

Oracle AutoVue VueLink 20.0 for ENOVIA
System Administrator Manual

***An Integration between ENOVIA PLM
and Oracle AutoVue***

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Preface

The *Oracle AutoVue VueLink 20.0 for ENOVIA System Administrator Manual* describes the installation and configuration steps for the VueLink.

Audience

The *Oracle AutoVue VueLink 20.0 for ENOVIA System Administrator Manual* is intended for third-party developers who want to integrate their ENOVIA PLM system with the Oracle AutoVue family of products.

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Related Documents

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

- *User Manual*
- *Manual Installation Guide*
- *Release Notes*
- *Utility for Caching Streaming File Rendition*

Conventions

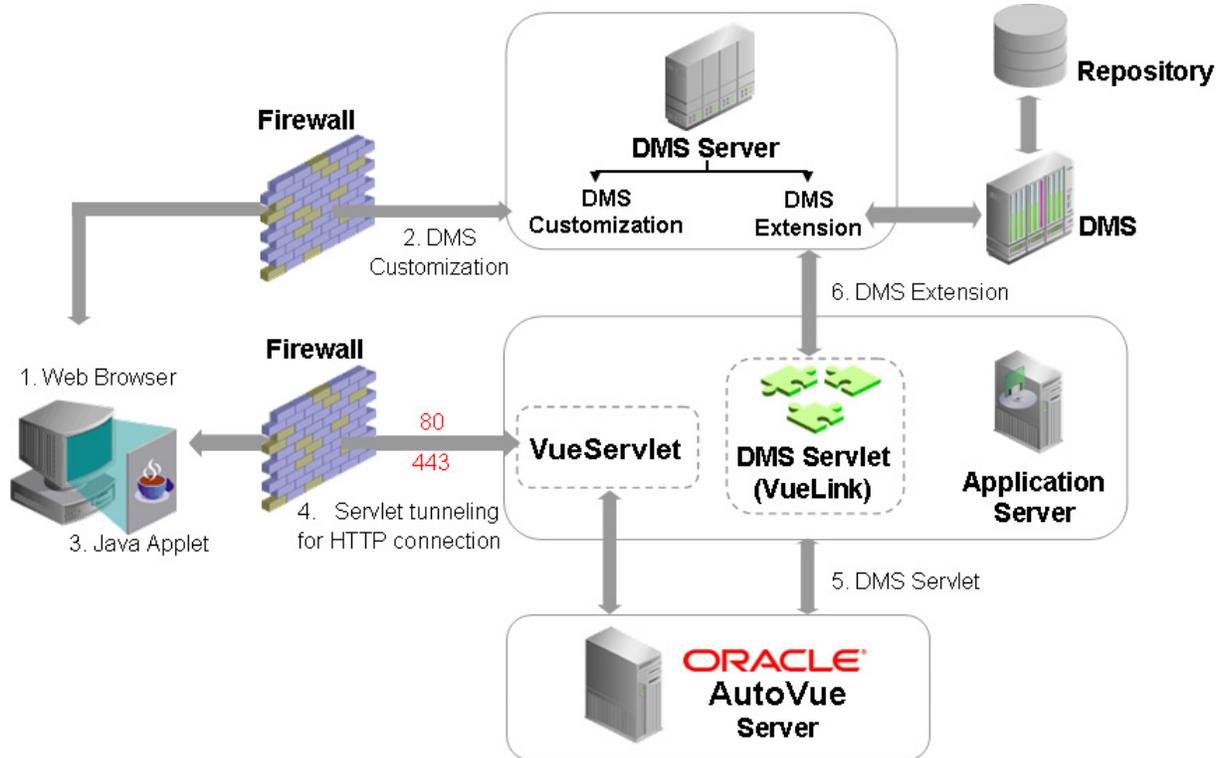
The following text conventions are used in this document:

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.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Introduction

The VueLink servlet allows AutoVue Server to communicate with ENOVIA PLM using the standard HTTP or HTTPS protocol.

The following block diagram illustrates a typical configuration of how AutoVue integrates with VueLink.



How VueLink Works

The client logs on to the Document Management System (DMS¹) through a Web browser like Microsoft's Internet Explorer or Mozilla Firefox. With DMS Customization in place, a link for the viewer appears next to each file stored in the DMS. When you click this link, the AutoVue applet is launched and you can view that file inside the Web browser window.

Depending on AutoVue configuration, AutoVue client communicates with AutoVue Server either through servlet tunnelling for HTTP connection or through direct socket connection. The AutoVue Server communicates with the VueLink servlet using standard HTTP connection. With DMS Extension installed on the server, the VueLink servlet can communicate with ENOVIA PLM to handle any request made by AutoVue Server such as file fetching.

To display a composite file (a file with external references), the VueLink servlet retrieves the file along with all its component files from DMS and makes them available to AutoVue Server. Then AutoVue Server processes them and AutoVue client displays the composite file. From here you can analyze and collaborate on the file with any document review (markups) being save back into DMS.

1. A DMS/PLM/ERP/UCM system is referred to as DMS.

System Requirements

Note: For the most up-to-date list of system requirements and for a list of known issues, see the release notes available in the **etc** subfolder of the Oracle AutoVue VueLink for ENOVIA media pack.

- VueLink Installer is supported on Windows Server 2008 R2 Enterprise (32-bit mode)
- Oracle AutoVue 20.0.0 (and any higher service pack for 20.0.0)

Note: Prior to deploying the VueLink, you must locate and disable the following 19.3 VueLink-compatibility option in `javueserver.properties`:

```
dms.vuelink.version=19.3
```

To disable, add the number sign (#) to comment-out the option:

```
# dms.vuelink.version=19.3
```

- Application Server / Servlet Engine:
 - Tomcat 6.0.20
- **ENOVIA Server V6R2011**
 - ENOVIA Live Collaboration Server V6R2011
 - MQL component of ENOVIA Studio Modeling Platform V6R2011 (required by InstallShield Setup Program for installing schema)
 - Business Modeler component of ENOVIA Studio Modeling Platform V6R2011 (required to grant business privileges to Administrator)
 - ENOVIA Live Collaboration Business Process Services V6R2011
 - ENOVIA Designer Central V6R2011 (Optional)
 - ENOVIA File Collaboration Server V6R2011 (Optional)
 - Matrix Navigator of ENOVIA Studio Modeling Platform V6R2011—required to configure the SolidWorks Integration—(Optional)
 - ENOVIA Integration Framework V6R2011
 - ENOVIA Collaborative Design for Solidworks V6R2011

Automatic Installation

Before AutoVue can work cooperatively with ENOVIA, the VueLink interface must be installed and configured. In the following section you will find instructions for installing Oracle AutoVue VueLink for ENOVIA with the help of the InstallShield wizard.

Running InstallShield for Oracle AutoVue VueLink for ENOVIA

Oracle AutoVue VueLink for ENOVIA setup programs are located in the \vuelink_setup directory of the media pack.

- 1 To invoke the VueLink installer, run the following command line using 32-bit Java:

```
java -cp setup.jar run
```

The InstallShield Wizard for Oracle AutoVue VueLink for ENOVIA starts.

- 2 Click **Next** to continue installation.
- 3 In the Directory Name field, enter the directory path where you want Oracle AutoVue VueLink for ENOVIA installed and then click **Next**.

For example: C:\Oracle\VuelinkforENOVIA

The setup creates a copy of all files installed as part of the installation in this directory.

