

# **BEA**AquaLogic® Enterprise Repository

ALER Integration with Microsoft Visual Studio .NET

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# Installing the ALER Plug-in for VS. NET

#### **Overview**

ALER integration with Visual Studio .NET provides users with the ability to easily search for and use assets from the repository without leaving the VS .NET IDE environment. Assets and any associated artifacts are downloaded directly to your VS .NET solution. Repository Access within the VS .NET solution also provides a view into ALER that enables you to download artifacts and assets from the repository, query the repository, and view the contents of the repository.

ALER can automatically detect asset reuse within the development environment. This allows development teams to ensure that they get asset reuse credit, regardless of whether the assets have been downloaded through ALER. For more information, see **Enabling Advanced Usage Detection Options**.

## Prerequisites

- Microsoft Visual Studio 2005.
- Microsoft Visual J# 2005 runtime. (If J# is not installed on your machine, the installer will prompt you download the correct version from Microsoft.)
- The VS .NET **Always show solution** option should be selected (Tools -> Options -> Projects and Solutions -> General).
- Users must be assigned to at least one ALER project. A **Project Administrator** can assign users to projects using the ALER **Projects** page.
- If your ALER is or will be secured by Siteminder, you will need to configure the policy server to ignore (or unprotect) the following URL to allow the OpenAPI integration to function properly:

http://appserver.example.com/ALER/services/

## Installation

1. Download the VS .NET plug-in Zip file from your ALER instance at the following URL:

http://appserver.example.com/ALER-web/integration/dotnet/ ALERForVisualStudio\_3\_0.zip

- 2. Unzip the ALERForVisualStudio\_3\_0.zip file.
- 3. Locate and run the setup.exe program.
- 4. Follow the prompts to select installation parameters.

Select Installation Folder	
The installer will install BEA AquaLogic Enterprise Repository Adapter Add-in fo o the following folder. To install in this folder, click "Next". To install to a different folder, enter it belo Folder:	or Visual Studio .NET w or click "Browse".
Tarata	
C:\Program Files\BEA Systems\BEA AquaLogic Enterprise Repository	Browse
C:\Program Files\BEA Systems\BEA AquaLogic Enterprise Repository	Browse Disk Cost
C:\Program Files\BEA Systems\BEA AquaLogic Enterprise Repository	Browse Disk Cost o .NET for yourself, or

- 5. Click **Finish** to complete the installation.
- 6. Follow the instructions in **Configuring the Connection to ALER from VS .NET** to configure and establish a connection to an ALER instance from VS. NET.

## Configuring the Connection to ALER from VS .NET

Follow these steps to configure and establish a connection to an ALER instance from VS. NET.

- 1. Launch Visual Studio .NET.
- 2. Open the Tools menu and click Options.
- 3. On the list of options, click the ALER Add-in for Visual Studio .NET option and provide the required login information.

Options	
Environment     Projects and Solutions     Source Control     Text Editor     ALER Add-in for Visual Studio .NET     Oatabase Tools     Debugging     Device Tools     HTML Designer     Windows Forms Designer	ALER Add-in for Visual Studio .NET® Login v300B071221_1630 ALER URL: User Name: User Password: Advanced Options Establish Connection Options Advanced Asset files OK Cancel

#### o ALER URL

• The URL of the ALER instance. For example: http://appserver.example.com/ALER

Note: Do not include the index.jsp used in the default home page as part of the URL.

#### 4. User Name

• The user name to connect as.

#### 5. User Password

• The password to connect with. Passwords are case-sensitive.

#### 6. Establish Connection

• Click to verify a valid connection.

#### 7. Automatically register downloaded Asset files

 If selected, downloaded asset files are registered with the Windows Registry, as appropriate. This may be overridden on an case-by-case basis for each asset download.

- 8. Click the **Establish Connection** button to connect to the ALER instance you specified.
- 9. Optionally, click the **Advanced** button to enable additional ALER options:
  - Usage detection for VS .NET Solution Projects
  - Automated usage detection of referenced DLLs, WSDLs, and allow local caching of SFIDs (if SFID is enabled at your installation)
  - File name patterns to include and exclude

For more information, see Enabling Advanced Usage Detection Options.

