

ibiTM WebFOCUS[®]

Embedded Business Intelligence User Guide

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Introducing ibi WebFOCUS Embedded Business Intelligence

The *ibi™ WebFOCUS® Embedded Business Intelligence User's Guide* introduces ibi™ WebFOCUS® embedded business intelligence (BI) and includes comprehensive content on WebFOCUS® RESTful Web Services for developers and ibi™ WebFOCUS® Open Portal Services, which are key components in embedded BI solutions. For more information, see [WebFOCUS RESTful Web Services](#) and [WebFOCUS Open Portal Services](#).

In addition, the embedded BI demonstration (“demo”) application that is packaged with WebFOCUS® is documented in this user's guide. For more information, see [WebFOCUS Embedded Business Intelligence Demonstration Application](#).

Introducing ibi WebFOCUS Embedded Business Intelligence

WebFOCUS embedded Business Intelligence (BI) provides the capability of incorporating WebFOCUS content, analytics, and functionality (features) into an external application.

This section provides an introduction to WebFOCUS embedded BI, which also highlights key features and considerations.

Understanding Techniques and Considerations For Embedding Business Intelligence

There are several approaches and techniques that can be used to embed business intelligence (BI) into an external application, including:

1. Embedding WebFOCUS BI Portal pages or other WebFOCUS content into an HTML iframe.
2. Using WebFOCUS web services to embed content into the application.
3. Launching WebFOCUS tools such as ibi™ WebFOCUS® InfoAssist from the application.
4. Using WebFOCUS Open Portal Services to embed content (specifically, WebFOCUS portlets) in a JSR 286-compliant portal environment (for example, Microsoft SharePoint).

The embedded BI demonstration ("demo") application that is packaged with WebFOCUS enables you to explore the iframe and web services embedding options.

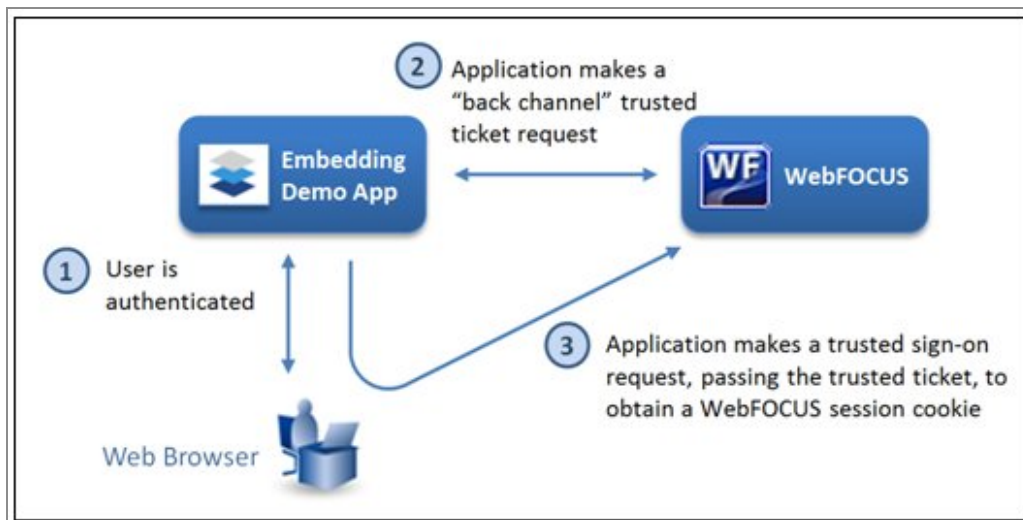
Implementing Single Sign-On

An important developer consideration for an embedded BI application is how to implement single sign-on (SSO) between the embedded application and WebFOCUS so that the user is not required to provide credentials on multiple occasions. There are several options to consider, including:

- Windows Authentication
- SAML 2.0
- Web SSO Products
- Custom Solutions

In this content and accompanying embedded BI demo application, you will learn how the Trusted Ticket Authentication feature in WebFOCUS can be used to implement SSO.

As shown in the following diagram, the embedded BI demo application authenticates the user (1) with a simple method, as described in *Registering User Names* and then makes a trusted ticket request (2) to WebFOCUS. This is typically referred to as a *back channel* request because the connection is established directly between the server hosting the embedded application and the server hosting WebFOCUS, and is therefore not seen by the network where the web browser of the user is running.



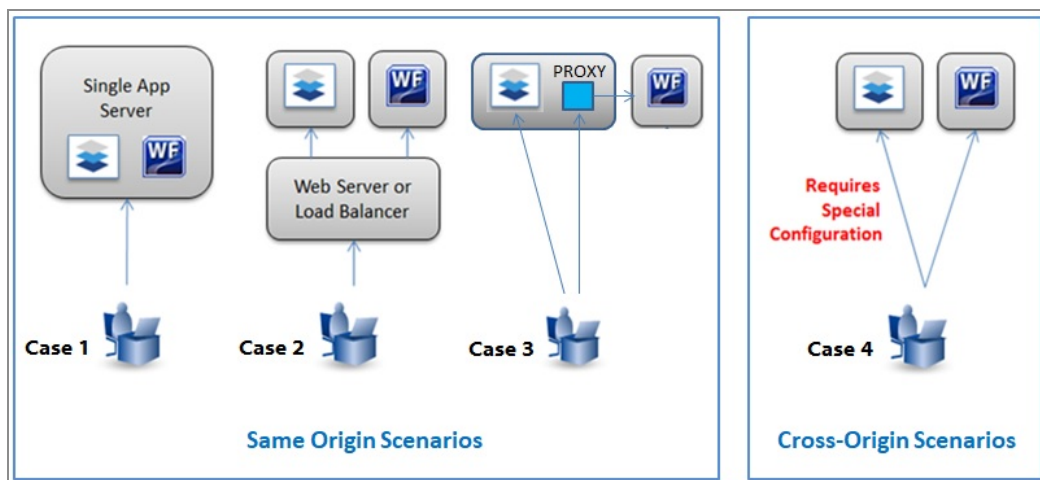
WebFOCUS verifies that the trusted ticket request originates from a trusted host and returns a trusted authentication ticket. The application then presents this ticket in a trusted sign-on request (3), originating from the web browser of the user, in order to obtain a WebFOCUS session cookie. Moving forward from this point, the embedded BI demo application can request content from WebFOCUS using URL requests or the WebFOCUS RESTful Web Services API.

If the embedded application will be making POST requests that create or update WebFOCUS resources, then a Cross-Site Request Forgery (CSRF) token must be obtained from WebFOCUS and submitted with these requests. The trusted sign-on request can include an option to obtain a CSRF token. The embedded BI demo application receives a CSRF token, but does not use it.

Implementing Embedded Business Intelligence in Same Origin and Cross-Origin Scenarios

Another important consideration is the deployment topology, which relates to where the embedded application and WebFOCUS reside. Often times both are deployed on or behind a single web host. This includes when both are deployed on the same application server (as depicted by **Case 1** in the following diagram) and when they are deployed on different servers, but accessed from a single web server or load balancer (**Case 2**). In addition, a proxy method can also be used (as depicted by **Case 3** in the following diagram), where the browser communicates to a proxy, which acts as an intermediary to WebFOCUS.

These are referred to as *same origin* scenarios.



At times it may be necessary for the user to access the embedded application and WebFOCUS from different web hosts as depicted by **Case 4** in this diagram. This is referred to as a *cross-origin* scenario. Due to security controls built into modern web browsers, you will need to configure the WebFOCUS iframe embedding and Cross-Origin Request Sharing (CORS) features before the embedded BI demo application can be used in a cross-origin scenario. For more information on configuring and using cross-origin settings in WebFOCUS, see the *WebFOCUS Security and Administration* content.

Other considerations for embedded BI include branding/rebranding and responsive web design. The embedded BI demo application shows how you can restyle WebFOCUS content and BI Portal pages so that they blend in visually with the host application in order to provide an improved user experience. The sample BI Portals that are included with the demo have responsive page layouts, which require the hosting iframe height to be dynamically adjusted as required by the portal page. This can be accomplished by setting the *Broadcast height for embedding* option in the BI Portals and adding an event listener to

the embedded BI demo. For more information on these settings and options, see [Additional Considerations for Embedded Business Intelligence](#).

As you can see, WebFOCUS provides robust support for embedded BI. This enables customers to extend commercial and custom web applications with the extensive business intelligence and analytics capabilities available in WebFOCUS with minimal effort and with an exceptional user experience.

Best Practices for Embedding BI

This section outlines several best practices for embedding BI.

Flow Control Options

- **Front Channel.** Used with iframe and/or AJAX (Asynchronous JavaScript and XML) approaches where the browser connects to WebFOCUS on the same or a different origin host.
- **Proxy Method.** A browser communicates with a proxy that acts as an intermediary to WebFOCUS.

User Context Options

- **Service Account.** Typically used with a proxy but does not require it. This would require a user ID and password for the service account. If user-specific content will be returned, then a user ID parameter must be injected by the proxy code so WebFOCUS can use it to filter the data (since in this case WebFOCUS runs all requests as the service account user).
- **Trusted Ticket.** Required for iframe Portal, hyperlink WebFOCUS® InfoAssist, hyperlink Insight, and PGX page embedding. It is recommended when embedding charts that have interactive features, such as autolink drill-downs. It can be used with proxy or front channel configurations.

WebFOCUS RESTful Web Services

This content describes how to develop and use WebFOCUS RESTful Web Services. It is intended for experienced developers who will use this capability to expose WebFOCUS content and functionality as callable services from a Microsoft Visual Studio .NET or J2EE development platform. Developers should have knowledge of RESTful web service technology and object-oriented programming.

Introducing WebFOCUS RESTful Web Services

This section provides an introduction to REST and RESTful web services in the context of WebFOCUS.

What Is REST?

The REST architectural style was developed in parallel with HTTP Version 1.1, based on the existing design of HTTP Version 1.0. The largest implementation of a system conforming to the REST architectural style is the World Wide Web. REST exemplifies how the architecture of the web emerged by characterizing and constraining the macro-interactions of the four components of the web, namely origin servers, gateways, proxies and clients, without imposing limitations on the individual participants. As such, REST essentially governs the proper behavior of participants.

REST-style architectures consist of clients and servers. Clients initiate requests to servers, servers process requests and return appropriate responses. Requests and responses are built around the transfer of representations of resources. A resource can be essentially any coherent and meaningful concept that may be addressed. A representation of a resource is typically a document that captures the current or intended state of a resource.

The client begins sending requests when it is ready to make the transition to a new state. While one or more requests are outstanding, the client is considered to be in transition. The representation of each application state contains links that may be used the next time the client chooses to initiate a new state transition.

REST facilitates the transaction between web servers by allowing loose coupling between different services. REST is less strongly typed than its counterpart, SOAP. The REST language is based on the use of nouns and verbs, and has an emphasis on readability. Unlike SOAP, REST does not require XML parsing and does not require a message header to and from a service provider. This ultimately uses less bandwidth. REST error handling is also different from that used by SOAP.

What are RESTful Web Services?

A RESTful web service (also called a RESTful web API) is a web service that is implemented using HTTP and the principles of REST. It is a collection of resources with four defined aspects:

- Base URL for the web service, such as:

```
http://example.com/resources
```

- Internet media type of the data supported by the web service. This is usually XML, but can be any other valid Internet media type providing that it is a valid hypertext standard.
- Set of operations supported by the web service using HTTP methods (for example, GET, PUT, POST, or DELETE).
- The API must be hypertext driven.

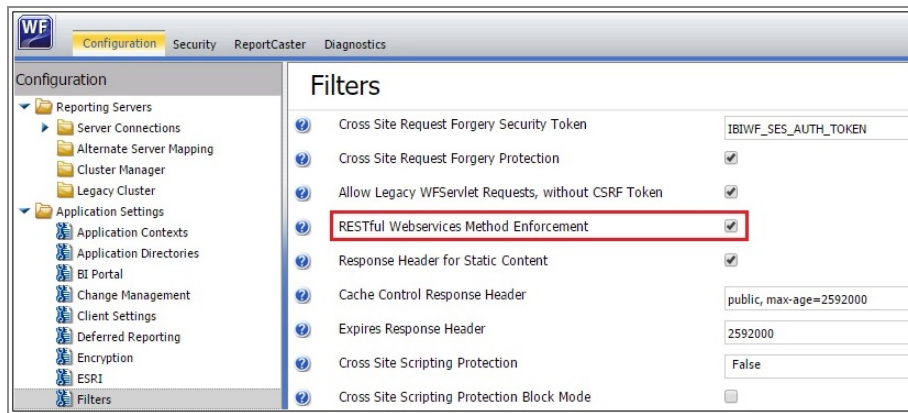
Considerations When Using HTTP Methods: GET and POST

Throughout this content, each WebFOCUS RESTful Web Service request that is documented indicates a specific HTTP method to use. This section describes several considerations that developers need to be aware of when using WebFOCUS RESTful Web Service requests with GET and POST HTTP methods.

- If the method indicated is GET, then a GET or a POST may be used. If the method indicated is POST, then only a POST may be used.
- If the WebFOCUS RESTful Web Service request uses a GET method, but the action is not allowed to be a GET, then the following error is generated:

```
ERROR_INVALID_HTTP_REQUEST_TYPE
```

Note: The RESTful Webservices Method Enforcement parameter, which can be active or inactive, controls this behavior. This parameter is located in the WebFOCUS Administration Console (under Application Settings, Filters), as shown in the following image.



- Before you use the POST method, you need to determine if the environment you are working in is accessing WebFOCUS from different web hosts, which is referred to as a cross-origin scenario. If so, then you must configure Cross-Origin Request Sharing (CORS) features and Cross-Site Request Forgery (CSRF) functionality in WebFOCUS.
 - For more information on configuring and using cross-origin settings in WebFOCUS, see the *WebFOCUS Security and Administration* content.
 - For more information on configuring CSRF functionality, see [Cross-Site Request Forgery \(CSRF\)](#).
- The GET method has a limitation related to the amount of data that can be sent in a query. If you need to run a report containing a large amount of parameter data (for example, approximately 2000 bytes or 4000 in some cases), then you may need to use a POST method as an alternative.

WebFOCUS Magnify Search RESTful Web Service Requests

This section describes the format and structure of WebFOCUS Magnify Search web service requests.

Closing a Searcher

You have the option of using this RESTful web service request to close a searcher.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/indexadmin?IBIRS_
action=closeSearcher&IBIRS_searcherName=name
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

name

Is the name of the searcher that will be closed. If you do not know the exact name of the searcher, open the Magnify Console, navigate to the **Maintenance** group, and click **Close Searchers and Readers** to display the list of open searchers.

Example:

The following example is an HTTP GET request sent to close the searcher **dd_retail|dd_vs|dd_retail_samples**.

Get Request URL:

```
http://localhost:8080/ibi_apps/rs/indexadmin?IBIRS_
action=closeSearcher&IBIRS_searcherName=dd_retail|dd_vs|dd_retail_
samples
```

Response:

The following code is an example of a successful response. Each closed searcher is defined with the opening and closing entry key tag. The *value* attribute defines the name of the closed searcher.

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US" name="closeSearcher"
returncode="10000" returndesc="SUCCESS" subreturncode="0" type="simple">
    <ibfparams size="1">
        <entry key="IBIRS_searcherName" value="dd_retail|dd_vs|
samples"/>
    </ibfparams>
    <rootObject _jt="string"/>
</ibfsrpc>
```

Closing an Index

You have the option of using this RESTful web service request to close an index reader.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/indexadmin?IBIRS_action=closeIndex&IBIRS_
indexName=name
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

name

Is the name of the index reader that will be closed. If you do not know the exact name of the index reader, open the Magnify Console, navigate to the **Maintenance** group, and click **Close Searchers and Readers** to display the list of open index readers.

Example:

The following example is an HTTP GET request sent to close the open index reader **retail**.

Get Request URL:

```
http://localhost:8080/ibi_apps/rs/indexadmin?IBIRS_
action=closeIndex&IBIRS_indexName=retail
```

Response:

The following code is an example of a successful response. Each closed index is defined with the opening and closing entry key tag. The *value* attribute defines the name of the closed index.

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US" name="closeIndex"
returncode="10000" returndesc="SUCCESS" subreturncode="0" type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_indexName" value="retail"/>
  </ibfsparams>
</rootObject _jt="string"/>
</ibfsrpc>
```

Deleting an Index

You have the option of using this RESTful web service request to delete an index.

HTTP Method: POST**REST URL Format:**

```
http://host:port/ibi_apps/rs/indexadmin?IBIRS_action=deleteIndex&IBIRS_
indexName=name
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

name

Is the name of the index that will be deleted. If you do not know the exact name of the index, open the Magnify Console, navigate to the **Maintenance** group, and click **Delete Indexes** to display the list of open indexes. Deleting an index automatically saves a back-up copy of the index to your file system.

Example:

The following example is an HTTP POST request sent to delete the index **retail_IBI_SUGGEST_CONTENT**:

Post Request URL:

```
http://localhost:8080/ibi_apps/rs/indexadmin?IBIRS_
action=deleteIndex&IBIRS_indexName=retail_IBI_SUGGEST_CONTENT
```

Response:

The following code is an example of a successful response. Each deleted index is defined with the opening and closing entry key tag. The **value** attribute defines the name of the deleted index.

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US" name="deleteIndex"
returncode="10000" returndesc="SUCCESS" subreturncode="0" type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_indexName" value="retail_IBI_SUGGEST_CONTENT"/>
  </ibfsparams>
  <rootObject _jt="string"/>
</ibfsrpc>
```

Starting a System Quiesce

You have the option of using this RESTful web service request to start a system quiesce.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/indexadmin?IBIRS_action=startSystemQuiesce
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

The following example is an HTTP POST request sent to start a system quiesce.

```
http://localhost:8080/ibi_apps/rs/indexadmin?IBIRS_
action=startSystemQuiesce
```

Response:

The following code is an example of a successful response.

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US"
name="startSystemQuiesce" returncode="10000" returndesc="SUCCESS"
subreturncode="0" type="simple">
    <ibfsparams size="0">
    <rootObject _jt="string"/>
</ibfsrpc>
```

Ending a System Quiesce

You have the option of using this RESTful web service request to end a system quiesce.

HTTP Method: POST**REST URL Format:**

```
http://host:port/ibi_apps/rs/indexadmin?IBIRS_action=endSystemQuiesce
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

The following example is an HTTP POST request sent to end a system quiesce.

```
http://localhost:8080/ibi_apps/rs/indexadmin?IBIRS_
action=endSystemQuiesce
```

Response:

The following code is an example of a successful response.

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US"
name="endSystemQuiesce" returncode="10000" returndesc="SUCCESS"
subreturncode="0" type="simple">
    <ibfsparams size="0">
        <rootObject _jt="string"/>
</ibfsrpc>
```

WebFOCUS Repository RESTful Web Service Requests

This section describes the format and structure of WebFOCUS authentication and Repository RESTful web service requests.

Authenticating WebFOCUS Sign-On Requests

This RESTful web service request can be used to authenticate WebFOCUS sign-on requests. The XML response that is returned indicates whether the authentication was successful or unsuccessful. The web service response also includes a *jsessionid*, which exists within the HTTP header. All subsequent WebFOCUS RESTful web services requests must have the *jsessionid* in the HTTP header. If an application is required to interact with specific WebFOCUS components (for example, WebFOCUS InfoAssist), then the *jsessionid* is also used when sending the HTTP request to open the component. This eliminates the need to reauthenticate to WebFOCUS. In addition, if you are already signed on to the WebFOCUS BI Portal, you are not required to run this sign-on request. The *jsessionid* is returned in the HTTP header after a successful sign-on.

i Note: By default, when using RESTful web services with Central Authentication Service (CAS) or Security Assertion Markup Language (SAML), pre-authentication attempts to access protected resources from a user who has not yet signed in to CAS or SAML will redirect the request to the CAS or SAML sign-in pages, which is an undesirable response. To change this response to an HTTP 401 (Unauthorized) status code and allow the application to initiate the authentication, you must configure a setting within the `securitysettings.xml` file to disable anonymous access, and create an HTTP request header within the RESTful application to indicate an HTTP 401 response instead of a redirect.

- Within the `securitysettings.xml` file, which is located in the `config` directory of the ibi™ WebFOCUS® Client installation, set:

```
anonymousAuthEnabled=false
```

- Within the RESTful application, create the following HTTP Request Header:

```
disallowSignInRedirect=true
```

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=signOn&IBIRS_userName=Userid&IBIRS_password=Password
```

where:

Userid

Is the user ID that is required to authenticate to the WebFOCUS Repository.

Password

Is the password that is required to authenticate to the WebFOCUS Repository.

Example:

In the following example, a sign-on attempt is made to the WebFOCUS Repository with a user ID value of *admin* and a password value of *admin*.

Post Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs
```

Body:

```
IBIRS_action=signOn&IBIRS_userName=admin&IBIRS_password=admin
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
  returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSUserObject" description="" dummy="false" email=""
    fullPath="IBFS:/SSYS/USERS/admin" name="admin" password="" type="User">
    <status _jt="IBSSUserStatus" name="UNDEFINED"/>
    <groups _jt="ArrayList" size="0"/>
  </rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the sign-on attempt to the WebFOCUS Repository was successful.

The following is a sample- response trace from an authentication request:

```
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
X-XSS-protection: 0
Set-Cookie: JSESSIONID=BD61C838569C30474977ACDE3DAD8F54; Path=/ibi_
apps/; HttpOnly
Expires: Mon, 24 Sep 2012 09:12:48 GMT
Cache-Control: private
Set-Cookie: WF_SESSIONID=1932062683094412614; Path=/
IBI_Messages: 2
IBI_Message1: (IBFS10000) SUCCESS
IBI_Message2: <IBIWF_SES_AUTH_TOKEN>=<null>
Content-Type: text/xml; charset=iso-8859-1
Transfer-Encoding: chunked
Date: Mon, 24 Sep 2012 09:07:48 GMT
205
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="signOn"
  returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
  type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSUserObject" description="" dummy="false" email=""
    fullPath="IBFS:/SSYS/USERS/admin" name="admin" password=""
    rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/admin" type="User">
```

```

    <status _jt="IBSSUserStatus" name="UNDEFINED"/>
    <groups_jt="ArrayList" size="0"/>
  </rootObject>
</ibfsrpc>

```

The Set-Cookie parameter that appears in line four of this sample establishes the Session ID for users and must be included in all subsequent request messages during the session.

The following is a sample trace of a subsequent request:

```

GET http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository?IBIRS_
action=get
HTTP/1.1
Host: localhost:8080
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:15.0) Gecko/20100101
Firefox/15.0.1
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip, deflate
Connection: keep-alive
Cookie: JSESSIONID=BD61C838569C30474977ACDE3DAD8F54;
wcNewPreference=1963156A6FD0D3C6EE81F2C992ED527D;
WF_SESSIONID=1932062683094412614

```

Cross-Site Request Forgery (CSRF)

A Cross-Site Request Forgery (CSRF), also known as a one-click attack or session riding, is a type of malicious exploit of a website whereby unauthorized commands are transmitted from a user that the website trusts.

To prevent these types of attacks, WebFOCUS must be configured to use CSRF token protection. Under this configuration, a CSRF token is generated every time the WebFOCUS RESTful Web Services authentication request (*IBIRS_action=signOn*) is run, and the CSRF token, containing a token name and a token value, is returned within the response.

The CSRF token must be sent as a parameter for any HTTP POST request. Otherwise, a 403 HTTP return code will occur and a CSRF error message will be logged in the *websecurity.yyyy-mm-dd.log* file.

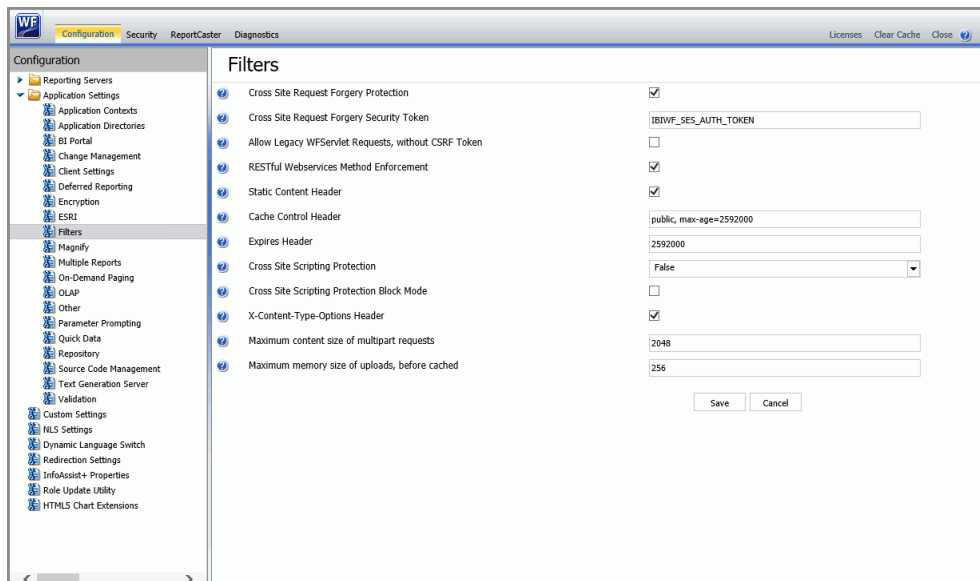
The CSRF token prevents attacks by providing a value that was generated randomly and then stored in the web session of the actual authenticated user. The client can then check for this value when processing all remaining requests and responses during the session,

and can confirm that the request or response is legitimate because it contains the value assigned to that session. Requests or responses that do not contain a CSRF token, or that contain a CSRF token with a name or value that does not match the name or value assigned by the server, are rejected as invalid.

CSRF token protection is supported in Kerberos and SSO environments, but to obtain the delivery of a CSRF token for pre-authenticated users, an explicit `IBIRS_action=signOn` request that contains the ID of the pre-authenticated user exactly as it appears in the database of the authentication application and no password must be added to the initial sign in transaction. For more information, see [Configuring Single Sign On](#).

CSRF protection is enabled by default in the WebFOCUS Administration Console. To confirm and also view the related settings, on the Configuration tab, under the Application Settings folder, click **Filters**.

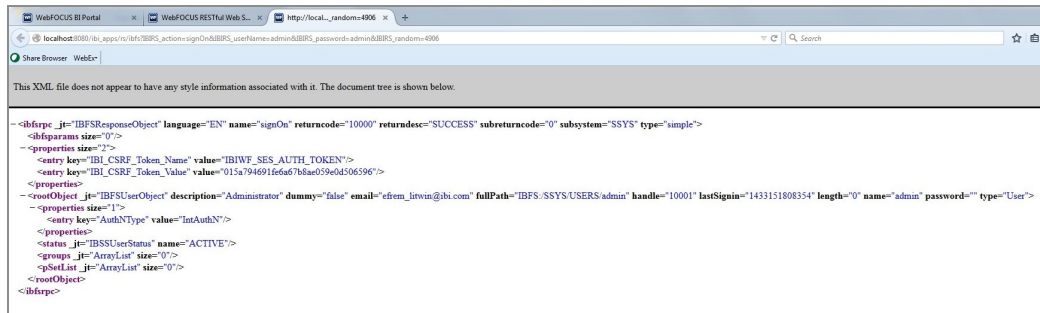
The Filters pane opens, as shown in the following image.



Note that the *Cross Site Request Forgery Protection* check box is selected.

Obtaining a CSRF Token

The CSRF token is returned in the response of the WebFOCUS RESTful Web Services authentication action (`IBIRS_action=signOn`), as shown in the following image.



In this example, the name of the CSRF token is *IBIWF_SES_AUTH_TOKEN* and the value for the CSRF token is *015a794691fe6a67b8ae059e0d506596*.

The name of the CSRF token is taken from the value assigned to the Cross Site Request Forgery Security Token (IBI_CSRF_TOKEN_NAME) setting located on the Filters pane of the Administration Console Configuration tab. By default, the value assigned to this setting is IBIWF_SES_AUTH_TOKEN. However, if your configuration assigns a different value to this setting, WebFOCUS returns a different CSRF token name in the response to the sign-in request message.

Passing a CSRF Token

If WebFOCUS is configured to use CSRF token protection, then the CSRF token is passed as a parameter within the body of the POST request for all actions that require a CSRF token.

Example:

The following example shows the WebFOCUS RESTful Web Service request to add a user. This request includes a CSRF token, as shown in the body of the request in the following example.

Post Request URL:

```
http://localhost:8080/ibi_apps/rs
```

Body:

```

IBIRS_path=/SSYS/USERS/testuser&IBIRS_action=put
&IBIRS_object=<object _jt="IBFSUserObject" description="Test Userid"
email="restid@informationbuilders.com" password="rest" type="User">
  <status _jt="IBSSUserStatus" name="ACTIVE"/>
</object>

```

```
&IBIRS_service=ibfs&IBIWF_SES_AUTH_
TOKEN=015a794691fe6a67b8ae059e0d506596
```

Typically, the response returns XML code identifying the entry for the new user as shown in the following example.

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US" name="put"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_object" value="****"/>
    <entry key="IBIRS_private" value="__null"/>
    <entry key="IBIRS_replace" value="true"/>
    <entry key="IBIRS_path" value="/SSYS/USERS/testuser"/>
    <entry key="IBIRS_args" value="__null"/>
  </ibfsparams>
  <rootobject _jt="IBFSUserObject" description="Test Userid"
dummy="false" email="restid@informationbuilders.com"
fullPath="IBFS:/SSYS/USERS/testuser" handle="1784804352" length="0"
name="testuser" nameSpace="DB"
policy="/+//+8P////30f/e//+/////////v+AAAAA" rsPath="/ibi_
apps/rs/ibfs/SSYS/USERS/testuser" thumbPath="/ibi_apps/ibi_html/ibi_
images/file_type/unknown.svg" type="User" userStatusDisplay="Active">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
  </rootobject>
</ibfsrpc>
```

However, if the CSRF token is not sent, or if an invalid CSRF token is sent in requests that require a CSRF token, then the following error message will be returned in the response:

```
<!DOCTYPE HTML>
<HTML>
<HEAD>
<title>403 - Access Denied</title>
</HEAD>
<body style="background-color:#dae1e7; margin:0;">
  <div align="center" style="position:relative;font-
family:Arial;top:172px;font-size:25pt;">403 - Access Denied</div>
  <div align="center" style="position:relative;top:178px;font-
size:9pt;font-family:Tahoma;color: #485059;">You are not authorized to
view this page</div>
</body>
</HTML>
```


Configuring Single Sign On

WebFOCUS security can be configured to integrate with software service vendors, such as IBM Tivoli® Access Manager and Computer Associates (CA) SiteMinder®. In addition, authentication methodologies, such as Basic Authentication, Integrated Windows Authentication (IWA), and Kerberos, can also be configured with WebFOCUS security. When WebFOCUS security is configured in this manner, the RESTful web service request to authenticate WebFOCUS is not required. For more information, see [Authenticating WebFOCUS Sign-On Requests](#).

However, when working in environments that support Single Sign-On authentication, an IBIRS_action=signOn request must be included in the initial sign-in transaction to enable WebFOCUS to support the use of CSRF tokens, as shown in the following example.

```
var IBIRS_action = "signOn";  
var IBIRS_userName = "user_id";  
var IBIRS_password = " ";
```

where:

user_id

Is the ID of the user as recorded in the single sign-on provider.

The signOn request must include the ID of the User sending the request and a blank password, even though these values are not needed for authentication.

When WebFOCUS returns a CSRF token to a user, that token needs to be added to all HTTP POST requests originating from that user during the remainder of the session.

A session identifier named WF-JSESSION ID, by default, is also returned to the user within a cookie that is included in the header of the response message to the signOn request, as shown in the following example.

```
Set-Cookie: WF-JSESSIONID=0000v6lbcwkcbjsF-XoA1s3IAHe:-1;
```

This cookie identifies the user to the server, and to prevent errors, it must be included in the HTTP header of all subsequent RESTful web service request messages delivered from that user during the session.

After receiving a response to the first RESTful web service request, the client application must parse the response header to retrieve the cookies and send them to subsequent

RESTful web service requests. The reason for this is to reuse the session in the application server.

Example 1: Adapt the Initial Sign In Request for Single Sign On Environments

The following example shows how to create a signOn request in a single sign on environment.

```
<!DOCTYPE html>
<html>
<head>
  <title></title>
  <meta charset="utf-8" />
  <script type="text/javascript" src="http://code.
    jquery.com/jquery-3.1.0.js"> </script>
  <script type='text/javascript'
src="http://cdnjs.cloudflare.com/ajax/libs/jquery-ajaxtransport-
xdomainrequest/1.0.1/jquery.xdomainrequest.min.js"></script>

  <script type="text/javascript">
    var csrf_name;
    var csrf_value;
    var frameToBeWorkedOn = "#AjaxPlaceHolder";
    var contentType = "application/x-www-form-urlencoded; charset=utf-
8";

    //To run with preauthentication, use the "Modify Headers" add-in in the
    //browser to set a request header of SM_USER with a value of "rest"
    //which is the userid in Security Center. Then in WebFOCUS Admin
    Console ->
    //Security tab, turn off all authentication schemes except for
    //Preauthentication
    //Use SM_USER and keep all the defaults **** Make sure to START the
    Modify
    //Headers add-in or the header variable is not sent

    // $(document).ready(function (IBIRS_action, IBIRS_userName, IBIRS_
    password) {
      $(document).ready(function (IBIRS_action, IBIRS_userName) {

        if (window.XDomainRequest)
          contentType = "text/plain";
```

```

        var webMethod = "http://as8200.ibi.com:8080/ibi_apps/rs";
        var IBIRS_action = "signOn";
        var IBIRS_userName = "rest";var IBIRS_password = "";
        var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_
userName=' +
IBIRS_userName + '&IBIRS_password=' + IBIRS_password;
        var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_
userName='
+ IBIRS_userName;

```

```

$.ajax({
    type: "POST",
    url: webMethod,
    data: parameters,
    dataType: "xml",
    xhrFields: {
        withCredentials: true
    },
    crossDomain: true,
    contentType: contentType,
    success: xmlParser,
    error:function(jqXHR,textStatus,errorThrown)
    {
        alert("You can not send Cross Domain AJAX requests: "
+
        errorThrown);
    }
})
});

function xmlParser(xml) {

    $(xml).find("entry").each(function () {
        if ($(this).attr("key") == "IBI_CSRF_Token_Name") {
            csrf_name = $(this).attr("value");
        }
        if ($(this).attr("key") == "IBI_CSRF_Token_Value") {
            csrf_value = $(this).attr("value");
        }
    });

    runReport();
}

```

```
}
```

Example 2: SiteMinder (Initial Request)

When working with SiteMinder, the SMSESSION cookie must be passed in the RESTful web service request header in addition to the cookie containing the WF-JSESSION ID.

Request:

```
GET http://host:port/ibi_apps/rs?IBIRS_action=TEST HTTP/1.1
Host: host:port
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:20.0) Gecko/20100101
Firefox/20.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Cookie:
SMSESSION=9XYcYZnboGIIIfMhEeeZJ8qSQY8Q86jN/WYZ/tco/xYuXM0hNVSi4VI0kDKLq/C
0

RHARUYd/J6og1b5w1M+I2a1SoUJz8m28cUj13Pt221ubduHvaAmEAWHh86lQhUmLc/yae552
m

YoURSzhZ2LexE+7KgeK8fFVtBjX12DXHPBvv8vpkas80NeYnaqJbS4Td4jbT0A0Lf92k2K5
H

87CDNgr+lT6iWAVEWo972+eSd7t+/iD3MDaadal7CnT1nUk1BYBTQxHNK8tg3eHUxy61Lqc7
M

K/xmcf+f27S4acueluk2UAeGLG9b+qkmQ8qZ9fZ/equ5tpUL3LZlRWsq9Zf/XXgYM/zUq6f2
9

mJ01lsi9XU/KI03TyPMiBT+gj3bGsK3H5Zw8KuqCJafSuqG9IzohJFtNu0okCp6Qrm2DtGXh
n

fiuYKmwMd006acFh6kVNHMsNEeiTZ6Uo2spccoHJ8I1MA9F7WkF1/yvdghftdYcD6dKIGYF0
7

biKfPhAy/rjtjD23HP138V5jmMTz3A0LeLvjnlsGbxNoTKg/PVf3NPM1o5lsltTwvKYLZbx8
7

W0t1p0VhiAslwre/2UW7kHHIpeX1N3VP4E3ZmYDCXuxX+aJDwGEUzzAbi9uxu/aVDRMRSJY5
R
```

LgqW8dyugcfBagJ94+n8WvC8tsG7nnlVDEewQNbay7w3lrWp0SYVd227KjfdSt1N9eTs08vK
D

sneKjseSchZV0hCL62lzh1JwAaJg3FJNMpnIGG6MmrJ66RC4AhMaKWJgY1p0Li4l4V3nelJ2
9

YfnKE7PAvyY9jfn7iZ08vWT5EunMYPrNgsMH+dZ6atK5xx5lSC076uYtEis1wScoCQvgV6kZ
i

RLyLwPv03kWeINwAkyM3QdmqAWEutR4L7NyTL4bThU5nXuScRCrQ1+Eiq0xPKCBh
Connection: keep-alive

Response:

HTTP/1.1 200 OK
Date: Mon, 06 May 2013 13:38:07 GMT
Server: Apache/2.0.58 (Unix) mod_ssl/2.0.58 OpenSSL/0.9.8e-fips-rhel5
Set-Cookie:
SMSESSION=jNji3BSlZavfl0YRdpNd50mdUsBGBaoaD8DCoIqG/EnvCE2/VqlM3wAcPfr25I
0

JZHmLoewUFMrz60pSwkycBklMQLDWv2LkQVa/lESzr9Pqz0NyiSwXDPHwa5MXdgpmsH58b2a
A

f3x11pKZ/EX3D6VDPaIrRmnZE4LY7GK5YD5+wr/hVDBVWKmVlphbefCjDvlfanfUCZmau8gdL
N

6Csxv52ULat8QBoRmXYh+iDxDpCPqDM4Nc8z3TiVeHhsRyE+7xsAoY+22+E2VkjJ8EDv/hCd
L

ar9VS+nBtPALuN/Otze1C/ZRD19X90yL3++ecsrpLW+ioqRznh7c043URUNqoPz9M3Ea8uDj
0

RSdeQ9QeoAZ8x+4y9jPEMDVdBSJqE7EZlm6d6BmaDPDAUPPP+BYMwx/EHSzM6rbpH+NJT6GO
G

M9gkvLhH31BjiBJZf2VvDPsgzHzIONT1xDJgGcyLTiXAt8m17ufvphnJZbpFtMi0WKfHML6R
z

TwZ+9KvPW2ToeM35zhFXU2gFXE/31gj9sq7MKmihdXe1D022Rd0j7ti99PZg8Q08wsVaHh4P
8

8/ITTy/DrTFqMhdu97YUEW7bAHLKK60PZtpDWCqix3T9/+ZA6MICdSuWRzX1bD2sXQs/zIsg
a

e/K2RHkNTSMA0bKzR+cFUsDzooM5yWApAXvYe/WsB59j0QYrEIdG4//f1Q7MT7F8DnTnVDjW
s

```
j9JlgLvewdiJWVgP+knPnaiR9oZ1GseqCjAuCbbxFcpVhKprx/urqNzwkm9Yz0xKCd8jvXA
8

1rT0yiN+jarm/nHfyjJLYt1fBOuhXploQn7TR7ZixA4n57R897LzbmZK6CsyreFJ11UbiyqS
b

X40M0qx+HHJ3eV7D8t+Rbdn/5UdHzGFCi1S2ZHPkbe+g09H10wxNSmnwIDEUGjQUra7vmvZa
U

5cUeAXFHvCUTKVC8l1vtdSd+eAaLau5THQllPyLRSTQ0f/DwxU1Mon6EZTkRLLxR+2mvnpN6
P
wj; path=/; domain=.ibi.com
X-XSS-protection: 0
Expires: Mon, 06 May 2013 13:43:07 GMT
Cache-Control: private
Set-Cookie: WF-JSESSIONID=0000v6lbcwkcbjsF-XoA1s3IAHe:-1; Path=/ibi_apps
Keep-Alive: timeout=15, max=100
Connection: Keep-Alive
Transfer-Encoding: chunked
Content-Type: text/html; charset=utf-8
Content-Language: en-US
```

The SiteMinder SMSESSION Cookie identifies the authenticated session. For more information, see:

<https://docops.ca.com/ca-single-sign-on/12-52-sp1/en/configuring/web-agent-configuration/session-protection/session-cookie-management>

Example 3: SiteMinder (Subsequent Requests)

For all subsequent requests, the SMSESSION cookie, as well as the session cookie retrieved in the initial RESTful web service request, must be passed in the RESTful web service request header, as shown in the following example.

```
GET http://host:port/ibi_apps/rs/ibfs/WFC/Repository?IBIRS_
path=%2FWFC%2FRepository&IBIRS_action=get&IBIRS_args=__null HTTP/1.1
Host: host:port
User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:20.0) Gecko/20100101
Firefox/20.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://host:port/ibi_apps/rs/ibfs?IBIRS_action=TEST
```

Cookie:

SMSESSION=jNji3BSlZavfl0YRdpNd50mdUsBGBaoaD8DCoIqG/EnvCE2/VqlM3wAcPFr25I0

JZHmLoewUFMrz60pSwkycBklMQLDWv2LkQVa/lESzr9Pqz0NyiswXDPHwa5MXdgpmsH58b2aA

f3x11pKZ/EX3D6VDPaIrRmnZE4LY7GK5YD5+wr/hVDBVWKmVlphbefCjDvlfanfUCZmau8gdln

6Csxv52ULat8QBoRmXYh+idxDpCPqDM4Nc8z3TiVeHsRyE+7xsAoY+22+E2VkjJ8EDv/hCdL

ar9VS+nBtPALuN/Otze1C/ZRDi9X90yL3++ecsrpLW+ioqRznh7c043URUNqoPz9M3Ea8uDJO

RSdeQ9QeoAZ8x+4y9jPEMDVdBSJqE7EZlm6d6BmaDPDAUPPP+BYMwx/EHSz6rbpH+NJT6GOG

M9gkvLhH31BjiBJZf2VvDPsgzHzIONT1xDJgGcyLTiXAt8m17ufvphnJZbpFtMi0WKfHML6RZ

TwZ+9KvPW2Toem35zhFXU2gFXE/31gj9sq7MKmihdXe1D022Rd0j7ti99PZg8Q08wsVaHh4P8

8/ITTy/DrTFqMhdu97YUEW7bAHLKK60PZtpDWCqix3T9/+ZA6MICdSuWRzX1bD2sXQs/zIsga

e/K2RHkNTSMA0bKzR+cFUsDzooM5yWApAXvYe/WsB59j0QYrEIdG4//f1Q7MT7F8DnTnVDjWs

j9JlgLvewdiJWvgP+knPnaiR9oZ1GseqCjAuCbbxFcpVhKprx/urqNzwm9Yz0xKCd8jvXA8

1rT0yiN+jarm/nHfyjJLYt1fBOuhXploQn7TR7ZixA4n57R897LzbmZK6CsyreFJ11UbiyqSb

X40M0qx+HHJ3eV7D8t+Rbdn/5UdHzGFCi1S2ZHPkbe+g09H10wxNSmnwIDEUGjQUra7vmvZaU

5cUeAXFHvCUTKVC8l1vtdSd+eAaLau5THQllPyLRSTQ0f/DwxU1Mon6EZTkRLLxR+2mvnpN6P

wj; **WF-JSESSIONID=0000v6lbcwkcbjsF-XoA1s3IAHe:-1**; Connection: keep-alive

Signing Out of WebFOCUS

This RESTful web service request can be used to sign out of WebFOCUS. Therefore, all subsequent WebFOCUS RESTful web services requests will not run successfully once signed out. If a WebFOCUS session exists within the same browser session, this session will also be signed out.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=signOff
```

Example:

In the following example, a sign-out request is made to WebFOCUS.

Post Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs
```

Body:

```
IBIRS_action=signOff
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="signOff"
```



```
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="string">OK</rootObject>
</ibfsrpc>
```

WebFOCUS Repository

This section describes the format and structure of RESTful web service requests that are used for a variety of WebFOCUS Repository tasks.

Creating and Updating a Folder

This RESTful web service request can be used to create and update a folder within the WebFOCUS Repository.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder to be created. If the folder being created is a subfolder of an existing folder, then the existing folder name is also included in the REST URL. This shows the path to the folder being created. For example, ExistingFolder/FolderName.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object&IBIRS_
private=MakeFolderPrivate&IBIRS_replace=ReplaceFolderProperties
```

where:

Object

Is the XML object defining the attributes for the folder using the following format:

```
<object _jt="IBFSMRObject"
container="true"description="FolderDescription"summary="Summary"
appName="AppList">
<properties size="numberOfProperties">
<entry key="propertyN" />
</properties>
</object>
```

where:

FolderDescription

Is a description of the folder being created.

Summary

Is a brief description describing the contents of the folder.

AppList (Optional)

List of applications used in the search path. For example:

```
appName="ibisamp ibidemo"
```

properties (Optional)

numberOfProperties

Is the number of properties that are to be applied to the folder.

propertyN

The property that is applied to the folder. Each property exists with an opening and closing *entry* tag. For example:

```
<entry key="autogenmyreports"/>
```

Valid properties:

- **autogenmyreports.** Automatically creates My Content folders.
- **hidden.** Do not show in the list of folders.

MakeFolderPrivate

Determines whether to make a folder private. Specify *true* or *false*. By default, this attribute is set to *true*.

ReplaceFolderProperties

Determines whether the properties of the folder (for example, FolderDescription and Summary) can be updated.

Specify one of the following:

- **true.** Update the properties of the folder. To update the properties of the folder, the existing properties must be retrieved. The retrieved XML object would then be modified and used as input. The following REST URL retrieves the existing properties for a folder:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName?IBIRS_action=get
```

- **false.** Do not update the properties of the folder.

Example 1:

In the following example, a folder called Financial_Reports is created, which has SEC Filings as the description.

POST Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports
```

Body:

```
IBIRS_action=put&IBIRS_object=<object _jt="IBFSMRObject"
container="true"
description="SEC Filings" summary="Quarterly and Yearly Financial
```

```
Reports reported to the Securities and Exchange Commission">
  </object>&IBIRS_replace=false
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin"
  createdOn="1345146734216" defaultLng="en_US" description="SEC
Filings" dummy="false"
  effectiveRSName="EDASERVE" fullPath="IBFS:/WFC/Repository/Financial_
Reports"
  handle="75d099c0_163a_46d8_ba25_ec0be965b15d"
lastModified="1345146734216"
  lastaccessBy="admin" lastaccessOn="1345146734216" lastmodBy="admin"
length="0"
  name="Financial_Reports" ownerId="10001" ownerName="admin"
ownerType="U"
  policy="//v+f/////////9//////////+AAAAA" returnedLng="en_US"
summary="Quarterly and Yearly Financial Reports reported to the
Securities and Exchange Commission"
type="MRFolder">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="SEC Filings"/>
        <item _jt="string" index="1" value="Quarterly and Yearly Financial
Reports reported to the Securities and Exchange Commission"/>
      </value>
    </entry>
  </nlsValues>
  <properties size="0"/>
</rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the folder was successfully created.

Example 2:

In the following example, a folder called Financial_Reports is updated with Financial Quarterly-Yearly Reports set as the new description.

The following REST URL retrieves the existing properties for the Financial_Reports folder:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports?IBIRS_action=get
```

POST Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports
```

Body:

```
IBIRS_action=put&IBIRS_object=
<rootObject _jt="IBFSMRObject" binary="false" container="true"
  createdBy="admin" createdOn="1349964405620" defaultLng="en_US"
  description="Financial Quarterly-Yearly Reports" dummy="false"
effectiveRSName="EDASERVE"
  fullPath="IBFS:/WFC/Repository/Financial_Reports" handle="5d81bab8_
7db7_40c9_96b9_df2b00ce3278"
  lastModified="1349964405620" lastaccessBy="admin"
lastaccessOn="1349969821584" lastmodBy="admin"
  length="0" name="Financial_Reports" ownerId="10001"
ownerName="admin" ownerType="U"
  policy="//3/D///9+f/////f/////////8AAAA=" returnedLng="en_US"
  rsPath="/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports"
  summary="Quarterly and Yearly Financial Reports reported to the
Securities and Exchange Commission"
  type="MRFolder">
  <children _jt="ArrayList" size="0"/>
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Financial Quarterly-Yearly
Reports"/>
        <item _jt="string" index="1"
          value="Quarterly and Yearly Financial Reports reported to the
Securities and Exchange Commission"/>
      </value>
    </entry>
  </nlsValues>
  <properties size="0"/>
</rootObject>&IBIRS_replace=true
```

Response:

If the value for the *returncode* attribute in the XML response is 10000, then the folder was successfully updated.

Deleting a Folder

This RESTful web service request can be used to delete a folder or subfolder within the WebFOCUS Repository.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName?IBIRS_
action=delete
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder to be deleted. If the folder being deleted is a subfolder, then the folder above the subfolder is also included in the REST URL. This shows the path to the folder being deleted. For example, ParentFolderName/FolderName.

Example:

In the following example, the Manufacturing_Reports folder is deleted from the Car_Reports folder, which is within the RESTful_Web_Services folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/Manufacturing_Reports?IBIRS_action=delete
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
  returncode="10000" returndesc="SUCCESS" subreturncode="0"
  subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSMRObject" binary="false" container="true"
    createdBy="admin" createdOn="1345149829421"
    defaultLng="en_US" description="Manufacturing Reports" dummy="false"
    effectiveRSName="EDASERVE"
    fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/
      Manufacturing_Reports"
    handle="bb7ea628_2068_4d1c_b3cb_80555a30d53f"
    lastModified="1345149829421" lastaccessBy="admin"
    lastaccessOn="1345152035853" lastmodBy="admin" length="0"
    name="Manufacturing_Reports"
    returnedLng="en_US" type="MRFolder">
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
      <entry>
```

```
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Manufacturing Reports"/>
      </value>
    </entry>
  </nlsValues>
  <properties size="0"/>
</rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the folder was successfully deleted.

Deleting a WebFOCUS Repository Report

This RESTful web service request can be used to delete a report from the WebFOCUS Repository.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_
apps/rs/ibfs/WFC/Repository/FolderName/ReportName?IBIRS_action=delete
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored WebFOCUS report. If the folder used for the stored WebFOCUS report exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ReportName

Is the name of the WebFOCUS report to delete, which must have a .fex extension.

Example:

In the following example, the Income_Statement_March_2010 report is deleted from the Quarterly folder, which is within the Financial_Reports folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Quarterly/Income_Statement_March_2010.fex?IBIRS_action=delete
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
    <ibfsparams size="0"/>
    <rootObject _jt="IBFSMRObject" appName="ibisamp" binary="false"
createdBy="admin"
    createdOn="1345218342649" defaultLng="en_US" description="Income
Statement - March 2010"
    dummy="false" extension="fex"
fullPath="IBFS:/WFC/Repository/Financial_Reports/Quarterly/
Income_Statement_March_2010.fex"
    handle="7fef079_cc95_4b8e_a99e_6d2f71e23020"
inheritedPrivacy="true" lastModified="1345218342649"
```



```

    lastaccessBy="admin" lastaccessOn="1345219257305" lastmodBy="admin"
length="5231"
    name="Income_Statement_March_2010.fex" ownerId="10001"
ownerName="admin" ownerType="U"
    policy="//v+f////////f9////////9////////+AAAAA" returnedLng="en_US"
type="FexFile">
    <content _jt="IBFSByteContent" char_
set="Cp1252">LSpEbyBub3QgZGVsZXRLIG9yIG1vZGlmeSB0aGUgY2
9tbWVudHMgYmV...1NVTU1BUlkuUVVPVEVEU1RSSU5HLCakCkVORFNUWUx
FCkVORAoKLVJVTgo=
    </content>
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
    <item _jt="string" index="0" value="Income Statement - March 2010"/>
    </value>
    </entry>
    </nlsValues>
    <properties size="1">
    <entry key="tool" value="infoAssist,report,IAFull"/>
    </properties>
    </rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the report was successfully deleted.

Listing Folders and Subfolders

This RESTful web service request can be used to retrieve a list of folders and subfolders within the WebFOCUS Repository.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName?IBIRS_
action=get

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder to be used in retrieving a list of its subfolders. To obtain a list of folders, *FolderName* should not be included in the REST URL. To obtain additional levels of subfolders for a particular subfolder, the path to the subfolder name must be included in the REST URL. For example, ParentFolderName/FolderName.

Example 1:

In the following example, a list of folders is retrieved.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSMRObject" binary="false" container="true"
createdBy="WebFOCUS"
    createdOn="1344536982043" defaultLng="en_US" description="Content"
dummy="false"
    effectiveRSName="EDASERVE" expireDate="1344536982047" externalId=""
    fullPath="IBFS:/WFC/Repository" handle="0000000000001"
lastModified="1344536982047"
    lastaccessBy="admin" lastaccessOn="1345146849357"
lastmodBy="WebFOCUS" length="0"
    name="Repository" policy="///+f/////////9//////////+AAAAA"
returnedLng="en_US"
    summary="Content Root" type="MRRepository">
  <children _jt="ArrayList" size="3">
    <item _jt="IBFSMRObject" binary="false" container="true"
createdBy="WebFOCUS"
    createdOn="1344536982083" defaultLng="en_US" description="Public"
```

```

dummy="false"
  effectiveRSName="EDASERVE" expireDate="1344536982083" externalId=""
  fullPath="IBFS:/WFC/Repository/Public" handle="000000000004"
index="0"
lastModified="1344536982083" lastaccessBy="admin"
lastaccessOn="1344957209010"
  lastmodBy="WebFOCUS" length="0" name="Public" parent="Repository"
  policy="///+f////////9//////////+AAAAA" returnedLng="en_US"
  summary="Public Folder" type="MRFolder">
<nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
  <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
      <item _jt="string" index="0" value="Public"/>
      <item _jt="string" index="1" value="Public Folder"/>
    </value>

```

```

  </entry>
</nlsValues>
<properties size="0"/>
</item>
  <item _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin"
  createdOn="1345146734216" defaultLng="en_US" description="SEC
Filings" dummy="false"
  effectiveRSName="EDASERVE"
fullPath="IBFS:/WFC/Repository/Financial_Reports"
  handle="75d099c0_163a_46d8_ba25_ec0be965b15d" index="1"
lastModified="1345146734216"
  lastaccessBy="admin" lastaccessOn="1345146755132"
lastmodBy="admin" length="0"
  name="Financial_Reports" ownerId="10001" ownerName="admin"
ownerType="U"
  parent="Repository" policy="//v+f////////9//////////+AAAAA"
  returnedLng="en_US"
  summary="Quarterly and Yearly Financial Reports reported to the
Securities and Exchange Commission"
  type="MRFolder">
<nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
  <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
      <item _jt="string" index="0" value="SEC Filings"/>
      <item _jt="string" index="1"
        value="Quarterly and Yearly Financial Reports reported to the
Securities and Exchange Commission"/>

```

```

        </value>
      </entry>
    </nlsValues>
    <properties size="0"/>
  </item>
  <item _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin" createdOn="1344607303673"
  defaultLng="en_US" description="RESTful Web Services"
dummy="false" effectiveRSName="EDASERVE"
  fullPath="IBFS:/WFC/Repository/RESTful_Web_Services"
handle="ac08f200_d2f2_4ab6_9b60_b62d8f2ad345"
  index="2" lastModified="1344957300737" lastaccessBy="admin"
lastaccessOn="1345146071751"
  lastmodBy="admin" length="0" name="RESTful_Web_Services"
ownerId="10001" ownerName="admin"
  ownerType="U" parent="Repository"
policy="//v+f/////////9//////////+AAAAA" returnedLng="en_US"
  summary="For documenting RESTful Web Services" type="MRFolder">

```

```

    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
      <entry>
        <key _jt="string" value="en_US"/>
        <value _jt="ArrayList" size="2">
          <item _jt="string" index="0" value="RESTful Web Services"/>
          <item _jt="string" index="1" value="For documenting RESTful Web
Services"/>
        </value>
      </entry>
    </nlsValues>
    <properties size="0"/>
  </item>
</children>
<nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
  <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
      <item _jt="string" index="0" value="Content"/>
      <item _jt="string" index="1" value="Content Root"/>
    </value>
  </entry>
</nlsValues>
<properties size="0"/>
</rootObject>
</ibfsrpc>

```

Each folder definition is defined within the opening and closing *item* tag. The *type* attribute for a folder is *MRFolder*. The *name* attribute defines the name of the folder. The *description*

attribute defines the title for the folder. The *summary* attribute defines a brief description for the contents of the folder.

In this example, there are three folders, as listed in the following table.

Folder Name	Title	Summary
Public	Public	Public Folder.
RESTful_Web_Services	RESTful Web Services	For documenting RESTful Web Services.
Financial_Reports	SEC Filings	Quarterly and Yearly Financial Reports reported to the Securities and Exchange Commission.

Example 2:

In the following example, a list of subfolders for the SEC Filings (Financial_Reports) folder is retrieved.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin"
  createdOn="1345146734216" defaultLng="en_US" description="SEC
Filings" dummy="false"
  effectiveRSName="EDASERVE" fullPath="IBFS:/WFC/Repository/Financial_
Reports"
  handle="75d099c0_163a_46d8_ba25_ec0be965b15d"
lastModified="1345146734216"
  lastaccessBy="admin" lastaccessOn="1345147040831" lastmodBy="admin"
```

```

length="0"
  name="Financial_Reports" ownerId="10001" ownerName="admin"
ownerType="U"
  policy="//v+f////////9//////////+AAAAA" returnedLng="en_US"
  summary="Quarterly and Yearly Financial Reports reported to the
Securities and Exchange Commission"
  type="MRFolder">
    <children _jt="ArrayList" size="1">
      <item _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin" createdOn="1345147005204"
      defaultLng="en_US" description="Quarterly" dummy="false"
effectiveRSName="EDASERVE"
      fullPath="IBFS:/WFC/Repository/Financial_Reports/Quarterly"
handle="a0cfcde1_fb34_4b07_b20d_4144094ec5c2"
      index="0" inheritedPrivacy="true" lastModified="1345147005204"
lastaccessBy="admin"
      lastaccessOn="1345147013034" lastmodBy="admin" length="0"
name="Quarterly" ownerId="10001"
      ownerName="admin" ownerType="U" parent="Financial_Reports"
policy="//v+f////////f9////////9//////////+AAAAA"
      returnedLng="en_US"
      summary="Quarterly Financial Reports reported to the Securities
and

```

```

Exchange Commission" type="MRFolder">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Quarterly"/>
        <item _jt="string" index="1"
          value="Quarterly Financial Reports reported to the Securities
and Exchange Commission"/>
      </value>
    </entry>
  </nlsValues>
  <properties size="0"/>
</item>
</children>
<nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
  <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
      <item _jt="string" index="0" value="SEC Filings"/>
      <item _jt="string" index="1"
        value="Quarterly and Yearly Financial Reports reported to the

```

```

Securities and Exchange Commission"/>
    </value>
  </entry>
</nlsValues>
<properties size="0"/>
</rootObject>
</ibfsrpc>

```

Each folder definition is defined within the opening and closing *item* tag. The *name* attribute defines the name of the folder. The *description* attribute defines the title for the folder. The *summary* attribute defines a brief description for the contents of the folder.

In this example, there is one subfolder, as listed in the following table.

Subfolder Name	Title	Summary
Quarterly	Quarterly	Quarterly Financial Reports reported to the Securities and Exchange Commission.

Listing Reports, Schedules, and Library Content Within the WebFOCUS Repository

This RESTful web service request can be used to retrieve the content list within a folder. The content can be additional subfolders, WebFOCUS reports, ReportCaster Schedules, and Library Content.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName?IBIRS_
action=get

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder to be used in retrieving the content list. If the content exists in a subfolder, then the path to the subfolder name must be included in the REST URL. For example, ParentFolderName/FolderName.

Example:

In the following example, a content list for the Car_Reports folder is retrieved. The Car_Reports folder is a subfolder of the RESTful_Web_Services folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_Reports?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
    type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin"
    createdOn="1344607319557" defaultLng="en_US" description="Car
Reports" dummy="false"
    effectiveRSName="EDASERVE" fullPath="IBFS:/WFC/Repository/RESTful_
Web_Services/Car_Reports"

    handle="c60b1f9a_05ef_4e72_a737_e869917607db"
    inheritedPrivacy="true" lastModified="1344607319557"
    lastaccessBy="admin" lastaccessOn="1345149848357" lastmodBy="admin"
    length="0" name="Car_Reports"
    ownerId="10001" ownerName="admin" ownerType="U"
    policy="//v+f////////f9////////9////////+AAAAA"
    returnedLng="en_US" type="MRFolder">
    <children _jt="ArrayList" size="6">
      <item _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin" createdOn="1345149829421"
        defaultLng="en_US" description="Manufacturing Reports"
```



```

dummy="false" effectiveRSName="EDASERVE"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/
Manufacturing_Reports"
  handle="bb7ea628_2068_4d1c_b3cb_80555a30d53f" index="0"
inheritedPrivacy="true"
  lastModified="1345149829421" lastaccessBy="admin"
lastaccessOn="1345149829421" lastmodBy="admin"
  length="0" name="Manufacturing_Reports" ownerId="10001"
ownerName="admin" ownerType="U"
  parent="Car_Reports" policy="//v+f////////f9/////9////////+AAAAA"
returnedLng="en_US" type="MRFolder">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Manufacturing Reports"/>
      </value>
    </entry>
  </nlsValues>
  <properties size="0"/>
</item>
  <item _jt="IBFSMRObject" appName="ibisamp" binary="false"
createdBy="admin" createdOn="1345044807527"
  defaultLng="en_US" description="Sales Chart By Country"
dummy="false" effectiveAppName="ibisamp"
  effectiveRSName="EDASERVE"
  extension="fex" fullPath="IBFS:/WFC/Repository/RESTful_Web_
Services/Car_Reports/
Sales_Chart_By_Country.fex"
  handle="5f4447c8_406e_41f6_8eca_7e056a4c1f27" index="1"
inheritedPrivacy="true"
  lastModified="1345044807527" lastaccessBy="admin"
lastaccessOn="1345047740027" lastmodBy="admin"
  length="5623" name="Sales_Chart_By_Country.fex" ownerId="10001"
ownerName="admin" ownerType="U"
  parent="Car_Reports" policy="//v+f////////f9/////9////////+AAAAA"

```

```

returnedLng="en_US" type="FexFile">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Sales Chart By Country"/>
      </value>
    </entry>
  </nlsValues>

```

```

    <properties size="1">
      <entry key="tool" value="infoAssist,chart,IAFull"/>
    </properties>
  </item>
  .
  .
  .
    <item _jt="CasterLibVersion" compressFormat="0$$" compressSize="0"
format="HTML"
      id="L8c1297c1l6131l4a1flaccl6fc9173c28b9" index="1"
size="1284" versionNumber="3">
      <createDate _jt="calendar" time="1344779970997"
timeZone="America/New_York"/>
      <expireDate _jt="calendar" time="32474876370997"
timeZone="America/New_York"/>
    </item>
    <item _jt="CasterLibVersion" compressFormat="0$$" compressSize="0"
format="HTML"
      id="L84a1a1bc1e500l4fd4l9eb2ld05515d9f90c" index="2"
size="1284" versionNumber="4">
      <createDate _jt="calendar" time="1344978446241"
timeZone="America/New_York"/>
      <expireDate _jt="calendar" time="32474902046242"
timeZone="America/New_York"/>
    </item>
    <item _jt="CasterLibVersion" compressFormat="0$$" compressSize="0"
format="HTML"
      id="L95dd1bb0l42d0l45a9l9b0flb4ee0ce8390f" index="3"
size="1284" versionNumber="5">
      <createDate _jt="calendar" time="1344978694335"
timeZone="America/New_York"/>
      <expireDate _jt="calendar" time="32474902294335"
timeZone="America/New_York"/>
    </item>
  </versionList>
  <category id="RESTful_Web_Services/"
    isCategory="true" isMre="false" name="Weekly Reports"/>
</casterObject>
</item>

```

```

</children>
<nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
  <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
      <item _jt="string" index="0" value="Car Reports"/>

```

```

    </value>
  </entry>
</nlsValues>
<properties size="0"/>
</rootObject>
</ibfsrpc>

```

Each content definition is defined within the opening and closing *item* tag.

The *type* attribute defines the content type for one of the following content items:

- **MRFolder.** Subfolder.
- **FexFile.** WebFOCUS Report.
- **CasterSchedule.** ReportCaster Schedule.
- **CasterLibrary.** Library Content.
- **CasterAccessList.** Library Access List.

The *name* attribute defines the name for the content item. The *description* attribute defines the title for the item. The *summary* attribute defines a brief description for the content item.

Listing the Versions for a Report Library Report

This RESTful web service request can be used to retrieve the versions list for a WebFOCUS report within the Report Library.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_
apps/rs/ibfs/WFC/Repository/FolderName/ContentName?IBIRS_action=get

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored WebFOCUS report. If the folder used for the stored WebFOCUS report exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ContentName

Is the name of the stored WebFOCUS report as defined in the name attribute when listing the content of a folder. For more information, see [WebFOCUS Repository](#).

Example:

In the following example, a versions list for the stored library report identified by L1748ltvgq02.lib within the Car_Reports folder is retrieved. The Car_Reports folder is a subfolder of the RESTful_Web_Services folder. L1748ltvgq02.lib is defined in the *name* attribute when listing the content of a folder. For more information, see [WebFOCUS Repository](#).

The *description* attribute in the content list defines the title for stored report content. The title for L1748ltvgq02.lib, as per the Listing Reports, Schedules, and Library Content example, is defined as *Sales for a Specific Country*.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_Reports/L1748ltvgq02.lib?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS" type="simple">
```

```
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSCasterObject" binary="false" createdBy="admin"
createdOn="1344616201760"
    defaultLng="en_US" description="Sales for a Specific Country"
dummy="false"
    effectiveRSName="EDASERVE" extension="lib"
externalId="Le218a4d048cd45e4f9174bf1edc5e5a6"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/
Car_Reports/L1748ltvgq02.lib"
```

```

    handle="51254a92I811dI4cd1Ib9f9If456ca5f00b9"
    inheritedPrivacy="true"
    lastModified="1344616201760"
    lastaccessBy="admin" lastaccessOn="1345147221049" lastmodBy="admin"
    length="0"
    name="L1748ltvgq02.lib" ownerId="10001" ownerName="admin"
    ownerType="U"
    policy="//v+f////////f9/////9////////+AAAAA" returnedLng="en_US"
    summary="Sales for a Specific Country"
    type="CasterLibrary">
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
    <item _jt="string" index="0" value="Sales for a Specific Country"/>
    <item _jt="string" index="1" value="Sales for a Specific Country"/>
    </value>
    </entry>
    </nlsValues>
    <properties size="2">
    <entry key="id" value="Le218a4d048cd45e4f9174bf1edc5e5a6"/>
    <entry key="tool" value="reportlibrary"/>
    </properties>
    <casterObject _jt="CasterContent" accessList="" accessType="OWNER"
    category="Weekly Reports"
    description="Sales for a Specific Country" expireInterval="1"
    expireMode="N"
    ibfsId="51254a92I811dI4cd1Ib9f9If456ca5f00b9"
    ibfsPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports"
    id="Le218a4d048cd45e4f9174bf1edc5e5a6"
    isWatch="false" lastExecution="1344978694335" lastVersion="5"
    name="L1748ltvgq02.lib" owner="admin"
    policy="subscribe,|,open,delete,rename,|,security;makeRules;viewRules"

```

```

    reportid="51254a92I811dI4cd1Ib9f9If456ca5f00b9"
    scheduleId="Sa48ba1f3sa760s4e57sb349s4abda6168a17"
    summary="Sales for a Specific Country"
    taskId="T66ca1a2btd636t4e1dtad30t6930ae58ea09">
    <lastExecTime _jt="calendar" time="1344978694335"
    timeZone="America/New_York"/>
    <versionList _jt="array" itemsClass="CasterLibVersion" size="4">
    <item _jt="CasterLibVersion" compressFormat="0$$" compressSize="0"
    format="HTML"
    id="Lf7badbf2lca1cl4dcfla05dl5a8ddb387705" index="0" size="1284"
    versionNumber="2">
    <createDate _jt="calendar" time="1344616201629"

```

```

    timeZone="America/New_York"/>
    <expireDate _jt="calendar" time="32474885401652"
timeZone="America/New_York"/>
  </item>
  <item _jt="CasterLibVersion" compressFormat="0$$" compressSize="0"
format="HTML"
    id="L8c1297c1l6131l4a1flaccl6fc9173c28b9" index="1" size="1284"
versionNumber="3">
    <createDate _jt="calendar" time="1344779970997"
timeZone="America/New_York"/>

```

```

timeZone="America/New_York"/>
    <expireDate _jt="calendar" time="32474902046242"
timeZone="America/New_York"/>
  </item>
  <item _jt="CasterLibVersion" compressFormat="0$$" compressSize="0"
format="HTML"
    id="L95dd1bb0l42d0l45a9l9b0flb4ee0ce8390f" index="3" size="1284"
versionNumber="5">
    <createDate _jt="calendar" time="1344978694335"
timeZone="America/New_York"/>
    <expireDate _jt="calendar" time="32474902294335"
timeZone="America/New_York"/>
  </item>
</versionList>
<category id="RESTful_Web_Services/" isCategory="true"
    isMre="false" name="Weekly Reports"/>
</casterObject>
</rootObject>
</ibfsrpc>

```

Each version definition is defined within the opening and closing *item* tag.

The *version* attributes are defined in the following list:

- **versionNumber.** The version number for the stored WebFOCUS report.
- **format.** The format of the WebFOCUS Report (for example, HTML).
- **createDate.** The date the version was created.
- **expireDate.** The date the version will expire from the Report Library.

Listing the Parameters for a Repository Report

This RESTful web service request can be used to retrieve the current parameters for a WebFOCUS report in the WebFOCUS Repository.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/FexName?IBIRS_action=describeFex
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored WebFOCUS report. If the folder used for the stored WebFOCUS report exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

FexName

Is the name of the WebFOCUS report as defined in the *name* attribute when listing the content of a folder. For more information, see [Listing Reports, Schedules, and Library Content Within the WebFOCUS Repository](#).

Example:

In the following example, the current parameters for the Sales_for_a_Specific_Country.fex, which exists in the Car_Reports folder, is retrieved. The Car_Reports folder is a subfolder of the RESTful_Web_Services folder. Sales_for_a_Specific_Country.fex is defined in the *name* attribute when listing the content of a folder. For more information, see [Listing Reports, Schedules, and Library Content Within the WebFOCUS Repository](#).

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/Car_Reports/Sales_for_a_Specific_Country.fex?IBIRS_
action=describeFex
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
    <ibfsparams size="0"/>
    <rootObject isSavedParam="false">
        <bindingInfo _jt="HashMap" loadFactor="0.75" threshold="24">
            <entry>
                <key _jt="string" value="SUBSYSTEM"/>
                <value isReqParm="false" value="Self Service"/>
            </entry>
            <entry>
                <key _jt="string" value="IBI_WF_charset"/>
                <value isReqParm="false" value="windows-1252"/>
            </entry>
            <entry>
                <key _jt="string" value="IBI_Webapp_Context_Default"/>
                <value isReqParm="false" value="/ibi_apps"/>
            </entry>
            <entry>
                <key _jt="string" value="SCRIPT_NAME"/>
                <value isReqParm="false" value="/ibi_apps/WFServlet"/>
            </entry>
            <entry>
                <key _jt="string" value="IBFS1_action"/>
                <value isReqParm="true" value="runItem"/>
            </entry>
            .
            .
            .
            <entry>
                <key _jt="string" value="SAVE_PARMRPT"/>
                <value isReqParm="false"
value="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/
Sales_for_a_Specific_Country.fex"/>
            </entry>
        </bindingInfo>
        <amperMap accessOrder="false" loadFactor="0.75" threshold="12">
            <entry>
                <key _jt="string" value="FOCFOCEXEC"/>
```



```

    <value format="" max="0.0" min="0.0" name="FOCFOCEXEC" strDef="">
    <type name="system"/>
    <displayType name="prompt"/>

```

```

    <values accessOrder="false"
loadFactor="0.75" threshold="12"/>
    </value>
  </entry>
  <entry>
    <key _jt="string" value="FOCEXURL"/>
    <value format="" max="0.0" min="0.0" name="FOCEXURL" strDef="">
    <type name="set"/>
    <displayType name="prompt"/>
    <values accessOrder="false" loadFactor="0.75" threshold="12"/>
    </value>
  </entry>
  <entry>
    <key _jt="string" value="FOCHTMLURL"/>
    <value format="" max="0.0" min="0.0" name="FOCHTMLURL" strDef="">
    <type name="set"/>
    <displayType name="prompt"/>
    <values accessOrder="false" loadFactor="0.75" threshold="12"/>
    </value>
  </entry>
  <entry>
    <key _jt="string" value="GOOGLEMAPSAPIKEY"/>
    <value format="" max="0.0" min="0.0" name="GOOGLEMAPSAPIKEY"
strDef="">
    <type name="set"/>
    <displayType name="prompt"/>
    <values accessOrder="false" loadFactor="0.75" threshold="12"/>
    </value>
  </entry>
  <entry>
    <key _jt="string" value="FOCREL"/>
    <value format="" max="0.0" min="0.0" name="FOCREL" strDef="">
    <type name="system"/>
    <displayType name="prompt"/>
    <values accessOrder="false" loadFactor="0.75" threshold="12"/>
    </value>
  </entry>
  <entry>
    <key _jt="string" value="EXCELSERVURL"/>
    <value format="" max="0.0" min="0.0" name="EXCELSERVURL" strDef="">
    <type name="set"/>
    <displayType name="prompt"/>

```

```

    <values accessOrder="false" loadFactor="0.75" threshold="12"/>
  </value>
</entry>

```

```

<entry>
  <key _jt="string" value="COUNTRY"/>
  <value description="Select Country:" format="" max="0.0" min="0.0"
    name="COUNTRY" operation="" strDef="">
    <type name="unresolved"/>
    <displayType name="staticType"/>
    <values accessOrder="false" loadFactor="0.75" threshold="12">
      <entry>
        <key _jt="string" value="ENGLAND"/>
        <value _jt="string" value="ENGLAND"/>
      </entry>
      <entry>
        <key _jt="string" value="JAPAN"/>
        <value _jt="string" value="JAPAN"/>
      </entry>
      <entry>
        <key _jt="string" value="FRANCE"/>
        <value _jt="string" value="FRANCE"/>
      </entry>
    </values>
  </value>
</entry>
</amperMap>
</rootObject>
</ibfsrpc>

```

Each parameter definition is defined within the opening and closing *entry* tag.

The XML response that is returned includes many system parameters along with the parameters defined in the WebFOCUS report. Entries that have a *name* attribute for the *type* element of either *unresolved* or *defaultType* are the WebFOCUS report parameters, as shown in the following example:

```

<type name="unresolved"/>

```

The *name* attribute within the *value* element defines the parameter that is being used in the selection, as shown in the following example:

```
<value description="Select Country:" format=""
      max="0.0" min="0.0" name="COUNTRY" operation="" strDef="">
```

The *description* attribute within the *value* element defines the prompt title for the parameter.

If a parameter definition within a WebFOCUS report has a list of valid values for the selection, additional *entry* elements will exist in the XML within the parameter definition. The *value* attribute within the *key* element would contain each valid value.

```
<entry><key _jt="string" value="ENGLAND"/><value _jt="string"
value="ENGLAND"/></entry>
<entry><key _jt="string" value="JAPAN"/><value _jt="string"
value="JAPAN"/></entry>
<entry><key _jt="string" value="FRANCE"/><value _jt="string"
value="FRANCE"/></entry>
```

In this example, ENGLAND, JAPAN, and FRANCE are the valid values that can be passed to this parameter.

Listing Items in Folders Within the Repository

This RESTful web service request can be used to retrieve a list of items in folders within the WebFOCUS Repository.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/folder?IBIRS_
action=list
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

folder

Is the name of a folder in the WebFOCUS Repository.

Sample Request (Structure)

```
//Create the parameters for the GET request
String encodedUrl = URLEncoder.encode
("IBFS:/WFC/Repository/cip/##SHARE", "UTF-8");
System.out.println(encodedUrl);
String getReq = request2;
getReq += "?IBIRS_path=" + encodedUrl;
getReq += "&IBIRS_action=" + "list";
//    getReq += "&IBIRS_options=" + "recursionDepth=-
1;filter=*.fex;flatten=true";
//    getReq += "&IBIRS_options=" + "recursionDepth=-1;flatten=true";
//    getReq += "&IBIRS_forGroups=__null";
getReq += "&IBIRS_recursionDepth=-1";
getReq += "&IBIRS_options=&IBIRS_flatten=true";
```

The following is a description of the available options that can be used with this call:

- **flatten.** Controls indentation in the folder structure. Accepted values are true or false.
- **recursionDepth.** The level at which to traverse the folder structure. A value of -1 will traverse all levels of folders. Accepted values are 2, 1, 0, -1, -2.
- **filter.** Constructs a filter. For more information, see [Using Filters](#).
- **##SHARE.** Determines what is shared for the signed in user.

i Note: Using a path of IBFS:/SES/Priors in the REST URL call, will return the recents. For example:

```
http://host:port/ibi_apps/rs?IBIRS_
path=IBFS%3A%2FSES%2FPriors&IBIRS_action=list&IBIRS_
service=ibfs
```

Using Filters

This section describes how to use filters with the RESTful web service request for List (IBIRS_action=list), and includes the following topics:

- Properties Filter
- Share Filter
- Attribute Filter
- File Name Filter
- Operations Filter
- Application Path Filter
- Combining Filters

Properties Filter

The following is an example of the Properties filter being used in a path:

```
IBFS:/WFC/Repository/Public/##FILTER("properties","tool=contains('IA')")
```

If the value is not specified, then only the existence of the property is verified.

These filters are specified as follows:

```
FILTER("properties"," (prop1=contains('val1','val2') | prop2) &
(prop3!=contains('val3') | prop4=endsWith('val4Fragment','val5Fragment')
| prop5=oneOf('val1','val2','val3')) & matches
('matchExpr1','matchExpr2')"["nocase"]);
```

where:

prop1, prop2, prop3, prop4, prop5

Are properties stored in the object's properties. For example:

```
FILTER("properties"," tool=startsWith('IA')")
```

Comparator Functions Reference:

- **Contains.** Searches for a specified string(s) anywhere within the specified property.
- **startsWith.** Checks if the property starts with a specified string(s).
- **endsWith.** Checks if the property ends with a specified string(s).
- **oneOf.** Checks if the property equals one of the specified arguments.

- **matches.** Checks if the property matches one of the specified regular expressions. Regular expressions containing only wildcards (? *) are more efficient than more complex regular expressions.

i Note:

- You can test the existence of a property by just specifying the property name without any condition for the value. For example:

```
FILTER("properties","prop2")
```

- You can test if a property equals a specific value. For example:

```
FILTER("property","prop1='valueToCheck'");
```

- All of the above situations can be combined using logical operators (& and |), as well as grouping parentheses.

Share Filter

The Share filter supports the following syntax formats:

- **Syntax Format 1:**

```
FILTER("share",[,"true"/"false"])
```

If the second argument is not specified, then it is resolved as *true*.

- **Syntax Format 2:**

```
SHARE(["true"/"false"])
```

If the argument is not specified, then it is resolved as *true*.

The second format of the Share filter is a shortened (abridged) version of the first.

i Note: If no argument is passed, then the following can be used: SHARE or SHARE ()

Attribute Filter

The Attribute filter uses the following syntax:

```
FILTER("attribute","attribute_name","attribute_value"[,"nocase"])
```

where:

attribute_name

Is the name of the attribute.

attribute_value

Is the value of the attribute, which could be a regular expression. Currently, the regular expression only supports question mark (?) and asterisk (*) characters. This is applicable to all attributes of the IBFS object, which appear in the XML.

nocase

Is an optional argument, which specifies how the *attribute_value* case should be interpreted.

Depending on the attribute, the request could be sent to the database (for improved performance), or for calculated fields, all items (depending on the other filters that may be present) are returned from the database and a higher level screening is applied, which results in decreased performance.

If the second argument is type, which refers to the type attribute in the XML, then you can pass an enumeration of types. For example:

```
IBFS:/WFC/Repository/Public/##FILTER  
("attribute","type","ROFexFile,HtmlFile")
```

This filter, as opposed to the File Name filter, can return objects of a specific type that share the same extension with other types.

For example, if you only want to list FOCEXECs (fexes), then you can indicate “FexFile”. If you want to list reporting objects, then you can indicate “ROFexFile”.

This filter is very fast. Note that selecting files by extension only can also be very fast because the extension is internally mapped to a type (such as FexFile) using the OBJ_TYPE type field in the database, which is an integer and indexed.

File Name Filter

The File Name filter uses the following syntax:

```
FILTER("file","*.ext;abc?efg.*|*.")
```

Everything before the pipe character (|) is included by the filter. Everything after the pipe character (|) is excluded by the filter. The pipe character (|) and everything that follows is optional. Asterisk (*) and question mark (?) characters are accepted as wildcard characters.

In the event that a subsystem recognizes any of these characters as a valid character (not yet the case), and if the file name or extension contains such characters, then they must be escaped by including a backslash character (\).

If this is the only filter, as shown in the following expression:

```
IBFS:/WFC/Repository/Public/ FILTER("file","*.ext;abc?efg.*|*.")
```

then the following shortened (abridged) version of the filter can be used:

```
IBFS:/WFC/Repository/Public/ *.ext;abc?efg.*|*.
```



Note: The sequence asterisk character followed by a period (*.) is used to represent all folders (similar to Windows command syntax).

Operations Filter

The Operations filter uses the following syntax:

```
FILTER("operations","op1[,op2,op3,...,opN]")
```

All operations must be enabled for a given object in order for the object to pass through the filter. Objects passing through the filter must have all operations set.

Application Path Filter

The Application Path (APPPATH) filter lists the server folder set in the APPPATH of the folder. This filter uses the following syntax:


```
IBFS:/WFC/Repository/ccc/##FILTER("apppath")
```

The following shortened (abridged) version of this filter can also be used:

```
IBFS:/WFC/Repository/ccc/##APPPATH
```

Combining Filters

Filter expressions can be combined as follows:

```
FILTER(...) ; FILTER(...)...
```

This uses AND operators in the logic to chain filters. When combined, the evaluation is processed from left to right.

Running a Report From the WebFOCUS Repository

This RESTful web service request can be used to run a report stored in the WebFOCUS Repository.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ReportName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored WebFOCUS report. If the folder used for the stored WebFOCUS report exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ReportName

Is the name of the WebFOCUS report to run. It must include a .fex extension.

Body Format:

```
IBIRS_action=run&IBIRS_proxyURL=clientPath&IBIRS_userName=Userid&  
IBIRS_password=Password&parmNameN=parmValueN&IBIRS_args=Object
```

where:

clientPath

Is the path to the client application making the RESTful web service calls to WebFOCUS. For example:

```
http://myapplication.maj.com/Sales/Monthly.aspx
```

The parameter is used when the initial WebFOCUS report contains drill-down links, links to images, On-Demand Paging reports, or Active Cache reports.

This IBIRS_proxy URL is required for redirected output types such as PDF and Excel.

When you click on a drill-down link or pages in an On-Demand Paging report, the request will be routed to the client application, as defined by the *clientPath* value, instead of WebFOCUS. All of the parameter names and values are sent with the request. The client application will then have to redirect the request to the following URL, which is the WebFOCUS environment:

```
http://host:port/ibi_apps/rs/ibfs
```

Userid

Is the ibi™ WebFOCUS® Reporting Server user ID. If the WebFOCUS® Reporting Server is running with Security Off or the WebFOCUS Reporting Server sign-in credentials are configured in the WebFOCUS Reporting Server Client settings, then this parameter does not have to be sent in the REST request.

Password

Is the WebFOCUS Reporting Server password. If the WebFOCUS Reporting Server is running with Security Off or the WebFOCUS Reporting Server sign-in credentials are configured in the WebFOCUS Reporting Server Client settings, then this parameter does not have to be sent in the REST request.

parmNameN

Is the name of the defined parameter that will be passed to the WebFOCUS Reporting Server.

i Note: The number of defined parameters can vary and depend on the number of parameters within the WebFOCUS report. For example, a WebFOCUS report that requires two parameters will also require these parameters and corresponding values to be set in the body of this RESTful web service (&parmName1=parmValue1&parmName2=parmValue2). In a different WebFOCUS report, there could be as many parameters as required (three, four, five, and so on).

parmValueN

Is the value of the defined parameter that will be passed to the WebFOCUS Reporting Server.

Object (Optional)

Is the XML object that is used to turn off redirection when retrieving report output for MIME types like EXCEL and PDF using the following format:

```
<rootObject _jt="HashMap">
  <entry>
    <key _jt="string" value="IBFS_contextVars"/>
    <value _jt="HashMap">
      <entry>
        <key _jt="string" value="IBIWF_redirect"/>
        <value _jt="string" value="NEVER"/>
      </entry>
    </value>
  </entry>
</rootObject>
```

Example:

In the following example, the Sales_for_a_Specific_Country report is being executed only for Japan.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/Sales_for_a_Specific_Country.fex
```

Body:

```
IBIRS_action=run&COUNTRY=JAPAN
```

Response:

The response is a report in either HTML, Excel, PDF, active report, or a graph.

Change Management Export

This RESTful web service request can be used to export directories, files, and groups to be used by Change Management Import.

i Note: This RESTful web service is common to functionality in the WebFOCUS Repository and the WebFOCUS Reporting Server.

HTTP Method: POST**REST URL Format:**

```
http://host:port/ibi_apps/rs/impex
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=cmExport&IBIRS_fileName=fileName
```

where:

fileName

Is the name of the scenario for the Change Management Export. The scenario must exist in the /WebFOCUSxx/cm/export folder.

Example:

In the following example, the Change Management scenario called RESTWS is exported.

Request:

```
http://localhost:8080/ibi_apps/rs/impex
```

Body:

```
IBIRS_action=cmExport&IBIRS_fileName=RESTWS
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="cmExport"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_fileName" value="RESTWS"/>
  </ibfsparams>
  <rootObject _jt="string"/>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the scenario was exported successfully.

Change Management Import

This RESTful web service request can be used to import directories, files, and groups that were created using Change Management Export.



Note: This RESTful web service is common to functionality in the WebFOCUS Repository and the WebFOCUS Reporting Server.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/impex
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=cmImport&IBIRS_fileName=fileName&IBIRS_
resOverwrite=Overwrite
&IBIRS_importUsers=UserOpt&IBIRS_importRoles=RoleOpt
&IBIRS_importRules=RuleOpt&IBIRS_importGroups=GroupOpt
```

where:

fileName

Is the name of the scenario in the Change Management Export. The scenario must exist in the /WebFOCUSxx/cm/import folder.

Overwrite

Can be set as follows:

- **true.** Overwrites existing files and groups.
- **false.** Does not overwrite existing files and groups.

UserOpt

Can be set as follows:

- **0.** Do not import users.
- **1.** Import users but do not overwrite.
- **2.** Import users and overwrite.

RoleOpt

Can be set as follows:

- **0.** Do not import roles.
- **1.** Import roles but do not overwrite.
- **2.** Import roles and overwrite.

RuleOpt

Can be set as follows:

- **true.** Import rules.
- **false.** Do not import rules.

GroupOpt

Can be set as follows:

- **0.** Do not import groups.
- **1.** Import groups but do not overwrite.
- **2.** Import groups and overwrite.

Example:

In the following example, the Change Management scenario called ImportMR is imported. Existing files will not be overwritten. Users, groups, roles, and rules will not be imported.

Request:

```
http://localhost:8080/ibi_apps/rs/impex
```

Body:

```
IBIRS_action=cmImport&IBIRS_fileName=ImportMR&IBIRS_resOverwrite=false
&IBIRS_importUsers=0&IBIRS_importRoles=0&IBIRS_importRules=false&IBIRS_
importGroups=0
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="cmImport"
returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS" type="simple">
  <ibfsparams size="7">
    <entry key="IBIRS_resOverwrite" value="false"/>
```

```

<entry key="IBIRS_fileName" value="ImportMR"/>
<entry key="IBIRS_runOptions" value="0"/>
<entry key="IBIRS_importUsers" value="0"/>
<entry key="IBIRS_importRoles" value="0"/>
<entry key="IBIRS_importRules" value="false"/>
<entry key="IBIRS_importGroups" value="0"/>
</ibfsparams>
<rootObject _jt="string"/>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the scenario was imported successfully.

Publishing an Item

This RESTful web service request can be used to publish an item.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ItemName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will either contain the item (*ItemName*) to publish or be the folder that is published when *ItemName* is omitted. If the folder is a subfolder, then the path to the subfolder must be included in the REST URL. For example, TopFolderName/SubFolderName.

ItemName

Is the name of the item to publish, which can include WebFOCUS reports, schedules, library access lists, and library content.

Body Format:

```
IBIRS_action=publish
```

Example:

In the following example, a folder called Financial_Reports is published.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports
```

Body:

```
IBIRS_action=publish
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="publish"
returncode="10000"
      returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_" value="/WFC/Repository/Financial_Reports"/>
  </ibfsparams>
  <rootObject _jt="string"/>
</ibfsrpc>
```

Unpublishing an Item

This RESTful web service request can be used to unpublish an item.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ItemName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will either contain the item (*ItemName*) to unpublish or be the folder that is unpublished when *ItemName* is omitted. If the folder is a subfolder, then the path to the subfolder must be included in the REST URL. For example, TopFolderName/SubFolderName.

ItemName

Is the name of the item to unpublish, which can include WebFOCUS reports, schedules, library access lists, and library content.

Body Format:

```
IBIRS_action=unpublish&IBIRS_ownerPath=OwnerPath&IBIRS_
clearShares=OwnerPath
```

where:

OwnerPath

If the item is private, then the full path to the owner of the item. For example, /SSYS/USERS/admin.

OwnerPath

If the item is private, specify one of the following:

- **true.** Unshares the item.
- **false.** Does not unshare the item.

Example:

In the following example, a folder called Financial_Reports is unpublished.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports
```

Body:

```
IBIRS_action=unpublish&IBIRS_ownerPath=&IBIRS_clearShares=false
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="unpublish"
returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
    <ibfsparams size="3">
        <entry key="IBIRS_clearShares" value="false"/>
        <entry key="IBIRS_ownerPath"/>
        <entry key="IBIRS_" value="/WFC/Repository/Financial_Reports"/>
    </ibfsparams>
    <rootObject _jt="IBFSUserObject" description="Administrator"
dummy="false" email="restadmin@informationbuilders.com"
        fullPath="IBFS:/SSYS/USERS/admin" handle="10001"
name="admin"
password="$faa2f1da92f72a7d$0901495f1d42962aa242af8aad5c7958a9f86013
a190482974970e81ee0259ba82cbd3856f01c6f29a
        14abaf602143b5e79b3f18a4244b9018d9115892d363f4"
rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/admin" type="User">
        <status _jt="IBSSUserStatus" name="ACTIVE"/>
        <groups _jt="ArrayList" size="0"/>
        <pSetList _jt="ArrayList" size="0"/>
    </rootObject>
</ibfsrpc>
```

Copying an Item

This RESTful web service request can be used to copy an item from one folder to another.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ItemName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will either contain the item (*ItemName*) to copy or be the folder that is copied when *ItemName* is omitted. If the folder is a subfolder, then the path to the subfolder must be included in the REST URL. For example, TopFolderName/SubFolderName.

ItemName

Is the name of the item to copy, which can include WebFOCUS reports, schedules, library access lists, and library content.

Body Format:

```
IBIRS_action=copy&IBIRS_destination=destLocation&IBIRS_
replace=destLocation
```

where:

destLocation

Is the destination location (specified as FolderName/ItemName) of the copied item.

destLocation

Specify one of the following:

- **true.** Replaces the contents of the item.
- **false.** Does not replace the contents of the item.

Example:

In the following example, the Drilldown_Report.fex WebFOCUS report is copied from the Car_Reports folder within the RESTful_Web_Services folder to the Financial_Reports folder. The contents are replaced.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/Drilldown_Report.fex
```

Body:

```
IBIRS_action=copy&IBIRS_destination=/WFC/Repository/Financial_Reports/
Drilldown_Report.fex&IBIRS_replace=true
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="copy"
returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
    <ibfsparams size="4">
        <entry key="IBIRS_destination" value="/WFC/Repository/Financial_
Reports/Drilldown_Report.fex"/>
        <entry key="IBIRS_replace" value="true"/>
        <entry key="IBIRS_args" value="__null"/>
        <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_
Services/Car_Reports/
Drilldown_Report.fex"/>
    </ibfsparams>
    <rootObject _jt="IBFSMRObject" binary="false" createdBy="admin"
createdOn="1350346978647" defaultLng="en_US"
        description="Drilldown Report" dummy="false"
extension="fex" fullPath="IBFS:/WFC/Repository/Financial_
Reports/Drilldown_Report.fex"
        handle="afba56f3_3e71_4ecf_9682_c88bb913634a"
inheritedPrivacy="true" lastModified="1350348325118"
lastaccessBy="admin"
        lastaccessOn="1350348325118" lastmodBy="admin"
length="5302" name="Drilldown_Report.fex" ownerId="10001"
        ownerName="admin" ownerType="U"
policy="//3/D///9+f7////f7/////////8AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Drilldown_
Report.fex" type="FexFile">
        <content _jt="IBFSByteContent" char_
set="Cp1252">LSpEbyBub3QgZGVsZXRLIG9yIG1vZGlmeSB0aGUgY29tbWVudHMgYmV
sb3cKLSogVXNlZCB0byBUZXN0IFJFU1QgQ29weSBmdW5jdGlvbmlFsaXR5CiotSU5URVJOQUx
f
```

```
Q09NTUV0VCBMSU5FIzAkUEQ5NGJXd2dkbVZ5YzJsdmJqMGlNUzR3SWlCbGJtTnZaR2x1Wnow
a
```

```
.
.
.
```

```
UQUJMRSBTRVQgSFRNTEVOQ09ERSBPTgpPTiBUQUJMRSBTRVQgU1RZTEUgKgp
JTkNMVURFPULCRlM6L0ZJTEUvSUJJX0hUTUxfRElSL2phdmFhc3Npc3QvaW
50bC9FTi9FTklBRGVmYXVsdF9jb21iaW5lLnN0eSwkClRZUEU9UkVQT1JULC
BUSVRMRVRWFQ9JldGX1RJVExFLLFVT1RFRFN0Ukl0RywgU1VNTUFSWT0mV
0ZfU1VNTUFSWS5RVU9URURTVFJJTkcsICQKR05EU1RZTEUKRU5ECgotUlV0Cg==
  </content>
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Drilldown Report"/>
      </value>
```

```
    </entry>
  </nlsValues>
  <properties size="1">
    <entry key="tool" value="infoAssist,report,IAFull"/>
  </properties>
</rootObject>
</ibfsrpc>
```

Moving an Item

This RESTful web service request can be used to move an item from one folder to another.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ItemName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will either contain the item (*ItemName*) to move or be the folder that is moved when *ItemName* is omitted. If the folder is a subfolder, then the path to the subfolder must be included in the REST URL. For example, TopFolderName/SubFolderName.

ItemName

Is the name of the item to move, which can include WebFOCUS reports, schedules, library access lists, and library content.

Body Format:

```
IBIRS_action=move&IBIRS_destination=destLocation&IBIRS_
replace=ReplaceFlag
```

where:

destLocation

Is the destination location (specified as FolderName/ItemName) of the moved item.

ReplaceFlag

Specify one of the following:

- **true.** Replaces the contents of the item.
- **false.** Does not replace the contents of the item.

Example:

In the following example, the Drilldown_Report.fex WebFOCUS report is moved from the Car_Reports folder within the RESTful_Web_Services folder to the Financial_Reports folder. The contents are not replaced.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/Drilldown_Report.fex
```

Body:

```
IBIRS_action=move&IBIRS_destination=/WFC/Repository/Financial_Reports/
Drilldown_Report.fex&IBIRS_replace=false
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="move"
returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
    <ibfsparams size="4">
        <entry key="IBIRS_destination" value="/WFC/Repository/Financial_
Reports/Drilldown_Report.fex"/>
        <entry key="IBIRS_replace" value="false"/>
        <entry key="IBIRS_args" value="__null"/>
        <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_
Services/Car_Reports/Drilldown_Report.fex"/>
    </ibfsparams>
    <rootObject _jt="IBFSMRObject" binary="false" createdBy="admin"
createdOn="1348824882927" defaultLng="en_US"
        description="Drilldown Report" dummy="false" extension="fex"
fullPath="IBFS:/WFC/Repository/Financial_Reports/Drilldown_Report.fex"
```

```
        handle="286ace9f_4cd0_4a78_a26d_69dff1b72e0f"
inheritedPrivacy="true" lastModified="1350349735829"
        lastaccessBy="admin" lastaccessOn="1350349735811"
lastmodBy="admin" length="5302" name="Drilldown_Report.fex"
        ownerId="10001" ownerName="admin" ownerType="U"
policy="//3/D///9+f7///f7/////////8AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Drilldown_
Report.fex" type="FexFile">
    <content _jt="IBFSByteContent"
char_set="Cp1252">LSpEbyBub3QgZGVsZXRLIG9yIG1vZGlmSB0aGUgY
29tbWVudHMgYmVsb3cKLSogVXNlZCB0byBUZXN0IFJFU1QgQ29weSBmdW5j
dGlvbmFsaXR5CiotSU5URVJOQUxqQ09NTUV0VCBMSU5FIzAkUEQ5NGJXd2d
kbVZ5YzJsdmJqMGlNUzR3SWlCbGJtTnZaR2x1Wnowa
        .
        .
        .
RLM6L0ZJTEUvSUJJX0hUTUxfRElSL2phdmFhc3Npc3QvaW50bC9FTi9FTkl
BRGVmYXVsdF9jb21iaW5lLnN0eSwkClRZUEU9UkVQT1JULCBUSVRMRVRFWF
Q9JldGX1RJVEFllFVT1RFRFNUUklORYwgU1VNTUFSWT0mV0ZfU1VNTUFSW
S5RVU9URURTfVJJTksICQKRu5EU1RZTEUKRU5ECgotUlVOCg==
    </content>
```



```

    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
      <entry>
        <key _jt="string" value="en_US"/>
        <value _jt="ArrayList" size="2">
          <item _jt="string" index="0" value="Drilldown Report"/>
        </value>
      </entry>
    </nlsValues>
    <properties size="1">
      <entry key="tool" value="infoAssist,report,IAFull"/>
    </properties>
  </rootObject>
</ibfsrpc>

```

Renaming an Item

This RESTful web service request can be used to rename an item.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ItemName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will either contain the item (*ItemName*) to rename or be the folder that is renamed when *ItemName* is omitted. If the folder is a subfolder, then the path to the subfolder must be included in the REST URL. For example, TopFolderName/SubFolderName.

ItemName

Is the name of the item to rename, which can include WebFOCUS reports, schedules, library access lists, and library content.

Body Format:

```
IBIRS_action=rename&IBIRS_newName=renamedItem
```

where:

renamedItem

Is the name of the renamed item.

Example:

In the following example, the Financial_Reports folder is renamed to Financial_Reports_Renamed.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports
```

Body:

```
IBIRS_action=rename&IBIRS_newName=Financial_Reports_Renamed
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="rename"
returncode="10000" returndesc="SUCCESS"
    subreturncode="0" subsystem="SSYS" type="simple">
    <ibfsparams size="3">
        <entry key="IBIRS_newName" value="Financial_Reports_Renamed"/>
        <entry key="IBIRS_args" value="__null"/>
        <entry key="IBIRS_" value="/WFC/Repository/Financial_Reports"/>
    </ibfsparams>
    <rootObject _jt="IBFSMRObject" binary="false" container="true"
createdBy="admin"
        createdOn="1349964405620" defaultLng="en_US"
description="Financial Quarterly-Yearly Reports"
        dummy="false" fullPath="IBFS:/WFC/Repository/Financial_
Reports_Renamed"
```

```

        handle="5d81bab8_7db7_40c9_96b9_df2b00ce3278"
lastModified="1350351652269" lastaccessBy="admin"
        lastaccessOn="1350351652269" lastmodBy="admin" length="0"
name="Financial_Reports_Renamed"
        ownerId="10001" ownerName="admin" ownerType="U"
policy="//3/D///9+f/////f/////////8AAAA="
        returnedLng="en_US" rsPath="/ibi_
apps/rs/ibfs/WFC/Repository/Financial_Reports_Renamed"
        summary="Quarterly and Yearly Financial Reports reported
to the Securities and Exchange Commission"
        type="MRFolder">
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
        <entry>
            <key _jt="string" value="en_US"/>
            <value _jt="ArrayList" size="2">
                <item _jt="string" index="0" value="Financial Quarterly-
Yearly Reports"/>
                <item _jt="string" index="1" value="Quarterly and Yearly
Financial Reports reported to the Securities and Exchange Commission"/>
            </value>
        </entry>
    </nlsValues>
    <properties size="0"/>
</rootObject>
</ibfsrpc>

```

Uploading a WebFOCUS Report

This RESTful web service request can be used to upload a WebFOCUS report to the WebFOCUS environment.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/FexName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will contain the WebFOCUS report to be uploaded. If the folder is a subfolder, then the path to the subfolder must be included in the REST URL. For example, TopFolderName/SubFolderName.

FexName

Is the name of the WebFOCUS report to be uploaded, which must include a .fex extension.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object
```

where:

Object

Is the XML object defining the WebFOCUS report, which uses the following format:

```
<rootObject _jt="IBFSMRObject" description="ReportTitle"
type="FexFile">
  <content _jt="IBFSByteContent" char_set="Cp1252">ContentBase64
</content>
</rootObject>
```

where:

ContentBase64

Is the base64 encoded text of the WebFOCUS report to be uploaded.

ReportTitle

Is the title of the WebFOCUS report to be uploaded.

