

Release Bulletin Replication Agent™ 15.0 for DB2 UDB for z/OS

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1. Accessing current release bulletin information

A more recent version of this release bulletin may be available on the Web. To check for critical product or document information added after the product release, use the Sybase® Product Manuals Web site.

❖ Accessing release bulletins at the Sybase Product Manuals Web site

- 1 Go to Product Manuals at <http://www.sybase.com/support/manuals/>.

- 2 Select a product and language and click Go.
- 3 Select a product version from the Document Set list.
- 4 Select the Release Bulletins link.
- 5 From the list of individual documents, select the link to the release bulletin for your platform. You can either download the PDF version or browse the document online.

2. Product summary

Enclosed is Replication Agent™ 15.0 for DB2 UDB for z/OS, also referred to as Replication Agent, which allows you to replicate transaction operations from IBM DB2 UDB on z/OS to target databases through Sybase Replication Server®.

Replication Agent 15.0 for DB2 UDB for z/OS is certified to work with IBM z/OS version 1.7 and later.

Note Replication Agent 15.0 for DB2 UDB for z/OS works with DB2 7.1 and DB2 8.1. It utilizes most new features in DB2 8.1.

2.1 Version contents

Replication Agent 15.0 for DB2 UDB for z/OS includes these components:

Table 1: Replication Agent 15.0 for DB2 UDB for z/OS contents

Product	Product type	Product ID
Replication Agent 15.0 for DB2 UDB for z/OS	Software	19423-55-1500-41
Release Bulletin for Replication Agent 15.0 for DB2 UDB for z/OS version	Document	DC71014-01-1500-01
Replication Agent 15.0 for DB2 UDB <i>Installation Guide</i> for z/OS	Document	DC34256-01-1500-01
Replication Agent 15.0 for DB2 UDB <i>User's and Troubleshooting Guide</i> for z/OS	Document	DC32005-01-1500-01

The Replication Agent product software includes the following components:

- Log Transfer Manager (LTM for z/OS)

- Replication Extract, the log extract component of Replication Agent
- Tracing utilities, to assist with debugging and troubleshooting Replication Agent

3. Special installation instructions

If you have installed earlier versions of Replication Agent for DB2 UDB for z/OS, you must select values for variables during the new installation that distinguish this version from earlier versions. For example, for the software version number (*ver*), a value of R150 indicates the Replication Agent 15.0 for DB2 UDB for z/OS installation.

3.1 Installing ESD #1 EBF 15032

ESD #1 EBF 15032 is required. Consult the EBF download site for updates to this version, as a more recent ESD may supersede this EBF. See “Sybase EBFs and software maintenance” on page 12.

3.2 Product licensing

This product requires a permanent authorization key. However, a temporary key that is valid for 30 days has been included within the order at installation time. To avoid interruption of operations, within those 30 days, call Customer Service at 1-800-8Sybase, (1-800-879-2273) select Option 3, and select Option 3 again to request a permanent key. Be prepared to provide this information:

- Product name
- Order number
- Your machine type
- CPU Serial number of the machine
- Model number
- Valid e-mail address

Within seven business days, Sybase will send a permanent key to you by e-mail.

Note The permanent license key entered into LTMCFG is valid for Replication Agent version 15.0 and will continue to work without interruption for all subsequent version 15.0 EBFs, as long as Replication Agent 15.0 is not moved to a different machine.

3.3 Verifying the software version string

After you complete the installation, verify that you have installed the correct version of the software by viewing the software version string. You can view the version string by viewing the VERSION DD statement.

❖ **Viewing the VERSION DD statement**

- 1 Start LTM for z/OS.
- 2 View the VERSION DD statement to locate the version string:

```
Replication Agent for DB2  
LTM FOR OS/390/15.0/P/IBM ZOS/020/(09/10/07 11.29)
```

If you do not see a version string similar to the preceding example, contact Sybase Technical Support for assistance.

4. Changed functionality in this version

This section describes changes to Replication Agent functionality.

- Elimination of SAS/C dependencies.
- Streamlined memory management.
- Improved tracing.
- Enhanced operator commands.
- Enhancements to LTMOBJECTS provide support for object names up to 128 characters. Replication Agent 15.0 DB2 is also compatible with older versions of LTMOBJECTS.
- Added licensing support.
- Multithreading is reduced from five threads to one thread.

- Console messages have been minimized, and most have been moved to the *LTMLOG* file.
- The TSO panels that were used for marking and unmarking tables and Replication Server support have been removed.
- Output from IBM unload utility can be used to materialize data at the target.

