



# BEA WebLogic Adapter for File

## User Guide

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### BEA WebLogic Adapter for File User Guide

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# About This Document

The *BEA WebLogic Adapter for File User Guide* is organized as follows:

- [Chapter 1, “Introducing the BEA WebLogic Adapter for File,”](#) introduces the BEA WebLogic Adapter for File, describes its features, and gives an overview of how it works.
- [Chapter 2, “Metadata, Schemas, and Repositories.”](#) describes metadata, how to name a schema repository and the schema manifest, how to create a schema, how to store directory and template files for transformations.
- [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File,”](#) describes how metadata is used and how application views are created.
- [Chapter 4, “Service and Event Configuration,”](#) describes how to add services and events to application views.
- [Chapter 5, “BEA WebLogic Adapter for File Integration Using Studio,”](#) describes how events are incorporated into workflow design.
- [Chapter 6, “Transforming Document Formats,”](#) describes how to utilize Message Format Language files to transform a document.

## What You Need to Know

This document is written for system integrators who develop client interfaces between file systems and other applications. It describes how to use the BEA WebLogic Adapter for File and how to develop application environments with specific focus on message integration. It is assumed that readers know Web technologies and have a general understanding of Microsoft Windows and UNIX systems.

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# Related Information

The following documents provide additional information for the associated software components:

- *BEA WebLogic Adapter for File Installation and Configuration Guide*
- *BEA WebLogic Adapter for File Release Notes*
- *BEA Application Explorer Installation Guide*
- BEA WebLogic Server installation and user documentation, which is available at the following URL:

[http://edocs.bea.com/more\\_wls.html](http://edocs.bea.com/more_wls.html)

- BEA WebLogic Integration installation and user documentation, which is available at the following URL:

[http://edocs.bea.com/more\\_wli.html](http://edocs.bea.com/more_wli.html)

## Contact Us!

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In your e-mail message, please indicate which version of the BEA WebLogic Adapter for File documentation you are using.

If you have any questions about this version of the BEA WebLogic Adapter for File, or if you have problems using the BEA WebLogic Adapter for File, contact BEA Customer Support through BEA WebSupport at [www.bea.com](http://www.bea.com). You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

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When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

## Documentation Conventions

The following documentation conventions are used throughout this document.

Convention	Item
<b>boldface text</b>	Indicates terms defined in the glossary.
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
<i>italics</i>	Indicates emphasis or book titles.
monospace text	<p>Indicates code samples, commands and their options, data structures and their members, data types, directories, and file names and their extensions. Monospace text also indicates text that you must enter from the keyboard.</p> <p><i>Examples:</i></p> <pre>#include &lt;iostream.h&gt; void main ( ) the pointer psz chmod u+w * \tux\data\ap .doc tux.doc BITMAP float</pre>

Convention	Item
<b>monospace</b> <b>boldface</b> <b>text</b>	Identifies significant words in code. <i>Example:</i> void <b>commit</b> ( )
<i>monospace</i> <i>italic</i> <i>text</i>	Identifies variables in code. <i>Example:</i> String <i>expr</i>
UPPERCASE TEXT	Indicates device names, environment variables, and logical operators. <i>Examples:</i> LPT1 SIGNON OR
{ }	Indicates a set of choices in a syntax line. The braces themselves should never be typed.
[ ]	Indicates optional items in a syntax line. The brackets themselves should never be typed. <i>Example:</i> buildobjclient [-v] [-o name ] [-f <i>file-list</i> ]... [-l <i>file-list</i> ]...
	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.
...	Indicates one of the following in a command line: <ul style="list-style-type: none"> <li>■ That an argument can be repeated several times in a command line</li> <li>■ That the statement omits additional optional arguments</li> <li>■ That you can enter additional parameters, values, or other information</li> </ul> The ellipsis itself should never be typed. <i>Example:</i> buildobjclient [-v] [-o name ] [-f <i>file-list</i> ]... [-l <i>file-list</i> ]...
.	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.







# 1 Introducing the BEA WebLogic Adapter for File

This section introduces the BEA WebLogic Adapter for File, describes its features, and gives an overview of how it works. It includes the following topics:

- [Introduction](#)
- [How the BEA WebLogic Adapter for File Works](#)

## Introduction

From the company that delivers the market's fastest growing integration solution comes a standards-based method of implementing the critical "last mile" of connectivity to your enterprise applications. As an extension to BEA WebLogic Integration™, BEA offers a growing portfolio of application, technology, and utility adapters. These best-of-breed adapters completely conform to the J2EE Connector Architecture specification, and feature enhancements that enable faster, simpler, and more robust integration of your business-critical applications.

Since most applications are bound by the file systems of the servers on which they run, or the protocols over which they are communicated, the file systems themselves must be taken into consideration in any enterprise integration strategy. The BEA WebLogic Adapter for File incorporates in-depth knowledge of FTP and file systems to optimize the integration files with enterprise application systems.

The BEA WebLogic Adapter for File enables integration with remote files using File Transport Protocol (FTP). Files within the local file system can also be processed. In both cases, the file contents (or payload) can be XML, non-XML ASCII, or custom data formats. This provides a convenient and simple method for integration with remote application systems using BEA WebLogic Integration.

Key features of the BEA WebLogic Adapter for File include support for:

- Asynchronous, bi-directional message interactions between BEA WebLogic Integration, FTP servers, and the local file system.
- BEA Application Explorer, which makes use of metadata on local and remote file systems to build application views that can be used in the business process management functionality.
- A business process that runs within BEA WebLogic Integration to transfer data to and from FTP servers.
- Integration of service (inbound) and event (outbound) operations in workflows.
- XML, Comma Separated Variable (CSV), Excel, Message Format Language (MFL), and Custom Data Formats. The adapter converts non-XML files into XML formats. Delimited, fixed length, and variable length file formats are supported. Custom Data Formats are expressed using an XML dictionary file, which generates the appropriate schemas required by WebLogic Integration.
- Events that can be routed to general-purpose messaging systems. Message attachments can contain proprietary custom data formats that need to be transformed. The BEA WebLogic Adapter for File supports processing of XML, ASCII (CSV, CDF, Excel) and custom non-XML based messages containing structured, binary, and string data.

# How the BEA WebLogic Adapter for File Works

The adapter provides transport protocol support so that it can “listen” and “emit” documents using file system and FTP protocols.

The listening capability has been implemented as an event within WebLogic Integration. When an inbound document is detected, the event provides options that are configured with the BEA Application Explorer and the WebLogic Application View Console:

- **Transformation services.** XML is quickly becoming the standard for exchanging information between applications; it is invaluable in integrating disparate applications. With this in mind, the BEA WebLogic Adapter for File exposes parse or transformation services. Using pre-built customizable parsers to enable the parsing and conversion of a non-XML formatted document and XSLT transformation to modify XML document format, the BEA WebLogic Adapter for File will ensure that any incoming document can be converted to XML format dictated by your event/service schemas. The BEA WebLogic Adapter for File can also be used in conjunction with other BEA WebLogic Adapters to process a variety of message types, such as SAP IDoc, SWIFT, FIX, HIPAA, and HL7.

The emitting capability has been implemented as a service within WebLogic Integration. When an outbound document is created, the service provides options that are configured with the BEA Application Explorer and WebLogic Application View Console:

- **Transformation services.** Outbound documents can be parsed or transformed to convert XML documents to non-XML formats. The parsing of non-XML documents can also be provided by an XML file that defines a dictionary for certain file formats or a Java class designed to convert from an outgoing XML document into a non-XML document. This document can then be passed through the standard service transport protocols—File, FTP, SMTP, and HTTP. The BEA WebLogic Adapter for File can also be used in conjunction with other BEA WebLogic Adapters to process a variety of message types, such as SAP IDoc, SWIFT, FIX, HIPAA, and HL7.

- **Error Handling.** It is possible to define an alternative error-to option such that in the event that a remote file server is unavailable the file could be written to a local file system directory for further processing. Or, if the required outbound file system was full, the outbound file could be placed in another directory on a local system or remote FTP server.

# 2 Metadata, Schemas, and Repositories

This section describes how metadata for your enterprise information system (EIS) is described, how to name a schema repository and the schema manifest, how to create a schema, and how to store directory and template files for transformations. Once the metadata for your EIS is described, you can then create and deploy application views using the WebLogic Application View Console.

This section includes the following topics:

- [Understanding Metadata](#)
- [Schemas and Repositories](#)
- [The Repository Manifest](#)
- [Creating a Schema](#)
- [Storing Directory and Template Files for Transformations](#)

## Understanding Metadata

When you define an application view, you are creating an XML-based interface between WebLogic Integration and an enterprise information system (EIS) or application within your enterprise. The BEA Adapter for File is used to define a file based interface to applications within and outside of the enterprise. Many applications

or information systems use file systems to store and share data. These files contain information required by other applications, and this information can be fed information via the BEA WebLogic for File adapter.

The BEA WebLogic Adapter for File can read, write or manipulate different types of files stored in multiple file systems or FTP sites. Weblogic integration uses XML as the common format for data being processed in its workflows, which requires information that is not in XML to be transformed to XML. Alternatively, to share information successfully, the file adapter can transform information from the XML format used in Weblogic Integration to widely used formats, such as commercial XML schemas, EDI, SWIFT, HIPAA, HL7, and others.

For example, Excel is a widely used application that allows all types of professionals (from fund managers to administrative assistants) to collate information pertinent to their working environment. This information can be shared by other applications using the adapter's transformation capability, which can convert a worksheet to XML and to other business partners via an EDI stream.

To map this information within the workflow via event and service adapters, the BEA WebLogic Adapter for File requires XML schemas for identifying and processing these documents. Because some of these documents can be in non-XML form, such as Excel, CSV, SWIFT, or HIPAA, must be converted to XML and described to WebLogic Integration using these schemas. A manifest file is used to relate schemas to events or services. The schemas and manifest are stored in a folder or directory in the local file system referred to as the EIS repository. The repository location is required when creating an application view from which events and services can be configured.

Events are triggers to workflows. When a particular file arrives at a location, an event can be triggered to read and convert, if necessary, to the XML format that conforms to a particular schema, which then initiates a flow. Services are called from the workflow to perform particular operations, such as file manipulation (move, copy, delete, append and prepend); file reads and file writes and conversion to other formats are also supported.

The adapter converts non-XML, non-self describing documents into XML in two ways. The Format Builder tool can build MFL files that are stored in the WebLogic server local repository. The format builder is best used for unconventional or custom format files. The structure of this file can be defined using the Format Builder and used for basic conversion to or from XML. For conventional, non-self-describing documents such as SWIFT, HIPAA, EDI/X12, EDIFACT and HL7, the structure of the data is described using a data dictionary or .dic file.



Pre-built dictionaries are supplied for these formats, so creating them is not necessary, but you can customize them to conform with specific electronic trading agreements. Transformation templates or .xch files use these dictionaries to map the document to its XML form or vice versa.

Transformation templates use dictionaries as metadata for the file being read or created. The template defines the input value's relationship with the output values using the dictionary and XML schema. For events, the template is used to convert a non-XML format to XML, and for services the conversion can be reversed using an alternative template.

The templates are stored in the templates sub-directory of the EIS repository. Dictionaries are stored in the dictionaries sub-directory. The following is a sample data dictionary.