Example:

In the following example, a WebFOCUS report called Drilldown_Report.fex is created in the Financial_Reports folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Drilldown_Report.fex
```

Body:

```
IBIRS_action=put&IBIRS_object=<rootObject _jt="IBFSMRObject"
description="Drilldown Report" type="FexFile">
  <content _jt="IBFSByteContent" char_
set="Cp1252">LSpEbyBub3QgZGVsZXRLIG9yIG1vZGlmeSB0aGUgY29tbWVudHMgYmV
sb3cKLSogVXNlZCB0byBUZXN0IFJFU1QgTW92ZSBmdW5jdGlvbmFsaXR
5CiotSU5URVJ0QUxfQ09NTUVOVCBMSU5FIzAkUEQ5NGJXd2dkbVZ5YzJ
sdmJqMGlNUzR3SWlCbGJtTnZaR2x1WnowaVZWUkdMVGdpSUhOMFlXNWt
ZV3h2Ym1VOUltNXZJajgrRFFvOEltMHRNUzR3TFMw
.
.
.
TgpPTiBUQUJMRSBTRVQgSFRNTEVOQ09ERSBPTgpPTiBUQUJMRSBTRVQgU1R
ZTEUgKgPJTknMVURFPULCRlM6L0ZJTEUvSUJJX0hUTUxfRELsL2phdmFhc3
Npc3QvaW50bC9FTi9FTklBRGVmYXVsdF9jb21iaW5lLnN0eSwkClRZUEU9U
kVQT1JULCBUSVRMRVRFWFQ9JldGX1RJVExFLlFVT1RFRFN0Ukl0RywgU1VN
TUFswT0mV0ZfU1VNTUFSWS5RVU9URURTVFJJTkcsICQKR05EU1RZTEUK
RU5ECgotUlV0Cg==
  </content>
</rootObject>
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="put"
returncode="10000" returndesc="SUCCESS"
  subreturncode="0" subsystem="SSYS" type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_replace" value="true"/>
    <entry key="IBIRS_private" value="__null"/>
    <entry key="IBIRS_object" value="&lt;rootObject _
jt=&quot;IBFSMRObject&quot;
description=&quot;Drilldown Report&quot;
type=&quot;FexFile&quot;&gt;
&lt;content _jt=&quot;IBFSByteContent&quot;
char_set=&quot;Cp1252&quot;&gt;LSpEbyBub3QgZGVsZXRLIG9yIG1vZ
GlmeSB0aGUgY29tbWVudHMgYmVsb3cKLSogVXNlZCB0byBUZXN0IFJFU1QgT
W92ZSBmdW5jdGlvbmFsaXR5Cio
.
.
.
```

```
lFVT1RFRFNuUkl0RywgU1VNTUFSWT0mV0ZfU1VNTUFSWS5RVU9URURTVFJJTkcsIC
QKRu5EU1RZTEUKRU5ECgotUlVOCg==</content></rootObject>"/>
```

```
<entry key="IBIRS_args" value="__null"/>
<entry key="IBIRS_" value="/WFC/Repository/Financial_
Reports/Drilldown_Report.fex"/>
</ibfsparams>
<rootObject _jt="IBFSMRObject" binary="false" createdBy="admin"
createdOn="1350352555666" defaultLng="en_US"
description="Drilldown Report" dummy="false" extension="fex"
fullPath="IBFS:/WFC/Repository/Financial_Reports/Drilldown_Report.fex"
handle="ebd5f9e9_8607_439d_ac77_3089efb6184a"
inheritedPrivacy="true" lastModified="1350352555666"
lastaccessBy="admin" lastaccessOn="1350352555666"
lastmodBy="admin" length="5302"
name="Drilldown_Report.fex" ownerId="10001"
ownerName="admin" ownerType="U"
policy="//3/D///9+f7/////f7/////////8AAAA="
returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Drilldown_
Report.fex" type="FexFile">
<content _jt="IBFSByteContent" char_
set="Cp1252">LSpEbyBub3QgZGVsZXRLIG9yIG1vZGlmeSB0aGUg
Y29tbWVudHMgYmVsb3cKLSoVXNlZCB0byBUZXN0IFJFU1QgTW92ZSBmdW
5jdGlvbmFsaXR5CiotSU5URVJJOQUxf
.
.
.
l0RywgU1VNTUFSWT0mV0ZfU1VNTUFSWS5RVU9URURTVFJJTkcsICQKRu5E
U1RZTEUKRU5ECgotUlVOCg==
</content>
<nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
<entry>
<key _jt="string" value="en_US"/>
<value _jt="ArrayList" size="2">
<item _jt="string" index="0" value="Drilldown Report"/>
</value>
</entry>
</nlsValues>
<properties size="0"/>
</rootObject>
</ibfsrpc>
```

Creating a URL Link

This RESTful web service request can be used to create a URL link within the WebFOCUS environment.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/UrlName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will contain the URL link. If the folder is a subfolder, then the path to the subfolder must be included in the REST URL. For example, TopFolderName/SubFolderName.

UrlName

Is the name of the URL link to be created, which must include a .url extension.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object
```

where:

Object

Is the XML object defining the URL link, which uses the following format:

```
<rootObject _jt="IBFSMRObject" description="UrlLinkTitle" type="URLFile">
<content _jt="IBFSByteContent" char_set="Cp1252">UrlBase64</content>
<properties size="1">
<entry key="tool" value="url"/>
```

```
</properties>
</rootObject>
```

where:

UrlLinkTitle

Is the title of the URL link.

UrlBase64

Is the base64 encoded text of the URL.

Example:

In the following example, a URL called Yahoo.url is created in the Car_Reports folder. The URL of <http://www.yahoo.com> is base64 encoded.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/Car_Reports/Yahoo.url
```

Body:

```
IBIRS_action=put&IBIRS_object=<rootObject _jt="IBFSMRObject"
description="Yahoo" type="URLFile">
<content _jt="IBFSByteContent" char_
set="Cp1252">aHR0cDovL3d3dy55YWhvby5jb20=</content>
<properties size="1">
<entry key="tool" value="url"/>
</properties>
</rootObject>
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="put"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_replace" value="true"/>
    <entry key="IBIRS_private" value="__null"/>
    <entry key="IBIRS_object" value="****"/>
    <entry key="IBIRS_args" value="__null"/>
```



```

    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/Car_
Reports/Yahoo.url"/>
    </ibfsparams>
    <rootObject _jt="IBFSMRObject" binary="false" createdBy="admin"
createdOn="1356625917312" defaultLng="en_US"
description="Yahoo" dummy="false" extension="url"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_
Reports/Yahoo.url"
handle="1711f8b4_abb4c_41c3_9c4c_7fd3288d4c62"
lastModified="1356625917312" lastaccessBy="admin"
lastaccessOn="1356625917312" lastmodBy="admin" length="20"
name="Yahoo.url"
policy="////D///9+P/////v/////////+AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_
Reports/Yahoo.url" type="URLFile">
    <content _jt="IBFSByteContent" char_
set="Cp1252">aHR0cDovL3d3dy55YWhvby5jb20=</content>
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
    <key _jt="string" value="en_US"/>
    <value _jt="ArrayList" size="2">
    <item _jt="string" index="0" value="Yahoo"/>
    </value>
    </entry>
    </nlsValues>
    <properties size="0"/>
    </rootObject>
</ibfsrpc>

```

Retrieving Content for a WebFOCUS Report and URL

This RESTful web service request can be used to retrieve the textual content within a WebFOCUS report or URL link.

HTTP Method: GET

REST URL Format:

```

http://host[:port]/ibi_
apps/rs/ibfs/WFC/Repository/FolderName/ContentName?IBIRS_
action=getContent

```

where:

host

Is the name of the system where WebFOCUS is installed.

port (optional)

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder where the content exists. If the content exists in a subfolder, then the path to the subfolder name must be included in the REST URL. For example, ParentFolderName/FolderName.

ContentName

Is the name of the content, which must have a .fex extension for WebFOCUS reports and a .url extension for URL links.

Example 1:

In the following example, the content for the WebFOCUS report called Drilldown_Report.fex, from the Financial_Reports folder, is retrieved. The response Content-Type is text/plain.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/
Drilldown_Report.fex?IBIRS_action=getContent
```

Response:

```
TABLE FILE CAR
HEADING
"Sales by models for &CAR"
SUM SALES BY MODEL
WHERE CAR EQ '&CAR';
"Last updated: &TOD &DATE"
ON TABLE PCHOLD FORMAT HTML
ON TABLE SET PAGE-NUM OFF
ON TABLE SET SQUEEZE ON
ON TABLE SET STYLE *
GRID=OFF, $
TYPE=HEADING, STYLE=BOLD, SIZE=18, $
TYPE=FOOTING, STYLE=ITALIC, $
TYPE=TITLE, STYLE=BOLD, $
```

```
ENDSTYLE  
END
```

Example 2:

In the following example, the content for a URL called Yahoo.url, from the Car_Reports folder, is retrieved. The response Content-Type is text/plain.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_  
Services/  
Car_Reports/Yahoo.url?IBIRS_action=getContent
```

Response:

```
https://search.yahoo.com/search?p=Information+Builders
```

Retrieving Details of a Procedure

This RESTful web service request can be used to retrieve details of a procedure similar to what the Properties dialog shows.

HTTP Method: GET

REST URL Format:

```
http://host[:port]/ibi_apps/rs?IBIRS_path=path&IBIRS_  
action=getDetails&IBIRS_service=describe
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

```
http://server:port/ibi_apps/rs?IBFS_path=/WFC/Repository/Tests/car_param_1.fex&IBFS_action=getDetails&IBFS_service=describe
```

Response:

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US" name="getDetails"
returncode="10000" returndesc="SUCCESS" subreturncode="0" type="simple">
<ibfsparams size="2">
<entry key="IBFS_args" value="__null"/>
<entry key="IBFS_path" value="/WFC/Repository/Tests/car_param_1.fex"/>
</ibfsparams>
<rootObject _jt="WFFexDetails" ibfsPath="/WFC/Repository/Tests/car_
param_1.fex" itemDescription="car param_1">
<masterFiles _jt="ArrayList" size="1">
<item _jt="WFFexMasterFileDetails" index="0" masterFileName="CAR"/>
</masterFiles>
<dataElements _jt="ArrayList" size="1">
<item _jt="WFFexDataElementDetails" fieldName="CAR.BODY.SALES" format=""
index="0"/>
</dataElements>
<sorts _jt="ArrayList" size="3">
<item _jt="WFFexSortDetails" acrossField="false" byField="false"
fieldName="CAR.ORIGIN.COUNTRY" index="0" sortOrder="LOWEST"/>
<item _jt="WFFexSortDetails" acrossField="false" byField="false"
fieldName="CAR.COMP.CAR" index="1" sortOrder="LOWEST"/>
<item _jt="WFFexSortDetails" acrossField="false" byField="false"
fieldName="CAR.CARREC.MODEL" index="2" sortOrder="LOWEST"/>
</sorts>
<conditions _jt="ArrayList" size="0"/>
<expressions _jt="ArrayList" size="0"/>
<outputFormats _jt="ArrayList" size="1">
<item _jt="WFFexHoldFormatDetails" format="HTML" index="0"/>
</outputFormats>
<joins _jt="ArrayList" size="0"/>
</rootObject>
</ibfsrpc>
```

Using describeAdHocFex

This RESTful web service request can be used to retrieve the details of executing a describe on an adhoc procedure.

HTTP Method: GET

REST URL Format:

```
http://host[:port]/ibi_apps/rs?IBIRS_path=path&IBIRS_
action=describeAdHocFex&IBIRS_fexContent=procedureCode&IBIRS_
service=ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

```
http://server:port/ibi_apps/rs?IBIRS_path=/WFC/Repository/Tests&IBIRS_
action=describeAdHocFex&IBIRS_
fexContent=TABLE+FILE+CAR%0D%0APRINT+CAR+BY+COUNTRY%0D%0AWHERE+COUNTRY+E
Q+%27%26COUNTRY%27%0D%0AEND&IBIRS_service=ibfs
```

Response:

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US"
name="describeAdHocFex" returncode="10000" returndesc="SUCCESS"
subreturncode="0" type="simple">
<ibfsparams size="3">
<entry key="IBIRS_path" value="/WFC/Repository/Tests/" />
<entry key="IBIRS_fexContent" value="TABLE FILE CAR&NewLine;PRINT CAR BY
COUNTRY&NewLine;WHERE COUNTRY EQ '&COUNTRY'&NewLine;END" />
<entry key="IBIRS_args" value="__null" />
</ibfsparams>
<rootObject class="com.ibi.wfrs.IBFSWFDescribe" formAction="/ibi_
apps/rs" isSavedParam="false" nrOfDefaultVars="0" nrOfPromptVars="1">
<describeLevel class="com.ibi.wfrs.WFDescribeFlag" name="XMLRUN" />
<bindingInfo _jt="HashMap" loadFactor="0.75" threshold="24">
<entry>
<key _jt="string" value="IBIF_describe_null" />
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="_FOC_NULL" />
</entry>
<entry>
<key _jt="string" value="IBIC_server" />
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="EDASERVE" />
</entry>
```

```

<entry>
<key _jt="string" value="IBIRS_path"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="/WFC/Repository/Tests/" />
</entry>
<entry>
<key _jt="string" value="IBIWF_SES_AUTH_TOKEN"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="a3bd03c4658790940e049f3176c9396c" />
</entry>

```

```

<entry>
<key _jt="string" value="FOCEXURL"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="/ibi_apps/rs?IBIF_webapp=/ibi_apps&IBIC_server=EDASERVERetail_
samples retail ibisamp tests baseapp ibimagn rest=retail_samples retail
ibisamp tests baseapp ibimagn rest&" />
</entry>
<entry>
<key _jt="string" value="XSL_NEWLINE_DELIM"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="0xD;0xA;" />
</entry>
<entry>
<key _jt="string" value="IBIAPP_app"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="retail_samples retail ibisamp tests baseapp ibimagn rest" />
</entry>
<entry>
<key _jt="string" value="IBI_PostMsgsToParent"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="ON" />
</entry>
<entry>
<key _jt="string" value="IBI_Webapp_Context_Default"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="/ibi_apps/" />
</entry>
<entry>
<key _jt="string" value="IBIRS_service"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="ibfs" />
</entry>
<entry>
<key _jt="string" value="IBIRS_random"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"

```

```

value="62998"/>
</entry>
<entry>
<key _jt="string" value="FOCHTMLURL"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="/ibi_apps/ibi_html/S12613_15368909291F"/>
</entry>
<entry>
<key _jt="string" value="SUBSYSTEM"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="Self Service"/>
</entry>
<entry>
<key _jt="string" value="IBI_CSRF_Token_Name"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="IBIWF_SES_AUTH_TOKEN"/>
</entry>

```

```

<entry>
<key _jt="string" value="fromTool"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="true"/>
</entry>
<entry>
<key _jt="string" value="SCRIPT_NAME"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="false"
value="/ibi_apps/rs"/>
</entry>
<entry>
<key _jt="string" value="IBIRS_action"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="describeAdHocFex"/>
</entry>
<entry>
<key _jt="string" value="IBIRS_fexContent"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="TABLE FILE CAR PRINT CAR BY COUNTRY WHERE COUNTRY EQ '&COUNTRY'
END"/>
</entry>
<entry>
<key _jt="string" value="IBIRS_args"/>
<value class="com.ibi.wfrs.IBFSWFDescribe$BindingVar" isReqParm="true"
value="__null"/>
</entry>
</bindingInfo>
<amperMap accessOrder="false" class="java.util.LinkedHashMap"

```

```

loadFactor="0.75" threshold="24">
<entry>
<key _jt="string" value="FOCFOCEXEC"/>
<value amperIdx="0" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="FOCFOCEXEC"
noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="system"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="_PERSISTENT_APPLOCK"/>
<value amperIdx="1" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
APPLOCK" noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>

```

```

<entry>
<key _jt="string" value="_PERSISTENT_EDAAPP"/>
<value amperIdx="2" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
EDAAPP" noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="_PERSISTENT_EDACONF"/>

```



```

<value amperIdx="3" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
EDACONF" noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="_PERSISTENT_EDADEPLOY"/>
<value amperIdx="4" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
EDADEPLOY" noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="_PERSISTENT_EDEPLOY"/>
<value amperIdx="5" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
EDEPLOY" noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>

```

```

<entry>
<key _jt="string" value="_PERSISTENT_GEO_UNIFIED_ROLE"/>
<value amperIdx="6" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_

```

```

GEO_UNIFIED_ROLE" noSelection="false" parent="" sortOrder=""
validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="_PERSISTENT_IBI_HOLDMAG_TARGET"/>
<value amperIdx="7" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
IBI_HOLDMAG_TARGET" noSelection="false" parent="" sortOrder=""
validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="_PERSISTENT_OSTYPE"/>
<value amperIdx="8" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
OSTYPE" noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="_PERSISTENT_SRVTYPE"/>
<value amperIdx="9" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="_PERSISTENT_
SRVTYPE" noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="global"/>
<defValues _jt="array" itemsClass="string" size="0"/>

```

```

<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>

```

```

<entry>
<key _jt="string" value="FOCEXURL"/>
<value amperIdx="10" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="FOCEXURL"
noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="set"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="FOCHTMLURL"/>
<value amperIdx="11" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="FOCHTMLURL"
noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="set"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="GOOGLEMAPSAPIKEY"/>
<value amperIdx="12" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0"
name="GOOGLEMAPSAPIKEY" noSelection="false" parent="" sortOrder=""
validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="set"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"

```

```

loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="WF_TITLE"/>
<value amperIdx="13" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="WF_TITLE"
noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="set"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>

```

```

<entry>
<key _jt="string" value="FOCREL"/>
<value amperIdx="14" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0" name="FOCREL"
noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="system"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
<entry>
<key _jt="string" value="TEXTGENERATION"/>
<value amperIdx="15" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="false" isDefault="false" max="0.0" min="0.0"
name="TEXTGENERATION" noSelection="false" parent="" sortOrder=""
validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="set"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>

```

```

</value>
</entry>
<entry>
<key _jt="string" value="COUNTRY"/>
<value amperIdx="16" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" format="" idxInChain="-1"
inForm="true" isDefault="false" max="0.0" min="0.0" name="COUNTRY"
noSelection="false" parent="" sortOrder="" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="unresolved"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="prompt"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</value>
</entry>
</amperMap>
<tableChainList _jt="ArrayList" size="0"/>
</rootObject>
</ibfsrpc>

```

Using getContent

This RESTful web service request can be used to retrieve the content of an item.

HTTP Method: GET

REST URL Format:

```

http://host[:port]/ibi_apps/rs?IBIRS_path=path&IBIRS_
action=getContent&IBIRS_service=ibfs

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

```
http://server:port/ibi_apps/rs ?IBIRS_path=/WFC/Repository/Tests/Car_
Required_Parameter_2.fex&IBIRS_action=getContent&IBIRS_service=ibfs
```

Response:

```
ENGINE INT CACHE SET ON
SET PAGE-NUM=NOLEAD
SET SQUEEZE=ON
-DEFAULTH &WF_HTMLENCODING=ON;
SET HTMLENCODING=&WF_HTMLENCODING

SET HTMLCSS=ON
-DEFAULTH &WF_EMPTYREPORT=ON;
SET EMPTYREPORT=&WF_EMPTYREPORT

-DEFAULTH &WF_SUMMARY='Summary';
-DEFAULTH &WF_TITLE='WebFOCUS Report';
TABLE FILE ibisamp/car
SUM CAR.SPECS.LENGTH
CAR.SPECS.WIDTH
CAR.SPECS.HEIGHT
CAR.SPECS.WEIGHT
BY CAR.ORIGIN.COUNTRY
BY CAR.COMP.CAR
BY CAR.CARREC.MODEL
WHERE CAR.ORIGIN.COUNTRY EQ &COUNTRY.(OR(FIND CAR.ORIGIN.COUNTRY IN
ibisamp/CAR |FORMAT=A10, SORT=ASCENDING)).COUNTRY:.;
ON TABLE PCHOLD FORMAT HTML
ON TABLE NOTOTAL
ON TABLE SET CACHELINES 100
ON TABLE SET GRWIDTH 1
ON TABLE SET STYLE *
INCLUDE=IBFS:/FILE/IBI_HTML_DIR/javaassist/intl/EN/combine_
templates/ENWarm.sty,$
TYPE=REPORT, TITLETEXT=&WF_TITLE.QUOTEDSTRING, SUMMARY=&WF_
SUMMARY.QUOTEDSTRING, $
ENDSTYLE
END

-RUN
```

Using listUsersFromGroup

This RESTful web service request can be used to display and list all users from a specified group.

HTTP Method: GET**REST URL Format:**

```
http://host[:port]/ibi_apps/rs?IBIRS_path=/SSYS/GROUPS/groupName&IBIRS_
action=listUsersFromGroup&IBIRS_service=ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

```
http://server:port/ibi_apps/rs ?IBIRS_
path=/SSYS/GROUPS/Administrators&IBIRS_action=listUsersFromGroup&IBIRS_
service=ibfs
```

Response:

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US"
name="listUsersFromGroup" returncode="10000" returndesc="SUCCESS"
subreturncode="0" type="simple">
<ibfsparams size="1">
<entry key="IBIRS_path" value="/SSYS/GROUPS/Administrators"/>
</ibfsparams>
<rootObject _jt="IBFSObject" container="true"
description="Administrators" dummy="false"
fullPath="IBFS:/SSYS/GROUPS/Administrators" length="0"
name="Administrators" policy="/+f//f4f//9vo/+9//9////////f8AAAA"
rsPath="/ibi_apps/rs/ibfs/SSYS/GROUPS/Administrators" thumbPath="/ibi_
apps/ibi_html/ibi_images/file_type/file.svg" type="IBFSFolder">
<children _jt="ArrayList" size="6">
<item _jt="IBFSUserObject" description="20156" dummy="false" email=""
fullPath="IBFS:/SSYS/USERS/20156" handle="66186240" index="0"
lastSignin="1501528460312" length="0" name="20156" nameSpace="DB"
parent="Administrators" policy="/+f//f4f//9vo/+9//9////////f8AAAA"
rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/20156" thumbPath="/ibi_apps/ibi_
html/ibi_images/file_type/file.svg" type="User"
userStatusDisplay="AutoAdded">
<properties size="4">
```

```

<entry key="SeatDate" value="20170731"/>
<entry key="AuthNType" value="PreAuthN"/>
<entry key="SeatType" value="PU"/>
<entry key="autoadd" value="yes"/>
</properties>
<status _jt="IBSSUserStatus" name="AUTOADD"/>
<groups _jt="ArrayList" size="0"/>
<pSetList _jt="ArrayList" size="0"/>
</item>
<item _jt="IBFSUserObject" description="Administrator" dummy="false"
email="" fullPath="IBFS:/SSYS/USERS/admin" handle="10001" index="1"
lastSignin="1537208945749" length="0" name="admin"
parent="Administrators" policy="/+f//f4f//9vo/+9//9//+//f8AAAA"
rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/admin" thumbPath="/ibi_apps/ibi_
html/ibi_images/file_type/file.svg" type="User"
userStatusDisplay="Active">
<properties size="3">
<entry key="SeatDate" value="20160204"/>
<entry key="AuthNType" value="PreAuthN"/>
<entry key="SeatType" value="PU"/>
</properties>
<status _jt="IBSSUserStatus" name="ACTIVE"/>
<groups _jt="ArrayList" size="0"/>
<pSetList _jt="ArrayList" size="0"/>
</item>

```

```

<item _jt="IBFSUserObject" description="br01532" dummy="false" email=""
fullPath="IBFS:/SSYS/USERS/br01532" handle="1437955072" index="2"
lastSignin="1508444797540" length="0" name="br01532" nameSpace="DB"
parent="Administrators" policy="/+f//f4f//9vo/+9//9//+//f8AAAA"
rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/br01532" thumbPath="/ibi_apps/ibi_
html/ibi_images/file_type/file.svg" type="User"
userStatusDisplay="Active">
<properties size="3">
<entry key="SeatDate" value="20171019"/>
<entry key="AuthNType" value="IntAuthN"/>
<entry key="SeatType" value="PU"/>
</properties>
<status _jt="IBSSUserStatus" name="ACTIVE"/>
<groups _jt="ArrayList" size="0"/>
<pSetList _jt="ArrayList" size="0"/>
</item>
<item _jt="IBFSUserObject" description="ciprian" dummy="false" email=""
fullPath="IBFS:/SSYS/USERS/ciprian" handle="507591666" index="3"
lastSignin="1525710234837" length="0" name="ciprian" nameSpace="DB"
parent="Administrators" policy="/+f//f4f//9vo/+9//9//+//f8AAAA"

```



```

rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/ciprian" thumbPath="/ibi_apps/ibi_
html/ibi_images/file_type/file.svg" type="User"
userStatusDisplay="Active">
<properties size="3">
<entry key="SeatDate" value="20180507"/>
<entry key="AuthNType" value="IntAuthN"/>
<entry key="SeatType" value="PU"/>
</properties>
<status _jt="IBSSUserStatus" name="ACTIVE"/>
<groups _jt="ArrayList" size="0"/>
<pSetList _jt="ArrayList" size="0"/>
</item>
<item _jt="IBFSUserObject" description="David" dummy="false" email=""
fullPath="IBFS:/SSYS/USERS/david" handle="624072736" index="4"
lastSignin="1525713259277" length="0" name="david" nameSpace="DB"
parent="Administrators" policy="/+f//f4f//9vo/+9//9////////f8AAAA"
rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/david" thumbPath="/ibi_apps/ibi_
html/ibi_images/file_type/file.svg" type="User"
userStatusDisplay="Active">
<properties size="3">
<entry key="SeatDate" value="20170522"/>
<entry key="AuthNType" value="IntAuthN"/>
<entry key="SeatType" value="PU"/>
</properties>
<status _jt="IBSSUserStatus" name="ACTIVE"/>
<groups _jt="ArrayList" size="0"/>
<pSetList _jt="ArrayList" size="0"/>
</item>
<item _jt="IBFSUserObject" description="REST user" dummy="false"
email="" fullPath="IBFS:/SSYS/USERS/rest" handle="767690752" index="5"
lastSignin="1486500642372" length="0" name="rest" nameSpace="DB"
parent="Administrators" policy="/+f//f4f//9vo/+9//9////////f8AAAA"
rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/rest" thumbPath="/ibi_apps/ibi_
html/ibi_images/file_type/file.svg" type="User"
userStatusDisplay="Active">
<properties size="3">
<entry key="SeatDate" value="20170202"/>
<entry key="AuthNType" value="PreAuthN"/>
<entry key="SeatType" value="PU"/>
</properties>

```

```

<status _jt="IBSSUserStatus" name="ACTIVE"/>
<groups _jt="ArrayList" size="0"/>
<pSetList _jt="ArrayList" size="0"/>
</item>
</children>

```

```
</rootObject>
</ibfsrpc>
```

Using Properties

This RESTful web service request can be used to retrieve the properties of a specified item, including its extended properties.

HTTP Method: GET

REST URL Format:

```
http://host[:port]/ibi_apps/rs?IBIRS_path=/WFC/Repository/path&IBIRS_
action=properties&IBIRS_service=ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

```
http://server:port/ibi_apps/rs ?IBIRS_path=/WFC/Repository/Tests/Car_
Required_Parameter_2.fex&IBIRS_action=properties&IBIRS_service=ibfs
```

Response:

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US" name="properties"
returncode="10000" returndesc="SUCCESS" subreturncode="0" type="simple">
<ibfsparams size="2">
<entry key="IBIRS_path" value="/WFC/Repository/Tests/Car_Required_
Parameter_2.fex"/>
<entry key="IBIRS_args" value="__null"/>
</ibfsparams>
<rootObject _jt="IBFSMRObject" binary="false" createdBy="admin"
createdOn="1537208115101" defaultLng="en_US" description="Car Required
Parameter 2" dummy="false" effectiveAppName="retail_samples retail
ibisamp tests baseapp ibimagn rest" effectiveRSName="EDASERVE"
```

```

extension="fex" fullPath="IBFS:/WFC/Repository/Tests/Car_Required_
Parameter_2.fex" handle="b9cb30af_8add_4857_8f73_b29eae43b1cc"
lastModified="1537208172168" lastaccessBy="admin"
lastaccessOn="1537208172168" lastmodBy="admin" length="843" name="Car_
Required_Parameter_2.fex" ownerId="10001" ownerName="admin"
ownerPath="IBFS:/SSYS/USERS/admin" ownerType="U"
policy="/+fv/f4c///9vo/+9///9//+/////f8AAAA" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/Tests/Car_Required_Parameter_
2.fex" signedOn="true" thumbPath="/ibi_apps/ibi_html/ibi_images/file_
type/fex.svg" type="FexFile" typeDescription="Report">
<properties size="5">
<entry key="OutputFormat" value="HTML"/>
<entry key="masters" value="""ibisamp/car""/>
<entry key="LastDescribed" value="1537208172164"/>
<entry key="tool" value="infoAssist,report,IAFull"/>
<entry key="IntentPhrase" value="Run car required parameter"/>
</properties>
<extendedProperties _jt="HashMap" loadFactor="0.75" threshold="12">
<entry>
<key _jt="string" value="_IA_Metadata"/>
<value _jt="string" value="-* Created By WebFOCUS InfoAssist , ON:
September 17, 2018, Version: HEAD,7CACE5 -*Do not delete or modify the
comments below *-INTERNAL_COMMENT
LINE#0$PD94bWwgdmVyc2lvbj0iMS4wIiBlbmNvZGluc2Z0iVVRGLTgiIHN0YW5kYWxvbmU9I
m5vIj8+DQo8IS0tMS4wLS0+PFJvb3QgcmlsZWZlZ0i0S45Ljku0SIgdmVyc2lvbj0iMS4zI
j4NCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIC
GVydHkgbmFtZT0iTGlua2VkU29ydHMiIHR5cGU9ImphdmEubGFuZy5TdHJpbmciLz4NCiAgI
CAGICAgPFByb3BlcnR5IG5hbWU9ImNvbXBvbWVudEN1c3RvbVRpdGxliiB0eXB1PSJqYXZhL
mxhbmcuQm9vbGVhbiI+ZmFsc2U8L1Byb3BlcnR5Pg0KICAgICAgICAgICAgICAgICAgICAgI
CAGICAgIDx0eXB1PSJqYXZhLmxhbmcuU3RyaW5nIj5JQV9XSEVSRTwvRW50cnk+D
QogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAg
+DQogICAgPC9PYmplY3Q

+DQogICAgPE9iamVjdCBvYmplY3RJZD0iR0xPQkFMIj4NCiAgICAgICAgICAgPFByb3BlcnR5IG5
hbWU
9IlNhbXBsZURhdGEiIHR5cGU9ImphdmEubGFuZy5Cb29sZWFuIj5mYWxzZTwvUHJvcGVydHk

+DQogICAgICAgICAgIDx0cm9wZXJ0eSBuYW1lPSJHbG9iYWxSZWNvcmlMaW1pdCIgdHlwZT0iamF
2YS5
sYW5nLlN0cm1uZyI

+NTAwPC9Qcm9wZXJ0eT4NCiAgICAgICAgICAgPFByb3BlcnR5IG5hbWU9Ikdsb2JhbFJ1b1JlY29
yZExpbWl0IiB0eXB1PSJqYXZhLmxhbmcuU3RyaW5nIj4wPC9Qcm9wZXJ0eT4NCiAgICAgICAg

```

gPFByb3BlcnR5IG5hbWU9Ikdsb2JhbE9wdGltaxPhdGlvbiIgdHlwZT0iamF2YS5sYW5nLkJvb2xlyW4iPnRydWU8L1Byb3BlcnR5Pg0KICAgICAgICAgICA8UHJvcGVydHkgbmFtZT0iZmllbGR EaXNwbGF5TtW9kZSIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+bGFiZWw8L1Byb3BlcnR5Pg0 KICAgICAgICAgICA8UHJvcGVydHkgbmFtZT0icHJlZmL4RGlzcGxheU1vZGUiIHR5cGU9ImphdmE ubGFuZy5TdHJpbmciLz4NCiAgICAgICAgPFByb3BlcnR5IG5hbWU9IkFjdG12ZV9TdHlsZV9 Vc2VyX3R5cGU9IHR5cGU9ImphdmEubGFuZy5TdHJpbmciPnBvd2VyPC9Qcm9wZXJ0eT4NCiA gICAgICAgPFByb3BlcnR5IG5hbWU9IkxpbmtlZFNvcnRzIiB0eXB1PSJqYXZlLmxhbmcuU3R yaW5nIj5ub3QgaW5pdGlhbGl6ZWQ8L1Byb3BlcnR5Pg0KICAgICAgICAgICA8UHJvcGVydHkgbmF tZT0iU2F2ZVN0YXJ0VG9vbEluVHlwZSIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+UmVwb3Jj 0PC9Qcm9wZXJ0eT4NCiAgICAgICAgPFByb3BlcnR5IG5hbWU9Ikdsb2JhbFZhbmHVlc1BhZ2l uZyIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+NDwvUHJvcGVydHk+DQogICAgICAgICAgIDxQcm9 wZXJ0eSBuYW1lPSJGb2NleGVjUHJlZmVyZW5jZXMiIHR5cGU9Ik1hcCI+DQogICAgICAgICAg ICA8RW50cnkga2V5PSJkaXNwbGF5U2xpY2Vyc1RhYkVkaXRJbmZvTWluaVByZWZlcmVuY2U iIHR5cGU9ImphdmEubGFuZy5TdHJpbmciPmZhbHNlPC9FbnRyeT4NCiAgICAgICAgICAgIDx FbnRyeSBzZXk9ImRpc3BsYXlTZXJpZXNUYWJjbmZvTWluaVByZWZlcmVuY2UiIHR5cGU9Imp hdmEubGFuZy5TdHJpbmciPmZhbHNlPC9FbnRyeT4NCiAgICAgICAgICAgIDxFbnRyeSBzZXk 9ImF1dG9EcmlsbFNjcmlwdCIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyIvPg0KICAgICAgICAg ICAgPEVudHJ5IGtleT0icnVuT25TdGFydHVwRGVmZXJyZWRJbmZvTWluaVByZWZlcmVuY2U iIHR5cGU9ImphdmEubGFuZy5TdHJpbmciPmZhbHNlPC9FbnRyeT4NCiAgICAgICAgICAgIDx FbnRyeSBzZXk9ImRpc3BsYXlFZGl0TW9kZUluZm9NaW5pUHJlZmVyZW5jZSIgdHlwZT0iamF 2YS5sYW5nLlN0cmLuZyI+ZmFsc2U8L0VudHJ5Pg0KICAgICAgICAgICAgPEVudHJ5IGtleT0 iZGlzcGxheUhhbWVUYWJjbmZvTWluaVByZWZlcmVuY2UiIHR5cGU9ImphdmEubGFuZy5TdHJ pbmciPmZhbHNlPC9FbnRyeT4NCiAgICAgICAgICAgIDxFbnRyeSBzZXk9InRhcmddEF1dG9 MaW5rSW5mb01pbmlQcmVmZXJlbnNlIiB0eXB1PSJqYXZlLmxhbmcuU3RyaW5nIj5mYWxzZTw vRW50cnk+DQogICAgICAgICAgICAgICA8RW50cnkga2V5PSJtZXRhZGF0YV92aWV3cyIgdHlwZT0 iamF2YS5sYW5nLlN0cmLuZyI+TWV0YURhdGFUcmVlLlZJRvdFRElNUzwwvRW50cnk+DQogICA gICAgICAgICAgICA8RW50cnkga2V5PSJkaXNwbGF5RGF0YVRhYkluZm9NaW5pUHJlZmVyZW5jZSI gdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+ZmFsc2U8L0VudHJ5Pg0KICAgICAgICAgICAgPEV udHJ5IGtleT0iaW5mb0Fzc2lzdE1vZGVbbGxvd2VksW5mb01pbmlQcmVmZXJlbnNlIiB0eXB 1PSJqYXZlLmxhbmcuU3RyaW5nIj5mYWxzZTwvRW50cnk+DQogICAgICAgICAgICAgICA8RW50cnk ga2V5PSJlbmFibGVbdXRvTGlua0luZm9NaW5pUHJlZmVyZW5jZSIgdHlwZT0iamF2YS5sYW5 nLlN0cmLuZyI+ZmFsc2U8L0VudHJ5Pg0KICAgICAgICAgICAgPEVudHJ5IGtleT0iZGVmYXV sdF9wcmV2aWV3X3BhZ2VsaW1pdCIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+NTwvRW50cnk +DQogICAgICAgICAgICAgICA8RW50cnkga2V5PSJkaXNwbGF5SW5zZXJ0VGFiSW5mb01pbmlQcmV mZXJlbnNlIiB0eXB1PSJqYXZlLmxhbmcuU3RyaW5nIj5mYWxzZTwvRW50cnk+DQogICAgICA gICAgICAgICA8RW50cnkga2V5PSJydW5PblN0YXJ0dXBjbmZvTWluaVByZWZlcmVuY2UiIHR5cGU 9ImphdmEubGFuZy5TdHJpbmciPnRydWU8L0VudHJ5Pg0KICAgICAgICAgICAgPEVudHJ5IGt leT0iZGlzcGxheUxheW91dFRhYkluZm9NaW5pUHJlZmVyZW5jZSIgdHlwZT0iamF2YS5sYW5 nLlN0cmLuZyI+ZmFsc2U8L0VudHJ5Pg0KICAgICAgICAgICAgPEVudHJ5IGtleT0iZGlzcGx heUludGVyYWN0aXZlTW9k *-INTERNAL_COMMENT

LINE#1\$ZuluZm9NaW5pUHJlZmVyZW5jZSIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+dHJlZ TwvRW50cnk+DQogICAgICAgICAgICAgICA8RW50cnkga2V5PSJlbmFibGVJbmZvTWluaV9TYXZlI iB0eXB1PSJqYXZlLmxhbmcuU3RyaW5nIj50cnVlPC9FbnRyeT4NCiAgICAgICAgICAgIDxFb nRyeSBzZXk9ImRlZmF1bHRfcHJldmllZ19wYWdlbGltaxRfbGF5b3V0IiB0eXB1PSJqYXZlL mxhbmcuU3RyaW5nIj4xPC9FbnRyeT4NCiAgICAgICAgICAgIDxFbnRyeSBzZXk9ImRpc3BsY XlTbGljZXJzVGFiSW50ZXJhY3RpdmlVJbmZvTWluaVByZWZlcmVuY2UiIHR5cGU9ImphdmEub

```
GFuZy5TdHJpbmciPnRydWU8L0VudHJ5Pg0KICAgICAgICAgICAgPEVudHJ5IGtleT0iZGVmY
XVsdF9jb21wb3NlX2Zvcm1hdCIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI
```

```
+UERGPC9FbnRyeT4NCiAgICAgICAgICAgIDxFbnRyeSBkZXk9ImRpc3BsYXlSZXNvdXJjZXN
GaWVsZFRhYkluZm9NaW5pUHJlZmVyZW5jZSIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+ZmF
sc2U8L0VudHJ5Pg0KICAgICAgICAgICAgPEVudHJ5IGtleT0iZGlzcGxheUZvcmlhdFRhYklu
Zm9NaW5pUHJlZmVyZW5jZSIgdHlwZT0iamF2YS5sYW5nLlN0cmLuZyI+dHJlZTwvRW50cnk
+DQogICAgICAgICAgICAgICA8RW50cnkga2V5PSJJc0dyYXlPdXRGaWVsZHNnb2RlIiB0eXBkPSJ
qYXZlLmxhbmcuU3RyaW5nIj5mYWxzZTwvRW50cnk+DQogICAgICAgICAgIDwvUHJvcGVydHk+DQo
gICAgICAgIDxQcm9wZXJ0eSBuYW1lPSJjYXNjYWwvRmFtZXMiIHR5cGU9Ik1hcCIvPg0KICA
gICAgICAgICA8UHJvcGVydHkgbmFtZT0iWFZdGVyX0ZpbGVzIiB0eXBkPSJtZXQiPg0KICAgICA
gICAgICAgPEVudHJ5IHR5cGU9ImphdmEubGFuZy5TdHJpbmciPmliaXNhbXAyY2FyPC9FbnR
yeT4NCiAgICAgICAgPC9Qcm9wZXJ0eT4NCiAgICAgICAgPFByb3BlcnR5IG5hbWU9Im1ldGF
kYXRhVm1ld0FzIiB0eXBkPSJNYXAiPg0KICAgICAgICAgICAgPEVudHJ5IGtleT0iaWJpc2F
tcC9jYXIIiHR5cGU9ImphdmEubGFuZy5TdHJpbmciPk1ldGFYXRhVHJlZS5WSUVXX0RJTVM
8L0VudHJ5Pg0KICAgICAgICAgICA8L1Byb3BlcnR5Pg0KICAgICAgICAgICA8UHJvcGVydHkgbmFtZT0
iZW5hYmxlUHJldm1ldyIgdHlwZT0iamF2YS5sYW5nLk1vbm2xlyW4iPnRydWU8L1Byb3BlcnR
5Pg0KICAgIDwvT2JqZWNO0Pg0KPC9Sb290Pg0K -*Do not delete or modify the
comments above "/>
</entry>
</extendedProperties>
<nlsValues _jt="HashMap" loadFactor="0.75" threshold="1">
<entry>
<key _jt="string" value="en_US"/>
<value _jt="ArrayList" size="2">
<item _jt="string" index="0" value="Car Required Parameter 2"/>
</value>
</entry>
</nlsValues>
<fexParameters _jt="ArrayList" size="1">
<item _jt="IBRFexParameter" datadomain="COUNTRY" index="0"
multiselect="true" parmname="COUNTRY" required="true">
<amperVar amperIdx="16" chainIdx="-1"
class="com.ibi.wfrs.IBFSWFDescribe$AmperVar" description="COUNTRY:"
format="A10" idxInChain="-1" inForm="true" isDefault="false" max="0.0"
min="0.0" name="COUNTRY" noSelection="false" operation="OR" parent=""
sortOrder="ASCENDING" validate="">
<type class="com.ibi.wfrs.IBFSAmperVarType" name="unresolved"/>
<defValues _jt="array" itemsClass="string" size="0"/>
<displayType class="com.ibi.wfrs.IBFSAmperDisplayType" name="find"/>
<values accessOrder="false" class="java.util.LinkedHashMap"
loadFactor="0.75" threshold="0"/>
<dynValues class="com.ibi.wfrs.IBFSWFDescribe$DynamicAmper"
displayField="" field="CAR.ORIGIN.COUNTRY" file="ibisamp/CAR">
<type class="com.ibi.wfrs.IBFSAmperDisplayType" name="find"/>
</dynValues>
```

```
<parameters _jt="HashMap" loadFactor="0.75" threshold="0"/>
</amperVar>
</item>
</fexParameters>
</rootObject>
</ibfsrpc>
```

Using runAdHocFex

This RESTful web service request can be used to run the adhoc fex that is entered as the argument.

HTTP Method: GET

REST URL Format:

```
http://host[:port]/ibi_apps/rs?IBIRS_path=/WFC/Repository/path&IBIRS_
action=runAdHocFex&IBIRS_fexContent=procedureCode&IBIRS_service=ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

```
http://server:port/ibi_apps/rs ?IBIRS_path=/WFC/Repository/Tests&IBIRS_
action=runAdHocFex&IBIRS_
fexContent=TABLE+FILE+CAR%0D%0APRINT+CAR+BY+COUNTRY%0D%0AEND&IBIRS_
service=ibfs
```

Response:

The report output appears.

Using setLanguage

This RESTful web service request can be used to set the language for the WebFOCUS session.

HTTP Method: GET

REST URL Format:

```
http://host[:port]/ibi_apps/rs?IBIRS_action=setLanguage&IBIRS_
language=localeValue&IBIRS_service=ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

```
http://server:port/ibi_apps/rs?IBIRS_action=setLanguage&IBIRS_
language=en-US&IBIRS_service=ibfs
```

Response:

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US" name="setLanguage"
returncode="10000" returndesc="SUCCESS" subreturncode="0" type="simple">
<ibfsparams size="1">
<entry key="IBIRS_language" value="en-US"/>
</ibfsparams>
<rootObject _jt="IBFSLanguageObject" available="true"
description="English" enabled="true" group="0" lngIndex="0" name="en_US"
name2="en">
<codePages _jt="array" itemsClass="string" size="16">
<item _jt="string" index="0" value="137"/>
<item _jt="string" index="1" value="874"/>
<item _jt="string" index="2" value="942"/>
<item _jt="string" index="3" value="946"/>
<item _jt="string" index="4" value="949"/>
<item _jt="string" index="5" value="1250"/>
<item _jt="string" index="6" value="1251"/>
```

```

<item _jt="string" index="7" value="1252"/>
<item _jt="string" index="8" value="1253"/>
<item _jt="string" index="9" value="1254"/>
<item _jt="string" index="10" value="1255"/>
<item _jt="string" index="11" value="1256"/>
<item _jt="string" index="12" value="1257"/>
<item _jt="string" index="13" value="10942"/>
<item _jt="string" index="14" value="10948"/>
<item _jt="string" index="15" value="65001"/>
</codePages>
<locale class="java.util.Locale"/>
</rootObject>
</ibfsrpc>

```

Using setManagePrivateMode

This RESTful web service request can be used to set Manager Mode for the session.

HTTP Method: POST

REST URL Format:

```
http://host[:port]/ibi_apps/rs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=setManagePrivateMode&IBIRS_mode=true/false&IBIRS_
service=ibfs
```

Example:

```
http://server:port/ibi_apps/rs
```

Body:


```
IBIRS_action=setManagePrivateMode&IBIRS_mode=true&IBIRS_service=ibfs
```

Response:

```
<ibfsrpc _jt="IBFSResponseObject" language="en_US"  
name="setManagePrivateMode" returncode="10000" returndesc="SUCCESS"  
subreturncode="0" type="simple">  
<ibfsparams size="1">  
<entry key="IBIRS_mode" value="true"/>  
</ibfsparams>  
<rootObject _jt="boolval" value="true"/>  
</ibfsrpc>
```

ibi WebFOCUS Reporting Server RESTful Web Service Requests

This section describes the format and structure of WebFOCUS Reporting Server RESTful web service requests.

Listing ibi WebFOCUS Reporting Server Nodes

This RESTful web service request can be used to list the WebFOCUS Reporting Server nodes that are available to WebFOCUS.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs?IBIRS_action=get
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

In the following example, WebFOCUS Reporting Server nodes are listed.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/EDA?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_
action" returncode="10000"
    returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
    <ibfsparams size="0"/>
    <rootObject _jt="IBFSObject" container="true" description="EDA"
dummy="false"
    fullPath="IBFS:/EDA" name="EDA"
policy="///+f////////9//////////+AAAAA" type="WebFOCUSComponent">
    <children _jt="ArrayList" size="1">
        <item _jt="IBFSEDAObject" container="true" defaultNode="true"
description="" dummy="false"
            fullPath="IBFS:/EDA/EDASERVE" host="MyComputer" index="0"
name="EDASERVE" nodeClass="CLIENT"
            parent="EDA" policy="///+f////////9//////////+AAAAA" port="8120"
type="EDANode"/>
    </children>
</rootObject>
</ibfsrpc>
```

Each WebFOCUS Reporting Server node definition is defined within the opening and closing *item* tag. The *name* attribute defines the name of the WebFOCUS Reporting Server node. The *port* attribute defines the TCP/IP port used to communicate with the WebFOCUS Reporting Server.

Creating an Application

This RESTful web service request can be used to create an application.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/EDA/NodeName/AppName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

NodeName

Is the name of the WebFOCUS Reporting Server node. For more information, see [Listing ibi WebFOCUS Reporting Server Nodes](#).

AppName

Is the name of the application to be created. If the application being created is a nested application of an existing application, then the existing application name is also included in the REST URL. This shows the path to the application being created (for example, ExistingApplication/ApplicationName).

Body Format:

```
IBIRS_action=put&IBIRS_object=Object
```

where:

Object

Is the XML object defining the attributes for the application using the following format:

```
<object _jt="IBFSFolder" container="true" type="IBFSFolder"></object>
```

Example:

In the following example, an application called Financial_Reports is created.

POST Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs/EDA/EDASERVE/Financial_Reports
```

Body:

```
IBIRS_action=put&IBIRS_object=<object _jt="IBFSFolder" container="true" type="IBFSFolder"></object>
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="put"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_replace" value="true"/>
    <entry key="IBIRS_path" value="/EDA/EDASERVE/Financial_Reports"/>
    <entry key="IBIRS_private" value="__null"/>
    <entry key="IBIRS_object" value="****"/>
    <entry key="IBIRS_args" value="__null"/>
  </ibfsparams>
  <rootObject _jt="IBFSFolder" container="true" description="Financial_
Reports" dummy="false" fullPath="IBFS:/EDA/EDASERVE/Financial_Reports"
name="Financial_Reports" policy="////D/////fx/////+/4AAAA"
rsPath="/ibi_apps/rs/ibfs/EDA/EDASERVE/Financial_Reports"
type="IBFSFolder"/>
</ibfsrpc>
```

Listing Applications

This RESTful web service can be used to list the applications for a particular WebFOCUS Reporting Server node.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/EDA/NodeName?IBIRS_action=get
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

NodeName

The name of the WebFOCUS Reporting Server Node. For more information, see [Listing ibi WebFOCUS Reporting Server Nodes](#).

Example:

In the following example, the applications within the WebFOCUS Reporting Server called EDASERVE are listed.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/EDA/EDASERVE?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSEDANodeObject" container="true" defaultNode="true"
description=""
  dummy="false" fullPath="IBFS:/EDA/EDASERVE" host="REST-COMPUTER"
name="EDASERVE"
  nodeClass="CLIENT" policy="///+f////////9//////////+AAAAA"
port="8120" type="EDANode">
    <children _jt="ArrayList" size="14">
      <item _jt="IBFSFolder" container="true" description="foccache"
dummy="false"
      fullPath="IBFS:/EDA/EDASERVE/foccache" index="0"
lastModified="1345560136000"
      name="foccache" parent="EDASERVE"
policy="///+f////////9//////////+AAAAA" type="IBFSFolder"/>
      .
      .
      .
      <item _jt="IBFSFolder" container="true" description="maintain"
dummy="false"
      fullPath="IBFS:/EDA/EDASERVE/maintain" index="12"
lastModified="1344546157000" name="maintain"
      parent="EDASERVE" policy="///+f////////9//////////+AAAAA"
type="IBFSFolder"/>
      <item _jt="IBFSFolder" container="true" description="session"
dummy="false"
      fullPath="IBFS:/EDA/EDASERVE/session" index="13"
lastModified="1344546157000" name="session"
      parent="EDASERVE" policy="///+f////////9//////////+AAAAA"
type="IBFSFolder"/>
    </children>
```

```
</rootObject>  
</ibfsrpc>
```

Each application definition is defined within the opening and closing **item** tag. The **name** attribute defines the name of the application.

Listing Files Within an Application

This RESTful web service can be used to list all files within a particular application.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/EDA/NodeName/AppName?IBIRS_action=get
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

NodeName

Is the name of the WebFOCUS Reporting Server Node. For more information, see [Listing ibi WebFOCUS Reporting Server Nodes](#).

AppName

Is the name of the application containing the files to be listed. For more information, see [Listing Applications](#).

Example:

In the following example, all files within the *ibisamp* application are listed.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/EDA/EDASERVE/ibisamp?IBIRS_
action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_
action" returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSFolder" container="true" description="ibisamp"
dummy="false"
    fullPath="IBFS:/EDA/EDASERVE/ibisamp" lastModified="1345554266"
name="ibisamp"
    policy="///+f////////9//////////+AAAAA" type="IBFSFolder">
    <children _jt="ArrayList" size="182">
      <item _jt="IBFSFile" description="cargraph.fex" dummy="false"
        fullPath="IBFS:/EDA/EDASERVE/ibisamp/cargraph.fex" index="0"
lastModified="1328583952000"
        length="1471" name="cargraph.fex" parent="ibisamp"
policy="///+f////////9//////////+AAAAA"
        type="IBFSFile"/>
      <item _jt="IBFSFile" description="carinst.fex" dummy="false"
        fullPath="IBFS:/EDA/EDASERVE/ibisamp/carinst.fex" index="1"
lastModified="1328583952000"
        length="2624" name="carinst.fex" parent="ibisamp"
policy="///+f////////9//////////+AAAAA"
        type="IBFSFile"/>
      .
      .
      .
      <item _jt="IBFSFile" description="wfmstart.html" dummy="false"
        fullPath="IBFS:/EDA/EDASERVE/ibisamp/wfmstart.html" index="181"
lastModified="1328619018000"
        length="6364" name="wfmstart.html" parent="ibisamp"
policy="///+f////////9//////////+AAAAA"
        type="IBFSFile"/>
    </children>
  </rootObject>
</ibfsrpc>
```

Each file definition is defined within the opening and closing **item** tag. The **name** attribute defines the name of the file.

The following list shows the WebFOCUS-specific file name extensions:

- **fex.** WebFOCUS report.
- **mas.** Master File Description.
- **acx.** Access File.
- **foc.** FOCUS database.
- **etg.** Data Migrator flow.
- **mnt.** Maintain procedure.
- **wfm.** Maintain forms.
- **fcm.** Maintain compiled.
- **ftm.** Flat file usually used as a temporary file.

The **description** attribute defines the description that was used as input for the file.

Listing the Parameters for a Report Within an Application

This RESTful web service can be used to retrieve the current parameters for a WebFOCUS report stored within an application.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/EDA/NodeName/Appname/FexName?IBIRS_
action=describeFex
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

NodeName

Is the name of the WebFOCUS Reporting Server Node. For more information, see [Listing ibi WebFOCUS Reporting Server Nodes](#).

Appname

Is the name of the application containing the files to be listed. For more information, see [Listing Applications](#).

FexName

Is the name of the WebFOCUS report as defined in the **name** attribute when listing files within an application. For more information, see [Listing Files Within an Application](#).

Example:

In this example, the current parameters for the carinst.fex report, which exists in the *ibisamp* application, are retrieved. The carinst.fex report is defined in the *name* attribute when listing the files within an application. For more information, see [Listing Files Within an Application](#).

Request:

```
http://localhost:8080/ibi_
apps/rs/ibfs/EDA/EDASERVE/ibisamp/carinst.fex?IBIRS_action=describeFex
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject isSavedParam="false">
    <bindingInfo _jt="HashMap" loadFactor="0.75" threshold="24">
      <entry>
        <key _jt="string" value="SUBSYSTEM"/>
        <value isReqParm="false" value="Self Service"/>
      </entry>
      <entry>
        <key _jt="string" value="IBI_WF_charset"/>
        <value isReqParm="false" value="windows-1252"/>
      </entry>
      <entry>
        .
      </entry>
    </bindingInfo>
  </rootObject>
</ibfsrpc>
```

```

      .
      .
    <entry>
      <key _jt="string" value="WF_TITLE"/>
      <value format="" max="0.0" min="0.0" name="WF_TITLE" strDef="">
        <type name="set"/>
        <displayType name="prompt"/>
        <values accessOrder="false" loadFactor="0.75" threshold="12"/>
      </value>
    </entry>
    <entry>
      <key _jt="string" value="FOCREL"/>
      <value format="" max="0.0" min="0.0" name="FOCREL" strDef="">
        <type name="system"/>
      <displayType name="prompt"/>

```

```

      <values accessOrder="false" loadFactor="0.75" threshold="12"/>
    </value>
  </entry>
  <entry>
    <key _jt="string" value="EXCELSERVURL"/>
    <value format="" max="0.0" min="0.0" name="EXCELSERVURL" strDef="">
      <type name="set"/>
    <displayType name="prompt"/>
    <values accessOrder="false" loadFactor="0.75" threshold="12"/>
  </value>
</entry>
<entry>
  <key _jt="string" value="COUNTRY"/>
  <value format="" max="0.0" min="0.0" name="COUNTRY" strDef="$*">
    <type name="defaultType"/>
  <displayType name="prompt"/>
  <values accessOrder="false" loadFactor="0.75" threshold="12"/>
</value>
</entry>
</amperMap>
</rootObject>
</ibfsrpc>

```

Each parameter definition is defined within the opening and closing *entry* tag.

The XML returned includes many system parameters along with the parameters defined in the WebFOCUS report. Entries that have a *name* attribute for the *type* element of either *unresolved* or *defaultType* are the WebFOCUS report parameters.

```
<type name="unresolved"/>
```

The *name* attribute within the *value* element defines the parameter that is being used in the selection.

```
<value name="COUNTRY" strDef="$*" min="0.0" max="0.0" format="">
<type name="defaultType"/>
```

If a parameter definition within a WebFOCUS report has a default value, the *strDef* attribute within the *value* element will contain that value.

If a parameter definition within a WebFOCUS report has a Prompt title, the *description* attribute within the *value* element will contain the title.

If a parameter definition within a WebFOCUS report has a list of valid values for the selection, additional *entry* elements will exist in the XML within the parameter definition. The *value* attribute within the *key* element would contain each valid value.

Running a Report Within an Application

This RESTful web service can be used to run a report stored in an application.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/EDA/NodeName/Appname/FexName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

NodeName

Is the name of the WebFOCUS Reporting Server Node. For more information, see [Listing ibi WebFOCUS Reporting Server Nodes](#).

AppName

Is the name of the application containing the files to be listed. For more information, see [Listing Applications](#).

FexName

Is the name of the WebFOCUS report as defined in the **name** attribute when listing files within an application. For more information, see [Listing Files Within an Application](#).

Body Format:

```
IBIRS_action=run&IBIRS_proxyURL=clientPath&IBIRS_userName=Userid&  
IBIRS_password=Password&parmNameN=parmValueN&IBIRS_args=Object
```

where:

clientPath

Is the path to the client application making the RESTful web service calls to WebFOCUS. For example:

```
http://myapplication.maj.com/Sales/Monthly.aspx
```

The parameter is used when the initial WebFOCUS report contains drill-down links, links to images, On-Demand Paging reports, or Active Cache reports.

When you click on a drill-down link or pages in an On-Demand Paging report, the request will be routed to the client application, as defined by the *clientPath* value, instead of WebFOCUS. All of the parameter names and values are sent with the request. The client application will then have to redirect the request to the following URL, which is the WebFOCUS environment:

```
http://host:port/ibi_apps/rs/ibfs
```

Userid

Is the WebFOCUS Reporting Server user ID. If the WebFOCUS Reporting Server is running with Security Off or the WebFOCUS Reporting Server sign-in credentials are configured in the WebFOCUS Reporting Server Client settings, then this parameter does not have to be sent in the REST request.

Password

Is the WebFOCUS Reporting Server password. If the WebFOCUS Reporting Server is running with Security Off or the WebFOCUS Reporting Server sign-in credentials are configured in the WebFOCUS Reporting Server Client settings, then this parameter does not have to be sent in the REST request.

parmNameN

Is the name of the defined parameter that will be passed to the WebFOCUS Reporting Server.

i Note: The number of defined parameters can vary and depend on the number of parameters within the WebFOCUS report. For example, a WebFOCUS report that requires two parameters will also require these parameters and corresponding values to be set in the body of this RESTful web service (&parmName1=parmValue1&parmName2=parmValue2). In a different WebFOCUS report, there could be as many parameters as required (three, four, five, and so on).

parmValueN

Is the value of the defined parameter that will be passed to the WebFOCUS Reporting Server.

Object (Optional)

Is the XML object that is used to turn off redirection when retrieving report output for MIME types like EXCEL and PDF using the following format:

```
<rootObject _jt="HashMap">
  <entry>
    <key _jt="string" value="IBFS_contextVars"/>
    <value _jt="HashMap">
      <entry>
        <key _jt="string" value="IBIWF_redirect"/>
        <value _jt="string" value="NEVER"/>
      </entry>
    </value>
  </entry>
</rootObject>
```

Example:

In the following example, the Sales_for_a_Specific_Country report is being executed only for Japan.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/EDA/EDASERVE/ibisamp/carinst.fex
```

Body:

```
IBIRS_action=run&COUNTRY=JAPAN
```

Response:

The response is a report in either HTML, Excel, PDF, active report, or a graph.

Deleting an Application

This RESTful web service request can be used to delete an application.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/EDA/NodeName/Appname?IBIRS_
action=delete
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

NodeName

Is the name of the WebFOCUS Reporting Server Node. For more information, see [Listing ibi WebFOCUS Reporting Server Nodes](#).

AppName

Is the name of the application containing the files to be listed. For more information, see [Listing Applications](#).

Example:

In the following example, the *wfretail* application is deleted.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/EDA/EDASERVE/wfretail?IBIRS_
action=delete
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSFolder" container="true" description="wfretail"
dummy="false"
    fullPath="IBFS:/EDA/EDASERVE/wfretail" name="wfretail"
type="IBFSFolder"/>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the application was deleted successfully.

Change Management Export

This RESTful web service request can be used to export directories, files, and groups that were created using Change Management Import.

For more information, see [Change Management Export](#).



Note: This RESTful web service is common to functionality in the WebFOCUS Repository and the WebFOCUS Reporting Server.

Change Management Import

This RESTful web service request can be used to import directories, files, and groups that were created using Change Management Export.

For more information, see [Change Management Import](#).



Note: This RESTful web service is common to functionality in the WebFOCUS Repository and the WebFOCUS Reporting Server.

Deleting a Role

This RESTful web service request can be used to delete a role.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/ROLES/Role?IBIRS_action=delete
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Role

Is the name of the role to be deleted.

Example:

In the following example, a role called LibraryCustom is deleted.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/ROLES/LibraryCustom?IBIRS_action=delete
```

Response:

```

<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="delete"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
    subsystem="SSYS" type="simple">
    <ibfsparams size="2">
        <entry key="IBIRS_args" value="__null"/>
        <entry key="IBIRS_" value="/SSYS/ROLES/LibraryCustom"/>
    </ibfsparams>
    <rootObject _jt="IBFSPermissionSetObject" description="Library
Privilege - Custom" dummy="false"
        fullPath="/IBFS:/SSYS/ROLES/LibraryCustom"
handle="381089792" name="LibraryCustom"
        policy="////D///9+f/////f/////////8AAAA=" rsPath="/ibi_
apps/rs/ibfs/SSYS/ROLES/LibraryCustom"
        showPermissions="false" subsysNameList="WFC"
type="PermissionSet">
        <pSet _jt="IBSSPermissionSet" compLvl="100" description="Library
Privilege - Custom" id="381089792"
            name="LibraryCustom" shipped="false">
            <policy _jt="IBSSPolicy" derivedDate="1349173489158">
                <policy _jt="EnumMap" _keyJT="IBSSOperation" size="3">
                    <entry>
                        <key _jt="IBSSOperation" name="opLibrary"/>
                            <value _jt="IBSSVerb" name="PERMIT"/>
                    </entry>
                    <entry>
                        <key _jt="IBSSOperation" name="opList"/>
                            <value _jt="IBSSVerb" name="PERMIT"/>
                    </entry>
                    <entry>
                        <key _jt="IBSSOperation" name="opRCExplorer"/>
                            <value _jt="IBSSVerb" name="PERMIT"/>
                    </entry>
                </policy>
            </policy>
            <subsysList _jt="ArrayList" size="1">
                <item _jt="IBFSSubsystem" index="0" name="WFC"/>
            </subsysList>
        </pSet>
    </rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the role was successfully deleted.

Adding a Rule

This RESTful web service request can be used to apply a rule against a specific item.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/ItemToBeRestricted
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

ItemToBeRestricted

Is the path to the item that is being restricted. For example:

```
/WFC/Repository/ParentFolder/FolderName
```

Body Format:

```
IBIRS_action=addRule&IBIRS_path=ItemToBeRestricted&IBIRS_subjectPath=GroupUser
&IBIRS_verb=RestrictType&IBIRS_role=Role&IBIRS_applyTo=FolderChildren
```

where:

ItemToBeRestricted

Is the path to the item that is being restricted. For example:

```
/WFC/Repository/ParentFolder/FolderName
```

GroupUser

Are the paths to groups or user IDs to which a specific role will be applied. For example:

```
/SSYS/GROUPS/group1;/SSYS/GROUPS/group2
```

RestrictType

Is one of the following types of restrictions that can be applied to a specific role:

- NOT_SET
- PERMIT
- DENY
- UNPERMIT
- UNDENY
- OVERPERMIT
- CLEARINHERITANCE

Role

Is the specific role that is applied to *GroupUser*. For example, List, Run, and ListAndRun.

FolderChildren

Determines whether the rule will be applied to only *ItemToBeRestricted*, *ItemToBeRestricted* and its children, or just the children. Valid values include:

- FOLDER_AND_CHILDREN
- FOLDER_ONLY
- CHILDREN_ONLY

For example, FOLDER_AND_CHILDREN could be used to apply a rule for a specific folder and its subfolders.

Example:

In the following example, a rule is added to permit the user ID (restid) to list and run items from the Quarterly folder within Financial_Reports, including its subfolders.

POST Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Quarterly
```

Body:

```
IBIRS_action=addRule&IBIRS_path=/WFC/Repository/Financial_Reports/
Quarterly&IBIRS_subjectPath=/SSYS/USERS/restid&IBIRS_verb=PERMIT&
IBIRS_role=ListAndRun&IBIRS_applyTo=FOLDER_AND_CHILDREN
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="addRule"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_verb" value="PERMIT"/>
    <entry key="IBIRS_role" value="ListAndRun"/>
    <entry key="IBIRS_applyTo" value="FOLDER_AND_CHILDREN"/>
    <entry key="IBIRS_subjectPath" value="/SSYS/USERS/restid"/>
    <entry key="IBIRS_" value="/WFC/Repository/Financial_
Reports/Quarterly"/>
  </ibfsparams>
  <rootObject _jt="IBFSPermissionSetObject" description="List and run
content" dummy="false" fullPath="IBFS:/SSYS/ROLES/ListAndRun"
handle="10330"
  name="ListAndRun" policy="////D///9+f/////f/////////8AAAA="
rsPath="/ibi_apps/rs/ibfs/SSYS/ROLES/ListAndRun" showPermissions="false"
  subsysNameList="WFC" type="PermissionSet">
    <pSet _jt="IBSSPermissionSet" complvl="0" description="List and run
content" id="10330" name="ListAndRun" shipped="true">
      <policy _jt="IBSSPolicy" derivedDate="1348174711335">
        <policy _jt="EnumMap" _keyJT="IBSSOperation" size="2">
          <entry>
            <key _jt="IBSSOperation" name="opList"/>
            <value _jt="IBSSVerb" name="PERMIT"/>
          </entry>
          <entry>
            <key _jt="IBSSOperation" name="opRun"/>
            <value _jt="IBSSVerb" name="PERMIT"/>
          </entry>
        </policy>
      </policy>
      <subsysList _jt="ArrayList" size="1">
        <item _jt="IBFSSubsystem" index="0" name="WFC"/>
      </subsysList>
    </pSet>
  </rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the rule was successfully created.

WebFOCUS Security Administration RESTful Web Service Requests

This section describes the format and structure of WebFOCUS security administration web service requests.

Listing Users

This RESTful web service request can be used to retrieve a list of existing WebFOCUS users.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/USERS?IBIRS_action=get
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

In the following example, a list of WebFOCUS users is retrieved.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/USERS?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
```

```

returncode="10000"
  returndesc="SUCCESS" subreturncode="0" subsystem="SSYS"
type="simple">
  <ibfparams size="0"/>
  <rootObject _jt="IBFSObject" container="true" description="USERS"
dummy="false"
  fullPath="IBFS:/SSYS/USERS" name="USERS"
policy="///+f////////9//////////+AAAAA"
  type="WebFOCUSComponent">
  <children _jt="ArrayList" size="7">
    <item _jt="IBFSUserObject" description="Administrator" dummy="false"
email="restadmin@informationbuilders.com"
      fullPath="IBFS:/SSYS/USERS/admin" handle="10001" index="0"
name="admin" parent="USERS"

password="$faa2f1da92f72a7d$0901495f1d42962aa242af8aad5c7958a9f86013a190
4

password="$94b192f81526ff9d$e71362964a5c2ef8e7814824dc247c8ee012ea118c1f
6

0402e2467f8ba0e5bcc508c3a8d973ecce0a8738d7445e25dcfb9a96411f6c7af6e6a5fe
1
    051ccb669a" policy="///+f////////9//////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>

```

```

    <pSetList _jt="ArrayList" size="0"/>
  </item>
  <item _jt="IBFSUserObject" description="MR admin 1" dummy="false"
email=""
    fullPath="IBFS:/SSYS/USERS/mradmin1" handle="10004" index="2"
name="mradmin1" parent="USERS"

password="$ed23192360fccc75$6a8e50345185367b57f98b863e55b7e44fc94d10d3a1
b

0b6796774b694321bb57d6af841a30a4bd7f698c1e353db3cefe332e504bc854fe7878d1
2
    f664cc6cde" policy="///+f////////9//////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
  </item>
  <item _jt="IBFSUserObject" description="MR developer 1" dummy="false"
email=""

```

```
82974970e81ee0259ba82cbd3856f01c6f29a14abaf602143b5e79b3f18a4244b9018d91
1
```

```
    5892d363f4" policy="///+f/////////9/////////+////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
  </item>
  <item _jt="IBFSUserObject" description="Basic user" dummy="false"
email=""
    fullPath="IBFS:/SSYS/USERS/auser" handle="10002" index="1"
name="auser" parent="USERS"
    fullPath="IBFS:/SSYS/USERS/mrdev1" handle="10005" index="3"
name="mrdev1" parent="USERS"
```

```
password="$01265dd1edf5431e$229e70a1c6068b977b241a63d0357818ac790448cb46
6
```

```
d9c38e113380c29849f5a803025da486b9d7708025a4dd239d9ca123f458bfc7ff18ea5a
e
```

```
    732c30a67e" policy="///+f/////////9/////////+////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
  </item>
  <item _jt="IBFSUserObject" description="WebFOCUS Public User"
dummy="false" email=""
    fullPath="IBFS:/SSYS/USERS/public" handle="10007" index="4"
name="public" parent="USERS"
```

```
password="$4a4d50e70fc99c07$2306ff856f98e3a01bf3742f29e77a48078fb7447e1e
9
```

```
812a940e8f5b1cccb0132beb752de8d2af70ee45531934da6b0f2d1c81bd108af56d12a1
0
```

```
    6cdf8492f" policy="///+f/////////9/////////+////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="1">
      <item _jt="string" index="0" value="WF_Role_Public"/>
    </pSetList>
  </item>
```

```
  <item _jt="IBFSUserObject" description="User and Group administrator"
dummy="false" email=""
    fullPath="IBFS:/SSYS/USERS/useradmin" handle="10006" index="5"
```



```

name="useradmin" parent="USERS"

password="$e7ac6cd796e2c928$569217829f425b3be8686288a648e1102bf5323140f7
9

b2051c920d59fc3f4cce410da7e49448a7f0efc849af04dfe92cd4ec2b78cdd59551981d
9
    a1799cd0a3" policy="///+f////////9//////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSUserObject" description="Desktop guest account"
dummy="false" email=""
        fullPath="IBFS:/SSYS/USERS/wfdesktop" handle="10008" index="6"
name="wfdesktop" parent="USERS"

password="$2d38eaabdf1c9719$d0b1b037587903b60623a1983a8064b626688b018238
8

6215b445950752ab90de846c0caa4d0787f66835fbf642c190d040c518e816d99ce06ba5
0
    e5f2485b8a" policy="///+f////////9//////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
    </item>
    </children>
    </rootObject>
</ibfsrpc>

```

Each user definition is defined within the opening and closing *item* tag. The *name* attribute defines the name of the user ID. The *description* attribute defines the title for the user. The *email* attribute defines the email address for the user. The *name* attribute within the *status* element defines whether the user ID is active. For example:

```
<status name="ACTIVE" _jt="IBSSUserStatus"/>
```



Note: The *password* attribute is not a value.

Listing Groups

This RESTful web service request can be used to retrieve a list of existing WebFOCUS groups.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/GROUPS?IBIRS_action=get
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

In the following example, a list of WebFOCUS groups is retrieved.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/GROUPS?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
      subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSObject" container="true" description="GROUPS"
dummy="false" fullPath="IBFS:/SSYS/GROUPS" name="GROUPS"
      policy="///+f////////9//////////+AAAAA"
type="WebFOCUSComponent">
    <children _jt="ArrayList" size="6">
      <item _jt="IBFSGroupObject" container="true" description="All
defined users" dummy="false"
          fullPath="IBFS:/SSYS/GROUPS/EVERYONE" handle="10100"
index="0" name="EVERYONE" parent="GROUPS">
```

```

        policy="///+f////////9/9////4f+//P///+AAAAA" type="Group">
        <users _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSGroupObject" container="true"
description="Administrators" dummy="false"
        fullPath="IBFS:/SSYS/GROUPS/Administrators" handle="10101"
index="1" name="Administrators" parent="GROUPS"
        policy="///+f////////9//////////+AAAAA" type="Group">
        <users _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSGroupObject" container="true"
description="Anonymous Users" dummy="false"
        fullPath="IBFS:/SSYS/GROUPS/Anonymous" handle="10104"
index="2" name="Anonymous" parent="GROUPS"
        policy="///+f////////9//////////+AAAAA" type="Group">
        <users _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSGroupObject" container="true"

```

```

description="Userid/Group Administrators" dummy="false"
        fullPath="IBFS:/SSYS/GROUPS/UserAdmins" handle="10106"
index="3" name="UserAdmins" parent="GROUPS"
        policy="///+f////////9//////////+AAAAA" type="Group">
        <users _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSGroupObject" container="true"
description="WebFOCUS Global Roles" dummy="false"
        fullPath="IBFS:/SSYS/GROUPS/WF_Global_Roles" handle="10111"
index="4" name="WF_Global_Roles" parent="GROUPS"
        policy="///+f////////9//////////+AAAAA" type="Group">
        <users _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSGroupObject" container="true"
description="WebFOCUS Global Permissions" dummy="false"
        fullPath="IBFS:/SSYS/GROUPS/WF_Global_Permissions"
handle="10116" index="5" name="WF_Global_Permissions"
parent="GROUPS" policy="///+f////////9//////////+AAAAA" type="Group">
        <users _jt="ArrayList" size="0"/>
    </item>
</children>
</rootObject>
</ibfsrpc>

```

Each group definition is defined within the opening and closing *item* tag. The *name* attribute defines the name of the group. The *description* attribute defines the title for the group.

Listing Privileges

This RESTful web service request can be used to retrieve a list of valid WebFOCUS privileges.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs?IBIRS_action=privileges
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Response:

A list of privileges is returned in an XML response document. Each privilege is defined within an <item> element tag:

```
<item type="Privilege" name="PrivilegeName" dummy="false"
description="PrivilegeDesc" subsysNameList="Subsystem"
parent="PRIVILEGES" ordinal="159" index="159"/>
```

where:

PrivilegeName

Is the name of the privilege.

PrivilegeDesc

Is the description of the privilege.

Subsystem

Is the subsystem that the privilege pertains to.

Example:

In the following example, a list of WebFOCUS privileges is retrieved.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs?IBIRS_action=privileges
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="privileges"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
  subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSObject" container="true" description="PRIVILEGES"
dummy="true" name="PRIVILEGES" type="unknownType">
    <children _jt="ArrayList" size="180">
      <item description="WebFOCUS InfoAssist Personal" dummy="false"
index="159"
          name="opInfoAssistPersonal" ordinal="159"
parent="PRIVILEGES" subsysNameList="Session" type="Privilege"/>
    </children>
  </rootObject>
</ibfsrpc>
```

In this sample response document, the name of the privilege is *opInfoAssistPersonal* and has a description of *WebFOCUS InfoAssist Personal*. This privilege applies to the *Session* subsystem.

Listing Roles

This RESTful web service request can be used to retrieve a list of valid WebFOCUS roles.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/ROLES?IBIRS_action=get
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

In the following example, a list of WebFOCUS roles is retrieved.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/ROLES?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="get"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/SSYS/ROLES"/>
  </ibfsparams>
  <rootObject _jt="IBFSObject" container="true" description="ROLES"
dummy="false" fullPath="IBFS:/SSYS/ROLES" name="ROLES"
    policy="////D///9+f/////f/////////8AAAA=" rsPath="/ibi_
apps/rs/ibfs/SSYS/ROLES" type="WebFOCUSComponent">
    <children _jt="ArrayList" size="76">
      <item _jt="IBFSPermissionSetObject" description="Full control
or all privileges" dummy="false"
        fullPath="IBFS:/SSYS/ROLES/SystemFullControl"
handle="10301" index="0" name="SystemFullControl" parent="ROLES"
        policy="////D///9+f/////f////////7+/8AAAA=" rsPath="/ibi_
apps/rs/ibfs/SSYS/ROLES/SystemFullControl" showPermissions="false"
        subsysNameList="*" type="PermissionSet">

          <pSet _jt="IBSSPermissionSet" compLvl="1" description="Full
control or all privileges" id="10301" name="SystemFullControl"
shipped="true">
            <policy _jt="IBSSPolicy" derivedDate="1349171464497">
              <policy _jt="EnumMap" _keyJT="IBSSOperation"
size="152">
                <entry>
                  <key _jt="IBSSOperation" name="opViewPortal"/>
                  <value _jt="IBSSVerb" name="OVERPERMIT"/>
                </entry>
                <entry>
```

```

        <key _jt="IBSSOperation" name="opList"/>
        <value _jt="IBSSVerb" name="OVERPERMIT"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opViewProps"/>
        <value _jt="IBSSVerb" name="OVERPERMIT"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation"
name="opDisplayVersionInfo"/>
        <value _jt="IBSSVerb" name="OVERPERMIT"/>
    </entry>
    .
    .
    .
    <entry>
        <key _jt="IBSSOperation"
name="opInfoAssistPersonal"/>
        <value _jt="IBSSVerb" name="OVERPERMIT"/>
    </entry>
</policy>
</policy>
<subsysList _jt="ArrayList" size="3">
    <item _jt="IBFSSubsystem" index="0" name="ROOT"/>
    <item _jt="IBFSSubsystem" index="1" name="WFC"/>
    <item _jt="IBFSSubsystem" index="2" name="BIP"/>
</subsysList>
</pSet>
</item>
</children>
</rootObject>
</ibfsrpc>

```

Listing Users Within a Group

This RESTful web service request can be used to retrieve a list of existing WebFOCUS users within a particular group.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_apps/rs/ibfs/SSYS/GROUPS/Group?IBIRS_
action=get&IBIRS_args=

```

```
<object _jt="HashMap">
  <entry>
    <key _jt="string" value="TYPE"/>
    <value _jt="string" value="USERS"/>
  </entry>
</object>
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Group

Is the name of the group.

Example:

In the following example, a list of WebFOCUS users within the Administrators group is retrieved.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/GROUPS/Administrators?IBIRS_
action=get&IBIRS_args=
<object _jt="HashMap">
  <entry>
    <key _jt="string" value="TYPE"/>
    <value _jt="string" value="USERS"/>
  </entry>
</object>
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="get"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS"
  type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_args" value="&lt;object _
```



```

jt=&quot;HashMap&quot;&gt;&lt;entry&gt;&lt;key _jt=&quot;string&quot;
    value=&quot;TYPE&quot;/&gt;&lt;value _jt=&quot;string&quot;
value=&quot;USERS&quot;/&gt;&lt;/entry&gt;&lt;/object&gt;/>
    <entry key="IBIRS_" value="/SSYS/GROUPS/Administrators"/>
    </ibfsparams>
    <rootObject _jt="IBFSGroupObject" container="true"
description="Administrators" dummy="false"
    fullPath="/IBFS:/SSYS/GROUPS/Administrators"
name="Administrators" policy="////D///9+P////v/////////+AAAA="
    rsPath="/ibi_apps/rs/ibfs/SSYS/GROUPS/Administrators"
type="Group">
    <children _jt="ArrayList" size="4">
    <item _jt="IBFSUserObject" description="Administrator"
dummy="false" email="restadmin@informationbuilders.com"
    fullPath="/IBFS:/SSYS/USERS/admin" handle="10001" index="0"
name="admin" parent="Administrators"
    policy="////D///9+P////v/////////+AAAA=" rsPath="/ibi_
apps/rs/ibfs/SSYS/USERS/admin" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSUserObject" description="MR admin 1"
dummy="false" email="" fullPath="/IBFS:/SSYS/USERS/mradmin1"
    handle="10004" index="1" name="mradmin1"
parent="Administrators" policy="////D///9+P////v/////////+AAAA="
    rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/mradmin1"
type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
    </item>
    <item _jt="IBFSUserObject" description="Rest Userid"
dummy="false" email="restid@informationbuilders.com"
    fullPath="/IBFS:/SSYS/USERS/restid77" handle="222102528"
index="2" name="restid" nameSpace="DB" parent="Administrators"
    policy="////D///9+P////v/////////+AAAA="
rsPath="/ibi_apps/rs/ibfs/SSYS/USERS/restid77" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
    </item>
</children>
<users _jt="ArrayList" size="0"/>

```

```
</rootObject>
</ibfsrpc>
```

Each user is defined within the opening and closing *item* tag. The *name* attribute defines the name of the user. The *description* attribute defines the title for the user.

Adding and Updating a User

This RESTful web service request can be used to add or update a user to WebFOCUS.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/USERS/Userid
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Userid

Is the name of the user ID to be added.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object&IBIRS_replace=ReplaceUseridProperties
```

where:

Object

Is the XML object defining the attributes for the user, using the following format:

```
<object _jt="IBFSUserObject" description="UseridTitle" email="EmailAddress"
  password="Password" type="User"
```

```
primaryGroupPath="IBFS:/SSYS/GROUPS/groupName"><status _
jt="IBSSUserStatus" name="Status"/></object>
```

where:

UserIdTitle

Is the title for the user. If the title contains an ampersand character (&), this character should be encoded as &.

EmailAddress

Is the email address for the user.

Password

Is the password assigned to the user ID.

groupName

Is the primary group to which this user belongs.

Status

Is the status as to whether the user ID is to be added as an active or inactive user. The user ID can also be added or updated so that the password must be changed when signing on. Once the user signs on, the status is changed to Active. Choose from one of the following valid values:

- ACTIVE
- INACTIVE
- MUSTCHANGE

ReplaceUserIdProperties

Is an optional property that allows you to decide whether or not the properties for user ID can be updated. The following are examples of properties:

- Email Address
- Password
- User ID Title

You can choose **true** (default) or **false**.

Example:

In the following example, a user ID called *restid* is added. The title for the user is *Rest Userid*. The email address for the user is *restid@informationbuilders.com*. The password for the user is *rest*. The status for the user is *ACTIVE*.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/USERS/restid
```

Body:

```
IBIRS_action=put&IBIRS_object=<object _jt="IBFSUserObject"
description="Rest Userid" email="restid@informationbuilders.com"
password="rest" type="User"><status _jt="IBSSUserStatus"
name="ACTIVE"/></object>
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSUserObject" description="Rest Userid"
dummy="false" email="restid@informationbuilders.com"
fullPath="/SSYS/USERS/restid" name="restid"
password="rest" policy="///+f////////9/////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
  </rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the user was added successfully.

Deleting a User

This RESTful web service request can be used to delete a user ID.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/USERS/Userid?IBIRS_action=delete
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Userid

Is the name of the user ID to be deleted.

Example:

In the following example, the user ID, *restid*, is deleted.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/USERS/restid?IBIRS_
action=delete
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
    subsystem="SSYS" type="simple">
    <ibfsparams size="0"/>
    <rootObject _jt="IBFSUserObject" description="Rest Userid"
dummy="false" email="restid@informationbuilders.com"
        fullPath="IBFS:/SSYS/USERS/restid" name="restid"
nameSpace="DB"

password="$c35587264cbbbe38$ce25f3b448103e2031ee0b943bf8fd031b7bac26e1e0
5

91da4bb7105d2672f206de9eb7b39d4fb83eb6a01a0faea2ff1ec2ccaa70103f7723c89d
0d426098c32"

        policy="///+f/////////9//////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="0"/>
    <pSetList _jt="ArrayList" size="0"/>
```

```
</rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the user ID was deleted successfully.

Adding and Updating a Group

This RESTful web service request can be used to add or update a group to WebFOCUS.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/GROUPS/Group
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Group

Is the name of the group to be added.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object&IBIRS_replace=ReplaceGroupProperties
```

where:

Object

Is the XML object defining the attributes for the group, using the following format:

```
<object _jt="IBFSGroupObject" container="true" description="GroupTitle"
type="Group"></object>
```

where:

GroupTitle

Is the title for the group.

ReplaceGroupProperties

Is an optional property that allows you to decide whether or not the properties for a group can be updated.

You can choose **true** (default) or **false**.

Example:

In the following example, a group called RestUsers is added. The title for the group is RESTful Web Services Users.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/GROUPS/RestUsers
```

Body:

```
IBIRS_action=put&IBIRS_object=
  <object _jt="IBFSGroupObject" container="true" description="RESTful
Web Services Users" type="Group"></object>
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
  subsystem="SSYS" type="simple">
  <ibfsparams size="0"/>
  <rootObject _jt="IBFSGroupObject" container="true" description="RESTful
Web Services Users" dummy="false"
    fullPath="/SSYS/GROUPS/RestUsers" name="RestUsers"
policy="////+f////////9//////////+AAAAA" type="Group">
    <users _jt="ArrayList" size="0"/>
  </rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the group was added successfully.

Deleting a Group

This RESTful web service request can be used to delete a group.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/GROUPS/Group?IBIRS_action=delete
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Group

Is the name of the group to be deleted.

Example:

In the following example, the group, *RestUsers*, is deleted.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/GROUPS/RestUsers?IBIRS_action=delete
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
    subsystem="SSYS" type="simple">
    <ibfsparams size="0"/>
    <rootObject _jt="IBFSGroupObject" container="true"
description="RESTful Web Services Users" dummy="false"
        fullPath="IBFS:/SSYS/GROUPS/RestUsers" name="RestUsers"
type="Group">
        <users _jt="ArrayList" size="0"/>
```



```
</rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the group was deleted successfully.

Adding a User to a Group

This RESTful web service request can be used to add a user to a group.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/USERS/Userid
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Userid

Is the name of the user ID to be added to a group.

Body Format:

```
IBIRS_action=addUserToGroup&IBIRS_groupPath=GroupPaths
```

where:

GroupPaths

Are the paths to groups that the user ID is to be added. For example:

```
/SSYS/GROUPS/group1;/SSYS/GROUPS/group2
```

Example:

In the following example, the user ID *restid* is added to the *RestUsers* group.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/USERS/restid
```

Body:

```
IBIRS_action=addUserToGroup&IBIRS_groupPath=/SSYS/GROUPS/RestUsers
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
    subsystem="SSYS" type="simple">
    <ibfsparams size="0"/>
    <rootObject _jt="IBFSUserObject" description="Rest Userid"
dummy="false" email="restid@informationbuilders.com"
        fullPath="IBFS:/SSYS/USERS/restid" handle="739804165"
name="restid" nameSpace="DB"
password="$c35587264cbbbe38$ce25f3b448103e2031ee0b943bf8fd031b7b
ac26e1e0591da4bb7105d2672f206de9eb7b39d4
        fb83eb6a01a0faea2ff1ec2ccaa70103f7723c89d0d426098c32"
policy="///+f////////9//////////+AAAAA" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="2">
        <item _jt="IBFSGroupObject" container="true"
description="RESTful Web Services Users" dummy="false"
            fullPath="IBFS:/SSYS/GROUPS/RestUsers"
handle="1113254912" index="0" name="RestUsers" type="Group">
            <users _jt="ArrayList" size="0"/>
        </item>
        <item _jt="IBFSGroupObject" container="true" description="All
defined users" dummy="false"
            fullPath="IBFS:/SSYS/GROUPS/EVERYONE" handle="10100"
index="1" name="EVERYONE" type="Group">
            <users _jt="ArrayList" size="0"/>
        </item>
    </groups>
    <pSetList _jt="ArrayList" size="0"/>
</rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the user ID was added successfully to the group.

Removing a User From a Group

This RESTful web service request can be used to remove a user from a group.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/USERS/Userid
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Userid

Is the name of the user ID to be removed from a group.

Body Format:

```
IBIRS_action=removeUserFromGroup&IBIRS_groupPath=GroupPaths
```

where:

GroupPaths

Are the paths to groups that the user ID is to be removed. For example:

```
/SSYS/GROUPS/group1;/SSYS/GROUPS/group2
```

Example:

In the following example, the user ID *restid* is removed from the *RestUsers* group

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/USERS/restid
```

Body:

```
IBIRS_action=removeUserFromGroup&IBIRS_groupPath=/SSYS/GROUPS/RestUsers
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="IBIRS_action"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
    subsystem="SSYS" type="simple">
    <ibfsparams size="0"/>
    <rootObject _jt="IBFSUserObject" description="Rest Userid"
dummy="false" email="restid@informationbuilders.com"
        fullPath="IBFS:/SSYS/USERS/restid" handle="739804165"
name="restid" nameSpace="DB"

password="$c35587264cbbbe38$ce25f3b448103e2031ee0b943bf8fd031b7bac26e1e0
5

91da4bb7105d2672f206de9eb7b39d4fb83eb6a01a0faea2ff1ec2ccaa70103f7723c89d
0d426098c32" type="User">
    <status _jt="IBSSUserStatus" name="ACTIVE"/>
    <groups _jt="ArrayList" size="1">
        <item _jt="IBFSGroupObject" container="true" description="All
defined users" dummy="false"

                fullPath="IBFS:/SSYS/GROUPS/EVERYONE" handle="10100"
index="0" name="EVERYONE" type="Group">
                <users _jt="ArrayList" size="0"/>
            </item>
        </groups>
        <pSetList _jt="ArrayList" size="0"/>
    </rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the user ID was removed successfully from the group.

Adding a Role

This RESTful web service request can be used to add a role and define the privileges that are associated with the role.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/ROLES/Role
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Role

Is the name of the role to be added.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object
```

where:

Object

Is the XML object that defines the privileges associated with the role.

This XML object must have the following structure:

```
<object _jt="IBFSPermissionSetObject" description="RoleDescription"
showPermissions="true"
  subsysNameList="Subsystem" type="PermissionSet">
  <pSet _jt="IBSSPermissionSet" compLvl="100" shipped="true">
    <policy _jt="IBSSPolicy">
      <policy _jt="EnumMap" _keyJT="IBSSOperation">
        <entry>
          <key _jt="IBSSOperation" name="Privilege1"/>
          <value _jt="IBSSVerb" name="PERMIT"/>
        </entry>
        <entry>
          <key _jt="IBSSOperation" name="Privilege2"/>
          <value _jt="IBSSVerb" name="PERMIT"/>
        </entry>
      </policy>
    </policy>
```

```

    <subsysList _jt="ArrayList">
      <item _jt="IBFSSubsystem" index="0" name="Subsystem"/>
    </subsysList>
  </pSet>
</object>

```

where:

RoleDescription

Is the description of the role.

Subsystem

Is the subsystem associated with the role. Valid values include:

- Session
- WFC
- BIP
- EDA
- USERS
- GROUPS
- ROLES
- FILE
- WEB

PrivilegeN

Is the privilege name that is associated with the role. Each privilege is assigned within the opening and closing entry tags. For a list of valid privileges, see [Listing Privileges](#).

Example:

In the following example, a role called *LibraryCustom* is added. The description for the role is *Library Privilege - Custom*. The subsystem that the role is associated with is *WFC*. The privileges assigned to this role are *opLibrary*, *opList*, *opDisplayVersionInfo*, *opRCExplorer*, *opPortalAccess*, and *opBidRunTime*.

Request:

http://localhost:8080/ibi_apps/rs/ibfs/SSYS/ROLES/LibraryCustom

Body:

```
IBIRS_action=put&object=<object _jt="IBFSPermissionSetObject"
description="Library Privilege - Custom" showPermissions="true"
subsysNameList="WFC" type="PermissionSet">
<pSet _jt="IBSSPermissionSet" compLvl="100" shipped="true">
  <policy _jt="IBSSPolicy">
    <policy _jt="EnumMap" _keyJT="IBSSOperation">
      <entry>
        <key _jt="IBSSOperation" name="opLibrary"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opList"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opDisplayVersionInfo"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opRCExplorer"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opPortalAccess"/>
        <value _jt="IBSSVerb" name="DENY"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opBidRunTime"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
    </policy>
  </policy>
  <subsysList _jt="ArrayList"><item _jt="IBFSSubsystem" index="0"
name="WFC"/></subsysList>
</pSet>
</object>
```

Response:

```

<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="put"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
  subsystem="SSYS" type="simple">
  <ibfparams size="5">
    <entry key="IBIRS_replace" value="true"/>
    <entry key="IBIRS_private" value="__null"/>
    <entry key="IBIRS_object" value="&lt;object _
jt=&quot;IBFSPermissionSetObject&quot;; description=&quot;Library
Privilege - Custom&quot;;
      showPermissions=&quot;true&quot;;
subsysNameList=&quot;WFC&quot;; type=&quot;PermissionSet&quot;;&gt;
      &lt;pSet _jt=&quot;IBSSPermissionSet&quot;;
compLvl=&quot;100&quot;; shipped=&quot;true&quot;;&gt;
      &lt;policy _jt=&quot;IBSSPolicy&quot;;&gt; &lt;policy
_jt=&quot;EnumMap&quot;; _keyJT=&quot;IBSSOperation&quot;;&gt;
      &lt;entry&gt;&lt;key _jt=&quot;IBSSOperation&quot;;
name=&quot;opLibrary&quot;;&gt; &lt;value _jt=&quot;IBSSVerb&quot;;
name=&quot;PERMIT&quot;;&gt; &lt;/entry&gt;
&lt;entry&gt;&lt;key _jt=&quot;IBSSOperation&quot;;
      name=&quot;opList&quot;;&gt; &lt;value _
jt=&quot;IBSSVerb&quot;; name=&quot;PERMIT&quot;;&gt; &lt;/entry&gt;
      &lt;entry&gt;&lt;key _jt=&quot;IBSSOperation&quot;;
name=&quot;opDisplayVersionInfo&quot;;&gt;
      &lt;value _jt=&quot;IBSSVerb&quot;;
name=&quot;PERMIT&quot;;&gt; &lt;/entry&gt;
      &lt;entry&gt;&lt;key _jt=&quot;IBSSOperation&quot;;
name=&quot;opRCExplorer&quot;;&gt; &lt;value _jt=&quot;IBSSVerb&quot;;
name=&quot;PERMIT&quot;;&gt; &lt;/entry&gt;
&lt;entry&gt;&lt;key _jt=&quot;IBSSOperation&quot;;
name=&quot;opPortalAccess&quot;;&gt; &lt;value _
jt=&quot;IBSSVerb&quot;; name=&quot;DENY&quot;;&gt; &lt;/entry&gt;
      &lt;entry&gt;&lt;key _jt=&quot;IBSSOperation&quot;;
name=&quot;opBidRunTime&quot;;&gt; &lt;value _jt=&quot;IBSSVerb&quot;;
name=&quot;PERMIT&quot;;&gt; &lt;/entry&gt;
&lt;/policy&gt; &lt;/policy&gt;
      &lt;subsysList _jt=&quot;ArrayList&quot;;&gt;&lt;item
_jt=&quot;IBFSSubsystem&quot;; index=&quot;0&quot;;
name=&quot;WFC&quot;;&gt;&lt;/subsysList&gt; &lt;/pSet&gt;
&lt;/object&gt; "/>
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/SSYS/ROLES/LibraryCustom"/>
  </ibfparams>
<rootObject _jt="IBFSPermissionSetObject" description="Library
Privilege - Custom" dummy="false"

```



```

fullPath="IBFS:/SSYS/ROLES/LibraryCustom"
      name="LibraryCustom"
policy="////D///9+f/////f/////////8AAAA=" rsPath="/ibi_
apps/rs/ibfs/SSYS/ROLES/LibraryCustom"
      showPermissions="false" subsysNameList="WFC"
type="PermissionSet">
  <pSet _jt="IBSSPermissionSet" compLvl="100" description="Library
Privilege - Custom" name="LibraryCustom" shipped="false">
    <policy _jt="IBSSPolicy" derivedDate="1349168261272">
      <policy _jt="EnumMap" _keyJT="IBSSOperation" size="3">
        <entry>
          <key _jt="IBSSOperation" name="opLibrary"/>
          <value _jt="IBSSVerb" name="PERMIT"/>
        </entry>
        <entry>

```

```

          <key _jt="IBSSOperation" name="opList"/>
          <value _jt="IBSSVerb" name="PERMIT"/>
        </entry>
        <entry>
          <key _jt="IBSSOperation" name="opRCExplorer"/>
          <value _jt="IBSSVerb" name="PERMIT"/>
        </entry>
      </policy>
    </policy>
    <subsysList _jt="ArrayList" size="1">
      <item _jt="IBFSSubsystem" index="0" name="WFC"/>
    </subsysList>
  </pSet>
</rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the role was successfully added.

Deleting a Role

This RESTful web service request can be used to delete a role.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/SSYS/ROLES/Role?IBIRS_action=delete
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Role

Is the name of the role to be deleted.

Example:

In the following example, a role called LibraryCustom is deleted.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/SSYS/ROLES/LibraryCustom?IBIRS_
action=delete
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="delete"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
  subsystem="SSYS" type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/SSYS/ROLES/LibraryCustom"/>
  </ibfsparams>
  <rootObject _jt="IBFSPermissionSetObject" description="Library
Privilege - Custom" dummy="false"
    fullPath="IBFS:/SSYS/ROLES/LibraryCustom"
handle="381089792" name="LibraryCustom"
    policy="////D///9+f/////f/////////8AAAA=" rsPath="/ibi_
apps/rs/ibfs/SSYS/ROLES/LibraryCustom"
    showPermissions="false" subsysNameList="WFC"
type="PermissionSet">
    <pSet _jt="IBSSPermissionSet" compLvl="100" description="Library
Privilege - Custom" id="381089792"
      name="LibraryCustom" shipped="false">
```

```
<policy _jt="IBSSPolicy" derivedDate="1349173489158">
  <policy _jt="EnumMap" _keyJT="IBSSOperation" size="3">
    <entry>
      <key _jt="IBSSOperation" name="opLibrary"/>
```

```
      <value _jt="IBSSVerb" name="PERMIT"/>
    </entry>
    <entry>
      <key _jt="IBSSOperation" name="opList"/>
      <value _jt="IBSSVerb" name="PERMIT"/>
    </entry>
    <entry>
      <key _jt="IBSSOperation" name="opRCExplorer"/>
      <value _jt="IBSSVerb" name="PERMIT"/>
    </entry>
  </policy>
</policy>
<subsysList _jt="ArrayList" size="1">
  <item _jt="IBFSSubsystem" index="0" name="WFC"/>
</subsysList>
</pSet>
</rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the role was successfully deleted.

Adding a Rule

This RESTful web service request can be used to apply a rule against a specific item.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/ItemToBeRestricted
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

ItemToBeRestricted

Is the path to the item that is being restricted. For example:

/WFC/Repository/ParentFolder/FolderName

Body Format:

```
IBIRS_action=addRule&IBIRS_path=ItemToBeRestricted&IBIRS_subjectPath=GroupUser
&IBIRS_verb=RestrictType&IBIRS_role=Role&IBIRS_applyTo=FolderChildren
```

where:

ItemToBeRestricted

Is the path to the item that is being restricted. For example:

/WFC/Repository/ParentFolder/FolderName

GroupUser

Are the paths to groups or user IDs to which a specific role will be applied. For example:

```
/SSYS/GROUPS/group1;/SSYS/GROUPS/group2
```

RestrictType

Is one of the following types of restrictions that can be applied to a specific role:

- NOT_SET
- PERMIT
- DENY
- UNPERMIT
- UNDENY
- OVERPERMIT
- CLEARINHERITANCE

Role

Is the specific role that is applied to *GroupUser*. For example, List, Run, and ListAndRun.

FolderChildren

Determines whether the rule will be applied to only *ItemToBeRestricted*, *ItemToBeRestricted* and its children, or just the children. Valid values include:

- FOLDER_AND_CHILDREN
- FOLDER_ONLY
- CHILDREN_ONLY

For example, FOLDER_AND_CHILDREN could be used to apply a rule for a specific folder and its subfolders.

Example:

In the following example, a rule is added to permit the user ID (restid) to list and run items from the Quarterly folder within Financial_Reports, including its subfolders.

POST Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Quarterly
```

Body:

```
IBIRS_action=addRule&IBIRS_path=/WFC/Repository/Financial_Reports/Quarterly&IBIRS_subjectPath=/SSYS/USERS/restid&IBIRS_verb=PERMIT&IBIRS_role=ListAndRun&IBIRS_applyTo=FOLDER_AND_CHILDREN
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="addRule"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_verb" value="PERMIT"/>
    <entry key="IBIRS_role" value="ListAndRun"/>
    <entry key="IBIRS_applyTo" value="FOLDER_AND_CHILDREN"/>
    <entry key="IBIRS_subjectPath" value="/SSYS/USERS/restid"/>
    <entry key="IBIRS_" value="/WFC/Repository/Financial_Reports/Quarterly"/>
  </ibfsparams>
  <rootObject _jt="IBFSPermissionSetObject" description="List and run content" dummy="false" fullPath="IBFS:/SSYS/ROLES/ListAndRun"
```

```

handle="10330"
  name="ListAndRun" policy="////D///9+f/////f/////////8AAAA="
rsPath="/ibi_apps/rs/ibfs/SSYS/ROLES/ListAndRun" showPermissions="false"
  subsysNameList="WFC" type="PermissionSet">
  <pSet _jt="IBSSPermissionSet" compLvl="0" description="List and run
content" id="10330" name="ListAndRun" shipped="true">
    <policy _jt="IBSSPolicy" derivedDate="1348174711335">
      <policy _jt="EnumMap" _keyJT="IBSSOperation" size="2">
        <entry>
          <key _jt="IBSSOperation" name="opList"/>
          <value _jt="IBSSVerb" name="PERMIT"/>
        </entry>
        <entry>
          <key _jt="IBSSOperation" name="opRun"/>
          <value _jt="IBSSVerb" name="PERMIT"/>
        </entry>
      </policy>
    </policy>
    <subsysList _jt="ArrayList" size="1">
      <item _jt="IBFSSubsystem" index="0" name="WFC"/>
    </subsysList>
  </pSet>
</rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the rule was successfully created.

Deleting a Rule

This RESTful web service request can be used to remove a rule.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/ItemRestricted
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

ItemRestricted

Is the path to the item that is being restricted. For example:

/WFC/Repository/ParentFolder/FolderName

Body Format:

```
IBIRS_action=removeRule&IBIRS_path=ItemRestricted&IBIRS_subjectPath=GroupUser&
IBIRS_role=Role
```

where:

ItemRestricted

Is the path to the item that is being restricted. For example:

/WFC/Repository/ParentFolder/FolderName

GroupUser

Is the path to a particular group or user ID to which a specific role was applied. For example:

/SSYS/USERS/userid

Role

Is the specific role that was applied to GroupUser. For example, List, Run, and ListAndRun.

Example:

In the following example, a rule is removed for user ID (restid) to list and run items from the Quarterly folder within Financial_Reports.

POST Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_
Reports/Quarterly
```

Body:

```
IBIRS_action=removeRule&IBIRS_path=/WFC/Repository/Financial_
Reports/Quarterly
&IBIRS_subjectPath=/SSYS/USERS/restid&IBIRS_role=ListAndRun
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="removeRule"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
  subsystem="SSYS" type="simple">
  <ibfsparams size="3">
    <entry key="IBIRS_role" value="ListAndRun"/>
    <entry key="IBIRS_subjectPath" value="/SSYS/USERS/restid"/>
    <entry key="IBIRS_" value="/WFC/Repository/Financial_
Reports/Quarterly"/>
  </ibfsparams>
  <rootObject _jt="IBFSPermissionSetObject" description="List and run
content" dummy="false" fullPath="IBFS:/SSYS/ROLES/ListAndRun"
    handle="10330" name="ListAndRun"
policy="////D///9+f/////f/////////8AAAA="
    rsPath="/ibi_apps/rs/ibfs/SSYS/ROLES/ListAndRun"
showPermissions="false" subsysNameList="WFC" type="PermissionSet">
    <pSet _jt="IBSSPermissionSet" compLvl="0" description="List and
run content" id="10330" name="ListAndRun" shipped="true">
      <policy _jt="IBSSPolicy" derivedDate="1349182611014">
        <policy _jt="EnumMap" _keyJT="IBSSOperation" size="2">
          <entry>
            <key _jt="IBSSOperation" name="opList"/>
            <value _jt="IBSSVerb" name="PERMIT"/>
          </entry>
          <entry>
            <key _jt="IBSSOperation" name="opRun"/>
            <value _jt="IBSSVerb" name="PERMIT"/>
          </entry>
        </policy>
      </policy>
    </pSet>
  </rootObject>
</ibfsrpc>

  <subsysList _jt="ArrayList" size="1">
    <item _jt="IBFSSubsystem" index="0" name="WFC"/>
  </subsysList>
</pSet>
</rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the rule was successfully removed.

Listing Rules for a Subject

This RESTful web service request can be used to retrieve a list of rules for a specific subject.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/GroupUser
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

GroupUser

Is the path to a particular group or user ID. For example:

```
/SSYS/USERS/userid
```

Body Format:

```
IBIRS_action=listRulesForSubject
```

Example:

In the following example, a list rules is returned for user ID called *restid*.

POST Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/restid
```

Body:

```
IBIRS_action=listRulesForSubject
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN"
name="listRulesForSubject" returncode="10000" returndesc="SUCCESS"
subreturncode="0" subsystem="SSYS" type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_path" value="/SSYS/USERS/restid"/>
  </ibfsparams>
  <rootObject _jt="IBFSObject" container="true" description="Rules for
User:restid" dummy="false" fullPath="NO PATH/RulesList" name="RulesList"
type="IBFSFolder">
    <children _jt="ArrayList" size="1">
      <item _jt="IBFSRuleObject" compLvl="0" dummy="false" index="0"
pSetName="ListAndRun" parent="RulesList"
resPathName="IBFS:/WFC/Repository/Financial_Reports/Quarterly"
subject="restid" subjectType="U" type="Rule">
        <verb _jt="IBSSVerb" name="PERMIT"/>
        <applyTo name="FOLDER_AND_CHILDREN"/>
      </item>
    </children>
  </rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the rules were successfully returned.

Listing Rules for a Resource

This RESTful web service request can be used to retrieve a list of rules for a specific resource.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/Resource
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Resource

Is the path to a particular resource. For example:

/WFC/Repository/ParentFolder/FolderName

Body Format:

```
IBIRS_action=listRulesForResource
```

Example:

In the following example, a list rules is returned for the *Quarterly* folder within the *Financial_Reports* folder.

POST Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/Financial_Reports/Quarterly
```

Body:

```
IBIRS_action=listRulesForResource
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN"
name="listRulesForResource" returncode="10000" returndesc="SUCCESS"
subreturncode="0" subsystem="SSYS" type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_path" value="/WFC/Repository/Financial_Reports/Quarterly"/>
  </ibfsparams>
  <rootObject _jt="IBFSObject" container="true" description="RulesList"
dummy="false" fullPath="NO PATH/RulesList" name="RulesList"
type="IBFSFolder">
    <children _jt="ArrayList" size="1">
      <item _jt="IBFSRuleObject" compLvl="0" dummy="false" index="0"
pSetName="ListAndRun" parent="RulesList"
resPathName="IBFS:/WFC/Repository/Financial_Reports/Quarterly"
subject="restid" subjectType="U" type="Rule">
        <verb _jt="IBSSVerb" name="PERMIT"/>
        <applyTo name="FOLDER_AND_CHILDREN"/>
      </item>
```

```

        </children>
    </rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the rules were successfully returned.

Listing Rules for a Role

This RESTful web service request can be used to retrieve a list of rules for a specific role.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/Role
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Role

Is the specific role (for example, List, Run, and ListAndRun).

Body Format:

```
IBIRS_action=listRulesForRole
```

Example:

In the following example, a list rules is returned for the *ListAndRun* role.

POST Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/ListAndRun
```

Body:

```
IBIRS_action=listRulesForRole
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="listRulesForRole"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_path" value="/ListAndRun"/>
  </ibfsparams>
  <rootObject _jt="IBFSObject" container="true" description="Rules with
PSET:ListAndRun" dummy="false" fullPath="NO PATH/RulesList"
name="RulesList" type="IBFSFolder">
    <children _jt="ArrayList" size="2">
      <item _jt="IBFSRuleObject" compLvl="0" dummy="false" index="0"
pSetName="ListAndRun" parent="RulesList"
resPathName="IBFS:/WFC/Repository/Public" subject="EVERYONE"
subjectType="G" type="Rule">
        <verb _jt="IBSSVerb" name="PERMIT"/>
        <applyTo name="FOLDER_AND_CHILDREN"/>
      </item>
      <item _jt="IBFSRuleObject" compLvl="0" dummy="false" index="1"
pSetName="ListAndRun" parent="RulesList"
resPathName="IBFS:/WFC/Repository/Financial_Reports/Quarterly"
subject="restid" subjectType="U" type="Rule">
        <verb _jt="IBSSVerb" name="PERMIT"/>
        <applyTo name="FOLDER_AND_CHILDREN"/>
      </item>
    </children>
  </rootObject>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the rules were successfully returned.

Expanding a Policy String

This RESTful web service request can be used to expand a Base64- encoded policy string representing the Effective Policy to an XML document, which lists the privileges that are permitted or denied.

HTTP Method: POST**REST URL Format:**

```
http://host:port/ibi_apps/rs/utls
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=expandPolicy&IBIRS_base64Policy=PolicyString
```

where:

PolicyString

Is the Base64-encoded policy string representing the Effective Policy. The string can be obtained by running RESTful Web Service requests that list various items (for example, Folders, Users, and Groups).

Example:

In this example, the Base64-encoded policy string containing the following value is expanded:

```
////D////fx/////+//////////4AAAA
```

POST Request:

```
http://localhost:8080/ibi_apps/rs/utls
```

Body:

```
IBIRS_action=expandPolicy&IBIRS_
base64Policy=////D////fx/////+//////////4AAAA
```

Response:

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="expandPolicy"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="1">
    <entry key="IBIRS_base64Policy"
value="////D////fx/////+//////////4AAAA"/>
  </ibfsparams>
  <rootObject _jt="IBSSPolicy" derivedTime="1368100027309">
    <policy _jt="EnumMap" _keyJT="IBSSOperation" size="185">
      <entry>
        <key _jt="IBSSOperation" name="opLibrary"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opViewPortal"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opList"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opViewProps"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opDisplayVersionInfo"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opFavorites"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opMagnify"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
      <entry>
        <key _jt="IBSSOperation" name="opMobileFavorites"/>
        <value _jt="IBSSVerb" name="PERMIT"/>
      </entry>
    </policy>
  </rootObject>
</ibfsrpc>

```

```

        <entry>
        <key _jt="IBSSOperation" name="opCustom01"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom02"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom03"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom04"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom05"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom06"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom07"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom08"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom09"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom10"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom11"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom12"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>

```



```

        </entry>
        <entry>
            <key _jt="IBSSOperation" name="opCustom13"/>
            <value _jt="IBSSVerb" name="DENY"/>
        </entry>

    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom14"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom15"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom16"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom17"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom18"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom19"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
    <entry>
        <key _jt="IBSSOperation" name="opCustom20"/>
        <value _jt="IBSSVerb" name="DENY"/>
    </entry>
</policy>
</rootObject>
</ibfsrpc>

```

Creating a Policy String

This RESTful web service request can be used to return a Base64- encoded policy string representing the Effective Policy based on an XML document, which lists the privileges that are permitted or denied.

