



# Certificate

## SAP INTEGRATION CERTIFICATION

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SAP SE hereby confirms that the ABAP interface software  
for the product

**avvaneo Document Creator 1.1**

of the company

**avvaneo GmbH**

has been certified for integration with SAP NetWeaver 7.40 via the  
SAP integration scenario *ABAP Add-On Deployment for Enterprise Resource  
Planning*.

This certificate confirms the technical and syntactical consistency of the Add-On in  
accordance with SAP certification procedures.  
SAP only certifies successful integration of the product with SAP solutions. Vendor is  
responsible for the product itself and its error-free operation.

The certification test is documented in report no. 39296934  
and expires April 4, 2019.

Vendor Hardware: PC x86-64

Vendor Operating System: Windows Server 2012

SAP Test System: SAP NetWeaver 7.40

Used Integration Tools: SAP Java Connector 3.0

This configuration meets the requirements for deploying avvaneo Document Creator  
1.1 on the SAP NetWeaver platform.

Certified Functions:

Assign Software Component with a registered Namespace

Package Add-On using SAP Add-On Assembly Kit (AAK)

Deploy using SAP Add-On Installation Tool (SAINT)

Integration with Enterprise Resource Planning

SAP Solution Manager Ready functionality

Walldorf, April 5, 2016

Christoph Claus, SAP SE

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**Interface Certification**

**ABAP Add-On Deployment**

**Test Report**

**SAP Integration and Certification Center**



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## **Interface Certification #39296934**

**SAP Interface incl. Release:** ABAP Add-On Deployment  
**SAP Product incl. Release used for test:** SAP NetWeaver 7.40  
**SAP Solution:** Enterprise Resource Planning

**Hardware used for SAP test system:** PC x86-64  
**Operating System of SAP test system:** Windows Server 2012

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**Name of Vendor:** avvaneo GmbH  
**Vendor Number (SAP internal):** 21151010

**Vendor Product Name:** avvaneo Document Creator  
**Release Vendor Product:** 1.1  
**Vendor Product Number (SAP internal):** 9260550

**Vendor Interface Software Name:**  
**Release Vendor Interface Software:**

**Hardware used for Vendor Test System:** PC x86-64  
**Operating System of Vendor Test System:** Windows Server 2012  
**Tools used for the technical integration:** SAP Java Connector 3.0

**Language Version tested:** English

**Certification Date:** April 5, 2016  
**Expiration Date:** April 4, 2019  
**Location:** remote  
**Persons present - Vendor:** Alexander Schmidt

**Persons present - SAP:** Christoph Claus

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### **Certified Functions:**

- Assign Software Component with a registered Namespace
  - Package Add-On using SAP Add-On Assembly Kit (AAK)
  - Deploy using SAP Add-On Installation Tool (SAINT)
  - Integration with Enterprise Resource Planning
  - SAP Solution Manager Ready functionality
-

### 1. Product Information

| Product information   |   |
|---|---|
| Product web page:   | <a href="http://www.avvaneo.com/zugferd-rechnungsverarbeitung.html">http://www.avvaneo.com/zugferd-rechnungsverarbeitung.html</a> |
| Which releases of the SAP Business Solutions does partner's software support? | <input checked="" type="checkbox"/> SAP ERP 6.0 EhP7 (SAP Basis 7.40)<br>corresponding version of partner's product: 1.1          |
| Support contact information:  | support@avvaneo.com   |

| External Component of the Solution   |  |
|--|--|
| There's an external component, not written in ABAP, but integrated with the Add-On and belonging to the standard shipment of the solution. |  |
| What is the programming language?  | <input type="checkbox"/> C/C++<br><input checked="" type="checkbox"/> Java<br>J2EE Compatible? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no<br><input type="checkbox"/> Others<br>Provide name(s):  |
| List databases that the component supports   | N/A / filesystem   |
| List server platforms that the component runs on   | Windows / Linux x86_64   |
| What protocol/tool is used to integrate the external component with SAP?   | <input checked="" type="checkbox"/> RFC with SAP Java Connector, Version: 3.0.13<br><input type="checkbox"/> RFC with SAP Connector for Microsoft .NET, Version:<br><input type="checkbox"/> RFC with SAP NetWeaver RFC Library<br><input type="checkbox"/> Http /Https integration through WebServices<br><input type="checkbox"/> File-based integration<br><input type="checkbox"/> Others<br>Please specify: |

