

webMethods Adapter for SAP

Release Notes

webMethods Adapter for SAP Version 10.1

Software AG is pleased to introduce the latest release, 10.1 of the webMethods Adapter for SAP. The adapter allows you to extend your business processes over the Internet and integrate non-SAP products using open and non-proprietary technology. The adapter for SAP allows for bi-directional, real-time, asynchronous communication to and from SAP systems. In addition to including all existing fixes, this release provides major enhancements related to robust shared transaction store for higher performance, enhanced RFC listener support, enhanced IDOC, RFC metadata import, secure and easy SAP user management, logging enhancements and the new performance throughput API. The details are as below:

Shared Transaction Store

The adapter provides a new transaction store type, the Shared Transaction store (STS), as a substitute for the Central Transaction Store (CTS). The STS is more flexible by allowing arbitrary store locations in the file system. It is more robust and offers higher performance. It does not require a central server which would be a single point of failure like the CTS.

The CTS configuration is still supported, but the recommendation for customers using CTS is to switch to the new STS.

Enhanced RFC Listener support

The Adapter provides the ability to configure SAP Default Gateway SNC Secure Service Port as part of the RFC Listener Configuration.

SAP Designer Plug-in - Enhanced IDOC, RFC Metadata Import Support

SAP Designer plug-in provides the ability to import the SAP Metadata description of IDOC and RFC fields while creating the webMethods document types for SAP IDOCs and RFC structures.

SAP User Management

The new SAP User Management concept allows you to manage SAP users and store them in a secured way with user aliases. The alias can be used for the RFC Client Execution. This reduces the maintenance of user credentials.

Enhanced Logging Support

Ability to configure the log components of the adapter and respective log levels individually through the standard IS server logger.

JCO Log File Directory Configuration Support

Ability to configure the JCO Log file directory location to any custom file system directory location using the `watt` property “`watt.sap.jco.trace.dir`”.

Performance Throughput API

New API to read and reset the performance throughput values of the enabled RFC connections.

Platform Support

For the most up to date information about the software and operating systems that the adapter supports, see the *webMethods Adapters System Requirements* document that is available in the webMethods area of the Software AG Documentation Web site (<http://documentation.softwareag.com/>).

For information about previous releases of webMethods SAP Adapter, see the release notes, below.

webMethods SAP Adapter Version 7.1

Software AG is pleased to introduce webMethods SAP Adapter Version 7.1 (SAP Adapter). SAP Adapter allows you to extend your business processes over the Internet and integrate non-SAP products using open and non-proprietary technology. SAP Adapter allows for bi-directional, real-time, asynchronous communication to and from SAP systems. In addition to including all existing fixes, this release provides faster performance with lower memory footprint and the following enhancements to the existing functionalities of the SAP Adapter:

JCo3 Support

SAP Adapter 7.1 supports JCo 3.0.2. With JCo 3.0, you can obtain support for Java 5 Standard Edition from SAP.

Dynamic Connections

All adapter services and notifications are associated with a specific adapter connection when they are defined. webMethods SAP Adapter 7.1 provides the ability to dynamically associate a different connection for a service at run time.

Enhanced Logging Support

SAP Adapter 7.1 uses the Integration Server's logging mechanism to capture messages and write them to the Audit, Error, or Server logs. Information for the SAP Adapter's error codes is available in the *webMethods SAP Adapter Installation and User's Guide*.

Usability Enhancements

- Improved Transaction Store UI: The adapter's transaction store user interface now allows you to filter, find, and select a single transaction or groups of transactions from large transaction stores, which is useful in production environments.
- Improved RFC Connection UI: The adapter's user interface now displays the current, active, and peak number of open connections for each RFC connection.

Platform Support

For the most up to date information about the software and operating systems that the adapter supports, see the *webMethods Adapters System Requirements* document that is available in the webMethods area of the Software AG Documentation Web site (<http://documentation.softwareag.com/>).

For information about previous releases of webMethods SAP Adapter, see the release notes, below.

webMethods SAP Adapter Version 6.5

webMethods is pleased to introduce webMethods SAP Adapter Version 6.5 (SAP Adapter). The SAP Adapter allows you to extend your business processes over the Internet and integrate non-SAP products using open and non-proprietary technology. The SAP Adapter allows for bi-directional, real-time, synchronous and asynchronous communication to and from SAP systems. SAP Adapter 6.5 leverages the WmART architecture and provides the enhancements described below.

Connectivity to SAP Systems

The SAP Adapter enables you to establish and manage connections from the SAP Adapter to your SAP system and vice versa, including connections that use Secure Network Communication (SNC). SNC connections can use default credentials, or you can provide X.509 certificates to provide connection specific credentials. You configure these connections using an administrator page that you access via the Integration Server Administrator.

