AutoVue
Client-Server Edition

Installation and Administration Manual

Support Information

If you have any questions or require support for AutoVue please contact your system administrator. Some customization and maintenance must be done on the server side and cannot be implemented on the client machine. If the administrator is unable to resolve the issue, please contact Cimmetry Systems Corp.

If at any time you have questions or concerns regarding AutoVue, call or e-mail us.

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Introduction

AutoVue Client-Server Edition provides all the features of AutoVue Desktop Edition in a true zero administration solution. AutoVue lets users view and mark up documents, drawings and CAD files in over 450 formats from a Web browser such as Microsoft Internet Explorer or Netscape Communicator, or as a standalone application. Formats supported include SolidWorks, Pro/ENGINEER, JT, Allegro layout, ZUKEN, EDIF, Acrobat PDF, AutoCAD, MicroStation, HPGL, TIFF, ME10, Microsoft Word, Excel and PowerPoint to name a few.

During the design phase of the product, Cimmetry Systems made it a goal to provide a full-feature set to the AutoVue Client-Server Edition user. This implementation of AutoVue is complete and very comparable to the Desktop Edition in feature set. It is *not* a reduced version of the AutoVue product.

Main Features

Zero Maintenance

AutoVue requires no maintenance on the client machines. The applet is automatically downloaded to the client and stored in the browser cache. This allows new versions of the software to be installed only on the server. The client browsers automatically detect if a new version is available and download the applet only in this case.

Server Scalability and Clustering

AutoVue was designed in order to provide for server scalability to support an ever-increasing demand for file viewing and marking up on Intranets and Internets. The system allows you to simply add servers in order to serve more users/clients. This can be done online without rebooting or disconnecting existing servers. This functionality is extremely useful when the Viewing and Markup needs within an organization get more demanding. Accommodating additional users becomes simply a matter of monitoring the AutoVue servers' load and adding more servers if necessary. The load is efficiently balanced across the AutoVue server cluster. Doubling the capacity is as simple as adding one more machine. This is an extremely cost- and resource-efficient way to scale up: AutoVue is engineered to grow with your needs.

Accurate and Streamed Rendering

During the viewing process, documents available for viewing are rendered on the server(s) and an intelligent and displayable data stream is delivered to the client. In this manner, AutoVue eliminates any concerns about security since the original document with its proprietary data is not transferred to the client machine. During the transmission of the viewable data, AutoVue utilizes different compression and streaming algorithms in order to achieve a quick and responsive feedback to the client side for large and multi-page documents.

AutoVue embeds several different rendering schemes in order to accommodate environments. These schemes allow the server to take into account issues such as: network bandwidth, load balancing between server and client, server configuration and performance, Intranet/Extranet/Internet use and file size and format to be viewed. However, in all rendering options, AutoVue keeps all necessary information for querying purposes (i.e., the "intelligence" of drawings

is preserved). For example, users can perform text searches on text and CAD files or perform queries based on drawing attributes in a CAD file.

Multiple Connection Schemes

During the design process, Cimmetry has identified the need for several connection possibilities between the client and the rendering server. Depending upon your network configuration (existing firewalls, demilitarized zone, secure connections, proxy servers etc.), the client is able to connect to the AutoVue server using Direct Sockets or the HTTP/HTTPS protocol (through a servlet), thus avoiding any security breach in your system.

Server-based Client Configuration

With AutoVue Client-Server Edition, the server defines the user interface capabilities and the feature set provided to the client. The server has complete control over what functions and user interface are made available to the client. For example, users may be granted or denied rights to perform printing, marking up, or any other functionality available in AutoVue depending on their access permissions. Moreover, multiple language support is provided “out-of-the-box” within AutoVue, and users using different languages will be served with a localized user interface from the same applet.

Feature Summary

- Supports over 450 formats including: Engineering (CAD, Raster, Hybrid), 3D CAD, Business (word processing, spreadsheets, PDF, presentation graphics), raster and vector graphics, etc.
- Extensive Viewing features: Extent, Zoom, Pan, Layering, Scale-to-Gray, Page/Sheet Selection, Monochrome, Bird’s-eye, Magnify glass, Magnify-Window, Rotate, Flip, Contrast Adjustment, Invert, etc.
- Powerful CAD, EDA, 3D and Raster Drawings Comparison feature: Synchronized Multiple Window Interface with highlighted additional, deleted and common data.
- Overlay Support for Hybrid and complex CAD files (i.e., CAD files with embedded raster, OLE data, and view ports).
- Full support of resources in CAD files: fonts, line styles, embedded objects, non-rectangular view ports, etc.
- Text searching capability within Document and CAD files.
- Measurement capabilities.
- BOM generation capability for EDA and 3D files.

- Access to properties and attributes attached to certain entities in CAD, EDA and 3D files.
- Fully configurable user interface controlled by the server component.
- Fully configurable feature set controlled by the server component.
- Support for ISO 9000 headers, footers, banners, and watermarks.
- Extensive list of Markup entities including text, notes, approval stamps.

Integrations and OEM Needs

AutoVue is customizable and has been designed to provide an extensive set of APIs for integration with DM, PLM, Knowledge Management, PDM, ISPs, Portals, ERP, ESP, supply chain and project management web-centric solutions. The advantage of integrating with AutoVue resides in the fact that the integrator might want to take advantage of the User Interface already developed by Cimmetry Systems. In certain cases where the integrator might want to have complete control of user interface issues and functionality, we offer the View and Markup beans.

Moreover, to offer a higher level of integration, AutoVue can be closely integrated into several Document Management Systems (DMSs) using a complete and flexible set of APIs. The integration design has been aimed to provide a transparent integration scheme, a client being able to review a DMS document or a remote file with no knowledge of the underlying technology. Detailed information about AutoVue integration (DMAPI) possibilities can be obtained from Cimmetry Systems Corp.

Why Cimmetry for OEM Licensing

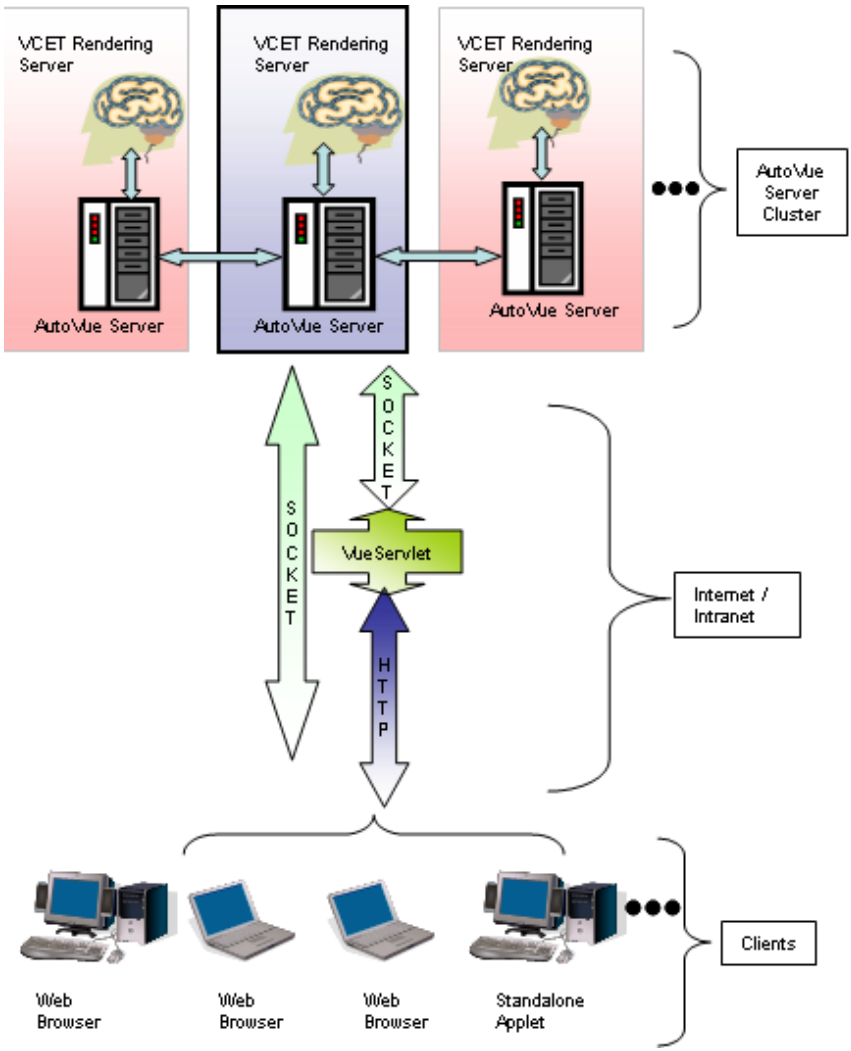
Cimmetry Systems develops the AutoVue product. Several articles and reviews have described AutoVue as the “best” engineering viewing solution available on the market today. Please connect to **www.cimmetry.com** for more information. The AutoVue family of products provides for the most accurate and complete viewing and markup needs.

Cimmetry owns the technology embedded within AutoVue Desktop and Client-Server editions. Therefore, Cimmetry can provide timely and knowledgeable customer support. Cimmetry fully controls its licensing scheme and can provide flexible terms to its licensees.

Product Architecture

Cimmetry's Client-Server viewing technology is based on a multi-tiered client-server architecture. Communication between the different levels is through standard communication mechanisms.

At the highest level this structure is:



On the server side we have one or more AutoVue servers running, ready to process rendering requests from the clients. The servers hook into Cimmetry Systems' VCET libraries. VCET (Viewing and Conversion Enabling Technology) is the same library used in the AutoVue product line to render over 450 different file formats.

More than one server can be used to perform intelligent load-balancing — the servers automatically divide the load in a "peer-to-peer" fashion to avoid any bottlenecks.

The Web browsers access the servers through standard HTML Web pages. The HTML pages contain embedded <APPLET> tags that contain information about the document to view and where to retrieve the document. No software needs to be explicitly installed on the client — everything is automatically handled.

System Requirements

Server

- Windows 2003Sp1, 2003R2 or 2003, Windows XP SP2 or Windows 2000 SP4
- Sun Solaris 9 or 10

The installation requires about 400MB of free space.

The memory requirements depend on the size and the complexity of the files being viewed.

Client

Cimmetry certifies clients running Sun Java VM 1.4.2 or 1.5 and Microsoft VM.

The following OSes and browsers are certified by Cimmetry.

- Windows, 2000, Windows 2003 or Windows XP with Microsoft Internet Explorer 6.0 SP1, FireFox 1.5
- Macintosh Power PC OS 10.4 with Safari 2.0 and FireFox 1.5
- Sun Solaris 9 & 10 with Firefox 1.5
- RedHat Enterprise Linux 4.0 and Suse SLES 9.0 Sp3 with Firefox 1.5
- HP-UX 11 with Mozilla 1.7
- AIX 5.1 with Firefox 1.5
- AIX 5.1 with Netscape 7.0

Client-side Installation

No special configuration needs to be done on the client side. The only requirement is a Java-compatible browser for a Web client. The software is generally installed on a WEB server. It is automatically deployed onto the client machines when the applet is first loaded.

You may also want to use the applet as a standalone application, see **Appendix E**.

For a list of certified browsers and Java Virtual Machines, see **System Requirements**.

Server-side Installation

Windows Operating Systems

Important: We recommend that you install and run AutoVue Server as a "secure" user so as to ensure that direct access to the server and files on the server is restricted. Users connecting to AutoVue server via the client will still be able to view files and generate metafiles.

1 If you downloaded it from the website extract and run **jInstall.exe**.
If you got it from a CD, run the install program. The installation program guides you through the steps of the process.

2 Follow the on-screen instructions.
If it detects that a Web server is running on your machine, the install program prompts you to confirm the Web server's host name and HTTP port (which defaults to 80).
Sample HTML pages and client Cab/Jar files are installed in the AutoVue directory in the root of the Web server's tree (i.e., **http://server/jVue/…**).
Once the installation program is finished, it creates a Program Manager group, "**AutoVue, Client-Server Edition**". The group contains a few icons.

Start AutoVue Server  '

- This is a link to the batch file **jvueserver.bat**. This batch file starts up the AutoVue server which should be running in the background all the time. It handles rendering requests from the clients.

To test AutoVue

- Once the AutoVue server starts, launch **jvue.bat** located in **<Install Dir>\bin**.

Sample HTML page for AutoVue 

- Once the AutoVue Server starts, type **http://<machine>/jVue/jVue.html** to test AutoVue.
  Note This test will work only if you chose to install the web server components.
- Other program links include links to documentation and setup/ uninstallation programs.

If the AutoVue server is installed on a machine that does not have a Web server installed:

1 Start the installation as described above.

As previously, it creates a Program Manager group, "**AutoVue, Client-Server Edition**", from which you can start the AutoVue server.

2 On the Web server machine, create a **jVue** directory from where you want the HTML pages and the client components served.

3 From the AutoVue Server machine, manually copy the content of **\Program Files\jVue\html** to this directory.

4 Copy **jvue.jar** and **jvue.cab** from the AutoVue server installation directory (**\Program Files\ jVue\bin**) to this directory (**created in step 2**).

5 Edit file **frmApplet.html**. Update the CODEBASE parameter to point to the web server where jVue's **.cab** and **.jar** files reside.
This will be the web server directory created in step 2.

6 Edit file **frmApplet.html**.

7 Rename **jvue3d.jar to jvue.jar**.

8 Rename **jvue3d.cab** to **jvue.cab**.

9 Edit file **frmApplet.html**. Change **SOCKETHOST** and **SERVLETHOST** to the appropriate values.
Example: socket://192.9.200.21:5099; http://192.9.200.21:5098/servlet/VueServlet.

10 Edit **frmFiles.html** and verify that the variable **jVueSamples** points to the URL mapped to the **jVue\samples** directory.

Start AutoVue Server 

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To test AutoVue

- Once the AutoVue server starts, launch **jvue.bat** located in **<Install Dir>\bin**.

Sample HTML page for AutoVue 

- Once the AutoVue Server starts, type **http://<machine>/jVue/jVue.html** to test AutoVue.

UNIX Operating Systems (Solaris)

1 Copy the file **jInstall*.bin** onto the Unix box. If you have a CD-ROM drive on the UNIX machine, mount the install CD and copy **jInstall*.bin** into a convenient directory. Otherwise, use FTP to copy the file onto the UNIX machine.

2 From an XTerminal, go to the directory where the installer was copied.

3 To give users permission to run the installer, type the line below at the UNIX prompt:
chmod +x jInstall*.bin

4 To invoke the installer, type the following line at the UNIX prompt:
./jInstall*.bin
The installation program guides you through the steps of the process.

5 Follow the on-screen instructions.
- When you are asked to enter the AutoVue Server details, the Host Name is the name of the UNIX box that the server will run on.
- Accept the default values for the ports unless you use these ports for other purposes.
- Select **Yes** to install AutoVue for your Web server.
- When prompted for Web Server Doc URL, specify the URL to the jVue directory:
Example: http://csisunos:8080/jVue.
- Web Server Doc Root is the document root of your web server:
Example: /var/apache/htdocs.
- If you cancel the installation, make sure to delete folders **ismj*** and **ismp*** in **/var/tmp** before running the installer again.

Start AutoVue Server

- **To test AutoVue**: Once the AutoVue server starts, launch jvue located in **<Install Dir>\bin**.
See Starting AutoVue Server on Solaris

Sample HTML page for AutoVue
Once the AutoVue Server starts, type **http://<machine>/jVue/jVue.html** to test AutoVue.

UNIX in Console Mode

Installing AutoVue Server

To invoke the AutoVue installer for UNIX from a terminal window in interactive console mode, type the following line at the UNIX prompt:

./jInstall*.bin -console -is:javaconsole

Uninstalling AutoVue Server

To uninstall AutoVue for UNIX from a terminal window in interactive console mode, type the following line at the UNIX prompt:

<jVue Root Folder>/_uninst/uninstaller*.bin -console

Performing Silent Installations

When the AutoVue product is integrated within a third party solution, it is often convenient to perform “silent installations” of the product. The necessary input parameters are provided on the command line and installation proceeds without any user interaction.

Note The “front-end” installer that is driving the AutoVue installer should make sure that all the required parameters are properly specified.

Performing a Silent Installation for Windows Operating Systems

Specify the following arguments:

Note All arguments, except for [-s] begin with two hyphens [--].

Argument	Description
-s	Force InstallShield itself to run in silent mode and not display any GUI.
--csiSilent	Required to indicate a silent install.
--csiUser="**User Name**"	The user-name for registration. Must be at least 3 characters.
--csiCompany="**Company Name**"	The company name for registration. Must be at least 3 characters.
--csiSerialNumber="**xxx-xxx-xxxxxxx-xx**"	The serial number issued for the product. Must be a valid serial number.
--csiInstallDir="**Path to Installation directory**"	The directory to install the product, e.g. “C:\Program Files\jVue.”

Argument	Description
--csiFolder="**Folder Name**"	The program group folder, e.g. “AutoVue Server.”
--csiJVUESERVER="**machine Name**"	The host name of the AutoVue server (e.g.. jvueserver.company.com).

Example

jInstall -s --csiSilent --csiUser="My Name" --csiCompany="My Company"
--csiSerialNumber="xxx-xxx-xxxxxxx-xx"
--csiInstallDir="C:\Program Files\jVue"
--csiFolder="AutoVue Server"
--csiJVUESERVER="jvueserver.company.com"

Note

- The line breaks have been inserted only for formatting.
- Test run the silent installation before deployment.
- When you perform a silent install on a Windows Operating System, web server components are not installed.

Performing a Silent Installation for UNIX Operating Systems (Solaris)

Specify the following arguments:

./jInstall*.bin -options <Silent Install Parameter File>

Example: /jInstall.bin –options /tmp/silent.txt

content of Silent Install Parameter File file

-**silent**

-W beanCustomerInfo.userName="**User Name**"

The user-name for registration. Must be at least 3 characters.

-W beanCustomerInfo.companyName="**Company Name**"

The Company-name for registration. Must be at least 3 characters.

-W beanCustomerInfo.serialNumber="XXX-XXX-XXXXXXX-XX"
The serial number issued for the product. Must be a valid serial number.

-W jvsDetails.host="**Machine Name**"
Host name for AutoVue Server

-W jvsDetails.port="5099"
Socket port for AutoVue Server

-W jvsDetails.rmiport="1099"
RMI port for AutoVue server

-W beanAskToInstallWebComp.Yes_No="1"
Do you want to install Web Server components? Yes -1, No -0

-W wsDetails.showDocRoot="YES"
Show Web Server document root? Value can be Yes or No

-W wsDetails.localhost="Machine Name"
Web Server Host Name

-W wsDetails.ip="Web server IP"
Web Server IP

-W wsDetails.port="80"
Web Server port

-W wsDetails.docRoot="<Web Server Doc Root>"
Web Server document root

-P featWS.active="True"

Do you want to install Web server components?

-P prodJVue.installLocation="<Install DIR>"
Installation directory for AutoVue server

-G replaceNewerResponse="yesToAll"
Overwrite confirmation
- log file is optional and can be specified as follows:
./jInstall.bin -log !<Log file name> @ALL -options "/tmp/silent.txt"

Peforming a Silent Uninstallation for Windows

Performing silent uninstallations is similar. To perform a silent uninstall, specify the following arguments:

Argument	Description
-s	This is required to force InstallShield itself to run in silent mode and not display any GUI.
--csiSilent	Required to indicate a silent install.
--csiUninstall	To indicate that uninstall is required.

Example: jInstall -s --csiSilent --csiUninstall

Note Test run the silent uninstallation before deployment.

Performing a Silent Uninstallation for UNIX Operating Systems (Solaris)

To uninstall AutoVue Server from the terminal window in silent mode, type:

<jVue Install directory>/_uninst/uninstaller*.bin -silent

Starting AutoVue Server

Windows Operating Systems

The AutoVue installer creates a Program Manager group **AutoVue, Client-Server Edition**. To start AutoVue server, click **Start AutoVue server** in the **AutoVue, Client-Server Edition** group. To shut down AutoVue server, click **Shutdown** from the AutoVue console.

