

AutoVue Integration SDK

Overview

ORACLE

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Preface

The *AutoVue Integration SDK Overview* provides a general overview of AutoVue Integration SDK.

For the most up-to-date version of this document, go to the AutoVue Documentation Web site on the Oracle Technology Network (OTN) at <http://www.oracle.com/technetwork/documentation/autovue-091442.html>.

Audience

The AutoVue Integration Software Development Toolkit (SDK) is intended for third-party developers who want to integrate Oracle AutoVue with their Document Management System (DMS) or Product Lifecycle Management System (PLM).

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible to all users, including users that are disabled. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format on OTN, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at <http://www.oracle.com/accessibility/>.

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Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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Related Documents

For more information, see the following documents in the Integration SDK documentation library:

- *Installation Guide*
- *User Guide*
- *Technical Guide*
- *Release Notes*
- *Java Docs*
- *Security and Authentication Guide*

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 the text.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

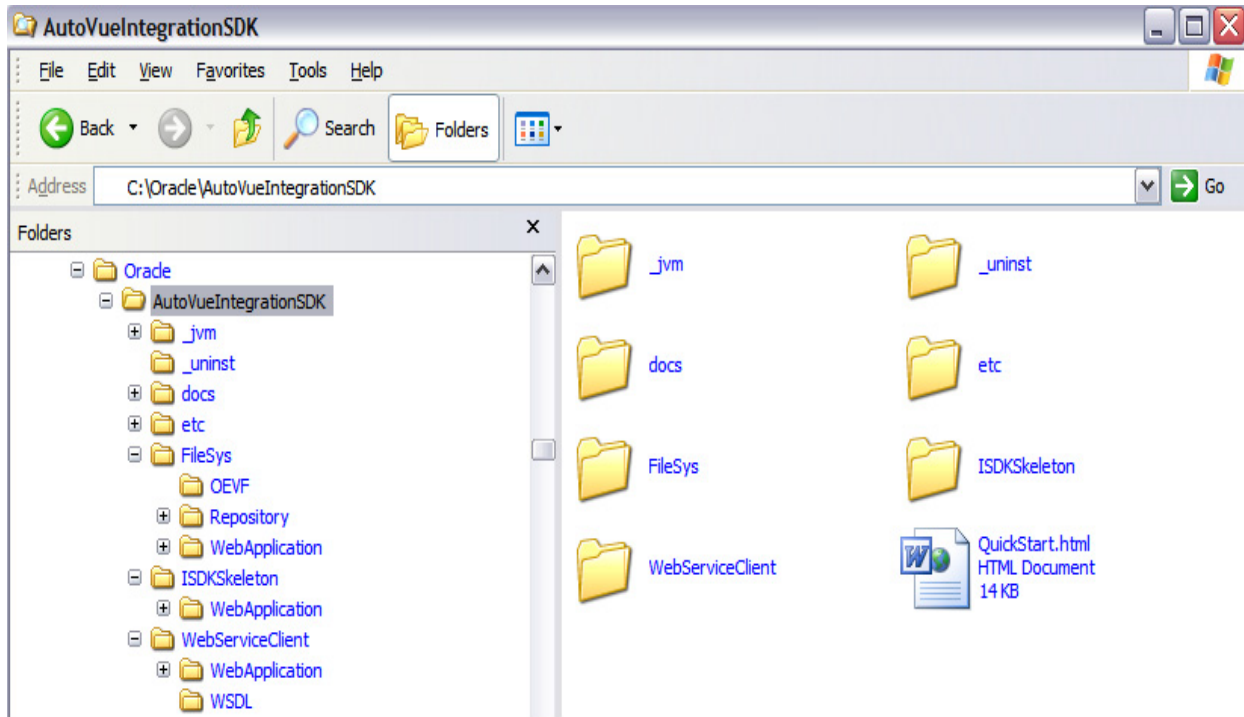
The AutoVue Integration Software Development Toolkit (SDK) is intended for third-party developers who want to integrate Oracle AutoVue with their Document Management System (DMS) or Product Lifecycle Management System (PLM).



Oracle AutoVue is a thin client viewing and collaboration solution for enterprise-wide data access.

Getting Started

After you run the SDK installer on your machine, it creates several folders. Here is a screen shot of the folder structure created when the SDK is installed on Windows XP.



The **Quick Start.html** file found in the root folder is a top-level readme file that acts as an entry point to the rest of the documentation included in this SDK. To view the content of this file, open it in your browser.

