SavePersonalizedValue(  
    System.Int32 paramNumber  
);
```

### Parameters

paramNumber

An int that specifies the one-based (not zero-based) index of the parameter.

## ValidateHierarchicalParameters Method

### Applies To

[ParameterUtility Class](#)

### See Also

[ParameterUtility Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

[GetPicklist Method](#)

[HierarchyNodeStatus Class](#)

### Description

Returns an instance of the [HierarchyNodeStatus Class](#) that allows you to determine whether the relationship between the hierarchy and hierarchy node parameter is valid.

### Syntax [Visual Basic]

```
Public Function ValidateHierarchicalParameters As HierarchyNodeStatus
```

### Syntax [C#]

```
public System.Boolean ValidateHierarchicalParameters As HierarchyNodeStatus
```

### Return Value

Returns a reference to the [HierarchyNodeStatus Class](#).

# PicklistGenerator Class

## See Also

[PicklistGenerator Members](#)  
[CrystalDecisions.SAP.Web.Parameter Assembly](#)  
[ParameterUtility Class](#)  
[PicklistEntry Class](#)  
[HierarchyNodeStatus Class](#)

## Namespace

CrystalDecisions.SAP.Web

## Inheritance

System.Object

System.MarshalRefByObject

**CrystalDecisions.SAP.Web.Parameter**

## Syntax [Visual Basic]

```
Public Class PicklistGenerator _
    Inherits MarshalByRefObject _
    Implements IDisposable
```

## Syntax [C#]

```
public class PicklistGenerator : MarshalByRefObject,
    IDisposable
```

## Remarks

The [PicklistGenerator Class](#) contains an indexed class of [PicklistEntry](#) instances, which belong to a particular report. This indexed class allows you to enumerate through the various pick lists in a report.

## PicklistGenerator Members

### Constructors

Constructor	Description
<a href="#">PicklistGenerator Constructor ()</a>	Initializes a new instance of the <a href="#">PicklistGenerator Class</a> .

## Properties

Property	Description
<a href="#">Count Property</a>	Returns the number of PicklistEntry instances contained in the indexed class. Read-Only.

## Methods

Method	Description
<a href="#">Dispose Method</a>	Frees unmanaged resources held by an instance of this class.
<a href="#">GetItem Method</a>	Returns a PicklistEntry instance given a specific index value.

## Constructors

### PicklistGenerator Constructor ()

#### Applies To

[PicklistGenerator Class](#)

#### See Also

[PicklistGenerator Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Initializes a new instance of the [PicklistGenerator Class](#).

#### Syntax [Visual Basic]

```
Public Sub New()
```

#### Syntax [C#]

```
public PicklistGenerator();
```

## Properties

### Count Property

#### Applies To

[PicklistGenerator Class](#)

#### See Also

[PicklistGenerator Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Returns the number of PicklistEntry instances contained in the indexed class.  
Read-Only.

#### Syntax [Visual Basic]

```
Public Property Count As Integer
```

#### Syntax [C#]

```
public int Count {get;}
```

#### Remarks

Use this property to enumerate through items in the indexed class. The indexed class is indexed from 1 rather than 0.

## Methods

### Dispose Method

#### Applies To

[PicklistGenerator Class](#)

#### See Also

[PicklistGenerator Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Frees unmanaged resources held by an instance of this class.

#### Syntax [Visual Basic]

```
Public Sub Dispose()
```

#### Syntax [C#]

```
public void Dispose();
```

## Remarks

Frees unmanaged resources such as files, streams, and handles. Use this method to free resources held by an object, or to prepare an object for reuse.

Objects must ensure that calls to this method are propagated along the containment hierarchy. For example, suppose that an object allocates another object into memory. If the original allocating object is to be disposed, then the allocated object must also be disposed.

## GetItem Method

### Applies To

[PicklistGenerator Class](#)

### See Also

[PicklistEntry Class](#)

[PicklistGenerator Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Returns an instance of the [PicklistEntry](#) given a specific index value.

### Syntax [Visual Basic]

```
Public Function GetItem( _  
    ByVal index As Integer _  
) As PicklistEntry
```

### Syntax [C#]

```
public PicklistEntry GetItem(  
    System.int32 index  
);
```

### Parameters

index

An int that specifies the one-based (not zero-based) index of the instance to be retrieved.

### Return Value

Returns a reference to the [PicklistEntry Class](#).

### Remarks

The [GetItem Method](#) can be used, in conjunction with the [Count Property](#), to enumerate through all the [PicklistEntry](#) instances in an indexed class.

# PicklistEntry Class

## See Also

[PicklistEntry Members](#)  
[CrystalDecisions.SAP.Web.Parameter Assembly](#)  
[ParameterUtility Class](#)  
[PicklistGenerator Class](#)  
[HierarchyNodeStatus Class](#)

## Namespace

CrystalDecisions.SAP.Web

## Inheritance

System.Object

System.MarshalRefByObject

**CrystalDecisions.SAP.Web.Parameter**

## Syntax [Visual Basic]