5. Known problems

This section describes known problems and workarounds in Replication Agent 15.0 z/OS.

5.1 Platform

This section lists known problems for DB2.

PTFs for IBM APAR, PK46251 must be applied to DB2 The PTFs are:

- R710 PSY UK 25938 UP07/06/24 P F706
- R810 PSY UK25939 UP07/06/24 P F706
- R910 PSY UK25940 UP07/06/24 P F706

[CR #461311] DB2 version 9.1 is not yet certified.

5.2 Graphic data

This section lists known problems with graphic data.

5.2.1 Graphic data must use binary

[CR #372268] All graphic data must be sent to Replication Server in binary: `GraphicType=binary`.

6. Documentation updates and clarifications

This section contains material omitted from the documentation.

[CR #475162] The LTMCFG members are incorrectly listed as LTMCNFG in the *Installation Guide* and *User's Guide*. The member name should be LTMCFG.

6.1 Operator commands

These operator commands are available for the LTM and Log Extract.

6.1.1 Operator commands for the LTM

These operator commands are available for the LTM.

c,help

Description

Lists all LTM operator commands, which include:

- version
- stop
- shutdown
- traceon=general|calls|rtruncpoint
- traceon=rsccommand|tlebcdic|tlaascii
- traceon=qids,nn
- traceoff=general|calls|truncpoint
- traceoff=rsccommand|tlebcdic|tlaascii
- traceoff=qids,nn

Syntax

f repjob,c,help

c,version

Description

Displays the environment information for Replication Agent 15.0 for DB2. For example:

```
LTM0014 RECEIVED MESSAGE FROM CONSOLE:  C,VERSION
*****
Replication Agent for DB2

LTM FOR OS/390/15.0 ESD #1/P-15032/IBM ZOS/01/(09/12/07 14.50

Environment information:

Local Time:  2007/09/13  09:48:57
```

Syntax

f repjob,c,version

c,stop

Description Ends the DB2 Replication Agent.

Syntax f repjob,c,stop

c,shutdown

Description Ends the DB2 Replication Agent.

Syntax f repjob,c,shutdown

c,traceon=ttttt

Description Turns on traces used for debugging and the corresponding f repjob,c,traceoff=ttttt commands stop these traces.

Syntax

- f repjob,c,traceon=general
- f repjob,c,traceon=calls
- f repjob,c,traceon=rscommand
- f repjob,c,traceon=connection

Usage These are internal traces used by technical support for debugging. The traceon=connection command can be used to debug connectivity problems.

c,traceon=qids,nn

Description *nn* is a number from 1 to 25 to trace the next *nn* QIDs updated or retrieved.

Syntax f repjob,c,traceon=qids,*nn*

c,traceon=ltlebcdic or traceon=ltlascii

Description Displays the LTL sent to the Replication Server.

Syntax f repjob,c,traceon=ltlebcdic
f repjob,c,traceon=ltlascii

6.1.2 Operator commands for the Log Extract

These operator commands are available for the Log Extract:

e, help

Description Lists all Log Extract commands, which include:

- status
- loginfo
- showrba
- trace=on|off|qid|mem|exp
- error
- trunc
- poll=mm/ss/ht
- govern=mm.ss.ht|on|off
- root (Rollback Oldest Open Tran)

Syntax `f repjob,e, command`

e, status

Description

Displays the configuration parameters of the LTML Extract and the positional information for all attached DB2s:

```
LTM0014 RECEIVED MESSAGE FROM CONSOLE:  E,STATUS
Begin Log Extract status:
Member Count.....      7
High Extracted RBA..... N/A
High Extracted LRSN.... C1316B123ED9
High Position RBA/LRSN.. C1316B1334FC
Polling Interval.....   Min 00 Secs 01 Mille 000.
Governor Interval.....  Min 00 Secs 01 Mille 000
Inflight transactions...  1, current max is 50
Oldest Open transaction. C1316B123ED9.
member.      4
userid. BMCCARTY
Member.....           DB1T
High Extracted RBA... 000000000000
High Extracted LRSN... 000000000000
Member.....           DB2T
High Extracted RBA... 0091173475B5
High Extracted LRSN... C1316B0FD44C
Member.....           DB3T
High Extracted RBA... 000000000000
High Extracted LRSN... 000000000000
End Log Extract status
```