- 4 Make sure **All Components** is selected and then click **Next**:
- 5 Enter the J2EE Application context root for ENOVIA platform and then click **Next**.
For example: /enovia
- 6 Enter the following AutoVue Server details and then click **Next**:
 - a. Specify the AutoVue Server Host name. **For example:** wvserver
 - b. Specify the socket port for the AutoVue Server. **For example:** 5099
- 7 Enter the following Web Server Details and then click **Next**:
For J2EE:
 - a. Select **J2EE** from the list.
 - b. Specify the Web Server Host Name. **For example:** wvserver
 - c. Specify the Web Server port. **For example:** 8080
 - d. Specify the directory where eMatrix Servlet is installed. **For example:** C:\enoviav6r2011\server
- 8 Follow this screen's prerequisites and then click **Next**:
 - a. Make sure the machine on which you are running the installer has the studio version of ENOVIA's MQL application installed.
 - b. Make sure your application server is shut down.
- 9 Specify the following application server details and then click **Next**:
 - Tomcat 6.0.20 is selected by default.
 - Select whether the application server is installed in a cluster.
- 10 Enter the URL for the AutoVue Server installer (jInstall.exe for Windows and jInstall_lin.bin for Linux) and the click **Next**.
- 11 Specify the Application Server port (for non-J2EE installation only) and then click **Next**.
- 12 Specify the path to the ENOVIA Collaboration Kernel (for a non-J2EE installation) and then click **Next**.
- 13 Specify the type of ENOVIA Collaboration Kernel in use: **RIP (RMI in Process)** or **RMI** and then click **Next**.

- 14 Specify the path to the framework properties file, select whether to have the installer copy SSL related packages, and then click **Next**.
- 15 Select whether to install the streaming file caching utility and then click **Next**.
- 16 If you selected **Yes** in the previous step, the installer prompts for the path to SUN's JRE and the ENOVIA Collaboration Kernel library file. For instructions on how to configure and run the offline caching utility, refer to **readme.doc** in <vuelink install folder>\streaming_file_utility.
- 17 Click **Next**.
- 18 Specify the Schema type in use and then click **Next**.
- 19 Specify the name and the path to the MQL Application and then click **Next**.
Note: The studio version of mql.exe for ENOVIA V6R2011 should be used during installation.
- 20 Specify the ENOVIA Context and Store Information and then click **Next**.
- 21 Select the formats for which you want AutoVue to be registered as a viewer and then click **Next**.
- 22 If you selected BPS Markup Schema, the installer brings up the schema details screens. If you have a customized BPS schema, specify schema information here. If you are using the Default Schema, click **Next**.
- 23 Specify the name for the Global Configuration Business Object and then click **Next**.
For example: csiCimmetryConfigObject.
- 24 The installer prompts you to decide if you want to install the Global Configuration Business Object at this point. Select **Yes** and then click **Next**.

Refer to ["Configuration" on page 13](#) for details on the attributes of the Configuration object.
Refer to ["Appendix C" on page 38](#) for information on these attributes in the vuelink.properties file.
- 25 The installer summarizes the installation. Click **Next**.
The Installer installs all required components.
- 26 If you are using RMI collaboration kernel, make sure that the jar file ematrixServletRMI.jar required by the Vuelink is set in the Application's Server Class Path and then click **Next**.
- 27 To see the results of the MQL Execution, click the link to the MQL Output Logs. Otherwise, click **Next**.
- 28 The installer prompts you to run the eMatrix WAR utility. Make sure to run the WAR utility and redeploy the WAR/EAR file on your application server and then click **Next**.
- 29 Click **Finish** to complete the installation.
- 30 For J2EE deployments, run the ENOVIA WAR file utility to generate a WAR/ EAR file. Deploy this WAR/ EAR file with your Application Server.

AutoVue Administration Pages

Once Multi CAD Management and Oracle AutoVue VueLink for ENOVIA is installed, you will be able to access AutoVue administration pages. Through the administration pages, you can modify viewer registration, change the Global Configuration Business Object and install AutoVue server on the target machine.

Note: To invoke these pages, the ENOVIA PLM administrator needs to have business privileges and modify access to Global Configuration Business Object

Installing AutoVue Server

- 1 Logon to ENOVIA PLM.
- 2 From the **Tools** menu, select **AutoVue Administration**, and then select **AutoVue Installer**.
The installer for Oracle AutoVue is launched.
- 3 Follow on-screen instructions to complete the installation.

Modifying Viewer Registration

- 1 Logon to ENOVIA PLM.
- 2 From the **Tools** menu, select **AutoVue Administration**, and then select **AutoVue Viewer Registration**.
- 3 Select the formats for which you want to associate AutoVue as the viewer.
- 4 Click **Done** to complete registration.

Modifying the Global Configuration Object

- 1 Logon on to ENOVIA PLM.
- 2 From the **Tools** menu, select **AutoVue Administration**, and then select **Edit GCO Mappings**.
- 3 If you wish to change the AutoVue Server host name, specify the new host name here.
- 4 Click **Done** to complete the changes.

Configuration

The configuration listed here is mandatory if you are performing a manual installation of the VueLink. If you are performing an automatic installation, refer to these chapters only if you have to modify any settings.

Note: Modification of properties and html files will require you to re-create the war file and re-deploy it with your application server.

Setting VueLink Parameters inside `csiLaunch.properties`

Note: Do not edit the parameter `DMS`. This has a default value of `'__SERVLET_HOST__'`. This is updated by the VueLink at runtime.

`MxAutoVueServlet` is responsible for launching the AutoVue applet. You can pass parameters to `MxAutoVueServlet` by making one of the following file provisions for it:

- A template page called `csiApplet.html`
- An internal applet page called `csiLaunch.properties`

By default, both of these files will be located in the application server's `\servlet` folder where `vueLink.jar` and other jar files are also located.

`csiApplet.html` Template Page

When you pass parameters through the HTML template page, the `csiApplet` variable in `csiLaunch.properties` must be updated with the full path to the HTML template page.

- 1 In a text editor such as Notepad, edit the file `csiLaunch.properties`.
- 2 Search for the following key and replace it with the values indicated in the following table:

<code>csiApplet</code>	<code><path>/csiApplet.html</code> where <code><path></code> points to the folder where the <code>csiApplet.html</code> file is located. This is normally the folder where <code>vueLink.jar</code> is located.
------------------------	---

Note: For details on updating `csiApplet.html`, see [Setting AutoVue Applet Parameters for csiApplet.html](#).

Internal Applet Page

Update `csiLaunch.properties` with parameters for AutoVue applet and AutoVue Server. VueLink will first try to locate the HTML template page specified in the `csiApplet` variable. If the parameters are not set in this file, VueLink will then try to read the `csiLaunch.properties` file for parameters.

- 1 In a text editor such as Notepad, edit the file `csiLaunch.properties`.
- 2 Search for the key settings listed in the following table and replace them with the indicated values:

Setting	Syntax	Description
Codebase	http://<WEB-SERVER>/integrations/jVue	This specifies an URL to WEB-SERVER where AutoVue applet files (java.jar , jogl.jar & gluegen-rt.jar) are downloaded to client machine.
Verbose	True False	Set it to true only if AutoVue Client is to be run in debug mode. Otherwise, set it to false .
Jvueserver	http://<APPLICATION-SERVER>/ enovia/VueServlet	Client tunnels through the Servlet installed under http://<APPLICATION -SERVER>/enovia/VueServlet . Note: For additional information, refer to the <i>Oracle AutoVue Installation and Administration Manual</i> . VueServlet Setting http://<APPLICATION-SERVER>/enovia/VueServlet where <APPLICATION-SERVER> is the application server/servlet engine running VueServlet tunneling servlet.
DMS	http://<APPLICATION-SERVER>/ enovia/com.cimmetry.vuelink. matrix.DMS	URL pointing to VueLink servlet http://<APPLICATION-SERVER>/enovia/com.cimmetry.vuelink.matrix.DMS where <APPLICATION-SERVER> is the name of application server/servlet engine running VueLink DMS servlet.

Here are details of additional parameters present in the file **csiLaunch.properties**:

Setting	Syntax	Description
MatrixServerName	:bos	The value must match the entry for ematrix.server.name in framework.properties file. Default is set to :bos .
MatrixServerHost	//localhost:1099	The value must match the entry for ematrix.server.host in framework.properties file. Default is set to //localhost:1099 where 1099 is port number for ENOVIA PLM Kernel.
UseExternalAuth	False	Default value is false . Set this value to true if ENOVIA PLM Kernel is configured to use Single Sign On (sso) with External Authentication enabled.
DebugLevel	0 / 1	Default value is 0 . To enable debugging of csiLaunch Servlet , set DebugLevel to 1 .
ValidateVueServletURL	False	Set to true if csiLaunch servlet should Validate VueServlet URL at FCS . The default is false . If set to true , launch servlet (MxAutoVueServlet) will verify if VueServlet is running at FCS location. If AutoVue server is down or not installed at the FCS location, the launch servlet will default to VueServlet (AutoVue Server) at the MCS location.