```
Public Class PicklistEntry _  
    Inherits MarshalByRefObject _  
    Implements IDisposable
```

## Syntax [C#]

```
public class PicklistEntry : MarshalByRefObject,  
    IDisposable
```

## Remarks

The [PicklistEntry Class](#) represents a single entry within a pick list. This class provides properties which allow you to get the description and value for the pick list entry, and determine if you intend to display the pick list. Furthermore, it also allows you to check whether a certain pick list entry has child nodes.

## PicklistEntry Members

### Constructors

Constructor	Description
<a href="#">PicklistEntry Constructor ()</a>	Initializes a new instance of the <a href="#">PicklistEntry Class</a> .

## Properties

Property	Description
<a href="#">Children Property</a>	Returns an indexed class of child nodes for a particular pick list entry.
<a href="#">Description Property</a>	Returns the description of the entry.
<a href="#">HaveChildren Property</a>	Returns a boolean that indicates whether the entry has child nodes. Read-Only.
<a href="#">IsForDisplay Property</a>	Returns whether the pick list is intended for display.
<a href="#">Value Property</a>	Returns the value of the entry.

## Methods

Method	Description
<a href="#">Dispose Method</a>	Frees unmanaged resources held by an instance of this class.

## Constructors

### PicklistEntry Constructor ()

#### Applies To

[PicklistEntry Class](#)

#### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Initializes a new instance of [PicklistEntry Class](#).

#### Syntax [Visual Basic]

```
Public Sub New()
```

#### Syntax [C#]

```
public PicklistEntry();
```



## Properties

### Children Property

#### Applies To

[PicklistEntry Class](#)

#### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

[HaveChildren Property](#)

[PicklistGenerator Class](#)

#### Description

Returns an indexed class of child nodes for a particular pick list entry.

#### Syntax [Visual Basic]

```
Public Property Children As PicklistGenerator
```

#### Syntax [C#]

```
public PicklistGenerator Children {get; set;}
```

#### Remarks

Use the [HaveChildren Property](#) before invoking this property to ensure that the pick list entry contains child nodes.

### Description Property

#### Applies To

[PicklistEntry Class](#)

#### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Returns the description of the entry.

#### Syntax [Visual Basic]

```
Public Property Description As String
```

#### Syntax [Visual Basic]

```
public string Description {get; set;}
```

## HaveChildren Property

### Applies To

[PicklistEntry Class](#)

### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

[Children Property](#)

### Description

Returns a boolean that indicates whether the entry has child nodes. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property HaveChildren As Boolean
```

### Syntax [C#]

```
public bool HaveChildren {get;}
```

### Remarks

Use this property prior to invoking the [Children Property](#) to ensure that the pick list entry has child nodes.

Returns True if the entry has child nodes; returns False if the entry does not have child nodes.

## IsForDisplay Property

### Applies To

[PicklistEntry Class](#)

### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Returns whether the pick list is intended for display.

### Syntax [Visual Basic]

```
Public Property IsForDisplay As Boolean
```

### Syntax [C#]

```
public bool IsForDisplay {get; set;}
```

### Remarks

Returns True if the pick list is intended for display; returns False if the pick list is not intended for display.

## Value Property

### Applies To

[PicklistEntry Class](#)

### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Returns the value of the entry.

### Syntax [Visual Basic]

```
Public Property Value As String
```

### Syntax [C#]

```
public string Value {get; set;}
```

## Methods

### Dispose Method

#### Applies To

[PicklistEntry Class](#)

#### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Frees unmanaged resources held by an instance of this class.

#### Syntax [Visual Basic]

```
Public Sub Dispose()
```

#### Syntax [C#]

```
public void Dispose();
```

#### Remarks

Frees unmanaged resources such as files, streams, and handles. Use this method to free resources held by an object, or to prepare an object for reuse.

Objects must ensure that calls to this method are propagated along the containment hierarchy. For example, suppose that an object allocates another object into memory. If the original allocating object is to be disposed, then the allocated object must also be disposed.

# HierarchyNodeStatus Class

## See Also

[HierarchyNodeStatus Members](#)  
[CrystalDecisions.SAP.Web.Parameter Assembly](#)  
[ParameterUtility Class](#)  
[PicklistGenerator Class](#)  
[PicklistEntry Class](#)

## Namespace

CrystalDecisions.SAP.Web

## Inheritance

System.Object

System.MarshalRefByObject

**CrystalDecisions.SAP.Web.Parameter**

## Syntax [Visual Basic]

```
Public Class HierarchyNodeStatus _  
    Inherits MarshalByRefObject _  
    Implements IDisposable
```

## Syntax [C#]

```
public class HierarchyNodeStatus : MarshalByRefObject,  
    IDisposable
```

## Remarks

The [HierarchyNodeStatus Class](#) allows you to determine whether an error exists due to an invalid hierarchy-hierarchy node relationship. Furthermore, this class provides properties which allow you to distinguish which hierarchy or hierarchy node parameter is related to the error.

