



IBM Software Group

WebSphere® Business Process Management Suite V6.2

WebSphere Adapters V6.2

Adapter specific features overview



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The goal of the presentation is to provide an overview of the new features and enhancements specific to each adapter in V6.2

Agenda

- Technology Adapters
 - ▶ JDBC™
 - ▶ E-mail
 - ▶ Flat Files
 - ▶ FTP
 - ▶ IBM i
- Application Adapters
 - ▶ Oracle E-Business Suite
 - ▶ JD Edwards Enterprise One
 - ▶ Siebel
 - ▶ SAP
- Summary



This presentation covers high-level overview of enhancements and new features to technology and application adapters. More details is provided through detailed presentation of each adapter.

Section

Technology adapters



This section covers the details of the features and enhancements for technology adapters

JDBC adapter

- **New features**
 - ▶ **Outbound**
 - New operation “Exists”
 - Generated new business object “ExistsResults”
 - ▶ **Inbound**
 - Event filtering using connectorID configuration
 - Update event table structure
- **Enhancements**
 - ▶ **Query records based on any attribute value**
 - Not just on primary key attributes
 - Applied to Exists operation
 - ▶ **Informix® database for identity columns**
 - Support auto-generation for serial columns

This slide details the list of enhancements and new features specific to JDBC adapter. For outbound processing, a new operation called Exists has been added to the list of supported operations. The Exists operation determines whether the database table contains records that match the attributes set in a business object. This operation also generates a new business object called ExistsResults, which is used to return the output result based on query criteria set on the attributes of input business object. For inbound processing, JDBC adapter supports event filtering by connector ID. This feature lets you manage which adapter instance processes the events in the vent table. Event table structure needs to be modified to include the connector ID field to support this new feature. Details of this new feature can be found in common features and enhancements presentation.

The JDBC adapter has been enhanced to allow queries that use both key and non-key attributes in the selection criteria. This enhancement is specific to new Exists operation. Another new enhancement is to support Informix database for identity columns. It provides a way to automatically generate a unique numeric value for each row in a table.

E-mail adapter

- **New feature**

- ▶ **Inbound**

- Process embedded image file content as binary type when emit individual business objects property is set

- **Enhancements**

- ▶ **Support for different character sets**

- Specify encoding values at different properties level
 - Non pass through scenario
 - Pass through scenario
 - Compatible with earlier version



During inbound, when the adapter is configured to emit individual business objects and the e-mail polled has mail content and attachments, the E-mail adapter processes each part of the e-mail as an individual event. Similarly, when e-mail polled has text content along with image embedded in the mail content, the adapter processes text content and embedded image as two individual events.

Another major enhancement is support for characters beyond UTF-8 character. You can specify encoding values at different levels.

Flat file adapter

▪ Enhancements

▶ Inbound

- Supports polling of sub folders for inbound

▶ Outbound

- Support for data transformation on retrieve operation
- Provide response for delete operation

▪ New features

▶ Support for COBOL copybook structures for both inbound and outbound

▶ Inbound

- Support for rules to filter events
 - Rules provided at discovery in external service wizard
 - Rules can be edited in administrative console



This slide details the list of enhancements and new features specific to flat file adapter. The flat file adapter inbound functionality has been enhanced to include an option to poll for any events under a subdirectory of the event directory. On outbound the enhancements include the ability to now retrieve the content of a file and transform the data retrieved into an appropriate business object instead of just returning the content as text as in previous releases. The configuration steps and other details for this feature is discussed in the details presentation for flat file adapter. Another enhancement on the outbound is the addition of return type for the delete operation. The return type is a business object which contains a Boolean attribute indicating success or failure of the delete operation.

One of the major functions added for flat file adapter in V6.2 is to support COBOL Copy book structures in both inbound and outbound scenarios. The adapter converts COBOL copy book records into business objects during inbound and the business objects into COBOL copy book records for outbound.

Another new feature is filtering of events by specifying rules. This can be used, for example, when the adapter is fetching events from a file system to determine which files to process and which ones to ignore.

FTP adapter

▪ Enhancements

▶ Outbound

- Support for data transformation on retrieve operation
- Provide response for delete operation
- Provide response for server to server file transfer operation

▪ New features

▶ Support for COBOL copybook structures for both inbound and outbound

▶ Supports Secure FTP for both outbound and inbound

▶ Inbound

- Support for rules to filter events
 - Rules provided at discovery in external service wizard
 - Rules can be edited in administrative console



This slide details the list of enhancements and new features specific to ftp adapter. Some of the enhancements listed for the ftp adapter are the same as the ones discussed for the flat file adapter.

On outbound the enhancements include the ability to now retrieve the content of a file and transform the data retrieved into an appropriate business object instead of just returning the content as text as in previous releases. The configuration steps and other details for this feature is discussed in the details presentation for flat file adapter. Another enhancement on the outbound is the addition of return type for the delete and server to server file transfer operations. The return type is a business object which contains a Boolean attribute indicating success or failure of these operations.

FTP adapter now provides support for Secure FTP (SSH over FTP). SFTP is a network protocol that provides a mechanism for file transfer over a reliable data stream. It runs on a secure SSH channel on port 22.

