Event Replicator for Adabas

Release Notes

Version 3.5.4

April 2017

ADABAS & NATURAL

This document applies to Event Replicator for Adabas Version 3.5.4 and all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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1 Release Notes

Software AG's Event Replicator for Adabas allows specific Adabas files to be monitored for data modifications. Whenever any record modification (delete, store, or update) occurs in one of the monitored files, the Event Replicator for Adabas extracts each modified record and delivers it to one or more target applications through a messaging system (such as webMethods EntireX or IBM WebSphere MQ). The set of replicated files or records are defined in a *subscription*.

The Event Replicator for Adabas is an essential tool for organizations that need Adabas data modifications delivered to a target application while minimally impacting the normal processing of Adabas. The principle features of the Event Replicator for Adabas include:

- Near real-time replication
- Asynchronous replication
- Guaranteed consistency and sequence of the delivered replicated data
- Replication of committed updates only

With the Event Replicator for Adabas, whole Adabas files or a specific set of records can be replicated to the target location, as defined in a subscription. Data replication is asynchronous, which allows the Adabas database to operate normally while replication takes place. Only committed Adabas modifications are replicated for the predefined set of monitored files, at the transaction level.

For complete information about Event Replicator for Adabas concepts and how to get started, read the *Event Replicator for Adabas Concepts*. For information on system requirements and how to install Event Replicator for Adabas, read , in *Event Replicator for Adabas Installation Guide*.

This document provides information about release 3.5 of Event Replicator for Adabas:

3.5 Enhancements	Describes the new and changed features in this version of Event Replicator for Adabas.
ZAP Information	Describes any zap requirements for this version of Event Replicator for Adabas.
Adabas and Event Replicator Server Compatibility	Describes the compatibility of the Event Replicator Server with Adabas.
End of Maintenance	Describes how you can determine the end-of-support dates for your Software AG products.
Documentation and Other Online Information	Describes the documentation and other online information you can obtain for this release of Event Replicator for Adabas.

2 3.5 Enhancements

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This chapter describes the Event Replicator for Adabas 3.5 enhancements.

Category	Enhancements
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Event Replicator for Adabas 3.5 SP3 Enhancements	*New Parameter SPRE for ADARIS Utility*
	Support for new Mapping Tool Optimized Global Format Buffers
	New Parameter READOPTION for ADARIS Utility
Event Replicator for Adabas 3.5 SP2 Enhancements	*ADARIS Utility*
Event Replicator for Adabas 3.5 SP1 Enhancements	*ETBBROKER Single Conversation Mode Option*
	BROKER Changes
	Destination Class OPTIONS Keyword Changes

New Replication initialization parameter DESTINATION sub-parameter DCLASS SAGTARG features

PE and MU count fields and their values can now be included in the XML output if they were specified in the GFB/GFFT data. The *Event Replicator Target Adapter Data Mapping Tool Version 3.2 SP0 Fix2 or higher* will generate a value of READONLY "Y" (YES) for the count fields. This means that by default they will not be included in the XML output.

If you require count fields to be included in the XML output, use the online SYSRPTR utility. In the Global Format Buffer Definitions function, bring up the GFB you wish to change. In the `R (Readonly)` column remove the "Y", i.e. change it to a space for the count fields you wish to include in the XML output. Then either issue operator command `RPLREFRESH,ALL` or cycle the Event Replicator server.

Note: Existing GFBs that contain count fields will need to have the count fields set to "Y", if you do not wish to have the count field sent to the Event Replicator Target Adapter. This can be done via the SYSRPTR Global Format Buffers Information function. Display the GFB you wish to edit and place a "Y" in the `R (Readonly)` column of each count field. The GFBs must then be refreshed. This can be done by cycling the Replication server or issuing the `RPLREFRESH,ALL` operator command.

Direct Access to SYSAOS Replicator Management

You can directly access SYSAOS Replicator Management from the Event Replicator Subsystem Administration screen, using the Replicator DBID as the Database ID. For details on this feature, please refer to *SYSAOS Replicator Management* in section *About the Adabas Event Replicator Subsystem* , in the *Adabas Event Replicator Subsystem User's Guide*.

New Parameter SPRE for ADARIS Utility

A new parameter SPRE is available in the *ADARIS Utility*. Specify the SPRE keyword in the DCLASSPARM parameter if you do want the subscription name to prefix the names of the tables produced by the Event Replicator Target Adapter.

The notation is `SPRE=`*`xxxxxxxx`* where *xxxxxxxx* can be a subscription prefix to be used instead of the subscription name used in the job execution. The prefix can be 1 to 8 characters in size.

The SPRE keyword is available for use with both `SAGTARG` and `SAGTRGB` DCLASS exits

Support for new Mapping Tool Optimized Global Format Buffers

This release of the Event Replicator Target Adapter Data Mapping Tool introduces a new option that allows the user to optimize a buffer containing MU's, PE's, and MU's within PE's. The optimized buffer can ONLY be used for initial state processing in the Event Replicator Server nucleus or via the ADARIS utility.

