

# The SBO\_SP\_TransactionNotification Problem

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This document explains the problems you can experience due to misconfigurations of the SAP provided Stored Procedure SBO\_SP\_TransactionNotification

## Table of Content

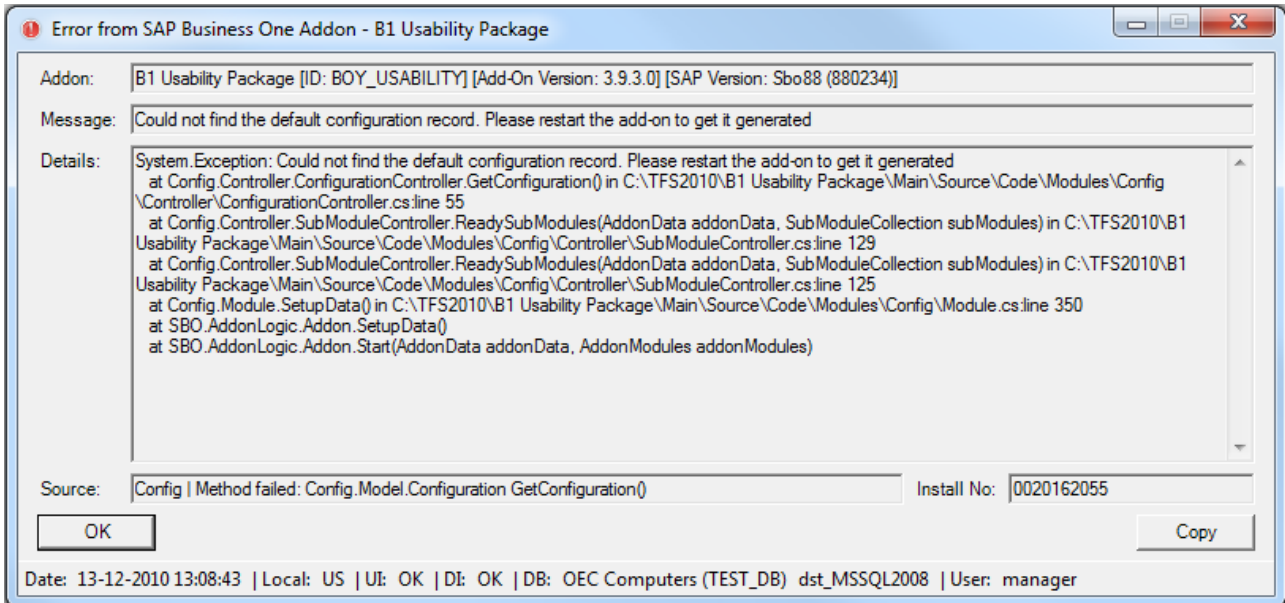
The problem .....	2
Problem 1: Main window configuration problem .....	2
Problem 2: Configuration add problem.....	3
Problem 3: You get the following error during startup.....	3
The solution .....	4
How to get to the problem.....	4
How to determine what the problem is and fix it .....	7
1. Incorrect use of the SBO_SP_TransactionNotification by other add-ons/consultants .....	7
2. Incorrect object_type (Normally only an issue if the database have been created prior to SBO2005) .....	12
New in 8.8: SBO_SP_PostTransactionNotice.....	12
More information .....	13

