

R4.4 DB2 TDR Patch 4.4.0.2 Partitioned Upgrade Instructions

Files contained in this patch:

File	Rationale
R4.4_DB2_TDR_patch_4.4.0.2_Partitioned Upgrade_Instructions.pdf	this file
step_1_alter_transactions.ddl	Modify Transaction tables to support MSG API version 04.04.03. Note, the ATTACH_PARTITION Stored Procedure is called to attach the partition, prior to applying the table changes. REORG Statements will be executed
step_2_generate_base_txn_table_detach_stmts.sql	This script generates the ALTER TABLE ... DETACH PARTITION statements required to create the detached table, with the transaction table structure changes. NOTE: The output of this script must be executed.
step_3_change_yxx_to_ixx.ddl	This script performs the necessary steps to rename and alter the YXX tables to IXX. Note, the ATTACH_PARTITION Stored Procedure is called to attach the partition, prior to applying the table changes REORG Statements will be executed
step_4_create_i##_detach_stmts.sql	This script generates the ALTER TABLE ... DETACH PARTITION statements required to create the Detached I## table, after the rename and structure changes. NOTE: The output of this script must be executed.
step_5_create_oxx_tables.ddl	Create new OXX tables. The file will create the OXX tables with 3 daily partitions. The partition ranges are based on the CURRENT_TIMESTAMP value, at execution time. NOTE: The file should be modified to support the number of partitions and partition granularity. Also, this file must be modified to include the correct tablespace names, if the Preinstall Instructions are not followed.
step_6_create_oxx_indexes.ddl	Create new OXX table indexes
step_7_create_oxx_constraints.ddl	Create new OXX table Primary Key constraints
step_8_new_authorizations.sql	Applies authorizations for new tables.
step_9_oxx_table_detach_stmts.ddl	This file contains the ALTER TABLE ... DETACH PARTITION statements to create the Detach table for the OXX tables. NOTE: if step 5 is modified, this script will need to be modified to support the correct partition name and detach table name.
step_10_generate_authorizations.sql	This script generates the authorizations required to run the rolling partition job. This includes tablespace usage authorizations and detach table authorizations. NOTE: The output of this script must be executed.
step_11_dml.sql	This file inserts the FMX_PARTITION_DEFINITION table for the newly created OXX partitioned tables. NOTE: if step 5 is modified, this script will need to be modified to support the correct partition count. Add new version numbers for SAS FM 4.4 M0 HF2 and MSG API 04.04.03.

R4.4 DB2 TDR Patch 4.4.0.2 Partitioned Upgrade Instructions

Preinstall instructions:

- For new tables, the following tablespaces must be created, or the script step_3_create_oxx_tables.ddl must be modified to contain valid tablespaces