By default, when the server is started, the Console is displayed and the server appears in the system tray. To disable the console and to start up the server only in the system tray, start the server with:

jVueServerX -noconsole

Unix Operating Systems (Solaris)

Starting AutoVue Server

1 Go to the directory **<Install directory>/bin**.

2 To start up the AutoVue server, type the following text exactly as it appears:
./jvueserver &

Note This starts up the server console as well if the DISPLAY environment variable is properly set.

3 This starts up AutoVue server with a default ProcessPoolSize of 4.

4 To modify the ProcessPoolSize, start up AutoVue server with the following command line argument:
./jvueserver –m<n>
where n is the processpoolsize.
For more information on process pool, see **Adding multiple servers in a cluster**.
Example: /jvueserver –m2 will start up two secondaries and the primary server
The startup script for AutoVue server on UNIX also starts up the Xvfb server. Xvfb is an X11 virtual framebuffer that helps the AutoVue server to render files.

Note If you would like AutoVue Server to continue running after you close the terminal window or after you log out of the solaris machine, you must exit the shell (console window) used to start AutoVue Server before logging out of Solaris. This way, the server will continue running even after you log

off. You must exit the shell by typing **exit**, and not close the window using the GUI close button.

Modifying the Xvfb Port

The Xvfb server runs on port ‘909’ by default. To modify this port, open jvueserver and replace port ‘909’ with an available port.

Shutting Down AutoVue Server

To shut down AutoVue server on UNIX, click **Shutdown** on the AutoVue server console.

Note At shutdown, the **Xvfb** process is left running. This is expected and it does not cause any problems when restarting AutoVue server.

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. On starting the server, the console is launched and the connection and process pool states are queried. The license is updated once the primary server is initialized.

Pool State	Description
	Process is not running.
	Process is running.
	Process is initializing
	Process is disabled by the user (applies only to servlet process).
	Process is not responding.

Click **Refresh** to update the console display to regenerate cached server information.

To view the current license or to add new licenses, click **Licenses**.

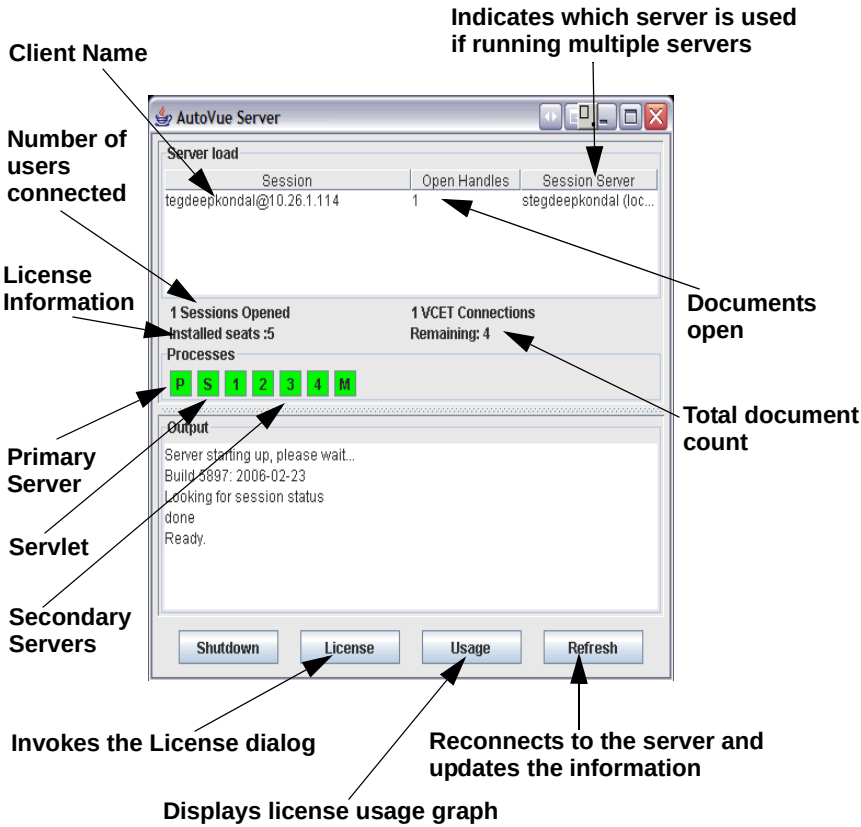
To stop running the AutoVue server and all attached processes, click **Shutdown**.

Any errors that occur during initialization are listed under **Output**.

Under **Processes**, **P** indicates the primary process; **S** indicates the servlet engine; **1**, **2**, **3**… represent secondary servers (also called Document Servers or Doc Servers), and **M** represents the process for metafile caching (only visible when **jvueserver.metacache.process** is set to **true** - the default value in **jvueserver.properties**). The number of secondary servers is set in the **processPoolSize** parameter in jvueserver.properties.

Double-click on the session listed in the Console to see more information regarding the session. Information such as what document is opened by the user, which DocServer is processing the request is displayed.

To view license usage on the server, click the **Usage** button. A grahical representation of license usage is displayed.


Client Name
Indicates which server is used if running multiple servers
Number of users connected
License Information
Documents open
Total document count
Primary Server
Servlet
Secondary Servers
Invokes the License dialog
Reconnects to the server and updates the information
Displays license usage graph
AutoVue Server
Server load
Session
Open Handles
Session Server
tegdeepkondal@10.26.1.114
1
stegdeepkondal (loc...
1 Sessions Opened
Installed seats :5
1 VCET Connections
Remaining: 4
Processes
P
S
1
2
3
4
M
Output
Server starting up, please wait...
Build 5897: 2006-02-23
Looking for session status
done
Ready.
Shutdown
License
Usage
Refresh

Server Configuration

Adding a License File

For all installations of AutoVue server a license key is required. The administrator will need to provide a license key that defines the licensing conditions for the server. Cimmetry Systems Corp. will provide this file on a customer-by-customer basis.

Installing the License File

1 Click **Licenses** on the **AutoVue Server** user interface.
The **Licenses** dialog appears.
2 Copy the supplied license key and paste into the dialog.

Configuring the Connections to Use

By default, the AutoVue server opens a socket connection to clients on Port 5099 and an RMI Connection to other servers in the cluster on Port 1099. You can, however, use different ports. To change these server parameters, you need to modify the file jvueserver.properties located in the **\bin** subdirectory of the AutoVue server installation directory.

Changing the Connection Parameters Used in RMI or Socket Connections

Edit the following lines:

jvueserver.rmi.port=1099
jvueserver.socket.port=5099

This new server configuration will also need to be properly reflected in the JVUESERVER parameter specified in the APPLET tag of the HTML page embedding the AutoVue client. Note that these port numbers are not related to the HTTP port used by the WEB server.

If your AutoVue server uses a proxy server to connect to the Internet, then the proxy server name must be specified in the **jvueserver.properties** file.

Example:

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. It is recommended that, except for the proxy settings, you do not change the default settings.

You should verify that the ports specified are “open” and not in use by any other process. The **netstat –a** program will display which ports are in use. Also, the number of consecutive ports used starting from the base value specified for RMI and Sockets will depend on the processpoolsize value set in **jVueserver.properties**.

See Also Running the Web Server on a Different HTTP Port

No change is necessary in the AutoVue server software if the Web server is running on a port other than the default, `80`. The only difference is in the client URL.

Example:

- if the WEB server is running on port 8080, instead of the URL below:
  http://jvue.company.com/jVue/jVue.html

- if the WEB browser should point to the following URL:
  http://jvue.company.com:8080/jVue/jVue.html

Adding Multiple Servers in a Cluster

The AutoVue server is designed to be easily scaleable. As the demand for accurate viewing and marking up increases in an organization, AutoVue can easily accommodate the additional load by adding new servers. Each time a client connects to the cluster entry point (i.e., the host specified in the JVUESERVER parameter of the APPLET) the overall load is calculated and the server with the least load in the cluster is selected for the client to use. You do not need to modify your HTML pages or stop your running servers to add a new server to the cluster.

The AutoVue server can run in a process pool on a single machine. The default process pool size is 4 and is set in the jvueserver.properties file.

Example: jvueserverx.nt.processPoolSize=4

Note For AutoVue server on UNIX platforms, the processpoolsize is specified as a command line parameter. The value set in ‘**jvueserver.properties**’ is not read.

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 approximately 50MB for each process in a pool: thus a process pool size of 4 would require approximately 200MB of RAM on the machine to run comfortably. The load is balanced across the pool on the single machine.

In addition, you can add more machines to the “server farm” and the load will be balanced across all machines. Scaling to support more concurrent users can be easily achieved by adding more hardware while keeping the software configuration identical.

Since release 18, there are two levels of load balancing - session-level and document-level.

Session-level load balancing - Sessions are routed to the server with the least number of sessions.

Document level load-balancing - It does not matter what server a session is on, document open requests are always routed to the server that has the least number of requests in terms of document open requests.

Adding an Additional Server

1 Add a new machine to the same network as the original AutoVue server.

Note If the client-server connection will use RMI or sockets directly, the machine should have an IP address that is viewable from the “outside.” If a servlet connection is used, the AutoVue servers can be completely hidden from clients.

2 Install the AutoVue server software on the new server, going through the same steps as in the original installation. The main difference is the different host name of the new server.

3 Once installed, edit the file **VueServer.ini** located in the **\bin** program-directory on the cluster entry point machine.

Note These modifications are needed only on the primary AutoVue server machine. For fail-safe installation, repeat the customizations on all machines in the cluster.

4 In the [RMI] section, add the entries.

Example:
[RMI]
MaximumLoad=100
RMIHost1=jvueserver1.company.com:1099

RMIHost2=jvueserver2.company.com:1099
Etc.
where
RMIHost1 is set to the name of the primary AutoVue Server in the farm.
RMIHost2 is the name of the second AutoVue Server in the far and so on.
The entry **MaximumLoad** (default 100) is used by the load-balancing algorithm — it gives a rough estimate of the server capacity.
For example, on a powerful machine you may want to set it higher than on a lower-end server. This setting can vary from server to server and you may wish to set it in the **VueServer.ini** of the new server. For example, if you are running on a cluster of machines with different performances, you can assign a higher number to the faster machine and lower numbers to the slower machines. This should be left at the default value of 100.
The entries:
RMIHost1=machine1:rmiport1
RMIHost2=machine2:rmiport2
RMIHost3=machine3:rmiport3,
etc.
list all the servers in the server-cluster. Their IP address:RMI port identifies them. The RMI port is optional — if not specified it defaults to 1099.

Note If you plan to use AutoVue's Collaboration feature, see **Configuring for Collaboration**.

AutoVue Server-Farm Licensing

In this section we discuss the licensing scheme for a farm of AutoVue servers. License keys have to be installed on each server in the farm. All servers should have license keys with the same serial number, product type and number of seats.

Consider a setup where there are three servers in a farm. To have a total of 300 seats, you will need 3 license keys with 300 seats each, one for each server in the farm. When the servers are configured to be in the farm, the total number of seats available is 300 and load is balanced across three servers.

Running the Server Behind a Firewall: Servlet Tunneling

If the AutoVue server will be accessed by clients outside a firewall, direct access non-standard ports (i.e. non-HTTP) are often blocked. To enable clients to access servers that are protected by firewalls, a servlet is provided to tunnel requests through the HTTP or HTTPS protocol.

When tunneling is required, the AutoVue client encodes requests from the HTTP/HTTPS protocol and attempts to invoke the servlet on the specified server. The servlet decodes the parameters included in the request and forwards the request to the AutoVue server using a socket connection. The servlet also replies to the client machine using the same HTTP/HTTPS protocol.

To Enable Tunneling

Two changes are needed to configure the server.

1 Install the file **vueservlet.jar** into the Application server or Servlet engine. Follow the instructions provided with the Application server or Servlet engine.

Note Installation instructions vary depending on the particular server; see **Appendix B**.

2 Update the Web pages that embed the AutoVue client to include the full URL of the Servlet (something like **http://servername/servlet/VueServlet**) as the JVUESERVER parameter.

The VueServlet supports two parameters: the **JVueServer** parameter and the **Verbose** parameter.

The **JVueServer** parameter needs to be set to the **hostname:port** value used when starting the AutoVue server. By default, **localhost:5099** is used and will work if you installed the AutoVue server on the same machine as the Web server. 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.

The **Verbose** parameter enables verbose output. Both parameters are optional. If **JVueServer** is not specified, it defaults to **localhost:5099**. The servlet assumes that AutoVue server is running on the same machine as the Web server and communicates through port 5099. If **Verbose** not specified, it defaults to **False**.

The exact steps to set up the VueServlet on your Web Server depend on the software you are using for your Servlet engine. We provide the steps for several common servlet engines, see **Servlet Configuration**.

Enabling Debugging Information for the Server

It is now possible to display class-level debugging information for AutoVue Server.

By editing the **log4j.properties** file, users can specify what kind of debugging information will be made available.

Information levels are as follows:

- **DEBUG** - Displays all messages for the server. This contains INFO, WARN, ERROR and FATAL.
- **INFO** - Displays informative messages such as session information, document open requests.
- **WARN** - Displays error messages that are caused by factors external to AutoVue server such as RMI ports already in use.
- **ERROR** - Displays errors or exceptions that are related to server startup.
- **FATAL** - Displays messages related to server startup failure or crash.
- **OFF** - Turn logging off. This is the default value.

The file **log4j.properties** is in the bin directory under the AutoVue server installation directory.

To see **DEBUG** messages for all classes, the last line in the file should be changed to:

log4j.category.com.cimmetry.jvueserver=DEBUG

or

If you need more specific error messages, you can turn on verbosity for specific classes.

Example:

```
log4j.category.com.cimmetry.jvueserver.Cache=DEBUG
log4j.category.com.cimmetry.jvueserver.Session=DEBUG
log4j.category.com.cimmetry.jvueserver=ERROR
log4j.category.com.cimmetry.dms=ALL
```

These four lines mean that for Cache and Sessions classes, DEBUG (and higher severity [i.e. all]) messages, will be reported. For everything else in the

com.cimmetry.jvueserver package, report only the ERROR (and FATAL) messages. For the com.cimmetry.dms package, all messages will be reported.

Users can redirect output to a log file instead of the console by uncommenting the following in **log4j.properties**:

log4j.appender.A1=org.apache.log4j.FileAppender
log4j.appender.A1.File=log4j.out

To limit the size of the log file, set:

log4j.appender.A1.MaxFileSize=

Example: If you wish to limit the size to MB, you can set **log4j.appender.A1.MaxFileSize=10MB**

Note When the server is running on UNIX platforms, we recommend that you do not uncomment the lines to redirect output to a log file. All messages will then be redirected to log files **jvue.log** and **jvue_n.log**, where **n** is the process number and you will have as many log files as the **processpoolsize**. This does not apply to Windows platforms.

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

Class	Description
log4j.category.com.cimmetry.jvueserver	Display all information from all classes in the JVueServer.
log4j.category.com.cimmetry.jvueserver.Cache	Information concerning the server's cache. Report messages and errors related to loading the cache, locking, saving, deleting cached files as well as searching for archive and XRef files.
log4j.category.com.cimmetry.jvueserver.DataSource	Information concerning file locking, downloading or fetching from the cache and metafile creation.
log4j.category.com.cimmetry.jvueserver.Document	Information concerning open documents and access to their corresponding document servers. The scheduling of metafile creation and whether open documents are using metafiles is also provided.

log4j.category.com.cimmetry.jvueserver.JVueServer	Information relating the start-up of the JVueServer: Binding to RMI ports, loading libraries, ...
log4j.category.com.cimmetry.LicenseManager	Reports errors when adding licenses.
log4j.category.com.cimmetry.jvueserver.MultiProcessHandler	Information regarding the start-up and shut-down of server processes.
log4j.category.com.cimmetry.jvueserver.RMIInvoker	Reports the invocation and return of RMI methods
log4j.category.com.cimmetry.jvueserver.ServerAdministrator	Reports communications between JVueServer clusters and connections from the console.
log4j.category.com.cimmetry.jvueserver.ServerProxy	Reports the invocation and return of server methods.
log4j.category.com.cimmetry.jvueserver.Session	Reports on sessions opening, closing and being restored as well as the loading and saving of Session profiles.
log4j.category.com.cimmetry.jvueserver.VCETConnection	Reports on file opening errors and generation of metafiles.
log4j.category.com.cimmetry.jvueserver.VueRMISocketFactory	Reports on the creation of server sockets.
log4j.category.com.cimmetry.jvueserver.connection	Report all messages regarding either RMI or JXTA connection handling.
log4j.category.com.cimmetry.jvueserver.connection.ConnectionManager	Reports on error creating connections. Provides information regarding JXTA or RMI event, message activity.
log4j.category.com.cimmetry.jvueserver.connection.jxta	Reports JVueServer JXTA configuration, message sending information.
log4j.category.com.cimmetry.jvueserver.connection.rmi	Reports JVueServer RMI configuration, binding, message sending information.
log4j.category.com.cimmetry.jvueserver.JVueServerConsole	Reports messages on server console loading, connecting information.

log4j.category.com.cimmetry.jvueserver.console.JVueServerFrame	Server Console Frame error reporting.
log4j.category.com.cimmetry.jvueserver.docserver	Reports all information regarding DocServer processes.
log4j.category.com.cimmetry.jvueserver.docserver.DocServer	Reports on loading of DocServer process.
log4j.category.com.cimmetry.jvueserver.docserver.DocServerProxy	Reports on starting / stopping / restarting of DocServer process.
log4j.category.com.cimmetry.jvueserver.docserver.JVCetControlImpl	Reports on errors in VCET Control.
log4j.category.com.cimmetry.jvueserver.event	Reports information on the addition, removal of listeners as well as lookup, binding errors of RMI Listeners/ Broadcasters.
jvueserver.util.JVueSettings	Reports on loading errors of server's settings.
jvueserver.collaboration	Reports on server side collaboration activity.
com.cimmetry.dms	Reports all DMS information.
com.cimmetry.dms.DMSClient	Reports on DMS message sizes, cookies, downloads, and errors.
com.cimmetry.dms.DMSRequest	Reports debugging information on requests to the DMS.
com.cimmetry.dms.DMSResponse	Reports debugging information on responses from the DMS. The full response is printed along with any parsing and reading errors

Testing the Installation

Testing the Client-server Connections

The AutoVue server installation generates sample HTML code that can be used to test the installation of the server and client components on the Web server. Even if the client machine itself does not need any special configuration setup, the Cab and Jar files containing the client code are installed in a directory on the Web server side, so that they can be properly served to any new connecting client.

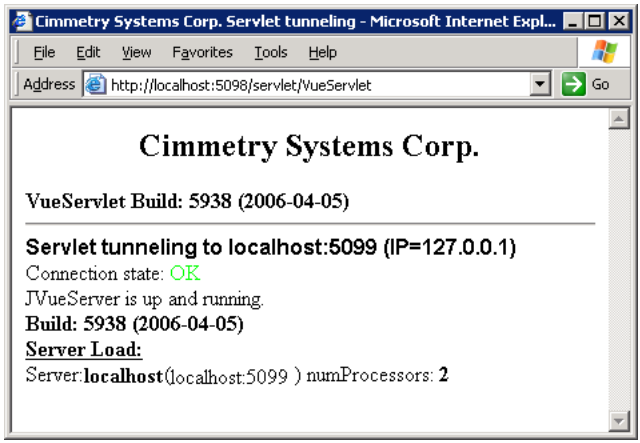
The sample HTML pages can be found in the installation Web directory under **\jVue**.

This directory was automatically created and updated when you selected the Web server you use during the server installation (it is usually \Inetpub\wwwroot\jvue for Microsoft IIS, \Lotus\domino\data\html\jvue for Lotus Domino, \FrontPage Webs\content\jvue for Microsoft FrontPage, /var/apache/htdocs/jVue for Apache).