The SAP Adapter fully manages all connections, connection pools, and sessions. Through these connections you can create and run your SAP integrations.

Template-Based Integrations

The SAP Adapter provides service templates for interactions with SAP systems. From webMethods Developer, you use these templates to create adapter services. Using the templates makes it easy to develop adapter services to interact with SAP systems.

Adapter service template implementations represent specific SAP operations. For example, you can create adapter services that invoke one dedicated function module at your SAP system. You create adapter services using the templates and invoke them from your integration flows.

The SAP Adapter provides the ability to generate adapter services that synchronously invoke RFCs and tRFCs on the SAP system.

SAP Adapter RFC Listeners and Notifications

The SAP Adapter provides RFC listeners and listener notifications to listen for incoming requests from SAP systems. To handle the request, the adapter notification invokes a specific service that is assigned at design time or publishes the message to the broker. Alternatively, you can determine how to process an incoming request at run time by using routing listeners and notifications. See Routing Listener and Notifications below.

You can configure listener notifications to use multiple threads or to use Secure Network Communication (SNC).

RFC Listeners

You configure RFC listeners using an administrator page that you access via the Integration Server Administrator. A RFC listener receives dedicated requests from the SAP system. When a call is made from the SAP system, the RFC listener passes the message to a listener notification.

Listener Notifications

You configure listener notifications using an administrator page that you access via the Integration Server Administrator. A listener notification works in conjunction with a RFC listener to filter and process requests from the SAP system in the SAP Adapter. You can create listener notifications to:

- Synchronously handle incoming RFCs and tRFCs.
- Synchronously handle incoming IDocs.
- Asynchronously handle incoming IDocs.

SAP Adapter Routing Listener and Notifications

Rather than using adapter notifications where you identify at design time a specific service to handle an incoming request, you can have the SAP Adapter determine how to process incoming requests at run time by routing incoming requests via the routing listener.

The SAP Adapter provides a routing listener that manages the routing of incoming requests. The routing listener determines how and where to route an incoming request based on routing notifications that you define. When the SAP Adapter receives the IDoc, RFC, BAPI, or XML document, it matches the sender, the receiver, and the message type associated with the incoming request against the existing routing notifications. When it locates a matching routing notification, the adapter invokes the outbound transport defined in the matching routing notification to process the incoming request.

The outbound transport in a routing notification allows you to process an incoming request using one of the following methods:

- Invoke a service on the local Integration Server for further processing of the incoming message.
- Send the incoming IDoc to an SAP system via tRFC.
- Send the incoming RFC to an SAP system via RFC or tRFC.
- Send the incoming BAPI to an SAP system via RFC or ALE binding.
- Post the incoming BAPI, IDoc, or RFC to a URL.

Transaction Store

The SAP Adapter provides a transaction manager that allows you to monitor the state of your transactions. You use an administrator page that you access via the Integration Server Administrator to view the transactions in the transaction store.

Document Type Generation for SAP Document Types

When processing documents, you might need to map data from RFCs or IDocs to another format, or vice versa. When you map data, it is helpful to have a document type that defines the structure of an RFC or IDoc. The SAP Adapter allows you to use the webMethods Developer to generate the document types from the following:

- RFC structure as defined at an SAP system.
- IDoc structure as defined at an SAP system.
- IDoc DTD or XML Schema.
- Sample IDoc.

Compatibility with Previous webMethods SAP Adapters

The webMethods SAP Adapter 6.5 is compatible at the public API level with SAP Adapter version 4.6 and compatible with most integration built using the webMethods SAP Adapter 4.6. However, the inbound and outbound maps created with earlier versions of the SAP Adapter, and the WmPartners routing rules used in conjunction with the SAP Adapter, must be migrated for use with the new SAP Adapter 6.5. You cannot use the webMethods SAP Adapter 6.5 to run inbound maps, outbound maps, and routing rules generated for the earlier SAP adapters, and vice versa.

webMethods intends to provide migration utilities to migrate integrations built with the webMethods SAP Adapter 4.6 to the SAP Adapter 6.5.

You also cannot run the webMethods SAP Adapter 6.5 on the same Integration Server together with earlier webMethods SAP R/3 Adapters.

Software and Platform Support

The webMethods SAP Adapter 6.5 supports SAP systems 3.1h and later.

For a complete listing of the versions of SAP and of webMethods Integration Server with which the adapter works, see the *webMethods SAP Adapter Installation Guide 6.5*.

Other Notable Features

- Min/max connection pool settings on a connection instance level.
- Properties `watt.sap.repo.*` apply to repository connections only. RFC connections to an SAP system resource can be configured on a connection instance level.
- Bi-directional SNC support.
- For SNC connections, default credentials and the credentials provided by an X.509 certificate can be used.

