Oracle® AutoVue Client/Server Deployment
Installation and Configuration Guide
Release 21.0.0

November 2015
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Preface

The Oracle AutoVue Client/Server Deployment Installation and Configuration Guide describes how to install and configure Oracle AutoVue and its associated components.

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 Oracle AutoVue Client/Server Deployment Installation and Configuration Guide is directed at any user whose task is the installation and administration of Oracle AutoVue.

Documentation Accessibility

For information about Oracle’s commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Documents

For more information, see the following documents in the Oracle AutoVue documentation library:

- Oracle AutoVue Client/Server Deployment Planning Guide
- Oracle AutoVue Client/Server Deployment Viewing Configuration Guide
- Oracle AutoVue Client/Server Deployment Security Guide
- Oracle AutoVue Client/Server Deployment User’s Manual

Conventions

The following text conventions are used in this document:
<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td><strong>italic</strong></td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td><strong>monospace</strong></td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
<tr>
<td>[root directory][sub directory]</td>
<td>In Windows and Linux OSes, directory hierarchy is written with backward slashes () and forward slashes (/), respectively. In this document, unless mentioned otherwise, directory hierarchy for Windows and Linux OSes are written with the backward slash.</td>
</tr>
<tr>
<td>&lt;angular brackets&gt;</td>
<td>Indicates required entries but are not to be included in the entered information.</td>
</tr>
<tr>
<td>{curly braces}</td>
<td>Indicates mandatory information.</td>
</tr>
<tr>
<td>[square brackets]</td>
<td>Indicates optional syntactical elements.</td>
</tr>
<tr>
<td></td>
<td>Indicates an either-or type of choice.</td>
</tr>
<tr>
<td>...</td>
<td>Indicates that information may be repeated.</td>
</tr>
</tbody>
</table>
AutoVue is Oracle's suite of Enterprise Visualization solutions, which are designed to view, digitally annotate and collaborate on any digital information in an organization. AutoVue delivers visualization capabilities for many document types, including business documents such as Office and Graphics, as well as technical document types such as 2-D/3-D Computer Aided Design (CAD) and Electronic Design Automation (EDA).

The Client/Server Deployment of AutoVue has AutoVue installed on a server, to which client machines connect to access and view documents. The Client/Server deployment provides a complete, open and standards-based set of integration tools that allows customers to tie AutoVue to any enterprise applications to provide users with a consistent view of data and business objects and expand workflow automation to document-based processes.

This document provides instructions for installing and configuring AutoVue Client/Server deployment. Refer to the Planning Guide for information on how to plan your AutoVue deployments.
AutoVue Hardware and System Requirements

This chapter discusses the hardware, and system requirements for installing Oracle AutoVue.

2.1 Hardware Requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Oracle-Certified Hardware Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server</td>
<td>Note: The AutoVue server is very CPU-, I/O-, memory-, and graphics-intensive. For optimal performance, we recommend that the machine running the AutoVue server should not be used by other applications.</td>
</tr>
<tr>
<td></td>
<td>■ 8 GB of RAM</td>
</tr>
<tr>
<td></td>
<td>■ Quad-core processor</td>
</tr>
<tr>
<td></td>
<td>■ 400 MB of disk space for installation</td>
</tr>
<tr>
<td></td>
<td>■ At least 30 GB of free disk space:</td>
</tr>
<tr>
<td></td>
<td>■ 20 GB for streaming files (if you configure a larger size for the AutoVue cache directory, ensure that the additional disk space is available).</td>
</tr>
<tr>
<td></td>
<td>■ Additional space required for managing markup symbols, user profiles, and markups.</td>
</tr>
<tr>
<td></td>
<td>■ AutoVue also stores temporary files. It stores files at %TEMP% path on Windows operating systems. On the Linux operating system, the temporary files are stored at the default location i.e the /tmp/autovue folder. These files are generally deleted after processing is complete. Ensure that there is available disk space for AutoVue temporary files.</td>
</tr>
</tbody>
</table>
2.2 System Requirements

This section details system requirements for the Oracle AutoVue line of products and integrations.

2.2.1 Platforms

The following platforms are certified for AutoVue installation and/or hosting.

<table>
<thead>
<tr>
<th>Platform</th>
<th>AutoVue for Agile PLM</th>
<th>AutoVue Client/Server Deployment</th>
<th>AutoVue Desktop Deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Server 2012—64-bit</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Windows Server 2008 R2—64-bit</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Windows 8.1, 8, 7, VISTA—64-bit</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Oracle Linux 5.8 and up (x86), 6.X (x86) and 7.X (x86)&lt;sup&gt;2&lt;/sup&gt; 64-bit (AutoVue running in 32-bit mode)</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Red Hat Enterprise Linux 5.8 and up (x86), 6.X (x86), and 7.X (x86)&lt;sup&gt;2&lt;/sup&gt; 64-bit (AutoVue running in 32-bit mode)</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>
2.2.2 Client Platform

The following platforms are certified for the AutoVue client.

<table>
<thead>
<tr>
<th>Platform</th>
<th>AutoVue for Agile PLM</th>
<th>AutoVue Client/Server Deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows OSes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows Vista— 64-bit</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Windows 7— 64-bit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows 8— 64-bit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows 8.1—64-bit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Explorer 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Explorer 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet Explorer 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firefox ESR 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAC OS X 10.8</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Safari 8.0(^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firefox ESR 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solaris 10 (Sparc)</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Firefox ESR 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Java Virtual Machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Java SE 7 update 45 and higher</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- 32-bit and 64-bit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Java SE 8 update 11 and higher</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- 32-bit and 64-bit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Java JDK 1.6 update 41 (and up)(^2)</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- 32-bit and 64-bit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Java JDK 1.7 update 15 (and up)(^2)</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- 32-bit and 64-bit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) When launching AutoVue from a Mac client, certain configurations may be required. For more information, refer to Oracle Support Document 1662405.1 (Getting Message “Select a temporary directory” When Printing With AutoVue) which can be found at: https://support.oracle.com/epmos/faces/DocumentDisplay?id=1662405.1

\(^2\) For AutoVue ISDK Filesys Sample, Skeleton and Web Services Client.

2.2.3 Application Server

The VueServlet has been certified on the following application servers:

1 The installation requires about 400MB of free space. Additional space will be required by AutoVue for storing other data such as streaming files and markups.

2 AutoVue is supported on a 64-bit Linux operating systems (OS), but will run in 32-bit mode. All prerequisites libraries should be in 32 bit, with the exception of the X Windows base package (xorg-x11-server-Xorg) along with the Xvfb package xorg-x11-server-Xvfb. These should be the same architecture (64-bit) as the OS.
## Table 2–4 Oracle-Certified Application Servers

<table>
<thead>
<tr>
<th>Platform</th>
<th>AutoVue for Agile PLM</th>
<th>AutoVue Client/Server Deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>WebLogic 11.x and up</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Tomcat 7.x and up</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Jetty 6.0 and up</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

### 2.2.4 Integrations

The following integrations have been certified for this release of AutoVue.

---

## Table 2–5 Oracle-Certified Integrations

<table>
<thead>
<tr>
<th>Integrations</th>
<th>AutoVue for Agile PLM</th>
<th>AutoVue Client/Server Deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agile PLM 9.3.4, 9.3.3, and 9.3.2</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>VueLink 19.3.2 for Documentum(^1)</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>VueLink 20.1 for UCM(^2)</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

---

\(^1\) New VueLink for Documentum certifications made after this release of AutoVue are listed in Oracle Support Document 1425804.1 (VueLink for Documentum Certification Matrix) found at: https://support.oracle.com/epmos/faces/DocumentDisplay?id=1425804.1

\(^2\) New VueLink for UCM certifications made after this release of AutoVue are listed in Oracle Support Document 1383416.1 (Oracle AutoVue VueLink for UCM Certification Matrix) found at: https://support.oracle.com/epmos/faces/DocumentDisplay?id=1383416.1
This chapter discusses the prerequisites of installing AutoVue.

3.1 Pre-requisites for Installing AutoVue

Prior to installing AutoVue, there are certain prerequisites that must be met. The following prerequisites are common to Windows and Linux OSes.

- The machine that is hosting the AutoVue server must have a color depth of at least 16-bits. If the machine has a lower color depth, you may run into discrepancies in color or filling when viewing, printing or converting from AutoVue.

- Ensure that the AutoVue server has permission to write to the operating system’s temporary directory. To ensure temporary files are created in protected locations on Linux, the scripts jvueserver and jvueserver_debug have been changed to set new temporary directory. This it does by setting environment variable TMPDIR (by default, TMPDIR="/tmp/autovue"), and the new temporary folder to the permissions 700 (owner can read, write and execute).

  The AutoVue server administrator is responsible for setting this environment variable for security.

1. If setting TMPDIR="/tmp", AutoVue will create temporary files in no secure location /tmp, and log a security warning, such as "SECURITY WARNING: Incorrect or insecure temp folder (/tmp), using global temp directory".

2. If a temporary folder is set to one owned by another user, AutoVue will prompt "AutoVue temporary folder $TMPDIR is owned by a different user", and exit.

3. If a temporary folder on Linux is set to one without 700 permission, AutoVue will prompt "AutoVue temporary folder $TMPDIR has incorrect permissions", and exit.

- If you are using a load balancer, ensure that the load balancer is configured to enable session stickiness (also referred to as session persistence). Session stickiness is normally achieved through the use of browser cookies.

- For performance reasons, it is recommended that the applications’ streaming file cache directory is excluded from real-time virus scans. If virus scans are enabled, there is a performance impact on it and the impact is tied to the kind of operations done by the virus scan. It is also recommended that you run scheduled virus scans at a time when the server is not heavily in use.

- All server machines should obey the following conditions:
  - Have the same fonts installed.
Pre-requisites for Installing AutoVue

- If SSL is enabled, have identical certificates in their JVM repositories
- If an AutoVue server farm is configured, then ensure that the jvueserver.rmi.host.* is set to the same entries for all the servers in the farm. If a new server is added to the farm and the entries of jvueserver.properties of the existing servers are not updated, this new server will not be allowed to connect to the farm. When this happens, a warning is logged in the server logs.

- It is recommended to install only one instance of the AutoVue server per physical machine.

The following sections describe Windows-specific and Linux-specific prerequisites.

3.1.1 Windows Prerequisites

- AutoVue installs the AutoVue Document Converter print driver on Windows operating systems. Ensure that the print spooler service is enabled and that you have the permissions to install print drivers on the AutoVue server machine.

3.1.2 Linux Prerequisites

To correctly install AutoVue on a Linux OS, it is recommended that you have basic knowledge of Linux and its administration.

Note: To install packages on a Linux system you must have appropriate administrative privileges

- Install the core fonts from http://corefonts.sourceforge.net/. These fonts are required for viewing files that use some specific fonts.
- Ensure that the pre-requisite libraries for Linux are installed. For the most up-to-date list of libraries, refer to the Oracle Support Document 967083.1 (Prerequisite Library Names for AutoVue Web Version on Linux) at: https://support.oracle.com/epmos/faces/DocumentDisplay?id=967083.1
- The following must be installed on the Linux machine:
  - The Xvfb, libXfont and Mesa packages. The Mesa package must be 32-bit.
  - The following 32-bit libraries must be installed on the 64-bit machine:
    * libGL.so.1 (yum install mesa-libGL.i686)
    * libGLU.so.1 (yum install mesa-libGLU.i686)
    * libz.so.1 (yum install zlib.i686)
    * libbz2.so.1 (yum install bzip2-libs.i686)
    * libXt.so (yum install libXt.i686)
    * libXp.so (yum install libXp.i686)

Note: The AutoVue server does not detect whether Xvfb or Mesa are installed.

- Make sure to run the YUM update command for a package before installing it.
  
  # yum update <package_name/s>
■ Install the latest Xvfb by running the following command:

```
# yum install Xvfb
```

**Note:** For Linux 5.x, install Xvfb version 6.8.2 or later. Make sure you install the Xvfb with XRender and GLX extensions.

■ Install the latest Mesa package (recommended version is 6.5.1 or later) by running the following command:

```
# yum install mesa-libGLU
```

**Note:** In the event you want to use an earlier version of Mesa, it is acceptable to use the version that is included in the repository of the supported Linux distribution.

■ Install the 32-bit libsane and libXP packages, if not already installed.

■ Install the WINE RPM package. To do so, install wine-av-20040914-24.i386.rpm from [http://oss.oracle.com/AutoVue](http://oss.oracle.com/AutoVue).

■ If you have an older version of WINE, you need to uninstall it and then install the package that is certified with your version of Oracle AutoVue.

■ Install WINE as a root user by running the following:

```
#rpm -i wine-av-20040914-24.i386.rpm
```

**Note:** This version of WINE is installed in the `/usr/av` directory.

### 3.2 Additional Guidelines for Security

The following prerequisites are common to Windows and Linux OSes, and is essential for security purposes.

■ Shutdown all applications (including the AutoVue server) before you run the installer for the AutoVue installation.

■ When upgrading, if the installer prompts you to reboot the machine before or after the un-installation, you must reboot the machine in order to get a successful installation. If you fail to reboot when prompted, the application installation may be left in an unusable state.

■ In a multi-AutoVue server deployment, it is recommended to install AutoVue in the exact same folder path on each server.
Additional Guidelines for Security
This chapter discusses the installation checklist that needs to be followed before installing AutoVue solution.

AutoVue can be deployed in a number of scenarios. An AutoVue installation consists of installing the AutoVue server, VueServlet, and AutoVue client components. Refer to the following sections for more information.

### 4.1 Deployment Scenarios

The different components that have to be selected for deployment scenarios of AutoVue are provided in the following table.

<table>
<thead>
<tr>
<th>Deployment Scenario</th>
<th>Jump to Chapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scaling AutoVue for high volume of concurrent users.</td>
<td>See Appendix B, &quot;Configuring AutoVue Server Farm.&quot;.</td>
</tr>
<tr>
<td>Planning for failover and disaster recovery.</td>
<td>See Appendix C, &quot;Failover and Disaster Recovery.&quot;.</td>
</tr>
<tr>
<td>Integrating with a Document Management System (DMS)¹</td>
<td>See Appendix D, &quot;Integrating With a DMS.&quot;.</td>
</tr>
<tr>
<td>Real-Time Collaboration across Firewalls</td>
<td>See Appendix E, &quot;Configuring for Real-Time Collaboration.&quot;.</td>
</tr>
<tr>
<td>Customizing GUI/AutoVue Client</td>
<td>See Appendix H, &quot;Customizing the AutoVue Client.&quot;.</td>
</tr>
<tr>
<td>Usage Logging/Server Logging</td>
<td>See Appendix G, &quot;Monitoring the AutoVue Server.&quot;.</td>
</tr>
<tr>
<td>AutoVue Plug-in for Oracle Enterprise Manager</td>
<td>See Appendix L, &quot;Configuring AutoVue Plug-in for Enterprise Manager&quot;.</td>
</tr>
</tbody>
</table>

¹ In this document, the terms document repository and DMS are used interchangeably to refer to Document Management Systems (DMS), Product Lifecycle Management (PLM) and Enterprise Resource Planning (ERP).

### 4.2 Additional Recommendations

Following are recommendations to ensure that the AutoVue integration works correctly:

- Install the AutoVue client libraries on the application server machine.
Additional Recommendations

Note: Only required on the Admin server in an application server cluster.
This chapter describes how to install AutoVue on Windows and Linux OSes.

**Important:**
- On Windows operating systems, make sure AutoVue installer is run as an Administrator. If User Access Control (UAC) is enabled, select yes for the prompt that asks you if you want to run as Administrator. If UAC is disabled, right-click the installer, then select **Run as Administrator** from the RMB.
- If you want to install AutoVue in non-interactive mode, refer to Appendix K, “Non-Interactive Installations”.

**Note:** When upgrading your installation of AutoVue, do not cancel the installation process once it has begun. Canceling the installation may leave your current installation of AutoVue unusable.

### 5.1 Upgrading from earlier versions

You must run the AutoVue installer on the application server as well as the machine where you wish to install the AutoVue server. Select the AutoVue option in the installer if you wish to install the AutoVue server, and select the AutoVue Client Libraries option if you are running the installer on an application server or File Manager. If it is required to install the AutoVue server on the same machine with the application server, then both the AutoVue and the AutoVue Client Libraries options must be selected in the installer.

**Note:** Before updating the AutoVue client libraries, ensure that you stop the file server and any additional Agile processes.

### 5.1.1 Upgrading from AutoVue Version 20.1.x/20.2.x

If you are upgrading from AutoVue 20.1.x/20.2.x, you do not need to run the uninstaller before you install AutoVue 21.0.0. You can just run the installer for AutoVue 21.0.0. The installer detects if AutoVue 20.1.x/20.2.x is installed on your machine. If it is installed, the installer backs up required data, uninstalls version 20.1.x/20.2.x and then installs 21.0.0 to the same location. If you already have 20.2.x, with codebase (client JAR files) set in Jetty, the installer will upgrade to AutoVue 21.0.0.
If installing on a Linux OS, make sure you have the correct version of WINE installed. The version of WINE compatible with AutoVue 21.0.0 is wine-av-20040914-24.i386.rpm. You can download this version of WINE from http://oss.oracle.com/AutoVue.

**Note:** It is recommended to delete all cached and streaming files when updating AutoVue.

Below is the list of data that is migrated if you are upgrading:

- Settings in jvueserver.properties are migrated to the new version.
- The installer upgrades the previous configuration settings from allusers.ini and jvueserver.properties when you install the new version.
- Any changes made to default.ini and allusers.ini are migrated to the new version.
- AutoVue user profiles are left as is.
- The following are left as is since they are read by the new version of AutoVue:
  - Server-managed markups
  - Any stamps and stamp libraries

**Note:** If AutoVue is not integrated with a DMS/PLM, the stamp icon will be grayed out, and stamps cannot be used.

- Intellistamps and definitions
- On Linux, changes made to <AutoVue Install Root>/config/jvuew_config are left as is since this will be read by the newer version of AutoVue.
- Custom log settings: If you had custom log settings, these are migrated to the newer version of AutoVue.
- Changes made to markup policy file are migrated to the newer version of AutoVue.
- Any changes made to format-specific files such as color maps, font maps, fonts are migrated to the newer version.

The following are not migrated and must be migrated manually:

- You must manually copy all mandatory JAR files to the docroot folder referenced by the CODEBASE parameter of the Web pages that embed the AutoVue client. For information on which files to copy, refer to Section 5.4.4, "Installing AutoVue Client Components".
- GUI files: If you created custom GUI files, you must make sure to migrate the GUI settings. In order to migrate GUI, it is recommended that you run a diff utility between your current version's defaultgui and your custom GUI. Identify what GUI components have been updated. Manually apply these settings to 21.0.0 GUI file.
- The AutoVue installer does not install client components with the Web server. You must manually install updates for the client-side components.
5.1.2 Upgrading from AutoVue Version 20.x or Earlier

If you are upgrading AutoVue from version 20.x or earlier, you must manually move your configuration settings from your version to AutoVue 21.0.0. You must first uninstall any service packs that are installed for that version of AutoVue and then uninstall your previous version before installing the new version of AutoVue. Before you uninstall, you must backup all required data. Once you install 21.0.0, you must migrate your past data to 21.0.0. Below is what you need to backup and migrate manually:

- Custom settings in jvueserver.properties
- Custom settings in VueServer.ini. As of version 20.1, settings in VueServer.ini have been migrated to jvueserver.properties. Refer to the Oracle AutoVue 20.1 Release Notes for a mapping of VueServer.ini option to jvueserver.properties parameter.
- Custom settings in default.ini and allusers.ini should be backed up and migrated to the new version.
- User-specific INI files should be backed up and copied over to the Profiles folder of the new installation.
- GUI files: If you created custom GUI files, you must make sure to migrate the GUI settings. In order to migrate GUI, it is recommended that you run a diff utility between your current version's default.gui and your custom GUI. Identify what GUI components have been updated. Manually apply these settings to 21.0.0 GUI file.
- Custom log settings: If you had custom log settings, apply them manually on the new version of AutoVue.
- Stamp attributes and settings from the dmstamps.ini file (located in the <AutoVue Install Root>\bin directory) should be copied over manually to the new version.

