

# ***VueLink for SAP PLM***

***An Integration between  
AutoVue Client-Server Edition  
and SAP PLM***

## ***User Manual***



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# Introduction

VueLink for SAP PLM provides an interface between SAP PLM System and AutoVue. This interface enables users to add powerful viewing and Markup capabilities to the following SAP GUI front end components:

- SAP GUI for Windows on Windows platforms
- SAP GUI for Java on the Macintosh platform

VueLink for SAP PLM provides an interface between the SAP PLM System and the AutoVue family of products. This interface enables you to add powerful viewing and Markup capabilities to your SAP PLM System via a Web browser or SAP GUI in an intranet or the Internet.



VueLink and AutoVue will provide you with the following functionality:

- Document viewing of native formats.
- Graphically marking up documents using a rich set of graphical and textual tools.
- Reviewing your Markups and those of your co-workers.
- Full-security linking to the SAP PLM System.

This manual is intended for the users of VueLink and the System Administrator or other individual who performs the VueLink setup.

**Note:**

- Throughout this manual the family of AutoVue Products is referred to as AutoVue. The AutoVue family of products includes AutoVue, AutoVue Professional, AutoVue SolidModel, AutoVue SolidModel Professional and Office. These products are available in Windows, UNIX or Java.
- AutoVue Professional, AutoVue SolidModel Professional and Office provide Markup features. Refer to the User's manual for further information about the specific features and file formats supported by each AutoVue product.

# Functional Overview

VueLink for SAP PLM adds document viewing and Markup capabilities to the SAP PLM System. It provides a seamless interface between SAP GUI for Java and SAP GUI for Windows clients and AutoVue in an intranet/Internet environment. Markups are automatically saved on the SAP PLM System and are available for other users to edit and/or view depending on their document access level.

VueLink for SAP PLM and AutoVue provide users with the following powerful features and capabilities:

- View documents securely in their native format or their Adobe Acrobat PDF rendition from the SAP PLM System without editing them.
- View more than 200 2D & 3D Engineering and Business document formats.
- View Multi-content objects.
- Simultaneously work with multiple Markup layers and files.
- Create Markups directly on stored documents or renditions using a rich set of annotation tools.
- Create hyperlink connections to other related documents.
- Consolidate several Markup files (perhaps from different reviewers) into one Markup file.
- Control access to Regular, Master and Consolidated Markup files.
- Associate Markups with a specific document revision. Markups may be migrated to new revisions as required.
- Graphically compare different revisions of engineering drawings.
- Print documents with headers, footers and Watermark information queried from specified document attributes.

VueLink for SAP PLM also provides you with a basis to which other powerful functions can be added via custom-designed tools to further enhance the SAP PLM installation. Custom-designed tools offer many possibilities. For example, you can create 'intelligent' custom stamps such as an Engineering stamp that queries for information which can be included as Markups.

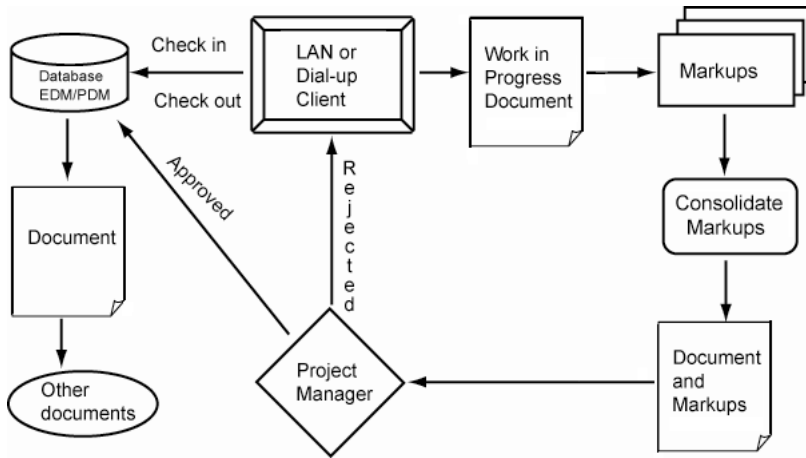
In addition, custom applications can be created to extract relevant information from an AutoCAD or MicroStation file and automatically link it with information from your SAP PLM system or other system.

And remember that all these features are available from your Web browser by using Cimmetry's Client-Server edition of AutoVue.

AutoVue is fully configurable for you to customize your own tools. If you prefer, contact your account manager or our technical support representatives to discuss the possibilities of having us design a tool to meet your specific business needs.

# Why Does the SAP PLM System User Need a Viewing/Markup Tool?

Typically, in an organization, a document has a life cycle and is routed to several people as part of a workflow cycle. Refer to the following figure for an example of a possible workflow cycle.



At minimum, there are three types of people who interact with a document:

- **Creator/author of a document:** The creator is usually the person responsible for creating or modifying a document with an editing application such as Microsoft Word or AutoCAD.
- **Reviewer of document:** This individual usually reviews a document and provides comments to the author or other reviewer. In a paper-based environment, the document is printed on paper and sent to a list of reviewers. Each reviewer provides feedback in several ways, directly marks up the paper output using a pen, attaches sticky notes, and creates one or more Markups. The annotated document along with other material is then sent to a supervisor who reviews the material (possibly with several other reviewers) and may consolidate the comments into one set. This set is then passed back to the creator for making modifications to the document. Several revisions, or versions of the document may be produced during this process.