## The problem

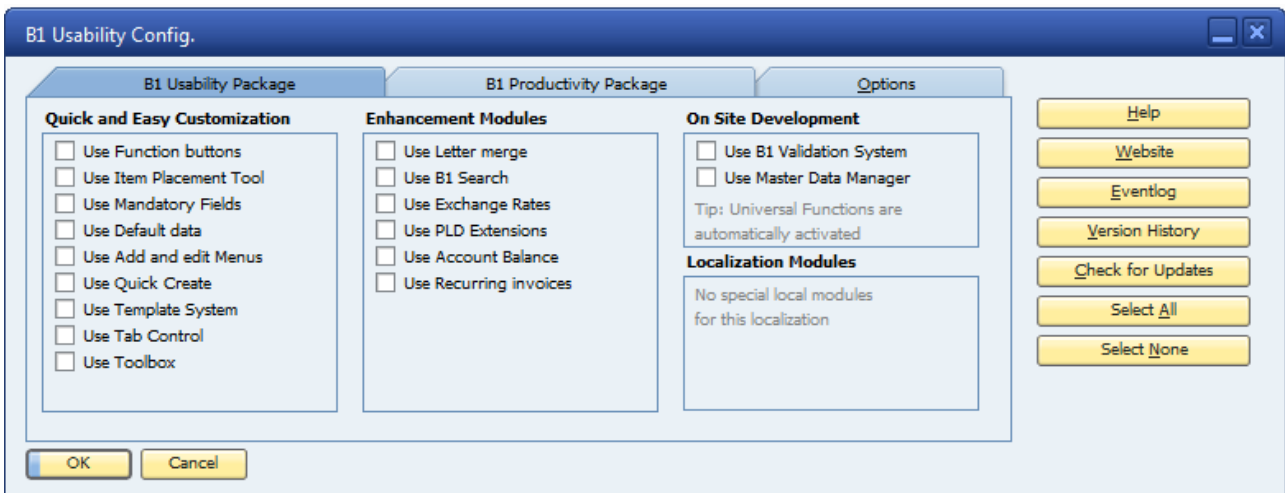
I receive one of the following 3 errors:

### Problem 1: Main window configuration problem

You get the following error during startup:



Or you are able to show the B1UP main configuration, but unable to check any of the checkboxes



## Problem 2: Configuration add problem

When trying to add, update or remove a configuration in B1 Usability Package (Or any other add-on using the technique called Userdefined Object):

**[Microsoft][SQL Native Client][SQL Server]Error converting data type nvarchar to int.(CINF)**

Buttons - Configuration

Code:  Users (Empty = All)   Include users  Exclude users

Formtype:

Description:

Formwidth:  (Use only on sizeable forms)

Formheight:  (Use only on sizeable forms)

Buttonwidth:  (If nothing entered: 100 pixel)

Buttons (Buttons without name is not shown)

	Item	Col.	Iden.	Arguments	Universal Function
1: <input type="text" value="My new button"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
2: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
3: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
4: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
5: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
6: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
7: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
8: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
9: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>
10: <input type="text"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="text" value="Formatted Search"/>	<input type="text"/>

Active

12/13/10

**[Microsoft][SQL Server Native Client 10.0][SQL Server]Conversion failed when converting the nvarchar value 'BOY\_BUTTON\_UDO' to data type int. (CINF)**

## Problem 3: You get the following error during startup

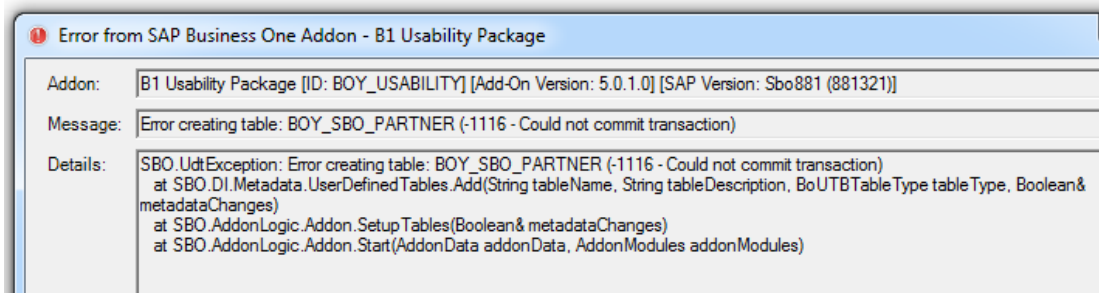
Error from SAP Business One Addon - B1 Usability Package

Addon:

Message:

Details:

## Problem 4: You get the following error during startup

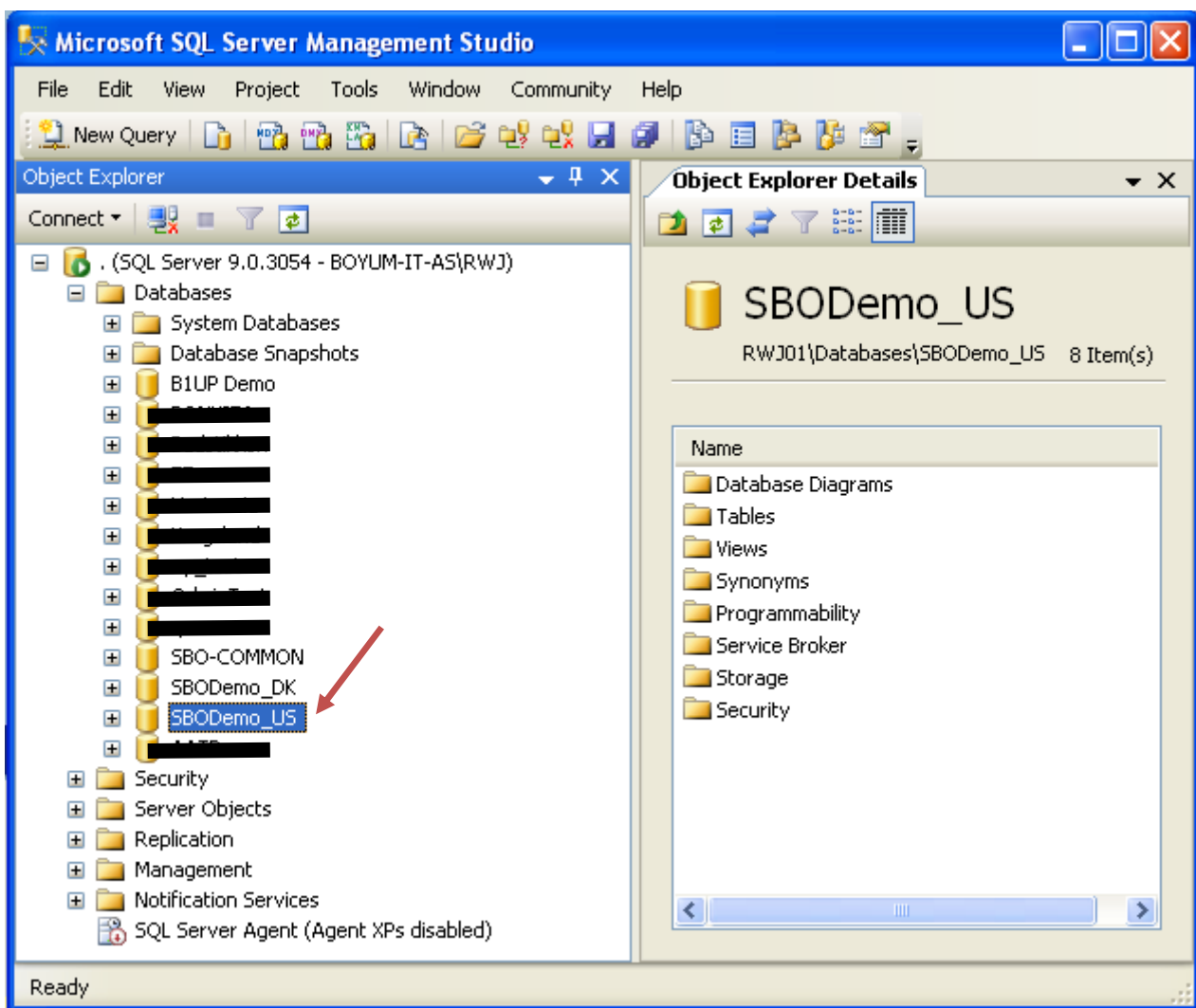


*(The table mentioned in the error might be different, and it can also refer to an issue adding a UDF, KEY or UDO, but since tables are created first in add-ons it is most likely to see the issue with a table)*