**Note:** If AutoVue is not integrated with a DMS/PLM, the stamp icon will be grayed out, and stamps cannot be used.

- Markup files, if markups are being managed by the AutoVue server (located in the <AutoVue Install Root>\bin\Markups directory) should be backed up and copied over to the new version of AutoVue.
- Custom markup symbol libraries (located in the <AutoVue Install Root>\bin\Symbols directory) should be backed up and copied over to the new version of AutoVue.
- If MarkupPolicy.xml located at <AutoVue Install Root>\bin was modified, it should be backed up and changes to the policy should be manually applied to the new version.
- On Linux installations of AutoVue, backup the jvuw_config file (located in the <AutoVue Install Root>/config directory) if it was modified and apply the changes manually to the new version.
- Any changes made to format-specific files such as color maps, font maps, fonts must be backed up and these changes should manually be applied to the new version.
5.2 Secure Installation of AutoVue

The installation process of AutoVue consists of running the installer as well as performing manual post-installation steps. Note that the AutoVue installer provides a secure installation of the AutoVue server by default.

---

**Important:** Keep note of the following:

- Shutdown all applications (including AutoVue) before you run the installer for the AutoVue server.
- When upgrading, if the installer prompts you to reboot the machine before or after the uninstallation, you must reboot the machine in order to get a successful installation. If you fail to reboot when prompted, the AutoVue installation may be left in an unusable state.
- In a multi-AutoVue server deployment, it is recommended to install AutoVue in the exact same folder path on each server. In addition, the operating systems should be the same on each server.

---

To install the AutoVue server, do the following:

1. Download the Oracle AutoVue Media Pack and extract its contents.
2. Run the AutoVue installer executable:
   - **Windows OS:** The installer is `InstallClientServer.exe`.
   - **Linux OS:** The installer is `InstallClientServer_lin.bin`.

   **Note:** You might need to grant execute permissions to the installer binary on Linux. To do so, run `chmod +x InstallClientServer_lin.bin`.

3. Select a language from the installation dialog and then click **OK**.
4. Click **Next** to begin installation.
5. Click an installation set icon and then click **Next**:

   **Table 5–1 Installation Sets**

<table>
<thead>
<tr>
<th>Installation Set</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard</strong></td>
<td>Installs the most common AutoVue features. Note that this set does not install the Example Client Application, sample drawing files or API examples.</td>
</tr>
<tr>
<td><strong>Custom</strong></td>
<td>You can select the features to install. Select this installation set to install the Example Client Application, sample drawing files and API examples.</td>
</tr>
</tbody>
</table>

   If you selected the **Custom** install set, perform the following steps. If you selected the **Standard** install set, proceed to the next step.

   - **a.** Select which of the following features to install and then click **Next**:
Table 5–2  Installation Feature Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Files</td>
<td>Installs Oracle AutoVue. The option is selected by default.</td>
</tr>
<tr>
<td>User Documentation</td>
<td>Installs AutoVue end-user documentation. The option is selected by default.</td>
</tr>
<tr>
<td>Example Client Application</td>
<td>Installs the demo Web site pages.</td>
</tr>
<tr>
<td>Sample Files</td>
<td>Installs drawing sample files.</td>
</tr>
<tr>
<td>API Examples</td>
<td>Installs examples of how Oracle AutoVue features can be added to third-party applications using APIs.</td>
</tr>
</tbody>
</table>

6. For Windows OS installations, select one of the following locations to create shortcuts and then click **Next**.

Table 5–3  Installation Locations

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>In a new Program Group</td>
<td>Creates a shortcut in the Program group of the Start menu. For example, Oracle AutoVue. This is the default option.</td>
</tr>
<tr>
<td>In an existing Program Group</td>
<td>Adds a shortcut to an existing Program group. For example, Accessories.</td>
</tr>
<tr>
<td>In the Start Menu</td>
<td>Adds a shortcut in the Start menu.</td>
</tr>
<tr>
<td>On the Desktop</td>
<td>Adds a shortcut on the Desktop.</td>
</tr>
<tr>
<td>In the Quick Launch Bar</td>
<td>Adds a shortcut to the Quick Launch bar.</td>
</tr>
<tr>
<td>Other</td>
<td>Adds a shortcut to the specified location.</td>
</tr>
<tr>
<td>Don't create icons</td>
<td>Shortcuts are not created.</td>
</tr>
</tbody>
</table>

To create icons for all users of AutoVue, select **Create Icons for All Users**.

7. Specify a host name or IP address for the AutoVue server and then click **Next**.

**Note:** The hostname cannot include an underscore (_) character. You must set the correct static or resolvable IP address or hostname or fully-qualified hostname (FQDN) in the file jvueserver.properties.

**Example:** hostnamel.domain.com

8. Specify the authentication mechanism between the AutoVue server and the client and then click **Next**.

Table 5–4  Authentication Mechanism

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerberos (JAAS)</td>
<td>Configures AutoVue with Kerberos authentication protocol.</td>
</tr>
<tr>
<td>Configure Later (Manual Configuration)</td>
<td>Authentication will not be configured. If needed, you have the option to configure after you complete the installation. For more information, refer to Section 5.4, &quot;Post-Installation Instructions&quot;.</td>
</tr>
</tbody>
</table>
If you selected **Kerberos (JAAS)**, perform the following steps:

a. Specify the security realm (java.security.krb5.realm) and Kerberos Key Distribution Center (java.security.krb5.kdc) for the Kerberos protocol and then click **Next**.

If you selected **Configure Later (Manual Configuration)**, proceed to the next step.

**9.** Specify how to configure Secure Socket Layer (SSL) and then click **Next**.

<table>
<thead>
<tr>
<th>Options</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure SSL with a CA Certificate</td>
<td>Configures SSL with a Certificate Authority (CA) certificate.</td>
</tr>
<tr>
<td>Configure SSL with a generated self-signed certificate</td>
<td>Configure SSL with an automatically generated self-signed certificate (non-CA certificate).</td>
</tr>
<tr>
<td>Configure Later (Manual Configuration)</td>
<td>SSL will not be configured. If needed, you must configure after you complete the installation. For more information, refer to Section 5.4, &quot;Post-Installation Instructions&quot;.</td>
</tr>
</tbody>
</table>

If you selected **Configure SSL with a CA Certificate**, perform the following steps:

a. Select the CA certificate file and then click **Next**.

b. Select the Identity JKS Keystore file and then click **Next**.

c. Specify the Identity JKS Keystore password (minimum six characters) and then click **Next**.

If you selected **Configure SSL with a generated self-signed certificate**, perform the following steps:

a. Specify the Identity JKS Keystore password (minimum six characters) and then click **Next**.

If you selected **Configure Later (Manual Configuration)**, proceed to the next step.

**10.** Review the pre-installation summary and then click **Install**.

The AutoVue server is installed in the specified directory. If there are any warnings or errors, refer to the installation log file, Oracle_AutoVue_InstallLog.log, located in the <AutoVue Install Root> directory.

**11.** Follow the steps discussed in the **Section 5.4, "Post-Installation Instructions".**

---

**Note:** For information on registering and running AutoVue as a service, refer to **Section F.4, "Running the AutoVue Server as a Service".**

---

### 5.3 Verifying AutoVue Server Installation

This section discusses how to verify AutoVue Server startup, and troubleshooting the issues that come up while starting AutoVue Server.

#### 5.3.1 Verifying AutoVue Server Startup

Start the AutoVue server:
On Windows Operating systems, run *Start AutoVue Server* from the *Oracle AutoVue* programs shortcut.

On Linux Operating systems, go to `<AutoVue Install Root>/bin` and run `./jvueserver`. The AutoVue server console should startup and the P, 1, 2, 3, 4 and M buttons should turn green.

---

**Note:** If you have a firewall enabled, a prompt may appear asking you to block or unblock the AutoVue server executable. Select *Unblock*.

---

If any of the P, 1, 2, 3, 4 and M buttons stay red or yellow, refer to the troubleshooting steps in Section 5.3.2, "Troubleshooting AutoVue Server Startup Issues".

### 5.3.2 Troubleshooting AutoVue Server Startup Issues

If the AutoVue console does not startup or if any of the buttons on the server console do not turn green, review the following trouble-shooting pointers. Error messages are written to the `log4j-roll*.log` file at `<AutoVue Install Root>/bin/logs`. Refer to the logs to determine the specific cause for the issue.

- **On Linux operating systems:**
  - Ensure that your Linux terminal is properly configured for graphics display. When the terminal does not support graphics, AutoVue server will startup, but the console will not appear. The message you would see on the console in this case will be something like "No display defined; console will not be started". To start up the console separately, you can run `./jvueserver_debug -u`.
  - If you see a fatal error message for Xvfb in the log, it indicates that there are issues starting up Xvfb. Possible reasons are that Xvfb is not installed correctly or the user account running AutoVue does not have permissions to start Xvfb or there is a port conflict for the Xvfb port. To resolve this issue, ensure that Xvfb is correctly installed and that the user account running AutoVue has permissions to start Xvfb. If there is a port conflict, try modifying the port by modifying the port in the `xvfb.display` parameter in `jvueserver.properties`.
  - If you have an incorrect version of WINE or if you do not have WINE installed, AutoVue server will not start up. The following message appears in the log file: "./jvueserver: could not locate WINE server should be at /usr/av/bin/wineserver...". Uninstall any previous version of WINE and install the version that is compatible with the version of AutoVue server.
  - If any of the pre-requisite libraries are missing from your installation, AutoVue server will not startup. If you see a message "Failed to initialize preloader class, aborting..." in the log, you must ensure that all pre-requisite libraries are installed on the machine.

- **If the user account running AutoVue server does not have permissions to write into the AutoVue installation directory, AutoVue server will not start up. You will see error messages that say "Permission denied" in the AutoVue server logs. Ensure that the user account running AutoVue has write permissions into the AutoVue installation directory.**
Note: On Linux, if you accidentally run AutoVue as a super-user, AutoVue will create/update files and set permissions as this super-user. If you later run AutoVue as a normal user, AutoVue server will not startup since the user does not have permissions to the files created by the super-user.

- If the host name of the AutoVue server changed since you installed AutoVue, the AutoVue server will not be able to start up. The message you will see in the log in this scenario is "Connection refused to host". Update jvueserver.properties and set the correct server name in the parameter jvueserver.hostname. Similarly, if you installed AutoVue server using the IP address and the IP address changed after you installed AutoVue, you must set the correct IP address in parameter jvueserver.hostname in jvueserver.properties.

Note: You must set the correct/specify static or resolvable IP address or hostname or fully-qualified hostname (FQDN) in the file jvueserver.properties.

- AutoVue server needs RMI ports in order to run correctly. If the RMI ports required by AutoVue are used by other applications, the server will not startup. In this instance, you will see ‘java.rmi.connect’ exceptions in the log. AutoVue needs the RMI port specified in property jvueserver.rmi.port and n consecutive ports following this port, where n is the AutoVue process pool size. If the RMI ports required by AutoVue are not available, change the parameter jvueserver.rmi.port to point to a port that is available. Ensure that this port and n consecutive parts following this port are available to AutoVue.

Refer to Chapter 13, "AutoVue Server Configuration Options" for a list of all AutoVue server configuration options in jvueserver.properties.

If you verified all the above and AutoVue server still does not startup, contact Oracle customer support for help with trouble-shooting your AutoVue server startup issues.

5.4 Post-Installation Instructions

If you choose option "Configure SSL with a CA certificate" or "Configure SSL with a generated self-signed certificate", the following is done by the AutoVue Installer:

- The certificate is imported to <AutoVue Installation Folder>\jre\lib\security\cacerts.
- The installer modifies the jvue.bat sample standalone application and configures it to connect via SSL (HTTPS protocol and port 8443).
- The following options are added to jvueserver.properties file:
  - jvueserver.ssl.enable=true
  - The parameter, jvueserver.cmdline has the following options added to it:
    * Djavax.net.ssl.keyStore=<full path to keystore>
    * Djavax.net.ssl.keyStorePassword=<keystore password>
- The following points are only relevant if you plan to use Jetty for testing purposes or actual deployment.
– In <AutoVue Installation Folder>\bin\jetty\etc\webdefault.xml, EnableSSL is set to TRUE.
– In <AutoVue Installation Folder>\bin\jetty\etc\jetty-ssl.xml, keystore and password parameters have been updated.
– In <AutoVue Installation Folder>\bin\jetty\bin\startJetty.bat file, the CLASSPATH parameter is updated to include "%JETTY_DIR%\etc\jetty-ssl.xml".

5.4.1 Configuring SSL

If you did not configure SSL during the AutoVue installation, you can do so post-installation. For more information, refer to the "Enabling SSL Communication" section of the Oracle AutoVue, Client/Server Deployment Security Guide.

5.4.2 Configuring User Authentication

If you did not configure an authentication mechanism during the AutoVue installation, you may do so post-installation.

**Note:** User authentication should be configured only if required. If the DMS handles the authentication, then you do not have to configure the user authentication.

The administrator can disable the authentication if not needed.

To configure the server to use the JAAS authentication plug-in supplied with AutoVue, perform the following:

1. Edit jvueserver.properties to specify the plug-in by removing the comment in the following line:

   jvueserver.authenticator=com.cimmetry.jvueserver.JAASAuthenticator

2. Create a text file called jaas_authen.conf in the <AutoVue install root>\bin directory. Add the following text in the file:

   /**
   ** Example JAAS Login Configuration for the AutoVue server
   **/
   AVServer
   {
   com.sun.security.auth.module.Krb5LoginModule required storeKey=true;
   }

3. Edit jvueserver.properties and add the following highlighted lines after the -Djava.security.policy parameter of jvueserver.cmdline:

   jvueserver.cmdline=-Xmx128M -Djava.security.policy="C:\Oracle\AutoVue\bin\policy" -Djava.security.krb5.realm=<realm> -Djava.security.krb5.kdc=<kdc> -Djava.security.auth.login.config=<full path to jaas_authen.conf>

Replace <realm> with your security realm.

Replace <kdc> with your key distribution center.

4. Startup the AutoVue server.

5. Launch the AutoVue client.
An authentication dialog appears and prompts for login information. On logging in successfully, the AutoVue client launches.

For more information user authentication, refer to the “User Authentication” section of the Oracle AutoVue, Client/Server Deployment Security Guide.

5.4.3 Deploying VueServlet

The VueServlet is the main entry point for communications between the AutoVue clients and the AutoVue server. The client makes requests using the HTTP/HTTPS protocol to the VueServlet and the VueServlet communicates with AutoVue using AutoVue’s socket port. The instructions for deploying VueServlet vary based on whether or not you are integrating AutoVue with a DMS. This section discusses installing a single-instance of VueServlet in a non-integrated environment. In an integrated environment, the same instructions apply, except with the difference that the VueServlet may be deployed in a different context. For information on deploying VueServlet in an integrated environment, refer to Section A.2, "Installing the VueServlet in an Integrated Environment”.

The first step to deploying the VueServlet is to create a WAR file for the VueServlet. Once the WAR file has been successfully created, you can deploy the WAR file with your J2EE-enabled application server.

Refer to Appendix J, "Deploying the VueServlet on Application Servers" for instructions for deploying the VueServlet with WebLogic, Tomcat, WebSphere and Jetty.

5.4.3.1 Creating a WAR for the VueServlet

To deploy the VueServlet with your J2EE-enabled application server, you must first create a WAR file. The following steps explain how to do this:

1. Create a directory.
   
   For Example: C:\csiwar

2. In the folder C:\csiwar, create a sub-directory WEB-INF.

3. In WEB-INF, create a directory lib: C:\csiwar\WEB-INF\lib

4. Copy vueservlet.jar from <AutoVue Install Root>\bin to C:\csiwar\WEB-INF\lib.

5. Create a deployment descriptor file named web.xml in the WEB-INF directory.

   - The following is the mandatory header for the web.xml document. It defines the document as an XML file and relates the file syntax to the DOCTYPE resource specified.

   ```xml
   <?xml version='1.0' encoding='ISO-8859-1'?>
   <!DOCTYPE web-app PUBLIC '-//Sun Microsystems, Inc.//DTD Web Application 2.2//EN' 'http://java.sun.com/j2ee/dtds/web-app_2_2.dtd'>
   ```

   - Use the following code to specify the deployment descriptor needed to deploy the VueServlet.

     ```xml
     <web-app>
     <servlet>
     <servlet-name>com.cimmetry.servlet.VueServlet</servlet-name>
     <servlet-class>com.cimmetry.servlet.VueServlet</servlet-class>
     <init-param>
     <param-name>JVueServer</param-name>
     <param-value>hostname:socketport</param-value>
     ```
5.4.3.2 Deploying the VueServlet
Deploy VueServlet.war into your J2EE compliant application server.

**Note:** If the VueServlet is to be configured for internal and external access, then you must deploy it to a file path that is externally accessible. You should verify deployment by accessing the VueServlet from an external user machine.

Refer to the instructions available with your J2EE application server for WAR deployment information and Appendix J, "Deploying the VueServlet on Application Servers".

5.4.3.3 Verifying VueServlet Deployment
Once the VueServlet has been deployed into your application server, test the VueServlet by accessing the URL to the VueServlet from a user machine that will be accessing AutoVue. If you are configuring for both internal and external access, you must deploy the VueServlet on a path that is externally accessible and verify that the connection from an external user machine. To verify the VueServlet deployment, enter the following in your Web browser:
http://hostname:socketport/<context>/servlet/VueServlet

where <context> is the context you specified when deploying the VueServlet into your application server.

**Note:** Some application servers allow you to specify the context name, but generally the WAR file name is used as the context.

On successful deployment, the VueServlet should display a Web page as follows:

*Figure 5–1  After successful deployment*

5.4.3.4 Troubleshooting VueServlet Deployment

If you are not successful with the VueServlet verification, below are some pointers to help you troubleshoot your VueServlet deployment:

- If you get a page not found error, ensure that the application server hosting the VueServlet is up and running. Check for correct syntax and verify that you are accessing the correct port for the Application server.

- If you are able to access the VueServlet page and it indicates an error connecting to the AutoVue server:
  - Verify that the AutoVue server is running.
  - Verify that you specified the correct connection parameters to the AutoVue server in the VueServlet's JVueServer parameter.
  - Verify that you can ping the AutoVue server machine from the VueServlet machine and vice-versa.

5.4.4 Installing AutoVue Client Components

The AutoVue client is a JAVA-based applet that is the main entry point to AutoVue's capabilities. The AutoVue client components need to be made accessible to end-users at an application server or Web server location. The instructions for deploying the client components vary depending on whether you have AutoVue integrated with a DMS or if you are using a non-integrated environment. For information on deploying AutoVue in an integrated environment, refer to Chapter D, "Integrating With a DMS".

This section discusses deploying AutoVue client components in a non-integrated environment. In an integrated environment, the same instructions apply, except with the difference that the client components may be deployed in a different location.
1. Create a folder (for example, named AutoVue) on your Web server docroot.

2. Copy all mandatory JAR files from the <AutoVue Install Root>/html directory to the directory you created on your Web server docroot. The files to copy are jvue.jar, jogl.jar, gluegen-rt.jar.

3. To use the sample HTML pages provided with AutoVue (typically, only used for testing purposes, or as a baseline example to create your own custom AutoVue applet), copy them from the <AutoVue Install Root>/html directory to the directory you created on your Web server docroot.

4. Edit the files that embed the AutoVue applet (for example, frmApplet.html) and replace the following parameters with appropriate values.

<table>
<thead>
<tr>
<th>Table 5–6 Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>CODEBASE</td>
</tr>
<tr>
<td>JVUESERVER</td>
</tr>
</tbody>
</table>

5. If you installed the optional sample files that ship with AutoVue, edit frmFiles.html and replace the values for the variable identified in table below with the appropriate value:

<table>
<thead>
<tr>
<th>Table 5–7 Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>JVUESAMPLES</td>
</tr>
</tbody>
</table>

5.4.4.1 Verifying AutoVue Client

Once you have the AutoVue client components installed, you can verify if the installation is successful by opening the URL to the AutoVue client files. For example: http://<AutoVueClient>:5098/AutoVue/AutoVue.html (case-sensitive).

The AutoVue client should load and the AutoVue user interface should be displayed. You should be able to launch the online help files from the AutoVue client by selecting Help > Online Help from the AutoVue user interface.

5.4.4.2 Troubleshooting AutoVue Client

If you are unable to load the AutoVue client or the client starts up but is unable to connect to the AutoVue server, refer to following trouble-shooting pointers:
Verify that all the proper JAR files are copied over to the Web server/application server, and that they match with the ones on the AutoVue server. This step is very important when upgrading your version of AutoVue.

If you cannot load the HTML/JSP pages, ensure that you have the correct URL to the AutoVue client in the Web server/application server.

