

# Novell Integration Manager™

6.0

June 28, 2006

CONNECT FOR SIEBEL\* USER'S GUIDE

[www.novell.com](http://www.novell.com)



**Novell®**

## Legal Notices

Novell, Inc. makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc. makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc. reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

Any products or technical information provided under this Agreement may be subject to U.S. export controls and the trade laws of other countries. You agree to comply with all export control regulations and to obtain any required licenses or classification to export, re-export or import deliverables. You agree not to export or re-export to entities on the current U.S. export exclusion lists or to any embargoed or terrorist countries as specified in the U.S. export laws. You agree to not use deliverables for prohibited nuclear, missile, or chemical biological weaponry end uses. Please refer to [www.novell.com/info/exports/](http://www.novell.com/info/exports/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 2006 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

Novell, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at <http://www.novell.com/company/legal/patents/> and one or more additional patents or pending patent applications in the U.S. and in other countries.

Novell, Inc.  
404 Wyman Street, Suite 500  
Waltham, MA 02451  
U.S.A.  
[www.novell.com](http://www.novell.com)

*Online Documentation:* To access the online documentation for this and other Novell products, and to get updates, see [www.novell.com/documentation](http://www.novell.com/documentation).

## **Novell Trademarks**

For Novell trademarks, see the [Novell Trademark and Service Mark](#) list.

## **Third-Party Trademarks**

All third-party trademarks are the property of their respective owners.



# Contents

<b>About This Book.</b> .....	<b>9</b>
<b>1 Welcome to the Novell Integration Manager Connect for Siebel</b> .....	<b>11</b>
About Novell Integration Manager™ .....	11
About the Integration Manager Connect for Siebel .....	12
About J2EE Connector Architecture .....	13
About iWay Technology .....	14
What Kinds of Applications Can You Build Using the Integration Manager Connect for Siebel? .....	14
<b>2 Getting Started With the Integration Manager Connect for Siebel</b> .....	<b>15</b>
Setup and Configuration .....	15
Siebel Thin-Client JAR Files .....	15
Updating the Design-time Software License .....	17
Updating the Runtime License .....	18
<b>3 Creating Siebel Components and Services.</b> .....	<b>21</b>
Creating Connection Resources .....	21
Types of Connection Resources .....	21
About Constant-Driven and Expression-Driven Connection Parameters .....	21
Creating a Siebel Connection Resource .....	22
Creating a File Service Connection Resource .....	23
Creating an HTTP Service Connection Resource .....	24
Creating an MQSeries Service Connection Resource .....	25
XML Templates for Siebel Components and Services .....	27
Creating Siebel Components .....	27
About the Siebel Component Editor Window .....	29
Creating Actions in the Component Editor .....	30
Returning to Schema-Edit Mode .....	35
Request and Response Documents .....	36
“Before Execute” and “After Execute” Actions .....	38
Creating Siebel Services .....	38
Creating Siebel Service Actions .....	41
Managing Deployed Siebel Services .....	45
ECMAScript Extensions .....	47
<b>A ECMAScript Methods</b> .....	<b>49</b>
Adapter Interface Methods .....	49
getAdapterType .....	49
Connection Interface Methods .....	49
getAdapterMetaData .....	50
getConnectionMetaData .....	50
Additional Methods .....	51
getWarnings() .....	51
clearWarnings() .....	51
getLastError() .....	51



# About This Book

## **Purpose**

This guide describes how to use the Novell Integration Manager™ Connect for Siebel. This product has design-time as well as runtime executables and uses J2EE Connector Architecture technology to provide integration capability.

## **Audience**

This book is for developers and systems integrators who are planning to use Novell Integration Manager to develop services and components for Siebel.

## **Prerequisites**

You should be familiar with the Integration Manager work environment and deployment options. You also should be familiar with Siebel. Familiarity with Java Connector Architecture is helpful but not required.

## **Software Versions**

This guide assumes that you are using Novell Integration Manager (Enterprise or Professional) version 5.2 (or higher) and that you are deploying your applications to a Java 2 Platform, Enterprise Edition (J2EE) Version 1.3 or equivalent application server.

The Connect for Siebel is designed to work with Siebel eBusiness Applications, Release 6.3 or higher.

## **Additional Documentation**

For the complete set of Novell exteNd documentation, see the [Novell Documentation Web site](http://www.novell.com/documentation-index/index.jsp) (<http://www.novell.com/documentation-index/index.jsp>).

## **About the Product Name Change**

In version 6.0, we've changed the name of exteNd Composer to Novell Integration Manager. In some places in the user interface, and in Integration Manager file and directory names, you will still see the name "exteNd Composer" or "Composer".





# 1

## Welcome to the Novell Integration Manager Connect for Siebel

Welcome to the *Novell Integration Manager Connect for Siebel User's Guide*. This Guide is a companion to the *Novell Integration Manager User's Guide*, which details how to use all the features of Integration Manager except for the Connect Component Editors. You should be familiar with the *Novell Integration Manager User's Guide* before using this Guide.

Novell Integration Manager™ provides separate Component Editors for each Connect, including the Connect for Siebel. The special features of each component editor are described in separate Guides, like this one.

If you have been using Integration Manager and are familiar with the core component editor (the XML Map Component Editor), then this Guide should be enough to get you started with the Siebel Component Editor.

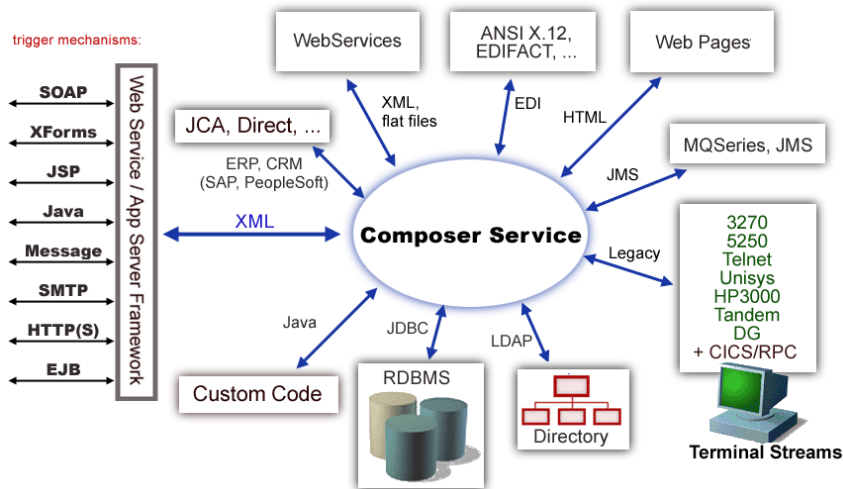
**NOTE:** To be successful with this Component Editor, you must be familiar with Siebel and basic XML integration concepts.

### About Novell Integration Manager™

Novell Integration Manager is an XML integration-broker. It encompasses a set of design tools for building XML integration applications and Web services, plus a runtime engine that enables execution and administration of the services that you build. The applications and services that you build with Integration Manager can be deployed to any popular J2EE application server or servlet container. Supported application servers include JBoss, IBM WebSphere and BEA WebLogic in addition to the Novell exteNd application server. Apache Jakarta Tomcat is also supported. Check the Novell web site for latest platform-support information.

At the core of Integration Manager is a robust XML transformation engine capable of performing a wide range of data transformations, including joining of multiple documents, decomposition of documents, and creation of entirely new documents. The underlying enabling technologies include XSLT, XPath, ECMAScript, and Java. The Integration Manager design environment offers a rich, intuitive graphical user interface, making it possible for you to specify XML transformations and mappings visually, using wizards, dialogs, and drag-and-drop gestures. You never have to write raw XSL or Java code.

Integration Manager supports numerous kinds of data-source connectivity, through individual adapters called Connects. Using the functionality exposed in the various Connects, you can design EAI applications and Web services that pull data in from or push data out to different kinds of back-end systems, using a variety of transport protocols and technologies, ranging from 3270 and 5250 terminal data streams to Telnet, HP3000, Unisys T27 (and UTS), Tandem, and Data General, in addition to HTML screen-scraping, JMS messaging, and CICS RPC transactions. You can also take advantage of JDBC, LDAP, and other mechanisms to reach back-end data repositories and systems that might or might not natively understand XML. Integration Manager Connects allow you to connect to these systems inobtrusively, so as to marshal non-XML data into XML form or vice versa without any need to modify host-system setups or code.



In addition to legacy data-stream and protocol-specific Connects, Integration Manager has Connects for ERP and CRM systems, including Baan, PeopleSoft, SAP, Lawson, JD Edwards, and Oracle Financials. As with other Connect solutions, the ERP and CRM Connects are fully integrated into Integration Manager’s design-time environment so that you can use intuitive visual tools to create powerful custom integration solutions, eliminating the need to write Java code or edit raw XML or schemas by hand. You can also test the components that you build against live Siebel connections, using the animation facility (step-through debugger) of the design environment. As part of the design and debug process, your Siebel-aware components can call other Integration Manager Components (such as XML Map Components, JDBC Components, etc.) and make use of any of the core actions that Integration Manager defines (such as Map, Function, Log, and other actions).

## About the Integration Manager Connect for Siebel

The Novell Integration Manager Connect for Siebel allows you to build powerful XML-based integration solutions and enables you to reuse your existing Siebel business functions with other applications—the key to building a successful e-business or integrated enterprise. The Integration Manager Connect enables you to incorporate Siebel business objects and services into new application initiatives.

You do not need to manually generate or install Siebel XML schemas in order to use the Integration Manager Connect for Siebel. The Connect will generate schemas for you, as needed, automatically.

You also don’t have to take any steps to preinstall RARs (resource adapter archives, defined by the Java Connector Architecture) on the target application server ahead of time. Integration Manager handles RAR deployment for you automatically when you deploy any Integration Manager-built service that utilizes the Integration Manager Connect for Siebel.

**NOTE:** Some one-time setup and configuration steps *are* required in order to use the Integration Manager Connect for Siebel. These steps are described in [Chapter 2, “Getting Started With the Integration Manager Connect for Siebel”](#).

## About J2EE Connector Architecture

The J2EE Connector Architecture (JCA) defines a standard architecture for connecting elements of the J2EE platform to a heterogeneous Enterprise Information System (EIS). Examples of EIS components include Enterprise Resource Planning (ERP) systems, Customer Relationship Management (CRM), Supply Chain Management (SCM), mainframe transaction processing, database systems, and legacy applications that are not written in the Java programming language. By defining a common set of scalable, secure, transactional mechanisms reachable via a standard set of APIs, J2EE Connector Architecture enables the integration of an EIS with an application server and enterprise applications.

The J2EE Connector Architecture permits an EIS vendor to provide a standard resource adapter for its EIS. The resource adapter plugs into an application server, providing connectivity to an EIS, and integrating it with the rest of the enterprise. If an application server vendor has extended its system to support J2EE Connector Architecture, it is assured of seamless connectivity to multiple Enterprise Information Systems.

Before J2EE Connector Architecture, most EIS vendors offered vendor-specific architectures to provide connectivity between applications and their software. Each program interacting with an EIS needed to be hand-tooled by someone with a detailed knowledge of the target EIS. Custom software to provide connectivity across multiple systems was time consuming to develop, debug, and maintain.

By providing a standard set of APIs and contracts for managing connectivity, exposing EIS APIs, and using application-server services (like transaction control and connection pooling), J2EE Connector Architecture greatly reduces the need for custom programming. Developers can focus on business logic rather than connectivity and transaction-related logic and a variety of “plumbing issues.”

### How J2EE Connector Architecture Works

The “major participants” in J2EE Connector Architecture include these components:

- ◆ Application server
- ◆ Resource adapter (RAR)
- ◆ Application

The application server is not strictly required. Certain services like connection pooling and transaction control will not be available in a “server” that is just a servlet container. But J2EE Connector Architecture resource adapters can still operate.

The RAR represents the interests of the underlying EIS.

The *application* interacts with the *resource adapter* using what J2EE Connector Architecture calls standard contracts. Standard contracts define what interactions are to take place and how they are exposed. The contract between the application and the resource adapter is called the Common Client Interface (CCI). The resource adapter, in turn, interacts with the application server under the Service Provider Interface (SPI), which defines how the management of resource adapter interactions occurs. The aspects of this include:

- ◆ Connectivity management
- ◆ Transaction demarcation
- ◆ Event listening (listeners can receive notification of significant events; for example, a connection failure)
- ◆ Pooling of connections and other resources

In the normal course of events, the application uses a *naming service* to locate the appropriate resource adapter. The application server supplies the naming service, and so it recognizes that a request is being made to locate a resource adapter. In such a case, the application server interposes a resource-adapter-supplied intermediate object that interacts between the resource adapter and the application server. Through this intermediating object, the application server manages the items within the SPI contract below the awareness of the application.

For more information about J2EE Connector Architecture, visit <http://java.sun.com/j2ee/connector/>.

## About iWay Technology

Novell Integration Manager uses licensed J2EE Connector Architecture adapter technology from iWay Software\* (a division of Information Builders, Inc.) to mediate EIS interactions in the Integration Manager Connect for Siebel. A leader in the J2EE Connector Architecture technology space, iWay Software provides resource adapters and connectivity solutions across a wide array of EIS and other systems.

For more information about iWay, see <http://www.iwaysoftware.com>.