Setting AutoVue Applet Parameters for `csiApplet.html`

The parameters in the table in this section can be applied to the `csiApplet.html` file.

Note: Do not edit the parameter `servletHost`. This has a default value of '`__SERVLET_HOST__`'. This is updated by the VueLink at runtime.

- 1 In a text editor such as Notepad open **`csiApplet.html`**.

This file is normally located in the Application Server's `\servlet` folder where **`vueLink.jar`** and other jar files are also located.

- 2 Modify the settings according to the following table:

AutoVue Applet Parameters		
Setting	Syntax	Description
<code>jVueHome</code>	" <code>http://<WEB-SERVER>/integrations/jVue</code> "	Specifies an URL to WEB-SERVER where AutoVue client files (<code>java.jar</code> , <code>jogl.jar</code> & <code>gluegen-rt.jar</code>) are downloaded to client machine <code>http://<WEB-SERVER>/integrations/jVue</code> .
<code>jVueHost</code>	" <code>http://<APPLICATION-SERVER>/enovia/VueServlet</code> "	Specifies connection method for communicating with AutoVue Server. The client tunnels through the Servlet installed under <code>http://<APPLICATION-SERVER>/Servlet/VueServlet</code> . Note: For additional information, refer to the <i>Oracle AutoVue – Installation and Administration Manual</i> . Note: VueServlet Setting <code>http://<APPLICATION-SERVER>/enovia/VueServlet</code> where <code><APPLICATION-SERVER></code> is the Name of application server/servlet engine running VueServlet tunneling servlet.
<code>DMS</code>	" <code>http://<APPLICATION-SERVER>/enovia/com.cimmetry.vuelink.matrix.DMS</code> "	URL pointing to VueLink servlet <code>http://<APPLICATION-SERVER>/enovia/com.cimmetry.vuelink.matrix.DMS</code> where <code><APPLICATION-SERVER></code> is the Name of application server/servlet engine running VueLink DMS servlet.

Configuring for a Multi-Server Cluster Environment

When ENOVIA PLM is installed in a multi-server cluster environment, you will need to complete additional configuration for the VueLink.

- 1 In a text editor such as Notepad, edit `csiApplet.html`.
- 2 Add the following lines to the applet section:


```
'<PARAM NAME="DMSARGS" VALUE="DMS_PRESERVE_COOKIES">\n' +
      '<PARAM NAME="DMS_PRESERVE_COOKIES" VALUE="true">\n' +
```

Optional Configuring for 3D Visual Meeting Session or Collaboration

As a security enhancement, the username is not passed to the AutoVue applet. As a result, during 3D Visual Meeting or Collaboration, this might affect the displaying of the markup creator for certain versions of AutoVue; it shows the client machine's username instead of ENOVIA's user name. To avoid this, you can temporarily disable the security enhancement for the VueLink:

- 1 In a text editor such as Notepad, edit `csiApplet.html`.
- 2 Add the following lines to the applet section:


```
'<PARAM NAME="USERNAME" VALUE="__USERNAME__">\n' +
```

Setting Parameters inside `vuelink.properties`

- 1 In a text editor such as Notepad, open the file `vuelink.properties`.

This file is normally located in the Application Server's `\servlet` folder where `vuelink.jar` and other jar files are also located.

- 2 Modify the settings according to the following table.

Property	Default Value	Description
<code>csiBrowseMaxRecursionDepth</code>	10	When performing "ENOVIA DSC Browse", this value is used to limit the recursion depth in order to find the root workspace from the current document. If the traversing does not reach the top of the workspace within the defined value, the current document will be the base of the browsing. Refer to <code>vuelink.properties</code> file for a sample.
<code>csiConfigAEFSubVaultsRelationship</code>	<code>relationship_SubVaults</code>	ENOVIA Designer Central's relationship that connects a "Workspace" to a "Workspace Vault".
<code>MatrixConnection</code>	RMI	Type of ENOVIA Live Collaboration Server being used, either RMI or RIP .
<code>MatrixRMIPort</code>	1099	RMI port number if platform server being used is RMI.
<code>CSILaunchServlet</code>	<code>http://__SERVLETHOST__/servlet/MxAutoVueServlet</code>	URL to VueLink Launch Servlet – <code>MxAutoVueServlet</code> . Note: This parameter is to be set only if ENOVIA Live Collaboration Business Process Services is being used.

UseMatrixAEF Schema	True	Set to true if either default or customized ENOVIA Live Collaboration Business Process Services schema is being used. Otherwise, set to false .
ShadowUserId	User Agent	Note: Set it to ENOVIA PLM's Shadow User Id. Note: Refer to ENOVIA PLM documentation for details on Shadow User.
ShadowUser Password	shadowsecret	Set it to ENOVIA PLM's Shadow User's Password. Note: Refer to ENOVIA PLM documentation for details on Shadow User.
EnableEFCS	True	If you have ENOVIA File Collaboration Server and you want to enable VueLink's ENOVIA File Collaboration Server support, set to true .
XrefPreference	AsStored	If you need to check out and check in XRefs for a CAD file separately and want to display the CAD file with the latest revision of XRefs, set the value to be LatestRevision . Otherwise, keep the value to be AsStored and only the revision of XRefs that have been checked in and checked out together with the CAD file will be displayed.

Note: Refer to [Appendix C](#) for more details.

- 3 If you have ENOVIA PLM installed, you can modify the schema settings listed in [Appendix C](#) if you have a customized ENOVIA Live Collaboration Business Process Services schema. Otherwise, assign the default values to the settings.

The VueLink servlet reads these values on startup. Any modification would require a restart up of your application server. VueLink servlet reads these values only if it fails to find **csiCimmetryConfigObject** in ENOVIA PLM.

Supporting Viewing of XRefs in the Bookmark Tree

To support loading of SolidWorks XRefs from the bookmark tree, you must modify the VueLink global configuration object. Follow these steps:

- 1 Launch Matrix Navigator application.
- 2 Perform a search for an object with the following attributes: "*csiCimmetryType*", "*csiCimmetryConfigObject*", 1
- 3 Modify `vueLink.properties` to set the following:
 - `csiConfigAEFMCADInteg_GlobalConfigType=type_MCADInteg-GlobalConfig`
 - `csiConfigAEFMCADInteg_GlobalConfigName=SWNewArch`
 - `csiConfigAEFMCADInteg_GlobalConfigRev =1`

ENOVIA File Collaboration Server Support

VueLink supports viewing documents from the ENOVIA File Collaboration Server. In an environment where a user has multiple AutoVue servers installed (one per ENOVIA File Collaboration Server location), VueLink connects the AutoVue client to the AutoVue server installed at the same location as the user's preferred ENOVIA File Collaboration Server site. This way, if a user selects a file to view in AutoVue, the file can be replicated if it does not exist at the user's preferred ENOVIA File Collaboration Server location. Similarly, streaming files are stored by VueLink at the user's preferred ENOVIA File Collaboration Server location.

In an environment where a user has a single AutoVue server installed on the ENOVIA Live Collaboration Server, VueLink connects the AutoVue client to this AutoVue server. This way, if a user selects a file to view in AutoVue, the

file can be replicated if it does not exist at the Main Collaboration Server (MCS) location. If a user saves a Markup, VueLink stores it at the MCS site. Similarly, streaming files are stored by VueLink at the MCS location.