If you are able to load the HTML/JSP pages, but the AutoVue client does not load:
- Ensure that a JRE is installed on the client machine. If using a browser, ensure that the Java plug-in is enabled with the browser.
- Verify that the CODEBASE parameter set in the AutoVue client pages points to the correct URL.

If you get an error message that indicates that there was a problem communicating with the server:
- Verify that the JVUESERVER parameter in the client pages point to the right VueServlet URL.
- Verify that the application server hosting the VueServlet is running.
- Verify that the AutoVue server is running.

If you get an error message stating “Failed to connect as an authenticated user”:
- Verify that there is an authentication mechanism (for example, authentication plug-in or DMS authentication) configured for the AutoVue server.
- If AutoVue is installed as a stand-alone server (that is, without an authentication plug-in or DMS authentication), then you must set jvueserver.authentication.enable to FALSE so that users can connect to the server.

Note: Oracle recommends to prohibit all unauthenticated connections to the AutoVue server.

5.4.3 Configuring Online Help

You must copy the AutoVue Online help files to the docroot location and then verify the URL of the online help to make sure you are able to load the online help files. Update the URL to the help files in AutoVue server's jvueserver.properties file. For more information, refer to Section 5.4.4, "Installing AutoVue Client Components".

5.5 Linux-Specific Post-Installation Instructions

To ensure that temporary files are created in a secure location on Linux, the default value setting of the AutoVue temporary directory – TMPDIR – has been set to "/tmp/autovue", and its permission is set to 700. Unix permission 700 only allows the owner of the folder to have read/write/execute access.

To modify the temporary folder, the system administrator must edit the jvueserver and jvueserver_debug scripts. The AutoVue server administrator is responsible for ensuring that the environment variable follows security guidelines. Take note of the following when modifying TMPDIR:
- If the TMPDIR value is set to "/tmp", then a security warning will be logged as AutoVue will be creating temporary files in the unsecure /tmp directory.
If the temporary folder is set to one owned by another user, AutoVue will display a warning and exit.

If the temporary folder is set to one without 700 permission, AutoVue will display a warning and exit.

TMPDIR supports both absolute and relative file paths, but it is recommended to use absolute paths.

5.6 Verifying Communication with AutoVue

Once your AutoVue server has started up correctly, you must verify if clients can connect to the AutoVue server and you can load files in AutoVue.

1. For verification purposes, startup Jetty that ships with AutoVue:
   - Start VueServlet on Jetty from the AutoVue programs shortcut on Windows OS
   - <AutoVue Install Root>/bin/Jetty/bin/startJetty on Linux OS
   
   **Note:** Once you finish the verification, you can shut down Jetty if you do not plan to use Jetty as part of your deployment.

2. If installed, launch the example AutoVue client application by running:
   - <AutoVue Install Root>/bin/jvue.bat on Windows OS
   - <AutoVue Install Root>/bin/jvue on Linux OS
   The AutoVue applet should load successfully.

![AutoVue Applet](image)

3. Once the AutoVue client is loaded, verify if you can load files. Load a few files belonging to various format groups that you intend to load using AutoVue.
If you have issues loading the client or loading files in AutoVue, refer to the following section for trouble-shooting pointers.

### 5.6.1 Troubleshooting Communication Issues

If the AutoVue server has started up fine, but you are unable to open the client or load files, you can review the following pointers to identify other potential issues:

- If the AutoVue client does not startup, verify that the VueServlet is working properly with Jetty. Open the URL to the VueServlet in a Web browser: http://<AutoVue server hostname>:5098/servlet/VueServlet or https://<AutoVue server hostname>:8443/servlet/VueServlet when SSL is configured. As displayed in the following Oracle AutoVue Servlet tunneling page, *Connection State: OK* states that the VueServlet is configured correctly:

![Oracle AutoVue Servlet Tunneling Page](image)

- If the above verification fails, ensure that Jetty is working properly. If another application is using the same port as Jetty, change the port for Jetty by updating the jetty.port parameter in jetty.xml located in the `<AutoVue Install Root>in\jetty\etc` directory.

- Verify that the example client application is pointing to the correct URL for the VueServlet. If you modified the port for Jetty, ensure that the example client application is using the right port.

- Verify that the socket port required by AutoVue is not in use by other applications. If the socket port is not available for AutoVue, modify the socket port by updating the jvueserver.socket.port parameter in jvueserver.properties. If you modify the socket port, ensure that the VueServlet points to the correct socket port. Update the JVueServer parameter in webdefault.xml to point to the correct AutoVue server name and socket port.

### 5.7 Deploying AutoVue in Virtualized Environments

To set up additional AutoVue servers on virtualized environments, copy an image of the virtual machine where AutoVue server is installed. Once you modify the name of the machine, change the name of the AutoVue server host in jvueserver.properties. Refer to *Section 13.2, "AutoVue Host Name Option"* for information on changing the host name.
Installing in an Integrated Environment

This section describes the components that must be installed and configured when AutoVue is integrated with a DMS. Whether it is an Oracle VueLink integration or a custom integration with AutoVue, you must install and configure AutoVue client components and the VueServlet. The following are generic instructions for deploying AutoVue components in an integrated environment. For specific instructions refer to your VueLink/integration documentation.

**Note:** If the VueServlet and VueLink are on the same application server, then each will consume one worker thread per file open. As a result, depending on the load, the number of worker threads may need to be increased. At a minimum, two worker threads are required per concurrent file open.

### A.1 Installing AutoVue Client Components in an Integrated Environment

In most cases, when AutoVue is integrated with a DMS, the AutoVue client components are deployed with an application server that hosts the integration components and/or the DMS.

In order to deploy the AutoVue client components in these environments, follow these steps:

1. Identify where the AutoVue client components are located in your integration/VueLink deployment.
2. If the AutoVue client components are deployed in a WAR file, extract the contents of the file.
3. Replace the following files in your integration environment (or extracted files) with files from the `<AutoVue Install Root>/html` directory:
   - `jvue.jar`
   - `jogl.jar`
   - `gluegen-rt.jar`
   - Online help files
4. Specify the full URL to `InstallDesktopDeployment.exe` in the `autovueupdate.xml` file.
5. Re-create the WAR file (if you had extracted it in step 3).
Installing the VueServlet in an Integrated Environment

6. Redeploy the WAR file.
7. Update jvueserver.properties and set the URL to the online help files to the URL specified by the application server.

Note: If you are using an application server cluster and a load balancer, it is recommended that you point to the load balancer address for the Online Help and the JAR files. This ensures backup for the online help and the JAR files in case of a failure of an application server instance.

A.2 Installing the VueServlet in an Integrated Environment

In most cases, when AutoVue is integrated with a DMS, the VueServlet is deployed on the application server that hosts the integration servlet and/or the DMS.

In order to deploy the VueServlet in these environments, follow these steps:

1. Identify where the VueServlet.jar is located in your integration/VueLink deployment.
2. If the VueServlet is deployed in a WAR file, extract the contents of the WAR file.
3. Replace VueServlet.jar from the extract with the VueServlet.jar file from the current release.
4. Modify any of the configuration parameters for the VueServlet as needed. Refer to Section 13.22, "VueServlet Configuration Options" for more information.
5. Re-create the WAR file (if you had to extract it in step 3).
6. Redeploy the WAR file.

A.3 Verifying your Integration

After you AutoVue client components and the VueServlet, you must verify that your integration works correctly with this version of AutoVue:

- Verify that you can load your DMS files in AutoVue.
- Verify Help-About from the AutoVue client to make sure you have the JAR files of the right version and build.
- Access the VueServlet page from a client machine and verify that it reports the correct build number.
- Verify that you can launch the AutoVue online help files successfully.
- Verify the other features supported by your integration to make sure all features work as expected.
In order to meet your concurrent usage requirements, it may be necessary to setup more than one AutoVue server and balance requests to AutoVue across these servers. Configuring multiple AutoVue servers to communicate with each other to handle the load is referred to as an AutoVue server farm. Each AutoVue server has a primary server and multiple document servers. The primary server accepts all requests to AutoVue and is responsible for distributing document requests across the document servers. When AutoVue is configured in a server farm, the primary servers across the servers in the farm communicate with each other in order to distribute load across all the document servers in the server farm.

Take note of the following when setting up an AutoVue server farm:

- If AutoVue is running in standalone mode, Symbols and Markups are not shared between the servers.

- If AutoVue is integrated with a DMS:
  - Markups are saved in the DMS and are shared between the servers.

- Cache should not be shared between the servers.

- Symbols, Symbols folder, and Profiles should not be shared between the servers. Symbol sharing may result in race condition and the profile may become corrupt (that is, more than one thread may be writing to a file at the same time). For more information, refer to Section B.1.1, "Symbol Libraries".

- All server machines should obey the following conditions:
  - Run the same AutoVue server version (up to the patch version)
  - Install the AutoVue server in the same directory paths. Otherwise, streaming file validation fails.
  - Have the same fonts installed.
  - Have identical certificates in their JVM repositories.
  - Have the same proxy settings.
  - Have the same operating system.
  - Have identical firewall settings.
  - Must be configured with one VueServlet per AutoVue server.
  - Ensure that the jvueserver.rmi.host.* is set to the same entries for all the servers in the farm. If a new server is added to the farm and the entries of jvueserver.properties of the existing servers are not updated, this new server will not be allowed to connect to the farm. When this happens, a warning is logged in the server logs.
Configure the VueServlet for load balancing. For more information, refer to Section B.3, “Configuring VueServlet Load Balancing.”

Do not use Real-Time Collaboration on local files.

For high security, use HTTPS protocol from the AutoVue server to the VueLink.

B.1 Setting Up AutoVue Server Load Balancing

This section describes how to set up AutoVue server load balancing.

1. Add a new machine to the same network as the original AutoVue server.
2. Install and configure the AutoVue server on the new server, going through the same steps as in the original installation.

   **Note:** In a multi-AutoVue server deployment, it is recommended to install the same version of AutoVue in the exact same folder path on each server.

3. Once installed, edit the jvueserver.properties file located in the `<AutoVue Install Root>\bin` directory on the machines hosting the servers in the server farm and add the following parameters:

   ```
   jvueserver.rmi.host.1=jvueserver1.company.com:1099
   jvueserver.rmi.host.2=jvueserver2.company.com:1099
   ```

   **Where**

   - `jvueserver.rmi.host.1` is set to the name and the RMI port of the one of the AutoVue servers in the farm,
   - `jvueserver.rmi.host.2` is set to another AutoVue server in the farm and so on.

   **Note:** Ensure that the RMI host entries are specified in the same order on all the servers in the server farm.

B.1.1 Symbol Libraries

If you are using Symbol markup entities, we recommend that you do not share the Symbols folder between the servers in the farm. Instead, replicate the Symbols folder across all AutoVue servers in the server farm at regular intervals. You should plan the replication for a time when AutoVue is not in use.

Sharing the Symbols folder between servers causes reliability and stability issues. Make sure that the replication is done when AutoVue is not in use to ensure that Symbols are not being used when replication occurs.

B.2 Verifying AutoVue Server Load Balancing

In order to verify AutoVue server load balancing, you must:

- Open a few different connections to the AutoVue server. Monitor the AutoVue server console on one of the servers in the farm. You should see that connections are being balanced across the servers in the server farm.
- From these connections, open multiple documents. On the AutoVue server console, for each session, click on the Documents column and verify the server where the document is being opened from. The document requests should be load balanced across all the servers in the farm. Refer to Section G.1, "AutoVue Server Console" for more information on how to see session and document information from the AutoVue server console.

- If a firewall is enabled, you must add java.exe and javaw.exe to the firewall exceptions.

  **Note:** If you have a firewall enabled, a prompt may appear asking you to block or unblock the AutoVue server executable. Select Unblock.

- RMI and socket ports that are defined by jvueserver.properties must be open. For example, when the following is set in jvueserver.properties:

  ```properties
  jvueserver.socket.port=5099
  jvueserver.rmi.port=2099
  jvueserver.processPoolSize=4
  ```

  Ports 5099, 2099, 2100, 2101, 2102, 2103, 2104 should be open.

  For information on configuring RMI and sockets ports refer to Section 13.3, "RMI and Socket Ports Options."

  **Note:**

  - When opening a file using the upload:// protocol, the document is opened on the same server as the user's session.
  - When opening a file, the DocServer with the least number of documents is selected. However, if two or more DocServers have the same load, then the DocServer that is on the same server as the session is selected.

**B.2.1 Troubleshooting AutoVue Server Load Balancing**

If you see that requests are not load balanced across the servers in the farm, verify the following:

- jvueserver.rmi.host.X entries are in the same order across all the servers in the farm.
- All the servers in the farm are up and running.

  **Note:** In some instances when you open connections simultaneously, it is possible that requests are not load balanced. This is as expected. When there is some lag between the connections, requests are load balanced.

**B.3 Configuring VueServlet Load Balancing**

The VueServlet needs to be deployed within an application server. You must rely on the load balancing capabilities of the application server or rely on an external load balancer that is configured to distribute load across all your application server...
(VueServlet) instances. You must also ensure that the load balancer is configured to enable session stickiness (also referred to as session persistence). Session stickiness is normally achieved through the use of browser cookies.

Ensure that each VueServlet instance has the same entry for the JVUESERVER parameter.

For example:

```xml
<param-name>JVueServer</param-name>
<param-value>AutoVueServer1:5099;AutoVueServer2:5099</param-value>
```

If the AutoVue server is also configured for load balancing, then you must ensure that each of the VueServlet instances also specify the AutoVue servers in the same order.
This chapter describes how to configure AutoVue for fail-over and disaster recovery.

C.1 AutoVue Server Configuration for Failover

For failover, AutoVue server should be deployed in a horizontal cluster or server farm. In a horizontal cluster, servers are spread over multiple machines.

You can have these AutoVue servers configured for load balancing so that if one AutoVue server in the server farm goes down requests are re-directed to other servers in the farm. Refer to Chapter B, "Configuring AutoVue Server Farm" for instructions on setting up a server farm. All AutoVue servers should be identified as peer servers acting as multiple entry points for all VueServlets communications (that is, there is no primary AutoVue server handling all the VueServlet communication). Each server in the farm acts as a backup server so that if one server goes down, another server is available to continue serving clients.

In certain situations, when you want a backup server without setting up load balancing, you must configure the VueServlet to communicate to the backup server if the production server is unavailable.

---

**Note:** When a server goes down, the users on that machine, along with all their open documents, are moved over to another machine. Any markups not stored in a DMS, or any user specific settings, are not moved over to the backup machine.

---

C.2 AutoVue Failover Configuration on the VueServlet

In the event of a failure of an AutoVue server, either when using a cluster or when using a standalone server, you can configure the VueServlet so that it directs requests to another AutoVue server. When using a cluster, the failover server can be another server in the cluster. When using standalone installation, you must install another instance of the AutoVue server.

To configure VueServlet for failover, update the JVUESERVER parameter of the VueServlet to add multiple AutoVue servers. Separate values using a ‘;’.
Note: Each VueServlet must have the same list of servers for the JVUESERVER parameter, and this list must be in the same order for all VueServlets.

<param-name>JVueserver</param-name>
<param-value>AutoVueServer1:5099;AutoVueServer2:5099;AutoVueServer3:5099</param-value>

C.3 Failover for the VueServlet

Since the VueServlet is hosted within an application server, you can rely on the application server's load balancing and high availability features. You must ensure that there are multiple VueServlet instances on separate machines so that if one instance of the VueServlet is not accessible, users are automatically redirected to another VueServlet instance.

Similarly, you must plan for backups for the AutoVue client components and online help within your application server so that if one instance is not available, users are redirected to another instance.

C.4 Failover for AutoVue client components

If the AutoVue client components are deployed with an application server, you can rely on the application server's load balancing and high availability features. Ensure that the JAR files and the online help files are served through the load balancer.

C.5 Verifying Failover Configuration

To verify that AutoVue is configured fully for failover, you must bring down certain nodes and verify that users are still able to connect and use AutoVue:

- Shutdown an AutoVue server. Preferably the server that is the entry point (the first AutoVue server in the VueServlet configuration) for AutoVue requests. Open connections to AutoVue and verify that users are connected to the backup servers.

- Bring down an application server instance hosting the VueServlet and the client components. Ensure that users are still able to launch the AutoVue client, load files and load online help files.
This chapter describes the additional configuration to consider when AutoVue is integrated with a DMS. Configuring AutoVue for multiple backend systems and creating a Stamp template is described in this section.

**Note:** Backward compatibility (*dms.vuelink.version=19.3*) has been desupported. You must upgrade your integration to be compatible with AutoVue 20.x.

### D.1 Multiple Document Repositories

If AutoVue is integrated with multiple DMS, AutoVue's Universal File Chooser (File Open) dialog allows you to browse and search them. You can browse/search the DMS even if your client has not already established a connection to the DMS. To enable AutoVue to browse/search when you have not yet established a connection with the DMS, you must create a file named `vuelinks.xml` in the `<AutoVue Install Root>in` directory with the following format:

```xml
<DMSList>
  <vuelink url="vuelink_url">
    <name>your_DMS_name</name>
    <DMSArgs>
      <DMSArg name="your_argument" value="your_value" />
    </DMSArgs>
    <seed>seed_url</seed>
  </vuelink>
</DMSList>
```

- The `<vuelink>` tag defines the URL location of the backend DMS system. Replace `vuelink_url` with the URL to your VueLink/integration servlet.
- The `<name>` tag defines the DMS button name to appear in the File Open dialog. Replace `your_DMS_name` with the name of your DMS.
- The `<DMSArgs>` tag defines arguments for the specified integration. Replace `your_argument` and `your_value` with any DMSArgs you may use with DMS integration.
- The `<seed>` tag defines the URL format for retrieving a file from the DMS. Replace `seed_url` with a URL to a file from your DMS. This is generally the FILENAME URL that is passed to the AutoVue client when you view your DMS file in AutoVue.
Creating a Stamp Template

D.2 Creating a Stamp Template

Stamps are dynamic stamp entities that can retrieve user and document metadata from the DMS. Stamps attributes can be used to update the document in the DMS. They are only available to end-users after they have been configured by the system administrator.

Note: If AutoVue is not integrated with a DMS/PLM, the stamp icon will be grayed out, and stamps cannot be used.

The following steps describe the procedure for creating a Stamp template:

1. Identify what images to use as a background image. For more information, refer to Section D.2.1, "Choosing a Background Image".
2. Determine Stamp attributes and permissions. For more information, refer to Section D.2.2, "Determining Stamp Attributes and Permissions".
3. Identify the Stamp layout. For more information, refer to Section D.2.4, "Identifying the Stamp Layout".
4. Design the Stamp. For more information, refer to Section D.2.5, "Designing a Stamp Layout".
5. Additional configurations for the Stamp. For more information, refer to Section D.2.6, "Configuring Stamp Templates".
6. Configure the Stamp with your integration. For more information, refer to Section D.2.7, "Configuring Stamp with Your Integration".

D.2.1 Choosing a Background Image

To design a Stamp, you must first choose an image that best fits your stamping needs. For example, you may choose an image that indicates stamp approval. Additionally, you should place attributes on the Stamp that indicate approval status, approver name, department, approval date, and so on.

AutoVue supports adding Windows Metafile (WMF), Enhanced Metafile (EMF), and Bitmap (BMP) files as background images for your Stamp. It is recommended to use EMF as the background image for Stamps. WMF and BMP are currently supported for backward compatibility.

Recommendation: It is recommended to use EMF as the Stamp image for the following reasons:

- Supports transparency
- Supports resizing of Stamp text when the Stamp image is resized
For information on how to create EMF, refer to https://support.us.oracle.com/oip/faces/secure/km/DocumentDisplay.jspx?id=1404486.1.

D.2.2 Determining Stamp Attributes and Permissions

You must determine what attributes to display on your Stamp:

■ Do you want to display a value that is from the backend system (DMS)?
■ Do you want to display a local attribute (that is, an attribute determined by the user's local machine) such as $date and $user?

You must also determine the permissions you want set for the attributes:

■ If you want to read values from the DMS, you must create an attribute with the same name as the DMS attribute.
■ If you want to assign local values, you may assign the attribute a value that can be one of the following:
  – $date: current date
  – $user: user name
■ Do you want users to be able to modify attributes?
■ Do you want to transfer these modifications to the DMS?

You can specify specific permissions for each attribute.