## 2. Functional Overview

| <b>Supported Functions and Business Processes – General Description</b>                   |   |
|---|---|
| <p>Overview on the functionality and the purpose of the 3<sup>rd</sup> party product.</p> | <p>The avvaneo Document Creator solution enables your SAP ERP system to output ZUGFeRD conform customer invoices created in the SAP SD module. It is fully integrated with the Message output control of SAP and therefore supports many different invoice creation scenarios. The product enhanced the SAP standard output mechanism by utilizing an external converter program to generate, archive and send electronic invoices in the ZUGFeRD format. The converter program takes care of converting SAP generated standard PDF invoices to the ISO 19005 conform PDF/A format. In addition the program uses the SAP generated Idoc representation of the invoice to generate ZUGFeRD conform XML-Data. Once the conversion has finished, the generated ZUGFeRD invoice will be archived in any ArchiveLink compatible archive and linked to the corresponding business object. By default the product uses SAPconnect services to send the generated ZUGFeRD invoices to the customers.</p> <p>All spool requests processed by the avvaneo Document Creator solution can be tracked and traced using the included Monitor transaction. In case of an error you can use the Monitor application log to find and eliminate certain error. The Monitor application can also be used to manually trigger sending of Invoices or to repeat the sending of an invoice.</p> <p><b>Additional info:</b><br/>                     ZUGFeRD is an electronic invoice format which was developed and released in 2014 by the Forum elektronische Rechnung Deutschland (FeRD). The goal of the format is to simplify invoicing process between business and authorities. The ZUGFeRD format allows you to send structured invoice data embedded into an PDF file. The recipient can process the invoice automatically by extracting the structured data or manually by visually checking the invoice image. The ZUGFeRD format was developed with companies from different industries such as Automotive, retail, banking and IT. The ZUGFeRD format is generally used in Germany but it conforms to the requirements of international standardization and can be used for cross-border European and international invoicing.</p> |

## 2.1 Complete List of used and released SAP objects

The list below has been given to SAP by the Vendor, for reference purposes. SAP cannot guarantee that it's a complete list.

| <b>Complete List of used BAPIs / RFCs / IDocs / ESs or other SAP building blocks that are officially released by SAP.</b> |  |  |
|---|--|--|
| BAPI_CUSTOMER_GETDETAIL2  |  |  |
| BAPI_CUSTOMER_DISPLAY   |  |  |
| BAPI_MESSAGE_GETDETAIL  |  |  |
| BAPI_BILLINGDOC_DISPLAY   |  |  |
| BAPI_BILLINGDOC_EXISTENCECHECK  |  |  |
| POPUP_TO_CONFIRM  |  |  |
| CL_DOCUMENT_BCS   |  |  |
| INVOIC02/INVOIC   |  |  |

## 2.2 Complete List of used and unreleased SAP objects

The list below has been given to SAP by the Vendor, for reference purposes. SAP cannot guarantee that it's a complete list. In addition, the correct functionality of the objects listed below is not in the scope of this ABAP Add-On Deployment certification.

| <b>Complete List of used but unreleased SAP objects, such as function modules and reports.</b> |                            |  |
|--|----------------------------|--|
| ARCHIV_CONNECTION_INSERT   | CONVERT_OTFSPOOLJOB_2_PDF  |  |
| ARCHIV_GET_CONNECTIONS   | DOCU_GET                   |  |
| ARCHIVOBJECT_CREATE_TABLE  | NAST_PROTOCOL_STORE        |  |
| BAPI_BILLINGDOC_GET_FIELD_INFO   | POPUP_TO_DISPLAY_TEXT      |  |
| BAPI_MESSAGE_GETDETAIL   | REPLACE_TEXTSYMBOL         |  |
| BAPI_SALESORG_GET_DETAIL   | RP_CALC_DATE_IN_INTERVAL   |  |
| CL_BCS   | RSPO_FIND_SPOOL_REQUESTS   |  |
| CL_DOCUMENT_BCS  | RSPO_RLIST_DELETE_SPOOLREQ |  |
| CL_GUI_ALV_GRID  | SCMS_BASE64_DECODE_STR     |  |
| CL_GUI_CUSTOM_CONTAINER  | SCMS_XSTRING_TO_BINARY     |  |
| CL_GUI_DOCKING_CONTAINER   | SET_TEXTSYMBOL             |  |
| CL_GUI_TEXTEDIT  | SLIC_GET_LICENCE_NUMBER    |  |
| CONVERT_ITF_TO_STREAM_TEXT   | SYSTEM_UUID_CREATE         |  |
|  | NAST_PROTOCOL_UPDATE       |  |
|  |                            |  |
|  |                            |  |

