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SAP® Integration Scenario
JAVA-JXBP 7.1
Java External Interface for Background Processing

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Joined SAP in August 1989.
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(*complete bio appears on page 3*)

Java External Interface for Background Processing (**JAVA-JXBP 7.1**) is a new SAP® integration certification scenario available with the **Java-based deployment of the SAP enhancement package 1 for the SAP NetWeaver® Application Server (SAP NetWeaver AS) component 7.1, support package 4 or greater**. It provides low-level job scheduling capabilities for applications running on the Java-based deployments of SAP NetWeaver AS, such as enabling the automated execution of tasks that applications can perform in the background.

The scope and the features of this new integration scenario are similar to those offered by the Computer Center Management System (CCMS) ABAP™ scheduler (transactions SM36 and SM37), as in the ABAP-based deployment of SAP NetWeaver AS. Furthermore, a SAP-certified integration of job-scheduling solutions will also qualify for the "SAP Solution Manager Ready" certification status without the need to install and/or configure the SAP Solution Manager solution management application.

For several years now, SAP has been offering the Background Processing, Job Scheduling (**BC-XBP**) integration scenario, which makes use of the ABAP SAP NetWeaver AS. Today, when you install SAP software, you can install ABAP, Java or ABAP and Java. Thus, the **BC-XBP** integration scenario deals with the connection of an external job management system, often called an *external scheduler*, to SAP NetWeaver Application Server ABAP (AS ABAP). The **JAVA-JXBP 7.1** integration scenario, deals with the connection of an external job management system, often called an *external scheduler*, to SAP NetWeaver Application Server JAVA (AS JAVA). You will need to have SAP enhancement package 1 for SAP NetWeaver AS 7.1, support package 4 or greater installed, in order to test and certify your product with the integration scenario called **JAVA-JXBP 7.1**.

Before we go into the details of the new interface scenario, here is some introductory information on the two individuals within SAP who developed it – **Georgi Gerginov** and **Vladislav Iliev**. Both are involved in Java development efforts at SAP and helped the **SAP Integration and Certification Center** to roll out this exciting new integration scenario, which is now one of the many **SAP integration scenarios available** for third-party product certifications.

Georgi Gerginov joined SAP in August 2003.
He is a development manager within the SAP Application Server/Java organization.
His areas of expertise are the Java Server technologies (Java EE run time and design time), as well as people and project management.

Vladislav Iliev joined SAP in October 2008.
Currently he is part of the SAP Application Server/Java team and his main focus is the development of the SAP NetWeaver Scheduler for Java.

Prior to joining SAP, he worked as an application developer in the area of railways, as well as in the area of electronic payments.

Questions and Answers on the New JAVA-JXBP 7.1 Integration Certification Scenario

Bernhard: Why does SAP now offer a Java scheduling-based interface?

Georgi and Vladislav: Usually, our customers have a landscape consisting of one or more SAP systems and some non-SAP systems. Most of them provide some kind of background processing. At the same time, there are many interdependent scenarios included in such landscapes. For example, a non-SAP "system A" creates data using a background job. The SAP "system B" then processes this data in another job. This means, there is a job in SAP system B, which can only start after another job in non-SAP system A has finished.

Such a scenario demonstrates the need for a central job management system. This system (often referred to as an "external scheduler") connects to the Java system via the currently discussed **JAVA-JXBP 7.1** interface; the SAP ABAP system is connected via the **BC-XBP** interface; the non-SAP systems have their specific connections.

Bernhard: What is the new JAVA-JXBP 7.1 integration scenario all about?

Georgi and Vladislav: The JAVA-JXBP 7.1 interface specifies the Java eXternal Batch Processing (JXBP) API. It can be used by external job schedulers in order to run jobs inside the Java-based SAP NetWeaver AS. The external scheduler needs to be registered with the scheduler execution run time in order to use this service.

Conclusion / Summary

Thanks to **Georgi** and **Vladislav** for taking the time to briefly explain this new and exciting SAP interface scenario called JAVA-JXBP 7.1. The highlights are as follows:

- **Jobs are implemented on the basis of message-driven beans.** A message-driven bean containing a job is called a JobBean. The execution of JobBeans is handled by the EJB container. A JobBean is executed when it receives a Java Messaging Service (JMS) message from the scheduler run-time service.
- **The jobs are persistent.** The SAP NetWeaver-based scheduler for Java stores persistently the job properties and its schedule. The stored information can be queried either by the SAP NetWeaver Administrator tool or programmatically (i.e., via JXBP).
- **Child jobs are supported.** A business process that is carried out by a job, or rather by a collection of jobs, does not only consist of static jobs, which are known in advance and shown right away in the job overview. It also comprises jobs that are created at run time by the static jobs, for example, to dynamically distribute workload. A job that is released by another job is called a "child" job, and the releasing job is called a "parent" job. By using JXBP methods, the external scheduler can find out whether or not a job has child jobs. The SAP background processing system stores the parent/child data of jobs automatically and offers functions to access these data. JXBP offers functions to access the parent/child data of jobs.
- **Job lifecycle can be monitored via events.** The Java scheduler has a notification concept, important for the external schedulers. When starting a job, the external scheduler marks a job as running. When the job is finished, the external scheduler is informed via event. An event is generated whenever the job changes its status.

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To find out how the SAP Integration and Certification Center (SAP ICC) can support and certify your integration projects involving third-party software and SAP solutions, please go to http://www.sdn.sap.com/irj/sdn/icc. If you have addition questions, you may also contact the SAP ICC at icc@sap.com.

Bernhard Weiss joined SAP during August 1989.
He currently works for the Integration and Certification Center at SAP in Walldorf, Germany

Prior to joining SAP, he worked as a financial analyst and controller and in management information systems for 3 years with a US multinational and UK based corporation. After joining SAP in 1989, he worked 4 1/4 years as a support engineer in R/2 hotline - SAP QSA, in the area R/2 RF. Subsequently, before joining the department ICC, he worked 9 years as a system administrator within SAP IT, in the areas of OS/2, Windows, Linux, Lotus Notes/Domino, training and internal production systems, VMware, 7x24 support, networking, hardware, monitoring. Bernhard's current focus within ICC are SAP NetWeaver integration technologies, for example, J2EE and CCMS, lowering TCO, outsourcing, server and system consolidation of ICC test systems utilizing VMware. In addition to his SAP expertise, Bernhard holds/obtained an MBA (Master of International Business Administration from Thunderbird, The American Graduate School of International Management), BA (Bachelor of Science in Business Administration from Bowling Green State University), and Arts (Associate of Arts from Cuyahoga Community College). Bernhard lived 16 years in the United States and is bilingual in English and German.

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