## HierarchyNodeStatus Members

### Constructors

Constructor	Description
<a href="#">HierarchyNodeStatus Constructor ()</a>	Initializes a new instance of the <a href="#">HierarchyNodeStatus Class</a> .

## Properties

Property	Description
<a href="#">HierarchyError Property</a>	Returns a boolean indicating whether an error exists due to an invalid relationship between a hierarchy parameter and an associated hierarchy node parameter.
<a href="#">HierarchyIndex Property</a>	Returns the one-based (not zero-based) index of the hierarchy parameter related to the error.
<a href="#">HierarchyNodeIndex Property</a>	Returns the one-based (not zero-based) index of the hierarchy node parameter related to the error.

## Methods

Method	Description
<a href="#">Dispose Method</a>	Frees unmanaged resources held by an instance of this class.

## Constructors

### HierarchyNodeStatus Constructor ()

#### Applies To

[HierarchyNodeStatus Class](#)

#### See Also

[HierarchyNodeStatus Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Initializes a new instance of [HierarchyNodeStatus Class](#).

#### Syntax [Visual Basic]

```
Public Sub New()
```

#### Syntax [C#]

```
public HierarchyNodeStatus();
```

## Properties

### HierarchyError Property

#### Applies To

[HierarchyNodeStatus Class](#)

#### See Also

[HierarchyNodeStatus Members](#)  
[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Returns a boolean indicating whether an error exists due to an invalid relationship between a hierarchy parameter and an associated hierarchy node parameter. An error may be the result of incongruent, or missing, parameter information.

#### Syntax [Visual Basic]

```
Public Property HierarchyError As Boolean
```

#### Syntax [C#]

```
public bool HierarchyError {get; set;}
```

#### Remarks

Returns True if an error exists due to an invalid relationship between a hierarchy parameter and a hierarchy node parameter; returns False if the no error exists between a hierarchy parameter and a hierarchy node parameter.

### HierarchyIndex Property

#### Applies To

[HierarchyNodeStatus Class](#)

#### See Also

[HierarchyNodeStatus Members](#)  
[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Returns the one-based (not zero-based) index of the hierarchy parameter related to the error.

#### Syntax [Visual Basic]

```
Public Property HierarchyIndex As Integer
```

#### Syntax [C#]

```
public int HierarchyIndex {get; set;}
```

## HierarchyNodeIndex Property

### Applies To

[HierarchyNodeStatus Class](#)

### See Also

[HierarchyNodeStatus Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

### Description

Returns the one-based (not zero-based) index of the hierarchy node parameter related to the error.

### Syntax [Visual Basic]

```
Public Property HierarchyNodeIndex As Integer
```

### Syntax [C#]

```
public int HierarchyNodeIndex {get; set;}
```

## Methods

### Dispose Method

#### Applies To

[PicklistEntry Class](#)

#### See Also

[PicklistEntry Members](#)

[CrystalDecisions.SAP.Web.Parameter Assembly](#)

#### Description

Frees unmanaged resources held by an instance of this class.

#### Syntax [Visual Basic]

```
Public Sub Dispose()
```

#### Syntax [C#]

```
public void Dispose();
```

#### Remarks

Frees unmanaged resources such as files, streams, and handles. Use this method to free resources held by an object, or to prepare an object for reuse.

Objects must ensure that calls to this method are propagated along the containment hierarchy. For example, suppose that an object allocates another object into memory. If the original allocating object is to be disposed, then the allocated object must also be disposed.





# CrystalDecisions.SAP.Web.RRI Assembly

The CrystalDecisions.SAP.Web.RRI (Report-Report-Interface) Assembly allows you to access SAP report parameter values sent from a SAP report to a Crystal report. In RRI, the receiver functions as a bridge between the two types of reports, and interprets the SAP report parameter values for the Crystal report. The [RRReceiver Class](#) lets you view the SAP report parameter values sent by the SAP BW system. The RRReceiver's [Initialize Method](#) takes the Crystal report ID, the CMS logon token, and the SAP BW system credentials. RRReceiver then populates itself with SAP parameter values from the Crystal report, which are encapsulated as instances of the [RREntry Class](#). As a result, you can iterate through the RRReceiver for SAP web parameter values.