Here is a brief description of what is contained in each folder found in this SDK:

- The **/docs** folder contains SDK documentation (javadocs, installation guide, user guide, and so on).
- The **/FileSys** folder contains three subfolders:
 - The **/Repository** folder contains filesysRepository.zip which contains sample files used by the Filesys project - the Sample Integration for Filesys.
 - The **/OEVF** folder contains two GUI files used for OEVF demo.
 - The **/WebApplication** folder contains a filesys.war file and a /filesys folder. The content in the /filesys folder is the unzipped version of the filesys.war file. The filesys.war can be imported into JDeveloper or Eclipse workspace to demo the Sample Integration for Filesys and to demo RTC & OEVF functionalities. The project contains source code for sample integration, AutoVue client and 3rd party libraries required by the integration.
- The **/ISDKSkeleton** folder contains one subfolder:
 - The **/WebApplication** folder contains an isdk_skeleton.war file and a /isdk_skeleton folder. The content in the /isdk_skeleton folder is the unzipped version of the isdk_skeleton.war file. The isdk_skeleton.war can be imported into JDeveloper or Eclipse workspace to create the Integration SDK Skeleton project. Your integration with Java-based backend systems will be developed based on this skeleton project and fulfill the TODO comments in this project.
- The **/WebServiceClient** folder contains two subfolders:
 - The **/WSDL** folder contains the BluePrint WSDL file and the XSD file that accompany it.
 - The **/WebApplication** folder contains a wsclient.war file and a /wsclient folder. The content in the /wsclient folder is the unzipped version of the wsclient.war file. The wsclient.war can be imported into JDeveloper or Eclipse workspace to create the Web Services Client project. Your integration with Web Services backend systems will be developed based on this project.

- The **/etc** folder contains release notes, list of files and folders structure contained in this SDK, and folders containing licenses of third-party software used by SDK.
- The **/_jvm** and **/_uninst** folders for uninstalling the SDK.

Once you have run the SDK installer, the first thing you need to do is to import the sample integration filesys project into JDeveloper or Eclipse IDE, configure, deploy & run the sample integration (Filesys DMS). To do so, you must follow steps outlined in the *Installation Guide*. You need to make sure that you have all the prerequisite software installed before you start deployment. For the complete list specific to your platform, refer to the “System Requirements” section found in the *Installation Guide*.

Once you have successfully deployed the Eclipse project, the next step is for you to get familiar with the sample integration. To learn more about the features and functionality provided by the sample integration, refer to the *Installation Guide* and *User Guide*.

Once you are familiar with the sample integration, the next step is for you to build your own integration. To do so, refer to the *Installation Guide*, *Technical Guide* and *Javadocs*. The *Technical Guide* explains the technical details and provides step by step guidance for developing your own integration.

Overview of SDK Components

The following list shows various components included in the AutoVue Integration SDK. There are two main components and four main subcomponents:

- 1 Documentation
 - a. Refer to section ["Documentation"](#).
- 2 Sample Integration Project
 - b. Framework (VueLink Core)
 - c. Sample Integration
 - VueLink for Filesys (Filesys VueLink servlet)
 - Front-end UI (index.jsp, jVue.html, frmApplet.jsp, RTCDemo.jsp, OEVFDemo.html, and so on)
 - Filesys DMS (filesysRepository.zip)
 - d. AutoVue Components
 - Applet client (jvue.jar, jogl.jar, gluegen-rt.jar)
 - VueServlet (vueservlet.jar)
 - e. Third-Party Libraries (commons, http, log4j)
- 3 SDK Skeleton Project
 - a. Framework (VueLink Core)
 - b. Integration Skeleton (with a sample Front-UI)
 - c. AutoVue Components
 - d. Third-Party Libraries
- 4 SDK Web Services Client Project
 - a. Framework (VueLink Core)
 - b. Integration Skeleton (with a sample Front-UI)
 - c. AutoVue Components
 - d. Third-Party Libraries