Configuring for ENOVIA File Collaboration Server

- 1 Install AutoVue server at the ENOVIA File Collaboration Server site (does not have to be on the same machine as the ENOVIA File Collaboration Server application server, but it should be close by on the network).
- 2 You need to have the following VueLink files available:
 - vuelink.jar
 - vueservlet.jar
 - vuelink.properties

Note: These files are available with the VueLink media pack.
- 3 You need to modify **web.xml** for the ENOVIA File Collaboration Server application server and add the following servlet registrations:

```
<servlet id="fcsdms">
<servlet-name>com.cimmetry.vuelink.matrix.fcs.DMS</servlet-name>
<servlet-class>com.cimmetry.vuelink.matrix.fcs.DMS</servlet-class>
<init-param>
<param-name>properties</param-name>
<param-value>/WEB-INF/lib/vuelink.properties</param-value>
</init-param>
<init-param>
<param-name>Verbose</param-name>
<param-value>0</param-value>
</init-param>
</servlet>
<servlet id="vueservlet">
<servlet-name>VueServlet</servlet-name>
<servlet-class>com.cimmetry.servlet.VueServlet</servlet-class>
<init-param><param-name>AdminURL</param-name>
<param-value>enter MCS machine name or ip address here </param-value>
</init-param>
<param-name>JVueServer</param-name>
<param-value>enter_FCS_jVue_server_machinename_here:5099</param-value>
</init-param>
</servlet>
```

Note: Make sure to enter the name of the ENOVIA File Collaboration Server AutoVue server in the VueServlet section above.

- 4 You need to modify the web.xml for the ENOVIA File Collaboration Server application server and add the following servlet mappings:

```
<servlet-mapping id="csi_fcsdms">
<servlet-name>com.cimmetry.vuelink.matrix.fcs.DMS</servlet-name>
<url-pattern>/com.cimmetry.vuelink.matrix.fcs.DMS</url-pattern>
</servlet-mapping>
<servlet-mapping id="csi_vueservlet">
<servlet-name>VueServlet</servlet-name>
<url-pattern>/VueServlet</url-pattern>
</servlet-mapping>
```

- 5 Copy **vuelink.properties** to the ENOVIA File Collaboration Server application server's **WEB-INF/classes** directory.
- 6 Copy the following VueLink files to the ENOVIA File Collaboration Server application server's **WEB-INF/lib** directory.

- vuelink.jar
 - vueservlet.jar
- 7 Make sure that the **vuelink.properties** file on both the MCS and ENOVIA File Collaboration Server server has the following setting:

EnableEFCS=true (this is the default setting and should not need to be modified)

Note: There are some additional steps if you are using a proxy server on the ENOVIA File Collaboration Server to serve up ENOVIA static content. If this is the case, refer to the ENOVIA documentation.

Configuring Download Formats for SolidWorks Derived Output

To specify the download formats for SolidWorks derived output to the AutoVue server cache, perform the following:

- 1 Launch Matrix Navigator application.
- 2 Perform a search for an object with the following attributes: "*csiCimmetryType*", "*csiCimmetryConfigObject*", 1
- 3 Add [*CAD Type*]|Derived Output,[*Format Name*] to the MCADInteg-TypeFormatMapping attribute:

For example: MCADInteg-TypeFormatMapping:image_jpg|Derived Output,Image

Defining the XRefs Schema in the XML Format

With Oracle AutoVue VueLink for ENOVIA, users have the flexibility to define custom XRefs schema within an XML file in a predetermined format. The VueLink tries to extract XRefs based on entries within the XML file, see [Appendix D](#) for the syntax of the XML file.

Note: This feature requires ENOVIA Designer Central.

This schema is shipped along with the VueLink in a file called xrefschema.xml. This file's location is specified to the VueLink by an entry in **vuelink.properties** called **XrefFileName**. Users can modify this file to meet their needs.

Note: When the schema file is modified, the servlet engine has to be restarted.

Previously, if a user tried to view a file of a format, say "generic", VueLink would use this format name to retrieve XRef files. In other words, it would pick up the first file checked into the format "generic" for every XRef business object it found. The limitation of this logic is that it would not take into account files that were checked into a different format or multiple XRef files that were checked into the same format or different formats. With this release, VueLink scans every XRef business object to see what files are currently checked in and then returns a list of all the files found.

Note: This new feature only applies to schema definitions that have been defined within the XML file.

Customizing the Global Configuration Business Object for ENOVIA

The Global Configuration Business Object (GCBO) is designed to allow you to customize the schema/data model used by Oracle AutoVue VueLink for ENOVIA. To create the GCBO, you can manually install AutoVue schema into ENOVIA by running the script in the file `schemaCreate.txt`.

See *AutoVue Default Schema*

VueLink first searches for the GCBO inside ENOVIA PLM. If it does not find it, VueLink then loads the configuration values from the file `vueLink.properties`. The default name for the GCBO is `CimmetryConfigType` which is referenced by the `CsiConfigObject` property in the file `vueLink.properties`.

For more information about the GCBO, see [Appendix A](#).

If you have installed and customized ENOVIA PLM, you may modify the settings listed in [Appendix A](#). Otherwise, set the default values. The VueLink servlet reads these values on startup.

If you modify any settings, restart your Application Server.

Setting Permissions for Markups

By default, Markups are linked to "Viewable object" if Viewable Schema is enabled. To enable Markups to be visible to all users, in policy "Viewable Policy" make sure proper permissions are set for all users.

To change default behaviour and enable Markups to be connected to the base object, set `LinkMarkupToViewable` to `False` in `vueLink.properties`.

For the changes to take effect, re-deploy the ENOVIA web application and restart the Application Server.

Setting Signature Metadata in Footers, Headers, or Watermarks

With AutoVue, you can print Signature metadata from a business object's history log in the header, footer or watermark of your document. Refer to the following table for some print codes you can place in your document.

Print Codes	Description of items retrieved containing signature information)
<code>%X<history.signature></code>	All history items.
<code>%X<history.signature[0]></code>	First history item.
<code>%X<history.signature[-1]></code>	Last history item.
<code>%X<history.signature[-1].user></code>	User name of last history item.
<code>%X<history.signature[-1].time></code>	Time stamp of last history item.
<code>%X<history.signature[-1].state></code>	State of last history item.
<code>%X<history.signature[-1].signature></code>	Signature of last history item.
<code>%X<history.signature[-1].comment></code>	Comment of last history item.
<code>%X<history.approve></code>	All approved history items.

%X<history.approve[0]>	First approved history item.
%X<history.approve[-1]>	Last approved history item.
%X<history.approve[-1].user>	User name of last approved history item.
%X<history.approve[-1].time>	Time name of last approved history item.
%X<history.approve[-1].state>	State name of last approved history item.
%X<history.approve[-1].signature>	Signature name of last approved history item.
%X<history.approve[-1].comment>	Comment name of last approved history item.
%X<history.reject>	All rejected history items.
%X<history.reject[0]>	First history item.
%X<history.reject[-1]>	Last history item.
%X<history.reject[-1].user>	User name of last rejected history item.
%X<history.reject[-1].time>	Time name of last rejected history item.
%X<history.reject[-1].state>	State name of last rejected history item.
%X<history.reject[-1].signature>	Signature name of last rejected history item.
%X<history.reject[-1].comment>	Comment name of last rejected history item.
%X<history.ignore>	All ignored history items.
%X<history.ignore[0]>	First history item.
%X<history.ignore[-1]>	Last history item.
%X<history.ignore[-1].user>	User name of last ignored history item.
%X<history.ignore[-1].time>	Time name of last ignored history item.
%X<history.ignore[-1].state>	State name of last ignored history item.
%X<history.ignore[-1].signature>	Signature name of last ignored history item.
%X<history.ignore[-1].comment>	Comment name of last ignored history item.

Note:

- You may use a valid index in any of the print codes listed in the previous table. For example, to retrieve the **Signature** name of the second approved history item containing signature information, select:
%X<history.approve[1].signature>.
- An index is zero based. The first item is referenced by the index **[0]**, the second by **[1]**, the third by **[2]**, etc.

Configuring for Platform Server In Process [RIP] Mode

VueLink supports Platform Server setup in RIP mode. The administrator should modify the "MatrixServerHost" setting in the file `csiLaunch.properties` and set it to a blank value:

```
# eMatrix Settings
MatrixServerHost=
```

Enabling HTTPS/SSL

The VueLink supports connections to HTTPS (Secure HyperText Transfer Protocol) using SSL (Secure Socket Layer).

