Oracle® Fusion Middleware

Getting Started with Oracle Stream Explorer

12*c* Release (12.1.3)

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Describes the prerequisites and how to install Oracle Stream Explorer on top of the existing Oracle Event Processing instance.

ORACLE

Oracle Fusion Middleware Getting Started with Oracle Stream Explorer, 12*c* Release (12.1.3)

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Preface

This document describes how to use Oracle Stream Explorer. The Getting Started Guide helps the users to get familiarized with Oracle Stream Explorer.

Audience

This document is intended for all users of Oracle Stream Explorer and Event Processing.

Related Documents

For more information, see the following documents:

- *Developing Applications for Oracle Event Processing*
- *Getting Started with Oracle Event Processing*
- *Getting Started with Oracle Edge Analytics*
- *Schema Reference for Oracle Event Processing*
- *Customizing Oracle Event Processing*
- *Using Visualizer for Oracle Event Processing*
- *Customizing Oracle Event Processing*
- *Developing Applications with Oracle CQL Data Cartridges*
- *Oracle CQL Language Reference for Oracle Event Processing*
- *Java API Reference for Oracle Event Processing*
- *Java API Reference for Oracle Edge Analytics*
- *Using Oracle Stream Explorer*
- *Administering Oracle Event Processing*.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's New In This Guide?

This section summarizes the new features and significant product changes for Oracle Stream Explorer in the Oracle Fusion Middleware 12c Release (12.1.3.0) release.

Oracle Stream Explorer is a new tool introduced in the 12c Release (12.1.3.0) of Oracle Fusion Middleware.

This document is new for this release and describes the installation of Oracle Stream Explorer.

1

Oracle Stream Explorer Overview

Oracle Stream Explorer is a new tool provided as a part of Oracle Event Processing technology platform. The Oracle Stream Explorer caters to the business needs of the users. This tool enables the users to pro-actively identify and act on emerging streaming real time threats and opportunities in their enterprise and improve the operational efficiencies of their business. Oracle Stream Explorer helps in enhancing functional and operational efficiencies of businesses with actionable insight from real-time data by only processing and storing data that is relevant. Users can build applications and monitor them against the real-time streaming data within no time and with no complexity or knowledge of the underlying technologies using Oracle Stream Explorer.

The Oracle Stream Explorer platform provides a compelling combination of a simplistic visual facade to rapidly create and modify Real Time Event Processing applications, together with a comprehensive runtime platform to manage and execute these solutions.

This chapter contains the following sections:

- Overview
- Prerequisites
- Browser Support
- Advantages of Oracle Stream Explorer
- Who Uses Oracle Stream Explorer?
- What Next?

1.1 Overview

Oracle Stream Explorer runs on Oracle Event Processing Server. The event processing server contains Oracle Stream Explorer Visualizer. Oracle Stream Explorer uses the same set of users and user roles configured in the Visualizer. Both Oracle Stream Explorer and Visualizer use the Oracle Stream Explorer server authentication and authorization system.

The Oracle Stream Explorer runtime component is a complete solution platform for building applications to filter, correlate, and process events in real-time. With flexible deployment options – stand-alone, integrated in the SOA stack or lightweight on Java SE Embedded, it proves to be a versatile, high performance event-processing engine. Oracle Stream Explorer enables Fast Data and Internet of Things (IOT) – delivering actionable insight and maximizing value on large volumes of high velocity data from varied data sources in real-time. It enables distributed intelligence and low latency responsiveness by pushing business logic to the network edge.

Oracle Stream Explorer can perform the following tasks at a higher level:

- Create applications
- Build applications
- Run applications.

1.2 Prerequisites

Oracle Stream Explorer requires Event Processing with Oracle Stream Explorer Server to be up and running. Oracle Stream Explorer runs on top of Oracle Event Processing 12.1.3 version and above.

Oracle Stream Explorer requires JDK 7.0 and higher versions.

1.3 Browser Support

Oracle Stream Explorer supports the following browsers:

- Mozilla Firefox version 24 and higher
- Safari version 6 and higher
- Google Chrome version 28 and higher.

Note:

Oracle Stream Explorer is not supported on Internet Explorer for this release.

1.4 Advantages of Oracle Stream Explorer

Oracle Stream Explorer is not a traditional Business Intelligence (BI) solution. It is designed to work on live data streams.

Oracle Stream Explorer has the following advantages:

- Builds real-time applications quickly for any industry vertical
- Simplifies the usage of event processing technology
- Connects to live streams
- Explores in real-time
- Pro-actively identifies threats or opportunities in the streaming data
- Hides the complexity of Event Processing and makes it easy for non-technical people to use
- Addresses the business solution rather than technology pitch
- Provides a controlled, structured, and more documentable approach to build real-time applications
- Follows a Solution/Pattern approach.