Data Tablespaces			
TS_BRST_OX_PART1	TS_CSCA_OX_PART2	TS_LCCP_OX_PART3	TS_NAMO_OX_PART4
TS_BRST_OX_PART2	TS_CSCA_OX_PART3	TS_LCCP_OX_PART4	TS_NAMP_OX_PART1
TS_BRST_OX_PART3	TS_CSCA_OX_PART4	TS_LCCW_OX_PART1	TS_NAMP_OX_PART2
TS_BRST_OX_PART4	TS_CSCK_OX_PART1	TS_LCCW_OX_PART2	TS_NAMP_OX_PART3
TS_CCBF_OX_PART1	TS_CSCK_OX_PART2	TS_LCCW_OX_PART3	TS_NAMP_OX_PART4
TS_CCBF_OX_PART2	TS_CSCK_OX_PART3	TS_LCCW_OX_PART4	TS_NANM_OX_PART1
TS_CCBF_OX_PART3	TS_CSCK_OX_PART4	TS_LCDP_OX_PART1	TS_NANM_OX_PART2
TS_CCBF_OX_PART4	TS_CSCP_OX_PART1	TS_LCDP_OX_PART2	TS_NANM_OX_PART3
TS_CCCA_OX_PART1	TS_CSCP_OX_PART2	TS_LCDP_OX_PART3	TS_NANM_OX_PART4
TS_CCCA_OX_PART2	TS_CSCP_OX_PART3	TS_LCDP_OX_PART4	TS_SLBF_OX_PART1
TS_CCCA_OX_PART3	TS_CSCP_OX_PART4	TS_LCMF_OX_PART1	TS_SLBF_OX_PART2
TS_CCCA_OX_PART4	TS_CSCW_OX_PART1	TS_LCMF_OX_PART2	TS_SLBF_OX_PART3
TS_CCCP_OX_PART1	TS_CSCW_OX_PART2	TS_LCMF_OX_PART3	TS_SLBF_OX_PART4
TS_CCCP_OX_PART2	TS_CSCW_OX_PART3	TS_LCMF_OX_PART4	TS_SLCA_OX_PART1
TS_CCCP_OX_PART3	TS_CSCW_OX_PART4	TS_LCNM_OX_PART1	TS_SLCA_OX_PART2
TS_CCCP_OX_PART4	TS_CSDP_OX_PART1	TS_LCNM_OX_PART2	TS_SLCA_OX_PART3
TS_CCDP_OX_PART1	TS_CSDP_OX_PART2	TS_LCNM_OX_PART3	TS_SLCA_OX_PART4
TS_CCDP_OX_PART2	TS_CSDP_OX_PART3	TS_LCNM_OX_PART4	TS_SLCK_OX_PART1
TS_CCDP_OX_PART3	TS_CSDP_OX_PART4	TS_LCSH_OX_PART1	TS_SLCK_OX_PART2
TS_CCDP_OX_PART4	TS_CSMF_OX_PART1	TS_LCSH_OX_PART2	TS_SLCK_OX_PART3
TS_CCMF_OX_PART1	TS_CSMF_OX_PART2	TS_LCSH_OX_PART3	TS_SLCK_OX_PART4
TS_CCMF_OX_PART2	TS_CSMF_OX_PART3	TS_LCSH_OX_PART4	TS_SLCP_OX_PART1
TS_CCMF_OX_PART3	TS_CSMF_OX_PART4	TS_MAFM_OX_PART1	TS_SLCP_OX_PART2
TS_CCMF_OX_PART4	TS_CSNM_OX_PART1	TS_MAFM_OX_PART2	TS_SLCP_OX_PART3
TS_CCNM_OX_PART1	TS_CSNM_OX_PART2	TS_MAFM_OX_PART3	TS_SLCP_OX_PART4
TS_CCNM_OX_PART2	TS_CSNM_OX_PART3	TS_MAFM_OX_PART4	TS_SLCW_OX_PART1
TS_CCNM_OX_PART3	TS_CSNM_OX_PART4	TS_MAMF_OX_PART1	TS_SLCW_OX_PART2
TS_CCNM_OX_PART4	TS_CSSH_OX_PART1	TS_MAMF_OX_PART2	TS_SLCW_OX_PART3
TS_CCSH_OX_PART1	TS_CSSH_OX_PART2	TS_MAMF_OX_PART3	TS_SLCW_OX_PART4
TS_CCSH_OX_PART2	TS_CSSH_OX_PART3	TS_MAMF_OX_PART4	TS_SLDP_OX_PART1
TS_CCSH_OX_PART3	TS_CSSH_OX_PART4	TS_MANM_OX_PART1	TS_SLDP_OX_PART2
TS_CCSH_OX_PART4	TS_LCBF_OX_PART1	TS_MANM_OX_PART2	TS_SLDP_OX_PART3
TS_CSAB_OX_PART1	TS_LCBF_OX_PART2	TS_MANM_OX_PART3	TS_SLDP_OX_PART4
TS_CSAB_OX_PART2	TS_LCBF_OX_PART3	TS_MANM_OX_PART4	TS_SLMF_OX_PART1
TS_CSAB_OX_PART3	TS_LCBF_OX_PART4	TS_NAME_OX_PART1	TS_SLMF_OX_PART2
TS_CSAB_OX_PART4	TS_LCCA_OX_PART1	TS_NAME_OX_PART2	TS_SLMF_OX_PART3
TS_CSAE_OX_PART1	TS_LCCA_OX_PART2	TS_NAME_OX_PART3	TS_SLMF_OX_PART4