## **Assembly Name**

CrystalDecisions.SAP.Web.RRI

## **DLL Name**

CrystalDecisions.SAP.Web.RRI.dll

## RRIReceiver Class

### See Also

[RRIReceiver Members](#)  
[CrystalDecisions.SAP.Web.RRI Assembly](#)  
[RRISentry Class](#)

### Namespace

CrystalDecisions.SAP.Web

### Inheritance

System.Object  
    System.MarshalByRefObject  
        **CrystalDecisions.SAP.Web.RRIReceiver**

### Syntax [Visual Basic]

```
Public Class RRIReceiver _  
    Inherits MarshalByRefObject _  
    Implements IDisposable
```

### Syntax [C#]

```
public class RRIReceiver : MarshalByRefObject,  
    IDisposable
```

### Remarks

The [RRIReceiver Class](#) accesses SAP report parameter values sent from a SAP report to a Crystal report. Before you can use this class, you must first initialize it with the [Initialize Method](#).

## RRIReceiver Members

### Constructors

Constructor	Description
<a href="#">RRIReceiver Constructor ()</a>	Initializes a new instance of the <a href="#">RRIReceiver Class</a> .

## Properties

Property	Description
<a href="#">Count Property</a>	Returns the number of parameter values. Read-Only.

## Methods

Method	Description
<a href="#">Dispose Method</a>	Frees unmanaged resources held by an instance of this class.
<a href="#">GetItem Method</a>	Returns the instance of <a href="#">RRIEntry Class</a> at the provided index.
<a href="#">Initialize Method</a>	Initializes this class using an RRI handle and SAP BW credentials.

## Constructors

### RRIReceiver Constructor ()

#### Applies To

[RRIReceiver Class](#)

#### See Also

[RRIReceiver Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

#### Description

Initializes a new instance of the [RRIReceiver Class](#).

#### Syntax [Visual Basic]

```
Public Sub New()
```

#### Syntax [C#]

```
public RRIEntry();
```

## Properties

### Count Property

#### Applies To

[RRReceiver Class](#)

#### See Also

[RRReceiver Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

#### Description

Returns the number of parameter values. Read-Only.

#### Syntax [Visual Basic]

```
Public ReadOnly Count As Long
```

#### Syntax [C#]

```
public int Count {get;}
```

## Methods

### Dispose Method

#### Applies To

[RRReceiver Class](#)

#### See Also

[RRReceiver Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

#### Description

Frees unmanaged resources held by an instance of this class.

#### Syntax [Visual Basic]

```
Public Sub Dispose()
```

#### Syntax [C#]

```
public void Dispose();
```

#### Remarks

Frees unmanaged resources such as files, streams, and handles. Use this method to free resources held by an object, or to prepare an object for reuse.

Objects must ensure that calls to this method are propagated along the containment hierarchy. For example, suppose that an object allocates another object into memory. If the original allocating object is to be disposed, then the allocated object must also be disposed.

## GetItem Method

### Applies To

[RRIReceiver Class](#)

### See Also

[RRIEntry Class](#)

[RRIReceiver Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

### Description

Returns the instance of [RRIEntry Class](#) at the provided index.

### Syntax [Visual Basic]

```
Public Function GetItem( _  
    ByVal in_nIndex As Integer _  
) As RRIEntry
```

### Syntax [C#]

```
public RRIEntry GetItem(  
    System.Int32 in_nIndex  
);
```

### Parameters

in\_nIndex

An int that specifies the one-based (not zero-based) Index of the [RRIEntry Class](#) to be retrieved.

### Return Value

Returns a reference to the [RRIEntry Class](#).

## Initialize Method

### Applies To

[RRIReceiver Class](#)

### See Also

[RRIReceiver Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

### Description

Initializes this class using an RRI handle and SAP BW credentials.

### Syntax [Visual Basic]

```
Public Sub Initialize( _  
    ByVal in_sRptId As String, _  
    ByVal in_sRRIHandle As String, _  
    ByVal in_sCMSLogonToken As String, _  
    ByVal in_sBWPassword As String, _  
    ByVal in_sBWTicket As String _  
)
```

### Syntax [C#]

```
public void Initialize(  
    System.String in_sRptId,  
    System.String in_sRRIHandle,  
    System.String in_sCMSLogonToken,  
    System.String in_sBWPassword,  
    System.String in_sBWTicket  
);
```

### Parameters

**in\_sRptId**

The report ID.

**in\_sRRIHandle**

The RRI handle.

**in\_sCMSLogonToken**

The CMS logon token.

**in\_sBWPassword**

The SAP BW password.

**in\_sBWTicket**

The SAP BW SSO Logon Ticket.