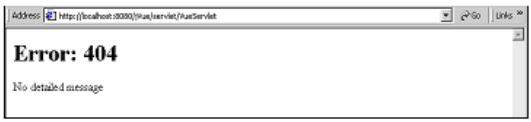
If you want a complete demonstration of AutoVue capabilities, open **/jVue/jVue.html** in your favorite Web browser.

Testing the Servlet Installation

To test the servlet installation, just open the servlet URL in your favorite Web browser. Assuming that the URL of the servlet is **http://localhost:5098/servlet/VueServlet**, successful installation displays the following HTML page:

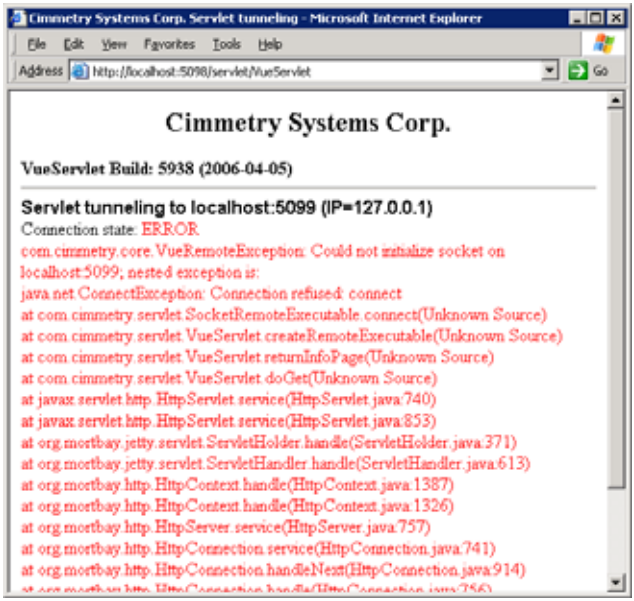


If the servlet URL is incorrect, you will see the usual HTTP error 404 (File not found) screen:



If you see the above error message, the VueServlet was not properly installed on your Web servlet engine. For details on setting up VueServlet, see **Servlet configuration**.

If the URL was found but the AutoVue server could not be accessed, you will see the following HTML page:



Exceptions and errors may vary depending upon the failure reason. If you see an error message similar to the above screen, it means that the VueServlet was installed properly but that it could not contact the AutoVue Server.

This is generally caused by one of two reasons:

- The **AutoVue** server is not running.

or

- The AutoVue server is running on a different machine and the JVueServer init parameter of the VueServlet servlet was not specified.

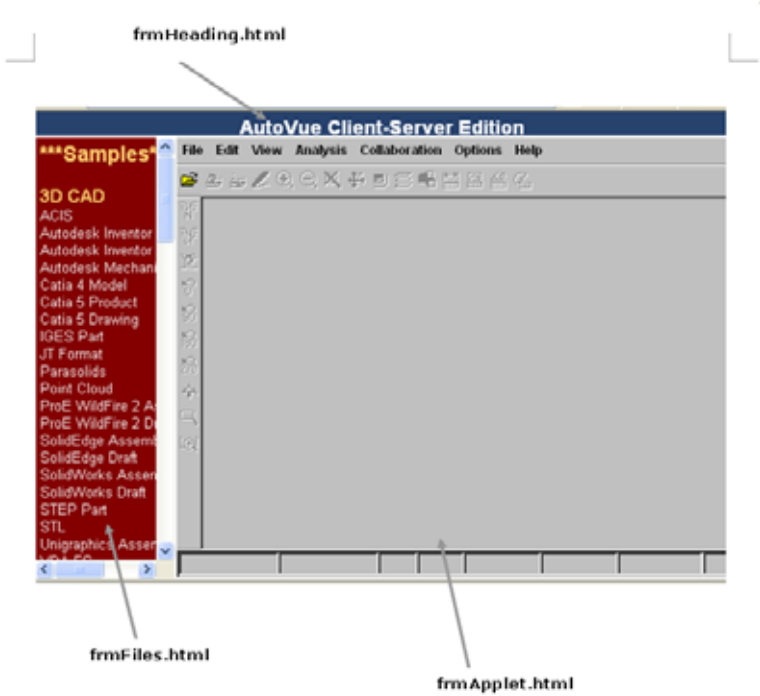
Enabling the VueServlet to contact the AutoVue Server

1 Verify that the AutoVue server is running.
2 If the AutoVue server is running on a different machine, make sure the JVueServer init parameter of the VueServlet servlet is specified.
It has the form:
JVueServer=my.jvueserver.com:5099

where "**my.jvueserver.com**" specifies the name of the machine on which the AutoVue server is running. 5099 is the default socket port the server uses.
If you modify the default, the same value should be specified here.

Customizing the Installation

The test HTML page jVue.html is made of three frames: frmHeading.html, frmApplet.html and frmFiles.html.



The HTML code responsible for the applet generation is held in **frmApplet.html**. The 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, see **Scripting the Applet**.

The connection schemes used in those examples are by default direct socket connections on the default port (5099) and, if failed, servlet tunneling.

Applet Parameters

Customizable applet parameters are:

Name	Type	Value
CACHEUI	TRUE|FALSE	Set to TRUE to cache UI components for later use. **Default**: true
COLLABORATION	INIT:CSI_ClbSessionID=987654321; CSI_ClbDMS=dmsIndex; CSI_ClbSessionData=123456789; CSI_ClbSessionSubject=Subject; CSI_ClbSessionType=public|private; CSI_ClbUsers=user1, user2,…	Initiate collaboration session.
	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.

Name	Type	Value
	JOIN:CSI_ClbSessionID=987654321; CSI_ClbDMS=dmsIndex;CSI_ClbSessionData=123456789;	Join collaboration session in progress.
	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. This has precedence over any DMS entries specified in the Server's **VueServer.ini** file.
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:** <PARAM NAME="DMSARGS" VALUE="ARG1;ARG2> <PARAM NAME="ARG1" VALUE="value1"> <PARAM NAME="ARG2" VALUE="value2">

Name	Type	Value
EMBEDDED	TRUE | FALSE	Set to **TRUE** to embed the Applet in the web page. **Default value**: TRUE **Note** The Applet starts embedded in the HTML page.
ENABLEEMF	TRUE | FALSE	Stream document files as EMF to Windows clients when true.
FILENAME	URL	Set it to the file to be opened at Applet's start-up.
	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 URL for file open.
	ftp://host/file or... ftp://<user>:<password>@ <ftpserver>/file	Specify a FTP URL for file open.
	server://dir/../file	Will be understood as a server local file to be viewed. Server local files have to be located under subdirectories of the root directory specified in the **VueServer.ini** file under the **[Server]/Directory** key. If that key is not set, no file will be accessible.

Name	Type	Value
FORMAT	AUTO |TILED|NATIVE	Rendering format. **TILED** uses a tiled-raster representation of documents to display file. **AUTO** uses adapted representations depending on the type of file viewed. The **NATIVE** format uses a small native component to render Documents, SpreadSheets and DataBase. It is only available on Windows platforms.
GUIFILE	String	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 **[Users]\Directory** key of the **VueServer.ini** file. The specification can also specify a local file using the **"file://"** convention.
GUIKIT	AWT|SWING	Graphical user interface (GUI) toolkit used. **AWT** toolkit is included in the applet code, but the **SWING** toolkit may also be used, provided that Swing has been properly installed on the Client machine. If not specified, the Applet tries to detect if Swing is installed and uses it by default.

Name	Type	Value
JVUESERVER	Semicolon-separated list of:	Host of the AutoVue Server, including port specification. 'name' should match the property '**jvueserver.hostname**' value on JvueServer's machine. If not set, "**socket://localhost:5099**" is used.
LISTUSERS	TRUE|FALSE	Show list of users connected to AutoVue Server when initiating a collaboration session or when inviting users to a collaboration session.
LOCALE	DA|DE|EN|ES|FR| IT|JA|KO| NO|PT|SV|TW|ZH	The Locale to be used in the user interface, specified as an ISO639 two-letter code. Using this parameter, Web servers can force the applet GUI to be displayed in one of the supported languages. If not set, the Locale is determined using the client system properties.
LOGFILE	String	Specify log file for messages. null is for standard output. **Default**: null
NOCOOKIES	TRUE | FALSE	Set to **TRUE** to disable setting cookies in the browser.

Name	Type	Value
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. ***See*** **Advanced Scripting Functionality**
SWINGLAF	String	Specify a look and feel for Swing, e.g., **com.java.swing.plaf.motif.MotifLookAndFeel**. If null, platform’s default look and feel will be used, obtained by **UIManager.getSystem LookAndFeelClassName()**. **Default**: null
USERNAME	String	Set it to the user name to be used for opening sessions on the AutoVue Server. If not set, the applet will try to guess the user name from the system properties.

Name	Type	Value
VERBOSE	OFF | 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 **OFF** or **FALSE** to turn off verbosity.

Configuring AutoVue Server

The following table describes the customizable parameters in the file **jvueserver.properties**.

Property	Value	Description
jvueserver.hostname		Specified the host name for AutoVue Server.
jvueserver.rmi.port	1099	Specify the connection parameters used in RMI connections.
jvueserver.socket.port	5099	Specify the connection parameters used for socket connections.
jvueserver.inifile	VueServer.ini	Specify the name of the Server startup INI file. Default is VueServer.ini in the bin directory in AutoVue Server's installation directory.
jvueserverx.nt.processPoolSize	4	Set the process pool size for the server. This specifies the number of secondaries (or DocServers) to startup when the Server starts up.

jvueserver.metacache.enable	true|false	Set to false to disable creation of metafiles on the server. When set to false, dedicated metafile process will not start. **Default**: True
jvueserver.metacache.threshold	non-negative integer	DocServer load that forces metafile creation in a designated process.
jvueserver.metacache.process	true|false	Flag for using separate process for matafile caching. If false, DocServers themselves handle metafile creation. **Default**: True
jvueserver.collaboration.enable	[false, true] Default : true	True enables collaboration mode on the server. False disables the mode.
jvueserver.collaboration.id.min	[integer] Default : 0	Minimum id given to users and collaboration sessions by this server. Change this id when you are running many JVueServers that must communicate together for collaboration. The second server must have a minimum id of at least **jvueserver.collaboration.id.min+jvueserverx.nt.processPoolSize*jvueserver.collaboration.id.range** of the first server. Id collapsing may occur otherwise.
jvueserver.collaboration.id.range	[integer] Default value : 100000	Range of ids given to users and collaboration sessions by this server. This will limit the number of simultaneous connections.
jvueserver.collaboration.protocol	[rmi, jxta]	Specify the protocol to use for collaboration.

jvueserver.collaboration.tcp.port	[integer] Default : 9700	Base tcp port to be used. The configuration parameters below need to be changed when using more than one server cluster in a server farm.
jvueserver.http.proxyhost jvueserver.ftp.proxyhost	myproxyserver.com:80	If your AutoVue server uses a proxy server to connect to the Internet, then the proxy server name must be specified in the jvueserver.properties file.
jvueserver.preload	String	Pre-loader class name.
jvueserver.ntlm.enable	true|false	Set to **true** to support NTLM authentication. **Default**: false

Scripting the Applet

Basic Applet

The basic definition needed for the applet is:

```
<!-- BEGIN AutoVue Applet -->
<APPLET
    <!-- NAME is optional but useful to identify the object in JavaScript --
    NAME="JVue"
    <!-- The name of the Applet Class (not to be changed)-->
    CODE="com.cimmetry.jvue.JVue"
    <!-- This specifies the location of jVue.cab and jVue.jar. The WEB Browser
    will download these files from this location -->
    CODEBASE="http://www.webserver.com/jVue" <!-- Name of the JAR
    Archive containing the Applet.Used by Netscape
        (not to be changed). -->
    ARCHIVE="jvue.jar"
    <!-- Optional Sizing Parameters -->
    HSPACE="0" VSPACE="0"  WIDTH="100%" HEIGHT="100%"
    <!-- MAYSCRIPT is required. This allows the Applet  to read and write a
    cookie identifying sessions on  the Web Browser -->
    MAYSCRIPT>
    <!-- Set EMBEDDED to “true” for the Applet toappear within the WEB
    page. The default value is “false” which causes the Applet to appear in a
    separate Window -->
    <PARAM NAME="EMBEDDED" VALUE="false">
    <!-- The VERBOSE parameter is optional. If set to “true” then diagnostic
    output appears in theBrowser’s Java Console -->
    <PARAM NAME="VERBOSE"  VALUE="false">
    <!-- Set FILENAME to specify the URL to load in the Applet. If not
    specified then the Applet shows up with no file set initially -->
    <PARAM NAME="FILENAME"
VALUE="http://www.webserver.com/jVue/samples/acad12.dwg">
    <!-- The JVUESERVER parameter specifies a semi-colon separated list of
    connection methods to useto communicate with the AutoVue Server.
    Below: the client will try a direct socket connection, and if it fails, will try
    to tunnel through the Servlet installed under http://www.webserver.com/
    Servlet/VueServlet
```

-->
<PARAM NAME="JVUESERVER" VALUE="socket://
www.jvueserver.com:5099;http://www.webserver.com/servlet/VueServlet">
<!-- Name of the JAR Archive containing the Applet. Used by

Internet Explorer -->

<PARAM NAME="cabinets" VALUE="jvue.cab">
<!—Message for Browser that do not support Java -->
Requires a browser that supports Java.
<PARAM NAME="COLLABORATION"

VALUE="INIT:CSI_ClbSessionID=987654321;CSI_ClbDMS=dmsIndex;CSI_ClbSessionData=123456789;CSI_ClbSessionSubject=Subject;CSI_ClbSessionType=public|private;CSI_ClbUsers=user1,user2,… ">

</APPLET>
<!-- END AutoVue Applet -->

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.

Commonly used methods include:

Method	Description
setFile(String url)	Set the file to be viewed in the applet.
setCompareFile(String url)	Switch to compare mode and compare the current file with a given one.
addOverlay(String url)	Add a given file as an overlay on the current file.
printFile(PrintProperties pProps)	Print the current file using options specified.
printFile(PrintProperties pProps, boolean UseDefaultPrinter)	Print the current file using the options specified, but do not prompt for the printer to use.
setMarkupMode(boolean enterMarkupMode)	Enter or exit Markup mode.

Method	Description
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 INIT in Applet Parameters for Collaboration.***
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). ***See JOIN in Applet Parameters for Collaboration.***
collaborationEnd()	End current collaboration session.
crossProbe(String fileName)	Add a given file to the list of cross-probed files.closeDocument(): Close current document.
import3DFile(String fileName, HMatrix transform)	Import a 3D file. Specify file name and the transformation to apply to the imported entity.
setGUI(String guiFile)	Set GUI definition file. Specify the name of the GUI definition file.
setPage(int page)	Sets the page on the currently opened document. Specify the page number to set.

Refer to the “JavaDocs” on the AutoVue applet and the VueBean for complete information on the public methods that are available.

Example 1:

Use the ONINIT applet parameter to automatically load a document to view, load all associated Markups and print the results.

```
<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");
         // 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…
}
-->
</script>
  <!-- BEGIN AutoVue Applet -->
  <APPLET
     NAME="JVue"
     CODE="com.cimmetry.jvue.JVue"
     CODEBASE="http://www.webserver.com/jVue"
```

```
    ARCHIVE="jvue.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="socket://
www.jvueserver.com:5099;http://www.webserver.com/servlet/VueServlet">
    <PARAM NAME="cabinets" VALUE="jvue.cab">
    <p><b>Requires a browser that supports Java.</b></p>
  </APPLET>
  <!-- END AutoVue Applet -->
```

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 HRefs in a separate frame to dynamically call those methods will be done by adding the following lines to your HTML code:

```
<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.addOverlay('http://myserver/
CAD/ovrl.dwg')"> Add overlay ovrl.dwg </a>

<a href="JavaScript:parent.AppletFrame.JVue.printFile(true)"> Print file </a>
```

Exploring the Server's File System

The basic setFile functionality described above allows easy browsing of files on the server side, using the small servlet ListDirServlet provided with the installation. This servlet generates a list of the accessible server files in HTML format and sends it back to the client. The client can then select a file in the list and display it in the AutoVue client.

The ListDirServlet accepts three initialization parameters:

- **RootDir**: This is the root directory of all the directories that a user can browse on the server side.
- **RootURL**: This is the URL of the RootDir. Subdirectory URLs are assumed to be RootURL + relative path to the directory.
- **HREFFormat**: This is the format of the HRef generated for every file listed. In this format, the URL of the file listed replaces the %URL token. For example, the default format:
  HREFFormat= JavaScript:parent.AppletFrame.setFile('%URL')
  generates a hyperlink that will trigger a setFile in the applet located in the frame named AppletFrame, for each file listed.

Because the client only receives a URL list, basic security of URL browsing still applies to the file access. However, you can also specify URLs using the pseudo-protocol 'server:' and directly browse the server file system (thus eliminating the download overhead). In order to use this protocol, you just have to ensure that the RootDir directory is also the one specified in the **[Server]/Directory** key of the **vueserver.ini file**, see **List of INI File Options**.

Installing the ListDirServlet depends on the servlet engine your Web server is using, see **Appendix B**. Once the servlet is properly installed (you can test the installation by accessing the servlet URL in your favorite Web browser), modifying the sample HTML code so that it displays the list of available files in the left frame is very easy.

Edit the file **jvue.html**. Change the line below:

<FRAME SRC="frmFiles.html" NAME="Directory"
MARGINHEIGHT="0" MARGINWIDTH="4">

to

<FRAME SRC="http://myserver/servlet/ListDirServlet" NAME="Directory"
MARGINHEIGHT="0" MARGINWIDTH="4"> (assuming that the servlet URL is http://myserver/servlet/ListDirServlet).

List of INI File Options

VueServer.ini Options

VueServer.ini contains general configuration information for the AutoVue server. It is located in the program **\bin directory** (e.g. **c:\Program Files\jVue\bin**).

Option	Description
[Users]	Section contains information on the global users settings.
Directory	Key should contain the directory in which user information is stored (users' ini files, users' GUI files).
DefaultINI	Name of the default INI file
AllUsersIni	Name of the allusers INI file
[RMI]	Section contains load balancing configuration.
MaximumLoad	Key specifies a relative value indicating how much load a server can handle relative to other servers in the cluster. The default value is 100 for all servers.
RMIHost1	Key should contain the IP addresses of the available AutoVue servers, including ports numbers.
RMIHost2	Key should contain the IP addresses of the available AutoVue servers, including ports numbers.
... RMIHostN	Key should contain the IP addresses of the available AutoVue servers, including ports numbers.
[Markups]	Section contains information on the Markups organization.

Option	Description
Directory	Key specifies in which directory the Markups 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. By default, the directory is the Markups subdirectory of the AutoVue server program directory.
Permissions	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.
SymbolDir	Key specifies in which directory the Markups symbol libraries are stored. By default, the directory is the **symbols** subdirectory of the AutoVue server program directory.
[Cache]	Section contains information on the file cache.
Directory	Key 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.
ForceAscii=<0|1>	Forces using ASCII characters in cached files names.
Size	Key specifies, in Megabytes, the maximum size of the file cache. If not specified or if value specified is less than 50 MB, a default of 50 MB will be used.
[Server]	Section contains information on the server viewable local files.