## What Kinds of Applications Can You Build Using the Integration Manager Connect for Siebel?

With Integration Manager Connect for Siebel, you can build any kind of Web service or integration application that needs to push data into or pull data from a Siebel-based data store using XML as the interchange format. Your integration application can be deployed to a J2EE application server and run as a public web service, or it can be used in “behind the firewall” scenarios. It can be triggered by a servlet, JSP, EJB, e-mail, timer, file arrival, JMS message arrival, or any of the supported Integration Manager trigger types. It can also run standalone or as part of a workflow built using Integration Manager Enterprise Edition’s Process Manager. (For more information about deployment options, see “Deploying Your Project,” in the *Novell Integration Manager User’s Guide*.)

# 2

## Getting Started With the Integration Manager Connect for Siebel

This chapter describes how to set up and configure the Integration Manager™ Connect for Siebel.

### Setup and Configuration

The following requirements must be completed before you can use the Integration Manager Connect for Siebel:

- 1 Determine the release number of your Siebel system. You must have Release 6 or 7 to use the Integration Manager Connect for Siebel.
- 2 The Integration Manager Connect for Siebel requires JAR files from Siebel. You must make these JAR files available on both the design-time *and* runtime (application server) computers. The JAR files that you need depend on the version of Siebel that you are running. See [“Siebel Thin-Client JAR Files” on page 15](#).
- 3 Update the classpath in `xconfig.xml`, in both the design environment and on the server, to reflect the addition of the JARs. See [“Adding the Siebel JAR Files to the Design-Time Environment” on page 16](#) and [“Adding the Siebel Jar Files to the Novell Application Server Environment” on page 16](#).
- 4 Update the license for your Integration Manager Connect for Siebel installation. See [“Updating the Design-time Software License” on page 17](#) and [“Updating the Runtime License” on page 18](#).

The steps necessary to accomplish these requirements are discussed in detail in the following sections.

### Siebel Thin-Client JAR Files

Before attempting to use the Integration Manager Connect for Siebel (which is installed automatically as part of the Integration Manager installation process), you must complete the installation by obtaining and installing several Siebel libraries that are distributed as JAR files with the Siebel Thin Client. *These libraries are proprietary to Siebel and are not shipped by Novell nor installed as part of the Integration Manager.*

These libraries vary by Siebel release in both content and name. Therefore, you must always use the Siebel Thin Client provided with the target Siebel system. The following table provides some examples of the libraries required for using the Integration Manager Connect for Siebel with various Siebel versions:

Siebel Version	JARs Required
6.3.x	SiebelTcOM.jar SiebelTcCommon.jar SiebelTC_enu.jar* SiebelDataBean.jar

Siebel Version	JARs Required
7.0.3	SiebelJI_Common.jar SiebelJI_enu.jar*
7.5.2	SiebelJI_Common.jar SiebelJI_enu.jar* SiebelJI.jar

\* These are English language versions of the files. For other languages the last 3 characters (e.g., “\_enu”) will vary.

The Siebel Thin Client should be included in your Siebel installation. If not, contact your Siebel representative to obtain a copy of the JAR files. When you have located the JAR files, you must add them to the classpath in both your design-time and runtime environments, as described in the following sections.

### Adding the Siebel JAR Files to the Design-Time Environment

#### ➤ To add the Siebel JAR files to your design-time configuration

- 1 If Integration Manager is running, shut it down before proceeding.
- 2 Obtain the JAR files that are required for the version of Siebel that you are using (see “[Siebel Thin-Client JAR Files](#)” on page 15), if they are not included in your Siebel installation.
- 3 Copy the JAR files to the **/Common/lib** folder of the Integration Manager installation directory on your design-time computer.

#### ➤ To add the Siebel JAR files to the design-time classpath

- 1 Locate your **xconfig.xml** file under **/Composer/Designer/bin** and open the file in a text editor.
- 2 Scroll to the bottom. Within the **<RUNTIME>** element, you should see many **<JAR>** entries.
- 3 Add an additional **<JAR>** element that specifies the path to the Siebel JAR files for the version of Siebel that you are running, as follows:

Siebel 6.3.x

```
<JAR>..\..\..\Common\lib\SiebelTcOM.jar;..\..\..\Common\lib\SiebelTcCommon.jar;..\..\..\Common\lib\SiebelTC_enu.jar;..\..\..\Common\lib\SiebelDataBean.jar</JAR>
```

Siebel 7.0.3

```
<JAR>..\..\..\Common\lib\SiebelJI_Common.jar;..\..\..\Common\lib\SiebelJI_enu.jar</JAR>
```

Siebel 7.5.2

```
<JAR>..\..\..\Common\lib\SiebelJI.jar;..\..\..\Common\lib\SiebelJI_Common.jar;..\..\..\Common\lib\SiebelJI_enu.jar</JAR>
```

This entry tells the class loader where it can find the JAR files.

- 4 Save and close **xconfig.xml**.

### Adding the Siebel Jar Files to the Novell Application Server Environment

- 1 If the application server is running, shut it down before proceeding.
- 2 Obtain the JAR files required for the version of Siebel that you are using (see “[Siebel Thin-Client JAR Files](#)” on page 15), if they are not included in your Siebel installation.
- 3 Copy the JAR files to a suitable location on your application server. The exact location doesn’t matter, as long as you create a classpath entry pointing to the JAR file location, as described in the following step.

- 4 Update the application server classpath. For the Novell exteNd application server, locate the **AgJars.conf** file in the **AppServer/bin** directory and open the file in a text editor.
- 5 Create new entries to the “MODULE COMMON” section, as follows:

Siebel 6.3.x

```

$SS_LIB ../../Common/lib/SiebelTcOM.jar
$SS_LIB ../../Common/lib/SiebelTcCommon.jar
$SS_LIB ../../Common/lib/SiebelTC_enu.jar
$SS_LIB ../../Common/lib/SiebelDataBean.jar

```

Siebel 7.0.3

```

$SS_LIB ../../Common/lib/SiebelJI_Common.jar
$SS_LIB ../../Common/lib/SiebelJI_enu.jar

```

Siebel 7.5.2

```

$SS_LIB ../../Common/lib/SiebelJI_Common.jar
$SS_LIB ../../Common/lib/SiebelJI_enu.jar
$SS_LIB ../../Common/lib/SiebelJI.jar

```

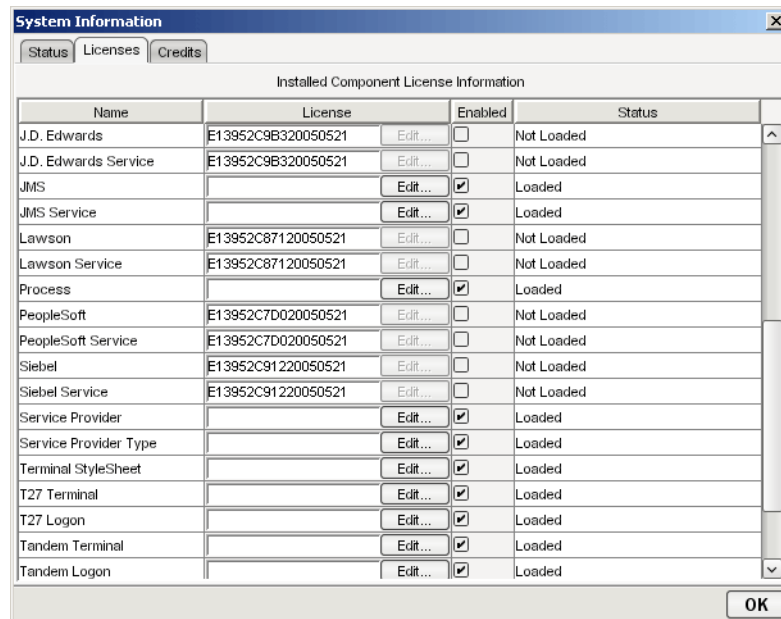
This example assumes that you have placed the JAR files in the application server **/Common/lib** directory. Edit this path as required to reflect the actual target directory.

**NOTE:** For application servers other than Novell exteNd, follow the application server vendor’s instructions for updating the classpath.

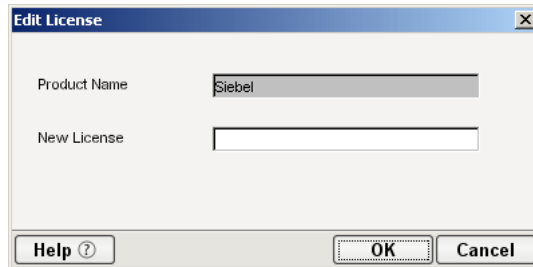
## Updating the Design-time Software License

- 1 Obtain a valid license string from your Novell representative.
 

**NOTE:** You use the same license string to activate the design-time and runtime versions of Integration Manager Connect for Siebel.
- 2 Start Integration Manager.
- 3 Select **About Integration Manager** from the **Help** menu. The About Integration Manager dialog box is displayed.
- 4 Select **System**. The System Information dialog box is displayed.
- 5 Click on the **Licenses** tab, located in the upper left corner of the System Information dialog box. The license information for your Integration Manager installation is displayed.



- 6 Scroll down until you see the row for Siebel.
- NOTE:** The Connect ships with an Evaluation license string which may be used for 90 days.
- 7 To use the evaluation license string, select the check box in the **Enabled** column and skip to **Step 10**. To enter a different license string, select the check box in the **Enabled** column. The **Edit** button in the Siebel row is enabled.
- 8 Select **Edit** in the Siebel row. The **Edit License** dialog box is displayed.



- 9 Type the license string for the Integration Manager Connect for Siebel in the **New License** field.
- 10 Scroll down until you see the row for Siebel Service.
- 11 Repeat **Step 7** through **Step 9** for the Siebel Service row.
- 12 Exit out of all dialogs by selecting **OK**.

## Updating the Runtime License

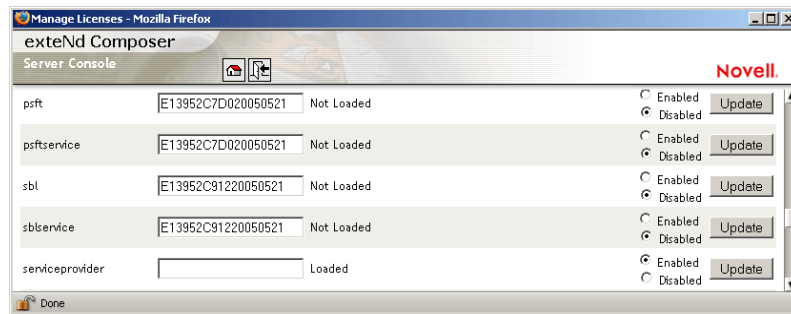
**NOTE:** If you are using the Tomcat application server, copy the `jca10apis.jar` from the `\NIM6\Server Resources\Tomcat` directory (Windows) or `nim/Server Resources/Tomcat` directory (Linux) to the `Tomcat Composer\lib` and `shared\lib` directories before attempting to update the runtime license.

- 1 Make sure that the Novell Integration Manager Enterprise Server is installed.
- 2 Start the application server. The Novell Integration Manager Enterprise Server starts automatically when you start the application server.
- 3 Open a browser window and navigate to the Novell Integration Manager main administrative console. Typically, this is at:  
`http://localhost/exteNdComposer`
- 4 In the upper left corner of the console window, click the **exteNd Composer** logo immediately above the words “Server Console,” as shown in the following illustration.



- 5 In the content area of the main frame, near the bottom, click **Licenses**. The Manage Licenses window is displayed. This window shows the license status of every Integration Manager Connect. See the following illustration.





- 6 Scroll down to the entry labeled “sbl”.
- NOTE:** The Connect ships with Evaluation license strings which may be used for 90 days.
- 7 Type a license string in the text field in the “sbl” row; then select **Enabled** in the “sbl” row. To use the evaluation license string, just select **Enabled**.
- 8 Select **Update** in the “sbl” row.
- 9 Scroll down to the entry labeled “sblservice”.
- 10 Type a license string in the text field in the “sblservice” row; then select **Enabled** in the “sblservice” row. To use the evaluation license string, just select **Enabled**.
- 11 Select **Update** in the “sblservice” row.



# 3

## Creating Siebel Components and Services

To create a Component or Service that utilizes the Integration Manager™ Connect for Siebel, you need to do three things:

- ◆ Create a Connection Resource (to allow your component to connect to a Siebel system)
- ◆ Create any necessary XML Templates
- ◆ Create the Component or Service itself (containing your business logic)

Each of these processes is discussed in detail in this chapter.

### Creating Connection Resources

Before creating a component that interacts with a Siebel system, you need to create a Connection Resource, which is a lightweight Integration Manager object (xObject) that encapsulates basic connection information (parameter values) associated with a connection to a back-end system.

In addition to a connection resource, a Siebel Component requires that you have already created XML templates so that you have sample input and output documents for use in designing your component. For more information, see “Creating an XML Template” in the *Novell Integration Manager User’s Guide*.

If your component design calls for any other resources (e.g., custom scripts, XSL, XSD, XDR) you should create these before creating the Siebel Component or Service. For more information, see “Creating Custom Scripts” in the *Novell Integration Manager User’s Guide*.

### Types of Connection Resources

You create different types of connection resource depending on the type of interaction with the Siebel system that is desired. If your application needs to initiate Siebel business events using Siebel Business Objects and Business Services, you need to create a Siebel Connection resource. If your application needs to process data when a business event occurs within a Siebel Integration Object, you need to create an inbound connection resource. Inbound connection resources include file, HTTP, and MQ Series connection types.