Documentation

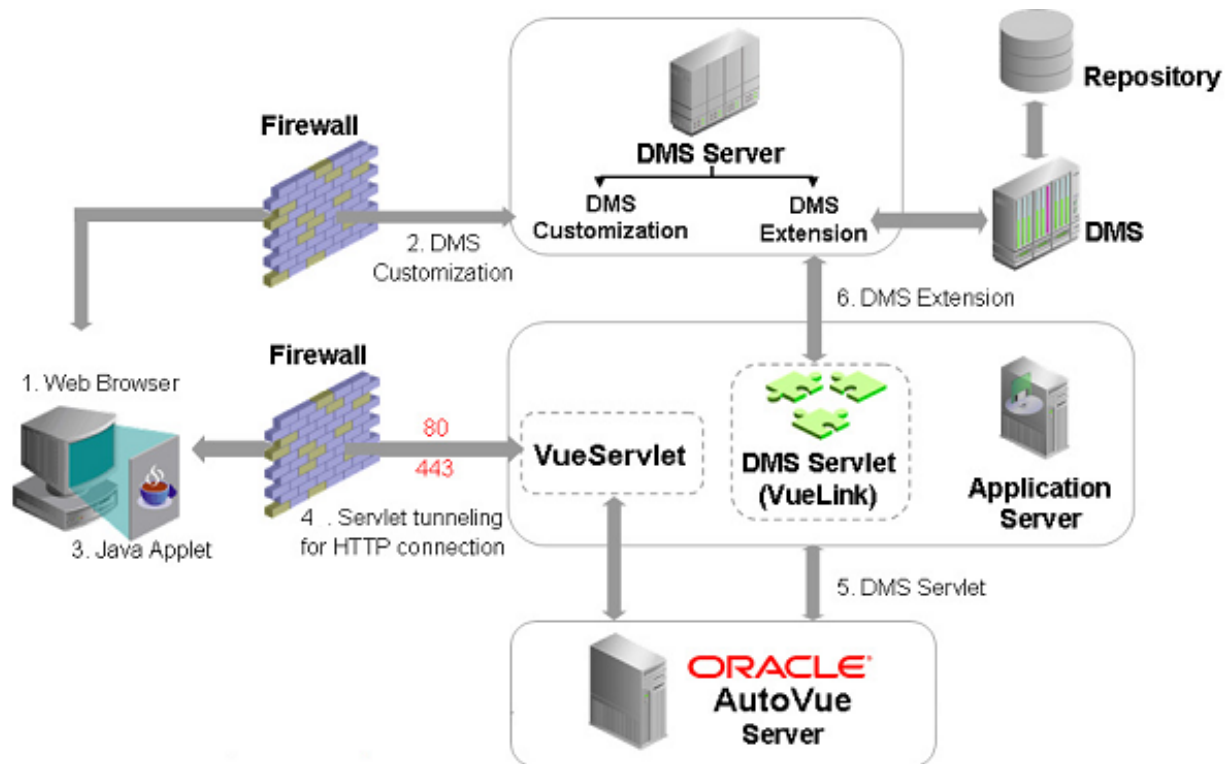
The documentation included in the AutoVue Integration SDK is under the **/docs** folder and contains following:

- **Installation Guide**
 - This guide contains information related to the installation / configuration / deployment of projects included in this SDK in JDeveloper and Eclipse IDE.
- **User Guide**
 - This guide contains information related to functionality available to the end user of the sample integration included in this SDK.
- **Technical Guide**
 - This guide contains in-depth technical information about the integration framework and describes how to implement your own integration based on the sample integration included in this SDK.
- **JavaDocs**
 - This contains the JavaDocs of the underlying framework contained in the AutoVue Integration SDK.
- **Security and Authentication Guide**
 - This guide contains information related to the security and authentication mechanisms provided in this release of Integration SDK.