10. Click **OK** when finished.

## **Enabling Advanced Usage Detection Options**

Follow these steps to enable advanced configuration options, such as enabling automatic usage detection of DLLs, WSDLs, local caching of SFIDs, and file pattern detection.

#### **Overview of SFID**

If SFID is enabled at your installation, ALER can automatically detect asset reuse within the development environment. This allows development teams to ensure that they get asset reuse credit, regardless of whether the assets have been downloaded through ALER. Automated Usage Detection relies on a fingerprinting process, called *Software File Identification* (SFID), which tags selected files within an asset with a unique ID. This SFID is then used to detect when and where an asset is used, even if the asset was acquired through means other than the ALER Use - Download process. An instance of usage is recorded by ALER when tagged files within the asset are brought into the developer's IDE, and a new build or build clean occurs.

SFID is available only in the Advanced Edition of ALER. See the ALER Software File Identification Guide for more information.

#### **Configuring Automatic Usage Detection**

- 1. Launch Visual Studio .NET.
- 2. Open the Tools menu and click Options.
- 3. On the list of options, click ALER Add-in for Visual Studio .NET to reopen the Login window.
- 4. Click the Advanced Options button to open the Advanced Settings window.

Use the Detect Usage tab to enable usage detection for VS .NET Solution Projects.

Adva	nced Sett	tings		×
Dete	ect Usage	Automated Usage Detection	File Pattern Detection	
Det	ect Usage	in Solution Projects		
	Enabled	O Disabled		
	Done	Cancel		

5. Click the Automated Usage Detection tab to enable usage detection of referenced DLLs, WSDLs, and allow local caching of SFIDs.

1	Advanced Sett	ings		×
	Detect Usage	Automated Usage Detection	File Pattern Detection	
	Detect referen	nced DLLs		
	Enabled	O Disabled		
	Detect web re	ferenced WSDLs		
	Enabled	O Disabled		
	Cache Calcula	ated SFIDs		
	Enabled	O Disabled		
	Done	Cancel		
ļ				

6. Click the File Pattern Detection tab to specify include and exclude file name patterns.

Advanced Settings	×
Detect Usage       Automated Usage Detection       File Pattern Detection         Include file patterns :	
Done Cancel	

7. Click **Done** to save your settings.

## **Configuring .NET Projects for Automatic Usage Detection**

In order to automatically detect usage, a .NET project must be monitored.

- 1. Open the .NET Solution Explorer.
- 2. Right-click the solution in the file tree and select the **ALER Add-in for Visual Studio .NET** option from the context menu.
- 3. Click Projects Monitored from the submenu.

Assign ALER Project  Projects Monitored  Build Solution  Rebuild Solution  Clean Solution  Batch Build  Configuration Manager	→ ‡ ×	lorer	Solution E	
Assign ALER Project  Projects Monitored  Build Solution  Rebuild Solution  Clean Solution  Batch Build  Configuration Manager		¢		
Projects Monitored  Build Solution Rebuild Solution Clean Solution Batch Build Configuration Manager	· ·	ALER Add-in for Visual Studio .NET 🕨	ect	Assign ALER Proj
		Build Solution Rebuild Solution Clean Solution Batch Build Configuration Manager	ed to	Projects Monitor
Project Dependencies Project Build Order	ress Methor	Project Dependencies Project Build Order	F	
Set StartUp Projects		Set StartUp Projects		
Rename		Rename		
Form1.Designer.cs		Properties Promines Program.cs		

4. In the **MonitoredProjects** window, select the .NET projects that you want monitored for automated usage detection.

📾 MonitoredProjects	
<ul> <li>✓ WindowsApplication1</li> <li>✓ ClassLibrary1</li> </ul>	
OK Cancel	

5. Click **OK** when finished.

## Assigning an ALER Project to a .NET Solution

In order to track the usage of downloaded assets, an ALER project must be assigned to a .NET solution.

**Note:** Before using this feature, you must be assigned to at least one ALER Project by a Project Administrator.

- 1. Open the .NET Solution Explorer.
- 2. Right-click a solution in the file tree and select the **the ALER Add-in for Visual Studio .NET** option from the context menu.
- 3. Click Assign ALER Project from the submenu.