Example syntax `f repjob,e,status`

e,loginfo

Description Displays the RBA/LRSN and LOG information for each DB2 processed by the Log Extract:

```
LTM0014 RECEIVED MESSAGE FROM CONSOLE:  E,LOGINFO
Log information:
Member..... DB1T
High Extracted RBA... 000000000000
High Extracted LRSN... 000000000000
Member..... DB2T
High Extracted RBA... 00911734F7CC
High Extracted LRSN... C1316BE863C0
COPY1 LOG=DSNDB0T.DB2T.LOGCOPY1.DS09 IS 63% FULL ,
COPY2 LOG=DSNDB0T.DB2T.LOGCOPY2.DS09 IS 63% FULL ,
H/W RBA = 00911734F9AF,
H/O RBA = 009115E3FFFF,
DB2 RESTART RBA 0090DBDD2000.
Member..... DB3T
High Extracted RBA... 000000000000
High Extracted LRSN... 000000000000
COPY1 LOG=DSNDB0T.DB3T.LOGCOPY1.DS10 IS 64% FULL ,
COPY2 LOG=DSNDB0T.DB3T.LOGCOPY2.DS10 IS 64% FULL ,
Polling Interval..... Min 00 Secs 01 Mille 000.
Governor Interval..... Min 00 Secs 01 Mille 000
Inflight transactions... 1, current max is 50
End Log information
```

Syntax *f repjob,e,loginfo*

e,showrba

Description Shows the RBA of any transactions that are in-flight:

```
LTM0014 RECEIVED MESSAGE FROM CONSOLE:  E,SHOWRBA
Inflight RBAs:
Inflight RBA=009117A966D0 LRSN=C131701F7059 Member= 2 User ID=MARTYP
```

Log Extract command processed.

Syntax *f repjob,e,showrba*

e,trace

Description Turn on the QID or memory or records not expanded by IFI by using the trace commands with these toggle switches.

Syntax

- `f repjob,e,trace=qid`
- `f repjob,e,trace=mem`
- `f repjob,e,trace=exp`

e,error

Description Dynamically changes the Log Extract configuration parameter LogExtractError to either Term or Msg, using these toggle switches.

Syntax

`f repjob,e,error=term`

`f repjob,e,error=msg`

e,trunc

Description Dynamically changes the Log Extract SetTruncPoint parameter, which determines how often to request a truncpoint.

Syntax `f repjob,e,trunc=0 to 99999|next`

e,poll

Description Dynamically changes the Log Extract PollInterval paramter.

Syntax `f repjob,e,poll`

e,govern

Description Dynamically changes the Log Extract GOVERN parameter.

Syntax `f repjob,e,govern`

e,root

Description Rolls back the oldest open transaction and removes it from the in-flight transaction list.

Syntax `f repjob,e,root`

6.2 LTMOBJECTS error codes

The error code values for the LTMOBJECTS Table are:

- 04 – no repdefs for LTMOBJECTS table entry
- 08 – data compression error LTMOBJECT table entry log records
- 12 – no information in SYSIBM.SYSTABLES for LTMOBJECTS table entry

6.3 Additional documentation changes

See the General Information and Technical Note section in the EBF cover letter for additional documentation changes.

7. Technical support

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you have any questions about this installation or if you need assistance during the installation process, ask the designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

8. Other sources of information

Use the Sybase Getting Started CD and the Sybase Product Manuals Web site to learn more about your product:

- The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.
- The Sybase Product Manuals Web site is an online version of the SyBooks CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

To access the Sybase Product Manuals Web site, go to Product Manuals at <http://www.sybase.com/support/manuals/>.

8.1 Sybase certifications on the Web

Technical documentation at the Sybase Web site is updated frequently.

❖ Finding the latest information on product certifications

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click Certification Report.
- 3 In the Certification Report filter select a product, platform, and timeframe and then click Go.
- 4 Click a Certification Report title to display the report.

❖ Finding the latest information on component certifications

- 1 Point your Web browser to Availability and Certification Reports at <http://certification.sybase.com/>.
- 2 Either select the product family and product under Search by Base Product; or select the platform and product under Search by Platform.
- 3 Select Search to display the availability and certification report for the selection.

❖ Creating a personalized view of the Sybase Web site (including support pages)

Set up a MySybase profile. MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click MySybase and create a MySybase profile.

8.2 Sybase EBFs and software maintenance

❖ Finding the latest information on EBFs and software maintenance

- 1 Point your Web browser to the Sybase Support Page at <http://www.sybase.com/support>.
- 2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.
- 3 Select a product.

- 4 Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as a Technical Support Contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click Edit Roles to add the “Technical Support Contact” role to your MySybase profile.

- 5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