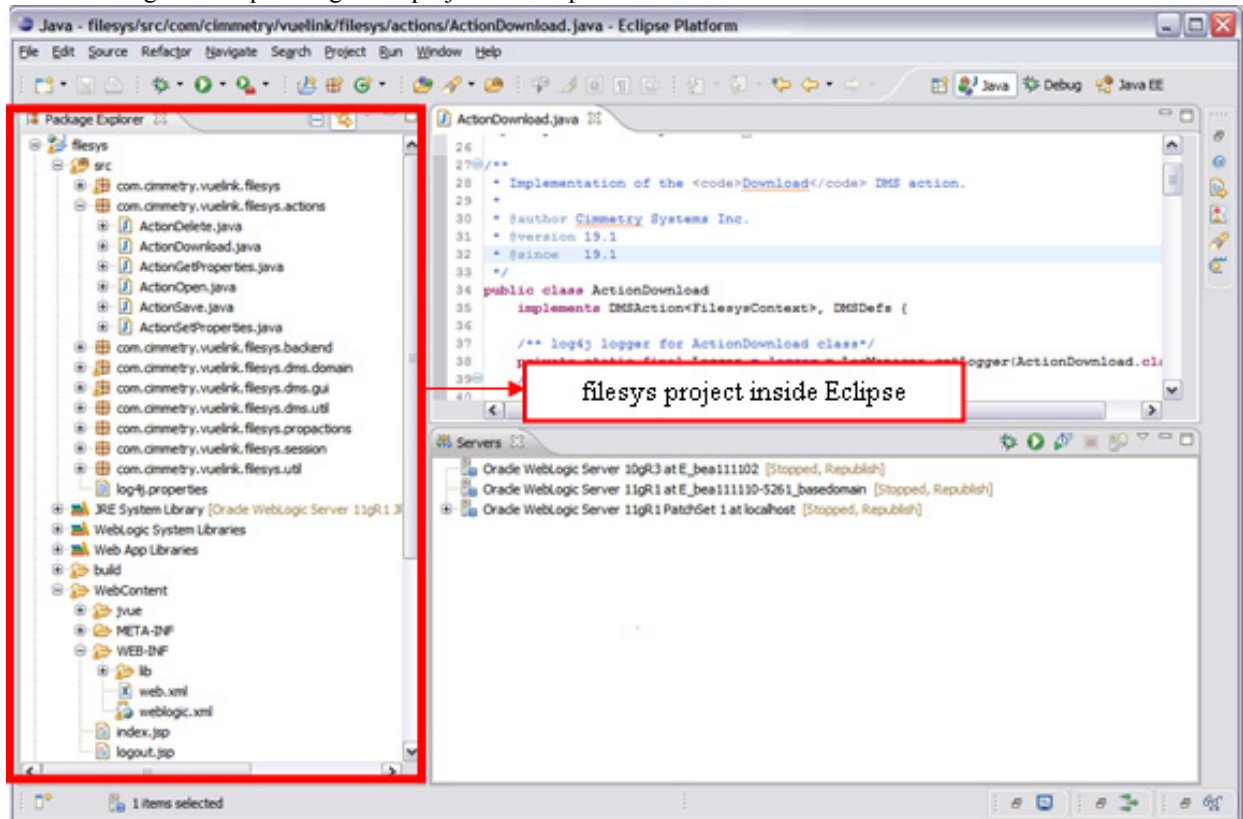
Sample Integration Project

The AutoVue Integration SDK bundles sample integration into a JDeveloper-based or Eclipse-based project. This project is located under the FileSys\WebApplication folder and is available as single Web Archive - WAR (filesys.war) and separate files. This provides you with an option of either importing the project from single WAR file into your workspace or manually creating a project and adding individual pieces to it.

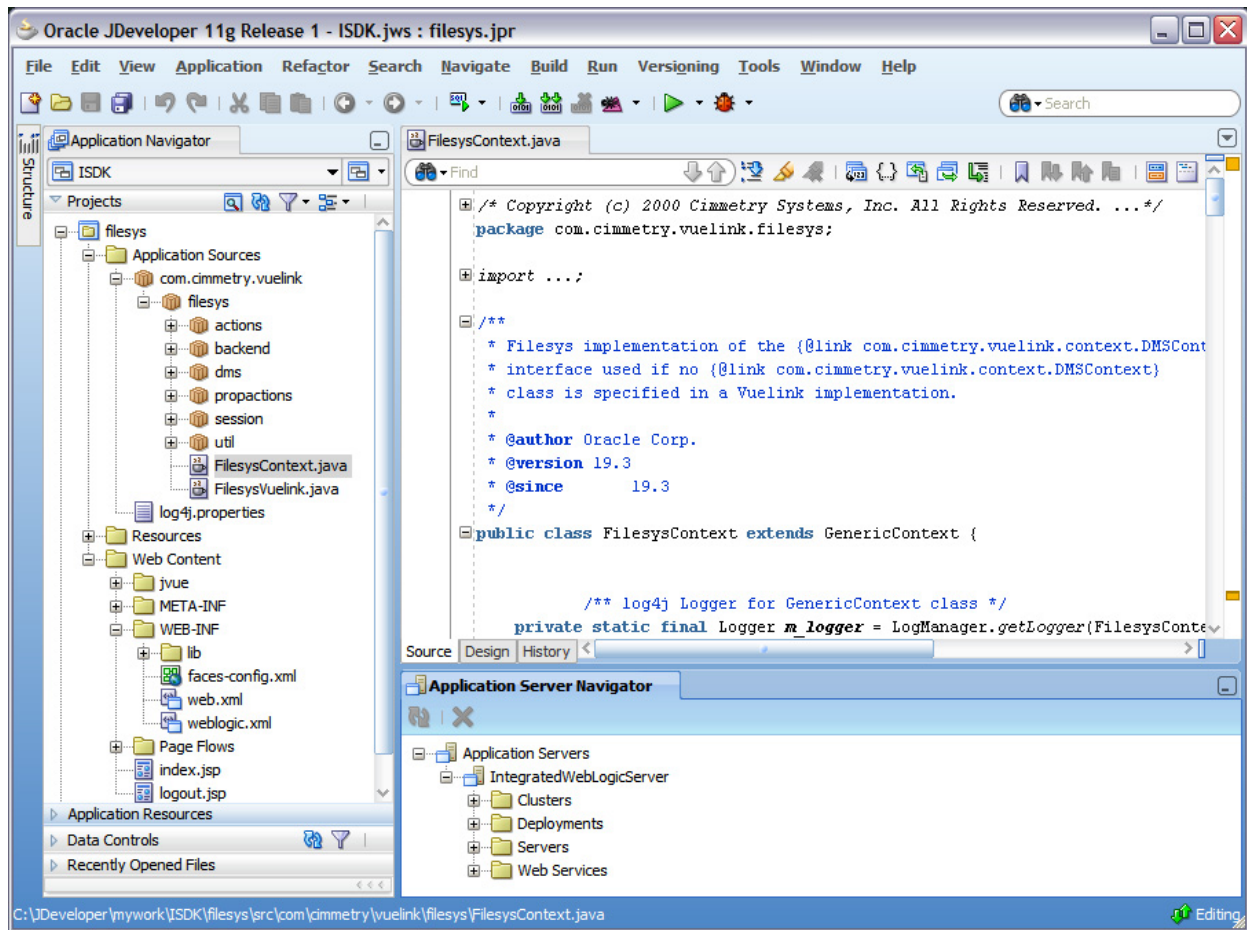
The following high-level architectural diagram shows how various components included in the Sample Integration are related to each other as well as to others. For detailed description about this architectural diagram, please refer to *Technical Guide*.