R4.4 DB2 TDR Patch 4.4.0.2 Partitioned Upgrade Instructions

TS_CSAE_OX_PART2	TS_LCCA_OX_PART3	TS_NAME_OX_PART4	TS_SLNM_OX_PART1
TS_CSAE_OX_PART3	TS_LCCA_OX_PART4	TS_NAMF_OX_PART1	TS_SLNM_OX_PART2
TS_CSAE_OX_PART4	TS_LCCK_OX_PART1	TS_NAMF_OX_PART2	TS_SLNM_OX_PART3
TS_CSBF_OX_PART1	TS_LCCK_OX_PART2	TS_NAMF_OX_PART3	TS_SLNM_OX_PART4
TS_CSBF_OX_PART2	TS_LCCK_OX_PART3	TS_NAMF_OX_PART4	TS_SLSH_OX_PART1
TS_CSBF_OX_PART3	TS_LCCK_OX_PART4	TS_NAMO_OX_PART1	TS_SLSH_OX_PART2
TS_CSBF_OX_PART4	TS_LCCP_OX_PART1	TS_NAMO_OX_PART2	TS_SLSH_OX_PART3
TS_CSCA_OX_PART1	TS_LCCP_OX_PART2	TS_NAMO_OX_PART3	TS_SLSH_OX_PART4