Option	Description
Directory	Key specifies in which directory to search for the local files. This key has to be set to allow client to see server local files through the 'server:// ' pseudo-protocol. ***See The FILENAME description in* Applet Parameters.** By default no server files can be viewed. Setting this key allows users to see ANY local file in the specified directory and subdirectories. However, the server takes care of parent references in paths (the ".." directory) to avoid security breaches.
Directory1 Directory2 ... Directoryn	To specify multiple directories, specify **Directoryn=<Path>**. To access files at these locations, specify "**server://@n/...**"
[HELP]	Section contains information about the online help file.
File_en	Entry specifies the URL to the English Help file.
File_xx	Entry specifies the URL to the Help file for the language "xx."
File	Entry specifies the URL to the default Help file.
[OEM]	Section contains information about the text displayed in the different notification dialogs. This can be customized to suit your needs.
PURCHASE_CONTACT	Key points to the text that should apply in the **DEMO Notification** dialog. **Example**: PURCHASE_CONTACT=ABC Company's sales department: \nTel: 1-555-6666-7777, 1-800-222-3333\nEmail: sales@abccompany.com
[Options]	Other Options

Option	Description
FORMATDEVICE	Specify printer device to use for formatting Word documents when AutoVue Server is running as a service. The syntax is: **FORMATDEVICE=PrinterName,PrinterDriver, PrinterPort** For steps on how to get this information for the current default printer from the registry, refer to **http:// support.microsoft.com/?kbid=156212**
ManageMemoryUsage	Set to **1** to enable Berkley Database Caching. When memory usage reaches the limit specified in MaxManagedMemUsage, AutoVue starts writing into a file on the disk. Set to **2** to optimize memory usage when loading 3D files with BREP data. Set to **0** to disable Database Caching and memory management. Set to **3** to enable Berkley Database Caching and to optimize memory for 3D files with BREP data. **Default**: 2
MaxManagedMemUsage	Specify the limit (in bytes) for memory usage for AutoVue. When the limit is reached, AutoVue starts writing to a file on the disk. **Default**: Half of the available RAM on the machine.
MngMemPageSize	This option controls the size of pages used in memory management schema (similar to windows page size). The possible values are between 1024 (1KB) and 65536 (64KB) **Default**: 8192 (8KB).
MeshResolution	This option controls the default mesh resolution for 3D files. Set to **low** or **medium** or **high**. **Note** Option and values are case sensitive. **Default**: Low

Example:

```
[Users]
Directory = C:\jvue\Users

[RMI]
```

```
MaximumLoad=250
RMIHost1 = jvueserver1.company.com:1099
RMIHost2 = jvueserver2.company.com:1099

[Markups]
Directory = C:\jvue\markups
; Allow all users to alter —Markups
Permissions = 0
; Set permissions to 1 to allow only owners to alter Markups

[Cache]
Directory = C:\jvue\temp

[Server]
; Uncomment the following line to allow client to
; see ANY file in the sub-directories of C:\jvue\local
;Directory = C:\jvue\local
;Directory2=C:\jvue\testfiles
;Directory3=C:\jvue\3dtestfiles

[Help]
# Specify a custom help file for the Client Applet.
File=http://jvue.company.com/jVue/help/my_help.html
```

allusers.ini and default.ini Options

These files are stored in the directory specified under **[Users]/Directory** in **VueServer.ini** (the default is the directory of the **VueServer.dll**). The file **default.ini** is the default INI file for all users at the start. When you first log on, the contents of **default.ini** is copied to your own INI file ("username".ini). The contents of **allusers.ini** is then transferred to "username".ini when you connect to AutoVue. For a complete list of options, see **Appendix F**.

Example:

```
[Options]
# Locations of External reference files.
XREFPATHS=C:\myxrefs;d:\acad\xrefs
# Locations of CAD font files.
XFONTPATHS=C:\myfonts;d:\acad\fonts
```

Customizing the GUI

Choosing the GUI File

By default, if the applet parameter **GUIFILE** is not set, the applet will use a default GUI specification for the menus and toolbars. However, this default GUI is the same as the one that would be generated with the configuration specified in the file **default.gui**. The location of this file is specified by the entry Directory in the [Users] section of the ini file (VueServer.ini).

To customize the default GUI configuration, do your modification in this file and set the GUIFILE parameter to **default.gui**. This way, you can even create several GUI files with specific functionalities (like “no compare mode” or “no printing” etc.) and allow different clients to have different GUIs. A sample GUI file that allows viewing only (disabling Markup mode) is provided as **viewonly.gui**.

Modifying the GUI File

The GUI definition file structure is a fairly simple one. It mainly describes which controls (corresponding to available actions in the applet, like Rotate, Open etc.) are to be added to which context (like MenuBar, ToolBar etc.), thus allowing users to have complete control over the functionality and the look of the applet interface.

The GUI to use on the AutoVue client can be specified in the “**GUIFILE**” **Applet Parameters**. For more about GUI file structure and syntax, see **Appendix D**.

UNC File Names

When AutoVue is being used in a Microsoft-based network environment, a special VueAction is available to support the viewing of files through their UNC filenames. This VueAction allows the server to directly access files on the network, as well as XRef files if they exist in the same directory as the base file. File names are specified through a specialization of the **"server://"** URL mechanism, where the UNC name is prefixed with the string **"server://@0"**.

The control name is VueActionFileOpenUNC. The GUI file has to be modified to use VueActionFileOpenUNC. For more information on the GUI file, see **Appendix D**.

Following are a few examples of how this VueAction works. First you will have to modify the GUI file to use **VueActionFileOpenUNC**.

Example 1

Assuming that you have files on a shared network drive **\\machine1\share1**. You wish to open files that are in subdirectory **dir1** on the shared drive.

Select **Open** from the **File** menu and browse to **\\machine1\share1\dir1**. Then select a file **file1** to open. AutoVue translates this upload request to: **server://@0/\\machine1\share1\dir1\file1**

Example 2

Assuming that you have files on a shared network drive **\\machine2\share2** mapped as '**W:**'. You wish to open files that are in subdirectory **dir2** on **W:**.

When you open a file **file2** using **Open** from the **File** menu, AutoVue translates this upload request to **server://@0/\\machine2\share2\dir2\file2**.

Example 3

Assuming that you have files on a shared network drive **\\machine3\share3**. You wish to open files that are in subdirectory **dir3** on this shared drive. You wish to open file **file3** that exists in directory **dir3**. All the XRefs for this file exist in the same directory.

When you open file **file3**, using **Open** from the **File** menu, AutoVue translates this upload request to **server://@0/\\machine3\share3\dir3\file3**. AutoVue also locates all the XRefs for this file that exist in the same directory.

Configuring for Collaboration

- **jvueserver.collaboration.protocol=[rmi, jxta]**
  Specify the protocol to use for collaboration.
- **jvueserver.collaboration.enable=[false, true]**
  True enables collaboration mode on the server. **False** disables the mode.
  Default: true
- **jvueserver.collaboration.tcp.port=[integer]**
  Base tcp port to be used.
  Default: 9700
  Note The configuration parameters below need to be changed when using more than one server cluster in a server farm.
- **jvueserver.collaboration.id.min=[integer]**
  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+jvueserverx.nt.processPoolSize*jvueserver.collaboration.id.range** of the first server. Id collapsing may occur otherwise.
  Default: 0
- **jvueserver.collaboration.id.range=[integer]**
  Range of ids given to users and collaboration sessions by this server. This will limit the number of simultaneous connections.
  Default value: 100000

Configuring across Firewalls and Multiple AutoVue Servers

- **jvueserver.collaboration.protocol=jxta**
  Protocol should be set to **jxta**.
- **jvueserver.collaboration.rendezvous.enable=[true, false]**
  Set to **true** to enable communication with other servers that are not part of the server farm. When you have multiple server farms, set to **true** for at least one server in each farm to enable this server to communicate with other server farms across firewalls.
  jvueserver.collaboration.rendezvous=[protocol://IP_of_server_to_communicate_with:port]

Example: jvueserver.collaboration.rendezvous=tcp://ip1:port1;http://ip2:port2
Specify the protocol, the IP address of other servers to communicate with, and the port for communication.

- **jvueserver.collaboration.jxta.allowExternal=[true, false]**
  Set to **true** to allow other servers that are not part of the server farm to communicate with this server.

Specify one of the following options when using network address translators in a firewall setup:

- **jvueserver.collaboration.http.server=[external_IP:port]**
  When using firewalls and Network Address Translators, specify the external address and port for http connections.
- j**vueserver.collaboration.tcp.server=[external_IP:port]**
  When using firewalls and Network Address Translators, specify the external address and port for tcp connections.

Appendix A: Known Limitations

- Functionality that has not been implemented yet:
  - Scanning
  - Comparison result printing
  - Specific Windows functionalities (linking to DLL, DDE etc.)
  - Thumbnail view
- The server does not automatically download the XRefs for a remotely located file. If XRefs are accessible on the local network of the server's machine, you can make the XREFPATHS key of the **allusers.ini** file point to that location.
  You can also use VueActionFileOpenUNC to be able to locate all XREFs is they exist in the same directory as the base file.
- Extreme zoom-in of AutoVue Streaming Format (ASF) may display wrap-around problems.
- Due to known compatibility issues with Java 1.5 and Mozilla, Netscape and FireFox, we recommend that you run these browsers with Java 1.4.2.
- Due to the enriched API that are implemented with Java 2, some features such as *"Dim Unselected" highlight type for PCB Layouts* are only available with clients running Java 1.4.2 and above.

Appendix B: Servlet Configuration

In this section we describe setting up the servlet VueServlet for several popular WEB/Servlet Engines. The VueServlet servlet allows the AutoVue client to communicate with the AutoVue server using the standard HTTP protocol. This has two advantages:

- The Client and Server can generally communicate across firewalls since the standard HTTP ports (e.g. 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.

Certified Application Servers

Generally the VueServlet will work with any application server. Generic instructions for deploying the VueServlet with J2EE and non-J2EE application servers are described below this section.

Cimmetry validates the VueServlet with the following application servers:

- Tomcat 5.5 and 4.x
- WebSphere 5.1
- WebLogic 9.0 and 8.x
- JRUN 4
- Jetty

Tunneling through J2EE-enabled Application Servers

This section provides instructions for creating and deploying VueServlet for J2EE application servers.

Creating a WAR File for VueServlet

Complete the following instructions to create a WAR file for VueServlet.

1 Create a directory.
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** to **C:\csiwar\WEB-INF\lib**.

5 Create a deployment descriptor. The deployment descriptor should be stored as a 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 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.

```
<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:5099</param-value>
            </init-param>
            <init-param>
                <param-name>Verbose</param-name>
                <param-value>0</param-value>
            </init-param>
    </servlet>

    <servlet-mapping>
        <servlet-name>com.cimmetry.servlet.VueServlet</servlet-name>
            <url-pattern>/servlet/VueServlet</url-pattern>
    </servlet-mapping>

</web-app>
```

The **<servlet-name>** parameter is how the Servlet is known within the XML file.

The **<servlet-class>** parameter is the fully qualified Java programming language class name of the Servlet. The **<url-pattern>** parameter is how the Servlet is referenced from a Universal Resource Indicator (URI).

Update *hostname* with the name of AutoVue server machine.

Note The parameter structure must follow the order in the DTD definition. For example, all <servlet>s must be defined before any <servlet-mapping>s can be specified.

- Update *hostname* in **web.xml** with the name of AutoVue server machine.

6 To create the WAR file, use the "jar" utility from the Java™ Development Kit distribution. If you are in the root directory you created for the WAR contents (C:\csiwar), use the following command:
jar cvf VueServlet.war WEB-INF
Now you can deploy VueServlet.war using any J2EE compliant application server or Web container.

7 After the VueServlet is deployed, to access the content, type the following into your web browser:
http://host:port/<context>/servlet/VueServlet
The <context> parameter can be set in the deployment phase or set automatically by the application server. Some application servers allow you to specify the context name, but generally the WAR file name is used as the context.

Deploying the WAR File

This section provides generic instructions for deploying a WAR file, followed by instructions for deploying the WAR file with a specific application server.

Generic Steps to Deploy the WAR File

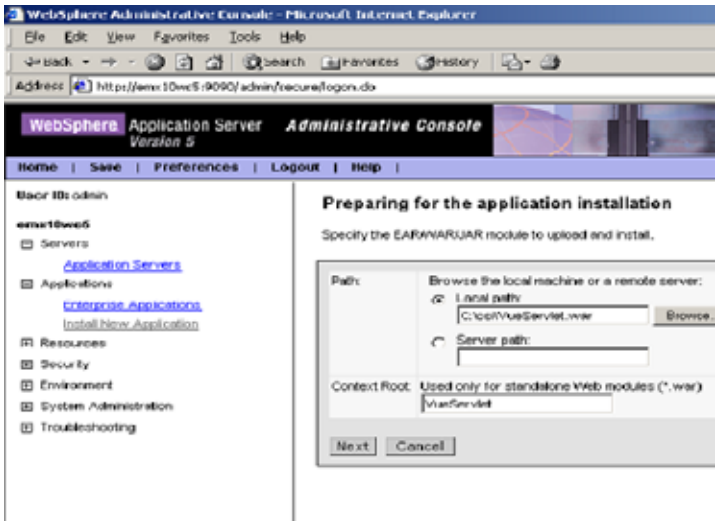
1 Launch the administrative console of your application server.
2 Select **Install a new Web application**.
3 Browse and select VueServlet.war.
4 Specify **VueServlet** for the context name.
5 Deploy **VueServlet.war**.

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

Deploying the WAR File with WebSphere 5.x

1 Launch the administrative console and log on to the application server.
2 Select **Applications** and then **Install new application**.
3 Browse and select VueServlet.war.

4 Specify **VueServlet f**or the context name and click **Next**.



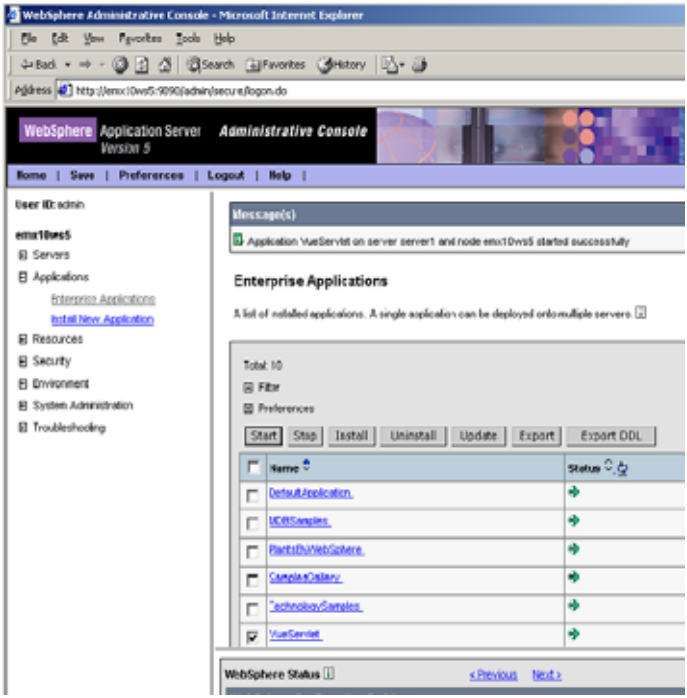
5 Accept the default values in the screen that appears.

6 In the **Install New Application** screen, enter **VueServlet** for the **Application Name** and click **Next**.

7 Accept the default values in the remaining screens. Then click **Finish**.

8 To start the VueServlet application, go to **Applications** and then **Enterprise Applications**.

9 Select **VueServlet** and click **Start**.



To test the VueServlet, 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.

Deploying the WAR File with JRUN 4.0

1 Create a folder called **web** in the JRUN installation folder (Ex: **C:\JRUN4\web**).
2 Copy the VueServlet.war to the web folder created above.
3 Logon to the JRUN Management Console.
4 Expand the **Default Server** tree.
5 Click on **J2EE Components** and then click on **Summary.**
6 Under **Web Applications**, click the **Add** button.
7 Click on **Browse.** Browse and select the **VueServlet.war** file.
8 Set the **Context Path** to /VueServlet. Click **Apply**.

9 You may get an error message at this point. Ignore this message and click on **Summary.**
10 Under **Web Applications**, click on the **redeploy** icon next to **VueServlet**.
11 Once the deployment is successful, verify the deployment. 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.

Deploying the WAR File with WebLogic 9.0

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. Ex: myserver
7 Click **Activate Changes**.
8 Select **Deployments** again and select the VueServlet application.
9 Click **Start -> Servicing all requests**. Wait till the application is started. Once the deployment is successful, verify the deployment. 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.

Tunneling with non-J2EE Application Servers

Setting up VueServlet

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

1 Copy the file vueservlet.jar to your Servlet Engine's servlet directory.
2 Add vueservlet.jar to your Servlet Engine's CLASSPATH.
3 Create an alias for VueServlet to com.cimmetry.servlet.VueServlet.
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 is the default port that the server runs on. If you change the default, this should also be correspondingly changed.

5 For the changes to take effect, restart the servlet engine.

Note The default socket port is 5099 (not 1099, that is used by RMI).

Tunneling using 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 **jetty.xml** and add the following:

```
<Call name="addServlet">
    <Arg>VueServlet</Arg>
    <Arg>/servlet/VueServlet</Arg>
   <Arg>com.cimmetry.servlet.VueServlet</Arg>
   <Put name="JVueServer">www.jvueserver.com:5099</Put>
   <Put name="Verbose">false</Put>
  <Put name="DebugLevel">0</Put>
   </Call>
```

4 Replace **www.jvueserver.com** with the name of 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.

5 Start Jetty and 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

Tunneling using a Microsoft IIS ISAPI Extension

Microsoft's IIS is a widely used Web server. It does not provide servlet functionality in itself. People often integrate a 3rd party J2EE engine (e.g. WebLogic, Tomcat or JRun) with IIS to provide servlet (and other J2EE) functionality. In this case, follow the instructions for the 3rd party J2EE/servlet engine to install VueServlet and to modify the JVUESERVER Applet param to point to the location of VueServlet.

For customers who are using “vanilla” IIS (which has no integration with a 3rd party J2EE engine), Cimmetry Systems Corp. provides an ISAPI extension for Jetty which provides HTTP/HTTPS tunneling between the applet and the AutoVue server.

1 To install the ISAPI extension DLL, copy the files **VueServletIsapi.dll** and **VueServletIsapi.ini** to the IIS **Scripts** or **cgi-bin** directory on the Web server.
2 The file **VueServletIsapi.ini** needs to be customized for the installation: By default it connects to localhost on port 5098 to the servlet /VueServlet. In other words, it assumes the AutoVue server is running on the same machine and its “internal servlet” engine is enabled and running on port 5098.
3 By default, the internal servlet engine is enabled on the AutoVue server. Confirm that these lines in **jvueserver.properties** are not commented:
servlet-engine.classpath= ....
servlet-engine.jre= ...
servlet-engine.cmdline= ...
4 The JVUESERVER applet param(in frmApplet.html) also needs to point to the ISAPI filter.
For example if it was installed under the cgi-bin virtual root of IIS you would have:
<PARAM NAME="JVUESERVER" VALUE="http://www.iisServer.com/cgi-bin/VueServletIsapi.dll">
5 Startup AutoVue Server and test the ISAPI extension DLL.
6 To test that the ISAPI extension DLL is installed properly and can communicate with AutoVue’s internal servlet engine, open a Web browser and enter the ISAPI URL in the address field.
Example: http://www.iisServer.com/cgi-bin/VueServletIsapi.dll

Appendix C: Running the AutoVue Server as a Service

On Windows Operating Systems

AutoVue server can be run as a Windows Service. The advantage of this is that it will continue to run even after you log off of Windows. Before running the AutoVue service, first verify that it runs properly in “non-service” mode (e.g., run by clicking the **Start AutoVue**, **Client-Server Edition** icon in the **Start** menu). The AutoVue service is automatically registered with the Windows Service Control Manager when the product is installed.

To install the service manually, go to the \bin directory of the directory where you had installed AutoVue server and type: jvueserver -install

The service will be automatically unregistered and removed if you uninstall the product.

To remove the service manually, go to the \bin directory of the directory where you had installed AutoVue server and type: jvueserver -remove

Starting and Stopping the Service

1 In the Control Panel start the **Services** Control Panel applet.
2 Select the **AutoVue Server** service.
3 Click the **Startup** button.
4 Select whether you want the service started automatically on re-boot or manually. The default option installed is Manual so you must manually start the service.
5 Make sure you select the **Log On System Account** and **Allow Service to Interact with Desktop** options.