The following is a sample integration project on Eclipse.



The following is sample integration project on JDeveloper.



The project contains four main subcomponents:

- “Framework (VueLink Core)” on page 13
- “Sample Integration” on page 14
- “AutoVue Components” on page 16
- “Third-Party Libraries” on page 16

Framework (VueLink Core)

The framework is implemented based on Java Servlet API provided by SUN as part of J2EE. The main class is called `com.cimmetry.Vuelink` which extends `javax.servlet.http.HttpServlet`. Servlets do not run on their own, they require a servlet engine such as Oracle WebLogic Server.

The framework links AutoVue system with a third-party DMS. Integration framework receives requests from AutoVue, obtains information from the DMS, and then builds a response back to AutoVue.

The framework provides plumbing for parsing XML requests received from AutoVue Server as well as constructing XML responses sent back to AutoVue Server. The framework uses XML parser libraries included in your servlet container.

The framework defines a set of interfaces and classes that facilitate the integration task. The framework is packaged into `vuelinkcore.jar` and contains many packages including following:

- `com.cimmetry.vuelink`
- `com.cimmetry.vuelink.authentication`

- com.cimmetry.vuelink.backend
- com.cimmetry.vuelink.context
- com.cimmetry.vuelink.defs
- com.cimmetry.vuelink.io
- com.cimmetry.vuelink.property
- com.cimmetry.vuelink.prosaction
- com.cimmetry.vuelink.query
- com.cimmetry.vuelink.session
- com.cimmetry.vuelink.util
- com.cimmetry.vuelink.xml

The framework uses log4j for logging messages into application server log file or console.

Sample Integration

The SDK includes a sample integration of a simplified file system management (filesys). This sample includes “VueLink for filesys DMS” and aims to act as a starting point for developing your own integration as well as familiarizing yourself with the integration framework.



The filesys DMS comes with a database repository that is preloaded with some sample files in 2D/3D formats. To simplify things, the structure of this repository is based on local file system and requires basic understating of files and folders. Markups and renditions are stored back into this repository.

The sample integration demonstrates how you can add basic and advanced functionalities to your own integration including:

- Document viewing of native formats
- Retrieve document attributes
- Create, save and review markups
- Browse DMS repository
- Search DMS repository
- Compare document versions
- Convert documents to other formats
- Support for AutoVue Mobile Pack and Intellistamps
- Support for Set Property action (with Pick List support)
- Enhanced framework to support Oracle Enterprise Visual Application (OEVA)
- Support for markup save alert before applet close
- Support for browser Pop-up blocker notification
- Support for AutoVue 20.0.0 Authorization mechanism (encrypted Authorization block and password)
- Improved performance with support for distributed file servers
- Support for integration between Online meeting managements and AutoVue Real-Time Collaboration (RTC)
- Support for saving/deleting on-line master markups based on default markup policy
- Support for read-only markups
- Bundled demos for OEVA and RTC

The sample integration for Filesys contains many packages including the following:

- com.cimmetry.vuelink.filesys
- com.cimmetry.vuelink.filesys.actions
- com.cimmetry.vuelink.filesys.backend