HTTP Method: POST**REST URL Format:**

```
http://host:port/ibi_apps/rs/utls
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=compactPolicy&IBIRS_policy=Policy
```

where:

Policy

Is the XML object defining the Effective Policy.

Example:

In the following example, a Base64-encoded policy string will be created based on the XML document containing the Effective Policy.

POST Request:

```
http://localhost:8080/ibi_apps/rs/utls
```

Body:

```
IBIRS_action=compactPolicy&IBIRS_policy=<rootObject _jt="IBSSPolicy"
derivedTime="1368095042526"><policy _jt="EnumMap" _keyJT="IBSSOperation"
size="185"><entry><key _jt="IBSSOperation" name="opLibrary"/><value _
jt="IBSSVerb" name="PERMIT"/></entry><entry><key _jt="IBSSOperation"
name="opViewPortal"/><value _jt="IBSSVerb"
name="PERMIT"/></entry><entry><key _jt="IBSSOperation"
name="opList"/><value _jt="IBSSVerb" name="PERMIT"/></entry><entry><key
_jt="IBSSOperation" name="opViewProps"/><value _jt="IBSSVerb"
```

```

name="PERMIT"/></entry><entry><key _jt="IBSSOperation"
name="opDisplayVersionInfo"/><value _jt="IBSSVerb"
name="PERMIT"/></entry><entry><key _jt="IBSSOperation"
name="opFavorites"/><value _jt="IBSSVerb"
name="PERMIT"/></entry><entry><key _jt="IBSSOperation"
name="opMagnify"/><value _jt="IBSSVerb"
name="PERMIT"/></entry><entry><key _jt="IBSSOperation"
name="opMobileFavorites"/><value _jt="IBSSVerb"
.
.
.
name="opCustom01"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom02"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom03"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom04"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom05"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom06"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom07"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom08"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom09"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom10"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom11"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom12"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom13"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom14"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom15"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom16"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom17"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom18"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"

```

```

name="opCustom19"/><value _jt="IBSSVerb"
name="DENY"/></entry><entry><key _jt="IBSSOperation"
name="opCustom20"/><value _jt="IBSSVerb"
name="DENY"/></entry></policy></rootObject>

```

Response:

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="compactPolicy"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfparams size="1">
    <entry key="IBIRS_policy" value="&lt;rootObject _
jt=&quot;IBSSPolicy&quot;
derivedTime=&quot;1368095042526&quot;&gt;&lt;policy _
jt=&quot;EnumMap&quot; _keyJT=&quot;IBSSOperation&quot;
size=&quot;185&quot;&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opLibrary&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;PERMIT&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opViewPortal&quot;/&gt;&lt;value
_jt=&quot;IBSSVerb&quot;
name=&quot;PERMIT&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opList&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;PERMIT&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opViewProps&quot;/&gt;&lt;value
_jt=&quot;IBSSVerb&quot;
name=&quot;PERMIT&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opDisplayVersionInfo&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;PERMIT&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opFavorites&quot;/&gt;&lt;value
_jt=&quot;IBSSVerb&quot;
name=&quot;PERMIT&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opMagnify&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;PERMIT&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opMobileFavorites&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
.
.
.
_jt=&quot;IBSSOperation&quot; name=&quot;opCustom01&quot;/&gt;&lt;value
_jt=&quot;IBSSVerb&quot;

```

```
name="DENY" />< /entry>< /entry>< key _
jt="IBSSOperation" name="opCustom02" />< value _
jt="IBSSVerb"
name="DENY" />< /entry>< /entry>< key _
jt="IBSSOperation" name="opCustom03" />< value _
jt="IBSSVerb"
name="DENY" />< /entry>< /entry>< key
```

[illegible]

```

name=&quot;DENY&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opCustom17&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;DENY&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opCustom18&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;DENY&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opCustom19&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;DENY&quot;/&gt;&lt;/entry&gt;&lt;entry&gt;&lt;key _
jt=&quot;IBSSOperation&quot; name=&quot;opCustom20&quot;/&gt;&lt;value _
jt=&quot;IBSSVerb&quot;
name=&quot;DENY&quot;/&gt;&lt;/entry&gt;&lt;/policy&gt;&lt;/rootObject&
t;">
    </ibfparams>
    <rootObject _jt="string">////D////fx/////+//////////4AAAA</rootObject>
</ibfsrpc>

```

Running a Resource Template

This RESTful web service request can be used to run a resource template, which will create predefined groups, roles, portals, and folders.

For more information on resource templates, see the *WebFOCUS Security and Administration* content (*Chapter 5, WebFOCUS Administration, Understanding Domains* topic).

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/templates
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=run&IBIRS_fileName=templateName&IBIRS_vars=object
```

where:

templateName

Is the name of the resource template in the \WebFOCUSxx\config\resource_templates directory.

Object

Is the XML object defining the name and description of the group, role, portal, and folder that is created from running the template. The XML object uses the following format:

```
<object _jt="HashMap"><entry><key _jt="string" value="name"/>
<value _jt="string" value="name"/></entry><entry><key _jt="string"
value="desc"/><value _jt="string" value="description"/></entry></object>
```

where:

name

Is the group, role, portal, and folder name.

description

Is the group, role, portal, and folder description.

Example:

In the following example, a template called *EnterpriseDomain* is being used, which will create a group and folder. The group and folder that are created will have a name of *Sales* with a description of *Sales Domain*.

Request:

```
http://localhost:8080/ibi_apps/rs/templates
```

Body:

```
IBIRS_action=run&IBIRS_fileName=EnterpriseDomain&IBIRS_vars=<object
_jt="HashMap"><entry><key _jt="string" value="name"/><value _jt="string"
```

```
value="Sales"/></entry><entry><key _jt="string" value="desc"/><value
_jt="string" value="Sales Domain"/></entry></object>
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="run"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_vars" value="&lt;object _
jt=&quot;HashMap&quot;&gt;&lt;entry&gt;&lt;key _jt=&quot;string&quot;
value=&quot;name&quot;/&gt;&lt;value _jt=&quot;string&quot;
value=&quot;Sales&quot;/&gt;&lt;/entry&gt;&lt;key _
jt=&quot;string&quot; value=&quot;desc&quot;/&gt;&lt;value _
jt=&quot;string&quot; value=&quot;Sales
Domain&quot;/&gt;&lt;/entry&gt;&lt;/object&gt;"/>
    <entry key="IBIRS_fileName" value="EnterpriseDomain"/>
  </ibfsparams>
  <rootObject _jt="string"/>
</ibfsrpc>
```

If the value for the *returncode* attribute in the XML response is 10000, then the template ran successfully.

Changing a Password for a User

This RESTful web service request can be used to change the password for a user.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Body Format:

```
IBIRS_action=changePassword&IBIRS_userName=Userid&IBIRS_password=Password
```

where:

Userid

Is the name of the user ID in which the password will be changed.

Password

Is the new password.

Example:

In the following example, the password for user ID *restid* is changed to *rest10*.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs
```

Body:

```
IBIRS_action=changePassword&IBIRS_userName=restid&IBIRS_password=rest10
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="changePassword"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple"><ibfsparams size="2">
<entry key="IBIRS_password" value="****"/><entry key="IBIRS_userName"
value="restid"/></ibfsparams><rootObject _jt="IBFSUserObject"
description="Rest Userid" dummy="false"
email="restid@informationbuilders.com"
fullPath="IBFS:/SSYS/USERS/restid" handle="1811177469" length="0"
name="restid" nameSpace="DB"
policy="f//3s///99H/7///9v/9///f//+AAAAA==" rsPath="/ibi_
apps/rs/ibfs/SSYS/USERS/restid" type="User">
<status _jt="IBSSUserStatus" name="ACTIVE"/><groups _jt="ArrayList"
size="0"/><pSetList _jt="ArrayList" size="0"/></rootObject></ibfsrpc>
```

ReportCaster RESTful Web Service Requests

This section describes the format and structure of ReportCaster RESTful web service requests.

Retrieving Reports From the ReportCaster Library

This RESTful web service request can be used to retrieve a report for a specific version from the ReportCaster Library.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs?IBIRS_
path=path/libraryFile.lib$(version)&IBIRS_action=run
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

version

Is the version of the library output.

Note that if $\$(version)$ is omitted or *version* is replaced with a 0, then the latest revision is retrieved.

Example:

```
http://server:port/ibi_apps/rs?IBIRS_
path=/WFC/Repository/Tests/L1ch6eqp6101.lib$(7)&IBIRS_action=run
```

GET Request URL:

```
http://host:port/ibi_apps/rs/ibfs?IBIRS_
path=path/libraryFile.lib$(version)&IBIRS_action=run
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

version

Is the version of the library output.

Response:

The report output is displayed.

Deleting a Version of a Report From the ReportCaster Library

This RESTful web service request can be used to delete a specific version of a report from the ReportCaster Library.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ContentName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored WebFOCUS report. If the folder used for the stored WebFOCUS report exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ContentName

Is the name of the stored WebFOCUS report as defined in the *name* attribute when listing the content of a folder. For more information, see [Listing Reports, Schedules, and Library Content Within the WebFOCUS Repository](#).

Body Format:

```
IBIRS_action=run&IBIRS_args=Object
```

where:

Object

Is the XML object that defines the version of the report that is to be deleted.

```
<object _jt="HashMap">
  <entry>
    <key _jt="string" value="IBFS_content_revision"/>
    <value _jt="intval" value="deleteversions"/>
    <value _jt="boolval" value="true"/>
  </entry>
</object>
```

where:

deleteversions

Is the version of the report that is to be deleted.

Creating and Updating an Address Book

This RESTful web service request can be used to create or update a ReportCaster Address Book, which is used by ReportCaster schedules to distribute reports using email, FTP, or a printer.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/AddressBookName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder where the ReportCaster Address Book is stored. If the folder that is used to store the Address Book exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

AddressBookName

Is the name of the ReportCaster Address Book to add or update, which must have a .adr extension.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object&IBIRS_replace=ReplaceAddressBook&IBIRS_
private=MakePrivate&
IBIRS_args=AddEntriesObject
```

where:

Object

Is the XML object that defines the ReportCaster Address Book.

```
<rootObject _jt="IBFSCasterObject"
description="AddressBookDescription"
type="CasterDistributionList"><casterObject _jt="CasterAddrBook"
access="AccessType" bookName="AddressBookName"
description="AddressBookDescription" method="Method"
owner="Owner"><destinationList _jt="array"
itemsClass="CasterAddrbookDestinationElement" size="numberOfItems"><item
```

```
_jt="CasterAddrbookDestinationElement" burstValue="BurstValue"
burstValueType="BurstValueType" index="indexValue"
location="Location"/></destinationList></casterObject></rootObject>
```

where:

AddressBookDescription

Is the title for the Address Book.

AccessType

Specifies the security level of an Address Book, which can be set to *PUBLIC* or *PRIVATE*. A public Address Book can be viewed by all users, while a private Address Book can be viewed only by the owner and the Administrator.

AddressBookName

Is the name of the Address Book to add or update, which must have a .adr extension. For example, REST_Distribution_List.adr.

Method

Specifies the distribution method for an Address Book, which can be set to *FTP*, *EMAIL*, or *PRINT*.

Owner

Indicates the owner of an Address Book. The user ID specified will be associated with the Address Book as the owner, and will have privileges to view and modify the Address Book.

numberOfItems

Is the number of members that will be added to the Address Book.

BurstValue

If *BurstValueType* is set to *P*, then *BurstValue* is the value used when bursting a report.

If *BurstValueType* is set to *W*, then an asterisk (*) and a question mark (?) can be used as wild cards to represent characters at the beginning, end, or middle of the burst values. For example:

```
a?c*
```

In this case, all values that start with letter *a* and have letter *c* as the third character are returned.

If *BurstValueType* is set to *R*, then Java regular expressions can be used to identify strings of text. Precede each instance of a burst value using a Java regular expression. For example:

```
[bcr]at
```

In this case, all values that are *bat*, *cat*, or *rat* are returned.

If *BurstValueType* is set to *E*, then *BurstValue* should not have a value.

BurstValueType

Specifies one of the following patterns that is used for *BurstValue*:

- **P.** Plain Text
- **W.** Wildcard
- **R.** Regular Expression
- **E.** Else Send

indexValue

Is a value that starts at 0 and increments by 1 for every member that is added to the Address Book.

Location

Depending on the distribution method, *Location* may contain an email address, printer destination, or FTP path.

ReplaceAddressbook

Determines whether to update an Address Book. Select one of the following options:

- **true.** Updates an Address Book. To update an Address Book, the existing Address Book must be retrieved. The retrieved XML object would then be modified and then used as input. The following REST URL retrieves an existing Address Book:

```
http://host:port/ibi_
apps/rs/ibfs/WFC/Repository/FolderName/AddressBookName?IBIRS_
action=get
```

- **false.** Does not update an Address Book.

MakePrivate

Determines whether to make an Address Book private. Specify *true* or *false*.

***AddEntriesObject* (optional)**

Is the XML object that is used to indicate that additional entries are to be added to the Address Book. The Address Book must first be retrieved and the additional entries must be included within the *destinationList* tags as part of the *Object* definition for IBIRS_ object. The existing entries in the Address Book do not have to be included within the *destinationList* tags. IBIRS_replace should be set to *true*.

```
<object _jt="HashMap">
  <entry>
    <key _jt="string" value="insertitems"/>
    <value _jt="string" value="true"/>
  </entry>
</object>
```

Example 1:

In this example:

- An Address Book called REST_Distribution_List.adr is added.
- The description for the Address Book is REST Distribution List.
- The Address Book is used for an email distribution.
- The Address Book will be private.
- For a burst value of JAPAN, the report will be emailed to rest@informationbuilders.com.
- For all burst values except for JAPAN, the report will be emailed to other@informationbuilders.com.

POST Request URL:


```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/REST_Distribution_List.adr
```

Body:

```
IBIRS_action=put&IBIRS_object=<rootObject
_jt="IBFSCasterObject" description="REST Distribution List"
type="CasterDistributionList"><casterObject _jt="CasterAddrBook"
access="PRIVATE" bookName="REST_Distribution_List.adr" description="REST
Distribution List" method="EMAIL" owner="admin"><destinationList
_jt="array" itemsClass="CasterAddrbookDestinationElement" size="2"><item
_jt="CasterAddrbookDestinationElement" burstValue="" burstValueType="E"
index="0" location="other@informationbuilders.com"/><item
_jt="CasterAddrbookDestinationElement" burstValue="JAPAN"
burstValueType="P" index="1"

location="rest@informationbuilders.com"/></destinationList></casterObjec
t
></rootObject>&IBIRS_replace=false&IBIRS_private=true
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="put"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_replace" value="false"/>
    <entry key="IBIRS_private" value="true"/>
    <entry key="IBIRS_object" value="&lt;rootObject _
jt=&quot;IBFSCasterObject&quot;; description=&quot;REST Distribution
List&quot;; type=&quot;CasterDistributionList&quot;;&gt;&lt;casterObject _
jt=&quot;CasterAddrBook&quot;; access=&quot;PRIVATE&quot;;
bookName=&quot;REST_Distribution_List.adr&quot;; description=&quot;REST
Distribution List&quot;; method=&quot;EMAIL&quot;;
owner=&quot;admin&quot;;&gt;&lt;destinationList _jt=&quot;array&quot;;
itemsClass=&quot;CasterAddrbookDestinationElement&quot;;
size=&quot;2&quot;;&gt;&lt;item _
jt=&quot;CasterAddrbookDestinationElement&quot;; burstValue=&quot;&quot;;
burstValueType=&quot;E&quot;; index=&quot;0&quot;;
location=&quot;other@informationbuilders.com&quot;;/&gt;&lt;item _
jt=&quot;CasterAddrbookDestinationElement&quot;;
burstValue=&quot;JAPAN&quot;; burstValueType=&quot;P&quot;;
index=&quot;1&quot;;
```

```
location="rest@informationbuilders.com";/destinationLi
s
t;/casterObject;/rootObject; "/>
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/Car_
Reports/REST_Distribution_List.adr"/>
```

```
    </ibfsparams>
    <rootObject _jt="IBFSCasterObject" defaultLng="en_US" description="REST
Distribution List" dummy="false" extension="adr"
externalId="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"
fullPath="/WFC/Repository/RESTful_Web_Services/
Car_Reports/REST_Distribution_List.adr"
handle="1a7ddf0eIff6aI4886Ibde9I77c691d280a0" length="0" name="REST_
Distribution_List.adr" policy="///D///9+f/////f/////////8AAAA="
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_
Reports
/REST_Distribution_List.adr" type="CasterDistributionList">
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
        <entry>
            <key _jt="string" value="en_US"/>
            <value _jt="ArrayList" size="1">
                <item _jt="string" index="0" value="REST Distrib
            </value>
        </entry>
    </nlsValues>
    <properties size="3">
        <entry key="id" value="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"/>
        <entry key="tool" value="addressbook"/>
        <entry key="method" value="EMAIL"/>
    </properties>
    <casterObject _jt="CasterAddrBook" access="PRIVATE" bookName="REST_
Distribution_List.adr" burstValue="false" description="REST Distribution
List" ibfsId="1a7ddf0eIff6aI4886Ibde9I77c691d280a0" ibfsPath=""
id="1a7ddf0eIff6aI4886Ibde9I77c691d280a0" method="EMAIL" owner="admin"
policy="open,delete,rename,|,security;makeRules;viewRules"
sendMethod="EMAIL" summary="">
        <destinationList _jt="array"
itemsClass="CasterAddrbookDestinationElement" size="2">
            <item _jt="CasterAddrbookDestinationElement" burstValue:
burstValueType="E" index="0" location="other@informationbuilders.com"/>
            <item _jt="CasterAddrbookDestinationElement" burstValue:
burstValueType="P" index="1" location="rest@informationbuilders.com"/>
        </destinationList>
    </casterObject>
```

```

    </rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the Address Book was successfully added.

Example 2:

In this example:

- An Address Book called REST_Distribution_List.adr is updated.
- The description for the Address Book is REST Distribution List.
- The Address Book is used for an email distribution.
- The Address Book will be private.
- For a burst value of ITALY, the report will be emailed to rest@informationbuilders.com.
- For all burst values except for ITALY, the report will be emailed to other@informationbuilders.com.

The following REST URL retrieves an existing Address Book:

```

http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/Car_Reports/
REST_Distribution_List.adr?IBIRS_action=get

```

POST Request URL:

```

http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/Car_Reports/
REST_Distribution_List.adr

```

Body:

```

IBIRS_action=put&IBIRS_object=<rootObject
_jt="IBFSCasterObject" binary="false" createdOn="1350862349237"
defaultLng="en_US" description="REST Distribution List" dummy="false"
effectiveRSName="EDASERVE" extension="adr"
externalId="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_
Dist

```

```

tribution_List.adr" handle="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"
lastModified="1350862349237" lastaccessBy="admin"
lastaccessOn="1350862566520" length="0" name="REST_Distribution_
List.adr"
ownerId="10001" ownerName="admin" ownerType="U"
policy="//3/D///9+f/////f/////////8AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_
Reports
/REST_Distribution_List.adr" signedOn="true"
type="CasterDistributionList"><nlsValues _jt="HashMap" loadFactor="0.75"
threshold="12"><entry><key _jt="string" value="en_US"/><value
_jt="ArrayList" size="2"><item _jt="string" index="0" value="REST
Distribution List"/></value></entry></nlsValues><properties
size="3"><entry key="id"
value="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"/><entry key="tool"
value="addressbook"/><entry key="method"
value="EMAIL"/></properties><casterObject _jt="CasterAddrBook"
access="PRIVATE" bookName="REST_Distribution_List.adr"
burstValue="false"
description="REST Distribution List"
ibfsId="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"
ibfsPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports"
id="1a7ddf0eIff6aI4886Ibde9I77c691d280a0" method="EMAIL" owner="admin"
policy="open,delete,rename,|,security;makeRules;viewRules"

```

```

sendMethod="EMAIL"><destinationList _jt="array"
itemsClass="CasterAddrbookDestinationElement" size="2"><item
_jt="CasterAddrbookDestinationElement" burstValue="" burstValueType="E"
index="0" location="other@informationbuilders.com"/><item
_jt="CasterAddrbookDestinationElement" burstValue="ITALY"
burstValueType="P" index="1"

location="rest@informationbuilders.com"/></destinationList></casterObjec
t
></rootObject>&IBIRS_replace=true&IBIRS_private=true

```

Response:

If the value for the *returncode* attribute in the XML response is 10000, then the Address Book was successfully updated.

Example 3:

In this example:

- Additional entries are added to the REST_Distribution_List.adr Address Book.

- For a burst value of ENGLAND, the report will be emailed to rest2@informationbuilders.com.
- For a burst value of FRANCE, the report will be emailed to rest3@informationbuilders.com.

The following REST URL retrieves an existing Address Book:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_Distribution_List.adr?IBIRS_action=get
```

POST Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_Distribution_List.adr
```

Body:

```
IBIRS_action=put&IBIRS_object= <rootObject _jt="IBFSCasterObject"
createdOn="1393510291277" defaultLng="en_US" description="REST
Distribution List" dummy="false" effectiveRSName="EDASERVE"
extension="adr" externalId="f7c08730I4adfI4c8aIb109I8e014fac5a23"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_
Distribution_List.adr" handle="f7c08730I4adfI4c8aIb109I8e014fac5a23"
inheritedPrivacy="true" lastModified="1393510291277"
lastaccessBy="admin" lastaccessOn="1393510324927" length="0" name="REST_
Distribution_List.adr" ownerId="10001" ownerName="admin" ownerType="U"
policy="//7/w////38f9////v9////////+AAAA" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_
Reports/REST_Distribution_List.adr"
type="CasterDistributionList"><properties size="3"><entry key="id"
value="f7c08730I4adfI4c8aIb109I8e014fac5a23"/><entry key="tool"
value="addressbook"/><entry key="method"
value="EMAIL"/></properties><nlsValues _jt="HashMap" loadFactor="0.75"
threshold="12"><entry><key _jt="string" value="en_US"/><value _
jt="ArrayList" size="2"><item _jt="string" index="0" value="REST
Distribution List"/></value></entry></nlsValues><casterObject _
jt="CasterAddrBook" access="PRIVATE" bookName="REST_Distribution_
List.adr" burstValue="false" description="REST Distribution List"
ibfsId="f7c08730I4adfI4c8aIb109I8e014fac5a23"
ibfsPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports"
id="f7c08730I4adfI4c8aIb109I8e014fac5a23" method="EMAIL" owner="admin"
policy="open,delete,rename,|,security;makeRules;viewRules"
sendMethod="EMAIL"><destinationList _jt="array"
itemsClass="CasterAddrbookDestinationElement" size="2"><item _
```

```

    jt="CasterAddrbookDestinationElement" burstValue="ENGLAND"
    burstValueType="P" index="0"
    location="rest2@informationbuilders.com"/><item _
    jt="CasterAddrbookDestinationElement" burstValue="FRANCE"
    burstValueType="P" index="1"
    location="rest3@informationbuilders.com"/></destinationList></casterObje
    ct></rootObject>&IBIRS_replace=true&
    IBIRS_private=true&IBIRS_args=<object _jt="HashMap">
    <entry><key _jt="string" value="insertitems"/><value _jt="string"
    value="true"/></entry></object>

```

Response:

If the value for the returncode attribute in the XML response is 10000, then the additional entries were successfully added to the Address Book.

Creating and Updating a Library Access List

This RESTful web service request creates or updates a ReportCaster Library Access List that can be used by ReportCaster schedules when the distribution is set to the Report Library. If a schedule is defined to use a Library Access List, then Users or Groups defined in the list are granted access to view the part of the report that is stored in the Library, which they have access to, based on a Burst Value. If a Burst Value is not supplied for a particular Access List entry, then the User or Group in the definition will be able to view the entire report.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/LibraryAccessListName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder where the ReportCaster Library Access List is stored. If the folder that is used to store the Library Access List exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

LibraryAccessListName

Is the name of the ReportCaster Library Access List to add or update, which must have a .acl extension.

Body Format:

```
IBIRS_action=put&IBIRS_object=Object&IBIRS_replace=ReplaceAccessList&IBIRS_private=MakePrivate
```

where:

Object

Is the XML object that defines the ReportCaster Library Access List.

```
<rootObject _jt="IBFSCasterObject"
description="AccessListDescription"
type="CasterAccessList"><casterObject _jt="CasterLibraryAccessBook"
burstValue="burstValueFlag" description="AccessListDescription"
owner="Owner"><accessElementList _jt="array"
itemsClass="CasterLibAccessElement" size="numberOfItems">
<item _jt="CasterLibAccessElement" burstValue="burstValue"
index="indexValue" memberName="member" memberType="memberType"/>
</accessElementList></casterObject></rootObject>
```

where:

AccessListDescription

Is the title for the Library Access List.

burstValueFlag

Specify one of the following:

- **true.** The Library Access List will be used to burst reports based on a value in

each member definition.

- **false.** The Library Access List will not be used to burst reports.

Owner

Is the owner of the Library Access List.

numberOfItems

Is the number of members that will be added to the Library Access List.

burstValue

Is the value used in bursting a report.

indexValue

Is a value that starts at 0 and increments by 1 for every member that is added to the Library Access List.

member

Is the user name or group that will be added as a member of the Library Access List.

memberType

Specify U for user or G for group.

ReplaceAccessList

Specify one of the following:

- **true.** Update the Library Access List.

To update a Library Access List, the existing Library Access List must be retrieved. The retrieved XML object would then be modified and then used as input.

The following REST URL retrieves an existing Library Access List:

```
http://host:port/ibi_
apps/rs/ibfs/WFC/Repository/FolderName/LibraryAccessListName?IBIRS_
action=get
```

- **false.** Do not update Library Access List.

MakePrivate

Determines whether to make a Library Access List private. Specify *true* or *false*.

Example 1:

In this example:

- A Library Access List called *RESTAccessList.acf* is added.
- The description for the Access List is *REST Access List*.
- The Library Access List will be private.
- User ID *daniel* will view the part of the report where the first sort value is equal to *FRANCE*.
- User ID *david* will view the part of the report where the first sort value is equal to *JAPAN*.
- User ID *efrem* will view the part of the report where the first sort value is equal to *ENGLAND*.
- User ID *gerry* will view the part of the report where the first sort value is equal to *ITALY*.

POST Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/RESTAccessList.acf
```

Body:

```
IBIRS_action=put&IBIRS_object=<rootObject
_jt="IBFSCasterObject" description="REST Access List"
type="CasterAccessList"><casterObject _jt="CasterLibraryAccessBook"
burstValue="true" description="REST Access List"
owner="admin"><accessElementList _jt="array"
itemsClass="CasterLibAccessElement" size="4"><item
_jt="CasterLibAccessElement" burstValue="FRANCE" index="0"
memberName="daniel" memberType="U"/><item _jt="CasterLibAccessElement"
burstValue="JAPAN" index="1" memberName="david" memberType="U"/><item
_jt="CasterLibAccessElement" burstValue="ENGLAND" index="2"
memberName="efrem" memberType="U"/><item _jt="CasterLibAccessElement"
burstValue="ITALY" index="3" memberName="gerry"
memberType="U"/></accessElementList></casterObject></rootObject>&IBIRS_
```

```
re
place=false&IBIRS_private=true
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="put"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="5">
    <entry key="IBIRS_replace" value="false"/>
    <entry key="IBIRS_private" value="true"/>
    <entry key="IBIRS_object" value="&lt;rootObject _
jt=&quot;IBFSCasterObject&quot; description=&quot;REST Access List&quot;
type=&quot;CasterAccessList&quot;&gt;&lt;casterObject _
jt=&quot;CasterLibraryAccessBook&quot; burstValue=&quot;true&quot;
description=&quot;REST Access List&quot;
owner=&quot;admin&quot;&gt;&lt;accessElementList _jt=&quot;array&quot;
itemsClass=&quot;CasterLibAccessElement&quot;
size=&quot;4&quot;&gt;&lt;item _jt=&quot;CasterLibAccessElement&quot;
burstValue=&quot;FRANCE&quot; index=&quot;0&quot;
memberName=&quot;daniel&quot; memberType=&quot;U&quot;/&gt;&lt;item _
jt=&quot;CasterLibAccessElement&quot; burstValue=&quot;JAPAN&quot;
index=&quot;1&quot; memberName=&quot;david&quot;
memberType=&quot;U&quot;/&gt;&lt;item _
jt=&quot;CasterLibAccessElement&quot; burstValue=&quot;ENGLAND&quot;
index=&quot;2&quot; memberName=&quot;efrem&quot;
memberType=&quot;U&quot;/&gt;&lt;item _
jt=&quot;CasterLibAccessElement&quot; burstValue=&quot;ITALY&quot;
index=&quot;3&quot; memberName=&quot;gerry&quot;
memberType=&quot;U&quot;/&gt;&lt;/accessElementList&gt;&lt;
/casterObject&gt;&lt;/rootObject&gt;"/>
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/Car_
Reports/
RESTAccessList.acl"/>
  </ibfsparams>
  <rootObject _jt="IBFSCasterObject" defaultLng="en_US" description="REST
Access List" dummy="false" extension="acl"
externalId="C34ea5140c31c0c4f68c8534ca97cd4538363"
fullPath="/WFC/Repository/RESTful_Web_Services/Car_
Reports/RESTAccessList.acl"
handle="5ca19e73I55f0I4c4cI9cd1I48340f7da5d5" length="0"
name="RESTAccessList.acl" policy="///D///9+f/////f/////////8AAAA="
```

```

rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/
Car_Reports/RESTAccessList.acl" type="CasterAccessList">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="1">
        <item _jt="string" index="0" value="REST Access
      </value>
    </entry>
  </nlsValues>
  <properties size="2">
    <entry key="id" value="C34ea5140c31c0c4f68c8534ca97cd4538363"/>
    <entry key="tool" value="accesslist"/>
  </properties>
  <casterObject _jt="CasterLibraryAccessBook" burstValue="true"
description="REST Access List"
ibfsId="5ca19e73I55f0I4c4cI9cd1I48340f7da5d5" ibfsPath=""
id="C34ea5140c31c0c4f68c8534ca97cd4538363" name="" owner="admin"
policy="open,delete,rename,|,security;makeRules;viewRules" summary="">
    <accessElementList _jt="array" itemsClass="CasterLibAccessElemen
size="4">
      <item _jt="CasterLibAccessElement" burstValue="FRANCE"
memberName="daniel" memberType="U"/>

```

```

      <item _jt="CasterLibAccessElement" burstValue="JAPAN"
memberName="david" memberType="U"/>
      <item _jt="CasterLibAccessElement" burstValue="ENGLAND"
memberName="efrem" memberType="U"/>
      <item _jt="CasterLibAccessElement" burstValue="ITALY" i
memberName="gerry" memberType="U"/>
    </accessElementList>
  </casterObject>
</rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the Library Access List was added successfully.

Example 2:

In this example:

- A Library Access List called *RESTAccessList.acl* is updated.
- The description for the Access List is *REST Access List*.
- The Library Access List will be private.

- User ID *daniel* will view the part of the report where the first sort value is equal to *FRANCE*.
- User ID *david* will view the part of the report where the first sort value is equal to *JAPAN*.
- User ID *efrem* will view the part of the report where the first sort value is equal to *ENGLAND*.
- User ID *gerry* will view the part of the report where the first sort value is equal to *ITALY*.

The following REST URL retrieves an existing Library Access List:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/RESTAccessList.acl?IBIRS_action=get
```

POST Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/RESTAccessList.acl
```

Body:

```
IBIRS_action=put&IBIRS_object=<rootObject
_jt="IBFSCasterObject" binary="false" createdOn="1349797553600"
defaultLng="en_US" description="REST Access List - Updated"
dummy="false" effectiveRSName="EDASERVE" extension="acl"
externalId="C34ea5140c31c0c4f68c8534ca97cd4538363"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_
Reports/RESTAcces
sList.acl" handle="5ca19e73I55f0I4c4cI9cd1I48340f7da5d5"
lastModified="1349797553600" lastaccessBy="admin"
lastaccessOn="1349797663457" length="0" name="RESTAccessList.acl"
ownerId="10001" ownerName="admin" ownerType="U"
policy="//3/D///9+f/////f/////////8AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_
Reports
/RESTAccessList.acl" type="CasterAccessList"><nlsValues _jt="HashMap"
loadFactor="0.75" threshold="12"><entry><key _jt="string"
value="en_US"/><value _jt="ArrayList" size="2"><item _jt="string"
index="0" value="REST Access List -
Updated"/></value></entry></nlsValues><properties size="2"><entry
```

```

key="id" value="C34ea5140c31c0c4f68c8534ca97cd4538363"/><entry
key="tool" value="accesslist"/></properties><casterObject
_jt="CasterLibraryAccessBook" burstValue="true" description="REST Access
List - Updated" ibfsId="5ca19e73I55f0I4c4cI9cd1I48340f7da5d5"
ibfsPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports"
id="C34ea5140c31c0c4f68c8534ca97cd4538363" name="RESTAccessList.acl"
owner="admin"

policy="open,delete,rename,|,security;makeRules;viewRules"><accessElement
List _jt="array" itemsClass="CasterLibAccessElement" size="4"><item
_jt="CasterLibAccessElement" burstValue="FRANCE" index="0"
memberName="daniel" memberType="U"/><item _jt="CasterLibAccessElement"
burstValue="JAPAN" index="1" memberName="david" memberType="U"/><item
_jt="CasterLibAccessElement" burstValue="ENGLAND" index="2"
memberName="efrem" memberType="U"/><item _jt="CasterLibAccessElement"
burstValue="ITALY" index="3" memberName="gerry"
memberType="U"/></accessElementList></casterObject></rootObject>&IBIRS_
re
place=true&IBIRS_private=true

```

Response:

If the value for the *returncode* attribute in the XML response is 10000, then the Library Access List was updated successfully.

Deleting a Library Access List

This RESTful web service request can be used to delete a ReportCaster Library Access List.

HTTP Method: POST

REST URL Format:

```

http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/AccessListName?IBIRS_
action=delete

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder where the ReportCaster Library Access List is stored. If the folder that is used to store the Library Access List exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

AccessListName

Is the name of the ReportCaster Library Access List to delete, which must have a .acl extension.

Example:

In the following example, the ReportCaster Library Access List named RESTAccessList.acl is deleted from the Car_Reports folder, which is within the RESTful_Web_Services folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/RESTAccessList.acl?IBIRS_action=delete
```

Response:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="delete"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/Car_
Reports/
RESTAccessList.acl"/>
  </ibfsparams>
```

```
  <rootObject _jt="IBFSCasterObject" binary="false"
createdOn="1349435037177" defaultLng="en_US" description="REST Access
List" dummy="false" extension="acl"
externalId="C3222b6bcc30c0c4582c90fdcc4c403cd249c"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_
```

```

Reports/RESTAccessList.acl"
handle="b60b3b27I4bd0I4a15I923cI7db3bd6ae555"
lastModified="1349435037177" lastaccessBy="admin"
lastaccessOn="1349436904650" length="0" name="RESTAccessList.acl"
policy="////D///9+f/////f/////////8AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/
Car_Reports/RESTAccessList.acl" type="CasterAccessList">
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
        <entry>
            <key _jt="string" value="en_US"/>
            <value _jt="ArrayList" size="2">
                <item _jt="string" index="0" value="REST Access
            </value>
        </entry>
    </nlsValues>
    <properties size="2">
        <entry key="id" value="C3222b6bcc30c0c4582c90fdcc4c403cd249c"/>
        <entry key="tool" value="accesslist"/>
    </properties>
</rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the ReportCaster Library Access List was deleted successfully.

Creating and Updating a Schedule

This section describes the structure of the RESTful web service request that is used to create and update a ReportCaster Schedule.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ScheduleName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder that will contain the ReportCaster Schedule. If the folder used for the Schedule is a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ScheduleName

Is the name of the ReportCaster Schedule to be added or updated, which also must have a .sch extension.

Body Format:

```
IBIRS_action=put&IBIRS_replace=ReplaceSchedule&IBIRS_object=Object
```

where:

ReplaceSchedule

Specify one of the following options:

- **True.** Updates the Schedule. To update a Schedule, the existing Schedule must be retrieved. The retrieved XML object would then be modified and then used as input.

The following REST URL retrieves an existing Schedule:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ScheduleName?IBIRS_action=get
```

- **False.** Does not update the Schedule.

Object

Is the XML object that defines the ReportCaster Schedule. The XML object consists of seven components, which are concatenated in the following order:

- Schedule rootObject
- Schedule properties
- Notification
- Distribution
- Recurrence

- Task
- Closing tags

Schedule rootObject

This section describes the Schedule rootObject.

Body Format:

```
<rootObject _jt="IBFSCasterObject" description="ScheduleTitle"
type="CasterSchedule">
```

where:

ScheduleTitle

Is the text describing the job that is being scheduled. The maximum size of the description is 90 characters.

Schedule Properties

This section describes the Schedule properties.

Body Format:

```
<casterObject _jt="CasterSchedule" active="Active"
deleteJobAfterRun="DeleteJobAfterRun" description="ScheduleTitle"
owner="Owner" priority="Priority" traceType="TraceType">
```

where:

Active

Is the flag indicating whether or not a Schedule is active. If set to *true*, the Schedule is active. If set to *false*, the Schedule is inactive.

DeleteJobAfterRun

Is a flag indicating whether or not a Schedule is deleted after running the job. If set to *true*, the job is deleted after all tasks are completed. If set to *false*, the job is not deleted.

ScheduleTitle

Is the text describing the job that is being scheduled. The maximum size of the description is 90 characters.

Owner

Is the owner of this Schedule. The maximum size of the owner is 48 characters.

Priority

Is the priority level for the scheduled job. The value ranges from 1 (highest priority) to 5 (lowest priority).

TraceType

Specify one of the following types of tracing:

- 0 = Default Trace. Uses ReportCaster trace configuration setting.
- 1 = No Traces
- 2 = Trace Schedule
- 3 = Trace Schedule and Report

Notification

When scheduled reports are distributed, ReportCaster allows selected individuals to be notified with log information about the distribution. This notification feature can be altered on a per Schedule basis and can be set to *inactive*, *always notify*, or *notify only on error*. Each Schedule allows the following two types of notifications to be sent simultaneously:

- **Brief.** Contains partial log information.
- **Full.** Contains complete log information.

Body Format:

```
<notification _jt="CasterScheduleNotification"
addressForBriefNotification="BriefNotificationAddress"
  addressForFullNotification="FullNotificationAddress" description=""
from="FromAddress"
  subject="Subject" type="NotificationType"/>
```

where:

BriefNotificationAddress

Is the email address where a brief notification message will be sent after running a Schedule in ReportCaster. The content of the brief notification email is the partial log information for a given Schedule run. The maximum size of the brief notification email address is 75 characters.

FullNotificationAddress

Is the email address where a full notification message will be sent upon running a Schedule in ReportCaster. The content of the full notification email is the complete log information for a given Schedule run. The maximum size of the full notification email address is 75 characters.

FromAddress

Is the email address linked to the From header to which the notification will be sent upon running a Schedule in ReportCaster. The maximum size of the From address is 75 characters.

Subject

Is the subject header in the email to which the notification will be sent upon running a Schedule in ReportCaster. The maximum size of the email subject is 255 characters.

NotificationType

Is the type of notification message to be sent upon the running of a ReportCaster Schedule. The three possible types are *ALWAYS*, *INACTIVE*, and *ONERROR*.

Distribution

There are five distribution types to choose from when creating a ReportCaster Schedule:

- Report Library
- Email
- FTP
- Printer
- WebFOCUS Repository

Report Library

This is used when the intended distribution method for the scheduled ReportCaster job is storage in the ReportCaster Library. The ReportCaster Library is a secure archiving environment that is configured in a database and provides common access. It is optionally available with the ReportCaster product.

Body Format:

```
<distributionList _jt="array" itemsClass="CasterScheduleDistribution"
size="1">
  <item accessListFullPath="AccessListPath" accessType="AccessType"
category="Category"
      compressionEnabled="CompressionEnabled"
      description="DistributionName" destinationPath="DestinationPath"
enabled="true"
      expirationData="ExpirationData" expirationMode="ExpirationMode" index="0"
valueonly="ValueOnly">
    <storageLibraryEmail authEnabled="AuthEnabled" authPassword="AuthPassword"
authUserId="AuthUserId"
      libraryURL="LibraryURL" mailFrom="MailFrom"
      mailMessage="MailMessage" mailReplyAddress="MailReply"
mailServerName="MailServer"
      mailSubject="MailSubject"
sendEmailAfterSaveReport="SendEmailAfterSaveReport" sslEnabled="SSLflag"
      tlsEnabled="TLSflag" />
  </item>
</distributionList>
```

where:

AccessListPath

Is the full path to the Access List used to control the viewing of the library content when AccessType is set to ACCESS_LIST. For example, IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/RESTAccessList.acl.

AccessType

Is the access type for this library distribution. The access type contains the following three options for viewing a library report:

- PUBLIC

- OWNER
- ACCESS_LIST

Category

Is the library category associated with this report. Each category is a root directory within the library used to organize the distribution of reports.

Any task other than a WebFOCUS Repository report that is delivered to the library must be assigned a category when a Schedule is created. The scheduled report and all subsequent versions of the report are filed in subdirectories under the category assigned to it. If the category does not exist, a new category (for example, root directory) is created upon distribution.

The category accepts a maximum of 90 characters.

CompressionEnabled

Specify one of the following options:

- **True.** The report is compressed before it is stored in the library.
- **False.** The report is not compressed before it is stored in the library.

DistributionName

Is a name that is assigned to the distribution (for example, Report Library).

DestinationPath

Is the path to the folder where Library Content will be stored. For example:

```
IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports
```

ExpirationData

Is the expiration data used to calculate the expiration of a library resident report. For a given ExpirationMode, the expiration data represents a corresponding integer that, when combined with the ExpirationMode, determines if a report should expire. For example, if the ExpirationMode is set to D and the ExpirationData is set to 3, the report will expire in three days. For V, the ExpirationData represents the threshold number of versions that must exist prior to the report expiring from the library.

ExpirationMode

Is the basis of calculating when a library report will expire. There are seven expiration modes:

- **D.** Day
- **H.** Hour
- **M.** Month
- **V.** Version
- **W.** Week
- **Y.** Year
- **N.** Never

When associated with a corresponding ExpirationData integer, ReportCaster can determine when a library report will expire. For example, if the ExpirationMode is set to D, and the ExpirationData is set to 3, the report will expire in three days.

For V, the ExpirationData represents the threshold number of versions that must exist prior to the report expiring from the library.

ValueOnly

Specify one of the following options:

- **True.** The distribution to values are in the Access List is limited.
- **False.** The distribution to values in the Access List is not limited.

AuthEnabled

Specify one of the following options:

- **True.** The Mail Server requires authentication.
- **False.** The Mail Server does not require authentication.

AuthPassword

Is the password used to authenticate to the Mail Server if *AuthEnabled* is set to *true*.

AuthUserid

Is the account name used to authenticate to the Mail Server if *AuthEnabled* is set to *true*.

LibraryURL

Is the base URL contained in a library email notification. When library notification is turned on using `SendEmailAfterSaveReport`, all users who have access to a library report are sent an email that contains message content, usually a notification that the report is available, and a URL that opens the report in the browser. The base URL can be set to a value that is accessible inside or outside of the ReportCaster environment.

The `LibraryURL` accepts a maximum of 128 characters. For example:

```
http://localhost:8080/ibi_apps/library/report.rc
```

MailFrom

Is the From email address in this library email notification (library email notification must be turned on through `SendEmailAfterSaveReport`). The maximum size of the From email address is 65 characters.

MailMessage

Is the email message content contained in the email message sent out as part of this notification email (library email notification must be turned on through `SendEmailAfterSaveReport`). The maximum size of the email message is 255 characters.

MailReply

Is the Reply email address sent in this library email notification (library email notification must be turned through `SendEmailAfterSaveReport`). The maximum size of the Reply email address is 65 characters.

MailServer

Is the mail server name used to send this library email notification (library email notification must be turned on through `SendEmailAfterSaveReport`). The maximum size of the mail server name is 65 characters.

MailSubject

Is the email subject sent in this library email notification (library email notification must be turned on through `SendEmailAfterSaveReport`). The maximum size of the Subject email header is 255 characters.

SendEmailAfterSaveReport

Specifies whether or not an email notification is sent after a report is saved to the library. If the value is set to *true*, an email notification is sent to users who have access to the report. If the value is set to *false*, no email notification is sent.

SSLflag

Specify one of the following options:

- **True.** The Mail Server requires a secure SSL connection.
- **False.** The Mail Server does not require a secure SSL connection.

TLSflag

Specify one of the following options:

- **True.** The Mail Server requires a secure TLS connection.
- **False.** The Mail Server does not require a secure TLS connection.

Email

This is used when the intended distribution method for the scheduled ReportCaster job is through email.

Body Format:

```
<distributionList _jt="array" itemsClass="CasterScheduleDistribution"
size="1">
  <item _jt="CasterScheduleDistributionEmail" authEnabled="AuthEnabled"
authPassword="AuthPassword" authUserId="AuthUserId"
description="DistributionName" enabled="true" index="0"
inlineMessage="InlineMessage" inlineTaskIndex="InlineTaskIndex"
mailFrom="MailFrom" mailReplyAddress="MailReply"
mailServerName="MailServer" mailSubject="MailSubject"
sendingReportAsAttachment="AttachmentFlag" sslEnabled="SSLflag"
tlsEnabled="TLSflag" zipFileName="ZipFileName"
zipResult="ZipFlag">
  <destination _jt="CasterScheduleDestination" distributionFile="DistFile"
distributionListFullPath="DistPath"
singleAddress="SingleAddress" type="Type">
    <dynamicAddress _jt="CasterScheduleDynamicAddress"
password="Password" procedureName="ProcedureName"
```



```

        serverName="ServerName" userName="UserName"/>
    </destination>
</item>
</distributionList>

```

where:

AuthEnabled

Specify one of the following options:

- **True.** The Mail Server requires authentication.
- **False.** The Mail Server does not require authentication.

AuthPassword

Is the password used to authenticate to the Mail Server if *AuthEnabled* is set to *true*.

AuthUserid

Is the account name used to authenticate to the Mail Server if *AuthEnabled* is set to *true*.

DistributionName

Is a name that is assigned to the distribution (for example, Email).

InlineMessage

Is the inline message associated with an email report distribution. An inline message is the message contained in the body of the email when the report is sent as an attachment. If the report is sent inline, this should not be set. The size limit for an inline message is 255 characters.

InlineTaskIndex

Is the index of the task that is going to be inline (in the body of the email). ReportCaster Schedules can accept multiple tasks, with each task representing a report within the Schedule. These tasks will run sequentially. The task index is the sequential index number (from 0 to N) assigned to the tasks within a scheduled distribution. This is particularly important for inline email distribution because only one of the tasks can be an inline report (for example, a report whose contents are in the body of the email). The other reports are sent as an attachment.

MailFrom

Is the email address associated with the From header field of a scheduled email distribution. The size limit for MailFrom is 65 characters.

MailReply

Is the reply email address from the Reply Address header field of a scheduled email distribution. The size limit for mail reply address is 65 characters.

MailServer

Is an SMTP mail server name associated with scheduled email distribution. The size limit for mail server name is 65 characters.

MailSubject

Is an email subject corresponding to the Subject header field associated with scheduled email distribution. The size limit for mail subject is 90 characters.

AttachmentFlag

Specify one of the following options:

- **True.** The report is sent as an attachment.
- **False.** The report is sent within the body of the email.

SSLflag

Specify one of the following options:

- **True.** The Mail Server requires a secure SSL connection.
- **False.** The Mail Server does not require a secure SSL connection.

TLSflag

Specify one of the following options:

- **True.** The Mail Server requires a secure TLS connection.
- **False.** The Mail Server does not require a secure TLS connection.

ZipFileName

Is the name of the zip file associated with a scheduled email distribution. ZipFlag should be set to *true*. The size limit for a zip file name is 64 characters.

ZipFlag

Specify one of the following options:

- **True.** The output is zipped.
- **False.** The output is not zipped.

DistFile

Is a list of one or many recipients stored within a physical file accessible to the Distribution Server. The Type must be set to DISTRIBUTION_FILE.

DistPath

Is the full path to a ReportCaster Address Book which lists one or many recipients. For example:

```
IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_List.adr
```

The Type must be set to DISTRIBUTION_LIST.

SingleAddress

Are email addresses of the report recipients.

When the email addresses are separated by a comma (,) character, the report is distributed in one email.

When the email addresses are separated by a semicolon (;) character, the report is distributed in multiple emails (one address per email).

The Type must be set to SINGLE_ADDRESS.

Type

Is one of the following valid values:

- DISTRIBUTION_FILE
- DISTRIBUTION_LIST
- DYNAMIC_ADDRESS
- SINGLE_ADDRESS

Password

Is the value of the password required for authentication to the WebFOCUS Reporting Server containing the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

ProcedureName

Is the name of the WebFOCUS procedure that produces the dynamic distribution list qualified by the application name. For example, ibisamp/getEmails.

Type must be set to DYNAMIC_ADDRESS.

ServerName

Is the name of the WebFOCUS Reporting Server that contains the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

UserName

Is the user ID to the WebFOCUS Reporting Server that contains the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

FTP

This is used to distribute a scheduled ReportCaster report through FTP.

Body Format:

```
<distributionList _jt="array" itemsClass="CasterScheduleDistribution"
size="1">
  <item compressionFormat="CompressionFormat" description="DistributionName"
    enabled="true" ftpLocation="FTPlocation" ftpPassword="FTPpass"
ftpServerName="FTPserver" ftpUserName="FTPuser"
    index="0" indexFile="IndexFile" passwordAuthEnabled="passwordFlag"
publicKeyAuthEnabled="publicFlag"
    sftpEnabled="SFTPflag" zipBurstReportsTogether="ZipBurstTogether"
zipFileName="ZipFileName"
    zipResult="ZipResult">
    <destination _jt="CasterScheduleDestination" distributionFile="DistFile"
distributionListFullPath="DistPath"
```

```

        singleAddress="SingleFile" type="Type">
        <dynamicAddress _jt="CasterScheduleDynamicAddress"
password="Password" procedureName="ProcedureName"
        serverName="ServerName" userName="UserName" />
    </destination>
</item>
</distributionList>

```

where:

CompressionFormat

Are the options to compress the output before distribution. You can choose from either of the following:

- **0.** Choose this option if you want an archive file (.zip), a compressed file (.zip), or no compression.
- **1.** Choose this option if you want a compressed file (.gz).

DistributionName

Is a name that is assigned to the distribution (for example, FTP).

FTPlocation

Is the root directory for a report scheduled for distribution through FTP. The report will be sent to this target destination through FTP unless a Distribution List bursts sections of the report to subdirectories of this FTPlocation directory.

FTPpass

Is the password to the target FTP server needed to authenticate at the time of report distribution. The FTP password is part of the credentials necessary for the user to access the FTP server.

FTPserver

Is the name of the FTP server that is the target of the distribution.

FTPuser

Is the user name needed to authenticate to the target FTP server at the time of report distribution. The FTP user name is part of the credentials necessary for the user to have access to the FTP server.

IndexFile

Specifies the index file associated with report(s) scheduled for distribution through FTP, where bursting is activated. When bursting is activated, the index file specifies the name of the file where the corresponding index page will be created.

If bursting is activated (Burst=TRUE), and no index file is specified, the index file name is set to index.htm.

i Note: It makes sense to burst a report in cases where the distribution type is: DISTRIBUTION LIST, DISTRIBUTION FILE, and DYNAMIC LIST. In the case where distribution type is SINGLE ADDRESS, there is no need to burst because the reports will be sent to a single address.

passwordFlag

Is the password authentication. If *SFTPflag* equals true, specify one of the following options:

- **True.** Password authentication is enabled.
- **False.** Password authentication is disabled.

publicFlag

Is the Public Key authentication. If *SFTPflag* is set to *true*, specify one of the following options:

- **True.** Public Key authentication is enabled.
- **False.** Public Key authentication is disabled.

SFTPflag

If set to *true*, the FTP server requires a secure SSH File Transfer Protocol (SFTP).

If set to *false*, the FTP server does not require a secure SSH File Transfer Protocol (SFTP).

ZipBurstTogether

Is the option to use a .zip for compression. If set to *true*, and when ZipResult equals *true*, an archive .zip file is created before distribution.

If set to *false*, and when ZipResult is set to *true*, a compressed .zip file is created before distribution.

The value will also be set to *false* if no compression is required or *CompressionFormat* is set to 1.

ZipFileName

Is the file name that will contain an archive or compressed .zip file.

CompressionFormat would be set to 0 and *ZipResult* would be set to *true*.

ZipResult

Is the option to use a compressed file. If set to *true*, an archive or compressed .zip file is created before distribution. A compressed .gz file is created before distribution.

CompressionFormat sets the type of compression and *ZipBurstTogether* sets whether an archive or compressed .zip file is created before distribution.

If set to *false*, no compression will occur before distribution.

DistFile

Is a list of one or many locations stored within a physical file accessible to the Distribution Server.

Type must be set to *DISTRIBUTION_FILE*.

DistPath

Is the full path to a ReportCaster Address Book which lists one or many locations. For example, IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_List.adr.

Type must be set to *DISTRIBUTION_LIST*

SingleFile

Is the single file name used if distribution is set to one location.

Type must be set to *SINGLE_ADDRESS*.

Type

The following is a list of valid values:

- *DISTRIBUTION_FILE*
- *DISTRIBUTION_LIST*
- *DYNAMIC_ADDRESS*
- *SINGLE_ADDRESS*

Password

Is the value of the password required for authentication to the WebFOCUS Reporting Server containing the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

ProcedureName

Is the name of the WebFOCUS procedure that produces the dynamic distribution list qualified by the application name. For example, ibisamp/getEmails.

Type must be set to DYNAMIC_ADDRESS.

ServerName

Is the name of the WebFOCUS Reporting Server that contains the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

UserName

Is the user ID to the WebFOCUS Reporting Server that contains the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

Printer

This is used when the intended distribution method for the scheduled ReportCaster job is through a printer.

When using this distribution, the report format in the Task (SendFormat) must be set to either DOC, WP, PS or PDF (if the printer you are using supports PDF output sent without Adobe).

Body Format:

```
<distributionList _jt="array" itemsClass="CasterScheduleDistribution"
size="1">
  <item description="DistributionName" enabled="true" index="0">
    <destination _jt="CasterScheduleDestination" distributionFile="DistFile"
distributionListFullPath="DistPath"
      singleAddress="SinglePrinter" type="Type">
        <dynamicAddress _jt="CasterScheduleDynamicAddress"
```



```
password="Password" procedureName="ProcedureName"
      serverName="ServerName" userName="UserName" />
    </destination>
  </item>
</distributionList>
```

where:

DistributionName

Is a name that is assigned to the distribution (for example, Printer).

DistFile

Is a list of one or many printers stored within a physical file accessible to the Distribution Server.

Type must be set to DISTRIBUTION_FILE.

DistPath

Is the full path to a ReportCaster Address Book which lists one or many printers. For example, IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_List.adr.

Type must be set to DISTRIBUTION_LIST.

SinglePrinter

Is the single printer to print the distributed report. *Type* must be set to SINGLE_ADDRESS.

Type

The following is a list of valid values:

- DISTRIBUTION_FILE
- DISTRIBUTION_LIST
- DYNAMIC_ADDRESS
- SINGLE_ADDRESS

Password

Is the value of the password required for authentication to the WebFOCUS Reporting Server containing the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

ProcedureName

Is the name of the WebFOCUS procedure that produces the dynamic distribution list qualified by the application name. For example, ibisamp/getEmails.

Type must be set to DYNAMIC_ADDRESS.

ServerName

Is the name of the WebFOCUS Reporting Server that contains the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

UserName

Is the user ID to the WebFOCUS Reporting Server that contains the WebFOCUS procedure that creates the dynamic distribution list.

Type must be set to DYNAMIC_ADDRESS.

WebFOCUS Repository

This is used when the intended distribution method for the scheduled ReportCaster job is to store the output in the WebFOCUS Repository.

Body Format:

```
<distributionList _jt="array" itemsClass="CasterScheduleDistribution"
size="1">
  <item description="DistributionName" enabled="true" folderName="FolderName"
    index="0"/>
</distributionList>
```

where:

DistributionName

Is a name that is assigned to the distribution (for example, WebFOCUS Repository).

FolderName

Is the full path to the WebFOCUS Repository folder where the report will be stored. For example, IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports.

Recurrence

There are seven recurrence types to choose from when creating a ReportCaster Schedule:

- Run Once
- Minutes
- Hourly
- Daily
- Weekly
- Monthly
- Yearly

Run Once

This is used to schedule jobs that are to run only once.

```
<timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo" size="1">
  <item description="" enabled="true" index="0" name="">
    <startTime _jt="calendar" time="StartTime"/>
  </item>
</timeInfoList>
```

where:

StartTime

Is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

Minutes

This is used to schedule jobs that run in intervals of minutes.

Body Format:

```
<item disabled="false" type="2" name="" description=""
index="0" class="ibi.broker.api.data.schedule.TimeInfoMinute"
wednesday="WednesdayFlag" tuesday="TuesdayFlag" thursday="ThursdayFlag"
sunday="SundayFlag" saturday="SaturdayFlag" monday="MondayFlag" friday="FridayFlag"
frequency="Frequency">
<nextRunTime _jt="calendar" time="nextRunTime"/>
<startTime _jt="calendar" time="StartTime"/>
<endTime _jt="calendar" time="EndTime"/>
```

where:

Frequency

Is the frequency for a scheduled event in minutes.

For example, if an email report distribution is set to run every, five minutes, the frequency would be 5.

FridayFlag

Determines whether or not the ReportCaster job is scheduled for a Friday. If set to *true*, the job will run on a Friday.

MondayFlag

Determines whether or not the ReportCaster job is scheduled for a Monday. If set to *true*, the job will run on a Monday.

SaturdayFlag

Determines whether or not the ReportCaster job is scheduled for a Saturday. If set to *true*, the job will run on a Saturday.

SundayFlag

Determines whether or not the ReportCaster job is scheduled for a Sunday. If set to *true*, the job will run on a Sunday.

ThursdayFlag

Determines whether or not the ReportCaster job is scheduled for a Thursday. If set to *true*, the job will run on a Thursday.

TuesdayFlag

Determines whether or not the ReportCaster job is scheduled for a Tuesday. If set to *true*, the job will run on a Tuesday.

WednesdayFlag

Determines whether or not the ReportCaster job is scheduled for a Wednesday. If set to *true*, the job will run on a Wednesday.

StartTime

Is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

EndTime

Is designated as the last time a Schedule is set to run.

The end time is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The end time should also be expressed in UTC (Coordinated Universal Time).

For example, December 31, 2013, 15:00:00 UTC converts to 1388502000000.

Hourly

This is used to schedule jobs that run in intervals of hours.

Body Format:

```
<item disabled="false" type="2" name="" description=""
index="0" class="ibi.broker.api.data.schedule.TimeInfoHour"
wednesday="WednesdayFlag" tuesday="TuesdayFlag" thursday="ThursdayFlag"
sunday="SundayFlag" saturday="SaturdayFlag" monday="MondayFlag" friday="FridayFlag"
frequency="Frequency">
<nextRunTime _jt="calendar" time="nextRunTime"/>
<startTime _jt="calendar" time="StartTime"/>
<endTime _jt="calendar" time="EndTime"/>
```

where:

Frequency

Is the frequency for a scheduled event in hours.

For example, if an email report distribution is set to run every five hours, the frequency would be 5.

FridayFlag

Determines whether or not the ReportCaster job is scheduled for a Friday. If set to *true*, the job will run on a Friday.

MondayFlag

Determines whether or not the ReportCaster job is scheduled for a Monday. If set to *true*, the job will run on a Monday.

SaturdayFlag

Determines whether or not the ReportCaster job is scheduled for a Saturday. If set to *true*, the job will run on a Saturday.

SundayFlag

Determines whether or not the ReportCaster job is scheduled for a Sunday. If set to *true*, the job will run on a Sunday.

ThursdayFlag

Determines whether or not the ReportCaster job is scheduled for a Thursday. If set to *true*, the job will run on a Thursday.

TuesdayFlag

Determines whether or not the ReportCaster job is scheduled for a Tuesday. If set to *true*, the job will run on a Tuesday.

WednesdayFlag

Determines whether or not the ReportCaster job is scheduled for a Wednesday. If set to *true*, the job will run on a Wednesday.

StartTime

Is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

EndTime

Is designated as the last time a Schedule is set to run.

The end time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The end time should also be expressed in UTC (Coordinated Universal Time).

For example, December 31, 2013, 15:00:00 UTC converts to 1388502000000.

Daily

This is used to schedule jobs that run in intervals of days.

Body Format:

```
<timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo" size="1">
  <item description="" enabled="true" frequency="Frequency" index="0"
name="">
    <startTime _jt="calendar" time="StartTime"/>
    <endTime _jt="calendar" time="EndTime"/>
    <secondaryRunInterval _jt="CasterScheduleTimeInterval"
duration="Duration" interval="Interval"
      isEnabled="SecondaryIntervalFlag"><untilTime _jt="calendar"
time="UntilTime"/>
    </secondaryRunInterval>
  </item>
</timeInfoList>
```

where:

Frequency

Is the frequency for a scheduled event in days. For example, if an email report distribution is set to run every five days, the frequency would be 5.

StartTime

Is the start time is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

EndTime

Is the end time is designated as the last time a Schedule is set to run.

The end time is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The end time should also be expressed in UTC (Coordinated Universal Time).

For example, December 31, 2013, 15:00:00 UTC converts to 1388502000000.

Duration

Is the duration of *SecondaryIntervalFlag*. If *SecondaryIntervalFlag* is set to *true*, the duration specified in minutes during which the time interval will be applied. *UntilTime* must equal 18000000.

Interval

Is the time interval in minutes. If *SecondaryIntervalFlag* is set to *true*, the time interval is applied every *n* minutes.

SecondaryIntervalFlag

Is the time interval settings. If set to *true*, the time Interval settings are active. If set to *false*, the time Interval settings are inactive.

UntilTime

Is the end time of the time interval. If *SecondaryIntervalFlag* set to *true*, the end time for which the time interval will be applied. Duration must be set to -1.

The end time of the interval is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

It does not matter which date is used as only the time portion will be used in setting the end time for the time interval.

Typically, the date the Schedule is created or updated is used in setting *UntilTime*.

Three zeros are appended to the Unix Time to represent milliseconds.

The end time of the interval should also be expressed in UTC (Coordinated Universal Time).

For example, October 19, 2012, 20:38:00 UTC converts to 1350679080000. October 19, 2012 will be ignored when setting the end time of the interval.

Weekly

This is used to schedule jobs that run in intervals of weeks.

Body Format:

```
<timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo" size="1">
  <item _jt="CasterScheduleTimeInfoWeek" description="" enabled="true"
frequency="Frequency" friday="FridayFlag" index="0"
    monday="MondayFlag" name="" saturday="SaturdayFlag" sunday="SundayFlag"
thursday="ThursdayFlag"
    tuesday="TuesdayFlag" wednesday="WednesdayFlag">
    <startTime _jt="calendar" time="StartTime"/>
    <endTime _jt="calendar" time="EndTime"/>
    <secondaryRunInterval _jt="CasterScheduleTimeInterval"
duration="Duration" interval="Interval"
    isEnabled="SecondaryIntervalFlag"><untilTime _jt="calendar"
time="UntilTime"/>
    </secondaryRunInterval>
  </item>
</timeInfoList>
```

Frequency

Is the frequency for a scheduled event in weeks.

For example, if an email report distribution is set to run every five weeks, the frequency would be 5.

FridayFlag

Determines whether or not the ReportCaster job is scheduled for a Friday. If set to *true*, the job will run on a Friday.

MondayFlag

Determines whether or not the ReportCaster job is scheduled for a Monday. If set to *true*, the job will run on a Monday.

SaturdayFlag

Determines whether or not the ReportCaster job is scheduled for a Saturday. If set to *true*, the job will run on a Saturday.

SundayFlag

Determines whether or not the ReportCaster job is scheduled for a Sunday. If set to *true*, the job will run on a Sunday.

ThursdayFlag

Determines whether or not the ReportCaster job is scheduled for a Thursday. If set to *true*, the job will run on a Thursday.

TuesdayFlag

Determines whether or not the ReportCaster job is scheduled for a Tuesday. If set to *true*, the job will run on a Tuesday.

WednesdayFlag

Determines whether or not the ReportCaster job is scheduled for a Wednesday. If set to *true*, the job will run on a Wednesday.

StartTime

Is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

EndTime

Is designated as the last time a Schedule is set to run.

The end time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The end time should also be expressed in UTC (Coordinated Universal Time).

For example, December 31, 2013, 15:00:00 UTC converts to 1388502000000.

Duration

Is the duration of *SecondaryIntervalFlag*. If *SecondaryIntervalFlag* is set to *true*, the duration specified in minutes during which the time interval will be applied. *UntilTime* must be set to 18000000.

Interval

Is the time interval in minutes. If *SecondaryIntervalFlag* is set to *true*, the time interval is applied every *n* minutes.

SecondaryIntervalFlag

Are the time interval settings. If true, the time Interval settings are active. If set to *false*, the time Interval settings are inactive.

UntilTime

Is the end time of the time interval. If *SecondaryIntervalFlag* is set to *true*, the end time for which the time interval will be applied. Duration must set to -1.

The end time of the interval is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

It does not matter which date is used as only the time portion will be used in setting the end time for the time interval.

Typically, the date the Schedule is created or updated is used in setting *UntilTime*.

Three zeros are appended to the Unix Time to represent milliseconds.

The end time of the interval should also be expressed in UTC (Coordinated Universal Time).

For example, October 19, 2012, 20:38:00 UTC converts to 1350679080000. October 19, 2012 will be ignored when setting the end time of the interval.

Monthly

This is used to schedule jobs that run in intervals of months.

Body Format:

```

<timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo" size="1">
  <item dayOfWeek="DayOfWeek" dayOfWeekEnabled="DayOfWeekEnabled"
description=""
      enabled="true" frequency="Frequency" index="0"
lastDayOfMonth="LastDayOfMonth" name="" type="5" weekOfMonth="WeekOfMonth">
    <startTime _jt="calendar" time="StartTime"/>
    <endTime _jt="calendar" time="EndTime"/>
    <daysOfMonth _jt="array" size="31">
      <item _jt="boolval" index="0" value="false"/>
      <item _jt="boolval" index="1" value="false"/>
      <item _jt="boolval" index="2" value="false"/>
      <item _jt="boolval" index="3" value="false"/>
      <item _jt="boolval" index="4" value="false"/>
      <item _jt="boolval" index="5" value="false"/>
      <item _jt="boolval" index="6" value="false"/>
      <item _jt="boolval" index="7" value="false"/>
      <item _jt="boolval" index="8" value="false"/>
      <item _jt="boolval" index="9" value="false"/>
      <item _jt="boolval" index="10" value="false"/>
      <item _jt="boolval" index="11" value="false"/>
      <item _jt="boolval" index="12" value="false"/>
      <item _jt="boolval" index="13" value="false"/>
      <item _jt="boolval" index="14" value="false"/>
      <item _jt="boolval" index="15" value="false"/>
      <item _jt="boolval" index="16" value="false"/>

```

```

      <item _jt="boolval" index="17" value="false"/>
      <item _jt="boolval" index="18" value="false"/>
      <item _jt="boolval" index="19" value="false"/>
      <item _jt="boolval" index="20" value="false"/>
      <item _jt="boolval" index="21" value="false"/>
      <item _jt="boolval" index="22" value="false"/>
      <item _jt="boolval" index="23" value="false"/>
      <item _jt="boolval" index="24" value="false"/>
      <item _jt="boolval" index="25" value="false"/>
      <item _jt="boolval" index="26" value="false"/>
      <item _jt="boolval" index="27" value="false"/>
      <item _jt="boolval" index="28" value="false"/>
      <item _jt="boolval" index="29" value="false"/>
      <item _jt="boolval" index="30" value="false"/>
    </daysOfMonth>
    <secondaryRunInterval _jt="CasterScheduleTimeInterval"
duration="Duration" interval="Interval" isEnabled="SecondaryIntervalFlag">
      <untilTime _jt="calendar" time="UntilTime"/>
    </secondaryRunInterval>

```

```
</item>
</timeInfoList>
```

where:

DayOfWeek

Is the day of the week for the report to run. *DayOfWeekEnabled* must be set to *true*. The following list shows the valid values:

- **1.** Sunday
- **2.** Monday
- **3.** Tuesday
- **4.** Wednesday
- **5.** Thursday
- **6.** Friday
- **7.** Saturday

DayofWeekEnabled

Is the day of the week or day of the month to be set. If set to *true*, the *DayOfWeek* and *WeekOfMonth* must be set.

If set to *false*, the *DaysOfMonth* and/or *LastDayOfMonth* must be set.

Frequency

Is the frequency for a scheduled event in months. For example, if an email report distribution is set to run every 2 months, the frequency would be 2.

LastDayOfMonth

Is an indicator whether or not the last day of the month flag is set. When this flag is set to *true*, ReportCaster runs a Schedule on the last day of the month regardless of what day it is.

For example, a Schedule set to run on February 28th will next run on March 31st if this flag is set to *true*. Otherwise, ReportCaster will run the job on the corresponding day of the next month.

If this flag is set to *false* then it will run the report on March 28th. If the corresponding day of the next month does not exist, then ReportCaster will not run the report.

WeekOfMonth

Week of the month for the report to run. *DayOfWeekEnabled* must be set to *true*. The following list shows the valid values.

- **1.** First week
- **2.** Second week
- **3.** Third week
- **4.** Fourth week
- **5.** Last week

StartTime

Is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

EndTime

Is designated as the last time a Schedule is set to run.

The end time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The end time should also be expressed in UTC (Coordinated Universal Time).

For example, December 31, 2013, 15:00:00 UTC converts to 1388502000000.

daysOfmonth

Is a 31 element array indicating which days of the month have been selected for a report to run. All array members are initialized to *false*.

Each array member has an index attribute associated with it.

The index starts at 0 and increments by 1 for each successive day of the month. For example, index=0 equates to the first day of the month.

Those members of the array that are then set to *true* are the days of the month the Schedule will run. *DayOfWeekEnabled* must be set to *false*.

Duration

Is the duration of *SecondaryIntervalFlag*. If *SecondaryIntervalFlag* is set to *true*, the duration specified in minutes during which the time interval will be applied. *UntilTime* must be set to 18000000.

Interval

Is the time interval in minutes. If *SecondaryIntervalFlag* is set to *true*, the time interval is applied every *n* minutes.

SecondaryIntervalFlag

Are the time interval settings. If set to *true*, the time Interval settings are active. If set to *false*, the time Interval settings are inactive.

UntilTime

Is the end time of the time interval. If *SecondaryIntervalFlag* is set to *true*, the end time for which the time interval will be applied. Duration must be set to -1.

The end time of the interval is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

It does not matter which date is used as only the time portion will be used in setting the end time for the time interval.

Typically, the date the Schedule is created or updated is used in setting *UntilTime*.

Three zeros are appended to the Unix Time to represent milliseconds.

The end time of the interval should also be expressed in UTC (Coordinated Universal Time).

For example, October 19, 2012, 20:38:00 UTC converts to 1350679080000. October 19, 2012 will be ignored when setting the end time of the interval.

Yearly

This is used to schedule jobs that run in intervals of years.

Body Format:

```
<timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo" size="1">
  <item description="" enabled="true" frequency="Frequency" index="0"
name="">
    <startTime _jt="calendar" time="StartTime"/>
    <endTime _jt="calendar" time="EndTime"/>
    <secondaryRunInterval _jt="CasterScheduleTimeInterval"
duration="Duration" interval="Interval"
      isEnabled="SecondaryIntervalFlag">
      <untilTime _jt="calendar" time="UntilTime"/>
    </secondaryRunInterval>
  </item>
</timeInfoList>
```

where:

Frequency

Is the frequency for a scheduled event in years.

For example, if an email report distribution is set to run every year, the frequency would be 1.

StartTime

Is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

EndTime

Is designated as the last time a Schedule is set to run.

The end time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The end time should also be expressed in UTC (Coordinated Universal Time).

For example, December 31, 2013, 15:00:00 UTC converts to 1388502000000.

Duration

Is the duration of *SecondaryIntervalFlag*. If *SecondaryIntervalFlag* is set to *true*, the duration specified in minutes during which the time interval will be applied. *UntilTime* must be set to 18000000.

Interval

Is the time interval in minutes. If *SecondaryIntervalFlag* is set to *true*, the time interval is applied every *n* minutes.

SecondaryIntervalFlag

Are the time interval settings. If set to *true*, the time Interval settings are active. If set to *false*, the time Interval settings are inactive.

UntilTime

Is the end time of the time interval. If *SecondaryIntervalFlag* is set to *true*, the end time for which the time interval will be applied. Duration must be set to -1.

The end time of the interval is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

It does not matter which date is used as only the time portion will be used in setting the end time for the time interval.

Typically, the date the Schedule is created or updated is used in setting *UntilTime*.

Three zeros are appended to the Unix Time to represent milliseconds.

The end time of the interval should also be expressed in UTC (Coordinated Universal Time).

For example, October 19, 2012, 20:38:00 UTC converts to 1350679080000. October 19, 2012 will be ignored when setting the end time of the interval.

Custom

This is used to schedule jobs that run on specific dates.

Body Format:

```
<timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo" size="1">
  <item description="" enabled="true" index="0" name="" type="7">
    <startTime _jt="calendar" time="StartTime"/>
    <endTime _jt="calendar" time="EndTime"/>
    <dateList _jt="array" itemsClass="java.util.Calendar" size="numberOfItems">
      <item _jt="calendar" index="0" time="date1"/>
      <item _jt="calendar" index="1" time="date2"/>
    </dateList>
    <secondaryRunInterval _jt="CasterScheduleTimeInterval"
duration="Duration" interval="Interval"
      isEnabled="SecondaryIntervalFlag"><untilTime _jt="calendar"
time="UntilTime"/>
    </secondaryRunInterval>
  </item>
</timeInfoList>
```

where:

StartTime

Is designated as the first time a new Schedule is set to run.

Creating a new Schedule and altering any jobs that are to run in the future will create an entirely new start time.

The default start time is the current time.

The start time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The start time should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

EndTime

Is designated as the last time a Schedule is set to run.

The end time is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The end time should also be expressed in UTC (Coordinated Universal Time).

For example, December 31, 2013, 15:00:00 UTC converts to 1388502000000.

dateList

Is an item array indicating which days have been selected for a report to run.

Each item has an index attribute associated with it.

The index starts at 0 and increments by 1 for each date.

Each item has date associated with it. (for example, date1, date2).

The date is expressed in Unix Time (number seconds that has elapsed since January 1, 1970, 00:00:00).

Three zeros are appended to the Unix Time to represent milliseconds.

The date should also be expressed in UTC (Coordinated Universal Time).

For example, December 17, 2012, 15:00:00 UTC converts to 1355756400000.

numberOfItems

Is the number of dates that will be defined for the schedule to run.

Duration

Is the duration of *SecondaryIntervalFlag*. If *SecondaryIntervalFlag* is set to *true*, the duration specified in minutes during which the time interval will be applied. *UntilTime* must be set to 18000000.

Interval

Is the time interval in minutes. If *SecondaryIntervalFlag* is set to *true*, the time interval is applied every *n* minutes.

SecondaryIntervalFlag

Are the time interval settings. If set to *true*, the time Interval settings are active. If set to *false*, the time Interval settings are inactive.

UntilTime

Is the end time of the time interval. If *SecondaryIntervalFlag* is set to *true*, the end time for which the time interval will be applied. Duration must be set to -1.

The end time of the interval is expressed in Unix Time (number seconds that has elapsed since January 1 1970, 00:00:00).

It does not matter which date is used as only the time portion will be used in setting the end time for the time interval.

Typically, the date the Schedule is created or updated is used in setting *UntilTime*.

Three zeros are appended to the Unix Time to represent milliseconds.

The end time of the interval should also be expressed in UTC (Coordinated Universal Time).

For example, October 19, 2012, 20:38:00 UTC converts to 1350679080000. October 19, 2012 will be ignored when setting the end time of the interval.

Task

There are five task types to choose from when creating a ReportCaster Schedule:

- WebFOCUS Report
- WebFOCUS Server Procedure
- File
- FTP
- URL

WebFOCUS Report

WebFOCUS Report enables you to schedule the distribution of reports that reside specifically within the WebFOCUS Repository. You can associate an alert with the report which allows you to schedule actions that are contingent upon specific alert conditions

being triggered. If the report to be run is not an alert, the alert tag in the XML is not required.

Body Format:

```
<taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
  <item alertEnabled="AlertFlag" burst="BurstFlag"
    description="TaskDescription" domainHREF="" enabled="true"
    execId="ServerUserid"
    execPassword="ServerPassword"
    firstPostProcessingProcedure="FirstPostProcedure"
    firstPreProcessingProcedure="FirstPreProcedure" index="0"
    procedureDescription="" procedureName="ProcedureName"
    reportName="ReportName"

    secondPostProcessingProcedure="SecondPostProcedure"
    secondPreProcessingProcedure="SecondPreProcedure"
    sendFormat="SendFormat" serverName="ServerName">
    <parameterList _jt="array" itemsClass="CasterScheduleParameter"
    size="NumberOfParameters">
      <item _jt="CasterScheduleParameter" enabled="true" index="IndexValue"
        name="ParameterName"
        value="ParameterValue" />
    </parameterList>
    <alert resetInterval="ResetInterval" resetType="ResetType" />
  </item>
</taskList>
```

where:

AlertFlag

Is the value that determines whether or not an alert is enabled.

If set to *true*, the alert is enabled. If set to *false*, it is disabled.

BurstFlag

Is the value that specifies whether or not report bursting is enabled. Report bursting allows you to segment a report into sections based upon a primary sort field. The report segments are then distributed as separate reports by the Distribution Server. Access to these report segments is based upon burst values (specific values of the primary sort field) that are associated with email addresses in distribution lists or user IDs in Library Access Lists.

TaskDescription

Is the text used to describe the task. The maximum size for the description is 255 characters.

ServerUserid

Is the user name needed to establish a connection to the WebFOCUS Reporting Server. The user name is one of the credentials necessary for a user to access a WebFOCUS procedure that resides on the WebFOCUS Reporting Server during scheduling, as well as to run this procedure at the time the job is run.

This setting must have a value even if using an unsecured WebFOCUS Reporting Server.

ServerPassword

Is the password needed to establish a connection to the WebFOCUS Reporting Server. The password is one of the credentials necessary for a user to access a WebFOCUS procedure that resides on the WebFOCUS Reporting Server during scheduling, as well as run this procedure at the time the job is run. This setting must have a value even if using an unsecured WebFOCUS Reporting Server.

FirstPostProcedure

Is the name of the first of two possible post-processing procedures. Post-processing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously after the execution of their associated task. They are often used to reset computing or data environments.

FirstPreProcedure

Is the name of the first of two possible preprocessing procedures. Preprocessing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously prior the execution of their associated task. They are often used to set or test conditions before the running of reports.

ProcedureName

Is the full path to the WebFOCUS Report that is to be run. For example, IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/Sales_Report_by_Country.fex.

ReportName

The name of the file when sending the output as an attachment. The maximum size for report name is 64 characters.

SecondPostProcedure

Is the name of the second of two possible post-processing procedures. Post-processing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously after the execution of their associated task. They are often used to reset computing or data environments.

SecondPreProcedure

Is the name of the second of two possible preprocessing procedures. Preprocessing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously prior the execution of their associated task. They are often used to set or test conditions before the running of reports.

SendFormat

Is the report format that will be generated by the WebFOCUS Reporting Server. For example, PDF, HTML, AHTML, EXL07, DFIX DELIMITER, and COM.

ServerName

Is the name of the WebFOCUS Reporting Server used to run the WebFOCUS reports and procedures associated with this task.

NumberOfParameters

Is the number of parameters that are to be passed to the WebFOCUS Report.

IndexValue

Is a value that starts at 0 and increments by 1 for every parameter that is to be sent to the WebFOCUS Report.

ParameterName

Is the name of a parameter passed to the WebFOCUS report. The maximum length of the name field is 64 characters.

ParameterValue

Is the value of a parameter associated with the *ParameterName* passed to the WebFOCUS report. The maximum length of the value field is 255 characters.

ResetInterval

If *AlertFlag* is set to *true*, *ResetInterval* represents the time interval (delay) between when an alert Schedule is run upon being triggered and when it is reactivated. The actual time period is based on the *ResetType*.

For example, if the *ResetType* is HOUR, a specified reset interval of three would represent a three hour delay.

ResetType

The following list shows the valid values for *ResetType* if *AlertFlag* is set to *true*.

- **MINUTE**
- **HOUR**
- **DAY**
- **WEEK**
- **MONTH**
- **YEAR**
- **CONTINUE.** Reactivate the alert immediately.
- **AUTO.** Reactivate the alert when the condition is no longer true.
- **TERMINATE.** Deactivate the Schedule.

WebFOCUS Server Procedure

The WebFOCUS Server Procedure allows you to schedule the distribution of reports that reside specifically on a WebFOCUS Reporting Server. A WebFOCUS Server procedure is a WebFOCUS report (FOCEXEC) residing on a WebFOCUS Reporting Server that is accessible to the Distribution Server.

Body Format:

```
<taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
  <item _jt="CasterScheduleWFServerProcedure" burst="BurstFlag">
```

```

description="TaskDescription" enabled="true"
    execId="ServerUserid" execPassword="ServerPassword"
firstPostProcessingProcedure="FirstPostProcedure"
    firstPreProcessingProcedure="FirstPreProcedure" index="0"
procedureName="ProcedureName" reportName="ReportName"
    secondPostProcessingProcedure="SecondPostProcedure"
secondPreProcessingProcedure="SecondPreProcedure"
    sendFormat="SendFormat" serverName="ServerName">
    <parameterList _jt="array" itemsClass="CasterScheduleParameter"
size="NumberOfParameters">
    <item _jt="CasterScheduleParameter" enabled="true"

index="IndexValue" name="ParameterName" value="ParameterValue"/>
    </parameterList>
    </item>
</taskList>

```

where:

BurstFlag

Is the value that specifies whether or not report bursting is enabled. Report bursting allows you to segment a report into sections based upon a primary sort field. The report segments are then distributed as separate reports by the Distribution Server. Access to these report segments is based upon burst values (specific values of the primary sort field) that are associated with email addresses in distribution lists or user IDs in Library Access Lists.

TaskDescription

Is the text used to describe the task. The maximum size for the description is 255 characters.

ServerUserid

Is the user name needed to establish a connection to the WebFOCUS Reporting Server. The user name is one of the credentials necessary for a user to access a WebFOCUS procedure that resides on the WebFOCUS Reporting Server during scheduling, as well as to run this procedure at the time the job is run. This setting must have a value even if using an unsecured WebFOCUS Reporting Server.

ServerPassword

Is the password needed to establish a connection to the WebFOCUS Reporting Server. The password is one of the credentials necessary for a user to access a WebFOCUS procedure that resides on the WebFOCUS Reporting Server during scheduling, as well as run this procedure at the time the job is run.

FirstPostProcedure

Is the name of the first of two possible post-processing procedures. Post-processing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously after the execution of their associated task. They are often used to reset computing or data environments.

FirstPreProcedure

Is the name of the first of two possible preprocessing procedures. Preprocessing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously prior the execution of their associated task. They are often used to set or test conditions before the running of reports.

ProcedureName

Is the full path to the WebFOCUS Server Procedure Report that is to be run. For example, ibisamp/carinst.

ReportName

Is the name of the file when sending the output as an attachment. The maximum size for report name is 64 characters.

SecondPostProcedure

Is the name of the second of two possible post-processing procedures. Post-processing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously after the execution of their associated task. They are often used to reset computing or data environments.

SecondPreProcedure

Is the name of the second of two possible preprocessing procedures. Preprocessing procedures (available for WebFOCUS Server procedure and WebFOCUS Report) are non-reporting WebFOCUS procedures that run synchronously prior the execution of their associated task. They are often used to set or test conditions before the running of

reports.

SendFormat

Is the report format that will be generated by the WebFOCUS Reporting Server. For example, PDF, HTML, AHTML, EXL07, DFIX DELIMITER, and COM.

ServerName

Is the name of the WebFOCUS Reporting Server used to run the WebFOCUS procedures associated with this task.

NumberOfParameters

Is the number of parameters that are to be passed to the WebFOCUS Report.

IndexValue

Is a value that starts at 0 and increments by 1 for every parameter that is to be sent to the WebFOCUS Report.

ParameterName

Is the name of a parameter passed to the WebFOCUS report. The maximum length of the name field is 64 characters.

ParameterValue

Is the value of a parameter associated with the ParameterName passed to the WebFOCUS report. The maximum length of the value field is 255 characters.

File

This allows you to schedule the distribution of a file, represented by a fully qualified path, to which the ReportCaster Distribution Server has read access.

Body Format:

```
<taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
  <item deleteFileAfterRetrieval="DeleteFile" description="TaskDescription"
    enabled="true" index="0" procedureName="FileLocation"
    reportName="ReportName" />
</taskList>
```

where:

DeleteFile

Is used to either delete or not delete the file.

If set to *true*, the file is deleted, as identified by *ProcedureName*, after it is distributed.

If set to *false*, the file is not deleted, as identified by *ProcedureName*, after it is distributed.

TaskDescription

Is the text used to describe the task. The maximum size for the description is 255 characters.

FileLocation

Is the full path to the file being distributed. For example,
C:\Documentation\HTML\REST_Documentation_version_2.html.

ReportName

Is the name of the file when sending the output as an attachment.

FTP

FTP allows you to schedule the distribution of a file that resides on any FTP Server.

Body Format:

```
<taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
  <item deleteAfterRetrieval="DeleteFile" description="TaskDescription"
    enabled="true" index="0" password="FTPpass"
passwordAuthEnabled="passwordFlag" procedureName="FileLocation"
    publicKeyAuthEnabled="publicFlag" reportName="ReportName"
sendFormat="SendFormat"
    serverName="FTPserver" sftpEnabled="SFTPflag"  userName="FTPuser" />
</taskList>
```

where:

DeleteFile

Is used to either delete or not delete the file.

If set to *true*, the file is deleted, as identified by *ProcedureName*, after it is distributed.

If set to *false*, the file is not deleted, as identified by *ProcedureName*, after it is distributed.

TaskDescription

Is the text used to describe the task. The maximum size for the description is 255 characters.

FTPpass

Is the password needed to authenticate to the FTP server. The FTP password is part of the credentials necessary for the Distribution Server to access the FTP server.

passwordFlag

Is the password authentication.

If *SFTPflag* is set to *true*, and *passwordFlag* is set to *true*, then the password authentication is enabled.

If *SFTPflag* is set to *true*, and *passwordFlag* is set to *false*, then the password authentication is disabled.

FileLocation

Is the full path to the file being distributed. For example, outgoing\HTML\REST_Documentation_version_2.html.

publicFlag

Is the Public Key authentication.

If *SFTPflag* equals *true*, and *passwordFlag* is set to *true*, then the Public Key authentication is enabled.

If *SFTPflag* equals *true*, and *passwordFlag* is set to *false*, then the Public Key authentication is disabled.

ReportName

Is the name of the file when sending the output as an attachment.

SendFormat

Is the report format that will be generated by the WebFOCUS Reporting Server. For example, PDF, HTML, AHTML, EXL07, DFIX DELIMITER, and COM.

FTPserver

Is the name of the FTP server where the file being distributed exists.

SFTPflag

Is the secure SSH File Transfer Protocol (SFTP).

If set to *true*, the FTP server requires a secure SSH File Transfer Protocol (SFTP).

If set to *false*, the FTP server does not require a secure SSH File Transfer Protocol (SFTP).

FTPuser

The user name needed to authenticate to the FTP server. The FTP password is part of the credentials necessary for the Distribution Server to access the FTP server.

URL

This allows ReportCaster to connect to a specified URL at execution time, retrieve the pages returned by that URL and distributes them. This task can be used to call any type of URL, including programs that are executed by JSP and ASP pages, as well as reports generated by other reporting products.

Body Format:

```
<taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
  <item description="TaskDescription" enabled="true" index="0"
password="Password" reportName="ReportName" urlString="URLstring"
userName="Username"> <parameterList _jt="array"
itemsClass="CasterScheduleParameter" size="1">
  <item _jt="CasterScheduleParameter" enabled="true" index="IndexValue"
name="ParameterName" value="ParameterValue" />
  </parameterList>
</item>
</taskList>
```

where:

TaskDescription

Is the text used to describe the task. The maximum size for the description is 255 characters.

Password

Is the value of the password necessary for access to the web server of the URL. This password is submitted within the HTTP header.

ReportName

Is the name of the file when sending the output as an attachment.

URLstring

Is the URL of the webpage to be distributed.

Username

Is the value of the user name necessary for access to the web server of the URL. This user name is submitted within the HTTP header.

IndexValue

Is a value that starts at 0 and increments by 1 for every parameter that is to be sent to the webpage.

ParameterName

Is the name of a parameter passed to the webpage. The maximum length of the name field is 64 characters.

ParameterValue

Is the value of a parameter associated with the ParameterName passed to the webpage. The maximum length of the value field is 255 characters.

Closing Tag

The following closing tag must be used:

```
</casterObject></rootObject>
```

Example 1: Creating a Schedule

This example creates a Schedule called REST_Schedule that runs the Sales_Report_by_Country WebFOCUS report once on December 17th, 2012 at 15:00:00 UTC and distributes

the output to the Report Library. The report will run with the COUNTRY parameter set to ENGLAND and the DEALER_COST parameter set to 10000.

POST Request URL Format:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/REST_Schedule.sch
```

Body Format:

```
IBIRS_action=put&IBIRS_replace=false&IBIRS_object=
<rootObject _jt="IBFSCasterObject" description="Schedule Created through
REST" type="CasterSchedule">
  <casterObject _jt="CasterSchedule" active="true"
deleteJobAfterRun="false" description="Schedule Created through REST"
owner="admin" priority="3" traceType="0">
```

```
    <notification _jt="CasterScheduleNotification"
addressForBriefNotification="" addressForFullNotification=""
description="" from="" subject="" type="INACTIVE"/>
    <distributionList _jt="array"
itemsClass="CasterScheduleDistribution" size="1">
      <item accessListFullPath="" accessType="OWNER" category=""
compressionEnabled="false"
description="Report Library"
destinationPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports"
enabled="true" expirationData="1"
expirationMode="N" index="0" valueonly="false">
        <storageLibraryEmail authEnabled="false" authPassword=""
authUserId=""
libraryURL="http://localhost:8080/ibi_
apps/library/report.rc" mailFrom="" mailMessage="" mailReplyAddress=""
mailServerName="ibismtp.ibi.com"
mailSubject="" sendEmailAfterSaveReport="false"
sslEnabled="false" tlsEnabled="false"/>
      </item>
    </distributionList>
    <timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo"
size="1">
      <item description="" enabled="true" index="0" name="">
        <startTime _jt="calendar" time="1355756400000"/>
      </item>
    </timeInfoList>
    <taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
```

```

        <item alertEnabled="false" burst="true" description="Task 1"
domainHref="" enabled="true"
        execId="guest" execPassword="guest"
firstPostProcessingProcedure="" firstPreProcessingProcedure="" index="0"
procedureDescription=""
procedureName="IBFS:/WFC/Repository/RESTful_Web_Services/Car_
Reports/Sales_Report_by_Country.fex" reportName="car_sales.htm"
        secondPostProcessingProcedure=""
secondPreProcessingProcedure="" sendFormat="HTML" serverName="EDASERVE">
        <parameterList _jt="array" itemsClass="CasterScheduleParameter"
size="2">

```

```

        <item _jt="CasterScheduleParameter" enabled="true" index="0"
name="COUNTRY" value="ENGLAND"/>
        <item _jt="CasterScheduleParameter" enabled="true" index="1"
name="DEALER_COST" value="10000"/>
        </parameterList>
    </item>
</taskList>
</casterObject>
</rootObject>

```

Response:

```

<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="put"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
    subsystem="SSYS" type="simple">
    <ibfsparams size="5">
        <entry key="IBIRS_replace" value="false"/>
        <entry key="IBIRS_private" value="__null"/>
        <entry key="IBIRS_object" value="&lt;rootObject _
jt=&quot;IBFSCasterObject&quot;
        description=&quot;Schedule Created through REST&quot;
type=&quot;CasterSchedule&quot;&gt;
            &lt;casterObject _jt=&quot;CasterSchedule&quot;
active=&quot;true&quot; deleteJobAfterRun=&quot;false&quot;
            description=&quot;Schedule Created through REST&quot;
owner=&quot;admin&quot; priority=&quot;3&quot;
            traceType=&quot;0&quot;&gt; &lt;notification _
jt=&quot;CasterScheduleNotification&quot;
addressForBriefNotification=&quot;&quot;
            addressForFullNotification=&quot;&quot;
description=&quot;&quot; from=&quot;&quot; subject=&quot;&quot;
            type=&quot;INACTIVE&quot;/&gt; &lt;distributionList _

```

```

jt=&quot;array&quot; itemsClass=&quot;CasterScheduleDistribution&quot;
    size=&quot;1&quot;&gt;&lt;item
accessListFullPath=&quot;&quot; accessType=&quot;OWNER&quot;
category=&quot;&quot;
    class=&quot;ibi.broker.api.data.schedule.StorageLibrary&quot;
compressionEnabled=&quot;false&quot;
    description=&quot;Report
Library&quot;destinationPath=&quot;IBFS:/WFC/Repository/RESTful_Web_
Services/
    Car_Reports&quot;
    enabled=&quot;true&quot; expirationData=&quot;1&quot;
expirationMode=&quot;N&quot; index=&quot;0&quot;
    valueonly=&quot;false&quot;&gt;&lt;storageLibraryEmail
authEnabled=&quot;false&quot; authPassword=&quot;&quot;
    authUserId=&quot;&quot;
class=&quot;ibi.broker.api.data.schedule.StorageLibraryEmail&quot;
libraryURL=&quot;http://localhost:8080/ibi_apps/library/report.rc&quot;
mailFrom=&quot;&quot; mailMessage=&quot;&quot;
    mailReplyAddress=&quot;&quot;
mailServerName=&quot;ibismtp.ibi.com&quot; mailSubject=&quot;&quot;
    sendEmailAfterSaveReport=&quot;false&quot;
sslEnabled=&quot;false&quot;
tlsEnabled=&quot;false&quot;/&gt;&lt;/item&gt;&lt;/distributionList&gt;
&lt;timeInfoList _jt=&quot;array&quot;
    itemsClass=&quot;CasterScheduleTimeInfo&quot;
size=&quot;1&quot;&gt;&lt;item
class=&quot;ibi.broker.api.data.schedule.TimeInfoOnce&quot;
    description=&quot;&quot; enabled=&quot;true&quot;
index=&quot;0&quot; name=&quot;&quot;&gt;&lt;startTime _
jt=&quot;calendar&quot;

```

```

time=&quot;1355756400000&quot;/&gt;&lt;/item&gt;&lt;/timeInfoList&gt;
&lt;taskList _jt=&quot;array&quot;
    itemsClass=&quot;CasterScheduleTask&quot;
size=&quot;1&quot;&gt;&lt;item alertEnabled=&quot;false&quot;
burst=&quot;true&quot;

class=&quot;ibi.broker.api.data.schedule.TaskStandardReport&quot;
description=&quot;Task 1&quot; domainHREF=&quot;&quot;
    enabled=&quot;true&quot; execId=&quot;guest&quot;
    execPassword=&quot;guest&quot;
firstPostProcessingProcedure=&quot;&quot;
firstPreProcessingProcedure=&quot;&quot;
    index=&quot;0&quot; procedureDescription=&quot;&quot;
    procedureName=&quot;IBFS:/WFC/Repository/RESTful_Web_
Services/

```

```

Car_Reports/Sales_Report_by_Country.fex&quot;
    reportName=&quot;car_sales.htm&quot;
secondPostProcessingProcedure=&quot;&quot;
secondPreProcessingProcedure=&quot;&quot;
    sendFormat=&quot;HTML&quot;
serverName=&quot;EDASERVE&quot;&gt;&lt;parameterList _
jt=&quot;array&quot;
    itemsClass=&quot;CasterScheduleParameter&quot;
size=&quot;2&quot;&gt;&lt;item _jt=&quot;CasterScheduleParameter&quot;
    enabled=&quot;true&quot; index=&quot;0&quot;
name=&quot;COUNTRY&quot;
    value=&quot;ENGLAND&quot;/&gt;&lt;item _
jt=&quot;CasterScheduleParameter&quot; enabled=&quot;true&quot;
index=&quot;1&quot;
    name=&quot;DEALER_COST&quot;
value=&quot;10000&quot;/&gt;&lt;/parameterList&gt;&lt;/item&gt;&lt;/task
List&gt;
    &lt;/casterObject&gt;&lt;/rootObject&gt;  "/>
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/Car_
Reports/REST_Schedule.sch"/>
</ibfparams>
<rootObject _jt="IBFSCasterObject" defaultLng="en_US"
description="Schedule Created through REST" dummy="false"
extension="sch"
    externalId="Sebc72ee3sd148s41ees8a8fs9c92340b99bb"
fullPath="/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_
Schedule.sch"
    handle="9f013bcaI357fI4c69Ib7ceI1e96775f72cb" length="0"
name="REST_Schedule.sch" policy="////D///9+f/////f/////////8AAAA="
    rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services
/Car_Reports/REST_Schedule.sch" type="CasterSchedule">
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
        <entry>
            <key _jt="string" value="en_US"/>
            <value _jt="ArrayList" size="1">
                <item _jt="string" index="0" value="Schedule Created through
REST"/>
            </value>
        </entry>
    </nlsValues>
    <properties size="2">
        <entry key="id" value="Sebc72ee3sd148s41ees8a8fs9c92340b99bb"/>
        <entry key="tool" value="schedule"/>

```

```

    </properties>
    <casterObject _jt="CasterSchedule" active="false"
compressedReport="false" deleteJobAfterRun="false"
    description="Schedule Created through REST"
destinationAddress="OWNER" ibfsId="9f013bcaI357fI4c69Ib7ceI1e96775f72cb"
    ibfsPath="" id="Sebc72ee3sd148s41ees8a8fs9c92340b99bb" name=""
nextRunTime="disabled" notification="INACTIVE"
    owner="admin"
policy="open,delete,rename,|,run,|,security;makeRules;viewRules"
priority="3" recurrence="0"
    scheduleId="Sebc72ee3sd148s41ees8a8fs9c92340b99bb"
scheduleTitle="Schedule Created through REST" sendMethod="LIBRARY"
    statusLastExecuted="" summary="" taskType="1"
traceType="0"><notification _jt="CasterScheduleNotification"
    addressForBriefNotification="" addressForFullNotification=""
description="" from="" subject="" type="INACTIVE"/>
    <distributionList _jt="array" itemsClass="CasterScheduleDistribution"
size="1">
    <item accessList="" accessListFullPath="" accessType="OWNER"
category=""
        compressionEnabled="false" counter="0" description="Report
Library" destinationIbfsId="c60b1f9a_05ef_4e72_a737_e869917607db"
        destinationPath="IBFS:/WFC/Repository/RESTful_Web_Services
/Car_Reports" enabled="true" expirationData="1" expirationMode="N"
        id="De465359cddf8fd41d2da9f3d1fd0080f2220" index="0"
type="LIBRARY" valueonly="false">
        <storageLibraryEmail authEnabled="false" authPassword=""
authUserId=""
            libraryURL="http://localhost:8080/ibi_
apps/library/report.rc" mailFrom="" mailMessage="" mailReplyAddress=""
            mailServerName="ibismtp.ibi.com" mailSubject=""
sendEmailAfterSaveReport="false" sslEnabled="false" tlsEnabled="false"/>
        </item>
    </distributionList>
    <timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo"
size="1">
    <item description="" enabled="true"
id="Iace3d448i9197i4611i927di2969f6607559"
        index="0" name="" type="0">
        <nextRunTime _jt="calendar" time="1355756400000"/>

```

```

    <startTime _jt="calendar" time="1355756400000"/>
    </item>
</timeInfoList>
<taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
    <item alertEnabled="false" burst="true" description="Task 1"

```

```

domainHref=""
        enabled="true" execId="guest" execPassword="guest"
firstPostProcessingProcedure="" firstPreProcessingProcedure=""
        folderHref="" id="T65819f8at8fe1t4db5t9c10t07c10277175b"
index="0" procedureDescription=""
        procedureId="64e971c8_fd80_4d07_99a7_a2356743010b"
procedureName="IBFS:/WFC/Repository/RESTful_Web_Services/Car_
Reports/Sales_Report_by_Country.fex" reportName=
        "car_sales.htm"
        secondPostProcessingProcedure=""
secondPreProcessingProcedure="" sendFormat="HTML" serverName="EDASERVE"
type="1">
        <parameterList _jt="array"
itemsClass="CasterScheduleParameter" size="2">
        <item _jt="CasterScheduleParameter" enabled="true" index="0"
name="COUNTRY" type="0" value="ENGLAND"/>
        <item _jt="CasterScheduleParameter" enabled="true" index="1"
name="DEALER_COST" type="0" value="10000"/>
        </parameterList>
        </item>
        </taskList>
        <lastTimeExecuted _jt="calendar" time="18000000"/>
        </casterObject>
        </rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the Schedule was successfully added.

Example 2: Updating a Schedule

This example updates a Schedule called REST_Schedule that runs the Sales_Report_by_Country WebFOCUS report once on December 17th, 2012 at 15:00:00 UTC and distributes the output to the Report Library. The report will run with the COUNTRY parameter set to ENGLAND and the DEALER_COST parameter set to 10000.

The following REST URL retrieves an existing Schedule:

```

http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/Car_Reports/
REST_Schedule.sch?IBIRS_action=get

```

POST Request URL Format:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/
RESTful_Web_Services/Car_Reports/REST_Schedule.sch
```

Body Format:

```
IBIRS_action=put&IBIRS_replace=true&IBIRS_object=
  <rootObject _jt="IBFSCasterObject" binary="false"
createdOn="1350492747568" defaultLng="en_US" description="Schedule
Created through REST"
  dummy="false" effectiveRSName="EDASERVE" extension="sch"
externalId="Sebc72ee3sd148s41ees8a8fs9c92340b99bb"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_
Schedule.sch" handle="9f013bcaI357fI4c69Ib7ceI1e96775f72cb"
  lastModified="1350492747568" lastaccessBy="admin"
lastaccessOn="1350492822549" length="0" name="REST_Schedule.sch"
ownerId="10001"
  ownerName="admin" ownerType="U"
policy="//3/D///9+f7////f/////////8AAAA=" returnedLng="en_US"
  rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/
Car_Reports/REST_Schedule.sch" signedOn="true" type="CasterSchedule">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Schedule Created through
REST"/>
      </value>
    </entry>
  </nlsValues>
  <properties size="2"><
    <entry key="id" value="Sebc72ee3sd148s41ees8a8fs9c92340b99bb"/>
    <entry key="tool" value="schedule"/>
  </properties>
  <casterObject _jt="CasterSchedule" active="false"
compressedReport="false" deleteJobAfterRun="false"
  description="Schedule Created through REST"
destinationAddress="OWNER" ibfsId="9f013bcaI357fI4c69Ib7ceI1e96775f72cb"
  ibfsPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_
Reports" id="Sebc72ee3sd148s41ees8a8fs9c92340b99bb"
  name="REST_Schedule.sch" nextRunTime="disabled"
notification="INACTIVE" owner="admin"
policy="open,delete,rename,|,run,|,security;makeRules;viewRules"
priority="3" recurrence="0"
  scheduleId="Sebc72ee3sd148s41ees8a8fs9c92340b99bb"
scheduleTitle="Schedule Created through REST" sendMethod="LIBRARY"
  statusLastExecuted="" taskType="1" traceType="0">
  <notification _jt="CasterScheduleNotification"
```

```

addressForBriefNotification="" addressForFullNotification=""
description=""
    from="" id="" subject="" type="INACTIVE"/>
    <distributionList _jt="array"
itemsClass="CasterScheduleDistribution" size="1">

        <item accessList="" accessListFullPath="" accessType="OWNER"
category=""
            compressionEnabled="false" counter="0" description="Report
Library" destinationIbfsId="c60b1f9a_05ef_4e72_a737_e869917607db"
destinationPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports"
enabled="true" expirationData="1" expirationMode="N"
            id="De465359cddf8fd41d2da9f3d1fd0080f2220" index="0"
type="LIBRARY" valueonly="false">
                <storageLibraryEmail authEnabled="false" authPassword=""
authUserId=""
                    libraryURL="http://localhost:8080/ibi_
apps/library/report.rc" mailFrom="" mailMessage="" mailReplyAddress=""
                    mailServerName="ibismtp.ibi.com" mailSubject=""
sendEmailAfterSaveReport="false" sslEnabled="false" tlsEnabled="false"/>
            </item>
        </distributionList>
        <timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo"
size="1">
            <item description="" enabled="true"
id="Iace3d448i9197i4611i927di2969f6607559"
                index="0" name="" type="0">
                    <nextRunTime _jt="calendar" time="1355756400000"/>
                    <startTime _jt="calendar" time="1355756400000"/>
                </item>
            </timeInfoList>
            <taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
                <item alertEnabled="false" burst="true" description="Task 1"
domainHref=""
                    enabled="true" execId="guest" execPassword=""
firstPostProcessingProcedure="" firstPreProcessingProcedure=""
folderHref=""
                    id="T65819f8at8fe1t4db5t9c10t07c10277175b" index="0"
procedureDescription="" procedureId="64e971c8_fd80_4d07_99a7_
a2356743010b"
                    procedureName="IBFS:/WFC/Repository/RESTful_Web_Services/
Car_Reports/Sales_Report_by_Country.fex" reportName="car_sales.htm"
                    secondPostProcessingProcedure=""
secondPreProcessingProcedure="" sendFormat="HTML" serverName="EDASERVE"
type="1">
                    <parameterList _jt="array"

```



```

itemsClass="CasterScheduleParameter" size="2">
    <item _jt="CasterScheduleParameter" enabled="true" index="0"
name="COUNTRY" type="0" value="ENGLAND"/>
    <item _jt="CasterScheduleParameter" enabled="true" index="1"
name="DEALER_COST" type="0" value="10000"/>
    </parameterList>
</item>
</taskList>
<lastTimeExecuted _jt="calendar" time="18000000"/>
</casterObject>
</rootObject>

```

Response:

If the value for the *returncode* attribute in the XML response is 10000, then the Schedule was successfully added.