### Listing 2-1 Data Dictionary Sample

---

```
<?xml version="1.0"?>
<!-- Title = EDI Transaction Dictionary by Transaction Set -->
<!-- Transaction = 276 Health Care Claim Status Request -->

<EDI Type="ASCII" Version="4010" Standard="X12">
<TransactionSet ID="276" Name="Health Care Claim Status Request"
Note="">

<!-- Table 1 -->

    <Segment ID="ST" Name="Transaction Set Header" Req="M"
MaxUse="1">

        <Element ID="01" Name="Transaction Set Identifier Code"
Req="M" Type="ID" MinLength="3" MaxLength="3" Note="The transaction
set identifier 'ST01' is used by the translation routines of the
interchange partners to select the appropriate transaction set
definition 'e.g., 810 select the Invoice Transaction Set'."/>

        <Element ID="02" Name="Transaction Set Control Number" Req="M"
Type="AN" MinLength="4" MaxLength="9"/>

        <Element ID="03" Name="Implementation Convention Reference"
Req="O" Type="AN" MinLength="1" MaxLength="35" Note="The
implementation convention reference 'ST03' is used by the
translation routines of the interchange partners to select the
appropriate implementation convention to match the transaction set
definition."/>
```

```
</Segment>

<Segment ID="BHT" Name="Beginning of Hierarchical Transaction"
Req="M" MaxUse="1">

    <Element ID="01" Name="Hierarchical Structure Code" Req="M"
Type="ID" MinLength="4" MaxLength="4"/>

    <Element ID="02" Name="Transaction Set Purpose Code" Req="M"
Type="ID" MinLength="2" MaxLength="2"/>

    <Element ID="03" Name="Reference Identification" Req="O"
Type="AN" MinLength="1" MaxLength="50" Note="BHT03 is the number
assigned by the originator to identify the transaction within the
originator's business application system."/>
```

---

Once the metadata for your EIS has been described, application views can be created and deployed using the WebLogic Integration Application View Console. For more information on creating application views, see [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File.”](#)

# Schemas and Repositories

You describe all the documents entering and exiting your WebLogic Integration system using W3C XML schemas. These schemas describe each event arriving to and propagating out of an event, and each request sent to and each response received from a service. There is one schema for each event, and two for each service (one for the request, one for the response). The schemas are usually stored in files with an `.xsd` extension.

Use the WebLogic Integration Application View Console to access events and services, and to assign a schema to each event, request, and response. Assign each application view to a schema repository; several application views can be assigned to the same repository.

BEA WebLogic Adapters all make use of a schema repository to store their schema information and present it to the WebLogic Application View Console. The schema repository is a directory containing:

- A manifest file that describes the event and service schemas.
- The corresponding schema descriptions.

To work with schemas, you must know how to:

- Name a schema repository.
- Create a manifest.
- Create a schema.

## Naming a Schema Repository

The schema repository has a three-part naming convention:

*session\_base\_directory\adapter\connection\_name*

- *session\_base\_directory* is the schema's session base path, which represents a folder under which multiple sessions of schemas may be held.
- *adapter* is the type of adapter (for example, FILE or SAP).
- *connection\_name* is a name representing a particular instance of the adapter type.

For example, if the session base path is `/usr/opt/bea/bse`, the adapter type is FILE, and the connection name is FILEDev, then the schema repository is the directory:

`/usr/opt/bea/bse/FILE/FILEDev`

# The Repository Manifest

Each schema repository has a manifest that describes the repository and its schemas. This repository manifest is stored as an XML file named `manifest.xml`.

The following is an example of a sample manifest file showing relationships between events and services and their schemas.

The manifest file relates documents (through their schemas) to services and events. The manifest exposes schema references to the event relating the required document (via the root tag) to the corresponding schema. Schemas and manifests are stored in the same directory, the repository root of the EIS. Shown below is an example of the a manifest file with a description of the elements.

### Listing 2-2 Sample Manifest File

---

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<manifest>
  <connection/>
  <schemaref name="service_only">
    <request root="INVOICE" file="INVOICE.xsd"/>
    <response root="emitStatus" file="FileEmit.xsd"/>
  </schemaref>
  <schemaref name="event_only">
    <event root="PURCHASE_ORDER" file="PURCHASE_ORDER.xsd"/>
  </schemaref>
  <schemaref name="shared">
    <request root="STOCK_STATUS" file="STOCK_STATUS.xsd"/>
    <response root="emitStatus" file="FileEmit.xsd"/>
    <event root="STOCK_UPDATE" file="STOCK_UPDATE.xsd"/>
  </schemaref>
</manifest>
```

---

The manifest has a connection section (which is not used by the BEA WebLogic Adapter for File) and a schema reference section, named `schemaref`. The schema reference name is displayed in the schema drop-down list on the Add Service and Add Event windows in the WebLogic Integration Application View Console. This sample manifest has 3 schema references or `schemaref` tags; one for services only, one for events only, and one for a combination of services and events. Events require only one

schema, defined by the **event** tag. This relates the root tag of an XML document to a schema in the EIS repository. For services, two schemas are required: one for the document being passed to the service, represented by the **request** tag, and one for the expected **response** document received from the service operation, represented by the **response** tag.

## Creating a Repository Manifest

The repository manifest is an XML file with the root element `manifest` and two sub-elements:

- `connection`, which appears once, and which you can ignore because it is not used by the BEA WebLogic Adapter for File.
- `schemaref`, which appears multiple times, once for each schema name, and which contains all three schemas—request, response, and event.

To create a manifest:

1. Create an XML file with the following structure:

```
<manifest>
  <connection>
  </connection>
</manifest>
```

2. For each new event or service schema you define, create a `schemaref` section using this model:

```
<schemaref name="OrderIn">
  <request root="OrderIn" file="service_OrderIn_request.xsd"/>
  <response root="emitStatus" file="MQEmitStatus.xsd"/>
  <event root="OrderIn" file="event_OrderIn.xsd"/>
</schemaref>
```

Here, the value you assign to:

- `file` is the name of the file in the schema repository.
- `root` is the name of the root element in the actual instance documents that will arrive at, or be sent to, the event or service.

# Creating a Schema

Schemas describe the rules of the XML documents that will traverse WebLogic Integration. You can generate a schema manually or through a schema-generating tool.

WebLogic Integration interacts with application view events and services by sending and receiving XML messages. The XML messages are defined by XML schemas. The schemas are stored in directories specific for each adapter.

You must set up at least one directory for each adapter you use. This directory can contain multiple subdirectories, each of which can hold schemas specific to different instances of your application. You should name the parent directory to represent your adapter; you can name the subdirectories according to what is appropriate for your application.

For example, if you have four instances of an application that exchanges messages between the BEA WebLogic Adapter for File and WebLogic Integration, you should set up four subdirectories to store the schemas; the subdirectories should be in a parent `File` directory:

```
D: \TraderSystems\BEAapps\File\FTPprod
D: \TraderSystems\BEAapps\File\FTPdev
D: \TraderSystems\BEAapps\File\FTPuat
D: \TraderSystems\BEAapps\File\FILEprod
```

The schemas for the documents being processed are stored within those directories.

The following is an example of an instance document for the `OrderIn` event referred to in [“Creating a Repository Manifest” on page 2-7](#).

---

**Listing 2-3 Instance Document for OrderIn Event**

---

```
<?xml version="1.0"?>

<OrderIn>
  <Store_Code>1003CA</Store_Code>
  <LineItem>
    <Prod_Num>1003</Prod_Num>
    <Quantity>100</Quantity>
    <Price>1.69</Price>
  </LineItem>
  <LineItem>
    <Prod_Num>1004</Prod_Num>
    <Quantity>10</Quantity>
    <Price>1.79</Price>
  </LineItem>
</OrderIn>
```

---

A schema matching this instance document is shown below and may be manually coded or generated from any XML editor:

---

**Listing 2-4 Schema Matching OrderIn Event Instance Document**

---

```
<?xml version="1.0" encoding="UTF-8"?>

<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified">
  <xsd:element name="OrderIn">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="Store_Code"/>
        <xsd:element ref="LineItem" maxOccurs="unbounded"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
  <xsd:element name="LineItem">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element ref="Prod_Num"/>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```

```
        <xsd:element ref="Quantity"/>
        <xsd:element ref="Price"/>
    </xsd:sequence>
</xsd:complexType>
</xsd:element>
<xsd:element name="Price">
    <xsd:simpleType>
        <xsd:restriction base="xsd:decimal">
            <xsd:enumeration value="1.69"/>
            <xsd:enumeration value="1.79"/>
        </xsd:restriction>
    </xsd:simpleType>
</xsd:element>
<xsd:element name="Prod_Num">
    <xsd:simpleType>
        <xsd:restriction base="xsd:short">
            <xsd:enumeration value="1003"/>
            <xsd:enumeration value="1004"/>
        </xsd:restriction>
    </xsd:simpleType>
</xsd:element>
<xsd:element name="Quantity">
    <xsd:simpleType>
        <xsd:restriction base="xsd:byte">
            <xsd:enumeration value="10"/>
            <xsd:enumeration value="100"/>
        </xsd:restriction>
    </xsd:simpleType>
</xsd:element>
<xsd:element name="Store_Code" type="xsd:hexBinary"/>
</xsd:schema>
```

---

# Storing Directory and Template Files for Transformations

The BEA WebLogic Adapter for File supports the exchange of XML and non-XML messages with WebLogic Integration. Templates and dictionaries are created and associated with BEA WebLogic Adapter for File events and services. Dictionaries (.dic extension) are documents that describe an incoming non-XML document, and templates (.xch extension) describe the conversion from one format to another (XML



to non-XML, and vice versa). Sample dictionaries and templates are supplied with the product and must be placed in a `transform` subdirectory in the root directory for your domain, as shown in the following paths:

```
DOMAIN_HOME\transform\xch  
DOMAIN_HOME\transform\xslt  
DOMAIN_HOME\transform\dic
```

## Samples File

Supplied with the BEA WebLogic Adapter for File are sample files (xml and edi format) that can be used to help test that your environment is correctly set up and working. The `samples.zip` file also includes sample manifest and schema files.



# **3 Defining an Application View for the BEA WebLogic Adapter for File**

This section describes how metadata is used and how application views are created. It includes the following topics:

- [Schemas, Dictionaries, and Transformation Templates](#)
- [Creating a Transformation Template](#)
- [Creating a New Application View](#)

# Schemas, Dictionaries, and Transformation Templates

When you define an application view, you are creating an XML-based interface between WebLogic Server and a particular Enterprise Information System (EIS) application within your enterprise. In the case of the BEA WebLogic Adapter for File, this is a set of files that your applications have to create or respond to.

For example, Excel is a widely used application that allows professionals to collate information pertinent to their working environment. SAP is also a valuable application used in the IT environment for CRM solutions. The BEA WebLogic Adapter for File allows you to effectively share information between these disparate systems. The adapter can detect an update in the Excel document, transform it to XML, and pass it to WebLogic Integration. Based on a predefined workflow, WebLogic Integration can use the BEA WebLogic Adapter for SAP to send the information, in the appropriate format, and cause an update in the SAP system. As another example, WebLogic Integration can place the information on a file system, FTP site, or MQSeries queue for integration with applications that comply with industry- or government-mandated standards, such as HL7, HIPAA, or Swift. In this case, WebLogic Integration uses the BEA WebLogic Adapter for File or the BEA WebLogic Adapter for MQSeries in conjunction with the BEA WebLogic Adapter for HL7, the BEA WebLogic Adapter for HIPAA, or the BEA WebLogic Adapter for Swift.

The adapter requires schemas for processing these documents. As some of these documents may be in non-XML form (for example, Excel, CSV, SWIFT, and HIPAA), they will have to be converted to XML and described to WebLogic Integration using schemas. For more information on schemas, see [Chapter 2, “Metadata, Schemas, and Repositories.”](#)

For non-XML, non-self describing documents, the structure of the data will need to be described using a data dictionary such as the one shown in the following listing:

### **Listing 3-1 Data Dictionary**

---

```
<?xml version="1.0"?>

<!-- Title = EDI Transaction Dictionary by Transaction Set -->
<!-- Transaction = 276 Health Care Claim Status Request -->

<EDI Type="ASCII" Version="4010" Standard="X12">
<TransactionSet ID="276" Name="Health Care Claim Status Request"
Note="">

<!-- Table 1 -->

    <Segment ID="ST" Name="Transaction Set Header" Req="M"
MaxUse="1">

        <Element ID="01" Name="Transaction Set Identifier Code"
Req="M" Type="ID" MinLength="3" MaxLength="3" Note="The transaction
set identifier 'ST01' is used by the translation routines of the
interchange partners to select the appropriate transaction set
definition 'e.g., 810 select the Invoice Transaction Set'."/>

        <Element ID="02" Name="Transaction Set Control Number" Req="M"
Type="AN" MinLength="4" MaxLength="9"/>

        <Element ID="03" Name="Implementation Convention Reference"
Req="O" Type="AN" MinLength="1" MaxLength="35" Note="The
implementation convention reference 'ST03' is used by the
translation routines of the interchange partners to select the
appropriate implementation convention to match the transaction set
definition."/>

    </Segment>

    <Segment ID="BHT" Name="Beginning of Hierarchical Transaction"
Req="M" MaxUse="1">

        <Element ID="01" Name="Hierarchical Structure Code" Req="M"
Type="ID" MinLength="4" MaxLength="4"/>

        <Element ID="02" Name="Transaction Set Purpose Code" Req="M"
Type="ID" MinLength="2" MaxLength="2"/>

        <Element ID="03" Name="Reference Identification" Req="O"
Type="AN" MinLength="1" MaxLength="50" Note="BHT03 is the number
assigned by the originator to identify the transaction within the
originator's business application system."/>
```

---

## Creating a Transformation Template

You can create a transformation template file by running the Session Connection utility from the BEA Application Explorer. The utility creates the template and the schema automatically and configures the `manifest.xml` file accordingly. To create a transformation template file, the dictionary must have been defined as described in [“Schemas, Dictionaries, and Transformation Templates” on page 3-2](#).