### 3. Performance

#### 3.1 Performance and Scalability

|  |   |
|--|---|
| <p>Overview on the architecture and design of the product including performance and scalability.</p> | <p>The solution uses RFC connections to communicate with external Java service. The DC converter tool implements the RFC function /AVV/RFC_IMAGE_CONVERT using the JCO RFC server implementation. The DC converter tool also implements an JCO Idoc server to receive the invoice Idoc. To avoid unnecessary blocks of Dialog or Background processes in the SAP system the DC converter tool will process the print requests asynchronously and will actively send back the converted invoice image using RFC function /AVV/RFC_RECEIVE_PDFA. The DC converter tool has an internal queuing system which allows it to receive multiple images and Idocs and process them once all data is available. The generated Idoc number is used as an identifier for the conversion job. The DC converter tool allows you to configure the maximum number of connections used by the JCO to increase conversion throughput.</p> |
|--|---|

#### 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>All ABAP code is checked by SAP standard validation tools such as Extended Syntax Check and Code inspector. In case a new functionality was developed the developer will create and document new test cases to validate the functionality. Once a change is committed to Test system a tester will validate the functional correctness by executing a subset of test cases which may be influenced by the change. Before a new delivery is released all test cases are executed and results are validated.</p> |
|--|---|



## 4. Software Product Assessment

### 4.1 Check Documentation

|                                 |  |
|---------------------------------|--|
| Functional Documentation        | <input checked="" type="checkbox"/> yes<br>Comments: |
| Installation Documentation      | <input checked="" type="checkbox"/> yes<br>Comments: |
| Maintenance Documentation       | <input checked="" type="checkbox"/> yes<br>Comments: |
| End User Documentation          | <input checked="" type="checkbox"/> yes<br>Comments: |
| Test Plan Documentation         | <input type="checkbox"/> yes<br>Comments:            |
| Test Report Documentation       | <input type="checkbox"/> yes<br>Comments:            |
| Benchmark Results Documentation | <input type="checkbox"/> yes<br>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<br><input type="checkbox"/> average<br><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: TRESC)      | OK  |
| Included AAK Log of Performed Checks                         | <input type="checkbox"/> yes <input checked="" type="checkbox"/> no |
| <b>Remarks: No log included, because everything was ok.</b>  |   |

| <b>5.2 Describe test steps to be executed during functional test</b>  |    |
|---|----|
| The test cases below are executed to check that the Add-On could run successfully in the SAP environment. SAP does not validate or confirm the correct functionality of the Add-On. |    |
| 1 Process simple customer invoice.  | OK |
| 2 Process customer invoice with header conditions.  | OK |
| 3 Process customer invoice with item conditions.  | OK |
| 4 Manually send customer invoice via E-Mail using DC Monitor.   | OK |
| 5 Add custom attachment before manually sending a customer invoice via E-Mail using DC Monitor.   | OK |
| 6 Repeat customer invoice print using DC Monitor.   | OK |
| 7 Process simple customer invoice correction.   | OK |
| 8 Process Billing document cancellation.  | OK |
| 9 Process simple Delivery related customer invoice when DC Converter is shutdown.   | OK |
| 10 Process simple customer invoice for a customer account without E-Mail address.   | OK |

| <b>5.3 Describe performance load test steps to be executed during functional test</b> |    |
|---|----|
| The test cases below are executed within a reasonable time.                           |    |
| 1 Process a batch of 100 customer invoices using Bill due list VF04.                  | OK |
| 2 Process a batch of 1000 customer invoices using Bill due list VF04.                 | OK |

## 6. 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 add-on deployment 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.

The partner solution **has not been deployed or tested on SAP Solution Manager** as part of the certification procedure. It's therefore not "certified for SAP Solution Manager".