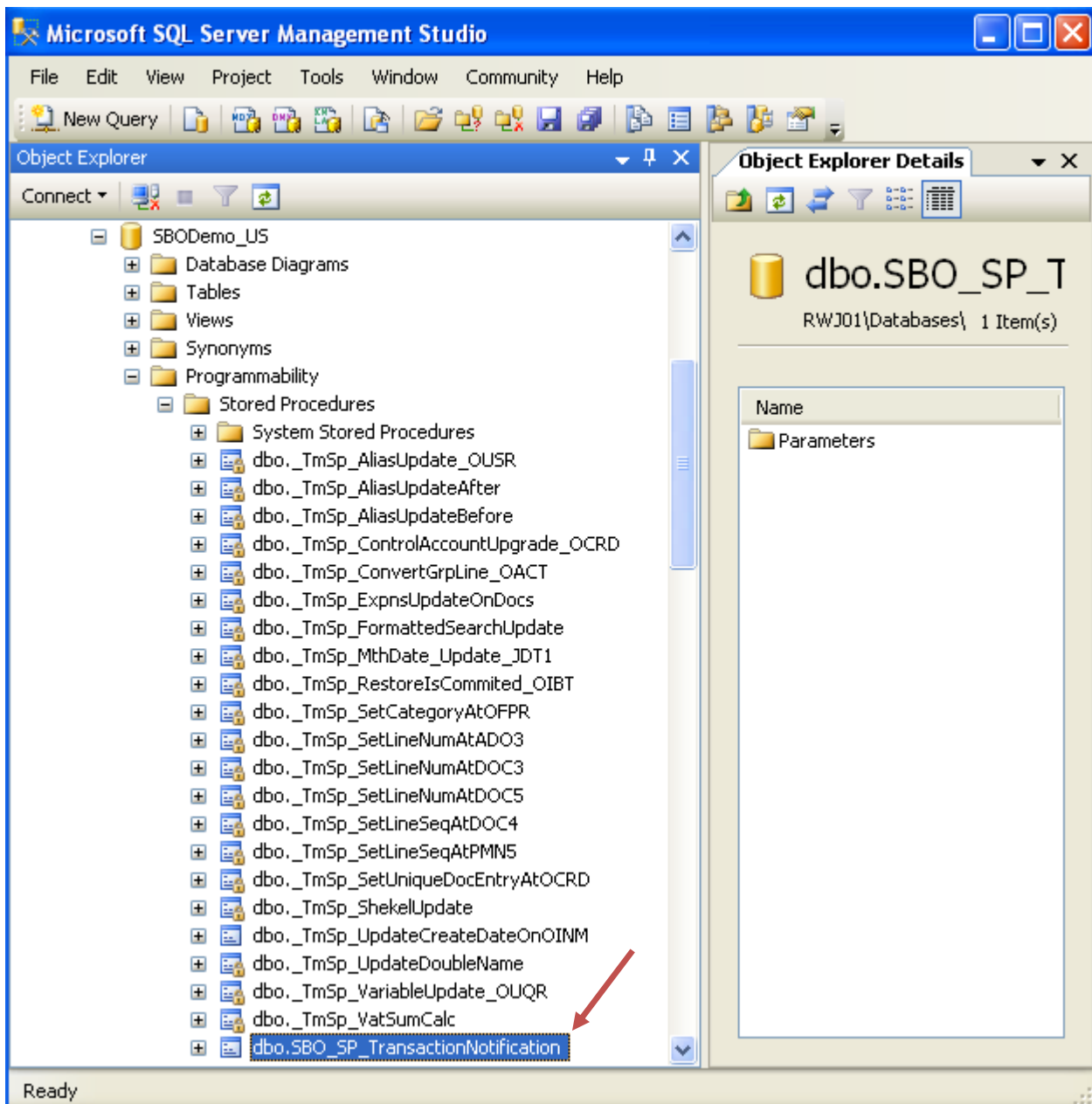
## The solution

### How to get to the problem

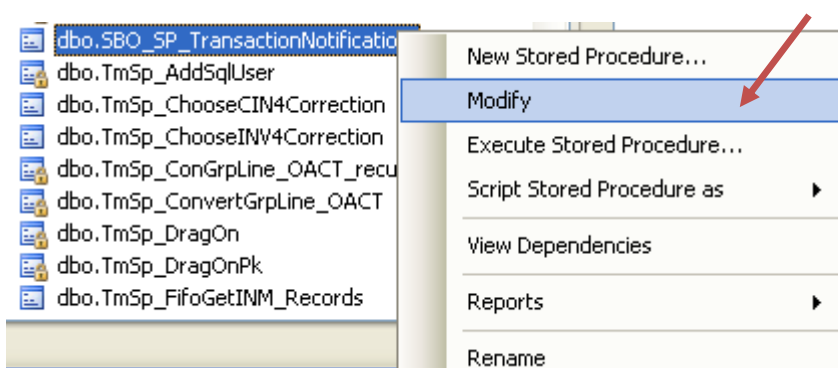
On your SAP server go to the SQL Server Management Studio



Find the database in question and navigate to the Programmability > Stored Procedures Folder



Find the stored procedure called dbo.SBO\_SP\_TransactionNotification; right click it and choose modify.