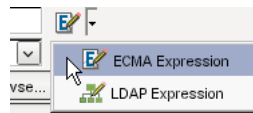
### About Constant-Driven and Expression-Driven Connection Parameters

You can specify Connection parameter values in one of two ways: as Constants or as Expressions. A constant-driven parameter uses the value you type in the Connection dialog every time the Connection is used. An expression-driven parameter allows you to set the value using a programmatic expression, which can result in a different value each time the connection is used at runtime. This allows the Connection’s behavior to be flexible and vary based on runtime conditions each time it is used.

For instance, one very simple use of an expression-driven parameter in a Connection would be to define the User ID and Password as PROJECT Variables (e.g. PROJECT.XPATH(“USERCONFIG/MyDeployUser”). This way when you deploy the project, you can update the PROJECT Variables in the Deployment Wizard to values appropriate for the final deployment environment. At the other extreme, you could have a custom script that queries a Java business object in the Application Server to determine what User ID and Password to use.

➤ **To switch a parameter from Constant-driven to Expression driven:**

- 1 Click the right mouse button in the parameter field you are interested in changing.
- 2 Select **Expression** from the context menu and the editor button will appear or become enabled.

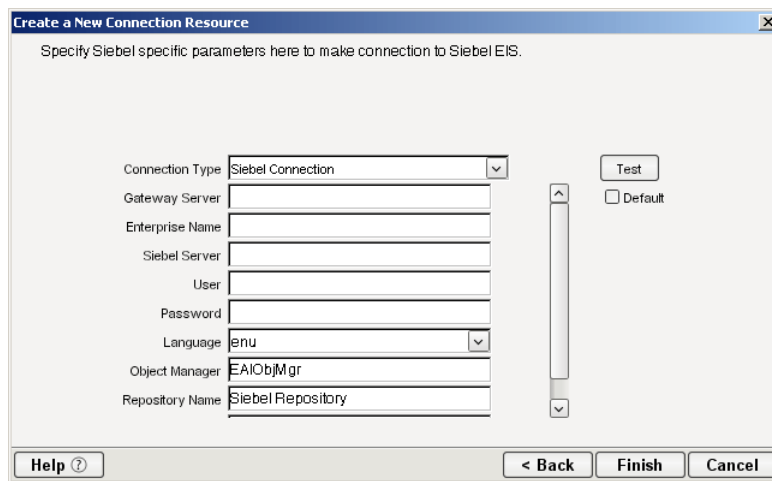


- 3 Click on the button and then create an expression that evaluates to a valid parameter value at runtime. (Strings should be wrapped in double-quotes.)

## Creating a Siebel Connection Resource

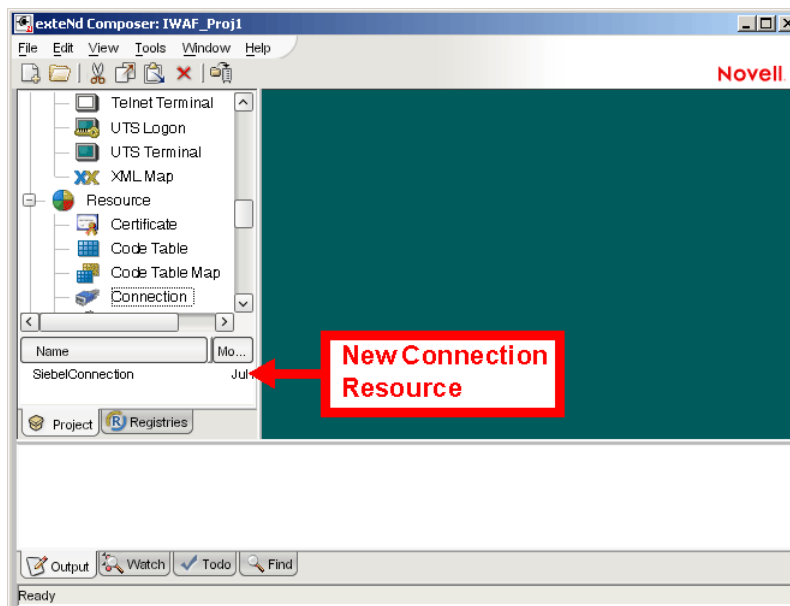
➤ **To Create a Siebel Connection Resource:**

- 1 Select **File > New > xObject**. The New xObject dialog box is displayed.
- 2 Select the **Resource** tab.
- 3 Double-click on **Connection**. The “Create a New Connection Resource” wizard is displayed.
- 4 Type a name for the connection object in the **Name** field.
- 5 Optionally, type a description of the connection object in the **Description** field.
- 6 Select **Next**. A connection parameters panel is displayed.



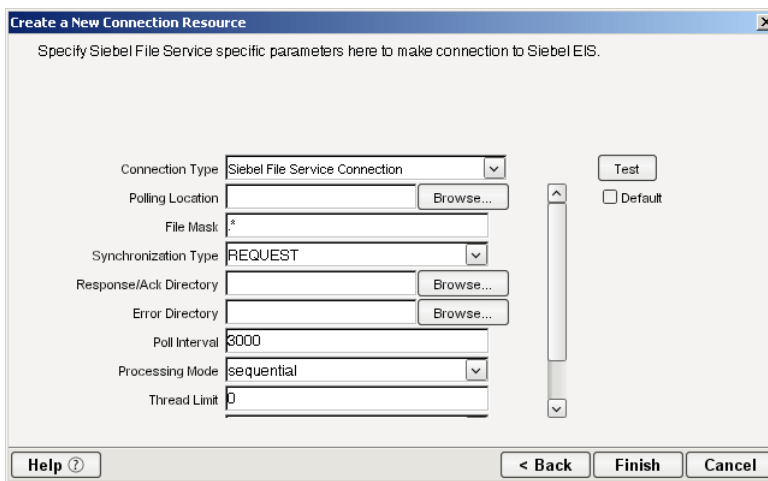
- 7 Select **Siebel Connection** from the **Connection Type** list.
- 8 Type the host name or IP address of the Siebel gateway server in the **Gateway Server** field. The Siebel Gateway Server is a single entry point for accessing Siebel servers. It consists of the Name Server and an optional Connection Brokering component. The Name Server keeps track of all Siebel Server parameters. Enterprise components query the Name Server for connectivity information.
- 9 Type the Enterprise Server name in the **Enterprise Name** field.
- 10 Type the Siebel Server name in the **Siebel Server** field.

- 11 Type a User ID for the selected Siebel server in the **User** field.
- 12 In the **Password** field, type the password for the user that you specified in previous step.
- 13 Select the three-letter NLS character set code for the default language from the **Language** list. The default is “enu” (US English).
- 14 Type the name of the Siebel Object Manager in the **Object Manager** field.  
**NOTE:** In some Siebel configurations, it may be necessary to append the three-letter NLS character set code (e.g., “\_enu” for English) to the Object Manager name (e.g., “MyObjectManager\_enu”). This code should be the same as the code selected in the **Language** list.
- 15 Type the name of the Siebel Repository in the **Repository Name** field.
- 16 Type the desired maximum pool size in the **Maximum Pool Size** field. This is a JCA setting that specifies the maximum number of connections to be allowed in the connection pool (not applicable for non-managed environments).
- 17 If desired, select **Test** to see if your connection parameters and network environment allow you to create a live connection. Integration Manager displays a message indicating the success or failure of the test. The test connection is discarded immediately after the test. *You can continue working with the connection resource, even if the connection fails.*  
**NOTE:** This test does not test the connection pool.
- 18 Select **OK**. The newly-created resource connection object appears in the Integration Manager Connection Resource detail pane.



## Creating a File Service Connection Resource

- **To Create a Siebel File Service Connection Resource:**
  - 1 Select **File > New > xObject**. The New xObject dialog box is displayed.
  - 2 Select the **Resource** tab.
  - 3 Double-click on **Connection**. The “Create a New Connection Resource” wizard is displayed.
  - 4 Type a name for the connection object in the **Name** field.
  - 5 Optionally, type a description of the connection object in the **Description** field.
  - 6 Select **Next**. A connection parameters panel is displayed.



- 7 Select **Siebel File Service Connection** from the **Connection Type** list.
- 8 Use the **Browse** button next to the **Polling Location** field to select the target file system location for the Siebel XML file.
- 9 In the **File Mask** field, type the file name to be used for the output file generated as a result of this operation. The default is “.\*”.
- 10 Select **REQUEST**, **REQUEST\_RESPONSE**, or **REQUEST\_ACK** from the **Synchronization Type** list. Select the option that is correct for the Workflow with which you are integrating (e.g., if your Workflow is set up to process a response, select **REQUEST\_RESPONSE**). The Synchronization Type selected also determines the tabs that are displayed in the Service Request Native Environment pane (e.g., if **REQUEST\_RESPONSE** is selected, both Request and Response tabs are displayed).
- 11 Use the **Browse** button next to the **Response/Ack Directory** field to select the directory to which responses or acknowledgements from your application will be written.
- 12 Use the **Browse** button next to the **Error Directory** field to select the directory to which error information will be written.
- 13 In the **Poll Interval** field, type the interval (in milliseconds) in which the Polling Location is checked for input. The default is 3000 (3 seconds).
- 14 Select **Threaded** or **Sequential** from the **Processing Mode** list. **Threaded** indicates processing of multiple requests simultaneously. **Sequential** indicates serial processing of requests.
- 15 If **Threaded** processing mode is selected in the **Processing Mode** list, use the **Thread Limit** field to specify the maximum number of requests that can be processed simultaneously.
- 16 From the **Metadata Connection** list, select a Siebel connection resource from the list of defined connection resources. This connection is used for acquiring metadata from the Siebel system.
- 17 Type the desired maximum pool size in the **Maximum Pool Size** field. This is a JCA setting that specifies the maximum number of connections to be allowed in the connection pool (not applicable for non-managed environments).

## Creating an HTTP Service Connection Resource

- **To Create a Siebel HTTP Service Connection Resource:**
  - 1 Select **File > New > xObject**. The New xObject dialog box is displayed.
  - 2 Select the **Resource** tab.
  - 3 Double-click on **Connection**. The “Create a New Connection Resource” wizard is displayed.
  - 4 Type a name for the connection object in the **Name** field.

- 5 Optionally, type a description of the connection object in the **Description** field.
- 6 Select **Next**. A connection parameters panel is displayed.

- 7 Select **Siebel HTTP Service Connection** from the **Connection Type** list.
- 8 In the **Listener Port** field, type the number of the port on which the application will listen for Siebel event data. The default port is 8080.
- 9 To use HTTPS for this connection, select **HTTPS**.
- 10 Select REQUEST, REQUEST\_RESPONSE, or REQUEST\_ACK from the **Synchronization Type** list. Select the option that is correct for the Workflow with which you are integrating (e.g., if your Workflow is set up to process a response, select REQUEST\_RESPONSE). The Synchronization Type selected also determines the tabs that are displayed in the Service Request Native Environment pane (e.g., if REQUEST\_RESPONSE is selected, both Request and Response tabs are displayed).
- 11 From the **Metadata Connection** list, select an outbound Siebel Connection resource from the list of defined connection resources. This connection is used for acquiring metadata from the Siebel system.
- 12 Type the desired maximum pool size in the **Maximum Pool Size** field. This is a JCA setting that specifies the maximum number of connections to be allowed in the connection pool (not applicable for non-managed environments).

## Creating an MQSeries Service Connection Resource

- **To Create a Siebel MQSeries Service Connection Resource:**
  - 1 Select **File > New > xObject**. The New xObject dialog box is displayed.
  - 2 Select the **Resource** tab.
  - 3 Double-click on **Connection**. The “Create a New Connection Resource” wizard is displayed.
  - 4 Type a name for the connection object in the **Name** field.
  - 5 Optionally, type a description of the connection object in the **Description** field.
  - 6 Select **Next**. A connection parameters panel is displayed.

- 7** Select **Siebel MQSeries Service Connection** from the **Connection Type** list.
- 8** In the **Queue Manager** field, specify the name of the queue manager to which the application will connect.
- 9** In the **MQ Server Host** field, type the name of the host on which the MQ Server is located.
- 10** In the **MQ Server Port** field, type the name of the port to use to connect to an MQ Server queue manager.
- 11** In the **MQ Server Channel** field, specify the name of the channel to use to connect to the remote MQ Server queue manager. The name is case-sensitive.
- 12** Select the **XML Document** checkbox.
- 13** In the **Queue Name** field, type the name of the queue in which the message will be routed and where request documents are received. The name of the queue is case-sensitive.
- 14** Select **REQUEST**, **REQUEST\_RESPONSE**, or **REQUEST\_ACK** from the **Synchronization Type** list. Select the option that is correct for the Workflow with which you are integrating (e.g., if your Workflow is set up to process a response, select **REQUEST\_RESPONSE**). The Synchronization Type selected also determines the tabs that are displayed in the Service Request Native Environment pane (e.g., if **REQUEST\_RESPONSE** is selected, both Request and Response tabs are displayed).
- 15** In the **Message Wait Interval** field, specify the interval (in milliseconds) in which the queue is checked for new input. The default is 3000 (3 seconds).
- 16** Select **Threaded** or **Sequential** from the **Processing Mode** list. **Threaded** indicates processing of multiple requests simultaneously. **Sequential** indicates serial processing of requests.
- 17** If **Threaded** processing mode is selected in the **Processing Mode** list, use the **Thread Limit** field to specify the maximum number of requests that can be processed simultaneously.
- 18** From the **Metadata Connection** list, select an outbound Siebel Connection resource from the list of defined connection resources. This connection is used for acquiring metadata from the Siebel system.
- 19** Type the desired maximum pool size in the **Maximum Pool Size** field. This is a JCA setting that specifies the maximum number of connections to be allowed in the connection pool (not applicable for non-managed environments).