- 1 In a text editor such as Notepad, open the file `java.security` found in the directory `<jre home>\jre\lib\security` where `<jre home>` is the root folder where Sun's Java Runtime Environment (JRE) is installed.
- 2 Locate the line `security.provider.2` under the "# List of Providers" section.
- 3 Below this line add the following lines that appear in **bold**:

Note: If you already have an entry with `security.provider.3`, replace the 3 with the next available number.

```
#
# List of providers and their preference orders (see above):
#
security.provider.1=sun.security.provider.Sun
security.provider.2=com.sun.rsajca.Provider
security.provider.3=com.sun.net.ssl.internal.ssl.Provider
```

Enabling HTTPS/SSL Support with Application Server/Servlet Engine

If you obtained a Trial SSL id from VeriSign (CA), then you must install Test CA Root into the JRE used by your Application Server/Servlet Engine. VeriSign has implemented this step to prevent fraudulent use of Test Server id's. When you purchase a regular Secure Server id, you will not have to perform this step. For example, if you have obtained Trial SSL id for Microsoft IIS Web server, then do the following:

- 1 Import the SSL id you obtained from CA into Internet Explorer and export it in Base-64 encoded format X.509.

Note: The SSL id should be the same id that is installed on the Web Server.
- 2 Import the Base-64 SSL id to cacerts file using `keytool.exe`.

Example:

```
C:\jdk1.3.1\bin>keytool -import -alias otserver -file c:\ssl3.cer -trustcacerts
-v -keystore C:\jdk1.3.1\jre\lib\security\cacerts
```

```
password: changeit
```

```
Serial number: 257bc618dbdcfb7befc81c2fce739a8a
```

```
Valid from: Wed Apr 10 20:00:00 EDT 2002 until: Thu Apr 25 19:59:59 EDT 2002
```

Certificate fingerprints:

MD5: E5:0B:A7:36:B7:B9:76:71:72:D8:D7:7A:EB:57:5D:13

SHA1: E9:CE:9C:35:7F:28:68:7D:6D:1C:0B:4D:18:26:87:63:0C:54:05:98

Trust this certificate? [no]: yes

Certificate was added to keystore

[Saving C:\jdk1.3.1\jre\lib\security\cacerts]

IMPORTANT: You need to repeat step 2 to import the SSL id into cacerts file for JRE used by AutoVue Server. The location for cacerts file is `<Install_Dir>\jre1.3\lib\security\cacerts` where `<Install_Dir>` is the directory where AutoVue Server is installed.

Example:

```
C:\Program Files\jVue\jre\1.3\bin>keytool -import -alias otserver -file c:\ssl3.cer -trustcacerts -v -keystore
```

```
C:\Program Files\jVue\jre\1.3\lib\security\cacerts
```

- 3 Restart your application server/servlet engine for the changes to take effect.
- 4 To verify that the SSL id was successfully imported into cacerts, use the keytool utility.

Note: When HTTPS is enabled, make sure the file `csiApplet.html` is updated with the right web port for `jVueHome`. Open the file `csiApplet.html` and locate the string `var jVueHome`. Specify a valid port after the web server. For WebLogic, the default port number is 7002.

Example: `var jVueHome = 'http://mx9601:7002/integrations/jVue';`

Configuring Multiple AutoVue Applet Windows

VueLink supports multiple AutoVue applet windows. You can launch multiple windows to view different files at the same time.

- 1 In a text editor such as Notepad, edit the file `csiApplet.html`.

This file is normally located in the Application Server's `\servlet` folder where `vueLink.jar` and other jar files are also located.

- 2 Locate the line `appletWnd = window.open(“”, “_JVUEWINDOW_”, “resizable=1,width=700,height=600”);` and change to `appletWnd = window.open(“”, “”, “resizable=1,width=700,height=600”);`
- 3 You will need to regenerate the ENOVIA WAR file using `ematrixwarutil`.
- 4 For the changes to take effect, re-deploy the ENOVIA web application and restart the Application Server.

Disabling Universal File Chooser in Oracle AutoVue

The following steps describe how to disable the Universal File Chooser in Oracle AutoVue.

- 1 Stop the AutoVue Server.
- 2 In a text editor, open the file allusers.ini located in the Oracle AutoVue bin folder.
- 3 Add the following line under the [Options] section:

```
EnableUniversalFileChooser=0
```

- 4 Restart the AutoVue Server.

Verification

Running VueLink Servlet in Debug Mode

In order to run the VueLink servlet [`com.cimmetry.vuelink.matrix.DMS`] in debug mode, you need to pass `Verbose=1` to the Servlet Init Arguments. The VueLink servlet outputs debug messages to the event log.

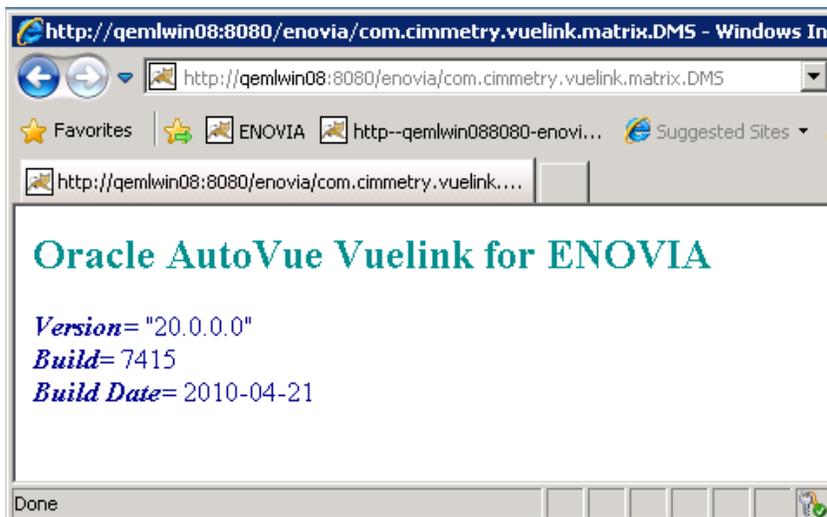
Verifying that the VueLink Servlet is Running Properly

In order to verify that the VueLink servlet is running properly, launch your Web browser and enter the URL pointing to the servlet alias name. To verify the **VueLink servlet**, launch your Web browser and type the following URL:

`http://<appserver>:<port>/<matrix context>/com.cimmetry.vuelink.matrix.DMS`

Example:

`http://quemlwin08:8080/enovia/com.cimmetry.vuelink.matrix.DMS`



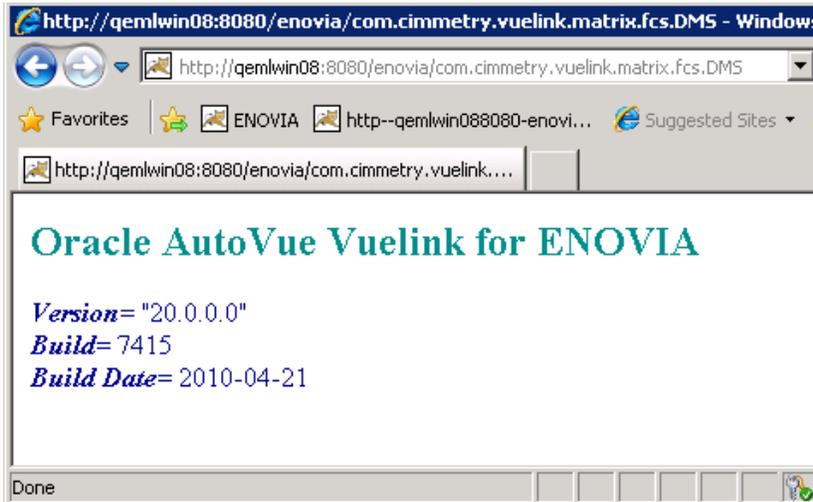
ENOVIA File Collaboration Server Servlet

To verify the **ENOVIA File Collaboration Server servlet**, launch your Web browser and type the following URL:

`http://<appserver>:<port>/<matrix context>/com.cimmetry.vuelink.matrix.fcs. DMS`

Example:

<http://qemlwin08:8080/enovia/com.cimmetry.vuelink.matrix.fcs.DMS>



VueServlet

To verify the **VueServlet**, launch your web browser and type the following url:

<http://<appserver>:<port>/<matrix context>/VueServlet>

Example:

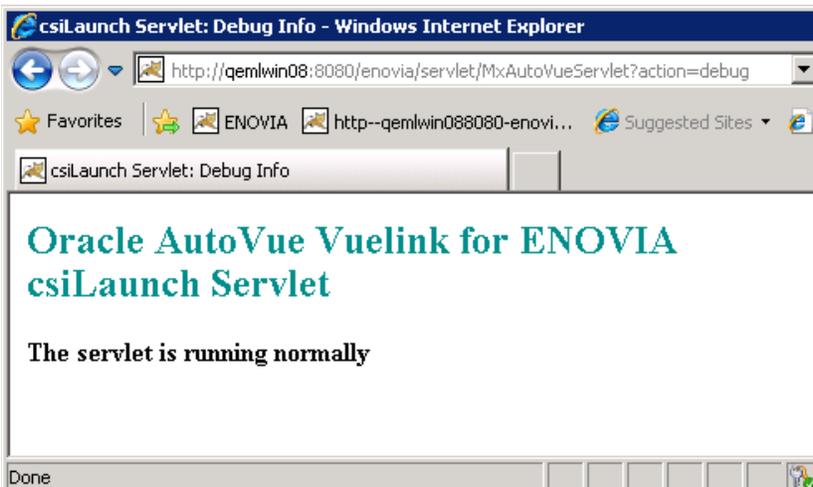
<http://jrdv6r2009x:8090/enovia/VueServlet>

To verify the **csiLaunch servlet**, launch your web browser and type the following url:

<http://<appserver>:<port>/<matrix context>/servlet/MxAutoVueServlet?action= debug>

Example:

<http://qemlwin08:8080/enovia/servlet/MxAutoVueServlet?action=debug>



Appendix A

Global Configuration Business Object

VueLink stores schema names in ENOVIA PLM in a special object called the **Global Configuration Business Object (GCBO)**. This object is designed to allow customization of schema names. It is automatically created by VueLink's Installer. VueLink reads the values stored in this configuration object upon startup. If VueLink does not find the object in ENOVIA PLM, it uses the file **vueLink.properties** by default.

AutoVue Default Schema

Attribute Name	Default Value	Description
csiConfigAutoVue Markups	AutoVueMarkups	Markup Business Object Type for storing markup files
csiConfigAutoVueInt	AutoVueInt	Relationship from base business object to markup business object
csiConfigBaseAnd Markup	BaseAndMarkup	String Attribute representing base file name and format of the base document that markup is attached to.
csiConfigMarkups	Markups	Markup policy
csiConfigAutoVueMarkup	AutoVueMarkup	Markup format – Normal
csiConfigAutoVueMarkupMaster	AutoVueMarkupMaster	Markup format – Master
csiConfigAutoVueMarkupConsolidated	AutoVueMarkup Consolida- dated	Markup format – Consolidated

Details of AutoVue Schema

Attribute Window		
Name	Type	Description
BaseAndMarkup	String	Represents name and format of base file that markup is attached to.

Format Window	
Format	Description
AutoVueMarkup	Markup format – Normal
AutoVueMarkupMaster	Markup format – Master
AutoVueMarkupConsolidated	Markup format – Consolidated

Type Window		
Name	Description	Attributes Tab
AutoVueMarkups	Markup Business Object Type for storing Markup files	BaseAndMarkup

Relation Window				
Name	Description	From Type	To Type	Cardinality (radio button)
AutoVueInt	Relates base business object to Markup business object	all	AutoVueMarkups	one to many

Policy Window			
Name	Description	Governed Types	Governed Formats
Markups	Markup policy	AutoVueMarkups	AutoVueMarkup AutoVueMarkupMaster AutoVueMarkupConsolidated

ENOVIA Live Collaboration Business Process Services Markup Schema

Attribute Name	Default value	Description
csiConfigAEFOriinator Attribute	attribute_Originator	Attribute holding the name of the user who created the Markup.
csiConfigAEFMarkup ToolAttribute	attribute_MarkupTool	Attribute holding the tool used to create the Markup – AutoVue .
csiConfigAEFMarkup BaseFormatAttribute	attribute_MarkupBase Format	Attribute holding the format of the base document the Markup is attached to.
csiConfigAEFMarkup BaseFilenameAttribute	attribute_MarkupBaseFilename	Attribute holding the name of the base document the Markup is attached to.
csiConfigAEFMarkup AuthorAttribute	attribute_MarkupAuthor	Attribute holding the name of the last user who modified the Markup.
csiConfigAEFMarkup Policy	policy_Markup	Markup Policy
csiConfigAEFMarkup Type	Type_Markup	Markup Type
csiConfigAEFMarkup Format	format_Markup	Markup Format

csiConfigAEFMarkup Relationship	relationship_Markup	Relationship connecting the drawing to the Markup.
csiConfigAutoVue	AutoVue	Markup Tool

ENOVIA Live Collaboration Business Process Services Viewable Schema

Attribute Name	Default value	Description
csiConfigAEFViewable BaseFilenameAttribute	attribute_ViewableBase Filename	Attribute holding base filename.
csiConfigAEFViewable BaseFormatAttribute	attribute_ViewableBase Format	Attribute holding base format.
csiConfigAEFViewable StateAttribute	attribute_ViewableState	Attribute
csiConfigAEFViewing ToolAttribute	attribute_ViewingTool	Attribute holding name of Viewing Tool that created the Viewable – AutoVue .
csiConfigAEFViewable Policy	policy_ViewablePolicy	Policy for Viewables.
csiConfigAEFCADSub ComponentRelationship	relationship_CADSub Component	Relationship connecting CAD Model components.
csiConfigAEFViewable Relationship	relationship_Viewable	Relationship connecting a CAD Model to the Viewable.
csiConfigAEFViewable SubComponent Relationship	relationship_ViewableSubComponent	Relationship connecting Viewable components.
csiConfigAEF2dViewableType	type_2dViewable	Type for 2D Viewables.
csiConfigAEF3dViewableType	type_3dViewable	Type for 3D Viewables.
csiConfigAEFCADModelType	type_CADModel	Type for CAD Model.
csiConfigAEFDrawing PrintType	type_DrawingPrint	Type for Drawing.
csiConfigAEFViewable Type	type_Viewable	Type for Viewables.
csiConfigAEFSynched State	Synched	State indicating Viewable is synchronized with CAD Model.
csiConfigAEFNotynchedState	Not Synched	State indicating Viewable is not synchronized with CAD Model.
csiConfigAEFjVue ViewableType	type_jVueViewable	Type for Viewables for AutoVue streaming files.
csiConfigAEFMetaFile Format	csiMetaFile	Format for AutoVue AutoVue streaming files.
csiConfigAEFMetaFile Suffix	.meta	File suffix or extension for Viewables for AutoVue streaming files.
csiConfigAEFViewable TypeFormat		Association of a Type with a Format. Syntax is Type1;Format1 Type2;Format2 Type3;Format3

Real Time Collaboration Schema

Note: This feature requires ENOVIA Designer Central.