Running a Schedule

This RESTful web service request can be used to run an existing ReportCaster Schedule.

HTTP Method: POST

REST URL Format:

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ScheduleName
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored ReportCaster Schedule. If the folder used for the stored ReportCaster Schedule exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ScheduleName

Is the name of the ReportCaster Schedule to run, which also must have a .sch extension.

Body Format:

```
IBIRS_action=run
```

Example:

The following example demonstrates how to run a ReportCaster Schedule called REST_Schedule.

POST Request URL:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_Schedule.sch
```

Body:

```
IBIRS_action=run
```

Response:

A job number is returned in HTML format. For example:

```
J453ce7a4je11bj48ffj832ej9053e5377495
```

Retrieving a Schedule

This RESTful web service request can be used to retrieve an existing ReportCaster Schedule.

HTTP Method: GET**REST URL Format:**

```
http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ScheduleNameIBIRS_action=get
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored ReportCaster Schedule. If the folder used for the stored ReportCaster Schedule exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ScheduleName

Is the name of the ReportCaster Schedule to retrieve, which also must have a .sch extension.

Example:

In the following example, a schedule called REST_Schedule.sch is retrieved from the Car_Reports folder, which is within the RESTful_Web_Services folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/
Car_Reports/REST_Schedule.sch?IBIRS_action=get
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="get"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/Car_
Reports/REST_Schedule.sch"/>
  </ibfsparams>
  <rootObject _jt="IBFSCasterObject" binary="false"
createdOn="1356718595487" defaultLng="en_US" description="Schedule
Created through REST"
    dummy="false" effectiveRSName="EDASERVE" extension="sch"
externalId="S1995b2ecsa8f6s4096sa62es1867fa2d7a85"
```

```

fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_
Schedule.sch" handle="7c2fd2a3I2dbcI400dIb666I3512e8d8b89f"
    lastModified="1356718595487" lastaccessBy="admin"
lastaccessOn="1356719962891" length="0" name="REST_Schedule.sch"
ownerId="10001"
    ownerName="admin" ownerType="U"
policy="//3/D///9+P9///v/////////+AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_
Reports/REST_Schedule.sch" type="CasterSchedule">
    <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
        <entry>
            <key _jt="string" value="en_US"/>
            <value _jt="ArrayList" size="2">
                <item _jt="string" index="0" value="Schedule Created through
REST"/>
            </value>
        </entry>
    </nlsValues>
    <properties size="2">
        <entry key="id" value="S1995b2ecsa8f6s4096sa62es1867fa2d7a85"/>
        <entry key="tool" value="schedule"/>
    </properties>
    <casterObject _jt="CasterSchedule" active="false"
compressedReport="false" deleteJobAfterRun="false"
        description="Schedule Created through REST"
destinationAddress="OWNER" ibfsId="7c2fd2a3I2dbcI400dIb666I3512e8d8b89f"
        ibfsPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_
Reports" id="S1995b2ecsa8f6s4096sa62es1867fa2d7a85"
        name="REST_Schedule.sch" nextRunTime="disabled"
notification="INACTIVE" owner="admin"

policy="open,delete,rename,|,run,|,security;makeRules;viewRules"
priority="3" recurrence="0"
    scheduleId="S1995b2ecsa8f6s4096sa62es1867fa2d7a85"
scheduleTitle="Schedule Created through REST" sendMethod="LIBRARY"
    statusLastExecuted="" taskType="1" traceType="0">
    <notification _jt="CasterScheduleNotification"

```

```

addressForBriefNotification="" addressForFullNotification=""
description=""
    from="" id="" subject="" type="INACTIVE"/>
    <distributionList _jt="array" itemsClass="CasterScheduleDistribution"
size="1">
        <item accessList="" accessListFullPath="" accessType="OWNER"
category=""
            compressionEnabled="false" counter="0" description="Report

```

```

Library"
    destinationIbfsId="c60b1f9a_05ef_4e72_a737_e869917607db"
    destinationPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports"
    disabled="false" expirationData="1" expirationMode="N"
    id="D58215579d4885d4b5eda023d9f44d1b4da01" index="0" type="LIBRARY"
    valueonly="false">
    <storageLibraryEmail authEnabled="false" authPassword=""
    authUserId=""
        libraryURL="http://localhost:8080/ibi_
    apps/library/report.rc" mailFrom="" mailMessage="" mailReplyAddress=""
        mailServerName="ibismtp.ibi.com" mailSubject=""
    sendEmailAfterSaveReport="false" sslEnabled="false" tlsEnabled="false"/>
    </item>
</distributionList>
<timeInfoList _jt="array" itemsClass="CasterScheduleTimeInfo"
size="1">
    <item description="" disabled="false"
    id="Ifc777178i1ab0i42faibd06i81df82c234e7"
        index="0" name="" type="0">
        <nextRunTime _jt="calendar" time="1355756400000"
    timeZone="America/New_York"/>
        <startTime _jt="calendar" time="1355756400000" timeZone="America/New_
    York"/>
    </item>
</timeInfoList>
<taskList _jt="array" itemsClass="CasterScheduleTask" size="1">
    <item alertEnabled="false" burst="true" description="Task 1"
    disabled="false"
        domainHREF="" execId="guest" execPassword=""
    firstPostProcessingProcedure="" firstPreProcessingProcedure=""
    folderHREF=""
        id="Tcdde20bdt3305t436ata200tecd3367ad16f" index="0"
    procedureDescription=""
        procedureId="64e971c8_fd80_4d07_99a7_a2356743010b"
        procedureName="IBFS:/WFC/Repository/RESTful_Web_Services/
    Car_Reports/Sales_Report_by_Country.fex" reportName="car_sales.htm"
        secondPostProcessingProcedure=""
    secondPreProcessingProcedure="" sendFormat="HTML" serverName="EDASERVE"
    type="1">
        <parameterList _jt="array"
    itemsClass="CasterScheduleParameter" size="2">
            <item _jt="CasterScheduleParameter" index="0" name="COUNTRY"
    type="0" useDefaultValue="false" value="ENGLAND"/>

            <item _jt="CasterScheduleParameter" index="1" name="DEALER_
    COST" type="0" useDefaultValue="false" value="10000"/>

```

```

        </parameterList>
      </item>
    </taskList>
    <lastTimeExecuted _jt="calendar" time="18000000"
timeZone="America/New_York"/>
  </casterObject>
</rootObject>
</ibfsrpc>

```

Deleting a Schedule

This RESTful web service request can be used to delete an existing ReportCaster Schedule.

HTTP Method: POST

REST URL Format:

```

http://host:port/ibi_apps/rs/ibfs/WFC/Repository/FolderName/ScheduleName?IBIRS_
action=delete

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored ReportCaster Schedule. If the folder used for the stored ReportCaster Schedule exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

ScheduleName

Is the name of the ReportCaster Schedule to delete, which also must have a .sch extension.

Example:

In the following example, the ReportCaster Schedule named REST_schedule.sch is deleted from the Car_Reports folder, which is within the RESTful_Web_Services folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_schedule.sch?IBIRS_action=delete
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="delete"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_schedule.sch"/>
  </ibfsparams>
  <rootObject _jt="IBFSCasterObject" binary="false"
createdOn="1355156594727" defaultLng="en_US" description="Schedule Created through REST"
dummy="false" extension="sch"
externalId="Sdc748ba8s5ff1s4390sb3c1s3777d7686d9f"
fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_Schedule.sch"
handle="4b4c8010Ib22cI4609I9c41Ie7102db522b1"
lastModified="1356617719033" lastaccessBy="admin"
lastaccessOn="1356623237446" length="0" name="REST_Schedule.sch"
ownerId="10001"
ownerName="admin" ownerType="U"
policy="//3/D///9+P9///v/////////+AAAA=" returnedLng="en_US"
rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/Car_Reports/REST_Schedule.sch" type="CasterSchedule">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="Schedule Created through REST"/>
      </value>
    </entry>
  </nlsValues>
  <properties size="2">
    <entry key="id" value="Sdc748ba8s5ff1s4390sb3c1s3777d7686d9f"/>
    <entry key="tool" value="schedule"/>
  </properties>
</rootObject>
</ibfsrpc>
```

```

    </properties>
  </rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the ReportCaster Schedule was deleted successfully.

Deleting an Address Book

This RESTful web service request can be used to delete an existing ReportCaster Address Book.

HTTP Method: POST

REST URL Format:

```

http://host:port/ibi_
apps/rs/ibfs/WFC/Repository/FolderName/AddressBookName?IBIRS_action=delete

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

FolderName

Is the name of the folder used for the stored ReportCaster Address Book. If the folder used for the stored ReportCaster Address Book exists as a subfolder, then the path to the subfolder name must be included in the REST URL. For example, TopFolderName/SubFolderName.

AddressBookName

Is the name of the ReportCaster Address Book to delete, which also must have a .adr extension.

Example:

In the following example, the ReportCaster Address Book named REST_Distribution_List.adr is deleted from the Car_Reports folder, which is within the RESTful_Web_Services folder.

Request:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/
Car_Reports/REST_Distribution_List.adr?IBIRS_action=delete
```

Response:

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<ibfsrpc _jt="IBFSResponseObject" language="EN" name="delete"
returncode="10000" returndesc="SUCCESS" subreturncode="0"
subsystem="SSYS" type="simple">
  <ibfsparams size="2">
    <entry key="IBIRS_args" value="__null"/>
    <entry key="IBIRS_" value="/WFC/Repository/RESTful_Web_Services/
Car_Reports/REST_Distribution_List.adr"/>
  </ibfsparams>
  <rootObject _jt="IBFSCasterObject" binary="false"
createdOn="1350862349237" defaultLng="en_US" description="REST
Distribution List"
  dummy="false" extension="adr"
externalId="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"
  fullPath="IBFS:/WFC/Repository/RESTful_Web_Services/
Car_Reports/REST_Distribution_List.adr"
handle="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"

  lastModified="1350862989380" lastaccessBy="admin"
lastaccessOn="1356623807376" length="0" name="REST_Distribution_
List.adr" ownerId="10001"
  ownerName="admin" ownerType="U"
policy="//3/D///9+P/////v/////////+AAAA=" returnedLng="en_US"
  rsPath="/ibi_apps/rs/ibfs/WFC/Repository/RESTful_Web_Services/
Car_Reports/REST_Distribution_List.adr" type="CasterDistributionList">
  <nlsValues _jt="HashMap" loadFactor="0.75" threshold="12">
    <entry>
      <key _jt="string" value="en_US"/>
      <value _jt="ArrayList" size="2">
        <item _jt="string" index="0" value="REST Distribution List"/>
      </value>
    </entry>
  </nlsValues>
```

```

    <properties size="3">
      <entry key="id" value="1a7ddf0eIff6aI4886Ibde9I77c691d280a0"/>
      <entry key="tool" value="addressbook"/>
      <entry key="method" value="EMAIL"/>
    </properties>
  </rootObject>
</ibfsrpc>

```

If the value for the *returncode* attribute in the XML response is 10000, then the ReportCaster Address Book was deleted successfully.

Log Functionality

This section describes the format and structure of RESTful web service requests that are used for a variety of ReportCaster logging functionality.

Deleting a Specific Log

This RESTful web service request can be used to delete a ReportCaster log for a specific job.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_
apps/services/LogServiceREST/deleteLogByJobId?jobId=jobId

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

jobId

Is a unique identifier for the ReportCaster job.

Example:

In the following example, the ReportCaster log for job ID J34558adaj1b4dj4e6cjaddcj3745b2688f2c is deleted.

Request:

```
http://localhost:8080/ibi_apps/services/LogServiceREST/deleteLogByJobId?
jobId=J34558adaj1b4dj4e6cjaddcj3745b2688f2c
```

Response:

```
<ns:deleteLogByJobIdResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:nil="true"/>
</ns:deleteLogByJobIdResponse>
```

Deleting Logs for a Specific Time Period

This RESTful web service request can be used to delete ReportCaster logs for all schedules that were run between a specific time interval.

If there is no value for the start time of the time interval, then all log records before the end time of the time interval are deleted.

If there is no value for the end time of the time interval, then all log records after the start time of the time interval are deleted.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_
apps/services/LogServiceREST/deleteLogList?startTime=startTime&
endTime=endTime
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

startTime

Is the start time for when the logs are to be deleted. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

endTime

Is the end time for when the logs are to be deleted. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

Example:

In the following example, all ReportCaster logs between 2014-02-20 11:00:00 and 2014-02-20 13:00:00 are to be deleted.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/deleteLogList?startTime=2014/02/20%2011:00:
00&
endTime=2014/02/20%2013:00:00
```

Response:

```
<ns:deleteLogListResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return>2</ns:return>
</ns:deleteLogListResponse>
```

The value within the <return> element indicates the number of ReportCaster logs that were deleted.

Deleting Logs for an Owner

This RESTful web service request can be used to delete ReportCaster logs for all schedules that were run between a specific time interval for a specific log owner.

If there is no value for the start time of the time interval, then all log records before the end time of the time interval are deleted.

If there is no value for the end time of the time interval, then all log records after the start time of the time interval are deleted.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/services/LogServiceREST/deleteLogListByOwner?owner=owner&startTime=startTime&endTime=endTime
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

owner

Is the owner of the ReportCaster log.

startTime

Is the start time for when the logs are to be deleted. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

endTime

Is the end time for when the logs are to be deleted. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

Example:

In the following example, all ReportCaster logs between 2014-02-21 09:00:00 and 2014-02-21 10:00:00 for the log owner named *admin* are to be deleted.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/deleteLogListByOwner?owner=admin&
startTime=2014/02/21%2009:00:00&endTime=2014/02/21%2010:00:00
```

Response:

```
<ns:deleteLogListByOwnerResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return>2</ns:return>
</ns:deleteLogListByOwnerResponse>
```

The value within the <return> element indicates the number of ReportCaster logs that were deleted.

Deleting Logs for a Schedule ID

This RESTful web service request can be used to delete all ReportCaster logs a specific schedule identified by a schedule ID.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_
apps/services/LogServiceREST/deleteLogListByScheduleId?
scheduleId=scheduleId
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

scheduleId

Is the schedule ID for the ReportCaster schedule.

Example:

In the following example, all ReportCaster logs for schedule ID S23f65030s728as482asa632s879fd9f6a727 are to be deleted.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/deleteLogListByScheduleId?
scheduleId=S23f65030s728as482asa632s879fd9f6a727
```

Response:

```
<ns:deleteLogListByScheduleIdResponse
xmlns:ns="http://ws.api.broker.ibi">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:nil="true"/>
</ns:deleteLogListByScheduleIdResponse>
```

Deleting Logs for a Schedule ID Within a Time Period

This RESTful web service request can be used to delete all ReportCaster logs that were run between a specific time interval for a specific schedule identified by the schedule ID.

If there is no value for the start time of the time interval, then all log records before the end time of the time interval are deleted.

If there is no value for the end time of the time interval, then all log records after the start time of the time interval are deleted.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_
apps/services/LogServiceREST/deleteLogListByScheduleIdByCalendar?schedul
eId=scheduleId&
startTime=startTime&endTime=endTime
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

scheduleId

Is the schedule ID for the ReportCaster schedule.

startTime

Is the start time for when the logs are to be deleted. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

endTime

Is the end time for when the logs are to be deleted. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

Example:

In the following example, all ReportCaster logs between 2014-02-21 12:00:00 and 2014-02-21 13:00:00 for schedule ID Sca76e628s892as43a4sbddcs10875ff7f188 are to be deleted.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/deleteLogListByScheduleIdByCalendar?
scheduleId=Sca76e628s892as43a4sbddcs10875ff7f188&
startTime=2014/02/21%2012:00:00&endTime=2014/02/21%2013:00:00
```

Response:

```
<ns:deleteLogListByScheduleIdByCalendarResponse
xmlns:ns="http://ws.api.broker.ibi">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:nil="true"/>
</ns:deleteLogListByScheduleIdByCalendarResponse>
```

Retrieving Last Log for a Schedule ID

This RESTful web service request can be used to retrieve the last ReportCaster log for a specific schedule identified by the schedule ID.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_
apps/services/LogServiceREST/getLastLogByScheduleId?scheduleId=scheduleId
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

scheduleId

Is the schedule ID for the ReportCaster schedule.

Example:

In the following example, the last ReportCaster log for schedule ID Sca76e628s892as43a4sbddcs10875ff7f188 is to be retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/getLastLogByScheduleId?
scheduleId=Sca76e628s892as43a4sbddcs10875ff7f188
```

Response:

```
<ns:getLastLogByScheduleIdResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return xmlns:ax264="http://io.java/xsd"
xmlns:ax263="http://rmi.java/xsd"
xmlns:ax267="http://dslog.data.api.broker.ibi/xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:ax261="http://schedule.data.api.broker.ibi/xsd"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-24T09:00:25.861-05:00</ax267:endTime>
    <ax267:errorType>0</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J4ce5d61ejf6b2j441dja02ej084628360372</ax267:id>
```

```

    <ax267:jobId>J4ce5d61ejf6b2j441dja02ej084628360372</ax267:jobId>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
      <ax267:error>false</ax267:error>
      <ax267:execId xsi:nil="true"/>
      <ax267:message>Schedule Executed On Demand at IBI-Laptop:8201 (
Laptop/172.44.18.74)</ax267:message>
      <ax267:messageCode>BTP1010</ax267:messageCode>
      <ax267:taskDescription xsi:nil="true"/>
      <ax267:time>2014-02-24T09:00:23.126-05:00</ax267:time>
      <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
      <ax267:error>false</ax267:error>
      <ax267:execId xsi:nil="true"/>
      <ax267:message>Job placed in the waiting queue at 2014-02-24
09:00:23.104-0500 (1,393,250,423,104)</ax267:message>
      <ax267:messageCode>BTP1010</ax267:messageCode>
      <ax267:taskDescription xsi:nil="true"/>
      <ax267:time>2014-02-24T09:00:23.140-05:00</ax267:time>
      <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
      <ax267:error>false</ax267:error>
      <ax267:execId xsi:nil="true"/>
      <ax267:message>Job started running at 2014-02-24 09:00:23.122-0
(1,393,250,423,122)</ax267:message>

```

```

      <ax267:messageCode>BTP1010</ax267:messageCode>
      <ax267:taskDescription xsi:nil="true"/>
      <ax267:time>2014-02-24T09:00:23.141-05:00</ax267:time>
      <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
      <ax267:error>false</ax267:error>
      <ax267:execId xsi:nil="true"/>
      <ax267:message>Job remained in waiting queue for 0.018
seconds</ax267:message>
      <ax267:messageCode>BTP1010</ax267:messageCode>
      <ax267:taskDescription xsi:nil="true"/>
      <ax267:time>2014-02-24T09:00:23.141-05:00</ax267:time>
      <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
      <ax267:error>false</ax267:error>
      <ax267:execId>guest</ax267:execId>
      <ax267:message>Starting task: Task 1</ax267:message>

```

```

        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:23.752-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Task type: EDA RPC</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:23.752-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Procedure name: ibisamp/carinst</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:23.752-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>>false</ax267:error>
    <ax267:execId>guest</ax267:execId>
    <ax267:message>Connecting to server EDASERVE with execution id
at 2014-02-24 09:00:23.753-0500 (1,393,250,423,753)</ax267:message>
    <ax267:messageCode>BTP1020</ax267:messageCode>
    <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:23.753-05:00</ax267:time>
    <ax267:warning>>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>>false</ax267:error>
    <ax267:execId>guest</ax267:execId>
    <ax267:message>Connection to the WebFOCUS Reporting Server EDAS
established at 2014-02-24 09:00:24.323-0500
(1,393,250,424,323)</ax267:message>
    <ax267:messageCode>BTP1020</ax267:messageCode>
    <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:24.323-05:00</ax267:time>
    <ax267:warning>>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">

```

```

        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>The time to establish a connection to the WebFOCUS
Reporting Server EDASERVE was 0.57 seconds</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:24.325-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Executing focexec.</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:24.351-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId>guest</ax267:execId>
    <ax267:message>0 HOLDING HTML FILE ON PC DISK ...</ax267:message>
    <ax267:messageCode>BTP1020</ax267:messageCode>
    <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:24.974-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId>guest</ax267:execId>
    <ax267:message>Connection to the WebFOCUS Reporting Server EDAS
closed at 2014-02-24 09:00:25.040-0500
(1,393,250,425,040)</ax267:message>
    <ax267:messageCode>BTP1020</ax267:messageCode>
    <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:25.040-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId>guest</ax267:execId>
    <ax267:message>Job ran on the WebFOCUS Reporting Server EDASERV
0.717 seconds</ax267:message>
    <ax267:messageCode>BTP1020</ax267:messageCode>
    <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>

```

```

        <ax267:time>2014-02-24T09:00:25.040-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Task finished.</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:25.040-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId xsi:nil="true"/>
        <ax267:message>Starting distribution: Report Library</ax267:mes
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription xsi:nil="true"/>
        <ax267:time>2014-02-24T09:00:25.060-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Distribution method: Report Library</ax267:mes
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription xsi:nil="true"/>
    <ax267:time>2014-02-24T09:00:25.060-05:00</ax267:time>
    <ax267:warning>>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Report distributed to ReportLibrary
(Ld7e02746l0c05l4dc1la18fl0d3d1d20d9a9) with the group id
Lc8f723df65ca6cebd2b86b264f4cfc14 at the version 15 </ax267:message>
    <ax267:messageCode>DS10001</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:25.309-05:00</ax267:time>
    <ax267:warning>>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>>false</ax267:error>
    <ax267:execId xsi:nil="true"/>

```

```

        <ax267:message>Library access option "Private" is
applied.</ax267:message>
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription>Distribute</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:25.309-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId xsi:nil="true"/>
        <ax267:message>Retrieving email address list for library watch
list</ax267:message>
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription>Distribute</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:25.312-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Library Notification email sent to
myEmail@ibi.com</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:25.639-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Distribution finished.</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:25.642-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Job finished at 2014-02-24 09:00:25.642-0500
(1,393,250,425,642)</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:25.643-05:00</ax267:time>

```

```

        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId xsi:nil="true"/>
        <ax267:message>Job time on distribution server after the report
completed was 0.582 seconds</ax267:message>
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription>Distribute</ax267:taskDescription>
        <ax267:time>2014-02-24T09:00:25.643-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Total running time was 2.52 seconds</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:25.644-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Total elapsed time (including the queue time) was
2.538 seconds</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-24T09:00:25.645-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Brief notification successfully sent to
myEmail@ibi.com.</ax267:message>
    <ax267:messageCode>BTP1020</ax267:messageCode>
    <ax267:taskDescription xsi:nil="true"/>
    <ax267:time>2014-02-24T09:00:25.751-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>

```



```

        <ax267:message>Log report notification successfully sent to
myEmail@ibi.com.</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription xsi:nil="true"/>
        <ax267:time>2014-02-24T09:00:25.861-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:name xsi:nil="true"/>
    <ax267:owner>admin</ax267:owner>
    <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-24T09:00:23.126-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>
</ns:getLastLogByScheduleIdResponse>

```

The following table lists and describes the possible *errorType* code values that are returned in the XML response document.

errorType Code Value	Description
0	No Error
1	Error
2	Warning
6	Running
7	Running With Error

Retrieving the Log for a Job ID

This RESTful web service request can be used to retrieve the last ReportCaster log for a specific job identified by the job ID.

HTTP Method: GET

REST URL Format:


```
http://host:port/ibi_apps/services/LogServiceREST/getLogByJobId?processId=jobId
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

jobId

Is a unique identifier for the ReportCaster job.

Example:

In the following example, the ReportCaster log for job ID J0c6828cfj96f0j4363ja81ejd41e3782cff2 is to be retrieved.

Request:

```
http://localhost:8080/ibi_apps/services/LogServiceREST/getLogByJobId?processId=J0c6828cfj96f0j4363ja81ejd41e3782cff2
```

Response:

```
<ns:getLogByJobIdResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return xmlns:ax264="http://io.java/xsd"
xmlns:ax263="http://rmi.java/xsd"
xmlns:ax267="http://dslog.data.api.broker.ibi/xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:ax261="http://schedule.data.api.broker.ibi/xsd"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-19T16:19:08.674-05:00</ax267:endTime>
    <ax267:errorType>0</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:id>
    <ax267:jobId>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:jobId>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
```

```

        <ax267:execId xsi:nil="true"/>
        <ax267:message>Schedule Executed On Demand at IBI-Laptop:8201 (
Laptop/172.44.18.74)</ax267:message>
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription xsi:nil="true"/>
        <ax267:time>2014-02-19T16:19:08.061-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId xsi:nil="true"/>
        <ax267:message>Job placed in the waiting queue at 2014-02-19
16:19:08.055-0500 (1,392,844,748,055)</ax267:message>
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription xsi:nil="true"/>
        <ax267:time>2014-02-19T16:19:08.061-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId xsi:nil="true"/>
        <ax267:message>Job started running at 2014-02-19 16:19:08.056-0
(1,392,844,748,056)</ax267:message>
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription xsi:nil="true"/>
        <ax267:time>2014-02-19T16:19:08.061-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>

```

```

    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId xsi:nil="true"/>
        <ax267:message>Job remained in waiting queue for 0.0010
seconds</ax267:message>
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription xsi:nil="true"/>
        <ax267:time>2014-02-19T16:19:08.061-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Starting task: Task 1</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.129-05:00</ax267:time>
    </ax267:logElementList>

```

```

        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Task type: EDA RPC</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.130-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Procedure name: ibisamp/carinst</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.130-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>

```

```

    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Connecting to server EDASERVE with execution id
at 2014-02-19 16:19:08.130-0500 (1,392,844,748,130)</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.130-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Connection to the WebFOCUS Reporting Server EDAS
established at 2014-02-19 16:19:08.157-0500
(1,392,844,748,157)</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.158-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>

```

```

        <ax267:message>The time to establish a connection to the WebFOCUS
Reporting Server EDASERVE was 0.027 seconds</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.158-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Executing focexec.</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.158-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>0 HOLDING HTML FILE ON PC DISK ...</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.215-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>

```

```

    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Connection to the WebFOCUS Reporting Server EDAS
closed at 2014-02-19 16:19:08.217-0500
(1,392,844,748,217)</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.217-05:00</ax267:time>
        <ax267:warning>>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Job ran on the WebFOCUS Reporting Server EDASERV
0.06 seconds</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.218-05:00</ax267:time>
    </ax267:logElementList>

```

```

        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId>guest</ax267:execId>
        <ax267:message>Task finished.</ax267:message>
        <ax267:messageCode>BTP1020</ax267:messageCode>
        <ax267:taskDescription>ibisamp/carinst</ax267:taskDescription>
        <ax267:time>2014-02-19T16:19:08.218-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
        <ax267:error>false</ax267:error>
        <ax267:execId xsi:nil="true"/>
        <ax267:message>Starting distribution: Report Library</ax267:mes
        <ax267:messageCode>BTP1010</ax267:messageCode>
        <ax267:taskDescription xsi:nil="true"/>
        <ax267:time>2014-02-19T16:19:08.231-05:00</ax267:time>
        <ax267:warning>false</ax267:warning>
    </ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Distribution method: Report Library</ax267:mesa
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription xsi:nil="true"/>
    <ax267:time>2014-02-19T16:19:08.231-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Report distributed to ReportLibrary
(L0bbafb2a137efl4994l834cl3b614c4afeaf) with the group id
Lc8f723df65ca6cebd2b86b264f4cfc14 at the version 3 </ax267:message>
    <ax267:messageCode>DS10001</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-19T16:19:08.327-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Library access option "Private" is

```

```

applied.</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-19T16:19:08.327-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Retrieving email address list for library watch
list</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-19T16:19:08.327-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Library Notification email sent to
myEmail@ibi.com</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-19T16:19:08.454-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Distribution finished.</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-19T16:19:08.456-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
    <ax267:error>false</ax267:error>
    <ax267:execId xsi:nil="true"/>
    <ax267:message>Job finished at 2014-02-19 16:19:08.456-0500
(1,392,844,748,456)</ax267:message>
    <ax267:messageCode>BTP1010</ax267:messageCode>
    <ax267:taskDescription>Distribute</ax267:taskDescription>
    <ax267:time>2014-02-19T16:19:08.456-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>

```

```

    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
      <ax267:error>false</ax267:error>
      <ax267:execId xsi:nil="true"/>
      <ax267:message>Job time on distribution server after the report
completed was 0.225 seconds</ax267:message>
      <ax267:messageCode>BTP1010</ax267:messageCode>
      <ax267:taskDescription>Distribute</ax267:taskDescription>
      <ax267:time>2014-02-19T16:19:08.457-05:00</ax267:time>
      <ax267:warning>false</ax267:warning>
    </ax267:logElementList>
    <ax267:logElementList xsi:type="ax267:DsLogElement">
      <ax267:error>false</ax267:error>
      <ax267:execId xsi:nil="true"/>
      <ax267:message>Total running time was 0.4 seconds</ax267:message>
      <ax267:messageCode>BTP1010</ax267:messageCode>
      <ax267:taskDescription>Distribute</ax267:taskDescription>
      <ax267:time>2014-02-19T16:19:08.457-05:00</ax267:time>
      <ax267:warning>false</ax267:warning>
    </ax267:logElementList>

```

```

<ax267:logElementList xsi:type="ax267:DsLogElement">
  <ax267:error>false</ax267:error>
  <ax267:execId xsi:nil="true"/>
  <ax267:message>Total elapsed time (including the queue time) was
0.401 seconds</ax267:message>
  <ax267:messageCode>BTP1010</ax267:messageCode>
  <ax267:taskDescription>Distribute</ax267:taskDescription>
  <ax267:time>2014-02-19T16:19:08.457-05:00</ax267:time>
  <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
  <ax267:error>false</ax267:error>
  <ax267:execId xsi:nil="true"/>
  <ax267:message>Brief notification successfully sent to
myEmail@ibi.com.</ax267:message>
  <ax267:messageCode>BTP1020</ax267:messageCode>
  <ax267:taskDescription xsi:nil="true"/>
  <ax267:time>2014-02-19T16:19:08.565-05:00</ax267:time>
  <ax267:warning>false</ax267:warning>
</ax267:logElementList>
<ax267:logElementList xsi:type="ax267:DsLogElement">
  <ax267:error>false</ax267:error>
  <ax267:execId xsi:nil="true"/>
  <ax267:message>Log report notification successfully sent to

```



```

myEmail@ibi.com.</ax267:message>
    <ax267:messageCode>BTP1020</ax267:messageCode>
    <ax267:taskDescription xsi:nil="true"/>
    <ax267:time>2014-02-19T16:19:08.674-05:00</ax267:time>
    <ax267:warning>false</ax267:warning>
  </ax267:logElementList>
  <ax267:name xsi:nil="true"/>
  <ax267:owner>admin</ax267:owner>
  <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
    <ax267:startTime>2014-02-19T16:19:08.061-05:00</ax267:startTime>
    <ax267:summary xsi:nil="true"/>
  </ns:return>
</ns:getLogByJobIdResponse>

```

The following table lists and describes the possible *errorType* code values that are returned in the XML response document.

errorType Code Value	Description
0	No Error
1	Error
2	Warning
6	Running
7	Running With Error

Retrieving the Log List for an Owner

This RESTful web service request can be used to retrieve a list of log information for a specific owner. The details for each log are not returned.

HTTP Method: GET

REST URL Format:


```
http://host:port/ibi_
apps/services/LogServiceREST/getLogInfoListByOwner?owner=owner
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

owner

Is the owner of the log.

Example:

In the following example, a list of log information for the owner named *admin* is to be retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/getLogInfoListByOwner?owner=admin
```

Response:

```
<ns:getLogInfoListByOwnerResponse xmlns:ns="http://ws.api.broker.ibi"
xmlns:ax264="http://io.java/xsd" xmlns:ax263="http://rmi.java/xsd"
xmlns:ax267="http://dslog.data.api.broker.ibi/xsd"
xmlns:ax261="http://schedule.data.api.broker.ibi/xsd">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-19T16:14:42.279-05:00</ax267:endTime>
    <ax267:errorType>2</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J73498ee4j33caj409bjacbbj47ab9f66920d</ax267:id>
    <ax267:jobId>J73498ee4j33caj409bjacbbj47ab9f66920d</ax267:jobId>
    <ax267:logElementList xsi:nil="true"/>
    <ax267:name xsi:nil="true"/>
    <ax267:owner>admin</ax267:owner>
```

```

        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:14:41.146-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>
    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:16:22.945-05:00</ax267:endTime>
        <ax267:errorType>2</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>J5004dec7j6c9cj4009jab87j97b8fa04831a</ax267:id>
        <ax267:jobId>J5004dec7j6c9cj4009jab87j97b8fa04831a</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:16:22.298-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>

    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:19:08.674-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:id>
        <ax267:jobId>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:19:08.061-05:00</ax267:startTime>

```

```

        <ax267:summary xsi:nil="true"/>
    </ns:return>
    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:22:16.729-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>Jd5ae6d5cj3283j4bc2ja36ejc29fd6895419</ax267:id>
        <ax267:jobId>Jd5ae6d5cj3283j4bc2ja36ejc29fd6895419</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:22:16.030-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>

```

```

    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:29:31.724-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>Jbcdb8429jab89j4ed8j95d2j25dd04279f5c</ax267:id>
        <ax267:jobId>Jbcdb8429jab89j4ed8j95d2j25dd04279f5c</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:29:31.083-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>
    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>

```

```

        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-22T21:26:23.251-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>J06ea07cbj164cj4c0djad92jabc788ea8f76</ax267:id>
        <ax267:jobId>J06ea07cbj164cj4c0djad92jabc788ea8f76</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

    <ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleId>
    <ax267:startTime>2014-02-22T21:26:18.515-05:00</ax267:startTime>
    <ax267:summary xsi:nil="true"/>
</ns:return>

```

```

<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-24T09:00:25.861-05:00</ax267:endTime>
    <ax267:errorType>0</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J4ce5d61ejf6b2j441dja02ej084628360372</ax267:id>
    <ax267:jobId>J4ce5d61ejf6b2j441dja02ej084628360372</ax267:jobId>
    <ax267:logElementList xsi:nil="true"/>
    <ax267:name xsi:nil="true"/>
    <ax267:owner>admin</ax267:owner>
    <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

    <ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleId>
    <ax267:startTime>2014-02-24T09:00:23.126-05:00</ax267:startTime>
    <ax267:summary xsi:nil="true"/>
</ns:return>
</ns:getLogInfoListByOwnerResponse>

```

The following table lists and describes the possible *errorType* code values that are returned in the XML response document.

errorType Code Value	Description
0	No Error
1	Error
2	Warning
6	Running
7	Running With Error

Retrieving the Log List for an Owner Within a Time Period

This RESTful web service request can be used to retrieve a list of log information for a specific owner that was run between a specific time interval.

If there is no value for the start time of the time interval, then log list information before the end time of the time interval is retrieved.

If there is no value for the end time of the time interval, then log list information after the start time of the time interval is retrieved.

The details for each log are not returned.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_
apps/services/LogServiceREST/getLogInfoListByOwnerByCalendar?owner=owner&
startTime=startTime&endTime=endTime
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

owner

Is the owner of the ReportCaster log.

startTime

Is the start time for when the logs are to be retrieved. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

endTime

Is the end time for when the logs are to be retrieved. The following format must be used:

```
YYYY/MM/DD%20HH:MM:SS
```

Example:

In the following example, a list of log information for the owner named *admin* between 2014-02-19 00:00:00 and 2014-02-19 23:59:59 is to be retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/getLogInfoListByOwnerByCalendar?owner=admin&
startTime=2014/02/19%2000:00:00&endTime=2014/02/19%2023:59:59
```

Response:

```
<ns:getLogInfoListByOwnerByCalendarResponse
xmlns:ns="http://ws.api.broker.ibi" xmlns:ax264="http://io.java/xsd"
xmlns:ax263="http://rmi.java/xsd"
xmlns:ax267="http://dslog.data.api.broker.ibi/xsd"
xmlns:ax261="http://schedule.data.api.broker.ibi/xsd">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
```

```

        <ax267:endTime>2014-02-19T16:14:42.279-05:00</ax267:endTime>
        <ax267:errorType>2</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>J73498ee4j33caj409bjacbbj47ab9f66920d</ax267:id>
        <ax267:jobId>J73498ee4j33caj409bjacbbj47ab9f66920d</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:14:41.146-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>
    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:16:22.945-05:00</ax267:endTime>
        <ax267:errorType>2</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>J5004dec7j6c9cj4009jab87j97b8fa04831a</ax267:id>
        <ax267:jobId>J5004dec7j6c9cj4009jab87j97b8fa04831a</ax267:jobId>

        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:16:22.298-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>
    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:19:08.674-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:id>

```

```

        <ax267:jobId>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:19:08.061-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>
    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:22:16.729-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>Jd5ae6d5cj3283j4bc2ja36ejc29fd6895419</ax267:id>
        <ax267:jobId>Jd5ae6d5cj3283j4bc2ja36ejc29fd6895419</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:22:16.030-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
    </ns:return>

```

```

    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-19T16:29:31.724-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>Jbcdb8429jab89j4ed8j95d2j25dd04279f5c</ax267:id>
        <ax267:jobId>Jbcdb8429jab89j4ed8j95d2j25dd04279f5c</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

```



```

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
      <ax267:startTime>2014-02-19T16:29:31.083-05:00</ax267:startTime>
      <ax267:summary xsi:nil="true"/>
    </ns:return>
</ns:getLogInfoListByOwnerByCalendarResponse>

```

The following table lists and describes the possible *errorType* code values that are returned in the XML response document.

errorType Code Value	Description
0	No Error
1	Error
2	Warning
6	Running
7	Running With Error

Retrieving the Log List for a Schedule

This RESTful web service request can be used to retrieve a list of log information for a specific schedule identified by the schedule ID. The details for each log are not returned.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_
apps/services/LogServiceREST/getLogInfoListByScheduleId?
scheduleId=scheduleId

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

scheduleId

Is the schedule ID for the ReportCaster schedule.

Example:

In the following example, a list of log information for schedule ID Sca76e628s892as43a4sbddcs10875ff7f188 is to be retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/LogServiceREST/getLogInfoListByScheduleId?
scheduleId=Sca76e628s892as43a4sbddcs10875ff7f188
```

Response:

```
<ns:getLogInfoListByScheduleIdResponse
xmlns:ns="http://ws.api.broker.ibi" xmlns:ax264="http://io.java/xsd"
xmlns:ax263="http://rmi.java/xsd"
xmlns:ax267="http://dslog.data.api.broker.ibi/xsd"
xmlns:ax261="http://schedule.data.api.broker.ibi/xsd">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-19T16:14:42.279-05:00</ax267:endTime>
    <ax267:errorType>2</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J73498ee4j33caj409bjacbbj47ab9f66920d</ax267:id>
    <ax267:jobId>J73498ee4j33caj409bjacbbj47ab9f66920d</ax267:jobId>
    <ax267:logElementList xsi:nil="true"/>
    <ax267:name xsi:nil="true"/>
    <ax267:owner>admin</ax267:owner>
    <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

  <ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
    <ax267:startTime>2014-02-19T16:14:41.146-05:00</ax267:startTime>
    <ax267:summary xsi:nil="true"/>
  </ns:return>
</ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```

xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-19T16:16:22.945-05:00</ax267:endTime>
    <ax267:errorType>2</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J5004dec7j6c9cj4009jab87j97b8fa04831a</ax267:id>
    <ax267:jobId>J5004dec7j6c9cj4009jab87j97b8fa04831a</ax267:jobId>
    <ax267:logElementList xsi:nil="true"/>
    <ax267:name xsi:nil="true"/>
    <ax267:owner>admin</ax267:owner>
    <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
    <ax267:startTime>2014-02-19T16:16:22.298-05:00</ax267:startTime>
    <ax267:summary xsi:nil="true"/>
</ns:return>
<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-19T16:19:08.674-05:00</ax267:endTime>
    <ax267:errorType>0</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:id>
    <ax267:jobId>J0c6828cfj96f0j4363ja81ejd41e3782cff2</ax267:jobId>
    <ax267:logElementList xsi:nil="true"/>
    <ax267:name xsi:nil="true"/>
    <ax267:owner>admin</ax267:owner>
    <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
    <ax267:startTime>2014-02-19T16:19:08.061-05:00</ax267:startTime>
    <ax267:summary xsi:nil="true"/>
</ns:return>
<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-19T16:22:16.729-05:00</ax267:endTime>
    <ax267:errorType>0</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>

```

```

        <ax267:ibfsPath/>
        <ax267:id>Jd5ae6d5cj3283j4bc2ja36ejc29fd6895419</ax267:id>
        <ax267:jobId>Jd5ae6d5cj3283j4bc2ja36ejc29fd6895419</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-19T16:22:16.030-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
</ns:return>

```

```

<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-19T16:29:31.724-05:00</ax267:endTime>
    <ax267:errorType>0</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>Jbcdb8429jab89j4ed8j95d2j25dd04279f5c</ax267:id>
    <ax267:jobId>Jbcdb8429jab89j4ed8j95d2j25dd04279f5c</ax267:jobId>
    <ax267:logElementList xsi:nil="true"/>
    <ax267:name xsi:nil="true"/>
    <ax267:owner>admin</ax267:owner>
    <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
    <ax267:startTime>2014-02-19T16:29:31.083-05:00</ax267:startTime>
    <ax267:summary xsi:nil="true"/>
</ns:return>
<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
    <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
    <ax267:description xsi:nil="true"/>
    <ax267:endTime>2014-02-22T21:26:23.251-05:00</ax267:endTime>
    <ax267:errorType>0</ax267:errorType>
    <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
    <ax267:ibfsPath/>
    <ax267:id>J06ea07cbj164cj4c0djad92jab788ea8f76</ax267:id>
    <ax267:jobId>J06ea07cbj164cj4c0djad92jab788ea8f76</ax267:jobId>
    <ax267:logElementList xsi:nil="true"/>

```

```

        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-22T21:26:18.515-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
</ns:return>

<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax267:DsLog">
        <ax267:IBFSObjectType>0</ax267:IBFSObjectType>
        <ax267:description xsi:nil="true"/>
        <ax267:endTime>2014-02-24T09:00:25.861-05:00</ax267:endTime>
        <ax267:errorType>0</ax267:errorType>
        <ax267:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:ibfsId>
        <ax267:ibfsPath/>
        <ax267:id>J4ce5d61ejf6b2j441dja02ej084628360372</ax267:id>
        <ax267:jobId>J4ce5d61ejf6b2j441dja02ej084628360372</ax267:jobId>
        <ax267:logElementList xsi:nil="true"/>
        <ax267:name xsi:nil="true"/>
        <ax267:owner>admin</ax267:owner>
        <ax267:scheduleDescription>Carinst Report</ax267:scheduleDescription>

<ax267:scheduleId>Sca76e628s892as43a4sbddcs10875ff7f188</ax267:scheduleI
d>
        <ax267:startTime>2014-02-24T09:00:23.126-05:00</ax267:startTime>
        <ax267:summary xsi:nil="true"/>
</ns:return>
</ns:getLogInfoListByScheduleIdResponse>

```

The following table lists and describes the possible *errorType* code values that are returned in the XML response document.

errorType Code Value	Description
0	No Error
1	Error
2	Warning

errorType Code Value	Description
6	Running
7	Running With Error

Retrieving a List of Schedule Owners

This RESTful web service request can be used to retrieve a list of schedule owners.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/services/LogServiceREST/getOwnerList
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

In the following example, a list of schedule owners is to be retrieved.

Request:

```
http://localhost:8080/ibi_apps/services/LogServiceREST/getOwnerList
```

Response:

```
<ns:getOwnerListResponse xmlns:ns="http://ws.api.broker.ibi"
xmlns:ax264="http://io.java/xsd" xmlns:ax263="http://rmi.java/xsd"
xmlns:ax267="http://dslog.data.api.broker.ibi/xsd"
xmlns:ax261="http://schedule.data.api.broker.ibi/xsd">
  <ns:return>admin</ns:return>
```

```
<ns:return>system</ns:return>  
</ns:getOwnerListResponse>
```

The value within each <return> element indicates a schedule owner.

Console Functionality

This section describes the format and structure of RESTful web service requests that are used for a variety of ReportCaster Console functionality.

Changing Job Priority

This RESTful web service request can be used to change the priority of a job awaiting execution in the job queue.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_  
apps/services/ConsoleServiceREST/changeJobPriority?jobId=  
jobId&priority=priority
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

jobId

Is a unique identifier for the ReportCaster job.

priority

The priority of a job awaiting execution in the job queue. A value of 1 is the highest and a value of 5 is the lowest.

Example:

In the following example, the priority for the ReportCaster job identified by job ID Jc12b4443jb1f8j4c19j90aaj7ba31ac4dbf5 is changed to 1.

Request:

```
http://localhost:8080/ibi_
apps/services/ConsoleServiceREST/changeJobPriority?
jobId=Jc12b4443jb1f8j4c19j90aaj7ba31ac4dbf5&priority=1
```

Response:

```
<ns:changeJobPriorityResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:nil="true"/>
</ns:changeJobPriorityResponse>
```

Retrieving Job Status

This RESTful web service request can be used to retrieve the status of a current ReportCaster job in the queue.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_
apps/services/ConsoleServiceREST/getJobStatus?jobId=jobId
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

jobId

Is a unique identifier for the ReportCaster job.

Example:

In the following example, the status of the ReportCaster job identified by job ID Jc12b4443jb1f8j4c19j90aaj7ba31ac4dbf5 is returned.

Request:

```
http://localhost:8080/ibi_apps/services/ConsoleServiceREST/getJobStatus?
jobId=Jc12b4443jb1f8j4c19j90aaj7ba31ac4dbf5
```

Response:

```
<ns:getJobStatusResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return>1</ns:return>
</ns:getJobStatusResponse>
```

The following table lists and describes the ReportCaster job status return codes.

getJobStatus Return Code	Description
-1	The specified ReportCaster job identified by <i>jobId</i> does not exist.
0	The specified ReportCaster job identified by <i>jobId</i> exists, but the calling user is not authorized to view the status of this job.
1	The specified ReportCaster job identified by <i>jobId</i> is in the waiting queue.
2	The specified ReportCaster job identified by <i>jobId</i> is running.
3	The specified ReportCaster job identified by <i>jobId</i> has completed.

Listing Jobs in the Queue

This RESTful web service request can be used to list the ReportCaster jobs awaiting execution in the job queue.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/services/ConsoleServiceREST/getJobsInQueue
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

In the following example, a list of ReportCaster jobs awaiting execution in the job queue is retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/ConsoleServiceREST/getJobsInQueue
```

Response:

```
<ns:getJobsInQueueResponse xmlns:ns="http://ws.api.broker.ibi"
xmlns:ax220="http://rmi.java/xsd" xmlns:ax221="http://io.java/xsd"
xmlns:ax224="http://schedule.data.api.broker.ibi/xsd"
xmlns:ax226="http://console.data.api.broker.ibi/xsd">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
    <ax226:distributionServerName xsi:nil="true"/>
    <ax226:fullyQualifiedServerName xsi:nil="true"/>
    <ax226:id>J6d1eb46fj9a2dj46e0jb532j711fa60ec7e1</ax226:id>
    <ax226:schedule xsi:type="ax224:Schedule">
      <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
      <ax224:active>true</ax224:active>
      <ax224:compressedReport>false</ax224:compressedReport>
      <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
      <ax224:description>Carinst Report 2</ax224:description>
      <ax224:distribution xsi:type="ax224:DistributionEmail">
        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:type>EMAIL</ax224:type>
      </ax224:distribution>
    </ax226:schedule>
  </ns:return>
</ns:getJobsInQueueResponse>
```

```

<ax224:authEnabled>>false</ax224:authEnabled>
<ax224:authPassword/>
<ax224:authUserId/>
<ax224:destination xsi:type="ax224:Destination">
  <ax224:distributionFile/>
  <ax224:distributionList/>
  <ax224:distributionListFullPath/>
  <ax224:dynamicAddress xsi:type="ax224:DynamicAd
    <ax224:password/>
    <ax224:procedureName/>
    <ax224:serverName/>
    <ax224:userName/>
  </ax224:dynamicAddress>
  <ax224:singleAddress/>
  <ax224:type>DISTRIBUTION_LIST</ax224:type>
</ax224:destination>
<ax224:inlineMessage/>
<ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
<ax224:mailFrom/>
<ax224:mailReplyAddress/>
<ax224:mailServerName/>
<ax224:mailSubject/>

```

```

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
  <ax224:sslEnabled>>false</ax224:sslEnabled>
  <ax224:tlsEnabled>>false</ax224:tlsEnabled>
  <ax224:zipFileName/>
  <ax224:zipResult>>false</ax224:zipResult>
</ax224:distribution>
<ax224:distributionList xsi:type="ax224:DistributionEmail">
  <ax224:description/>
  <ax224:disabled>>false</ax224:disabled>
  <ax224:id/>
  <ax224:type>EMAIL</ax224:type>
  <ax224:authEnabled>>false</ax224:authEnabled>
  <ax224:authPassword/>
  <ax224:authUserId/>
  <ax224:destination xsi:type="ax224:Destination">
    <ax224:distributionFile/>
    <ax224:distributionList/>
    <ax224:distributionListFullPath/>
    <ax224:dynamicAddress xsi:type="ax224:DynamicAd
      <ax224:password/>
      <ax224:procedureName/>
      <ax224:serverName/>

```

```

        <ax224:userName/>
    </ax224:dynamicAddress>
    <ax224:singleAddress/>
    <ax224:type>DISTRIBUTION_LIST</ax224:type>
</ax224:destination>
<ax224:inlineMessage/>
<ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
<ax224:mailFrom/>
<ax224:mailReplyAddress/>
<ax224:mailServerName/>
<ax224:mailSubject/>

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
    <ax224:sslEnabled>>false</ax224:sslEnabled>
    <ax224:tlsEnabled>>false</ax224:tlsEnabled>
    <ax224:zipFileName/>
    <ax224:zipResult>>false</ax224:zipResult>
</ax224:distributionList>

```

```

<ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
    <ax224:description>WebFocus Server Procedure
task</ax224:description>
    <ax224:disabled>>false</ax224:disabled>
    <ax224:id/>
    <ax224:procedureId/>
    <ax224:procedureName/>
    <ax224:reportName/>
    <ax224:taskRetry xsi:nil="true"/>
    <ax224:type>0</ax224:type>
    <ax224:allowFormatList xsi:nil="true"/>
    <ax224:burst>>false</ax224:burst>
    <ax224:execId/>
    <ax224:execPassword/>
    <ax224:firstPostProcessingProcedure/>
    <ax224:firstPreProcessingProcedure/>
    <ax224:formatInFex>>false</ax224:formatInFex>
    <ax224:parameterList xsi:nil="true"/>
    <ax224:secondPostProcessingProcedure/>
    <ax224:secondPreProcessingProcedure/>
    <ax224:sendFormat>HTML</ax224:sendFormat>
    <ax224:serverName>EDASERVE</ax224:serverName>
</ax224:firstTask>
<ax224:ibfsId>6dff2b49I8245I4638I9e9fIc5900a9a12d5</ax224:ibfsId>
<ax224:ibfsPath/>
<ax224:id>S23f65030s728as482asa632s879fd9f6a727</ax224:id>

```

```

        <ax224:lastModified>2014-03-11T18:26:05.912-
04:00</ax224:lastModified>
        <ax224:lastTimeExecuted>1970-01-01T00:00:00.000-
05:00</ax224:lastTimeExecuted>
        <ax224:name/>
        <ax224:notification xsi:type="ax224:Notification">
            <ax224:addressForBriefNotification/>
            <ax224:addressForFullNotification/>
            <ax224:description/>
            <ax224:from/>
            <ax224:id/>
            <ax224:subject/>
            <ax224:type>INACTIVE</ax224:type>
        </ax224:notification>

<ax224:owner>admin</ax224:owner>
        <ax224:priority>3</ax224:priority>
        <ax224:statusLastExecuted/>
        <ax224:summary/>
        <ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
            <ax224:description>WebFocus Server Procedure
task</ax224:description>
            <ax224:disabled>>false</ax224:disabled>
            <ax224:id/>
            <ax224:procedureId/>
            <ax224:procedureName/>
            <ax224:reportName/>
            <ax224:taskRetry xsi:nil="true"/>
            <ax224:type>0</ax224:type>
            <ax224:allowFormatList xsi:nil="true"/>
            <ax224:burst>>false</ax224:burst>
            <ax224:execId/>
            <ax224:execPassword/>
            <ax224:firstPostProcessingProcedure/>
            <ax224:firstPreProcessingProcedure/>
            <ax224:formatInFex>>false</ax224:formatInFex>
            <ax224:parameterList xsi:nil="true"/>
            <ax224:secondPostProcessingProcedure/>
            <ax224:secondPreProcessingProcedure/>
            <ax224:sendFormat>HTML</ax224:sendFormat>
            <ax224:serverName>EDASERVE</ax224:serverName>
        </ax224:taskList>
        <ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
            <ax224:description/>
            <ax224:disabled>>false</ax224:disabled>

```

```

        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-03-11T18:26:05.912-04:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfo>
    <ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-03-11T18:26:05.912-04:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfoList>

```

```

<ax224:traceType>0</ax224:traceType>
    </ax226:schedule>
    <ax226:startTime>2014-03-11T18:25:53.738-04:00</ax226:startTime>
    <ax226:status>0</ax226:status>
</ns:return>
</ns:getJobsInQueueResponse>

```

Listing Jobs in the Queue for an Owner

This RESTful web service request can be used to list the ReportCaster jobs awaiting execution in the job queue for a specific schedule owner.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_
apps/services/ConsoleServiceREST/getJobsInQueueByOwner?owner=owner

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

owner

Is the owner of the ReportCaster schedule.

Example:

In the following example, a list of ReportCaster jobs awaiting execution in the job queue for the owner named *admin* is retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/ConsoleServiceREST/getJobsInQueueByOwner?owner=admin
```

Response:

```
<ns:getJobsInQueueByOwnerResponse xmlns:ns="http://ws.api.broker.ibi"
xmlns:ax220="http://rmi.java/xsd" xmlns:ax221="http://io.java/xsd"
xmlns:ax224="http://schedule.data.api.broker.ibi/xsd"
xmlns:ax226="http://console.data.api.broker.ibi/xsd">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
    <ax226:distributionServerName xsi:nil="true"/>
    <ax226:fullyQualifiedServerName xsi:nil="true"/>
    <ax226:id>Jc12b4443jb1f8j4c19j90aaj7ba31ac4dbf5</ax226:id>
    <ax226:schedule xsi:type="ax224:Schedule">
      <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
      <ax224:active>true</ax224:active>
      <ax224:compressedReport>false</ax224:compressedReport>
      <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
      <ax224:description>Carinst Report</ax224:description>
      <ax224:distribution xsi:type="ax224:DistributionEmail">
        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:type>EMAIL</ax224:type>
        <ax224:authEnabled>false</ax224:authEnabled>
        <ax224:authPassword/>
        <ax224:authUserId/>
        <ax224:destination xsi:type="ax224:Destination">
          <ax224:distributionFile/>
          <ax224:distributionList/>
          <ax224:distributionListFullPath/>
        </ax224:destination>
      </ax224:distribution>
    </ax226:schedule>
  </ns:return>
</ns:getJobsInQueueByOwnerResponse>
```

```

        <ax224:dynamicAddress xsi:type="ax224:DynamicAd
            <ax224:password/>
            <ax224:procedureName/>
            <ax224:serverName/>
            <ax224:userName/>
        </ax224:dynamicAddress>
        <ax224:singleAddress/>
        <ax224:type>DISTRIBUTION_LIST</ax224:type>
    </ax224:destination>
    <ax224:inlineMessage/>
    <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
    <ax224:mailFrom/>
    <ax224:mailReplyAddress/>
    <ax224:mailServerName/>
    <ax224:mailSubject/>

```

```

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
    <ax224:sslEnabled>>false</ax224:sslEnabled>
    <ax224:tlsEnabled>>false</ax224:tlsEnabled>
    <ax224:zipFileName/>
    <ax224:zipResult>>false</ax224:zipResult>
</ax224:distribution>
<ax224:distributionList xsi:type="ax224:DistributionEmail">
    <ax224:description/>
    <ax224:disabled>>false</ax224:disabled>
    <ax224:id/>
    <ax224:type>EMAIL</ax224:type>
    <ax224:authEnabled>>false</ax224:authEnabled>
    <ax224:authPassword/>
    <ax224:authUserId/>
    <ax224:destination xsi:type="ax224:Destination">
        <ax224:distributionFile/>
        <ax224:distributionList/>
        <ax224:distributionListFullPath/>
        <ax224:dynamicAddress xsi:type="ax224:DynamicAd
            <ax224:password/>
            <ax224:procedureName/>
            <ax224:serverName/>
            <ax224:userName/>
        </ax224:dynamicAddress>
        <ax224:singleAddress/>
        <ax224:type>DISTRIBUTION_LIST</ax224:type>
    </ax224:destination>
    <ax224:inlineMessage/>
    <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>

```



```

        <ax224:mailFrom/>
        <ax224:mailReplyAddress/>
        <ax224:mailServerName/>
        <ax224:mailSubject/>

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
        <ax224:sslEnabled>>false</ax224:sslEnabled>
        <ax224:tlsEnabled>>false</ax224:tlsEnabled>
        <ax224:zipFileName/>
        <ax224:zipResult>>false</ax224:zipResult>
</ax224:distributionList>

```

```

        <ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
            <ax224:description>WebFocus Server Procedure
task</ax224:description>
            <ax224:disabled>>false</ax224:disabled>
            <ax224:id/>
            <ax224:procedureId/>
            <ax224:procedureName/>
            <ax224:reportName/>
            <ax224:taskRetry xsi:nil="true"/>
            <ax224:type>0</ax224:type>
            <ax224:allowFormatList xsi:nil="true"/>
            <ax224:burst>>false</ax224:burst>
            <ax224:execId/>
            <ax224:execPassword/>
            <ax224:firstPostProcessingProcedure/>
            <ax224:firstPreProcessingProcedure/>
            <ax224:formatInFex>>false</ax224:formatInFex>
            <ax224:parameterList xsi:nil="true"/>
            <ax224:secondPostProcessingProcedure/>
            <ax224:secondPreProcessingProcedure/>
            <ax224:sendFormat>HTML</ax224:sendFormat>
            <ax224:serverName>EDASERVE</ax224:serverName>
        </ax224:firstTask>
        <ax224:ibfsId>Sca76e628s892as43a4sbddcs10875ff7f188</ax224:ibfsId>
        <ax224:ibfsPath/>
        <ax224:id>Sca76e628s892as43a4sbddcs10875ff7f188</ax224:id>
        <ax224:lastModified>2014-02-24T14:25:09.581-
05:00</ax224:lastModified>
        <ax224:lastTimeExecuted>1970-01-01T00:00:00.000-
05:00</ax224:lastTimeExecuted>
        <ax224:name/>
        <ax224:notification xsi:type="ax224:Notification">
            <ax224:addressForBriefNotification/>

```

```

        <ax224:addressForFullNotification/>
        <ax224:description/>
        <ax224:from/>
        <ax224:id/>
        <ax224:subject/>
        <ax224:type>INACTIVE</ax224:type>
    </ax224:notification>

```

```

<ax224:owner>admin</ax224:owner>
    <ax224:priority>3</ax224:priority>
    <ax224:statusLastExecuted/>
    <ax224:summary/>
    <ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
        <ax224:description>WebFocus Server Procedure
task</ax224:description>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:procedureId/>
        <ax224:procedureName/>
        <ax224:reportName/>
        <ax224:taskRetry xsi:nil="true"/>
        <ax224:type>0</ax224:type>
        <ax224:allowFormatList xsi:nil="true"/>
        <ax224:burst>>false</ax224:burst>
        <ax224:execId/>
        <ax224:execPassword/>
        <ax224:firstPostProcessingProcedure/>
        <ax224:firstPreProcessingProcedure/>
        <ax224:formatInFex>>false</ax224:formatInFex>
        <ax224:parameterList xsi:nil="true"/>
        <ax224:secondPostProcessingProcedure/>
        <ax224:secondPreProcessingProcedure/>
        <ax224:sendFormat>HTML</ax224:sendFormat>
        <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:taskList>
    <ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-02-24T14:25:09.581-05:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfo>
    <ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">

```

```

        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-02-24T14:25:09.581-05:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfoList>

```

```

<ax224:traceType>0</ax224:traceType>
    </ax226:schedule>
    <ax226:startTime>2014-02-24T14:13:25.760-05:00</ax226:startTime>
    <ax226:status>0</ax226:status>
</ns:return>
</ns:getJobsInQueueByOwnerResponse>

```

Listing Running Jobs

This RESTful web service request can be used to list the ReportCaster jobs that are running.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_apps/services/ConsoleServiceREST/getRunningJobs
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

Example:

In the following example, a list of ReportCaster jobs that are running is retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/ConsoleServiceREST/getRunningJobs
```

Response:

```
<ns:getRunningJobsResponse xmlns:ns="http://ws.api.broker.ibi"
xmlns:ax220="http://rmi.java/xsd" xmlns:ax221="http://io.java/xsd"
xmlns:ax224="http://schedule.data.api.broker.ibi/xsd"
xmlns:ax226="http://console.data.api.broker.ibi/xsd">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
    <ax226:distributionServerName xsi:nil="true"/>
    <ax226:fullyQualifiedServerName xsi:nil="true"/>
    <ax226:id>J41d8861bj53f5j4a60j8568jeddf39416a88</ax226:id>
    <ax226:schedule xsi:type="ax224:Schedule">
      <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
      <ax224:active>true</ax224:active>
      <ax224:compressedReport>false</ax224:compressedReport>
      <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
      <ax224:description>Carinst Report 2</ax224:description>
      <ax224:distribution xsi:type="ax224:DistributionEmail">
        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:type>EMAIL</ax224:type>
        <ax224:authEnabled>false</ax224:authEnabled>
        <ax224:authPassword/>
        <ax224:authUserId/>
        <ax224:destination xsi:type="ax224:Destination">
          <ax224:distributionFile/>
          <ax224:distributionList/>
          <ax224:distributionListFullPath/>
          <ax224:dynamicAddress xsi:type="ax224:DynamicAd
            <ax224:password/>
            <ax224:procedureName/>
            <ax224:serverName/>
            <ax224:userName/>
          </ax224:dynamicAddress>
          <ax224:singleAddress/>
          <ax224:type>DISTRIBUTION_LIST</ax224:type>
        </ax224:destination>
        <ax224:inlineMessage/>
        <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
        <ax224:mailFrom/>
        <ax224:mailReplyAddress/>
        <ax224:mailServerName/>
      </ax224:distribution>
    </ax226:schedule>
  </ns:return>
</ns:getRunningJobsResponse>
```

```
<ax224:mailSubject/>
```

```
<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
  <ax224:sslEnabled>>false</ax224:sslEnabled>
  <ax224:tlsEnabled>>false</ax224:tlsEnabled>
  <ax224:zipFileName/>
  <ax224:zipResult>>false</ax224:zipResult>
</ax224:distribution>
<ax224:distributionList xsi:type="ax224:DistributionEmail">
  <ax224:description/>
  <ax224:disabled>>false</ax224:disabled>
  <ax224:id/>
  <ax224:type>EMAIL</ax224:type>
  <ax224:authEnabled>>false</ax224:authEnabled>
  <ax224:authPassword/>
  <ax224:authUserId/>
  <ax224:destination xsi:type="ax224:Destination">
    <ax224:distributionFile/>
    <ax224:distributionList/>
    <ax224:distributionListFullPath/>
    <ax224:dynamicAddress xsi:type="ax224:DynamicAd
      <ax224:password/>
      <ax224:procedureName/>
      <ax224:serverName/>
      <ax224:userName/>
    </ax224:dynamicAddress>
    <ax224:singleAddress/>
    <ax224:type>DISTRIBUTION_LIST</ax224:type>
  </ax224:destination>
  <ax224:inlineMessage/>
  <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
  <ax224:mailFrom/>
  <ax224:mailReplyAddress/>
  <ax224:mailServerName/>
  <ax224:mailSubject/>

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
  <ax224:sslEnabled>>false</ax224:sslEnabled>
  <ax224:tlsEnabled>>false</ax224:tlsEnabled>
  <ax224:zipFileName/>
  <ax224:zipResult>>false</ax224:zipResult>
</ax224:distributionList>
```

```

    <ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
      <ax224:description>WebFocus Server Procedure
task</ax224:description>
      <ax224:disabled>>false</ax224:disabled>
      <ax224:id/>
      <ax224:procedureId/>
      <ax224:procedureName/>
      <ax224:reportName/>
      <ax224:taskRetry xsi:nil="true"/>
      <ax224:type>0</ax224:type>
      <ax224:allowFormatList xsi:nil="true"/>
      <ax224:burst>>false</ax224:burst>
      <ax224:execId/>
      <ax224:execPassword/>
      <ax224:firstPostProcessingProcedure/>
      <ax224:firstPreProcessingProcedure/>
      <ax224:formatInFex>>false</ax224:formatInFex>
      <ax224:parameterList xsi:nil="true"/>
      <ax224:secondPostProcessingProcedure/>
      <ax224:secondPreProcessingProcedure/>
      <ax224:sendFormat>HTML</ax224:sendFormat>
      <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:firstTask>
    <ax224:ibfsId>6dff2b49I8245I4638I9e9fIc5900a9a12d5</ax224:ibfsId>
    <ax224:ibfsPath/>
    <ax224:id>S23f65030s728as482asa632s879fd9f6a727</ax224:id>
    <ax224:lastModified>2014-03-11T18:27:46.710-
04:00</ax224:lastModified>
      <ax224:lastTimeExecuted>1970-01-01T00:00:00.000-
05:00</ax224:lastTimeExecuted>
      <ax224:name/>
      <ax224:notification xsi:type="ax224:Notification">
        <ax224:addressForBriefNotification/>
        <ax224:addressForFullNotification/>
        <ax224:description/>
        <ax224:from/>
        <ax224:id/>
        <ax224:subject/>
        <ax224:type>INACTIVE</ax224:type>
      </ax224:notification>

    <ax224:owner>admin</ax224:owner>
      <ax224:priority>3</ax224:priority>
      <ax224:statusLastExecuted/>
      <ax224:summary/>

```

```

        <ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
            <ax224:description>WebFocus Server Procedure
task</ax224:description>
            <ax224:disabled>>false</ax224:disabled>
            <ax224:id/>
            <ax224:procedureId/>
            <ax224:procedureName/>
            <ax224:reportName/>
            <ax224:taskRetry xsi:nil="true"/>
            <ax224:type>0</ax224:type>
            <ax224:allowFormatList xsi:nil="true"/>
            <ax224:burst>>false</ax224:burst>
            <ax224:execId/>
            <ax224:execPassword/>
            <ax224:firstPostProcessingProcedure/>
            <ax224:firstPreProcessingProcedure/>
            <ax224:formatInFex>>false</ax224:formatInFex>
            <ax224:parameterList xsi:nil="true"/>
            <ax224:secondPostProcessingProcedure/>
            <ax224:secondPreProcessingProcedure/>
            <ax224:sendFormat>HTML</ax224:sendFormat>
            <ax224:serverName>EDASERVE</ax224:serverName>
        </ax224:taskList>
        <ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
            <ax224:description/>
            <ax224:disabled>>false</ax224:disabled>
            <ax224:id/>
            <ax224:name/>
            <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
            <ax224:startTime>2014-03-11T18:27:46.710-04:00</ax224:startTime>
            <ax224:type>0</ax224:type>
        </ax224:timeInfo>
        <ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">
            <ax224:description/>
            <ax224:disabled>>false</ax224:disabled>
            <ax224:id/>
            <ax224:name/>
            <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
            <ax224:startTime>2014-03-11T18:27:46.710-04:00</ax224:startTime>
            <ax224:type>0</ax224:type>
        </ax224:timeInfoList>

        <ax224:traceType>0</ax224:traceType>
        </ax226:schedule>
        <ax226:startTime>2014-03-11T18:25:35.827-04:00</ax226:startTime>

```

```

        <ax226:status>1</ax226:status>
    </ns:return>
    <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
        <ax226:distributionServerName xsi:nil="true"/>
        <ax226:fullyQualifiedServerName xsi:nil="true"/>
        <ax226:id>Jbc069445jb73dj4b41j9051j5dd542f3074e</ax226:id>
        <ax226:schedule xsi:type="ax224:Schedule">
            <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
            <ax224:active>true</ax224:active>
            <ax224:compressedReport>false</ax224:compressedReport>
            <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
            <ax224:description>Carinst Report 2</ax224:description>
            <ax224:distribution xsi:type="ax224:DistributionEmail">
                <ax224:description/>
                <ax224:disabled>false</ax224:disabled>
                <ax224:id/>
                <ax224:type>EMAIL</ax224:type>
                <ax224:authEnabled>false</ax224:authEnabled>
                <ax224:authPassword/>
                <ax224:authUserId/>
                <ax224:destination xsi:type="ax224:Destination">
                    <ax224:distributionFile/>
                    <ax224:distributionList/>
                    <ax224:distributionListFullPath/>
                    <ax224:dynamicAddress xsi:type="ax224:DynamicAd
                        <ax224:password/>
                        <ax224:procedureName/>
                        <ax224:serverName/>
                        <ax224:userName/>
                    </ax224:dynamicAddress>
                    <ax224:singleAddress/>
                    <ax224:type>DISTRIBUTION_LIST</ax224:type>
                </ax224:destination>
            </ax224:distribution>
        </ax226:schedule>
    </ns:return>
</ns:body>
</ns:Envelope>

```

```

<ax224:inlineMessage/>
    <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
    <ax224:mailFrom/>
    <ax224:mailReplyAddress/>
    <ax224:mailServerName/>
    <ax224:mailSubject/>

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
<ax224:sslEnabled>false</ax224:sslEnabled>
<ax224:tlsEnabled>false</ax224:tlsEnabled>

```



```

        <ax224:zipFileName/>
        <ax224:zipResult>false</ax224:zipResult>
    </ax224:distribution>
    <ax224:distributionList xsi:type="ax224:DistributionEmail">
        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:type>EMAIL</ax224:type>
        <ax224:authEnabled>false</ax224:authEnabled>
        <ax224:authPassword/>
        <ax224:authUserId/>
        <ax224:destination xsi:type="ax224:Destination">
            <ax224:distributionFile/>
            <ax224:distributionList/>
            <ax224:distributionListFullPath/>
            <ax224:dynamicAddress xsi:type="ax224:DynamicAd
                <ax224:password/>
                <ax224:procedureName/>
                <ax224:serverName/>
                <ax224:userName/>
            </ax224:dynamicAddress>
            <ax224:singleAddress/>
            <ax224:type>DISTRIBUTION_LIST</ax224:type>
        </ax224:destination>
        <ax224:inlineMessage/>
        <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
        <ax224:mailFrom/>
        <ax224:mailReplyAddress/>
        <ax224:mailServerName/>
        <ax224:mailSubject/>

    <ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
        <ax224:sslEnabled>false</ax224:sslEnabled>
        <ax224:tlsEnabled>false</ax224:tlsEnabled>
        <ax224:zipFileName/>
        <ax224:zipResult>false</ax224:zipResult>
    </ax224:distributionList>

```

```

    <ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
        <ax224:description>WebFocus Server Procedure
    task</ax224:description>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:procedureId/>
        <ax224:procedureName/>
    </ax224:firstTask>

```

```

        <ax224:reportName/>
        <ax224:taskRetry xsi:nil="true"/>
        <ax224:type>0</ax224:type>
        <ax224:allowFormatList xsi:nil="true"/>
        <ax224:burst>false</ax224:burst>
        <ax224:execId/>
        <ax224:execPassword/>
        <ax224:firstPostProcessingProcedure/>
        <ax224:firstPreProcessingProcedure/>
        <ax224:formatInFex>false</ax224:formatInFex>
        <ax224:parameterList xsi:nil="true"/>
        <ax224:secondPostProcessingProcedure/>
        <ax224:secondPreProcessingProcedure/>
        <ax224:sendFormat>HTML</ax224:sendFormat>
        <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:firstTask>
    <ax224:ibfsId>6dff2b49I8245I4638I9e9fIc5900a9a12d5</ax224:ibfsId>
    <ax224:ibfsPath/>
    <ax224:id>S23f65030s728as482asa632s879fd9f6a727</ax224:id>
    <ax224:lastModified>2014-03-11T18:27:46.710-
04:00</ax224:lastModified>
        <ax224:lastTimeExecuted>1970-01-01T00:00:00.000-
05:00</ax224:lastTimeExecuted>
        <ax224:name/>
        <ax224:notification xsi:type="ax224:Notification">
            <ax224:addressForBriefNotification/>
            <ax224:addressForFullNotification/>
            <ax224:description/>
            <ax224:from/>
            <ax224:id/>
            <ax224:subject/>
            <ax224:type>INACTIVE</ax224:type>
        </ax224:notification>

    <ax224:owner>admin</ax224:owner>
        <ax224:priority>3</ax224:priority>
        <ax224:statusLastExecuted/>
        <ax224:summary/>
        <ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
            <ax224:description>WebFocus Server Procedure
task</ax224:description>
            <ax224:disabled>false</ax224:disabled>
            <ax224:id/>
            <ax224:procedureId/>
            <ax224:procedureName/>

```

```

        <ax224:reportName/>
        <ax224:taskRetry xsi:nil="true"/>
        <ax224:type>0</ax224:type>
        <ax224:allowFormatList xsi:nil="true"/>
        <ax224:burst>false</ax224:burst>
        <ax224:execId/>
        <ax224:execPassword/>
        <ax224:firstPostProcessingProcedure/>
        <ax224:firstPreProcessingProcedure/>
        <ax224:formatInFex>false</ax224:formatInFex>
        <ax224:parameterList xsi:nil="true"/>
        <ax224:secondPostProcessingProcedure/>
        <ax224:secondPreProcessingProcedure/>
        <ax224:sendFormat>HTML</ax224:sendFormat>
        <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:taskList>
    <ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-03-11T18:27:46.710-04:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfo>
    <ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-03-11T18:27:46.710-04:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfoList>

```

```

    <ax224:traceType>0</ax224:traceType>
  </ax226:schedule>
  <ax226:startTime>2014-03-11T18:25:40.622-04:00</ax226:startTime>
  <ax226:status>1</ax226:status>
</ns:return>
<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
  <ax226:distributionServerName xsi:nil="true"/>
  <ax226:fullyQualifiedServerName xsi:nil="true"/>
  <ax226:id>J07e3e5b8j0608j49bfj823ajc00d8768a7ba</ax226:id>

```

```

<ax226:schedule xsi:type="ax224:Schedule">
  <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
  <ax224:active>true</ax224:active>
  <ax224:compressedReport>false</ax224:compressedReport>
  <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
  <ax224:description>Carinst Report 2</ax224:description>
  <ax224:distribution xsi:type="ax224:DistributionEmail">
    <ax224:description/>
    <ax224:disabled>false</ax224:disabled>
    <ax224:id/>
    <ax224:type>EMAIL</ax224:type>
    <ax224:authEnabled>false</ax224:authEnabled>
    <ax224:authPassword/>
    <ax224:authUserId/>
    <ax224:destination xsi:type="ax224:Destination">
      <ax224:distributionFile/>
      <ax224:distributionList/>
      <ax224:distributionListFullPath/>
      <ax224:dynamicAddress xsi:type="ax224:DynamicAd
        <ax224:password/>
        <ax224:procedureName/>
        <ax224:serverName/>
        <ax224:userName/>
      </ax224:dynamicAddress>
      <ax224:singleAddress/>
      <ax224:type>DISTRIBUTION_LIST</ax224:type>
    </ax224:destination>
  </ax224:distribution>
</ax226:schedule>

```

```

<ax224:inlineMessage/>
  <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
  <ax224:mailFrom/>
  <ax224:mailReplyAddress/>
  <ax224:mailServerName/>
  <ax224:mailSubject/>

  <ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
  <ax224:sslEnabled>false</ax224:sslEnabled>
  <ax224:tlsEnabled>false</ax224:tlsEnabled>
  <ax224:zipFileName/>
  <ax224:zipResult>false</ax224:zipResult>
</ax224:distribution>
<ax224:distributionList xsi:type="ax224:DistributionEmail">
  <ax224:description/>
  <ax224:disabled>false</ax224:disabled>
  <ax224:id/>

```

```

<ax224:type>EMAIL</ax224:type>
<ax224:authEnabled>>false</ax224:authEnabled>
<ax224:authPassword/>
<ax224:authUserId/>
<ax224:destination xsi:type="ax224:Destination">
  <ax224:distributionFile/>
  <ax224:distributionList/>
  <ax224:distributionListFullPath/>
  <ax224:dynamicAddress xsi:type="ax224:DynamicAd
    <ax224:password/>
    <ax224:procedureName/>
    <ax224:serverName/>
    <ax224:userName/>
  </ax224:dynamicAddress>
  <ax224:singleAddress/>
  <ax224:type>DISTRIBUTION_LIST</ax224:type>
</ax224:destination>
<ax224:inlineMessage/>
<ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
<ax224:mailFrom/>
<ax224:mailReplyAddress/>
<ax224:mailServerName/>
<ax224:mailSubject/>

<ax224:sendingReportAsAttachment>>true</ax224:sendingReportAsAttachment>
  <ax224:sslEnabled>>false</ax224:sslEnabled>
  <ax224:tlsEnabled>>false</ax224:tlsEnabled>
  <ax224:zipFileName/>
  <ax224:zipResult>>false</ax224:zipResult>
</ax224:distributionList>

```

```

<ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
  <ax224:description>WebFocus Server Procedure
task</ax224:description>
  <ax224:disabled>>false</ax224:disabled>
  <ax224:id/>
  <ax224:procedureId/>
  <ax224:procedureName/>
  <ax224:reportName/>
  <ax224:taskRetry xsi:nil="true"/>
  <ax224:type>0</ax224:type>
  <ax224:allowFormatList xsi:nil="true"/>
  <ax224:burst>>false</ax224:burst>
  <ax224:execId/>
  <ax224:execPassword/>

```

```

        <ax224:firstPostProcessingProcedure/>
        <ax224:firstPreProcessingProcedure/>
        <ax224:formatInFex>false</ax224:formatInFex>
        <ax224:parameterList xsi:nil="true"/>
        <ax224:secondPostProcessingProcedure/>
        <ax224:secondPreProcessingProcedure/>
        <ax224:sendFormat>HTML</ax224:sendFormat>
        <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:firstTask>
    <ax224:ibfsId>6dff2b49I8245I4638I9e9fIc5900a9a12d5</ax224:ibfsId>
    <ax224:ibfsPath/>
    <ax224:id>S23f65030s728as482asa632s879fd9f6a727</ax224:id>
    <ax224:lastModified>2014-03-11T18:27:46.710-
04:00</ax224:lastModified>
        <ax224:lastTimeExecuted>1970-01-01T00:00:00.000-
05:00</ax224:lastTimeExecuted>
        <ax224:name/>
        <ax224:notification xsi:type="ax224:Notification">
            <ax224:addressForBriefNotification/>
            <ax224:addressForFullNotification/>
            <ax224:description/>
            <ax224:from/>
            <ax224:id/>
            <ax224:subject/>
            <ax224:type>INACTIVE</ax224:type>
        </ax224:notification>

    <ax224:owner>admin</ax224:owner>
        <ax224:priority>3</ax224:priority>
        <ax224:statusLastExecuted/>
        <ax224:summary/>
        <ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
            <ax224:description>WebFocus Server Procedure
task</ax224:description>
            <ax224:disabled>false</ax224:disabled>
            <ax224:id/>
            <ax224:procedureId/>
            <ax224:procedureName/>
            <ax224:reportName/>
            <ax224:taskRetry xsi:nil="true"/>
            <ax224:type>0</ax224:type>
            <ax224:allowFormatList xsi:nil="true"/>
            <ax224:burst>false</ax224:burst>
            <ax224:execId/>
            <ax224:execPassword/>

```

```

        <ax224:firstPostProcessingProcedure/>
        <ax224:firstPreProcessingProcedure/>
        <ax224:formatInFex>>false</ax224:formatInFex>
        <ax224:parameterList xsi:nil="true"/>
        <ax224:secondPostProcessingProcedure/>
        <ax224:secondPreProcessingProcedure/>
        <ax224:sendFormat>HTML</ax224:sendFormat>
        <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:taskList>
    <ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-03-11T18:27:46.710-04:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfo>

```

```

    <ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-03-11T18:27:46.710-04:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfoList>
    <ax224:traceType>0</ax224:traceType>
</ax226:schedule>
<ax226:startTime>2014-03-11T18:25:47.863-04:00</ax226:startTime>
<ax226:status>1</ax226:status>
</ns:return>
</ns:getRunningJobsResponse>

```

Listing Running Jobs for an Owner

This RESTful web service request can be used to list the ReportCaster jobs that are running for a specific schedule owner.

HTTP Method: GET

REST URL Format:

```
http://host:port/ibi_
apps/services/ConsoleServiceREST/getRunningJobsByOwner?owner=owner
```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

owner

Is the owner of the ReportCaster schedule.

Example:

In the following example, a list of ReportCaster jobs that are running for the owner named *admin* is retrieved.

Request:

```
http://localhost:8080/ibi_
apps/services/ConsoleServiceREST/getRunningJobsByOwner?
owner=admin
```

Response:

```
<ns:getRunningJobsByOwnerResponse xmlns:ns="http://ws.api.broker.ibi"
xmlns:ax220="http://rmi.java/xsd" xmlns:ax221="http://io.java/xsd"
xmlns:ax224="http://schedule.data.api.broker.ibi/xsd"
xmlns:ax226="http://console.data.api.broker.ibi/xsd">
  <ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
    <ax226:distributionServerName xsi:nil="true"/>
    <ax226:fullyQualifiedServerName xsi:nil="true"/>
    <ax226:id>J00709cc0jdeddj4115ja3d9j353dcd5bc11e</ax226:id>
    <ax226:schedule xsi:type="ax224:Schedule">
      <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
      <ax224:active>true</ax224:active>
      <ax224:compressedReport>false</ax224:compressedReport>
      <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
      <ax224:description>Carinst Report 2</ax224:description>
      <ax224:distribution xsi:type="ax224:DistributionEmail">
```



```

<ax224:description/>
<ax224:disabled>>false</ax224:disabled>
<ax224:id/>
<ax224:type>EMAIL</ax224:type>
<ax224:authEnabled>>false</ax224:authEnabled>
<ax224:authPassword/>
<ax224:authUserId/>
<ax224:destination xsi:type="ax224:Destination">
  <ax224:distributionFile/>
  <ax224:distributionList/>
  <ax224:distributionListFullPath/>
  <ax224:dynamicAddress xsi:type="ax224:DynamicAd
    <ax224:password/>
    <ax224:procedureName/>
    <ax224:serverName/>
    <ax224:userName/>
  </ax224:dynamicAddress>
  <ax224:singleAddress/>
  <ax224:type>DISTRIBUTION_LIST</ax224:type>
</ax224:destination>
<ax224:inlineMessage/>
<ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
<ax224:mailFrom/>
<ax224:mailReplyAddress/>
<ax224:mailServerName/>
<ax224:mailSubject/>

```

```

<ax224:sendingReportAsAttachment>>true</ax224:sendingReportAsAttachment>
  <ax224:sslEnabled>>false</ax224:sslEnabled>
  <ax224:tlsEnabled>>false</ax224:tlsEnabled>
  <ax224:zipFileName/>
  <ax224:zipResult>>false</ax224:zipResult>
</ax224:distribution>
<ax224:distributionList xsi:type="ax224:DistributionEmail">
  <ax224:description/>
  <ax224:disabled>>false</ax224:disabled>
  <ax224:id/>
  <ax224:type>EMAIL</ax224:type>
  <ax224:authEnabled>>false</ax224:authEnabled>
  <ax224:authPassword/>
  <ax224:authUserId/>
  <ax224:destination xsi:type="ax224:Destination">
    <ax224:distributionFile/>
    <ax224:distributionList/>
    <ax224:distributionListFullPath/>

```

```

        <ax224:dynamicAddress xsi:type="ax224:DynamicAd
            <ax224:password/>
            <ax224:procedureName/>
            <ax224:serverName/>
            <ax224:userName/>
        </ax224:dynamicAddress>
        <ax224:singleAddress/>
        <ax224:type>DISTRIBUTION_LIST</ax224:type>
    </ax224:destination>
    <ax224:inlineMessage/>
    <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
    <ax224:mailFrom/>
    <ax224:mailReplyAddress/>
    <ax224:mailServerName/>
    <ax224:mailSubject/>

    <ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
    <ax224:sslEnabled>>false</ax224:sslEnabled>
    <ax224:tlsEnabled>>false</ax224:tlsEnabled>
    <ax224:zipFileName/>
    <ax224:zipResult>>false</ax224:zipResult>
</ax224:distributionList>

```

```

        <ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
            <ax224:description>WebFocus Server Procedure
task</ax224:description>
            <ax224:disabled>>false</ax224:disabled>
            <ax224:id/>
            <ax224:procedureId/>
            <ax224:procedureName/>
            <ax224:reportName/>
            <ax224:taskRetry xsi:nil="true"/>
            <ax224:type>0</ax224:type>
            <ax224:allowFormatList xsi:nil="true"/>
            <ax224:burst>>false</ax224:burst>
            <ax224:execId/>
            <ax224:execPassword/>
            <ax224:firstPostProcessingProcedure/>
            <ax224:firstPreProcessingProcedure/>
            <ax224:formatInFex>>false</ax224:formatInFex>
            <ax224:parameterList xsi:nil="true"/>
            <ax224:secondPostProcessingProcedure/>
            <ax224:secondPreProcessingProcedure/>
            <ax224:sendFormat>HTML</ax224:sendFormat>
            <ax224:serverName>EDASERVE</ax224:serverName>
        </ax224:firstTask>
    </ax224:taskList>

```

```

        </ax224:firstTask>
        <ax224:ibfsId>6dff2b49I8245I4638I9e9fIc5900a9a12d5</ax224:ibfsId>
        <ax224:ibfsPath/>
        <ax224:id>S23f65030s728as482asa632s879fd9f6a727</ax224:id>
        <ax224:lastModified>2014-02-24T14:42:43.031-
05:00</ax224:lastModified>
        <ax224:lastTimeExecuted>1970-01-01T00:00:00.000-
05:00</ax224:lastTimeExecuted>
        <ax224:name/>
        <ax224:notification xsi:type="ax224:Notification">
            <ax224:addressForBriefNotification/>
            <ax224:addressForFullNotification/>
            <ax224:description/>
            <ax224:from/>
            <ax224:id/>
            <ax224:subject/>
            <ax224:type>INACTIVE</ax224:type>
        </ax224:notification>
        <ax224:owner>admin</ax224:owner>
        <ax224:priority>3</ax224:priority>
        <ax224:statusLastExecuted/>
        <ax224:summary/>

```

```

<ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
    <ax224:description>WebFocus Server Procedure
task</ax224:description>
    <ax224:disabled>>false</ax224:disabled>
    <ax224:id/>
    <ax224:procedureId/>
    <ax224:procedureName/>
    <ax224:reportName/>
    <ax224:taskRetry xsi:nil="true"/>
    <ax224:type>0</ax224:type>
    <ax224:allowFormatList xsi:nil="true"/>
    <ax224:burst>>false</ax224:burst>
    <ax224:execId/>
    <ax224:execPassword/>
    <ax224:firstPostProcessingProcedure/>
    <ax224:firstPreProcessingProcedure/>
    <ax224:formatInFex>>false</ax224:formatInFex>
    <ax224:parameterList xsi:nil="true"/>
    <ax224:secondPostProcessingProcedure/>
    <ax224:secondPreProcessingProcedure/>
    <ax224:sendFormat>HTML</ax224:sendFormat>
    <ax224:serverName>EDASERVE</ax224:serverName>

```

```

</ax224:taskList>
<ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
  <ax224:description/>
  <ax224:disabled>false</ax224:disabled>
  <ax224:id/>
  <ax224:name/>
  <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
  <ax224:startTime>2014-02-24T14:42:43.031-05:00</ax224:startTime>
  <ax224:type>0</ax224:type>
</ax224:timeInfo>
<ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">
  <ax224:description/>
  <ax224:disabled>false</ax224:disabled>
  <ax224:id/>
  <ax224:name/>
  <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
  <ax224:startTime>2014-02-24T14:42:43.031-05:00</ax224:startTime>
  <ax224:type>0</ax224:type>
</ax224:timeInfoList>
<ax224:traceType>0</ax224:traceType>
</ax226:schedule>

```

```

<ax226:startTime>2014-02-24T14:24:35.685-05:00</ax226:startTime>
  <ax226:status>1</ax226:status>
</ns:return>
<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
  <ax226:distributionServerName xsi:nil="true"/>
  <ax226:fullyQualifiedServerName xsi:nil="true"/>
  <ax226:id>Jfbd27992j5c60j4f48ja110jea71ff6ae996</ax226:id>
  <ax226:schedule xsi:type="ax224:Schedule">
    <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
    <ax224:active>true</ax224:active>
    <ax224:compressedReport>false</ax224:compressedReport>
    <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
    <ax224:description>Carinst Report 2</ax224:description>
    <ax224:distribution xsi:type="ax224:DistributionEmail">
      <ax224:description/>
      <ax224:disabled>false</ax224:disabled>
      <ax224:id/>
      <ax224:type>EMAIL</ax224:type>
      <ax224:authEnabled>false</ax224:authEnabled>
      <ax224:authPassword/>
      <ax224:authUserId/>
      <ax224:destination xsi:type="ax224:Destination">

```

```

        <ax224:distributionFile/>
        <ax224:distributionList/>
        <ax224:distributionListFullPath/>
        <ax224:dynamicAddress xsi:type="ax224:DynamicAd
            <ax224:password/>
            <ax224:procedureName/>
            <ax224:serverName/>
            <ax224:userName/>
        </ax224:dynamicAddress>
        <ax224:singleAddress/>
        <ax224:type>DISTRIBUTION_LIST</ax224:type>
    </ax224:destination>
    <ax224:inlineMessage/>
    <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
    <ax224:mailFrom/>
    <ax224:mailReplyAddress/>
    <ax224:mailServerName/>
    <ax224:mailSubject/>

    <ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
    <ax224:sslEnabled>>false</ax224:sslEnabled>
    <ax224:tlsEnabled>>false</ax224:tlsEnabled>
    <ax224:zipFileName/>
    <ax224:zipResult>>false</ax224:zipResult>
</ax224:distribution>

```

```

<ax224:distributionList xsi:type="ax224:DistributionEmail">
    <ax224:description/>
    <ax224:disabled>>false</ax224:disabled>
    <ax224:id/>
    <ax224:type>EMAIL</ax224:type>
    <ax224:authEnabled>>false</ax224:authEnabled>
    <ax224:authPassword/>
    <ax224:authUserId/>
    <ax224:destination xsi:type="ax224:Destination">
        <ax224:distributionFile/>
        <ax224:distributionList/>
        <ax224:distributionListFullPath/>
        <ax224:dynamicAddress xsi:type="ax224:DynamicAd
            <ax224:password/>
            <ax224:procedureName/>
            <ax224:serverName/>
            <ax224:userName/>
        </ax224:dynamicAddress>
        <ax224:singleAddress/>
    </ax224:destination>

```

```

        <ax224:type>DISTRIBUTION_LIST</ax224:type>
    </ax224:destination>
    <ax224:inlineMessage/>
    <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
    <ax224:mailFrom/>
    <ax224:mailReplyAddress/>
    <ax224:mailServerName/>
    <ax224:mailSubject/>

    <ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
    <ax224:sslEnabled>>false</ax224:sslEnabled>
    <ax224:tlsEnabled>>false</ax224:tlsEnabled>
    <ax224:zipFileName/>
    <ax224:zipResult>>false</ax224:zipResult>
</ax224:distributionList>

```

```

<ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
    <ax224:description>WebFocus Server Procedure
task</ax224:description>
    <ax224:disabled>>false</ax224:disabled>
    <ax224:id/>
    <ax224:procedureId/>
    <ax224:procedureName/>
    <ax224:reportName/>
    <ax224:taskRetry xsi:nil="true"/>
    <ax224:type>0</ax224:type>
    <ax224:allowFormatList xsi:nil="true"/>
    <ax224:burst>>false</ax224:burst>
    <ax224:execId/>
    <ax224:execPassword/>
    <ax224:firstPostProcessingProcedure/>
    <ax224:firstPreProcessingProcedure/>
    <ax224:formatInFex>>false</ax224:formatInFex>
    <ax224:parameterList xsi:nil="true"/>
    <ax224:secondPostProcessingProcedure/>
    <ax224:secondPreProcessingProcedure/>
    <ax224:sendFormat>HTML</ax224:sendFormat>
    <ax224:serverName>EDASERVE</ax224:serverName>
</ax224:firstTask>
<ax224:ibfsId>6dff2b49I8245I4638I9e9fIc5900a9a12d5</ax224:ibfsId>
<ax224:ibfsPath/>
<ax224:id>S23f65030s728as482asa632s879fd9f6a727</ax224:id>
<ax224:lastModified>2014-02-24T14:42:43.032-
05:00</ax224:lastModified>
<ax224:lastTimeExecuted>1970-01-01T00:00:00.000-

```

```

05:00</ax224:lastTimeExecuted>
    <ax224:name/>
    <ax224:notification xsi:type="ax224:Notification">
        <ax224:addressForBriefNotification/>
        <ax224:addressForFullNotification/>
        <ax224:description/>
        <ax224:from/>
        <ax224:id/>
        <ax224:subject/>
        <ax224:type>INACTIVE</ax224:type>
    </ax224:notification>
    <ax224:owner>admin</ax224:owner>
    <ax224:priority>3</ax224:priority>
    <ax224:statusLastExecuted/>
    <ax224:summary/>

```

```

    <ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
        <ax224:description>WebFocus Server Procedure
task</ax224:description>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:procedureId/>
        <ax224:procedureName/>
        <ax224:reportName/>
        <ax224:taskRetry xsi:nil="true"/>
        <ax224:type>0</ax224:type>
        <ax224:allowFormatList xsi:nil="true"/>
        <ax224:burst>>false</ax224:burst>
        <ax224:execId/>
        <ax224:execPassword/>
        <ax224:firstPostProcessingProcedure/>
        <ax224:firstPreProcessingProcedure/>
        <ax224:formatInFex>>false</ax224:formatInFex>
        <ax224:parameterList xsi:nil="true"/>
        <ax224:secondPostProcessingProcedure/>
        <ax224:secondPreProcessingProcedure/>
        <ax224:sendFormat>HTML</ax224:sendFormat>
        <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:taskList>
    <ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:

```

```

        <ax224:startTime>2014-02-24T14:42:43.031-05:00</ax224:s
        <ax224:type>0</ax224:type>
    </ax224:timeInfo>
    <ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224
        <ax224:startTime>2014-02-24T14:42:43.031-05:00</ax224:s
        <ax224:type>0</ax224:type>
    </ax224:timeInfoList>
    <ax224:traceType>0</ax224:traceType>
</ax226:schedule>

```

```

<ax226:startTime>2014-02-24T14:24:35.817-05:00</ax226:startTime>
    <ax226:status>1</ax226:status>
</ns:return>
<ns:return xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:type="ax226:Job">
    <ax226:distributionServerName xsi:nil="true"/>
    <ax226:fullyQualifiedServerName xsi:nil="true"/>
    <ax226:id>J57602256jc2bfj4523j8492j138f33deb40f</ax226:id>
    <ax226:schedule xsi:type="ax224:Schedule">
        <ax224:IBFSObjectType>113</ax224:IBFSObjectType>
        <ax224:active>true</ax224:active>
        <ax224:compressedReport>false</ax224:compressedReport>
        <ax224:deleteJobAfterRun>false</ax224:deleteJobAfterRun>
        <ax224:description>Carinst Report 2</ax224:description>
        <ax224:distribution xsi:type="ax224:DistributionEmail">
            <ax224:description/>
            <ax224:disabled>false</ax224:disabled>
            <ax224:id/>
            <ax224:type>EMAIL</ax224:type>
            <ax224:authEnabled>false</ax224:authEnabled>
            <ax224:authPassword/>
            <ax224:authUserId/>
            <ax224:destination xsi:type="ax224:Destination">
                <ax224:distributionFile/>
                <ax224:distributionList/>
                <ax224:distributionListFullPath/>
                <ax224:dynamicAddress xsi:type="ax224:DynamicAd
                    <ax224:password/>
                    <ax224:procedureName/>
                    <ax224:serverName/>
            </ax224:destination>
        </ax224:distribution>
    </ax226:schedule>
</ns:return>
</ns:response>
</ns:Envelope>

```



```

        <ax224:userName/>
    </ax224:dynamicAddress>
    <ax224:singleAddress/>
    <ax224:type>DISTRIBUTION_LIST</ax224:type>
</ax224:destination>
<ax224:inlineMessage/>
<ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
<ax224:mailFrom/>
<ax224:mailReplyAddress/>
<ax224:mailServerName/>
<ax224:mailSubject/>

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
    <ax224:sslEnabled>>false</ax224:sslEnabled>
    <ax224:tlsEnabled>>false</ax224:tlsEnabled>
    <ax224:zipFileName/>
    <ax224:zipResult>>false</ax224:zipResult>
</ax224:distribution>

```

```

<ax224:distributionList xsi:type="ax224:DistributionEmail">
    <ax224:description/>
    <ax224:disabled>>false</ax224:disabled>
    <ax224:id/>
    <ax224:type>EMAIL</ax224:type>
    <ax224:authEnabled>>false</ax224:authEnabled>
    <ax224:authPassword/>
    <ax224:authUserId/>
    <ax224:destination xsi:type="ax224:Destination">
        <ax224:distributionFile/>
        <ax224:distributionList/>
        <ax224:distributionListFullPath/>
        <ax224:dynamicAddress xsi:type="ax224:DynamicAddress">
            <ax224:password/>
            <ax224:procedureName/>
            <ax224:serverName/>
            <ax224:userName/>
        </ax224:dynamicAddress>
        <ax224:singleAddress/>
        <ax224:type>DISTRIBUTION_LIST</ax224:type>
    </ax224:destination>
    <ax224:inlineMessage/>
    <ax224:inlineTaskIndex>0</ax224:inlineTaskIndex>
    <ax224:mailFrom/>
    <ax224:mailReplyAddress/>
    <ax224:mailServerName/>

```

```

        <ax224:mailSubject/>

<ax224:sendingReportAsAttachment>true</ax224:sendingReportAsAttachment>
    <ax224:sslEnabled>>false</ax224:sslEnabled>
    <ax224:tlsEnabled>>false</ax224:tlsEnabled>
    <ax224:zipFileName/>
    <ax224:zipResult>>false</ax224:zipResult>
</ax224:distributionList>
<ax224:firstTask xsi:type="ax224:TaskWFServerProcedure">
    <ax224:description>WebFocus Server Procedure
task</ax224:description>
    <ax224:disabled>>false</ax224:disabled>
    <ax224:id/>
    <ax224:procedureId/>
    <ax224:procedureName/>
    <ax224:reportName/>
    <ax224:taskRetry xsi:nil="true"/>
    <ax224:type>0</ax224:type>
    <ax224:allowFormatList xsi:nil="true"/>

<ax224:burst>>false</ax224:burst>
    <ax224:execId/>
    <ax224:execPassword/>
    <ax224:firstPostProcessingProcedure/>
    <ax224:firstPreProcessingProcedure/>
    <ax224:formatInFex>>false</ax224:formatInFex>
    <ax224:parameterList xsi:nil="true"/>
    <ax224:secondPostProcessingProcedure/>
    <ax224:secondPreProcessingProcedure/>
    <ax224:sendFormat>HTML</ax224:sendFormat>
    <ax224:serverName>EDASERVE</ax224:serverName>
</ax224:firstTask>
<ax224:ibfsId>6dff2b49I8245I4638I9e9fIc5900a9a12d5</ax224:ibfsId>
<ax224:ibfsPath/>
<ax224:id>S23f65030s728as482asa632s879fd9f6a727</ax224:id>
<ax224:lastModified>2014-02-24T14:42:43.032-
05:00</ax224:lastModified>
    <ax224:lastTimeExecuted>1970-01-01T00:00:00.000-
05:00</ax224:lastTimeExecuted>
    <ax224:name/>
    <ax224:notification xsi:type="ax224:Notification">
        <ax224:addressForBriefNotification/>
        <ax224:addressForFullNotification/>
        <ax224:description/>
        <ax224:from/>

```

```

        <ax224:id/>
        <ax224:subject/>
        <ax224:type>INACTIVE</ax224:type>
    </ax224:notification>
    <ax224:owner>admin</ax224:owner>
    <ax224:priority>3</ax224:priority>
    <ax224:statusLastExecuted/>
    <ax224:summary/>
    <ax224:taskList xsi:type="ax224:TaskWFServerProcedure">
        <ax224:description>WebFocus Server Procedure
task</ax224:description>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:procedureId/>
        <ax224:procedureName/>
        <ax224:reportName/>
        <ax224:taskRetry xsi:nil="true"/>
        <ax224:type>0</ax224:type>
        <ax224:allowFormatList xsi:nil="true"/>
        <ax224:burst>>false</ax224:burst>
    </ax224:taskList>

```

```

<ax224:execId/>

```

```

        <ax224:execPassword/>
        <ax224:firstPostProcessingProcedure/>
        <ax224:firstPreProcessingProcedure/>
        <ax224:formatInFex>>false</ax224:formatInFex>
        <ax224:parameterList xsi:nil="true"/>
        <ax224:secondPostProcessingProcedure/>
        <ax224:secondPreProcessingProcedure/>
        <ax224:sendFormat>HTML</ax224:sendFormat>
        <ax224:serverName>EDASERVE</ax224:serverName>
    </ax224:taskList>
    <ax224:timeInfo xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-02-24T14:42:43.032-05:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfo>
    <ax224:timeInfoList xsi:type="ax224:TimeInfoOnce">
        <ax224:description/>
        <ax224:disabled>>false</ax224:disabled>
        <ax224:id/>
    </ax224:timeInfoList>

```

```

        <ax224:name/>
        <ax224:nextRunTime>1970-01-01T00:00:00.000-05:00</ax224:nextRunTime>
        <ax224:startTime>2014-02-24T14:42:43.032-05:00</ax224:startTime>
        <ax224:type>0</ax224:type>
    </ax224:timeInfoList>
    <ax224:traceType>0</ax224:traceType>
</ax226:schedule>
<ax226:startTime>2014-02-24T14:24:36.070-05:00</ax226:startTime>
<ax226:status>1</ax226:status>
</ns:return>
</ns:getRunningJobsByOwnerResponse>

```

Removing a Job From the Job Queue

This RESTful web service request can be used to remove a specific ReportCaster job from the job queue.