Restrictions apply:

- Use of Optimized Global format buffer(s) require a new Subscription for Initial-state only processing.
- The destinations assigned to the Initial-state only subscription using optimized Global Format buffer(s) must therefore be SIDESTINATION ONLY. It cannot be used for normal replication data (SDESTINATION is not allowed).
- The Destination DCLASS parameter must specify SAGTARG.
- The destination must be an ETB, MQ Series, or Null destination. In the case of the ADARIS utility the sequential DDOUT file is also allowed.

New Parameter READOPTION for ADARIS Utility

A new parameter READOPTION is available in the *ADARIS Utility* that may give improved performance, especially when running ADARIS for a file with many deleted records or gaps in the ISN sequence. This capability was introduced by solution distribution ARF353L002.

The notation is `READOPTION={BLANK | I}`. Specifying "I" may reduce the number of read commands sent to the nucleus by reading in ISN sequence rather than issuing a read command for each specific ISN. This will have the largest effect if there are many deleted records or gaps in the ISN sequence.

ADARIS Utility

The ADARIS batch-only utility, also known as the *Initial-State utility*, can be used to run an initial-state process and transfer the resulting initial-state data to a sequential file. The specifics of what is processed is determined by the specified Event Replicator subscription, and the override parameters supplied in the utility. The utility will read a range of records, by ISN from a single Adabas file, and create a sequential output file. The sequential output file can then be processed by the Event Replicator Target Adapter.

For more information about the ADARIS utility, read *ADARIS Utility: Run Initial-State Process*, in the *Event Replicator for Adabas Reference Guide*.

ETBBROKER Single Conversation Mode Option

The Event Replicator Server has been enhanced to support a new Single Conversation mode for Node to Node support using ETBBROKER Destinations and Input Queues. This mode puts all messages related to each other (UoW) into one single conversation and dramatically reduces the required EntireX Broker resources. Using the new Single Conversation mode is definitely recommended when there are very high message volumes between sender (destination) and receiver (Input queue). For those who have been successfully using the Multi Conversation Mode, you may continue to use this option.

Therefore, new optional Event Replication Initialization parameters have been introduced for type `ETBBROKER DESTINATION` and `INPUT QUEUE` parameters to turn on the single conversation mode and to specify user ID and token as user credentials. When the new Single Conversation mode parameter is set to yes, the destination or input queue will establish the Single Conversation mode connection to the EntireX Broker.

Please make sure that these user ID and token settings specify unique names within your environment.

- A destination running in Single Conversation mode can only send messages to an Input queue that is running in this same mode.
- Multiple Destination and Input Queue pairs can be run in Single Conversation mode as long as the one Destination to one Input Queue connection is maintained.

The Event Replicator for Adabas testing utilities *ADAMTR* and *ADAMTS* also provide new parameters to make use of this new option. The combination of user ID and token uniquely identifies a user. New parameters have been introduced that allow the user to set the value of the token and user ID or take the default value. These options allow ADAMTS to connect to an existing Event Replicator Server single conversation mode destination that is still active but no longer in use by the destination because it was closed or the Event Replicator Server was shut down or crashed. This could also be used in a similar fashion by ADAMTR in the case of a Event Replicator Server input queue for the same reason.

EntireX Version 9.7 SP23 or above (EXB970L023 and EXX970L023) is required.

Required Zaps

A zap needs to be applied to the Adabas module ADAMG6 when running the Event Replicator for Adabas ADAMTS utility in single conversation mode. The zap contains new messages associated with the new single conversation mode parameters.

The zap to be applied depends on the release of Adabas being included in the ADAMTS steplib. Zaps are available for Adabas Version 8.2.5, Adabas Version 8.2.6, Adabas Version 8.3.1, Adabas Version 8.3.2 and Adabas Version 8.3.3. The zaps are AU825091, AU826062, AU831079, AU832016, and AU833001.

BROKER Changes

BKIMBTSO is no longer available since EntireX Broker Version 9.6. You will need to specify BROKER instead of BKIMBTSO. The default for the global parameter ETBBROKERNAME is now BROKER. Please see your *EntireX Broker* documentation for further information.

Destination Class OPTIONS Keyword Changes

In this version of Event Replicator for Adabas, the OPTIONS keyword of the DCLASSPARM parameter introduces a new setting of the OPTIONS keyword: 64. If OPTIONS=64 is specified, the XML transaction Committed time value is set to local time instead of GMT/UTC.

For more information about the OPTIONS keyword of the DCLASSPARM parameter, read *DCLASSPARM Parameter*, in the *Event Replicator for Adabas Reference Guide*.

3 ZAP Information

Important: Be sure that you apply all supplied Event Replicator maintenance and concatenate Event Replicator patch-level libraries (L00*n*), as they are delivered to you. This will ensure that your Event Replicator code remains up-to-date, supporting all Event Replicator features as they are enhanced and maintained. The latest zaps for this product are available in the Knowledge Center in Software AG's Empower (***https://empower.softwareag.com***) web site.