1.5 Who Uses Oracle Stream Explorer?

The following users use Oracle Stream Explorer:

- Business integrators
- Real-time business people.

2

Installing Oracle Stream Explorer

This chapter explains in detail how to install Oracle Stream Explorer.

This chapter contains the following sections:

- About OPatch
- Common OPatch Commands When Patching an Oracle Fusion Middleware Oracle Home
- Installing Stream Explorer

  What Next?.

2.1 About OPatch

OPatch is a Java-based utility that runs on all supported operating systems and requires installation of the Oracle Universal Installer. It is used to apply patches to Oracle software.

2.2 Common OPatch Commands When Patching an Oracle Fusion Middleware Oracle Home

The following table shows the most common OPatch commands for patching an Oracle Fusion Middleware Oracle home.

Table 2-1 Common OPatch Commands

Command	Description
`opatch apply`	This command applies an interim patch to an Oracle home from the current directory. The `ORACLE_HOME` environment variable must be set to the Oracle home to be patched.
`opatch napply`	This command applies multiple patches.
`opatch lsinventory`	This command lists the inventory for a particular Oracle home, or displays all installations that can be found. This command does not have any required options.
`opatch rollback`	This command removes an existing one-off patch from the appropriate Oracle home directory indicated by the reference ID.
`opatch nrollback`	This command rolls back multiple interim patches at the same time.

2.3 Installing Stream Explorer

Oracle Stream Explorer is distributed as an OPatch. This OPatch needs to be installed on top of Oracle Event Processing 12.1.3 installation. OPatch can be found in your Fusion Middleware's product's `ORACLE_HOME/OPatch` (on UNIX operating systems) or `ORACLE_HOME\OPatch` (on Windows operating systems) directory.

OPatch uses the `ORACLE_HOME` environment variable to identify the Oracle home you are planning to patch.

2.3.1 Obtain the Installer

You can download the installer either from Oracle Software Delivery Cloud or from Oracle Technology Network.

2.3.1.1 Downloading from Oracle Software Delivery Cloud

You can obtain the OPatch for Oracle Stream Explorer from Oracle Software Delivery Cloud.

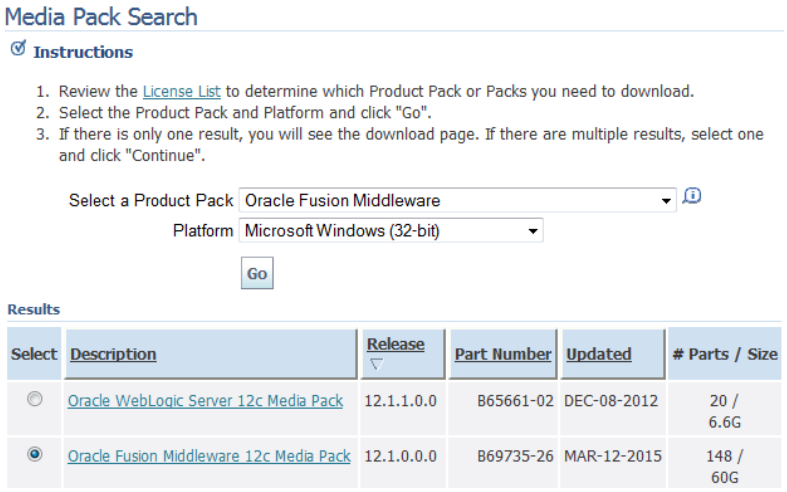
To obtain the installer:

1. Acquire the installer from the following location:

   https://edelivery.oracle.com

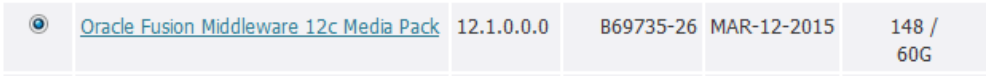
2. Accept the License Agreements and Terms and Conditions.
3. Select **Oracle Fusion Middleware** as the product pack.
4. Select **Microsoft Windows (32-bit)** as the platform and click **Go**.

Figure 2-1 Media Pack Search



5. Look for **Oracle Fusion Middleware 12c Media Pack** from the list of available products and click it.

Figure 2-2 Oracle Fusion Middleware 12c Media Pack



6. Look for Oracle Stream Explorer and download both the parts of it.

   a. Oracle Stream Explorer 12.1.3.0.1 (Part 1 of 2)

   b. Oracle Stream Explorer 12.1.3.0.1 (Part 2 of 2).

Figure 2-3 Oracle Stream Explorer

Select	Name	Part Number	Size (Bytes)
Download	Oracle Stream Explorer 12.1.3.0.1 (Part 1 of 2)	V74788-01 Part 1 of 2	418M
Download	Oracle Stream Explorer 12.1.3.0.1 (Part 2 of 2)	V74788-01 Part 2 of 2	30M

2.3.1.2 Downloading from Oracle Technology Network

You can obtain the OPatch for Oracle Stream Explorer from Oracle Software Delivery Cloud.