- **Users of documents:** Once the review cycle is complete, possibly involving several versions of the document, the document is published. The final document is made available to those requiring View Only access to the document. At this stage, the document may be provided for viewing either in its native format or as a print rendition.

VueLink provides the capability of marking up a document and storing Markup information in a separated document in the SAP PLM System. There are different types of Markup entities offered in addition to hyperlinking capabilities.

## Markup File Management

More than one Markup file can be attached to a document or a rendition. In addition, you have the option of displaying one or more Markup files simultaneously. If the currently displayed document has registered Markups, a red lightbulb button displays in the lower left corner of the status bar alerting the user to the existence of one or more Markup files. Markup files are also automatically traced by the revisions of a document so that each revision has a distinct set of related Markup files. When Markups are valid for a subsequent revision they can be promoted to that particular revision.

## Engineering Documents

VueLink is fully equipped to handle complex engineering documents that may consist of external references, layers and blocks.

## Cached Metafiles

With AutoVue, it is possible to enhance the viewing performance of large drawings by using cached metafiles. A metafile is a lightweight format developed by Cimmetry, and represents a true replica of the original format. Every time you view a file with AutoVue and you close the applet window or view another file, AutoVue automatically generates a metafile and checks it into SAP PLM.

When viewing a file, AutoVue checks if a cached metafile rendition exists inside SAP PLM. If a cached metafile exists, AutoVue checks it out instead of the native file.



# VueLink Features

The section covers the features that VueLink adds to AutoVue Client-Server Edition:

- [Viewing Documents](#)
  - [Viewing a Document from the SAP GUI for Java/Windows Client](#)
  - [Accessing DMS Files](#)
  - [Viewing Multiple Originals](#)
- [Markups](#)
  - [Creating a Markup](#)
  - [Saving a new Markup File](#)
  - [Saving an existing Markup File](#)
  - [Displaying Markups](#)
  - [Promoting Markups](#)
  - [Deleting Markups](#)
  - [Consolidating Several Markups into a Single Markup](#)
  - [Saving as Master Markup](#)
- [Printing Document Attributes as Headers, Footers or Watermarks](#)
- [Converting Files](#)
- [Comparing Files](#)
- [File Overlays](#)
- [Cross Probing](#)
- [MockUp](#)
- [Batch Print](#)

## Viewing Documents

### Viewing a Document from the SAP GUI for Java/Windows Client

- 1 Log on to SAP GUI for Windows on Windows platforms or SAP GUI for Java on the Macintosh platform.

- 2 To log in, enter your **Client**, **Login Name** and **Password**.

The screenshot shows the SAP login interface. At the top, there is a title bar with 'User System Help' and the SAP logo. Below the title bar is a menu bar with 'User System Help'. The main area contains a 'New password' button, followed by input fields for 'Client' (000), 'User' (Cimmetry), 'Password' (masked with asterisks), and 'Language' (en).

- 3 Browse to the document or search for the document you want to display with AutoVue.
- 4 Double-click the document you want to display.  
The **Document Display** page appears. The document's details are displayed on this page.  
The **Document data** tab and the **Originals** tab contain all the files checked in for this document.

The screenshot shows the SAP 'Display Document: Basic Data Engin/Des. Drawing (KPR)' interface. The 'Document Data' tab is active, displaying fields for Document (AUTOCAD DEMO), Part (000), Version (01), and various status indicators. The 'Originals' tab is also visible, showing a table with columns for Appl., Application, and Storage Cat. The table contains one entry: ACD, Autocad, DMS\_H1\_ST.

Appl.	Application	Storage Cat.
ACD	Autocad	DMS_H1_ST

- 5 To select a file to display, double-click the desired item on the **Document data** tab or the **Originals** tab.

The screenshot shows the same SAP interface, but with the 'Originals' tab selected. The table displays a list of documents with columns for Appl., Description/Log Field, St, Status Txt, User, Date/Time, and Storage Cat. The table contains one entry: ACD, Autocad, DMS\_H1\_ST.

Appl.	Description/Log Field	St	Status Txt	User	Date/Time	Storage Cat.
ACD	Autocad					DMS_H1_ST

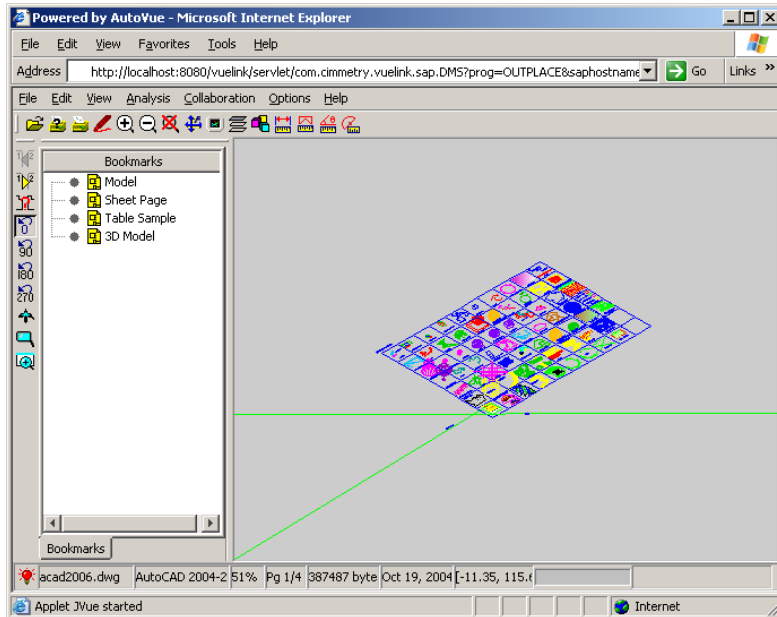
AutoVue client is launched and prompts for authorization.