The templates are stored in the libraries created in the `wlomain` directory in the correct folder (`transform/xch`). Dictionaries need to be stored in the `transform/dic` directory. For more information on file locations, see the *BEA WebLogic Adapter for File Installation and Configuration Guide*.

Once the metadata for your EIS has been described, application views can be created and deployed using the WebLogic Integration Application View Console.

## Creating a New Application View

You can create an application view once the metadata for your EIS has been described.

To create an application view:

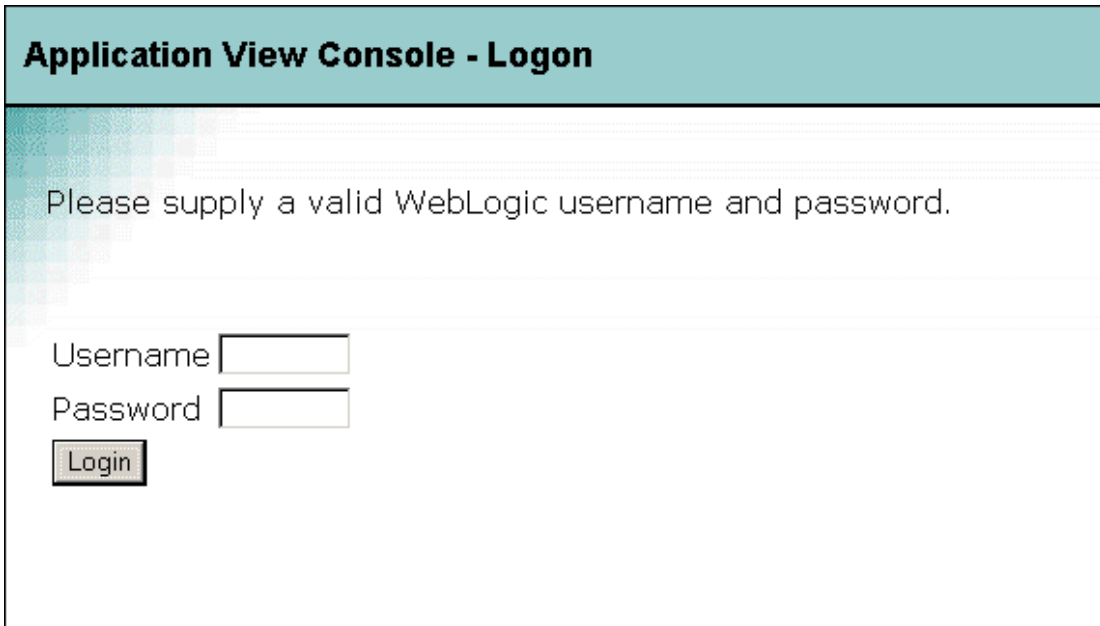
1. Open the Application View Console, which is found at the following location:

```
http://host:port/wlai
```

Here, *host* is the TCP/IP address or DNS name where WebLogic Integration Server is installed, and *port* is the socket on which the server is listening. The default port at the time of installation is 7001.

2. If prompted, enter a user name and password, as shown in the following figure.

**Figure 3-1 Application View Console Logon Window**



The image shows a web-based logon window titled "Application View Console - Logon". The window has a light blue header bar with the title. Below the header, the text "Please supply a valid WebLogic username and password." is displayed. Underneath this text, there are two input fields: "Username" and "Password". The "Username" field is a standard text box, and the "Password" field is a text box with a small square icon on the right side, indicating it is a password field. Below these fields is a "Login" button with a 3D effect.

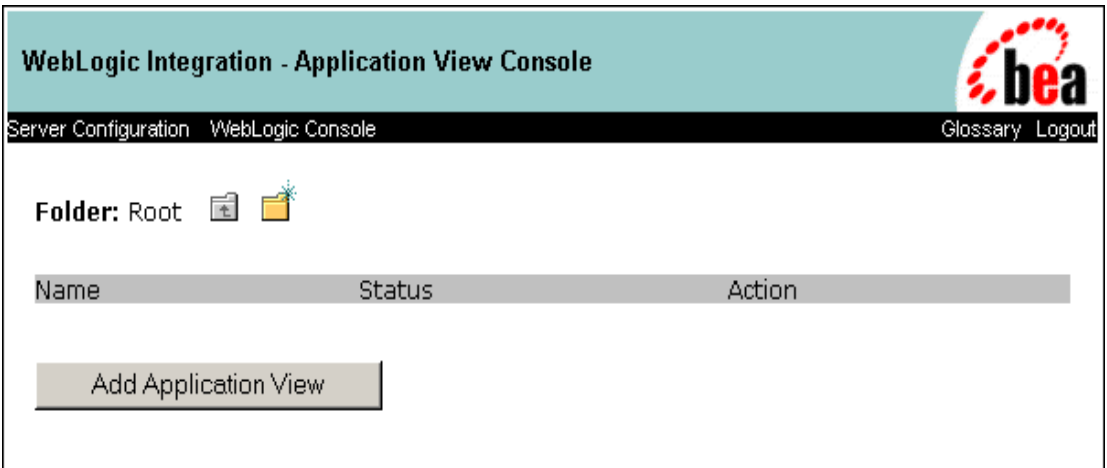
**Note:** If the user name is not `system`, it must be included in the `adapter` group. For more information on adding the administrative server user name to the `adapter` group, see the *BEA WebLogic Adapter for File Installation and Configuration Guide*.

3. Click Login.

### 3 Defining an Application View for the BEA WebLogic Adapter for File

The WebLogic Integration Application View Console opens.

**Figure 3-2 Application View Console Window**



4. Click Add Application View to create an application view for the adapter. The Define New Application View dialog box opens. An application view enables a set of business processes for this adapter's target EIS application. For more information, see “Defining an Application View” in *Using Application Integration*:
  - For WebLogic Integration 7.0, see <http://edocs.bea.com/wli/docs70/aiuser/2usrdef.htm>
  - For WebLogic Integration 2.1, see [http://edocs.bea.com/wlintegration/v2\\_1sp/aiuser/2usrdef.htm](http://edocs.bea.com/wlintegration/v2_1sp/aiuser/2usrdef.htm)



Figure 3-3 Define New Application View Window

**Define New Application View**

Glossary Logout

This page allows you to define a new application view

Folder: [Root](#)

Application View Name: \*

Description:

Associated Adapter:

OK Cancel

5. In the Application View Name field, enter a name. The name should describe the set of functions performed by this application. Each application view name must be unique to its adapter. Valid characters are a-z, A-Z, 0-9, and \_ (underscore).
6. In the Description field, enter any relevant notes. These notes are viewed by users when they use this application view in workflows using business process management functionality.
7. From the Associated Adapter list, select `BEA_FILE_1_0` to associate the BEA WebLogic Adapter for File with this application view.

8. Click OK. The Configure Connection Parameters window opens.

**Figure 3-4 Configure Connection Parameters Window**

**Configure Connection Parameters**

Application View Console WebLogic Console Glossary Logout

**Configure Connection**

Administration

Add Service

Add Event

Deploy Application View

On this page, you supply parameters to connect to your EIS

The BEA Application Explorer generates schema information for a session stored at a location that must be known to the general adapter. Enter this session location here. A session can support multiple connections.

Once you have entered the **session path** location, click on the pulldown arrow for the **connection name**, which will display a selection list of valid connections.

Session path\* d:\TraderSystems\BEAapps

Connection name\* TraderApps

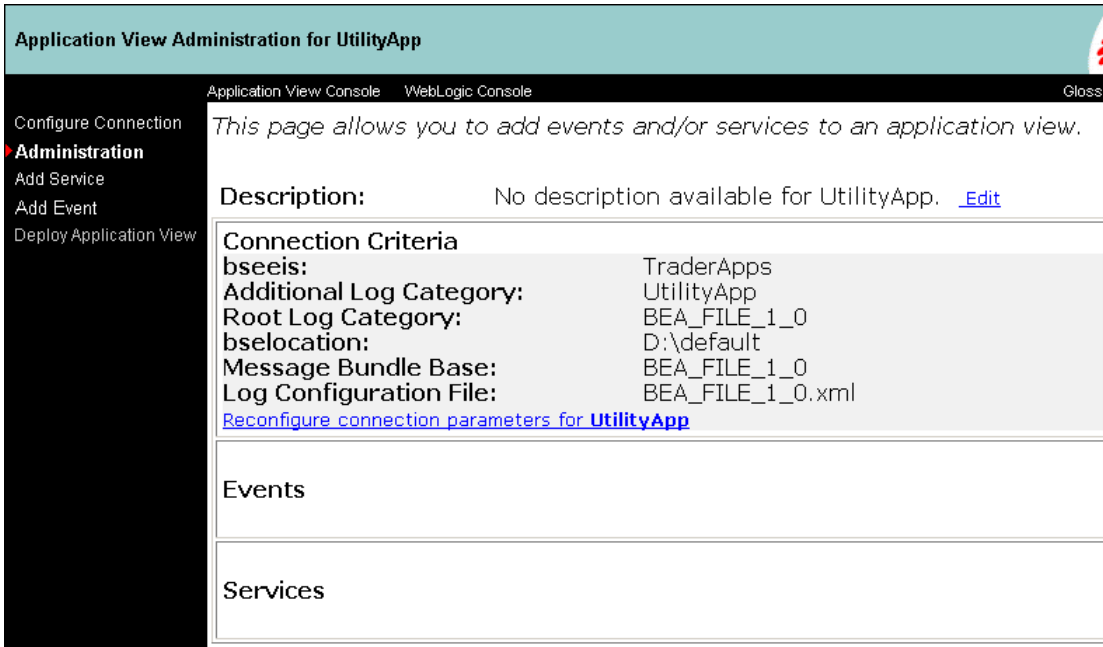
Connect to EIS

9. Enter the root directory containing your schema subdirectories. For example, d:\TraderSystems\BEAapps.
10. Select the connection name (the subdirectory containing schemas and the manifest file) from the drop-down list. For example, TraderApps.