# RRIEntry Class

## See Also

[RRIEntry Members](#)  
[CrystalDecisions.SAP.Web.RRI Assembly](#)  
[RRIReceiver Class](#)

## Namespace

CrystalDecisions.SAP.Web

## Inheritance

System.Object  
     System.MarshalByRefObject  
         **CrystalDecisions.SAP.Web.RRIEntry**

## Syntax [Visual Basic]

```
Public Class RRIEntry _
    Inherits MarshalByRefObject _
    Implements IDisposable
```

## Syntax [C#]

```
public class RRIEntry : MarshalByRefObject,
    IDisposable
```

## Remarks

The [RRIEntry Class](#) represents a single SAP report parameter value. RRIEntry instances are contained in an [RRIReceiver Class](#).

# RRIEntry Members

## Constructors

Constructor	Description
<a href="#">RRIEntry Constructor ()</a>	Initializes a new instance of the <a href="#">RRIEntry Class</a> .

## Methods

Method	Description
<a href="#">Dispose Method</a>	Frees unmanaged resources held by an instance of this class.

## Properties

Property	Description
<a href="#">High Property</a>	Returns the upper bound range value of the parameter. Read-Only.
<a href="#">Low Property</a>	Returns the lower bound range value of the parameter. Read-Only.
<a href="#">Name Property</a>	Returns the name of the parameter. Read-Only.
<a href="#">Opt Property</a>	Returns the bound operator of the parameter. Read-Only.
<a href="#">Sign Property</a>	Returns whether the parameter includes or excludes the value defined by the <a href="#">High Property</a> , the <a href="#">Low Property</a> , and the <a href="#">Opt Property</a> . Read-Only.

## Constructors

### RRIEntry Constructor ()

#### Applies To

[RRIEntry Class](#)

#### See Also

[RRIEntry Members](#)  
[CrystalDecisions.SAP.Web.RRI Assembly](#)

#### Description

Initializes a new instance of the [RRIEntry Class](#).

#### Syntax [Visual Basic]

```
Public Sub New()
```

#### Syntax [C#]

```
public RRIEntry();
```



## Methods

### Dispose Method

**Applies To**

[RRIEntry Class](#)

**See Also**

[RRIEntry Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

**Description**

Frees unmanaged resources held by an instance of this class.

**Syntax [Visual Basic]**

```
Public Sub Dispose()
```

**Syntax [C#]**

```
public void Dispose();
```

**Remarks**

Frees unmanaged resources such as files, streams, and handles. Use this method to free resources held by an object, or to prepare an object for reuse.

Objects must ensure that calls to this method are propagated along the containment hierarchy. For example, suppose that an object allocates another object into memory. If the original allocating object is to be disposed, then the allocated object must also be disposed.

## Properties

### High Property

**Applies To**

[RRIEntry Class](#)

**See Also**

[RRIEntry Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

**Description**

Returns the upper bound range value of the parameter. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property High As String
```

### Syntax [C#]

```
public string High {get;}
```

### Remarks

The only time that both the [High Property](#) and the [Low Property](#) are used together is when the [Opt Property](#) equals BT (between). In all other cases, only the [Low Property](#) is used.

## Low Property

### Applies To

[RRIEntry Class](#)

### See Also

[RRIEntry Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

### Description

Returns the lower bound range value of the parameter. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property Low As String
```

### Syntax [C#]

```
public string Low {get;}
```

### Remarks

The only time that both the [High Property](#) and the [Low Property](#) are used together is when the [Opt Property](#) equals BT (between). In all other cases, only the [Low Property](#) is used.

## Name Property

### Applies To

[RRIEntry Class](#)

### See Also

[RRIEntry Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

### Description

Returns the name of the parameter. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property Name As String
```

### Syntax [C#]

```
public string Name {get;}
```

## Opt Property

### Applies To

[RRIEntry Class](#)

### See Also

[RRIEntry Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

### Description

Returns the bound operator of the parameter. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property Opt As String
```

### Syntax [C#]

```
public string Opt {get;}
```

### Remarks

The values are outlined below:

Value	Description
EQ	equals to
BT	between
GT	greater than

Value	Description
LT	less than
LE	less than or equal to
GE	greater than or equal to
CP	contains pattern

## Sign Property

### Applies To

[RRIEntry Class](#)

### See Also

[RRIEntry Members](#)

[CrystalDecisions.SAP.Web.RRI Assembly](#)

### Description

Returns whether the parameter includes or excludes the value defined by the [High Property](#), the [Low Property](#), and the [Opt Property](#). Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property Sign As String
```

### Syntax [C#]