- Specify the **User Name** and the **Password**, then click **OK**.

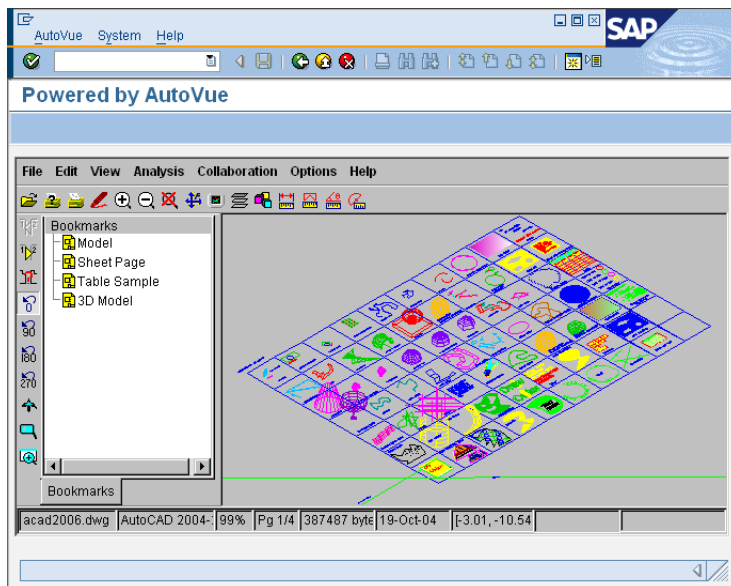
The selected file is displayed.

**Note:**

- If you have configured outplace viewing, a browser window is launched and AutoVue applet loads in the new browser window.



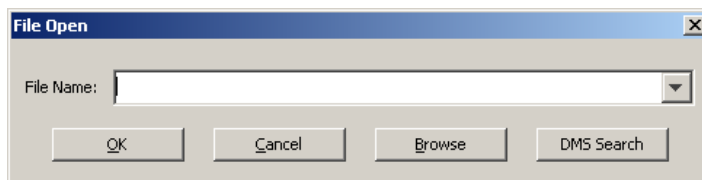
- If you have configured inplace viewing, AutoVue applet loads within the SAP GUI window.



## Accessing DMS Files

AutoVue provides a way to access files that are in the SAP PLM system from within the AutoVue window: DMS Search. You can use this option to select files from within the SAP PLM system when you need to open files for viewing, comparison, cross-probe, mockup, batch printing or overlays.

If any operation requires you to open files, the **File Open** dialog box lets you search the SAP PLM system.



## DMS Search

- 1 Click the **DMS Search** button in the **File Open** dialog box.

A dialog box appears that lets you specify a search criteria.

Search

Doc Type

Document

Part

Version

User

Max Results

Search

Close

Search Results

Doc Type	Document	Part	Version	File Name	Author
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Load File

- 2 To search for a file in the DMS specify a search criterion based on: **Document Type, Name, Part, Version** or **User**.
- 3 To limit the number of files that appear in the search results, specify a value in the **Max Results** section.
- 4 When you finish specifying your search criterion, click **Search**.
- 5 AutoVue searches through the SAP PLM system for all documents that match the search criterion and populates the **Search results** section with the search results.
- 6 Select a file from the Search results and click **Load File** to display the file in AutoVue.

## Viewing Multiple Originals

VueLink for SAP PLM and AutoVue provide users the ability to navigate through multiple originals checked into a document.

- 1 Launch AutoVue for the first original of a document that contains multiple originals.
- 2 Select **View > MultiContent > Next Document**.  
The next original is now displayed in AutoVue.
- 3 To navigate to the previous original, select **View > MultiContent > Previous Document**.  
The previous original is now displayed in AutoVue.
- 4 To jump to a particular original, select **View > MultiContent > Document Number** and specify the number for the original to which you want to jump.  
AutoVue displays the specified original.

## Markups

The three types of Markup files are normal Markups, consolidated Markups, and Master Markups.

- **Normal Markups:** The default Markup when using a new setup.
- **Consolidated Markups:** You can load several files simultaneously and edit them to create a consolidated Markup where the contents of all files consolidate to display as one file. This type of Markup is especially helpful when you want to group reviews from various individuals to forward collectively to another person or group of reviewers.
- **Master Markups:** Markup files that display automatically when you open a document. This type of Markup alerts the viewer that important changes were made to the document content. This benefits the workflow cycle when changes to a document need to be noted but the document itself has not been modified in the authoring application.

## Creating a Markup

- 1 Display a document within AutoVue.
- 2 Enter Markup mode by selecting **File > Markup** from the menu or right-clicking and selecting **Markup**.

