



CERTIFICATE

SAP INTEGRATION CERTIFICATION

SAP® Certified
Powered by SAP NetWeaver®

SAP AG

hereby confirms that the interface software for the product

Autovue Connector 1.0

of the company Lifecycle Technology Ltd

has been certified for integration with SAP NetWeaver 7.0 via the SAP integration scenario ABAP add-on for SAP Product Lifecycle Management.

This certificate confirms the existence of product features in accordance with SAP certification procedures. It does not guarantee that the product is error-free.

The certification test is documented in report no. 10961943 and expires July 28, 2013.

Vendor Hardware: PC-Pentium

Vendor Operating System: Windows 2003

SAP Test System: SAP NetWeaver 7.0

Used Integration Tools: SAP Java Connector

This configuration meets the requirements for running Autovue Connector 1.0 on the SAP NetWeaver platform.

Certified Functions:

Integration with SAP Document Management System

SAP Solution Manager Ready functionality

Walldorf, July 29, 2010

A handwritten signature in black ink, appearing to read 'Christoph Claus', written over a horizontal line.

Christoph Claus, SAP AG

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Interface Certification

ABAP add-on

Test Report



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Interface Certification #10961943

SAP Interface incl. Release: ABAP add-on
SAP Product incl. Release: SAP NetWeaver 7.0
SAP Solution: SAP Product Lifecycle Management

Hardware used for SAP test system: PC-Pentium
Operating System of SAP test system: Windows 2003

Name of Vendor: Lifecycle Technology Ltd
Vendor Number (SAP internal): 10694721

Vendor Product Name: Autovue Connector
Release Vendor Product: 1.0
Vendor Product Number (SAP internal): 9247128

Vendor Interface Software Name:
Release Vendor Interface Software:

Hardware used for Vendor Test System: PC-Pentium
Operating System of Vendor Test System: Windows 2003
Tools used for the technical integration: SAP Java Connector

Language Version tested: English
ABAP Development License Number: 0020607256

Certification Date: July 29, 2010
Expiration Date: July 28, 2013
Location: Walldorf
Persons present - Vendor: Peter Bryant

Persons present - SAP: Christoph Claus

Certified Functions:

<input checked="" type="checkbox"/>	Integration with SAP Document Management System
<input type="checkbox"/>	
<input checked="" type="checkbox"/>	SAP Solution Manager Ready functionality
<input type="checkbox"/>	
<input type="checkbox"/>	

1. Product Information

Product information	
Product web page:	http://lifecycle-tech.com/Connector_for_Oracle_s_Auto.html
Which releases of the SAP Business Solutions does the partner's software support? Check exactly one release. If the product supports multiple releases, please fill out one document per SAP release. Please name the corresponding version of the software.	<input type="checkbox"/> SAP ERP 2004 (SAP Basis 6.40) corresp. version of your software:
	<input checked="" type="checkbox"/> SAP ERP 2005 (SAP Basis 7.00) corresp. version of your software:
	<input type="checkbox"/> SAP for corresp. version of your software:
	<input type="checkbox"/> other corresp. version of your software:
For which databases is the software available?	All SAP supported databases

<p>On which server platforms does the software run?</p>	<p>The solution is comprised of three components:</p> <ul style="list-style-type: none"> • ABAP Addon which is applied to the core ECC6 system • Windows server running Java based server component • Client based Java applet <p><u>Windows Server</u></p> <ul style="list-style-type: none"> • Supported operating systems: Microsoft Windows 2008 32-bit, Windows 2003R2 32-bit, Windows 2003R2 64-bit (running in 32-bit mode), or Vista 32-bit. <p>The following software components must be installed on the server:</p> <ul style="list-style-type: none"> • AutoVue V20.0 server • SAP Java Connector (JCo) V3.0.2 for mySAP ERP 2005 and ECC 6.0 • SAP Front End 6.40 patch level 22 or 7.10 (GUI for Windows) for mySAP ERP 2005 and ECC 6.0 • Apache Tomcat V6.0 • Sun's Java Runtime Environment (JRE) version 6 update 14 <p><u>Client</u></p> <p>One of following client installation</p> <ul style="list-style-type: none"> • SAP GUI For Windows v6.40 or 7.10 on Windows platforms • Web browser: Microsoft IE V6, 7 or 8 or Firefox V3.0 • Sun's Java Runtime Environment (JRE) version 6 update 14
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2. Functional Overview