Note that an attribute may also be a drop-down list (single-value list, constrained list, non-constrained list, or a multi-valued list that maps to a DMS attribute that is a drop-down list). Users are presented with a list in the Value from DMS column of the DMS Attributes dialog:

■ Single-Value List: Can only select one value from the list.
■ Constrained List: Can only select values from the list.
■ Non-Constrained List: Can add values that are not in the list.
■ Multi-Valued List: Can select multiple values from the list. AutoVue uses a semi-colon (;) as a separator for multiple values.

Note: The local attributes cannot have multiple values. Hence, a drop-down list is not available for local attributes. The drop-down list is only available for multi-value DMS attributes.

The following table lists the available attribute permissions and their behavior.
### Table D–1  Attribute Permissions

<table>
<thead>
<tr>
<th>Attribute Permissions</th>
<th>Description</th>
<th>Read from DMS</th>
<th>Reset Value to DMS</th>
<th>Assign Local Value ($date, $user)</th>
<th>Modify value in edit dialog</th>
<th>Write value back to DMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReadOnce</td>
<td>The attribute value is read only once from the DMS when the Stamp is the first created. The attribute value will not be updated later.</td>
<td>Yes¹</td>
<td>No</td>
<td>Yes²</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Read</td>
<td>The attribute queries its value from the DMS every time the Stamp is opened.</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes²</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Edit</td>
<td>The user is allowed to modify the attribute value in the Stamp.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
<td>N/A</td>
</tr>
<tr>
<td>Write</td>
<td>Allows the user to write the attribute value back to the value of the attribute in the DMS.</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
</tr>
</tbody>
</table>

¹ Only reads DMS at creation.
² If defined, retrieves the default value (for example, $user or $date) when the DMS cannot be read (a no read permission) or when there is a read permission but the DMS returns an empty value or NULL.

The following table illustrates how the attribute permissions can be combined.

### Table D–2  Combination of Attribute Permissions

<table>
<thead>
<tr>
<th>Combination</th>
<th>Read from DMS at creation</th>
<th>Read from DMS every time</th>
<th>Reset Value to DMS</th>
<th>Assign Local Value ($date, $user)</th>
<th>Modify value in edit dialog</th>
<th>Write value back to DMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ReadOnce</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes¹</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>ReadOnce / Edit</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes¹</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>ReadOnce / Write</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes¹</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>ReadOnce / Edit / Write</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes¹</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Read</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes¹</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Read / Edit</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes¹</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Read / Write</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes¹</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Read / Edit / Write</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes¹</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Edit</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes¹</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Edit/Write</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

¹ If defined, retrieves the default value (for example, $user or $date) when the DMS cannot be read (a no read permission) or when there is a read permission but the DMS returns an empty value or NULL.
D.2.3 Interacting with Stamps

After a Stamp has been created, users can double-click the entity to open the DMS Attributes dialog. The dialog lists all of the values included in the Stamp as well as the values from DMS for the configured attributes.

From the DMS Attributes dialog, users can do the following:

- Modify Stamp values (if the attribute has Edit permission)
- Reset the attribute to the current value from DMS
- Write attribute values to the DMS

Note the following about the Value from DMS column:

- If an attribute has ReadOnce permission, then the Value from DMS column displays the value read from the DMS only when the stamp is created. Once the markup is saved, it does not populate the Value from DMS column.
- If an attribute has Read permission, then the Value from DMS column displays the current value of the attribute in the DMS.
- If an attribute does not have Read or ReadOnce permission, then the Value from DMS column does not display a DMS value.

D.2.4 Identifying the Stamp Layout

After the background image and Stamp attributes and permissions are determined, you must identify the Stamp layout. The following points to consider when identifying the layout:

- Within the Stamp, it is possible to position attributes at various locations with respect to the background image.
- Text can be aligned within a box (left, center, right, top, bottom, and so on).
- You can define the bounding size of the text box. When text runs beyond an attribute box, you have the option to either decrease the text font size in order to keep it within the box or to ignore the bounding box.
- You can specify whether or not the stamps can be resized by users.
- You can specify whether or not the stamp should be a fixed size.
- You can hide certain attributes on the stamp and display them only in the Stamp edit dialog.

D.2.5 Designing a Stamp Layout

The following section describe how to design the look-and-feel of the Stamp template and how to set the Stamp attributes.

D.2.5.1 Designing the Stamp

To design an Stamp template, do the following:

1. Go to the <AutoVue Install Root>\bin directory and run designer.bat.

   The Stamp Designer appears.
2. Click symbol to add a Stamp name.
   The Input dialog appears.
   
   **Note:** You can delete a Stamp by clicking the minus symbol \( - \).

3. Enter a stamp name and then click **OK**.

4. In the Image Field, click \( \) to select an image file.
   The Open dialog appears.

5. Browse to the WMF/EMF/BMP file that you want to set as your Stamp background and then click **Open**. The image appears in the Preview section.
   
   **Note:** Make sure that the image is a valid WMF, EMF, or BMP file.

6. You can set the size of the image by selecting the **Size** check box, entering the XY dimensions, and then specifying the units.
7. Selecting the **Resizable** check box allows the Stamp to be resizable.

8. Selecting the **Traditional** check box converts the Stamp to a static stamp entity when it is created. That is, attribute values of the Stamp cannot be modified once created.

9. Specify the default font that you want to use for the Stamp. To do so, click **Font** and specify the font details. This is the font that is used when you create a Stamp. The font changes when you resize the Stamp or when you change the font from the Markup toolbar.

**Note:** When a Stamp is created in the AutoVue workspace, AutoVue scales the font up/down depending on whether the Stamp is drawn larger/smaller in relation to the underlying image.

The end-user must modify the font from the Markup toolbar as necessary.

**Note:** You must ensure that the font used for the Stamp Designer is available on all the machines that invoke the AutoVue client. If the font specified in the designer is not available, then the AutoVue client uses another available font for the Stamp. This may cause differences in display between the Stamp Designer and the client and potentially cause differences in display between different clients.

The following Section D.2.5.2, “Setting the Stamp Attributes”, describes how to set the Stamp attributes from the Stamp Designer.

**D.2.5.2 Setting the Stamp Attributes**

1. In the Attributes section of the Stamp Designer, click to add the attributes that you want to be displayed on the Stamp.

2. You can add an attribute that is mapped to a DMS attribute or you can add a custom attribute that does not correspond to a DMS attribute. When mapping to a DMS attribute, you must specify the name of the attribute as it appears in the DMS system.

3. The following check boxes allow you to specify certain restrictions to the selected attribute:
   - **Hidden**: The attribute is not displayed in Stamp. However, it is accessible from the Stamp Edit dialog.
   - **ReadOnce**: The attribute value is read only once from the DMS when the Stamp is the first created. The attribute value will not be updated later.
   - **Read**: The attribute queries its value from the DMS every time the Stamp is opened.
   - **Edit**: The user is allowed to modify the attribute value in the Stamp.
Creating a Stamp Template

- **Write**: Updates the attribute value back to the value of the attribute in the DMS.
- **Text Size**: Set the text box size for the attribute text. All text that appears in the box is resized to fit the specified dimensions. If the text box size is not specified, a default text size is used.

4. Set the position of text box by specify the X and Y coordinates in regards to the dimension of the background image in the Position fields. For example, setting the X and Y values to [0.5,0.5] places the top-left corner of the text box exactly at the center location of the background image. Note that values for X and Y can be decimal value [0.0-1.0].

5. When the Text Size check box is selected, you can set the size of the text box with regards to the dimensions of the background image. For example, setting the X and Y values to [1,1] creates a text box the size of the background image. Note that values for X and Y can be a decimal value [0.0-1.0]

6. To map an attribute to the pre-defined variables, `$user` or `$date`, select the value from the Default value list. If the DMS attribute does not have a value, these variables may be used to set the default value for the attribute.

   - **$user** is the name of the current user (either the DMS user name or the operating system user name if AutoVue is not integrated with a DMS).
   - **$date** is the system date. The date format can be changed by the setting the Format[n] INI option. Refer to Section D.2.6, “Configuring Stamp Templates” for more information.

7. From the Alignment list, you can specify the location of text inside the text box.

8. To preview how attribute text will appear on the Stamp, you can enter text in the Sample Text field.

9. In the Preview section, select and place each attribute as required in the Stamp. Resize the attributes as necessary.

### D.2.6 Configuring Stamp Templates

When Stamp templates are designed, the Stamp INI file, dmstamps.ini, is updated with information regarding the Stamp. The default location of this INI file is `<AutoVue Install Root>\bin`.

The Table D–3, ”INI Options” contains a description of the available INI options in dmstamps.ini.

Note that all of these options, with the exception of Format[n] and Isotropic, may be set from the Stamp Designer. As a result, administrators may not need to update the INI options directly.

---

**Note**: Options in the [Stamps] section of the file apply to all Stamps.
### Table D–3 INI Options

<table>
<thead>
<tr>
<th>INI Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NumStamps=&lt;integer&gt;</td>
<td>This option indicates the total number of Stamps that have been designed.</td>
</tr>
<tr>
<td></td>
<td><strong>Important</strong>: Do not update this option value.</td>
</tr>
<tr>
<td></td>
<td>Example:</td>
</tr>
<tr>
<td></td>
<td>NumStamps=12</td>
</tr>
<tr>
<td></td>
<td>Indicates that there are 12 Stamps that have been configured.</td>
</tr>
<tr>
<td>AttributesNames=attribute1;attribute2;...</td>
<td>This option lists the attribute names that should appear in the Stamp Designer list. Separate multiple attributes using a semi-colon (;). Ensure that the last attribute has a semi-colon after it.</td>
</tr>
<tr>
<td></td>
<td>Example:</td>
</tr>
<tr>
<td></td>
<td>AttributesNames=approved_by;date_issued;dm_approval_status;</td>
</tr>
</tbody>
</table>

Each Stamp must have a [Stamp[n]] section in the INI file, where [n] is an integer starting from 0 and is an index for each defined Stamp. For example, when two Stamps are designed, there should be two sections [Stamp0] and [Stamp1] in the dmstamps.ini file.

Each section contains information pertaining to the Stamp represented by the section: [Stamp[n]]

### Table D–4 INI Options

<table>
<thead>
<tr>
<th>INI Options</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name=<strong>name of Stamp</strong></td>
<td>Specifies the name of the Stamp.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Example:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Name=ReviewerStamp</td>
<td></td>
</tr>
<tr>
<td>ImageFile=<strong>full path to image</strong></td>
<td>Sets the full path to the background image for the Stamp.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Example:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ImageFile=C:\stamps\reviewbg.wmf</td>
<td></td>
</tr>
<tr>
<td>ReadOnly=[0</td>
<td>1]</td>
<td>Once the stamp is created and the markup is saved, the stamp can no longer be edited. Set to 1 so that the Stamp is read-only.</td>
</tr>
<tr>
<td></td>
<td><strong>Example:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ReadOnly=1</td>
<td>0</td>
</tr>
<tr>
<td>NumAttributes=&lt;integer&gt;</td>
<td>Indicates the number of attributes associated with this Stamp</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Example:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NumAttributes=3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This indicates that the Stamp has 3 attributes.</td>
<td></td>
</tr>
</tbody>
</table>
### Table D–4  (Cont.) INI Options

<table>
<thead>
<tr>
<th>INI Options</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
</table>
| Font                 | Specifies the default font for the Stamp. This is the font that is used by the Stamp at creation time. The end-user can also change the font and font size when creating a Stamp.  
  **Example:**  
  Font=Arial,16,400 |
| Isotropic            | When Isotropic is set to 1, the Stamp resizes uniformly in all directions.  
  **Example:**  
  Isotropic=0          | 1                   |
| Attribute[n]         | Specifies the name of the [n]th attribute  
  **Example:**  
  Attribute1=dm_approval_status |
| Value[n]             | Specifies Value of the [n]th attribute  
  **Example:**  
  Value1=${user} ${date} |
| Format[n]            | If value[n] is $date, specify the format for the date.  
  **Example:**  
  Format1=EEE, MMM d, ´yy  
  Any date format specified by java.text.SimpleDateFormat can be specified:  
  [http://docs.oracle.com/javase/1.4.2/docs/api/java/text/SimpleDateFormat.html](http://docs.oracle.com/javase/1.4.2/docs/api/java/text/SimpleDateFormat.html) |
| Hidden[n]            | Specifies whether or not Attribute[n] is hidden.  
  If set to 1, Attribute[n] is a hidden attribute  
  **Example:**  
  Hidden=0 |
| permission[n]        | Specifies the attribute permissions.  
  **Example:**  
  Permission1=Read,Edit,Write |
| PosX[n] PosY[n]      | Specifies the position of Attribute[n] relative to the background image. The top-left corner is 0,0.  
  **Example:**  
  PosX1=0.621622  
  PosY1=0.029661 |
Integrating Stamp with Your Integration

The default location of the Stamp INI file, dmstamps.ini, is located in the `<AutoVue Install Root>\bin` directory and must be made available to your integration/VueLink. Additionally, when Stamp templates are created, they refer to paths for the background images. These images must be made available to the VueLink. Perform the following steps to ensure that the VueLink can access Stamp templates:

1. Identify where you want to store dmstamps.ini. This INI file can be placed in a folder path that is accessible to the VueLink or can be checked into the DMS.

2. If you want to check-in dmstamps.ini and the Stamp background images into your DMS, do the following:
   a. Ensure that all users have read permissions to the folder in the repository where you will check-in the INI and the Stamp background images.
   b. Check-in dmstamps.ini into the repository.
   c. Configure your VueLink so that it is aware of where dmstamps.ini is located. Typically, you can do this by updating the web.xml that contains the VueLink

---

Table D–4 (Cont.) INI Options

<table>
<thead>
<tr>
<th>INI Options</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size[n]=Width, Height, Unit, Resizable</td>
<td>Specifies the width, height, unit and resizability of the Stamp.</td>
<td></td>
</tr>
</tbody>
</table>

**Parameters:**

- **Width**: Set the width.
- **Height**: Set the height.
- **Units**: Supported units are as follows:
  - 1 - Inch.
  - 2 - Millimeters
  - 4 - Twips
  - 5 - Centimeter
  - 6 - Decimeter
  - 7 - Meter
  - 8 - Kilometer
  - 9 - Feet
  - 10 - Yard
  - 11 - Mile
  - 12 - Thousandth of an inch
  - 13 - Ten Thousandth of an inch
  - 14 - Micron
  - 15 - Micro inch

- **Resizable**: Set whether the Stamp can be resizable. (0=no, 1=yes)

**Example:**

The following setting for a non-resizable Stamp with a width=1, height=3, and the units set to centimeters.

```
Size1=1, 3, 5, 0
```

---

D.2.7 Configuring Stamp with Your Integration

The default location of the Stamp INI file, dmstamps.ini, is located in the `<AutoVue Install Root>\bin` directory and must be made available to your integration/VueLink. Additionally, when Stamp templates are created, they refer to paths for the background images. These images must be made available to the VueLink. Perform the following steps to ensure that the VueLink can access Stamp templates:

1. Identify where you want to store dmstamps.ini. This INI file can be placed in a folder path that is accessible to the VueLink or can be checked into the DMS.

2. If you want to check-in dmstamps.ini and the Stamp background images into your DMS, do the following:
   a. Ensure that all users have read permissions to the folder in the repository where you will check-in the INI and the Stamp background images.
   b. Check-in dmstamps.ini into the repository.
   c. Configure your VueLink so that it is aware of where dmstamps.ini is located. Typically, you can do this by updating the web.xml that contains the VueLink

---
configuration. Edit web.xml in a text editor such as Notepad. Update the value for CSI_IntellistampDefLocation to point to the full path to dmstamps.ini.

Example: CSI_IntelliStampDefLocation=/System/dmstamps.ini

d. Check-in all the WMFs into the repository.

e. Edit dmstamps.ini and update the ImageFile option value for all Stamps templates to point to the Stamp background images in the repository.

Example: ImageFile=/System/StampImage1.wmf

f. Repeat steps c through e for all repositories. Ensure that dmstamps.ini and the WMFs are available at the same path in all the repositories.

3. To have the Stamp templates in Windows folder paths, follow these steps:

a. Copy dmstamps.ini to a folder path accessible to the VueLink.

b. Update web.xml to point to the path to the dmstamps.ini file. Edit web.xml in a text editor such as Notepad. Update the value for CSI_IntellistampDefLocation to point to the full path to dmstamps.ini.

Example: CSI_IntelliStampDefLocation=C:/stamps/dmstamps.ini

Note: You must use forward slash (/) for the path to the INI file.

c. Copy the background images to the same location as the INI file.

d. Edit dmstamps.ini and update the path to the Stamp background images to reflect the location where you placed them.

Example: ImageFile=C:\stamps\StampImage1.wmf

e. Repeat steps c through e for all VueLink instances. It is not recommended to use a shared network location for dmstamps.ini and/or the WMFs.

D.3 Verifying Your Integration

- Verify that you can load your DMS files in AutoVue. Verify other functionality that is supported by your integration to ensure that your integration will work with the latest release of AutoVue.
- If you are using Stamps, verify that users can create Stamps. Verify that the attributes in the Stamp reflect backend system attributes.
- If you are working with multiple DMSes and you have vuelinks.xml configured, launch AutoVue applet and verify that you can browse or search through the DMSes.
Configuring for Real-Time Collaboration

This chapter describes how to configure AutoVue for Real-Time Collaboration. All configurations are performed in jvueserver.properties. For a complete list of AutoVue server configuration options including collaboration options, refer to Chapter 13, "AutoVue Server Configuration Options".

E.1 Default Collaboration Configuration

When configuring AutoVue for a real-time collaboration deployment, you must set the following basic parameters in jvueserver.properties.

- `jvueserver.collaboration.enable`
  This parameter must be set to TRUE to enable collaboration mode on the AutoVue server. By default, this parameter is set to TRUE.

- `jvueserver.collaboration.id.min`
  When running an AutoVue server farm, you can specify the minimum ID to use for collaboration sessions and users by this AutoVue server. The second server in the farm should have a minimum ID of at least the first server’s minimum ID + the first server’s ID range.

- `jvueserver.collaboration.id.range`
  Specify the range of IDs given to collaboration and users by this AutoVue server.

Refer to Section 13.8, "Collaboration Options" for more information.

E.2 Distributed Geographies Configuration

Configuring for distributed geographies consists of the same steps as described in Section E.1, "Default Collaboration Configuration".

E.3 Distributed DMS Configuration

Configuring for distributed DMS consists of the same steps as described in Section E.1, "Default Collaboration Configuration", except that there must also be an internal virtual private network (VPN) setup between the AutoVue servers. The VPN is required so that the AutoVue servers in distributed geographies are able to communicate securely.
Starting the AutoVue Server

This chapter discusses how to start and stop the AutoVue server on Windows and Linux.

**Note:** If you have a firewall enabled, a prompt may appear asking you to block or unblock the AutoVue server executable. Select **Unblock**.

### F.1 Starting AutoVue on Windows

Following is the procedure to start AutoVue on Windows:

1. Start the AutoVue server by clicking **Start AutoVue Server** in the Oracle AutoVue Program Manager group.

   By default, when the server is started, the console is displayed and the server appears in the system tray.

   When you start the server as a service, you may not see the server console. To display the console, run the following command from the `<AutoVue Install Root>in` directory:

   ```
jvueserver_debug -u
   ```

   **Note:** The AutoVue server starts up with a default ProcessPoolSize of 4. To modify the ProcessPoolSize, set the `jvueserver.processPoolSize` parameter in `jvueserver.properties`. Refer to Chapter 13, "AutoVue Server Configuration Options" for more information.

2. Start the application server on which VueServlet is deployed.

   **Note:** If you are using Jetty, you must start it up by running the **Start VueServlet on Jetty** shortcut in the AutoVue programs group.

3. Make sure to start the Web server if you are using it for the AutoVue client components.
F.2 Starting AutoVue on Linux

Following is the procedure to start AutoVue on Linux:

1. Start the AutoVue server by entering the following:
   
   ```
   ./jvueserver
   ```
   
   This starts up the server console as long as the `DISPLAY` environment variable is properly set.

   When you start the server as a service, or when the `DISPLAY` environment variable is not set properly, you will not see the server console. To display the console, run the following command from the `<AutoVue Install Root>/bin` directory:
   
   ```
   ./jvueserver_debug -u
   ```

   Note: The AutoVue server starts up with a default ProcessPoolSize of 4. To modify the ProcessPoolSize, set the `jvueserver.processPoolSize` parameter in `jvueserver.properties`. Refer to Chapter 13, "AutoVue Server Configuration Options" for more information.