Note If you select **Manual**, you can start the Service by:

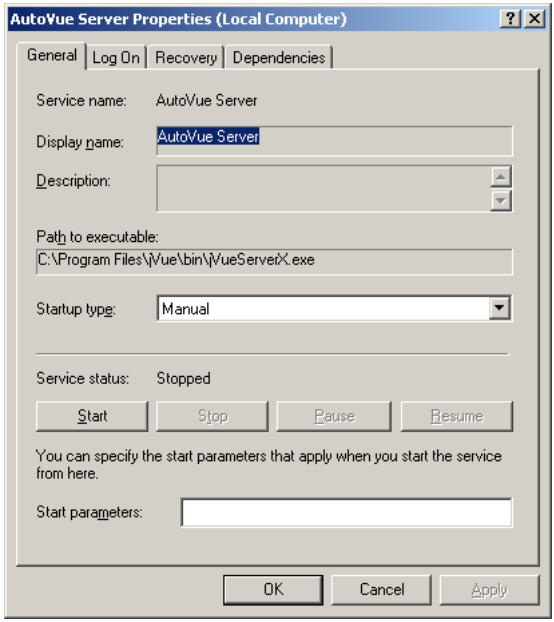
- clicking **Start** in the **Services** dialog box

or

- using the sc.exe utility. E.g., SC start “AutoVue Server”

or

- by using the NET program. E.g., NET start "AutoVue Server"



Once the Service has been started, it behaves exactly as if run in "non-service" mode. The AutoVue server icon appears in the System Tray. To stop the service click **Shutdown**.

On Solaris Operating Systems

Cimmetry provides an 'rc' script to manage AutoVue Server on Solaris. AutoVue server can be configured to startup automatically when the machine is restarted.

A script file '**jvueserver_rc**' is created in **<Install_dir>/etc**, where **<Install_Dir>** is the directory where AutoVue Server is installed.

Please refer to the instructions in this script file for configuring AutoVue Server to startup as a service.

Appendix D: Structure and Syntax of GUI Files

AutoVue supports three modes: View, Compare, and Markup. 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 Defining the GUI for View mode is mandatory but Compare or Markup mode is optional. 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.

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" (e.g. 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 below:

GUI_configuration =

BEGIN UI VIEW UI_mode_configuration END

{BEGIN UI COMPARE | MARKUP UI_mode_configuration END

***UI_mode_configuration =**

{*menu_bar_configuration* | {*toolbar_configuration*}* | *status_bar_configuration* | *RMB_popup_menu_configuration*}

menu_bar_configuration =

MENUBAR BEGIN {*popup_menu_configuration*}* END

toolbar_configuration =

TOOLBAR NORTH|WEST|EAST BEGIN {*button_control* }* END

status_bar_configuration =

STATUSBAR SOUTH BEGIN {button_control | pane_control } * END

RMB_popup_menu_configuration =

RMB BEGIN {*popup_menu_configuration* | *menu_item_control* }* END

popup_menu_configuration =

POPUP IDS_{FILE|EDIT |VIEW |OPTIONS |HELP | VIEW_IMAGE |TOOLS |ENTITIES |MODIFY |HYPERLINK} BEGIN {*popup_menu_configuration* | *menu_item_control* | SEPARATOR }* END

button_control =

BUTTON *action_control`*

menu_item_control =

MENUITEM *action_control*

pane_control =

PANE *action_control*

action_control =

control_name , control_key_list, permissions

control_name: For list of available control names refer to the table that follows.

control_key_list: For list control key list for different controls refer to the table that follows.

permissions: All action names need "PERM_READ".

These are the exceptions to this rule:

- **VueActionFilePrint** needs: PERM_READ|PERM_HEADERS|PERM_WATERMARK
- **VueActionOptionsBars** needs: PERM_NONE
- **VueActionHelp** needs: PERM_NONE

Example:

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

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

Control Name	UI* Modes	Functionality	Control Key List	Contexts			
				Popup Menu	Toolbar	Status Bar	RMB
VueAction FileOpen	VC	Open URL		✕	✕		
VueAction FileUpload	VC	Upload local file		✕			
ViewAction FileOpenUNC	VC	Open files using UNC names		✕			

Control Name	UI* Modes	Functionality	Control Key List	Contexts			
VueAction FileMarkup	V	Switch to Markup mode		✕	✕	✕	✕
VueAction FileCompare	V	Switch to compare mode		✕			
VueAction FileOverlays	V	Select and modify overlays		✕			
VueAction FileProperties	VCM (M: status bar only)	Show file properties		✕		✕	
VueAction FilePrint	VCM	Modify print options and print a file		✕	✕		
VueAction FileMRU	V	List most recently used documents		✕			
VueAction EditSearch	VM	Do search or repeat search		✕	✕		
VueAction ViewZoom	VCM	Apply zoom	In/ Out/ Previous/ FullRes/ FitBoth/	✕	✕		✕
VueAction ViewFlip	VC	Apply flip	Vertical/ Horizontal/Both	✕	✕		
VueAction ViewRotate	VC	Apply rotation	0/ 90/ 180/ 270	✕	✕		

Control Name	UI* Modes	Functionality	Control Key List	Contexts			
VueAction ViewContrast	VCM	Apply contrast		✕			
VueAction ViewAntiAlias	VCM	Apply anti alias		✕			
VueAction ViewInvert	VCM	Apply invert		✕			
VueAction ViewPage	VCM	Go to next page, previouse page or select page number.		✕	✕		
VueAction ViewViewPoint	VC	Select view point		✕			
VueAction ViewXrefs	VCM	Select Xrefs		✕	✕		
VueAction ViewLayers	VCM	Select layers		✕	✕		
VueAction ViewBlocks	VCM	Select blocks		✕	✕		
VueAction ViewViews	VCM	Select views		✕	✕		
VueAction ViewDrawing Info	VCM	Get entity’s drawing information		✕			
VueAction ViewMeasure	VCM	Measure distance, cumulative distance, area, or calibrate		✕			

Control Name	UI* Modes	Functionality	Control Key List	Contexts			
VueAction ViewSpecial Modes	VCM	Show special view modes	BirdsEye/ Magnify Window/ MagnifyG lass	✕	✕		
VueAction ToolsDrawing Info	VCM	Get drawing information for one entity, some entities or a block		✕			
VueAction OptionsBars	VCM	Hide or show toolbars or status bar		✕			
VueAction ViewDrawing Info	VCM	Get entity's drawing information		✕			

Note The letters in the **UI* Modes** column indicate:

V - **V**iew

C - **C**ompare

M - **M**arkup

The columns indicate:

- **Control Name**: column shows the list of available control names.
- **UI modes(s)**: column specify in which mode(s) we can use that control safely.
  For example **VueActionFileOpen** can be added to View and Compare Modes, except for Markup mode.
- **Functionality**: column specifies which functionalities are provided when this control is added to a context.
  For example, adding **VueActionFileMarkup** to any context enables you to switch to Markup mode.
- **Control key list:** column provides the optional functionalities that can be added to a context.

- If for a control name there is no entry in this list, this means that by default all the controls providing the functionality listed in the functionality column are provided. For example, for **VueActionFileOverlays**, there is no entry in the control key list and adding it to a popup menu will provide both select and modify functionalities for overlays. The entry will look like this:

  MENUITEM VueActionFileOverlays, , PERM_READ

- If there is a list of strings separated by '/', you can specify which functionalities you want added. If you don't specify any of them, by default all functionalities will be added. For example this entry:

  BUTTON VueActionViewZoom, In/Out, PERM_READ

  will add two buttons to the toolbar: one for Zoom In and one for Zoom Out.

  But the entry:
  BUTTON VueActionViewZoom, , PERM_READ
  is interpreted as:

```
BUTTON VueActionViewZoom, In/Out/Previous/
FullRes/FitBoth, PERM_READ
```

  Contexts column provides the list of contexts you can add the control to. For example you can have the entry:

```
MENUITEM VueActionFileOpen, , PERM_READ
```

  in a popup menu of the menu bar, but not in an RMB configuration. (If you have such an entry, it will be ignored.)

Appendix E: Using the Applet as a Standalone Application

You may want to use the AutoVue client as a standalone application with no Internet browser interface. The best way to minimize deployment effort in that case is to put the necessary files on a locally accessible network directory so that all users can just fire up the applet from that common location.

Once the server is installed, copy the following files and directories to the chosen location:

Windows Installation

- <jVue Install directory>\bin\jvue.bat
- <jVue Install directory>\html\jvue.jar
- <jVue Install directory>\jre

Or...

Unix Installation

- <jVue Install directory>/bin/jvue
- <jVue Install directory>/html/jvue.jar
- <jVue Install directory>/jre

Edit the file **jvue.bat or jvue** and verify that **JVUE_DIR** points to **install_dir** (assuming you copied to 'install_dir').

Using the Applet as a Standalone Application

- Windows: **jvue.bat**
- UNIX: **jvue**

Appendix F: List of INI File Options

allusers.ini and default.ini Options

These files are specified in the [Users] section in **VueServer.ini** (the defaults are **allusers.ini** and **default.ini** in the directory of the **VueServer.dll**). When users connect to the AutoVue server for the first time (i.e. when profiles are created for the first time), the contents of **default.ini** are copied to the users' own INI file ("username".ini).

If you want all users that connect to AutoVue to have the same initial default options, specify these options in default.ini. When users connect to the AutoVue server, options set in allusers.ini are transferred to the user profile. The options set in **allusers.ini** always override user profile settings.

Acrobat PDF Options

Configure options for Adobe PDF files.

[Options]

Parameter	Description	Default
OverridePDFPrintSecurity=<0|1>	Set to **1** if you wish to print document even if the PDF file is print-protected.	0
PDFCACHELEVEL=<None|Low|Medium|High>	Specify the level of caching to be used for PDF font glyphs. **Low** - 2 faces, 3 sizes per face, 200KB maximum memory size Medium – 4 faces, 6 sizes per face, 800KB maximum memory size **High** - 8 faces, 6 sizes per face, 1.5MB maximum memory size	Medium

Parameter	Description	Default
PDFDPIRESOLUTION=<dpi>	Defines the resolution in dpi (dots per inch) for rendering PDF pages on the screen. It can be set to any value between 72 and 1224.	360

Below option should be set in pdffont.map. This option does not go into allusers.ini or default.ini.

[Options]

Parameter	Description	Default
UseFreeTypeForSystem TTFRendering	Set to **1** in order to force the use of free type library for TTF system rendering. **IMPORTANT**: Set this option in the file **pdffont.map**.	

AutoCAD Options

Configure options for AutoCAD drawings.

[Options]

Parameter	Description	Default
ACAD_FAST3D=<1|0>	Set to **1** to improve rendering speed of AutoCAD 3D. **Note** Setting this option to 1 means that layers will not be listed and AutoVue streams all meshes & extrusions in one body. Set to **0** will mean slower rendering of AutoCAD 3D. However, layer information is listed and each mesh is streamed in its own entity.	1

Parameter	Description	Default
ACAD2004RGBCOLOR=<1|0>	If **1**, use RGB color. If **0**, use AIC (AutoCAD Indexed Color). **Note** This is for AutoCAD files, version 2004 and later.	1
ACADDEFAULTFONT=*fontname*	This font is substituted if an 8-bit font is not located for AutoCAD drawings.	simplex.shx
ACADDEFAULTBIGFONT=*bigfontname*	This font is substituted if a 16-bit font is not located.	bigfont.shx
DRAWORDER=<0|1>	If **1**, draws sorted (ordered) entities from the last save of the DWG file, otherwise, entities are drawn in the order they were first created.	1
LWDISPLAYSCALE=[0-100]	This option controls the display scale of line weights in the modelspace page for AutoCAD files version 14 and above. Set this option to [0-100]. For no line weight scaling, set this option to 25. For thicker lines, set this option above 25. For thinner lines, set this option below 25.	25
SHOWALLLAYERS=<0|1>	If **1**, turns on all the layers in the base and XRef files.	0

Autodesk DWF Options

Configure options for Autodesk DWF files.

[Options]

Parameter	Description	Default
DWFRGBCOLOR=<0|1>	If **1**, use RGB color. If **0**, use AIC (AutoVue Indexed Color). **Note** Should be set to 0 to be able to use pen settings for printing.	1
DWFCOLORTBL	Option is applicable only when **DWFRGBCOLOR=0**. Specify the path and the name to a color table. Specified color table overrides the palette stored in the DWF file. If no external palette is specified, the default palette stored in the DWF file will be used. There are two default palettes depending on the DWF file version: - Autocad palette for file versions 3.6 and earlier. - A second palette for file versions later than 3.6 Below are some of the common colors and their corresponding pen numbers: 0,0,0 /* 0, Black */ 128,128,128 /* 248, Gray */ 255,0,0 /* 190, Red */ 0,255,0 /* 40 Green */ 255,255,0 /* 251, Yellow */ 0,0,255 /* 15 , Blue */ 255,0,255 /* 195 , Violet */ 0,255,255 /* 45, Cyan */ 255,255,255 /* 225 , White */	

Autodesk Inventor Options

Configure options for Autodesk Inventor file.

[Options]

Parameter	Description	Default
AIBACKGROUND= <1|0>	**1** = Draw page background **0** = Do not draw page background **Note** Option applicable to Inventor 2D versions 6 and 7.	1
AILOADNATIVE2D= <1|0>	**1** = Read native data for Inventor 2D **0** = Read embedded DWF information **Note** Option applicable to Inventor 2D versions 6 and 7.	1

Cadence Options

Configure options for Candence Concept HDL file.

[ECAD]

Parameter	Description	Default
CADENCE_CONCEPT HDLONLY	Specifies that PCB boards should not be displayed.	0
CADENCE_CPMONLY	Specifies that only files listed in the CPM file should be displayed.	

Cadkey Options

Configure options for Cadkey files.

[Options]

Parameter	Description	Default
PRTFONTMAP= *fullpath_to_prtfont.map*	Specifies the full path to the Cadkey/PRT font map file. This file maps Cadkey/PRT fonts to TrueType fonts.	The file **Prtfont.map** in the program directory

CATIA 4 Options

Configure options for CATIA 4 files.

[Options]

Parameter	Description	Default
CATIAProjectFile	Specify the full path to the CATIA project file. **Note** Option applies to CATIA 4 files.	
LoadCatiaWires=<0|1>	Set to **0** to disable display of 3D wires for CATIA 4 3D.	1
CatiaDefaultFont	Specify the default Catia 4 native font to use if a font is not found.	
CATIAFILTERNONROOT=<0/1>	Set to **0** to display root entities.	1
CATIAFILTERNOSHOWS=<0/1>	Set to **0** to display no show entities.	1
CATIAIgnoreProjectionLayer=<0/1>	When set to **1** supports projected view visibility through draft view layer settings for CATIA 4 drawings	0

Note Mapping for CATIA 4 fonts is specified in file CATIAv4.fontmap located in the <install directory>\bin\fonts. This font map is used to map font name to corresponding font resources so that text strings will be displayed properly with correct characters. A requirement for this font map to work properly is the existence of the CATIA 4 project file.

CATIA 5 Options

Configure options for CATIA 5 files.

[Options]

Parameter	Description	Default
Catia5ShowPMI=<0|1>	Set to **0** to hide PMI entities from display. Set to **1** to display PMI entities.	1
Catia5ShowPMIWithMesh=<0|1>	Specify if you wish to display PMI entities in mesh mode. Catia5ShowPMI should be set to **1** for this option to take effect.	1
Catia5BuildInvisibleCGMBodies	Set to **1** if you wish to process and display invisible BREP bodies for CATIA 5 files.	1

CGM Options

Configure options for CGM files.

[Options]

Parameter	Description	Default
SHOWBACKGROUND=<0|1>	If **1**, the background of CGM files is displayed with color. Set to **0** if you have problems printing CGM files that contain large black or dark backgrounds.	1

Excel Options

Configure Excel file options.

[Options]

Parameter	Description	Default
DOCVIEW=<0|1>	If **1**, displays an Excel file in Print Preview mode, otherwise, displays as a regular spreadsheet.	0
DOCVIEWSHOWHEADERS=<0|1>	Set to **1** to display headers when **DOCVIEW=1**.	0
SSHIDESCROLLBARS=<0|1>	Set to **1** to disable Dundas scroll bars for spreadsheet files. **Note** Option works for Excel, Archives and MSAccess formats.	0

Gerber Options

Configure options for Gerber files.

[Gerber Format]

Parameter	Description	Default
INCREMENTALMODE=<0|1>	Enter **1** if data is in incremental mode.	0
NUMDECIMALS=*num*	Enter the number of decimals. Specify a value can be between 1 and 6.	3
NUMDIGITS=*num*	Enter the number of digits. Specify a value can be between 1 and 6.	2
TOOLFILEPATH=C:\temp\default.too	Specifies the path to the aperture list file.	

Parameter	Description	Default
TOOLFILETYPE=<0|1|2|3|4|5>	Specifies the type of aperture list file. **0** = CSI **1** = Orcad **2** = ECAM **3** = Protel **4** = Artwork **5** = Allegro **6** = Visula **7** = Autotrax	0
TRAILINGZEROS<0|1>	Enter **1** if coordinate data is in trailing zeros format.	0
UNITS=<1|2>	**1** = specifies the unit **2** = mm	1
TOOL_UNIT	Specify the unit for the tool and aperture file if unit is different from the Gerber file. **-1** = Unspecified file unit. Aperture file will adopt the same unit as the Gerber file. **1** = inches **2** = millimeters **12** = mil	-1

HPGL/HPGL2 Options

Configure options for HPGL/HPGL2 file.

[Options]

Parameter	Description	Default
CODEPAGE=num	Forces text display of a specific language. Specify the codepage to use for HPGL files. **Example**: Set CODEPAGE=932 to display Japanese text in HPGL files.	
HPBACKGROUND=<0|1>	**0** = Do not draw page background. **1**= draw page **Note** Applies to HPGL/ HPGL2 files.	0
HPGLCOLORTBL=*fullpath_ to_hpglcol.t bl*	Specifies the color table for HPGL/HPGL2 files. The color table file specifies the mapping between a pen number and a color. **Note** This option is used only if the file does not explicitly specify pen colors with the HPGL PC command.	The file **Hpglcol.tbl** in the program directory

IGES Options

Configure options for IGES file.

[Options]

Parameter	Description	Default
IGESLoadSubFigureDefinitions= <0|1>	Set to **1** to display subfigure definitions when subfigure instances are not found. **Note** Option is for IGES 3D files.	0

JPEG Options

Configure options for JPEG files.

[Options]

Parameter	Description	Default
JPGQUANTIZE=<0|1>	If **1**, JPEG images are quantized to 256 colors for quicker display. If **0**, true colors are used. **Note** Option applies to .jpg files.	1

JPEG 2000 Options

Configure options for JPEG 2000 files.

[Options]

Parameter	Description	Default
J2KRESOLUTION	Set to **HIGH** to display with a high resolution. This could cause a decrease in performance. Other values: LOW, MEDIUM, DYNAMIC. **Note** This only applies to JPEG2000 files.	DYNAMIC

ME10/ME30 Options

Configure options for ME10/ME30 files.

[Options]

Parameter	Description	Default
ME10CONSTRUCTION GEOM=<1|0>	Set to **1** to toggle on construction entities for ME10 files.	1

Parameter	Description	Default
ME10MULTIBYTE=<0|1>	This option sets the priority for glyph search in Multibyte/ Singlebyte fonts. Set to **0** if the file does not contain any Multibyte fonts (Far Eastern Languages). Set to **1** if the file contains a mixture of Singlebyte/Multibyte fonts.	0
ME10RGBCOLOR=<1|0>	Determine the mode of colors for ME10 files. If **1** to use RGB colors. If **0** to use AIC (AutoVue Indexed Color). When set to **0**, you can customize file me10col.tbl to get desired pen settings.	1
ME10SHOWVERTEX=<1|0>	Set to **1** to toggle on vertices for ME10 files.	0
MEFONTMAP=*fullpath_ to_mefont.map*	Specifies the full path to the ME10/ ME30 font map file. This file maps ME10/ME30 fonts to TrueType fonts. Note that native ME10/ME30 fonts are supported. **Note** This option is used only when the native fonts are unavailable.	the file mefont.map in the program directory

MicroStation Drawing Options

Configure options for MicroStation Drawings.