Solution Explorer		÷ X
<b>G</b>		
Solution 'Solution 1, 17 a	voiarte)	
E- ClassLibrary1	ALER Add-in for Visual Studio .NET >	Assign ALER Project
Gass1.cs     WindowsApp	Build Solution Rebuild Solution Batch Build Configuration Manager	18 °
<ul> <li>⊕- a Reference</li> <li>⊕- a ALER Refe</li> <li>⊕- a xmd5</li> </ul>	Project Dependencies Project Build Order	
	Add +	
App.ico	Set StartUp Projects Debug	
9 1	Save Solution 1.sin Save All	
6	Paste I	
ALER Asset Seard	Properties	a x

4. In the **Project Selection** window, use the **Select the ALER Project** drop-down list to view the ALER projects that you are assigned to.

See Project Selection	
ALER Project Selection	
Select the ALER Project:	
Project-01	×
Common Project Project-01	
	-
	Finish Cancel
	2

**Note:** If the list is empty, you have not been assigned to any projects and the procedure must be canceled.

- 5. Select an ALER project from the list.
- 6. Click **Finish** to save your changes.

# **Searching for Assets**

Perform a simple keyword search in VS .NET to locate an asset in ALER in order to view the asset's metadata.

- 1. Open the **View** menu.
- 2. Click the ALER Add-in for Visual Studio .NET option and select View Asset Search Window from the submenu.



3. The ALER Asset Search window appears.

ALER Asset Search	₽ ×
Keyword:	
Type:	
All Types	<u>•</u>
Function:	
All Asset Functions	•
Search BEA Aqua Logic Enterprise Repositor	Υ
ALER Asset Search Solution Ex	kplorer

- 4. Type a keyword or phrase into the **Keyword** box.
- 5. Use the **Type** and **Function** drop-down lists to refine the search.
- 6. Click the **Search** button. The **ALER Search Results** window displays a list of all assets matching the search criteria.

	View	D/L	Asset Name	Asset Version	Asset Type
•	80	٢	Sample Application - ACES		Application
	80	٢	Sample Application - Commercial Card Authorization System		Application
	80	(1)	Sample Business Process - Order Verification Process	1.0	Business Process
	80	1	Sample Comm Adapter - Customer Credit Information	3.0	Communication Adapter
	80	1	Sample Component .NET-Find Address Method	Beta Release	Component
	80	(1)	Sample Component J2EE - Order EJB	2.0	Component
	ETT .	1	Sample Environment - Tomcat	4.1	Environment

7. Click the **Display Details** icon for any listed asset (or double-click the row) to view the asset's

detail display.

8. Click the **Download** (i) icon for any listed asset to download the asset.

# **Downloading Asset Artifacts**

You can download an asset's artifacts (i.e., payload) into a VS .NET project. Typically an asset payload is usually the functionality that a developer needs to use a service (such as a WSDL file) or incorporate into their code base (usually a binary). Within the asset metadata, links to supporting documentation, user guides, test cases, etc., are provided to better enable developers to reuse existing functionality.

- 1. Perform a keyword search to locate an asset in ALER, as described in Searching for Assets

	View	DL	Asset Name	Asset Version	Asset Type
	80	٢	Sample Application - ACES		Application
•		(A)	Sample Application - Commercial Card Authorization System		Application
	80	d'	Sample Business Process - Order Verification Process	1.0	<b>Business Process</b>
	80	٢	Sample Comm Adapter - Customer Credit Information	3.0	Communication Adapte
	80	٢	Sample Component, NET-Find Address Method	Beta Release	Component
	80	(1)	Sample Component J2EE - Order EJB	2.0	Component
	121	0	Sample Environment - Tomcat	4.1	Environment

3. Select the VS project that you want to download the asset's files into, and then click Next.

Download ALER Asse Visual Studio Project Sele The ALER asset will be do	t ction wnloaded into the selected Visual Studio Project:	E
WindowsApplication1 ClassLibrary1		
	Next > Cancel	

4. Select the asset files to download, and then click Finish.

ALER Project:	Asset Files:
project-00	class_library.zip
Visual Studio Project:	
WindowsApplication1	
<ul> <li>Association (Constraint)</li> </ul>	

- 5. If necessary, launch the **Solution Explorer**.
- 6. A new folder labeled **ALER References** will appear in the project's file tree. This folder contains a subfolder bearing the name of the downloaded asset (for example, "xmd5 (1.0)" in the illustration below). This folder contains the asset's artifacts.