**Note:** You can also click the Markup button  in the toolbar.

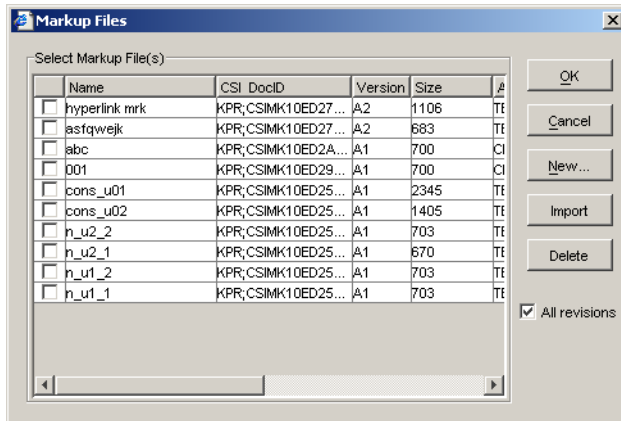
The current active document is displayed in Markup mode ready for you to create Markups.

- 3 To create a new Markup file, click **New** in the **Open markup** dialog box.

The current active document is displayed in Markup mode. You are ready to create Markups.

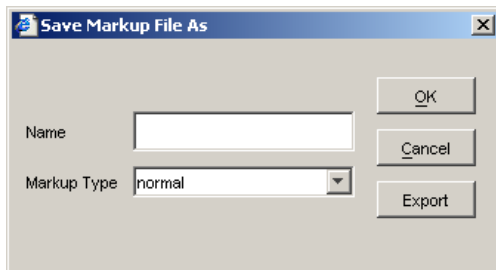
- 4 If after you have finished creating a Markup you want to create another one, select **File > New** from the menu.

**Note:** You can also click the New button  in the toolbar.



## Saving a new Markup File

- 1 Select **File > Save** from the menu.  
The **Save Markup File As** dialog box appears.



- 2 Complete the **Name** box.



- 3 Select the Markup file type. There are three types: **normal** (default), **master** and **consolidated**.




- 4 Click **OK**.  
The Markup file is saved and remains displayed in the AutoVue viewing window.

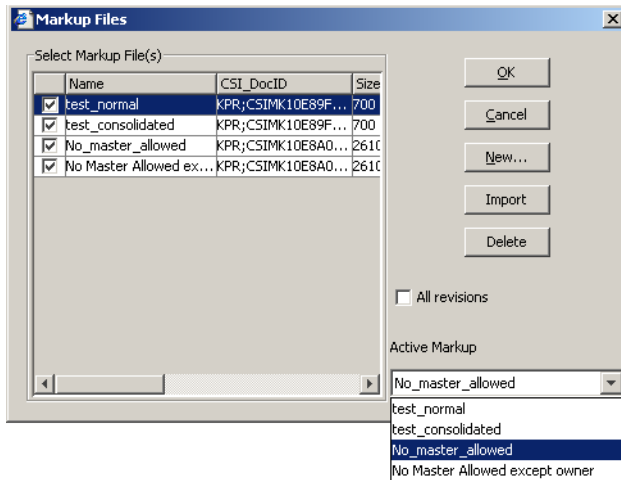
## Saving an existing Markup File

- 1 Select **File > Save** from the menu.  
The Markup file is saved and remains displayed in the AutoVue viewing window.

## Displaying Markups

- 1 After the selected file displays in AutoVue, enter Markup mode by selecting **File > Markup** from the menu or right-clicking and selecting **Markup**.  
**Note:** You can also click the Markup button  in the toolbar.
- 2 Select **File > Open** from the menu.

The **Open markup** dialog box appears.



- 3 Select the Markup file(s) to view, and then select the active Markup.
- 4 Click **OK**.

## Promoting Markups

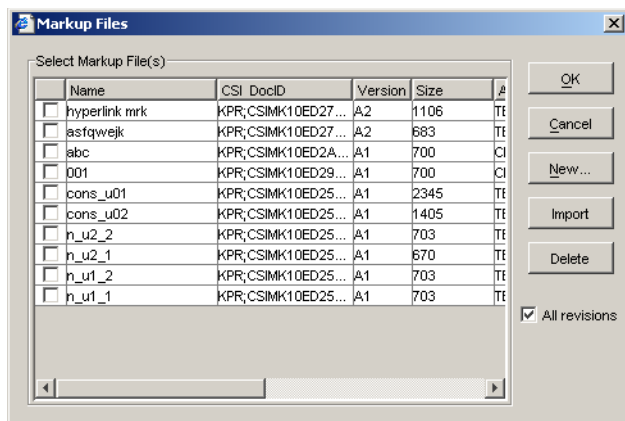
It is possible to promote Markups from an earlier version to the current version of a document. When Markups are promoted, they are saved against the new version of the document.

- 1 After displaying a file with AutoVue, enter Markup mode by selecting **File > Markup** from the menu or right-clicking and selecting **Markup**. The **Open Markup** dialog box appears. In the following image, some columns were narrowed to show the **Version** column.

**Note:** You can also click the Markup button  in the toolbar.

- 2 To display the Markup files from previous versions of the base file, select **All revisions**.

The Markup files are displayed for the previous version of the base file.