Attribute Name	Default Value	Description
csiConfigAEFVault AccessAttribute	attribute_VaultAccess	ACL to a vault.
csiConfigAEFMeeting OwnerAttribute	attribute_MeetingOwner	Owner of a meeting.
csiConfigAEFMeeting StartDateTimeAttribute	attribute_MeetingStart DateTime	Meeting Start Date and Time.
csiConfigAEFMeetingSiteNameAttribute	attribute_MeetingSite Name	The name of the web site (company-based URL) where all meetings are hosted for a company.
csiConfigAEFMeeting KeyAttribute	attribute_MeetingKey	The Meeting Key.
csiConfigAEFMeetingIDAtribute	attribute_MeetingID	The Meeting ID.
csiConfigAEFMeeting DurationAttribute	attribute_Meeting Duration	The Meeting Duration.
csiConfigAEFTitle Attribute	attribute_Title	The meeting title.
csiConfigAEFFirstNameAttribute	attribute_FirstName	The First Name for a "Person".
csiConfigAEFLastName Attribute	attribute_LastName	The Last Name for a "Person".
csiConfigAEFMeeting UsernameAttribute	attribute_Meeting Username	Userid for initiating meetings.
csiConfigAEFMeeting PasswordAttribute	attribute_Meeting Password	Password to a meeting.
csiConfigAEFMeetingSiteIDAtribute	attribute_MeetingSiteID	ID associated with the Meeting Site Name - Company-based ID.
csiConfigAEFMeeting Policy	policy_Meeting	Policy that governs "Meeting" objects.
csiConfigAEFCreateState	Create	State for a newly created "Meeting" Object.
csiConfigAEFScheduled State	Scheduled	The state for a scheduled "Meeting" Object.
csiConfigAEFInProgressS tate	In Progress	State for a Meeting that is in progress.
csiConfigAEFComplete State	Complete	State for a completed Meeting.
csiConfigAEFMeeting Type	type_Meeting	Type to Manage Meeting Objects.
csiConfigAEFPersonType	type_Person	"Person" Object type.
csiConfigAEFCompany Type	type_Company	Supplier Company Object Type.
csiConfigAEFWorkspaceType	type_Project	Project Object Type.
csiConfigAEFWorkspaceVaultType	type_ProjectVault	Project Vault Object Type.
csiConfigAEFProject MemberType	type_ProjectMember	Project Member Object Type.
csiConfigAEFAssigned MeetingRelationship	relationship_Assigned Meetings	Relationship that connects "Person" to a "Meeting".

csiConfigAEFMeeting ContextRelationship	relationship_Meeting Context	Relationship that stores Meeting Context Attributes.
csiConfigAEFProject MembershipRelationship	relationship_Project Members	Relationship that connects a “Project member” to a “WorkSpace”.
csiConfigAEFVaulted ObjectsRelationship	relationship_Vaulted Documents	Relationship that connects a “WorkSpace Vault” to a “Document”.
csiConfigAEFWorkspaceVaultsRelationship	relationship_ProjectVaults	

Note: For more details, refer to *Interface specification for 2D View and Markup tools to the ENOVIA Live Collaboration Business Process Services and ENOVIA JSP/HTML apps.*

Appendix B

Setting Parameters within schemaCreate.txt

The configuration section for **schemaCreate.txt** is found at the beginning of the file.

See the following table to set the correct values to the parameters in the file:

Tag	Description
STORE	Name of the ENOVIA Store to be used.
USER	User name with administrative privileges in the store.
PASSWORD	Password for the user specified above. If user has no password, delete this key.
VAULT	Name of the Vault to contain Files, Markups etc.
CONFIGOBJECT	Unique Name for the global business object containing meta-data for Oracle AutoVue VueLink for ENOVIA. Default = CimmetryConfigType
SELECTEDFORMATS	List of format names separated by "#". These are the formats to have AutoVue associated as a viewer. For example, generic#acad#hpgl .
SCHEMATYPE	Represents a numeric value. Replace this with: 1 - if Default ENOVIA Live Collaboration Business Process Services schema is being used 2 - if Customized ENOVIA Live Collaboration Business Process Services schema is being used 3 - if neither is being used; i.e., NO ENOVIA Live Collaboration Business Process Services is used

Tag	Default Value	Name for...
1	"attribute_Originator"	OriginatorAttribute
2	"attribute_MarkupTool"	MarkupToolAttribute
3	"attribute_MarkupBaseFormat"	MarkupBaseFormatAttribute
4	"attribute_MarkupBaseFilename"	MarkupBaseFilenameAttribute
5	"attribute_MarkupAuthor"	MarkupAuthorAttribute
6	"policy_Markup"	MarkupPolicy
7	"type_Markup"	MarkupType
8	"format_Markup"	MarkupFormat
9	"relationship_Markup"	MarkupRelationship
10	"attribute_ViewableBaseFilename"	ViewableBaseFilenameAttribute
11	"attribute_ViewableBaseFormat"	ViewableBaseFormatAttribute
12	"attribute_ViewableState"	ViewableStateAttribute
13	"attribute_ViewingTool"	ViewingToolAttribute
14	"policy_ViewablePolicy"	ViewablePolicy
15	"relationship_CADSubComponent"	CADSubComponentRelationship
16	"relationship_Viewable"	ViewableRelationship
17	"relationship_ViewableSub Component"	ViewableSubComponentRelationship
18	"type_2DViewable"	2DViewableType
19	"type_3DViewable"	3DViewableType
20	"type_CADModel"	CADModelType
21	"type_DrawingPrint"	DrawingPrintType
22	"type_Viewable"	ViewableType
23	"Synchronized"	SynchronizedState
24	"UnSynchronized"	UnSynchronizedState
25	relationship_AssignedMeetings	AssignedMeetings
26	relationship_MeetingContext	Meeting Context
27	relationship_ProjectMembers	Project Members
28	relationship_ProjectMembership	Project Membership
29	relationship_VaultedDocuments	Vaulted Documents
30	relationship_ProjectVaults	Project Vaults
31	attribute_VaultAccess	Vault Access

32	attribute_MeetingOwner	Meeting Owner
33	attribute_MeetingStartDateTime	Meeting Start Date Time
34	attribute_MeetingSiteName	Meeting Site Name
35	attribute_MeetingKey	Meeting Key
36	attribute_MeetingID	Meeting ID
37	attribute_MeetingDuration	Meeting Duration
39	attribute_Title	Title
40	attribute_FirstName	First Name
41	attribute_LastName	Last Name
42	attribute_MeetingUsername	Meeting Username
43	attribute_MeetingPassword	Meeting Password
44	attribute_MeetingSiteID	Meeting Site ID
45	policy_Meeting	Meeting
46	Create	
47	Scheduled	
48	In Progress	
49	Complete	
50	type_Meeting	Meeting
51	type_Person	Person
52	type_Company	Company
53	type_Project	Project
54	type_ProjectVault	Project Vault
55	type_ProjectMember	Project Member

Appendix C

Setting Parameters within vuelink.properties

Property	Default Value	Description
MatrixConnection	RMI	Type of ENOVIA Live Collaboration Server used, either RMI or RIP .
MatrixRMIPort	1099	RMI port number if platform server being used is RMI.
MatrixRMIHost	<HostName>	The Host Name entered in this field should match the Host Name in framework.properties .
CSILaunchServlet	http://__SERVLETHOST__/_servlet/MxAutoVueServlet	URL to VueLink Launch Servlet – MxAutoVue Servlet. Note: To be set only if ENOVIA Live Collaboration Business Process Services is used.
UseMatrixAEFSchema	true	Set to ' true ' if either default or customized ENOVIA Live Collaboration Business Process Services schema is used. Otherwise, set to ' false '
CsiConfigObject	csiCimmetry ConfigObject	Name for Cimmetry Global Configuration Object containing meta-data for Oracle AutoVue VueLink for ENOVIA.
csiConfigAEFOriginator Attribute	attribute_Originator	Name for OriginatorAttribute.
csiConfigAEFMarkupTool Attribute	attribute_MarkupTool	Name for MarkupToolAttribute.
csiConfigAEFMarkupBase FormatAttribute	attribute_MarkupBaseFormat	Name for MarkupBaseFormat Attribute.
csiConfigAEFMarkupBaseFilenameAttribute	attribute_MarkupBaseFilename	Name for MarkupBaseFilename Attribute.
csiConfigAEFMarkupAuthor Attribute	attribute_Markup Author	Name for MarkupAuthorAttribute.
csiConfigAEFMarkupPolicy	policy_Markup	Name for MarkupPolicy.
csiConfigAEFMarkupType	type_Markup	Name for MarkupType.
csiConfigAEFMarkupFormat	format_Markup	Name for MarkupFormat.
csiConfigAEFMarkup Relationship	relationship_Markup	Name for MarkupRelationship.
csiConfigAEFViewableBase FilenameAttribute	attribute_Viewable BaseFilename	Name for ViewableBaseFilename Attribute.
csiConfigAEFViewableBase FormatAttribute	attribute_Viewable BaseFormat	Name for ViewableBaseFormat Attribute.
csiConfigAEFViewableState Attribute	attribute_Viewable State	Name for ViewableStateAttribute.
csiConfigAEFViewingTool Attribute	attribute_ViewingTool	Name for ViewingToolAttribute.