To obtain the software needed to install *Using Oracle Stream Analytics*:

1. Go to Oracle Technology Network Download page at: http://www.oracle.com/technetwork/middleware/complex-event-processing/downloads/downloads-086608.html.

2. Accept the OTN License Agreement to download the licensed version of Oracle Stream Explorer.

3. Download the following software to install Oracle Stream Explorer.

Table 2-2 Oracle Stream Explorer Software

Software	Location	File Name	Purpose
Stream Explorer 12.1.3 Runtime	`http://download.oracle.com/otn/nt/middleware/12c/121300/ofm_sx_generic_12.1.3.0.0_disk1_1of2.zip`	`ofm_sx_generic_12.1.3.0.0_disk1_1of2.zip`	Allows you to quickly install a development or evaluation environment on a single host computer
Stream Explorer 12.1.3 User Experience	`http://download.oracle.com/otn/nt/middleware/12c/121300/ofm_sx_generic_12.1.3.0.0_disk1_2of2.zip`	`ofm_sx_generic_12.1.3.0.0_disk1_2of2.zip`	Allows you to quickly update a development or evaluation environment on a single host computer

Table 2-2 (Cont.) Oracle Stream Explorer Software

Software	Location	File Name	Purpose
SOA Quickstart JDeveloper 12.1.3 Installer	`http://download.oracle.com/otn/nt/middleware/12c/121300/fmw_12.1.3.0.0_soaqs_Disk1_1of1.zip`	`fmw_12.1.3.0.0_soaqs_Disk1_1of1.zip`	Allows you to quickly install a development or evaluation environment on a single host computer

2.3.2 Run the Installer

Use the OPatch tool to patch the installer.

To patch:

1. Unzip the downloaded patch files.
2. Copy the unzipped OPatch installer content to `/opt/patches` directory.
3. Verify that a patch can be applied to a specific Oracle home.

```
opatch apply <path_to_patch_directory> -report
```

4. Update the `PATH` environment variable with the location of OPatch on you local machine.
5. Run the OPatch command from the ORACLE_HOME/OPatch directory. A sample code is provided below and you can modify this to suit your needs:

```
> cd /opt/patches/<directory where the downloaded OPatch is available>
> opatch apply

Oracle Interim Patch Installer version 13.2.0.0.0
Copyright (c) 2013, Oracle Corporation.  All rights reserved.

Oracle Home       : /opt/Oracle/products/fmw12c
Central Inventory : /opt/Oracle/oraInventory
from           : /var/opt/Oracle/oraInst.loc
OPatch version    : 13.2.0.0.0
OUI version       : 13.2.0.0.0
Log file location : /opt/Oracle/products/fmw12c/cfgtoollogs/opatch/
15941858_Jun_10_2013_12_35_24/apply2013-06-10_12-35-15PM_1.log

OPatch detects the Middleware Home as "/opt/Oracle/products/fmw12c"

Applying interim patch '15941858' to OH '/opt/Oracle/products/fmw12c'
Verifying environment and performing prerequisite checks...
All checks passed.

Please shutdown Oracle instances running out of this ORACLE_HOME on the local
system.
(Oracle Home = '/opt/Oracle/products/fmw12c')

Is the local system ready for patching? [y|n] y
User Responded with: Y
Backing up files...

Patching component oracle.wls.core.app.server, 12.1.3.0.0...
```

```
Verifying the update...
Patch 15941858 successfully applied
Log file location: /opt/Oracle/products/fmw12c/cfgtoollogs/opatch/
15941858_Jun_10_2013_12_35_24/apply2013-06-10_12-35-15PM_1.log

--------------------------------------------------------------------

There are no Interim patches installed in this Oracle Home.

--------------------------------------------------------------------

OPatch succeeded.
```

6. Restart the Oracle Stream Explorer Event Processing server using the following commands:

   a. Enter `./stopwlevs.sh` at the command prompt to stop the Oracle Stream Explorer Event Processing server.

   b. Enter `./startwlevs.sh` at the command prompt to start the Oracle Stream Explorer Event Processing server.

2.3.3 Verify the Installation

To verify the installation of Oracle Stream Explorer in an Oracle Fusion Middleware 12*c* environment:

1. Start all the servers in all the domains associated with the Oracle home you just patched. Enter `./startwlevs.sh` at the command prompt to start the Oracle Stream Explorer server.
2. Open the WebLogic Server Administration Console for each domain to verify the Administration Server and to view the status of the components in the domain.