2. Start the application server on which VueServlet is deployed.

   Note: If you are using Jetty, you must start it up by running `startJetty` from the `<AutoVue Install Root>/bin/jetty/bin` directory.

3. Make sure to start the Web server, if you are using it, for AutoVue client components.

   The startup script for the AutoVue server on Linux OSes also starts up the Xvfb server. Xvfb is an X11 virtual framebuffer that helps the AutoVue server render files. The Xvfb server runs on port 909 by default. To modify this port and configure other Xvfb properties, open `jvueserver.properties` (located in the `<AutoVue Install Root>/bin` directory) and locate property names containing "xvfb".

   If you want the AutoVue server to continue running after you close the terminal window, or after you log out of the Linux machine, you must exit the shell (console window) used to start the AutoVue server before logging out of Linux. The server continues running even after you log off. To exit the shell, you must enter `exit` (do not exit by clicking the Close button).

   Note: For information on starting AutoVue as a service, refer to Section F.4, "Running the AutoVue Server as a Service".
F.3 Shutting Down the AutoVue Server

To shut down the AutoVue server, click Shutdown on the AutoVue server console. You can also shut down the AutoVue server through the command-line interface by entering the following command:

jvueserver_debug -u -shutdown

If you are running the AutoVue server as a service, you must shut it down as you would any service.

F.4 Running the AutoVue Server as a Service

When running the AutoVue server as a service, you must run it as a named user and not as Local System Account, as the local system account has more privileges than a named account.

F.4.1 On Windows OSes

AutoVue server can be run as a Windows Service. The advantage of this is that it continues to run even after you log off of Windows. Before running the AutoVue service, first verify that it runs properly in "non-service" mode (for example, run by clicking the Start AutoVue Server button in the Start menu).

To install the service, go to the \bin folder of the directory where you installed the AutoVue server and enter the following:

jvueserverX.exe -install<user information>

where <user information> is in the form "domain\username password". This ensures that the AutoVue Server service runs as a named user instead of the local system account.

Note that the user account information entered must be registered in the Log on as a service local security policy. If the user information is not there, the Oracle AutoVue service does not start. To check or edit the security policy, perform the following steps:

1. Open the Windows Control Panel.
2. Double-click Administrative Tools.
4. Expand Local Policies and then select User Rights Assignment.
5. Double-click Log on as service. The Log on as a service Properties window opens.
6. Verify that the user account is listed under the Local Security Setting tab. If not, click Add User or Group to add the user account information.

To remove the service, go to the <AutoVue Install Root>\bin directory and enter the following: Starting and Stopping the Service

jvueserverX.exe -remove

F.4.1.1 Starting and Stopping the Service

1. In the Control Panel select Administrative Tools > Services.
2. Select the **Oracle AutoVue Server** service.

3. Click **Startup**.

4. Select whether you want the service started automatically on re-boot or manually. The default is **Manual**.

5. If you select **Manual**, you can start the service by doing one of the following:
   - Click **Start** in the Services dialog
     
     **or**

   - Use the sc.exe utility.
     
     For example: SC start "Oracle AutoVue Server" 
     
     **or**

   - Use the NET program.
     
     For example: NET start "Oracle AutoVue Server" 

To shutdown the service, select the **Oracle AutoVue Server** service in the Services dialog and click **Shutdown**.

**F.4.2 On Linux OSes**

Oracle provides an **RC-Script** to manage the AutoVue server on Linux. The AutoVue server can be configured to startup automatically when the machine is restarted by following these steps:

1. Edit file `<AutoVue Install Root>/etc/jvueserver_rc` and locate the following lines:

   ```
   AUTOVUEDIR=$USER_INSTALL_DIR$
   AUTOVUEUSER=__JVUEUSER__
   ```

2. Replace `$USER_INSTALL_DIR$` with the path to AutoVue installation and `__JVUEUSER__` with the name of the user that will be running the AutoVue server.

3. Rename `jvueserver_rc` to `autovue`.

4. Login as a root and copy `autovue` to `/etc/init.d` folder.

5. As root, go to the `/etc/init.d` folder and add AutoVue as a service:

   ```
   chkconfig --add autovue
   ```

6. Configure `autovue` to startup automatically:

   ```
   chkconfig autovue on
   ```

AutoVue now starts up automatically when the machine starts up.

To start the AutoVue service, manually, run

```
service autovue start
```

To stop the AutoVue service manually, run

```
service autovue stop
```

To remove the AutoVue service, run

```
chkconfig -del AutoVue
```
Monitoring the AutoVue Server

You can monitor the AutoVue server from the AutoVue Server Console. The console displays information on the number of clients connected to AutoVue, the document opened by each connection, the server that a user session is connected to. Additional information such as AutoVue usage history, server diagnostics are also available. The following sections describe how to go about monitoring your AutoVue server.

G.1 AutoVue Server Console

The AutoVue server console displays the user connection state (process, username, client IP and number of open documents) and the process pool state. Upon starting the server, the console launches and the connection and process pool states are queried.

![AutoVue Server Console Diagram](image)

- Click **Refresh** to update the console display to regenerate server information.
- To stop running the AutoVue server and all attached processes, click **Shutdown**.
- The **Diagnostics** feature of the AutoVue server console generates a report, `JVueServerDiagnostics.out`, to the `<AutoVue Install Root>in\logs` directory and contains pertinent troubleshooting information. An Oracle Global Customer
Support representative may require you to generate the report to identify problems you may have with your deployment of AutoVue. Any errors that occur during initialization are listed under Output. If you require more information regarding the diagnostics feature, contact an Oracle Global Customer Support representative.

- The Processes section of the console lists the servers and their status:

<table>
<thead>
<tr>
<th>Pool State</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Process is not running.</td>
</tr>
<tr>
<td>Green</td>
<td>Process is running.</td>
</tr>
<tr>
<td>Yellow</td>
<td>Process is initializing.</td>
</tr>
<tr>
<td>Grey</td>
<td>Process is disabled by the user (applies only to servlet process).</td>
</tr>
<tr>
<td>Black</td>
<td>Process is not responding.</td>
</tr>
</tbody>
</table>

- **P** indicates the session server. You can view AutoVue server information (build number and server load) by clicking **P** button.

- **S** indicates the servlet engine. This only represents the Jetty servlet engine that ships with AutoVue and is only relevant if customer decides to use Jetty as their application server to host the VueServlet and/or client components.

- **1, 2, 3** … represent document servers (DocServers). You can restart a DocServer by clicking on the button and selecting **Restart**. The number of document servers is set in the jvueserver.xnt.processPoolSize parameter in jvueserver.properties. For more information, refer to Section 13.4, ”Process Pool Size Option”.

- **M** represents an additional DocServer reserved for generating streaming files (only visible when jvueserver.metacache.process is set to **TRUE**, which is the default value in jvueserver.properties). You can restart this server by clicking on the button and selecting **Restart**.

- Session information is displayed on the Console:
  - The names of the users connecting to AutoVue.
  - The number of documents opened by each user.
  - The AutoVue server that the user session is on.

- Double-click on the session listed in the Console to view the following information regarding the session:
  - Which document(s) are currently opened by the user.
  - Which DocServer(s) are loading the user’s documents.
  - Which AutoVue server(s) are loading the user’s documents.

## G.2 Usage Monitoring

AutoVue has usage monitoring to enable system administrators to track how many files of a format group are opened at any given time. For example, you can use this feature to track the number of licenses for the different product variations of a single
deployment of AutoVue. Usage data is written to licusage.out file in the <AutoVue Install Root>\bin\logs directory.

AutoVue ships a utility to parse the usage log and present meaningful information to the system administrator.

The following is the format of the command line to run this utility:

```
usagestat [-c] <path to the input file>
```

where `usagestat` is the command to run this utility.

`[-c]` is an optional parameter and indicates that the utility should run in continuous mode (that is, the output displays continuously).

`<path to the input file>` specifies the full path to the input file (for example, the log file on which the statistics is based). This argument is mandatory.

The following is an example command line that runs the utility in a standard mode.

```
usagestat c:\AutoVue\bin\logs\LicUsage.out
```

### G.3 Logging for the AutoVue Server

The configuration file log4j.xml (located in the <AutoVue Install Root>\bin directory) lets you configure the logging for the AutoVue server. By default, the logs are saved to the <AutoVue Install Root>\bin\logs directory. The configuration file defines several appenders (Log4j output destinations) and output layouts. Review the logging information in log4j.xml to troubleshoot any issues you experience with the AutoVue server. If you are unable to resolve the issue yourself, provide the logging information in log4j.xml to an Oracle Global Customer Support representative.

To set the logging level and time interval for detecting log4j configuration change, you must set log4j parameters in jvueserver.properties. For more information, refer to Section 13.10, "log4j and Diagnostics Options".

The following sections provide information on the available appenders, output layouts, and logger information.

#### G.3.1 Log4j Appenders

The following table lists the appenders that are defined in log4j.xml. However, you may use any other appender as you see fit.

<table>
<thead>
<tr>
<th>Appender</th>
<th>Description</th>
<th>Parameters</th>
</tr>
</thead>
</table>
  **Append**: If set to TRUE, the logs are appended to the file after the process restarts. If set to FALSE, the old files are discarded after the process restarts. |
Table G–2 (Cont.) Log4j Appenders

<table>
<thead>
<tr>
<th>Appender</th>
<th>Description</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling File Appender</td>
<td>Backs up (rolls) previous files when the maximum files size is reached.</td>
<td>MaxFileSize: The maximum size that the output file is allowed to reach before being rolled over to the backup files.</td>
</tr>
<tr>
<td></td>
<td>Note: This appender is enabled by default.</td>
<td>MaxBackupIndex: The maximum number of backup files to keep.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>${jvueserver.processIndex}: The AutoVue server-specific parameter used to log AutoVue’s processes into a separate file.</td>
</tr>
<tr>
<td>Daily Rolling File Appender</td>
<td>Defines the frequency for rolling over a file.</td>
<td>DatePattern: Determines the roll-over schedule. For format details, refer to log4j documentation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Console Appender</td>
<td>Used for logging the program console window.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMTP Appender</td>
<td>Send an e-mail when a specific logging event occurs (such as errors or fatal errors).</td>
<td>BufferSize: The maximum number of logging events to collect in a cyclic buffer.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SMTPHost: The host name of the SMTP server that sends the e-mail.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: E-mail address of the sender.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>To: A comma-separated list of the recipients’ e-mail addresses.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subject: The subject of the e-mail.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NT Event Log Appender</td>
<td>Appends to the NT event log system.</td>
<td>Source: The source of the events.</td>
</tr>
<tr>
<td></td>
<td>Note: This appender is only for Windows OSes.</td>
<td></td>
</tr>
</tbody>
</table>

G.3.1.1 Output Layout

The Table G–3, "Output Layout" defines the available output layouts in the log4j.xml configuration file.

**Note:** The output XML file can be viewed in a GUI-based log viewer such as Apache Chainsaw.
Table G–3 Output Layout

<table>
<thead>
<tr>
<th>Output Layout</th>
<th>Description</th>
<th>Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>XML Layout (org.apache.log4j.xml.XMLElement)</td>
<td>When this layout is enabled, log4j outputs the logs in XML format.</td>
<td>Properties: Set this value to TRUE to force log4j to record Mapped Diagnostic Complex (MDC) values. AutoVue-specific MDC values: User: Outputs source username with logging event. Document: Outputs current document name with logging event.</td>
</tr>
<tr>
<td>Pattern Layout (com.cimmetry.jvueserver.logger.JVuePatternLayout)</td>
<td>When this layout is enabled, log4j outputs the logs in textual format allowing for flexible string format configuration.</td>
<td>ConversionPattern: The string that controls formatting. For the list of formatting characters, refer to log4j documentation. AutoVue-specific formatting characters in conversion pattern: %s: Outputs current document server index or &quot;0&quot; in the case of a session server.</td>
</tr>
</tbody>
</table>

Note: To enable logging output to the console, you must uncomment the JVUE-CONS line in the log4j.xml configuration file as shown in the following figure:

```xml
<!-- Root logger -->
<!-- Uncomment additional appender-ref to output to different/multiple outputs -->
<root>
  <level value="debug"/>
  <appender-ref ref="JVUE-ROLL"/>
  <!-- <appender-ref ref="JVUE-FILE"/> -->
  <!-- <appender-ref ref="JVUE-DAILY"/> -->
  <appender-ref ref="JVUE-CONS"/>
  <!-- <appender-ref ref="JVUE-SMTP"/> -->
  <!-- <appender-ref ref="JVUE-EVENT"/> -->
</root>
```

G.3.2 Logger Information

The following descriptions explain what kind of logger information will be seen for each class specified:

Table G–4 Logger Information

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>com.cimmetry.jvueserver.management</td>
<td>Displays information relating the start-up of the AutoVue server, communications between the AutoVue server clusters and connections from the console, and other server management-related reports.</td>
</tr>
<tr>
<td>com.cimmetry.jvueserver.licusage</td>
<td>Displays information related to the usage of the AutoVue server (opening and closing sessions and documents).</td>
</tr>
<tr>
<td>com.cimmetry.jvueserver.configuration</td>
<td>Displays reports on loading errors of the server's configuration.</td>
</tr>
</tbody>
</table>
### Table G–5  Information Levels

<table>
<thead>
<tr>
<th>Information Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>Turn off all logging.</td>
</tr>
<tr>
<td>FATAL</td>
<td>Logs severe events that could cause the application to abort.</td>
</tr>
<tr>
<td>ERROR</td>
<td>Logs error events that might still allow the application to continue running.</td>
</tr>
<tr>
<td>WARN</td>
<td>Logs potentially harmful situations. This is the default logging level.</td>
</tr>
<tr>
<td>INFO</td>
<td>Logs informational messages that highlight the progress of the application at coarse-grained level.</td>
</tr>
<tr>
<td>DEBUG</td>
<td>Logs fine-grained informational events that are most useful to debug an application.</td>
</tr>
</tbody>
</table>
Note: If you need more specific error messages, you can turn on verbosity for specific classes.

For Example:

```xml
<logger name="com.cimmetry.jvueserver.management">
<level value="info"/>
</logger>
<logger name="com.cimmetry.jvueserver.session">
<level value="warn"/>
</logger>
<logger name="com.cimmetry.jvueserver.document">
<level value="error"/>
</logger>
<logger name="com.cimmetry.jvueserver.dms">
<level value="fatal"/>
</logger>
```

These four lines mean that informational messages will be logged for the management class, warning messages will display for the session class, error messages pertaining to document requests will display for the document class. For the com.cimmetry.jvueserver.dms package, fatal messages will be reported.

Refer to the Apache Web site and log4j documentation for more information.
AutoVue allows you to customize the client applet and graphical user interface (GUI). For example, you can change the locale for the AutoVue client or you can customize the AutoVue user interface by modifying the menu and the toolbars.

**Note:** AutoVue client components (jvue.jar, jogl.jar and gluegen-rt.jar) include the Trusted-Library manifest attribute to satisfy the changes made in Java 7 Update 21 (7u21). As a result, when deploying on Java 7u21 or later, you must set the Trusted-Library manifest attribute in your customized JAR files.

The following sections describe in detail how to configure AutoVue to your needs.

### H.1 AutoVue Applet Parameters

AutoVue allows you to customize the client applet. For example, with the `EMBEDDED` parameter you can embed the applet into a Web page, or with the `DMS` parameter you can specify the DMS servlet that the AutoVue server uses to interface with a DMS.

The Table H–1, "Customizable Applet Parameters" describes the customizable parameters in the AutoVue applet.

Syntax: `<PARAM NAME="name" VALUE="value"` >

Refer to Section H.1.2.1, "Basic Applet" for a sample applet definition.

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLOWEDFORMAT</td>
<td>[Office</td>
<td>2D</td>
</tr>
</tbody>
</table>
The parameters and values described here are set automatically when initiating and joining collaboration sessions from the AutoVue client.

**Note:** These applet parameters are read only after a file is set (SETFILE operation).

### INIT:
- **CSI_ClbSessionID=987654321**
  - DMS collaboration session ID.
- **CSI_ClbDMS=dmsIndex**
  - DMS index.
- **CSI_ClbSessionData=123456789**
  - DMS collaboration session data.
- **CSI_ClbSessionSubject=Subject**
  - Collaboration session subject.
- **CSI_ClbSessionType=public|private**
  - Collaboration session type.
- **CSI_ClbUsers=user1,user2,...**
  - Invited users.

### JOIN:
- **CSI_ClbSessionID=987654321**
  - DMS collaboration session ID.
- **CSI_ClbDMS=dmsIndex**
  - DMS index.
- **CSI_ClbSessionData=123456789**
  - DMS collaboration session data.

### DMS
- **http://name:port/dmsServlet**
  - Specifies the DMS servlet that the AutoVue server uses to interface with a DMS.

### DMSARGS
- **String**
  - List of DMS arguments passed in as Applet parameters. Specify semicolon separated list of applet parameters. The value will be sent with every request to the DMS.

**Example:**

```xml
<PARAM NAME="DMSARGS" VALUE="ARG1;ARG2">
<PARAM NAME="ARG1" VALUE="value1">
<PARAM NAME="ARG2" VALUE="value2">
```
Table H–1 (Cont.) Customizable Applet Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
</table>
| DMS_PRESERVE_COOKIES  | [TRUE | FALSE | semi-colon separated list of cookies]                                                                                                           | Set this parameter to TRUE if you want AutoVue client to pass on all cookies to the AutoVue server and integration components. Set to FALSE if you do not want AutoVue client to pass on any cookies. Specify a semi-colon separated list of cookies that the AutoVue client should pass on to the AutoVue server and integration components. If your integration relies on a cookie, it is recommended that you set DMS_PRESERVE_COOKIES to the specific cookies needed for the integration instead of setting it to TRUE.  
**Default:** FALSE  
**Example:**  
<PARAM NAME="DMSARGS" VALUE="DMS_PRESERVE_COOKIES">  
<PARAM NAME="DMS_PRESERVE_COOKIES" VALUE="TRUE"> |
| EXTRABUNDLES          | name of the bundle file        | If you are adding custom actions to AutoVue, you can specify the name of the custom resources file using this parameter. Names of the custom resource files are expected to follow: filename_XX.properties, where XX is a two-character representation of a language.  
When specifying the custom resources using this parameter, do not specify the language and the extension.  
For example:  
<PARAM NAME="EXTRABUNDLES" VALUE="CustomActions"> |
| EMBEDDED              | [TRUE | FALSE]                      | Set to TRUE to embed the Applet in the web page.  
**Default value:** TRUE |
| FILENAME              | URL                            | Set it to the file to be opened at the applet's start-up.  
**Note:** This parameter should not be set if opening a file through Javascript.  
**Note:** To open multiple files, specify a semi-colon separated listed of files. The semi colon is a separator on the applet.  
For example:  
upload://dir/.../file  
Will be understood as a client local file to be uploaded on the server to be viewed.  
http://host/file  
Specify a HTTP/HTTPS URL for file open.  
ftp://host/file  
or...  
ftp://<user>:<password>  
@<ftpserver>/file |
### Table H-1 (Cont.) Customizable Applet Parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUIFILE</td>
<td>String</td>
<td>The Graphical User Interface (GUI) definition file used. Using this parameter, Web servers can customize the GUI of the applet according to client credentials. GUI files are stored in subdirectories of the root directory specified in the jvueservers.users.directory parameter of the jvueserver.properties file. The specification can also specify a local file using the &quot;file://&quot; convention. <strong>Note:</strong> If the GUIFILE parameter is not specified, the default AutoVue GUI is used. Default for the jvueserver.users.directory parameter is &lt;bin dir&gt;\Profiles. For more information, refer to Section H.2, &quot;Customizing the GUI&quot;.</td>
</tr>
<tr>
<td>HEAVYWEIGHT</td>
<td>[TRUE</td>
<td>FALSE</td>
</tr>
<tr>
<td>JVUESERVER</td>
<td>Semicolon-separated list.</td>
<td>Specify the list of VueServlet URLs to the AutoVue servers. Separate multiple values with a semi-colon. If multiple servers are listed, the client attempts them in a left-to-right order. <strong>Example:</strong> <a href="http://AutoVueServer:7001/servlet/VueServlet">http://AutoVueServer:7001/servlet/VueServlet</a></td>
</tr>
<tr>
<td>LISTUSERS</td>
<td>[TRUE</td>
<td>FALSE]</td>
</tr>
<tr>
<td>LOCALE</td>
<td>[DE</td>
<td>EN</td>
</tr>
<tr>
<td>LOGFILE</td>
<td>String</td>
<td>Specify full path to the log file for messages. <strong>null</strong> is for standard output. <strong>Example:</strong> C:\temp\clientlog.txt <strong>Default:</strong> null</td>
</tr>
</tbody>
</table>
The following Real-Time Collaboration (RTC) examples show how to set parameters and values for the COLLABORATION applet parameter:

**Example H–1  Hosts Initiate Real-Time Collaboration**

```plaintext
ONINIT  "myFunction();"

If the ONINIT parameter function is supplied, then the AutoVue client will call the specified JavaScript function on the originating HTML page as soon as the applet has loaded and initialized. This allows for an extremely high level of control and interaction between the HTML page and the Applet. Refer to Section H.1.2.2, "Advanced Scripting Functionality" for more information.

ONINITERRO  "myOnErrorFunction();"

Specifies a JavaScript function to invoke if the applet fails to initialize. For example, a JavaScript function can be invoked to send an email to a system administrator when the applet initialization fails.

SESSIONXFONTPAT  [font path]

Specify the font path to use to resolve fonts needed by the base file.

SWINGLAF  [String | NULL]

Specify a look and feel for Swing. For example, `com.java.swing.plaf.motif.MotifLookAndFeel`.

If null, platform's default look and feel will be used, obtained by `UIManager.getSystemLookAndFeelClassName()`.

Default: null

Note: There are several Look and Feels available for Swing. Make sure to test the Look And Feel that you plan to use before you deploy it to production.

On some Linux clients, you may need to set the LAF to the "Metal" look and feel (`javax.swing.plaf.metal.MetalLookAndFeel`) to have the AutoVue client working correctly.

VERBOSE  FALSE | ERROR | INFO | DEBUG | ALL

Set to **ERROR** to output all error messages.
Set to **INFO** to display all informative messages.
Set to **DEBUG** to display all debug messages.
Set to **ALL** to display all messages.
Set to **FALSE** to turn off verbosity after applet is initialized.

Default: **FALSE**

Note that during initialization, messages are logged as **ERROR** level by default.
The following information is needed for hosts to launch AutoVue to initiate a RTC

- **DMS** is the URL for the DMS servlet (main class).
- **MEETINGID** is a number identifying the RTC meeting and holds the same value as CSI_ClbSessionID mentioned below.
- **CSI_ClbSessionData** can hold more information in addition to the CSI_ClbSessionID (MEETINGID), but your integration should know how to parse the CSI_ClbSessionData to retrieve the CSI_ClbSessionID.
- **CLBUSERS** are comma separated strings that represent the list of attendees who have been invited to the RTC by AutoVue.

---

**Note:** This value is not supported by the current AutoVue server.

---

- **FILENAME** is a file among the list of documents intended to be reviewed during the RTC meeting.