[Options]

Parameter	Description	Default
DGN_FAST3D	Option applies to MicroStation 8 files. Set to **1** to improve rendering speed of MicroStation 8 files. **Note** Setting this option to 1 means that layers will not be listed and AutoVue streams all meshes & extrusions in one body. Set to **0** will mean slower rendering of MicroStation 8 files. However, layer information is listed and each mesh is streamed in its own entity.	1
DGN8LSTYLERSC=*fullpath_to_style.rsc*	Specify a semi-colon separated list of the full paths to fonts for the MicroStation font RSC files. **Note** Applies only to Microstation 8.	

Parameter	Description	Default
DGN8XREFUNITS	Option applies to Microstation version 8 files with AutoCAD XREFs. Specify the unit to use for AutoCAD XREFs when units information for the XREFs is not stored in the Microstation drawing. The unit specified should be the same as the unit for the DWG specified in Microstation. Consult the Microstation help for a complete list of units. If the unit is not specified or an invalid value is specified, AutoVue reads the units from the AutoCAD XREF and hence, XREFs may not be scaled properly. **Example**: DGN8XREFUNITS = meters	
DGNARABICFONTS=<0|1>	Support for Arabic fonts for MicroStation. Set to **1** to specify right-to-left drawing.	
DGNCOLORTBL=*fullpath_to_color.tbl*	Redirects the full path to a MicroStation DGN color table file. This option is used only if the MicroStation file does not have a color-table element in it. If a color-table element exists in the file, it will supersede this option. **Note** Option applies to Microstation version 7 files.	**color.tbl** in the program directory

Parameter	Description	Default
DGNDEACTIVATELEVSYMB=<0|1>	Appies to Microstation 7 and 8 files. When Microstation's Settings\View Settings\Level Symbology flag is set, all graphic entities are displayed using the level (the one the entity belongs to) settings for color, line style and line width (the entity's symbology). This option was implemented to overwrite the Settings\View Settings\Level Symbology flag and display a file using the individual entity's symbology.	
DGNFILLAPPLYONLYTOLINES=<0|1>	If set to **1** then the **Fill** option only applies to lines. **Note** Applies to MicroStation version 7 drawings.	0
DGNFONTMAP=*fullpath_to_dgnfont.map*	Specifies the full path to a MicroStation DGN font to TrueType mapping file. Note that native MicroStation fonts are supported and that this option is used only when native fonts are unavailable.	**dgnfont.map** in the program directory
DGNFONTRSC=*fullpath_to_font.rsc;full 2. . .*	Specify a semi-colon separated list of the full paths to fonts for the MicroStation font RSC files.	**font.rsc** in the program directory
DGNIRASB=<0|1>	If 0, Microstation raster hybrid files follow the I/RASB conventions for raster extents. Set this option if you find that the raster components of Microstation files appear stretched.	0

Parameter	Description	Default
DGNLSTYLERSC=*fullpath_to_style.rsc*	Specifies the full path to a MicroStation linestyle resource file that will be used to render linestyles and multi-line patterns. **Note** Option applies to Microstation 7 files.	**lstyle.rsc** in the program directory
DGNUSETRUECOLOR=<0|1>	Color alternation will be turned off it set to **0**.	1
SHOWZEROLENGTHLINES=<0|1>	If **1**, the MicroStation points (zero length lines) are displayed; otherwise, the points are hidden. **Note** Option applies to Microstation version 7 files.	0

NC Drill Options

Configure options for NC-Drill files.

[ECAD]

Parameter	Description	Default
NCD_UNITS	Option applies to NC-Drill format. Specify units for NC-Drill files. **1** = inches **2** = millimeters	1
NCD_TRAILINGZEROSOMITTED	Option applies to NC-Drill format. **0** = Coordinate data is trailing zero omitted **1** = Coordinate data is leading zero omitted **2** = Coordinate data is all digit present **3** = Coordinate data is explicit decimal point	0

Parameter	Description	Default
NCD_COMMENTSYMBOL	Option applies to NC-Drill format. Specify the comment symbol. **Default**: NCD_COMMETSYMBOL=;	
NCD_INCREMENTALMODE	Option applies to NC-Drill format. Set to **1** if data is in incremental mode. **0** = absolute mode **1** = incremental mode	0
NCD_NUMDIGITS	Option applies to NC-Drill format. Specify the number of digits. Specify a value between 0 and 6. **Note** Changing this value will affect the x, y coordinate.	2
NCD_NUMDECIMALS	Option applies to NC-Drill format. Specify the number of decimals. Specify a value between 0 and 6. **Note** Changing this value will affect the x, y coordinate.	2
NCD_APERTURE_FORMAT_FILEPATH	Option applies to NC-Drill format. Complete path for Aperture format file. This file provides information on how to read the tool file	Empty path
NCD_TOOLFILEPATH	Complete path for Tool file.	Empty path

Orcad Layout Options

Configure options for OrCAD Layout files.

[ECAD]

Parameter	Description	Default
ORCAD_CUTOUT_COPPER_POUR=<0|1>	Set to **1** if you wish to display copper pour cutouts for OrCAD Layout files	0

Postscript Options

Configure options for Postscript files.

[Options]

Parameter	Description	Default
PSMINDPI=nDPI	Indicates a numeric value for the minimum resolution (in dpi) used for rendering PostScript files. Normally, the resolution is calculated based on that of the output device, however, this option can allow you to increase the resolution (e.g. details seem jagged on the output). If **0**, the greater resolution of the two is used.	0
PSWidth= PSHeight=	For Postscript files that do not have a page size, specify the width and height that AutoVue should use to completely display the file. For example, the below settings specify that the page size is 11.0 X 8.5 inches. **[Options]** PSWidth=11.0 PSHeight=8.5	

Pro/ENGINEER Options

Configure options for Pro/ENGINEER files.

[Options]

Parameter	Description	Default
ProE2DLoadSavedDisplayLists=<0|1>	If set to **1**, the display list will be loaded instead of generating the 2D drawing from the 3D Model. Option applies to Pro/Engineer 2D files. If the display list does not exist, the 2D drawing will be generated from the 3D Model.	1
ProE2DLoadPicture=<0|1>	Set to **1** to load the preview data for Pro/ENGINEER 2D Drawings. If preview does not exist, the 2D drawing will be generated from the 3D Model.	0
ProEAbortOnREFailure	If set to **1**, error message will be displayed when Render Engine is not running or not responding.	0
ProEIntegration=<0|1>	Set to **1** to enable requests to be sent to the Render Engine for Pro/Engineer.	0
ProECosmeticsDataOneNode=<0|1>	Set to 1 to enable collapsing of all datum and cosmetic features from one part/subassembly into one node.	1

Parameter	Description	Default
ProELang=	Specify the native font to use for Pro/Engineer 2D drawings. Possible values are: Korean/Japanese/Chinese_cn/ Chinese_tw/Hebrew/Russian **Example**: ProELang=Chinese_cn Font files to use should be defined in the proefont.map file located in the avwin\font subdirectory in the AutoVue installation directory. Refer to proefont.map for more instructions regarding font mapping.	
ProELoadPMIData=<0|1>	Set to **0** to disable display of PMI entities.	1
ProEMassPropUseMesh	Set to **1** to compute mass properties (volume, surface area, mass,...) using the mesh model. Set to **0** to compute mass properties using the BRep model.	0
ProEPMIDIMTOLDisplay=<0/1>	Set to **1** to display tolerance for dimension entities for Pro/ ENGINEER 3D files.	0

SolidWorks Options

Configure options for SolidWorks files.

[Options]

Parameter	Description	Default
SWBUILDMESHTOPOLOGY	Set to **0** if you do not want to build the topology in mesh mode. **Note** Applies to Solidworks 3D files.	1
SWSYMBOLFILE	Specifies the path to the symbols file. **Note** Applies only to SolidWorks 2D files.	gtol.sym

STEP Options

Configure options for STEP file.

[Options]

Parameter	Description	Default
STEPDetailedTree = 0/1	Set to **1** to show detailed tree for STEP 3D files.	0

Text Options

Configure options for text files.

[Options]

Parameter	Description	Default
CODEPAGE=*num*	Forces text display of a specific language. Specify the codepage to use for text files. **Example**: Set CODEPAGE=932 to display Japanese text in text files.	

Parameter	Description	Default
DefaultDocPageSize	Specify the page size in inches that AutoVue should use in order to properly display text files. **Example**: DefaultDocPageSize=11.0,8.5 will force AutoVue to display text files at a page size of 11x8.5 inches.	

Visio Options

Configure options for Visio file.

[Options]

Parameter	Description	Default
VISIODRAWINGPAGE=<0|1>	Specify if you want to display Visio files in drawing mode or in print mode. Set to **1** to display in print mode.	0
VISIOPAGE=<0|1>	**0**: Off **1**: On. Displays the page outline and background.	0
VISIOPAGEBKCOLOR=*num*	Specify an integer that represents an RGB color (Red + 256*Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255. If set to the default **-1**, there will be no background. Only the outline will be displayed if VISIOPAGE is on (=1).	-1

UI Color Options

Specify background color to be used for different file formats.

[UI Colors]

Parameter	Description	Default
BKCOLORARCHIVE	Specify background color for archive files. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
BKCOLORDATABASE	Specify background color for database files. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
BKCOLORDOCUMENT	Specify background color for pdf formats. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
BKCOLORCOLORRASTER	Specify background color for raster formats. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
BKCOLORMONORASTER	Specify background color for monochrome raster formats. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	

Parameter	Description	Default
BKCOLORSPREADSHEET	Specify background color for spreadsheets. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
BKCOLORTHUMBNAILS	Specify background color for thumbnails. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
BKCOLORVECTOR	Specify background color for vector formats. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	

General Options

Configure options that apply to parameters such as fonts, performance, and color **[Options]**.

Parameter	Description	Default
3DPOLICYMANAGER=<0|1>	Set to **1** to enable dynamic loading of 3D models. If **0**, loads incrementally.	1
AntiAlias=<0|1>	If **1**, enhances display of monochrome raster images.	1
ArcResolution=*num*	Indicates the degree increment used in rendering arcs.	10

Parameter	Description	Default
Contrast=value	Applies contrast to monochrome raster images. The value can range from –100 (low contrast) to100 (high contrast).	0
DIBTrueColor=<0/1>	Set to **1** to force rendering of 4-bit and 8-bit raster images on a 24-bit pixmap.	0
DIGITSNUMBER	Specify the number of decimals to display when measuring in AutoVue.	6
DYNAMICRENDERING=<0|1|2>	Specify mode for dynamic rendering of 3D. **0** - current render mode **1** - Flat Shading **2** - Wire Polygons	0
FASTDISPLAY	VCET renders the drawing ignoring some details in order to speedup the rendering. If set to **1**, VCET performs a full rendering without any optimization of the drawing of the primitives. If set to **0**, VCET performs the following optimizations during the rendering of the files: • Draw small text as boxes • Ignore the line-style for small primitives and draw them with plain style • Ignore the point style for points and draw them in dot style	0

Parameter	Description	Default
FLIP=<0|1|2|3>	Specifies: **0** - none **1** - horizontal **2** - vertical **3** - both	0
FORCETOBLACK=<0|1>	If **1**, forces all colors to black when displaying vector documents.	0
INVERT=<0|1>	If **1**, monochrome raster images are displayed inverted.	0
KEEPORIGINALCOLORS=<0|1>	If set to **1**, will keep original colors - white graphics and black graphics will always be drawn white and black respectively, even if the background is white or black. If set to **0**, inverts colors for white and black graphics on white and black background.	
LOADFACETEDDATA=<0|1>	Set to **1** if you wish to read Mesh data for 3D files. Set to **0** if you wish to read BRep data for 3D files.	
LOOKAHEAD=<1|0>	Enable look ahead rendering a Tiled mode.	1

Parameter	Description	Default
NOACCELERATION=<0|1>	Set to **1** to disable OpenGL acceleration. It is recommended setting to **1** if 3D files are displaying blank or vector files are not displaying properly or if markup entities are not completely visible. **Note** If you have a poor graphics cards, OpenGL acceleration could slow down performance for bug 3D models.	1
NOWINARCS=<0|1>	If **1**, does not use the Windows GDI functions to draw arcs. If **0**, Windows renders the arcs. This option is used for some HP print drivers that do not properly render arcs and circles.	0
OVERLAYALPHAVALUE=<0/1>	Controlls transparency of two overlaid tiff files. If set to **1**, overlay is opaque. If **0**, overlay is transparent. **Note** Use only for Autovue client on Java2.	0.5
PMITEXTRENDERINGSTYLE=<0|1|2>	Specify the text rendering style for PMI entities. **0** - Native Setting **1** - 3D **2** - Flat-to-screen	0
RASTERFIT=<0|1>	If **1**, fits the initial display of raster images to the screen. Otherwise, full resolution is shown.	1

Parameter	Description	Default
RASTERMEMLIMIT=*n_kbytes*	Swaps raster data to disk when the Windows global memory heap falls below n_kbytes.	6000
RASNOFORCETOBLACK=<0|1>	Set to **1** to disable Force to Black for raster overlays and raster files. **Note** Option is applicable only when **FORCETOBLACK=1**.	0
RESOLUTION=<1|2|3|4>	If 3DPOLICYMANAGER=1, set load resolution. **1**=Low **2**=Medium **3**=High **4**=Very High	2
ROTATE=<*degrees*>	Specifies the degrees of rotation as 0, 90, 180 or 270.	0
SELECTIONHIGHLIGHT=<0|1>	Specify selection highlight mode. **0**: Bounding box **1**: Entity default color	
SHOWDIMENSION=<0|1>	If **1**, shows dimension entities. Otherwise, they are not shown.	1
SHOWGLOBALAXES=<0|1>	Set to **1** to display global axes for 3D models.	1
SHOWFILL=<0|1>	If **0**, displays only the outlines of filled entities (solids, fat polylines etc.). Otherwise, these entities are shown as filled.	1
SHOWHATCHING=<0|1>	If **1**, the FILLMODE system variable (AutoCad) and the Hatch display are turned off; otherwise, Hatch entities are displayed.	0

Parameter	Description	Default
SHOWLINESTYLE=<0|1>	If **1**, shows linestyle patterns. If **0**, linestyles are displayed as solid lines.	1
SHOWLINEWEIGHT=<0|1>	If **1**, displays varying line thicknesses. If **0**, displays no line weights for any lines (all lines appear equal).	1
SHOWTEXT=<0|1>	When set to **1**, text entities are shown.	1
SHOWTREE=<0|1>	If **1**, display tree. If **0**, switches off the tree display.	1
SHOWXREFS=<0|1>	If set to **1**, external reference files are shown.	1
SMOOTHSHADING=<0|1>	If **1**, enables smooth shading of 3D display.	1
TILEMODE=<-1|0|1>	**1** - Specifies model space **0** - paper space **-1** - automatic	-1
USEMESHCACHE=<0|1>	Set to **1** to enable using hard drive to cache mesh data when loading 3D files. When memory is insufficient, data is dumped to disk. **Note** Option should be used when loading large 3D models.	0

Parameter	Description	Default
MemoryMaxSize	Specify a maximum limit for the client memory after which data is dumped to disk. Specify value in bytes.	Minimum (60% of client memory, memory limit specified by user)
VECTORFIT=<0 | 1>	**1**: Causes Vector files to be "Auto-Fit" once they are loaded. **0**: Default	0
VECTORMEMLIMIT=*n_kbytes*	Swaps vector data to disk when the Windows global memory heap falls below n_kbytes.	4096
XFONTPATHS=*paths*	Specifies a semicolon-delimited list of directories to search for external fonts.	no path
XREFPATHS=*paths*	Specifies a semicolon-delimited list of directories to search for external references in CAD drawings.	no path

Base Font

Specify base font to be used for ASCII files.

[BASEFONT]

Parameter	Description	Default
FACE	Specify font style.	
ISITALIC	Specify if font is italic.	
SIZE	Specify font height.	
WEIGHT	Specify font weight.	

FROMPAGE=*num*	Indicates the starting page number of the print range.

3D PMI Options

Configure options to control visibility of PMI entities for 3D files.

[PMI]

Parameter	Description	Default
COORDINATE_SYSTEM TREE_VIS	Set to **1** to display datum coordinate system entities in the tree. Set to **0** to hide datum cooridnate system entities from the tree.	1
COORDINATE_SYSTEM VIEW_VIS	Set to **2** to set the visibility of datum coordinate system entities to the last saved state in the native application. Set to **1** to display datum coordinate system entities. Set to **0** to hide datum cooridnate system entities from the display.	2
DATUM_FEATURE SYMBOL_TREE_VIS	Set to **1** to display datum feature symbol entities in the tree. Set to **0** to hide datum feature symbol entities from the tree.	1
DATUM_FEATURE SYMBOL_VIEW_VIS	Set to **2** to set the visibility of datum feature symbol entities to the last saved state in the native application. Set to **1** to display datum feature symbol entities. Set to **0** to hide datum feature symbol entities from the display.	2
DATUM_TARGET_TREE_ VIS	Set to **1** to display datum target entities in the tree. Set to **0** to hide datum target entities from the tree.	1

Parameter	Description	Default
DATUM_TARGET_VIEW_VIS	Set to **2** to set the visibility of datum target entities to the last saved state in the native application. Set to **1** to display datum target entities. Set to **0** to hide datum target entities from the display.	2
DIMENSION_TREE_VIS	Set to **1** to display dimension entities in the tree. Set to **0** to hide dimension entities from the tree.	1
DIMENSION_VIEW_VIS	Set to **2** to set the visibility of dimension entities to the last saved state in the native application. Set to **1** to display dimension entities. Set to **0** to hide dimension entities from the display.	2
FEATURE_CONTROL_FRAME_TREE_VIS	Set to **1** to display datum feature control frame entities in the tree. Set to **0** to hide datum feature control frame entities from the tree.	1
FEATURE_CONTROL_FRAME_VIEW_VIS	Set to **2** to set the visibility of datum feature control frame entities to the last saved state in the native application. Set to **1** to display datum feature control frame entities. Set to **0** to hide datum feature control frame entities from the display.	2
LINE_WELD_TREE_VIS	Set to **1** to display lineweld entities in the tree. Set to **0** to hide lineweld entities from the tree.	1

Parameter	Description	Default
LINE_WELD_VIEW_VIS	Set to **2** to set the visibility of lineweld entities to the last saved state in the native application. Set to **1** to display lineweld entities. Set to **0** to hide lineweld entities from the display.	2
LOCATOR_TREE_VIS	Set to **1** to display locator entities in the tree. Set to **0** to hide locator entities from the tree.	1
LOCATOR_VIEW_VIS	Set to **2** to set the visibility of locator entities to the last saved state in the native application. Set to **1** to display locator entities. Set to **0** to hide locator entities from the display.	2
MEASUREMENT_POINT_TREE_VIS	Set to **1** to display point measurement entities in the tree. Set to **0** to hide point measurement entities from the tree.	1
MEASUREMENT_POINT_VIEW_VIS	Set to **2** to set the visibility of point measurement entities to the last saved state in the native application. Set to **1** to display point measurement entities. Set to **0** to hide point measurement entities from the display.	2
NOTE_TREE_VIS	Set to **1** to display note entities in the tree. Set to **0** to hide note entities from the tree.	1
NOTE_VIEW_VIS	Set to **2** to set the visibility of note entities to the last saved state in the native application. Set to **1** to display note entities. Set to **0** to hide note entities from the display.	2

Parameter	Description	Default
REFERENCE_GEOMETRY_TREE_VIS	Set to **1** to display reference geometry entities in the tree. Set to **0** to hide reference geometry entities from the tree.	1
REFERENCE_GEOMETRY_VIEW_VIS	Set to **2** to set the visibility of reference geometry entities to the last saved state in the native application. Set to **1** to display reference geometry entities. Set to **0** to hide reference geometry entities from the display.	2
SPOT_WELD_TREE_VIS	Set to **1** to display spotweld entities in the tree. Set to **0** to hide spotweld entities from the tree.	1
SPOT_WELD_VIEW_VIS	Set to **2** to set the visibility of spotweld entities to the last saved state in the native application. Set to **1** to display spotweld entities. Set to **0** to hide spotweld entities from the display.	2
SURFACE_FINISH_TREE_VIS	Set to **1** to display surface finish entities in the tree. Set to **0** to hide surface finish entities from the tree.	1
SURFACE_FINISH_VIEW_VIS	Set to **2** to set the visibility of surface finish entities to the last saved state in the native application. Set to **1** to display surface finish entities. Set to **0** to hide surface finish entities from the display.	2
WIRE_TREE_VIS	Set to **1** to display wire entities in the tree. Set to **0** to hide wire entities from the tree.	1

Parameter	Description	Default
WIRE_VIEW_VIS	Set to **2** to set the visibility of wire entities to the last saved state in the native application. Set to **1** to display wire entities. Set to **0** to hide wire entities from the display.	2

3D Color Options

[Options]

Parameter	Description	Default
BACKGROUNDCOLOR	Specify background color for 3D models. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
ENTITYDEFAULTCOLOR	Specify default color for 3D models. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
EDGESHIGHLIGHTCOLOR	Specify color for highlighting edges. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
FACEHIGHLIGHTCOLOR	Specify color for highlighting faces. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	

Parameter	Description	Default
MEASUREMENTCOLOR	Specify color for measurements. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
MINDDISTANCESET1 HIGHLIGHTCOLOR	Specify color for first set in minimum distance measurement. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
MINDDISTANCESET2 HIGHLIGHTCOLOR	Specify color for second set in minimum distance measurement. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
SECTIONEDGESCOLOR	Specify section edge color. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
SECTIONFILLCOLOR	Specify fill color. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	

Parameter	Description	Default
SECTIONFILLHATCHCOLOR	Specify hatch pattern for fill color. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
SELECTIONCOLOR	Specify color for selecting models or model parts. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	
VERTEXHIGHLIGHTSCOLOR	Specify color for highlighting vertices. **Note** Specify an integer that represents an RGB color (Red + 256 * Green + 65536*Blue). The values for Red, Green, and Blue range from 0 to 255.	