- 3 Select one Markup file from the previous version.  
The Markup file will be shown with the current version base file.  
**Note:** When you save the selected Markup (with or without any modification), it would be saved as the Markup of the current base file version.
- 4 Enter Markup mode.  
**Note:** If there are no Markups for the document, the document is opened in Markup mode.
- 5 Select **File > Open**.  
If Markups exist for the document, the **Open Markup** dialog box appears.
- 6 Select **All revisions**.  
All Markups from all previous versions of the document are now displayed.
- 7 Select the Markup that has to be promoted.
- 8 Click **OK**.  
The document is now opened in Markup mode and the selected Markup is displayed.
- 9 Select **File > Save as**.  
The **Save** dialog box appears.
- 10 Specify a name for the Markup and save.  
The Markup is now saved with the current version of the document.

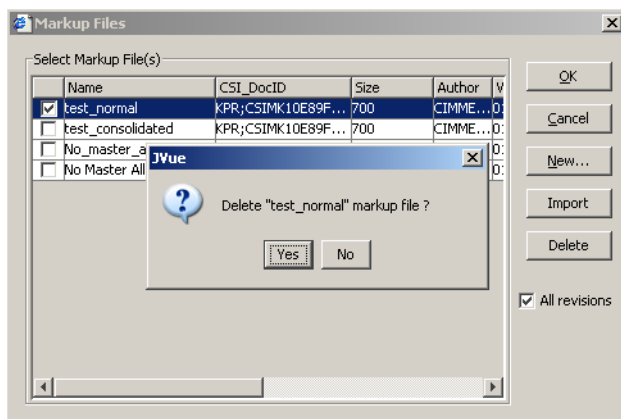
## Deleting Markups

- 1 After displaying a file with AutoVue, enter Markup mode by selecting **Markup** from the **File** menu or right-clicking and selecting **Markup**. The **Open markup** dialog box appears.

**Note:** You can also click the Markup button  in the toolbar.

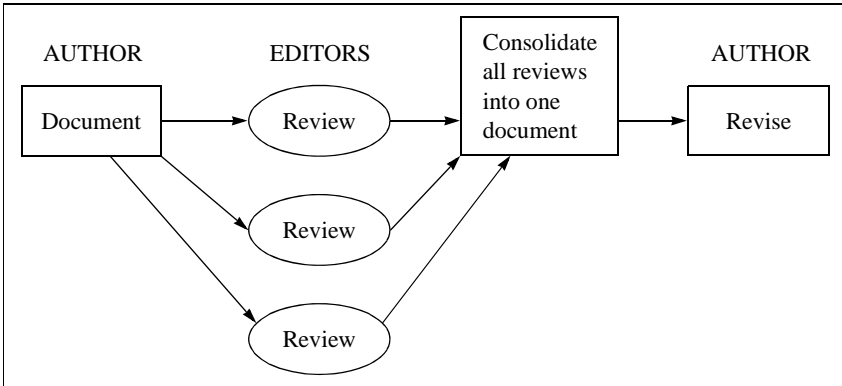
- 2 Select one or more Markups from the list.
- 3 Click **Delete**.
- 4 At the prompt, click **Yes** to confirm the deletion of the Markups you selected to delete.

The selected Markup(s) are deleted from the list of Markups in the **Open markup** dialog box.

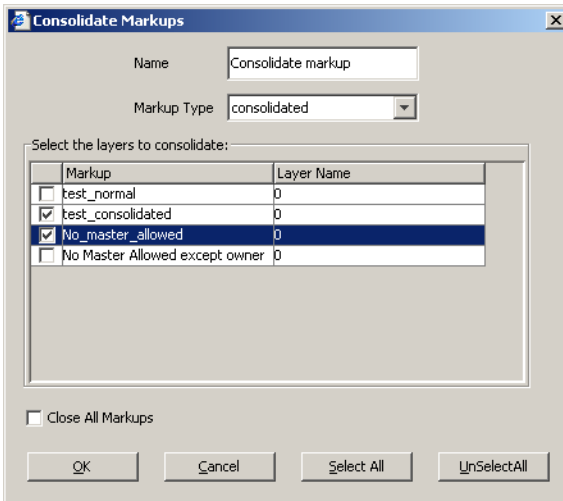


## Consolidating Several Markups into a Single Markup

The **Consolidate** option lets you create a new Markup combining copies of selected parts of different Markups. This option is available only if multiple Markups are loaded. During the review cycle consolidation simplifies document revisions by providing authors with one consolidated Markup rather than several Markup files.



- 1 After the selected file displays with AutoVue, from the **File** menu, select **Open**.  
The **List of Markup File(s)** dialog box appears.
- 2 Select Markup files to view.
- 3 Select the active Markup file.  
Your new updates will be saved to the active Markup you selected.
- 4 Click **OK**.  
All the selected Markup files display simultaneously.
- 5 Select **File > Consolidate**. The **Consolidated Markups** dialog box appears.



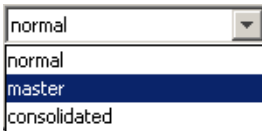
- 6 Select the Markup layers you want to consolidate.
- 7 Enter the name of the consolidated Markup file.
- 8 If you wish to display this consolidated Markup file as the active Markup file and close the other Markups once the consolidation is complete, select **Close All Markups**.
- 9 Click **OK**.
- 10 Enter **Markup Name** and **Title**.
- 11 Click **OK**.  
The consolidated Markup file is saved.