## **Viewing Asset Details**

The Asset Details view provides asset details for any listed asset in an embedded Web-based browser view, which calls out the enterprise repository application for details associated with the selected asset.

- 1. Perform a keyword search to locate an asset in ALER, as described in Searching for Assets
- 2. In the ALER Search Results window, click the Display Details 🗐 icon.

ALER opens to display information on the selected asset, as shown here:

Sample Application	m - Common				Reviews
Sample Application - Commercial Card Authorization System					No Reviews Posted Submit A Review
Description: THIS ASSET IS TO B METADATA ARE TO	E USED AS AN E	XAMPLE. IT HAS BEEN POPULATED RAINING PURPOSES ONLY.	WITH SAMPLE MET	ADATA. ALL FILES AND	Change Management
The COTS system h authorize and captu are processed on a In addition to the bi	andles all majo re electronic tra real-time, one-!	r types of credit and debit card trans neactions that support the company by-one basis. Transactions can also information, the system captures at	sactions. It provides 's day-to-day billing be batched, based	the functions necessary to requirements. Transactions on business requirements.	Frequency of Change: High Primary Driver of Change: Defects. Strategic Business Modifications
item descriptions an	d invoice-specif	ic data.			Management Review
The second secon	B				
Registration Status Also Known As: CAS Targeted Users: Cu: Acquisition Method:	: Registered ; ;tomers, Emplo COTS	yees			Consistent with business mission: yes Passes legal review: yes
Registration Status Also Known As: CAS Targeted Users: Cu: Acquisition Method: Owners / Sponsors	: Registered ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	yees			Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Exnected Availability Date: 2007-
Registration Status Also Known As: CA Targeted Users: Cu Acquisition Method: Owners / Sponsors Role	: Registered ; stomers, Emplo COTS ; Name	Title	Phone	Email Address	Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Expected Availability Date: 2007- 10-15
Registration Status Also Known As: CA Targeted Users: Cu Acquisition Method: Owners / Sponsors Role Business Owner	: Registered stomers, Emplo COTS Name John Jones	Title VP of Product Line 1	Phone 555-555-1212	Email Address Bones@example.com	Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Expected Availability Date: 2007- 10-15
Registration Status Also Known As: CAI Targeted Users: Cui Acquisition Method: Owners / Sponsors Role Business Owner Executive Sponsor	: Registered tomers, Emplo COTS Name John Jones Carol Clark	Title VP of Product Line 1 Senior VP of Product Line 1	Phone 555-555-1212 555-555-1213	Email Address Bones@example.com colark@example.com	Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Expected Availability Date: 2007- 10-15 Miscellaneous
Registration Status Also Known As: CA Targeted Users: Cu Acquisition Methodi Owners / Sponsors Role Business Owner Executive Sponsor IT Owner	: Registered itomers, Emplo COTS i Name John Jones Carol Clark Don Evans	Title VP of Product Line 1 Senior VP of Product Line 1 Manager Credit Card Processing	Phone 555-555-1212 555-555-1213 555-555-1214	Email Address Bones@example.com cclark@example.com devans@example.com	Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Expected Availability Date: 2007- 10-15 Miscellaneous Version History:
Registration Status Also Known As: CA Targeted Users: Cu Acquisition Method: Owners / Sponsors Role Business Owner Executive Sponsor IT Owner Required Certificat	Registered stomers, Emplo COTS Name John Jones Carol Clark Don Evans ons:	Title VP of Product Line 1 Senior VP of Product Line 1 Manager Credit Card Processing	Phone 555-555-1212 555-555-1213 555-555-1214	Email Address Sones@example.com cclark@example.com devans@example.com	Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Expected Availability Date: 2007- 10-15 Miscellaneous Version History:
Registration Status Also Known As: CA Targeted Users: Cu Acquisition Method: Owners / Sponsors Role Business Owner Executive Sponsor IT Owner Required Certificat Certification	Registered itomers, Emplo COTS i Name John Jones Carol Clark Don Evans ons: Date C	Title VP of Product Line 1 Senior VP of Product Line 1 Manager Credit Card Processing wtified Certification Body	Phone 555-555-1212 555-555-1213 555-555-1214 Rec	Email Address Bones@example.com cdark@example.com devans@example.com etification Date	Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Expected Availability Date: 2007- 10-15 Miscellaneous Version History: Version Release Date: Comments Number (YYYYMMOD)
Registration Status Also Known As: CA Targeted Users: Cu Acquisition Method: Owners / Sponsors Role Business Owner Executive Sponsor IT Owner Required Certification Certification Sarbanes-Oxley	Registered tormers, Emplo COTS i Name John Jones Carol Clark Don Evans ioms: Date C	Title VP of Product Line 1 Senior VP of Product Line 1 Manager Credit Card Processing stified Certification Body Internal Audit Tear	Phone 555-555-1212 555-555-1213 555-555-1214 Reco	Email Address Bones@example.com cclark@example.com devans@example.com ettification Date	Consistent with business mission: yes Passes legal review: yes Passes technical review: yes Expected Availability Date: 2007- 10-15 Niscellaneous Version Release Date Comments Number (YYYYMDD) 1.0 20040101 Initial