# XML Templates for Siebel Components and Services

Before creating a Siebel Component or Service, you should create any XML templates that might be needed. XML templates are used to tell Integration Manager which XML sample documents (e.g., input, output, scratch pad, fault, XSD, or DTD) to use. Once you've specified the XML templates, you can create a component or service that uses the sample documents to represent the inputs and outputs processed by your component. For more information about XML templates, see "Creating a New XML Template" in the *Novell Integration Manager User's Guide*.

## Creating Siebel Components

As part of the process of creating a Siebel Component, you can select an existing Siebel connection resource, or you can create a new one. If you create the connection beforehand, it is available for use by any Siebel Components in the current project. *If you have not already created at least one Siebel connection resource in the current project, you will be prompted to do so when you try to create a Siebel Component.*

**NOTE:** You can still create a Component without first creating a connection resource, but you won't be able to use any debug features that depend on a live connection.

### ➤ To Create a New Siebel Component:

**1** Select **File > New > xObject**. The New xObject dialog box is displayed.

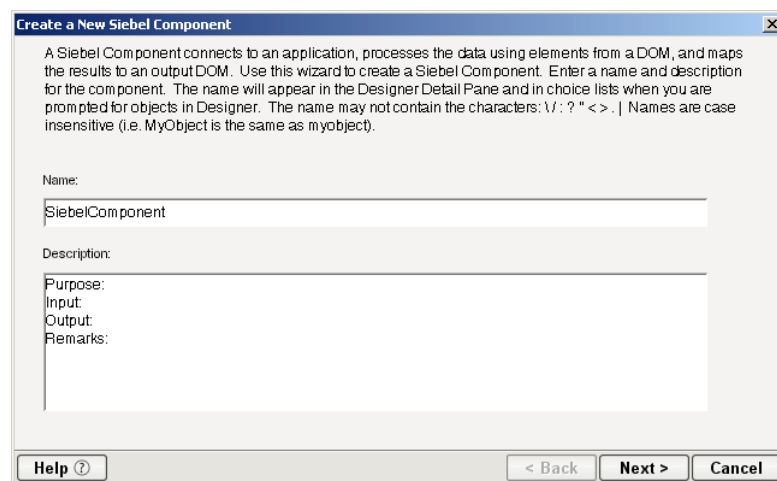
**NOTE:** Alternatively, under **Component** in the Integration Manager Navigator pane (Explorer view), you can highlight **Siebel**, click the right mouse button, then select **New**.

**2** Select the **Component** tab.

**3** Double-click on "Siebel."

If you have not previously defined a connection resource, you are prompted to do so now (see "[Creating Connection Resources](#)" on page 21).

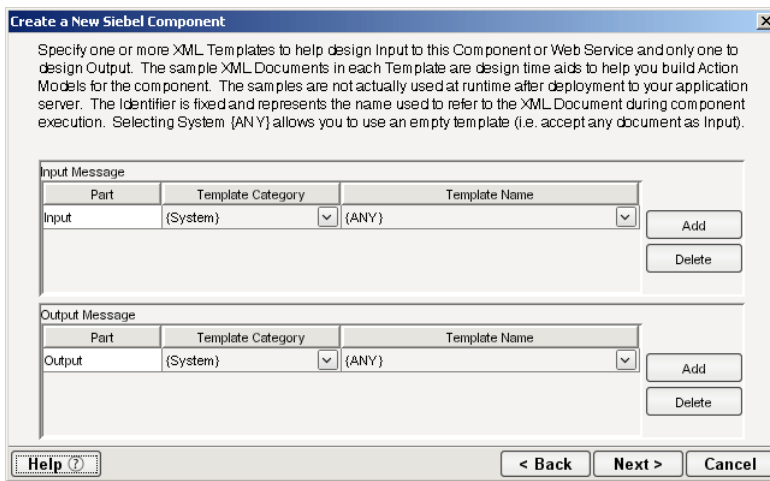
If you have already defined a connection resource, the "Create a New Siebel Component" Wizard is displayed.



**4** Type a **Name** for the new Siebel Component.

**5** Optionally, type **Description** text.

**6** Select **Next**. The XML Input/Output Message Property Info panel of the New Siebel Component Wizard is displayed.



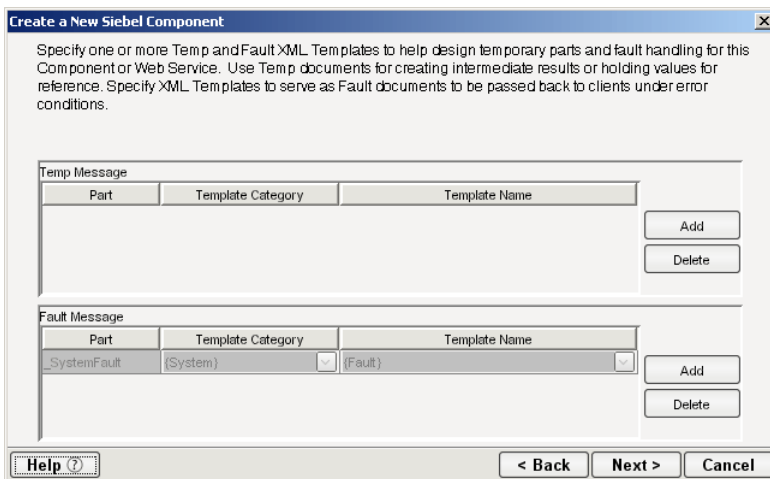
**7** Specify the Input and Output templates as follows:

- ◆ Type a name for the template under **Part** if you wish the name to appear in the DOM as something other than “Input”
- ◆ Select a **Template Category** if it is different than the default category.
- ◆ Select a **Template Name** from the list of XML templates in the selected **Template Category**.
- ◆ To add additional input XML templates, click **Add**, then choose a **Template Category** and **Template Name** for each.
- ◆ To remove an input XML template, select an entry and click **Delete**.

**8** Select an XML template for use as an Output DOM using the procedure described in the previous step.

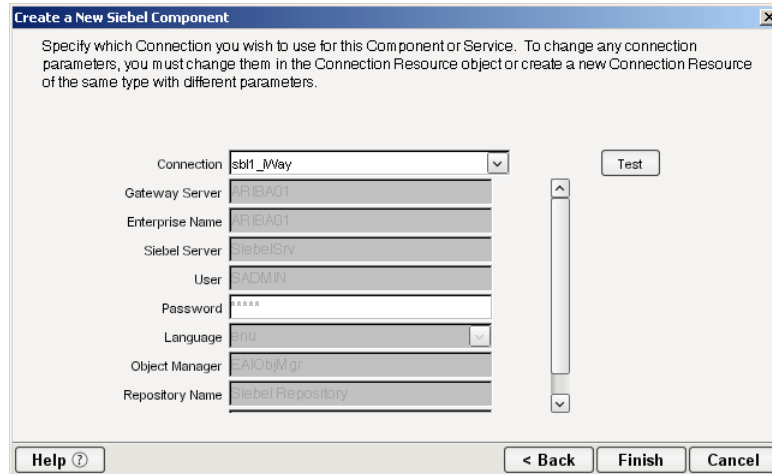
**NOTE:** You can specify an input or output XML template that contains no structure by selecting {System}{ANY} as the Input or Output template. For more information, see “Creating an Output Document without Using a Template” in the *Novell Integration Manager User’s Guide*.

**9** Select **Next**. The Temp and Fault XML Template panel is displayed.



**10** If desired, specify a template to be used as a scratch pad under the “Temp Message” pane of the dialog box. This can be useful if you need a place to hold values that will be used temporarily during the execution of your component. Select a **Template Category** if it is different than the default category. Then select a **Template Name** from the list of XML templates in the selected Template Category.

- 11** Under the “Fault Message” pane, select an XML template to be used to pass back to clients when an error condition occurs.
- 12** To add additional input XML templates, click **Add** and choose a **Template Category** and **Template Name** for each. Repeat as many times as desired. To remove an input XML template, select an entry and click **Delete**.
- 13** Select **Next**. The Connection Info panel of the Create a New Siebel Component wizard is displayed.

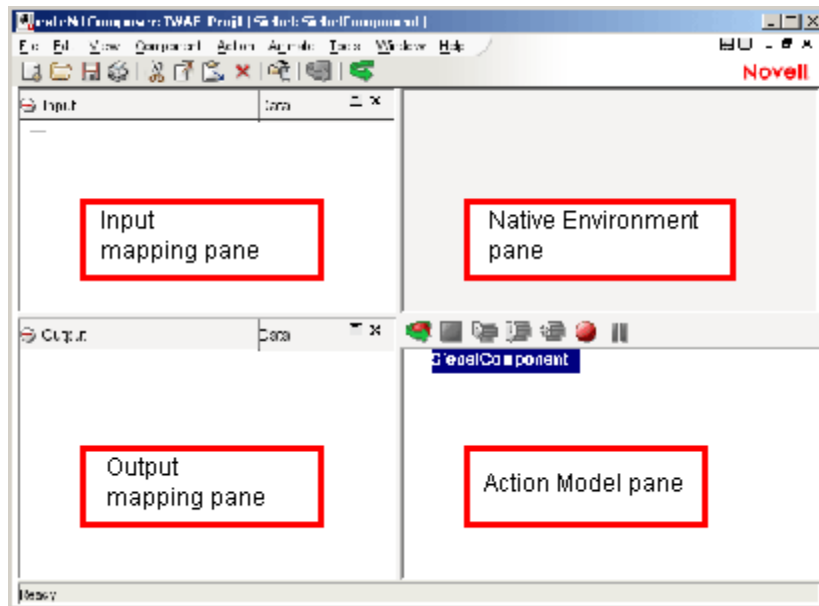


- 14** Select a Siebel connection from the **Connection** list. The Connection list displays the names of the Siebel connection resources that have been defined in this project.
- 15** Select **Finish**. The component is created and the Siebel Component Editor is displayed.

## About the Siebel Component Editor Window

The Siebel Component Editor includes all of the functionality of the XML Map Component Editor. It contains mapping panes for Input and Output XML documents, as well as an Action Model.

The Siebel Component Editor also includes a Native Environment pane, which appears as a grey pane until you create a Siebel Request action, at which time it will show a tabs for Request and Response panes with corresponding XML trees.



The Native Environment pane shown in the illustration is blank, because no Siebel Request action has been created.

## Creating Actions in the Component Editor

You can create all the normal Integration Manager actions in the Action Model of your Siebel component (e.g., XML Map, Function, Log, Send Mail). In addition, you can create a Siebel Request action.

The Siebel Request action communicates requests (XML request documents) from your Siebel system and fetches responses back from the same system.

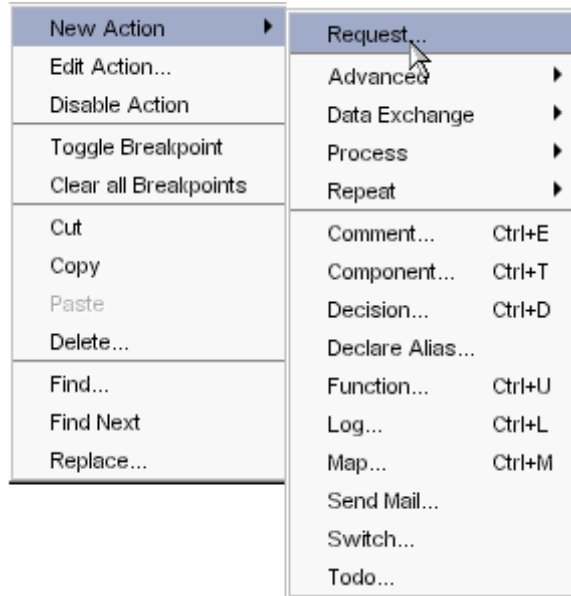
The Integration Manager GUI for creating a Siebel Request action allows you to

- ◆ Specify the type of Siebel business function that you want to invoke
- ◆ Automatically generate XML schemas (request and response) for the particular business function that you want to use
- ◆ Use the generated schemas to fine-tune the structure of the actual request document that you want to use (a request document that conforms to the schema but reflects your own “setup” choices and initialization parameters, etc.)
- ◆ Automatically generate XML request and response documents that conform to the schemas and choices that you’ve made

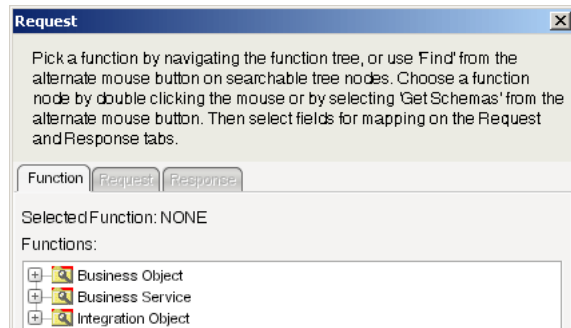
You will see how this works in the following procedure.