HTTP Method: GET

REST URL Format:

```

http://host:port/ibi_
apps/services/ConsoleServiceREST/removeJobFromQueue?jobId=jobId

```

where:

host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

jobId

Is a unique identifier for the ReportCaster job.

Example:

In the following example, the ReportCaster job with a job ID of Jc12b4443jb1f8j4c19j90aaj7ba31ac4dbf5 is removed from the job queue.

Request:

```
http://localhost:8080/ibi_
apps/services/ConsoleServiceREST/removeJobFromQueue?
jobId=Jc12b4443jb1f8j4c19j90aaj7ba31ac4dbf5
```

Response:

```
<ns:removeJobFromQueueResponse xmlns:ns="http://ws.api.broker.ibi">
  <ns:return>1</ns:return>
</ns:removeJobFromQueueResponse>
```

Using the RESTful Web Services Test Page

This appendix describes how to use the Test page to test and debug the functionality of RESTful web services.

Accessing the Test Page

Enter the following URL in your browser to access the Test page:

```
http://host:port/ibi_apps/rs?IBIRS_action=TEST
```

where:

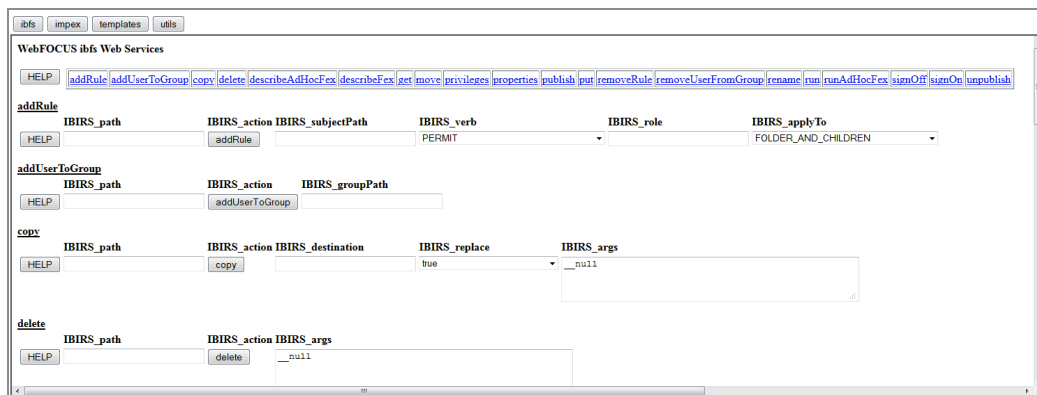
host

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

The Test page opens in your browser, as shown in the following image.



Using the Test Page

Four buttons (ibfs, impex, templates, and utils) are available at the top of the Test page. Clicking a specific button will display a list of RESTful web services functionality that can be tested.

- **ibfs.** The majority of the RESTful web services functionality is included in this category. Change Management and Template functionality are excluded.
- **impex.** Functions that support Change Management are included in this category. Change Management Export and Import are included.
- **templates.** Functions that support Templates are included in this category. Creating and Running a Template are included.
- **utils.** Functions that support Utilities are included in this category. Expanding and Compacting a Policy are included.

Within each category of RESTful web services, each of the RESTful web services functionality tests are based on the IBIRS_action parameter value. Every RESTful web service includes this parameter. The label of the button on each test within the Test page represents the parameter value for the IBIRS_action parameter. To display the form for a specific test based on IBIRS_action, click the appropriate link at the top of the Test page (for example, put). Note that the parameter name is displayed above each field or drop-down list that is required to test the particular functionality.

When a particular parameter requires a path, the URL from the Test page, excluding IBIRS_action=TEST along with the category name is assumed in making the REST request. In Example 1 from [Listing Folders and Subfolders](#), the path can be represented in the field from the Test page test as /WFC/Repository.

In order for any of the tests to work successfully, you must be authenticated to WebFOCUS. This can be done by logging on to the WebFOCUS Business Intelligence Portal or by entering the credentials in the signOn section of the Test page and clicking the signOn button.

Example:

In the following example, a test is performed to add a group based on the example from [Adding and Updating a Group](#).

ibfs

impex

templates

utils

HELP

publish

put

HELP

IBIRS_path

/SSYS/GROUPS/RestUsers

IBIRS_action

put

IBIRS_object

<object _id="IBIRSGroupObject" container="true"
description="RESTful Web Services Users"
type="Group"></object>

IBIRS_private

__null

IBIRS_replace

true

IBIRS_args

__null

removeRule

HELP

IBIRS_path

IBIRS_action

removeRule

IBIRS_subjectPath

IBIRS_role

removeUserFromGroup

HELP

IBIRS_path

IBIRS_action

removeUserFromGroup

IBIRS_groupPath

rename

HELP

IBIRS_path

IBIRS_action

rename

IBIRS_newName

IBIRS_args

__null

Alternative Method of Calling WebFOCUS RESTful Web Service Requests

This appendix describes an alternative method that can be used to call WebFOCUS RESTful web service requests.

Calling WebFOCUS RESTful Web Service Requests

For each WebFOCUS RESTful web service request, the portion of the URL path following *rs* can be represented as a parameter. *IBIRS_service* represents the parameter for the category and *IBIRS_path* represents the path to the specific functionality that is being performed.

Example:

In the following example, the REST URL for Example 1 from [Listing Folders and Subfolders](#) shows the REST URL as:

```
http://localhost:8080/ibi_apps/rs/ibfs/WFC/Repository?IBIRS_action=get
```

This request can also be sent as follows:

```
http://localhost:8080/ibi_apps/rs?IBIRS_action=get&IBIRS_path=/WFC/Repository&IBIRS_service=ibfs
```

Visual Basic .NET, Java, HTML and jQuery Code Examples

This appendix provides Visual Basic .NET, Java, HTML and jQuery code examples on how to create WebFOCUS RESTful web service requests.

Signing In to WebFOCUS

This section provides code examples that demonstrate how to sign in to WebFOCUS.

Visual Basic .NET Example

```
Imports System.Net
Imports System.IO
Imports System.Text
Dim cookies As New CookieContainer
Dim webStream As Stream
Dim webResponse As String = ""
Dim request As HttpWebRequest
Dim response As HttpWebResponse
Dim postData As String
request = WebRequest.Create("http://localhost:8080/ibi_apps/rs/ibfs")
request.Method = "POST"
postData = "IBIRS_action=signOn&IBIRS_userName=admin&IBIRS_
password=admin"
request.CookieContainer = cookies
Dim byteArray As Byte() = Encoding.UTF8.GetBytes(postData)
request.ContentType = "application/x-www-form-urlencoded"
request.ContentLength = byteArray.Length
Dim dataStream As Stream = request.GetRequestStream()
dataStream.Write(byteArray, 0, byteArray.Length)
dataStream.Close()
response = request.GetResponse()
webStream = response.GetResponseStream()
Dim webStreamReader As New StreamReader(webStream)
While webStreamReader.Peek >= 0
```

```

        webResponse = webStreamReader.ReadToEnd()
End While

```

Java Example

```

import java.awt.Frame;
import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import org.apache.commons.httpclient.*;
import org.apache.commons.httpclient.methods.*;
String request = "http://localhost:8080/ibi_apps/rs/ibfs";
HttpClient client = new HttpClient();
PostMethod method = new PostMethod(request);

method.addParameter("IBIRS_action","signOn");
method.addParameter("IBIRS_userName","admin");
method.addParameter("IBIRS_password","admin");

int statusCode = client.executeMethod(method);
Header[] cookies = null;
InputStream rstream = null;

rstream = method.getResponseBodyAsStream();
cookies = method.getResponseHeaders("Set-Cookie");

BufferedReader br = new BufferedReader(new InputStreamReader(rstream));
String line;
while ((line = br.readLine()) != null) {
    System.out.println(line);
}
br.close();

```

HTML and jQuery Example

```

<!DOCTYPE html>
<html>
<head>
    <title></title>
    <meta charset="utf-8" />
    <script type="text/javascript" src="http://code.jquery.com/jquery-

```

```

3.1.0.js"> </script>
    <script type='text/javascript'
src="http://cdnjs.cloudflare.com/ajax/libs/jquery-ajaxtransport-
xdomainrequest/1.0.1/
jquery.xdomainrequest.min.js"></script>

    <script type="text/javascript">
        var csrf_name;
        var csrf_value;
        $(document).ready(function (IBIRS_action, IBIRS_userName, IBIRS_
password) {
            var contentType = "application/x-www-form-urlencoded;
charset=utf-8";
            if (window.XDomainRequest)
                contentType = "text/plain";
            var divToBeWorkedOn = "#AjaxPlaceHolder";
            var webMethod = "http://machine:port/ibi_apps/rs/ibfs";
            var IBIRS_action = "signOn";
            var IBIRS_userName = "admin";
            var IBIRS_password = "admin";
            var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_
userName=' + IBIRS_userName + '&IBIRS_password=' + IBIRS_password;
            $.ajax({
                type: "POST",
                url: webMethod,
                data: parameters,
                dataType: "xml",
                contentType: contentType,
                success: alert("success"),
                complete: function(xhr,status) {
                    alert(xhr.responseText);
                    alert(xhr.getAllResponseHeaders());
                },
                error: function(jqXHR,textStatus,errorThrown)
                {
                    alert("You can not send Cross Domain AJAX requests:
" + errorThrown);
                }
            })
        });
    </script>

```

```

    </script>
</head>
<body>
    <div id="AjaxPlaceHolder">
        <div align="center"></div>
</div>

<div></div>
</body>
</html>

```

Listing Folders From WebFOCUS

This section provides code examples that demonstrate how to retrieve a list of the top-level folders from WebFOCUS. A successful sign-on request is a prerequisite for running this example, including retrieving the HTTP Header cookies from its response.

Visual Basic .NET Example

```

Imports System.Net
Imports System.IO
Imports System.Text
Dim request3 As HttpWebRequest
Dim response3 As HttpWebResponse
Dim webStream3 As Stream
Dim webResponse3 As String = ""
Dim tempfile As String
request3 = WebRequest.Create("http://localhost:8080/ibi_
apps/rs/ibfs/WFC/
Repository?IBIRS_action=get")
request3.Method = "GET"
'cookies is defined as CookieContainer in the Signing-On to WebFOCUS
example
request3.CookieContainer = cookies
response3 = request3.GetResponse()
webStream3 = response3.GetResponseStream()
Dim webStreamReader3 As New StreamReader(webStream3)
tempfile = "c:\temp\Folders.xml"
FileOpen(1, tempfile, OpenMode.Output)
While webStreamReader3.Peek >= 0
    webResponse3 = webStreamReader3.ReadToEnd()
    PrintLine(1, webResponse3)
End While
FileClose(1)
Dim xmlElem = XElement.Parse(webResponse3)

```

Java Example

```
import java.awt.Frame;
import java.io.BufferedReader;
import java.io.File;
import java.io.FileOutputStream;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.PrintWriter;
import org.apache.commons.httpclient.*;
import org.apache.commons.httpclient.methods.*;
String request3 = "http://localhost:8080/ibi_
apps/rs/ibfs/WFC/Repository?IBIRS_action=get";

GetMethod method_getFolders = new GetMethod(request3);
// cookies is defined as Header[] in the Signing-On to WebFOCUS example

for(int h=0; h<cookies.length; h++){
    method_getFolders.addRequestHeader(cookies[h].getName(), cookies
[h].getValue());
}
// client is defined as HttpClient in the Signing-On to WebFOCUS example

int statusCode3 = client.executeMethod(method_getFolders);

InputStream rstream3 = null;
rstream3 = method_getFolders.getResponseBodyAsStream();
File tempfile = new File("c:\\temp\\Folders.xml");
FileOutputStream fos = new FileOutputStream(tempfile);
PrintWriter out=new PrintWriter(fos);
BufferedReader br3 = new BufferedReader(new InputStreamReader
(rstream3));
String line3;
String newOutput = null;
while ((line3 = br3.readLine()) != null) {
    newOutput = line3;
    out.println(newOutput);
    System.out.println(line3);
}
br3.close();
out.close();
```

HTML and jQuery Example

```
<!DOCTYPE html>
<html>
<head>
  <title></title>
  <meta charset="utf-8" />
  <script type="text/javascript" src="http://code.jquery.com/jquery-
3.1.0.js"> </script>
  <script type='text/javascript'
src="http://cdnjs.cloudflare.com/ajax/libs/jquery-ajaxtransport-
xdomainrequest/1.0.1/
jquery.xdomainrequest.min.js"></script>
  <script type="text/javascript">
    var csrf_name;
    var csrf_value;
    var frameToBeWorkedOn = "#AjaxPlaceHolder";
    var contentType = "application/x-www-form-urlencoded;
charset=utf-8";
    $(document).ready(function (IBIRS_action, IBIRS_userName, IBIRS_
password) {
      if (window.XDomainRequest)
        contentType = "text/plain";
      var webMethod = "http://machine:port/ibi_apps/rs/ibfs";
      var IBIRS_action = "signOn";
      var IBIRS_userName = "admin";
      var IBIRS_password = "admin";
      var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_
userName=' + IBIRS_userName + '&IBIRS_password=' + IBIRS_password;
      $.ajax({
        type: "POST",
        url: webMethod,
        data: parameters,
        dataType: "xml",
        xhrFields: {
          withCredentials: true
        },
        crossDomain: true,
        contentType: contentType,
        success: listFolders,
        error: function(jqXHR, textStatus, errorThrown)
        {
          alert("You can not send Cross Domain AJAX requests:
" + errorThrown);
        }
      })
    });
  </script>
</head>
</html>
```

```

function listFolders() {
    if (window.XDomainRequest)
        contentType = "text";

    var webMethod = "http://machine:port/ibi_
apps/rs/ibfs/WFC/Repository";
    var IBIRS_action = "get";
    var parameters = 'IBIRS_action=' + IBIRS_action;

    $.ajax({
        type: "GET",
        url: webMethod,
        data: parameters,
        dataType: "xml",
        xhrFields: {
            withCredentials: true
        },
        crossDomain: true,
        success: xmlParse,
        //complete: function(xhr,status) {

        //    alert(xhr.responseText);
        //    AjaxPlaceHolder.innerHTML = xhr.responseText;
        //},
        error: function (jqXHR, textStatus, errorThrown) {
            alert("You can not send Cross Domain AJAX requests:
" + errorThrown);
        }
    })
}

function xmlParse(xml) {
    $(xml).find("item").each(function () {
        if ($(this).attr("type") == "MRFolder") {
            folder_name = $(this).attr("name");
            AjaxPlaceHolder.appendChild(document.createTextNode
(folder_name + "\n"));
        }
    });
}
</script>
</head>
<body>
    <h1>These are the top-level folders under the Respository</h1>

```



```

        <textarea id="AjaxPlaceHolder" name="AjaxPlaceHolder"
style="position:absolute; width:500px; height:500px;" ></textarea>
</body>
</html>

```

Running a WebFOCUS Report

This section provides code examples that demonstrate how to run the *Sales_for_a_Specific_Country* WebFOCUS report, which resides in the *RESTful_Web_Services/Car_Reports* folder. A successful sign-on request is a prerequisite for running this example, including retrieving the HTTP Header cookies from its response.

Visual Basic .NET Example

```

Imports System.Net
Imports System.IO
Imports System.Text
Dim request2 As HttpWebRequest
Dim response2 As HttpWebResponse
Dim webStream2 As Stream
Dim webResponse2 As String = ""
request2 =
WebRequest.Create("http://localhost:8080/ibi_
apps/rs/ibfs/WFC/Repository/
RESTful_Web_Services/Car_Reports/Sales_for_a_Specific_Country.fex")
request2.Method = "POST"
'cookies is defined as CookieContainer in the Signing-On to WebFOCUS
example
request2.CookieContainer = cookies
postData = "IBIRS_action=run&COUNTRY=ENGLAND"
Dim byteArray2 As Byte() = Encoding.UTF8.GetBytes(postData)
request2.ContentType = "application/x-www-form-urlencoded"
request2.ContentLength = byteArray2.Length
Dim dataStream2 As Stream = request2.GetRequestStream()
dataStream2.Write(byteArray2, 0, byteArray2.Length)
dataStream2.Close()
response2 = request2.GetResponse()
webStream2 = response2.GetResponseStream()
Dim webStreamReader2 As New StreamReader(webStream2)
While webStreamReader2.Peek >= 0
    webResponse2 = webStreamReader2.ReadToEnd()

```

```
End While
WebBrowser1.DocumentText = webResponse2
```

Java Example

```
import java.awt.Frame;
import java.io.BufferedReader;
import java.io.File;
import java.io.FileOutputStream;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.PrintWriter;
import org.apache.commons.httpclient.*;
import org.apache.commons.httpclient.methods.*;
String request2 = "http://localhost:8080/ibi_
apps/rs/ibfs/WFC/Repository/RESTful_Web_
Services/Car_Reports/Sales_for_a_Specific_Country.fex";

PostMethod method_report = new PostMethod(request2);

method_report.addParameter("IBIRS_action","run");
method_report.addParameter("COUNTRY","ENGLAND");
// cookies is defined as Header[] in the Signing-On to WebFOCUS example

for(int h=0; h<cookies.length; h++){
    System.out.println(cookies[h]);
    method_report.addRequestHeader(cookies[h].getName(), cookies
[h].getValue());
}

// client is defined as HttpClient in the Signing-On to WebFOCUS example
int statusCode2 = client.executeMethod(method_report);
InputStream rstream2 = null;

rstream2 = method_report.getResponseBodyAsStream();

File tempfile = new File("c:\\temp\\Report.htm");
FileOutputStream fos = new FileOutputStream(tempfile);
PrintWriter out=new PrintWriter(fos);
BufferedReader br2 = new BufferedReader(new InputStreamReader
(rstream2));
String line2;
String newOutput = null;
```

```

while ((line2 = br2.readLine()) != null) {
    newOutput = line2;
    out.println(newOutput);
    System.out.println(line2);
}
br2.close();
out.close();

```

HTML and jQuery Example

```

<!DOCTYPE html>
<html>
<head>
    <title></title>
    <meta charset="utf-8" />
    <script type="text/javascript" src="http://code.jquery.com/jquery-
3.1.0.js"> </script>
    <script type='text/javascript'
src="http://cdnjs.cloudflare.com/ajax/libs/jquery-ajaxtransport-
xdomainrequest/1.0.1/
jquery.xdomainrequest.min.js"></script>

    <script type="text/javascript">
        var csrf_name;
        var csrf_value;
        var frameToBeWorkedOn = "#AjaxPlaceHolder";
        var contentType = "application/x-www-form-urlencoded;
charset=utf-8";
        $(document).ready(function (IBIRS_action, IBIRS_userName, IBIRS_
password) {

            if (window.XDomainRequest)
                contentType = "text/plain";
            var webMethod = "http://machine:port/ibi_apps/rs";
            var IBIRS_action = "signOn";
            var IBIRS_userName = "admin";
            var IBIRS_password = "admin";
            var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_
userName=' + IBIRS_userName + '&IBIRS_password=' + IBIRS_password;
            $.ajax({
                type: "POST",
                url: webMethod,
                data: parameters,
                dataType: "xml",

```

```

        xhrFields: {
            withCredentials: true
        },
        crossDomain: true,
        contentType: contentType,
        success: xmlParser,
        error: function(jqXHR, textStatus, errorThrown)
        {
            alert("You can not send Cross Domain AJAX requests:
" + errorThrown);
        }
    })
});
function xmlParser(xml) {

```

```

    $(xml).find("entry").each(function () {
        if ($(this).attr("key") == "IBI_CSRF_Token_Name") {
            csrf_name = $(this).attr("value");
        }
        if ($(this).attr("key") == "IBI_CSRF_Token_Value") {
            csrf_value = $(this).attr("value");
        }
    });
    runReport();
}
function runReport() {
    if (window.XDomainRequest)
        contentType = "text/plain";
    var webMethod = "http://machine:port/ibi_
apps/rs/ibfs/WFC/Repository/Tests/Revenue_by_Product_Category.fex";
    var IBIRS_action = "run";
    var BUSINESS_REGION = "'North America'";
    var BUSINESS_SUB_REGION = "'MidWest'";
    var parameters = 'IBIRS_action=' + IBIRS_action +
'&BUSINESS_REGION=' + BUSINESS_REGION + '&BUSINESS_SUB_REGION=' +
BUSINESS_SUB_REGION + '&' + csrf_name + '=' + csrf_value;
    $.ajax({
        type: "POST",
        url: webMethod,
        data: parameters,
        dataType: "html",
        xhrFields: {
            withCredentials: true
        },
        crossDomain: true,
        contentType: contentType,

```

```

/*          success: alert("success"),          */
/*          complete: function(xhr,status) {
/*              alert(xhr.responseText); */
/*          $("AjaxPlaceHolder".html(xhr.responseText)); */
/*          document.AjaxPlaceHolder.document.body.innerHTML =
xhr.responseText;
            },
            error: function (jqXHR, textStatus, errorThrown) {
                alert("You can not send Cross Domain AJAX requests:
" + errorThrown);
            }
        })
    }
</script>
</head>
<body>
    <iframe id="AjaxPlaceHolder" name="AjaxPlaceHolder" height="600"
width="900" align="middle" style="position:absolute; top: 5px; left:
5px"></iframe>
</body>
</html>

```

Handling Drill-downs, Active Cache, and On-Demand Paging Reports

This section provides code examples that demonstrate how to run an On-Demand Paging report called ODP_Report.fex, which resides in the *RESTful_Web_Services/Car_Reports* folder.

The examples include:

- A signOn page, which is used to run the initial request.
- A WebForm2 page, which is used to make the additional RESTful Web Services requests required for the paging within the WebFOCUS report.

The WebForm2 page can also be used as is to handle Drill-down and Active Cache paging requests.

The signOn page contains the RESTful Web Service request to run the initial WebFOCUS report. The IBIRS_clientPath parameter is set so that all additional RESTful Web Services requests needed, whether paging, image retrieval, or paging will be routed through the client application. For example:

```
IBIRS_clientPath=http://localhost:51970/WebForm2.aspx
```

Visual Basic .NET Example (signOn.aspx and WebForm2.aspx)

signOn.aspx

```
Imports System.Net
Imports System.IO
Public Class signOn
    Inherits System.Web.UI.Page
    Dim cookies As New CookieContainer
    Protected Sub Page_Load(ByVal sender As Object, ByVal e As
System.EventArgs) Handles Me.Load
        Dim webStream As Stream
        Dim webResponse As String = ""
        Dim request As HttpWebRequest
        Dim response1 As HttpWebResponse
        Dim postData As String
        request = WebRequest.Create("http://localhost.:8080/ibi_
apps/rs/ibfs")

        request.Method = "POST"
        postData = "IBIRS_action=signOn&IBIRS_userName=admin&IBIRS_
password=admin"
        request.CookieContainer = cookies

        Dim byteArray As Byte() = Encoding.UTF8.GetBytes(postData)
        request.ContentType = "application/x-www-form-urlencoded"
        request.ContentLength = byteArray.Length
        Dim dataStream As Stream = request.GetRequestStream()
        dataStream.Write(byteArray, 0, byteArray.Length)
        dataStream.Close()
        response1 = request.GetResponse()
        webStream = response1.GetResponseStream()
        Dim request2 As HttpWebRequest
        Dim response2 As HttpWebResponse
        Dim webStream2 As Stream
        Dim webResponse2 As String = ""
        Dim uri As New System.Uri("http://localhost.:8080/ibi_apps/rs")

        request2 = WebRequest.Create(uri)
```

```

        request2.Method = "POST"
        request2.CookieContainer = cookies
        postData = "IBIRS_action=run" + _
                    "&IBIRS_clientPath=/WebForm2.aspx" + _
        "&IBIRS_path=/WFC/Repository/RESTful_Web_Services/Car_Reports/ODP_
        Report.fex" + _
                    "&IBIRS_service=ibfs" + _
                    "&IBIRS_htmlPath=http://localhost:8080/ibi_apps/ibi_
        html"

        Dim byteArray2 As Byte() = Encoding.UTF8.GetBytes(postData)
        request2.ContentType = "application/x-www-form-urlencoded"

```

```

        request2.ContentLength = byteArray2.Length
        Dim dataStream2 As Stream = request2.GetRequestStream()
        dataStream2.Write(byteArray2, 0, byteArray2.Length)
        dataStream2.Close()
        response2 = request2.GetResponse()
        Dim i As Integer
        Dim cookieArray As New CookieCollection
        cookieArray = cookies.GetCookies(uri)
        For i = 0 To cookies.Count - 1
            Dim aCookie As New HttpCookie(cookieArray(i).Name)
            aCookie.Value = cookieArray(i).Value
            Response.Cookies.Add(aCookie)
        Next i
        webStream2 = response2.GetResponseStream()
        Dim webStreamReader2 As New StreamReader(webStream2)
        While webStreamReader2.Peek >= 0
            webResponse2 = webStreamReader2.ReadToEnd()
        End While
        Response.Output.Write(webResponse2)
    End Sub
End Class

```

WebForm2.aspx

```

Imports System.Net
Imports System.IO
Public Class WebForm2
    Inherits System.Web.UI.Page
    Protected Sub Page_Load(ByVal sender As Object, ByVal e As
    System.EventArgs) Handles Me.Load
        Dim tDrillURL As String = Request.ServerVariables("QUERY_
        STRING")

```

```

Dim i As Integer
Dim qParm As String
Dim qValue As String
Dim IBIRS_path As String = ""
Dim Clicked_On As String = ""
Dim cookies As New CookieContainer
Dim request3 As HttpWebRequest
Dim response3 As HttpWebResponse
Dim webStream3 As Stream
Dim webResponse3 As String = ""
Dim getData As String
Dim uris As String = "http://localhost.:8080/ibi_apps/rs"
Dim uri As New System.Uri(uris)

```

```

getData = "http://localhost.:8080/ibi_apps/rs?" + _
          tDrillURL + _
          "&IBIRS_clientPath=/WebForm2.aspx" + _
          "&IBIRS_htmlPath=http://localhost:8080/ibi_apps/ibi_
html"
request3 = WebRequest.Create(getData)
request3.Method = "GET"

```

```

Dim j As Integer
For j = 0 To Request.Cookies.Count - 1
    Dim rCookie As New System.Net.Cookie
    rCookie.Name = Request.Cookies(j).Name
    rCookie.Value = Request.Cookies(j).Value
    cookies.Add(uri, rCookie)
    Dim aCookie As New HttpCookie(Request.Cookies(j).Name)
    aCookie.Value = Request.Cookies(j).Value
    Response.Cookies.Add(aCookie)
Next j
request3.CookieContainer = cookies
response3 = request3.GetResponse()
webStream3 = response3.GetResponseStream()
Dim binaryReader3 As New BinaryReader(webStream3)
Dim readData() As Byte = Nothing
Dim byteArray() As Byte = Nothing
Dim byteStart As Integer = 0
Dim byteLength As Integer

```

```

While (True)
    readData = binaryReader3.ReadBytes(4096)
    If (readData.Length = 0) Then

```



```

        Exit While
    End If
    byteLength = readData.Length
    ReDim Preserve byteArray(byteLength + byteStart - 1)
    Array.Copy(readData, 0, byteArray, byteStart, byteLength)
    byteStart = byteStart + byteLength
End While
Response.OutputStream.Write(byteArray, 0, byteArray.Length)

End Sub
End Class

```

Java Example (signOn.jsp and WebForm2.jsp)

signOn.jsp

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1" session="true"
    import="
        java.io.BufferedReader,
        java.io.IOException,
        java.io.InputStream,
        java.io.InputStreamReader,
        java.io.File,
        java.io.FileOutputStream,
        java.io.PrintWriter,
        java.net.URI,
        java.net.URISyntaxException,
        org.apache.commons.httpclient.*,
        org.apache.commons.httpclient.methods.*,
        sax.xml.parser.SaxHandler,
        javax.xml.parsers.ParserConfigurationException,
        javax.xml.parsers.SAXParser,
        javax.xml.parsers.SAXParserFactory,
        org.xml.sax.SAXException
    "%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
    "http://www.w3.org/TR/html4/loose.dtd">
<%
    String request1 = "http://localhost:8080/ibi_apps/rs/ibfs";
    HttpClient client = new HttpClient();
    PostMethod method = new PostMethod(request1);

    method.addParameter("IBIRS_action", "signOn");

```

```

        method.addParameter("IBIRS_userName", "admin");
        method.addParameter("IBIRS_password", "admin");

        client.executeMethod(method);
        Header[] cookies = null;
        InputStream response1 = null;

        response1 = method.getResponseBodyAsStream();
        cookies = method.getResponseHeaders("Set-Cookie");
        SAXParserFactory factory = SAXParserFactory.newInstance();
        SAXParser parser = factory.newSAXParser();
        SaxHandler handler = new SaxHandler();
        parser.parse(response1, handler);
        String csrfName = handler.getResults()[0].toString();
        String csrfValue = handler.getResults()[1].toString();
//      System.out.println("csrfName = " + csrfName);
//      System.out.println("csrfValue = " + csrfValue);

String request2 = "http://localhost:8080/ibi_apps/rs";
PostMethod method_report = new PostMethod(request2);
method_report.addParameter("IBIRS_action","run");
method_report.addParameter("IBIRS_
clientPath","/drillDownJSP/WebForm2.jsp");
method_report.addParameter("IBIRS_
path","/EDA/EDASERVE/ibisamp/carinst.fex");
method_report.addParameter("IBIRS_service","ibfs");
method_report.addParameter("IBIRS_
htmlPath","http://localhost:8080/ibi_apps/ibi_html");
method_report.addParameter(csrfName,csrfValue);
// cookies is defined as Header[] in the Signing-On to WebFOCUS
example
    for(int h=0; h<cookies.length; h++){
//      System.out.println(cookies[h]);
        method_report.addRequestHeader(cookies[h].getName(), cookies
[h].getValue());
        String str = cookies[h].getName() + cookies[h].getValue();
//write cookie to a disk file and then read it back in the next JSP
        String nameOfTextFile = "c:/temp/jsessionid.txt";
        try {
            PrintWriter pw = new PrintWriter(new FileOutputStream
(nameOfTextFile));
            pw.println(str);
            //clean up
            pw.close();
        } catch(IOException e) {

```

```

        out.println(e.getMessage());
    }
}

    method_report.setRequestHeader("Content-type", "application/x-www-
form-urlencoded");
    // client is defined as HttpClient in the Signing-On to WebFOCUS
example
    client.executeMethod(method_report);
    InputStream response2 = null;
    response2 = method_report.getResponseBodyAsStream();
    BufferedReader br2 = new BufferedReader(new InputStreamReader
(response2));
    String line2;
    String newOutput = null;
    while ((line2 = br2.readLine()) != null) {
        newOutput = line2;
        out.println(newOutput);
    //      System.out.println(line2);
    }

%>

```

WebForm2.jsp

```

<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
    pageEncoding="ISO-8859-1"
import="
    java.io.BufferedReader,
    java.io.IOException,
    java.io.InputStream,
    java.io.InputStreamReader,
    java.io.File,
    java.io.FileOutputStream,
    java.io.PrintWriter,
    java.io.FileReader,
    java.net.URI,
    java.net.URISyntaxException,
    org.apache.commons.httpclient.*,
    org.apache.commons.httpclient.methods.*,
    sax.xml.parser.SaxHandler,
    javax.xml.parsers.ParserConfigurationException,
    javax.xml.parsers.SAXParser,
    javax.xml.parsers.SAXParserFactory,
    org.xml.sax.SAXException
"%>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"

```

```

"http://www.w3.org/TR/html4/loose.dtd">
<%
    String tDrillURL = "";
    int i;
    String qParm;
    String qValue;
    String IBIRS_path = "";
    String Clicked_On = "";
    Header[] cookies = null;
    HttpClient client = new HttpClient();
    tDrillURL = request.getQueryString();
//    read saved cookie from text file
    String txtFilePath = "c:/temp/jsessionid.txt";
    BufferedReader reader = new BufferedReader(new FileReader
(txtFilePath));
    StringBuilder sb = new StringBuilder();
    String line;
    while((line = reader.readLine()) != null){
        sb.append(line);
    }
//    System.out.println(sb.toString());
    reader.close();

    String request3 = "http://localhost:8080/ibi_apps/rs";

    GetMethod method_report2 = new GetMethod(request3);
    method_report2.setQueryString(tDrillURL);
    method_report2.getParams().setParameter("IBIRS_clientPath",
"/drillDownJSP/WebForm2.jsp");
    method_report2.getParams().setParameter("IBIRS_
htmlPath", "http://localhost:8080/ibi_apps/ibi_html");
    String cookie=sb.toString();
//    System.out.println("webform2 cookie before replace " + cookie);
    cookie = cookie.replace("Set-Cookie", "");
//    System.out.println("webform2 cookie after replace " + cookie);
    method_report2.setRequestHeader("Cookie", cookie);

//    }
    method_report2.setRequestHeader("Content-type", "application/x-www-
form-urlencoded");

    int statusCode = client.executeMethod(method_report2);
    System.out.println(statusCode);
    InputStream response3 = null;
    response3 = method_report2.getResponseBodyAsStream();

```

```

        BufferedReader br2 = new BufferedReader(new InputStreamReader
(response3));
        String line3;
        String newOutput = null;
        while ((line3 = br2.readLine()) != null) {
            newOutput = line3;
            out.println(newOutput);
        }
    }
%>

```

HTML and jQuery Example (drillOne.html and drillTwo.html)

drillOne.html

```

<!DOCTYPE html>
<html>
<head>
    <title></title>
    <meta charset="utf-8" />
    <script type="text/javascript" src="http://code.jquery.com/jquery-
3.1.0.js"> </script>
    <script type='text/javascript'
src="http://cdnjs.cloudflare.com/ajax/libs/jquery-ajaxtransport-
xdomainrequest/1.0.1/
jquery.xdomainrequest.min.js"></script>
    <script type="text/javascript">
        var csrf_name;
        var csrf_value;
        var frameToBeWorkedOn = "#AjaxPlaceHolder";
        var contentType = "application/x-www-form-urlencoded;
charset=utf-8";
        $(document).ready(function (IBIRS_action, IBIRS_userName, IBIRS_
password) {
            if (window.XDomainRequest)
                contentType = "text/plain";
            var webMethod = "http://machine:port/ibi_apps/rs";
            var IBIRS_action = "signOn";
            var IBIRS_userName = "admin";
            var IBIRS_password = "admin";
            var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_
userName=' + IBIRS_userName + '&IBIRS_password=' + IBIRS_password;
            $.ajax({

```

```

        type: "POST",
        url: webMethod,
        data: parameters,
        dataType: "xml",
        xhrFields: {
            withCredentials: true
        },
        crossDomain: true,
        contentType: contentType,
        success: xmlParser,
        error: function(jqXHR, textStatus, errorThrown)
        {
            alert("You can not send Cross Domain AJAX requests:
" + errorThrown);
        }
    })
});
function xmlParser(xml) {
    $(xml).find("entry").each(function () {

```

```

        if ($(this).attr("key") == "IBI_CSRF_Token_Name") {
            csrf_name = $(this).attr("value");
        }
        if ($(this).attr("key") == "IBI_CSRF_Token_Value") {
            csrf_value = $(this).attr("value");
        }
    });
    runReport();
}
function runReport() {
    if (window.XDomainRequest)
        contentType = "text/plain";
    var webMethod = "http://machine:port/ibi_apps/rs";
    var IBIRS_action = "run";
    var IBIRS_clientPath = "/src/drillTwo.html";
    var IBIRS_path = "/EDA/EDASERVE/ibisamp/carinst.fex";
    var IBIRS_service = "ibfs";
    var IBIRS_htmlPath = "http://machine:port/ibi_apps/ibi_html";
    var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_
clientPath=' + IBIRS_clientPath + '&IBIRS_path=' + IBIRS_path
        + '&IBIRS_service=' + IBIRS_service + '&IBIRS_htmlPath='
+ IBIRS_htmlPath + '&' + csrf_name + '=' + csrf_value;
    $.ajax({
        type: "POST",
        url: webMethod,
        data: parameters,

```



```

$(document).ready(function () {
    if (window.XDomainRequest)
        contentType = "text/plain";
    var webMethod = "http://machine:port/ibi_apps/rs";
    var IBIRS_action = "get";
    var IBIRS_clientPath = "/src/drillTwo.html";
    var IBIRS_htmlPath = "http://machine:port/ibi_apps/ibi_html";
    var parameters = tDrillURL + '&IBIRS_clientPath=' + IBIRS_
clientPath + '&IBIRS_htmlPath=' + IBIRS_htmlPath;
    $.ajax({
        type: "GET",
        url: webMethod,
        data: parameters,
        dataType: "html",
        xhrFields: {
            withCredentials: true
        },
        crossDomain: true,
        contentType: contentType,
/*
        success: alert("success"),    */
        complete: function(xhr,status) {

```

```

/*
        alert(xhr.responseText); */
/*
        $("AjaxPlaceHolder".html(xhr.responseText)); */
        document.AjaxPlaceHolder.document.body.innerHTML =
xhr.responseText;
    },
    error: function (jqXHR, textStatus, errorThrown) {
        alert("You can not send Cross Domain AJAX requests: " +
errorThrown);
    }
})
})
</script>
</head>
<body>
    <iframe id="AjaxPlaceHolder" name="AjaxPlaceHolder" height="600"
width="900" align="middle" style="position:absolute; top: 5px; left:
5px"></iframe>
</body>
</html>

```


Parsing the XML Response of a SignOn Request to Obtain the CSRF Name and Value

This section provides code examples that demonstrate how to parse the XML response of a SignOn request to obtain the Cross-Site Request Forgery (CSRF) name and value. The CSRF name and value can then be sent to subsequent POST requests.

Java Example

```
import java.awt.Desktop;
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.File;
import java.io.FileOutputStream;
import java.io.PrintWriter;
import java.net.URI;
import java.net.URISyntaxException;
import javax.xml.parsers.ParserConfigurationException;
import javax.xml.parsers.SAXParser;
import javax.xml.parsers.SAXParserFactory;
import org.apache.commons.httpclient.Header;
import org.apache.commons.httpclient.HttpClient;
import org.apache.commons.httpclient.HttpException;
import org.apache.commons.httpclient.methods.PostMethod;
import org.xml.sax.SAXException;
/**
 * @author
 *
 */
public class runReport
{
    /**
     * @param args
     * @throws IOException
     * @throws HttpException
     * @throws SAXException
     * @throws ParserConfigurationException
     * @throws URISyntaxException
     */
    public static void main(String[] args) throws HttpException,
        IOException, ParserConfigurationException, SAXException,
```

URISyntaxException

```

{
    String request = "http://localhost:8080/ibi_apps/rs/ibfs";
    HttpClient client = new HttpClient();
    PostMethod method = new PostMethod(request);
    method.addParameter("IBIRS_action", "signOn");
    method.addParameter("IBIRS_userName", "admin");
    method.addParameter("IBIRS_password", "admin");

    client.executeMethod(method);
    Header[] cookies = null;
    InputStream rstream = null;
    rstream = method.getResponseBodyAsStream();
    cookies = method.getResponseHeaders("Set-Cookie");
    /* parse rstream XML for csrf token */
    SAXParserFactory factory = SAXParserFactory.newInstance();
    SAXParser parser = factory.newSAXParser();
    SaxHandler handler = new SaxHandler();
    parser.parse(rstream, handler);
    String csrfName = SaxHandler.results[0];
    String csrfValue = SaxHandler.results[1];
    System.out.println("csrfName = " + csrfName);
    System.out.println("csrfValue = " + csrfValue);
    String request2 = "http://localhost:8080/ibi_
apps/rs/ibfs/WFC/Repository/Tests/car_param.fex";
    PostMethod method_report = new PostMethod(request2);
    method_report.addParameter("IBIRS_action", "run");
    method_report.addParameter("COUNTRY", "ENGLAND");
    method_report.addParameter("CAR", "JAGUAR");
    method_report.addParameter("MODEL", "XJ12L AUTO");
    method_report.addParameter(csrfName, csrfValue);
    // cookies is defined as Header[] in the Signing-On to WebFOCUS
example
    for(int h=0; h<cookies.length; h++){
        System.out.println(cookies[h]);
        method_report.setRequestHeader(cookies[h].getName(), cookies
[h].getValue());
    }
    // client is defined as HttpClient in the Signing-On to WebFOCUS
example
    int statusCode2 = client.executeMethod(method_report);
    InputStream rstream2 = null;
    rstream2 = method_report.getResponseBodyAsStream();
    File tempfile = new File("c:\\temp\\Report.htm");
    FileOutputStream fos = new FileOutputStream(tempfile);
    PrintWriter out=new PrintWriter(fos);

```

```

        BufferedReader br2 = new BufferedReader(new InputStreamReader
(rstream2));
        String line2;
        String newOutput = null;
        while ((line2 = br2.readLine()) != null) {
            newOutput = line2;
            out.println(newOutput);
            System.out.println(line2);
        }
        // bring up the HTML report in the default browser
        URI xtempfile = new URI ("file:/c:/temp/Report.htm");
        Desktop.getDesktop().browse(xtempfile);
        br2.close();
        out.close();
    }
}

```

XML Parser Class

The XML Parser class is called *SaxHandler* and is in a separate class file

```

import org.xml.sax.Attributes;
import org.xml.sax.SAXException;
import org.xml.sax.helpers.DefaultHandler;
public class SaxHandler extends DefaultHandler {

    static String[] results = new String[2];

    public void startElement(String uri, String localName, String
qName, Attributes attributes)
        throws SAXException {
        if (qName.equals("entry")) {
            String keyName = attributes.getValue("key");
            if (keyName.equals("IBI_CSRF_Token_Name")) {
                String tokenNameKeyValue =
                    attributes.getValue("value");
                System.out.println("key value is " +
                    tokenNameKeyValue);
                results[0] = tokenNameKeyValue;
            }
            if (keyName.equals("IBI_CSRF_Token_Value"))
        {

            String tokenValueKeyValue =
                attributes.getValue("value");
            System.out.println("key value is " +

```

```

        tokenValueKeyValue)
        results[1] = tokenValueKeyValue;
    }
}
}
}
}

```

Visual Basic .NET Example

```

Imports System.Net
Imports System.Text
Imports System.IO
Module Module1
    Sub Main()
        Dim cookies As New CookieContainer
        Dim webStream As Stream
        Dim webResponse As String = ""
        Dim request As HttpWebRequest
        Dim response As HttpWebResponse
        Dim postData As String
        Dim csrf(2) As String
        request = WebRequest.Create("http://localhost:8080/ibi_
apps/rs/ibfs")
        request.Method = "POST"
        postData = "IBIRS_action=signOn&IBIRS_userName=admin&IBIRS_
password=admin"
        request.CookieContainer = cookies
        Dim byteArray As Byte() = Encoding.UTF8.GetBytes(postData)
        request.ContentType = "application/x-www-form-urlencoded"
        request.ContentLength = byteArray.Length
        Dim dataStream As Stream = request.GetRequestStream()
        dataStream.Write(byteArray, 0, byteArray.Length)
        dataStream.Close()
        response = request.GetResponse()
        webStream = response.GetResponseStream()
        Dim webStreamReader As New StreamReader(webStream)
        While webStreamReader.Peek >= 0
            webResponse = webStreamReader.ReadToEnd()
        End While
        csrf = XMLParse.XMLParseCSRF.doParseXML(webResponse)
        Console.WriteLine("csrf token name is " + csrf(0))
        Console.WriteLine("csrf key value is " + csrf(1))
        Console.ReadKey()
    End Sub
End Module

```

```

Dim request2 As HttpWebRequest
Dim response2 As HttpWebResponse
Dim webStream2 As Stream
Dim webResponse2 As String = ""
request2 = WebRequest.Create("http://localhost:8080/ibi_
apps/rs/ibfs/WFC/Repository/Tests/car_param.fex")
request2.Method = "POST"
'cookies is defined as CookieContainer in the Signing-On to
WebFOCUS example
request2.CookieContainer = cookies
postData = "IBIRS_
action=run&COUNTRY=ENGLAND&CAR=JAGUAR&MODEL=XJ12L%20AUTO" + "&" + csrf
(0) + "=" + csrf(1)
Dim byteArray2 As Byte() = Encoding.UTF8.GetBytes(postData)
request2.ContentType = "application/x-www-form-urlencoded"
request2.ContentLength = byteArray2.Length

```

```

Dim dataStream2 As Stream = request2.GetRequestStream()
dataStream2.Write(byteArray2, 0, byteArray2.Length)
dataStream2.Close()
response2 = request2.GetResponse()
webStream2 = response2.GetResponseStream()
'Write to disk
Dim fs As New FileStream("c:\temp\output.htm", FileMode.Create)
Dim read As Byte() = New Byte(255) {}
Dim count As Integer = webStream2.Read(read, 0, read.Length)
While count > 0
    fs.Write(read, 0, count)
    count = webStream2.Read(read, 0, read.Length)
End While
'Close everything
fs.Close()
webStream2.Close()
Process.Start("c:\temp\output.htm")
End Sub
End Module

```

XML Parser Function

The XML Parser function is called *doParseXML* and is located in a separate class file named *XMLParseCSRF.vb*, which is located in a separate project for reusability.

```

Imports System.IO
Imports System.Xml
Public Class XMLParseCSRF
    Public Shared Function doParseXML(inResponse As String) As String()
        Dim results(2) As String
        Dim m_xmlr As XmlTextReader = New XmlTextReader(New StringReader
(inResponse))
        While m_xmlr.Read()
            If (m_xmlr.NodeType = XmlNodeType.Element) Then
                If m_xmlr.Name = "entry" Then
                    Dim keyName As String = m_xmlr.GetAttribute("key")
                    If (keyName = "IBI_CSRF_Token_Name") Then
                        Dim tokenKeyNameValue As String = m_
xmlr.GetAttribute("value")
                        Console.WriteLine("tokenKeyName value is " +
tokenKeyNameValue)
                        results(0) = tokenKeyNameValue
                    End If
                    If (keyName = "IBI_CSRF_Token_Value") Then
                        Dim tokenValueKeyValue As String = m_
xmlr.GetAttribute("value")
                        Console.WriteLine("tokenValueKey value is " +
tokenValueKeyValue)
                        results(1) = tokenValueKeyValue
                    End If
                End If
            End If
        End While
        'close the reader
        m_xmlr.Close()
        Return results
    End Function
End Class

```

Embedding Charts to be Responsive

There are two methods you can use for embedding charts to be responsive:

With jQuery:

```

<script type="text/javascript" src="./jquery/js/jquery.min.js"></script>
<script type="text/javascript" src="/ibi_
apps/tdg/jschart/distribution/tdgchart-min.js"></script>
$(function () {

```

```

$('#test_chart').tdgchart(

{remoteDataURL: serverUrl + "/ibfs/WFC/Repository/OPM/test_autofit_
chart.fex?COUNTRY=ENGLAND" }
);
window.onresize = function()

{ $('#test_chart>div')[0].chart.width = $('#test_chart').width();
$('#test_chart>div')[0].chart.height = $('#test_chart').height();
$('#test_chart>div')[0].chart.redraw(); }
});

```

Without jQuery:

```

<script type="text/javascript" src="/ibi_
apps/tdg/jschart/distribution/tdgchart-min.js"></script>
var chart = new tdgchart();
chart.width = container.clientWidth;
chart.height = container.clientHeight;
chart.loadRemoteProperties('some_url_that_resolves_to_a_jschart_
request', 'jschart',

{onLoad: 'redraw'}
);
window.onresize = function()

{ chart.width = container.clientWidth; chart.height =
container.clientHeight; chart.redraw(); }

```

Accessing ibi WebFOCUS Tools Directly Through URL Calls

This section describes the format and structure of URL calls that can be used to directly access WebFOCUS InfoAssist and ibi™ WebFOCUS® Designer, where you can create new content.

Starting ibi WebFOCUS InfoAssist

This URL call can be used to start WebFOCUS InfoAssist externally.

```
http[s]://hostname:port/context_root/ia?[tool=tool_value][&is508={true|false}][&master=master_name]&item=ibfs_path
```

where:

hostname

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

context_root

Is the context root used for your WebFOCUS application. For example, ibi_apps.

tool_value

Optionally, if the *item* parameter is set to a folder or a link to a folder, then this specified value is the tool (mode) to start when WebFOCUS InfoAssist is launched:

- **report** (default)
Starts in *Report* mode.
- **chart**
Starts in *Chart* mode.

- **idis**

Starts in *DataVisualization* mode.

- **document**

Starts in *Compose* mode.

- **dashboard**

Starts in *DashBoard* mode.

- **sample**

Used to create samples. In this case, the *item* parameter must be set to a folder and a specific Master File must be specified for the *master* parameter.

&is508={true|false}

Optional. Determines whether to start WebFOCUS InfoAssist in 508-compliance mode. Specify *true* or *false*.

master_name

Optional. If the *item* parameter is set to a folder or a link to a folder, then this specified value is the Master File to use. If you do not specify a Master File, the user is prompted to select one.

ibfs_path

Required. Is the IBFS path to one of the following:

- Folder
- Chart
- Table
- InfoDiscovery Fex
- Link to a Folder
- Link to a Chart
- Link to a Table
- Link to an InfoDiscovery Fex
- Link to a Reporting Object

When a link to a reporting object is specified, WebFOCUS InfoAssist will open with

the specified reporting object pre-loaded, allowing the user to create a *My Report*.

i Note: The specified value for the *item* parameter must be encoded using UTF-8.

Example:

```
http://host:port/ibi_
apps/ia?tool=chart&master=CAR&item=IBFS%3A%2FWFC%2FRepository%
2FPublic%2Fbig14%2FChart1.fex
```

In this example, WebFOCUS InfoAssist is started in Chart mode using the CAR Master File. Since this is a secure URL, the WebFOCUS Sign In page is initially displayed, as shown in the following image. The user must specify a valid user name and password before proceeding.

i Note: The WebFOCUS Sign In page only displays if the user is not already signed in. If the user is already signed in to WebFOCUS, then this page is not displayed.

To bypass the WebFOCUS Sign In page, the developer of the application can use an alternate sign-on procedure, such as a web service signOn call, or any SSO option. For more information, see the *WebFOCUS Security and Administration* content.

Starting ibi WebFOCUS Designer

This URL call can be used to start WebFOCUS® Designer externally.

```
http[s]://hostname:port/context_root/designer?is508={true|false}  
[&master=master_name]&item=ibfs_  
path&tool=framework&startlocation=initial_ibfs_path  
&startUpConditions=condition[&visTypes=chart_type]
```

where:

hostname

Is the name of the system where WebFOCUS is installed.

port

Is the port number used by WebFOCUS.

context_root

Is the context root used for your WebFOCUS application. For example, ibi_apps.

is508={true|false}

An optional Boolean value to determine whether to start Designer in 508-compliance mode. Specify *true* or *false*.

master_name

Optionally, specify a Master File to use. You can choose to qualify the path by specifying an application folder, or enter just the Master File name. If you do not specify a Master File, the user is prompted to select one if WebFOCUS Designer is being used to create new content, as set by the "mode":"internal" start-up condition. Do not specify a Master File if the visualization is assembled from existing content, as set by the "mode":"assemble" start-up condition.

ibfs_path

Is the IBFS path to a .fex procedure or a folder.

Setting the item path to a folder uses that folder as the default workspace when selecting a Master File for new content or when accessing existing items from the Content tab.

Setting the item path to a procedure opens that procedure in Designer.

i **Note:** The specified value for the *item* parameter must be encoded using UTF-8.

&tool=framework

Specifies WebFOCUS Designer as the content creation tool.

initial_ibfs_path

Is the path to a workspace or folder. Sets the default location when saving the visualization for the first time.

condition

Sets the initial state of WebFOCUS Designer. *Condition* can be one of the following:

%7B"mode":"assemble"%7D

Allows you to assemble a visualization from external content.

%7B"mode":"internal"%7D

Allows you to create new charts and reports as a multi-content visualization.

%7B"firstAction":%5B"dataTab"%5D%7D

Starts WebFOCUS Designer on the Data tab, where you can join data source to create new charts and reports as a multi-content visualization. Requires a value for the *master* parameter.

chart_type

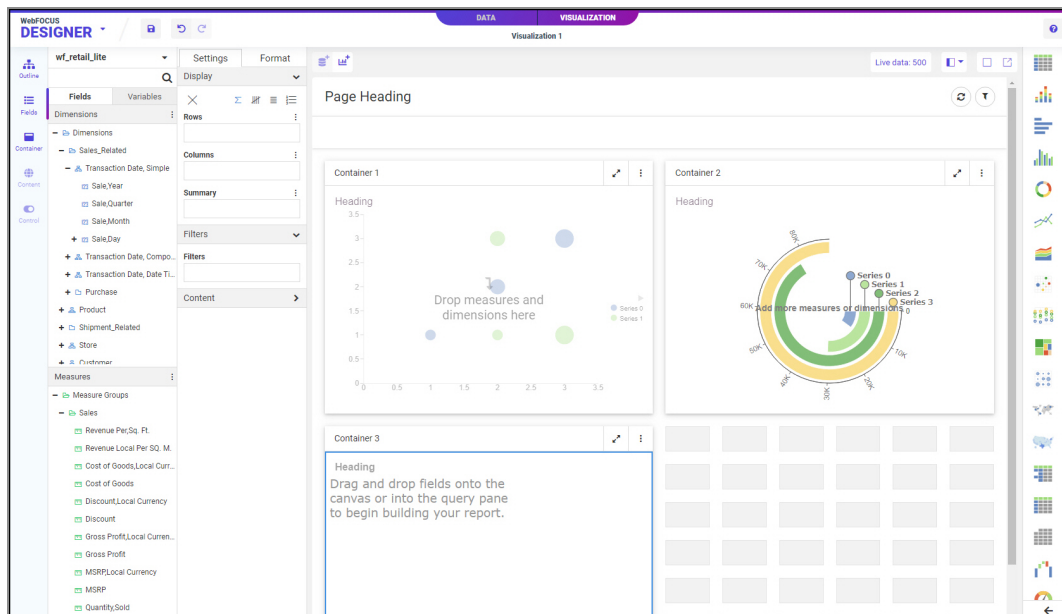
Optionally, when creating a visualization with new content, allows you to specify the starting content type for one or more items. The Content picker still allows you to change content types. Type a single content type name, or multiple names separated by semicolons (;). The content type name for a chart type can be taken from the `agnosticSettings:chartTypeFullName` property in a procedure. For reports, use **table** to create a standard, tabbed report, or **table_grid** to create a grid report.

Example:

```
http://localhost:8080/ibi_apps/designer?
is508=false&master=wfretail82%2Fwf_retail_lite
&item=IBFS%3A%2FWFC%2FRepository%2FMy_Workspace%2F~admin&tool=framework
&startlocation=IBFS%3A%2FWFC%2FRepository%2FMy_Workspace%2F~admin%2F
```

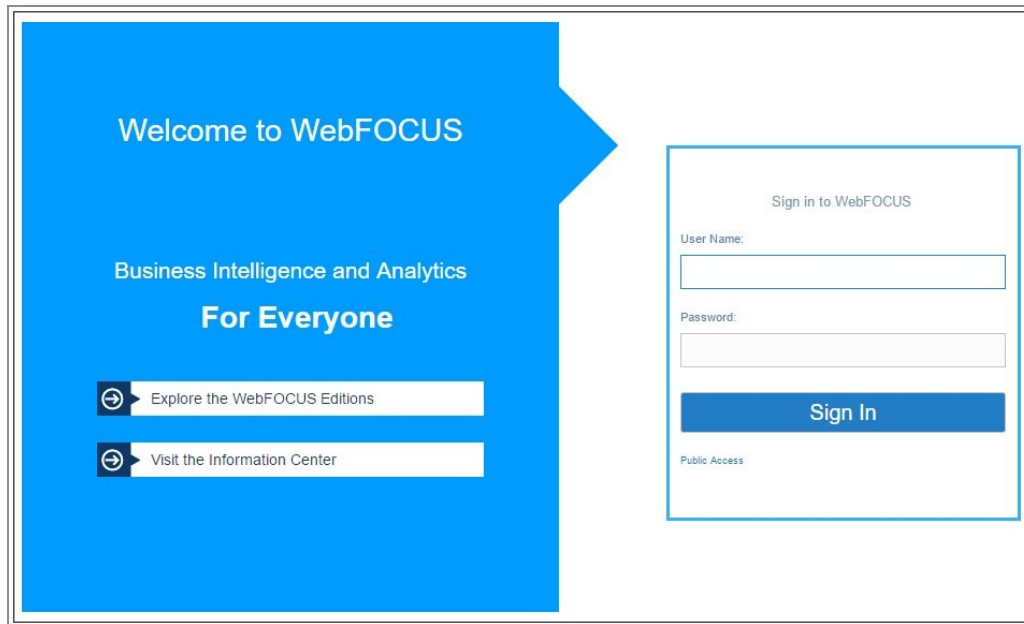
```
&startUpConditions=%7B"mode":"internal"%7D&visTypes=X_Y_Plots_
Bubble;com.ibi.arc;table_grid
```

In this example, WebFOCUS Designer starts with a new visualization using the wf_retail_lite Master File in the wfretail82 application folder. The canvas opens with three separate items: a bubble chart, an arc chart using the com.ibi.arc chart extension, and a grid report.



Since this is a secure URL, the WebFOCUS Sign In page is initially displayed, as shown in the following image. The user must specify a valid user name and password before proceeding.

Note: The WebFOCUS Sign In page only displays if the user is not already signed in. If the user is already signed in to WebFOCUS, then this page is not displayed.



To bypass the WebFOCUS Sign In page, the developer of the application can use an alternate sign-on procedure, such as a web service signOn call, or any SSO option. For more information, see the *WebFOCUS Security and Administration* content.

WebFOCUS Open Portal Services

WebFOCUS Open Portal Services provides seamless integration to Enterprise Information Portals (EIPs) through a single sign-on (SSO) so that users can consume and interact with WebFOCUS content in an easy and secure way.

Information Builders offers a way to leverage your EIP investment by extending access to your enterprise data. With WebFOCUS Open Portal Services, you can deploy WebFOCUS business intelligence across the enterprise by incorporating reporting structures and structured content within supported third-party EIPs.

This section describes how to install and use WebFOCUS Open Portal Services and its portal components in Microsoft® SharePoint 2016 and 2013, IBM® WebSphere® version 8.5, and Apache Jetspeed version 2.3.1, portal server environments. It is intended for administrators who are installing and configuring the WebFOCUS Portal components on a specific EIP to enable the usage and delivery of WebFOCUS business intelligence content in third-party applications.

Introducing WebFOCUS Open Portal Services

WebFOCUS Open Portal Services for WebFOCUS 8 provides seamless integration to Enterprise Information Portals (EIPs) through a Single Sign-On so that users can consume and interact with WebFOCUS content in an easy and secure way.

Information Builders offers a way to leverage your EIP investment by extending access to your enterprise data. With WebFOCUS Open Portal Services, you can deploy WebFOCUS business intelligence across the enterprise by incorporating reporting structures and structured content within supported third-party EIPs.

Information Builders WebFOCUS business intelligence technology is the most usable, deployable, and scalable business intelligence software solution for accessing more than 90+ data sources, including legacy, data warehouse, enterprise resource planning (ERP), and customer relationship management (CRM), on over 35 platforms, including S/390 mainframe. Because it can access and integrate data from any source, it reduces the complexity of a given data environment.

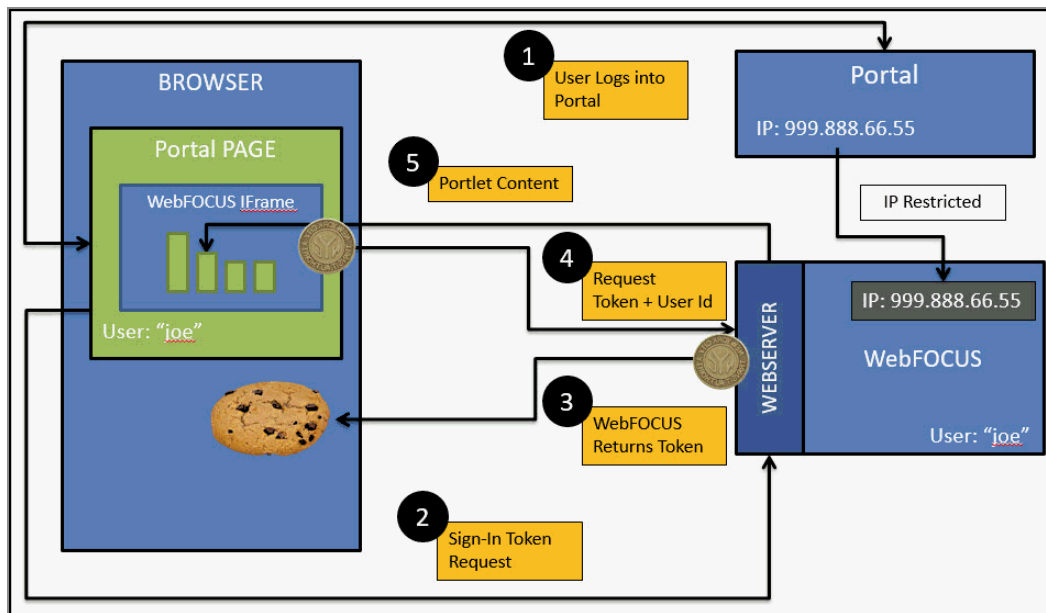
The following section provides an overview of the features and benefits of WebFOCUS Open Portal Services.

WebFOCUS Open Portal Services

WebFOCUS Open Portal Services enables you to extend WebFOCUS business intelligence capabilities to end users within an existing EIP framework. Users can:

- Personalize the way they view, store, and retrieve business intelligence content for optimum job efficiency.
- Decide what content to include in each content window and how that content is displayed and organized.
- Combine graphics and reports in the same portal page.
- Employ analytic tools for all types of reporting and query, including ad hoc and OLAP.

The following diagram illustrates WebFOCUS content being displayed inside an EIP:



Benefits of Using WebFOCUS Open Portal Services

WebFOCUS Open Portal Services offer many benefits to the users within the enterprise by:

- Providing immediate access to critical enterprise-wide data through a personalized portal page.
- Incorporating comprehensive reporting and analysis capabilities within the portal and enhancing the user experience by delivering relevant, real-time information.
- Enabling users to display, locate, share, visualize, and analyze business intelligence information based on their roles within the enterprise.
- Supporting internal and external security for delivering timely and accurate business reports to authorized users.

Java Portlet Specification 2.0 (JSR 286) Support

Java Portlet Specification 2.0 (JSR 286) establishes a standard API for creating portlets, the integration component between applications and portals that enables delivery of an application through a portal.

Released in June 2008, JSR 286 is the successor to the Java Portlet Specification 1.0 (JSR 168), which was originally released in October 2003. JSR 286 provides new features and improvements and fills any gaps that were identified with JSR 168.

As of WebFOCUS Release 8.2 Version 01, WebFOCUS portlets are available for JSR 286 compliant portal environments, such as IBM WebSphere Portal Server.

Using WebFOCUS Portal Components

This section describes the types of WebFOCUS components that are provided by WebFOCUS Open Portal Services (OPS). In addition, information on using WebFOCUS components is provided.

WebFOCUS Open Portal Services Components Overview

WebFOCUS Open Portal Services (OPS) provides the following set of WebFOCUS components:

- Report
- Deferred Status
- Resource Tree
- Portal
- Portal Tree

These components enable integration between existing Enterprise Information Portals (EIPs) and the WebFOCUS business intelligence platform using Single Sign-On (SSO) functionality. As a result, users are automatically authenticated with WebFOCUS once they log on to their EIP. After receiving the user ID from the EIP through a secure channel, WebFOCUS OPS initiates a trusted Managed Reporting logon on behalf of the user to avoid the subsequent Managed Reporting logon prompt.

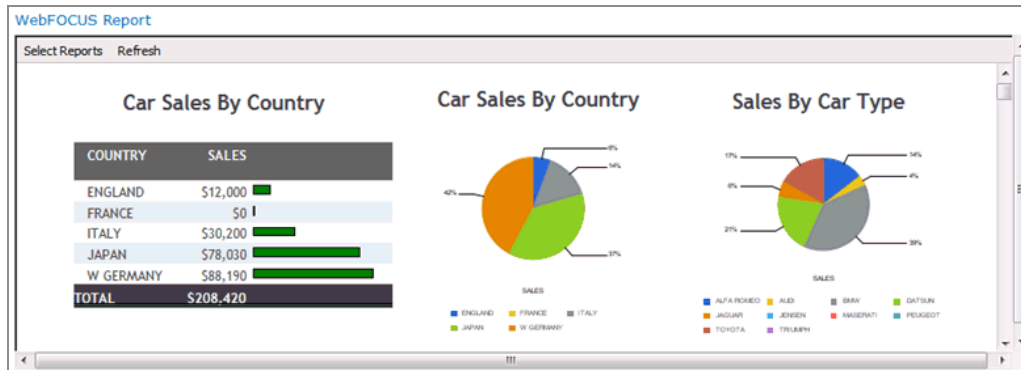
For more information about the trusted Managed Reporting logon feature, see the *WebFOCUS Security and Administration* content.

WebFOCUS Report Component

The WebFOCUS Report component allows portal users to access WebFOCUS content items that include reports, charts, dashboards, documents, and URLs. Depending on security privileges, a user has the following options:

- Select their own WebFOCUS content items to be displayed.
- Select the specific WebFOCUS content items to be displayed to other users.
- View only WebFOCUS content items already selected by another user.

The following image shows an example of the WebFOCUS Report component.



WebFOCUS Deferred Status Component

The WebFOCUS Deferred Status component allows users to check the status of any report submitted for deferred execution. The following image shows an example of the WebFOCUS Deferred Status component.

WebFOCUS Deferred Status

Deferred Report Status as of Monday, August 26, 2013 11:25:37 AM

Refresh Sort By Date Delete Help

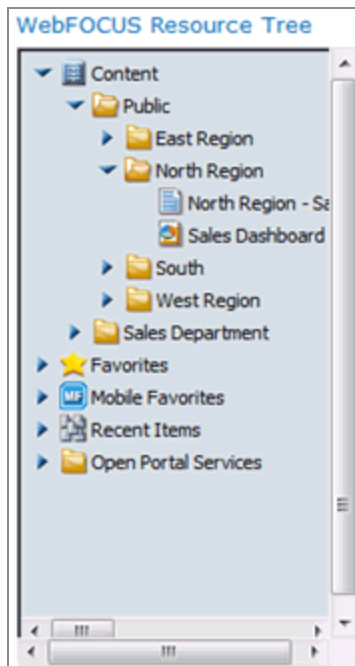
Refresh every seconds. (min. 5 seconds) Enable Refresh: ☐

Date/Time Submitted	Domains	Description	Expires In	Options
Wednesday, August 21, 2013 2:23:38 PM	Public	Deferred ticket of 'Country Sales'	25 days	Delete View Save Run
Wednesday, August 21, 2013 2:20:57 PM	Public	Deferred ticket of 'Country Sales'	25 days	Delete View Save Run
Thursday, August 01, 2013 12:08:40 AM	Public	Deferred ticket of 'Summary Sales Chart'	4 days	Delete View Save Run

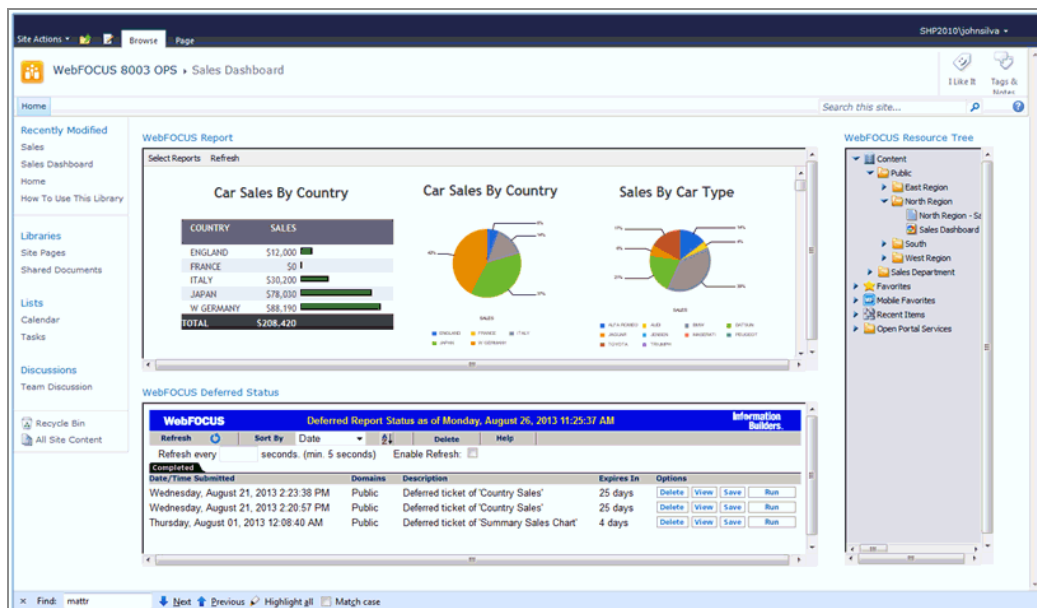
WebFOCUS Resource Tree Component

The WebFOCUS Resource Tree component is a modified version of the standard WebFOCUS Resource Tree located in the WebFOCUS Business Intelligence (BI) Portal. It allows EIP users to run, build, and modify WebFOCUS content items. In addition, functionality such as scheduling reports, enabling content to be viewed on an iPad is provided. If WebFOCUS ReportCaster is installed, then links to the ReportCaster Library and additional ReportCaster resources are available.

The following image shows an example of the WebFOCUS Resource Tree component.



The following image shows an example of the WebFOCUS Report, Deferred Status, and Resource Tree components being used on a single website page in Microsoft SharePoint.



WebFOCUS Portal Component

The WebFOCUS Portal component allows users to access their WebFOCUS Business Intelligence (BI) portal content in a portal environment (for example, IBM WebSphere Portal Server). The portal launches in the WebFOCUS Portal component so the portal is open and ready to be used.

WebFOCUS Portal Tree Component

The WebFOCUS Portal Tree component shows any basic WebFOCUS portals in a portal environment (for example, IBM WebSphere Portal Server).

Using WebFOCUS Open Portal Services Components

This section describes how to configure and use the WebFOCUS Report, Deferred Status, and Resource Tree components once the *Source URL* parameter is set.

For more information on how to add WebFOCUS Open Portal Services (OPS) components to a portal page and access its properties, see [Installing WebFOCUS Web Parts for Microsoft SharePoint 2013](#).

Setting the Source URL Parameter

After you add a component to the portal page, the first common step that is required for all three WebFOCUS components is to set the *Source URL* parameter for the component to the URL of the WebFOCUS® Client to be used. Once this URL is set, the component is able to communicate with WebFOCUS and respond with the initial screen of the component.

Using the WebFOCUS Report Component

Once the WebFOCUS Report component is added to a portal page and the WebFOCUS Client is selected as described in [Setting the Source URL Parameter](#), the component content must be defined. This is done by a user who has permission to select WebFOCUS Report component content items in one of the following display modes:

- Launch

- Folder
- List

For more information on configuring WebFOCUS Report component security, see [WebFOCUS Report Component Configurations](#).

For more information on adding the WebFOCUS Report component to a portal page, see [Installing WebFOCUS Web Parts for Microsoft SharePoint 2013](#).

Launch Mode

In this mode, you can set a WebFOCUS content item to be displayed by default each time a user visits the portal page containing the WebFOCUS Report component.

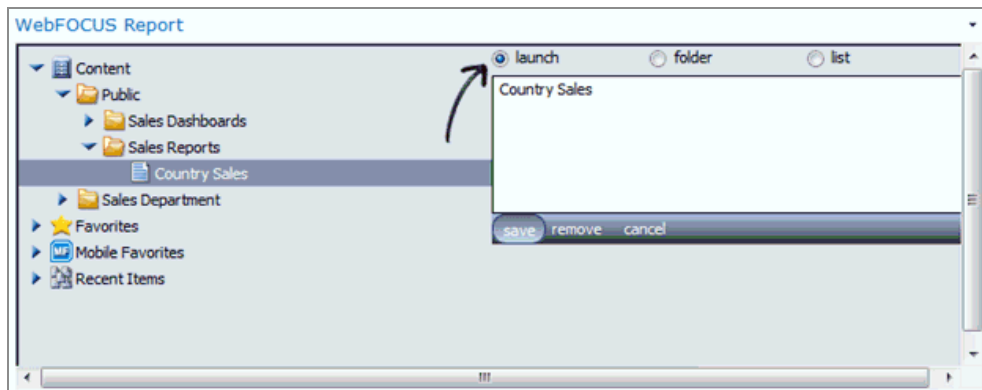
Configure Launch Mode for the WebFOCUS Report Component

Procedure

1. Click **Select Reports** from the Component menu bar, as shown in the following image.



2. Select the **launch** option from the display mode options in the upper-right corner, as shown in the following image.



3. Select a content item (report) to be displayed from the Content node on the left pane and then click **save**, as shown in the following image.



Subsequent visits to the WebFOCUS Report component will display the selected report by default, as shown in the following image.

Select Reports Refresh

Country Sales

COUNTRY	MODEL	MODEL	SALES
ENGLAND	INTERCEPTOR III	INTERCEPTOR III	0
	TR7	TR7	0
	V12XKE AUTO	V12XKE AUTO	0
FRANCE	XJ12L AUTO	XJ12L AUTO	12000
	504 4 DOOR	504 4 DOOR	0
ITALY	2000 4 DOOR BERLINA	2000 4 DOOR BERLINA	4800
	2000 GT VELOCE	2000 GT VELOCE	12400
	2000 SPIDER VELOCE	2000 SPIDER VELOCE	13000

Folder Mode

In this mode, you can set a specific WebFOCUS folder to be displayed by default each time a user visits the portal page containing the WebFOCUS Report component. Users can then

select the WebFOCUS content item they want to run by expanding the displayed folder.

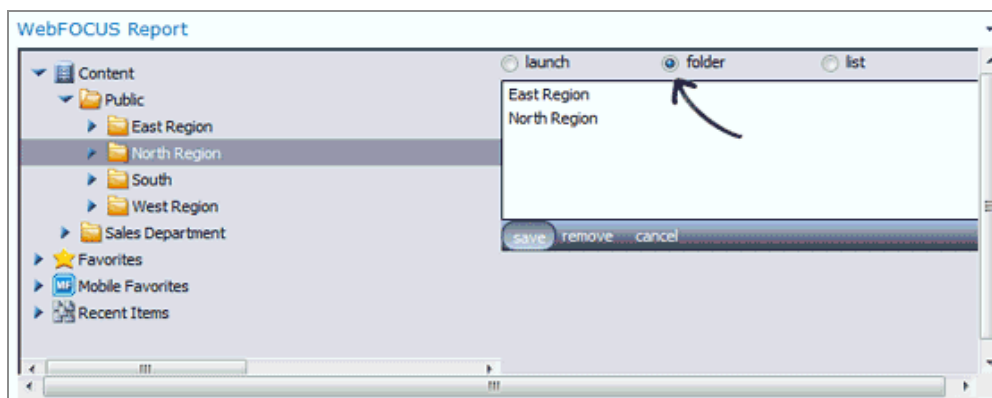
Configure Folder Mode for the WebFOCUS Report Component

Procedure

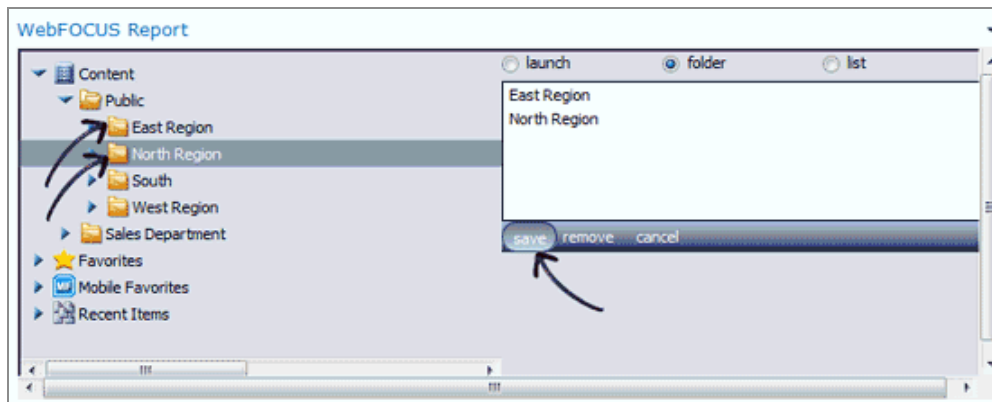
1. Click **Select Reports** from the Component menu bar, as shown in the following image.



2. Select the **folder** option from the display mode options in the upper-right corner, as shown in the following image.



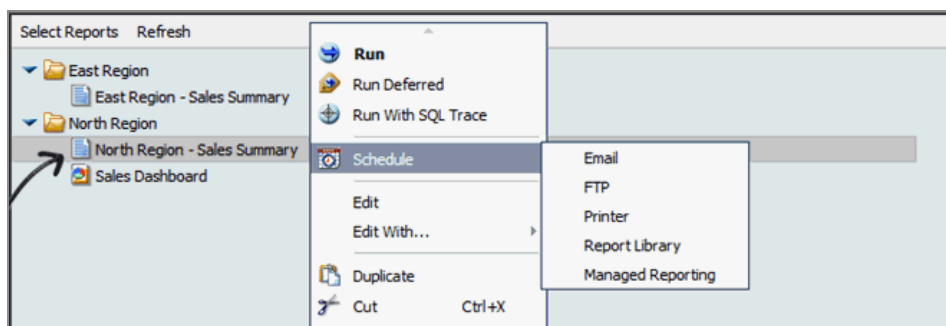
3. Select one or more folders from the Content node on the left pane and click **save**, as shown in the following image.



Subsequent visits to the WebFOCUS Report component will display the selected folders and respective content items by default, as shown in the following image.



4. Double-click a content item to run it or right-click a content item to select different options (such as Run, Edit, and Schedule), as shown in the following image.



List Mode

In this mode, you can set a list of WebFOCUS content items to be displayed by default each time a user visits the portal page containing the WebFOCUS Report component. Users can then select one of the content items to run.

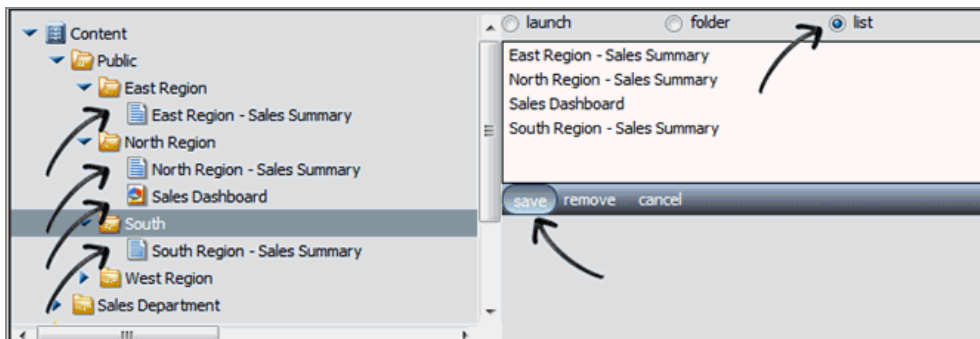
Configure List Mode for the WebFOCUS Report Component

Procedure

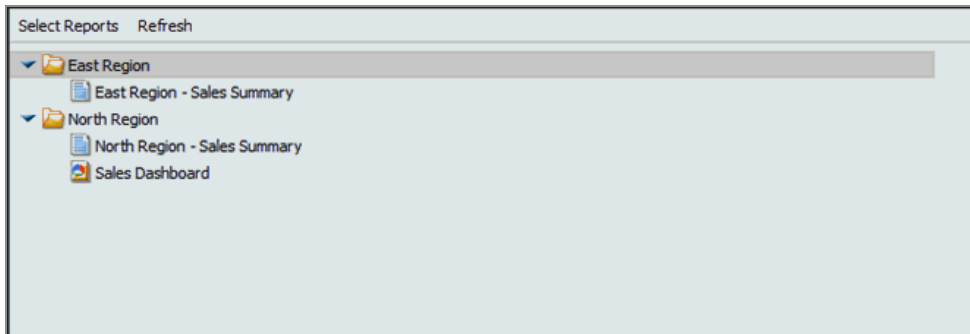
1. Click **Select Reports** from the Component menu bar, as shown in the following image.



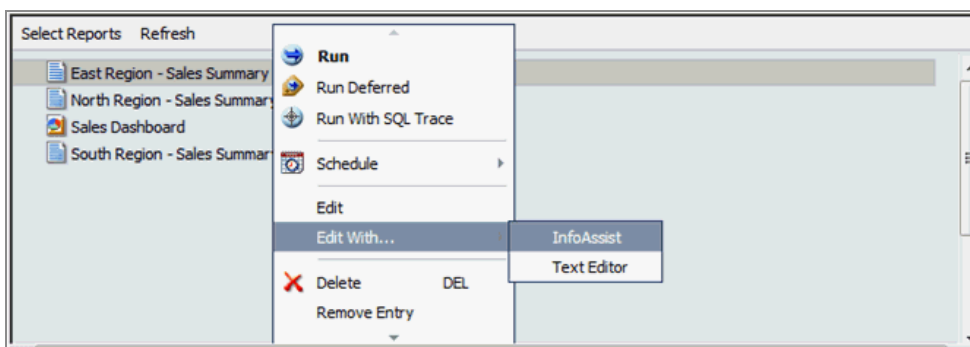
2. Select the **list** option from the display mode options in the upper-right corner, as shown in the following image.



3. Select one or more nodes from the Content node on the left pane, and click **save**. Subsequent visits to the WebFOCUS Report component will display the selected content items by default, as shown in the following image.



4. Double-click a content item to run it or right-click a content item to select different options (such as Run, Edit, and Schedule), as shown in the following image.



WebFOCUS Report Component Parameters

The following table list and describes the available WebFOCUS Report component parameters.

Parameters	Description
WebFOCUS Connection	
Source URL	URL and port number to the WebFOCUS client used to retrieve WebFOCUS content items.
User run only	Used to control whether or not a user is allowed to change the content displayed in the Report component. If the <i>User run only</i> check box is not selected, then the user will be able to select a WebFOCUS

Parameters	Description
	content item and its display mode. This is the default setting. If the <i>User run only</i> check box is selected, then the Report Component will display a default content item, such as a report, to any user that does not have Managed Reporting administrator privileges, and the <i>Select Report</i> menu option will not be available, preventing the user from changing the content item selected by default. Note: The <i>User run only</i> parameter works in conjunction with the following Open Portal Services security privileges: • <i>Edit OPS Portlet</i> • <i>Save OPS Portlet Customization</i> For more information, see WebFOCUS Report Component Configurations.
Show Refresh	If the <i>Show Refresh</i> check box is not selected, then the <i>Refresh</i> option will not be available on the Report Component menu and the user will not be able to manually trigger the content item to refresh. If <i>Show Refresh</i> is selected, then the <i>Refresh</i> option will be displayed on the Report Component menu and the user can manually trigger the content item to refresh. This is the default setting.
Use scroll bars	If the <i>Use scroll bars</i> check box is not selected, then the Report Component will not display scrollbars for the content item displayed. If the <i>Use scroll bars</i> check box is selected, then the Report Component will display scrollbars for

Parameters	Description
	the content item displayed. This is the default setting. This is particularly useful for content items that are larger than the component width and height, such as reports with several rows.
Show time stamp	If the <i>Show time stamp</i> check box is not selected, then the Report Component will not display the time stamp. This is the default setting. If the <i>Show time stamp</i> check box is selected, then the Report Component will display the time stamp.
Gn	The <i>gn</i> parameter is used to distinguish between multiple instances of the WebFOCUS Report component and retain its attributes (for example, width, height, and refresh rate). If you add three Report components to your portal page, then you must specify a unique <i>gn</i> value for each instance of that Report component.
Number of columns	Represents the number columns displayed inside the content mode box. For example, if a user is selecting reports to be placed in a list and the <i>Number of columns</i> parameter is set to 2, then items will be organized into two columns. The default value is 1.
Refresh	The amount of time in seconds before the content in the WebFOCUS component is refreshed. If nothing is specified, the default value is 0, meaning the component will not automatically refresh itself.

Parameters	Description
Scale	The time scale used to determine the refresh rate. Specify <i>m</i> for minutes (default), <i>s</i> for seconds, or <i>h</i> for hours.
Content	
Context path	The application context path. For example: <code>/ibi_apps</code>
Prefix fba usernames	
Trace	Displays debugging information.
Appearance	
Title	The title for the Report Component to appear on the top left of the component box.
Height	Represents the height of the component. Select either <i>Yes</i> and provide the fixed height of the Web Part, or <i>No. Adjust height to fit zone.</i>
Width	Represents the width of the component. Select either <i>Yes</i> and provide the fixed width of the Web Part, or <i>No. Adjust width to fit zone.</i>
Chrome State	It can be set to <i>Minimized</i> , meaning the component will be minimized on the page, or <i>Normal</i> , meaning the component will be displayed with the set dimensions.

WebFOCUS Report Component Configurations

There is one WebFOCUS Report component parameter and two Open Portal Service security privileges that control the ability of the user to set and access content in the WebFOCUS Report component, as indicated in the following table.

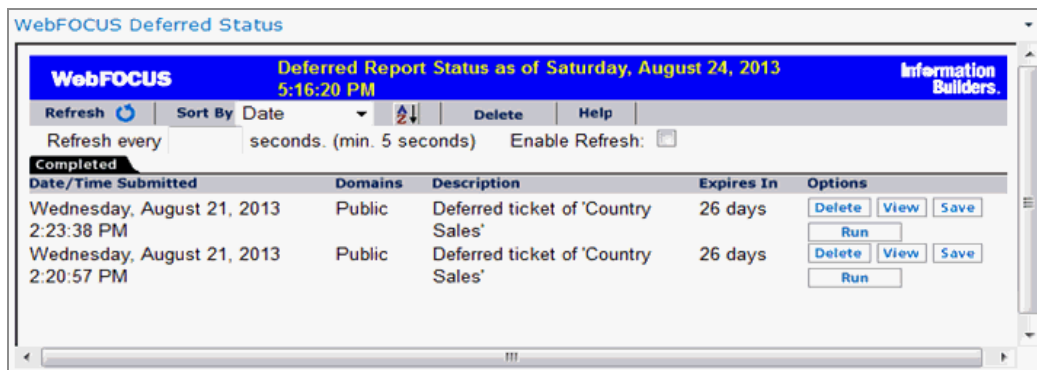
UseRunOnly (Parameter)	OPS Customize (Privilege)	OPS Edit (Privilege)	Access Type
No	No	No	Select Report is not displayed. Access Denied.
No	No	Yes	Select Report is not displayed. Access Denied.
No	Yes	No	Select Report is displayed for customization. The user can customize, select, and add tree items. OPS Customize has precedence over OPS Edit.
No	Yes	Yes	Select Report is displayed for customization. The user can customize, select, and add tree items. OPS customize has precedence over OPS edit.
Yes	No	No	Select Report is not displayed. The user sees the Fixed Report configured by a user with OPS Edit.
Yes	No	Yes	Select Report is displayed for global configuration. The user sees the Fixed Report configured globally by a user with OPS Edit.
Yes	Yes	No	Select Report is NOT Displayed. The user sees the Fixed Report configured by a user with OPS Edit.
Yes	Yes	Yes	Select Report is displayed for global configuration. The user

UseRunOnly (Parameter)	OPS Customize (Privilege)	OPS Edit (Privilege)	Access Type
			sees the Fixed Report configured globally by a user with OPS Edit.

For more information on how to configure the WebFOCUS component privileges, see the *WebFOCUS Security and Administration* content.

Using the WebFOCUS Deferred Status Component

The WebFOCUS Deferred Status component allows users to check the status of any report submitted for deferred execution. An example of the WebFOCUS Deferred Status component is shown in the following image.



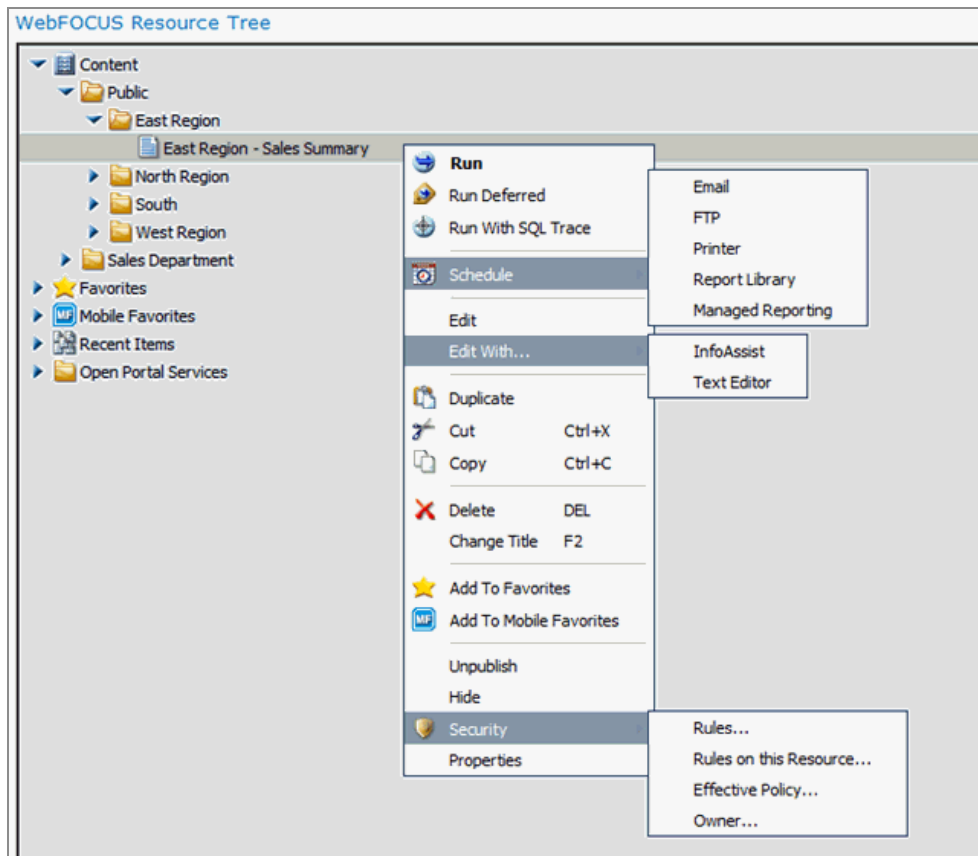
Using the WebFOCUS Resource Tree Component

Once the WebFOCUS Resource Tree Component is added to the portal page, users can navigate through the tree nodes and perform different operations as described in the following sections.

Content Node

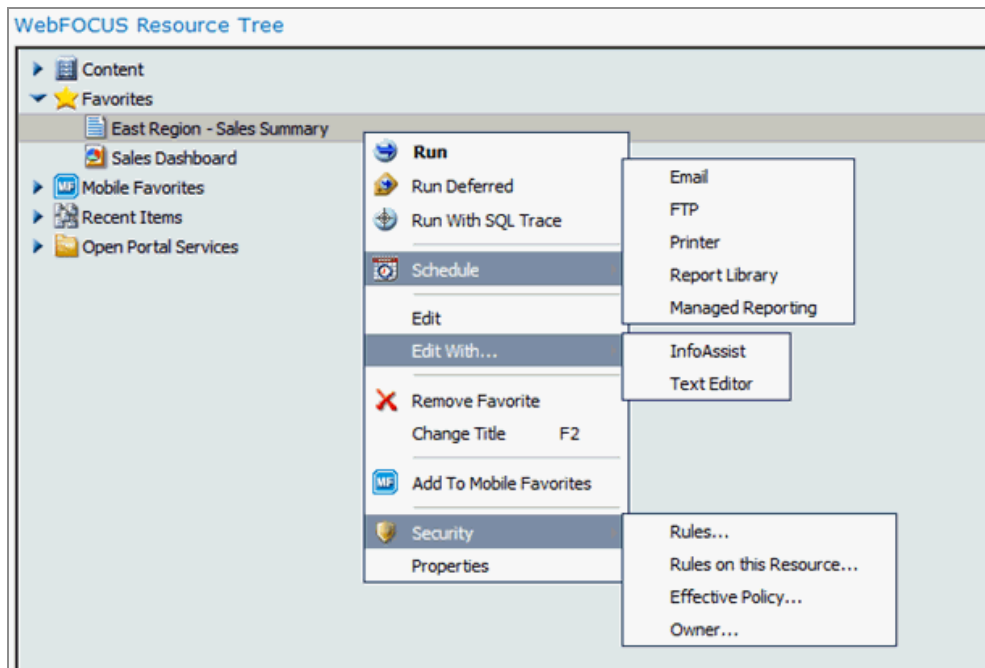
The Content node allows users to interact with WebFOCUS content items based on the security privileges of the user by either double-clicking on the item to run it or by right-

clicking on the item and selecting an option from the menu that appears, as shown in the following image.



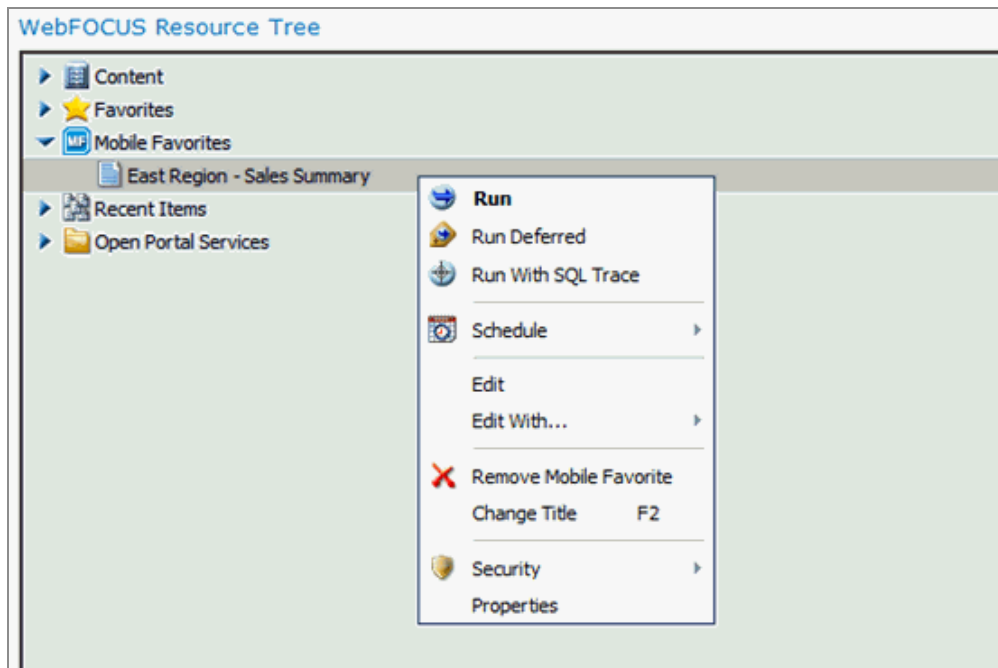
Favorites Node

The Favorites node allows users to interact with WebFOCUS content items based on the security privileges of the user by either double-clicking on an item to run it or by right-clicking an item and selecting an option from the menu that appears, as shown in the following image.



Mobile Favorites Node

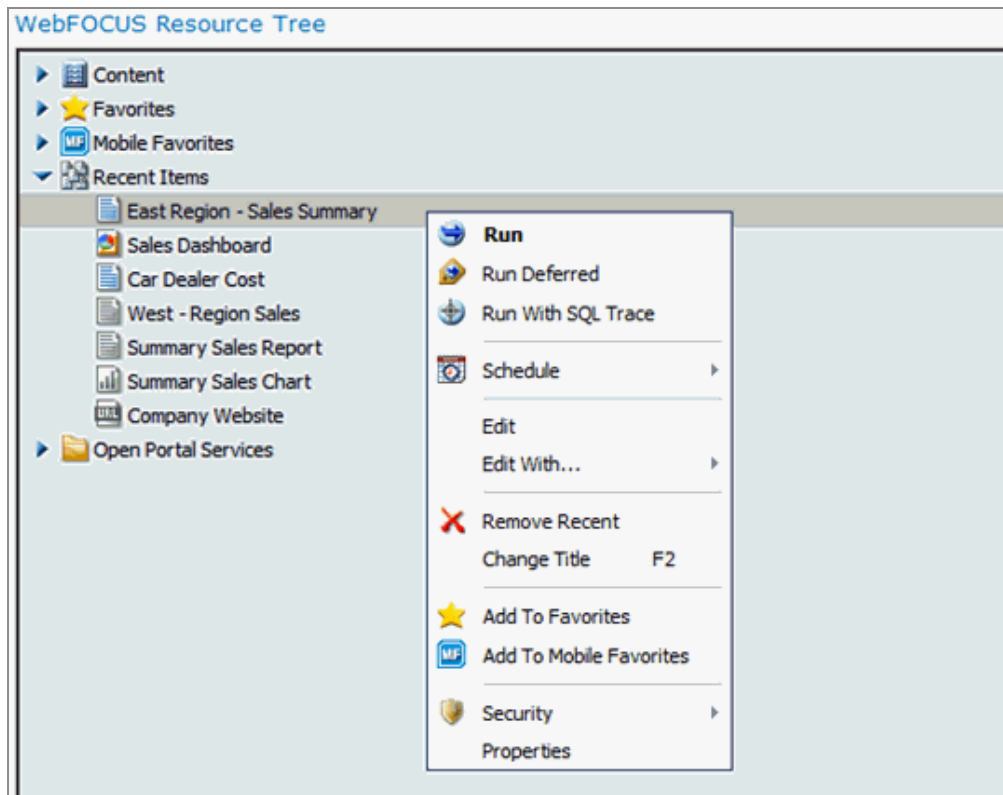
The Mobile Favorites node includes items that will be displayed in the Mobile Favorites application. It also allows users to interact with WebFOCUS content items based on the security privileges of the user by either double-clicking on the item to run it or by right-clicking on the item and selecting an option from the menu that appears, as shown in the following image.



For more information about Mobile Favorites, see the *WebFOCUS Business Intelligence Portal* content.

Recent Items Node

The Recent Items node displays recently run content items. It also allows users to interact with WebFOCUS content items based on the security privileges of the user by either double-clicking on the item to run it or by right-clicking on the item and selecting an option from the menu that appears, as shown in the following image.



WebFOCUS Resource Tree Component Parameters

The following table lists and describes the available WebFOCUS Resource Tree component parameters.

Parameter	Description
WebFOCUS Connection	
Source URL	The URL and port number to the WebFOCUS client used to retrieve WebFOCUS content items.
Proxy URL	The Proxy URL and port number to the WebFOCUS client.
User run only	Used to control whether or not a user is allowed to change the content displayed in the Report Component.

Parameter	Description
	If the <i>User run only</i> check box is not selected, then the user will be able to select a WebFOCUS content item and its display mode. This is the default setting. If the <i>User run only</i> check box is selected, then the Report Component will display a default content item, such as a report, to any user that does not have Managed Reporting administrator privileges, and the <i>Select Report</i> menu option will not be available, preventing the user from changing the content item selected by default. Note: The <i>User run only</i> parameter works in conjunction with the following Open Portal Services security privileges: • <i>Edit OPS Portlet</i> • <i>Save OPS Portlet Customization</i> For more information, see WebFOCUS Report Component Configurations.
Show Refresh	If the <i>Show Refresh</i> check box is not selected, then the <i>Refresh</i> option will not be available on the Report Component menu and the user will not be able to manually trigger the content item to refresh. If <i>Show Refresh</i> is selected, then the <i>Refresh</i> option will be displayed on the Report Component menu and the user can manually trigger the content item to refresh. This is the default setting.
Use scroll bars	If the <i>Use scroll bars</i> check box is not selected, then the Report Component will not display scrollbars for the content item displayed. If the <i>Use scroll bars</i> check box is selected, then the Report Component will display scrollbars for the

Parameter	Description
	content item displayed. This is the default setting. This is particularly useful for content items that are larger than the component width and height, such as reports with several rows.
Show time stamp	If the <i>Show time stamp</i> check box is not selected, then the Report Component will not display the time stamp. This is the default setting. If the <i>Show time stamp</i> check box is selected, then the Report Component will display the time stamp.
Gn	The <i>gn</i> parameter is used to distinguish between multiple instances of the WebFOCUS Report component and retain its attributes (for example, width, height, and refresh rate). If you add three Report components to your portal page, specify a unique <i>gn</i> value for each instance of that Report component.
Number of columns	Represents the number of columns displayed inside the content mode box. For example, if a user is selecting reports to be placed in a list and the <i>Number of columns</i> parameter is set to 2, then items will be organized into two columns. The default value is 1.
Refresh	The amount of time in seconds before the content in the WebFOCUS component is refreshed. If nothing is specified, the default value is 0, meaning the component will not automatically refresh itself.
Scale	The time scale used to determine the refresh rate. Specify <i>m</i> for minutes (default), <i>s</i> for seconds, or <i>h</i> for hours.

Parameter	Description
Content	
Context path	The application context path. For example: <code>/ibi_apps</code>
Prefix fba usernames	
Trace	Displays debugging information.
Appearance	
Title	The title for the Report Component that appears on the top left of the component pane.
Height	Represents the height of the component. Select either <i>Yes</i> and provide the fixed height of the Web Part, or <i>No. Adjust height to fit zone</i> .
Width	Represents the width of the component. Select either <i>Yes</i> and provide the fixed width of the Web Part, or <i>No. Adjust width to fit zone</i> .
Chrome State	This can be set to <i>Minimized</i> , meaning that the component will be minimized on the page, or <i>Normal</i> , meaning the component will be displayed with the set dimensions.

Usage Considerations

This section describes several considerations when using and configuring WebFOCUS Open Portal Services.

Right-Click Context Menu Persists When Working in Another Portlet

When working between two or more portlets, a right-click context menu that appears in one portlet can also appear in another portlet. For example, if you right-click on a folder in the Resource Tree portlet to perform an action (for example, to run a procedure), you can also do the same in the Report portlet. Context menus in both portlets are displayed/enabled. The context menus do not disappear unless you click anywhere within the respective portlet where a context menu is displayed.

Portlet Menu Options to Avoid

When embedding a WebFOCUS portal, developers should avoid using the *Sign In*, *Sign Out*, and *Close* menu options in their WebFOCUS portlets. Including these menu options may leave the portlet in an unstable state.

Using the Properties Dialog Box

When using embedded WebFOCUS items, including WebFOCUS reports, the Properties dialog box that is available for the item cannot be resized or minimized.

Installing WebFOCUS App Parts for Microsoft SharePoint 2016

This section describes how administrators can install the WebFOCUS App Parts for the Microsoft SharePoint Portal Server 2016.

On-Premise SharePoint Server

This section describes how to configure the On-Premise SharePoint Server.

As of Microsoft SharePoint Portal Server 2016, the WebFOCUS App Parts are packaged as a SharePoint Add-in (*WfApp.app*), which is located in the following directory of your WebFOCUS installation:

```
drive:\ibi\WebFOCUS82\utilities\ops\sharepoint-addin
```

where:

drive:

Is the drive letter corresponding to the location where WebFOCUS is installed.

In terms of security, ensure that the same security paradigm is used on both environments (WebFOCUS and SharePoint).

1. Add the domain user ID you intend to use for apps (Add-ins) as a Windows administrator.
2. Use Central Administration to ensure that the *Application Management Service* and *User Profile Service Application* are configured, by selecting **Manage Service Applications** under Application Management.
3. Verify that your domain user ID has a user profile in Central Administration. If it does not, then create a new user profile for it by clicking the **User Profile Service** link under Manage Service Applications.
4. Under People, select **Manage User Profiles**, and search for the specific name.
5. Add the domain user ID to SQL Server as a login with the *sysadmin* role and *User*

Mapping of db_owner, and Sharepoint_shell_access for the SharePoint_config database.

6. Open SharePoint Management Shell using the **Run as Administrator** option.
7. Load the PowerShell snap-ins for the session/script using the following command:

```
Add-PSSnapin Microsoft.Sharepoint.Powershell
```

8. Add user(s) as spshell administrators using the following command:

```
Add-SPShellAdmin -UserName domain\username
```

9. Set the Add-ins subdomain using the following command:

```
Set-SPAppDomain "wfapp.ibi.com"
```

10. Set the account to run Add-ins using the following command:

```
$account = New-SPManagedAccount
```

11. Set the account, app pool, and database settings using the following commands:

```
a.      $account = Get-SPManagedAccount "domain\user"

b.      $appPoolSubSvc = New-SPServiceApplicationPool -Name
SettingsServiceAppPool -Account $account

c.      $appPoolAppSvc = New-SPServiceApplicationPool -Name
AppServiceAppPool -Account $account

d.      $appSubSvc = New-SPSubscriptionSettingsServiceApplication -
ApplicationPool $appPoolSubSvc -Name SettingsServiceApp -
DatabaseName SettingsServiceDB
(Note: The user ID must be sysadmin or dbcreator for this command.)

e.      $proxySubSvc = New-SPSubscriptionSettingsServiceApplicationProxy
-ServiceApplication $appSubSvc

f.      $appAppSvc = New-SPAppManagementServiceApplication -
ApplicationPool $appPoolAppSvc -Name AppServiceApp -DatabaseName
AppServiceDB
```

```
g.      $proxyAppSvc = New-SPAppManagementServiceApplicationProxy -
ServiceApplication $appAppSvc
```

12. Set the Add-in prefix using the following command:

```
Set-SPAppSiteSubscriptionName -Name "add-in" -Confirm:$false
```

The full app (Add-in) name will appear as shown in the following example:

```
http://add-in-61844c031b3e0d.wfapp.ibi.com/sites/WFapp/
```

i Note: Providing the support for wfapp.ibi.com (or other) domain is the responsibility of the SharePoint administrator.

The SharePoint Server is now configured to support apps (Add-ins).

Using Apps (Add-ins) With a Developer Site and Other Site Types Through the App Catalog.

This section describes how to use apps (Add-ins) with a developer site and other site types through the app catalog.

Use Apps (Add-ins) With a Developer Site

To use apps (Add-ins) with a developer site:

Procedure

1. Using Central Administration, create a Developer site with *Create Site Collections*.
2. From another machine, use your browser to go to the following new developer website:

```
http://sharepointServer/sites/developerSite
```

3. Pre-register the WebFOCUS App using the following:

```
http://sharepointServer/sites/developerSite/_layouts/15/appregnew.aspx
```

4. For Client ID, enter the following:

```
40f398ee-1f96-4e4e-96dd-9f7218a3b880
```

5. Next to Client Secret, click **Generate**.
6. Provide a title in the Title field.
7. In the App Domain field, enter a non-existent host, for example:

```
http://www.webfocusdavid.com
```

8. In the Redirect URL field, enter the following:

```
http://www.webfocusdavid.com/default.aspx
```

9. Click **Create**.
10. In the left pane, select **Apps in Testing**.
11. Click the **New app to deploy** link.
12. From the dialog that appears, click **Upload** and navigate to **WFAApp.app** to upload it.
13. Click **Deploy**, and then when you are prompted, click **Trust it**.
14. Refresh your browser until the *Installing* message disappears, which indicates that the app is ready for use.
15. Create a page in the site.
16. From the Insert tab at the top of the page, select **App Parts** so that the WebFOCUS App Parts will be available for use.

When you insert the first app part, the frame will get an error which shows you the host that needs to be added to the Windows Hosts file in order to access the Add-ins.
17. Use the real IP address of the SharePoint Server machines in the hosts file.
18. Refresh the browser.

The frame may show a *403 - Access Denied* message which means you need to log on to WebFOCUS in another browser tab.

Use Apps (Add-ins) With Other Site Types Through the App Catalog

To use apps (Add-ins) with other site types through the app catalog:

Procedure

1. Using the Central Administration with a Farm Administrators account, click **Apps** from the left side of the pane, then under App Management, click **Manage App Catalog**.
2. Select the **Create a new app catalog site** radio button, and click **Ok**.
3. On the Create App Catalog page, enter a title for the App Catalog site and an optional description.
4. In the URL field, enter the URL to use for this site, for example:

```
http://sharepointServer/sites/mycatalog
```

5. In the Primary Site Collection Administrator section, type the name of the user who will manage the catalog, and then click **check names** to validate it.
6. In the End Users section, type the names of the users or groups that you wish to be able to browse the catalog, and then click **check names** to validate them.
7. Select an optional quota that is needed, and then click **Ok** to create the catalog.
Once the catalog is created, the Manage App Catalog page displays the App Catalog site URL.
8. Using your browser, go to the App Catalog website and click **Apps for SharePoint** on the left side of the page.
9. Click **New** and in the *Add a document* dialog that appears, click **Choose files** and navigate to the folder that has the *app* file and select it for upload.
10. Click **Ok**.
11. Use the Central Administration to create a non-Developer site with *Create Site Collections*.

12. Using your browser in another machine, go to the following new website:

```
http://sharepointServer/sites/testSite
```

13. Pre-register the WebFOCUS App using the following:

```
http://sharepointServer/sites/testSite/_layouts/15/appregnew.aspx
```

14. In the Client ID field, enter the following:

```
40f398ee-1f96-4e4e-96dd-9f7218a3b880
```

15. Next to Client Secret, click **Generate**.

16. Enter a title in the Title field.

17. In the App Domain field, enter a non-existent host, for example:

```
http://www.webfocusdavid.com
```

18. In the Redirect URL field, enter the following:

```
http://www.webfocusdavid.com/default.aspx
```

19. Click **Create**, and then click **Ok**.

20. From the gear menu at the top right of the pane, click **Add an App** to display the Your Apps page.

21. Click **Information Builders WebFOCUS applets**.

22. In the *Do you trust WebFOCUS?* dialog that appears, click the **Trust it** button.

This will add the app to your site.

23. Create a page in the site.

24. From the Insert tab at the top of the page, select **App Parts** and you will see the WebFOCUS App Parts available for use.

When you insert the first app part, the frame will get an error which shows you the host that needs to be added to the Windows Hosts file in order to access the Add-ins.

You can use the real IP address of the SharePoint Server machines in the hosts file.

25. Refresh the browser.

The frame may show a *403 - Access Denied* message, indicating that you must log on to WebFOCUS in another browser tab.

Using SharePoint on Microsoft Office 365 and Azure (In the Cloud)

Secure Sockets Layer (SSL) must be configured for WebFOCUS in order to use SharePoint in the cloud.

 **Note:** The following procedure uses Microsoft Office 365 as an example, but the general steps would also apply in a Microsoft Azure environment.

1. Sign in to Office 365 with your SharePoint online account.
2. From the SharePoint Admin Center (the tile with *A* and *Admin* on it), select **Apps** from the left pane, and then click **App Catalog**.
3. Select **Create a new app catalog site** and then click **Ok**.
4. On the Create App Catalog Site Collection page, enter the required information, and then click **Ok**.
5. Navigate to the App Catalog site within the Admin Center, click **Apps**, and then click **App Catalog**.
6. On the home page of the App Catalog site, select the tile labeled **Distribute apps for SharePoint**, and click **new app**.
7. Navigate and select the folder that contains the app you wish to upload, and then click **Open**.
8. In the *Add a document* dialog box, add any optional comments about this version of the app, and then click **Ok**.
9. Ensure that the **Enabled** check box is selected so that users are able to add this app to their sites.
10. Click **Save**.

11. On the App Catalog site, pre-register the WebFOCUS app using:

```
http://sharepointServer/sites/testSite/_layouts/15/appregnew.aspx
```

12. On the App Catalog site, click **Settings** and then click **Add an App**.
13. Select the app you want to add, and when you are prompted, select **Trust it**.
14. Create your new site collection.
15. Using your browser, go to the URL of the new site collection and select **Add an App** from the Settings menu.
16. Select the WebFOCUS app to add it to the new site.
Once it is installed, you can create pages and use *App Part* on the ribbon to add the WebFOCUS App Parts.
17. In the *Edit web part* pane, ensure to specify an HTTPS URL to WebFOCUS and that your WebFOCUS environment is configured for SSL.

Security Considerations for Microsoft SharePoint 2016

Microsoft SharePoint 2016 cannot initiate back channel requests. Therefore, it is recommended to implement the same security scheme in SharePoint 2016 and in WebFOCUS, such as Integrated Windows Authentication.

Installing WebFOCUS Web Parts for Microsoft SharePoint 2013

This section describes how administrators can install the WebFOCUS Web Parts for the Microsoft SharePoint Portal Server 2013.

Microsoft SharePoint Portal Server 2013

The WebFOCUS Web Parts for Microsoft SharePoint Portal Server 2013 are included as a WebFOCUS Solution Package (webfocus.wsp).

The webfocus.wsp solution package for Microsoft SharePoint and script files are located in the following directory where WebFOCUS is installed:

```
drive:\ibi\WebFOCUS80\utilities\ops\sharepoint
```

where:

drive:

Is the drive letter corresponding to the location where WebFOCUS is installed.

Install and Verify the WebFOCUS Solution Package for Microsoft SharePoint

Procedure

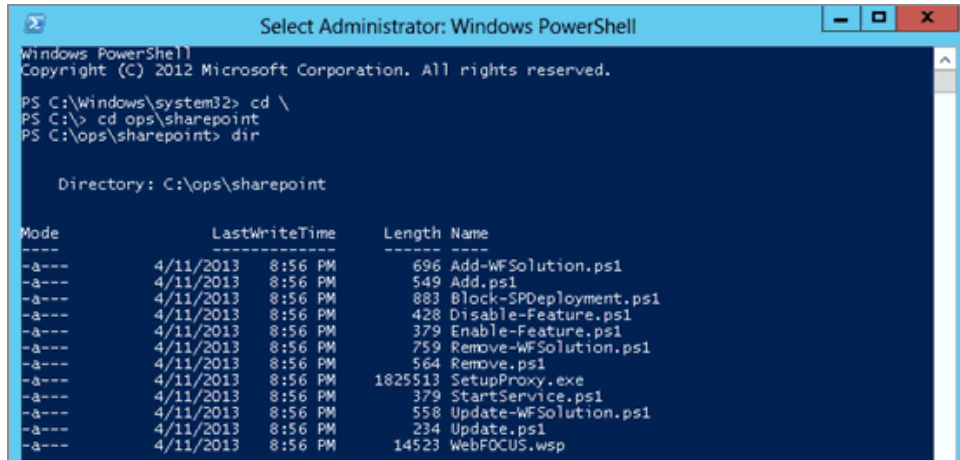
1. Navigate to the following Microsoft SharePoint directory where WebFOCUS is installed:

```
drive:\ibi\WebFOCUS80\utilities\ops\sharepoint
```

2. Copy the *sharepoint* directory to the system where Microsoft SharePoint Portal Server 2013 is being hosted.

3. Launch the SharePoint Management Shell as an Administrator.
4. Navigate to the location of the WebFOCUS files in the *sharepoint* directory that was copied. For example:

```
c:\ops\sharepoint
```



```

Windows PowerShell
Copyright (C) 2012 Microsoft Corporation. All rights reserved.

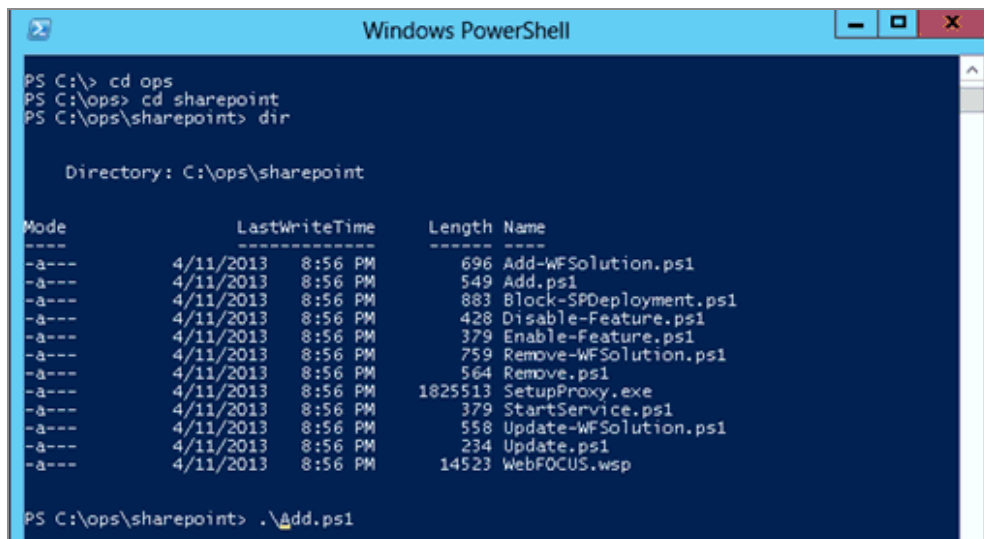
PS C:\Windows\system32> cd \
PS C:\> cd ops\sharepoint
PS C:\ops\sharepoint> dir

Directory: C:\ops\sharepoint

Mode                LastWriteTime         Length Name
----                -
-a---         4/11/2013   8:56 PM             696 Add-WFSolution.ps1
-a---         4/11/2013   8:56 PM             549 Add.ps1
-a---         4/11/2013   8:56 PM             883 Block-SPDeployment.ps1
-a---         4/11/2013   8:56 PM             428 Disable-Feature.ps1
-a---         4/11/2013   8:56 PM             379 Enable-Feature.ps1
-a---         4/11/2013   8:56 PM             759 Remove-WFSolution.ps1
-a---         4/11/2013   8:56 PM             564 Remove.ps1
-a---         4/11/2013   8:56 PM          1825513 SetupProxy.exe
-a---         4/11/2013   8:56 PM             379 StartService.ps1
-a---         4/11/2013   8:56 PM             558 Update-WFSolution.ps1
-a---         4/11/2013   8:56 PM             234 Update.ps1
-a---         4/11/2013   8:56 PM          14523 WebFOCUS.wsp
  
```

5. Enter the following command from the Power Shell command prompt:

```
PS c:\ops\sharepoint> .\Add.ps1
```



```

Windows PowerShell

PS C:\> cd ops
PS C:\ops> cd sharepoint
PS C:\ops\sharepoint> dir

Directory: C:\ops\sharepoint

Mode                LastWriteTime         Length Name
----                -
-a---         4/11/2013   8:56 PM             696 Add-WFSolution.ps1
-a---         4/11/2013   8:56 PM             549 Add.ps1
-a---         4/11/2013   8:56 PM             883 Block-SPDeployment.ps1
-a---         4/11/2013   8:56 PM             428 Disable-Feature.ps1
-a---         4/11/2013   8:56 PM             379 Enable-Feature.ps1
-a---         4/11/2013   8:56 PM             759 Remove-WFSolution.ps1
-a---         4/11/2013   8:56 PM             564 Remove.ps1
-a---         4/11/2013   8:56 PM          1825513 SetupProxy.exe
-a---         4/11/2013   8:56 PM             379 StartService.ps1
-a---         4/11/2013   8:56 PM             558 Update-WFSolution.ps1
-a---         4/11/2013   8:56 PM             234 Update.ps1
-a---         4/11/2013   8:56 PM          14523 WebFOCUS.wsp

PS C:\ops\sharepoint> .\Add.ps1
  
```

The following prompt is displayed:

Enter the Web Application full url? (http://localhost):

```

Administrator: Windows PowerShell
PS C:\ibi\webparts> dir

Directory: C:\ibi\webparts

Mode                LastWriteTime         Length Name
----                -
- ar --           3/11/2013  5:01 PM             641 Add-WFSolution.ps1
- ar --           3/11/2013  5:01 PM             549 Add.ps1
- ar --           3/11/2013  5:02 PM             883 Block-SPDeployment.ps1
- ar --           9/6/2012    1:35 PM          9991 Deploy-SPSolutions.ps1
- ar --           3/11/2013  5:02 PM             428 Disable-Feature.ps1
- ar --           3/11/2013  5:02 PM             379 Enable-Feature.ps1
- ar --           3/11/2013  5:02 PM             759 Remove-WFSolution.ps1
- ar --           3/11/2013  5:02 PM             564 Remove.ps1
- ar --           3/11/2013  5:02 PM             379 StartService.ps1
- ar --           3/11/2013  5:02 PM             558 Update-WFSolution.ps1
- ar --           3/11/2013  5:02 PM             234 Update.ps1
- a ---           3/14/2013   2:19 PM          14769 WebFOCUS.wsp
- ar --          10/16/2012  11:53 AM              47 _sp.cmd

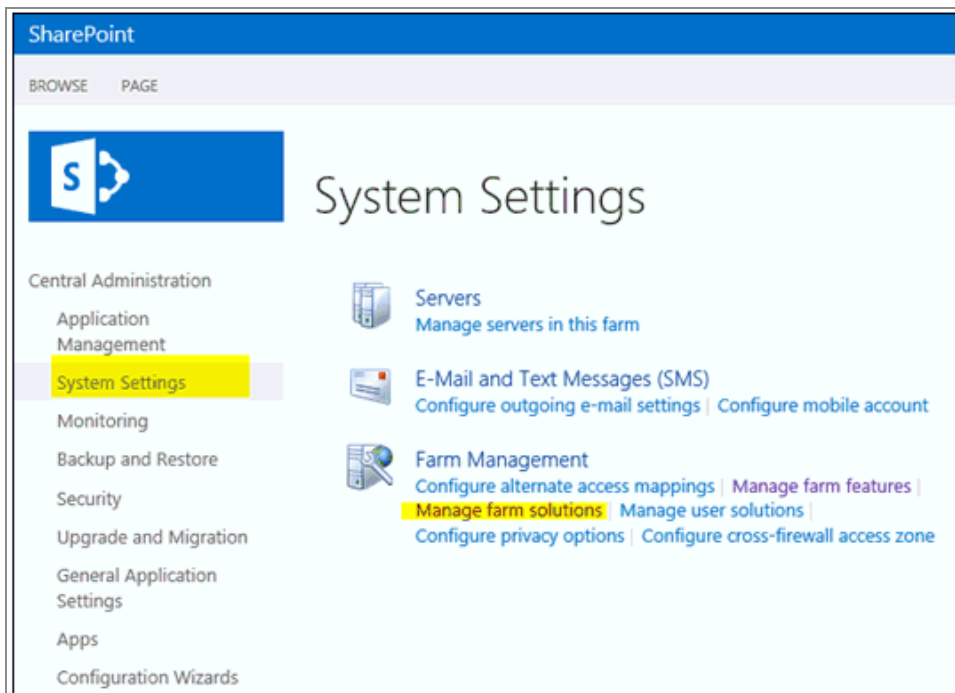
PS C:\ibi\webparts> .\Add.ps1
Enter the Web Application full url ? (http://localhost): _
  
```

6. Specify the web application where the webfocus.wsp solution package for Microsoft SharePoint is to be deployed (or use the default localhost) and press Enter.

The webfocus.wsp solution package for Microsoft SharePoint is deployed and the Web Parts are enabled.

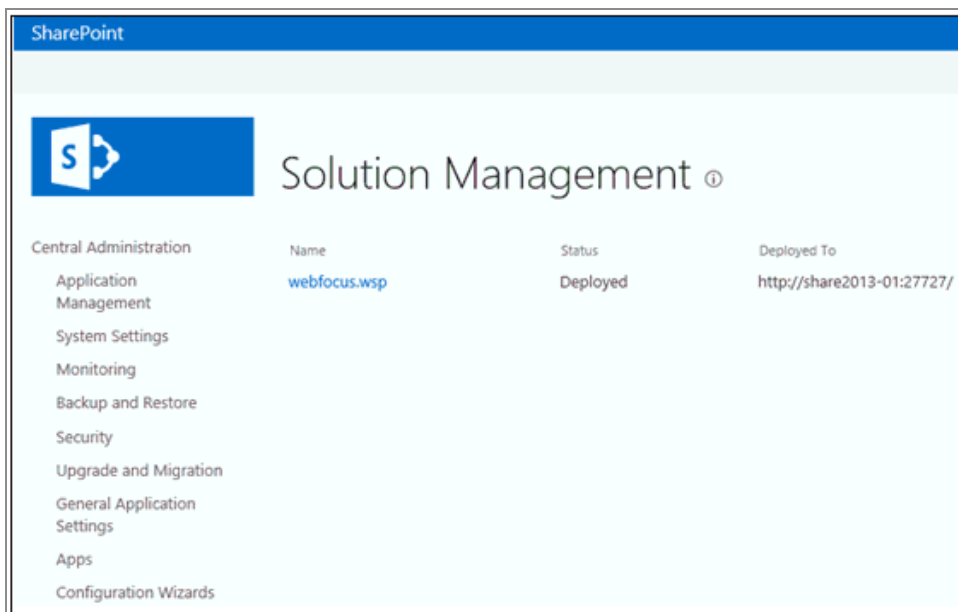
7. To verify if the webfocus.wsp solution package for Microsoft SharePoint is successfully deployed, access the Central Administration page.
8. Click **System Settings** in the left pane.

The System Settings page opens, as shown in the following image.



9. Click **Manage farm solutions**.

The Solution Management page opens, as shown in the following image.



Notice that the webfocus.wsp solution package for Microsoft SharePoint is listed with a status of Deployed.

Uninstall the WebFOCUS Solution Package for Microsoft SharePoint

To uninstall the WebFOCUS Solution Package for Microsoft SharePoint (webfocus.wsp) and the Web Parts from the configuration, enter the following command from the Power Shell command prompt as an Administrator:

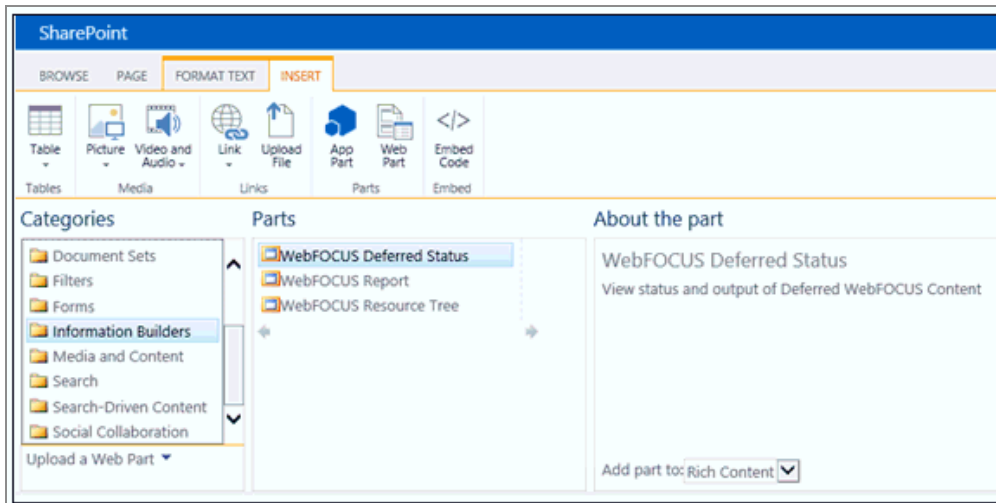
```
PS c:\ops\sharepoint> .\Remove.ps1
```

Add and Configure WebFOCUS Web Parts

To add WebFOCUS Web Parts to the Microsoft SharePoint Portal Server:

Procedure

1. Log on to the Microsoft SharePoint Portal Server 2013.
2. Navigate to the page where you want to add WebFOCUS Web Parts.
3. Edit the page.
4. From the Tools menu, click **Insert**.



5. Click **Web Part** in the menu bar.
6. From the Categories area in the left pane, click the WebFOCUS Web Parts category (for example, Information Builders).

7. From the Parts area, select the specific WebFOCUS Web Part and click **Add**.
8. To display properties for the Web Part, move your cursor over the right corner of the Web Part to display a drop-down menu.
9. Click **Edit Web Part**.
10. In the WebFOCUS Connection category, edit the Source URL by entering the machine name and port number that points to the WebFOCUS Client.
11. Expand the **Content** category.
12. Edit the context path based on your WebFOCUS Client installation.
13. Click **Apply** and then **OK**.

Repeat steps 8 through 13 for each WebFOCUS Web Part that you added to a page.

Installing WebFOCUS Portlets for the IBM WebSphere Portal Server Version 8.5

This section describes how to install and configure WebFOCUS portlets for the IBM® WebSphere® Portal Server version 8.5.

Prerequisites

Prior to installing the WebFOCUS portlets, ensure that the following components are installed and available.

- IBM WebSphere Portal Server Version 8.5, which is a JSR 286-compliant portal environment.
- WebFOCUS Release 8.2 Version 01 and higher.

For more information on installing WebFOCUS, see the *WebFOCUS and ReportCaster Installation and Configuration for Windows* documentation.

IBM WebSphere Portal 8.5 Cumulative Fix 16 with IBM WebSphere Application Server version 8.5.5 Fix Pack 14

In addition, IBM WebSphere Application Server must be configured with Java version 8.

- The *ops286.war* file, which contains the set of WebFOCUS portlets that are provided with WebFOCUS Open Portal Services and are compatible with JSR 286.
- The *opsgw.war* file, which contains the WebFOCUS Open Portal Services Gateway.

i Note: The *opsgw.war* file is only required if the WebFOCUS environment and the IBM WebSphere Portal Server are on separate machines, which requires you to deploy the WebFOCUS Open Portal Services Gateway.

The *ops286.war* and *opsgw.war* files are located in the following folder of your WebFOCUS installation:

```
<drive>:\ibi\WebFOCUS82\webapps
```


Installation and Configuration Overview

This section provides a general overview of the installation process and guidelines for deploying WebFOCUS portlets to a JSR 286-compliant portal environment.

1. Using the administration console (or similar user interface) for the portal environment, deploy the *ops286.war* file, which is included with your WebFOCUS installation.

The *ops286.war* file is located in the following folder of your WebFOCUS installation:

```
<drive>:\ibi\WebFOCUS82\webapps
```

For more information, see the corresponding administration documentation for the portal environment.

2. If the WebFOCUS environment and the portal environment are installed on separate machines, then you will need to deploy the WebFOCUS Open Portal Services Gateway to the application server that is hosting the portal environment.

For example, in the case of the IBM WebSphere Portal environment, the WebFOCUS Open Portal Services Gateway must be deployed to the IBM WebSphere Application Server.

For more information, see [websphere_portal_config_04.htm#topic_D3A075E7526442C3BF3D39AF38ED4A16](#).

3. Create a new portal page in your portal environment using the page design utilities that are available from the console or similar user interface. Once a portal page is available, you can add one or more WebFOCUS portlets to this page as required.

For more information, see the corresponding user documentation for the portal environment.

Configuring the WebFOCUS Open Portal Services Gateway

This section describes how to configure the WebFOCUS Open Portal Services Gateway on an application server that is hosting a JSR 286-compliant portal environment.

i Note: The use of a gateway is required when the WebFOCUS environment and the portal environment are residing on two separate machines.

Configure the WebFOCUS Open Portal Services Gateway

Procedure

1. Locate the *opsgw.war* file in the following directory:

```
<drive>:\ibi\WebFOCUS82\webapps
```

2. Extract this archive to a temporary directory, for example:

```
c:\gw_temp
```

3. Locate the *web.xml* file in the following directory:

```
c:\gw_temp\WEB-INF
```

4. Open the *web.xml* file using a text editor and locate the following section:

```
<context-param>
  <param-name>target_server_url</param-name>
  <param-value>{protocol}://{servername}:{port}</param-value>
</context-param>
```

where:

protocol

Is the communication protocol being used (for example, HTTP or HTTPS).

servername

Is the name of the application server where WebFOCUS is installed.

port

Is the port number on which the server listens.

5. Provide the appropriate values that correspond to your WebFOCUS environment, for

example:

```
<context-param>
  <param-name>target_server_url</param-name>
  <param-value>http://hostname:8080</param-value>
</context-param>
```

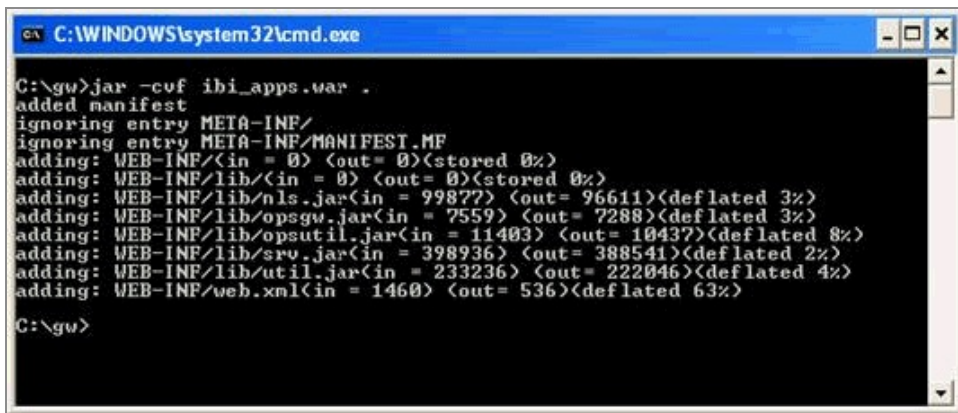
6. Save the *web.xml* file with your changes and rewar (repackage) the archive using the following naming convention:

```
contextpath.war
```

where:

contextpath

Is the context path of the WebFOCUS installation (for example, *ibi_apps.war*).



```
C:\WINDOWS\system32\cmd.exe
C:\>jar -cvf ibi_apps.war .
added manifest
ignoring entry META-INF/
ignoring entry META-INF/MANIFEST.MF
adding: WEB-INF/<in = 0> <out= 0><stored 0%>
adding: WEB-INF/lib/<in = 0> <out= 0><stored 0%>
adding: WEB-INF/lib/nls.jar<in = 99877> <out= 96611><deflated 3%>
adding: WEB-INF/lib/opsgw.jar<in = 7559> <out= 7288><deflated 3%>
adding: WEB-INF/lib/opsutil.jar<in = 11403> <out= 10437><deflated 8%>
adding: WEB-INF/lib/srv.jar<in = 398936> <out= 388541><deflated 2%>
adding: WEB-INF/lib/util.jar<in = 233236> <out= 222046><deflated 4%>
adding: WEB-INF/web.xml<in = 1460> <out= 536><deflated 63%>
C:\>
```

7. Make a copy of the repackaged .war file and rename it to *ibi_html.war*.



Note: Ensure to use the context path naming convention in this instance.

8. Deploy the two .war files (*ibi_apps.war* and *ibi_html.war*) on the application server where the JSR 286-compliant portal environment is deployed.

For example, in the case of the IBM WebSphere Portal environment, these .war files must be deployed to the IBM WebSphere Application Server.

For more information on deploying .war files in an application server, see the corresponding administration or user documentation for your application server.

Configuring Security and Authentication Settings

WebFOCUS enables you to configure security and authentication settings for WebFOCUS Open Portal Services through the WebFOCUS Administration Console.

The *ops286.war* and *opsgw.war* files are located in the following folder of your WebFOCUS installation:

```
<drive>:\ibi\WebFOCUS82\webapps
```

i Note: Security and authentication configuration settings for WebFOCUS Open Portal Services are stored in the *securitysettings-portlet.xml* file, which is located in the following folder of your WebFOCUS installation:

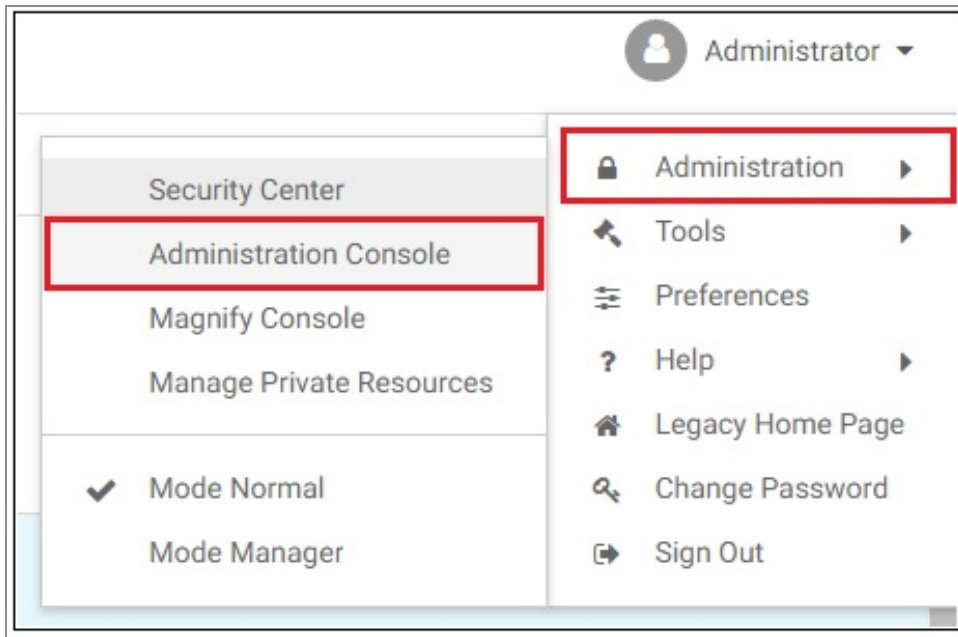
```
<drive>:\ibi\WebFOCUS82\config\securitysettings-portlet.xml
```

Enable IP Address Access

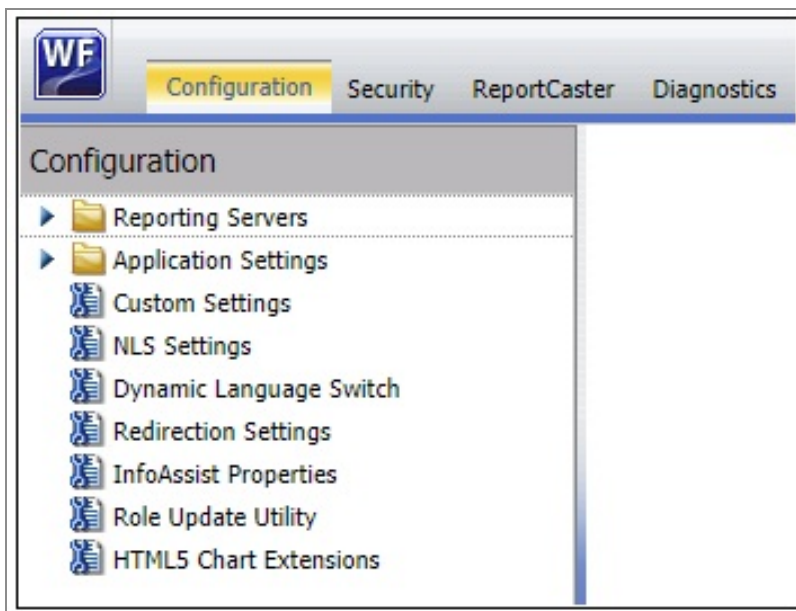
To enable IP address access using the WebFOCUS Administration Console:

Procedure

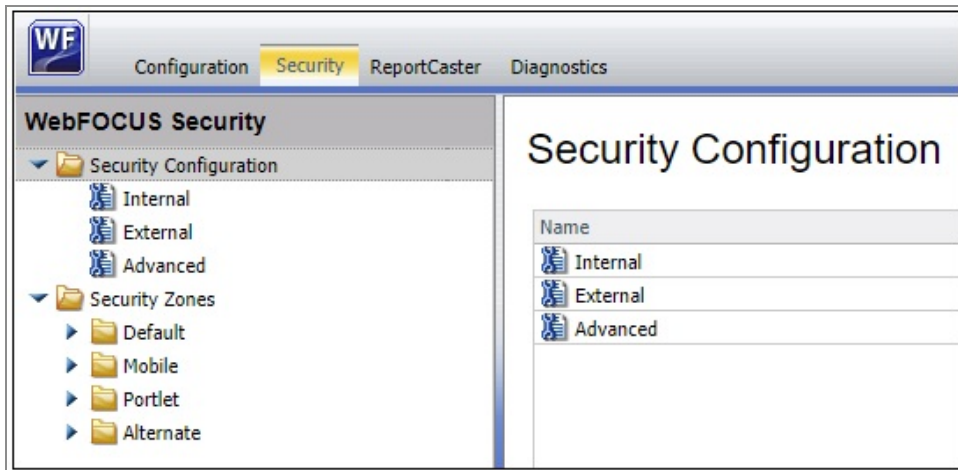
1. Access the WebFOCUS Administration Console from the WebFOCUS Home page, as shown in the following image.



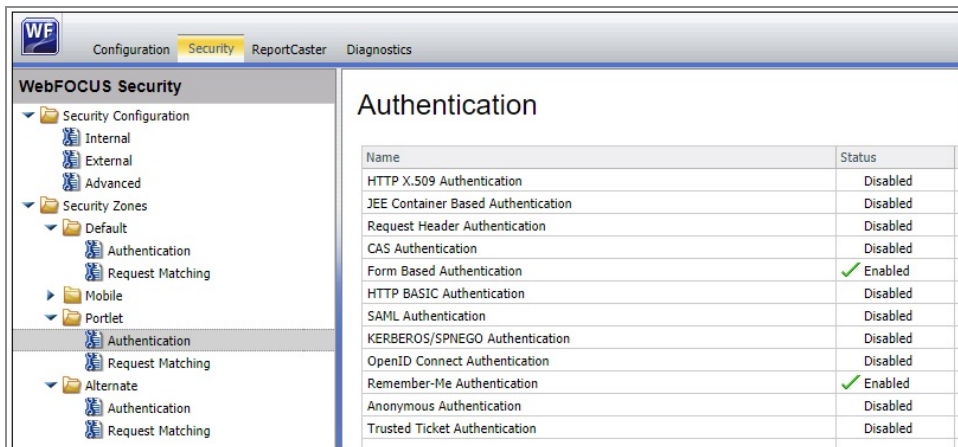
The WebFOCUS Administration Console opens, as shown in the following image.



2. Click the **Security** tab, as shown in the following image.



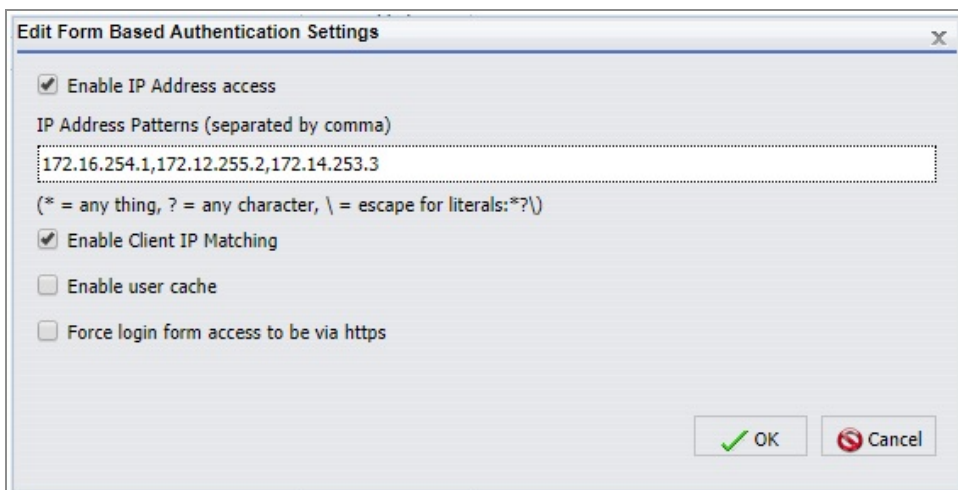
3. In the left pane, expand **Security Zones**, **Portlet**, and then select **Authentication**, as shown in the following image.



4. Double-click **Form Based Authentication**, as shown in the following image.

Authentication	
Name	Status
HTTP X.509 Authentication	Disabled
JEE Container Based Authentication	Disabled
Request Header Authentication	Disabled
CAS Authentication	Disabled
Form Based Authentication	✓ Enabled
HTTP BASIC Authentication	Disabled
SAML Authentication	Disabled
KERBEROS/SPNEGO Authentication	Disabled
OpenID Connect Authentication	Disabled
Remember-Me Authentication	✓ Enabled
Anonymous Authentication	Disabled
Trusted Ticket Authentication	Disabled

The Edit Form Based Authentication Settings dialog opens, as shown in the following image.



The dialog box titled "Edit Form Based Authentication Settings" contains the following options and fields:

- ☒ Enable IP Address access
- IP Address Patterns (separated by comma):
- (* = any thing, ? = any character, \ = escape for literals:*\?)
- ☒ Enable Client IP Matching
- ☐ Enable user cache
- ☐ Force login form access to be via https
- Buttons:

Perform the following steps:

- Select the Enable IP Address access checkbox.
- In the IP Address Patterns field, specify the IP address or addresses for which you want to allow access (validated connections).
Use a comma character (,) if you are specifying multiple IP addresses.
- Click **OK**.

5. Click **Save** in the right pane, as shown in the following image.

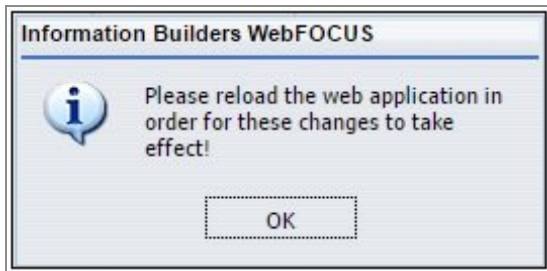


A message dialog displays indicating that the configuration was saved successfully, as shown in the following image.



6. Click **OK**.

A message dialog displays indicating that you must reload your web application to implement your new changes, as shown in the following image.



7. Click **OK**.
8. Reload (restart) your web application.

Strip the Domain Prefix and Suffix From a User ID

If you are using Windows authentication to connect to your portal environment (for example, as user IBI\john_smith), then you can enable the setting described in this procedure to strip the domain prefix and suffix from a user ID.

i Note: You must define your Managed Reporting user ID (mr_user_id) in the basedir directory as WINDOWS_DOMAIN\mr_user_id.

Trimming a Prefix

When enabled, this setting strips the Windows ID, and the portal user is logged in to Managed Reporting as mr_user_id. When disabled (default), the Windows ID is not stripped, and the portal user is logged in as WINDOWS_DOMAIN\mr_user_id.

Trimming a Suffix

If the portal environment you are accessing uses an authentication provider that separates a user ID (prefix) from a domain (suffix) with the "@" character (for example, mr_user_id@abc.com), then you must enable the setting described in this procedure. In this case, the suffix after the "@" character is trimmed, and the portal user is logged in as mr_user_id.

To strip the domain prefix and suffix from a user ID using the WebFOCUS Administration Console:

Procedure

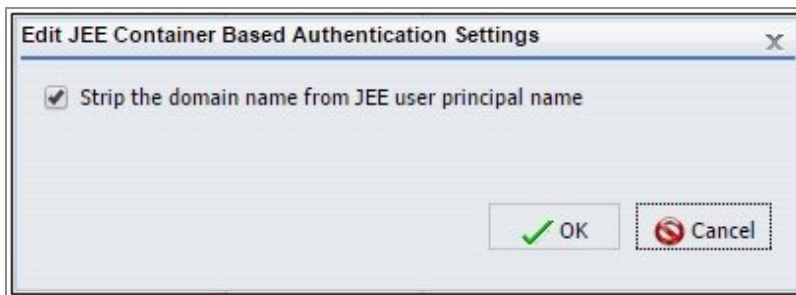
1. Access the Security tab in the WebFOCUS Administration Console as described in

Steps 1 to 3 in [Enable IP Address Access](#).

2. Double-click **JEE Container Based Authentication**, as shown in the following image.

Authentication	
Name	Status
HTTP X.509 Authentication	Disabled
JEE Container Based Authentication	Disabled
Request Header Authentication	Disabled
CAS Authentication	Disabled
Form Based Authentication	✓ Enabled
HTTP BASIC Authentication	Disabled
SAML Authentication	Disabled
KERBEROS/SPNEGO Authentication	Disabled
OpenID Connect Authentication	Disabled
Remember-Me Authentication	✓ Enabled
Anonymous Authentication	Disabled
Trusted Ticket Authentication	Disabled

The Edit JEE Container Based Authentication Settings dialog opens, as shown in the following image.



3. Select the **Strip the domain name from JEE user principal name** checkbox.
4. Click **OK**.
5. Click **Save** in the right pane, as shown in the following image.

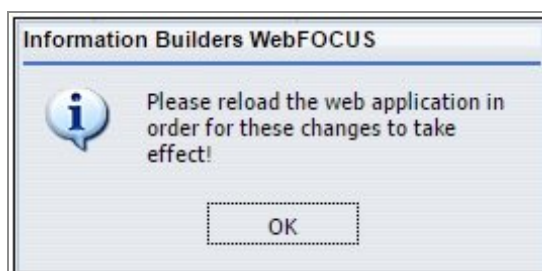


A message dialog displays indicating that the configuration was saved successfully, as shown in the following image.



6. Click **OK**.

A message dialog displays indicating that you must reload your web application to implement your new changes, as shown in the following image.



7. Click **OK**.
8. Reload (restart) your web application.

Installing and Configuring the WebFOCUS Portlets on IBM WebSphere Portal Server Version 8.5

To install WebFOCUS portlets on IBM WebSphere Portal Server Version 8.5, an administrator must have *Manage* permissions. If Manage permissions on the portal exists, then the administrator uploads the *ops286.war* file. This file includes descriptive information about each WebFOCUS portlet, which is placed in a database that can be queried by other portal components. During installation, the application server unpacks the *ops286.war* file and places the portlet classes and resources into a file system.

The state of each WebFOCUS portlet is set to active during installation. A new rule is automatically added to Access Control that defines the user who installed the WebFOCUS portlet as the owner, granting management access for that portlet. The user must assign portlet access rights to other groups and users to make that WebFOCUS portlet accessible and usable. For information about authorization rights and assigning access permissions, see the corresponding administration (access control) documentation for the IBM WebSphere Portal Server Version 8.5.

 **Note:** You cannot install a WebFOCUS portlet more than once in your IBM WebSphere Portal environment. If you require two instances of a WebFOCUS portlet, you must copy the portlet to create a second instance. For more information, see [Copy a WebFOCUS Portlet](#).

This section contains the following topics:

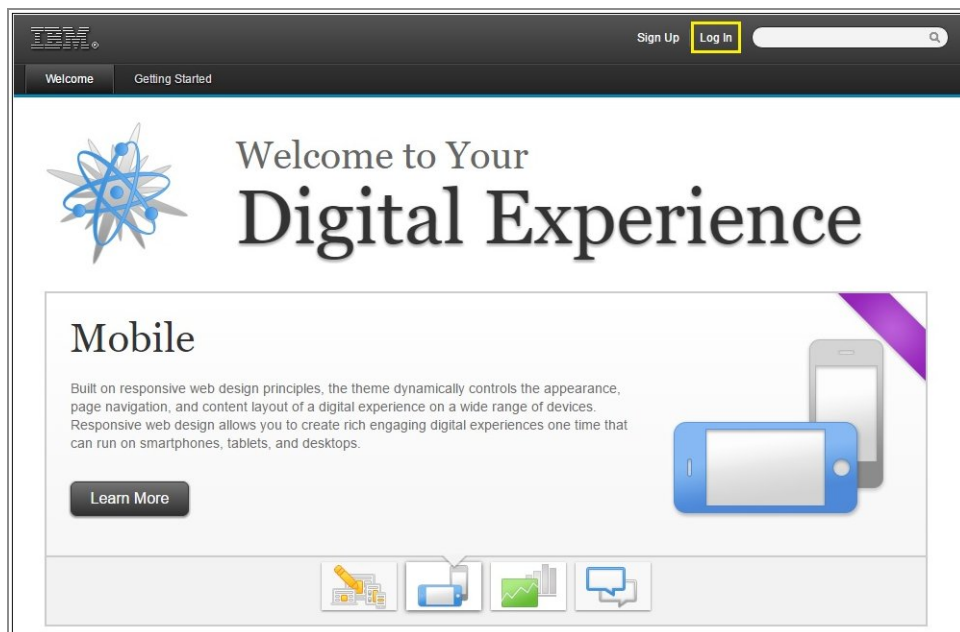
- [Installing and Configuring the WebFOCUS Portlets on IBM WebSphere Portal Server Version 8.5](#)
- [Modify WebFOCUS Portlet Parameters and Values](#)
- [Copy a WebFOCUS Portlet](#)
- [WebFOCUS Portlet Parameters Reference](#)

Install the WebFOCUS Portlets on IBM WebSphere Portal Server Version 8.5

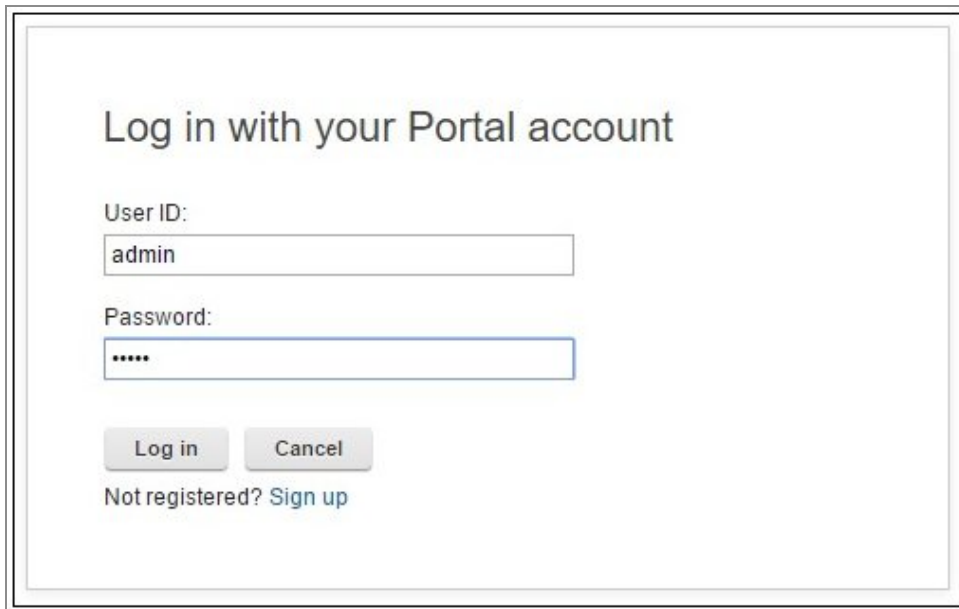
To install the WebFOCUS portlets on IBM WebSphere Portal Server Version 8.5:

Procedure

1. Access the IBM WebSphere Portal Server administration console using a browser and click **Log In**, as shown in the following image.



The Log in with your Portal account dialog opens, as shown in the following image.



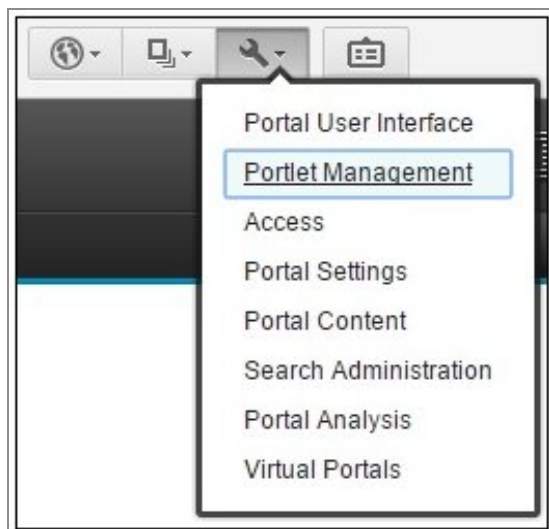
Log in with your Portal account

User ID:

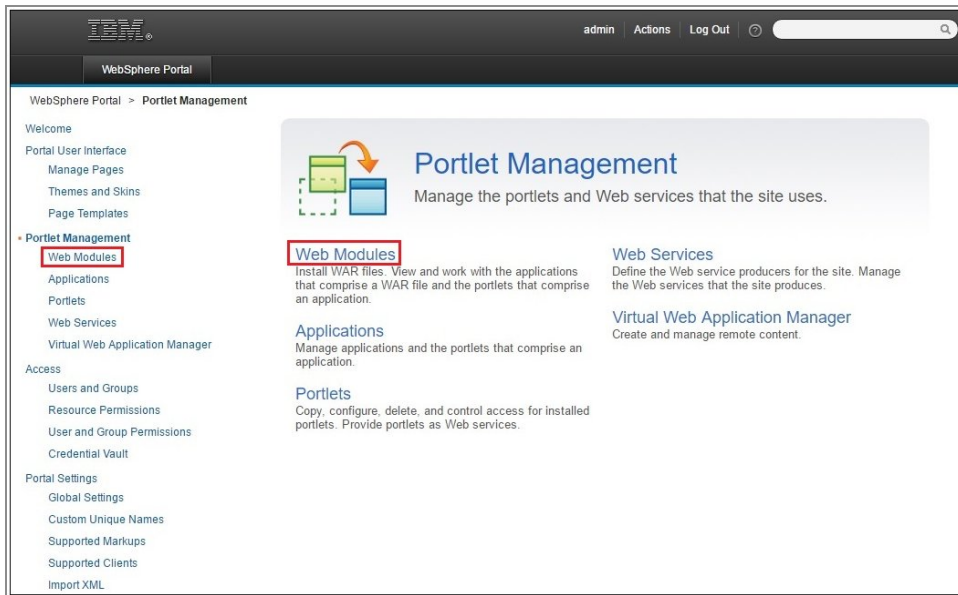
Password:

Not registered? [Sign up](#)

2. Enter a user ID and password that has *administrator* privileges and click **Log in**.
3. From the administration menu (tool wrench icon), which is located on the top pane of the console, click **Portlet Management**, as shown in the following image.

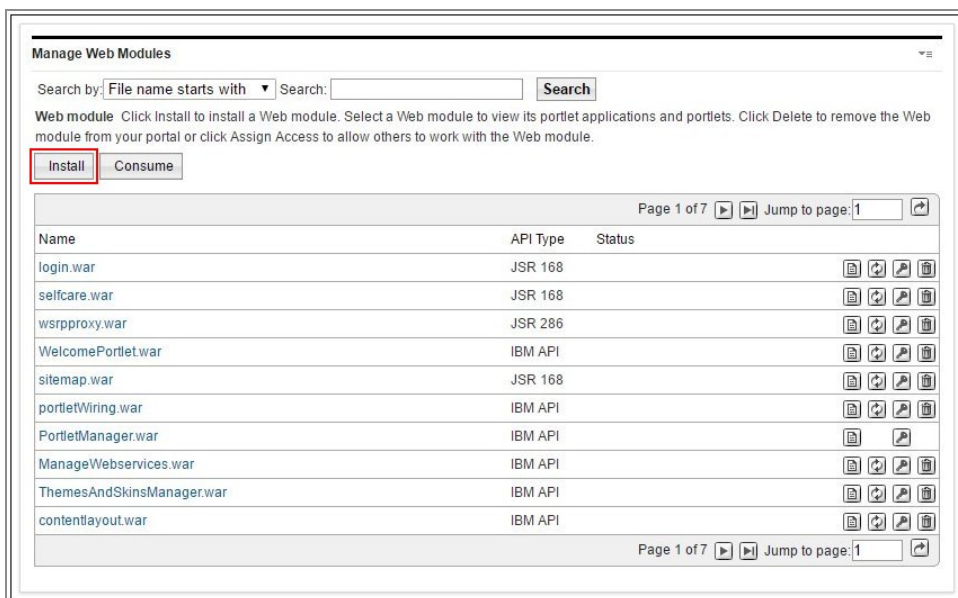


The Portlet Management page opens, as shown in the following image.



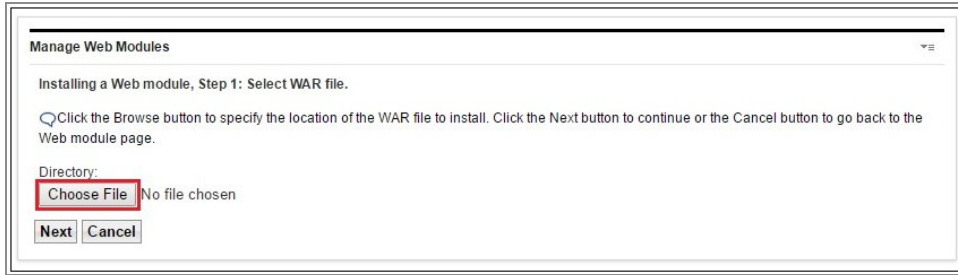
4. Click **Web Modules** from the left pane or the center pane.

The Manage Web Modules dialog opens, as shown in the following image.



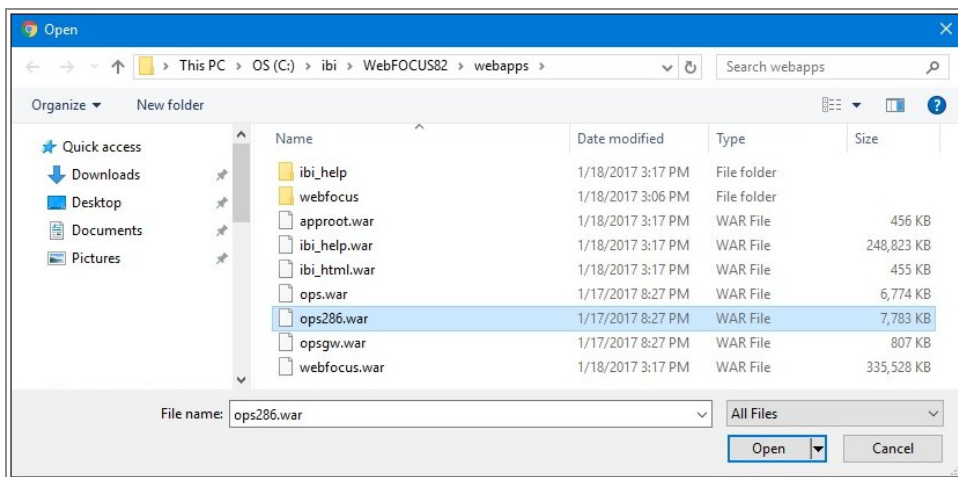
5. Click **Install**.

The Installing a Web module, Step 1: Select WAR file dialog is displayed, as shown in the following image.



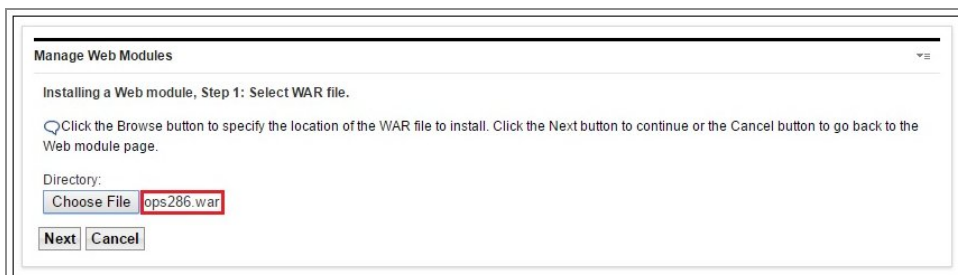
6. Click **Choose File**.
7. Browse to the following folder of your WebFOCUS installation and select the *ops286.war* file.

`<drive>:\ibi\WebFOCUS82\webapps\ops286.war`



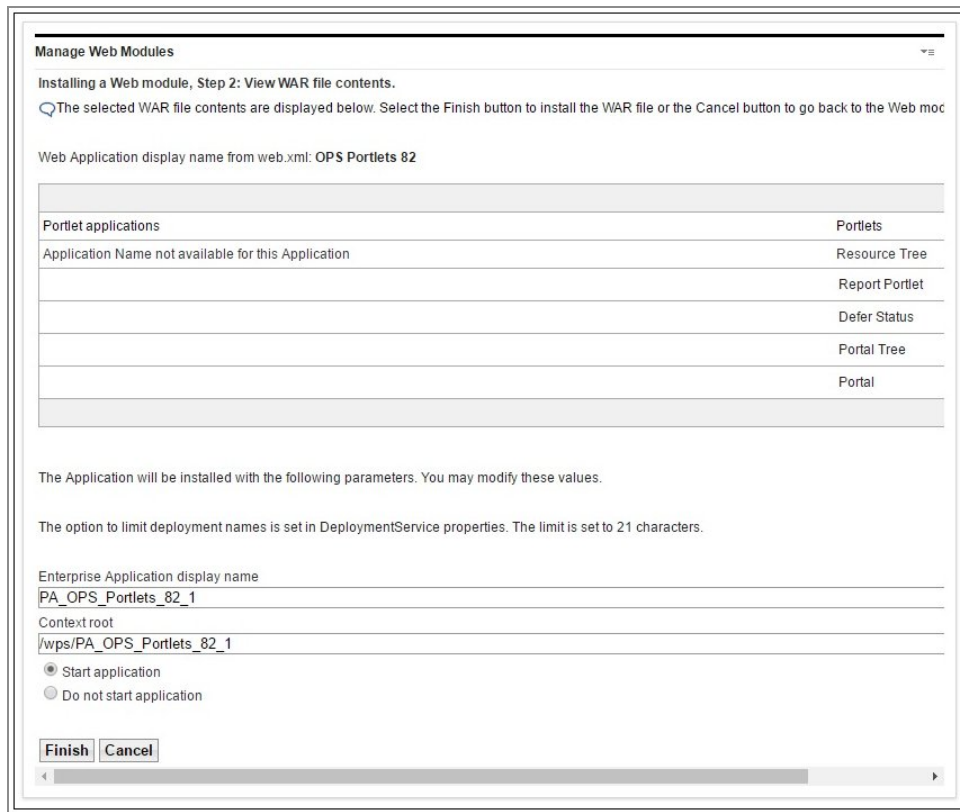
8. Click **Open**.

The Manage Web Modules dialog is refreshed and now shows the *ops286.war* file selected, as shown in the following image.



9. Click **Next**.

The Installing a Web module, Step 2: View WAR file contents dialog is displayed, as shown in the following image.



The contents of the *ops286.war* file that you selected are displayed, including a list of the WebFOCUS portlets that will be installed.

10. Click **Finish** to install the WebFOCUS portlets.

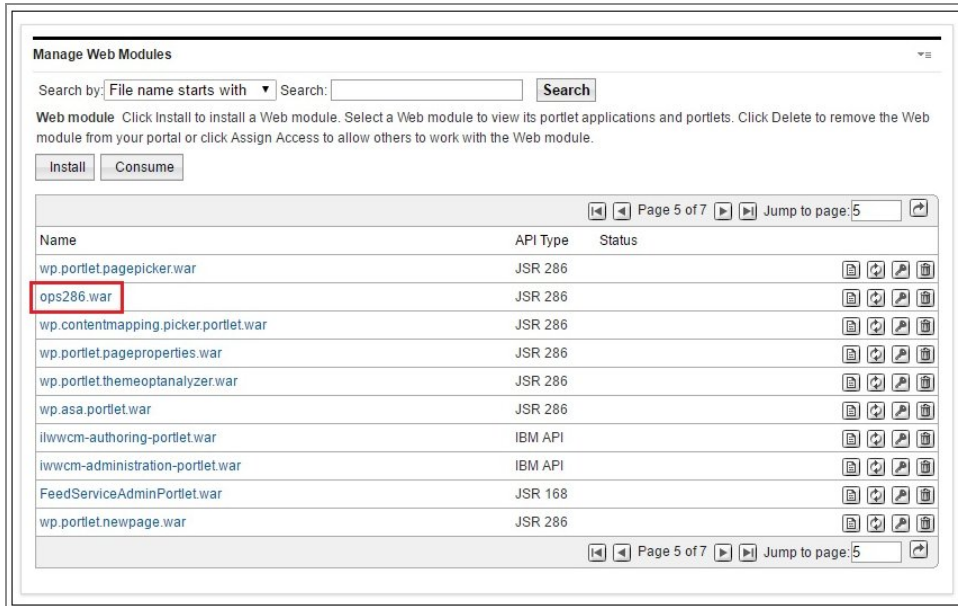
When installation is complete, a message confirming success or failure appears. A successful installation indicates that the WebFOCUS portlet has been added to the portlet catalogue and activated. To allow other users to use this portlet, you must set the access rights for it.

For information about authorization rights and assigning access permissions, see the corresponding administration (access control) documentation for the IBM WebSphere Portal Server Version 8.5.

11. To verify and confirm that the *ops286.war* file was installed, click the **right arrow** icon in the Manage Web Modules dialog to browse through the pages that list all of

the web modules that are currently installed on IBM WebSphere Portal Server Version 8.5.

Notice that the *ops286.war* file is listed, as shown in the following image.

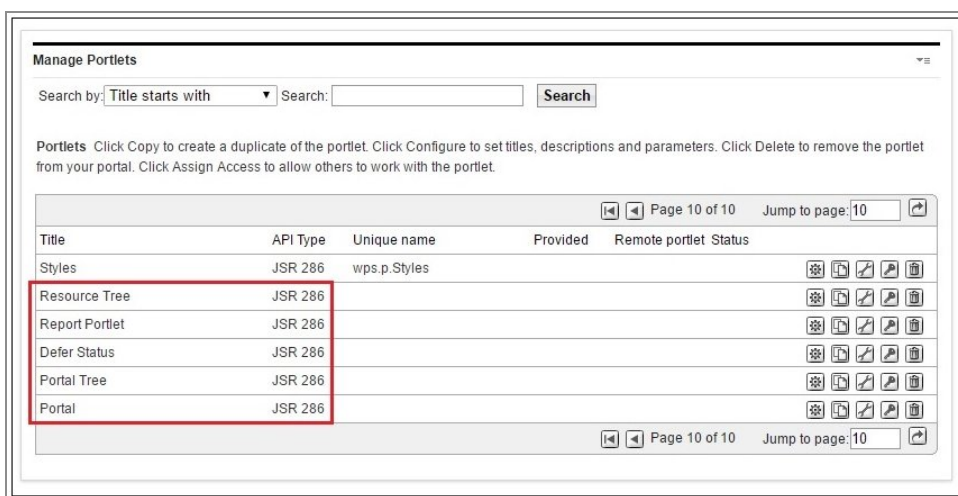


12. Click **Portlets** in the left pane, as shown in the following image.



- Click the **right arrow** icon in the Manage Portlets dialog to browse through the pages that list all of the available portlets that are currently deployed to IBM WebSphere Portal Server Version 8.5.

Navigate to the last page where the WebFOCUS portlets are listed, as shown in the following image.



Notes and Additional Steps:

- If you need to modify any of the parameters for a WebFOCUS portlet, click Portlets from the list of available configuration options in the Portlet

Management page. Click the **Configure portlet** icon  that corresponds to the WebFOCUS portlet you want to configure.

For more information, see [Modify WebFOCUS Portlet Parameters and Values](#).

- If the WebFOCUS environment and the IBM WebSphere Portal Server are installed on separate machines, then you will need to deploy the WebFOCUS Open Portal Services Gateway to the application server that is hosting the IBM WebSphere Portal.

For more information, see [Configuring the WebFOCUS Open Portal Services Gateway](#).

- Create a new portal page in your IBM WebSphere Portal environment using the page design utilities that are available from user interface. Once a portal page is available, you can add one or more WebFOCUS portlets to this page as required.

For more information on how to create portal pages in your IBM WebSphere Portal and add portlets to your pages, see the corresponding user documentation for the IBM WebSphere Portal Server Version 8.5.

Modify WebFOCUS Portlet Parameters and Values

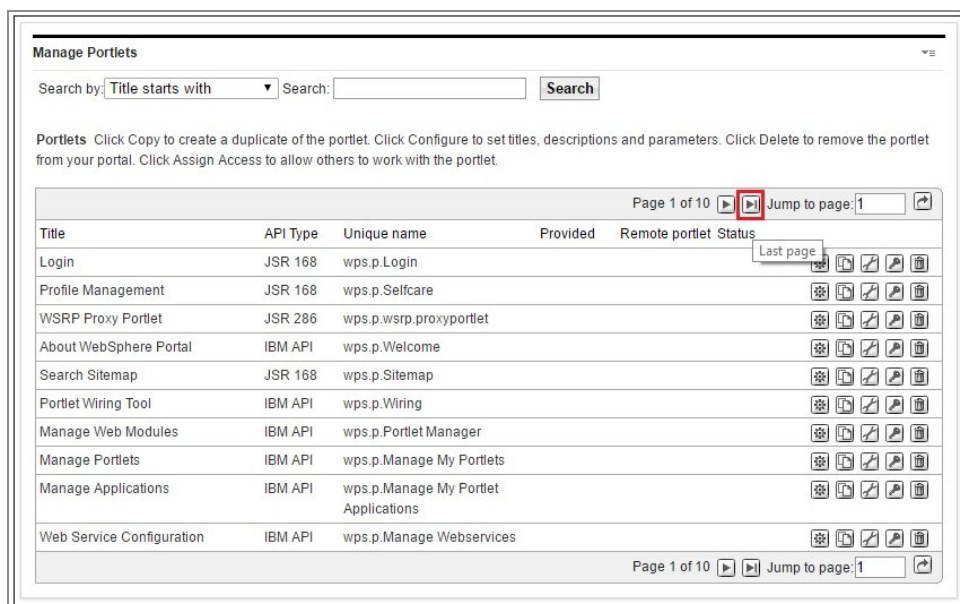
To modify WebFOCUS portlet parameters and values:

Procedure

1. Click **Portlets** (under Portlet Management) in the left pane, as shown in the following image.

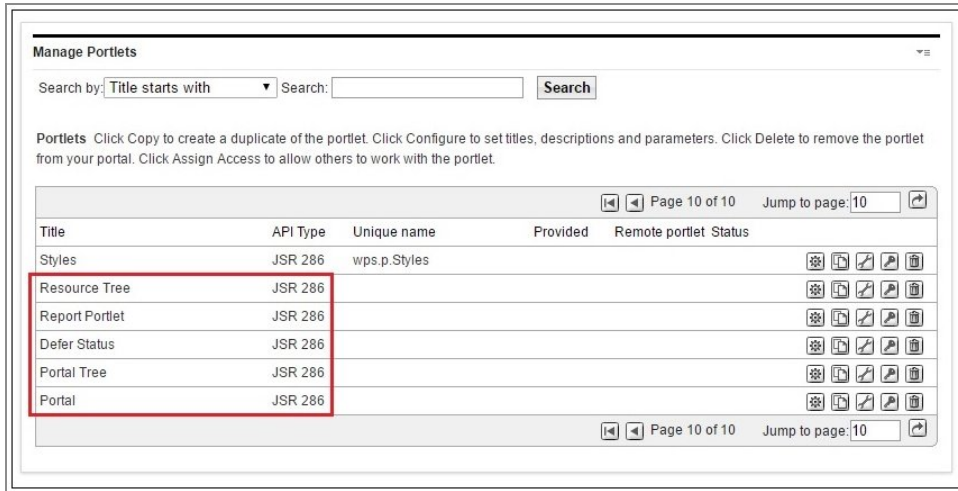


The Manage Portlets dialog opens, as shown in the following image.



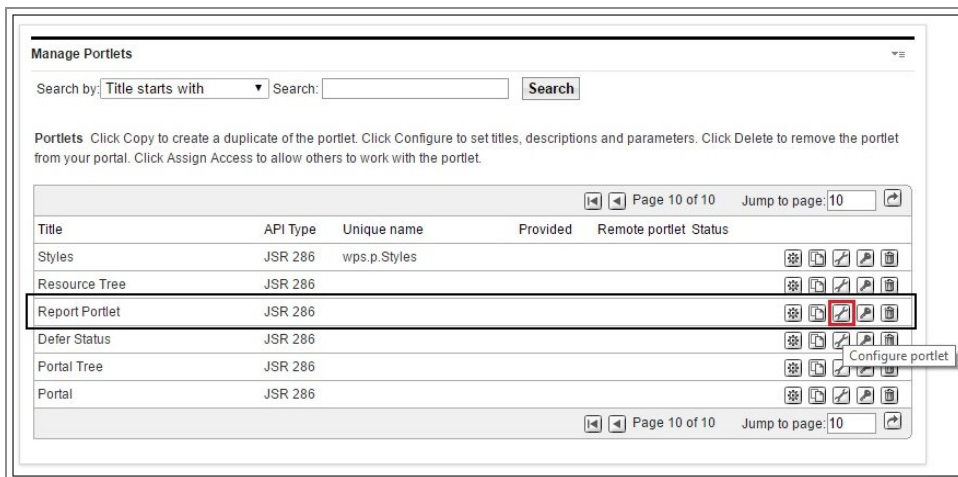
2. Click the Last page icon to navigate to the last page where the WebFOCUS portlets

are listed, as shown in the following image.



3. Click the **Configure** portlet icon  that corresponds to the WebFOCUS portlet you want to configure.

For example, in the following image the **Configure** portlet icon is being selected for the WebFOCUS Report portlet.



The configuration dialog for the WebFOCUS Report portlet opens, as shown in the following image.

Manage Portlets

Configure portlet: Report Portlet
Web module: ops286.war

Preference and Values Enter a new preference and value pair in the blank fields to create a new preference for this portlet, or click Delete to remove a preference and value. Click OK to keep your changes or Cancel to quit.

New Preference: New value:

Preference	Value	
contextpath	/ibi_apps	
gn	1	
height	500	
portletKey	2	
showrefresh	yes	
useerrunonly	no	
width	500	

I want to set titles and descriptions.

Cache Scope for HTTP and fragment caches

☒ Non-shared cache for a single user
☐ Share cache across all users (not applicable if "cache always expires" option is selected below)

Cache Expiration for HTTP and fragment caches

☒ Portlet cache always expires
☐ Portlet cache never expires
☐ Portlet cache expires after this many seconds

The available configuration parameters (referred to as preferences in IBM WebSphere Portal Server) for the WebFOCUS Report portlet are listed in a table format.

For more information on the available WebFOCUS portlet parameters that can be modified in a JSR 286-compliant portal environment, see [WebFOCUS Portlet Parameters Reference](#).

- a. To modify a value, click the **Edit value** icon (pencil) that corresponds to the parameter that you want to modify.

An Edit preference dialog opens for the parameter that you have selected. For example, in the following image the Edit preference dialog for the *height* parameter is shown.

Manage Portlets

Edit preference height

Enter a new value for the selected preference.

Preference: height Value: 500

OK Cancel

- b. Click **OK** after you have finished modifying the parameter value as required.
4. In the configuration dialog for the WebFOCUS portlet (for example, WebFOCUS Report), click the **I want to set titles and descriptions** link to modify the title and description for this portlet.

I want to set titles and descriptions.

Cache Scope for HTTP and fragment caches

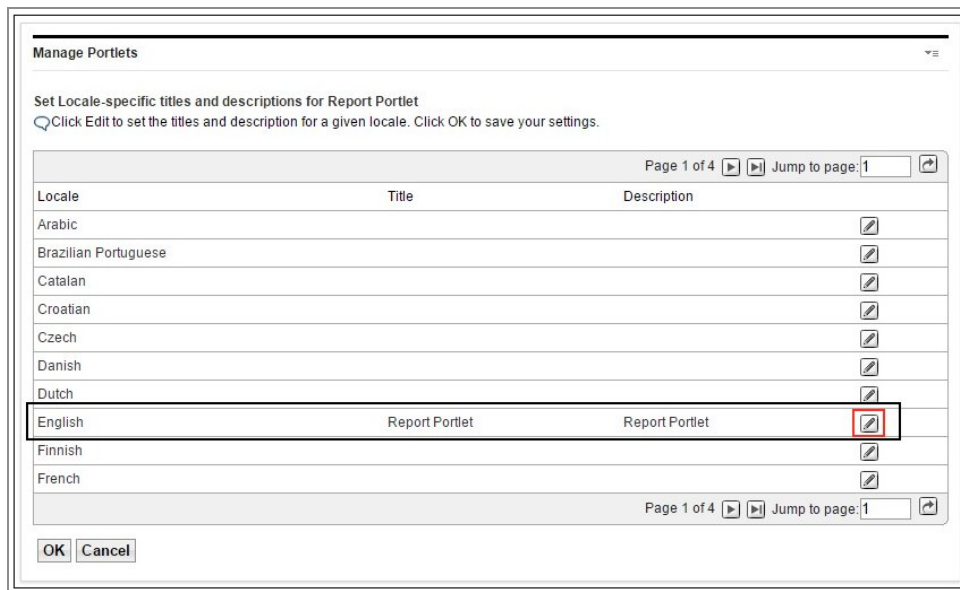
- ☒ Non-shared cache for a single user
- ☐ Share cache across all users (not applicable if "cache always expires" option is selected below)

Cache Expiration for HTTP and fragment caches

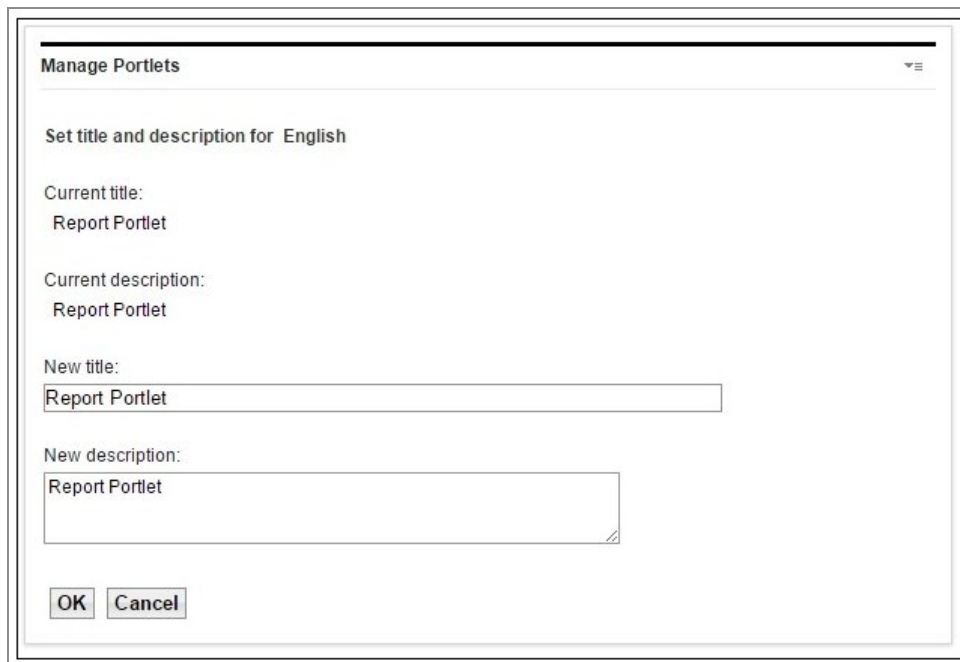
- ☒ Portlet cache always expires
- ☐ Portlet cache never expires
- ☐ Portlet cache expires after this many seconds

OK Cancel

The Set Locale-specific titles and descriptions dialog opens for the selected WebFOCUS portlet, as shown in the following image.



5. Click the **Edit** icon (pencil) next to English to modify the portlet title and description. The Set title and description for English dialog opens, as shown in the following image.



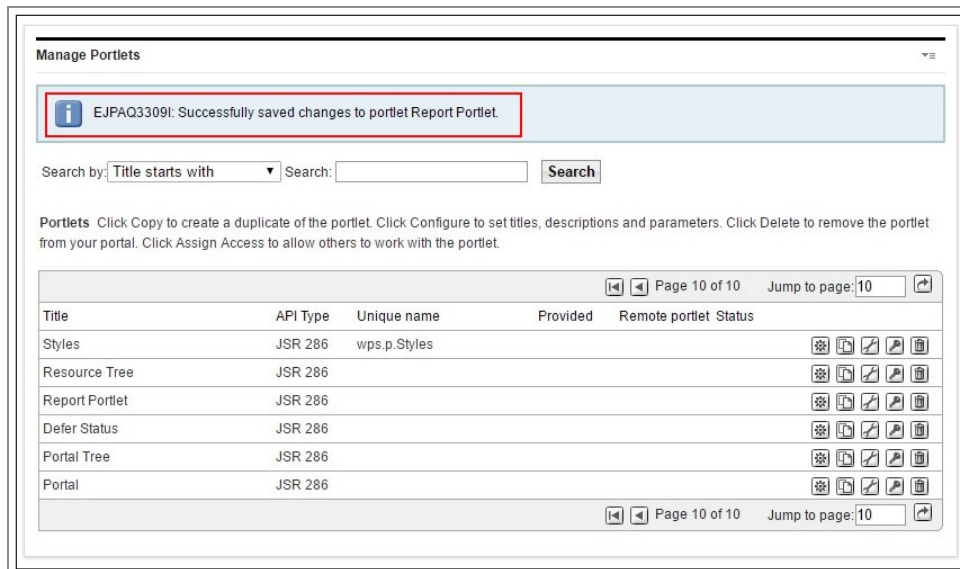
6. Enter a title and a brief description for the WebFOCUS portlet and then click **OK**. You are returned to the Set Locale-specific titles and descriptions dialog.

7. Click **OK**.

You are returned to the main configuration dialog for the WebFOCUS portlet.

8. Click **OK**.

You are returned to the main Manage Portlets dialog, where a message indicates that changes to the portlet have been saved, as shown in the following image.



Copy a WebFOCUS Portlet

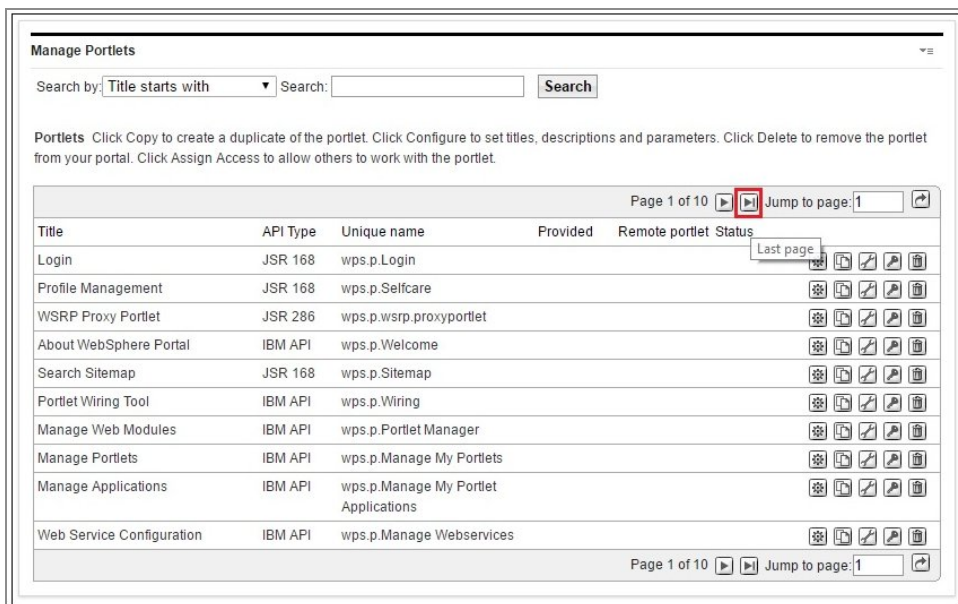
To copy an existing WebFOCUS portlet in your IBM WebSphere Portal environment:

Procedure

1. Click **Portlets** (under Portlet Management) in the left pane, as shown in the following image.

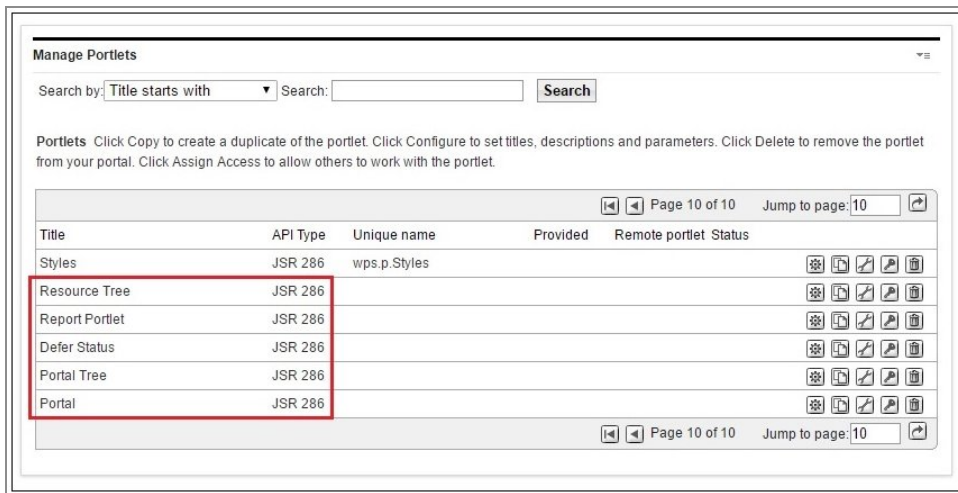


The Manage Portlets dialog opens, as shown in the following image.



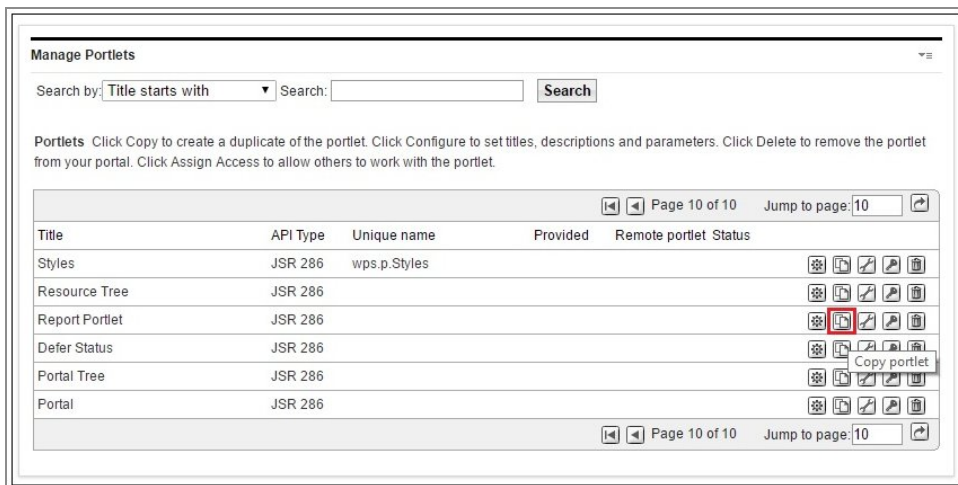
- Click the **Last page** icon to navigate to the last page where the WebFOCUS portlets

are listed, as shown in the following image.



3. Click the **Copy portlet** icon  that corresponds to the WebFOCUS portlet you want to copy.

For example, in the following image the Copy portlet icon is being selected for the WebFOCUS Report portlet.



The Copy portlet dialog opens, as shown in the following image.

Manage Portlets

Copy portlet

The copied portlet will be associated with the existing portlet application that contains this portlet.

Please provide the new name for portlet Report Portlet:

Copy of Report Portlet

OK Cancel

4. Specify a name for the WebFOCUS portlet you want to copy.
5. Click **OK**.

A copy of the WebFOCUS portlet is now listed and available in the main Manage Portlets dialog, as shown in the following image.

Manage Portlets

EJPAQ3202: Successfully created portlet application Copy of Application Name not available for this Application and portlet Copy of Report Portlet.

Search by: Title starts with Search: Search

Portlets Click Copy to create a duplicate of the portlet. Click Configure to set titles, descriptions and parameters. Click Delete to remove the portlet from your portal. Click Assign Access to allow others to work with the portlet.

Title	API Type	Unique name	Provided	Remote portlet	Status
Styles	JSR 286	wps.p.Styles			
Resource Tree	JSR 286				
Report Portlet	JSR 286				
Defer Status	JSR 286				
Portal Tree	JSR 286				
Portal	JSR 286				
Copy of Report Portlet	JSR 286				

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WebFOCUS Portlet Parameters Reference

This section provides a reference for the WebFOCUS portlet parameters that can be modified in a JSR 286-compliant portal environment.

WebFOCUS Report Portlet

The following table lists and describes the configuration parameters that are available for the WebFOCUS Report portlet.

Parameter	Description and Value
contextpath	By default, the WebFOCUS context path is set to: /ibi_apps
gn	The gn parameter is used to distinguish between multiple instances of the WebFOCUS Report portlet and retain its attributes (for example, width and height). For example, if you add three WebFOCUS Report portlets to your portal page, specify a unique gn value for each instance of that Report portlet. The default value is set to 1.

Parameter	Description and Value
height	The height of the frame in pixels. The default height is set to 500 pixels.
portletKey	The default value of the portletKey parameter for the WebFOCUS Report portlet is set to 2.
showrefresh	Enter <i>yes</i> or <i>no</i> to enable or disable the showrefresh option. The default value is set to <i>yes</i> .
userrunonly	Specifies the mode that can be set for the WebFOCUS Report portlet. If set to <i>no</i> , which is the default value, then the user is able to select and view their own block type.

Parameter	Description and Value
	If set to <i>yes</i> , then the WebFOCUS Report portlet is used as a fixed report and any user that does not have Managed Reporting administrator privileges can only view this block, but not change it.
width	The width of the frame in pixels. The default width is set to 500 pixels.

WebFOCUS Deferred Status

The following table lists and describes the configuration parameters that are available for the WebFOCUS Deferred Status portlet.

Parameter	Description and Value
contextpath	By default, the WebFOCUS context path is set to:

Parameter	Description and Value
	<code>/ibi_apps</code>
height	The height of the frame in pixels. The default height is set to 600 pixels.
portletKey	The default value of the portletKey parameter for the WebFOCUS Deferred Status portlet is set to 3.
width	The width of the frame in pixels. The default width is set to 380 pixels.

WebFOCUS Resource Tree

The following table lists and describes the configuration parameters that are available for the WebFOCUS Resource Tree portlet.

Parameter	Description and Value
contextpath	By default, the WebFOCUS context path is set to: <code>/ibi_apps</code>
height	The height of the frame in pixels. The default height is set to 600 pixels.
portletKey	The default value of the portletKey parameter for the WebFOCUS Resource Tree portlet is set to 1.
width	The width of the frame in pixels. The default width is set to 400 pixels.

WebFOCUS Portal

The following table lists and describes the configuration parameters that are available for the WebFOCUS Portal portlet.

Parameter	Description and Value
contextpath	By default, the WebFOCUS context path is set to: <code>/ibi_apps</code>
height	The height of the frame in pixels. The default height is set to 600 pixels.
portletKey	The default value of the portletKey parameter for the WebFOCUS Portal portlet is set to 4.
portalName	The default value of the portalName parameter for the WebFOCUS Portal portlet is set to /.
width	The width of the frame in pixels. The

Parameter	Description and Value
	default width is set to 1000 pixels.

WebFOCUS Portal Tree

The following table lists and describes the configuration parameters that are available for the WebFOCUS Portal Tree portlet.

Parameter	Description and Value
contextpath	By default, the WebFOCUS context path is set to: <code>/ibi_apps</code>
height	The height of the frame in pixels. The default height is set to 600 pixels.
portletKey	The default value of the portletKey parameter for the WebFOCUS Portal Tree portlet is set

Parameter	Description and Value
	to 5.
width	The width of the frame in pixels. The default width is set to 400 pixels.

Installing WebFOCUS Portlets for the Apache Jetspeed Portal

This section describes how to install and configure WebFOCUS portlets for the Apache Jetspeed Portal.

Prerequisites

Prior to installing the WebFOCUS portlets, ensure that the following components are installed and available.

- Apache Jetspeed Portal Version 2.3.1, which is a JSR 286-compliant portal environment.
- WebFOCUS Release 8.2 Version 01 and higher.

For more information on installing WebFOCUS, see the *WebFOCUS and ReportCaster Installation and Configuration for Windows* documentation.

- The *ops286.war* file, which contains the set of WebFOCUS portlets that are provided with WebFOCUS Open Portal Services and are compatible with JSR 286.
- The *opsgw.war* file, which contains the WebFOCUS Open Portal Services Gateway.

Note: The *opsgw.war* file is only required if the WebFOCUS environment and the Apache Jetspeed Portal are on separate machines, which requires you to deploy the WebFOCUS Open Portal Services Gateway.

The *ops286.war* and *opsgw.war* files are located in the following folder of your WebFOCUS installation:

```
<drive>:\ibi\WebFOCUS82\webapps
```

Installation and Configuration Overview

This section provides a general overview of the installation process and guidelines for deploying WebFOCUS portlets to a JSR 286-compliant portal environment.

1. Using the administration console (or similar user interface) for the portal environment, deploy the *ops286.war* file, which is included with your WebFOCUS installation.

The *ops286.war* file is located in the following folder of your WebFOCUS installation:

```
<drive>:\ibi\WebFOCUS82\webapps
```

For more information, see the corresponding administration documentation for the portal environment.

2. If the WebFOCUS environment and the portal environment are installed on separate machines, then you will need to deploy the WebFOCUS Open Portal Services Gateway to the application server that is hosting the portal environment.

For example, in the case of the Apache Jetspeed Portal environment, the WebFOCUS Open Portal Services Gateway must be deployed to the Apache Tomcat Application Server.

For more information, see [Configuring the WebFOCUS Open Portal Services Gateway](#).

3. Create a new portal page in your portal environment using the page design utilities that are available from the console or similar user interface. Once a portal page is available, you can add one or more WebFOCUS portlets to this page as required.

For more information, see the corresponding user documentation for the portal environment.

Configuring the WebFOCUS Open Portal Services Gateway

This section describes how to configure the WebFOCUS Open Portal Services Gateway on an application server that is hosting a JSR 286-compliant portal environment.

i Note: The use of a gateway is required when the WebFOCUS environment and the portal environment are residing on two separate machines.

Configure the WebFOCUS Open Portal Services Gateway

Procedure

1. Locate the *opsgw.war* file in the following directory:

```
<drive>:\ibi\WebFOCUS82\webapps
```

2. Extract this archive to a temporary directory, for example:

```
c:\gw_temp
```

3. Locate the *web.xml* file in the following directory:

```
c:\gw_temp\WEB-INF
```

4. Open the *web.xml* file using a text editor and locate the following section:

```
<context-param>
  <param-name>target_server_url</param-name>
  <param-value>{protocol}://{servername}:{port}</param-value>
</context-param>
```

where:

protocol

Is the communication protocol being used (for example, HTTP or HTTPS).

servername

Is the name of the application server where WebFOCUS is installed.

port

Is the port number on which the server listens.

5. Provide the appropriate values that correspond to your WebFOCUS environment, for example:

```
<context-param>
  <param-name>target_server_url</param-name>
```



```
<param-value>http://hostname:8080</param-value>
</context-param>
```

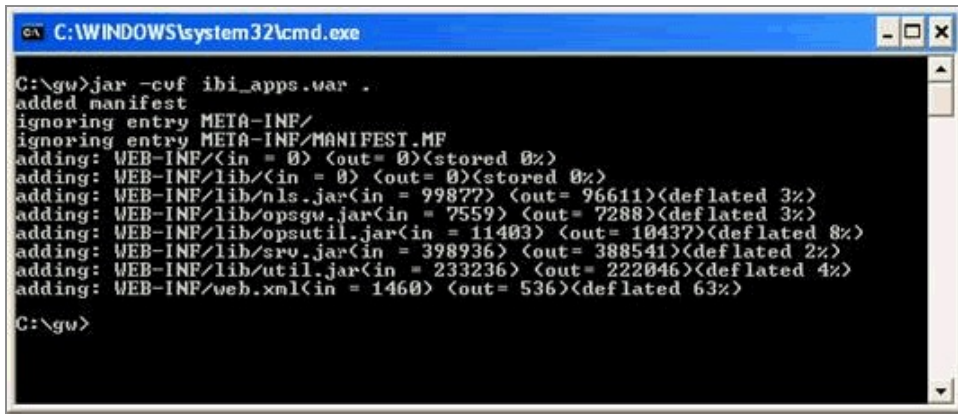
6. Save the *web.xml* file with your changes and rewar (repackage) the archive using the following naming convention:

```
contextpath.war
```

where:

contextpath

Is the context path of the WebFOCUS installation (for example, *ibi_apps.war*).



7. Make a copy of the repackaged .war file and rename it to *ibi_html.war*.



Note: Ensure to use the context path naming convention in this instance.

8. Deploy the two .war files (*ibi_apps.war* and *ibi_html.war*) on the application server where the JSR 286-compliant portal environment is deployed.

For example, in the case of the Apache Jetspeed Portal environment, these .war files must be deployed to the Apache Tomcat Application Server.

For more information on deploying .war files in an application server, see the corresponding administration or user documentation for your application server.

Configuring Security and Authentication Settings

WebFOCUS enables you to configure security and authentication settings for WebFOCUS Open Portal Services through the WebFOCUS Administration Console. For more information, see [Configuring Security and Authentication Settings](#).

Configuring the WebFOCUS Portlets

You can use the Jetspeed Portal to configure the WebFOCUS portlets on the Apache Jetspeed 2.3.1 Portal Server.

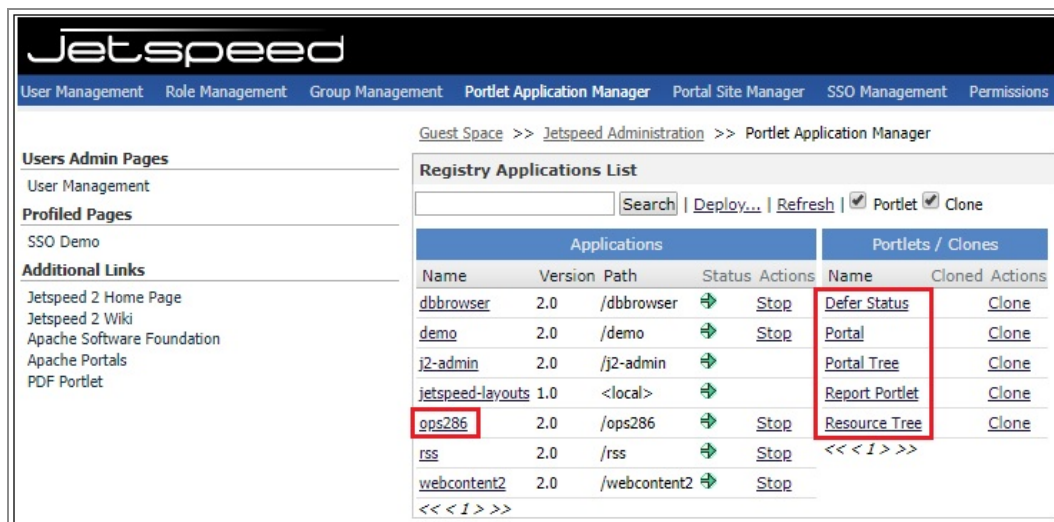
Configure the WebFOCUS Portlets

To configure the WebFOCUS Portlets:

Procedure

1. Logon to the Jetspeed Portal as an administrator.
2. Click **Jetspeed Administration** in the left pane and then the **Portlet Application Manager** tab.

The Registry Applications List pane opens, as shown in the following image.

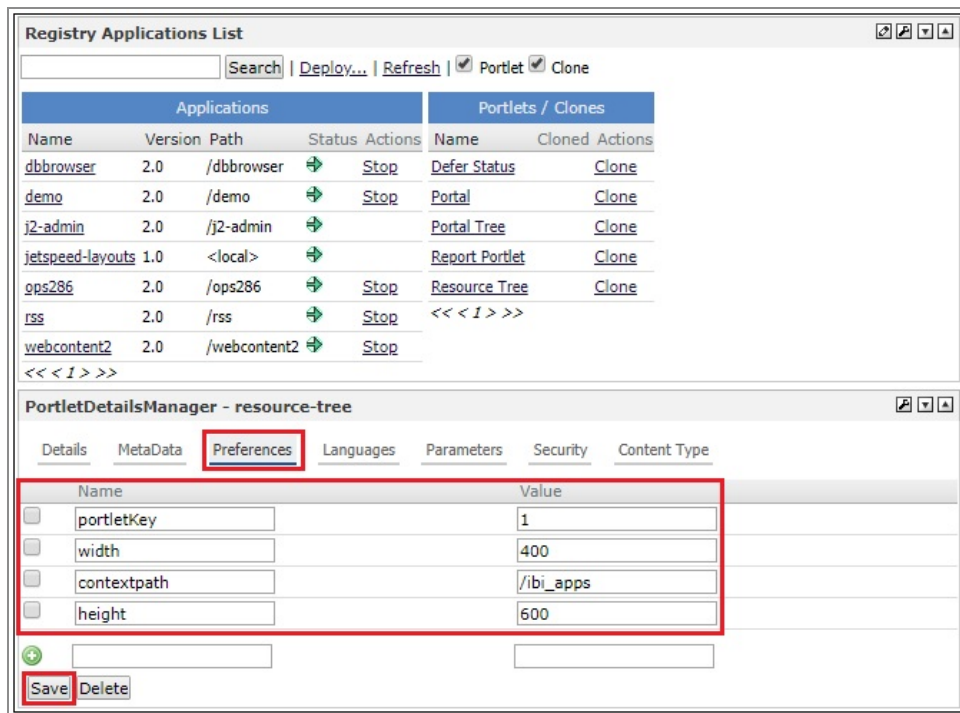


3. Under the Applications section, click **ops286**.

A list of available WebFOCUS portlets that are available on the Jetspeed 2.3.1 Portal are displayed.

4. To configure a specific WebFOCUS portlet, click on the corresponding hyperlink in the Portlets / Clones section. For example, click the **Resource Tree** hyperlink.

The PortletDetailsManager pane opens and displays the available properties for the selected WebFOCUS Resource Tree portlet.



5. Click the **Preferences** tab.
6. Modify the values (if required) for the following parameters:
 - **portletKey** (default value is set to 1)
 - **width** (default value is set to 400)
 - **contextpath** (default value is set to /ibi_apps)
 - **height** (default value is set to 600)
7. Click **Save** to save and apply your changes.
8. Repeat this procedure for the following WebFOCUS portlets:
 - Report

- Deferred Status
- Portal
- Portal Tree

For more information on the available parameters for each WebFOCUS portlet, see [WebFOCUS Portlet Parameters Reference](#).

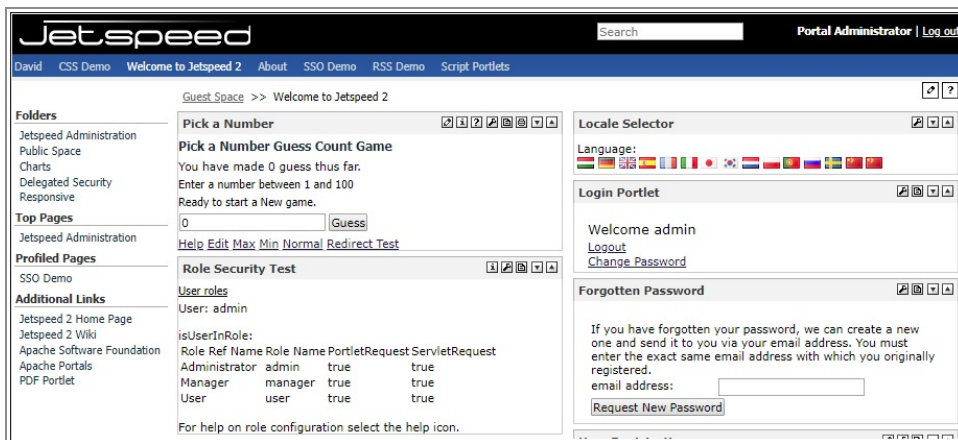
Add a Page for the WebFOCUS Portlets

To add a page for the WebFOCUS portlets in Jetspeed:

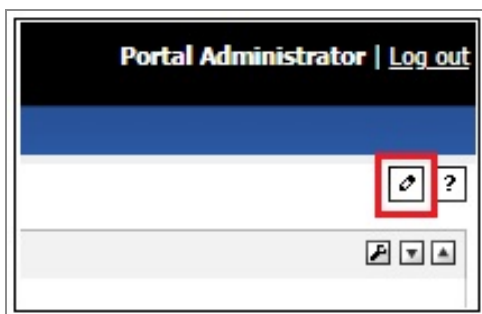
Procedure

1. Logon to the Jetspeed Portal as an administrator.

The Jetspeed Portal opens and displays the Welcome page by default.



2. Click the **Edit** button, which is located in the upper-right corner, as shown in the following image.



The Page/Folder Customizer pane opens, as shown in the following image.

The screenshot shows the 'Page/Folder Customizer' interface. It has two main sections: 'Layout Configuration' and 'Page Configuration'.

Layout Configuration:

- Theme: jetspeed (dropdown)
- Layout: Two Columns (dropdown) with buttons 'Change Layout' and 'Add Layout'.
- Portlet Theme: (dropdown) with button 'Change Portlets Theme'.

Page Configuration:

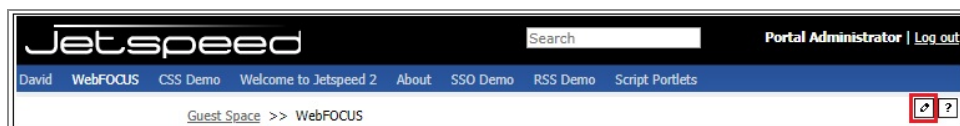
- Page Name: WebFOCUS (text input, highlighted with a red box)
- Title: (text input)
- Short Title: (text input)
- Create Page (button, highlighted with a red box) and Change Page Name (button).
- Navigation: Move Page Left and Move Page Right (buttons).
- Delete this page: Delete (button).

- Under the Page Configuration section, enter a name for your new page (for example, *WebFOCUS*), and then click **Create Page**.

A new page named WebFOCUS is created and appears as a tab, as shown in the following image.

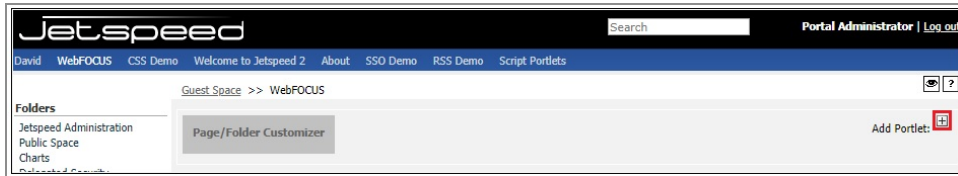


- Click the **WebFOCUS** tab and then click the **Edit** button located in the upper-right corner, as shown in the following image.

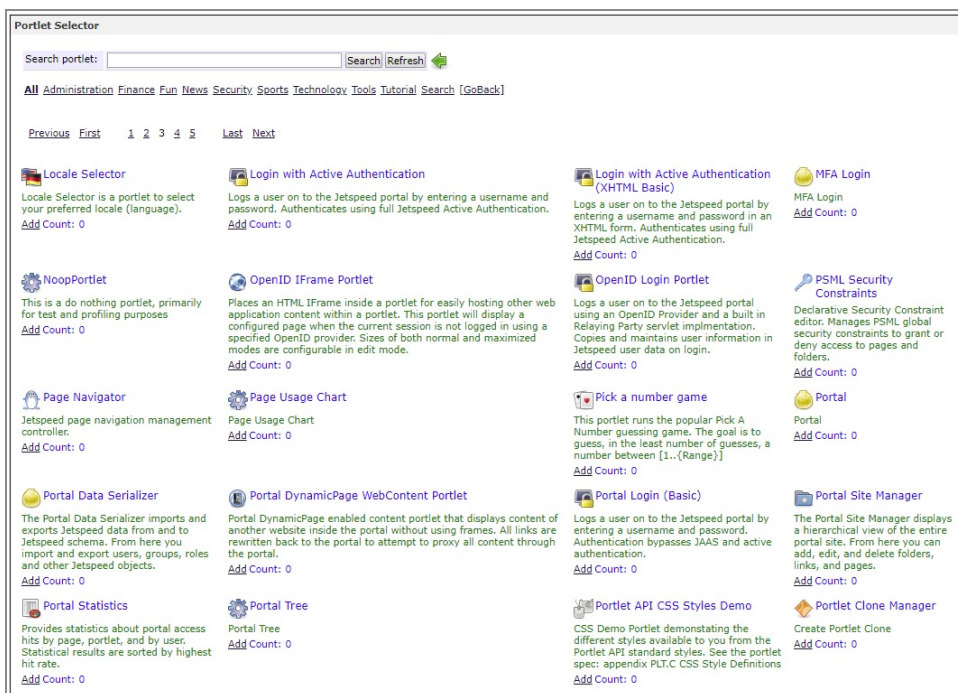


You are returned to the Page/Folder Customizer pane.

5. Click the **Add Portlet** button located in the upper-right corner of the Page/Folder Customizer pane, as shown in the following image.

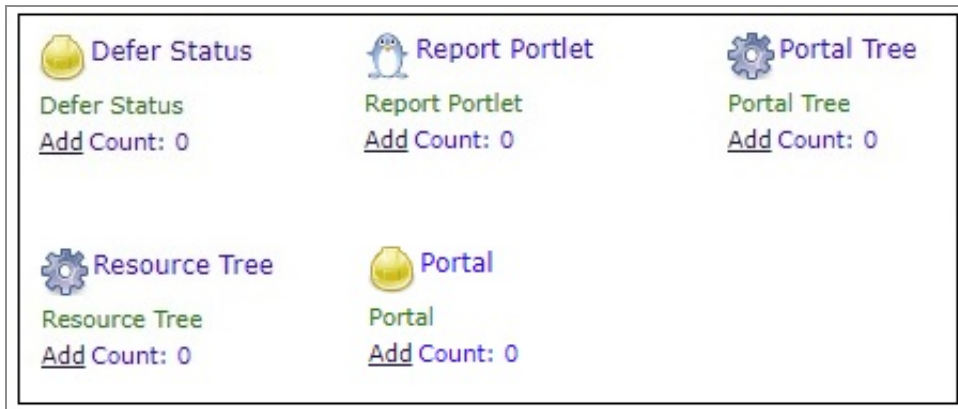


The Portlet Selector pane opens and displays a list of available portlets that you can add to your new page, as shown in the following image.

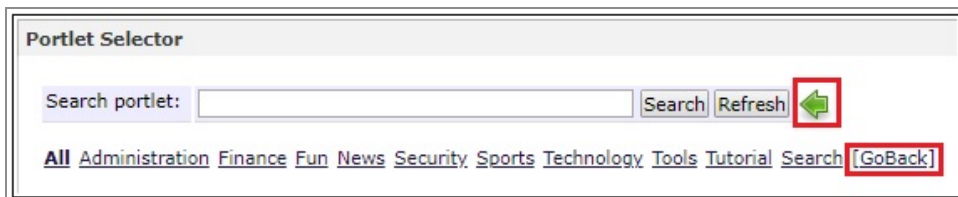


6. Browse through the list and locate the WebFOCUS portlets that you would like to add to your new page.

The following image provides a reference of how each WebFOCUS portlet appears in this list.



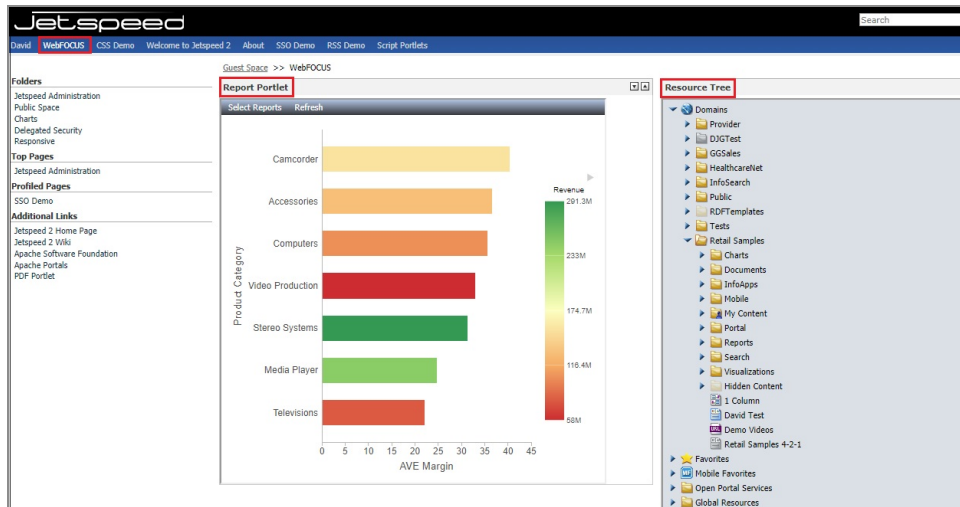
7. Click the corresponding **Add** hyperlink for the WebFOCUS portlet(s) that you would like to add to your new page.
8. Close the Portlet Selector pane by clicking the green left (back) arrow or the **GoBack** hyperlink, as shown in the following image.



You are returned to the Page/Folder Customizer pane.



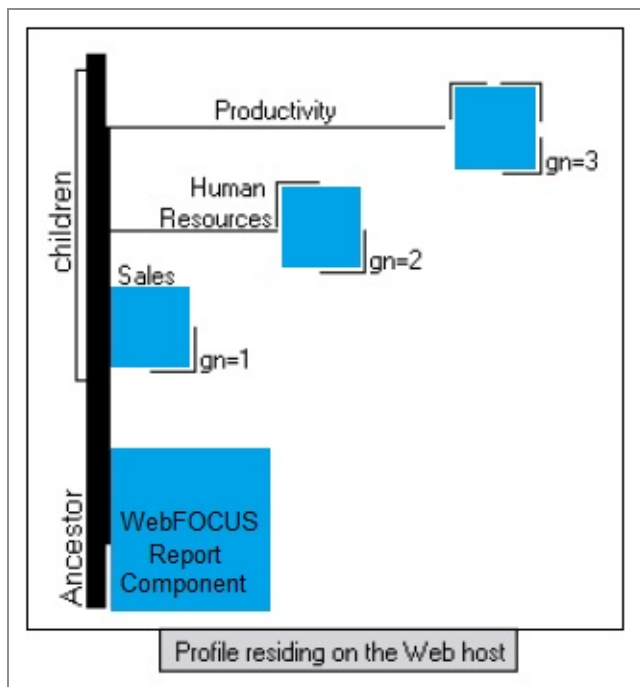
9. Click the **View** button, which is located in the upper-right corner.
- The selected WebFOCUS portlets appear accordingly based on the page layout you specified. In the following example, the WebFOCUS Report and Resource Tree portlets are displayed and running in the new WebFOCUS page.



Configuring the GN Parameter

The *gn* parameter is used to distinguish between multiple instances of a WebFOCUS Report component and retain its attributes (for example, width, height, and refresh rate).

If you add three Report components to your portal page, specify a unique *gn* value for each instance of that Report component. The following diagram illustrates this functionality using three WebFOCUS reports.



The attributes you specify for each instance of the Report component are retained. If all three Report components had the same *gn* value and you changed the width or height of one component, then the remaining instances would reflect your change and the end result may be unsatisfactory. For example:

```
http://hostname:port/context/report.ops?gn=number
```

where:

hostname

Is the machine where the WebFOCUS client is installed and hosted.

port

Is the assigned port number for the WebFOCUS client.

number

Is a unique numerical value representing the component report number.

Accessing WebFOCUS Components Directly Through URL Calls

This appendix describes the format and structure of URL calls that can be used to directly access WebFOCUS components (for example, in an application or outside of a third-party portal environment).

Report Component

Use the following URL to directly access the WebFOCUS Report component:

```
http://
hostname
:
port
/
context
/report.ops?userrunonly=
yes|no&showrefresh=yes|no&gn=n&usescrollbars=yes|no&showtimestamp=yes|no
```

The following table lists and describes the parameters for the WebFOCUS Report component:

Parameter	Description
hostname	Host name (or IP address) of the machine that is hosting the WebFOCUS client.
port	Port number to the WebFOCUS client.
context	The application context path. For example: /ibi_apps
userrunonly	Used to control whether or not a user is allowed to change the content

Parameter	Description
	displayed in the Report component. If this parameter is set to <i>no</i>, which is the default, then the user will be able to select a WebFOCUS content item and its display mode. If this parameter is set to <i>yes</i>, then the Report component will display a default content item, such as a report, to any user that does not have Managed Reporting administrator privileges, and the Select Report menu option will not be available, preventing the user from changing the content item selected by default.
showrefresh	If this parameter is set to <i>no</i>, then the Refresh option will not be available on the Report component menu and the user will not be able to manually trigger the content item to refresh. If this parameter is set to <i>yes</i>, which is the default, then the Refresh option will be displayed on the Report component menu and the user can manually trigger the content item to refresh.
gn	This parameter is used to distinguish between multiple instances of the WebFOCUS Report component and retain its attributes (for example, width, height, and refresh rate). If you add three Report components to your portal page, then you must specify a unique gn value for each instance of that Report component.
usescrollbars	If this parameter is set to <i>no</i>, then the Report component will not display scrollbars for the content item displayed. If this parameter is set to <i>yes</i>, which is the default, then the Report component will display scrollbars for the content item displayed. This is particularly useful for content items that are larger than the component width and height, such as reports with several rows.
showtimestamp	If this parameter is set to <i>no</i>, which is the default, then the Report component will not display the time stamp. If this parameter is set to <i>yes</i>, then the Report component will display the time stamp.

Deferred Status Component

Use the following URL to directly access the WebFOCUS Deferred Status component:

```
http://hostname:port/context/deferstatus.ops
```

The following table lists and describes the parameters for the WebFOCUS Deferred Status component:

Parameter	Description
hostname	Host name (or IP address) of the machine that is hosting the WebFOCUS client.
port	Port number to the WebFOCUS client.
context	The application context path. For example: /ibi_apps

Resource Tree Component

Use the following URL to directly access the WebFOCUS Resource Tree component:

```
http://hostname:port/context/domain.ops
```

The following table lists and describes the parameters for the WebFOCUS Resource Tree component:

Parameter	Description
hostname	Host name (or IP address) of the machine that is hosting the WebFOCUS client.
port	Port number to the WebFOCUS client.

Parameter	Description
context	The application context path. For example: <code>/ibi_apps</code>

Portal Component

Use the following URL to directly access the WebFOCUS Portal component:

```
http://hostname:port/context/portal.ops?portalPath=
```

The following table lists and describes the parameters for the WebFOCUS Portal component:

Parameter	Description
hostname	Host name (or IP address) of the machine that is hosting the WebFOCUS client.
port	Port number to the WebFOCUS client.
context	The application context path. For example: <code>/ibi_apps</code>
portalPath	<code>The path to the WebFOCUS Business Intelligence (BI) portal.</code>

Portal Tree Component

Use the following URL to directly access the WebFOCUS Portal Tree component:

```
http://hostname:port/context/portaltree.ops
```

The following table lists and describes the parameters for the WebFOCUS Portal Tree component:

Parameter	Description
hostname	Host name (or IP address) of the machine that is hosting the WebFOCUS client.
port	Port number to the WebFOCUS client.
context	The application context path. For example: /ibi_apps

Embedding WebFOCUS Business Intelligence Content Into Salesforce.com

Salesforce.com is a cloud computing company, which develops a leading Customer Relationship Management (CRM) platform with cloud-based applications for sales, service, and marketing. This section describes how to embed WebFOCUS Business Intelligence (BI) content into Salesforce.com.

Embedding WebFOCUS Business Intelligence Content Into Salesforce.com Overview

This section describes how to embed WebFOCUS Business Intelligence (BI) content into Salesforce.com.

Embedding a URL to Run a WebFOCUS Report

This section describes a simple example of embedding a URL into Salesforce.com (SFDC) that runs a WebFOCUS report.

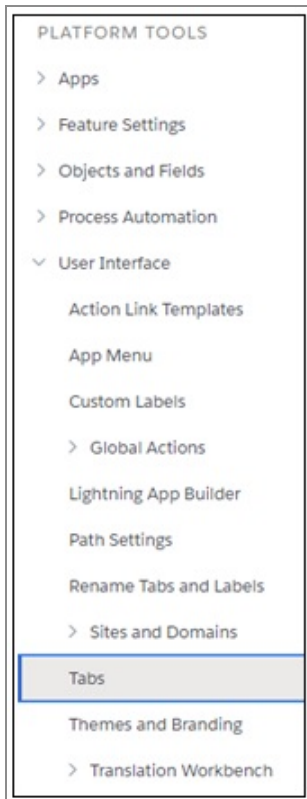
For example:

```
https://hostname:port/ibi_apps/rs/ibfs/WFC/Repository/Tests/Car_Report.fex?IBIRS_action=run
```

1. Ensure that your WebFOCUS environment is configured for Secure Sockets Layer (SSL).
2. Login to Salesforce.com.
3. Click the gear icon to access the Setup menu, as shown in the following image.



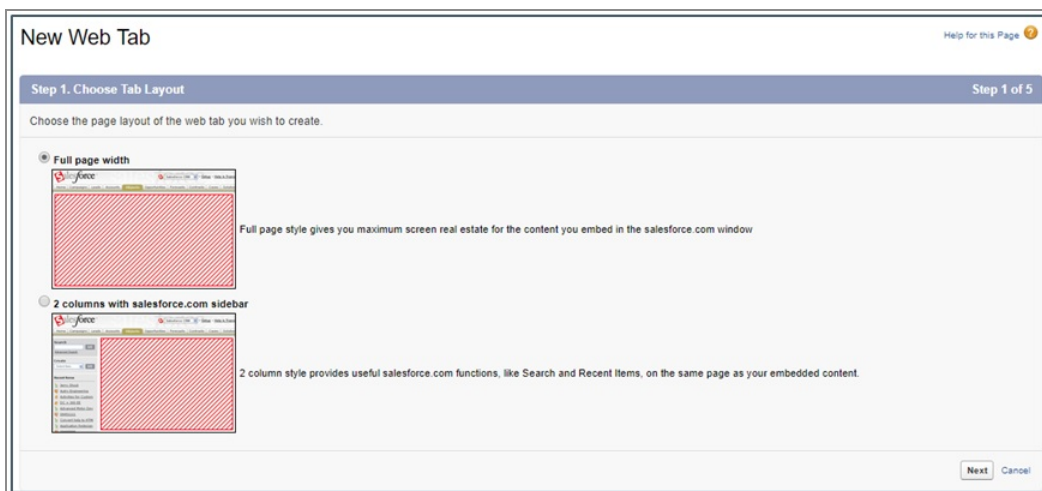
4. In the left pane under PLATFORM TOOLS, expand **User Interface** and then click **Tabs**, as shown in the following image.



5. Under Web Tabs, click **New**, as shown in the following image.



The New Web Tab dialog opens showing the *Step 1. Choose Tab Layout* pane, as shown in the following image.



6. Ensure the **Full page width** layout is selected and then click **Next**.

The *Step 2. Define Content and Display Properties* pane opens, as shown in the following image.

New Web Tab Help for this Page

Step 2. Define Content and Display Properties Step 2 of 5

Fill in information about the web tab.

Display Properties

Tab Label: 1

Tab Name: 1

Tab Style: 2

Content Frame Height (pixels): 3

Splash Page

(Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab.

Splash Page Custom Link:

Description

Description:

Previous Next Cancel

7. In the Display Properties area, enter a value in the Tab Label field and select a Tab Style from the drop-down list.
8. Change the default value (600) in the Content Frame Height (pixels) field if needed, and then click **Next**.

The *Step 3. Enter the URL Details* pane opens, as shown in the following image.

Step 3. Enter the URL Details Step 3 of 5

Enter the web page address in the Link URL field. You can enter a simple URL just as it appears in the browser address bar, or you can use one or more merge fields to insert organization-specific data from salesforce.com into URL parameters. Some sites may not work in a Web tab because of browser security settings, or because the site has prevented itself from being displayed in a frame. For more information, visit the [Salesforce Help](#).

Examples:

Simple:
 With Merge Field:

Available Merge Fields

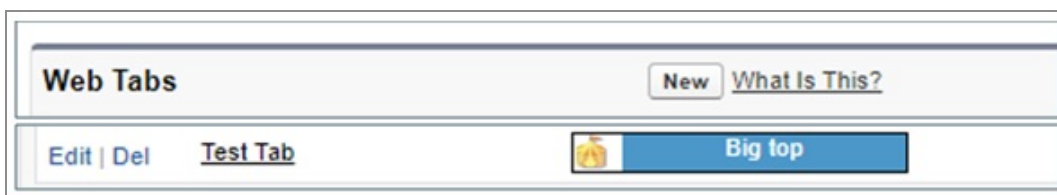
Available Merge Fields:
 Select Field Type:
 Select Field:
 Copy Merge Field Value:
 Copy and paste the merge field value into your template below:
 Button or Link URL:
 Preview Web Tab:
 Encoding:
 Required Information
 Previous Next Cancel

9. Enter a URL that runs a WebFOCUS report in the bottom area of the screen.
- For example:

```
https://hostname:port/ibi_apps/run/ibfs/WFC/Repository/Tests/Car_Report.fex
```

10. Click **Next**.
11. Do not make any changes for the *Add to Profiles* and *Add to Custom Apps* steps that follow.
12. Click **Save**.

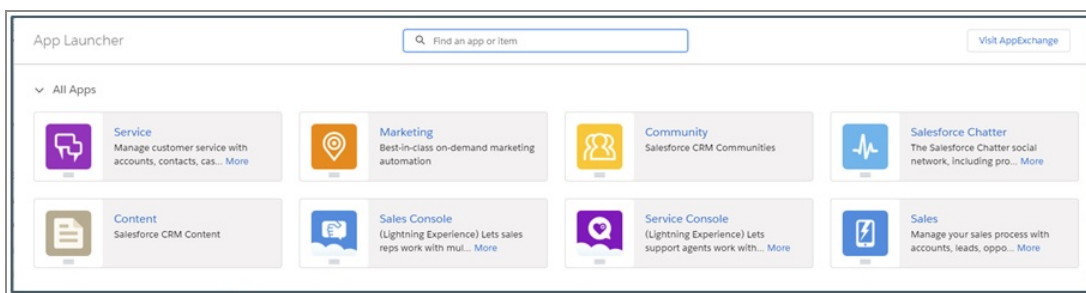
The new tab you created (for example, Test Tab) is now listed under the Web Tabs area, as shown in the following image.



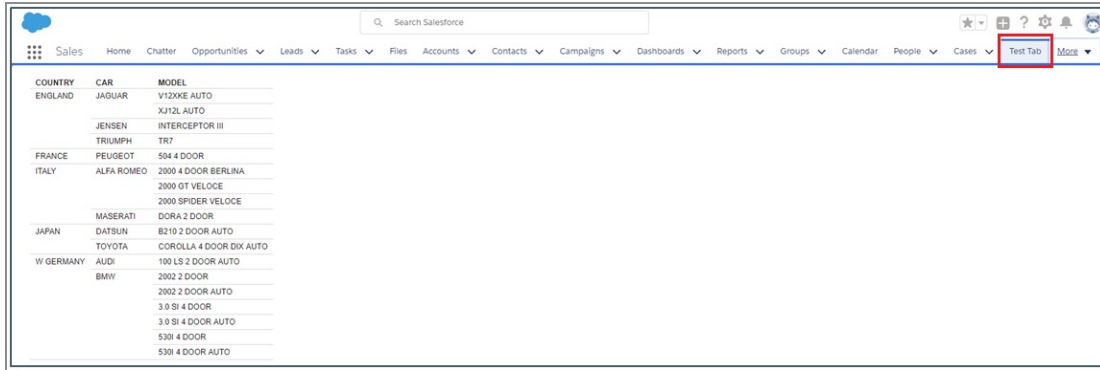
13. Click the Tiles menu, as shown in the following image.



14. Open a Salesforce.com application by clicking the corresponding tile, as shown in the following image.



15. Select the tab you created (for example, Test Tab) to run the WebFOCUS report you specified in the URL and display its output, as shown in the following image.



Configuring SAML Authentication

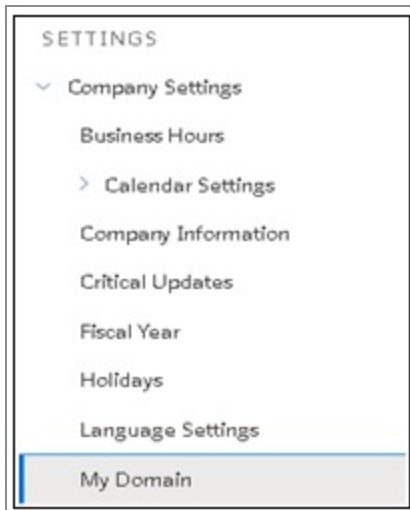
This section describes how to configure Security Assertion Markup Language (SAML) authentication as a single sign-on (SSO) login between Salesforce.com and WebFOCUS. Doing so prevents you from having to log on to Salesforce.com and WebFOCUS separately.

Enabling the Identity Provider

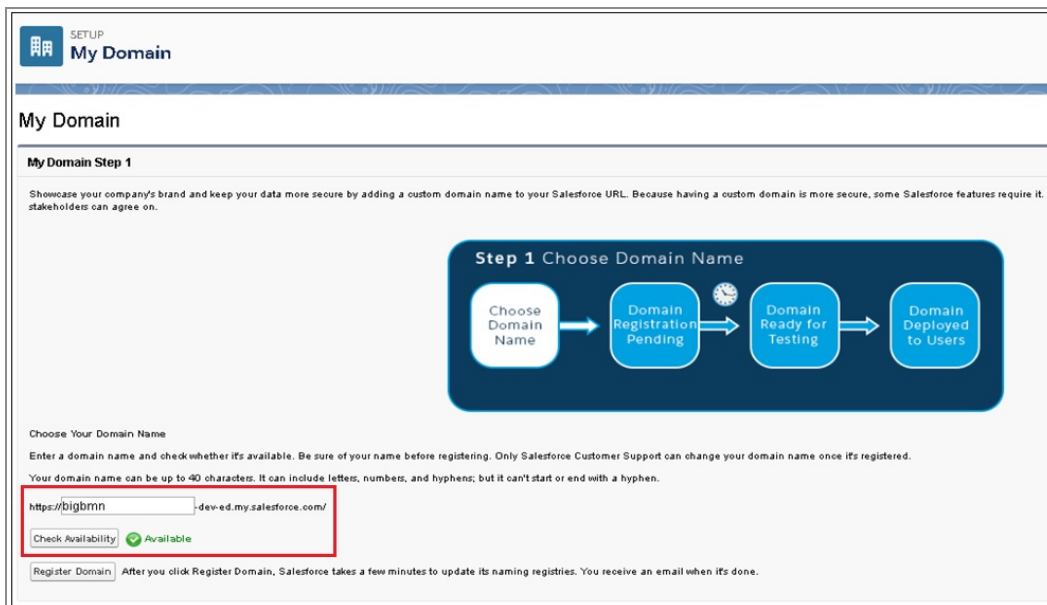
1. Log on to Salesforce.com.
2. Click the gear icon to access the Setup menu, as shown in the following image.



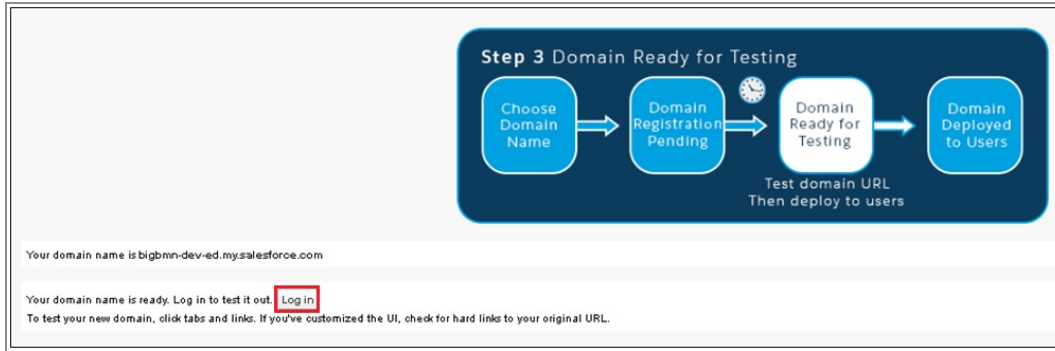
3. In the left pane under SETTINGS, expand **Company Settings** and then click **My Domain**, as shown in the following image.



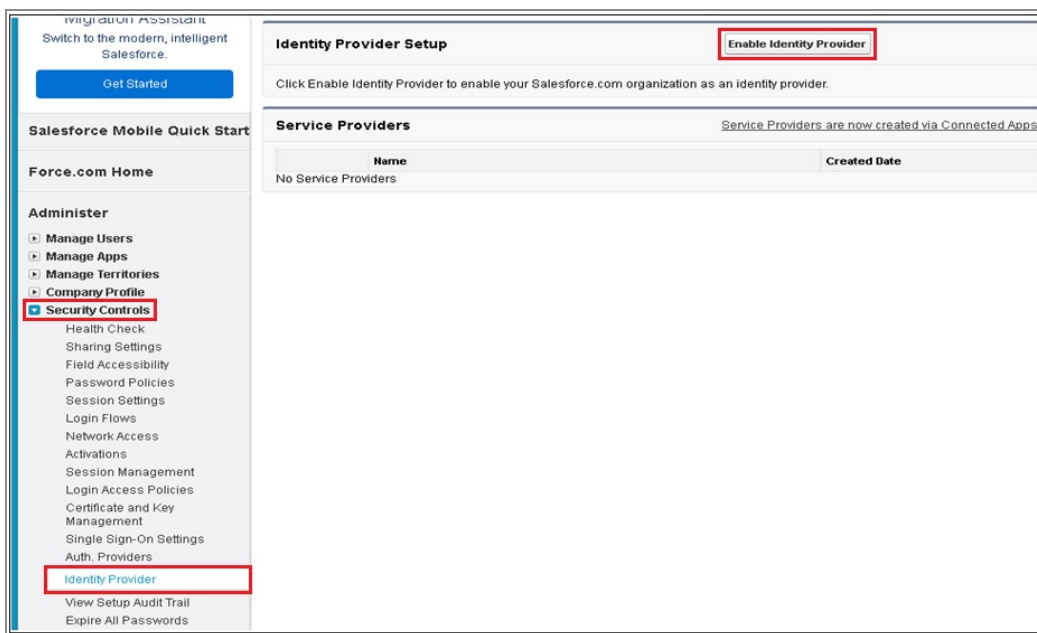
The My Domain pane opens, as shown in the following image.



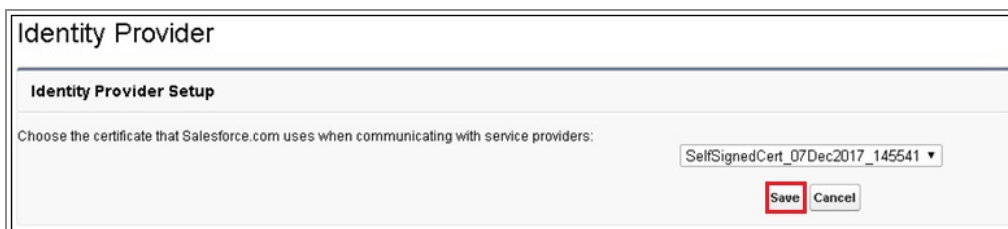
4. Specify your domain name, and then click **Check Availability**.
5. Once your domain has been verified, click **Register Domain**.
6. Once your domain has been registered, log in to the domain by clicking **Log in**, as shown in the following image.



7. In the left pane, expand **Security Controls** and select **Identity Provider**, as shown in the following image.



8. Click **Enable Identity Provider**.
The following screen is displayed.



9. Click **Save**.

The following screen is displayed, which provides details regarding the Identity Provider, metadata, and the certificate.

Identity Provider

Enable Salesforce.com as an identity provider so you can use single sign-on with other web sites, and define the appropriate service providers whose applications support single sign-on. You can switch to different service providers without having to log in again. [Learn more](#)

Identity Provider Setup [Edit](#) [Disable](#) [Download Certificate](#) [Download Metadata](#)

Details

Issuer <https://bigbmn-dev-ed.my.salesforce.com>

Currently chosen certificate details

Label	Unique Name
SelfSignedCert_07Dec2017_145541	SelfSignedCert_07Dec2017_145541

Created Date	Expiration Date
12/7/2017 6:55 AM	12/7/2018 4:00 AM

Key Size 2048

SAML Metadata Discovery Endpoints

Salesforce Identity <https://bigbmn-dev-ed.my.salesforce.com/well-known/samlidp.xml>

Service Providers [Service Providers are now created via Connected Apps. Click here.](#)

Name	Created Date
No Service Providers	

10. Click **Download Metadata**.

Copy the metadata into the following WebFOCUS directory:

```
\ibi\WebFOCUS82\config\was\saml
```

This metadata will be used to configure WebFOCUS for the XML file that is used by the Identity Provider.

The specific names of the files are not important, but configuration values in the *securitysettings.xml* file must reference the correct metadata file.

 SAMLIdP-00D11000003pWq6.xml	12/7/2017 10:02 AM	XML Document	3 KB
 SelfSignedCert_07Dec2017_145541.crt	12/7/2017 10:02 AM	Security Certificate	2 KB

Configuring WebFOCUS and Generating the wfspMetadata.xml File

At a high level, this process consists of the following steps:

- Creating a key pair to be used for WebFOCUS signing and encrypting (*keytool* command).
- Importing a Salesforce.com certificate (*keytool* command).

- Generating the *wfspMetadata.xml* file.
- Configuring WebFOCUS to utilize the *wfspMetadata.xml* and *SalesforceMetadata.xml* files.

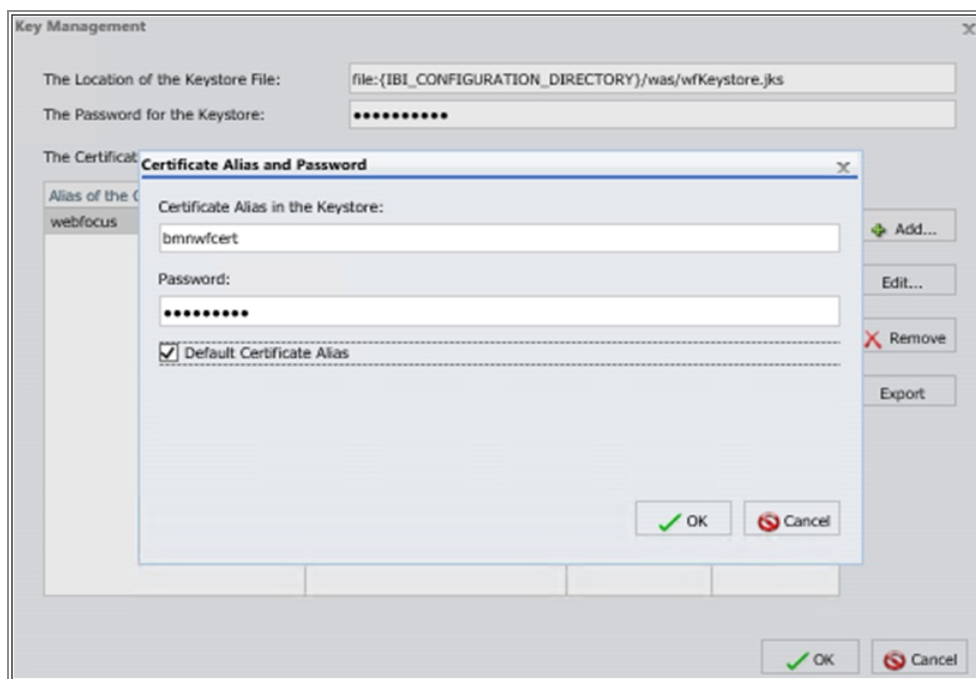
To configure WebFOCUS and generate the *wfspMetadata.xml* file:

1. Navigate to the WebFOCUS Administration Console and click the **Security** tab.
2. In the left pane, expand **Security Zones**, **Default**, and then click **Authentication**.
3. In the right pane, click **Key Management**.

The Key Management dialog opens.

4. Specify the password for the Keystore.
5. Click **Add**.

The Certificate Alias and Password dialog opens, as shown in the following image.

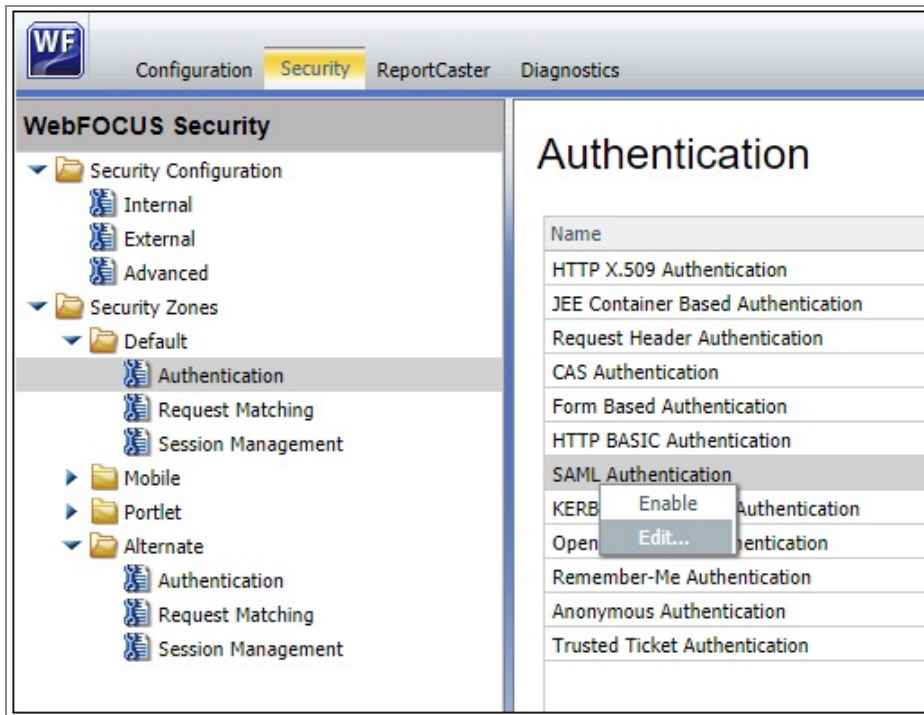


6. Specify the alias and password for the certificate in the corresponding fields, and then click the **Default Certificate Alias** check box.

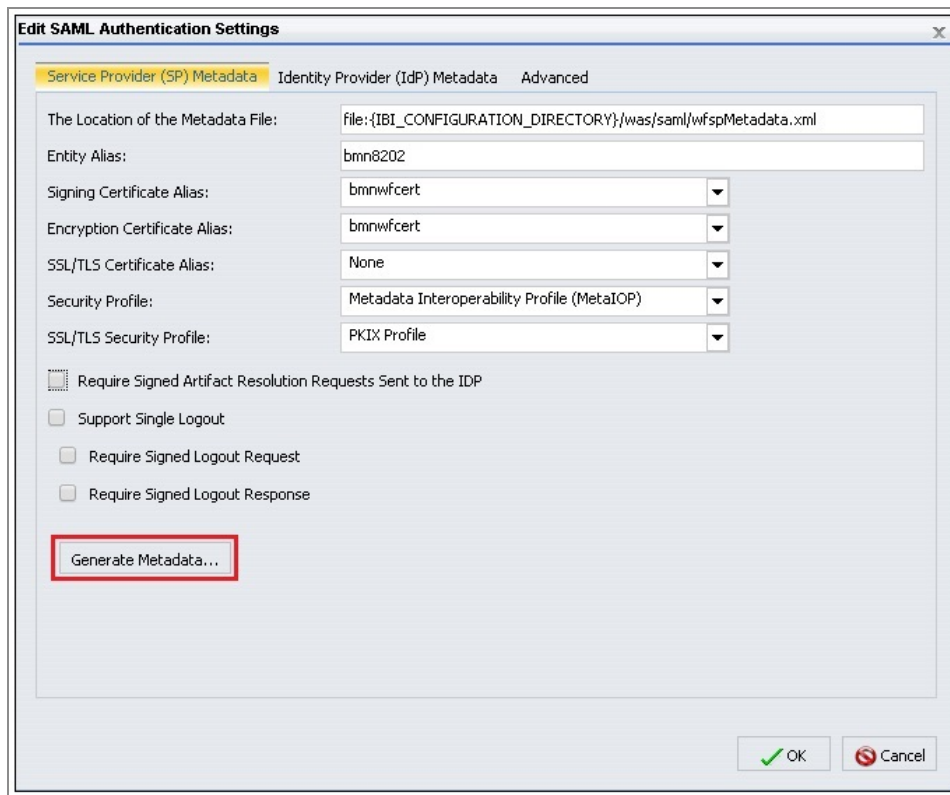
The password for the Keystore, alias of the certificate, and password for the certificate, are all in the keytool step for generating the key.

7. Click **OK** to save your changes and close the Certificate Alias and Password dialog.

8. Click **OK** to save your changes and close the Key Management dialog.
9. From the Authentication pane, right-click **SAML Authentication** and select **Edit** from the context menu, as shown in the following image.



The Edit SAML Authentication Settings dialog opens, as shown in the following image.



10. Specify values for the following parameters:

- Entity Alias
- Signing Certificate Alias
- Encryption Certificate Alias

11. Deselect the **Support Single Logout** check box.

If this option remains selected, logging out from WebFOCUS will automatically log you out from Salesforce.com.

12. Leave the default values for all of the remaining parameters.

i Note: The same signing and encryption certificates are used in this example, but two different certificates could also be used, if configured originally using the keytool command.

13. Click **Generate Metadata**.

The Service Provider (SP) Metadata Generation dialog opens, as shown in the

following image.

Service Provider (SP) Metadata Generation

Entity ID:

Entity Base URL:

Entity Alias:

Signing Certificate Alias:

Encryption Certificate Alias:

SSL/TLS Certificate Alias:

Security Profile:

SSL/TLS Security Profile:

☒ The Service Signs Authentication Requests

☒ Require Signed Authentication Assertion

☐ Require Signed Artifact Resolution Requests Sent to the IDP

☐ Require Signed Logout Request

☐ Require Signed Logout Response

Single Sign-On Bindings:	Default	Included	Name
☒	☒	SSO HTTP-POST	
☐	☐	SSO Artifact	
☐	☐	SSO PAOS	
☐	☐	HoK SSO HTTP-POST	
☐	☐	HoK SSO Artifact	

Supported NameIDs:

☒ Unspecified

☒ E-Mail

☐ Transient

☐ Persistent

☐ X509 Subject

Generate **Cancel**

14. Click **Generate**.

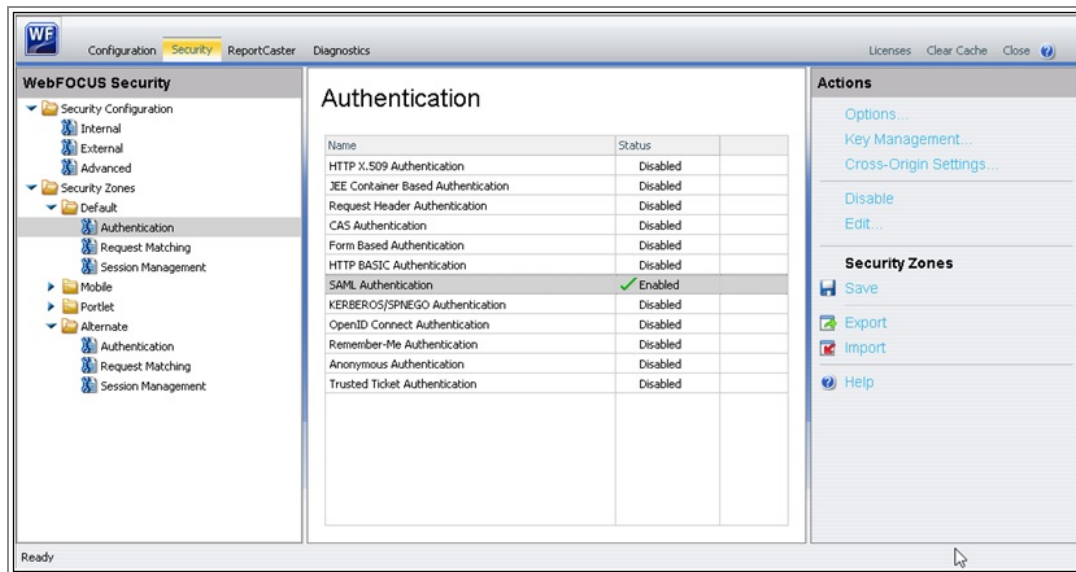
Note: If there were any issues with the passwords for the Keystore or certificate, a JSON file is returned and not the *wfspMetadata.xml* file.

15. Copy the *wfspMetadata.xml* file to the following WebFOCUS directory:

```
config\was\saml
```

Provide this file to your ADFS administrator for their use in the configuration of ADFS.

16. Enable the Alternate Authentication Zone to allow you to sign in to WebFOCUS from the local machine using forms-based authentication and not SAML. Doing so will allow you to fix any configuration issues.
17. In the Default Authentication Zone, disable Form-Based Authentication, Anonymous Authentication, and enable **SAML Authentication**, as shown in the following image.



18. Click **Save**.
19. Restart your application server so these changes can take effect.

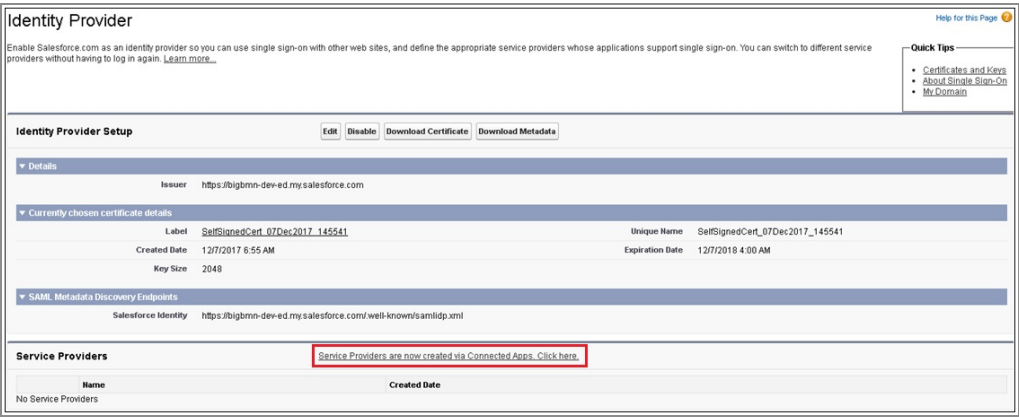
However, do not attempt to sign in until completing the steps described in the next section.

Configuring WebFOCUS as a Service Provider for Salesforce.com

To configure WebFOCUS as a service provider for Salesforce.com:

1. Log on to the new domain you created for Salesforce.com.
2. In the left pane under Administer, expand **Security Controls** and select **Identity Provider**.
3. Click **Service Providers are now created via Connected Apps. Click here**, as shown

in the following image.



The New Connected App dialog opens, as shown in the following image.

New Connected App

Basic Information

Connected App Name
 API Name
 Contact Email
 Contact Phone
 Logo Image URL
[Upload logo image or Choose one of our sample logos](#)
 Icon URL
[Choose one of our sample logos](#)
 Info URL
 Description

API (Enable OAuth Settings)

Enable OAuth Settings ☐

Web App Settings

Start URL
 Enable SAML ☒
 Entity ID
 ACS URL
 Enable Single Logout ☐
 Subject Type
 Name ID Format
 Issuer
 IdP Certificate
 Verify Request Signatures ☐
 Encrypt SAML Response ☐

Note: If you select the **Enable SAML** check box in the Web App Settings section of this dialog, then the SAML information that must be entered is displayed. You should copy this information from the *wfspMetadata.xml* file, as Salesforce.com does not provide the ability to upload WebFOCUS metadata as some other Identity Providers.

- Values for the Assertion Consumer Service (ACS) URL and Entity ID should be copied from the *wfspMetadata.xml* file.
You can search for *entityID* within the *wfspMetadata.xml* file.
- Click **Save** to save these configuration settings.

- Click the gear icon to access the Setup menu, as shown in the following image.



- In the left pane under PLATFORM TOOLS, expand **Apps**, **Connected Apps**, and then **Manage Connected Apps**.
- Select the *Label* of the Connected App that was created (for example, WebFOCUS).
The configuration pane for the Connected App (WebFOCUS) is displayed, as shown in the following image.

Connected App
WebFOCUS
+ Back to List: Connected Apps

Connected App Detail [Edit Policies](#)

Version 1
Description WebFOCUS 8202

System Info

Installed By	Ben Naethall	Installed Date	12/8/2017 9:04 AM
Last Modified By	Ben Naethall	Last Modified Date	12/8/2017 9:36 AM

Basic Information

Info URL	Start URL	https://bmn-8202-ibi.com/ibi_apps/
	Mobile Start URL	

SAML Service Provider Settings

Entity Id	https://bmn-8202-ibi.com/ibi_apps/sp	ACS URL	https://bmn-8202-ibi.com/ibi_apps/samlSSO/alias/bmn8202
Subject Type	Username	Issuer	https://bigbmn-dev-ed.my.salesforce.com
Idp Certificate	GetSamlCert_07Dec2017_145641		
Name ID Format	urn:oasis:names:tc:SAML:1.1:nameid-format:unspecified		
Verify Request Signatures			
Enable Single Logout	Disabled		

SAML Login Information
View and download SAML endpoint metadata for your organization, communities, or custom domains.

Your Organization [Download Metadata](#)

IdP-Initiated Login URL	https://bigbmn-dev-ed.my.salesforce.com/identity?app=0sp100000000caUs
SP-Initiated POST Endpoint	https://bigbmn-dev-ed.my.salesforce.com/idp/endpoint?httpPost
SP-Initiated Redirect Endpoint	https://bigbmn-dev-ed.my.salesforce.com/idp/endpoint?httpRedirect
Metadata Discovery Endpoint	https://bigbmn-dev-ed.my.salesforce.com/well-known/samlp/WebFOCUS.xml
Single Logout Endpoint	https://bigbmn-dev-ed.my.salesforce.com/services/auth/idp/saml2/logout

To allow users to be able to access WebFOCUS as a Service Provider, you must add profiles to this Connected App.

- Scroll down and select **Manage Profiles**, as shown in the following image.

Custom Connected App Handler

Apex Plugin Class
Run As

User Provisioning Settings
☐ Enable User Provisioning ⓘ

Trusted IP Range for OAuth Web server flow
No application-defined IP ranges

Profiles
No profiles associated with this app. [Manage Profiles](#)

Permission Sets
No permission sets associated with this app. [Manage Permission Sets](#)

Custom Attributes
No Custom Attributes [New](#)

The Application Profile Assignment dialog opens, as shown in the following image.

Application Profile Assignment

[Back to Connected App Detail](#)

Select the appropriate profiles to choose which users have access to this application.

Select	Profiles	Description
☐	Analytics Cloud Integration User	
☐	Analytics Cloud Security User	
☐	Authenticated Website	
☐	Authenticated Website	
☐	Chatter External User	
☐	Chatter Free User	
☐	Chatter Moderator User	
☐	Contract Manager	
☐	Cross Org Data Proxy User	
☐	Custom: Marketing Profile	
☐	Custom: Sales Profile	
☐	Custom: Support Profile	
☐	Customer Community Login User	
☐	Customer Community Plus Login User	
☐	Customer Community Plus User	
☐	Customer Community User	
☐	Customer Portal Manager Custom	
☐	Customer Portal Manager Standard	
☐	External Identity User	
☐	Force.com - App Subscription User	
☒	Force.com - Free User	
☐	Gold Partner User	
☐	High Volume Customer Portal	
☐	High Volume Customer Portal User	
☐	Identity User	
☐	Marketing User	
☐	Partner App Subscription User	
☐	Partner Community Login User	
☐	Partner Community User	
☐	Read Only	
☐	Silver Partner User	
☐	Solution Manager	
☐	Standard Platform User	
☐	Standard User	
☒	System Administrator	
☐	Work.com Only User	

10. Select the user(s) that will access WebFOCUS using Salesforce.com as a SAML authentication provider, and then click **Save**.
11. Return to the configuration pane for the Connected App (WebFOCUS), as shown in step 8.

The profiles you assigned to the Connected App (WebFOCUS) are now listed under the Profiles section, as shown in the following image.

Profiles

[Manage Profiles](#)

Profile
Force.com - Free User
System Administrator

12. You can test logging on to WebFOCUS by using the URL you configured.

```
https://server.ibi.com/ibi_apps/
```

Redirect to your Salesforce.com login page.

13. Enter your Salesforce.com user credentials.

You are redirected to WebFOCUS. This is a Service Provider initiated login (login from WebFOCUS).

14. If you log on to Salesforce.com using its URL, then any WebFOCUS content will also be logged on from the back-end.

This is an Identity Provider initiated login.

Programming Solutions

Embedding a URL in Salesforce.com (SFDC) to run a WebFOCUS report is a simple example of embedding WebFOCUS BI content. To accomplish more advanced embedding techniques in SFDC (for example, calling multiple web services, checking cookies, and so on), some programming will be required.

Apex classes are similar to Java classes, but have special codes for SFDC. Likewise, Visualforce pages are similar to Java Server Pages (JSPs).

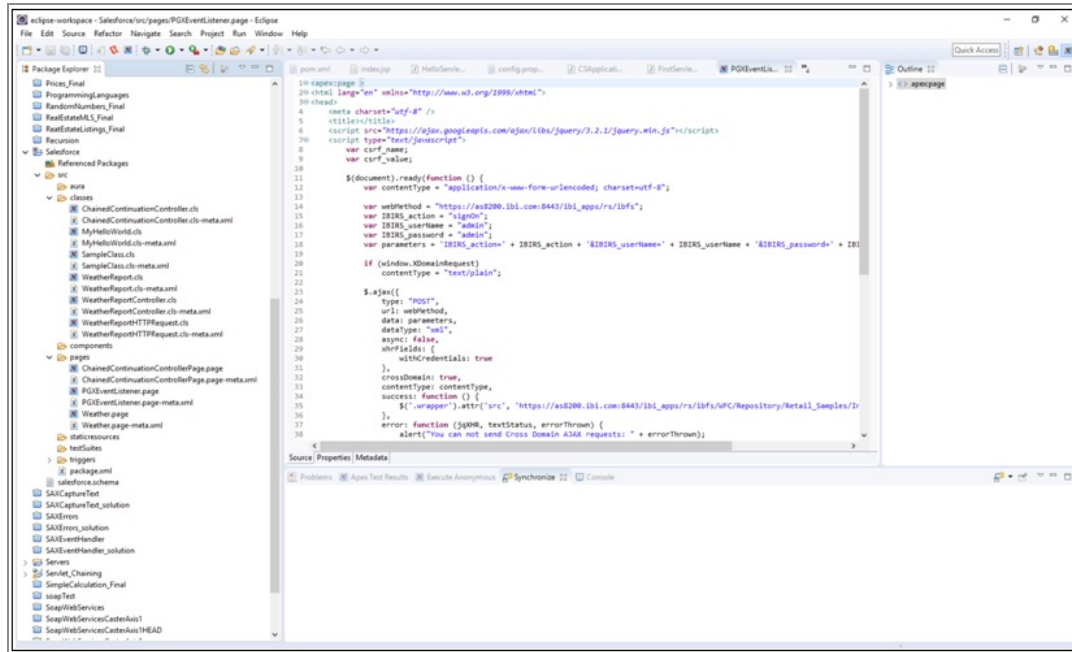
If you do not want to integrate SAML, and would prefer to configure a web service *signOn* or run multiple web services, then you need to use what SFDC calls *Chained Callouts*. For more information, see [Using Chained Callouts](#).

Salesforce Extensions for Visual Studio Code

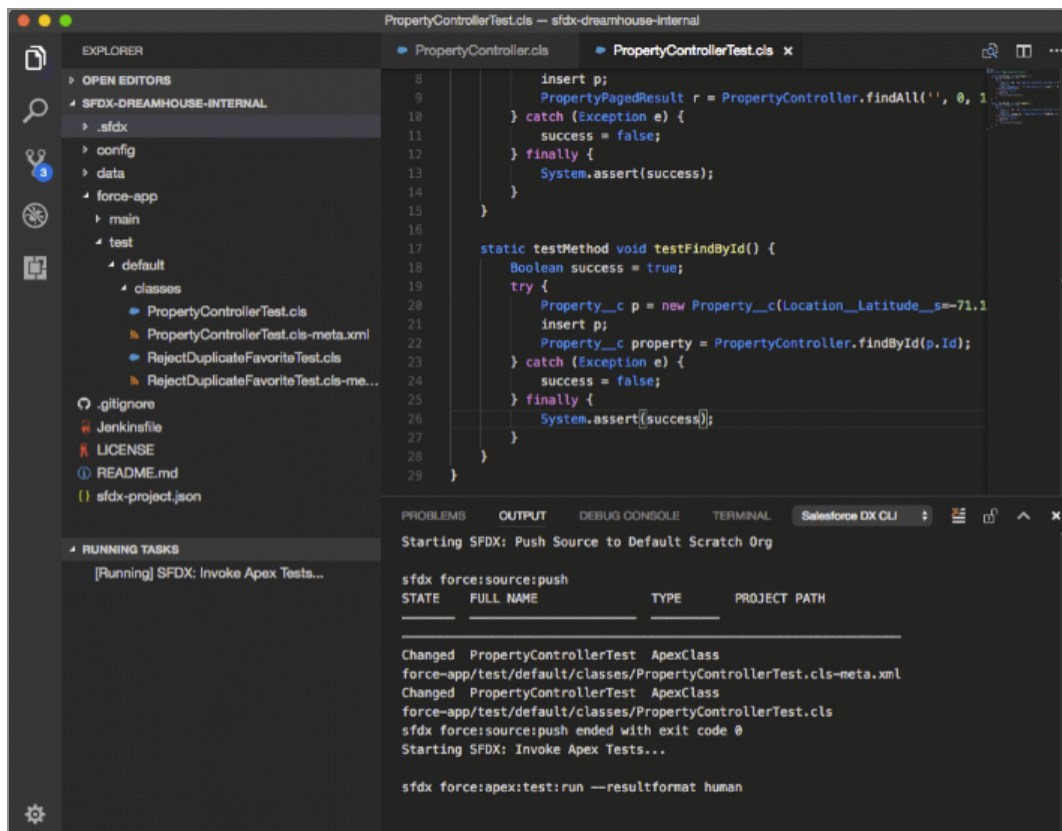
SFDC provides a plug-in for Eclipse called Force.com IDE, which is an integrated development environment for creating, modifying, and deploying SFDC applications. On October 12, 2019, SFDC will be discontinuing Force.com IDE and is recommending users to begin migrating to *Salesforce Extensions for Visual Studio (VS) Code*, which you must download and install.

Salesforce Extensions for VS Code include tools for developing on the Salesforce platform in the lightweight, extensible VS Code editor. These tools provide features for working with development orgs (scratch orgs, sandboxes, and DE orgs), Apex, Aura components, and Visualforce.

For reference, the following image shows the current Force.com IDE.



The following image shows the VS code editor for Salesforce Extensions.

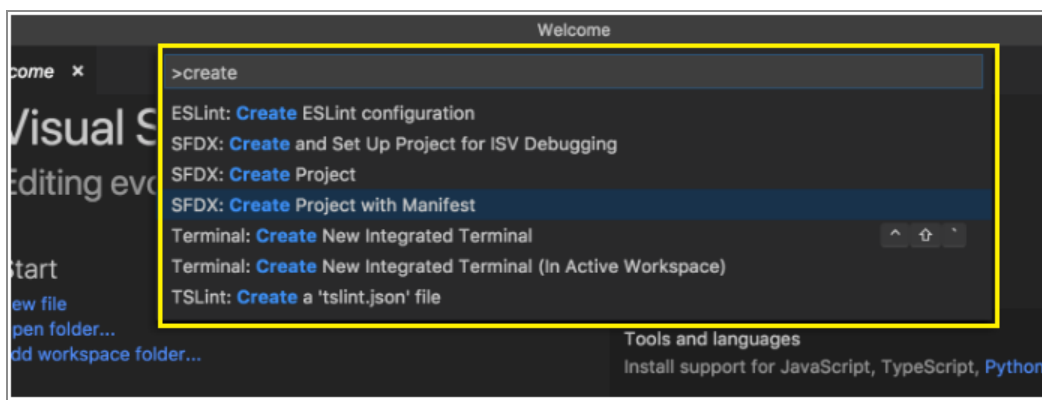


Salesforce Extensions for VS Code is available as a free download from the Visual Studio Marketplace:

<https://marketplace.visualstudio.com/items?itemName=salesforce.salesforcedx-vscode>

In addition to the download, you will also find prerequisites and additional resources, such as documentation on this page. It is recommended that you review the prerequisites before installing and using Salesforce Extensions for VS Code.

Once you have installed Salesforce Extensions for VS Code on your environment, one of the key features of this editor is the command palette, which you will use often as you develop your SFDC projects, as shown in the following image.



The command palette provides a repository of commands that you can quickly search through simply by entering a term (for example, *Create*). You can then run your selected command directly from the list of commands that are returned. To open the command palette, press **Ctrl+Shift+P**.

Any syntax that you develop using Salesforce Extensions for VS Code can be run on SFDC, which is similar to Force.com IDE.

For more information on migrating from Force.com IDE to Salesforce Extensions for VS Code, see the following article:

<https://developer.salesforce.com/tools/vscode/en/getting-started/migrate-from-forcecom-ide>

Using Chained Callouts

A *Callout* is the term used by SFDC for calling an external web service.

Chained Callouts means that one Callout will need the response from the previous instance as in a *signOn* and then an execution of a procedure, schedule, and so on.

For example:

```
public with sharing class ChainedContinuationController {
    // Unique label for the initial callout request
    public String requestLabel1;
    // Unique label for the chained callout request
    public String requestLabel2;
    // Result of initial callout
    public String result1 {get;set;}
    // Result of chained callout
    public String result2 {get;set;}
    // Endpoint of long-running service
    private static final String LONG_RUNNING_SERVICE_URL1 =
        'http://pmdev.ibi.com/ibi_apps/rs/ibfs';
    private static final String LONG_RUNNING_SERVICE_URL2 =
        'http://pmdev.ibi.com/ibi_apps/rs/ibfs/WFC/Repository/David_
SFDC/Car_Report.fex';
    // Action method
    public Object invokeInitialRequest() {
        // Create continuation with a timeout
        Continuation con = new Continuation(60);
        // Set callback method
        con.continuationMethod='processInitialResponse';
        // Create first callout request
        String body1 =
        'IBIRS_action=signOn&IBIRS_userName=david&IBIRS_password=david';
        HttpRequest req = new HttpRequest();
        req.setMethod('POST');
        req.setBody(body1);
        req.setHeader('Content-Type', 'application/x-www-form-
urlencoded');
        req.setEndpoint(LONG_RUNNING_SERVICE_URL1);
        // Add initial callout request to continuation
        this.requestLabel1 = con.addHttpRequest(req);
        // Return the continuation

// Callback method for initial request
    public Object processInitialResponse() {
        // Get the response by using the unique label
        HttpResponse response = Continuation.getResponse
(this.requestLabel1);
        // Set the result variable that is displayed on the Visualforce
page
        this.result1 = response.getBody();
        String cookie = response.getHeader('Set-Cookie');
        Continuation chainedContinuation = null;
        // Chain continuation if some condition is met
    }
```

```

        //if (response.getBody().toLowerCase().contains('expired')) {
        // Create a second continuation
        chainedContinuation = new Continuation(60);
        // Set callback method
        chainedContinuation.continuationMethod='processChainedResponse';
        // Create callout request
        HttpRequest req = new HttpRequest();
        req.setMethod('GET');
        req.setHeader('Content-Type', 'application/x-www-form-
urlencoded');
        req.setHeader('Cookie', cookie);
        req.setEndpoint(LONG_RUNNING_SERVICE_URL2 + '?IBIRS_action=run');
        // Add callout request to continuation
        this.requestLabel2 = chainedContinuation.addHttpRequest(req);
        //}
        // Start another continuation
        return chainedContinuation;
    }
    // Callback method for chained request
    public Object processChainedResponse() {
        // Get the response for the chained request
        HttpResponse response = Continuation.getResponse
(this.requestLabel2);
        // Set the result variable that is displayed on the Visualforce
page
        this.result2 = response.getBody();
        // Return null to re-render the original Visualforce page
        return null;
    }
}

```

The following is an example of the syntax used to define a Visualforce page.

```

<apex:page controller="ChainedContinuationController" showChat="false"
showHeader="false">
    <apex:form >
        <!-- Invokes the action method when the user clicks this button. -
->
        <apex:commandButton action="{!invokeInitialRequest}" value="Start
Request" reRender="panel"/>
    </apex:form>

    <apex:outputPanel id="panel">
        <!-- Displays the response body of the initial callout. -->
        <apex:outputText value="{!result1}" />

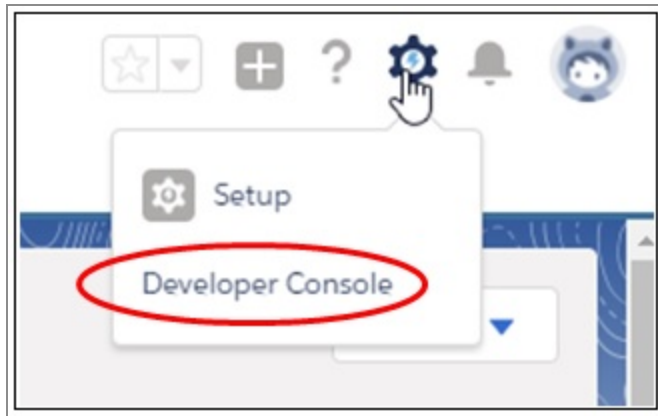
        <br/>

```

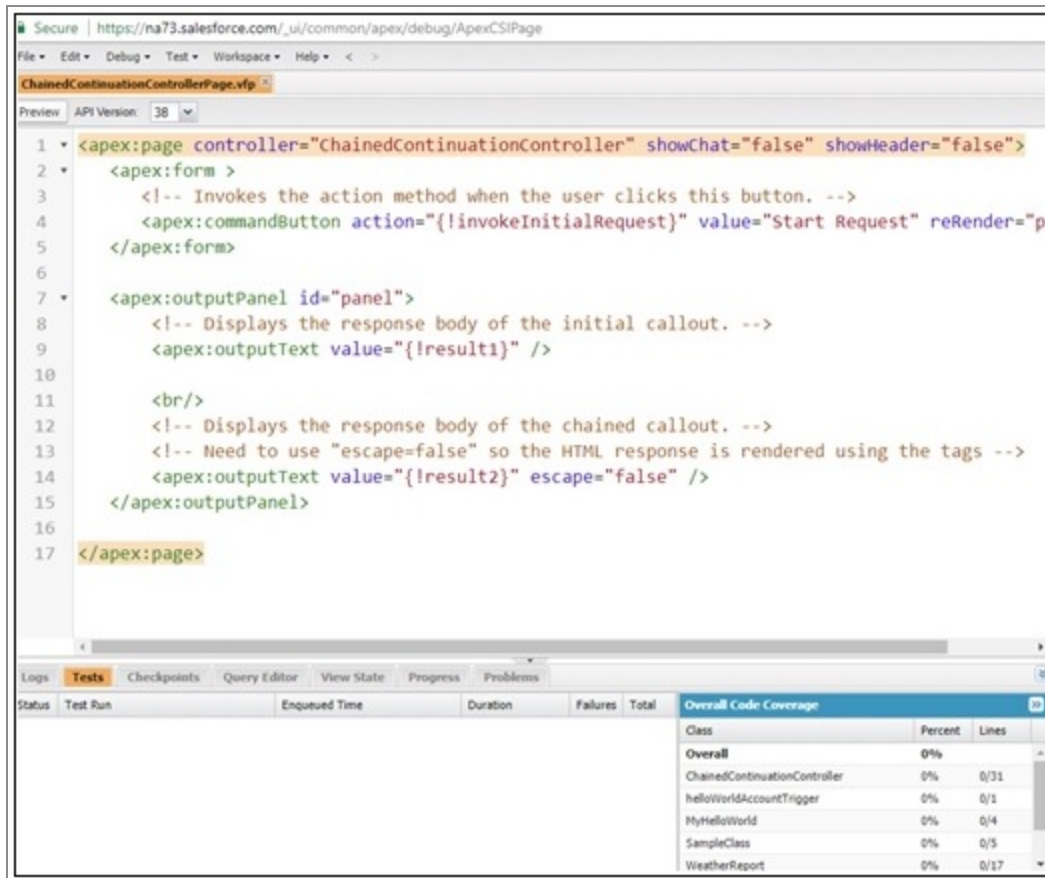
```
<!-- Displays the response body of the chained callout. -->  
<!-- Need to use "escape=false" so the HTML response is rendered  
using the tags -->  
<apex:outputText value="{!result2}" escape="false" />  
</apex:outputPanel>  
  
</apex:page>
```

Accessing the Developer Console

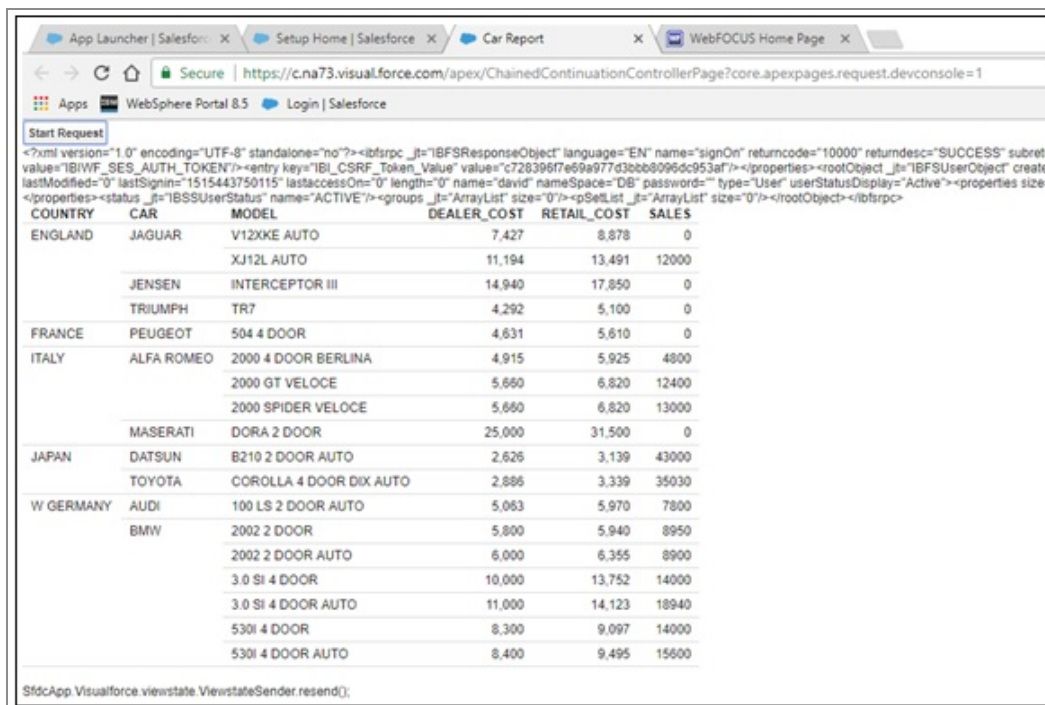
You can access the Developer Console, as shown in the following image.



The Developer Console is where you define and configure a Visualforce page, as shown in the following image.



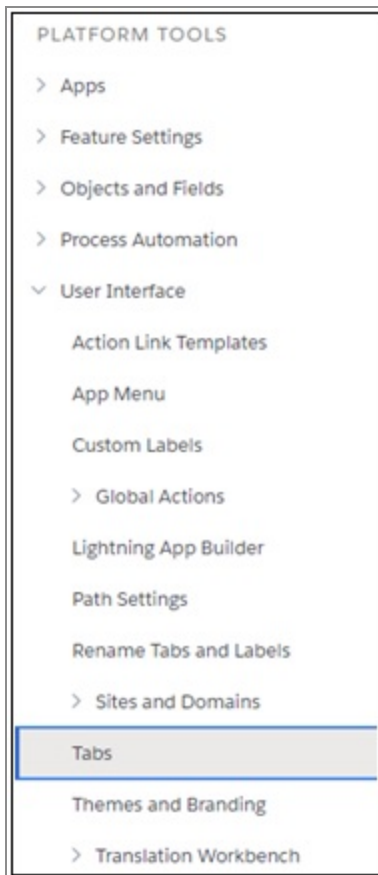
The following image shows sample output that is generated using the Developer Console.



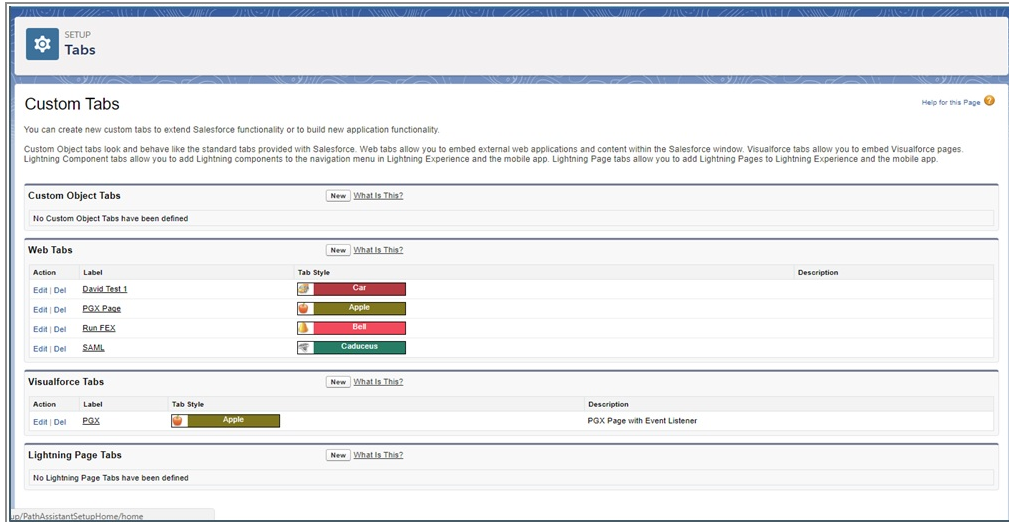
Adding a Visualforce Page to Your SFDC Dashboard

Adding a Visualforce page to your SFDC dashboard is simple.

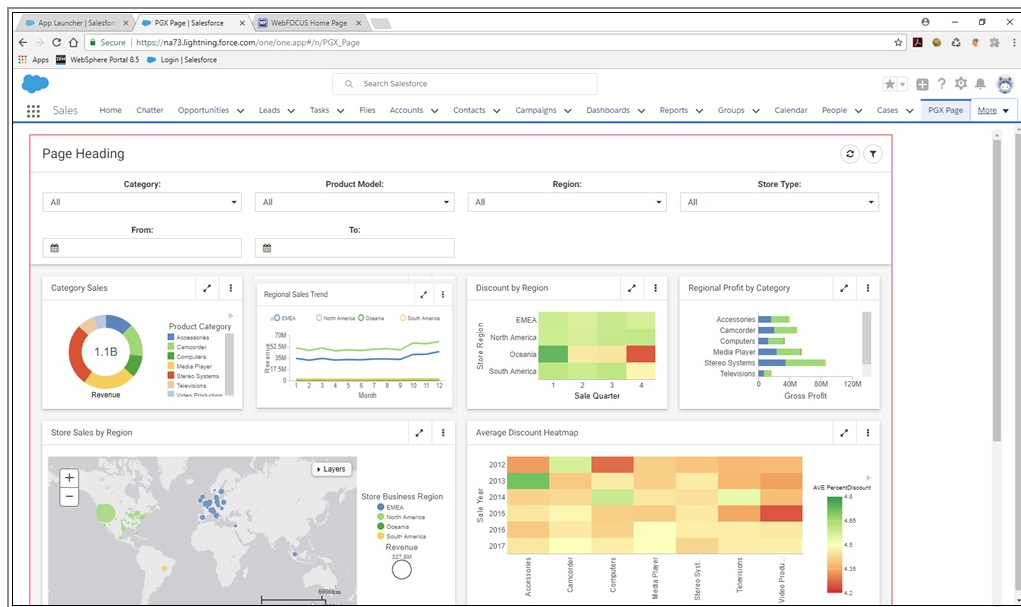
1. In the left pane under PLATFORM TOOLS, expand **User Interface** and then click **Tabs**, as shown in the following image.



The Tabs pane opens, as shown in the following image.



- On the right side, under the Visualforce Tabs section, click **New**.
- Select the name of your Visualforce page from the Visualforce Page drop-down list.
- In the Display Properties area, enter a value in the Tab Label field, Tab Name field, and then select a Tab Style from the drop-down list.
- Click **Next**.
- Do not make any changes for the *Add to Profiles* and *Add to Custom Apps* steps that follow.
- Click **Save**.
- You can now select this new tab containing your Visualforce page when you open a SFDC application in the dashboard, as shown in the following image.



Note: A Visualforce page may also contain HTML and JavaScript. For example:

```

<apex:page>
<html lang="en" xmlns="http://www.w3.org/1999/xhtml">
<head>
  <meta charset="utf-8" />
  <title></title>
  <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.2.1/jquery.min.js"></script>
  <script type="text/javascript">
    var csrf_name;
    var csrf_value;

    $(document).ready(function () {
      var contentType = "application/x-www-form-urlencoded; charset=utf-8";

      var webMethod = "https://as8200.ibi.com:8443/ibi_apps/rs/ibfs";
      var IBIRS_action = "signOn";
      var IBIRS_username = "admin";
      var IBIRS_password = "admin";
      var parameters = 'IBIRS_action=' + IBIRS_action + '&IBIRS_username=' + IBIRS_username + '&IBIRS_password=' + IBIRS_password;

      if (window.XDomainRequest)
        contentType = "text/plain";

      $.ajax({
        type: "POST",
        url: webMethod,
        data: parameters,
        dataType: "xml",
        async: false,
        xhrFields: {
          withCredentials: true
        },
        crossDomain: true,
        contentType: contentType,
        success: function () {
          $('.wrapper').attr('src', 'https://as8200.ibi.com:8443/ibi_apps/rs/ibfs/WFC/Repository/Retail_Samples/IBIRS');
        },
        error: function (jqXHR, textStatus, errorThrown) {
          alert("You can not send Cross Domain AJAX requests: " + errorThrown);
        }
      });
    });

    window.addEventListener('message', onHeightChanged, false);

    function onHeightChanged(event)
    {
      if (event.data && event.data.message_name == 'height_changed')
      {
        $('.wrapper').innerHeight(event.data.page_height + 10); // add 10 to account for different things, like border
      }
    }

  </script>
  <style>
    .wrapper {
      width: 90%;
      height: 100px;
      border: 1px solid red;
    }
  </style>
</head>
<body>

  <iframe class="wrapper"></iframe>

</body>
</html>
</apex:page>

```

Drill-back Support for WebFOCUS Content Embedded in Salesforce.com

WebFOCUS Embedded Business Intelligence (BI) solutions currently support integration between WebFOCUS and Salesforce.com (SFDC) with:

- SFDC tabs that contain WebFOCUS content within HTML iframes.
- SFDC Visualforce pages containing WebFOCUS content.

- The SFDC adapter for the WebFOCUS Reporting Server to generate and display WebFOCUS reports using SFDC data.

This section describes additional integration functionality that allows WebFOCUS content to drill-back into SFDC portal tabs, passing in values those tabs use to display specific Opportunities, and so on. The user interface for this feature is a SFDC portal application that contains a Visualforce tab, which displays a Visualforce page.

Configuring the Visualforce Page

The Visualforce page should be coded, as shown in the following example:

```
<apex:page controller="PageReferenceController">
<html>
  <head>

    </head>
<body>
<apex:form >
  <apex:actionFunction name="redirect" action="{!redirectToOppsPage}"
rerender="msgs">
    <apex:param name="opps_url_param" value="" assignTo="{!opps_
url}"/>
  </apex:actionFunction>
</apex:form>

<script type="text/javascript">
  window.addEventListener("message", receiveMessage, false);
  function receiveMessage(event)
  {
    if(typeof event.data === 'string')
    {
      if(event.data.indexOf('NAVIGATE') >= 0)
      {
        var params = event.data.split(';');

        var action_tokens = params[0].split('=');
        var url_tokens = params[1].split('=');
        redirect(url_tokens[1])
      }
    }
  }
</script>
```

```

<iframe id="wf_dashboard" src="https://server:port/ibi_apps/run.bip?BIP_
REQUEST_TYPE=BIP_LAUNCH&BIP_folder=IBFS%253A%252FWFC%252F
Repository%252FRetail_Samples%252F&BIP_item=sfdc_page_for_drillback"
style="width: 100%;">

</iframe>

<script type="text/javascript">
    function resize_iframe()
    {
        document.getElementById('wf_dashboard').height =
window.innerHeight-30;
    }
    window.onresize = function (event)
    {
        console.log('resizing ' + window.innerHeight);
        resize_iframe();
    }

    resize_iframe();

</script>
</body>
</html>
</apex:page>

```

The following section in this Visualforce page states the name of the Apex class that will get called from this page (*PageReferenceController*).

```
<apex:page controller="PageReferenceController">
```

The following section defines a function named *redirect* and states the action, which is to call another function named *redirectToOppsPage*.

```

<apex:actionFunction name="redirect" action="{!redirectToOppsPage}"
rerender="msgs">

```

The following section defines a parameter for this Visualforce page named *opps_url_param* with an initial value of *null*, and it should be assigned to the value of *opps_url*, which is defined in the Apex class.

```
<apex:param name="opps_url_param" value="" assignTo="{!opps_url}"/>
```

The following section starts the definition of a JavaScript block.

```
<script type="text/javascript">
```

The following section adds an event listener to listen for messages from embedded iframes that contain content from a different origin (specifically, WebFOCUS content in this example) and executes the function *receiveMessage* when a message is received.

```
window.addEventListener("message", receiveMessage, false);
```

The following section starts the *receiveMessage* function, which has one parameter, *event*.

```
function receiveMessage(event)
```

The following section checks the *data* of the *event* to make sure it is a *string*.

```
if(typeof event.data === 'string')
```

The following section looks at that string to check if it contains the string *NAVIGATE*.

```
if(event.data.indexOf('NAVIGATE') >= 0)
```

The following section is the code that parses the message text. The message originates from the WebFOCUS procedure that will perform the drill-back. In the example provided, it is 'ACTION=NAVIGATE;URL=' || SF_URL;.

```
var params = event.data.split(';');

    var action_tokens = params[0].split('=');
    var url_tokens = params[1].split('=');
    redirect(url_tokens[1])
```

The following section executes the redirect action defined in <apex:actionFunction name="redirect" and passes the URL to drill-back.

```
redirect(url_tokens[1]);
```

This calls the *redirectToOppsPage* function defined in the Apex class described in [Configuring the Apex Class](#).

The following section defines the iframe ID and source that should run to populate the iframe.

```
<iframe id="wf_dashboard" src="https://server:port/ibi_apps/run.bip?BIP_
REQUEST_TYPE=BIP_LAUNCH&BIP_
folder=IBFS%253A%252FWFC%252FRepository%252FRetail_Samples%252F&BIP_
item=sfdc_page_for_drillback" style="width: 100%;">
```

The following section defines another JavaScript function used to resize the iframe based on the WebFOCUS contents *innerHeight*.

```
<script type="text/javascript">
    function resize_iframe()
    {
        document.getElementById('wf_dashboard').height =
window.innerHeight-30;
    }
    window.onresize = function (event)
    {
        console.log('resizing ' + window.innerHeight);
        resize_iframe();
    }

    resize_iframe();
```

Configuring the Apex Class

The following Apex class is called by the Visualforce page and defines the *opps_url* method and the *redirectToOppsPage* function.

```
public class PageReferenceController {

    public String opps_url {get; set;}

    public PageReference redirectToOppsPage() {
        PageReference pageRef;
        pageRef = new PageReference(opps_url);
        pageRef.setRedirect(true);
        return pageRef;
    }
}
```

The function performs the drill-back to the URL that was set in *opps_url*. Specifically, it defines a page reference using the value of *opps_url* and returns that page reference to the Visualforce page, which is the caller of the function.

Configuring the WebFOCUS Procedure

This section provides an example of a WebFOCUS procedure that you can use as a model.

```

DEFINE FILE retail_samples/wf_retail_lite ADD
  OPP_ID/A255V=IF WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY EQ
  'Accessories' THEN '0064C0000003LIAsQAM'
  ELSE IF WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY EQ
  'Camcorder' THEN '0064C0000003LIBCQA2'
  ELSE IF WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY EQ
  'Computers' THEN '0064C0000003LIBHQA2'
  ELSE IF WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY EQ 'Media
  Player' THEN '0064C0000003LIBbQAM'
  ELSE IF WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY EQ 'Stereo
  Systems' THEN '0064C0000003LIBgQAM'
  ELSE IF WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY EQ
  'Televisions' THEN '0064C0000003LIBlQAM' ELSE '0064C0000003LIBqQAM' ;

  SF_URL/A255V='https://ibi--
  wfdboard.lightning.force.com/lightning/r/Opportunity/'||OPP_ID||'/view'
  ;
  SF_POSTMESSAGE/A1024V = 'ACTION=NAVIGATE;URL='||SF_URL;
END

ENGINE INT CACHE SET ON
SET PAGE-NUM=NOLEAD
-DEFAULTH &WF_HTMLENCODING=OFF;
SET HTMLENCODING=&WF_HTMLENCODING

SET ARGRAPHENGINE=JSCHART
SET EMBEDHEADING=ON
SET GRAPHDEFAULT=OFF
-DEFAULTH &WF_STYLE_UNITS='PIXELS';
-DEFAULTH &WF_STYLE_HEIGHT='405.0';
-DEFAULTH &WF_STYLE_WIDTH='770.0';
-DEFAULTH &WF_TITLE='WebFOCUS Report';
GRAPH FILE retail_samples/wf_retail_lite
SUM WF_RETAIL_LITE.WF_RETAIL_SALES.REVENUE_US
FST.SF_POSTMESSAGE AS 'SF_URL' NOPRINT
BY WF_RETAIL_LITE.WF_RETAIL_PRODUCT.PRODUCT_CATEGORY
ON GRAPH PCHOLD FORMAT JSCHART
ON GRAPH SET AUTOFIT ON
ON GRAPH SET GRWIDTH 1
ON GRAPH SET UNITS &WF_STYLE_UNITS
ON GRAPH SET HAXIS &WF_STYLE_WIDTH
ON GRAPH SET VAXIS &WF_STYLE_HEIGHT
ON GRAPH SET LOOKGRAPH PIE

```

```

ON GRAPH SET AUTOFIT ON
ON GRAPH SET STYLE *
*GRAPH_SCRIPT

setPieDepth(0);
setPieTilt(0);
setDepthRadius(0);
setPlace(true);
setPieFeelerTextDisplay(1);
setCurveFitEquationDisplay(false);

*END
INCLUDE=IBFS:/FILE/IBI_HTML_DIR/ibi_themes/Warm.sty,$
TYPE=REPORT, TITLETEXT=&WF_TITLE.QUOTEDSTRING, $
TYPE=DATA, COLUMN=N1, BUCKET=color, $
TYPE=DATA, COLUMN=N2, ALT='salesforce_redirector', TARGET='_self',
BUCKET=measure,
JAVASCRIPT=parent.parent.postMessage( \
    FST.SF_POSTMESSAGE \
    'https://ibi--wfdboard--c.cs61.visual.force.com' \
),
$
TYPE=DATA, COLUMN=N3, BUCKET=tooltip, $
*GRAPH_SCRIPT

setReportParsingErrors(false);
setSelectionEnableMove(false);
*GRAPH_JS_FINAL
"pieProperties": {
    "holeSize": "65%"
},
"agnosticSettings": {
    "chartTypeFullName": "Pie_Ring"
}

*END
ENDSTYLE
END

```

The following section in this WebFOCUS procedure defines a variable named *SF_URL*, which specifies the URL format used by SFDC to display an Opportunity.

```

SF_URL/A255V='https://ibi--
wfdboard.lightning.force.com/lightning/r/Opportunity/'||OPP_ID||'/view';

```

The following section defines a variable called *SF_POSTMESSAGE*, which is the message that will be passed to the Visualforce page event listener.

```
SF_POSTMESSAGE/A1024V = 'ACTION=NAVIGATE;URL=' || SF_URL;
```

The following section defines the drill-down, which is a JavaScript drill-down.