For more information on schemas and the manifest file, see [Chapter 2, “Metadata, Schemas, and Repositories.”](#)

11. Click Connect to EIS to view the Application View Console Administration window.

**Figure 3-5 Application View Console Administration Window**



You can now configure services and events as described in [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File.”](#)

### **3**    *Defining an Application View for the BEA WebLogic Adapter for File*

---

# 4 Service and Event Configuration

This section describes how to add services and events to application views. It contains the following topics:

- [Adding a Service to an Application View](#)
- [Adding an Event to an Application View](#)
- [Deploying an Application View](#)
- [Testing a Service or Event](#)

# Adding a Service to an Application View

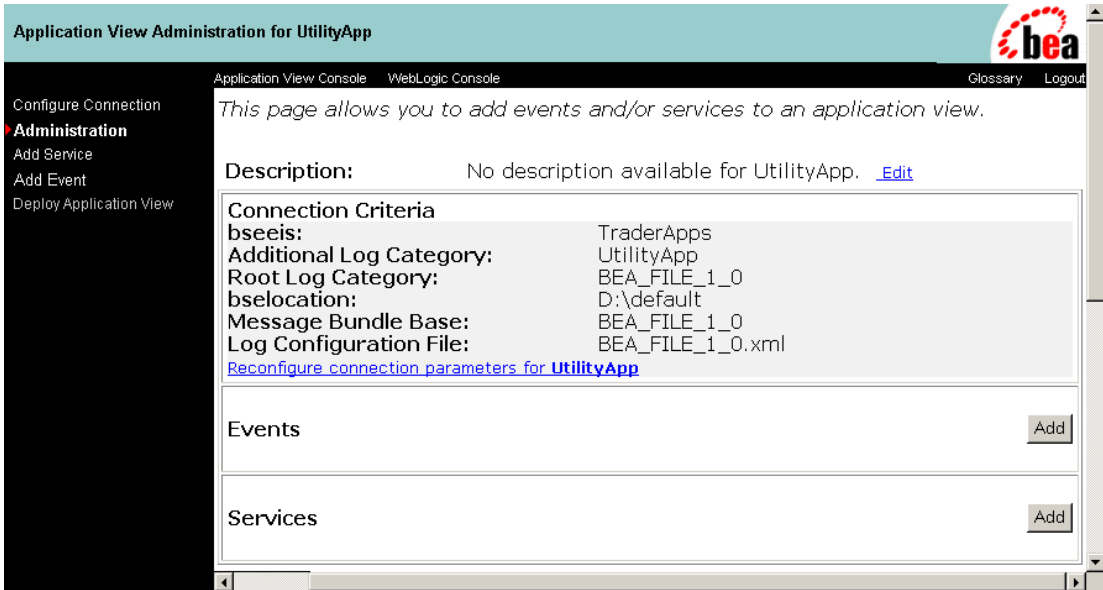
After you create and configure an application view as described in [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File,”](#) you can add services that support the application's functions.

To add a service to an application view:

1. If it is not already open, open the application view to be modified. For more information, see “Editing an Application View” in “Defining an Application View” in *Using Application Integration*:
  - For WebLogic Integration 7.0, see <http://edocs.bea.com/wli/docs70/aiuser/2usrdef.htm>
  - For WebLogic Integration 2.1, see [http://edocs.bea.com/wlintegration/v2\\_1sp/aiuser/2usrdef.htm](http://edocs.bea.com/wlintegration/v2_1sp/aiuser/2usrdef.htm)
2. If the application view is deployed, you must undeploy it before adding the service. See “Optional Step: Undeploying an Application View” in “Defining an Application View” at the URL referenced in the previous step.

3. In the left pane, click Administration from the Configure Connection list. The Application View Console Administration window opens.

**Figure 4-1 Application View Console Administration Window**



4. Click Add in the Services pane.

## 4 Service and Event Configuration

The Add Service window opens.

**Figure 4-2 Add Service Window**

**Add Service**

Application View Console WebLogic Console Glossary Logout

Configure Connection  
Administration  
**Add Service**  
Add Event  
Deploy Application View

On this page, you add services to your application view.

Unique Service Name:\*

Select:

Transform name	<input type="text"/>
type	<input type="text" value="flat"/>
Transform engine	<input type="text" value="mfl"/>
directory*	<input type="text"/>
output file name/mask*	<input type="text"/>
Error Local Directory	<input type="text"/>

schema:

**settings**

Trace on/off	<input type="checkbox"/>
root to transform template directory	<input type="text" value="D:/TraderSystems/BEAapps/FILE/Fi"/>
root to XML Style sheet directory	<input type="text" value="D:/TraderSystems/BEAapps/FILE/Fi"/>

5. In the Unique Service Name field, enter a name. The name should describe the function performed by this service. Each service name must be unique to its application view. Valid characters are a-z, A-Z, 0-9, and \_ (underscore).



6. Select the operation to be configured from the Select drop-down list. This list includes: File System Write, File System Read, FTP Write, and File Operations. You can configure only one operation per service.
7. Select the protocol or format from the Transform engine drop-down list, and enter the required values (required fields are marked with an asterisk). Descriptions of the parameters for each configurable operation are provided in the following tables:

**Table 4-1 File System Write**

Setting	Meaning/Properties
Transform name	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> Parser name and settings required for transformation.</p> <p><b>Values:</b> Name and extension of the transformation template. If it is not stored in the standard location, enter the full path.</p> <p><b>Note:</b> Do not enter an .mfl extension for a Message Format Language (MFL) file; these files are not stored with an extension.</p>
type	<p><b>Type/Value:</b> Drop-down list</p> <p><b>Description:</b> Format of the document being written.</p> <p><b>Values:</b> XML format or flat format for non-XML output.</p>
Transform engine	<p><b>Type/Value:</b> Drop-down list</p> <p><b>Description:</b> The engine required to transform the document. Select Message Format Language (mfl), XSL Transformation (xslt), or Supplied transformation templates (xch).</p>
directory* (*Required)	<p><b>Type/Value:</b> Directory Path</p> <p><b>Description:</b> Directory to which output messages are emitted.</p>
output file name/mask* (*Required)	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> The output file name (can contain a '*'), which gets expanded to a timestamp.</p> <p>A pound symbol can be used as a mask for a sequence count. Each pound symbol represents a whole number integer value. For example, File## counts up to 99 before restarting at 0, File### counts up to 999 before restarting at 0, and so on.</p>
Error Local Directory	<p><b>Type/Value:</b> Directory Path</p> <p><b>Description:</b> Directory to which the document being processed is written to in the event of a failure (for instance if the transformation fails or the document does not match the schema).</p>

**Table 4-2 File System Read**

Setting	Meaning/Properties
Input tag containing filename* (*Required)	<b>Type/Value:</b> String <b>Description:</b> Name of the XML tag that contains the name of the file in the file system. The file can be XML or non-XML format and can be transformed as part of the configuration.
Parent directory	<b>Type/Value:</b> Directory Path <b>Description:</b> Optional path to the file, if it is not part of the Input tag.
Transform name	<b>Type/Value:</b> String <b>Description:</b> Parser name and settings required for transformation. <b>Values:</b> Name and extension of the transformation template. If it is not stored in the standard location, enter the full path. <b>Note:</b> Do not enter an .mfl extension for a Message Format Language (MFL) file; these files are not stored with an extension.
type	<b>Type/Value:</b> Drop-down list <b>Description:</b> Format of the file being read. <b>Values:</b> XML format or flat format for non-XML output.
Transform engine	<b>Type/Value:</b> Drop-down list <b>Description:</b> The engine required to transform the document. Select Message Format Language (mfl), XSL Transformation (xslt), or Supplied transformation templates (xch).
Error Local Directory	<b>Type/Value:</b> Directory Path <b>Description:</b> Directory to which the document being processed is written to in the event of a failure (for instance if the transformation fails or the document does not match the schema).

**Table 4-3 FTP Write**

Setting	Meaning/Properties
type	<p><b>Type/Value:</b> Drop-down list</p> <p><b>Description:</b> Format of the file being read.</p> <p><b>Values:</b> XML format or flat format for non-XML output.</p>
Transform name	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> Parser name and settings required for transformation.</p> <p><b>Values:</b> Name and extension of the transformation template. If it is not stored in the standard location, enter the full path.</p> <p><b>Note:</b> Do not enter an .mfl extension for a Message Format Language (MFL) file; these files are not stored with an extension.</p>
Transform engine	<p><b>Type/Value:</b> Drop-down list</p> <p><b>Description:</b> The engine required to transform the document. Select Message Format Language (mfl), XSL Transformation (xslt), Supplied transformation templates (xch).</p>
Host name* (*Required)	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> FTP target system.</p>
Port number	<p><b>Type/Value:</b> Numeric</p> <p><b>Description:</b> FTP target system port (leave empty for FTP default).</p>
User ID* (*Required)	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> User account ID to use when connecting to the protocol host.</p>
Password* (*Required)	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> Password for the user account to use when connecting to the protocol host.</p>
destination* (*Required)	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> Directory to address on the FTP target system.</p>
output file name/mask	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> The output file name (can contain a '*'), which gets expanded to a timestamp.</p>

## 4 Service and Event Configuration

**Table 4-3 FTP Write**

Setting	Meaning/Properties
Retry Interval	<b>Type/Value:</b> Retry interval duration in xxH : xxM : xxS format. (for example, 1H:2M:3S, which is 1 hour 2 minutes and 3 seconds) <b>Description:</b> The maximum wait interval between retries when a connection fails.
Maxtries	<b>Type/Value:</b> String <b>Description:</b> Number of retries for a failed attempt to write.
Error Local Directory	<b>Type/Value:</b> Directory Path <b>Description:</b> Directory to which the document being processed is written to in the event of a failure (for instance if the transformation fails or the document does not match the schema).

**Table 4-4 FTP Read**

Setting	Meaning/Properties
Input tag containing filename	<b>Type/Value:</b> String (*Required) <b>Description:</b> Name of the XML tag that contains the name of the file in the file system. The file can be XML or non-XML format and can be transformed as part of the configuration.
tag to enclose data read	<b>Type/Value:</b> String <b>Description:</b> If the non-xml document is not being transformed and needs to be embedded in an XML tag, supply tag name here
Parent directory (if filename is not absolute)	<b>Type/Value:</b> Directory <b>Description:</b> Optional path to the file, if not part of Input tag.
format	<b>Type/Value:</b> Dropdown list <b>Description:</b> Format of file being read. <b>Value:</b> xml - XML format input <b>Value:</b> flat - no-xml input format.
Host name* *Required)	<b>Type/Value:</b> String <b>Description:</b> FTP target system.

**Table 4-4 FTP Read**

Setting	Meaning/Properties
Port number	<b>Type/Value:</b> Numeric <b>Description:</b> FTP target system port (leave empty for FTP default).
User ID* (*Required)	<b>Type/Value:</b> String <b>Description:</b> User account ID to use when connecting to protocol host.
Password* (*Required)	<b>Type/Value:</b> String <b>Description:</b> Password for user account to use when connecting to protocol host.
Transform name	<b>Type/Value:</b> String <b>Description:</b> Parser name and settings required for transformation. Values: Name and extension of the transformation template. If it is not stored in the standard location, supply the full path.
Transform engine	<b>Type/Value:</b> Drop-down list <b>Description:</b> The engine required to transform the document (Message Format Language (mfl), XSL Transformation (xslt), Supplied transformation templates (xch)).
Error Local directory	<b>Type/Value:</b> Directory Path. <b>Description:</b> Directory to which document being processed is written to in the event of a failure (for instance if the transformation fails or document does not match schema).

**Table 4-5 File Operations**

Setting	Meaning/Properties
Relative path setting on/off	<b>Type:</b> Check box <b>Value:</b> True if only relative path operations are permitted, false if absolute path operations are permitted.
Source Directory	Path base for <from> or <file>
Target Directory	Path base for <to>

The File Operations service supports file operations on a local computer. The input document describes one or more operations, and the results of those operations are inserted into the document as a “receipt.”

```
<fileop>
  <op>rename | copy | move | delete | append
    <from>name</from>
    <to>name</to>
    <file>name</file>
  </op>
</fileop>
```

The <op> tag is repeatable.

Delete uses the <file> tag.

Copy, move, rename, and append use the <to> and <from> tags.

For example,

```
<fileop>
<op>copy
<from>d:\fileout\mfl\spokout1.mfl</from>
<to>d:\filein\mfl\spokout#.mfl</to>
</op>
</fileop>
```

The File Operation will return an answer set with the status of the operation in the format shown below:

```
<fileop>0
  <op>rename | copy | move | delete
    <from>name</from>
    <to>name</to>
    <file>name</file>
    <status>code</status>
    <msg>text</msg>
  </op>
</fileop>
```

The following is an example of the answer set:

```
<fileop>
  <op>copy
    <from>d:\fileout\mfl\sprokout1.mfl</from>
    <to>d:\filein\mfl\sprokout#.mfl</to>
    <status>0</status>
    <msg>success</msg>
  </op>
</fileop>
```

If relative is true, all file operations are relative to the Source Directory and Target Directory directories. In this case, these parameters are mandatory. For security reasons, a customer will probably require relative operations.