➤ **To Create a Siebel Request Action**

- 1 Right-click in the Action Model at the location in which you want the new action to appear, then select **New Action > Request**.

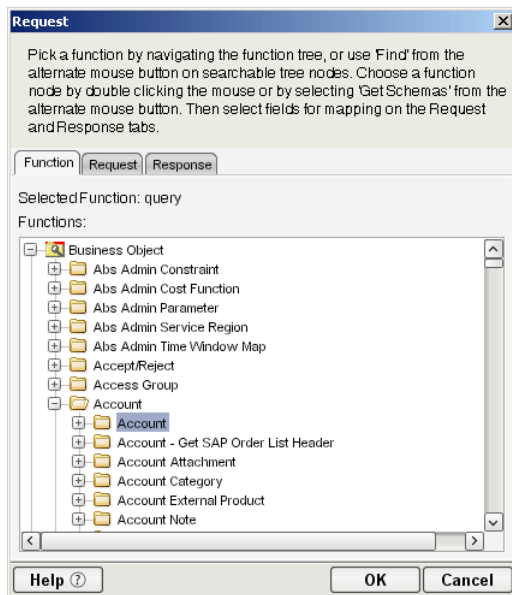


The Function pane of the Request dialog box is displayed. You use this pane to browse the available Siebel Business Objects and Business Services.



- 2 Click on the plus (+) sign to the left of a node in the tree view to expand the tree view for that node.

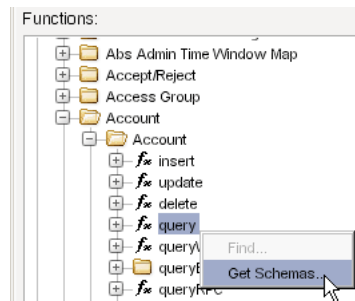
**NOTE:** If no nodes are displayed on the Function page, there may be an incorrect parameter in your connection resource. Check the parameters needed for connecting to your Siebel server, then update your connection resource if necessary (see [“Creating Connection Resources” on page 21](#)).



Position the mouse pointer over a node in the tree view to get ToolTip information about the node. ToolTips display the following information, depending on the node type:

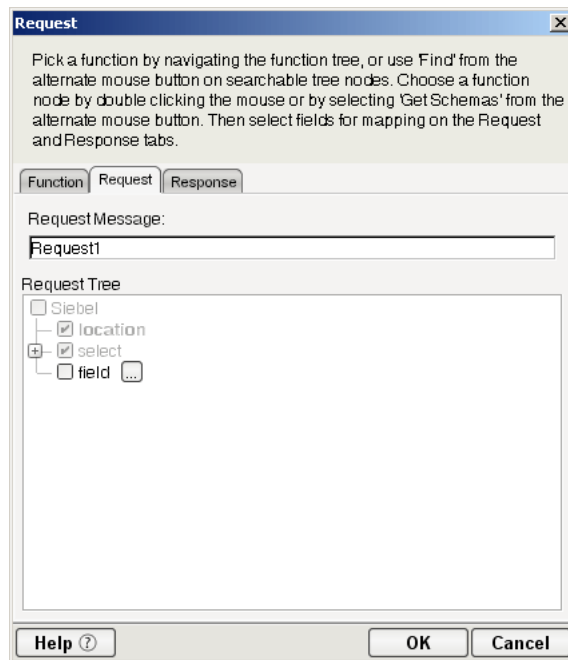
- ◆ Folder: “type - Folder”
- ◆ Searchable Folder nodes: “type - Service”
- ◆ Function nodes: “type - Operation”

- 3 Click on the plus sign to the left of a node to see the contents of the node.
- 4 Right-click on the desired operation, then select **Get Schemas** from the context menu.



After a few seconds, the Request and Response tabs of the Request dialog box are enabled.

- 5 Select the **Request** tab. The Request pane is displayed.

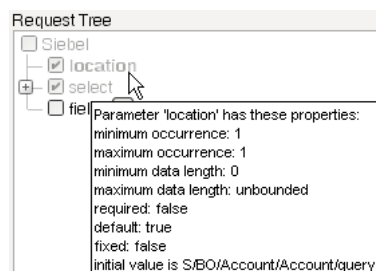


- 6 Type a name for the request message in the **Request Message** field, or accept the default name as shown in the preceding illustration.
- 7 Expand the nodes of the Request Tree by clicking on the plus signs to the left of the nodes.
- 8 Select the elements that you want to include in the Request document by selecting or deselecting the check boxes in the node tree. Some nodes are greyed out (disabled). This is because the document schema determines the nodes that you can edit.

Integration Manager strictly enforces schema rules. In other words, Integration Manager will not let you specify an invalid request document. Items that you *should not edit* are disabled, and items that you can edit have context-menus that non-customizable nodes do not have. For example:

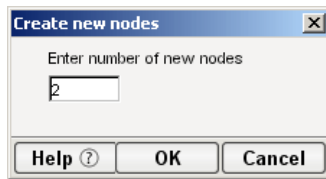
- ◆ *Mandatory* elements and attributes are marked *selected* and *disabled*.
- ◆ All child nodes are left unselected and disabled if the parent node is not selected.
- ◆ A parent element, once selected, will autoselect mandatory elements and attributes of its children.
- ◆ When a parent node is selected, you will need to select *optional* elements *manually*.

ToolTips are an important aid in using the Request and Response panes, because they display document-structure rules from the request and response document schema. Familiarize yourself with the ToolTip feature by letting the mouse hover over various nodes, as shown in the following illustration.



**NOTE:** The ToolTips that appear in this tree are also available in the Native Environment pane.

- 9 If a node has a **Maximum Occurrence** property of greater than one, a command called “Create new...” is available by right-clicking on the node. Selecting that command brings up the following dialog box:



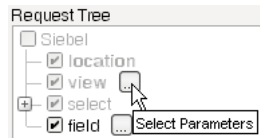
Enter the number of additional instances of this node-type that you want to insert in the document, then click **OK**. New nodes are added to the document structure.

---

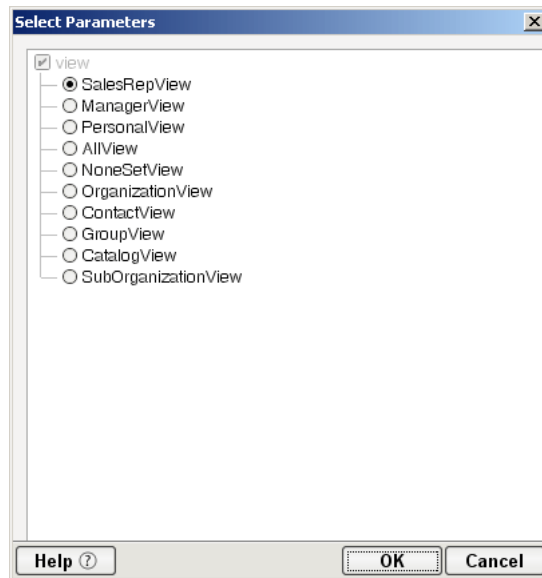
**CAUTION:** There is no Undo for this operation.

---

- 10 If an enumeration button (⋮) is displayed to the right of a given node, you can click the button to choose from the list of appropriate (schema-allowed) values for that enumeration.

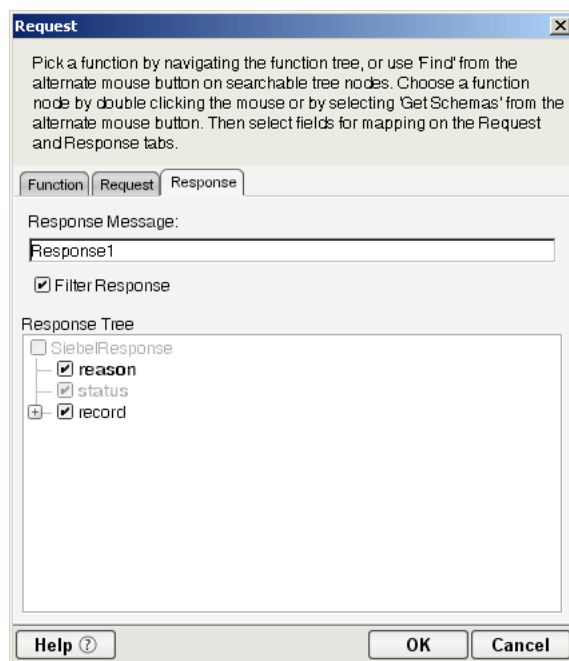


For example, the Siebel QueryWithView method allows different presentations of data depending on how the Siebel environment is configured. You can specify a View mode by selecting a parameter from an enumeration, as shown in the following illustration.



- 11 Visit all of the nodes in the request tree that are of interest to you, and use the Integration Manager user interface features described in the preceding steps to customize the request document structure.
- 12 Click the **Response** tab at the top of the dialog box to bring the Response document pane forward. This pane shows a tree view of the Response document, similar to the one shown for the Request document. The same user interface features that applied to the Request document pane apply to the Response document pane.





- 13** Type a name for the response message in the **Response Message** field, or accept the default response message name.
- 14** Select or deselect **Filter Response**, as desired. Filter Response is selected by default. If deselected, the tree will be disabled and greyed (no longer editable), indicating that a default schema configuration will be used. If selected, you can customize the structure of the request document by selecting the nodes to be included in the response document.
- 15** Visit all of the nodes in the Response document tree and customize the settings as desired.
- 16** Select **OK**. The dialog closes and a new action appears in the Action Model of your component. The Native Environment Pane changes to show the Request and Response tabs along with tree views of the request and response documents.
- 17** To map a node of the Input document to a node in the Request document, drag a node from the Input pane and drop it on a node in the Request tab of the Native Environment pane. This automatically creates a new XML Map Action in the Action Model.
- 18** To map a node of the Response document to a node in the Output document, drag a node from the Response tab of the Native Environment pane and drop it on a node in the Output pane. This automatically creates a new XML Map Action in the Action Model. You can cut, copy, or delete the actions once they appear in the Action Model pane.
- 19** Add or remove actions from the Action Model to create the desired business logic.

## Returning to Schema-Edit Mode

Once you have created a Request Action in your Action Model (see [“Creating Actions in the Component Editor” on page 30](#)), you can go back and edit the Request and Response schema trees by double-clicking the Request Action in the Action Model. Double-clicking causes the Request dialog box to be displayed. You can use the Request and Response tabs to navigate the request- and response-document schemas and change your customizations as desired. When you exit from of the dialog box, your changes are reflected in the Native Environment Pane.

**NOTE:** If you manually edit the Request or Response documents in the Native Environment Pane (see “[Manually Editing the Request and Response Documents](#)” on page 36), you will not be able to reopen the Request Action dialog. Avoid manually editing request/response documents. Instead, make modifications through careful use of the XML Map Action or by using Request.createXPath( ) and DOM methods in a Function Action.

## Request and Response Documents

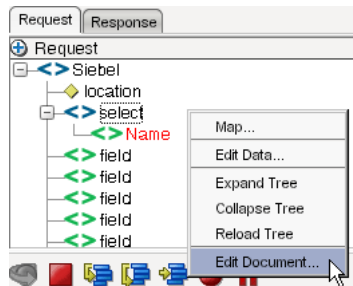
After you have created a Request Action (see “[Creating Actions in the Component Editor](#)” on page 30), the Native Environment Pane portion of the Integration Manager editor view displays Request and Response documents in tree-view form, as shown in the following illustration.

Request	Response	Data
Request		
Siebel		
location		S/BO/Account/Account/query
select		
Name		Au*
field		Name
field		Account Status
field		Location
field		Alias
field		Country

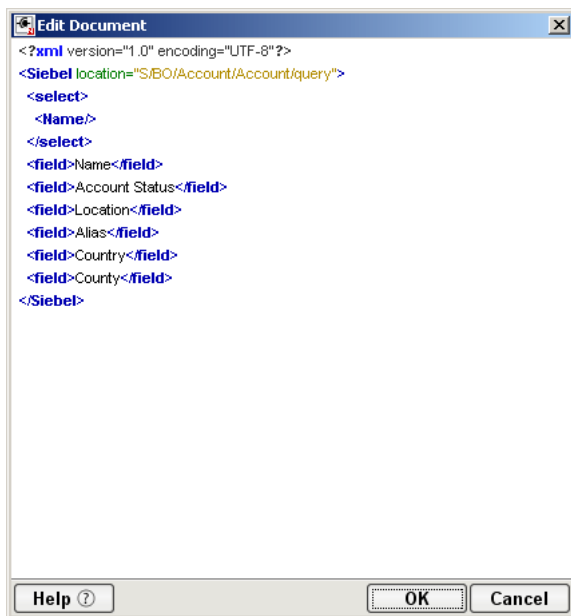
You can drag and drop data from the Input document to the Request document to create XML Map actions. You also can use drag-and-drop mapping to map from Response to Output. In the preceding illustration, a node is displayed in red. The red color indicates that data has been mapped to the node.

## Manually Editing the Request and Response Documents

If you right-click anywhere inside the Request or Response tree views in the Native Environment Pane, a menu is displayed.



The **Edit Document** command in this menu opens the document in a text-editor, as shown in the following illustration.