```
public string Sign {get;}
```

### Remarks

The string can be one of two values:

- I (includes)
- E (excludes)

# CrystalDecisions.SAP.Web.SSO Assembly

The CrystalDecisions.SAP.Web.sso Assembly provides SSO (Single Sign On) functionality between a SAP system and a BusinessObjects Enterprise system. The [DataSourceSSO Class](#) determines if Secure Network Communication (SNC) is available for a given Enterprise session and data source of a Crystal report. To achieve this task, DataSourceSSO determines the logical SAP system name from the database name. It then matches the system name against the available SAP aliases to make the verification.

## **Assembly Name**

CrystalDecisions.SAP.Web.SSO

## **DLL Name**

CrystalDecisions.SAP.Web.SSO.dll

# DataSourceSSO Class

## See Also

[DataSourceSSO Members](#)  
[CrystalDecisions.SAP.Web.SSO Assembly](#)

## Namespace

CrystalDecisions.SAP.Web

## Inheritance

System.Object

System.MarshalByRefObject

**CrystalDecisions.SAP.Web.DataSourceSSO**

## Syntax [Visual Basic]

```
Public Class DataSourceSSO _  
    Inherits MarshalByRefObject _  
    Implements IDisposable
```

## Syntax [C#]

```
public class DataSourceSSO : MarshalByRefObject,  
    IDisposable
```

## Remarks

The [DataSourceSSO Class](#) determines if Secure Network Communication (SNC) is available for a given Enterprise session and data source of a Crystal report. Given the CMS logon token, the Enterprise session, and the data source of a report, the [SNCAvailable Property](#) returns a true or false value.

A Crystal report may contain multiple data sources. In that case, the class provides the [DataSourceIndex Property](#) to access each specific data source. The [LogonCount Property](#) returns the number of data sources for the report. Using these two properties, you can iterate through multiple data sources and verify SNC on each one.

In addition, DataSourceSSO can create an offline version of the logon token. In doing so, a Crystal report can be scheduled to run after the Enterprise session has expired. DataSourceSSO encrypts and stores the user credentials into the Crystal report.

This class is particularly useful for creating web applications that schedule and view Crystal Reports based on an SAP data source. If SNC is available, the application logic can use password-less logon and offline tokens.

## DataSourceSSO Members

### Constructors

Constructor	Description
<a href="#">DataSourceSSO Constructor ()</a>	Initializes a new instance of the <a href="#">DataSourceSSO Class</a> .

### Properties

Property	Description
<a href="#">APSLogonToken Property</a>	Deprecated. Use the <a href="#">CMSLogonToken Property</a> instead.
<a href="#">CMSLogonToken Property</a>	Sets the CMS logon token. Write-Only.
<a href="#">DatabaseName Property</a>	Returns the database name. Read-Only.
<a href="#">DataSourceIndex Property</a>	Sets the current data source of the report using the given index. Write-Only.
<a href="#">DataSourceName Property</a>	Returns the data source name. Read-Only.
<a href="#">EnterpriseSession Property</a>	Sets the Enterprise session. Write-Only.
<a href="#">ExternalID Property</a>	Returns the current alias of the user. Read-Only.
<a href="#">LogonCount Property</a>	Returns the number of data sources for the Crystal report. Read-Only.
<a href="#">Password Property</a>	Sets the password.
<a href="#">ReportID Property</a>	Sets the Crystal report ID. Write-Only.
<a href="#">ScheduleTime Property</a>	Sets whether to schedule the report with an offline token. Write-Only.
<a href="#">ServerName Property</a>	Returns the server name. Read-Only.
<a href="#">SNCAvailable Property</a>	Determines whether SNC is available for the data source. Read-Only.
<a href="#">SubReport Property</a>	Returns the subreport name. Read-Only.
<a href="#">Username Property</a>	Returns the offline token. Read-Only.

## Methods

Method	Description
<a href="#">Dispose Method</a>	Frees unmanaged resources held by an instance of this class.
<a href="#">IsOfflineSNCName Method</a>	Determines whether an offline token is valid for the data source.

## Constructors

### DataSourceSSO Constructor ()

#### Applies To

[DataSourceSSO Class](#)

#### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

#### Description

Initializes a new instance of the [DataSourceSSO Class](#).

#### Syntax [Visual Basic]

```
Public Sub New()
```

#### Syntax [C#]

```
public DataSourceSSO();
```

## Properties

### APSLogonToken Property

#### Applies To

[DataSourceSSO Class](#)

#### See Also

[CrystalDecisions.SAP.Web.SSO Assembly](#)

#### Description

Deprecated. Use the [CMSLogonToken Property](#) instead.

#### Syntax [Visual Basic]

```
Public WriteOnly Property APSLogonToken As String
```

#### Syntax [C#]

```
public string APSLogonToken {set;}
```



## CMSLogonToken Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Sets the CMS logon token. Write-Only.

### Syntax [Visual Basic]

```
Public WriteOnly Property CMSLogonToken As String
```

### Syntax [C#]

```
public string CMSLogonToken {set;}
```

## DatabaseName Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Returns the database name. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property DatabaseName As String
```

### Syntax [C#]

```
public string DatabaseName {get;}
```

## DataSourceIndex Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Sets the current data source of the report using the given index. Write-Only.