R4.4 DB2 TDR Patch 4.4.0.2 Partitioned Upgrade Instructions

Index Tablespaces			
IX_BRST_OX_PART1	IX_CSCA_OX_PART2	IX_LCCP_OX_PART3	IX_NAMO_OX_PART4
IX_BRST_OX_PART2	IX_CSCA_OX_PART3	IX_LCCP_OX_PART4	IX_NAMP_OX_PART1
IX_BRST_OX_PART3	IX_CSCA_OX_PART4	IX_LCCW_OX_PART1	IX_NAMP_OX_PART2
IX_BRST_OX_PART4	IX_CSCK_OX_PART1	IX_LCCW_OX_PART2	IX_NAMP_OX_PART3
IX_CCBF_OX_PART1	IX_CSCK_OX_PART2	IX_LCCW_OX_PART3	IX_NAMP_OX_PART4
IX_CCBF_OX_PART2	IX_CSCK_OX_PART3	IX_LCCW_OX_PART4	IX_NANM_OX_PART1
IX_CCBF_OX_PART3	IX_CSCK_OX_PART4	IX_LCDP_OX_PART1	IX_NANM_OX_PART2
IX_CCBF_OX_PART4	IX_CSCP_OX_PART1	IX_LCDP_OX_PART2	IX_NANM_OX_PART3
IX_CCCA_OX_PART1	IX_CSCP_OX_PART2	IX_LCDP_OX_PART3	IX_NANM_OX_PART4
IX_CCCA_OX_PART2	IX_CSCP_OX_PART3	IX_LCDP_OX_PART4	IX_SLBF_OX_PART1
IX_CCCA_OX_PART3	IX_CSCP_OX_PART4	IX_LCMF_OX_PART1	IX_SLBF_OX_PART2
IX_CCCA_OX_PART4	IX_CSCW_OX_PART1	IX_LCMF_OX_PART2	IX_SLBF_OX_PART3
IX_CCCP_OX_PART1	IX_CSCW_OX_PART2	IX_LCMF_OX_PART3	IX_SLBF_OX_PART4
IX_CCCP_OX_PART2	IX_CSCW_OX_PART3	IX_LCMF_OX_PART4	IX_SLCA_OX_PART1
IX_CCCP_OX_PART3	IX_CSCW_OX_PART4	IX_LCNM_OX_PART1	IX_SLCA_OX_PART2
IX_CCCP_OX_PART4	IX_CSDP_OX_PART1	IX_LCNM_OX_PART2	IX_SLCA_OX_PART3
IX_CCDP_OX_PART1	IX_CSDP_OX_PART2	IX_LCNM_OX_PART3	IX_SLCA_OX_PART4
IX_CCDP_OX_PART2	IX_CSDP_OX_PART3	IX_LCNM_OX_PART4	IX_SLCK_OX_PART1
IX_CCDP_OX_PART3	IX_CSDP_OX_PART4	IX_LCSH_OX_PART1	IX_SLCK_OX_PART2
IX_CCDP_OX_PART4	IX_CSMF_OX_PART1	IX_LCSH_OX_PART2	IX_SLCK_OX_PART3
IX_CCMF_OX_PART1	IX_CSMF_OX_PART2	IX_LCSH_OX_PART3	IX_SLCK_OX_PART4
IX_CCMF_OX_PART2	IX_CSMF_OX_PART3	IX_LCSH_OX_PART4	IX_SLCP_OX_PART1
IX_CCMF_OX_PART3	IX_CSMF_OX_PART4	IX_MAFM_OX_PART1	IX_SLCP_OX_PART2
IX_CCMF_OX_PART4	IX_CSNM_OX_PART1	IX_MAFM_OX_PART2	IX_SLCP_OX_PART3
IX_CCNM_OX_PART1	IX_CSNM_OX_PART2	IX_MAFM_OX_PART3	IX_SLCP_OX_PART4
IX_CCNM_OX_PART2	IX_CSNM_OX_PART3	IX_MAFM_OX_PART4	IX_SLCW_OX_PART1
IX_CCNM_OX_PART3	IX_CSNM_OX_PART4	IX_MAMF_OX_PART1	IX_SLCW_OX_PART2
IX_CCNM_OX_PART4	IX_CSSH_OX_PART1	IX_MAMF_OX_PART2	IX_SLCW_OX_PART3
IX_CCSH_OX_PART1	IX_CSSH_OX_PART2	IX_MAMF_OX_PART3	IX_SLCW_OX_PART4
IX_CCSH_OX_PART2	IX_CSSH_OX_PART3	IX_MAMF_OX_PART4	IX_SLDP_OX_PART1
IX_CCSH_OX_PART3	IX_CSSH_OX_PART4	IX_MANM_OX_PART1	IX_SLDP_OX_PART2
IX_CCSH_OX_PART4	IX_LCBF_OX_PART1	IX_MANM_OX_PART2	IX_SLDP_OX_PART3
IX_CSAB_OX_PART1	IX_LCBF_OX_PART2	IX_MANM_OX_PART3	IX_SLDP_OX_PART4
IX_CSAB_OX_PART2	IX_LCBF_OX_PART3	IX_MANM_OX_PART4	IX_SLMF_OX_PART1
IX_CSAB_OX_PART3	IX_LCBF_OX_PART4	IX_NAME_OX_PART1	IX_SLMF_OX_PART2
IX_CSAB_OX_PART4	IX_LCCA_OX_PART1	IX_NAME_OX_PART2	IX_SLMF_OX_PART3
IX_CSAE_OX_PART1	IX_LCCA_OX_PART2	IX_NAME_OX_PART3	IX_SLMF_OX_PART4
IX_CSAE_OX_PART2	IX_LCCA_OX_PART3	IX_NAME_OX_PART4	IX_SLNM_OX_PART1
IX_CSAE_OX_PART3	IX_LCCA_OX_PART4	IX_NAMF_OX_PART1	IX_SLNM_OX_PART2
IX_CSAE_OX_PART4	IX_LCCK_OX_PART1	IX_NAMF_OX_PART2	IX_SLNM_OX_PART3

R4.4 DB2 TDR Patch 4.4.0.2 Partitioned Upgrade Instructions

IX_CSBF_OX_PART1	IX_LCCK_OX_PART2	IX_NAMF_OX_PART3	IX_SLNM_OX_PART4
IX_CSBF_OX_PART2	IX_LCCK_OX_PART3	IX_NAMF_OX_PART4	IX_SLSH_OX_PART1
IX_CSBF_OX_PART3	IX_LCCK_OX_PART4	IX_NAMO_OX_PART1	IX_SLSH_OX_PART2
IX_CSBF_OX_PART4	IX_LCCP_OX_PART1	IX_NAMO_OX_PART2	IX_SLSH_OX_PART3
IX_CSCA_OX_PART1	IX_LCCP_OX_PART2	IX_NAMO_OX_PART3	IX_SLSH_OX_PART4

- Backup the TDR database.