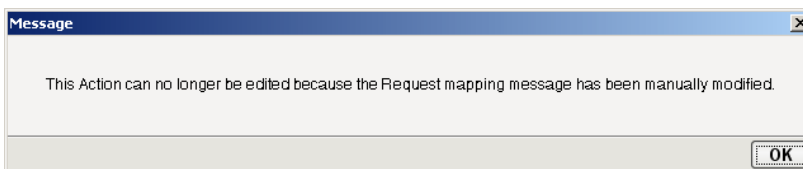
In this window, you can manually edit the Request or Response document.

---

**CAUTION:** *If you manually edit the document, it may no longer conform to the original schema. As a result, you will no longer be able to open the document in the Request Action dialog box.*

---

If you have manually edited a Request or Response document, double-clicking on the corresponding Request Action in the Action Model will cause the following message to be displayed:

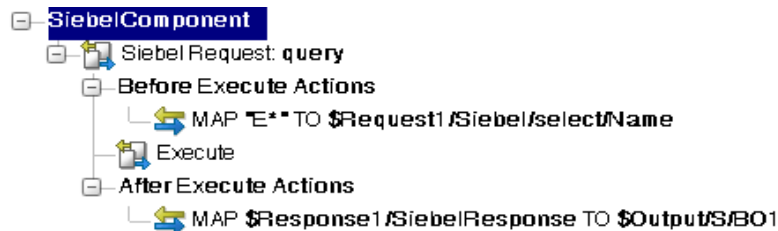


If this message appears, and you want to work with the document using the Request Action dialog box, you must recreate the action in order to see the original Request or Response document. Manual edits will be lost.

To prevent this situation from occurring, *avoid making manual edits to Request or Response documents*. Instead use XML Map Actions and Function actions to modify documents or node contents. Be aware that doing so may violate schema constraints. This will not necessarily cause runtime problems for your component when executing in the Integration Manager Enterprise Server environment, because Integration Manager does not validate the request document against the schema at runtime. However, your Siebel system may validate incoming requests, in which case a manually-edited Request document can cause errors that are difficult to troubleshoot.

## “Before Execute” and “After Execute” Actions

Whenever a Siebel Request action is created in the Action Model, Integration Manager adds two additional lines to the action list: Before Execute Actions and After Execute Actions. These are header labels (grouping labels) for blocks of actions that occur *before* the request is sent to the Siebel system, or *after* a response document has come back, respectively. Typically you will want to map data fields from Input to Request and have those actions be grouped under the “Before Execute Actions” header. Likewise, any map actions or other action logic that you need to perform on the Response document after the Siebel system executes your request should be grouped under the “After Execute Actions” heading.



## Creating Siebel Services

The Integration Manager™ Connect for Siebel supports access to Siebel Integration Objects by using Siebel XML. Before you create a Siebel Service you must use the Siebel Tools Schema Wizard to generate an XDR schema with a Siebel Message envelope. The XDR schema is used as input to Integration Manager when generating schemas for Integration Objects. After you generate the XDR schema, Integration Manager uses the XDR file to generate the XML schema. The XDR file must be located in a directory that can be accessed by Integration Manager. Refer to your Siebel documentation for information about generating XDR files for Integration Objects.

As part of the process of creating a Siebel Service, you can select an existing Siebel connection resource, or you can create a new one. If you create the connection beforehand, it is available for use by any Siebel Services in the current project. *If you have not already created at least one Siebel connection resource in the current project, you will be prompted to do so when you try to create a Siebel Service.*

**NOTE:** You can still create a Siebel Service without first creating a connection resource, but you won't be able to use any debug features that depend on a live connection.

### ➤ To Create a New Siebel Service:

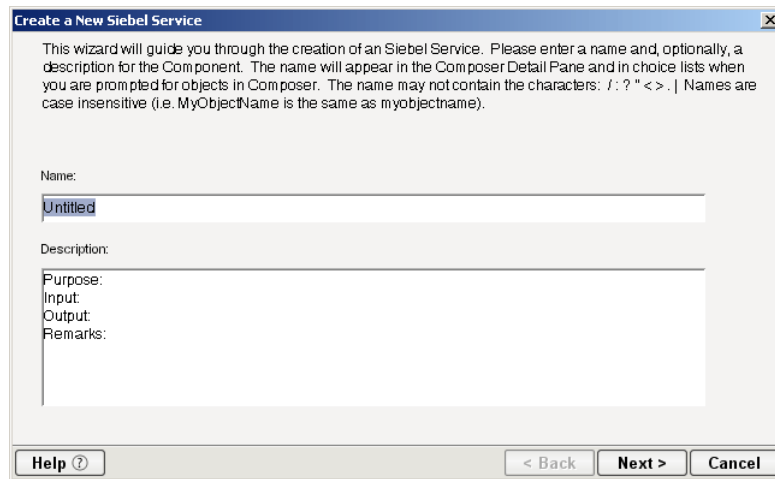
- 1 Select **File > New > xObject**. The New xObject dialog box is displayed.

**NOTE:** Alternatively, under **Service** in the Integration Manager Navigator pane (Explorer view), you can highlight **Siebel Service**, click the right mouse button, then select **New**.

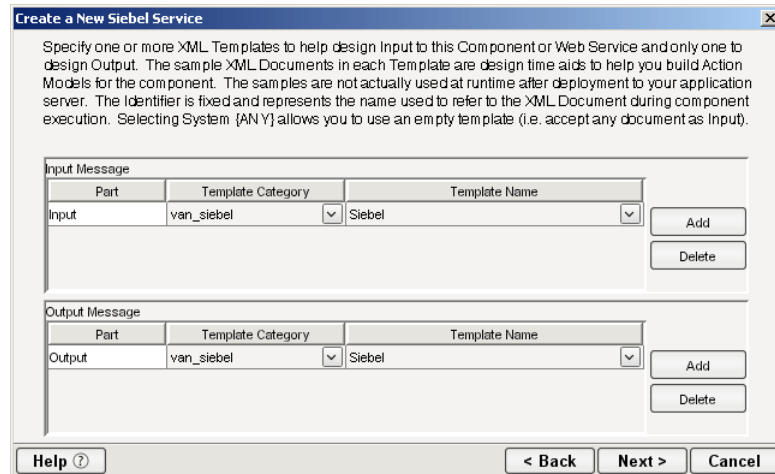
- 2 Select the **Process/Service** tab.
- 3 Double-click on “Siebel Service.”

If you have not previously defined a connection resource, you are prompted to do so now (see [“Creating Connection Resources” on page 21](#)).

If you have already defined a connection resource, the “Create a New Siebel Service” Wizard is displayed.

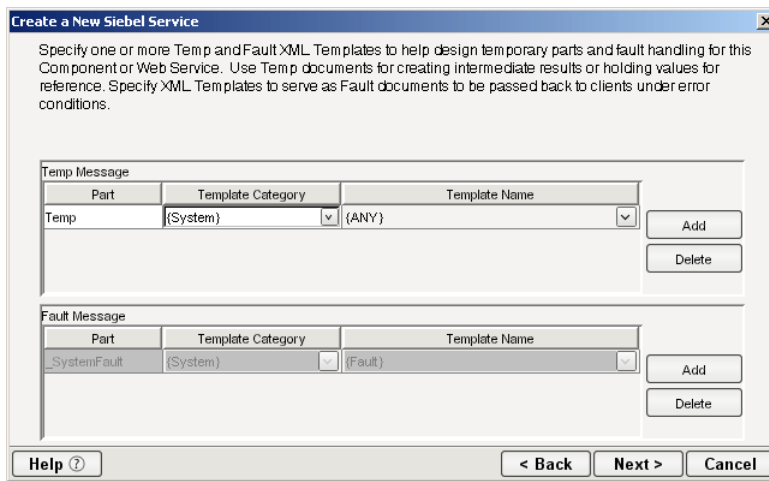


- 4 Type a **Name** for the new Siebel Service.
- 5 Optionally, type **Description** text.
- 6 Select **Next**. The XML Input/Output Message Property Info panel of the New Siebel Service Wizard is displayed.

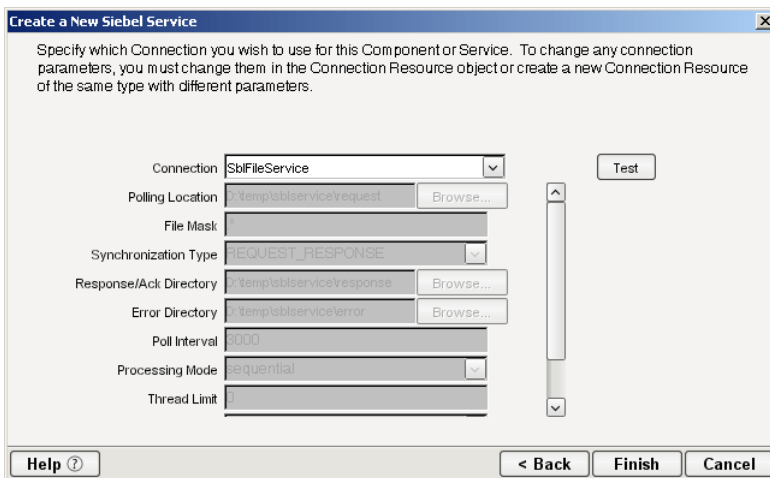


- 7 Specify the Input and Output templates as follows:
  - ◆ Type a name for the template under **Part** if you wish the name to appear in the DOM as something other than “Input”
  - ◆ Select a **Template Category** if it is different than the default category.
  - ◆ Select a **Template Name** from the list of XML templates in the selected **Template Category**.
  - ◆ To add additional input XML templates, click **Add**, then choose a **Template Category** and **Template Name** for each.
  - ◆ To remove an input XML template, select an entry and click **Delete**.
- 8 Select an XML template for use as an Output DOM using the procedure described in the previous step.
 

**NOTE:** You can specify an input or output XML template that contains no structure by selecting {System}{ANY} as the Input or Output template. For more information, see “Creating an Output Document without Using a Template” in the *Novell Integration Manager User’s Guide*.
- 9 Select **Next**. The Temp and Fault XML Template panel is displayed.



- 10 If desired, specify a template to be used as a scratch pad under the “Temp Message” pane of the dialog box. This can be useful if you need a place to hold values that will be used temporarily during the execution of your component. Select a **Template Category** if it is different than the default category. Then select a **Template Name** from the list of XML templates in the selected Template Category.
- 11 Under the “Fault Message” pane, select an XML template to be used to pass back to clients when an error condition occurs.
- 12 To add additional input XML templates, click **Add** and choose a **Template Category** and **Template Name** for each. Repeat as many times as desired. To remove an input XML template, select an entry and click **Delete**.
- 13 Select **Next**. The Connection Info panel of the Create a New Siebel Service wizard is displayed.



- 14 Select a Siebel File, HTTP, or MQSeries Service connection from the **Connection** list. The Connection list displays the names of the Siebel connection resources that have been defined in this project.
- 15 Select **Finish**. The component is created and the Siebel Service Editor is displayed. The features of this window are identical to the features described in “**About the Siebel Component Editor Window**” on page 29. The following sections describe the steps required to create a Siebel Service Action.

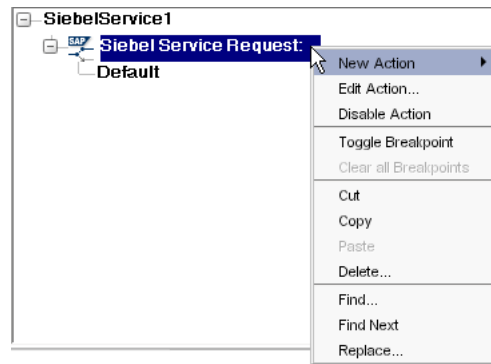
## Creating Siebel Service Actions

You can create all the normal Integration Manager actions in the Action Model of your Siebel Service (e.g., XML Map, Function, Log, Send Mail). In addition, you can create a Siebel Service Request action.

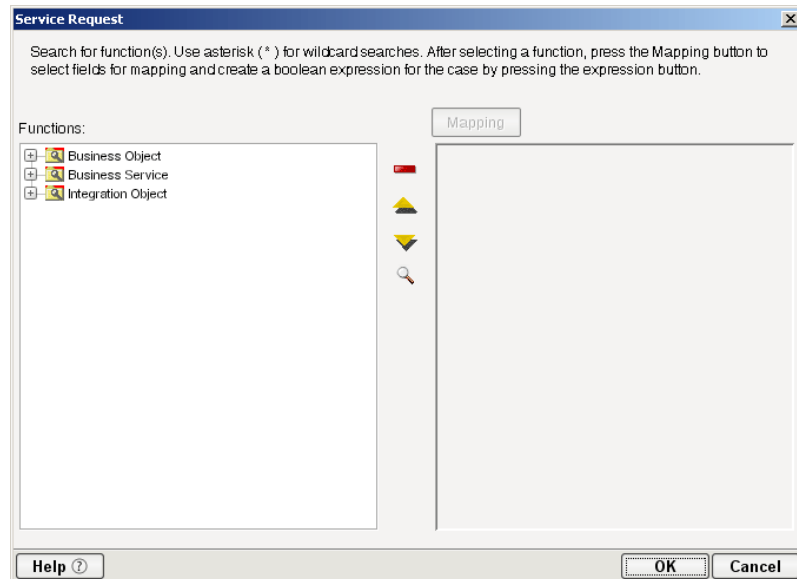
The Siebel Service Request action is similar to a Switch action (see “The Switch Action” in the in the *Novell Integration Manager User’s Guide*). A Switch action allows program control to branch to a block of actions based on a match between an input value and a Case value. In a Siebel Service Request, Integration Manager receives a DOM, and compares a series of cases against the DOM. If an exact match occurs between the DOM and a case, execution branches to the actions listed underneath the case in the Action model. Cases are tested in the order listed; and once a match is found, execution of the match logic precludes execution of any other logic in the Siebel Service Request.

