



# Certificate

## SAP INTEGRATION CERTIFICATION

SAP SE hereby confirms that the ABAP interface software QTQVC 104\_700 for the product

### Qlik Connector 7.0 for SAP NetWeaver

of the company

### QlikTech International AB

has been certified for integration with SAP NetWeaver 7.40 via the SAP integration scenario *ABAP add-on Deployment for SAP ECC 6.0 EHP7*.

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. 12041 and expires July 6, 2021.

Vendor Hardware: PC x86-64  
Vendor Operating System: Windows Server 2012  
SAP Test System: SAP ECC 6.0 EHP7  
Used Integration Tools: SAP Connector for Microsoft .NET 3.0

This configuration meets the requirements for deploying Qlik Connector 7.0 for SAP NetWeaver 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)  
Integrate with SAP ECC 6.0 EHP7  
Technical Uninstallation Test  
SAP Solution Manager Ready Functionality

Palo Alto, July 6, 2018

MaiAnh Chu-Nguyen, SAP Labs, LLC.

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<http://www.sap.com/icc>





**Interface Certification**

**ABAP add-on Deployment**

**Test Report**

**SAP Integration and Certification Center**



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## **Interface Certification #12041**

**SAP Interface incl. Release:** ABAP add-on Deployment  
**SAP Product incl. Release used for test:** SAP NetWeaver 7.40  
**SAP Solution:** SAP ECC 6.0 EHP7

**Hardware used for SAP test system:** PC x86-64  
**Operating System of SAP test system:** Linux

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**Name of Vendor:** QlikTech International AB  
**Vendor Number:** 814012

**Vendor Product Name and Release:** Qlik Connector 7.0 for SAP NetWeaver

**Vendor Interface Software Name:** QTQVC  
**Release Vendor Interface Software:** 104\_700

**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 Connector for Microsoft .NET 3.0

**Language Version tested:** English

**Certification Date:** July 6, 2018  
**Expiration Date:** July 6, 2021  
**Location:** Remote  
**Persons present - Vendor:** Dean Ansermoz  
QlikTech Team

**Persons present - SAP:** MaiAnh Chu-Nguyen

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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)**
  - Integrate with SAP ECC 6.0 EHP7**
  - Technical Uninstallation Test**
  - SAP Solution Manager Ready Functionality**
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### 1. Product Information

Product information	
Product web page:	www.qlik.com/us/products/qlik-connectors/sap
Which releases of the SAP Business Solutions does partner's software support?	<input checked="" type="checkbox"/> SAP ERP 6.0 EHP7
Support contact information:	Help.qlik.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 checked="" type="checkbox"/> C/C++ <input type="checkbox"/> Java <input checked="" type="checkbox"/> Microsoft .NET <input type="checkbox"/> Others Provide name(s):
List databases that the component supports	The component does not use a database
List server platforms that the component runs on	Windows
What protocol/tool is used to integrate the external component with SAP?	<input type="checkbox"/> RFC with SAP Java Connector, Version: <input checked="" type="checkbox"/> RFC with SAP Connector for Microsoft .NET, Version: 3.0 <input checked="" type="checkbox"/> RFC with SAP NetWeaver RFC Library <input type="checkbox"/> Http /Https Integration through WebServices <input type="checkbox"/> File-based Integration <input type="checkbox"/> Others: Please specify:

## 2. Functional Overview

Supported Functions and Business Processes – General Description	
<p>Overview on the functionality and the purpose of the 3<sup>rd</sup> party product.</p>	<p>Qlik provide an in memory self-service business discovery platform which enables business users to easily associate data from multiple data sources across a single or a series of intuitive applications which can be shared amongst business peers for decision making.</p> <p>Qlik Connector for SAP NetWeaver enables SAP customers to extract data from SAP ERP or SAP BW in to the Qlik business discovery platform.</p> <p>Once data is stored in Qlik, this enables the customer to integrate SAP data with other data sources, or simply produce views of data for consumption by business users using a self-service platform.</p> <p>This process enables the customer to retain the business benefit and investment made in their SAP implementation along with using the governed and structured data provided by SAP.</p>

### 3. Product Implementation

#### 3.1 Complete List of used and released/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.

DDIF_FIELDINFO_GET	BDL_READ_JOB_STATUS
EDI_AGREE_IN_MESSTYPE_READ	BDL_SERVER_PING
EDI_AGREE_IN_MESSTYPE_UPDATE	EDI_PORT_DELETE_ALE
EDI_AGREE_OUT_MESSTYPE_READ	EDI_PORT_READ_ALE
EDI_PARTNER_READ_COMPLETE	IDOCTYPE_EXISTENCE_CHECK
F4IF_INT_TABLE_VALUE_REQUEST	IQAPI_QCALL_DATADESC
GET_JOB_RUNTIME_INFO	MS_GET_PROFILE_VALUE
IDOC_INBOUND_ASYNCHRONOUS	RFC_GET_FUNCTION_INTERFACE_P
IDOCTYPE_READ_COMPLETE	RFC_MODIFY_R3_DESTINATION
IDOCTYPES_FOR_MESTYPE_READ	RFC_MODIFY_TCPIP_DESTINATION
JOB_CLOSE	RFC_READ_TCPIP_DESTINATION
JOB_OPEN	RFC_RUN_XAB_DRIVER
LIST_FROM_MEMORY	RPY_DATAELEMENT_READ
POPUP_TO_CONFIRM	RSA_RSBASIDOC_READ
POPUP_TO_DECIDE_INFO	RSA1_OLTPSOURCE_GET_ALL
READ_TEXT	RSA2 RoosGEN_COPY
REUSE_ALV_FIELDATALOG_MERGE	RSAL_LOG_CLOSE
RS_REFRESH_FROM_SELECTOPTIONS	RSAL_LOG_OPEN
RSPO_CHECK_JOB_ID_PERMISSION	RSAN_LOGSYS_DETERMINE
SCROLLING_IN_TABLE	RSAP_BIW_CONNECT
TH_SERVER_LIST	RSAP_BIW_DISCONNECT
RSAQ_IMPORT_QUERY	RSAP_DATA_GENERATE
RSAQ_IMPORT_USERGROUP_CATALOG	RSAP_REMOTE_HIERARCHY_CATALOG
RSAQ_REMOTE_FUNCAREA_CATALOG	RSAQ_CREATE_QUERY_REPORT
RSAQ_REMOTE_QUERY_CALL	RSPO_GET_TYPE_SPOOLJOB
RSAQ_REMOTE_QUERY_CALL_CATALOG	RSPO_L_RETURN_RAW_DATA
RSAQ_REMOTE_QUERY_CATALOG	RSPO_R_DELETE_SPOOLREQ
RSAS_RBWBCRL_STORE	SAPTUNE_BUFFER_STATISTICS
RSC1_QUEUE_DELETE_ALL	SAPTUNE_GET_SYSTEM_NUMBER
SAPTUNE_HOST_NAMES	TR_GET_IS_UNICODE_SYSTEM
SYSTEM_GET_CURRENT_GATEWAY	TR_LAST_IMPORT_OF_OBJECT
TIMECALC_DIFF	