## 4 Service and Event Configuration

The following figure shows the configuration of a File System Write operation:

**Figure 4-3 Add Service Window**

The screenshot shows the 'Add Service' window in the BEA WebLogic console. The left sidebar contains a navigation menu with 'Add Service' selected. The main area has a title bar 'Add Service' and a BEA logo. Below the title bar, there are tabs for 'Application View', 'Console', and 'WebLogic Console'. A message states: 'On this page, you add services to your application view.' The configuration fields are as follows:

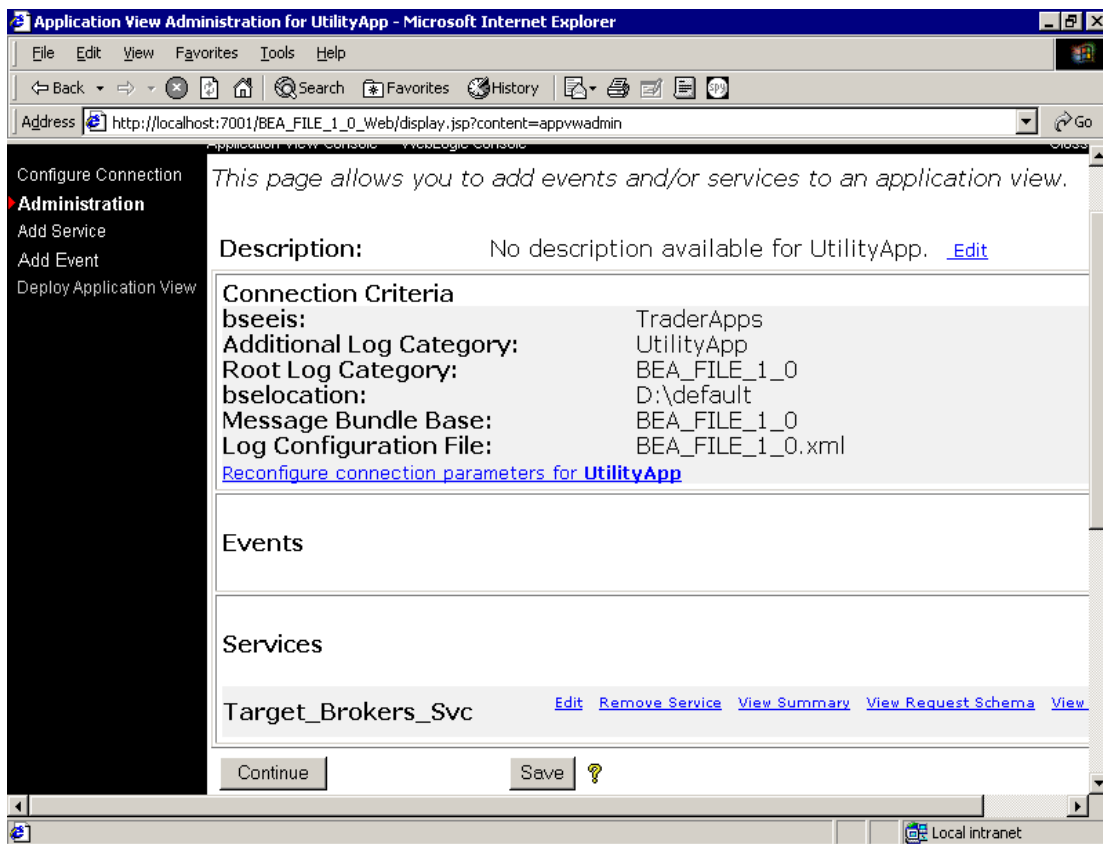
Unique Service Name: *	Target_Brokers_Svc
Select:	File System Write
Transform name	
type	flat
Transform engine	mfl
directory *	d:\Target_Brokers_Svc\xml
output file name/mask *	TargetBrokers*.xml
Error Local Directory	d:\Target_Brokers_Svc\error
schema:	EXCEL_ADDR_IN
<b>settings</b>	
Trace on/off	<input type="checkbox"/>
root to transform template directory	D:\TraderSystems\BEAapps\FILE\Fi
root to XML Style sheet directory	D:\TraderSystems\BEAapps\FILE\Fi
<input type="button" value="Add"/>	

8. Select the schema (at the bottom of the window) required for this service.



9. If required, update the settings for the location of the transform or stylesheet.  
If Trace is selected, trace information is displayed in the runtime console.  
If Logging is selected, the log information is stored in the `BEA_FILE_1_0.log` file in the directory from which the application was started.
10. Click Add.

**Figure 4-4 Application View Administration Window**



At this point, the application can be deployed or more services or events can be configured. Once the application has been deployed, you can test the service. To deploy the application, see “[Deploying an Application View](#)” on page 4-22. To test the application, see “[Testing a Service or Event](#)” on page 4-26.

## Adding an Event to an Application View

To add events to the application view, schemas must be present and mapped to the BEA WebLogic Adapter for File EIS that is configured for the application view. For more information on creating an application view, see [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File.”](#)

1. If your application is deployed, you will need to undeploy the application and then edit the application view.

**Figure 4-5 Application View Console Administration Window**

*This page allows you to add events and/or services to an application view.*

**Description:** No description available for UtilityApp. [\\_Edit](#)

<b>Connection Criteria</b>	
bseeis:	TraderApps
Additional Log Category:	UtilityApp
Root Log Category:	BEA_FILE_1_0
bselocation:	D:\default
Message Bundle Base:	BEA_FILE_1_0
Log Configuration File:	BEA_FILE_1_0.xml
<a href="#">Reconfigure connection parameters for UtilityApp</a>	

**Events** [Add](#)

**Services** [Add](#)

**Target\_Brokers\_Svc** [Edit](#) [Remove Service](#) [View Summary](#) [View Request Schema](#) [View Response Schema](#)

[Continue](#) [Save](#) [?](#)

2. From the Application View Console Administration window, click Add in the Events section of the administration pane.

The Add Event window opens.

**Figure 4-6 Add Event Window**

**Add Event**

Application View Console WebLogic Console

Glossary Logout

Configure Connection  
Administration  
Add Service  
➔ **Add Event**  
Deploy Application View

On this page, you add events to your application view.

Unique Event Name: \*

Select: **File System**

Location*	<input type="text"/>
File Suffix*	<input type="text"/>
Character Set Encoding*	ISO-8859-1
Polling interval	<input type="text"/>
Sort	<input type="checkbox"/>
Scan sub-directories	<input type="checkbox"/>
File-read limit (per scan)	<input type="text"/>
transform	<input type="text"/>
xslt transform	<input type="text"/>
Error Local Directory	<input type="text"/>

schema: **EXCEL\_ADDR\_IN**

**settings**

Trace on/off ☐

3. Enter a Unique Event Name.

## 4 Service and Event Configuration

4. Select the event protocol required from the Select drop-down box.

You have the option to configure an event based on one of two protocols (File System or FTP).

5. Enter the required values (required fields are marked with an asterisk).  
Descriptions of the parameters are provided in the following tables:

**Table 4-6 File System**

Setting	Meaning/Properties
Location* (*Required)	<p><b>Type/Value:</b> Directory Path</p> <p><b>Description:</b> Directory in which input messages are received. The listener allows DOS-style file patterns for input selection. For example, the user can enter the pattern <code>c:\xyz\AB*CD</code> to select <code>ABxxxCD</code>, or <code>c:\xyz\AB?CD</code> to select <code>ABxCD</code>.</p> <p><b>Note:</b> Do not enter the file extension. This is entered in the File Suffix field. If a pattern is used, the files are selected based in order of suffix and then pattern.</p>
File Suffix* (*Required)	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> Limits input files to those with the specified extensions (separated by commas). For example, <code>xml,in</code></p> <p>Do not use periods (.) as they indicate no extension.</p> <p><b>Note:</b> If the file suffix is zip, the unzipped files need to conform to the event schema or they will fail. This function also works with transform configured.</p>
Character Set Encoding* (*Required)	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> Sets the character set encoding to be used (default value ISO-8859-1-US and Western Europe).</p>
Polling interval	<p><b>Type/Value:</b> Polling interval duration in <code>xxH:xxM:xxS</code> format. (for example, <code>1H:2M:3S</code>, which is 1 hour 2 minutes and 3 seconds)</p> <p><b>Description:</b> The maximum wait interval between checks for new documents. The higher this value, the longer the interval, and the fewer system resources that are used. The side effect of a high value is that the worker thread will not be able to respond to a stop command. If timeout is set to 0, the listener will run once and terminate. Default is 2 seconds.</p>
Sort	<p><b>Type/Value:</b> Boolean (true/false)</p> <p><b>Description:</b> Sort by arrival - If set, sort incoming documents by arrival time. Maintains sequence, but slows performance.</p>

**Table 4-6 File System**

Setting	Meaning/Properties
Scan sub-directories	<b>Type/Value:</b> Boolean (true/false) <b>Description:</b> When checked, scans all subdirectories for documents to be processed.
File-read limit	<b>Type/Value:</b> Integer <b>Description:</b> The number of files read per sweep of the File directory location.
transform	<b>Type/Value:</b> String (parameters) <b>Description:</b> This is where the specific preparse/transform information is specified. <b>Values:</b> <ul style="list-style-type: none"> <li>■ entag - this is a preparser that brackets a document with an XML element, enabling you to import a non-XML document into an XML system. You specify the element name in entag's parameter.            For example, <code>entag(tagname)</code> produces an XML document of the form           <pre>&lt;tagname&gt; John Smith,123 Main Street,NY,NY,10121,\$100.00 &lt;/tagname&gt;</pre> </li> <li>■ excel – used for parsing and transforming Excel documents. Two parameters can be passed to this parser. HAS_HEADERS uses the row 1 headings as tag names for the XML document. NO_HEADERS assumes that the whole spreadsheet is data and defines tag names based on column number (col1, col2, col3, and so on).</li> <li>■ mfl – this is the preparser that uses Message Format Language based transformations created using the WebLogic Integration Format Builder, for example, <code>mfl(mflname)</code>.</li> <li>■ transform – this is the general preparser that uses .xch files and dictionaries (.dic), where the data is non-self describing. The value that needs to be passed to the transform is the .xch file name (with extension), for example, <code>transform(CSVtoXML.xch)</code>.</li> </ul>
xslt transform	<b>Type/Value:</b> String <b>Description:</b> The name of the xslt file to be used to transform the incoming XML document.
Error Local Directory	<b>Type/Value:</b> Directory Path <b>Description:</b> Directory to which the document being processed is written to in the event of a failure (for instance if the transformation fails or the document does not match the schema).

## 4 Service and Event Configuration

**Table 4-7 FTP**

Setting	Meaning/Properties
User ID* (*Required)	<b>Type/Value:</b> String <b>Description:</b> User account to use when connecting to the protocol host.
Password* (*Required)	<b>Type/Value:</b> String <b>Description:</b> Password for the user account to use when connecting to the protocol host.
Host name* (*Required)	<b>Type/Value:</b> String <b>Description:</b> Name of host the machine where the listener will contact the service to obtain requests.
Location* (*Required)	<b>Type/Value:</b> Directory <b>Description:</b> Directory on the FTP host from which to retrieve files.
File suffix* (*Required)	<b>Type/Value:</b> String <b>Description:</b> Limits input files to those with the specified extensions (separated by commas). For example, xml , in Do not use periods ( . ) as they indicate no extension.
Character Set Encoding* (*Required)	<b>Type/Value:</b> String <b>Description:</b> Sets the Character set encoding to be used (default value ISO-8859-1-US and Western Europe).
Polling interval	<b>Type/Value:</b> Polling interval duration in xxH : xxM : xxS format. (for example, 1H:2M:3S, which is 1 hour 2 minutes and 3 seconds) <b>Description:</b> The maximum wait interval between checks for new documents. The higher this value, the longer the interval, and the fewer system resources that are used. The side effect of a high value is that the worker thread will not be able to respond to a stop command. If timeout is set to 0, the listener will run once and terminate. Default is 2 seconds.
Scan sub-directories	<b>Type/Value:</b> Boolean (true/false) <b>Description:</b> Scans all subdirectories for documents to be processed.