#### Accessing Repository Assets in a Project

The Repository Assets view displays a list of assets that have been prescribed to your project, as well as assets that are already in use in the project.

#### About ALER Projects

Through the Enterprise Repository, analysts, architects, technical leads, and others that are involved in the design stages of a project, can create a list of assets that might fulfill a project's requirements. The lists of assets are captured in compliance templates in the repository, and the compliance templates are associated with an ALER project. For more information on compliance templates, refer to the ALER Compliance Templates Guide.

Note: Compliance Templates are available only in the Advanced Edition of ALER.

From the Repository Assets view, you can view a list of assets appearing in all of the Compliance Templates assigned to your project. The viewer will indicate which of the assets have been used by you and/or other project members. The viewer will also display other assets that are already in use in the project.

#### Accessing the Repository Assets View

- 1. Open the View menu.
- 2. Click the ALER Add-in for Visual Studio .NET option and select Repository Assets from the submenu.



3. The Repository Assets window displays.

<ul> <li>Asset is used by</li> <li>Asset is used</li> </ul>	user. d by proj	ect men	nber.	
Proposition of Sandard Sandard				* * ×
Vegoulary curies (Sreed as fromt) 2) Project Swedy Project	1 facut Member	Annat Turne	1 Graduer	. • ×
Proposition of Sector On Numeric Proposition Sandy Project View User Asset Name	Asset Version	Asset Type	Status	- 3 X
Propository Exercis () record in Russia)  Proposition Sanda Project  View Use Asset Name  View Use Asset Name  Sample Application - Commercial Card Authorization System  Sample Application - Commercial Card Authorization System  Sample Application - Commercial Card Authorization System	Asset Version	Asset Type Application	Status PRESCRIBED IN BORCESS	• 8 ×
Nepositury Exets (Sirect di Fund) Product Sand Project Vere Use Asset Name Sangle Application - Commercial Card Authorization System Sangle Application - Commercial Card Authorization System Sangle Component NET Find Address Method Sangle Component NET Find Address Method	Asset Version Bota Polease	Asset Type Application Component Pattern	Status PRESCRIEED IN PROCESS PERFORMEND	- 0 X
	Asset Version Bota Rolease 2.0	Asset Type Application Component Pattern Datern	Status PRESCRIBED IN PROCESS PRESCRIBED IN DOPCESS	÷ ° X

- 4. Click the **Display Details** icon for any listed asset (or double-click the row) to view the asset's detail display.
- 5. Click the **Download** (I) icon for any listed asset to download the asset.

# Accessing the ALER Log

- 1. Open the **View** menu.
- 2. Click the ALER Add-in for Visual Studio .NET option and select ALER Log from the submenu.
- 3. The **ALER Log** window displays.

ALER Log	×
Clear	
	_

4. Click **Clear** to remove the log entries.