```
JAVASCRIPT=parent.parent.postMessage( \  
    FST.SF_POSTMESSAGE \  
    'https://ibi--wfdboard--c.cs61.visual.force.com' \  
    ),
```

You must use *parent.parent* to access the parent container of the WebFOCUS content, and then the parent container of that container, which will be the topmost content.

This drill-down then calls *postMessage* and passes the *SF_POSTMESSAGE* variable content and the URL that is the originator of the Visualforce page execution.

WebFOCUS Embedded Business Intelligence Demonstration Application

A demonstration (“demo”) application is available for deployment that allows you to embed WebFOCUS Business Intelligence (BI) content, analytics, and functionality (features) as an external application. This embedded BI demo application that is packaged with WebFOCUS enables you to explore the iframe and web services embedding options.

During the configuration process, you will also learn how the Trusted Ticket Authentication feature in WebFOCUS can be used to implement single sign-on (SSO), which is an important developer consideration for embedded BI applications.

WebFOCUS Embedded Business Intelligence Demonstration Application

This section serves as a getting started guide, which describes how to install, configure, and use the embedded Business Intelligence (BI) demonstration (“demo”) application that is packaged with WebFOCUS.

Installing the Embedded Business Intelligence Demonstration Application

This section describes how to install the sample embedded content, sample user (ffadv), and the embedded business intelligence (BI) demo application (*Fintoso Financial*).

The Fintoso Financial embedded BI demo is automatically installed for you into the following directory:

```
<drive>:\ibi\WebFOCUS82\samples\embedded_demo
```

Here you will find the following components that are referenced and used by the embedded BI demo:

- **embeddemo.war.** A redesigned application .war file that you must deploy to your application server (for example, Apache Tomcat).
- **fintoso_domain_CM_v01.zip.** A new Change Management package that deploys the Fintoso Financial domain into your WebFOCUS environment along with sample financial data.
- **fintoso_users.csv.** A CSV file containing the predefined sample user ID (ffadv), which is used to log in to the Fintoso Financial embedded BI demo application.

These components must be installed in the following order:

1. Sample embedded content (fintoso_domain_CM_v01.zip).
2. Sample predefined user (ffadv) (fintoso_users.csv).

3. Application .war file (embeddemo.war).

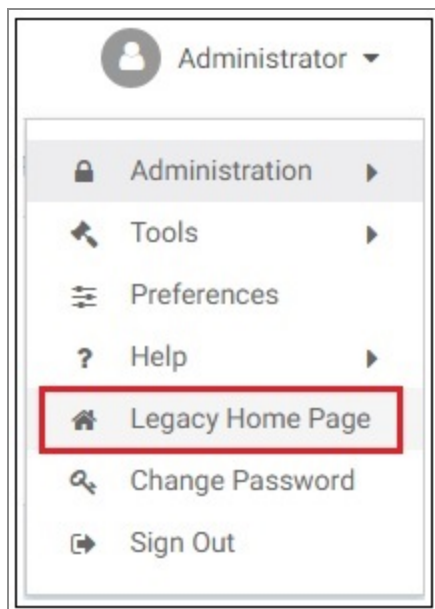
Installing the Sample Embedded Content

For improved performance and quicker deployment, a new financial data set has been packaged with the Fintoso Financial embedded BI demo. You are no longer required to build WF RETAIL as a data source for the embedded demo application. Instead, a set of FTM files representing sample financial data is included with the new Change Management package (fintoso_domain_CM_v01.zip). As a result, simply deploying the new Change Management package will also deploy all of the required data that is used by the new embedded BI demo at the same time.

Install the Sample Embedded Content

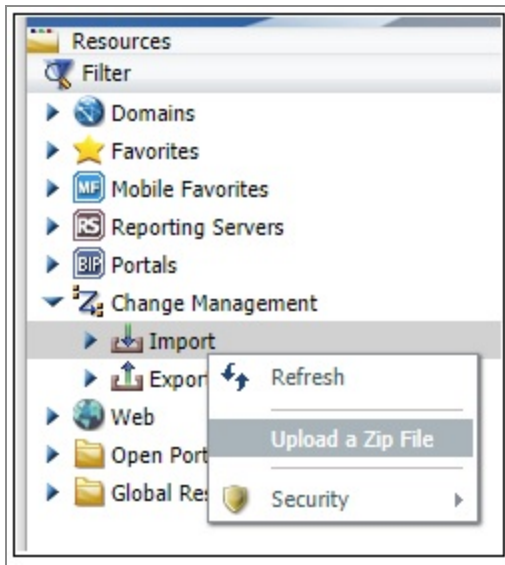
Procedure

1. Sign in to WebFOCUS as an *administrator*.
2. From the WebFOCUS Home Page, click **Administrator** in the upper-right and then click **Legacy Home Page** from the menu, as shown in the following image.

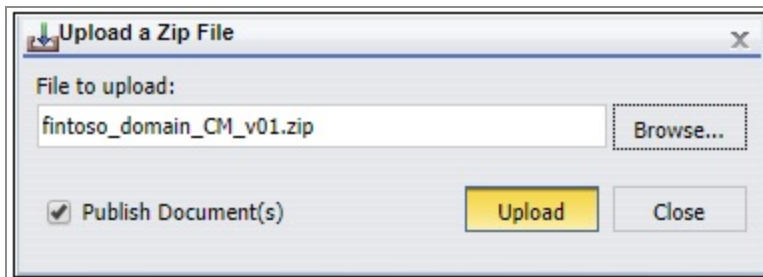


3. In the Resources tree on the left pane, expand **Change Management**, right-click the **Import** node, and then select **Upload a Zip File** from the context menu, as shown in

the following image.



The Upload a Zip File dialog opens, as shown in the following image.

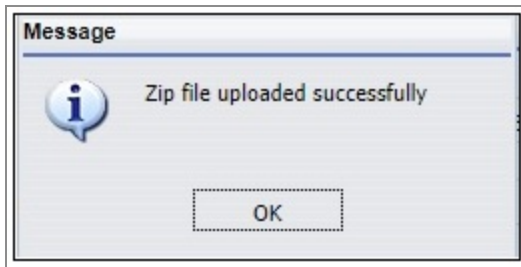


4. Browse to the following directory and select the *fintoso_domain_CM_v01.zip* file.

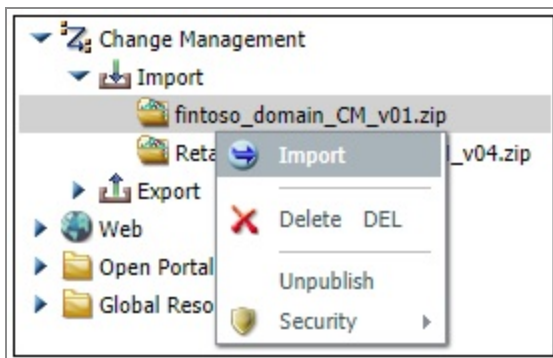
```
<drive>:\WebFOCUS82\samples\embedded_demo\fintoso_domain_CM_v01.zip
```

5. Click **Upload**.

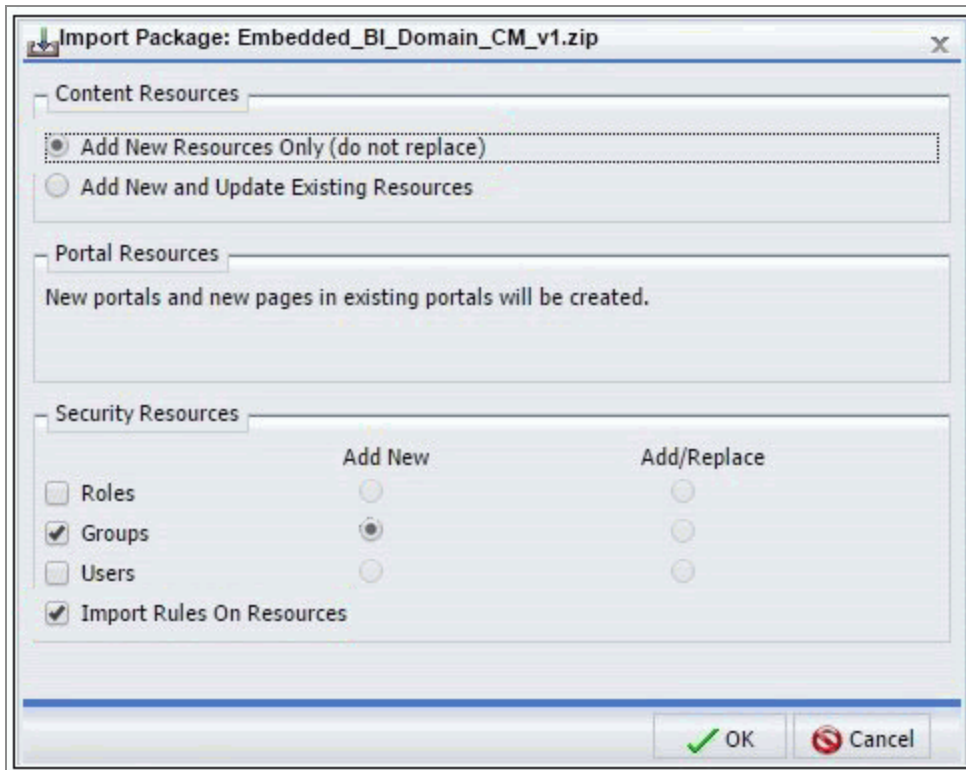
The following message is displayed.



6. Click **OK**.
7. Under the Import node, right-click the **fintoso_domain_CM_v01.zip** file and select **Import** from the context menu, as shown in the following image.

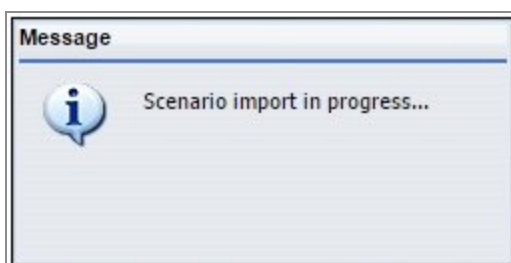


The Import Package: fintoso_domain_CM_v01.zip file dialog opens, as shown in the following image



8. In the Content Resources area, select **Add New Resources Only (do not replace)**.
9. Select the following options for the Security Resources area:
 - a. Select **Groups**, and select **Add New** for the Group resource.
 - b. Select **Import Rules On Resources**.
10. Click **OK**.

The *Scenario import in progress* message is displayed, as shown in the following image.

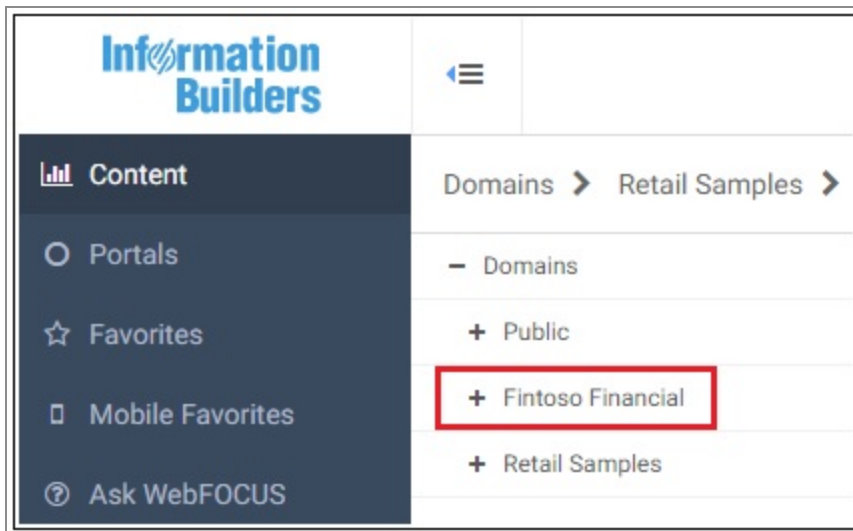


Once this process has been completed, an *Import successful* message is displayed, as

shown in the following image.



11. Click **OK**.
12. Return to the WebFOCUS Home Page where you will now find Fintoso Financial listed as a new domain, as shown in the following image.



Importing the Sample User (ffadv)

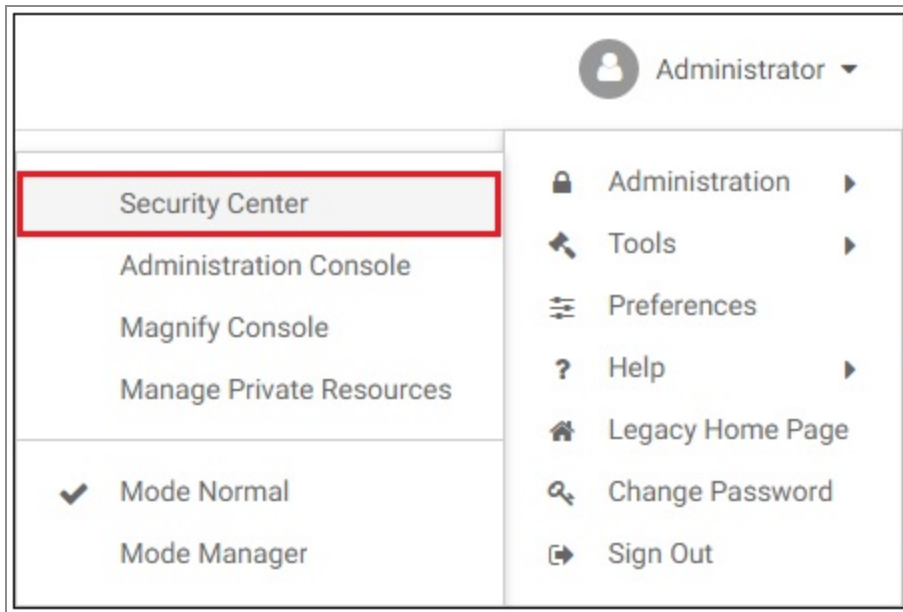
The embedded BI demo application (*Fintoso Financial*) includes a CSV file that contains a predefined sample user ID (ffadv). You must use the ffadv user ID to log in to the Fintoso Financial embedded BI demo.

Import the Sample User (ffadv) Using the Security Center

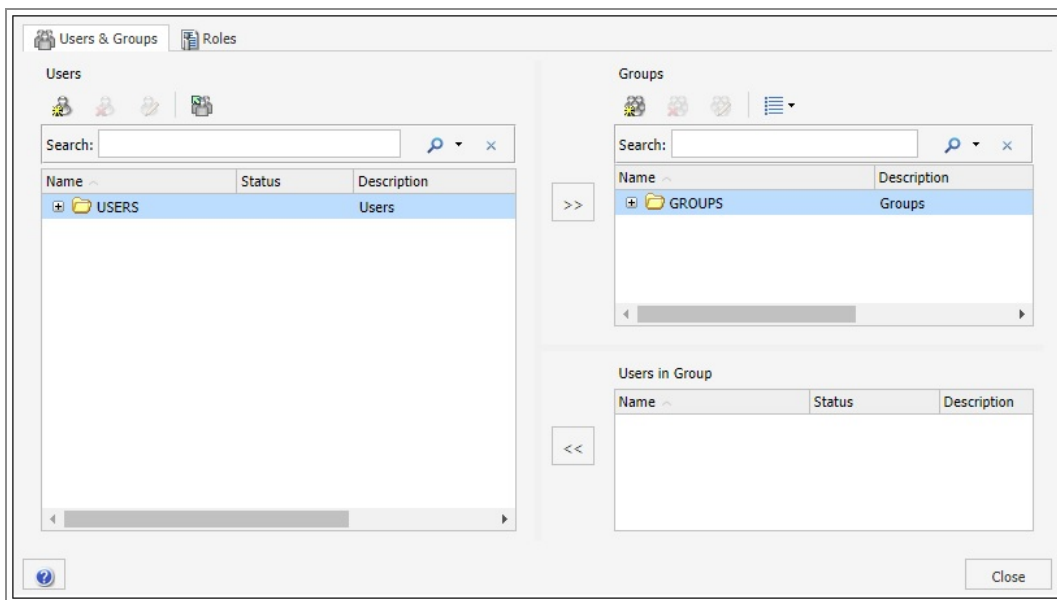
Procedure

1. From the WebFOCUS Home Page, click **Administrator** in the upper-right, select

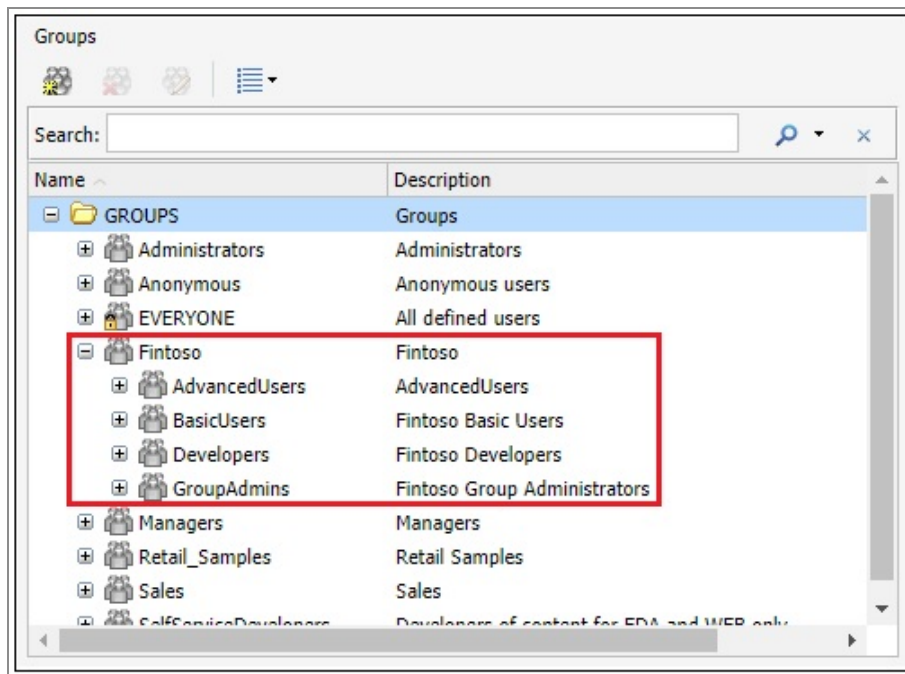
Administration, and then click **Security Center** from the menu, as shown in the following image.



The Security Center opens, as shown in the following image.



2. In the Groups section, expand the main **Fintoso** group node, as shown in the following image.

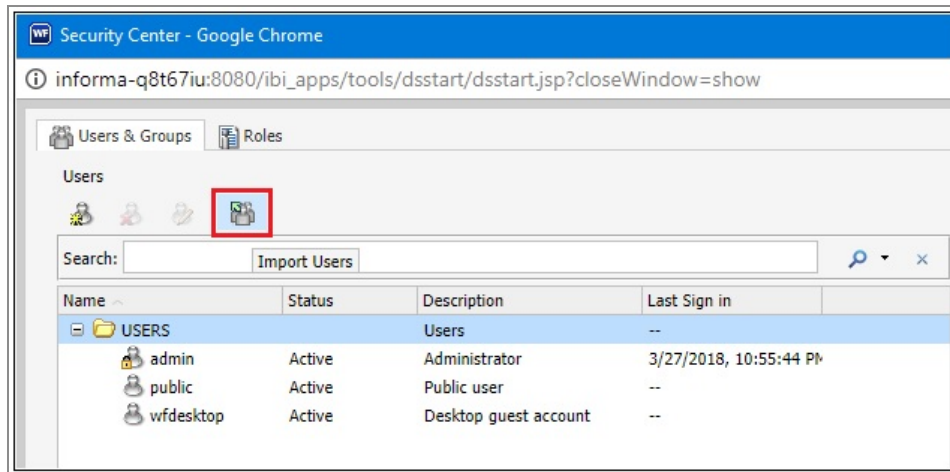


Ensure that the following groups are available:

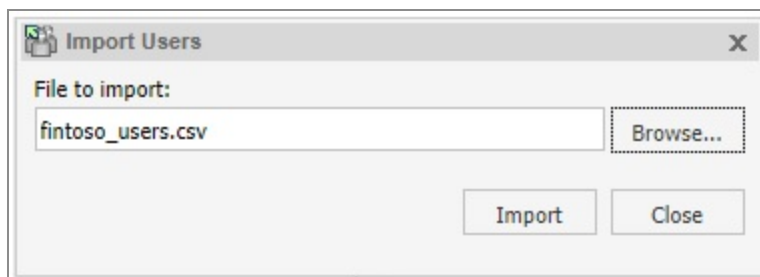
- AdvancedUsers
- BasicUsers
- Developers
- GroupAdmins

i Note: These new groups are automatically created when you import the Change Management package (fintoso_domain_CM_v01.zip) into your WebFOCUS environment.

3. In the Users section, click **Import Users**, as shown in the following image.



The Import Users dialog opens, as shown in the following image.



4. Browse to the following directory and select the *fintoso_users.csv* file.

```
<drive>:\WebFOCUS82\samples\embedded_demo\fintoso_users.csv
```

5. Click **Import**.

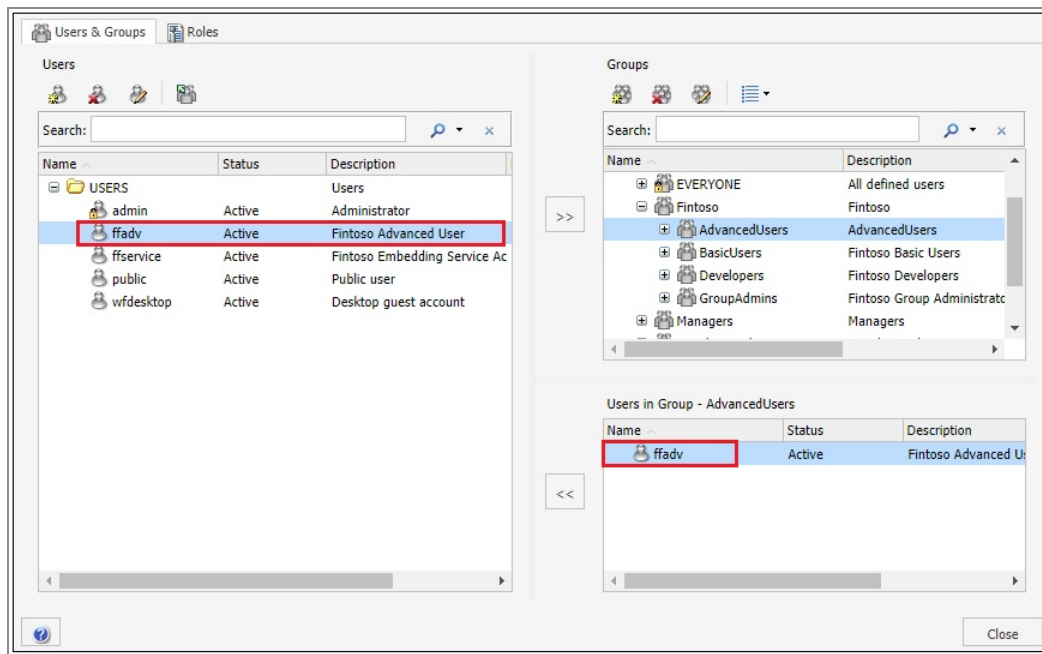
The following message is displayed.



6. Click **OK**.

The Security Center is refreshed and now lists the new user ID (ffadv) that you

imported under the Users section and Groups section accordingly, as shown in the following image.



7. Click **Close** in the lower-right to exit from the Security Center.

Installing the Embedded BI Demo Application (Fintoso Financial)

The embedded BI demo application (*Fintoso Financial*) was developed using Bootstrap, JSP, Java, and JavaScript. The entire application is packaged as a web archive file (*embeddemo.war*), which you can easily deploy to any servlet container or Java application server. You can also modify the application to explore various embedding scenarios. For more information, see [Customizing the Embedded Business Intelligence Demonstration Application \(Fintoso Financial\)](#).

Install the Embedded BI Demo Application (Fintoso Financial)

Procedure

1. Navigate to the following folder in your WebFOCUS installation where the *embeddemo.war* file is located:

```
<drive>:\ibi\WebFOCUS82\samples\embedded_demo\embeddemo.war
```

2. Deploy the *embeddemo.war* file on your application server (for example, Apache Tomcat) by following the corresponding content for your application server.

Note: It is recommended that you successfully deploy the embedded BI demo application in a same origin scenario even if your goal is to explore the cross-origin scenario. This means that you should first deploy the *embeddemo.war* file on the application server where WebFOCUS is being hosted.

The following steps describe how to deploy the *embeddemo.war* file on the instance of the Apache Tomcat application server that is available with the WebFOCUS installation:

- a. Copy the *embeddemo.war* file to the following folder in your WebFOCUS installation:

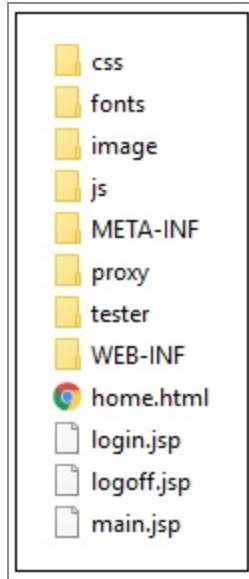
```
<drive>:\ibi\tomcat\webapps
```

You are not required to stop or restart Apache Tomcat.

- b. Within a few seconds you will see a new subfolder called *embeddemo* that is automatically created. For example:

```
<drive>:\ibi\tomcat\webapps\embeddemo
```

This subfolder represents the deployed copy of the *embeddemo.war* file and is structured as shown in the following image.



3. If you deployed WebFOCUS on the Apache Tomcat application server behind Microsoft Internet Information Services (IIS), then you will need to modify the Jakarta Connector configuration to pass requests to the embedded BI demo application through IIS to Apache Tomcat.

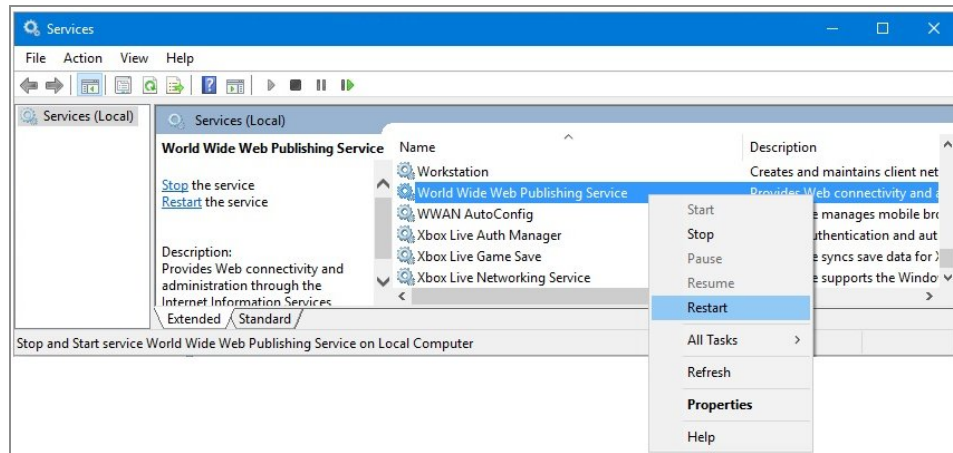
- a. Navigate to the following folder on your Windows operating system:

```
C:\Program Files\Apache Software Foundation\Jakarta Isapi  
Redirector\conf
```

- b. Open the *uriworkermmap.properties* file using a text editor.
 - c. Add the following two lines anywhere in this file:

```
/embeddemo/*=ajp13w  
/embeddemo=ajp13w
```

- d. Save the *uriworkermmap.properties* file.
 - e. Restart the World Wide Web Publishing Service on Windows, as shown in the following image.



Required HTML 5 Chart Extensions

The Fintoso Financial embedded BI demo requires the following HTML 5 chart extensions to be installed on your WebFOCUS environment for several charts to display correctly:

- Sparkline KPI (com.ibi.kpi.sparkline)
- World Choropleth & Bubble Map (com.ibi.map.world)

These extensions can be downloaded and installed from the Information Builders public extension GitHub page. For more information on installing HTML 5 chart extensions, see the *WebFOCUS Security and Administration* documentation.

Configuring the Embedded Business Intelligence Demonstration Application

This section describes the configuration steps for the embedded business intelligence (BI) demo application (*Fintoso Financial*).

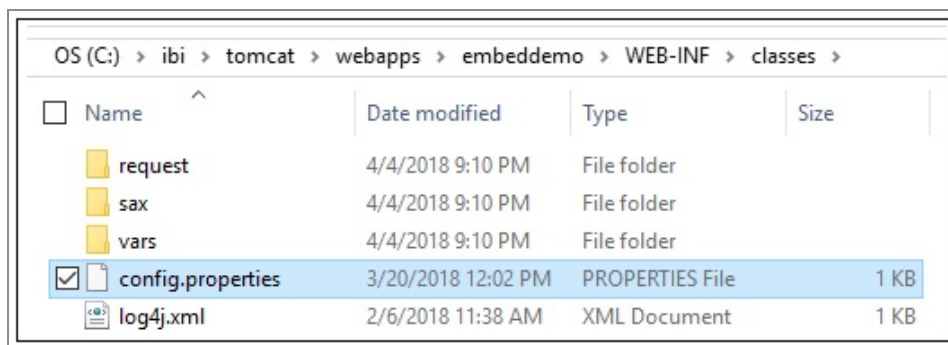
- ✓ **Tip:** If you plan to configure the cross-origin scenario (dual web hosts), then it is recommended that you first successfully configure the same origin scenario (single web host).

Configuring a Back Channel Ticket Request

The configuration for the back channel ticket request made by the embedded BI demo application is specified in the *config.properties* file, which is located in the following folder:

```
embeddemo\WEB-INF\classes\config.properties
```

For example, if you deployed the embedded BI demo application (*embeddemo.war*) file on the Apache Tomcat application server that is available with the WebFOCUS installation, then the *config.properties* file is located in the folder path, as shown in the following image.



The default file configuration is shown below:

```
WF_TICKET_PROVIDER_URL=http://localhost:8080/ibi_apps
WF_TRUSTED_APPLICATION_NAME=IBIEmbeddingDemo
WF_HOST=http://localhost:8080/ibi_apps
USERIDS=ffadv
```

Make the following changes to the `WF_TICKET_PROVIDER_URL` setting, as required for your installation:

1. If your back channel request will need to use HTTPS, rather than HTTP, to access WebFOCUS, then change the protocol value accordingly.
2. If you are deploying the embedded BI demo application (*Fintoso Financial*) on a different machine from WebFOCUS, then change `localhost` to the web host that the embedded BI demo application will use to access WebFOCUS on the back channel.



Note: If you are deploying a same origin scenario, then you can leave the host set to `localhost`.

3. If your back channel request will need to use a port other than 8080 to access WebFOCUS, then change the port value accordingly.

For example, if you are deploying a same origin scenario and you installed Apache Tomcat on port 80, then remove :8080 from the value.

4. If you deployed WebFOCUS on a non-standard context path (for example, */ibi_apps82*), then change the context path value accordingly.
5. Save any changes you made to the *config.properties* file.

For now, leave the value of `WF_TRUSTED_APPLICATION_NAME` set to `IBIEmbeddingDemo`. A trusted application name is passed on the ticket request so WebFOCUS knows which trusted host configuration to reference when verifying the IP address of the request.

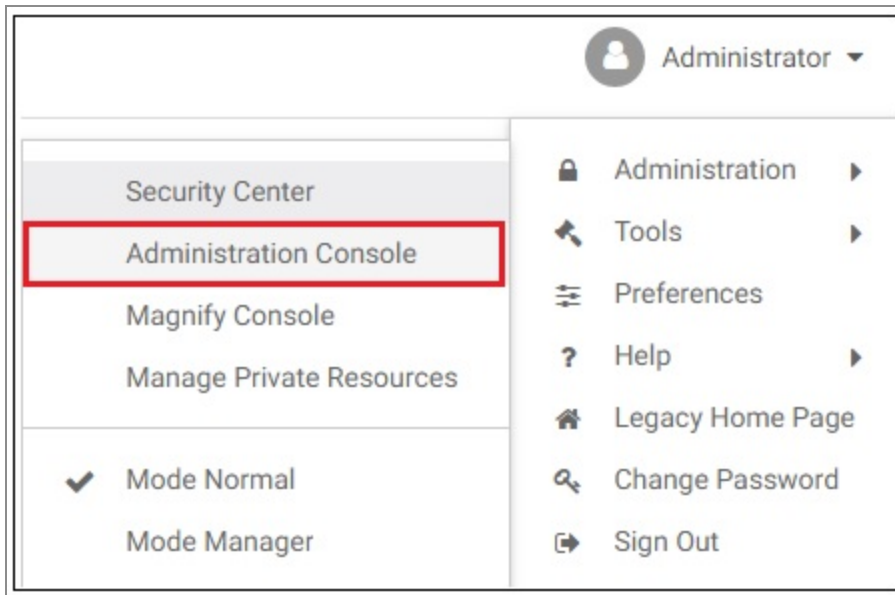
Configuring WebFOCUS

This section describes how to enable Trusted Ticket Authentication in WebFOCUS. Depending on your deployment scenario, you may also need to reconfigure Trusted Ticket Authentication. If you are configuring a cross-origin (dual web host) scenario, then you will need to configure additional cross-origin settings. For more information on configuring and using cross-origin settings in WebFOCUS, see the *WebFOCUS Security and Administration* content.

Configure WebFOCUS

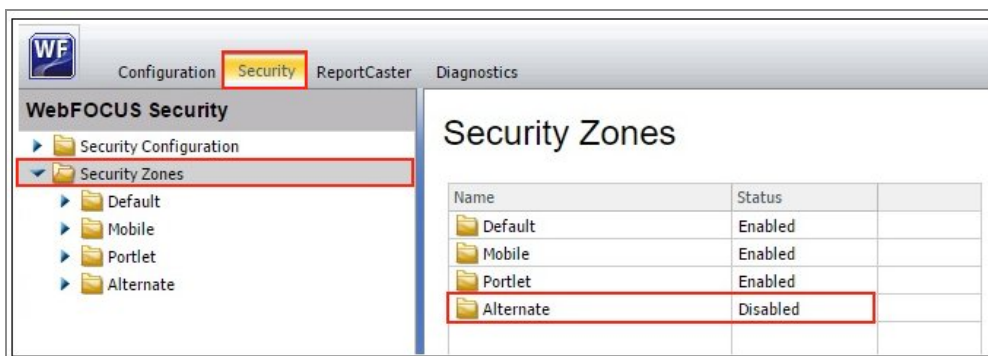
Procedure

1. Sign in to WebFOCUS as an **Administrator**.
2. Click **Administration** in the top menu and then click **Administration Console** from the drop-down list, as shown in the following image.



The WebFOCUS Administration Console opens.

- Click the **Security** tab and then the **Security Zones** folder node in the left pane, as shown in the following image.



- Verify whether the Alternate security zone (highlighted in the above image) is *Disabled* or *Enabled*.

There is no reason to enable the Alternate Zone to support WebFOCUS embedded BI, but this zone is sometimes enabled to provide an alternative way for administrators to access WebFOCUS.

If the status of your Alternate security zone is **Disabled**, then skip to Step 5.

If the status of your Alternate security zone is **Enabled**, then you need to determine if the Alternate security zone will be used to process trusted ticket and trusted sign-on

requests. If this is the case, then you need to enable Trusted Ticket Authentication on the Alternate security zone and ensure that it is configured properly to process these requests. The remaining configuration steps in this procedure are provided for the Default security zone. These steps can be applied to the Alternate Zone as well, if it is enabled, and processing requests related to the embedded BI demo application.

5. Expand **Security Zones**, **Default**, and then click **Authentication**, as shown in the following image.



6. In the Authentication pane, right-click **Trusted Ticket Authentication** and select **Enable** from the context menu, as shown in the following image.

Authentication		
Name	Status	
HTTP X.509 Authentication	Disabled	
JEE Container Based Authentication	Disabled	
Request Header Authentication	Disabled	
CAS Authentication	Disabled	
Form Based Authentication	✓ Enabled	
HTTP BASIC Authentication	Disabled	
SAML Authentication	Disabled	
KERBEROS/SPNEGO Authentication	Disabled	
OpenID Connect Authentication	Disabled	
Remember-Me Authentication	Disabled	
Anonymous Authentication	✓ Enabled	
Trusted Ticket Authentication	Disabled	
		Enable Edit...

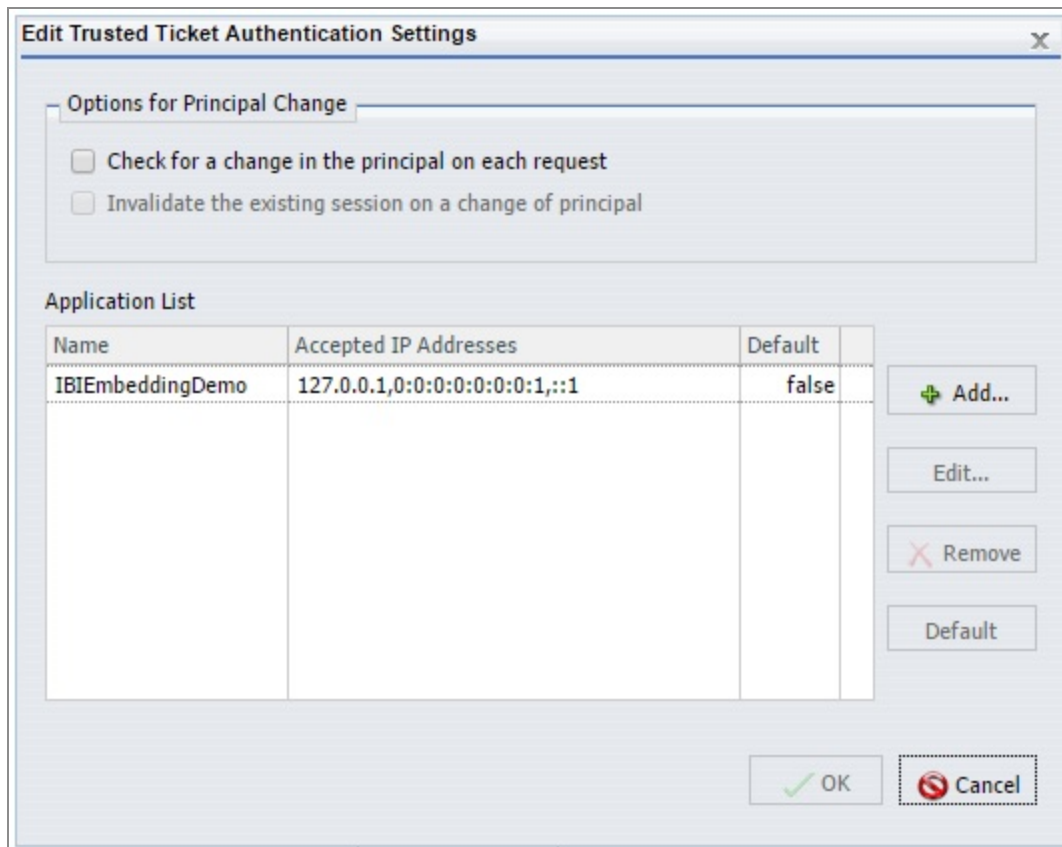
The status of Trusted Ticket Authentication is now **Enabled**, as shown in the following image.

Remember-Me Authentication	Disabled	
Anonymous Authentication	✓ Enabled	
Trusted Ticket Authentication	✓ Enabled	

- Right-click **Trusted Ticket Authentication** again and select **Edit** from the context menu, as shown in the following image.

Remember-Me Authentication	Disabled	
Anonymous Authentication	✓ Enabled	
Trusted Ticket Authentication	✓ Enabled	
		Disable Edit...

The Edit Trusted Ticket Authentication Settings dialog opens, as shown in the following image.



Notice that the trusted application name is *IBIEmbeddingDemo* and three versions of the localhost IP address (version 4 (IPv4), version 6 (IPv6), and IPv6 loopback) are defined in the Accepted IP Addresses list. These settings are used by WebFOCUS to determine if a trusted ticket request is originating from an authorized server.

8. If your *config.properties* file (as described in [Configuring a Back Channel Ticket Request](#)) has `localhost` specified as the value for the `WF_TICKET_PROVIDER_URL` setting and if *IBIEmbeddingDemo* is specified as the value for the `WF_TRUSTED_APPLICATION_NAME` setting, then you do not need to make any changes in the Edit Trusted Ticket Authentication Settings dialog.

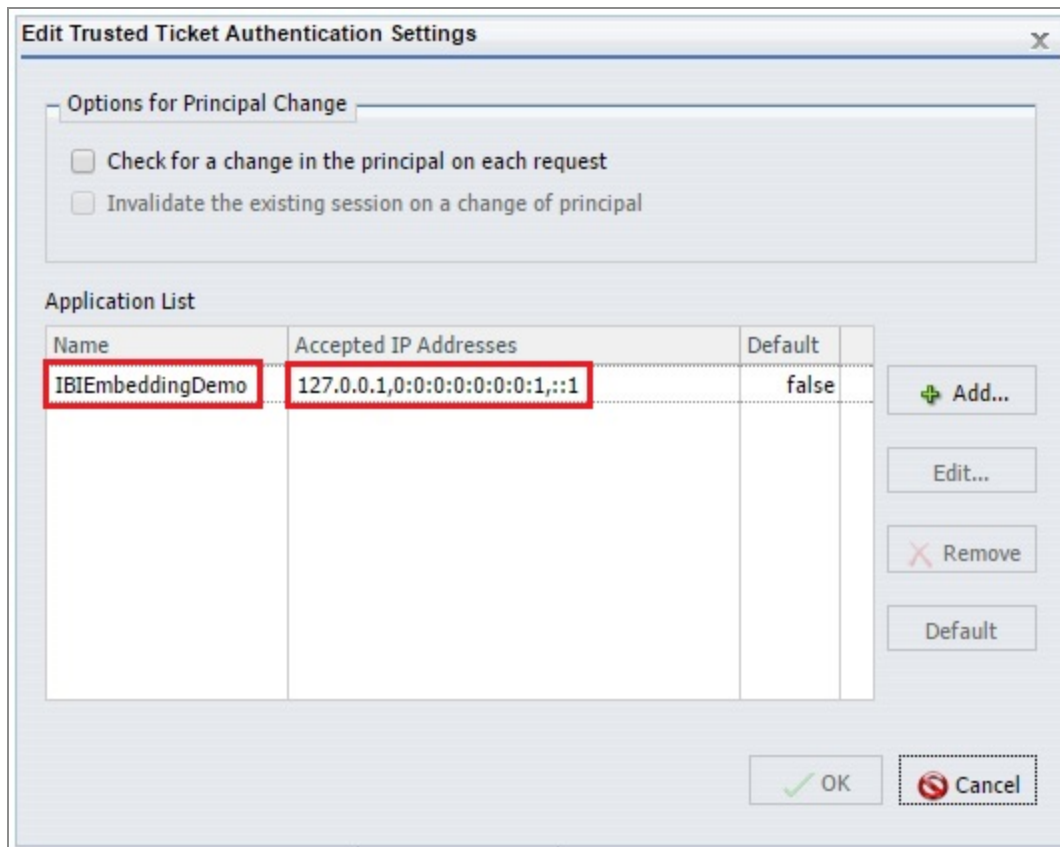
Click **Cancel** and skip to Step 10.

9. If you do not have `localhost` specified as the value for the `WF_TICKET_PROVIDER_URL` setting, then you must determine what IP address the embedded BI demo application will appear to be running on and add it to the Accepted IP Addresses list in the Edit Trusted Ticket Authentication Settings dialog.

✓ **Tip:** If you are not sure what the IP address is, and the wrong value is configured, a message will be displayed after signing on to the embedded BI demo application (*Fintoso Financial*) indicating that the trusted ticket was not granted. To investigate, you can check the WebFOCUS *websecurity* log. If the log message indicates that the IP address of the requesting server was not in the Accepted IP Addresses list, then copy the IP address from the log message to the Accepted IP Addresses list in the Edit Trusted Ticket Authentication Settings dialog and try again.

10. Click **OK** to acknowledge the requirement to restart your application server (for example, Apache Tomcat).
11. Before closing the WebFOCUS Administration Console, double-click the Trusted Ticket Authentication provider you just enabled.

The Edit Trusted Ticket Authentication Settings dialog opens, as shown in the following image.



Notice that a trusted application called *IBIEmbeddingDemo* is pre-configured for you and that this matches the value in the *config.properties* file of the embedded BI demo application.

While this trusted application information is preconfigured for you in WebFOCUS, it is not used unless you enable it as described in this procedure.

12. Click **Cancel** and then close the WebFOCUS Administration Console.
13. Restart your application server (for example, Apache Tomcat).

WebFOCUS is now ready to accept trusted ticket connections.

Using the Trusted Ticket Test Pages

This section describes how to use the trusted ticket test pages by using valid arguments and then using an invalid argument to test the functionality of the page.

Configure the Trusted Ticket Test Page

Procedure

1. From the WebFOCUS Administration Console, click the Security tab and select the **Trusted Ticket Authentication** check box to ensure it is enabled for the Default Zone.

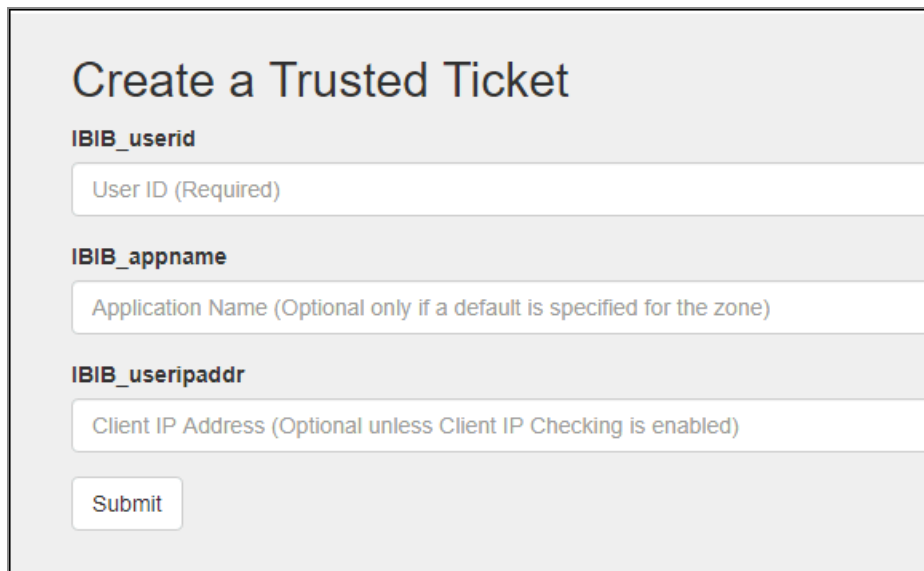
If you are using the Alternate Zone, make sure the option is also enabled there.

2. In a new browser tab, enter the following URL:

`http://localhost:8080/embeddemo/tester/create_trusted_ticket.jsp`

3. Enter the following values as shown in the table below:

Parameter	Value
UserID:	<use CTRL-V to paste it from the clipboard>
IBIB_appname:	IBIEmbeddingDemo
IBIB_destination:	<leave blank>



The screenshot shows a web form titled "Create a Trusted Ticket". It contains three input fields, each with a label above it: "IBIB_userid" with a "User ID (Required)" field, "IBIB_appname" with an "Application Name (Optional only if a default is specified for the zone)" field, and "IBIB_useripaddr" with a "Client IP Address (Optional unless Client IP Checking is enabled)" field. A "Submit" button is located at the bottom left of the form.

A trusted ticket is returned and displayed in the browser.

4. Copy the ticket to the clipboard by pressing CTRL-C.

5. In your browser, enter the following URL:
`http://localhost:8080/embeddemo/tester/test_trusted_ticket.jsp`
6. Enter the following values as shown in the table below:

Parameter	Value
IBIB_ticket:	<use CTRL-V to paste it from the clipboard>
IBIB_appname:	IBIEmbeddingDemo
IBIB_destination:	<leave blank>

This returns a browser page that shows an XML response with an ibfssession, which means the sign-on was successful.

Test the Trusted Ticket Page Using an Invalid Argument

To test the trusted ticket page using an invalid argument:

Procedure

1. While running the `create_trusted_ticket.jsp`, enter an invalid name into the IBIB_appname field, as shown in the following image.

Test a Trusted Ticket Signon Request

IBIB_ticket

Trusted Ticket Value (Required)

IBIB_appname

Application Name (Optional only if a default is specified for the zone)

IBIB_Destination

Redirect URL (Optionally specify a full or a /relative URL)

Your IP Address is 172.30.234.118.

The result, A "-1" will be returned.

2. In the next test, in securitysettings.xml, set userIPAddrCheck to **true** for the TrustedTicketPreferences section, and then recycle Apache Tomcat.
3. Enter a non-localhost IP address for IBIB_useripaddr.

i Note:

- The ticket is returned as expected.
- You can use CTRL-C to copy the ticket to the clipboard.

4. Run test_trusted_ticket.jsp with that ticket.

You will receive a *403 return* because it failed. The websecurity.log file will show the following message:

```
[2017-08-16 13:23:52,512] WARN [http-nio-8080-exec-8:wfsecurity]
:unknown: - [Zone: main]Trusted sign on request rejected, Key
verification failure
```

Using the Embedded Business Intelligence Demonstration Application (Fintoso Financial)

This section describes how to access and use the embedded business intelligence (BI) demo application (*Fintoso Financial*), and reviews the internal (back-end) functionality of the application.

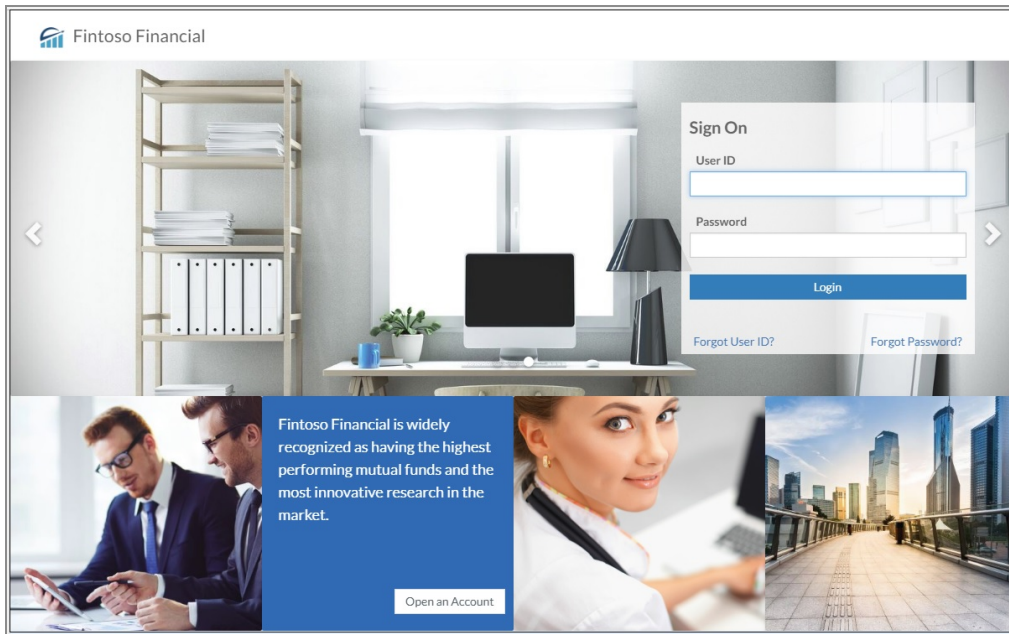
Accessing and Running the Embedded BI Demo Application

1. Open a web browser and enter the URL for the embedded BI demo application (*Fintoso Financial*).

You can access the demo application in many ways, depending on where your web browser is located. The following examples (with port numbers, where required) are supported:

- `http://localhost/embeddemo`
- `http://host/embeddemo`
- `http://host.domain.com/embeddemo`

You will be redirected to the Fintoso Financial sign in page, as shown in the following image, because you do not yet have a session established with the Fintoso Financial application.

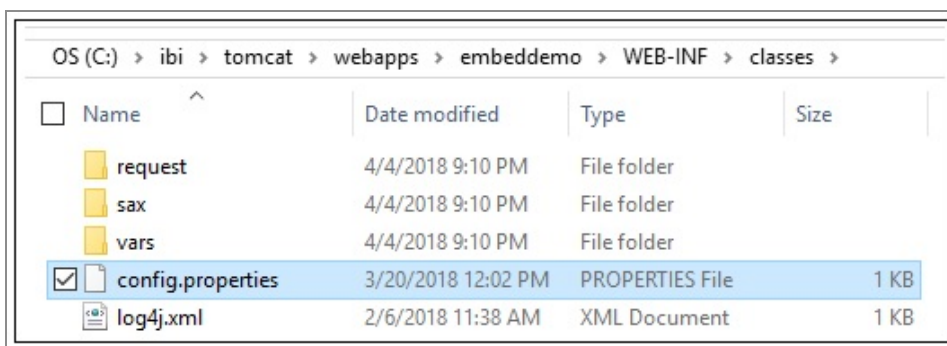


2. Enter a valid user name (for example, *ffadv*).

Note: This is not a WebFOCUS sign-in and anything you enter in the Password field is ignored by the demo application. The user name that is entered is simply verified as being in the array defined in line 5 of the *login.jsp* file, which is located in the following folder:

```
embeddemo\login.jsp
```

For example, if you deployed the embedded BI demo application (*embeddemo.war*) file on the Apache Tomcat application server that is available with the WebFOCUS installation, then the *config.properties* file is located in the folder path, as shown in the following image.



You may add to or change the list of users in the *config.properties* file. For example:

```
WF_TICKET_PROVIDER_URL=http://localhost:8080/ibi_apps
WF_TRUSTED_APPLICATION_NAME=IBIEmbeddingDemo
WF_HOST=http://localhost:8080/ibi_apps
USERIDS=ffadv
```

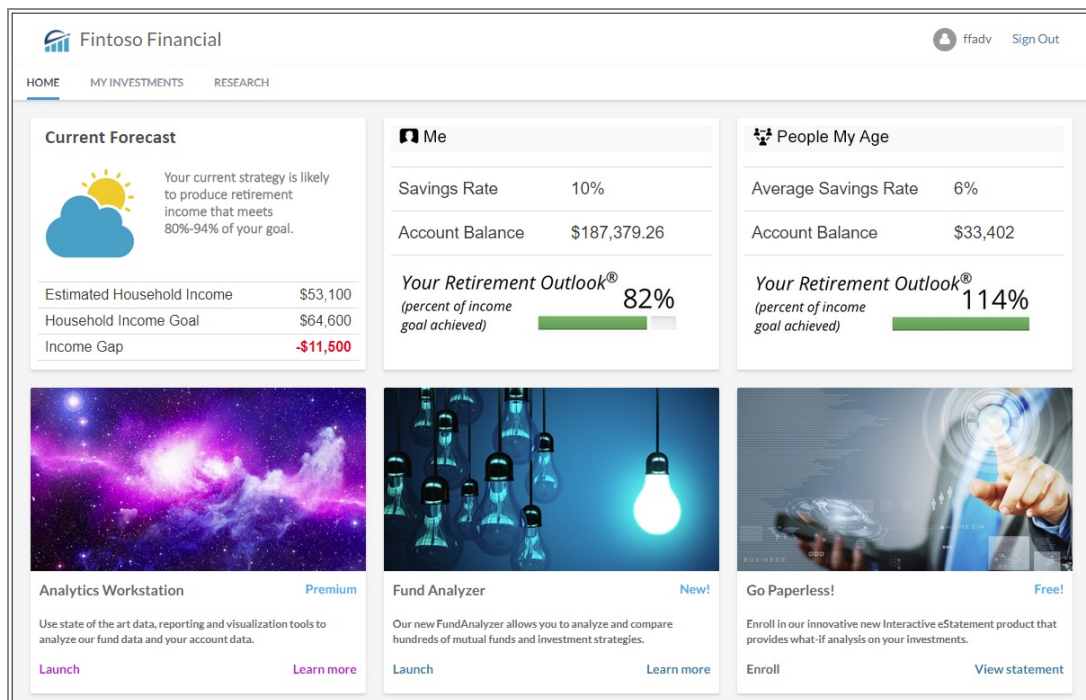
Changes are applied immediately and an application server restart is not required.

The user name you enter must be a valid WebFOCUS user account with access to the BI Portal and web service content configured in the embedded BI demo application.

3. Click **Login**.

The application requests a trusted ticket for the user name you entered and then makes a WebFOCUS trusted sign-on request with this ticket in order to obtain a WebFOCUS session cookie for your web browser. For more information, see [Appendix: Detailed Request/Response Flow for the Embedded Business Intelligence Demonstration Application](#).

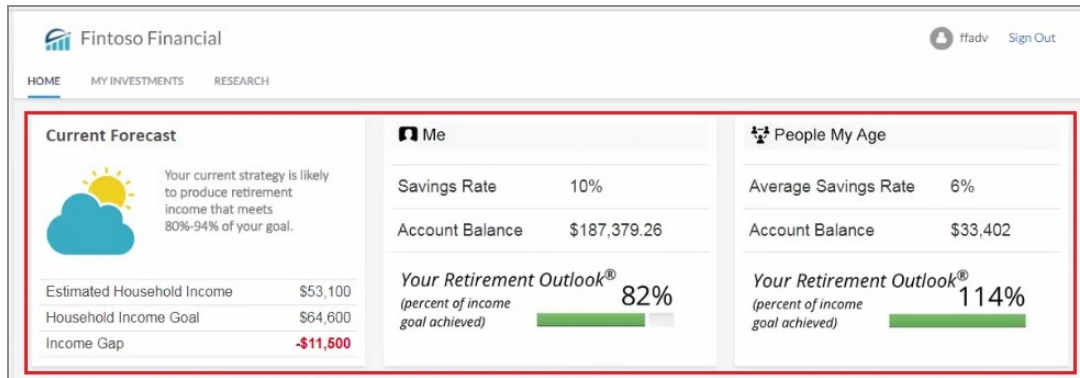
The home page of the Fintoso Financial embedded BI demo application is displayed, as shown in the following image.



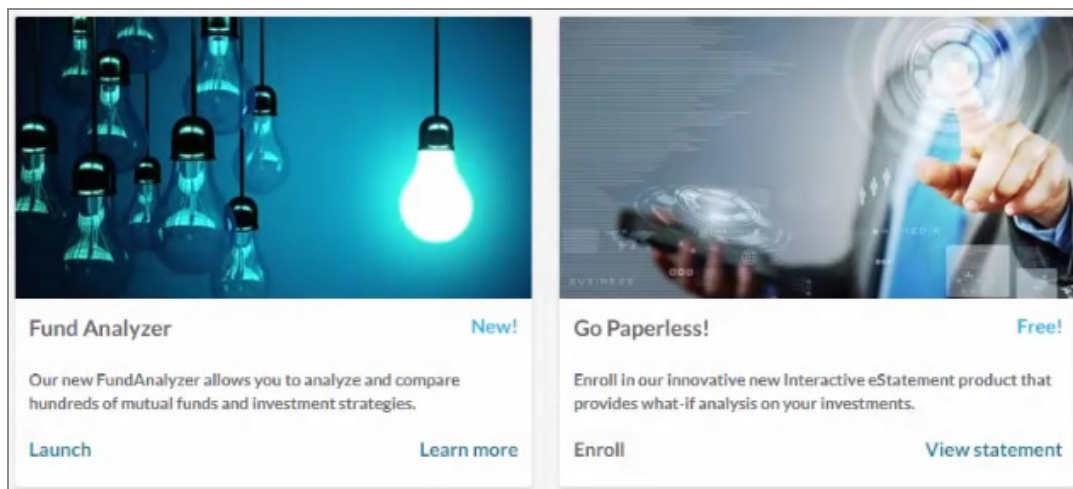
The Fintoso Financial embedded BI demo application features responsive web

design. Resizing the browser or viewing on mobile devices will automatically adjust the dimensions and layout of the application accordingly. This behavior is important to understand because it is the result of coordination between WebFOCUS and the embedded BI demo application. For more information see, [Responsive Web Design](#).

Three account widgets are displayed across the top, as shown in the following image.

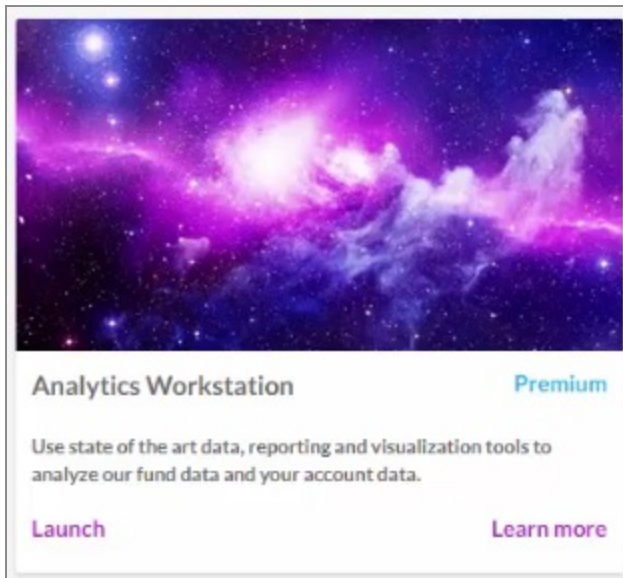


The middle and right-hand frames contain widgets that run WebFOCUS reports (Fund Analyzer and Go Paperless!), as shown in the following image.

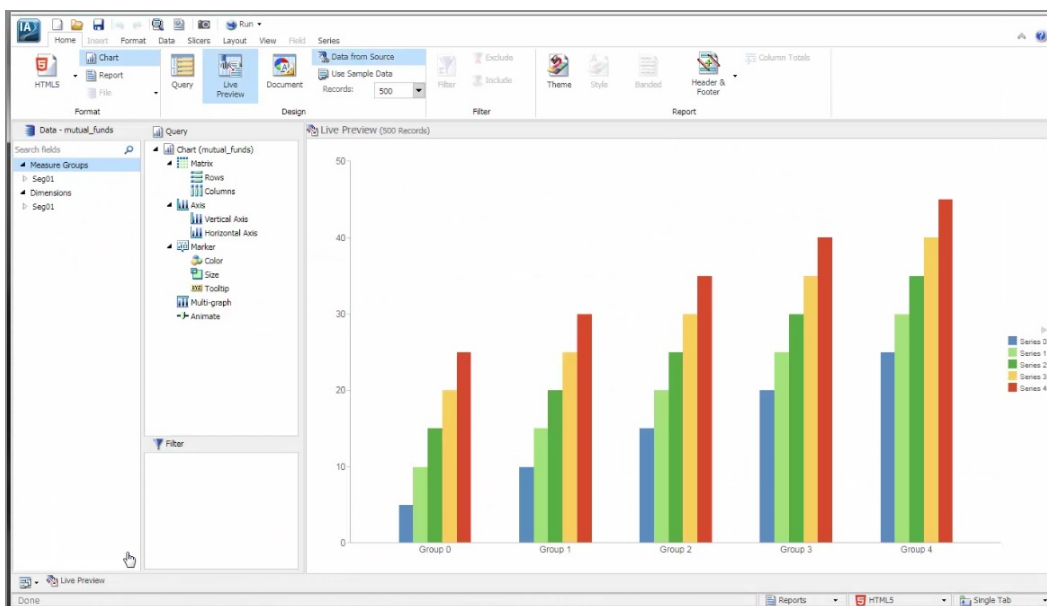


They are included by making a RESTful web service call to WebFOCUS, which is within the context of the user ID, and using a trusted ticket approach.

On the lower-left, the Analytics Workstation widget includes a *Launch* hyperlink, as shown in the following image.

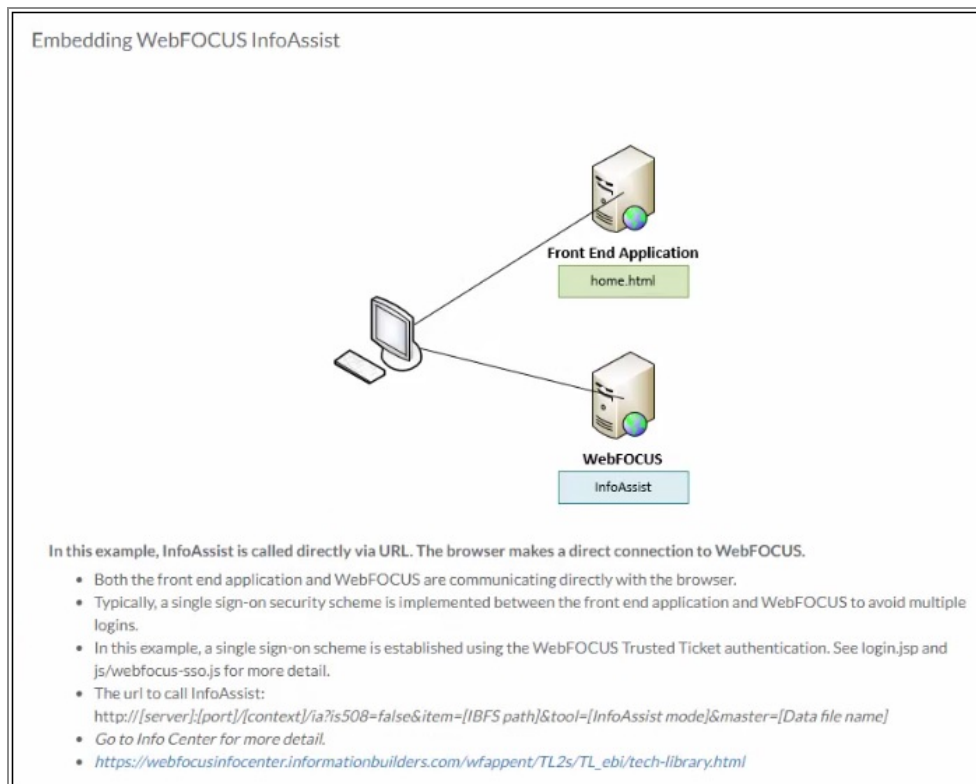


Clicking *Launch* opens WebFOCUS InfoAssist, as shown in the following image.

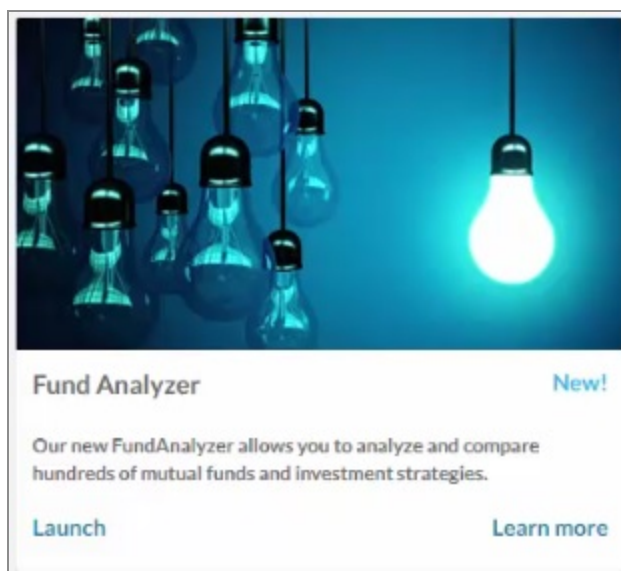


This is a good example of URL embedding.

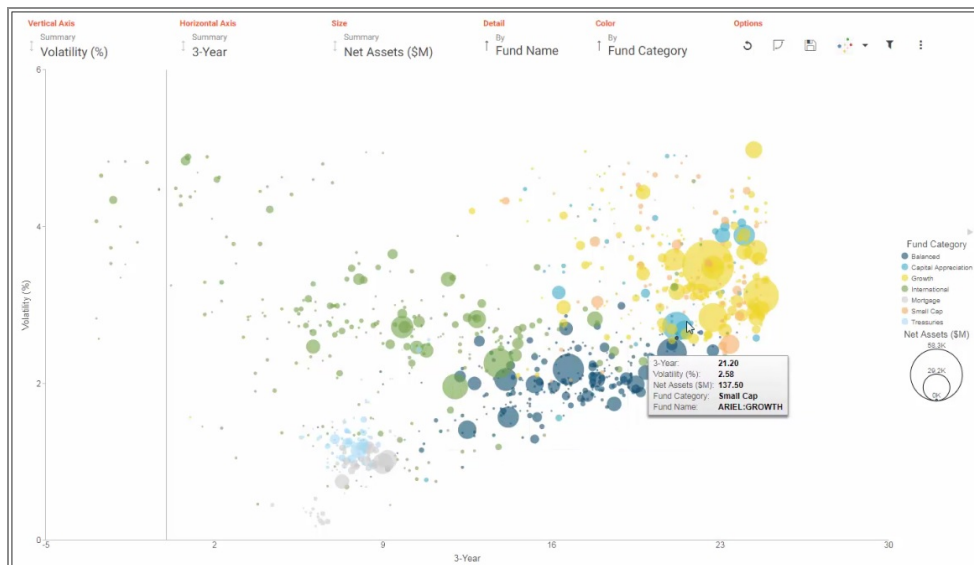
Clicking *Learn more* from the Analytics Workstation widget opens a pop-up window, which includes a diagram and provides a brief overview on URL embedding, as shown in the following image.



The Fund Analyzer widget also includes a *Launch* hyperlink, as shown in the following image.

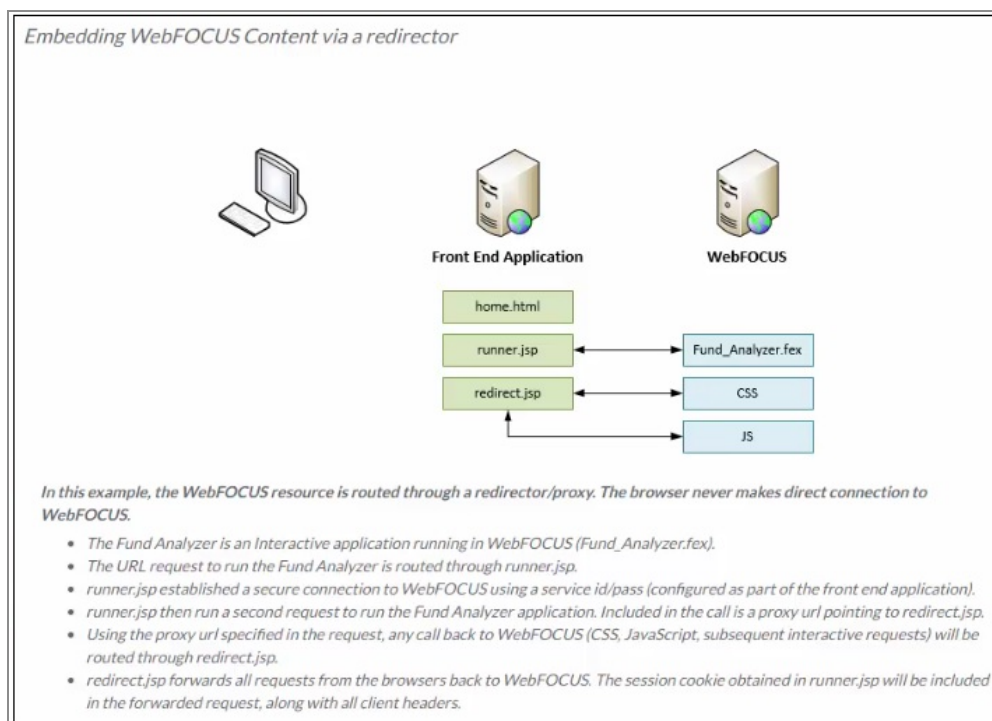


Clicking this link opens a WebFOCUS Insight report, as shown in the following image.



A Java proxy is being used here to call this report. This is a good example, as many WebFOCUS customers prefer all URL calls from their applications to initially go through a Java proxy before reaching WebFOCUS.

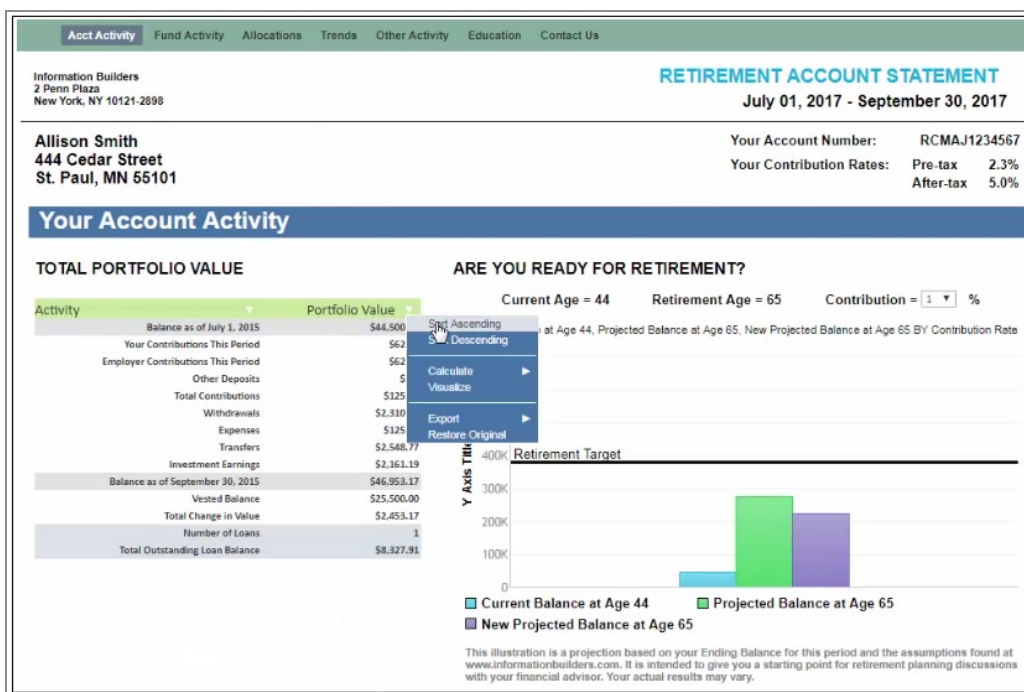
Clicking *Learn more* from the Fund Analyzer widget also opens a pop-up window, which includes a diagram and provides a brief overview on using a Java proxy to redirect URL calls being made to WebFOCUS, as shown in the following image.



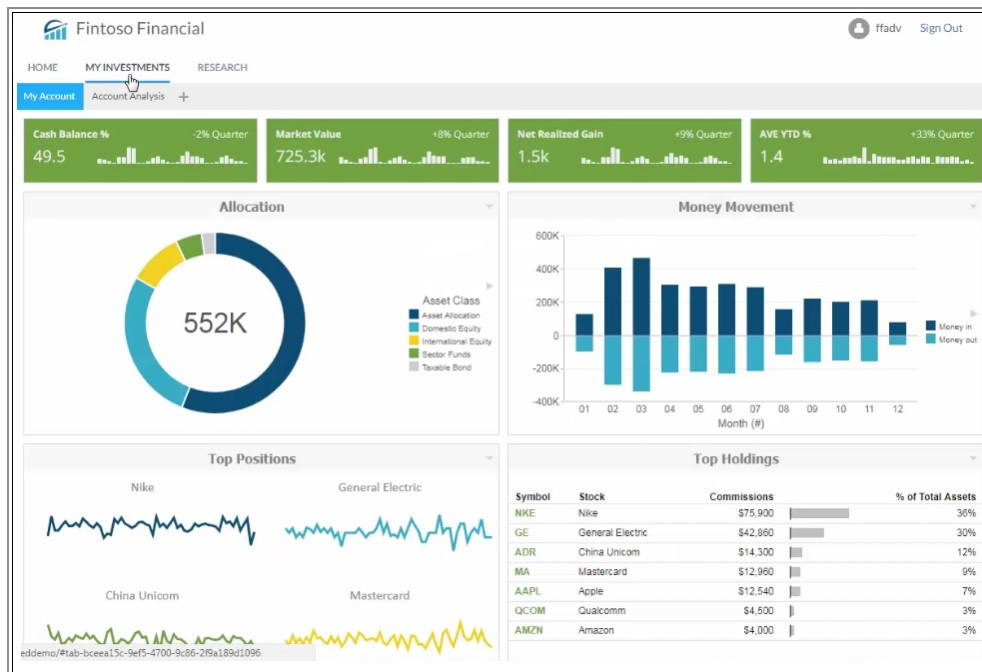
On the lower-right, the Go Paperless widget includes a *View Statement* hyperlink, as shown in the following image.



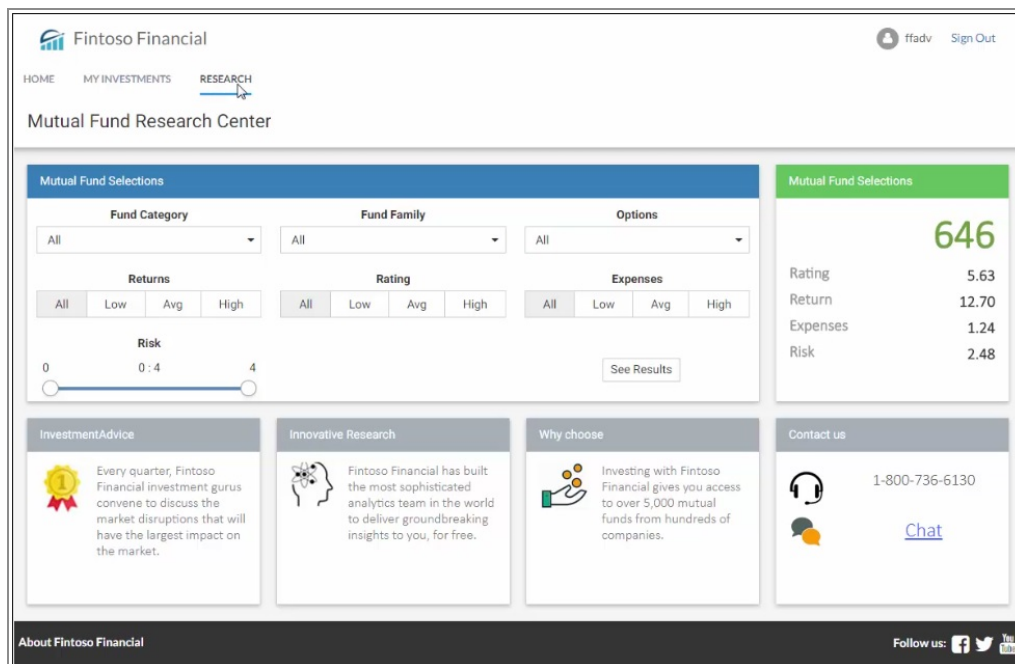
Clicking this link opens a WebFOCUS In-Document Analytics (Active) report, as shown in the following image.



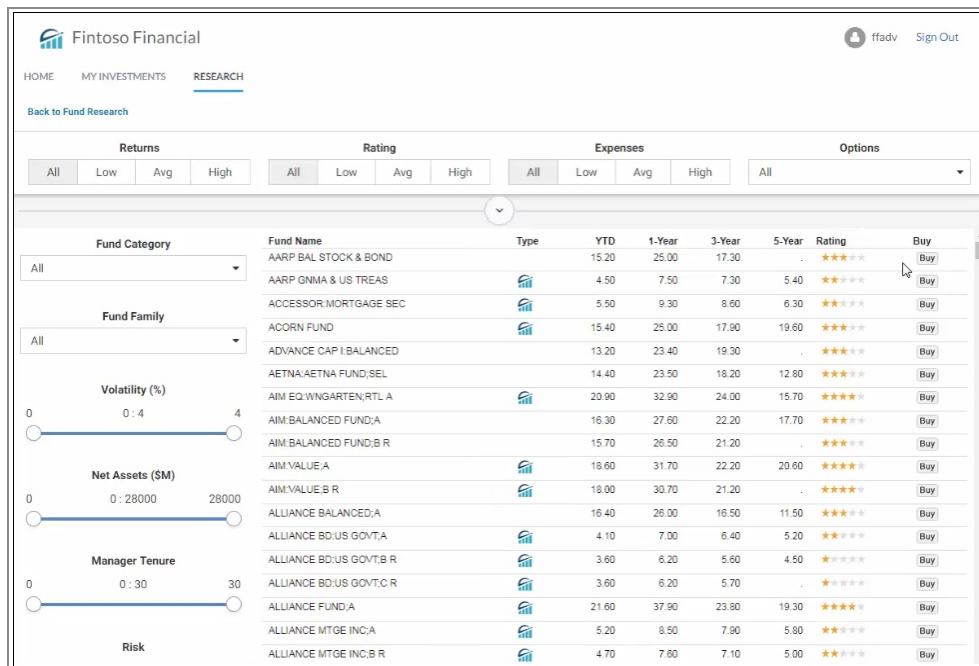
- Click the **MY INVESTMENTS** tab, which launches a redesigned Collaborative Portal, as shown in the following image.



- Click the **RESEARCH** tab, which provides a good example showing how WebFOCUS Designer pages can be used in an application, as shown in the following image.



Specifically, two Designer pages are linked together through the Global Name feature.



6. Click **Sign Out** in the upper-right corner of the application.

This signs you out of the Fintoso Financial embedded BI demo application.

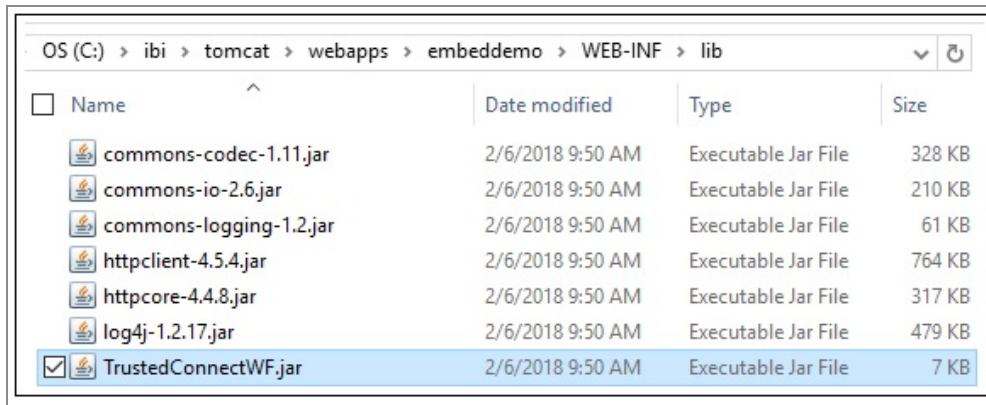
Reviewing the Internal (Back-End) Functionality of the Embedded BI Demo Application

After authenticating the user on line 5 in the *login.jsp* file (*embeddemo\login.jsp*) the embedded BI demo application makes a request to obtain a trusted ticket for the user. This is done through a Java Bean that is defined on lines 11-14 in the *index.jsp* file (*embeddemo\index.jsp*) and executed on line 75.



Note: The Java Bean call is passed the authenticated user ID and the HTTP request object.

The trusted ticket request is made by the `generateTicket()` method. This method is located in the `TrustedConnectWF` class, which is located in the *TrustedConnectWF.jar* file (*embeddemo\WEB-INF\lib\TrustedConnectWF.jar*). For example:



Name	Date modified	Type	Size
commons-codec-1.11.jar	2/6/2018 9:50 AM	Executable Jar File	328 KB
commons-io-2.6.jar	2/6/2018 9:50 AM	Executable Jar File	210 KB
commons-logging-1.2.jar	2/6/2018 9:50 AM	Executable Jar File	61 KB
httpclient-4.5.4.jar	2/6/2018 9:50 AM	Executable Jar File	764 KB
httpcore-4.4.8.jar	2/6/2018 9:50 AM	Executable Jar File	317 KB
log4j-1.2.17.jar	2/6/2018 9:50 AM	Executable Jar File	479 KB
☒ TrustedConnectWF.jar	2/6/2018 9:50 AM	Executable Jar File	7 KB

The *Fintoso Financial* sample web application is a realistic looking but simple demonstration of an actual embedded BI application. You can review the code in the *embeddemo* folder as well as the Java source for the *TrustedConnectWF* method inside the *IBITrustedTicket.jar* file (*embeddemo\WEB-INF\lib\IBITrustedTicket.jar*). To access the Java source code for this method, use a utility such as WinZip to open this .jar file and then extract the file from the *com\ibi\example* folder structure.

When you run the embedded BI demo application, you are running the *index.jsp* file (*embeddemo\index.jsp*), which builds the HTML view:

```
trustedTicket = encodeURIComponent('<%=TrustedConnectWF.generateTicket
()%>');
```

This Java code uses the two properties in the *config.properties* file (*embeddemo\WEB-INF\classes\config.properties*) to determine where to make the ticket request and what trusted application name to provide on the call.

```
WF_TICKET_PROVIDER_URL=http://localhost/ibi_apps
WF_TRUSTED_APPLICATION_NAME=IBIEmbeddingDemo
```

In addition, the user ID and web browser IP address are passed in the request to WebFOCUS. For more information about these HTTP requests/responses, see [Appendix: Detailed Request/Response Flow for the Embedded Business Intelligence Demonstration Application](#).

Once the ticket is obtained successfully, the embedded BI demo application makes a trusted sign-on request to WebFOCUS using information defined in lines 6-8 in the *bip-page ext.js* file (*embeddemo\js\bip-page ext.js*):

```
var webfocusHost = '';  
var trustedAppName = 'IBIEmbeddingDemo';  
var webfocusContext = '/ibi_apps';
```

In a cross-origin (dual web host) configuration, you must edit the `webfocusHost` setting according to your environment.

Additional Considerations for Embedded Business Intelligence

To provide the best user experience in your embedded BI application you should also consider the following topics.

Hiding BI Portal Features

Generally you want to hide the BI Portal banner, since the embedding application usually has its own banner. If you only want to embed a single BI Portal page you can also choose to disable the BI Portal Navigation bar from the ribbon in Portal Designer. If you have a multi-page portal you should leave the navigation bar enabled and consider styling the portal page tabs with a custom CSS file, as explained below. When the navigation bar is shown you also have a choice to show or hide the New Page icon to users who have the Customize Portal privilege.

Branding and Rebranding

Generally speaking you want the embedded BI application and the content it is hosting to appear like a single, well styled, application. WebFOCUS has excellent rebranding capabilities to address this requirement. There are two aspects to styling that you need to consider:

- Styling the content (for example, reports, charts, and so on) rendered by the portal.
- Styling the portal *chrome* that appears around the content.

You can style the content to match your embedding requirements by developing a custom WebFOCUS stylesheet and selecting it from the Theme button in the WebFOCUS InfoAssist ribbon.

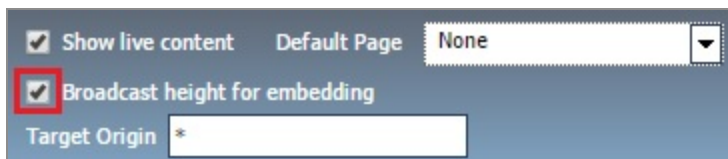
You can also use the BI Portal Dynamic Styling option to specify a custom stylesheet override to all the portal content. The embedded BI demo application uses this approach, as shown in the following image.



You can also create a custom CSS theme to style things like the panel borders, title bar text, portal page tab appearance, and even images like the easy selector Add Content or New Page icons. Store your custom CSS theme in the repository and select it from the Portal Theme Files UI, which is accessible by clicking the Theme button on the ribbon in Portal Designer.

Responsive Web Design

If you plan to embed responsive BI Portal content in your application you need to enable the *Broadcast height for embedding* option, on the portal properties panel in Portal Designer, as shown in the following image.



This option causes the portal to broadcast JavaScript events that return the height (in pixels) that the hosting iframe should be reset to in order for the portal content to fit without extra space or an inner scrollbar.

If the portal is only used in iframe embedding scenarios you can leave the Target Origin set to *. If the portal will be used in multiple scenarios and you want to limit the broadcast messages to only a single application you can set Target Origin to a specific host. For example:

```
http://embeddinghost.domain.com
```

You then need to modify your embedding application to listen for the following two events:

- **portal_loaded.** This event is broadcast once the portal page has loaded.
- **height_changed.** This event is broadcast each time the portal page height changes.

The following is an example which you will find in the embedded BI demo application on line 818 in *embeddemo/js/bip-page-ext.js*:

```
/* Add Message Listener */
window.addEventListener('message', function(e) {

    var data;

    if (typeof e.data === 'string')
        data = JSON.parse(e.data);
    else
        data = e.data;

    var pageType = typeof data.portal_path !== 'undefined' ? 'portal' :
        'page';
    console.log(data, pageType, data.page_path);
    var portalNode = pageType === 'portal' ? getPortalNode(data.portal_path,
        'path') : getPortalNode(data.page_path, 'path');

    if (data) {
        var message_name = data["message_name"];

        if (message_name === "height_changed"){
            if (pageType === "portal" && portalNode.loaded)
                $('#'+portalNode.id).parent().height( parseInt(data["portal_height"]) );
            else
                $('#'+portalNode.id).parent().height( parseInt(data["page_height"]) );
        }
        else if (message_name === "portal_loaded"){
            portalNode.loaded = true;
            $('#'+portalNode.id).parent().height( parseInt(data["portal_height"]) );
        }
    }
    window.scrollTo(0,0);
});
}
```

Alternate Security Zone

In general, there is no requirement to enable the Alternate security zone to support embedded BI deployments. If it is not required, then the Alternate zone should remain disabled because it does complicate troubleshooting of trusted ticket authentication configurations. The guidelines in this section are provided to assist users that will need to enable the Alternate zone while supporting trusted ticket authentication.

When enabled, WebFOCUS will first determine if a request should be processed by the Alternate zone configuration. By default, the Alternate zone is configured to capture requests made to 127.0.0.1, 0:0:0:0:0:0:1, and ::1. As a result, if you are testing a same origin (single web host) configuration, then your trusted ticket request may be processed by the Alternate zone. In this case, you must enable Trusted Ticket Authentication on the Alternate zone in addition to on your Default zone.

You can enable and configure the Alternate zone to process trusted ticket requests in cross-origin (dual web host) configurations, but there is no requirement to do so. If you want to configure this, simply enable Trusted Ticket Authentication on the Alternate zone and add the IP address of the host where your embedded BI application resides.

Customizing the Embedded Business Intelligence Demonstration Application (Fintoso Financial)

This section describes how to customize the embedded demo application (*Fintoso Financial*).

Registering User Names

The embedded BI demo application makes trusted authentication requests to WebFOCUS. In a typical use- case scenario, the application would authenticate users to some system that is external to WebFOCUS. However, to simplify the demonstration, this embedded application only checks to see if the user name entered on the Sign-on page is found in a list defined on line 5 in *embeddemo\login.jsp*:

```
Set<String> users = new HashSet<String>(Arrays.asList( userids ));
```

You may edit the list to include any ID that exists in your WebFOCUS repository. Changes take effect immediately upon reloading the application and do not require an application server restart.

Important: Only include WebFOCUS user IDs in this file that have carefully defined access to content and features. This is because anyone with access to the embedded BI demo application will be able to obtain a WebFOCUS session for these accounts without knowledge of the password for the account.

Using Different BI Portal Content

The HOME, MY INVESTMENTS, and RESEARCH tabs in the embedded BI demo application load specially configured BI portals into an iframe below the tabs. You can reconfigure these tabs to load different BI portals.



Simply modify the path and corresponding URL values in the `\ibi\tomcat\webapps\embeddemo\js\webfocus-ssso.js` file. For example:

```
// Array containing the list of pages
var pages = [
  { text: 'Home', type: 'page', url: 'home.html', loaded: false },
  { text: 'My Investments', type: 'url', path:
    'IBFS:/WFC/Repository/Fintoso/Fintoso_Financial.prtl', url:
    '/portal/Fintoso/Fintoso_Financial', loaded: false },
  { text: 'Research', type: 'url', path:
    'IBFS:/WFC/Repository/Fintoso/Page_Designer_
    content/selections/page.man', url:
    '/rs/ibfs/WFC/Repository/Fintoso/Page_Designer_content/selections',
    loaded: false }
];
```

Troubleshooting

This section provides troubleshooting information for the embedded business intelligence (BI) demo application (*Fintoso Financial*) and workarounds where applicable.

If you require additional support or assistance with the embedded BI demo application, open a support ticket on the Information Builders Technical Support Center:

<http://techsupport.informationbuilders.com>

Pop-up Message: Failed to Obtain a Trusted Ticket From WebFOCUS

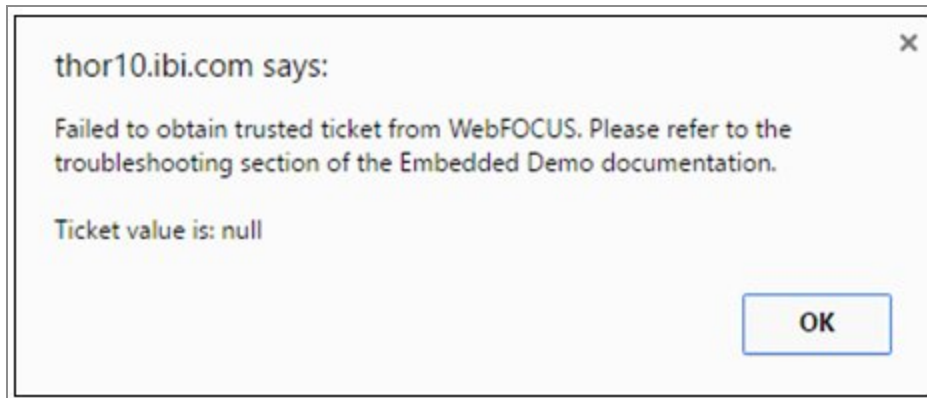
After signing on to the embedded BI demo application (*Fintoso Financial*), you may encounter a pop-up message indicating that the application was unable to obtain a trusted ticket from WebFOCUS. If this occurs, you must resolve the issue before continuing because the demo application will not make the trusted sign-on request to WebFOCUS. This section describes several suggestions and workarounds to resolve the issue based on the information in the message.

The demo application checks for the result of the trusted ticket request and determines if it appears to be a ticket. This is done with a simple check in the `trustedWFSignOn( )` function on line 21 in `embeddemo\js\bip-page-ext.js` to see if the result is longer than 40 characters. This indicates that a ticket was returned rather than a -1 status code, a null value, or other non-ticket response. For example:

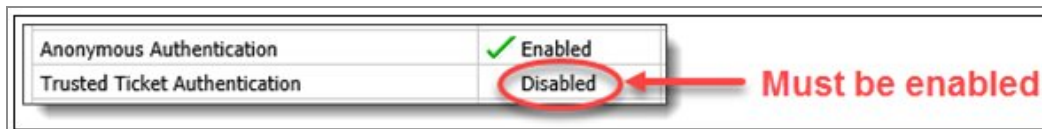
```
function trustedWFSignOn(){
    // if we do not get a trusted ticket back from the TrustedConnectWF
    bean call in index.jsp, popup a message and do not attempt the trusted
    signon
        if (trustedTicket.length < 40) {
            alert('Failed to obtain trusted ticket from WebFOCUS. Please
            refer to the troubleshooting section of the Embedded Demo
            documentation.\n\nTicket value is: ' + trustedTicket);
            return;
        }
}
```

Ticket Value is: null

A *null* value indicates that the trusted ticket request was not processed by WebFOCUS. For example:

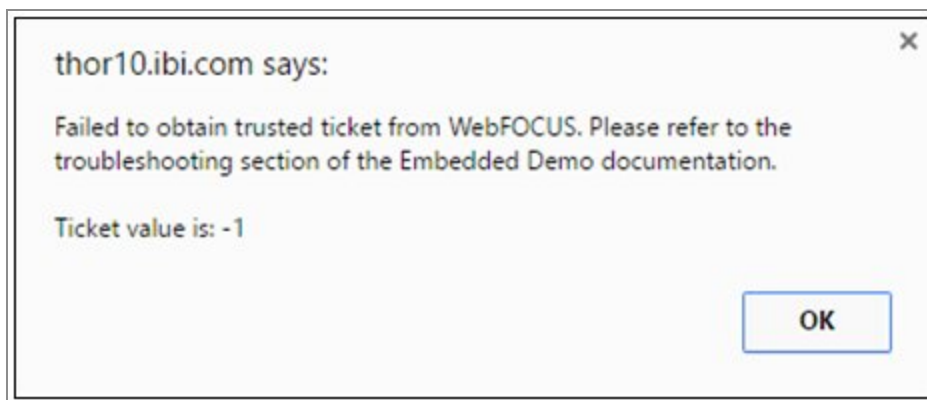


Check to ensure that you enabled trusted ticket authentication on the Default zone (and on the Alternate zone, if enabled).



Ticket Value is: -1

A -1 value indicates that the trusted ticket request was processed, but WebFOCUS refused to create the ticket. For example:



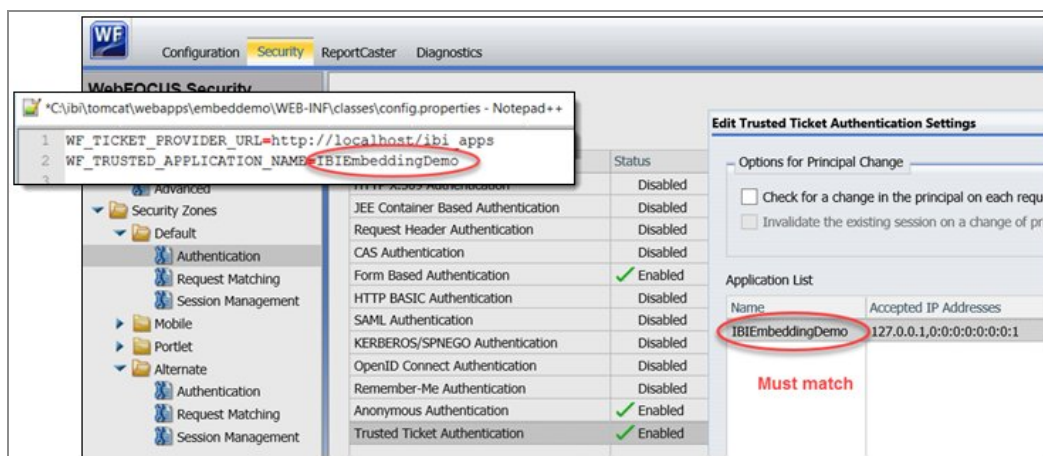
This can result from various reasons and the *websecurity.date.log* file will have additional information to help determine the cause. The *websecurity.date.log* file is located in the following folder in your WebFOCUS installation:

```
<drive>:\ibi\WebFOCUS82\logs
```

The following message indicates that the trusted application name sent by the embedded BI demo application does not match the value found in the WebFOCUS trusted ticket authentication configuration:

```
WARN [http-nio-80-exec-1:wfsecurity] :unknown: - [Zone: main]Invalid
application name: 'IBIEmbeddingDmo'
```

Check the value of the WF_TRUSTED_APPLICATION_NAME setting in the *config.properties* file of the embedded BI demo application and ensure that it matches the value of the Trusted Ticket Authentication zone configuration in the WebFOCUS Administration Console (Security tab), as shown in the following image.

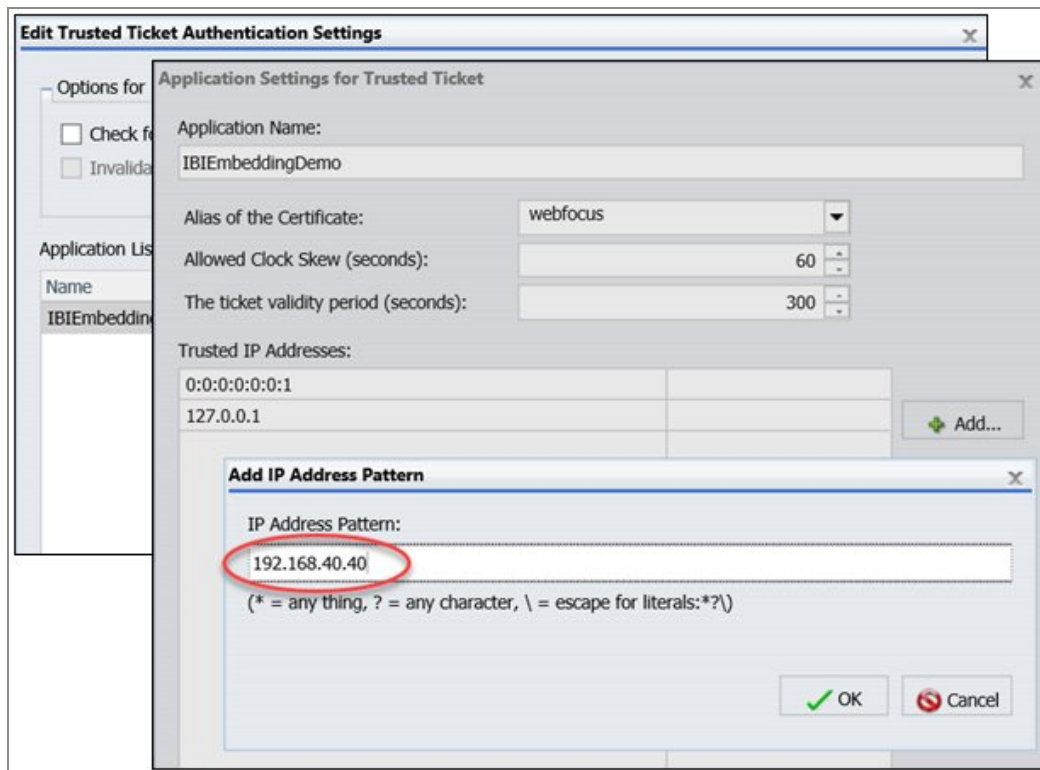


The following message indicates that the IP address of the host making the trusted ticket request does not match the IP address in the WebFOCUS Trusted Ticket Authentication zone configuration:

```
WARN [http-nio-80-exec-9:wfsecurity] :unknown: - [Zone: main] Trusted
ticket request rejected, the host IP address '192.168.40.40' is not in
the
accepted host list.
```

This might be the case in a cross-origin (dual web host) configuration where you forgot to add the host IP of the embedded BI demo application to the WebFOCUS configuration.

Add the IP address shown in the log to the Trusted Ticket Authentication zone configuration in the WebFOCUS Administration Console (Security tab), as shown in the following image.



After you make this change, restart the application server where WebFOCUS is deployed.

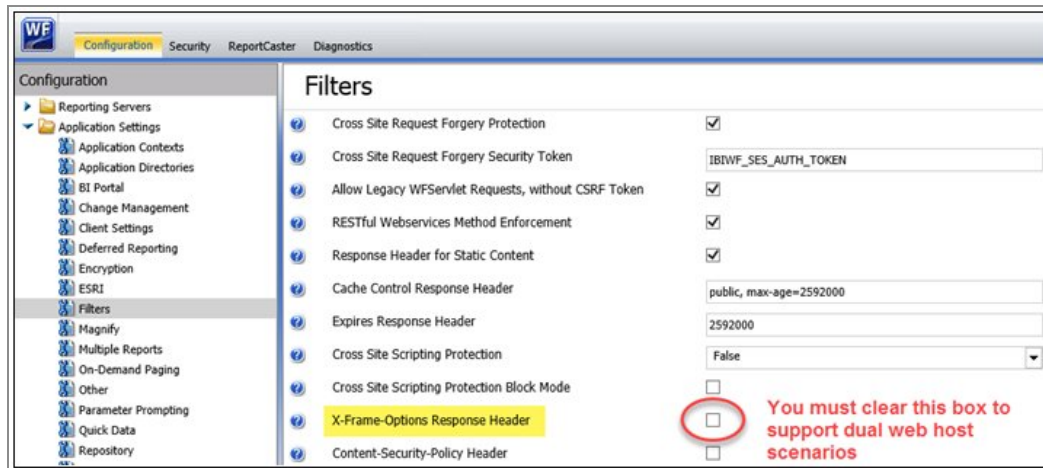
BI Portal Tabs Display an Error or are Blank

In cross-origin configurations, if you forget to disable the *X-Frame-Options Response Header* setting in the WebFOCUS Administration Console, the trusted ticket request and trusted sign-on calls may be successful, but the browser will refuse to embed the BI Portal in the iframe of the embedded BI demo application (*Fintoso Financial*).

Google Chrome browsers will simply leave the iframe blank. However, if you press *F12*, which opens the Developer Console, you will see that the error is caused by WebFOCUS sending a *SAMEORIGIN* requirement to the browser in the *X-Frame-Options* header.

Internet Explorer provides a clearer error message and no errors in the Developer Console (*F12*).

To resolve this issue, deselect the *X-Frame-Options Response Header* check box in the Application Settings, Filters area of the WebFOCUS Administration Console and click **Save**, as shown in the following image.

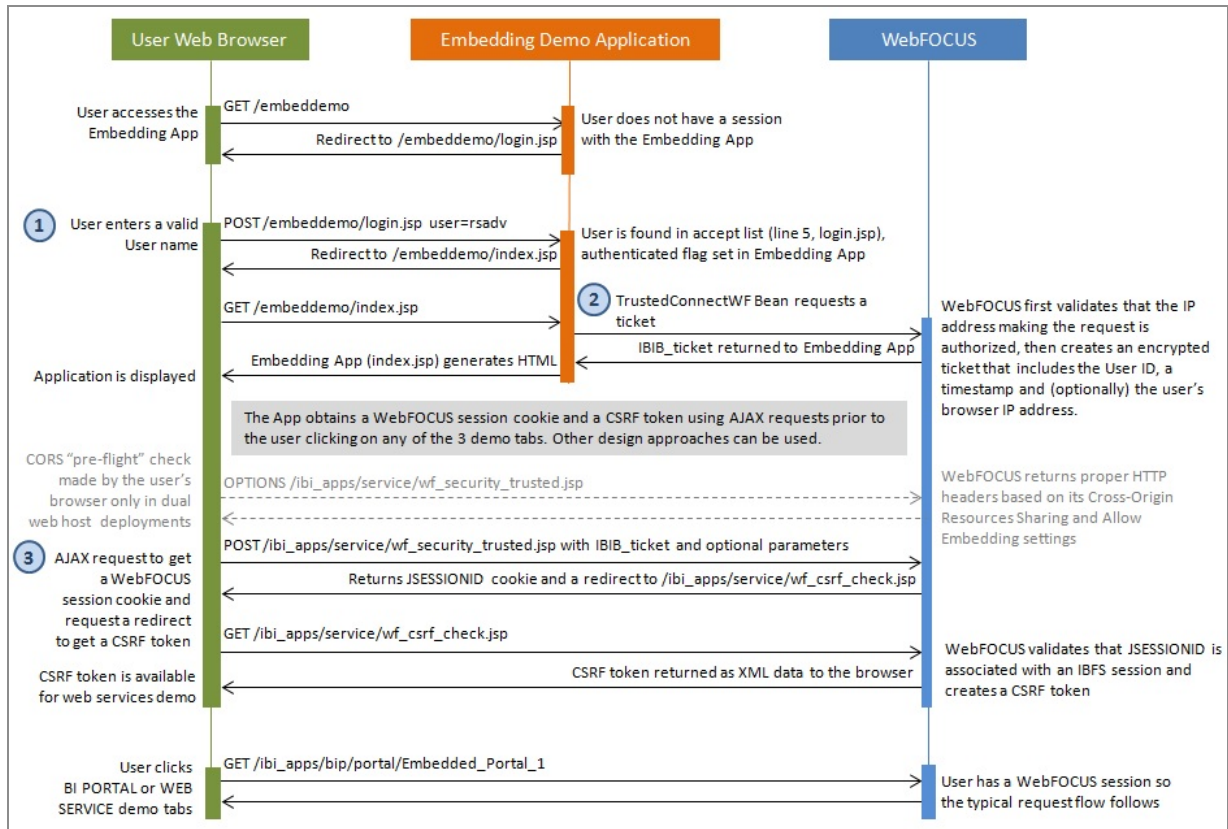


This action does not require an application server restart.

After making this change, reload/refresh the embedded BI demo application (*Fintoso Financial*) in your browser.

Appendix: Detailed Request/Response Flow for the Embedded Business Intelligence Demonstration Application

The following diagram illustrates the request/response flow for the embedded business intelligence (BI) demo application (*Fintoso Financial*), which also serves as a useful reference.



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