**Table 4-7 FTP**

Setting	Meaning/Properties
transform	<p><b>Type/Value:</b> String (parameters)</p> <p><b>Description:</b> This is where the specific preparse/transform information is specified.</p> <p><b>Values:</b></p> <ul style="list-style-type: none"> <li>■ entag - this is a preparser that brackets a document with an XML element, enabling you to import a non-XML document into an XML system. You specify the element name in entag's parameter. For example, entag(<i>tagname</i>) produces an XML document of the form  <pre>&lt;tagname&gt; John Smith,123 Main Street,NY,NY,10121,\$100.00 &lt;/tagname&gt;</pre> </li> <li>■ excel – used for parsing and transforming Excel documents. Two parameters can be passed to this parser. HAS_HEADERS uses the row 1 headings as tag names for the XML document. NO_HEADERS assumes that the whole spreadsheet is data and defines tag names based on column number (col1, col2, col3, and so on).</li> <li>■ mfl – this is the preparser that uses Message Format Language based transformations created using the WebLogic Integration Format Builder, for example, mfl(<i>mflname</i>).</li> <li>■ transform – this is the general preparser that uses .xch files and dictionaries (.dic), where the data is non-self describing. The value that needs to be passed to the transform is the .xch file name (with extension), for example, transform(CSVtoXML.xch).</li> </ul>
xslt transform	<p><b>Type/Value:</b> String</p> <p><b>Description:</b> The name of the xslt file to be used to transform the incoming XML document.</p>
Error Local Directory	<p><b>Type/Value:</b> Directory Path</p> <p><b>Description:</b> Directory to which the document being processed is written to in the event of a failure (for instance if the transformation fails or the document does not match the schema).</p>

**Figure 4-7 Add Event Window**

Password\*

Host name\*

Location\*

File suffix\*

Character Set Encoding\* ISO-8859-1

Polling interval

transform

xslt transform

Error Local Directory

schema: EXCEL\_ADDR\_IN

**settings**

Trace on/off ☐

root to transform template directory D:/TraderSystems/BEAapps/FILE/Fi

root to XML Style sheet directory D:/TraderSystems/BEAapps/FILE/Fi

Add

6. Select the schema (at the bottom of the window) required for this event.
7. If required, the settings options for the location of the transform or stylesheet can be changed from the default location.

If Trace is selected, trace information is displayed in the runtime console.

If Logging is selected, the log information is stored in the `BEA_FILE_1_0.log` file in the directory from which the application was started.



8. Click Add. After adding the event process, the following window opens.

**Figure 4-8 Application View Administration Window**

*This page allows you to add events and/or services to an application view.*

**Description:** No description available for UtilityApp. [Edit](#)

<b>Connection Criteria</b>	
bseis:	TraderApps
Additional Log Category:	UtilityApp
Root Log Category:	BEA_FILE_1_0
bselocation:	D:\default
Message Bundle Base:	BEA_FILE_1_0
Log Configuration File:	BEA_FILE_1_0.xml
<a href="#">Reconfigure connection parameters for UtilityApp</a>	

**Events** [Add](#)

RCV_TRADER_EVENT	<a href="#">Edit</a> <a href="#">Remove Event</a> <a href="#">View Summary</a> <a href="#">View Event Schema</a>
------------------	--

**Services** [Add](#)

Target_Brokers_Svc	<a href="#">Edit</a> <a href="#">Remove Service</a> <a href="#">View Summary</a> <a href="#">View Request Schema</a> <a href="#">View Response Schema</a>
--------------------	---

Local intranet

9. Click Save to save your settings.

Deploy your application view (complete with configured events and/or services) by following the steps described in [“Deploying an Application View” on page 4-22](#). Then test your application view by following the steps described in [Chapter 4, “Service and Event Configuration.”](#)

# Deploying an Application View

You can deploy an application view when you have added at least one event or service to it. You must deploy an application view before you can test its services and events or use the application view in the WebLogic Server environment. Application view deployment places relevant metadata about its services and events into a run-time metadata repository. Deployment makes the application view available to other WebLogic Server clients. This means business processes can interact with the application view, and you can test the application view's services and events.

After you configure an event or service, you can deploy your application view from the Application View Console Administration window.

1. If it is not already open, open the application view to be deployed. For more information, see “Editing an Application View” in “Defining an Application View” in *Using Application Integration*:
  - For WebLogic Integration 7.0, see <http://edocs.bea.com/wli/docs70/aiuser/2usrdef.htm>
  - For WebLogic Integration 2.1, see [http://edocs.bea.com/wlintegration/v2\\_1sp/aiuser/2usrdef.htm](http://edocs.bea.com/wlintegration/v2_1sp/aiuser/2usrdef.htm)

Figure 4-9 Edit View Window

*This page allows you to add events and/or services to an application view.*

**Description:** No description available for UtilityApp. [\\_Edit](#)

**Connection Criteria**

bsees:	TraderApps
Additional Log Category:	UtilityApp
Root Log Category:	BEA_FILE_1_0
bselocation:	D:\default
Message Bundle Base:	BEA_FILE_1_0
Log Configuration File:	BEA_FILE_1_0.xml

[Reconfigure connection parameters for UtilityApp](#)

**Events** Add

RCV\_TRADER\_EVENT [Edit](#) [Remove Event](#) [View Summary](#) [View Event Schema](#)

**Services** Add

Target\_Brokers\_Svc [Edit](#) [Remove Service](#) [View Summary](#) [View Request Schema](#) [View Response Schema](#)

Continue Save ?

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2. From the Edit View window, click Continue. The Deploy Application View window opens.

Figure 4-10 Deploy Application View Window

The screenshot shows a web application window titled "Deploy Application View UtilityApp to Server". The window has a dark sidebar on the left with a menu containing "Configure Connection", "Administration", "Add Service", "Add Event", and "Deploy Application View" (which is highlighted with a red arrow). The main content area has a light blue header with the title and a BEA logo. Below the header, there are tabs for "Application View Console" and "WebLogic Console", and links for "Glossary" and "Logout". The main content area contains the following text and form elements:

On this page you deploy your application view to the application server.

**Required Service Parameters**

Enable asynchronous service invocation? ☒ ?

**Required Event Parameters**

Event Router URL \* ?

**Connection Pool Parameters**

Use these parameters to configure the connection pool used by this application view

Minimum Pool Size \*

Maximum Pool Size \*

Target Fraction of Maximum Pool Size \*

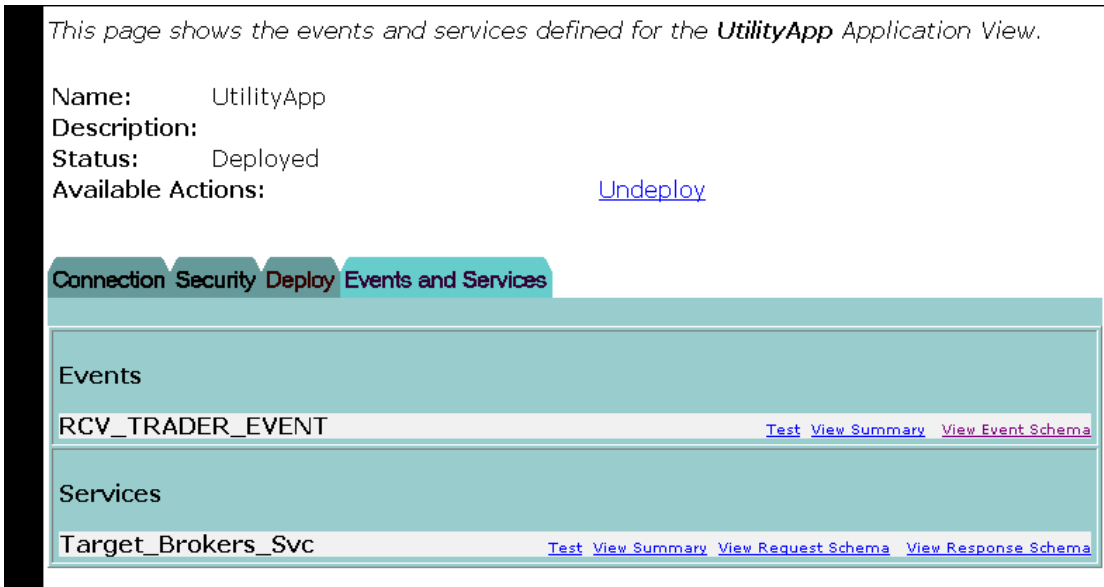
Allow Pool to Shrink? ☒

**Note:** To enable other authorized clients to asynchronously call the services (if any) of this application view, select Enable asynchronous service invocation.

3. To deploy the application view, click Deploy Application View. The Summary for Application View window opens.

**Note:** You may decide to click Save and deploy the application view later.

**Figure 4-11 Summary for Application View Window**



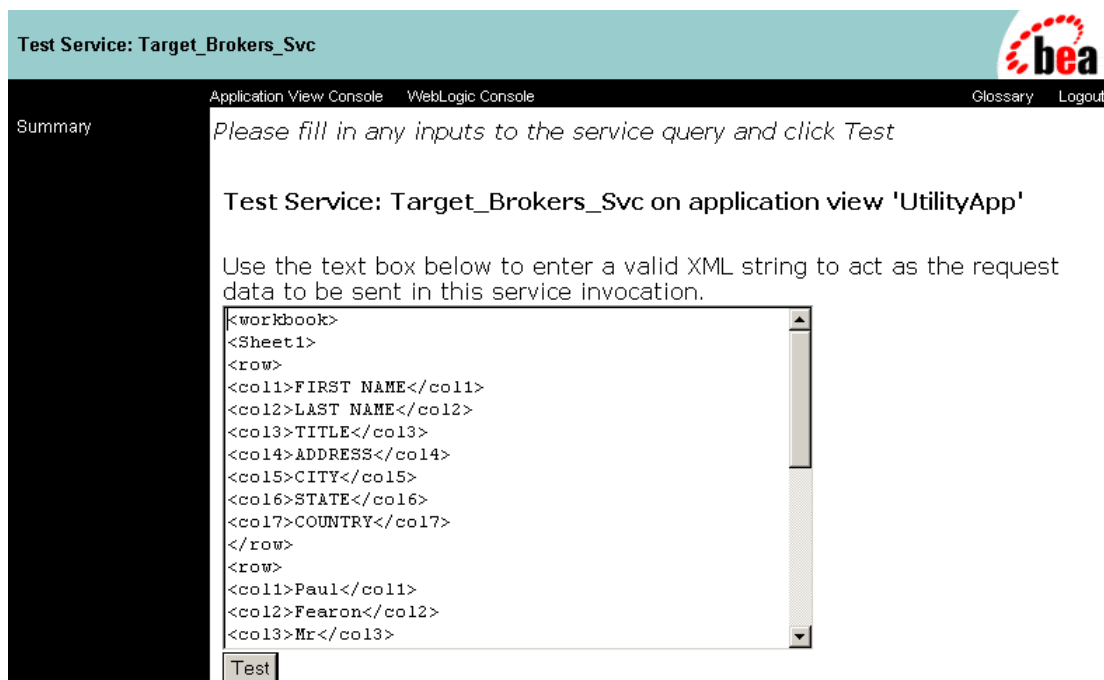
After you create and deploy an application view, you can test the service and events. For more information, see [“Testing a Service or Event”](#) on page 4-26.

## Testing a Service or Event

After you create and deploy an application view, you can test the services and events.