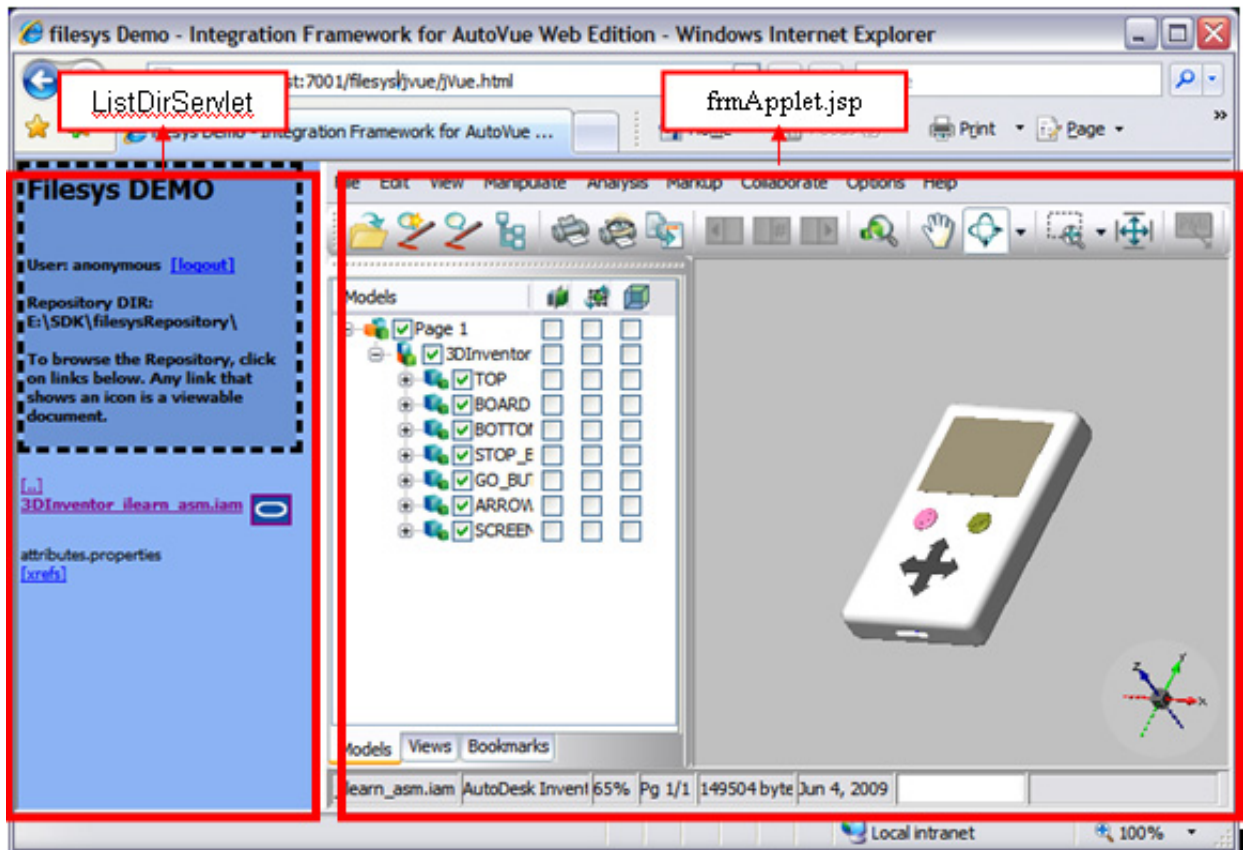
- com.cimmetry.vuelink.filesys.dms
- com.cimmetry.vuelink.filesys.dms.gui
- com.cimmetry.vuelink.filesys.propactions
- com.cimmetry.vuelink.filesys.session
- com.cimmetry.vuelink.filesys.util

The sample integration includes a front-end UI which allows users to navigate the Filesys DMS data structure. This UI consists of:

- A default home page: index.jsp. It provides links for Filesys demo, RTC demo and OEVF demo.
- RTC demo pages: RTCDemo.jsp, RTCDemo_init.jsp, RTCDemo_join.jsp
- OEVF demo pages: OEVFDemo.html, OEVFDemoDes.html
- Filesys demo pages: jVue.html, frmApplet.jsp and a single servlet called com.cimmetry.vuelink.filesys.dms.gui.ListDirServlet.

The main filesys demo page contains two frames as shown in the following figure.

- The frame on the left displays the structure of Filesys DMS data. The content of this frame is displayed by ListDirServlet which allows you to navigate the Filesys DMS by expanding folders and selecting documents to view.
- The frame on the right displays the AutoVue applet using frmApplet.jsp. When you click a document in the frame on the left, it displays in the frame on the right.



AutoVue Components

The SDK bundles following two components of Oracle AutoVue:

- AutoVue Applet Client (jvue.jar, jogl.jar, gluegen-rt.jar)
 - Referenced by frmApplet.jsp which contains HTML code for AutoVue Applet (<applet> tag).
- VueServlet tunneling servlet (vueservlet.jar)
 - This servlet is used to allow AutoVue applet connects to AutoVue Servlet.