## Saving as Master Markup

AutoVue tags Markup files as normal, consolidated or master. Master Markups are immediately displayed when their base document is displayed. When viewing a document, Master Markups are automatically loaded and displayed in Markup mode. Although non-owners can view Master Markups, they cannot change the Master Markups or create their own Master Markups.

After you have finished marking up a document:

- 1 From the **File** menu, select **Save** or **Save As**.  
The **Save Markup File** dialog box appears.
- 2 Complete the **Name** field.
- 3 For Markup file type, select **master**.



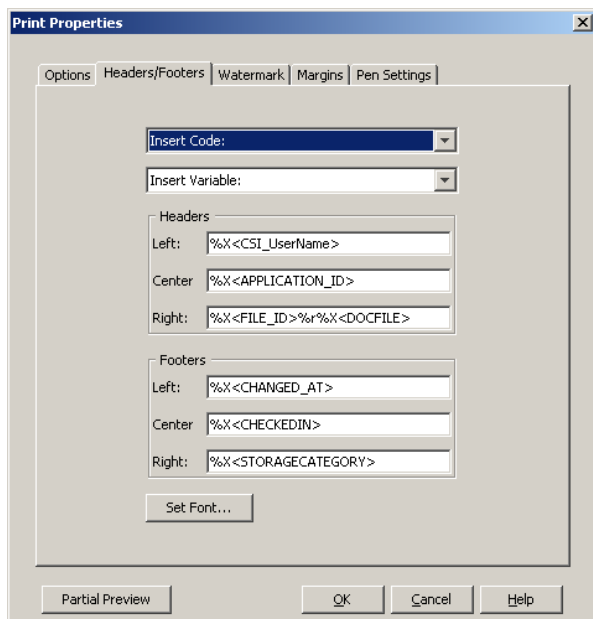
- 4 Click **OK**.  
The Master Markup file is created and stored in the Markup database. When another user logs on and views this file, AutoVue Markup mode automatically launches, loads and displays your Master Markups.

## Printing Document Attributes as Headers, Footers or Watermarks

AutoVue lets you print document attributes in a header, footer or as a watermark.

- 1 Select **File > Print** from the AutoVue menu.

The **Print Properties** dialog box appears.

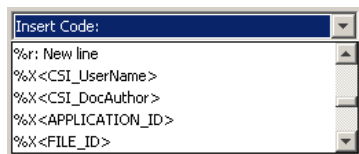


- 2 Customize the **Print Properties**.

## Headers/Footers

This group defines the headers and footers to be included on every printed page of the document.

- 1 Click the **Headers/Footers** tab.
- 2 Enter text manually in the **Header** and **Footer** boxes and/or choose from the **Insert Code** drop-down list box to set the information for headers and footers. The following is the complete list of codes:



- 3 When you have finished, click **OK**.

## Watermarks

A watermark prints faintly and transparently *under* the current document's contents. With the **Watermarks** group, the watermark is defined as it will appear on the printed document.

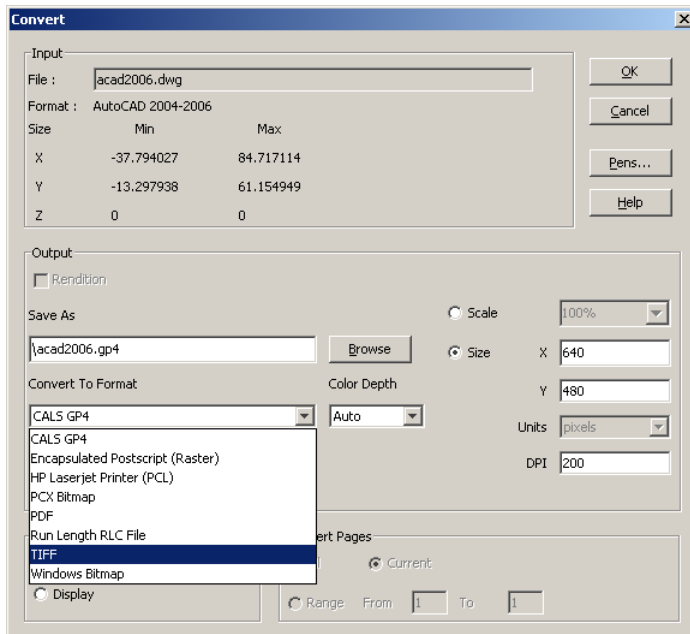
- 1 Click the **Watermarks** tab.
- 2 Enter the text in the **Watermark Text** box.  
The text displays as it will appear on the document.
- 3 Click **Font** to customize the font.
- 4 When you have finished, click **OK**.

## Converting Files

With AutoVue, it is possible to convert documents to other formats such as **TIFF** and check in the converted document into the conversion folder in the SAP PLM system.

**Note:** Only the TIFF format is currently supported for saving as a rendition.

- 1 After displaying a file with AutoVue, select **File > Convert**.  
The **Convert** dialog box appears.





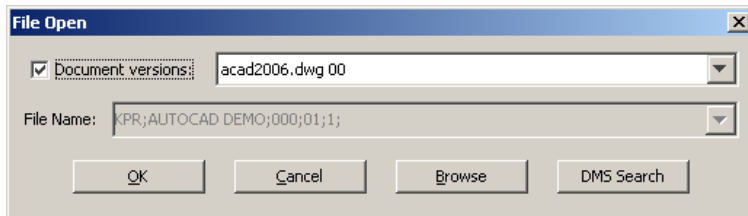
- 2 Select **TIFF** from the drop-down list **Convert To Format**.
- 3 Select the **Rendition** checkbox under **Output**.
- 4 Modify the options for **Scale, Size, Region, Pages** and **Color Depth**.
- 5 Click **OK** to start conversion.  
AutoVue converts the file to the TIFF format and checks it into SAP PLM as a rendition to the original file.