### Syntax [Visual Basic]

```
Public WriteOnly Property DataSourceIndex As Integer
```

### Syntax [C#]

```
public int DataSourceIndex {set;}
```

### Remarks

Use this property together with the [LogonCount Property](#) to iterate through multiple data sources.

## DataSourceName Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Returns the data source name. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property DataSourceName As String
```

### Syntax [C#]

```
public string DataSourceName {get;}
```

## EnterpriseSession Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Sets the Enterprise session. Write-Only.

### Syntax [Visual Basic]

```
Public WriteOnly Property EnterpriseSession As  
CrystalDecisions.Enterprise.IEnterpriseSession
```

### Syntax [C#]

```
public CrystalDecisions.Enterprise.IEnterpriseSession EnterpriseSession {set;}
```

## ExternalID Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Returns the current alias of the user. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property ExternalID As String
```

### Syntax [C#]

```
public string ExternalID {get;}
```

### Remarks

The current alias corresponds to the current data source.

## LogonCount Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Returns the number of data sources for the Crystal report. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property LogonCount As Integer
```

### Syntax [C#]

```
public int LogonCount {get;}
```

### Remarks

Use this property in conjunction with the [DataSourceIndex Property](#) to iterate through multiple data sources.

## Password Property

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

[Username Property](#)

### Description

Sets the password.

### Syntax [Visual Basic]

```
Public Property Password As String
```

### Syntax [C#]

```
public string Password {get; set;}
```

## ReportID Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Sets the Crystal report ID. Write-Only.

### Syntax [Visual Basic]

```
Public WriteOnly Property ReportID As String
```

### Syntax [C#]

```
public string ReportID {set;}
```

## ScheduleTime Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Sets whether to schedule the report with an offline token. Write-Only.

### Syntax [Visual Basic]

```
Public WriteOnly Property ScheduleTime As Integer
```

### Syntax [C#]

```
public int ScheduleTime {set;}
```

### Remarks

This property uses 1 to schedule with an offline token, 0 otherwise.

## ServerName Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Returns the server name. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property ServerName As String
```

### Syntax [C#]

```
public string ServerName {get;}
```

## SNCAvailable Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Determines whether SNC is available for the data source. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property SNCAvailable As Integer
```

### Syntax [C#]

```
public string SNCAvailable {get;}
```

### Remarks

The property uses 1 to specify that SNC is available, 0 otherwise.

## SubReport Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

### Description

Returns the subreport name. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property SubReport As String
```

### Syntax [C#]

```
public string SubReport {get;}
```

## Username Property

### Applies To

[DataSourceSSO Class](#)

### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

[Password Property](#)

### Description

Returns the offline token. Read-Only.

### Syntax [Visual Basic]

```
Public ReadOnly Property Username As String
```

### Syntax [C#]

```
public string Username {get;}
```

## Methods

### Dispose Method

#### Applies To

[DataSourceSSO Class](#)

#### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

#### Description

Frees unmanaged resources held by an instance of this class.

#### Syntax [Visual Basic]

```
Public Sub Dispose()
```

#### Syntax [C#]

```
public void Dispose();
```

#### Remarks

Frees unmanaged resources such as files, streams, and handles. Use this method to free resources held by an object, or to prepare an object for reuse.

Objects must ensure that calls to this method are propagated along the containment hierarchy. For example, suppose that an object allocates another object into memory. If the original allocating object is to be disposed, then the allocated object must also be disposed.

### IsOfflineSNCName Method

#### Applies To

[DataSourceSSO Class](#)

#### See Also

[DataSourceSSO Members](#)

[CrystalDecisions.SAP.Web.SSO Assembly](#)

#### Description

Determines whether an offline token is valid for the data source.

#### Syntax [Visual Basic]

```
Public Function IsOfflineSNCName( _  
    ByVal in_sName As String _  
) As Integer
```



### Syntax [C#]

```
public virtual System.Int32 IsOfflineSNCName(  
    System.String in_sName  
);
```

### Parameters

in\_sName

The token to verify.

### Return Value

Returns 1 if the offline token is valid; returns 0 if the offline token is not valid.

**Note:** You can obtain the token from the [Username Property](#).





Get More Help



---



appendix

### **Additional developer resources**

[http://www.businessobjects.com/products/dev\\_zone/net/default.asp](http://www.businessobjects.com/products/dev_zone/net/default.asp)

### **Online customer support**

The Business Objects Customer Support web site contains information about Customer Support programs and services. It also has links to a wide range of technical information including knowledgebase articles, downloads, and support forums.

<http://www.businessobjects.com/support/>

### **Looking for the best deployment solution for your company?**

Business Objects consultants can accompany you from the initial analysis stage to the delivery of your deployment project. Expertise is available in relational and multidimensional databases, in connectivities, database design tools, customized embedding technology, and more.