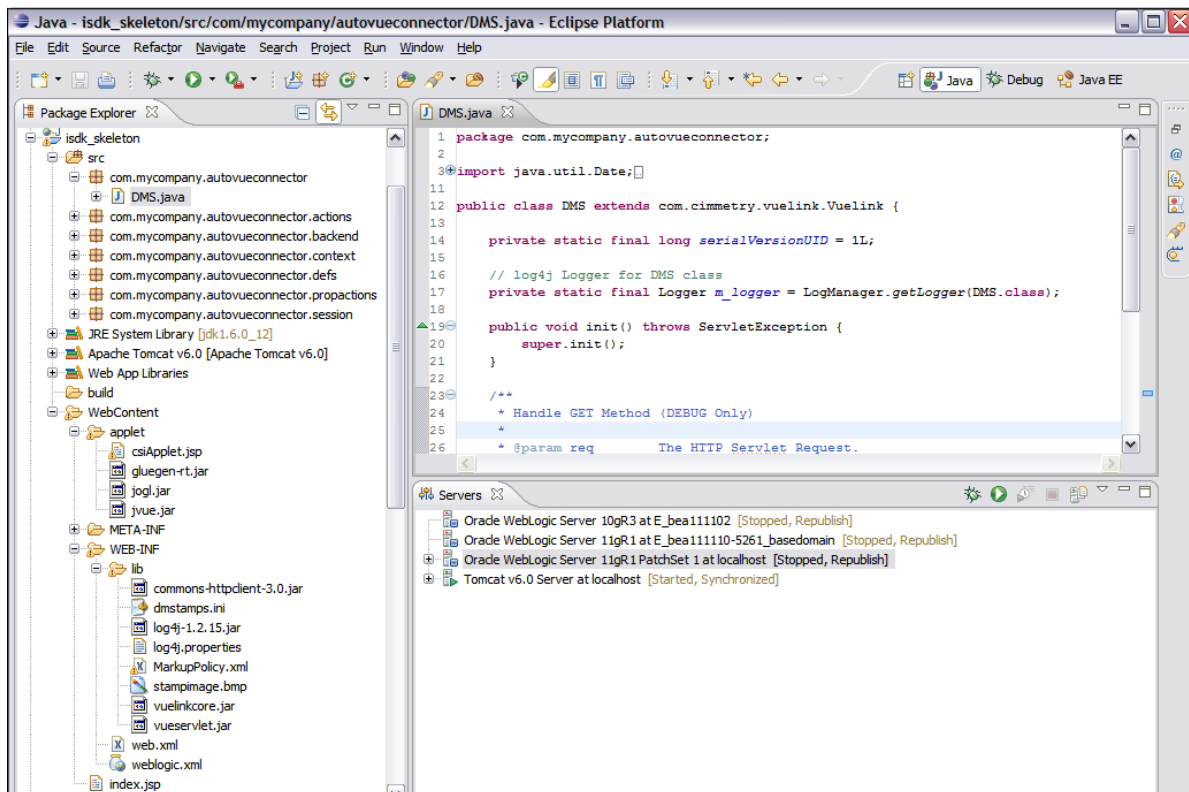
The AutoVue Integration SDK does not bundle AutoVue Server. You need to download and install it separately. Refer to the *Installation Guide* for more information.

Third-Party Libraries

The AutoVue Integration SDK bundles several third-party open-source libraries needed by the framework, such as **org.apache.log4j** and **org.apache.commons.httpclient**.

SDK Skeleton Project

The AutoVue Integration SDK Skeleton is an easy start for the users to create their own integration. This project is located under the ISDKSkeleton/WebApplication folder and is available as single WAR (isdsk_skeleton.war) and separate files. It can be imported into JDeveloper or Eclipse workspace.



It contains four main subcomponents:

- Framework (VueLink Core): vuelinkcore.jar
- Integration Skeleton
- AutoVue Components:
 - AutoVue Applet Client (jvue.jar, jogl.jar, gluegen-rt.jar)

- VueServlet tunneling servlet (VueServlet.jar)
- Third-Party Libraries: log4j-1.2-15.jar

Refer to section “Sample Integration” on page 14 for description about the two subcomponents: Framework and AutoVue Components.

It includes skeleton classes containing TODO tasks to realize the following functionalities:

- Document viewing
- Retrieve document attributes
- Create, save and review markups
- Compare document versions
- Convert documents to other formats
- Returning External References (XREFS)
- Browse DMS repository
- Search DMS repository
- Support AutoVue Mobile Pack and Intellistamps
- Support for Set Property action
- Support for AutoVue 20 authorization mechanism
- Support for integration between Online meeting managements and AutoVue Real-Time Collaboration (RTC)
- Support for markup save alert before applet close
- Enhanced framework to support Oracle Enterprise Visual Application (OEVA)

The Integration Skeleton contains the following packages:

- com.mycompany.autovueconnector
- com.mycompany.autovueconnector.actions
- com.mycompany.autovueconnector.backend
- com.mycompany.autovueconnector.context
- com.mycompany.autovueconnector.defs
- com.mycompany.autovueconnector.propactions
- com.mycompany.autovueconnector.session

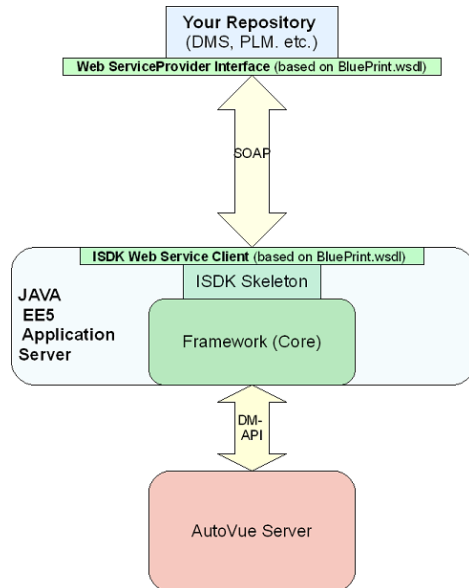
It includes a sample Front-UI file - applet/csiApplet.jsp - which contains HTML code for launching AutoVue applet (<applet> tag). When you develop your DMS extension on the DMS Server, you can customize this sample file.