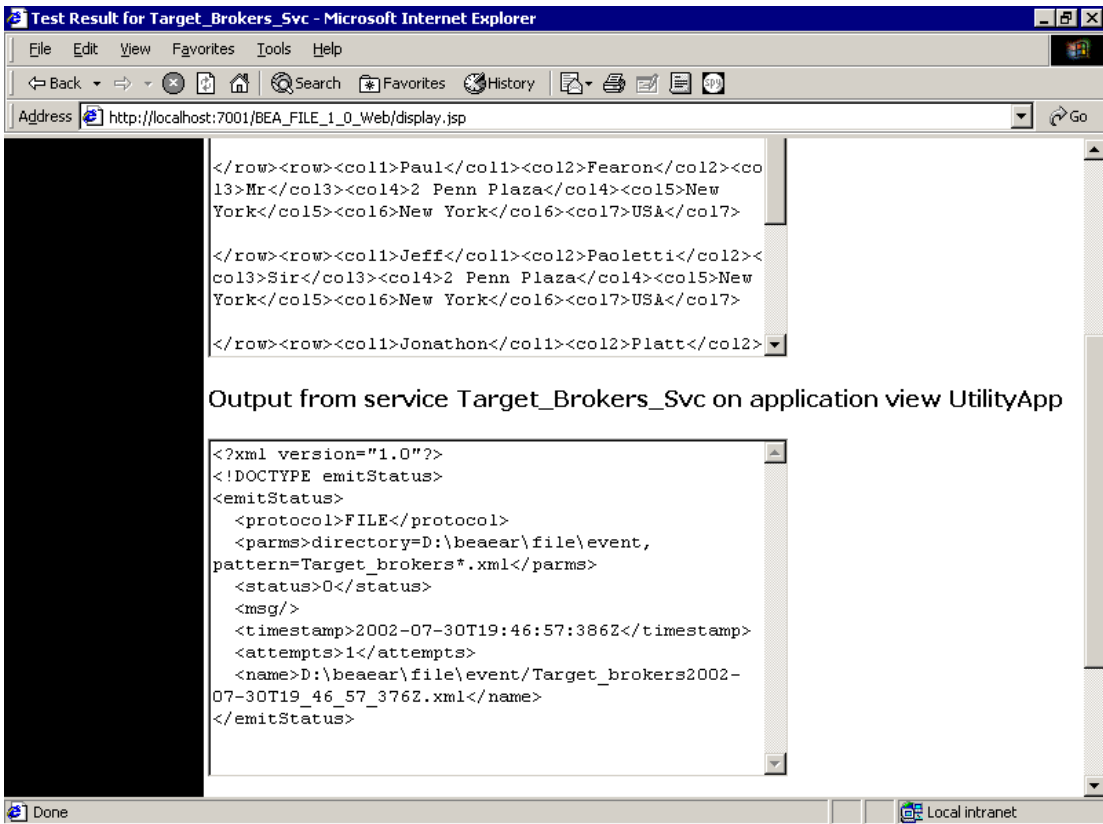
1. In the Summary for Application View window, click Test for the configured service or event. The Test Service window opens.

**Figure 4-12 Test Service Window**



2. Enter the required XML by cutting and pasting a sample XML document. You can use the sample `Headers.xml` supplied with the product.
3. Click Test. If your service has been configured correctly, you receive a response from the file emit process with a status code of "0." Also, you will find that the file has been written to the correct location.

Figure 4-13 Test Service Window



Once you have confirmed that the file has been written correctly (in the correct format, if transformation has been configured) your service or event has been successfully configured.

You can now write custom code to exploit the adapter or create a process flow in Studio. For more information, see “Using Application Views in the Studio” in *Using Application Integration*:

- For WebLogic Integration 7.0, see <http://edocs.bea.com/wli/docs70/aiuser/3usruse.htm>
- For WebLogic Integration 2.1, see [http://edocs.bea.com/wlintegration/v2\\_1sp/aiuser/3usruse.htm](http://edocs.bea.com/wlintegration/v2_1sp/aiuser/3usruse.htm)





# 5 BEA WebLogic Adapter for File Integration Using Studio

This section describes how events are incorporated into workflow design. It includes the following topic:

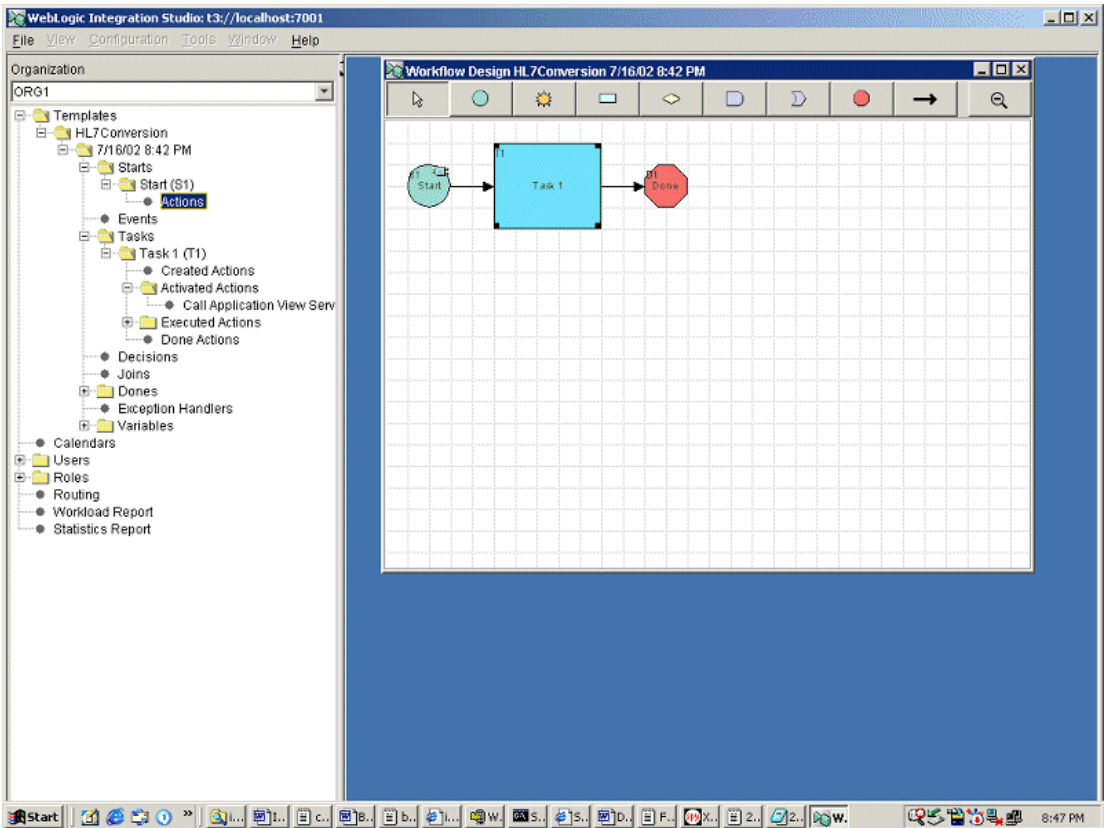
- [Business Process Management Functionality](#)

## Business Process Management Functionality

You can integrate your application view, including services and events, into WebLogic Integration business process management workflow tasks.

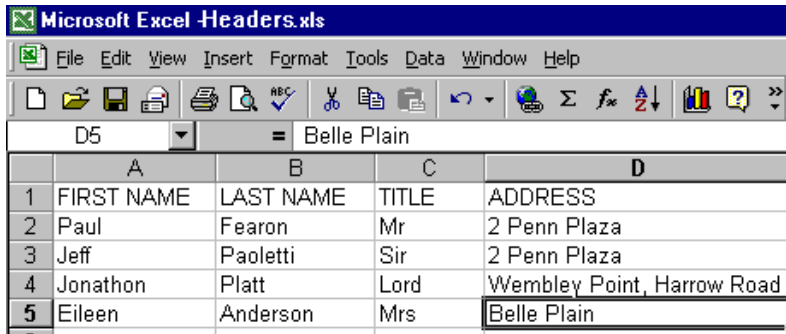
The following window depicts a simple workflow design triggered by an event described in [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File.”](#) The incoming event converts a document and utilizes a service to propagate the event to a file system (for example, an Excel file taken from an FTP directory is converted to XML and placed in a local file system). The event will respond to an Excel-formatted document being placed in a file system, then convert the Excel document into XML format, and propagate it (using the workflow) to the service.

**Figure 5-1 Workflow Design Window**



The following window depicts the example Excel document being used in this process. This Excel file is contained in a zip file called `BEA_FILE_INSTALL.ZIP`, which is supplied with your installation package.

**Figure 5-2 Original Excel Document**

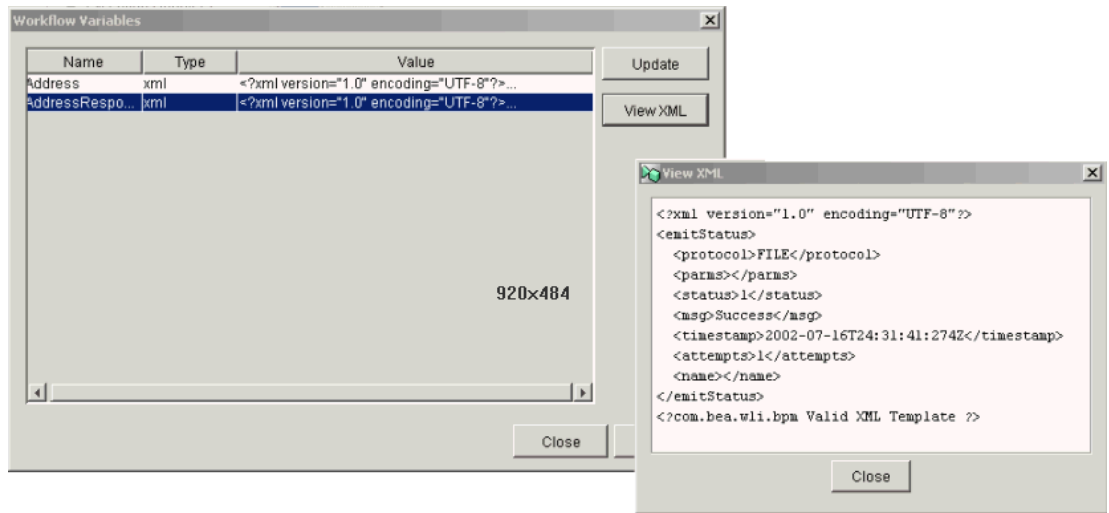


	A	B	C	D
1	FIRST NAME	LAST NAME	TITLE	ADDRESS
2	Paul	Fearon	Mr	2 Penn Plaza
3	Jeff	Paoletti	Sir	2 Penn Plaza
4	Jonathon	Platt	Lord	Wembley Point, Harrow Road
5	Eileen	Anderson	Mrs	Belle Plain

Starting with the original document, this process essentially consists of the following steps:

1. The document is placed onto an FTP directory, which had a BEA WebLogic Adapter for File event configured to be triggered by the arrival of the Excel document. The event has been pre-configured to apply an Excel to XML conversion (using the preparse parameter). Once the adapter completes the process, the workflow then propagates the XML document onto the adapter service (configured to route the XML document to a local file system). The service can easily be configured to convert the XML passed to it (by the event router) to another supported format (for example, CSV, HL7, and HIPAA).
2. Once the service has completed its task, the emission report is returned to the workflow.

**Figure 5-3 Emission Report**



3. The resulting XML file can then be used with back-end systems that may be expecting an XML document in the file system configured by the adapter service.

