

## SAP Note

**3301379 - Indexserver Crash in Evaluator::ThreeCode::run****Version 3****Validity:**

15.03.2023 - active

**Language** English

## Header Data

<b>Released On</b>	15.03.2023 12:26:34 <b>By</b> Beate Groetschnig (I035208)
<b>Release Status</b>	Released for Customer
<b>Component</b>	HAN-DB-ENG SAP HANA DB Engines <a href="#">Display ACRF Content</a>
<b>Priority</b>	Correction with high priority
<b>Responsible</b>	Jinsol Kim ( I533393 )
<b>Processor</b>	Beate Groetschnig ( I035208 )
<b>Category</b>	Program error
<b>Relevant for Translation</b>	No

## Symptom

You observe Indexserver crashes with a callstack similar to the following:

```

1: Evaluator::ThreeCode::run
2: AttributeEngine::Evaluator::run
3: AttributeEngine::ExpressionColumnBase<TrexTypes::StringAttributeValue>::_evaluate
4: AttributeEngine::ExpressionColumnBase<TrexTypes::StringAttributeValue>::get
5:
TrexCommonObjects::WrapperColumnBaseNoDef<TrexTypes::StringAttributeValue>::materialize
{lambda}::operator()
6:
TrexCommonObjects::WrapperColumnBaseNoDef<TrexTypes::StringAttributeValue>::materialize
7: AttributeEngine::createExpressionColumnEx
8: AttributeEngine::createExpressionColumn
9: JoinEvaluator::addExpressions
10: JoinEvaluator::JEAssembleResults::executePopConst
11: JoinEvaluator::JEPlanOperation::executePop
12: Executor::X2::runPopTask
13: Executor::X2::runPopJob
14: Executor::X2Job::run
15: Execution::JobObjectImpl::run
16: Execution::JobWorker::runJob
17: Execution::JobWorker::run
18: Execution::Thread::staticMainImp
19: Execution::pthreadFunctionWrapper

```

## Other Terms

## Constant Predicate

# Reason and Prerequisites

Issue number 301624

### Reason:

A constant predicate is an expression that can evaluate to a constant boolean value (either 'True' or 'False') at compile time. For example, consider SQL statement below:

```
> SELECT * FROM OBJECTS WHERE (OBJECT_NAME = 'test') OR (10 = 10) OR ('ABC' = 'DEF');
```

This query has three predicates as follows:

- 1) OBJECT\_NAME = 'test'
- 2) 10 = 10
- 3) 'ABC' = 'DEF'

While the first predicate requires each data in column "OBJECT\_NAME" to be checked with text 'test' at execution time, the second and third can simply be calculated to be 'True' and 'False' at compile time respectively. Such predicates are called "constant predicate".

Due to a programming error in SAP HANA, access to an SQLScript function in IF/ELSE branches becomes unavailable as a result of unexpected removal of an unnecessary branch and objects in it while processing a constant predicate condition.

### Affected Releases:

- SAP HANA 1:
  - All revisions
- SAP HANA 2:
  - Revisions of SPS00 - SPS05
  - Revisions <= 066.00 (SPS06)

### Prerequisites:

- A SQLScript function is used in IF/JF-ELSE expressions **AND**
- Constant predicate is involved either explicitly or implicitly
  - By "Explicitly" it means constant predicate is present in the original query
  - By "Implicitly" it means constant predicate is introduced as a result of query rewriting (i.e, internal filter push-down)

# Solution

Apply one of the following SAP HANA Revisions:

- SAP HANA 2:
  - Revisions  $\geq$  067.00 (SPS06)
  - or higher
- or higher

### Workaround:

- There is no workaround available

## Validity

Software Component	From Rel.	To Rel.	And Subsequent
HDB	1.00	1.00	
	2.00	2.00	

## Support Packages & Patches

### Support Package Patches

Software Component	Support Package	Patch Level
SAP HANA DATABASE 2.0	SP067	000000

## References

### This document refers to:

#### SAP Notes

3128366 HAN-DB [Known issues detected in SAP HANA 2 SPS06](#)  
 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:

**Customer Incident (1)**

Number	Year	Title	Status	Processor	Customer Number	Customer Name
0000048145	2023	<a href="#">Tenant DB can't connect. Crash dump occurs.</a>	Restricted	Jinsol Kim	0000289563	Daewoo Shipbuilding & Marine Engine

**SAP Notes (1)**

3284085 HAN-DB [SAP HANA 2 SPS06 Revision 067.00](#)

**ServiceNow Case (1)**

Number	Year	Text	Status	Processor	Customer Number	Customer
0000048145	2023	<a href="#">Tenant DB can't connect. Crash dump occurs.</a>	Closed	Jinsol Kim (I533393)		