## Comparing Files

With the Compare feature, documents of the same type (raster or vector) are visually compared. The two selected files are simultaneously displayed in their own windows with the comparison findings displayed in a third viewing window. This feature is very useful for finding similarities and differences in revisions of a drawing.

With AutoVue, it is possible to compare the current document with another document that is in the SAP system or with any of its past versions.

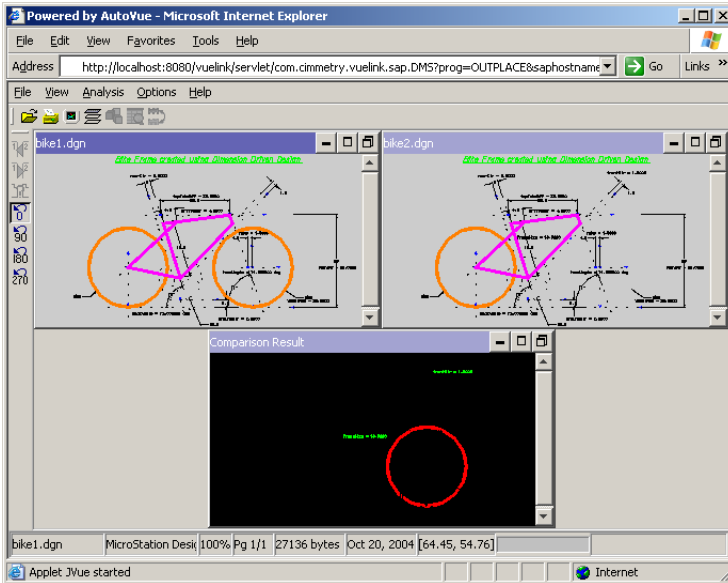
- 1 After displaying a file with AutoVue, select **File > Compare**.  
The **File Open** dialog box appears.



**Note:** If a document has multiple versions, all of its previous versions are listed in the **Document versions** drop-down list. Select a version from the **Document versions** drop-down list.

- 2 To search through the SAP PLM system, click **Search DMS**.  
Specify a search criteria and select a file from the Search Results.  
**Note:** See [Accessing DMS Files](#) for more information.
- 3 To select a local file, click **Browse**. Browse through the local file system and select a file.
- 4 To specify a URL, type in the URL in the **File Name** field.  
AutoVue displays three windows: the first contains the original document; the second contains the version to compare against; and the third window

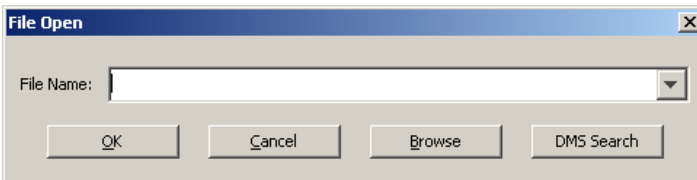
contains the comparison results. Additions appear in green, deletions in red and unchanged parts in blue.



## File Overlays

With AutoVue, it is possible to specify either a file on the local file system or a file saved in the SAP PLM system.

- 1 Select **File > Overlay**. The **File Open** dialog box appears.



- 2 To search through the SAP PLM system, click **Search DMS**. Specify a search criteria and select a file from the Search Results.  
**Note:** See [Accessing DMS Files](#) for more information.
- 3 To select a local file, click **Browse**. Browse through the local file system and select a file.

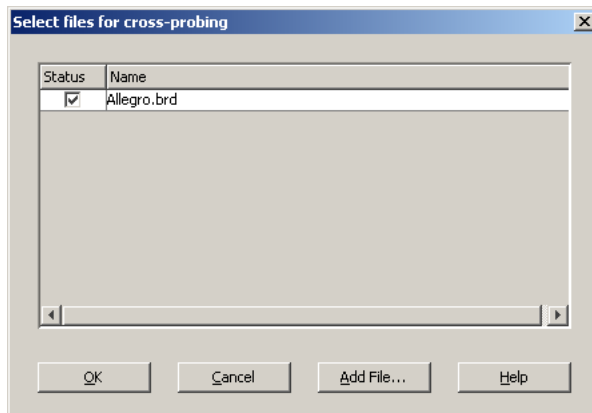
- 4 To specify a URL, type in the URL in the **File Name** field.
- 5 Click **OK** after you select a file.

## Cross Probing

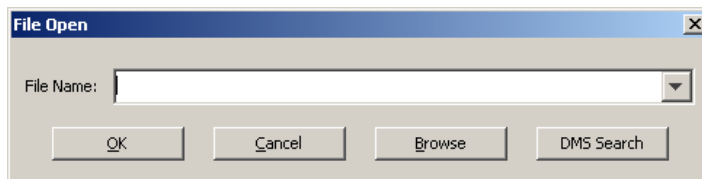
AutoVue provides the ability to crossprobe EDA drawings. Cross probing is the ability to select elements in the schematic and have them mapped to the corresponding components in the layout drawings and vice versa. Cross probing can also be done between the 2D View and the 3D View of the same document.