For more information, contact your local sales office, or contact us at:

<http://www.businessobjects.com/services/consulting/>

### **Looking for training options?**

From traditional classroom learning to targeted e-learning seminars, we can offer a training package to suit your learning needs and preferred learning style. Find more information on the Business Objects Education web site:

<http://www.businessobjects.com/services/training>

### **Send us your feedback**

Do you have a suggestion on how we can improve our documentation? Is there something you particularly like or have found useful? Drop us a line, and we will do our best to ensure that your suggestion is included in the next release of our documentation:

[documentation@businessobjects.com](mailto:documentation@businessobjects.com)

**Note:** If your issue concerns a Business Objects product and not the documentation, please contact our Customer Support experts. For information about Customer Support visit: <http://www.businessobjects.com/support/>.



**A** | Get More Help  
*Send us your feedback*

# Index

## A

APSLogonToken Property (DataSourceSSO) 56  
architecture 9

## B

Business Objects  
    consulting services 68  
    support services 68  
    training services 68

## C

CheckHierarchyNodeDependencies Method  
    (ParameterUtility) 16  
Children Property (PicklistEntry) 33  
CMSLogonToken Property (DataSourceSSO) 57  
consultants, Business Objects 68  
Count Property (PicklistGenerator) 29  
Count Property (RRReceiver) 44  
crystaldecisions.sap.web.parameter Assembly 13  
crystaldecisions.sap.web.ri Assembly 41  
crystaldecisions.sap.web.sso Assembly 53  
CrystalReportPartViewer 8  
CrystalReportViewer 8  
customer support 68

## D

DatabaseName Property (DataSourceSSO) 57  
DataSourceIndex Property (DataSourceSSO) 58  
DataSourceName Property (DataSourceSSO) 58  
DataSourceSSO Class 54  
DeletePersonalizedValue Method  
    (ParameterUtility) 17  
Description Property (PicklistEntry) 33  
Dispose Method (DataSourceSSO) 64  
Dispose Method (ParameterUtility) 18  
Dispose Method (PicklistEntry) 35, 39  
Dispose Method (PicklistGenerator) 29

Dispose Method (RREntry) 49  
Dispose Method (RRReceiver) 44  
documentation  
    feedback on 68

## E

EnterpriseSession Property (DataSourceSSO) 59  
ExternalID Property (DataSourceSSO) 59

## F

feedback, on documentation 68

## G

GetItem Method (PicklistGenerator) 30  
GetItem Method (RRReceiver) 45  
GetPicklist Method (ParameterUtility) 18

## H

HaveChildren Property (PicklistEntry) 34  
HierarchyError Property (HierarchyNodeStatus) 38  
HierarchyIndex Property (HierarchyNodeStatus)  
    38  
HierarchyNodeStatus Class 36  
High Property (RREntry) 49

## I

Initialize Method (ParameterUtility) 21  
Initialize Method (RRReceiver) 46  
IsBWParameter Method (ParameterUtility) 22  
IsForDisplay Property (PicklistEntry) 34  
IsHierarchyNode Method (ParameterUtility) 23  
IsOfflineSNCName Method (DataSourceSSO) 64

## L

LoadDefaultValueToReport Method  
    (ParameterUtility) 23

## Index

LoadPersonalizedValueToReport Method  
(ParameterUtility) [24](#)  
LogonCount Property (DataSourceSSO) [60](#)  
Low Property (RREntry) [50](#)

## N

Name Property (RREntry) [51](#)

## O

Online Customer Support [68](#)  
Opt Property (RREntry) [51](#)

## P

ParameterUtility Class [14](#)  
Password Property (DataSourceSSO) [60](#)  
PicklistEntry Class [31](#)  
PicklistGenerator Class [27](#)

## R

ReportID Property (DataSourceSSO) [61](#)  
RREntry Class [47](#)  
RRReceiver Class [42](#)

## S

SavePersonalizedValue Method  
(ParameterUtility) [25](#)  
ScheduleTime Property (DataSourceSSO) [61](#)  
ServerName Property (DataSourceSSO) [62](#)  
Sign Property (RREntry) [52](#)  
SNCAvailable Property (DataSourceSSO) [62](#)  
SubReport Property (DataSourceSSO) [63](#)  
support  
    customer [68](#)  
    technical [68](#)  
    web site [68](#)

## T

technical support [68](#)  
training, on Business Objects products [68](#)

## U

Username Property (DataSourceSSO) [63](#)

## V

ValidateHierarchicalParameters Method  
(ParameterUtility) [26](#)  
Value Property (PicklistEntry) [35](#)

## W

web  
    customer support [68](#)  
web sites  
    support [68](#)  
    training [68](#)