ECAD Options

Specify configuration options for ECAD.

[ECAD]

Parameter	Description	Default
ECAD_3D_BOARDCOLOR	Specify the color of the PCB board in 3D.	
ECAD_3D_COMPONENTCOLOR	Specifies the color of the PCB components in 3D.	
ECAD_3D_DEFAULTBOARD THICKNESS	Specify default board thickness for EDA.	40.0
ECAD_3D_COMPONENT THICKNESS	Specify default thickness for components for 3D EDA.	40.0

ECAD_3D_DEFAULT THICKNESSUNIT	Specify default thickness unit for EDA.	13 (pixels)
ECAD_SELECTION_HIGHLIGHT	Specify selection highlight mode for EDA. **0** - Fill rectangle **1** - Outline **2** - Entity color	2
ECAD_SNAPRADIUS	Specify snap radius for snap box to appear to select entity. **Note** The snap radius is configured in pixels.	5

Printing Options

General Options

Specify general print options such as orientation, scale.

[PRINTOPTIONS]

Parameter	Description	Default
AREA=<0|1>	If **0**, the extents of the page is printed, otherwise, the region displayed in the view window is printed.	0
FACTOR1=*num*	If **scaling=1**, specifies the number of pixels for the scaling factor.	
AREA=	Indicates if you are printing: **0** - File Extents **1** - Displayed **2** - Selected area **3** - Limits (AutoCAD files only)	0
COPIES	Specifies the number of copies to print.	1

FACTOR2=*num*	If **scaling=1**, specifies the number of units to which the specified number of pixels are scaled.	
FORCETOBLACK=<0|1>	If **1**, the file is printed in black and white; otherwise, in color.	0
FROMPAGE=*num*	Indicates the starting page number of the print range.	
HIGHRESOLUTION=<0|1>	If **1**, prints high resolution	
LIMITTOONEPRINTER PAGE=<0|1>	If **1**, limits output to one printer page when the scaling options selected causes a single page to span over several pages.	0
ORIENTATION=<1|0>	If **0**, the file is printed as portrait; otherwise, landscape. Currently supported with Java 2 low resolution printing.	
PAGES=<0|1|2>r	Indicates if you want to print **0** - All Pages **1** - Current Page **2** - Page Range	1
PAPER SIZE=	Specifies the paper size to print to.	
SCALING=<0|1|2>	Specifies the scaling factor: **0** - fit **1** - scaling factor **2** - scaling percentage	0
SCALE=*percentage*	If **scaling=2**, specifies the percentage to which the image is scaled.	
SSNOPRINTCOLHEADERS=<0|1>	If **1**, row and column headers are not printed for spreadsheet formats.	0

ThicknessScale=*original_thickness1=print thickness1,…original_thicknessN=print_thicknessN*	Option only applies to Microstation files. Specify the mapping of MicroStation line weights to line thickness on paper. The option should be set the same as in Microstation. **Example**: ThicknessScale=0.250, 0.375, 0.500, 0.625, 0.750, 0.875, 1.000, 1.125, 1.250, 1.375, 1.500, 1.625, 1.750, 1.875, 2.000, 2.125, 2.250, 2.375, 2.500, 2.625, 2.750, 2.875, 3.000, 3.125, 3.250, 3.375, 3.500, 3.625, 3.750, 3.875, 4.000, 4.125	
THICKNESSSCALEUNITS=<mm|inch|dot>	Specify the unit to use for the thickness scale. Option only applies to Microstation files when ThicknessScale is set.	
TOPAGE=*num*	Indicates the ending page number of the print range.	
UNITS=<1|0|2>	Specifies the scaling factor units: **0** - pixels **1** - inches **2** - millimeters	1

Watermark Options

Specify Watermark options such as font style, size, text.

[PRINTWATERMARK]

Parameter	Description	Default
FONTNAME=	Specify the font used for the printed Watermark text	

FONTSIZE=	Specify the font size for Watermark text	
FONTSTYLE=<2|1|0>	Specify the font style used for Watermark text. **0** - Regular **1** - Bold **2** - Italic	2
TEXT=	Specify the text to be printed as a watermark. For carriage returns enter %r.	
ORIENTATION=<0|1|2>	Specify if the watermark should be: **0** - Diagonal **1** - Horizontal **2** - Vertical	

Headers/Footers Options

Configure options for headers and footers.

[PRINTHEADERS]

Parameter	Description	Default
FONTNAME=	Specify the font used for the printed Header/Footer strings.	
TOPCENTERTEXT=	Specify the text for the center header. For carriage returns, enter %r.	
TOPLEFTTEXT=	Specify the text for the left header. For carriage returns, enter %r.	
TOPRIGHTTEXT=	Specify the text for the right header. For carriage returns, enter %r.	
BOTTOMCENTERTEXT=	Specify the text for the center footer. For carriage returns, enter %r.	
BOTTOMLEFTTEXT=	Specify the text for the left footer. For carriage returns, enter %r.	

BOTTOMRIGHTTEXT=	Specify the text for the right footer. For carriage returns, enter %r.

Margins Options

Configure options for print margins.

[PRINTMARGINS]

Parameter	Description	Default
BOTTOM=	Specify the bottom margin	0.25
LEFT=	Specify the left margin	0.25
RIGHT=	Specify the right margin	0.25
TOP=	Specify the top margin	0.25
UNITS=	Specify units for the margin: **0** - pixels **1** - inches **2** - millimeters	0

Pen Settings Options

Configure options for pen settings.

[PENSETTINGS]

Parameter	Description	Default
UNITS=1	Specify units for the pen settings: **0** - inches **1** - millimeters	0
SELECTEDPEN=<pen name>	The active pen setting. Pen mappings are defined in INI options **PEN<n>**, where **n** starts from **0**. **Note** You can define as many pen settings as you wish.	

PEN1=<penname>, n1=<thickness>, n2=<thickness>,....., PEN0=<penname>, n1=<thickness>, n2=<thickness>,.....	Specify the pen name and a mapping of pen index and thickness. **Note** Thickness value is in inches.	

Watermark in View Mode

With AutoVue it is possible to display watermarks in View mode. Set below options in **allusers.ini**.

[WATERMARK]

Parameter	Description	Default
TEXT=	Specify watermark text	
FONTNAME=	Specify font to be used for the watermark.	
FONTSTYLE=	Specify the font style for the watermark. **0** – Plain **1** – Bold **2** – Italic **3** – Bold and Italic	0
FONTSIZE=	Specify font size.	
XFACTOR=	Specify watermark x position on the applet window. Value should range from 0 to 1.	
YFACTOR=	Specify watermark y position on the applet window. Value should range from 0 to 1.	

Markup Options

Configure a variety of Markup options such as symbol for markup dimensions.

[MrkFont]

Configure font for markups.

Parameter	Description	Default
Face	Specifies the text entity font name.	Arial

Parameter	Description	Default
Size	Specifies the text entity font size.	10
IsBold	If **1**, the text entity font appears in bold.	0
IsUnderLine	If **1**, the text entity is underlined.	0
IsItalic	If **1**, the text entity appears in italic.	0

[MARKUP OPTIONS]

Parameter	Description	Default
ARROW_SIZE	Set to a positive value (greater than 0.1) to create zoomable arrow heads when creating leader and measurement markup entities. If set to a negative value, arrow head is not zoomable.	between -7.2 and 0
DEF_COLOR=	Specify a windows RGB color for default markup entity color. Other values: **-1** - Assign layer color to markup entity **-2** - Hide markup entity **-3** - Assign line color (option applies to fill color only)	-1
DEF_LSTYLE=	Specify the default linestyle for markup entities. Possible values are: **0** - Solid line **1** - Dashed line **2** - Dashed line (smaller dashes) **3** - Dash Dot **4** - Dash Dot Dot **6** - Cloud linestyle **7** - Triangle linestyle	0

Parameter	Description	Default
DEF_LWIDTH=	Specify the default line width in pixels for markup entities.	1
DEF_FILLTYPE=	Specify the fill type for filled entities. Possible values are: **0** - No Fill **1** - Solid Fill **2** - Transparent Fill	0
DEF_FILLCOLOR=	Specify a windows RGB color for default fill color. Other values: **-1** - Assign layer color to markup entity **-2** - Hide markup entity **-3** - Assign line color (option applies to fill color only)	-1
LINETHICKNESS_ZOOMABLE	Set to **1** if you want markup entity line thickness to scale according to zoom level	0
LINESTYLE_ZOOMABLE	Set to **1** if you want to maintain markup entity line style at all zoom levels	0
RESCALEMARKUP=*1*	If view extents of base document have changed since creating the Markup, set this option to **1** to scale Markups appropriately.	0
TRUECOLOR=<0|1>	If **0**, the Markup entity color is inverted when it matches the background color. If 1, all entities are drawn with their actual color irrespective of the background color. Entities whose color matches or is close to the background color become invisible.	1

Parameter	Description	Default
SymbolList=*alphanum*	Specify a comma-separated list of symbols (in unicode) for measurements. **Example**: u0398, u2221A, u2248.	
AngleSymbolList=*aplhanum*	Specify a comma-separated list of symbols (in unicode) for angle measurements. If not specified and SymbolList is specified, symbols defined in SymbolList are displayed. **Example**: u0398, u2221A, u2248.	
ArcSymbolList=*aplhanum*	Specify a comma-separated list of symbols (in unicode) for arc measurements. If not specified and SymbolList is specified, symbols specified in SymbolList are displayed. **Example**: u0398, u2221A, u2248	
DistanceSymbolList=*aplhanum*	Specify a comma-separated list of symbols (in unicode) for distance measurements. If not specified and SymbolList is specified, symbols specified in SymbolList are displayed. **Example**: u0398, u2221A, u2248	
AreaSymbolList=*alphanum*	Specify a comma-separated list of symbols (in unicode) for area measurements. If not specified and SymbolList is specified, symbols specified in SymbolList are displayed. **Example**: u0398, u2221A, u2248	

Appendix G: CAD Integrations

The CAD Integration package from Cimmetry Systems Corp. integrates AutoVue SolidModel with CAD applications such as Pro/ENGINEER. You will need to use the CAD Integration for Pro/ENGINEER if:

- **3D Pro/ENGINEER** assemblies have missing family table instances. AutoVue does not fully display the assembly if family table instances are missing. The CAD Integration is required to display such assemblies.
- **Pro/ENGINEER 2D** drawings do not contain display list. AutoVue does not fully display such files. You need the CAD Integration to display 2D files with no display lists.

The components in the CAD Integration package make it possible for AutoVue to access the native application and retrieve data in a form that is suitable for viewing. The package's components are:

- **Render Broker**: This is the main server component that maintains communication between AutoVue and the Render Engine. It is installed as part of the AutoVue server installation. There can only be one instance of Render Broker per AutoVue server installation.
- **Render Engine**: The Render Engine component is installed on the CAD machine. This component runs the conversion process on the native application — e.g. Pro/ENGINEER. Render Engine should be installed once for every CAD installation. One license of the CAD application is required for each Render Engine installation.

The Render Broker is installed as part of the AutoVue server installation. An administration tool for the Render Broker is also provided with the installation. You can launch the administration tool as a standalone application or using a Web browser.

To access the administration tool as a standalone application, run **rbadmintool.bat** that is in the bin directory of the AutoVue Server installation.

To access the administration tool using a Web browser, launch **http://<host_name>/jVue/rbadmintool.html** using a Web browser, where *host_name* is the name of the machine where AutoVue client component is installed.

For more information on using the Render Broker and the Render Engine refer to the Installation documents provided with the CAD Integrations.

Detailed information on these CAD Integrations can be obtained from Cimmetry Systems Corp.

Appendix H: Word Through Conversion

Cimmetry Systems Corp. provides a mechanism to display word documents through conversion.This mechanism can be used as an option to display Word documents.

System Requirements

- Windows 2000 Professional or Server, Windows XP, Windows 2003
- Word 2003, Word XP

Configuring AutoVue Server to Enable Word Conversion

Note Microsoft Word should be installed on the same machine as AutoVue Server.

1 Open the file **allusers.ini** in a text editor and add this option:
[WordConversion]
Enabled=1; Set to 1 to enable Word conversion
Set to 0 to disable.

2 This is an optional setting you can add in **allusers.ini**:
GenerateLinks = never | bookmarks | internal
Default: never
Set to "bookmarks" if you want to display bookmarks for files.
Set to "internal" to enable internal links in the document.

3 Once the option is enabled, when you view word documents in AutoVue, they are automatically converted and then displayed in AutoVue.

Note It is recommended that you test the URL to the Graphics Server SOAP Service as specified in **allusers.ini**.

Appendix I: FAQ

General

Q What is the footprint / applet size of AutoVue client?

A

For Internet Explorer: about 2.3 Mb

For Netscape: about 4.4 Mb

Q What is the approximate transfer time of the applet?

A

For Microsoft Internet Explorer: 800Kb transfers in about 5 minutes at a modem speed of 28.8Kbps, 2 minutes at ISDN 64K, 1 minute at ISDN 128K and about 10 seconds at T1 (1.5Mbps) speed. On a Local Area Network, transfer time is just a few seconds.

For Netscape: 1.4 MB transfers in about 9 minutes at a modem speed of 28.8Kbps, 4 minutes at ISDN 64K, 2 minute at ISDN 128K and about 10 seconds at T1 (1.5Mbps) speed. On a Local Area Network, transfer time is just a few seconds.

Q Is the applet transmitted every time a document is viewed?

A

No. The applet is usually only transmitted the first time it is used and then is saved by your Web browser in its cache folder. The applet is transmitted again if:

- You clear up the cache.
- A new version of the applet is available on the server, in which case the new applet is transmitted automatically.

Q Does AutoVue support high-resolution printing?

A

Yes. This is a user-selected option when the client is running Windows using Java 1.1 JVM (Java Virtual Machine). When running under a Java 2 JVM (e.g.

using the Sun “Plugin”), Java 2’s high-resolution printing will be automatically used.

Q What are the main differences between the Desktop and the Client-Server editions of AutoVue?

A

Being a server-based product, some features have been omitted in the Client-Server edition. These include:

- Scanning
- Mail notification
- Specific Windows functionalities like embedding an OLE object as a Markup entity
- Thumbnail view

There are, however, some features that the Client-Server edition provides that the Desktop edition does not:

- Transparent handling of remotely located files via URLs
- Fully multi-threaded client
- Client Platform Independence
- Full control over the user interface appearance
- Collaboration
- Metafile caching

Q What file formats are supported?

A

All the formats supported by the Desktop edition of AutoVue.

Q What languages are supported by AutoVue Client-Server edition?

A

English, French, German, Japanese, Korean, traditional Chinese, simplified Chinese, Swedish, Spanish, Norwegian, Portuguese and Italian.

Q How do I set up AutoVue Client-Server edition to run in a specific language (English, French, German, Korean, etc.)?

A

It is done automatically; you do not need to set up anything. The AutoVue server is multilingual. The Client chooses the appropriate language depending on the

client machine's LOCALE setting. However, you can modify this behavior by using the LOCALE parameter of the applet.

Q How do I set up AutoVue server on UNIX so as to get full font support for Office and other formats?

A

1 Shut down AutoVue server.
2 Back up and remove the fonts from **<jVue Install directory>/jvuew/jvuew_c/windows/fonts**.
3 Copy all **ttf/ttc** fonts from a Windows font directory (from a machine which has all required fonts) to **<jVue Install directory>/jvuew/jvuew_c/windows/fonts**.
4 Restart AutoVue server.

Q When I run AutoVue Server as a service, I notice a difference in the formatting of Word documents.

A

When AutoVue Server is running as a service it runs by default on the "local system account" which has no default printer set. This causes the difference in formatting for Word documents.

There are two ways to resolve this issue:

- Run the AutoVue server Service on a specific account which has a default printer set. To do this, invoke the properties dialog for the Service, select the LogOn pane, select "this account" and enter account information.
- Set this option in VueServer.ini to specify the printer device to use for formatting.

[Options]

FORMATDEVICE = PrinterName,PrinterDriver,PrinterPort.

For steps on how to get this information for the current default printer information from the registry, go to:

http://support.microsoft.com/?kbid=156212

Q When I load a file I want AutoVue Server to automatically locate XRef files. How can I do this?

A

There are two ways to do this:

1 You can configure and use the server:// protocol to view files. When you use the server protocol, AutoVue server can locate all XREFs if they are located in the same directory as the base file.
2 A special **VueAction** - VueActionFileOpen is available. You should modify the GUI file to use this VueAction. When you use this VueAction, AutoVue translates all file open requests to the server:// protocol and locates all XRefs if they exist in the same directory as the base file. For more information, see **Customizing the GUI**.

Note When you are using any of above configurations and you wish AutoVue to locate XREFs that are in sub-directories, you can add to the XREFSPATH ini option either **./*** or **./****.

./* forces AutoVue to look through sub-directories that are one level below the current directory.

./** forces AutoVue to look through all sub-directories below the current directory.

Q What are the rendering schemes used by AutoVue?

A

A number of different rendering schemes are used by AutoVue.

Vector and 2D CAD files are generally streamed as AutoVue Streaming Format or ASF (previously refered to as Custom or Compressed Metafile Format).

Other formats are generally rendered using a tiled raster stream.

Q When rendering a file what is the size of the streamed data compared to the
original file size?

A

This is highly dependent on the nature of the document being viewed.