4 Adabas and Event Replicator Server Compatibility

The following rules must be followed when using an Adabas source database with an Event Replicator Server:

1. The Adabas version used in the Event Replicator Server must be greater than or equal to the Adabas version used in the source Adabas nucleus, and
2. The Event Replicator for Adabas version used by the Event Replicator Server must be greater than or equal to the Event Replicator version used in the source Adabas nucleus.

The following table shows the allowed combinations of Adabas and Event Replicator for both the nucleus and the Event Replicator Server:

Source Adabas Nucleus	Event Replicator Server
Adabas 8.4 SP1 or later and Event Replicator 3.5 SP4	Adabas 8.4 SP1 or later and Event Replicator 3.5 SP4
Adabas 8.4 SP1 or later and Event Replicator 3.5 SP3 plus solution library L003	Adabas 8.4 SP1 or later and Event Replicator 3.5 SP4 Adabas 8.4 SP1 or later and Event Replicator 3.5 SP3 plus solution library L003
Adabas 8.3 SP1 or later and Event Replicator 3.5 SP2 or later	Adabas 8.4 SP1 or later and Event Replicator 3.5 SP2 or later Adabas 8.3 SP1 or later and Event Replicator 3.5 SP2 or later
Adabas 8.3 SP1 or later and Event Replicator 3.4 SP1	Adabas 8.4 SP1 or later and Event Replicator 3.5 SP2 or later Adabas 8.4 SP1 or later and Event Replicator 3.4 SP1 Adabas 8.3 SP1 or later and Event Replicator 3.5 SP2 or later Adabas 8.3 SP1 or later and Event Replicator 3.4 SP1
Adabas 8.2 SP6 and Event Replicator 3.5 SP2 or later	Adabas 8.4 SP1 or later and Event Replicator 3.5 SP2 or later Adabas 8.3 SP1 or later and Event Replicator 3.5 SP2 or later Adabas 8.2 SP6 and Event Replicator 3.5 SP2 or later
Adabas 8.2 SP6 and Event Replicator 3.4 SP1	Adabas 8.4 SP1 or later and Event Replicator 3.5 SP2 or later Adabas 8.4 SP1 or later and Event Replicator 3.4 SP1 Adabas 8.3 SP1 or later and Event Replicator 3.5 SP2 or later Adabas 8.3 SP1 or later and Event Replicator 3.4 SP1

Source Adabas Nucleus	Event Replicator Server
	Adabas 8.2 SP6 and Event Replicator 3.5 SP2 or later Adabas 8.2 SP6 and Event Replicator 3.4 SP1

Note: The term "or later" in the table above indicates a later SM within the same version and release of the product.

These combinations provide you with flexibility when upgrading your levels of Adabas and Event Replicator. If you are an existing user of Event Replicator, you might have multiple Adabas 8.2 nuclei running replication (REPLICATION=YES) and Event Replicator 3.4 or 3.5. You might also have multiple Event Replicator Servers running with Adabas 8.3 and Event Replicator 3.4 or 3.5. The compatibility combinations listed above mean you are not forced to upgrade all of your Adabas nuclei and Event Replicator Servers at the same time. You might first upgrade your Event Replicator Server software before you upgrade your Adabas nuclei later. In addition, you can upgrade one Adabas nucleus at a time.

5 End of Maintenance

For information on how long a product is supported by Software AG, access Software AG's Empower web site at *https://empower.softwareag.com*.

Log into Empower. Once you have logged in, you can expand **Products** in the left menu of the web page and select **Product Version Availability** to access the Product Version Availability application. This application allows you to review support information for specific products and releases.

6 Documentation and Other Online Information

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- Software AG TECHcommunity 16
- Software AG Empower Product Support Website 16

The following online resources are available for you to obtain up-to-date information about your Software AG products:

Software AG Documentation Website

You can find documentation for all Software AG products on the Software AG Documentation website at ***http://documentation.softwareag.com***. This site requires Empower credentials. If you do not have an Empower user ID and password yet, you will find instructions for registering on this site (free for customers with maintenance contracts) or you can also use the TECHcommunity website to access the latest documentation.

Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at ***http://techcommunity.softwareag.com***. You can:

- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest. If you already have TECHcommunity credentials, you can adjust your areas of interest on the TECHcommunity website by editing your TECHcommunity profile. To access documentation in the TECHcommunity once you are logged in, select **Documentation** from the **Communities** menu.
- Access articles, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

Software AG Empower Product Support Website

You can find product information on the Software AG Empower Product Support website at ***https://empower.softwareag.com***. This site requires Empower credentials. If you do not have an Empower user ID and password yet, you will find instructions for registering on this site (free for customers with maintenance contracts).

To submit feature/enhancement requests, get information about product availability, and download products and certified samples, select **Products & Documentation** from the menu once you are logged in.

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, select **Knowledge Center** from the menu once you are logged in.

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