Supported Functions and Business Processes – General Description	
<p>Overview on the functionality and the purpose of the 3rd party product.</p>	<p>Lifecycle Technology Limited's AutoVue Connector for SAP PLM provides a bi-directional interface between AutoVue and the SAP PLM System. This interface enables Enterprise Viewing, Markup, Rendition generation and Document Output Management functionality for all users of the SAP DMS.</p> <p>The Connector is composed of an Add-On Module for SAP and an extension (DMS Servlet) which allows the AutoVue server to retrieve and display files (without conversion), store markup and rendition files within the SAP DMS and set/get metadata from/into the SAP system. The Servlet communicates with SAP via the SAP Java Connector (JCo).</p> <p>More than 400 file application types are supported by the AutoVue Connector for SAP PLM out of the box. These include technical document types such as 2-D/3-D Computer Aided Design (CAD) and Electronic Design Automation (EDA), as well as business documents such as Office and Graphics. The ability to view and print native file formats (without conversion to a natural format), simplifies SAP PLM implementations, removes the need for conversion software and the associated cost of storing multiple renditions of a file and reduces the risk of error caused by conversion.</p> <p>The solution supports document management security requirements, by removing the need for files to be copied to a client PC for display. All files viewed via the Connector are streamed from the AutoVue server to an Applet running in the user's web browser. This client / server streaming technology removes the risk of sensitive files being left on a client workstation and reduces the network traffic by streaming an image of the file instead of transferring the whole file to the client workstation.</p> <p>Lifecycle Technology has developed the AutoVue Connector for SAP PLM with usability in mind. The solution is intuitive, providing resource efficiencies and a powerful interface linking SAP to an industry wide proven viewer and markup solution.</p> <p>Incorporated into Lifecycle Technology Limited's AutoVue Connector for SAP PLM is the Document Output Management solution (DOM). This allows all supported original file formats in the SAP DMS to be printed as well as viewed. This is achieved by calling AutoVue web services to output documents as a background process on the AutoVue server.</p> <p>The AutoVue Connector has been developed using AutoVue's VueLink functionality, which in turn is based on SUN Java Servlet Technology, and built using AutoVue Integration SDK (ISDK) – a Java based framework that implements AutoVue Document Management (DM) API. VueLink is deployed as Web applications into most commonly used J2EE application servers such as Tomcat.</p>

3. Performance

3.1 Performance and Scalability

<p>Overview on the architecture and design of the product including performance and scalability.</p>	<p>Lifecycle Technology Limited's AutoVue Connector for SAP PLM is written in ABAP and uses technologies such as RFC and web services. The SAP connector deployment is client independent and is delivered to the client as an Add-On solution. Only a small amount of configuration is required within SAP to complete the SAP install component. For the SAP connector to operate, an AutoVue server has to be made available. This is not within the scope of this certification.</p> <p>Lifecycle Technology has wherever possible designed programs and functions to be as performance efficient as possible. We have paid particular attention when selecting data from the R3 database ensuring table keys are observed and also making use of indexes where available.</p> <p>Rather than deploying bespoke solutions to enable communication between SAP and AutoVue, we have consistently made use of RFC technology. This provides the advantage of an existing and proven communication technology.</p> <p>Function modules have also been developed where same programs are repeatedly called from several places within the connector. This recycling of code is advantageous not only in supportability but also for quality assurance.</p>
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3.2 Quality Assurance

<p>Overview on Quality Assurance procedures from the vendors to assure that the interface design and performance consistently conform to specified requirements.</p>	<p>The quality of the connector code during the development and testing phase is ensured by peer checking. This involves another member of the team checking the developments produced by the developer.</p> <p>Each piece of code is run through the extended object syntax checker to identify potential issues. This is also carried out against the main transport before it is released. Database traces are also performed to ensure data retrieval is optimised.</p> <p>LifeCycle Technology makes use of agreed coding standard procedures. This ensures that the developers work will be consistent in quality and performance.</p> <p>Each piece of work is well documented both within the code and also in a separate technical specification. This allows for other developers to understand the code and its use within the connector and allow for ease of modification with minimal impact.</p> <p>If problems are identified, LifeCycle Technology makes use of an issue tracking Excel that is available on a networked server. This can be accessed by anyone wishing to track the progress and solution of any technical problems, also identifying who is working on the problem</p>
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	<p>and the time scales involved.</p> <p>LifeCycle Technology takes a systematic approach to the monitoring and evaluation of all aspects of the connector design, build and implementation. We ensure the connector is fit for purpose through rigorous testing in our SAP instance and conduct management and inspection processes.</p> <p>Each of these processes ensures that the final delivery and implementation has undergone quality assurance at every stage and the implemented solution works first time every time.</p>
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4. Software Product Assessment

4.1 Check Documentation

Functional Documentation	<input checked="" type="checkbox"/> yes Comments:
Installation Documentation	<input checked="" type="checkbox"/> yes Comments:
Maintenance Documentation	<input type="checkbox"/> yes Comments:
End User Documentation	<input checked="" type="checkbox"/> yes Comments:
Test Plan Documentation	<input checked="" type="checkbox"/> yes Comments:
Test Report Documentation	<input checked="" type="checkbox"/> yes Comments:
Benchmark Results Documentation	<input checked="" type="checkbox"/> yes Comments:

4.2 Install and Configure Product for SAP Integration

How is the installation and setup of the product integration part done?	<input checked="" type="checkbox"/> good <input type="checkbox"/> average <input type="checkbox"/> poor
Remarks	

5. Test Cases

5.1 Checks performed by the AddOn Assembly Kit (AAK)	
Invalid objects	OK
Existence of objects and table entries to be delivered	OK
Assignment to namespace	OK
Delivery of CVERS entries (R3TR VERS) not possible	OK
New objects (entries) in Support Package/CRT	OK
Table entries (check if delivery-relevant/delivery behavior)	OK
Assignment to development class and software component	OK
Table entries in customer name range (protected: TRESA)	OK
Included AAK Log of Performed Checks	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Remarks: No log included, because everything was ok. One authorization object located in Z* namespace is delivered.	

5.2 Describe test steps executed <i>successfully</i> during Test-Drive.
<p>Test Case 1: Purpose of the Test: Pre-Test setup.</p> <p>Description of test: Delete all entries from the server Connector Cache.</p> <p>Expect result: Cache cleared</p>
<p>Test Case 2: Purpose of the Test: Test transaction for modifying user settings</p> <p>Description of test: Login in as INT-TEST1 and use transaction /LCTEV/AV_USER and SM30 to modify table /LCTEV/AV_SETUP, to remove any default browser option for user INT-TEST1</p> <p>Expect result: Config table updated</p>
<p>Test Case 3: Purpose of the Test: Check a Word file can be opened in AutoVue from SAP DMS</p> <p>Description of test: Open Word file in AutoVue from SAP DMS DOC / 10000000136 / 000 / 00, repeat for all 3 browser display options.</p> <p>Expect result: AutoVue started and file displayed in the 3 different browser configurations.</p>

Test Case 4 :**Purpose of the Test:**

Check a CATIA 3D file can be opened in AutoVue from SAP DMS

Description of test:

Open Catia file in AutoVue from SAP 3D / 10000000014 / 000 / 01, test with one of the browser options.

Expect result:

AutoVue started and file displayed.

Test Case 5:**Purpose of the Test:**

Test user settings are read and SAP HTTP browser.

Description of test:

Use transaction /LCTEV/AV_USER to change the default browser to 3. Open Word file in AutoVue from SAP DMS DIR DOC / 10000000136 / 000 / 00.

Expect result:

AutoVue started in SAP Browser and file displayed. The user was not asked to choose a browser.

Test Case 6 :**Purpose of the Test:**

Check file properties are copied from SAP

Description of test:

In the AutoVue session started for test 04, check the DMS file properties have been copied from SAP File->Properties.

Expect result:

CSI_Doc prefixed attributes have been copied.

Test Case 7:**Purpose of the Test:**

Check properties are displayed.

Description of test:

In the AutoVue session started for test 04, use the Print Preview option to check the SAP DMS attributes can be referenced and displayed as watermarks.

Expect result:

Print preview shows the DMS attributes.

Test Case 8:**Purpose of the Test:**

Check markups are saved.

Description of test:

In the AutoVue session started for test 04, add a new markup to the document and save it. Ensure the markup name is changed to include the SAP Username, date / time stamp and users comment. Make a note of the markup name.

Expect result:

Markup created and saved to SAP DMS.

Test Case 9 :
Purpose of the Test:

Test listing markups and opening markup.

Description of test:

In the AutoVue session started for test 04, close the open markup and then list the available markups and open the markup created in step 07

Expect result:

Markup closed, list of markups displayed, selected markup opened correctly.

Test Case 10:
Purpose of the Test:

Test updating markups.

Description of test:

In the AutoVue session started for test 04, add additional markup entities to the markup and save the markup. Ensure the markup name is changed to include the SAP Username, date / time stamp and users comment. Make a note of the markup name.

Expect result:

New markup created.

Test Case 11 :
Purpose of the Test:

Check markup has been deleted and check Markup save as functionality.

Description of test:

In the AutoVue session started for test 04, list the available markups. The markup created in step 07 should have been deleted.
Use the menu option *Markup -> Save As.. and save the open markup as a new Master markup*. Make a note of the name of the new Master markup.

Expect result:

Markup created in step 07 has been deleted.
New Master Markup created.

Test Case 12:
Purpose of the Test:

Test deleting markups.

Description of test:

In the AutoVue session started for test 04, close the open markup and then list the available markups, select the markup created in step 09 and delete it.

Expect result:

Markup deleted from the list of available markups.

Test Case 13:
Purpose of the Test:

Create PDF rendition file and check it is loaded into SAP.