Vector and 2D CAD files are streamed as ASF. The ASF is generally smaller than the original file, but it depends on the complexity of the original document.

Other formats are rendered using a tiled raster stream. The advantage of this is that the size of the tiled data is generally independent of the size of the document being viewed. The size of each tile is quite small, generally less than 10Kb. You can check the size of the data being transmitted by setting the “VERBOSE” Applet parameter tag to TRUE. The results are displayed in the Java console.

Q What is metafile caching?

Q What is a cimmetry metafile?

A

When a native document is read, AutoVue Server provides the capability to export the internal "metafile" representation of the document. This is, by default, stored in the AutoVue Server's cache in a format called the **Cimmetry Metafile Format**. The first time a 2D CAD file or a 3D assembly/part is read, the server will parse the file and load it. A metafile is created when the file is closed. The metafile is then used for all subsequent loads of the same document. Thus the second and subsequent loads of document are faster than the first load.

When a document is loaded and its metafile exists, it greatly speeds up the loading time since the original document does not have to be re-parsed and many of the CPU intensive calculations are skipped since the results are in the metafile.

Q Is it possible to disable metafile caching?

A

Yes. It is possible to disable metafile caching. Set:

jvueserver.metacache.enable=false in jvueserver.properties

Default: *true*

Q What is a Doc Server? How is it different from the Primary Server?

Q What is a Metafile Server?

A

Every AutoVue Server installation has a Primary Server, several Doc Servers and a Metafile Server.

The Primary Server is responsible for routing document requests to the secondary servers. This server is represented by **P** in the AutoVue Server console.

The secondary servers, also called Doc Servers or Document Servers are responsible for processing document requests and streaming data to the clients.The secondary servers are represented by **1**, **2**, **3**, **4** in the AutoVue Server console. The number of secondary processes is determined by the **jvueserverx.nt.processPoolSize** setting in **jvueserver.properties**. **Default**: *4*.

The Metafile Server is dedicated to generating cimmetry metafiles for all documents. When a document handle is closed, request is transferred from the Doc Server to the Metafile Server and this server generates the metafile. The Metafile Server is represented by **M** in the AutoVue Server console.

The advantage of having a dedicated process for generating metafiles is that clients do not have to wait for the previous document to be cached to view the next document.

Q How do I configure what servers handle metafile generation?

A

There are two ways to configure this:

1 You can configure AutoVue Server so that if the load on the Doc Server is high, Metafile Server can handle metafile creation. In **jvueserver.properties**, set:
jvueserver.metacache.threshold to a non-negative integer.
If the load on the Doc Server reaches this threshold, Metafile Server will generate metafiles.

2 You can disable the Metafile Server so that all metafile creation requests are handled by Document Servers.
In **jvueserver.properties**, set **jvueserver.metacache.process=false**.

Q Does AutoVue work with firewalls and proxy servers?

A

Yes. There are usually two distinct sets of firewalls/proxy servers that come into play:

- Firewall/proxy on the server: Most WEB servers, ASP's and document management systems run behind a firewall and proxy server for security.
- If a Proxy Server is being used to connect to the outside Internet, then the name of the Proxy Server must be specified in **jvueserver.properties**, see **Configuring the Connections to Use**.
- If you have a firewall installed in front of the AutoVue server then you should either install the VueServlet to tunnel all connections through the servlet or open port 5099 (or whatever port you have chosen for the socket communications) on your firewall.
- Firewall/proxy on the client. Many client browsers run behind a firewall. Generally all ports except the standard HTTP port (80) are disabled. In this case, you cannot use a direct socket connection and you must set up the VueServlet on your Web server to tunnel all communications through standard HTTP or HTTPS. If the client is using a proxy server to connect to the Internet, there is generally no special configuration needed since the AutoVue Client will use the TCP/IP services of the browser.

Note

- The proxy server uses NTLM authentication; only IE works in this case.
- Even if there is no way for the server to know if a client is behind a firewall or not, you still can provide the direct socket connection just by setting the JVUESERVER parameter properly.
  Use something like:
  <PARAM NAME="JVUESERVER" VALUE="socket:myserver:5099;http://myserver/servlet/VueServlet">
  would allow clients behind firewall to tunnel through the servlet, while other clients can still use the faster socket connection.

Q I expect to have 100 users using AutoVue simultaneously. What are the server requirements for AutoVue Client-Server edition?

What are the recommended hardware requirements for the AutoVue Server?

A

The base memory requirements are approximately 50MB per process. The number of processes is set in jvueserver.properties. The memory requirement varies largely based on the number of users and the kind of files.

The number of AutoVue Clients that the Server can support is proportional to the memory available to the server, while the performance or responsiveness that is experienced by an individual user at the client machine will be proportional to the servers CPU speed.

The server resources consumed by a client are highly dependent upon the complexity of the files that are being viewed. Office documents, raster images, and two dimensional CAD files generally consume significantly less resources than three dimensional CAD or EDA files, due in part to the larger average file sizes of the latter type of document and to the greater complexity of the information they contain.

The following table provides some guidelines for sizing AutoVue Servers based on Cimmetry's experience in the field.

	Office, 2D CAD Environment Hardware Configuration			3D CAD, EDA Environment Hardware Configuration		
Number of Users	Number of Servers	RAM (GB)	Number of CPUs	Number of Servers	RAM (GB)	Number of CPUs

	Office, 2D CAD Environment Hardware Configuration			3D CAD, EDA Environment Hardware Configuration		
50	1	2	2	1	2	2
100	1	2	2	1	4	2
250	1	4	2	2	4	2
500	1	4	2	2	4	2
1000	2	4	2	4	4	2
2500	4	4	2	8	4	2
5000	8	4	2	12	4	2

The "**Number of Users**" column refers to the overall number of users that have access to the AutoVue Server. It is assumed that an average user will view 25 to 50 documents per day, with documents in the Office/2D CAD environment averaging 1 MB in size and those in the 3D/EDA environment, 5 MB in size. If the usage pattern at a site exceeds these values, one should consider adding additional resources and moving to the next higher server configuration.

In the table above "**RAM**" and "**CPU**" columns refer to the total amount of installed RAM and to the total number of CPUs for each required server as indicated in the "**Servers**" column. No processor speeds are given because the processor is barely the bottleneck. CPU frequency has less of an impact on actual viewing (rendering) performance than on perceived responsiveness. Cimmetry recommends minimum clock rates of 2 GHz for Intel-based servers and 1 GHz for Sparc-based servers. Adding more RAM will benefit more than increasing raw processor power by keeping swapping to disk to a minimum, thereby minimizing the attendant performance degradation.

The AutoVue Server's load balancing makes it easier to add additional server capacity without having to modify client configuration. Besides increasing server capacity, extra server machines may also be used to provide fail-over in case of a hardware failure.

Security

Q Does AutoVue Client-Server Edition use cookies?

A

Yes. The AutoVue Client does set and get cookies from your Client browser. This is to track the number of users on the AutoVue Server(s). The cookie is basically a unique number assigned to each browser. By setting the cookie, when a user views several files in succession or opens up several browser windows to view several documents simultaneously, a single “session” is used on the AutoVue Server.

Note If you disable cookies on your Web browser or refuse to accept a cookie, the AutoVue client will continue to work, but each new instance of the browser will create a new “session” on the AutoVue server. This could be a problem if your server uses a named-user licensing scheme.

Q Can I deny the permission when the security warning dialog box appears in Netscape?

A

No. Those permissions are needed to ensure a proper behavior of the applet. Java applets are restricted to work in a very tight-security “sandbox” in which they cannot by themselves connect to other computers on the network or read a file from your disk. Enable those permissions so that the AutoVue client can work properly.

Note These permissions are only valid for the current session and will need to be re-enabled each time if you do not select the Remember that decision check box in the warning dialog boxes.

Q Can I use HTTPS/SSL for secure communications?

A

Yes. You can “tunnel” all communications between the AutoVue Client and server through HTTPS which uses SSL. This ensures a secure connection. To do this, the applet should communicate with the server through a servlet which should be referenced through HTTPS.

Example:

<PARAM NAME="JVUESERVER" VALUE="https://www.mymachine.com/servlet/VueServlet">

Q Is the data transmitted to the Applet encrypted?

A

If you tunnel all communications through the servlet using HTTPS, all communications are encrypted using SSL.

Integrating with Other Systems

Q Can AutoVue be customized to work within our interface?

A

Yes. We provide several kinds of integrations:

- You can script the Applet just by changing the FILENAME parameter in it. This is a simple but convenient way to generate Applet pages from a backend Document Management System.
- You can script the applet with JavaScript to:
  - Set the document to View
  - Load one or more markups
  - Compare to a file
  - Add an overlay
  - Print the document
- You can define the GUI definition of the Applet by specifying the GUIFILE applet parameter. This allows you to fully control the menu and toolbar items that will appear on the client.
- You can integrate the server with a DMS using AutoVue's DMAPI. This is aimed at customers who want to tightly integrate AutoVue with a back-end document database. The DMAPI provides the interface between the AutoVue Server and the back-end database and provides all "hooks" to manage Markups, reference files, access permissions and user permissions.
- You can use the VueBean, which is to AutoVue Client-Server edition what the VCET controls are to AutoVue Desktop edition. The VueBean provides the full rendering and Markup capability of AutoVue Client-Server edition, but without any GUI. This is aimed at customers who want full control over the applet interface.

Q Does the AutoVue server have to be on the same server as my drawings or WEB server?

A

No. The AutoVue server can be on any machine. In fact, the AutoVue server distinguishes between several types of documents:

- When the server is integrated with a DMS using the “DMAPI” then the location of the documents is completely transparent to the AutoVue server. The downloads/uploads are handled by the DMAPI integration component.
- The applet client can upload local files to the AutoVue Server using the “upload:” pseudo-protocol.
- If the document to be viewed specifies a URL with the HTTP:, HTTPS: or FTP: protocol, then the AutoVue server tries to download the document. These documents could be located anywhere, as long as they are accessible through TCP/IP.
- You can view documents that are on the AutoVue server itself using the “server:” pseudo-protocol.

  Note This is disabled by default, see **Directory in the [Server] section of VueServer.ini** for more information.

Q Can I access my Oracle/Microsoft SQL database even if it is on a different server?

A

Yes. Please refer to the question above. You will probably have to have a DMAPI integration installed for a tight integration between the Applet, the AutoVue server and the Database.

Q Do I need a Web server to be able to run AutoVue Client-Server edition?

A

No. Users will access the client applet through a Web browser such as IE or Netscape. However, a WEB server is not required.

The client can connect to the server using direct sockets. In addition, the AutoVue client can be run as an application (*not* as an applet). The **jvue.bat file** in the **\bin** directory gives an example on how to invoke the client as an application.

Q Can I integrate AutoVue with my FTP site?

A

Yes. The applet can accept any valid URL including the standard HTTP, HTTPS and FTP protocols.

Q Can users Markup files on my FTP site and save the Markup files there?

A

Yes. By default Markups will be managed and saved by the AutoVue server. In order to have the Markups saved on the FTP site, you would have to interface with the AutoVue server using the DMAPI.

Q Can I set security access or restricted access to my drawings through AutoVue?

A

Yes. Through the DMAPI integration on the server, you can enforce any access restrictions that are defined in your DMS.

Q Has AutoVue Client-Server edition been integrated with popular EDM/PDM Systems?

A

Yes. We have "out-of-the-box" solutions for a number of systems including: Documentum, MatrixOne, OpenText, Lotus Notes/Domino, SAP PLM and SAP cFolders.

The integration API (DMAPI) is an open specification that allows AutoVue server to be integrated with other systems.

Q How easy is it to integrate AutoVue Client-Server Edition into my own EDM/PDM system?

A

It is relatively straightforward. Cimmetry provides integration tools and a sample interface to get you started. The API used to integrate is called DMAPI. The API is XML-based and can be implemented as a Web server component. We provide a skeleton servlet that can be used as basis.

Q What is meant by the DMAPI/Vuelink Integration/Interface and what can I do with it?

A

The DMAPI is the XML-based API that is used to interface the AutoVue server with a back-end EDM/PDM system. VueLink is the product name of the DMAPI interfaces that Cimmetry Systems itself has developed for a variety of EDM/PDM systems. The development of a DMAPI integration generally involves several issues:

- The integration can be developed in any language that supports a CGI-like protocol, including .ASPs, .JSPs, C or Perl CGI scripts or Java Servlets. We provide a sample skeleton of an integration as a Java servlet.
- The Integration has full control over the document properties.
- The Integration has full control over the querying/reading/saving of Markups.
- The Integration has full control over the management of reference files/ compound documents.
- The integration can enforce any access restrictions and workflow rules. For example when a new Markup is created on a document a workflow can be automatically started.
- Query document attributes to add to the headers/footers or watermark of printouts.

In general the DMAPI integration acts as an intermediary layer between the AutoVue server and the EDM/PDM system.

Q Does AutoVue Client-Server edition support real-time collaboration?

A

Yes.

Q Where are Markups saved ?

A

When AutoVue is integrated with a DMS using the VueLink DMAPI then Markups are entirely managed by the DMS.

Without the integration the AutoVue server will manage the Markups itself. The Markups are stored in a specific directory on the server, with a mapping between the base file and the associated Markup list. By default the Markups are stored in the \Markups subdirectory of the AutoVue server program directory, but this can be specified in the VueServer.ini file.

Platform

Q Does AutoVue client support the Macintosh?

A

Yes.

Q Does AutoVue client support Linux?

A

Yes.

Q Which platforms/browsers has the AutoVue client been tested on?

A

Generally, any platform/browser that fully supports Microsoft JVM or Sun Java VM 1.4.2 or later is supported.

The following browsers have been certified by Cimmetry.

- Windows, 2000, Windows 2003 or Windows XP with Microsoft Internet Explorer 6.0 SP1, FireFox 1.5
- Macintosh Power PC OS 10.4 with Safari 2.0 and FireFox 1.5
- Sun Solaris 9 & 10 with Firefox 1.5
- RedHat Enterprise Linux 4.0 and Suse SLES 9.0 Sp3 with Firefox 1.5
- HP-UX 11 with Mozilla 1.7
- AIX 5.1 with Firefox 1.5
- AIX 5.1 with Netscape 7.0

Note Due to known compatibility issues with Java 1.5 and Mozilla, Netscape and FireFox, we recommend that you run these browsers with Java 1.4.2.

Note Due to the enriched API that are implemented with Java 2, certain features such as **"Dim Unselected" highlight type** are only available when clients are using Java 1.4.2 and above.

Q Which platforms has the AutoVue Server been tested on?

A

The Windows version of the AutoVue Server has been tested on: Windows 2000Sp4, Windows XP SP2 and Windows 2003/2003Sp1/2003R2.

The Solaris version of the AutoVue Server 19 has been tested on: Sun Solaris 8 and Sun Solaris 9.

Q Do you have a UNIX (Solaris, HP UX, IBM AIX, Linux) version of the AutoVue server?

A

A Solaris version exists.

Linux version is under development.

Troubleshooting

Q I've installed the AutoVue server. When I open the sample HTML page (http://my.machine.com/jVue/jVue.html) containing the applet I just get a blank screen. What should I do?

A

Proceed in the following order:

If you are running Internet Explorer

1 Clear the browser cache. Do this by selecting **Tools**, then **Internet-Options**.
2 Under **Temporary Internet Files**, click **Delete Files**.
3 Click **OK**.
4 Again under **Temporary Internet Files**, click **Settings**.
5 Click **View Objects** in the **Settings** dialog.
In the list of objects, you will not see jVue or VueBean.
6 If you see either of these two objects, right-click and select **Delete**.
(These two objects were created by a very early version of AutoVue and are incompatible with the new version.)

If you are running Netscape

1 Clear the browser cache. Do this by selecting **Edit** then **Preferences**.
2 In the **Preference** dialog, select **Advanced** and **Cache**.
3 Click **Clear Memory Cache** and **Clear Disk Cache**.
4 In the **Preferences** dialog box, select **Advanced** and **SmartUpdate**.
5 In the list of objects, if you see AutoVue, select it and click **Uninstall**.
(This object was created by a very early version of AutoVue and is incompatible with the new version.)
6 Restart the browser.
7 If you still see a blank screen then there is an installation problem on the server.
Verify that the Java Cab/Jar files are accessible. You can do this from your browser by typing in the URL field at the top:
http://my.machine.com/jVue/jvue.cab and **http://my.machine.com/jVue/jvue.jar**
If you are prompted for a download, you can ignore it. If you are not prompted for a download then the Cab/Jar files are improperly installed on the server.
8 If you can modify the file frmApplet.html on the server machine, under the \jVue Web directory, then set the VERBOSE parameter of the applet to TRUE.
9 Restart the browser and re-open the jVue.html page on the Web server.

10 Open the Java Console in the Web browser.
The console indicates the cause of the problem.

Q I get an error message “An error occurred while connecting to the server. Restart the applet?”. What should I do?

A

To begin, you should start by clearing your browser cache, following the steps from the previously answered question. If you still get this message it means that the client cannot communicate with the AutoVue server. Verify that the AutoVue server is running on the server machine.

Next verify that the applet parameter JVUESERVER is properly set. By default the applet will try a direct socket connection to the server. If you are behind a firewall, then non-HTTP sockets may be blocked, in which case the applet will “tunnel” the communication through the servlet, VueServlet. See the section **Testing the Servlet installation** which provides pointers on troubleshooting the servlet.

Q When I open files from the AutoVue client, files do not display. What should I do?

A

This problem could occur if the AutoVue client and the server are of different versions. When there is a mismatch in the version or build numbers, files either display blank or a ’File not found’ error message appears.

To begin, launch the AutoVue Client, select ’Help’-’About’. Check that the client and the server version and build numbers are the same. If they do not match, clear your browser cache and reload the applet. If the numbers still do not match, check the web server components installed as part of the AutoVue server installation. Try a manual installation of the Web Server components. Follow steps 2 to 5 outlined in section **If the AutoVue server is installed on a machine that does not have a Web server installed**.

Q When I run the installer for AutoVue server for Solaris, the installer shuts down after the first screen. What do I do?

A

A couple of Solaris Xserver bugs can cause crashes in some situations when using the Java 2 SDK on the Solaris 7 operating environment. To work around this issue, set the environment variable NO_J2D_DGA to true before running the installer.

Q When I start up AutoVue server, the processes P, 1, 2, 3, 4, M never turn green.

A

This can occur if the ports needed by AutoVue server are in use. Make sure the following ports are available for the server:

- RMI port + [n+1] consecutive ports (where **RMI port** is the port set in jvueserver.properties — the default RMI port is 1099; and where **n** is the process pool size in jvueserver.properties)
  For example, if the RMI port is 1099: make sure ports 1099, 1100, 1101, 1102 and 1103 are available for a process pool size of 4.
- Socket port + [n+1] (where **Socket port** is the port used for socket connections — see jvuserver.properties for the socket port number value — the default Socket port is 5099; and where **n** is the process pool size set in jvueserver.properties)

Q When I start up AutoVue server on Solaris, I get the following error messages:

"XSERVTransMakeAllCOTSServerListeners: server already running

Fatal server error:

Cannot establish any listening sockets - Make sure an X server isn't already running

x11drv: Can't open display: localhost:909."

What should I do?

A

This error occurs when the port used by the Xvfb server is already in use by another process. Modify the Xvfb port by editing jvueserver in **<jVue Install directory>/bin**.

Set XVFB_DISPLAY to an available port.

Q 3D files don't display when the AutoVue client is on Solaris / HP-UX / Linux / AIX.

A

.Make sure these libraries exist on your Unix machine:

- Solaris - libGL.so and libGLU.so
- HP-UX - libGL.sl and libGLU.sl
- Linux - libGL.so and linGLU.so

- AIX - libGL.a and libGLU.a

Make sure the path to these libraries is set in the **LD_LIBRARY_PATH**.

Q How do I contact Cimmetry Systems for support?

A

If at any time you have questions or concerns regarding AutoVue call or visit our website.

General Inquiries

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