### ➤ To Create a Siebel Service Request Action

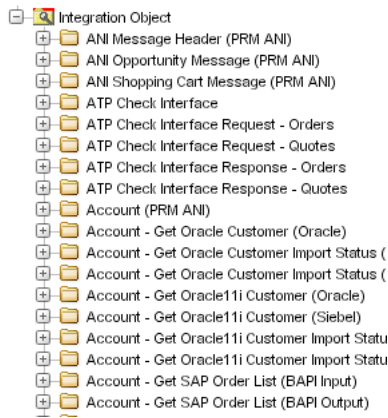
- 1 In the Action Model, right-click on Siebel Service Request:



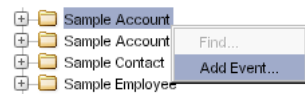
- 2 Select **Edit Action**. The Service Request dialog box is displayed.



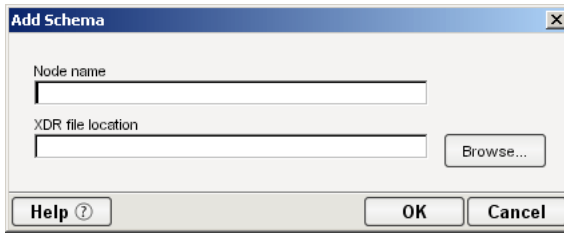
- 3 In the Function tree, click on the plus (+) sign to the left of the Integration Object node to expand the tree view for that node.



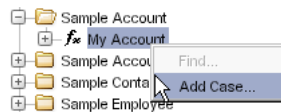
- 4 Left click on the name of the Integration Object for which you have created an XDR file (this highlights the name), then right-click on the name to display a context-sensitive menu.



- 5 Select **Add Event**. The **Add Schema** dialog box is displayed.

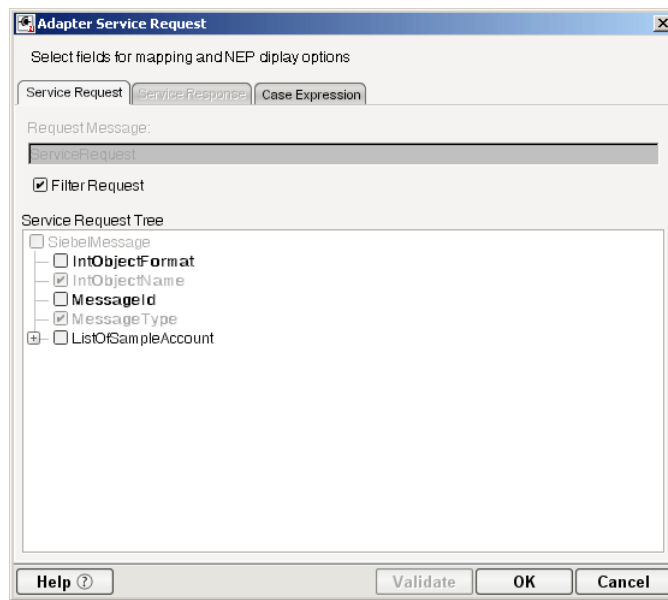


- 6 Type a name for the event node in the **Node Name** field.
- 7 Use the **Browse** button next to the **XDR File Location** field to locate the XDR file that was created for the Integration Object.
- 8 Select **OK**. A function node is added to the Function tree.
- 9 Right-click on the function name and select **Add Case**, or double-click on the function name.

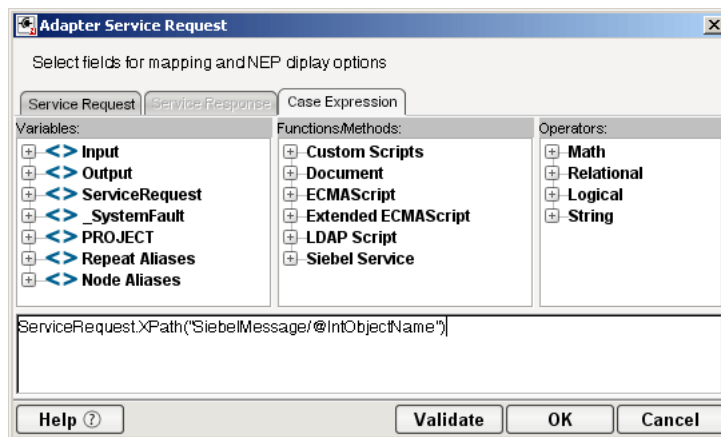


The Adapter Service Request dialog box is displayed. This dialog box is similar to the Siebel Request dialog box (see [“Creating Actions in the Component Editor” on page 30](#)).

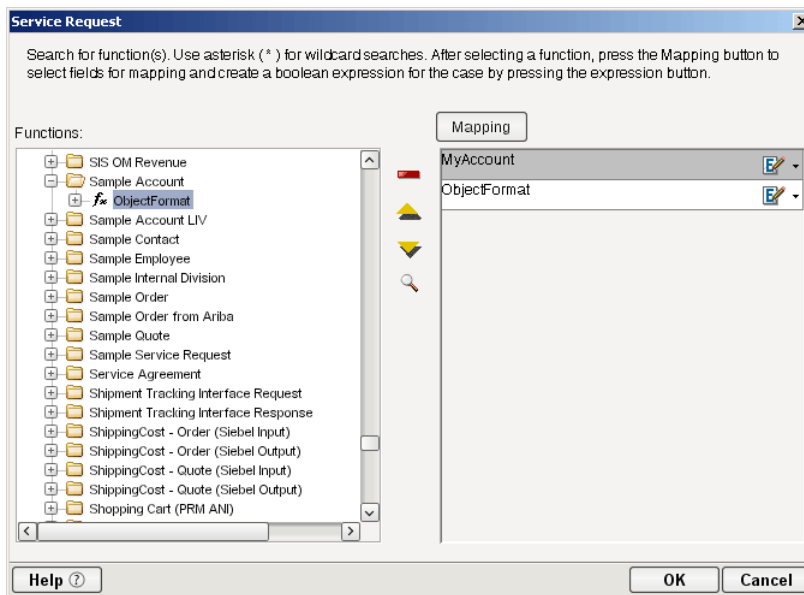




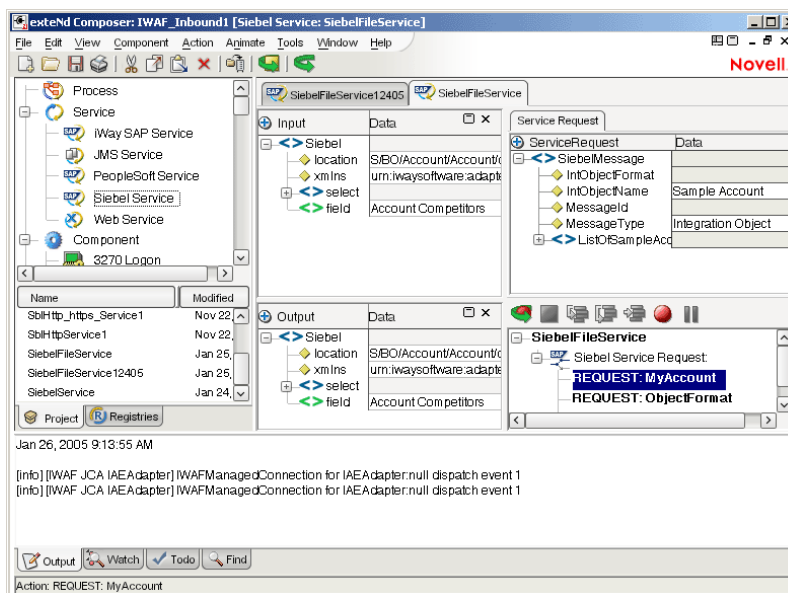
- 10** Select or deselect **Filter Request**, as desired. Filter Request is selected by default. If deselected, the tree will be disabled and greyed (no longer editable), indicating that a default schema configuration will be used. If selected, you can customize the structure of the request document by selecting the nodes to be included in the request document.
- 11** Expand the nodes of the Service Request Tree by clicking on the plus signs to the left of the nodes.
- 12** Select the elements that you want to include in the Service Request document by selecting or deselecting the check boxes in the node tree. Some nodes are greyed out (disabled). This is because the document schema determines the nodes that you can edit.
- 13** If the **Service Response** tab is enabled (this depends on the Synchronization Type setting in the Connection resource), click the **Service Response** tab at the top of the dialog box to bring the Service Response document pane forward. This pane shows a tree view of the Response document, similar to the one shown for the Request document. The same user interface features that applied to the Request document pane apply to the Response document pane.
- 14** Visit all of the nodes in the Response document tree and customize the settings as desired.
- 15** Click the **Case Expression** tab at the top of the dialog box to bring the Case Expression pane forward. This pane provides an Expression Builder that you use to build a case expression.



- 16** Type the static string values or the ECMAScript expressions that will be checked against the input DOM.
- 17** Select the OK button. The Service Request dialog box is displayed.



- 18** To add another case, repeat **Step 4** through **Step 17**. The cases are listed from top to bottom in the order in which they are evaluated. Each Case value will be checked in turn, in the order you list them.
- ◆ For optimal performance, list the most likely matches first.
  - ◆ You can change the order in which the cases are listed by clicking on the name of a case, then clicking the up or down triangle icons.
  - ◆ To edit a case, select the name of the case, then press the **Mapping** button. You can also select the name of the case, then select the Expression Builder button.
- 19** When you have finished adding cases, select **OK**. The Service Request dialog box closes and a new action appears in the Action Model of your component. The Native Environment Pane changes to show the Request and Response (if the Synchronization Type is set to REQUEST\_RESPONSE in the Connection resource) tabs along with tree views of the request and response documents.



- 20** In the Action Model, add actions to be performed to each case to create the desired business logic.

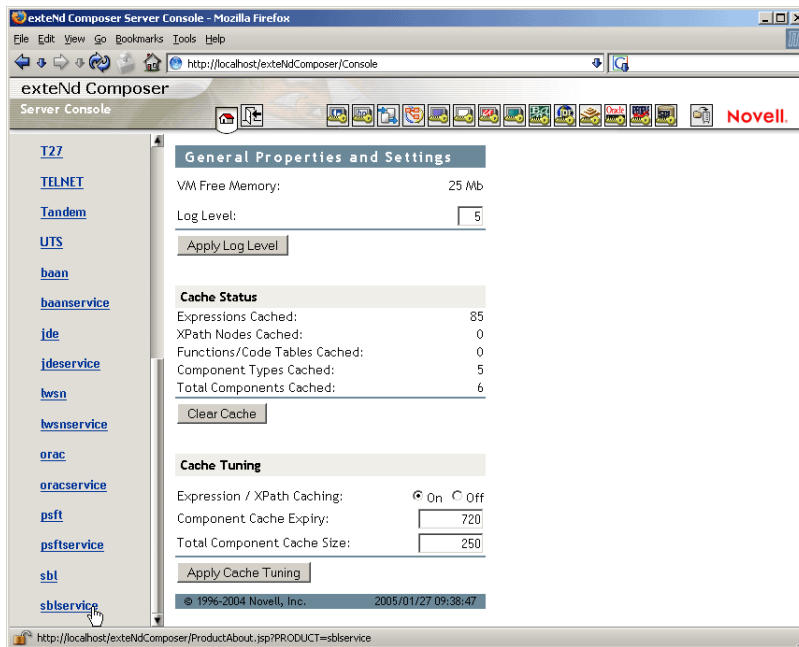
- ◆ To map a node of the Input document to a node in the Request document, drag a node from the Input pane and drop it on a node in the Request tab of the Native Environment pane. This automatically creates a new XML Map Action in the Action Model.
- ◆ To map a node of the Response document to a node in the Output document, drag a node from the Response tab of the Native Environment pane and drop it on a node in the Output pane. This automatically creates a new XML Map Action in the Action Model. You can cut, copy, or delete the actions once they appear in the Action Model pane.
- ◆ When all of the Actions for a case have been evaluated, Integration Manager sets the Service Response DOM.
- ◆ The final case in the Action model is always labeled Default. This case is generated automatically and cannot be removed. Actions placed under Default are executed if and only if the none of the other cases are matched. While you are not required to place actions under Default, it is good programming practice to have at least some kind of fallback logic for the Default case, even if it's only a Log action or a Raise Error action.
- ◆ The Request and Response document displays for Service Requests work similarly to the displays for Requests (see “[Request and Response Documents](#)” on page 36).

