

SAP Note

**3085799 - A Temporary Table with Inconsistent Metadata is Created due to Missing Check for Invalid CREATE TABLE Statement****Version** 22 **Validity:** 19.11.2021 - active**Language** English

Internal Memo

09.11.2021 03:03:39 Jinsol Kim

Upgrading the system to one of solution revisions will not resolve inconsistency in metadata of such a spurious table created in one of affected revisions. In order to remove it completely, please use SAP internal procedure CHECK_CATALOG_DEV as follows:

```
CALL SYS.CHECK_CATALOG_DEV('DROP', "", "", 'OID:<table_oid> CASCADE'); -- replace <table_oid> with object oid of the table to be dropped (no comma ',' contained in <table_oid>)
```

Object oid of a table can be found by executing 'SELECT * FROM OBJECTS WHERE SCHEMA_NAME = <SCHEMA_NAME> AND OBJECT_NAME = <TABLE_NAME>'.

Header Data

Released On 19.11.2021 18:27:14 **By** Beate Groetschnig (I035208)
Release Status Released for Customer
Component HAN-DB SAP HANA Database [Display ACRF Content](#)
Priority Correction with high priority
Responsible Jinsol Kim (I533393)
Processor Jinsol Kim (I533393)
Category Program error
Relevant for Translation No

Symptom

An invalid DDL statement to create a temporary table is not blocked and inconsistent metadata is written to the created table. Such inconsistent metadata can be checked through monitoring view **M_TEMPORARY_TABLES**.

For example,

1. SET SCHEMA TEST;
2. CREATE COLUMN TABLE TT1 (A INT);
3. Following DDL commands are executed to create TT2 or #TT2:

	DDL Command	Is DDL valid	Is (#)TT2 created	Is (#)TT2 local	Is (#)TT2 temporary	Is (#)TT2 logged
1	CREATE GLOBAL TEMPORARY COLUMN TABLE TT2 LIKE TT1 NO LOGGING;	no	yes	yes	yes	no
2	CREATE GLOBAL TEMPORARY COLUMN TABLE TT2 LIKE TT1;	yes	yes	no (global)	yes	yes

3	CREATE LOCAL TEMPORARY COLUMN TABLE #TT2 LIKE TT1 NO LOGGING;	no	yes	yes	yes	no
4	CREATE LOCAL TEMPORARY COLUMN TABLE #TT2 (A INT) NO LOGGING;	no	no	n/a	n/a	n/a
5	CREATE GLOBAL TEMPORARY COLUMN TABLE TT2 (A INT) NO LOGGING;	no	no	n/a	n/a	n/a

There are certain rules regarding SQL CREATE TABLE statements for a 'TEMPORARY' table in SAP HANA:
(Please refer to SAP KBA [2800007](#) for more detail about HANA Temporary Tables)

1. 'LOCAL TEMPORARY' table name must have a prefix '#'
2. 'NO LOGGING' option is disallowed for a table of 'TEMPORARY' type

According to these rules, command 1 and 3 are invalid so expected to fail, but both executions succeed and create TT2 and #TT2 respectively.

As a side effect of this illegitimate creation, you might not be able to drop the spurious table completely with SQL DROP TABLE statement (especially the table created by command 1).

[Reproducible Scenario]

1. CREATE COLUMN TABLE TT1 (A INT);
2. CREATE **GLOBAL** TEMPORARY COLUMN TABLE TT2 LIKE TT1 NO LOGGING;
3. SELECT SCHEMA_NAME, TABLE_NAME, IS_TEMPORARY, TEMPORARY_TABLE_TYPE FROM M_TEMPORARY_TABLES WHERE TABLE_NAME = 'TT2';

=>

SCHEMA_NAME	TABLE_NAME	IS_TEMPORARY	TEMPORARY_TABLE_TYPE
TEST	TT2	TRUE	LOCAL

The result shows that table TT2 is of type **LOCAL** (**GLOBAL** expected).

4. DROP TABLE TT2;

- (Case1) DROP command fails with an error similar to the following:

Could not execute 'drop table TT2' in 389 ms 551 µs .
[129]: transaction rolled back by an internal error: general error (no further information available);
\$[1]\$=nameserver did not return server for \$indexName\$; \$indexName\$=<SID>::TEST:TT2 (t 7050)

OR

- (Case2) DROP command is executed seemingly successfully like below:

Statement 'drop table TT2'
successfully executed in 10 ms 417 µs (server processing time: 7 ms 996 µs) - Rows Affected: 0

In this case, please execute 'SELECT * FROM M_TEMPORARY_TABLES' again. If it displays an entry corresponding to the table that you tried to drop, it indicates that it has not been removed completely.

Other Terms

Temporary Table, Global Table, Local Table, DDL, No Logging Option

Reason and Prerequisites

Issue number 271443

Reason:

Due to a programming error in SAP HANA, 'NO LOGGING' option is not blocked for creating a 'TEMPORARY' table.

Additionally, if both 'NO LOGGING' and 'GLOBAL' are marked as true, the table type is unexpectedly mapped to 'LOCAL' as a result of BITAND operation. This is why the resulting table at command 1 is not 'GLOBAL' but 'LOCAL'.

Affected Releases:

- SAP HANA 1:
 - All revisions
- SAP HANA 2:
 - Revisions of SPS00 - SPS04
 - Revisions <= 058.00 (SPS05)

Prerequisites:

- The table is created via 'LIKE' clause

Solution

Apply one of the following SAP HANA Revisions

- SAP HANA 2:
 - Revisions >= 059.00 (SPS05)
 - or higher
- or higher

Workaround:

Upgrading the system to one of solution revisions will not resolve inconsistency in metadata of such a spurious table created in one of affected revisions. In order to remove it completely, please open a ticket with SAP HANA Development Support team for technical support.

Validity

Software Component	From Rel.	To Rel.	And Subsequent	
HDB	2.00	2.00		

Support Packages & Patches

Support Package Patches

Software Component	Support Package	Patch Level
SAP HANA DATABASE 2.0	SP059	000000

References

This document refers to:

SAP Knowledge Base Articles

2800007 HAN-DB [FAQ: SAP HANA Temporary Tables](#)

SAP Notes

2945435 HAN-DB [Known issues detected in SAP HANA 2 SPS05](#)

2784704 HAN-DB [Known issues detected in SAP HANA 2 SPS04](#)

2628684 HAN-DB [Known issues detected in SAP HANA 2 SPS03](#)

2525424 HAN-DB [Known issues detected in SAP HANA 2 SPS02](#)

2462139 HAN-DB [Known issues detected in SAP HANA 2 SPS01](#)

2432112 HAN-DB [Known issues detected in SAP HANA 2 SPS00](#)

2380229 HAN-DB [SAP HANA Platform 2.0 - Central Note](#)

2325090 HAN-DB [Known issues detected in SAP HANA 1 SPS12](#)

2265103 HAN-DB [Known issues detected in SAP HANA 1 SPS11](#)

2184212 HAN-DB [Known issues detected in SAP HANA 1 SPS10](#)

2093754 HAN-DB [Known issues detected in SAP HANA 1 SPS09](#)

2066225 HAN-DB [Known issues detected in SAP HANA 1 SPS08](#)

ServiceNow Case

This document is referenced by:

SAP Notes (1)

3102609 HAN-DB [SAP HANA 2 SPS05 Revision 059.00](#)

ServiceNow Case (1)

Number	Year	Text	Status	Processor	Customer Number	Customer