Refer to the *Technical Guide* about steps to design your integration based the SDK Skeleton.

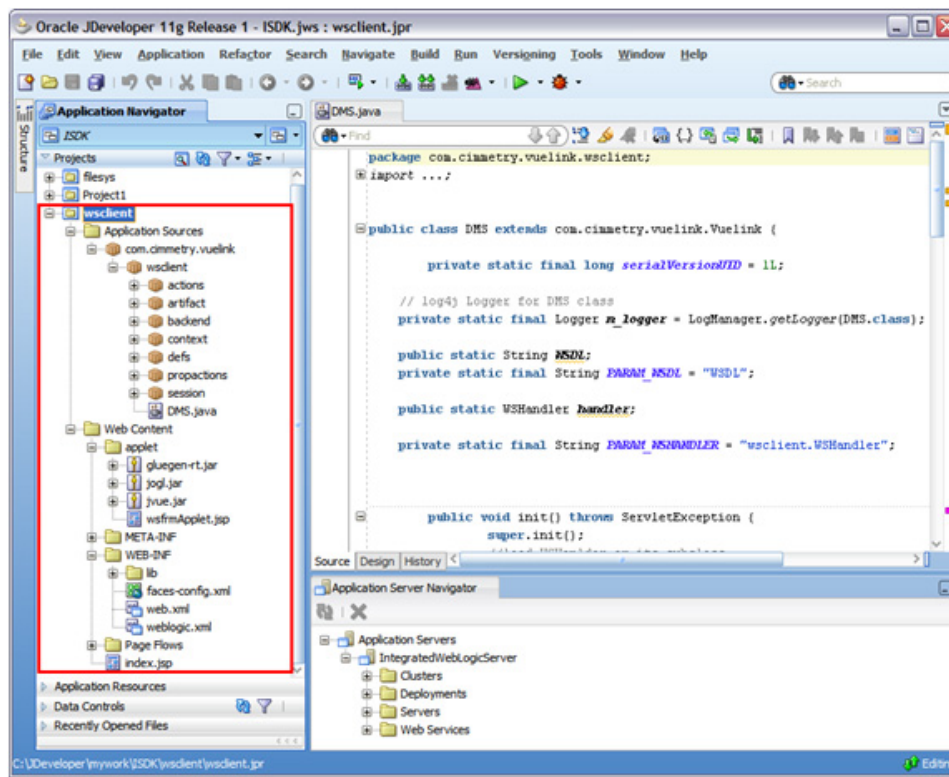
SDK Web Services Client Project

The AutoVue Integration SDK Web Services Client (WSC) is a package build on top of ISDK Skeleton. It is developed based on Java API for XML Web Services (JAX-WS) and is designed to communicate out of the box with

any web service provider that implements the Blueprint.wSDL file bundled with this AutoVue Integration SDK distribution. Refer to *Technical Guide* for detailed description about SDK Web Services Client.



The SDK Web Services Client project is located under the WebServiceClient/WebApplication folder and is available as single WAR (wsclient.war) and separate files. It can be imported into JDeveloper or Eclipse workspace. The Blueprint.wSDL is located in WebServiceClient/WSDL folder.



It contains also four main subcomponents:

- Framework (VueLink Core): vuelinkcore.jar
- Web Services Client

- AutoVue Components:
 - AutoVue Applet Client (jveu.jar, jogl.jar, gluegen-rt.jar)
 - VueServlet tunneling servlet (VueServlet.jar)
- Third-Party Libraries: commons and log4j

Refer to the section “Sample Integration” on page 14 for description about the three subcomponents: Framework, AutoVue Components and Third-Party Libraries.

It provides APIs to provide the same functionalities as the SDK Skeleton does.

The Web Services Client project contains the following packages:

- com.cimmetry.vuelink.wsclient
- com.cimmetry.vuelink.wsclient.actions
- com.cimmetry.vuelink.wsclient.artifact
- com.cimmetry.vuelink.wsclient.backend
- com.cimmetry.vuelink.wsclient.context
- com.cimmetry.vuelink.wsclient.defs
- com.cimmetry.vuelink.wsclient.propactions
- com.cimmetry.vuelink.wsclient.session

It includes a sample Front-UI file - applet/wsfrmApplet.jsp - which contains HTML code for launching AutoVue applet (<applet> tag). When you develop your DMS extension on the DMS Server, you can customize this sample file.

Feedback

Oracle products are designed according to your needs. We would appreciate your feedback, comments or suggestions. If at any time you have questions or concerns regarding AutoVue Integration SDK, call or e-mail us. Your input is an important part of the information used for revision.

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