2.3.4 Test the Installation

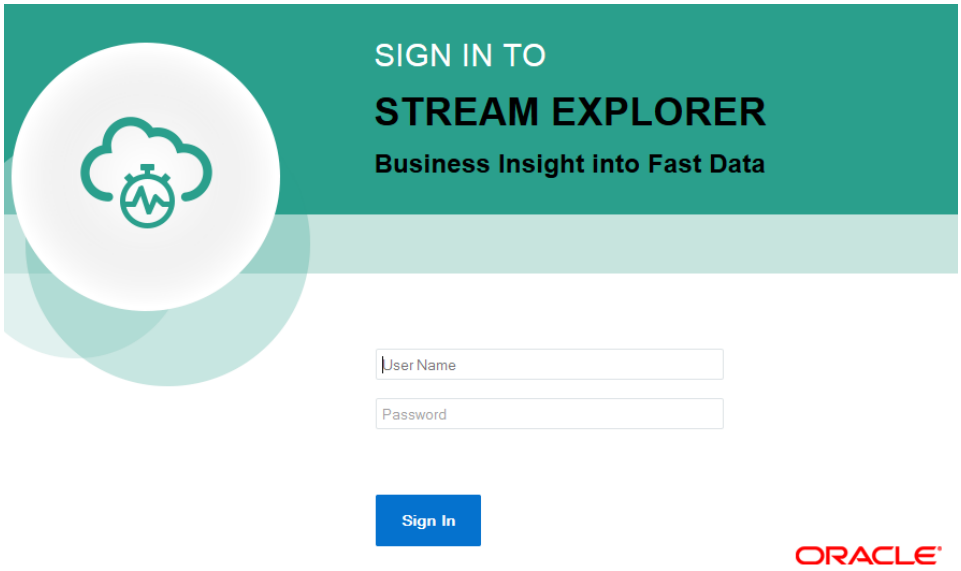
To test the installation and start using the Oracle Stream Explorer application, follow these steps:

1. Start the Oracle Stream Explorer Event Processing domain.
2. Enter `http://<host>:<port>/sx` in the address bar of a browser. For the list of supported browsers, see Browser Support.

   The default URL is: `http://<hostname>:9002/sx`.

   The installation is successful if you see the **Sign In** screen for Oracle Stream Explorer.

Figure 2-4 Oracle Stream Explorer Sign In Page



2.4 What Next?

After you have installed Oracle Stream Explorer, you are ready to start using it. For more information about usage of Oracle Stream Explorer, see *Introduction to Oracle Stream Analytics* in *Using Oracle Stream Explorer*.

3

Use Cases and Tutorials

This chapter provides details about few sample use cases and links to sample tutorials.

This chapter contains the following sections:

- Sample Use Cases
- Getting Started with Oracle Stream Explorer
- Related Products and Solutions.

3.1 Sample Use Cases

The Oracle Stream Explorer platform targets a wealth of industries and functional areas. The following are some use cases:

- **Telecommunications**: Ability to perform real-time call detail (CDR) record monitoring and distributed denial of service attack detection.
- **Financial Services**: Ability to capitalize on arbitrage opportunities that exist in millisecond or microsecond windows. Ability to perform real-time risk analysis, monitoring and reporting of financial securities trading and calculate foreign exchange prices.
- **Transportation**: Ability to create passenger alerts and detect baggage location in case of flight discrepancies due to local or destination-city weather, ground crew operations, airport security, etc.
- **Public Sector/Military**: Ability to detect dispersed geographical enemy information, abstract it, and decipher high probability of enemy attack. Ability to alert the most appropriate resources to respond to an emergency.
- **Insurance**: In conjunction with Oracle Real Time Decisions, ability to learn to detect potentially fraudulent claims.
- **IT Systems**: Ability to detect failed applications or servers in real-time and trigger corrective measures.
- **Supply Chain and Logistics**: Ability to track shipments in real-time and detect and report on potential delays in arrival.

Look at the video located at the following location for a quick walk through of Oracle Stream Explorer:

http://www.oracle.com/technetwork/middleware/complex-event-processing/cep05-2471908.html.

3.2 Getting Started with Oracle Stream Explorer

Look at the following videos for a quick run through and tour of the Oracle Stream Explorer application on Oracle Technology Network at: http://www.oracle.com/technetwork/middleware/complex-event-processing/overview/complex-event-processing-088095.html.

- Oracle Stream Explorer tour
- Hands-on exercise.

3.3 Related Products and Solutions

The following is a list of products and solutions related to Oracle Stream Explorer:

- Oracle Edge Analytics
- Oracle Coherence
- Oracle Business Activity Monitoring
- Oracle Service Bus
- Oracle WebLogic Application Grid
- Oracle WebLogic Suite
- Oracle Real Time Decisions
- Oracle Java SE Embedded Suite.