Post Install instructions:

- Review all log files for errors

Steps to Install the patch:

- Extract the tar/gunzip the file tdr_db2_range_upgrade_4.4.0.2.tar.gz
- cd to the patches directory

```
cd sasfmc/db2/tdr/patches/patch_4.4.0.2/Partitioned
```

- Run:

```
db2 connect to <dbname> user <username>
db2 set current schema <schema_owner>
db2 set current path <schema_owner>,sysibm,sysfun
```

Modify Transaction tables to support MSG API version 04.04.03. Note, the ATTACH_PARTITION Stored Procedure is called to attach the partition, prior to applying the table changes. **REORG Statements will be executed**

```
db2 -tvf step_1_alter_transactions.ddl > step_1_alter_transactions.log
*** Check Log file for errors ****
```

#This script generates the ALTER TABLE ... DETACH PARTITION statements required to create the detached table, with the transaction table structure changes. **NOTE: The output of this script must be executed**

```
db2 -twxf step_2_generate_base_txn_table_detach_stmts.sql > base_txn_table_detach_stmts.sql
db2 -tvf base_txn_table_detach_stmts.sql > base_txn_table_detach_stmts.log
*** Check Log file for errors ****
```

This script performs the necessary steps to rename and alter the YXX tables to IXX. Note, the ATTACH_PARTITION Stored Procedure is called to attach the partition, prior to applying the table changes **REORG Statements will be executed**

```
db2 -tvf step_3_change_yxx_to_ixx.ddl > step_3_change_yxx_to_ixx.log
*** Check Log file for errors ****
```

#This script generates the ALTER TABLE ... DETACH PARTITION statements required to create the Detached I## table, after the rename and structure changes. **NOTE: The output of this script must be executed.**

```
db2 -twxf step_4_create_i##_detach_stmts.sql > i##_detach_stmts.sql
db2 -tvf i##_detach_stmts.sql > i##_detach_stmts.log
*** Check Log file for errors ****
```

Create new OXX tables. The file will create the OXX tables with 3 daily partitions. The partition ranges are based on the CURRENT_TIMESTAMP value, at execution time. **NOTE: The file should be modified to support the number of partitions and partition granularity. Also, this file must be modified to include the correct tablespace names, if the Preinstall Instructions are not followed.**

```
db2 -td@ -f step_5_create_oxx_tables.ddl > step_5_create_oxx_tables.log
*** Check Log file for errors ****
```

R4.4 DB2 TDR Patch 4.4.0.2 Partitioned Upgrade Instructions

Create new OXX table indexes

```
db2 -tvf step_6_create_oxx_indexes.ddl > step_6_create_oxx_indexes.log
```

*** Check Log file for errors ****

Create new OXX table Primary Key constraints

```
db2 -tvf step_7_create_oxx_constraints.ddl > step_7_create_oxx_constraints.log
```

*** Check Log file for errors ****

Applies authorizations for new tables and functions

```
db2 -tvf step_8_new_authorizations.sql > step_8_new_authorizations.log
```

*** Check Log file for errors ****

This file contains the ALTER TABLE...DETACH PARTITION statements to create the Detach table for the OXX tables. **NOTE: if step 5 is modified, this script will need to be modified to support the correct partition name and detach table name.**

```
db2 -tvf step_9_oxx_table_detach_stmts.ddl > step_9_oxx_table_detach_stmts.log
```

*** Check Log file for errors ****

This script generates the authorizations required to run the rolling partition job. This includes tablespace usage authorizations and detach table authorizations. **NOTE: The output of this script must be executed.**

```
db2 -twxf step_10_generate_authorizations.sql > generate_authorizations.sql
```

```
db2 -tvf generate_authorizations.sql > generate_authorizations.log
```

*** Check Log file for errors ****

This file inserts the FMX_PARTITION_DEFINITION table for the newly created OXX partitioned tables. **NOTE: if step 5 is modified, this script will need to be modified to support the correct partition count.** Add new version numbers for SAS FM 4.4 M0 HF2 and MSG API 04.04.03

```
db2 -tvf step_11_dml.sql > step_11_dml.log
```

*** Check Log file for errors ****