Figure 5-4 XML File

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<workbook>
  <Sheet1>
    <row>
      <col1>FIRST NAME</col1>
      <col2>LAST NAME</col2>
      <col3>TITLE</col3>
      <col4>ADDRESS</col4>
      <col5>CITY</col5>
      <col6>STATE</col6>
      <col7>COUNTRY</col7>
    </row>
    <row>
      <col1>Paul</col1>
      <col2>Fearon</col2>
      <col3>Mr</col3>
      <col4>2 Penn Plaza</col4>
      <col5>New York</col5>
      <col6>New York</col6>
      <col7>USA</col7>
    </row>
    <row>
      <col1>Jeff</col1>
      <col2>Paoletti</col2>
      <col3>Sir</col3>
      <col4>2 Penn Plaza</col4>
      <col5>New York</col5>
      <col6>New York</col6>
      <col7>USA</col7>
    </row>
    <row>
      <col1>Jonathon</col1>
      <col2>Platt</col2>
      <col3>Lord</col3>
      <col4>Wembley Point, Harrow Road</col4>
      <col5>London</col5>
      <col6>MIDDX</col6>
      <col7>UK</col7>
    </row>
  </row>
</row>
```



# 6 Transforming Document Formats

This section describes how to utilize Message Format Language (MFL) files to transform a document. It includes the following topic:

- [Message Format Language Transformations](#)

## Message Format Language Transformations

The BEA WebLogic Adapter for File supports custom defined transformations defined using the WebLogic Integration Format Builder. Once defined and tested, the adapter can utilize these Message Format Language files to apply transformation to an incoming document. [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File,”](#) describes how to configure events and services to use Message Format Language transformation. This section provides a brief overview of how a Message Format Language template is built and tested using the Format Builder, and how this template can then be tested (once deployed in a application view) using the BEA WebLogic Adapter for File.

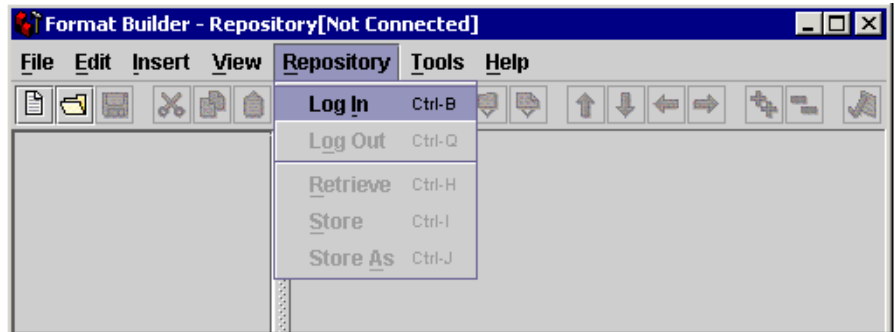
For more information about Message Format Language transformations, see “Building Format Definitions” in *Translating Data*:

- For WebLogic Integration 7.0, see <http://edocs.bea.com/wli/docs70/diuser/fmtdef.htm>
- For WebLogic Integration 2.1, see [http://edocs.bea.com/wlintegration/v2\\_1sp/diuser/fmtdef.htm](http://edocs.bea.com/wlintegration/v2_1sp/diuser/fmtdef.htm)

To test using the sample Message Format Language file, `Sprockets_PO.mfl`, supplied with this product, follow the procedure outlined below:

1. From the Windows Start menu, choose Programs→BEA WebLogic E-Business Platform→WebLogic Integration 2.1→Format Builder. The Format Builder window opens.

**Figure 6-1 Format Builder Repository Window**



2. Choose Log In from the Repository menu. The WebLogic Integration Repository window opens.

**Figure 6-2 WebLogic Integration Repository Login Window**



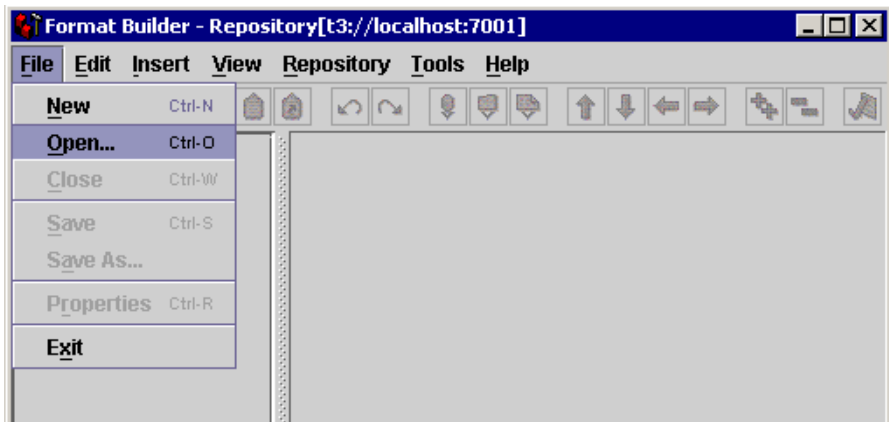


3. Enter your user name and password and click Continue.

After successfully signing on, you can import the sample Message Format Language template.

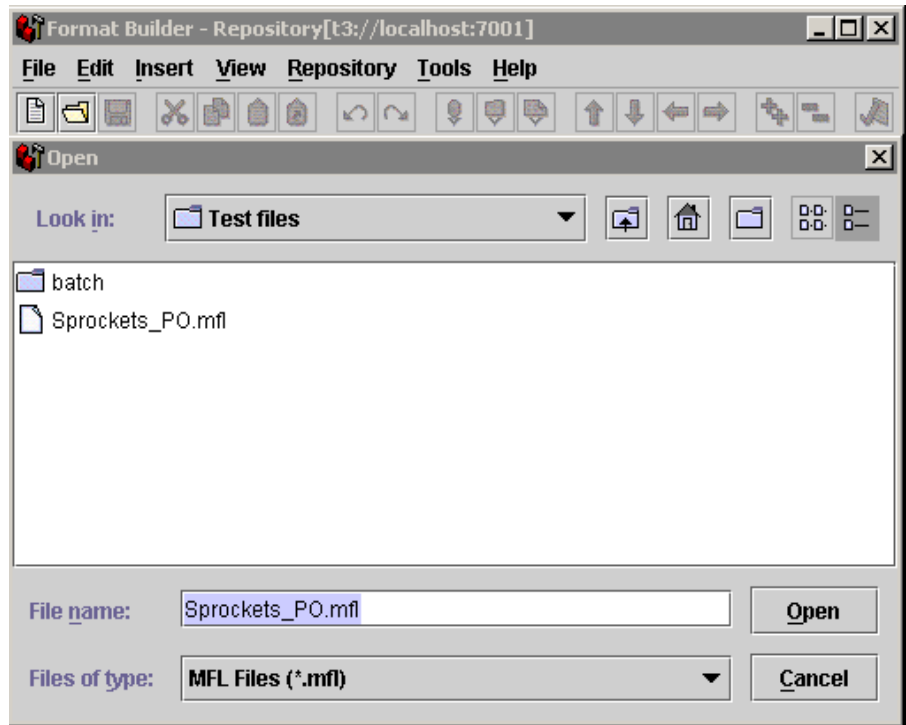
4. Choose Open from the File menu.

**Figure 6-3 Format Builder Repository**



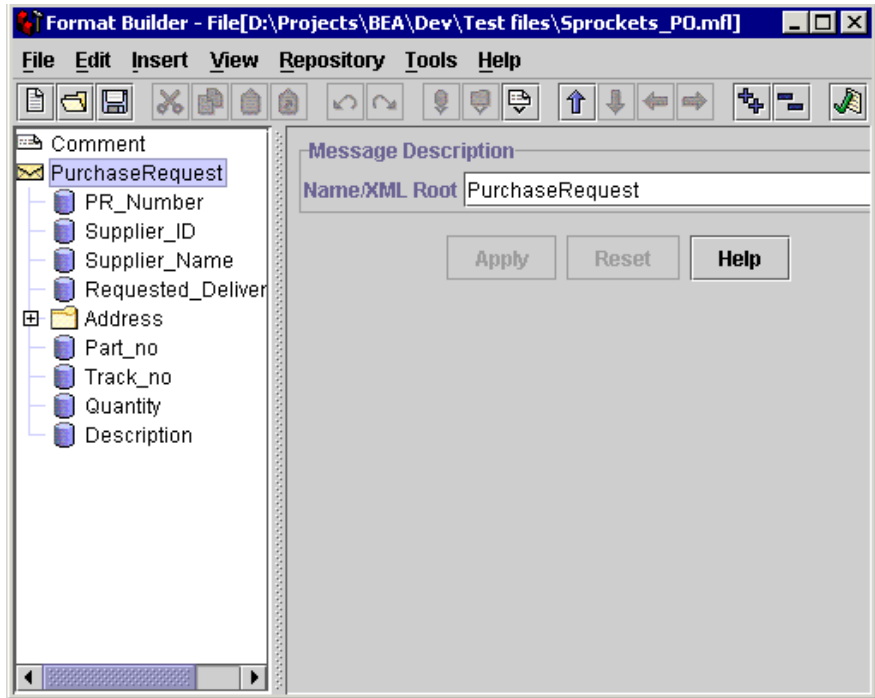
5. Select the `Sprockets_PO.mfl` file that is supplied in the `Samples.zip` file.

**Figure 6-4 Format Builder Repository**



6. Double-click the PurchaseRequest envelope to expand the field definitions below and to see how field types were defined.

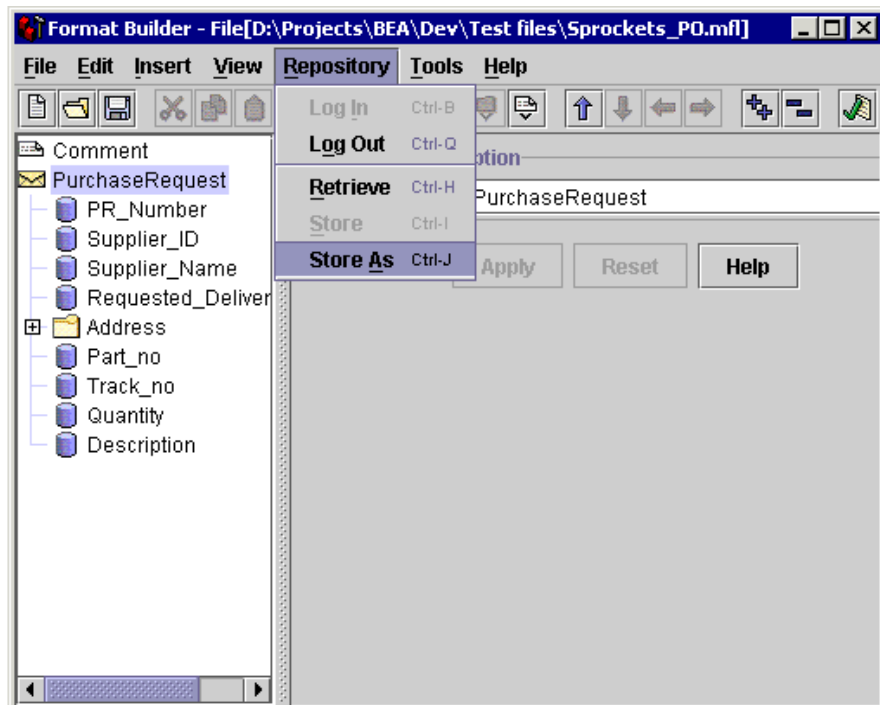
**Figure 6-5 Format Builder**



All that is required now is to store the MFL in the repository.

7. Choose Store As from the Repository menu.

**Figure 6-6 Format Builder Window**



8. Give your MFL a name and store it in the root folder or any folder you desire. In this example, the MFL PurchaseOrder is stored in a folder called SprocketsRus.

**Figure 6-7 Store Document Window**

The screenshot shows a 'Store Document' dialog box with a blue title bar. Below the title bar is a 'Current Folder' field containing 'SprocketsRus' and three folder icons. A large empty rectangular area is below the folder field. At the bottom, there is a section with labels 'Name:', 'File Type:', 'Description:', and 'Notes:'. The 'Name' field contains 'PurchaseOrder'. The 'File Type' is a dropdown menu showing 'MFL Files'. The 'Description' and 'Notes' fields are empty. To the right of these fields are 'Store' and 'Cancel' buttons. A purple text message 'There is no need to enter file extensions.' is displayed above the 'Name' field.

Once stored, you can test your adapter service or event by configuring as documented in [Chapter 3, “Defining an Application View for the BEA WebLogic Adapter for File.”](#) To test this document, use the sample documents supplied in the `samples.zip` file. You can use `Sprockets_PO.txt` to test inbound transformations (for example, event and service File Read operations) and `Sprockets_PO.xml` to test outbound service operations. For service and event File Read tests, place the file (`Sprockets_PO.txt`) in the location that is being polled for the document. To test services, copy the content of `Sprockets_PO.xml` into the text window in the test screen.