csiConfigAEFViewablePolicy	policy_Viewable Policy	Name for ViewablePolicy.
csiConfigAEFCADSub ComponentRelationship	relationship_CADSubComponent	Name for CADSubComponent Relationship.
csiConfigAEFViewable Relationship	relationship_Viewable	Name for ViewableRelationship.
csiConfigAEFViewableSub ComponentRelationship	relationship_ViewableSubComponent	Name for ViewableSubComponentRelationship.
csiConfigAEF2dViewableType	type_2DViewable	Name for 2DViewableType.
csiConfigAEF3dViewableType	type_3DViewable	Name for 3DViewableType.
csiConfigAEFCADModelType	type_CADModel	Name for CADModelType.
csiConfigAEFDrawingPrint Type	type_DrawingPrint	Name for DrawingPrintType.
csiConfigAEFViewableType	type_Viewable	Name for ViewableType.
CsiConfigAEFSynchedState	Synchronized	Name for SynchronizedState.
csiConfigAEFNotSynched State	UnSynchronized	Name for UnSynchronizedState.
csiConfigAEFVaultAccess Attribute	attribute_VaultAccess	ACL to a vault.
csiConfigAEFMeetingOwner Attribute	attribute_Meeting Owner	Owner of a meeting.
csiConfigAEFMeetingStart DateTimeAttribute	attribute_Meeting StartDateTime	Meeting Start Date and Time.
csiConfigAEFMeeting SiteNameAttribute	attribute_MeetingSiteName	The name of the web site (company-based URL) where all meetings are hosted for a company.
csiConfigAEFMeetingKey Attribute	attribute_Meeting Key	The Meeting Key.
csiConfigAEFMeetingID Attribute	attribute_MeetingID	The Meeting ID.
csiConfigAEFMeetingDurationAttribute	attribute_Meeting Duration	The Meeting Duration.
csiConfigAEFTitleAttribute	attribute_Title	The meeting title.
csiConfigAEFFirstName Attribute	attribute_FirstName	The First Name for a "Person".
csiConfigAEFLastName Attribute	attribute_LastName	The Last Name for a "Person".
csiConfigAEFMeetingUser nameAttribute	attribute_MeetingUsername	Userid for initiating meetings.
csiConfigAEFMeeting PasswordAttribute	attribute_MeetingPassword	Password to a meeting.
csiConfigAEFMeetingSiteID Attribute	attribute_Meeting SiteID	ID associated with the Meeting Site Name - Company-based ID.
csiConfigAEFMeetingPolicy	policy_Meeting	Policy that governs "Meeting" objects.
csiConfigAEFCreateState	Create	State for a newly created "Meeting" Object.
csiConfigAEFScheduledState	Scheduled	The state for a scheduled "Meeting" Object.
csiConfigAEFInProgressState	In Progress	State for a Meeting that is in progress.

csiConfigAEFCompleteState	Complete	State for a completed Meeting.
csiConfigAEFMeetingType	type_Meeting	Type to Manage Meeting Objects.
csiConfigAEFPersonType	type_Person	“Person” Object type.
csiConfigAEFCompanyType	type_Company	Supplier Company Object Type.
csiConfigAEFWorkspaceType	type_Project	Project Object Type.
csiConfigAEFWorkspaceVaultType	type_ProjectVault	Project Vault Object Type.
csiConfigAEFProjectMember Type	type_ProjectMember	Project Member Object Type.
csiConfigAEFAssigned MeetingRelationship	relationship_AssignedMeetings	Relationship that connects “Person” to a “Meeting”.
csiConfigAEFMeetingContextRelationship	relationship_MeetingContext	Relationship that stores Meeting Context Attributes.
csiConfigAEFProject Member shipRelationship	relationship_Project Members	Relationship that connects a “Project member” to a “WorkSpace”.
csiConfigAEFVaultedObjects Relationship	relationship_VaultedDocuments	Relationship that connects a “WorkSpace Vault” to a “Document”.
csiConfigAEFWorkspace VaultsRelationship	relationship_Project Vaults	
LinkMarkupToViewable	True	Specify if Markups should be attached to the Viewable object. Set to False to attach Markups to the base file object.
XrefFileName	__PATH__/_xrefschema.xml	Specify the path to the xref schema definition file.
XrefPreference	AsStored	If you need to check out and check in XRefs for a CAD file separately and want to display the CAD file with the latest revision of XRefs, set the value to be LatestRevision . Otherwise, keep the value to be AsStored and only the revision of XRefs that have been checked in and checked out together with the CAD file will be displayed.

Appendix D

xrefschema.xml

Oracle AutoVue VueLink for ENOVIA gives users the flexibility of defining custom XRef schema within an XML file in a predetermined format. The VueLink then tries to extract XRefs based entries within the xml file.

Note: This is an enhancement, and not a replacement, of the existing XRef retrieval logic.

The entire schema definition is enclosed within: `<XRef></XRef>`

The xml file should have only one such entry.

The child tag allowed for `<XRef>` is `<Relationship>` and is synonymous with the Relationship admin object within ENOVIA. It allows the following sub tags:

- `<Name></Name>`:
This tag should contain the relationship name. For example:
`<Name>Cad SubComponent</Name>`
Each `<Relationship>` tag should have exactly one such element
- `<From></From>`:
This part allows for the definition of BusinessObject types that can appear in the "From" part of a Relationship. There should be exactly one such tag under the `<Relationship>` tag.
- `<To></To>`:
This part allows for the definition of BusinessObject types that can appear in the "To" part of a Relationship. There should be exactly one such tag under the `<Relationship>` tag.
- `<Component></Component>`
This tag appears under the `<From>` and `<To>` tags. It should appear at least once. E.g.:
`<Component>CAD Drawing</Component>`
`<Component>MCAD Assembly</Component>`

Here is a sample schema definition:

```
<XRef>
  <Relationship>
    <Name>Finalized</Name>
    <From>
      <Component>SW Versioned Assembly</Component>
    </From>
    <To>
      <Component>SW Assembly</Component>
    </To>
  </Relationship>
</Relationship>
```

```
<Name>CAD SubComponent</Name>
<From>
<Component>SW Versioned Assembly</Component>
  </From>
  <From>
<Component>ProE Versioned Assembly</Component>
  </From>
  <To>
<Component>SW Component</Component>
  </To>
  <To>
<Component>ProE Versioned Part</Component>
  </To>
</Relationship>
<Relationship>
  <Name>VersionOf</Name>
  <From>
<Component>ProE Versioned Assembly</Component>
  </From>
  <From>
<Component>ProE Versioned Part</Component>
  </From>
  <To>
<Component>ProE Assembly</Component>
  </To>
```

Appendix E

Printing ENOVIA Java Programs (JPO)

Oracle AutoVue VueLink for ENOVIA supports ENOVIA Java Programs (JPO) defined in print codes for header/footer/watermark. The administrator sets this up by modifying the **vumlink.properties** file. For each entry under the Print Configuration section, the administrator has to add the name of the program. The program name then shows up as print code in the AutoVue client. The VueLink executes the program and returns the text value for the print code to be printed. The printing code can make use of three string parameters passed in by VueLink: business object id, file name and format.

```
#Print Configuration Section
# By default, three parameters are passed to the printing JPO.
# They are BOId, filename and format in turn; all of type Java String.
LeftHeader=
CenterHeader=
RightHeader=
LeftFooter=
CenterFooter=
RightFooter=
WaterMark=
```

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 Oracle AutoVue VueLink for ENOVIA, call or email us. Your input is an important part of the information used for revision.

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