The COBOL copy book support and the rules to filter events features are the same as for flat file adapter

IBM i adapter

- Outbound
 - ▶ Support for retrieving and placing data on queues
 - ▶ Support for calling Report Program Generator(RPG) programs

- Inbound
 - ▶ Support for polling data queues
 - Data queues – LIFO, FIFO
 - Keyed Data Queues

With V6.2 WebSphere Adapter for IBM i is being introduced in the WebSphere JCA adapters portfolio. The adapter provides integration to applications on the IBM i platform. The adapter supports both inbound and outbound interactions. On outbound, you can use the adapter to retrieve and enter data into queues. The queues can be first in first out (FIFO), last in first out (LIFO) or keyed data queues. The adapter will also provide functionality to invoke Report Program Generator (RPG) programs. For inbound, you can poll on data in the data queues which can be last in first out, first in first out or keyed data queues.

Section

Application adapters



This section covers the details of the features and enhancements for application adapters

Oracle E-Business Suite adapter

- Separate adapter from JDBC adapter
 - ▶ New RAR file, *CWYOE_OracleEBS.rar*
 - ▶ Specific adapter code for Enterprise Metadata Discovery and runtime
- Enterprise Metadata Discovery
 - ▶ Oracle DB Specific Connection Information screen and predefined stored procedure
- New and enhanced user guide



Previously, WebSphere Adapter for JDBC was used to interact with the database components in Oracle E-Business Suite to process data. With V6.2, Oracle adapter is now a separate adapter with its own RAR file. The discovery process using the external service wizard is customized for connecting to Oracle E-Business system.

JD Edwards adapter

- New feature

- ▶ Inbound

- Supports based on JD Edwards real-time event mechanism
 - Single type of real-time events
 - Container type of real-time events
 - Supports event persistence
 - Uses database event store
 - Uses in-memory representation

- Enhancement

- ▶ Outbound

- Supports multiple executions of business function



WebSphere Adapter for JD Edwards Enterprise One now supports inbound processing based on real-time events. A real-time event is generated due to an action in JD Edwards server. When the adapter receives an event, it converts the event data into a business object and sends the business object to the component. The adapter supports both single and container real-time events.

The JD Edwards adapter also supports event persistence for inbound processing in case of abrupt termination. Event persistence is a way to make sure that events are delivered once, and only once, to the endpoint in the case of a failure. The adapter also provides for event persistence using an in-memory representation of the event store. When user use this feature, user does not need to create a JNDI data source or an external event store, and event processing is faster. However, with this feature there is no support for event recovery.

Last but not least, the JD Edwards adapter support multiple executions of business function for outbound processing. The generated business object definition is marked as array type so business function can be run multiple instances during runtime.

Siebel adapter

- Enhancements

- ▶ Support Business services with input or output arguments with any name instead of just Siebel message
 - Provide support for SiebelMessage argument not specifically named 'SiebelMessage'



In V6.2 Siebel adapter provides support for business service methods with SiebelMessage argument not specifically named 'SiebelMessage'. In a custom business service the input or output argument may not be specifically named 'SiebelMessage'. In a custom business service separate arguments may be used for input and output. This feature allows you to select business service argument to be used as the SiebelMessage and allows you to specify separate arguments to be used for input and output.

SAP adapter

- SAP Adapter's Query Interface for SAP Software(QISS) interface to support custom function name for executing the interface.
- Transactional RFC (tRFC) support for inbound and outbound BAPI interface
- qRFC support for inbound and outbound BAPI interface
- Support for pass-through IDOCS
- Generic BO for pass-through IDOCS

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Adapter specific features overview

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On certain non Unicode SAP systems, you may encounter exceptions with QISS Module of WebSphere Adapter for SAP Software. There is a technote describing this problem. To get around this issue the RFC_READ_TABLE function needs to be modified. However, it is not recommended to change the original system function in SAP. You should create a new custom function that is similar to RFC_READ_TABLE. The new custom function will have a different name but will have same input and output arguments as RFC_READ_TABLE. In previous versions SAP adapter does not provide the means to prompt you for this custom function name. In V6.2 you are prompted to enter the custom function name in case you had to modify the RFC_READ_TABLE method.

Another major enhancement is the support for tRFC and qRFC support for BAPI interface on both inbound and outbound. Transactional RFC (tRFC, originally called asynchronous RFC) is an asynchronous communication method that executes the called function module in the adapter only once. The adapter need not be available at the time when the RFC client program is executing a tRFC from the SAP system. On outbound, with the support of tRFC protocol the adapter would be able to submit events asynchronously to SAP. The adapter would send a request to SAP and once the SAP receives the event, the control is given back to adapter.

qRFC support enables the events to be retrieved by the adapter in the same order they were sent and on outbound the BAPI calls are saved to the queue and the SAP system can process events in the order they were received.

Also introduced in V6.2 is the enhanced support for pass-through IDOCS. In the previous releases the adapter supported pass-through IDOCS but it still parsed the control record. In V6.2 the IDOC is not parsed and sent as is as binary content.

Section

Summary and references



This section provides the summary of adapter specific features overview.

Summary

- This presentation covered IBM WebSphere Adapters V6.2 specific features overview
 - ▶ Technology adapters
 - ▶ Application adapters



This presentation covered an overview of new features and enhancements for each specific technology and application adapters. You have also been introduced to one new technology adapter.

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