```javascript
var session = "CSI_ClbDMS=" + DMS + ";" +
"CSI_ClbSessionData=" + MEETINGID + ";" +
"CSI_ClbSessionSubject=DemoRealTimeCollaboration;" +
"CSI_ClbSessionType=public;" +
"CSI_ClbUsers=" + CLBUSERS + ";";
```

When creating an AutoVue applet to initiate a RTC for the first time, the following parameters should be provided:

```html
<PARAM NAME="FILENAME" VALUE="" + FILENAME + ">
<PARAM NAME="COLLABORATION" VALUE="INIT:' + session + ">
```

When reusing an AutoVue applet for RTC, the following needs to be set using AutoVue applet APIs. The FILENAME is the new file to collaborate on.

```javascript
japplet.setFileThreaded(FILENAME);
japplet.collaborationInit(session);
```

**Example H–2 Guests Join Real-Time Collaboration**

The following information is needed for guests to launch AutoVue to join a RTC. Note that only CSI_ClbDMS and CSI_ClbSessionData are needed.

```javascript
var session = "CSI_ClbDMS=" + DMS + ";" +
"CSI_ClbSessionData=" + MEETINGID + ";";
```

When creating an AutoVue applet for joining a RTC for the first time, the COLLABORATION parameter should be provided. There is no need for FILENAME parameter.

```html
<PARAM NAME="COLLABORATION" VALUE="INIT:' + session + ">
```

**H.1.2 Scripting the Applet**

This section provides the basic definition needed for an applet, and the advanced scripting functionality.

**H.1.2.1 Basic Applet**

The basic definition needed for the applet is:

```html
<!-- BEGIN AutoVue Applet -->
<APPLET
```
AutoVue Applet Parameters

Customizing the AutoVue Client

H.1.2.2 Advanced Scripting Functionality

When integrating the AutoVue applet in dynamic Web pages, all public API methods in the jVue class can be accessed through JavaScript.

For complete information on the public methods that are available, refer to the Javadocs on the AutoVue applet and the VueBean. For introductory information on the AutoVue API, refer to the AutoVue API Programmer’s Guide.

Commonly used methods include:

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>setFile(String url)</td>
<td>Set the file to be viewed in the applet.</td>
</tr>
<tr>
<td>setCompareFile(String url)</td>
<td>Switch to compare mode and compare the current file with a given one.</td>
</tr>
<tr>
<td>setDMSArg(String name, String value)</td>
<td>Set to add, modify, or remove parameters in the DMSARGS parameter list. To remove a parameter, specify 'null' value. Refer to the VueBean Javadocs for JVue.setDMSArg() for additional information.</td>
</tr>
<tr>
<td>addOverlay(String url)</td>
<td>Add a given file as an overlay on the current file.</td>
</tr>
<tr>
<td>printFile(PrintProperties pProps)</td>
<td>Print the current file using options specified. Refer to the VueBean Javadocs for information on what properties can be specified.</td>
</tr>
</tbody>
</table>
### Table H–2 (Cont.) Methods for Advanced Scripting Functionality

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
</table>
| printFile(PrintProperties pProps, boolean UseDefaultPrinter) | Print the current file using the options specified, but do not prompt for the printer to use.  
**Note:** Control the prompting for the printer with the useDefaultPrinter parameter. |
| isPrinting() | Parameter returns true if the current window or any one of the child windows is running a print or a batch print job.  
**Note:** If the applet is actively printing, the JavaScript event listener for the “BeforeUnload” event will return the following custom message: "Print jobs are still running. Closing this window will cancel all remaining print jobs." All supported browsers, except Firefox, display this message. |
| setMarkupMode(boolean enterMarkupMode) | Enter or exit Markup mode. |
| openMarkup(String markupID) | Open the specified Markup.  
If MarkupID == "*" then all Markups associated with the document are loaded.  
To open a local Markup specify the MarkupID as "CSI_DocName=markupName".  
To open a DMAPI integrated Markup specify the MarkupID document ID as "CSI_DocID=markupID". |
| collaborationInit(String sessionProperties) | Initiate collaboration session.  
**sessionProperties** - Property string describing collaboration session (has same format as applet’s COLLABORATION parameter’s INIT: format).  
See Section H.1, "AutoVue Applet Parameters" for description of the Collaboration applet parameters. |
| collaborationJoin(String sessionProperties) | Join collaboration session in progress.  
**sessionProperties** - Property string describing collaboration session (has same format as applet’s COLLABORATION parameter’s JOIN: format). |
| collaborationEnd() | End current collaboration session. |
| crossProbe(String fileName) | Add a given file to the list of cross-probed files. |
| closeDocument() | Close current document. |
Example 1:
Use the ONINIT applet parameter to automatically load a document to view, load all associated Markups and print the results.

```html
<script>
<!-- Hide script from old browsers
function myFunction() {
    // The main Applet object.
    var myApp = window.document.applets["JVue"];
    // Open the specified document
    myApp.setFile('http://www.machine.com/jVue/samples/acad12.dwg');
    // Load all markups
    myApp.openMarkup('*');
    // Create a PrintProperties class
    var pPropsClass =
        myApp.getClass("com.cimmetry.common.PrintProperties");
    // Instantiate the object
    var pProps = pPropsClass.newInstance();
    // Load default properties from the user's preferences
    pProps.setProfile(myApp.getActiveVueBean().getProfile());
    // Specify the Top Center Header text: To specify a DMAPI
    // attribute use the syntax "%X<attribute_name>
    pProps.getHeaders().setTopCenterText("My Header");
}
</script>
```

Table H–2 (Cont.) Methods for Advanced Scripting Functionality

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
</tr>
</thead>
</table>
| import3DFile(String fileName, HMatrix transform) | Import a 3D file. Specify file name and the transformation to apply to the imported entity.  
Following is the mapping of a 4X4 transformation matrix:  

\[
\begin{pmatrix}
X11 & X12 & X13 & X14 \\  
X21 & X22 & X23 & X24 \\  
X31 & X32 & X33 & X34 \\  
X41 & X42 & X43 & X44 \\
\end{pmatrix}
\begin{pmatrix}
XX & XY & XZ & X \\  
YX & YY & YZ & Y \\  
ZX & ZY & ZZ & Z \\  
0.0 & 0.0 & 0.0 & 1.0 \\
\end{pmatrix} 
\]


where \((X, Y, Z)\) is the translation vector and the \((XX, XY, XZ)\) represents the 3X3 rotation and scaling matrix.  
The last row of the 4X4 transformation matrix should always be set to \((0.0, 0.0, 0.0, 1.0)\). |
| setGUI(String guiFile)              | Specify the name of the GUI definition file. New definition takes effect for the next file loaded in AutoVue.                                             |
| setPage(int page)                  | Sets the page on the currently opened document. Specify the page number to set.                                                            |
| waitForLastMethod()                | Pauses current thread until last invoked method finishes execution.                                                                             |
| invokeAction(String actionClassStr) | Directly invokes an action (VueAction) that has no sub-actions (child actions). Refer to Section H.2, "Customizing the GUI" for a list of VueActions. Refer to the default.gui file located at <AutoVue Install Root>\bin for action names. |
| invokeAction(String actionClassStr, String subActionStr) | Directly invokes a sub-action (child action) of the specified action. Refer to the default.gui file located at <AutoVue Install Root>\bin for action names. |
H.2 Customizing the GUI

This section discusses the GUI file to choose and modify.

H.2.1 Choosing the GUI File

AutoVue provides you the option of customizing your graphical user interface (GUI). By default, a GUI definition file is not set and AutoVue uses an internal GUI file for the menus and toolbars. The GUI file that AutoVue generates is the same as the default.gui file located in the <AutoVue Install Root>\bin directory.

```java
// Specify scaling Fit-To-Page (PrintOptions.SCALING_FIT==0)
pProps.getOptions().setScaling(0);
// Print the extents of the drawing (PrintOptions.AREA_EXTENTS==0)
pProps.getOptions().setArea(0);
// Print the document using the default printer.
myApp.printFile(pProps, true);
// etc...
}
<!-- BEGIN AutoVue Applet -->
<APPLET
NAME="JVue"
CODE="com.cimmetry.jvue.JVue.class"
CODEBASE="http://www.webserver.com/jVue"
ARCHIVE="jvue.jar,jogl.jar,gluegen-rt.jar"
HSPACE="0" VSPACE="0" WIDTH="100%" HEIGHT="100%"
MAYSCRIPT>
<PARAM NAME="EMBEDDED" VALUE="false">
<PARAM NAME="VERBOSE" VALUE="false">
<PARAM NAME="ONINIT" VALUE="myFunction();">
<PARAM NAME="JVUESERVER" VALUE="http://www.webserver.com/servlet/VueServlet">
</APPLET>
<p><b>Requires a browser that supports Java.</b></p>

Example 2:
The frmFiles.html sample page that ships with the product makes use of the `setFile()` method to dynamically change the file in the applet.

This is easily extendible. Assuming that the HTML frame of the applet is named AppletFrame and that your CAD drawings are located at the URL http://myserver/CAD, creating four hyperlinks (HRefs) in a separate frame to dynamically call those methods will be done by adding the following lines to your HTML code:

```html
<a href="JavaScript:parent.AppletFrame.JVue.setFile('http://myserver/CAD/cad.dwg')">View cad.dwg</a>
<a href="JavaScript:parent.AppletFrame.JVue.setCompareFile('http://myserver/CAD/oldcad.dwg')">Compare to old version</a>
<a href="JavaScript:parent.AppletFrame.JVue.printFile(true)">Print file</a>
```
If you wish to have a customized GUI for AutoVue, you must create a custom GUI file and specify this custom file using the *GUIFILE* parameter. GUI files are placed at the location specified by the *autovue.users.directory* parameter in *autovue.properties*. By default, the location is `<AutoVue Install Root>\bin\Profiles`.

### H.2.2 Modifying the GUI

The GUI definition file describes which controls are added to which context (such as MenuBar, ToolBar, and so on).

If you are customizing your GUI file, it is recommended that you make a backup of the default.gui file and modify the controls in this file to meet your needs. The default.gui file is located in the `<AutoVue Installation Directory>\bin` folder.

If you have a previous version of AutoVue and you used a customized GUI in this previous version, we recommend that you use the diff utility to perform a comparison between the previous version's default.gui and your customized GUI. The delta between the two GUI files should be manually applied to the current version GUI.

Important: It is good practice to update your newer GUI file with the delta between the two GUI files. In order to avoid situations where some or all of the GUI elements fail to load, we recommend that you do not use the previous version's GUI file.

It is recommended to hide GUI items by changing PERM_READ to PERM_HIDE instead of removing them from the GUI file.

### H.2.2.1 Role-Based GUI

Using the GUI customization capability, you can create a role-based UI when integrating AutoVue with a third-party application. Depending on the role assigned to the user, a subset of the functionality AutoVue offers may only be required.

The recommended approach is to create multiple GUI files where each one presents the user interface needed for a specific role. The integration to the third-party system determines the role of the user (using a connection to an LDAP server, for instance) and then selects the GUI file to show the user the role-based UI.

Refer to the following sections for information on how the integration defines and uses the GUI files.

### H.2.2.2 Structure and Syntax of GUI Files

The GUI definition file describes which controls (corresponding to available actions in AutoVue, like Rotate, Open, and so on) are to be added to which context (like MenuBar, ToolBar, and so on), thus allowing users to have complete control over the functionality of the AutoVue interface.

AutoVue supports five modes: View, Compare, Markup, Collaboration, and Print Preview. A GUI file defines the graphical interface for each mode. Menu bars, toolbars, status bar and Right Mouse Button (RMB) menus are defined in this file. For some of these objects, location (north, south, west, east) may be specified. Toolbars are located in north, west or east. The status bar is always located at the bottom of the component (south).

**Note:** Popup menus may be added to menu bars. Menu items, popup menus or separators may be added to popup menus. Toolbars only accept buttons. Buttons or panes may be defined for the status bar. The RMB popup is processed as any other popup menu.
The Table H–3, "GUI Keyword" lists each GUI keyword for each mode:

<table>
<thead>
<tr>
<th>GUI Configuration Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUI_configuration =</td>
</tr>
<tr>
<td>BEGIN UI VIEW UI_mode_configuration END</td>
</tr>
</tbody>
</table>

H.2.2.3 GUI Configuration Syntax

The most generic definition of a GUI file can be described through the symbols below:

- Words with CAPITAL LETTERS should be entered literally.
- The character ‘| ‘ is used as "or" (for example, a | b means a or b)
- The character ‘* ‘ means "zero or more occurrences of."
- A GUI file can contain one or more "GUI configuration" blocks as shown in the following table:
**Table H–4 (Cont.) GUI Configuration Blocks**

### GUI Configuration Blocks

```plaintext
pane_control = PANE

action_control = control_name, control_key_list, permissions

control_name: For list of available control names refer to Section H.2.2.4, "Control Names".

control_key_list: For the control key list for different controls refer to Section H.2.2.4, "Control Names".

permissions: All action names need "PERM_READ".

These are the exceptions to this rule:

- `VueActionFilePrint` needs: PERM_READ|PERM_HEADERS|PERM_WATERMARK
- `EcadActionSelect` needs: PERM_HIDE
- `SMActionSelect` needs: PERM_HIDE

**Example:**

To define a very basic user interface that only allows users, through menu items, to open or print a file and get the file information without changing watermark/headers/footers:

```plaintext
BEGIN UI VIEW
  MENUBAR BEGIN
    POPUP IDS_FILE BEGIN
      MENUITEM VueActionFileOpen, , PERM_READ
      MENUITEM VueActionFileProperties, , PERM_READ
      MENUITEM VueActionFilePrint, , PERM_READ
    END
  END
END
```

---

**H.2.2.4 Control Names**

The following table lists available Control Names and their functionality.

The letters in the *UI* *Modes* column of the table indicate:

- **V** - View
- **C** - Compare
- **M** - Markup
### Table H–5  Control Names

<table>
<thead>
<tr>
<th>Control Name</th>
<th>Mode</th>
<th>Functionality</th>
<th>Control Key List</th>
<th>Contexts</th>
</tr>
</thead>
<tbody>
<tr>
<td>VueAction FileOpen</td>
<td>VC</td>
<td>When INI option EnableUniversalFile Chooser is set to 0, invokes open URL dialog. When option is set to 1, the universal file chooser dialog (that supports URLs, local files, and DMS files) appears. Default for EnableUniversalFile Chooser is 1.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction FileUpload</td>
<td>VC</td>
<td>Upload local file when EnableUniversalFile Chooser=0. Not available when EnableUniversalFile Chooser=1.</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction FileMarkup</td>
<td>V</td>
<td>Switch to Markup mode</td>
<td></td>
<td>X X X X X</td>
</tr>
<tr>
<td>VueAction FileCompare</td>
<td>V</td>
<td>Switch to compare mode</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction FileOverlays</td>
<td>V</td>
<td>Launches the Overlays dialog to select and modify overlays</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction FileProperties</td>
<td>VCM</td>
<td>Show file properties</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction FilePrint</td>
<td>VCM</td>
<td>Launch the print dialog that lets you modify print options and print a file</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction FileMRU</td>
<td>V</td>
<td>List most recently used documents</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction EditSearch</td>
<td>VM</td>
<td>Launch the search dialog to perform search or repeat search</td>
<td></td>
<td>X X</td>
</tr>
</tbody>
</table>
### Table H–5  (Cont.) Control Names

<table>
<thead>
<tr>
<th>Control Name</th>
<th>UI* Mode</th>
<th>Functionality</th>
<th>Control Key List</th>
<th>Contexts</th>
</tr>
</thead>
<tbody>
<tr>
<td>VueAction ViewZoom</td>
<td>VCM</td>
<td>Apply zoom</td>
<td>In/Out/Previous/FullRes/FitBoth/</td>
<td>X X X</td>
</tr>
<tr>
<td>VueAction ViewFlip</td>
<td>VCM</td>
<td>Apply flip</td>
<td>Vertical/Horizontal/Both</td>
<td>X X</td>
</tr>
<tr>
<td>VueAction ViewRotate</td>
<td>VCM</td>
<td>Apply rotation</td>
<td>0/90/180/270</td>
<td>X X</td>
</tr>
<tr>
<td>VueAction ViewContrast</td>
<td>VCM</td>
<td>Apply contrast</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction ViewAntiAlias</td>
<td>VCM</td>
<td>Apply anti alias</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction ViewInvert</td>
<td>VCM</td>
<td>Apply invert</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction ViewPage</td>
<td>VCM</td>
<td>Go to next page, previous page or select page number.</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction ViewViewPoint</td>
<td>VC</td>
<td>Launches the view point dialog that lets you define a view point.</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction ViewXrefs</td>
<td>VCM</td>
<td>Launches the XRefs dialog that lets you toggle XRefs visibility on or off.</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction ViewLayers</td>
<td>VCM</td>
<td>Launches the dialog that lets you toggle layer visibility on or off.</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction ViewBlocks</td>
<td>VCM</td>
<td>Launches the Blocks dialog that lets you select a block to display.</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction ViewViews</td>
<td>VCM</td>
<td>Launches the Views dialog that lets you select a view to display.</td>
<td></td>
<td>X X</td>
</tr>
<tr>
<td>VueAction ViewDrawing Info</td>
<td>VCM</td>
<td>Get the selected entity's drawing information</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
## Table H–5 (Cont.) Control Names

<table>
<thead>
<tr>
<th>Control Name</th>
<th>UI* Mode</th>
<th>Functionality</th>
<th>Control Key List</th>
<th>Contexts</th>
</tr>
</thead>
<tbody>
<tr>
<td>VueAction ViewMeasure</td>
<td>VCM</td>
<td>Launches the Measurement dialog that lets you measure distance, cumulative distance, area, or calibrate</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>VueAction ViewSpecialViewModes</td>
<td>VCM</td>
<td>Show special view modes</td>
<td>Pan and Zoom Window / MagnifyWindow / MagnifyGlass</td>
<td>X</td>
</tr>
<tr>
<td>VueAction ToolsDrawingInfo</td>
<td>VCM</td>
<td>Get drawing information for one entity, some entities or a block</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Note:** This feature is equivalent to the Show Entity Properties option from the AutoVue UI. For more information, refer to the Oracle AutoVue User's Manual.

| VueAction OptionsBars | VCM | Hide or show toolbars or status bar                                           |                  | X        |
| VueActionFile Browse  | VM  | Opens the File Browse dialog when browsing documents from different sources (local, DMS, server, URL). The document is open as soon as it is single clicked. Available only when EnableUniversalFileChooser=1 (default). |                  | X        |
| VueActionFile Convert | VM  | Launches the Convert dialog that lets you convert a file to different formats using convert options. |                  | X        |
| VueActionFile OpenNewWindow | VM | Same as VueActionFileOpen, but opens file in new window. |                  | X        |

The columns indicate:

- **Control Name:** Column shows the list of available control names.
The AutoVue client applet can be customized by setting parameters in the *frmApplet.html* file located in the `<AutoVue Install Root>\html` directory. The HTML code in *frmApplet.html* holds the `<APPLET>` tag with the customizable parameters and provides a JavaScript method called `setFile()` to allow *frmFiles.html* to dynamically change the file displayed in the applet. For more information, see Section H.1.2, "Scripting the Applet". For a list of parameters you can set, refer to Section H.1, "AutoVue Applet Parameters".
**Note:** During installation, if you select the Example Client Application, you can view a test HTML page `AutoVue.html`. The test HTML page is strictly a sample Web page and is not a required component for your deployment. This sample Web page does, however, provide a good example of how to configure the AutoVue applet. The page consists of three frames: `frmHeading.html`, `frmApplet.html` and `frmFiles.html`. The `frmFiles.html` page only appears if you choose to install the sample files during AutoVue installation.

*Figure H–1  AutoVue Applet*
You can configure the AutoVue server by modifying jvueserver.properties located in the `<AutoVue Install Root>`\bin directory. For example, the following sections describe options that can be configured if you wish to modify the ports that the AutoVue server is running on, or if you wish to set up a server farm or perform any other server configuration.

As of release 20.1, parameters from VueServer.ini are now set in jvueserver.properties file. For information on the migration of parameters to jvueserver.properties, refer to the Oracle AutoVue Client/Server Deployment Release Notes.

Note: You must restart the AutoVue server for the changes in jvueserver.properties to take effect.

### I.1 Authentication Option

The options allows you to indicate that the AutoVue server has authentication enable and that users must enter login credentials in order to gain access to the server.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.authentication.enable = [TRUE</td>
<td>FALSE]</td>
<td>TRUE</td>
</tr>
</tbody>
</table>

Specify whether authentication is enabled for the AutoVue server. Oracle recommends to prohibit all unauthenticated connections to the AutoVue server.

### I.2 AutoVue Host Name Option

If you rename your server machine name after you install AutoVue, you must update this parameter:

```
jvueserver.hostname = [host name]
```

Note: This new server hostname must be properly reflected in the JVUESERVER parameter specified in the VueServlet descriptors that point to this server. You must set the correct static or resolvable IP address or hostname or fully-qualified hostname (FQDN) in the file jvueserver.properties.
I.3 RMI and Socket Ports Options

This section provides RMI and socket port parameters that may be configured. For example, the RMI port may need to be configured when setting up an AutoVue server farm, and the socket port may need to be modified to meet company policy requirements on the usage of ports within a certain range.

<table>
<thead>
<tr>
<th>Table I–2 RMI and Socket Port Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>jvueserver.rmi.objectPorts</td>
</tr>
<tr>
<td>jvueserver.socket.timeout</td>
</tr>
<tr>
<td>jvueserver.rmi.port</td>
</tr>
<tr>
<td>jvueserver.socket.port</td>
</tr>
<tr>
<td>jvueserver.ssl.enable</td>
</tr>
</tbody>
</table>

I.4 Process Pool Size Option

The AutoVue server can run in a process pool on a single machine. The default process pool (DocServer) size is 4, and is set in the jvueserver.properties file.
Table I–3 Process Pool Size Option

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.processPoolSize</td>
<td>Set the process pool size to specify the number of DocServers to run when the AutoVue server starts up.</td>
<td>4</td>
</tr>
</tbody>
</table>

Creating a process pool helps improve the responsiveness when handling simultaneous connections and also helps balance the load across processors in a multi-CPU machine. As a rule of thumb, you should allow for a minimum of 200MB for each process in a pool, of which approximately 50MB is for the JVM and 128MB for the Java heap. As a result, a process pool size of 4 requires at least 1GB of RAM on the machine to run comfortably. The load is balanced across the pool on the single machine.

File viewing requires memory on top of the amount for each process in the pool. Depending on the number of users and files loaded at any given time, the recommended minimum is 2GB per DocServer. Provisioning for 2GB of memory per process in the pool should be expected.

**Note:** Do not modify the DocServer memory settings in jvueserver.properties.

### I.5 Proxy Connection Options

If the machine hosting the AutoVue server uses a proxy server to connect to the Internet, you must set the proxy setting to allow the request to go through. For example, AutoVue must connect to the Internet to retrieve required resources if missing from a file. To do so, the proxy server name must be specified in jvueserver.properties.

**Note:** If AutoVue is integrated with a DMS, you must also set the proxy setting to allow requests to go through as all machines on the internal network must pass through the proxy server.

```
jvueserver.http.proxyhost=my.proxyserver.com:80
jvueserver.ftp.proxyhost=my.proxyserver.com:80
```

Replace my.proxyserver.com with the name of the proxy server running on the server and the port with the appropriate port number.

### I.6 Streaming Files Options

This section provides streaming files parameters that may be configured. By setting these parameters, you can specify whether to allow streaming file generation, the maximum lifetime of streaming files, and much more.
Table I–4  Streaming File Options

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.metacache.enable = [TRUE</td>
<td>FALSE]</td>
<td>Specifies whether to generate streaming files. When set to TRUE, streaming files are stored in the location specified by the jvueserver.cache.directory parameter. When set to FALSE, streaming files are not generated. <strong>Note:</strong> Streaming file generation is not supported for PDF Portfolio files.</td>
</tr>
<tr>
<td>jvueserver.metacache.pdf.enable = [TRUE</td>
<td>FALSE]</td>
<td>Set to FALSE: Streaming file is not generated for PDF. Set to TRUE: Streaming file is generated for PDF files. This configuration parameter should be set manually. It is recommended to set this option to FALSE as there is no benefit to enabling streaming files for PDF.</td>
</tr>
<tr>
<td>jvueserver.dms.save.metafile = [TRUE</td>
<td>FALSE]</td>
<td>Specifies whether or not streaming files are saved in the DMS. Set to TRUE to save streaming files in DMS. Set to FALSE so that streaming files will not be saved in DMS.</td>
</tr>
<tr>
<td>jvueserver.metacache.process = [TRUE</td>
<td>FALSE]</td>
<td>Flag for using a separate process for streaming file generation. If set to FALSE, the DocServers handle streaming file generation and the dedicated streaming file process does not start.</td>
</tr>
<tr>
<td>jvueserver.metacache.threshold = [non-negative integer]</td>
<td>Specifies the DocServer threshold at which the streaming file DocServer handles the generation of streaming files. jvueserver.metacache.process must be TRUE for this option to take effect. Increasing this value allows the DocServer that loads a file to generate the streaming file. By default, the threshold is set to 0. That is, the streaming file DocServer generates the streaming files for all documents.</td>
<td>0</td>
</tr>
<tr>
<td>jvueserver.cache.directory=[directory path]</td>
<td>Specifies in which directory the cached files should be saved. A central cache information file named cache.map is stored in the same directory. By default, the directory is the Cache subdirectory of the AutoVue server program directory.</td>
<td>&lt;AutoVue Install Root&gt;in\Cache</td>
</tr>
<tr>
<td>jvueserver.cache.forceascii=[0</td>
<td>1]</td>
<td>Set to 1 to force the use of ASCII characters in cached files names. Set to 0 to leave characters as is. For example, you may want to use force ASCII characters if the server does not support file names with Unicode characters.</td>
</tr>
</tbody>
</table>
I.7 DMS Options

This section provides DMS parameters than may be configured. However, we recommend that you do not modify these parameters.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>dms.save.compress</code> = [TRUE</td>
<td>FALSE]</td>
<td>TRUE</td>
</tr>
<tr>
<td>Set to TRUE to compress save data transmitted to the DMS.</td>
<td>Note: We recommend that you do not modify this parameter.</td>
<td></td>
</tr>
<tr>
<td><code>dms.save.length</code> = [TRUE</td>
<td>FALSE]</td>
<td>FALSE</td>
</tr>
<tr>
<td>Set to TRUE so that the multipart save requests contain content length.</td>
<td>Note: We recommend that you do not modify this parameter.</td>
<td></td>
</tr>
</tbody>
</table>

Note: These options will be deprecated in the next release of AutoVue.

I.8 Collaboration Options

When using the collaboration feature in AutoVue for Agile PLM, you can configure the following parameters.
For example: You may choose to enable the collaboration feature on the server, and/or you can specify the protocol to use for collaboration.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.collaboration.dmsargsfilter=&lt;regex&gt;</td>
<td>This option filters out sensitive DMS arguments from the DocID that is passed to collaboration session guests. &lt;regex&gt;: The Java-style regular expression matching the entire DMS argument name. It is not case sensitive.</td>
<td>*(SESSION</td>
</tr>
<tr>
<td>jvueserver.collaboration.enable = [TRUE</td>
<td>FALSE]</td>
<td>Set to TRUE to enable collaboration mode on the server. Set to FALSE to disable collaboration mode. Note: If not using Real-Time Collaboration, set this parameter to FALSE.</td>
</tr>
<tr>
<td>jvueserver.collaboration.tcp.port=[integer]</td>
<td>BaseTCP port to be used. Note: The configuration parameters below need to be changed when using more than one server cluster in a server farm.</td>
<td>9700</td>
</tr>
<tr>
<td>jvueserver.collaboration.id.min=[integer]</td>
<td>Minimum ID given to users and collaboration sessions by this server. Change this ID when you are running many AutoVue servers that must communicate together for collaboration. The second server must have a minimum ID of at least jvueserver.collaboration.id.min + jvueserver.collaboration.id.range of the first server. Otherwise, an ID overlap may occur.</td>
<td>0</td>
</tr>
<tr>
<td>jvueserver.collaboration.id.range=[integer]</td>
<td>Range of IDs given to users and collaboration sessions by this server. This will limit the number of simultaneous connections.</td>
<td>100000</td>
</tr>
</tbody>
</table>

### I.9 NTLM Authentication Option

This section provides options for NTLM authentication.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.ntlm.enable = [TRUE</td>
<td>FALSE]</td>
<td>To support NTLM authentication, set the following parameter in jvueserver.properties to TRUE.</td>
</tr>
</tbody>
</table>

### I.10 log4j and Diagnostics Options

This section provides log4j and diagnostics parameters that may be configured. These parameters can be set to configure the logging level and time interval for detecting log4j configuration changes, and the output diagnostics information.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.log4j.configureandwatch = [TRUE</td>
<td>FALSE]</td>
<td>Set this to TRUE to be able to dynamically change the log4j logging level.</td>
</tr>
</tbody>
</table>
This option allows administrators to define which INI options cannot be modified using JavaScript.

Example: The default value for the option is "(XREFPATHS | XFONTPATHS | BKIMAGES)", which means that both XREFPATHS, XFONTPATHS and BKIMAGES cannot be modified using JavaScript.

Example: The default value for the option is "SIGNOFFFILE", which means that SIGNOFFFILE cannot be modified using JavaScript.

I.12 Reboot Option

The following table describes the reboot parameter for DocServers in jvueserver.properties. By setting this parameter, you can control the reboot time interval for DocServers.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.reboot.timeout = &lt;interval in minutes&gt;</td>
<td>If a DocServer is idle for the time specified by this parameter, the DocServer is rebooted. The default time out is 30 minutes.</td>
<td>30</td>
</tr>
</tbody>
</table>
I.13 DocServer Timeout Option

The following table describes the DocServer timeout parameter for DocServers in jvueserver.properties. By setting this parameter, you can control the hang logs generation time interval for DocServers.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>docserver.timeout=N</td>
<td>Specify the timeout in minutes after which the AutoVue server hang logs are generated. It is possible to implement a custom action to invoke a hang situation. When implemented, replace ClassName with the name of the class implementing the custom action.</td>
<td>10</td>
</tr>
</tbody>
</table>

I.14 Recovery Attempt Option

The following table describes the recovery attempt parameter in jvueserver.properties. By setting this parameter, you can control the number of recovery attempts for the DocServer.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.recovery.attempts=[integer]</td>
<td>Specify the number of recovery attempts for the DocServer when an exception is thrown. After this number of failed recovery attempts, the DocServer restarts.</td>
<td>5</td>
</tr>
</tbody>
</table>

I.15 DLL Version Option

The following table describes the extra libraries parameter that allows you to specify user-defined DLLs:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.version.exteralibraries=DLL_1;DLL_2;DLL_3;...</td>
<td>Specify a semi-colon separated list of user-defined DLLs. AutoVue will list the versions of these DLLs in the Help &gt; About dialog.</td>
</tr>
</tbody>
</table>

I.16 File Format Information Option

On startup, AutoVue registers all of its components into a VueServer.ini file. You can specify an alternate path for VueServer.ini using this option.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.inifile=[file name]</td>
<td>Specify the INI file where AutoVue stores information on the file formats supported by AutoVue. By default, it is VueServer.ini located in the &lt;AutoVue Install Root&gt;\bin directory. Note: AutoVue saves certain memory management settings in this file. We recommend that you do not modify these options or the file.</td>
</tr>
</tbody>
</table>
I.17 Global User Options

The following global user settings may be configured. These parameters specify the directory in which user information is stored, and the names for global configuration files.

<table>
<thead>
<tr>
<th>Table I–15 Global User Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option</td>
</tr>
<tr>
<td>jvueserver.users.directory</td>
</tr>
<tr>
<td>jvueserver.users.defaultini</td>
</tr>
<tr>
<td>jvueserver.users.allusersini</td>
</tr>
<tr>
<td>jvueserver.users.timeout</td>
</tr>
</tbody>
</table>

I.18 Markup Options

You can configure the Markup Files dialog, Markup Files directory, permissions, and markup symbols library by setting the following options.

<table>
<thead>
<tr>
<th>Table I–16 Markup Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option</td>
</tr>
<tr>
<td>jvueserver.markup.nativegui.type</td>
</tr>
</tbody>
</table>

Note: These are ORed flags. For example: Enter 7 to enable all three columns.
**I.19 Online Help Options**

You can specify the entry points for language-specific Online help by setting the following options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.help.file_en</td>
<td>Entry specifies the URL to the English Help file. If Online Help does not exist for a language, AutoVue loads the English help file by default.</td>
<td>&lt;AutoVue Install Root&gt;\bin\Markups</td>
</tr>
<tr>
<td>jvueserver.help.file_xx</td>
<td>Entry specifies the URL to the Help file for the language &quot;xx.&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**I.20 Memory Optimization**

AutoVue performs memory management when loading large files. If AutoVue memory hits a pre-defined threshold, AutoVue dumps the least recently used data from memory to the disk. This memory management scheme helps load larger models in AutoVue. Memory management is enabled by default. To disable it, you must set jvueserver.memory.managed=FALSE in jvueserver.properties. Refer to the following table for all memory management-related configurations.

In jvueserver.properties, you can set the following parameters to optimize memory or performance speed.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.markups.directory</td>
<td>Specifies in which directory the Markup files should be saved. Markups are saved with random names in this directory, and the mapping between Markup files and their base file is held in a central map file named markups.map, stored in the same directory. Note that multiple servers should not share the same location for storing markups. Note: This option is for server-managed markups.</td>
<td></td>
</tr>
<tr>
<td>jvueserver.markups.permissions</td>
<td>By default, all users can see the Markups of a file but only the owner of a Markup can modify it. The Permissions key can be used to change that behavior. Setting it to 0 allows all users to see and change Markup files. Setting it to 1 prevents all users from modifying the Markups.</td>
<td>1</td>
</tr>
<tr>
<td>jvueserver.markups.symbols.directory</td>
<td>Specifies in which directory the Markups symbol libraries are stored. By default, the directory is the symbols subdirectory of the AutoVue server program directory.</td>
<td>&lt;AutoVue Install Root&gt;\bin\Symbols</td>
</tr>
</tbody>
</table>
### Table I–18 Memory Optimization

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.memory:managed=TRUE</td>
<td>This option orients the optimization in the product towards speed or memory. If set to FALSE, speed is optimized. If set to TRUE, memory is optimized. Setting this option to TRUE does not impact the loading of Office and Raster formats. Note: When this option is set to TRUE, AutoVue's memory manager dumps the least recently used components from memory onto disk when the process memory hits the threshold specified in jvueserver.memory:threshold. <strong>Effect on Performance:</strong> Performance speed is improved if value is set to FALSE. If loading large files, or files that require a lot of memory, we recommend that you set the option to TRUE to optimize memory usage.</td>
<td>TRUE</td>
</tr>
<tr>
<td>jvueserver.memory:threshold=value</td>
<td>Specifies the process memory threshold for AutoVue after which the memory manager dumps data. Specify value in MB. When set to 0, AutoVue calculates the memory threshold based on the following formula: [\frac{\text{Total memory on the machine}}{(n+1 \text{ where } n \text{ is processpoolsize})} \times 1.2] The computed value does not exceed 1GB or the maximum memory size addressable for the process on the system multiplied by 0.8, whichever is less. <strong>Note:</strong> Minimum value is 256MB. <strong>Effect on Performance:</strong> Performance speed is improved when the threshold is a larger value. To optimize memory usage, set a lower threshold.</td>
<td>0</td>
</tr>
</tbody>
</table>

AutoVue programmatically writes certain memory management options in VueServer.ini. These options should not be modified:

### Table I–19 Memory Management Options (Not to be Modified)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNGMEMPAGESIZE=[num]</td>
<td>When memory management is enabled, specify the size of pages (memory) to allocate when storing the managed data. Each memory page is predefined. num = number of bytes used to allocate pages in memory. Minimum value: 8192 (8KB) Maximum value: 1048576 (1MB) <strong>Note:</strong> The memory pages are dumped to temporary dumping files located in the path defined in MNGTEMPFNAME.</td>
<td>131072 (128KB)</td>
</tr>
</tbody>
</table>
I.21 Linux-Specific Options

The following section lists Linux-specific parameters that can be configured in jvueserver.properties.

Note: It is not recommended that you change these options. Modifying these options will cause the AutoVue server to fail.

I.21.1 Preload Java Class Option

The following table describes java class preload parameter in jvueserver.properties.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>jvueserver.preload</td>
<td>Enables loading of specified java class prior to the AutoVue server startup.</td>
<td>com.cimmetry.jvueserver.util.UnixPreloader</td>
</tr>
</tbody>
</table>

I.21.2 Xvfb Options

AutoVue provides the following options to initialize Xvfb parameters. It is not recommended that you change these options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>xvfb.display=&lt;port number&gt;</td>
<td>Specifies the initial port to use for Xvfb. In the event of a port conflict, modifying xvfb.display may resolve the issue.</td>
<td>909</td>
</tr>
<tr>
<td>xvfb.process</td>
<td>Specifies the name of process to start or kill Xvfb process.</td>
<td>Xvfb</td>
</tr>
<tr>
<td>xvfb.policy</td>
<td>If set, this contains path name to security policy file, used with Xvfb -sp option when the Xvfb process is started. Note: This is applicable for Linux 5.x.</td>
<td></td>
</tr>
<tr>
<td>xvfb.colormap</td>
<td>If set, this contains path name to color map file, used with Xvfb -co option when the Xvfb process is started. Note: This is applicable for Linux 5.x.</td>
<td></td>
</tr>
<tr>
<td>xvfb.args</td>
<td>These are arguments to be passed to Xvfb when it is started. Note that the default setting runs Xvfb on a non-listening port.</td>
<td>-nolisten tcp -cc 4 -screen 0 1280x1024x24 -pixdepths 1 8 15 16 24 32</td>
</tr>
</tbody>
</table>
### I.21.3 WINE Options

AutoVue provides the following options to configure WINE parameters. It is recommended that you do not modify these options.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>wine.dir</td>
<td>Specifies the directory where WINE is installed.</td>
<td></td>
</tr>
<tr>
<td>wine.config.dir</td>
<td>Specifies the directory where the WINE configuration files is location.</td>
<td></td>
</tr>
<tr>
<td>wine.config.file</td>
<td>Specifies the WINE configuration file name.</td>
<td></td>
</tr>
</tbody>
</table>

### I.21.4 OEM Copyright Notice

AutoVue provides an option to append a custom copyright to the copyright in the Help About dialog:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>oem.copyright.notice=</td>
<td>Specify a notice to add to the default Oracle copyright in the Help About dialog.</td>
<td></td>
</tr>
</tbody>
</table>

### I.22 VueServlet Configuration Options

The following table describes VueServlet initialization parameters that can be set in webdefault.xml when deploying on Jetty. If a context has a webdefault.xml descriptor, it is applied before the context’s own web.xml file. For more information, refer to section Deploying VueServlet.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>DebugLevel=[0-100]</td>
<td>Set the debug output category. Values: 0: no logging 10: basic logging 20: HTTP connection information 100: debug</td>
<td>0</td>
</tr>
<tr>
<td>EnableSSL=[TRUE / FALSE]</td>
<td>Set to TRUE to enable secure socket connection to the AutoVue servers.</td>
<td>TRUE</td>
</tr>
</tbody>
</table>
### Table I–24 (Cont.) VueServlet Initialization Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>EnableEM=[TRUE</td>
<td>FALSE]</td>
<td>FALSE</td>
</tr>
<tr>
<td></td>
<td>Specify whether or not to retrieve Oracle Enterprise Management information. Set to TRUE to retrieve information. Set to FALSE to disable information retrieving.</td>
<td></td>
</tr>
<tr>
<td>JVueServer=[server hostnames]</td>
<td>A semicolon separated list of the AutoVue server host names. This parameter is used by the VueServlet to connect to the AutoVue servers through a socket connection. The JVueServer parameter needs to be set to the hostname:port value used when starting the AutoVue server. This port value must match the port set in jvueserver.properties. You can specify more than one hostname:port separated by semi-colons (;) for fail-over. In other words, if one machine is down the servlet will try the next machine. If JVueServer is not specified, it defaults to localhost:5099. The servlet assumes that the AutoVue server is running on the same machine as the Web server and communicates through port 5099. <strong>Note:</strong> The port listed in this option should match the port listed in the jvueserver.socket.port option in the jvueserver.properties file.</td>
<td>local hostname:5099</td>
</tr>
<tr>
<td>InvokerCount=[value]</td>
<td>Set the number of simultaneous connections from the VueServlet to the AutoVue server. If the number of pending requests at any given time exceeds this set value, then the remaining requests wait in a queue until a connection is free. <strong>Note:</strong> If this parameter is set too high, then it will cause an overload of requests and result in no connections being made.</td>
<td>100</td>
</tr>
<tr>
<td>ServerInfo=[TRUE</td>
<td>FALSE]</td>
<td>FALSE</td>
</tr>
<tr>
<td></td>
<td>Set to TRUE to include the AutoVue server information on VueServlet status page. Set to FALSE to hide the AutoVue server information.</td>
<td></td>
</tr>
</tbody>
</table>
Deploying the VueServlet on Application Servers

The VueServlet allows the AutoVue client to communicate with the AutoVue server using HTTP tunneling. This has two advantages:

- The client and the AutoVue server can generally communicate across firewalls since the standard HTTP ports (for example, 80) are used.
- The client can be configured to use the HTTPS protocol to communicate with the VueServlet. This ensures that all communications are secure.

The AutoVue client encodes requests from the HTTP/HTTPS protocol and attempts to invoke the VueServlet on the specified server. The VueServlet decodes the parameters included in the request and forwards the request to the AutoVue server using a socket connection. The VueServlet also replies to the client machine using the same HTTP/HTTPS protocol. You can deploy the VueServlet with any application server you choose. For a list of application servers that are certified by Oracle, refer to Section 2.2, "System Requirements".

The exact steps to set up the VueServlet on your application server depend on the software you are using. This section describes the steps to setup the VueServlet for several popular Application Servers/Servlet Engines. Generally, you can follow similar steps to deploy with any application server. Refer to your application server documentation for specific instructions.

For information on configuring the VueServlet, refer to Section 13.22, "VueServlet Configuration Options".

J.1 Generic Steps to Deploy the WAR File

1. Launch the administrative console of your application server.
2. Select Install a new Web application.
3. Browse and select VueServlet.war.
4. Specify VueServlet for the context name.
5. Deploy VueServlet.war.

We provide you with instructions for deploying VueServlet.war with some application servers in the following section.

J.2 Deploying the WAR File with WebLogic 9.x and up

1. Logon to the Administrative Console for WebLogic.
2. Select Deployments from the tree.
3. Click on Install.
4. Browse to the folder containing VueServlet.war and select VueServlet.war.
5. Enter VueServlet for the Application Name.
6. Select the Server to which you wish to deploy VueServlet.
   Example: myserver
7. Click Activate Changes.
8. Select Deployments again and select the VueServlet application.
9. Click Start and select Servicing all requests.
   The application starts.

Once the deployment is successful, verify the deployment. To do so, connect to:
http://<host name>:<port>/VueServlet/servlet/VueServlet

where <host name> is the name of your Application Server host machine and <port> is the port your application server is running on.

J.3 Deploying the VueServlet with Tomcat 6.x and up
1. Copy vueservlet.war to your Tomcat webapps directory.
2. Restart Tomcat.
   The VueServlet is deployed automatically.

J.4 Deploying the VueServlet on non-J2EE Application Servers

This section comprises of the following:

- Section J.4.1, "Setting up the VueServlet"
- Section J.4.2, "Deploying on Jetty"

J.4.1 Setting up the VueServlet

Below are generic instructions for deploying the VueServlet with a non-J2EE application server.

For Tomcat users, refer to Section J.3, "Deploying the VueServlet with Tomcat 6.x and up".

1. Copy the file vueservlet.jar to your Servlet Engine's servlet directory.
2. Add vueservlet.jar to your Servlet Engine's CLASSPATH.
4. If your AutoVue server is running on a different machine, specify the init parameter JVueServer to be my.jvueserver.com:5099 where my.jvueserver.com specifies the machine on which AutoVue server is running. 5099 specifies the socket port that the AutoVue server uses. If the server is using a different socket port, specify the correct socket port in parameter JVueServer.
5. For the changes to take effect, restart the servlet engine.
J.4.2 Deploying on Jetty

1. Add VueServlet.jar to Jetty’s class path.

2. Edit startjetty.bat and add the full path to VueServlet.jar to the CLASSPATH variable.

3. Edit webdefault.xml and add the following:

```xml
<servlet id="VueServlet">
  <servlet-name>VueServlet</servlet-name>
  <servlet-class>com.cimmetry.servlet.VueServlet</servlet-class>
  <init-param>
    <param-name>JVueServer</param-name>
    <param-value>www.jvueserver.com:5099</param-value>
  </init-param>
  <init-param>
    <param-name>Verbose</param-name>
    <param-value>false</param-value>
  </init-param>
  <init-param>
    <param-name>DebugLevel</param-name>
    <param-value>0</param-value>
  </init-param>
  <load-on-startup>0</load-on-startup>
</servlet>
```

4. Replace www.jvueserver.com with the name of the machine on which the AutoVue server is running. 5099 specifies the socket port that the AutoVue server uses. If the server is using a different socket port, specify the correct socket port.

5. Start Jetty and the AutoVue server.

6. Test that the VueServlet is installed properly; Open a Web browser and enter the URL to the VueServlet:

   http://<machine_name>:5098/servlet/VueServlet
This chapter discusses the installation of AutoVue in a non-interactive mode.

K.1 Installation

To install AutoVue in non-interactive mode, you need to specify a configuration file that contains the required installation parameters. To do so, you must generate the configuration file manually. In the file, you must specify one of two sets for AutoVue server authentication protocol (Kerberos) and SSL.

**Note:** If you do not specify a set for Kerberos and/or SSL, the installation will abort.

<table>
<thead>
<tr>
<th>Authentication</th>
<th>Set 1</th>
<th>Set 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerberos (JAAS)</td>
<td>JVUESERVER_AUTH_CONFIG</td>
<td>JVUESERVER_AUTH_CONFIG</td>
</tr>
<tr>
<td></td>
<td>JVUESERVER_AUTH_KRB5_REALM</td>
<td>JVUESERVER_AUTH_KRB5_REALM</td>
</tr>
<tr>
<td></td>
<td>JVUESERVER_AUTH_KRB5_KDC</td>
<td>JVUESERVER_AUTH_KRB5_KDC</td>
</tr>
<tr>
<td>SSL</td>
<td>SSL_CA_CERTIFICATE</td>
<td>SSL_CA_CERTIFICATE</td>
</tr>
<tr>
<td></td>
<td>SSL_IDENTITY_KEYSTORE</td>
<td>SSL_IDENTITY_KEYSTORE</td>
</tr>
<tr>
<td></td>
<td>SSL_IDENTITY_KEYSTORE_PASSWORD</td>
<td>SSL_IDENTITY_KEYSTORE_PASSWORD</td>
</tr>
<tr>
<td></td>
<td>SSL_CONFIGURE_LATER=1</td>
<td>SSL_CONFIGURE_LATER=1</td>
</tr>
</tbody>
</table>

For example, specifying the variables for Set 1 enables Kerberos authentication protocol. Where as, setting JVUESERVER_AUTH_CONFIGURE_LATER=1 disables Kerberos protocol. For more information on these parameters. Refer to Section K.1.3, "Silent Installation Parameters".

K.1.1 Sample Silent Installation for Windows OSes

```bash
#Specify Installation Directory
#-------------------------------
USER_INSTALL_DIR=C:\Oracle\AutoVue
#Select Shortcut Folder
#----------------------
USER_SHORTCUTS=C:\Documents and Settings\Administrator\Start Menu\Programs\Oracle AutoVue
#Select Features (Available: ProgFiles,UserDocs,Website,SampleFiles,APIEx)
#-----------------------------------------------
CHOSEN_INSTALL_FEATURE_LIST=ProgFiles,UserDocs,Website,SampleFiles,APIEx
```
#Specify host name for AutoVue Server
#-------------------------------
JVUESERVER_HOST=avserver1
#Specify Kerberos set. By setting theses parameters, Kerberos protocol is enabled.
#-------------------------------
JVUESERVER_AUTH_CONFIG=<Full path to JAAS login configuration file>
JVUESERVER_AUTH_KRB5_REALM=<realm>
JVUESERVER_AUTH_KRB5_KDC=<kdc>
#Specify SSL set. By setting theses parameters, SSL is enabled.
#-------------------------------
SSL_CA_CERTIFICATE=<Full path to CA-issued certificate>
SSL_IDENTITY_KEYSTORE=<Full file path to the Identity JKS keystore>
SSL_IDENTITY_KEYSTORE_PASSWORD=<Specify the password for the Identity JKS keystore>

K.1.2 Sample Silent Installation for Linux OSes

#Specify Installation Directory
#-------------------------------
USER_INSTALL_DIR=/home/apps/AutoVue
#Select Features (Available: ProgFiles,UserDocs,Website,SampleFiles,APIEx)
#-------------------------------
CHOSEN_INSTALL_FEATURE_LIST=ProgFiles,UserDocs,Website,SampleFiles,APIEx
#Specify host name for AutoVue Server
#-------------------------------
JVUESERVER_HOST=avserver
#Specify Kerberos set. By setting theses parameters, Kerberos protocol is enabled.
#-------------------------------
JVUESERVER_AUTH_CONFIG=<Full path to JAAS login configuration file>
JVUESERVER_AUTH_KRB5_REALM=<realm>
JVUESERVER_AUTH_KRB5_KDC=<kdc>
#Specify SSL set. By setting theses parameters, SSL is enabled.
#-------------------------------
SSL_CA_CERTIFICATE=<Full path to CA-issued certificate>
SSL_IDENTITY_KEYSTORE=<Full file path to the Identity JKS keystore>
SSL_IDENTITY_KEYSTORE_PASSWORD=<Specify the password for the Identity JKS keystore>

K.1.3 Silent Installation Parameters

The following are installation parameters that you can specify in the configuration file:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>USER_INSTALL_DIR=&lt;file path&gt;</td>
<td>Specify the path where you want to install the AutoVue server.</td>
<td></td>
</tr>
<tr>
<td>USER_SHORTCUTS=&lt;file path&gt;</td>
<td>Specify the shortcut path.</td>
<td>Note: This parameter is only for Windows OS installations.</td>
</tr>
</tbody>
</table>
Installation

Non-Interactive Installations

After you specify the parameters for the configuration file, you can run the installation in non-interactive mode. Enter the following command lines:

For Windows OSes:

```
InstallClientServer.exe -i silent -f <full path to configuration file>
```

For Linux OSes:

```
InstallClientServer_lin.bin -i silent -f <full path to configuration file>
```
K.2 Uninstallation

If AutoVue is installed in non-interactive mode, the uninstallation is automatically in non-interactive mode. Simply invoke the uninstaller for AutoVue:

For Windows OSes:

<AutoVue Install Root>\uninstall\uninstall.exe

For Linux OSes:

<AutoVue Install Root>/uninstall/uninstall
An AutoVue plug-in can be added to Oracle Enterprise Manager to enable monitoring of AutoVue servers.

### L.1 Prerequisites

- Oracle AutoVue 21.0.0 Client/Server Deployment
- Oracle Enterprise Manager 11g

Important: The plug-in is configured to work with Jetty that is included with AutoVue server. If you plan to use the plug-in to monitor AutoVue server usage, make sure to startup Jetty that is included with AutoVue. You must set the VueServlet parameter `EnableEM` to `TRUE` in Jetty's `webdefault.xml`.

Since the plug-in reports sensitive information about the AutoVue server, it is recommended that the VueServlet instance that communicates with Enterprise Manager is secure and is within the intranet. This VueServlet instance should only be used for Enterprise Manager reporting.

### L.2 Installing the Plug-in

1. Connect to Oracle Enterprise Manager from a Web browser.
2. Enter user login information.
3. From the Oracle Enterprise Manager Grid Control 11g home page, click **Setup**. The Overview of Setup page appears.
4. From the Overview of Setup section, click **Management Plug-ins**. The Management Plug-ins page appears.
5. Click **Import**. The Import Management Plug-ins page appears.
6. To import the plug-in, click **Browse**.
7. Select the plug-in, `oracle_autovue.jar`, from located in the bin directory and then click OK.
8. Click the **Deploy** icon.
9. Click **Add Agents**. The Search and Select Agents page appears.
10. Click **Go**, select an agent from the results, and then click **Select**. The Deploy Management Plug-in: Select Targets page appears.
12. Click Finish.
13. From the Oracle Enterprise Manager Grid Control 11g home page, click Setup. The Overview of Setup page appears.
15. Click the agent link hostname:3872.
16. From the Add drop-list, select Oracle AutoVue and then click Go. The Add Oracle AutoVue page appears.
17. Enter the following information:
   - A descriptive name in the Name field (for example, AutoVue server).
   - The name or the IP address of the machine where the VueServlet that enables EM is installed.
   - The servlet port number (for example, :5098) in the Oracle AutoVue Server Servlet Port field.
18. Click OK.
19. Edit Jetty's webdefault.xml and VueServlet parameter EnableEM and set it to TRUE (lines in bold below):

```xml
<init-param>
  <param-name>EnableEM</param-name>
  <param-value>TRUE</param-value>
</init-param>
```
20. Restart Jetty for the changes to take effect.
21. From Enterprise Manager's Monitored Targets section, click the created AutoVue target (for example, AutoVue server) to view AutoVue server status information.

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**Note:** If EnableEM on the VueServlet is set to FALSE, the Oracle Enterprise Manager will not be able to retrieve the AutoVue server status and will keep pinging the server through the VueServlet. In this situation, you will see the following message on the VueServlet:Enterprise Manager is not enabled.
Samples and API Examples Included with AutoVue

During the installation process, if you select Custom installation, AutoVue provides you options to install samples and API examples. This chapter provides an overview of the samples and API that are installed with AutoVue.

M.1 API Examples

The following API Example is installed at <AutoVue Install Root>\examples if you do a Custom installation and choose to install API example:

- **VueActionSample**

  This provides an example of how to implement hotspots using the VueAction. For more information on VueAction, refer to the AutoVue API Programmer’s Guide and to the VueBean JavaDocs.

To use this sample:

- Hotspots.txt contains some hotspot definitions. You can use these definitions to test this sample or you can create your own definitions.
- PartCatalogueAction.java and PartListAction.java demonstrate how to write custom actions.
- A custom GUI file is the customized GUI for the custom actions. Copy this file to <AutoVue Installation Directory>\bin\Profiles.
- Update the Java code as needed and compile the code
- Bundle all the class files into VueActionSample.jar
- Run this sample using the following command:

  ```
  javac -cp <full path to jvue.jar>;<full path to VueActionSample.jar> com.cimmetry.jvue.JVue -param GUIFILE=<path>/custom.gui -param EXTRABUNDLES=/PartCatalogueAction
  ```

**Note:** The “Hotspots” section of the AutoVue API Programmer’s Guide provides information on how to implement AutoVue’s hotspots API using JavaScript.

- **BatchSample**
This provides an example of how to implement batch stamping using the VueAction. For more information on VueAction, refer to the AutoVue API Programmer’s Guide and the VueBean JavaDocs.

To use this sample:
- Update the Java code as required and compile the sample.
- Bundle the class file into BatchStamping.jar.
- Copy the custom GUI batch.gui file to <AutoVue Installation Directory>\bin\Profiles.
- Make sure your DMS is configured for stamps and that you have defined fixed-size stamps.
- Launch jVueBatchStamping.bat.
- Open a DMS file from the AutoVue window and enter Markup mode.
- A Batch Stamping button is available in the Markup toolbar.
- Click on Batch Stamping.
- A dialog appears showing the list of fixed-size stamps available. Click on the stamp you want to add.
- The selected stamp is placed on all pages of the document.

M.2 Sample Files

When you choose to install sample files during the AutoVue installation process, the following samples are installed:

- Sample 2D, 3D, EDA, Office and Graphics files are installed at <AutoVue Install Root>\html\samples
- Sample web pages to invoke the AutoVue applet are installed at <AutoVue Install Root>\html. You will need to update the JVUESERVER and the CODEBASE parameters to the URL to the VueServlet and the location of the client JAR files, respectively. You will need to update files frmApplet.html and frmFiles.html. The web page to invoke from the client is AutoVue.html.

**Note:** If a web server is detected on the machine where you install AutoVue, the samples and the web pages are copied to the web server doc root.

- A Batch Printing JavaScript is also installed at <AutoVue Install Root>\html. The files is batchPrint.html. Make sure to update the JVUESERVER and the CODEBASE parameters in order to use this sample.
- frmFiles.html contains the following JavaScript samples:
  - 2D Comparison
  - 3D Comparison
  - Overlay
  - Cross-Probe
  - Printing
This appendix includes frequently asked questions pertaining to the installing and configuring of AutoVue.

### N.1 Linux

Q: When installing AutoVue on a Linux 64-bit OS, the AutoVue installer does not show up and I receive the following notice:

Installer User Interface Mode Not Supported The installer cannot run in this UI mode. To specify the interface mode, use the -i command-line option, followed by the UI mode identifier. The valid UI modes identifiers are GUI, Console, and Silent.

A: This issue may be attributed to the fact that you are missing the following 32-bit packages:

- libXmu.i686
- libXp.i686
- libXtst.i686
- libXtst.i686

To resolve this issue, you must install these packages.
If you have any questions or require support for AutoVue please contact your system administrator. If at any time you have questions or concerns regarding AutoVue, please contact us.

O.1 General AutoVue Information

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O.2 Oracle Customer Support

| Web Site | http://www.oracle.com/support/index.html                          |

O.3 My Oracle Support AutoVue Community

| Web Site | https://communities.oracle.com/portal/server.pt                    |

O.4 Sales Inquiries

| E-mail | autovuesales_ww@oracle.com                                      |