## Managing Deployed Siebel Services

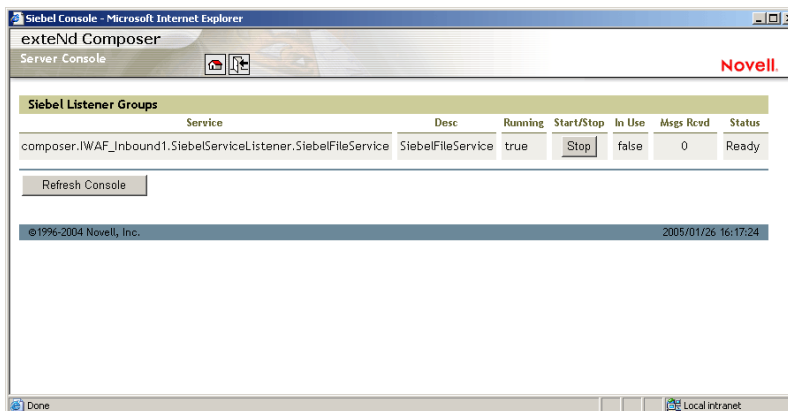
Once a project containing Siebel Services has been deployed (see “Deploying Your Project” in the *Novell Integration Manager User’s Guide*), the Listener objects actively listen for messages each time you start your server. To manually start and stop these services you need to use the Siebel Services Console. This browser-based console allows you to see the list of Siebel Services, the status of each service (running or not running), the running tally (Count) of messages received, other administrative information, and a Start/Stop button.

### ➤ To display the Siebel Services Console:

- 1** Make sure that you have installed the Integration Manager Enterprise Server to your application server (see the *Novell Integration Manager Installation Guide*) and that your application server is running.
- 2** Start the Integration Manager Enterprise Server (for example, if you are using the JBoss application server, you would use a Web browser to access <http://localhost:8080/exteNdComposer>). A dialog box for entering the application server administrator ID and password is displayed.
- 3** Type your administrator ID and password, then select **OK**. The Integration Manager Server Console page is displayed.
- 4** Scroll down the About Products list on the left side of the page until you see the link titled “sblservice”.




- 5 Select the “sblservice” link. A page is displayed that provides information (e.g., version, license number, copyright) about the Connect. It also displays a Console button.
- 6 Select the Console button. The Siebel Service console page is displayed. This page lists any Siebel Services that have been deployed.

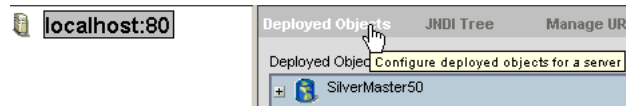


- 7 To stop a Siebel Service, select the appropriate **Stop** button (the button will then change to Start).  
**NOTE:** If messages are being handled by a service at the time of the **Stop** command, there may be some delay before the service actually exits. Select the **Refresh** button periodically until the “Running” column of the console says No for the service.

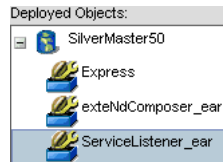
➤ **To undeploy a Siebel Service:**

- 1 Make sure that you have installed the Integration Manager Enterprise Server to your application server (see the *Novell Integration Manager Installation Guide*) and that your application server is running.
- 2 Start the Integration Manager Enterprise Server (for example, if you are using the JBoss application server, you would use a Web browser to access <http://localhost:8080/exteNdComposer>). A dialog box for entering the application server administrator ID and password is displayed.
- 3 Login as an administrator (**File > Login**).
- 4 Select the **Deployment** icon (  ) from the toolbar.

**5** Select **Deployed Objects**:



**6** Expand the database containing the deployed objects that you want to manage:



**7** Select the object that you want to undeploy.

**8** Select the **Undeploy** button.

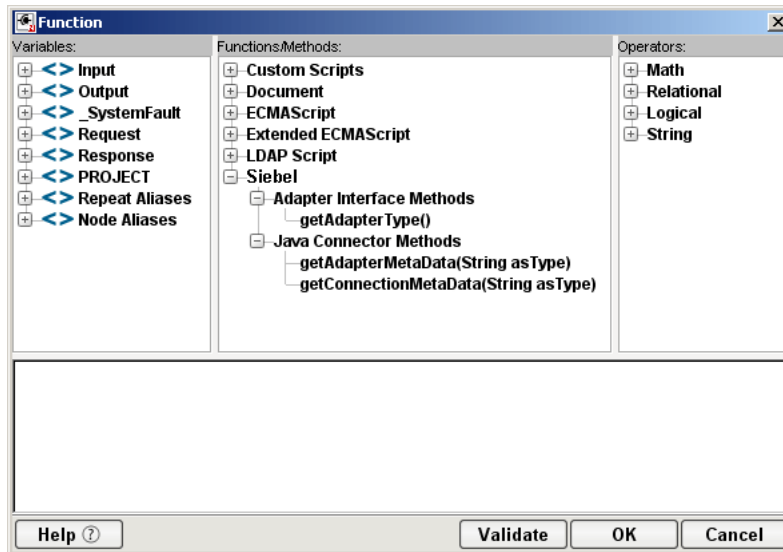
## ECMAScript Extensions

See Appendix A to this guide for a list of ECMAScript extension methods that can be used with the PeopleSoft Connect.



# A ECMAScript Methods

The J2EE Connector framework of the Integration Manager Connect for Siebel implements a number of ECMAScript extension methods that are available for use through the Expression Builder (which is available in Function Actions and elsewhere). You will find the methods listed in the Functions/Methods pane of the Expression Builder:



ToolTip help is available for each method.

For more information on working with the Expression Builder, see “Custom Scripting and XPath Logic in Integration Manager” in the *Novell Integration Manager User’s Guide*.

## Adapter Interface Methods

### getAdapterType

This method calls the `IGNVAdapterInterface.getAdapterType()`, and returns the adapter type name (e.g., “sbl”).

Syntax:

```
getAdapterType()
```

## Connection Interface Methods

The following CCI API metadata-wrapped methods are published through the Expression Builder.

## getAdapterMetaData

This method wraps calls on the `javax.resource.cci.ResourceAdapterMetaData` class.

### Syntax:

`getAdapterMetaData(parameter)`

Parameter	Description
NAME	Returns the name of the adapter (e.g., "iWay JCA adapter").
EXECUTEWITHI	Returns true if the implementation class for the Interaction interface implements public Record execute method; otherwise the method returns false.
EXECUTEWITHIO	Returns true if the implementation class for the Interaction interface implements public boolean execute method; otherwise the method returns false.
VENDOR	Returns the name of the vendor that has provided the resource adapter (e.g., "iWay Software, Inc.>").
VERSION	Returns the version of the resource adapter (e.g., "5.5").
INTERACTIONSPECS	Returns the fully-qualified name of the InteractionSpec type supported by this resource adapter (e.g., "com.ibi.afjca.IWAFInteractionSpec").
SPECVERSION	Returns a string representation of the version of the connector architecture specification that is supported by the resource adapter (e.g., "1.0").
LOCALTX	Returns true if the resource adapter implements the LocalTransaction interface and supports local transaction demarcation on the underlying EIS (Enterprise Information System) instance through the LocalTransaction interface.

## getConnectionMetaData

This method wraps calls on the `javax.resource.cci.ConnectionMetaData` class.

### Syntax:

`getConnectionMetaData(parameter)`

Parameter	Description
EISPRODUCTNAME	Returns the product name of the underlying EIS instance (e.g., "Siebel").
EISPRODUCTVERSION	Returns product version of the underlying EIS instance (e.g., "Supports Siebel 6.0.1 (COM based on Windows NT only) and Siebel 6.3 and above (Java Data Bean Implementation). Adapter Framework version 1.0.>").
USER	Returns the user name for an active connection as known to the underlying EIS instance.



## Additional Methods

The following ECMA-wrapped methods are not displayed by the Expression Builder user interface, but you can use them in the Expression Builder by typing them directly into expressions.

### **getWarnings()**

Returns line separated list of `javax.resource.cci.ResourceWarning` for the `javax.resource.cci.Interaction`.

### **clearWarnings()**

Calls `javax.resource.cci.Interaction.clearWarnings()`.

### **getLastError()**

Returns last error, such as a `javax.resource.ResourceException`.



# Index

## A

### actions

- After Execute 38
  - Before Execute 38
  - creating 30
  - Request 30
  - Siebel Request, creating 31
  - Siebel Service Request, creating 41
  - XML Map 35, 36, 45
- Adapter Service Request 42
- Add Case 42
- Add Event 42
- Add Schema 42
- administrative console, Integration Manager 18
- After Execute actions 38
- application servers
- Novell 16
  - supported 11

## B

- BEA WebLogic 11
- Before Execute actions 38

## C

- Case Expression 43
- CCI 13
- classpath
  - application server 17
  - design-time 16
- clearWarnings 51
- code, NLS character set 23
- Common Client Interface 13
- component, Siebel
  - creating 27
  - Editor window 29
- connection parameter
  - Connection Type 22, 24, 25, 26
  - constant 21
  - Enterprise Name 22
  - Error Directory 24
  - expression-driven 21
  - File Mask 24
  - Gateway Server 22
  - invalid 31
  - Language 23

- Listener Port 25
  - Maximum Pool Size 23, 24, 25, 26
  - Message Wait Interval 26
  - Metadata Connection 24, 25, 26
  - MQ Server Channel 26
  - MQ Server Host 26
  - MQ Server Port 26
  - Object Manager 23
  - Password 23
  - Poll Interval 24
  - Polling Location 24
  - Processing Mode 24, 26
  - Queue Manager 26
  - Queue Name 26
  - Repository Name 23
  - Response/Ack Directory 24
  - Siebel Server 22
    - switching from constant to expression-driven 22
  - Synchronization Type 24, 25, 26
  - Thread Limit 24, 26
  - User 23
  - XML Document 26
- connection resource
- File service 23
  - HTTP Service 24
  - MQSeries Service 25
  - Siebel connection 22
  - types of 21
- Connection Type 22, 24, 25, 26
- Connects
- description 11
  - Siebel, about 12

## D

- Default case 45
- Deployed Objects 46
- DOM, output, selecting XML template for 28, 39

## E

- ECMAScript
  - Integration Manager 11
  - methods 47, 49
- Edit Document 36
- Edit License 18
- EIS 13
- EISPRODUCTNAME 50

EISPRODUCTVERSION 50  
Enterprise Name 22  
Error Directory 24  
EXECUTEWITHI 50  
EXECUTEWITHIO 50  
expression-driven 22

## F

Fault Message 29, 40  
File Mask 24  
Filter Request 43  
Filter Response 35

## G

Gateway Server 22  
Get Schemas 32  
getAdapterMetaData 50  
getAdapterType 49  
getConnectionMetaData 50  
getLastError 51  
getWarnings 51

## H

HTTPS 25

## I

IBM WebSphere 11  
Integration Manager  
    about 11  
    console, administrative 18  
INTERACTIONSPECS 50  
iWay 14

## J

J2EE Connector Architecture 13  
JAR files, required 15  
JARs, Siebel  
    classpath, design-time, adding to 16  
    environment, design-time, adding to 16  
    environment, run-time, adding to 16  
JBoss 11

## L

Language 23  
license, update  
    design-time 17  
    Edit License 18  
    obtaining 17  
    runtime 18  
Licenses tab 17

Listener 45  
Listener Port 25  
LOCALTX 50

## M

Mapping 44  
maximum occurrence 33  
Maximum Pool Size 23, 24, 25, 26  
Message Wait Interval 26  
Metadata Connection 24, 25, 26  
methods  
    adapter interface 49  
    connector interface 49  
MQ Server Channel 26  
MQ Server Host 26  
MQ Server Port 26

## N

Native Environment pane 29, 30  
NLS character set code 23  
Node Name 42

## O

Object Manager 23

## P

Password 23  
Poll Interval 24  
Polling Location 24  
Processing Mode 24, 26

## Q

QueryWithView 34  
Queue Manager 26  
Queue Name 26

## R

RAR  
    deployment 12  
    description 13  
Repository Name 23  
Request action  
    creating 31  
    description 30  
    modifying, manually 36  
Request Message 33  
Request Tree 33  
Request.createXPath() 36  
resource adaptor archives  
    deployment 12

- description 13
- Response Message 35
- Response/Ack Directory 24

## **S**

- schemas, get 32
- Sequential 24
- Service Provider Interface 13
- Service Request dialog box 41
- Service Request Tree 43
- Service Response 43
- service, Siebel
  - creating 38
  - managing 45
- Siebel component
  - creating 27
  - Editor window 29
- Siebel File Service Connection 24, 25, 26
- Siebel HTTP Service Connection 25
- Siebel JARs, thin client 15
- Siebel MQSeries Service Connection 26
- Siebel Server 22
- Siebel Service
  - Console, displaying 45
  - creating 38
  - deploying 45
  - managing 45
  - starting and stopping 45
  - undeploying 46
- Siebel Service Request action 41
- SiebelDataBean.jar 15, 16, 17
- SiebelJI.jar 16, 17
- SiebelJI\_Common.jar 16, 17
- SiebelJI\_enu.jar 16, 17
- SiebelTC\_enu.jar 15, 16, 17
- SiebelTcCommon.jar 15, 16, 17
- SiebelTcOM.jar 15, 16, 17
- SPECVERSION 50

- SPI 13
- Synchronization Type 24, 25, 26, 43, 44

## **T**

- Temp Message 28, 40
- Template Category 28, 39, 40
- Template Name 28, 39, 40
- Thread Limit 24, 26
- Threaded 24
- Tomcat, Apache Jakarta 11
- ToolTips 32, 33

## **U**

- Undeploy 47
- User 23

## **V**

- variables, project 22

## **X**

- xconfig.xml 15, 16
- XDR 38, 42
- XDR File Location 42
- XML Document 26
- XML Map Action 36, 37
- XML Map Component Editor 11, 29
- XML templates 21, 27
- xObject
  - description 21
  - New 22, 23, 24, 25, 27, 38
- XPath 11
- XSLT 11