Description of test:

In the AutoVue session started for test 04, open a markup and then use the menu option *File -> Convert*. *Select the tick box Rendition and change the Convert to Format to PDF*, then select *OK*. Return to the SAP system and view the AMK DIR that is object linked to the source DIR. Check that the DIR contains a PDF rendition file, double-click on the PDF file to open it for viewing in AutoVue. Also check the markup file can be used to open the basefile.

Expect result:

Rendition file created and displayed in AutoVue.

Test Case 14:
Purpose of the Test:

Check file comparison functionality.

Description of test:

Open the 2D file in AutoVue from SAP DMS Document Record 2D / 10000000224 / 000 / 01.
 Select the AutoVue menu option Analysis -> Compare, select the Document Version tick box and choose DIR 2D / 10000000224 / 000 / 02 from the list.

Expect result:

Two files opened and comparison results are shown.

Test Case 15 :
Purpose of the Test:

Check External Reference functionality using Document Structures

Description of test:

Open the SLA (Solid Works Assembly) file in AutoVue from SAP DMS Document Record 3D / 10000000409 / 000 / 01.

Edit table /LCTEV/AV_SETUP and set or unset **CheckIn Steam File** and repeat the test

Expect result:

Disc Drive assembly should be displayed. Ensure there are no missing external references.

Test Case 16 :
Purpose of the Test:

Check External Reference functionality using Object Links

Description of test:

Open the SLA file in AutoVue from SAP DMS Document Record 3D / 10000000337 / 000 / 01.

Edit table /LCTEV/AV_SETUP and set or unset CheckIn Steam File and repeat the test

Expect result:

Disc Drive assembly should be displayed. Ensure there are no missing external references.

Test Case 17:
Purpose of the Test:

Check AutoVue cache files are created.

Description of test:

Open the AMF DIR associated with a DIR and check that a original file of type ACF has been created.

Expect result:

File exists.

Test Case 18:
Purpose of the Test:

Check DMS Search within the *Comparison* function.

Description of test:

- 1) Open SLP file in AutoVue from SAP DMS Document Record **3D / 10000000020/ 000 / 01**.
- 2) Select the **Analysis -> Compare** menu and click on the **DMS Search** button, select the **Search criteria = DIR Number** and then enter **100000002*** in the **Search for** field. Then finally press the **Search** button.
- 3) Select DIR 3D / 10000000022 / 000 / 01 and then click on the **Load File** button
- 4) Then click on the **OK** button.

Expect result:

The two CATIA files should be opened and the comparison shown.

Test Case 19:

Purpose of the Test:

Check generic DMS Search and Open functionality.

Description of test:

- 1) Open Word file in AutoVue from SAP DMS Document Record DOC / 10000000103 / 000 / 00.
- 2) Select the menu File -> Open URL, then select the DMS Search button
- 3) Select the Search criteria = DIR Description and then enter *PM*audit* in the Search for field. Then finally press the Search button.
- 3) Select DIR DOC / 10000000136 / 000 / 00 and then click on the Load File button
- 4) Then click on the OK button.

Expect result:

A list of 2 files will be displayed in the search panel. When selected the chosen file is opened.

Test Case 20:

Purpose of the Test:

Check viewing of file that is not checked into a SAP Content Server

Description of test:

Open DIR 3D / 10000000411 / 000 / 01 and double-click on the original file SLP that is not checked in. Create a Markup and open markup file.

Expect result:

AutoCAD file is displayed in AutoVue, markup created and reopened.

Test Case 21:

Purpose of the Test:

Check printing

Description of test:

- 1) Open PDF file in AutoVue from SAP DMS Document Record DOC / 10000000139 / 000 / 00.
- 2) Select print, set DMS properties in the header and footer and then print.

Expect result:

File printed and no error messages output.

Test Case 22:

Purpose of the Test:

Check printing from SAP - CV04N

Description of test:

- 1) In transaction CV04N select SAP DMS DIR AMF / 10000000085 / 000 / 00 and AMF / 10000000086 / 000 / 00.
- 2) Highlight both DIR's and click on Processes button.
- 3) Execute document output management.
- 4) Select printer 'PDF Output to Job Folder'.
- 5) Select all 3 original files and execute print job 'Output'.
- 6) Goto SAP business workplace and click on link to combined PDF.

Expect result:

Combined PDF contains all 3 originals.

6. Additional Service and Support

Does the partner company offer consulting services for this product?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Remarks	

Does the partner company offer training classes for this product?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Remarks	

Does the partner company offer general problem support for this product?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Remarks	support@lifecycle-tech.com

7. Partner Confirmation

Partner states that by following the guidelines of the ICC Integration Assessment or ICC Integration Guide, only the integration technologies listed in this document are used in the described interface software. ABAP Certification is only valid for the SAP release and partner product release noted in this document; in the event of SAP or partner release changes SAP offers re-certification of the interface software.