With AutoVue, it is possible to select files that are either on the local file system or in the SAP PLM system for cross probing.

- 1 Display a document with AutoVue.
- 2 Select the **Cross Probe** from the file menu. The **Select files for cross-probing dialog box** appears.



- 3 Select **Add File** from the **Select files for cross-probing** dialog box. The **File Open** dialog box appears.



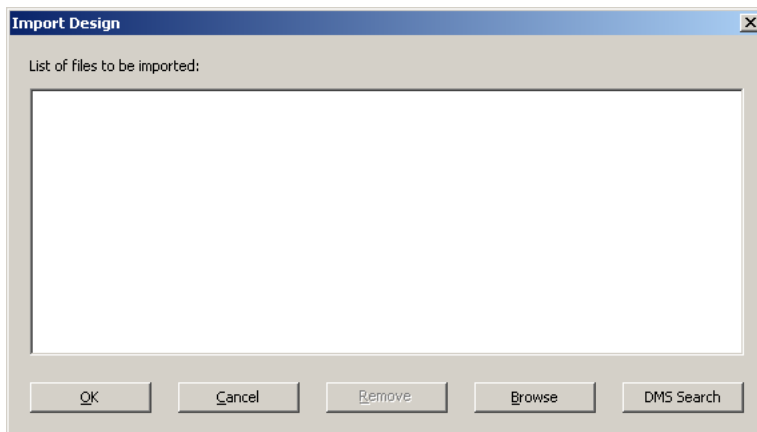
- 4 To select a local file, click **Browse**. Browse through the local file system and select a file.
- 5 To search the SAP PLM system for a file, click **Search DMS**. Select a file from the search results.  
**Note:** See [Accessing DMS Files](#) for more information.
- 6 To specify a URL, type the URL in the **File Name** field.
- 7 Click **OK** when you finish selecting a file.

## MockUp

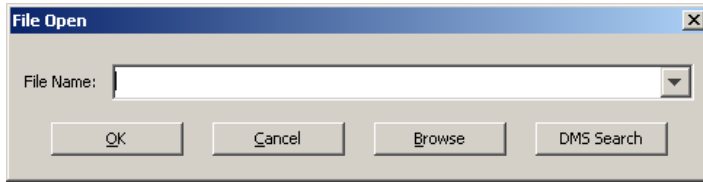
AutoVue provides Digital MockUp capability. Mockup is the ability to import and combine any number of native CAD files, regardless of file format, to create a virtual assembly including: CATIA, Pro/E, UG, SolidWorks, Inventor, JT, Solid Edge, etc.

With AutoVue, it is possible to select files that are either on the local file system or in the SAP PLM system for digital mockup.

- 1 Display a 3D document with AutoVue.
- 2 Select **MockUp** from the file menu. The **Import Design** dialog box appears.



- 3 Select **Add** from the **Import Design** dialog box. The **File Open** dialog box appears.

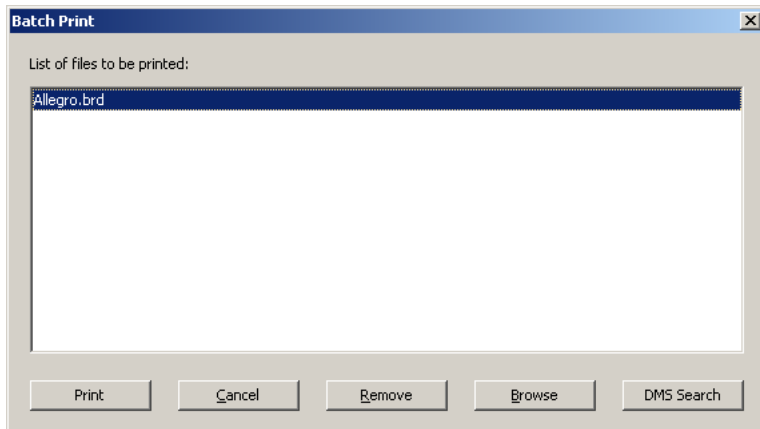


- 4 To select a local file, click **Browse**. Browse through the local file system and select a file.
- 5 To search the SAP PLM system for a file, click **Search DMS**. Select a file from the search results.  
**Note:** See [Accessing DMS Files](#) for more information.
- 6 To specify a URL, type the URL in the **File Name** field.
- 7 Click **OK** when you finish selecting a file.

## Batch Print

You can use AutoVue to print a set of files in a batch process.

- 1 Display a document with AutoVue.
- 2 From **File** menu, select **Batch Print**. The **Batch Print** dialog box appears.



- 3 To add a file from the local file system, click **Browse**. The **File Open** dialog appears. Select a file to add it to the print list.
- 4 To search through the DMS, click **DMS Search**. The Search dialog box appears. Specify a search criteria and select the file from the search results to add it to the print list  
**Note:** See [Accessing DMS Files](#) for more information.
- 5 When you finish selecting files, click **Print**. The selected files are printed.

# Feedback

Cimmetry Systems products are designed according to your needs. We would appreciate your feedback, comments or suggestions. Contact us by fax, e-mail or telephone. There is a feedback button on our Web site that activates an easy-to-use feedback form. Please let us know what you think!

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