## 4. Quality

The Information below is provided by the 3rd party Add-On provider. It has neither been tested nor validated by SAP.

### 4.1 Performance and Scalability

<p>Overview on the architecture and design of the product including performance and scalability.</p>	<p>Once data from SAP is extracted in to Qlik, then there is no further communication required between Qlik and SAP. Data is stored in Qlik proprietary files for consumption by Qlik applications.</p> <p>Multiple simultaneous data extractions are supported, and across multiple SAP instances. The scalability of the Qlik instance is designed based on specific requirements, and can either be hosted locally, in the cloud, or on a virtual machine.</p> <p>An SQL connector job is started from Qlik by sending an SQL SELECT statement to a function module in the SAP system. The function module performs various checks and handling of the statement before starting up a background (batch) job in the SAP system. The batch job performs the SELECT statement against the database. The result of the SELECT statement is divided into packages with a number of rows in each. One package at a time is then stored in the shared memory buffer EIBUF (Export/Import buffer). The batch jobs then waits for Qlik to make a call and fetch the content of the buffer. When the content is fetched, the batch job clears the used memory and stores the next package in the buffer. And so it continues until the last package is fetched by Qlik.</p>
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### 4.2 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>Both automated and manual testing is completed before each release. Testing for both performance, and functionality.</p> <p>Auto test setup The auto test uses the application TestComplete to run. In addition, the internally developed tool OctopusConsole used to handle the log files.</p>
<p>The following quality documents exist:</p>	
<p>Test Plan Documentation</p>	<p><input type="checkbox"/> yes</p>
<p>Test Report Documentation</p>	<p><input type="checkbox"/> yes</p>
<p>Benchmark Results Documentation</p>	<p><input type="checkbox"/> yes</p>



### 4.3 Security

The Add-On Development Lifecycle ensures security	OK
The Add-On does not contain any <b>Cross-Site Scripting (XSS)</b> vulnerabilities	OK
The Add-On does not contain any <b>memory corruption</b> vulnerabilities	OK
The Add-On does not contain any <b>SQL or other data query and manipulation language injection vulnerabilities</b>	OK
The Add-On does not contain any <b>Path Traversal vulnerabilities</b>	OK
The Add-On does not contain any <b>intentionally hidden and non-documented features</b> that circumvent security measures (backdoor)	OK
Remarks:	

## 5. Software Product Assessment

### 5.1 Check Documentation

Functional Documentation	<input 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:
De-Installation Documentation, according to <a href="#">SAP Note 1883223</a> .	<input checked="" type="checkbox"/> yes Comments:

### 5.2 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	

## 6. Test Cases

**6.1 Deployment of Add-On Solution**

Following PAT file(s) belong to the Add-On solution and were deployed successfully:

SSDA: Package Attributes

Package Registration	
Package	SAPK-104COINQTQVC Type AOI
Short Description	QTQVC 104_740: Add-On Installation
RFC Destination	NONE
EPS File Name	H6D0020867304 0000003 PAT HRG
EPS File Size	631150 Byte 211
Registration	02.07.2018 16:30:15 CET
Change	02.07.2018 16:30:17 CET
Package Status	Package is locked

  

Package Attributes			
Add-On	QTQVC	Add-on Release	104_740
Basis Release	740	Format	03
Generation	N	Package Level	0000
Extended Attributes	5		

  

Package Import Conditions	
Import Conditions	1

Remarks:

**6.2 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

**Remarks: No log included, because everything was ok.**

**6.3 Technical Un-Installation Test**

Add-On is un-installable	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
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6.4 Describe test steps to be executed during functional test	
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 All cases use transaction /n/qtqvc/sql or from the external app.  Key in select statement Click on “Open Stream” Button  Click on “Fetch Stream” Button  Click on “Close Stream” Button  Validate Data received	OK
2 Transaction Table: Select * from VBAKUK	OK
3 JOIN: SELECT EKPO~MATNR EKPO~BUKRS EKET~EINDT EKET~MENGE FROM EKPO JOIN EKET ON EKPO~EBELN = EKET~EBELN AND EKPO~EBELP = EKET~EBELP WHERE EKPO~LOEKZ <> 'L'	OK

### 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 Add-On Deployment Certification is only valid for the SAP solution release and SAP HANA release, as well as partner product release noted in this document; in the event if 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”.