- Lookup functionality available from an administrator page in the Integration Server Administrator will now exist for each SAP SystemId.
- Adapter services, adapter notifications, and RFC document type nodes will now be created using the Developer.
- IDoc document type nodes can now be created directly from the SAP systems meta data using the Developer.
- Objects previously called Outbound Maps can now be created using the synchronous RFC Adapter Service template.
- Objects previously called Inbound Maps can now be created using the synchronous RFC Listener Notification template.
- Newly introduced synchronous and asynchronous ALE Listener Notifications.
- RFC Listeners are now independent instances with their own listener aliases. The repository server is still assigned using the Connection Alias.
- All transactional requests handled by the SAP Adapter will now be monitored using the build in transaction manager.
- The listener switches Log transaction status and Store message body enable setting transaction behavior on a listener instance level.
- The notification switches Monitor IDocs and Forward confirm event enable setting transaction behavior on a notification instance level.
- The Forward confirm event switch for synchronous notifications enables confirm events to be forwarded by the SAP Adapter.
- Data type mapping will now be done for all RFC and IDoc data types. Document types generated from RFC or IDoc types will have the matching Java wrapper type assigned to the fields.
- Inbound content-based routing services for ALE can now be changed from an administrator page in the Integration Server Administrator.
- Inbound content-based routing service for XML can now be changed from an administrator page in the Integration Server Administrator.
- Outbound mapping services for ALE can now be changed from an administrator page in the Integration Server Administrator.
- The new Routing Listener manages all Routing Notifications.
- Routing Notifications can now be created using the synchronous Routing Notification template.
- IDoc Java API is extended for manipulating IDoc objects.

webMethods SAP R/3 Adapter Version 4.6

webMethods is pleased to introduce webMethods SAP R/3 Adapter Version 4.6 (SAP Adapter). The SAP Adapter allows you to extend your business processes over the Internet and integrate non-SAP products using open and non-proprietary technology. The SAP Adapter allows for bi-directional, real-time, asynchronous communication to and from the SAP server. SAP Adapter 4.6 provides the enhancements and fixes described below.

Improved Performance

Processing of SAP-XML documents in general is now faster. This improvement is most evident with large documents.

Monitoring

- The SAP Adapter now includes a detailed monitor for viewing connections in a client connection pool and listeners. You can view idle, busy, and locked connections, and you see the high-water marks. The monitor provides a quick overview on whether your configuration works well under the current workload. When problems with a listener occur, the monitor displays an error message.
- Performance statistics for the SAP Adapter are now tracked efficiently via SAP's Java Application Responsetime Measurement (jARM) so you can identify potential bottlenecks.
- In many scenarios, the SAP Adapter now acts as a recipient of IDocs, much like a classic EDI subsystem. By sending back a customary status document (SYSTAT01), the SAP Adapter helps you monitor the success of the communication from within the SAP system's IDoc List (WE05), regardless of transport type.

SAP Adapter Services

- The services in the SAP Adapter 4.6 package are now organized more clearly into public and internal services. The public interfaces all come with a specification and are thoroughly documented so you can build flow services around them.
- With SAP Adapter 4.6, a webMethods Integration Server can distribute SAP inbound and outbound maps to other Integration Servers. The service itself is transported, and you can search for the installed maps of a specific SAP server alias and make the maps visible in the Map list.
- With SAP Adapter 4.01, RFC listeners could use the data dictionary of any SAP system to look up the type and structure definitions of the incoming message. In SAP Adapter 4.6, this functionality has been extended in two directions: you can now define a different repository server for every inbound map, and you can associate external RFC server programs with an SAP repository server.

Updates to the RFC Converters

- With SAP Adapter 4.6, you can create and send arbitrary XML formats, not just SAP XML dialects, via XML transport. Conversely, the RFC coder will now directly process parsed XML documents with content type text/xmlas such as you might receive, for example, via FTP.

- SAP Adapter 4.6 supports all new ABAP datatypes that have been introduced with SAP Web Application Server 6.20. These datatypes include the ABAP type vector.
- SAP Adapter 4.6 supports qRFC both as RFC client and RFC server. As an RFC client, you can specify the desired queue name.

Requirement for Librfc32.dll Product Version 620

If you are using a Windows NT or 2000 system, SAP Adapter 4.6 requires you to install librfc32.dll Product Version 620. This library is distributed as part of the SAP Adapter package. If your librfc32.dll is not Product Version 620, see the webMethods SAP R/3 Adapter Installation Guide for instructions on installing librfc32.dll Product Version 620.

Bug Fixes

For a list of all the changes and bug fixes since the last release, see the readme.txt file on the download site or in the directories in which you installed the SAP Adapter.

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