This will open up the code to the stored procedure that holds the problem. The following screenshot show the code without any modifications .

```
(local).SBODem... SQLQuery2.sql | Object Explorer Details
USE [SBODemo_US]
GO
/***** Object:  StoredProcedure [dbo].[SBO_SP_TransactionNotification]    Script Date:
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
ALTER proc [dbo].[SBO_SP_TransactionNotification]

@object_type nvarchar(20),          -- SBO Object Type
@transaction_type nchar(1),       -- [A]dd, [U]pdate, [D]elete, [C]ancel, C[L]ose
@num_of_cols_in_key int,
@list_of_key_cols_tab_del nvarchar(255),
@list_of_cols_val_tab_del nvarchar(255)

AS

begin

-- Return values
declare @error int                -- Result (0 for no error)
declare @error_message nvarchar(200) -- Error string to be displayed
select @error = 0
select @error_message = N'Ok'

-----

-- ADD YOUR CODE HERE

-----

-- Select the return values
select @error, @error_message

end
```

NB: AS THIS IS A LEGAL STORED PROCEDURE TO MODIFY THERE MIGHT BE SOMETHING IN THE ADD YOUR CODE HERE SECTION DEPENDING ON THE OTHER ADD-ONS YOU ARE RUNNING.

## How to determine what the problem is and fix it

There can be one of two problems wrong with the code (or in some cases both)

NB: BOYUM IT A/S CANNOT TAKE ANY RESPONSIBILITY IN THE CHANGES YOU MAKE IN THE SBO\_SP\_TRANSACTIONNOTIFICATION SINCE EACH CASE IS UNIQUE, AND YOU SHOULD ALWAYS MAKE A BACKUP OF THE ORIGINAL BEFORE PROCEEDING.

### 1. Incorrect use of the SBO\_SP\_TransactionNotification by other add-ons/consultants

This can only happen in the case where you find code in the ADD YOU CODE HERE section. Some add-ons add code here to implement their features and also some consultants use it for custom modification.

IF YOU KNOW WHO ARE RESPONSIBLE FOR THE CUSTOM CODE, YOU SHOULD CONTACT THEM AND CONFRONT THEM WITH THE ISSUE. ELSE YOU CAN SAVE AND SEND A COPY OF YOUR CODE OR TAKE A SCREENSHOT TO BOYUM IT SUPPOT AT [support@boyum-it.com](mailto:support@boyum-it.com) AND WE WILL TAKE A LOOK AT IT AND ADVISE YOU ON THE MISCONFIGURATION.

**Sample 1: The problem**

This is a sample of a SBO\_SP\_transactionNotification that have been modified incorrectly by a consultant that incorrectly misunderstood the type of the @object\_type variable.

```

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
ALTER proc [dbo].[SBO_SP_TransactionNotification]
@object_type nvarchar(20),          -- SBO Object Type
@transaction_type nchar(1),        -- [A]dd, [U]pdate, [D]elete, [C]ancel, C[L]ose
@num_of_cols_in_key int,
@list_of_key_cols_tab_del nvarchar(255),
@list_of_cols_val_tab_del nvarchar(255)
AS
begin
-- Return values
declare @error int                -- Result (0 for no error)
declare @error_message nvarchar (200)  -- Error string to be displayed
select @error = 0
select @error_message = N'Ok'
-----

IF(@object_type = 13) ← Issue
BEGIN
    --Do stuff on A/R Invoice
END

IF(@object_type = 17) ← Issue
BEGIN
    --Do stuff on Sales Order
END

-----

-- Select the return values
select @error, @error_message
end

```

As you can see, there have been added a few SQL-IF's that check if the @object\_type is of type A/R Invoice ('13') or if the object\_type is a sales order ('17'), but the consultant expected that all values of @object\_type was numeric (a number), but it is not for Userdefined Objects and User-defiend tables (Indicated by the fact that object\_type is of type nvarchar(20) and not INT).



**Sample 1: How to fix it**

The problem here is that @object\_type is assumed numeric and not alphanumeric. 13 and 17 are inserted as numeric values and therefore a conversion will take place every time the line is executed. This automatic conversion will work for types like A/R Invoice (which @object\_type is '13') but for custom object\_types like B1UP - Function Buttons (which @object\_type is 'BOY\_BUTTONS') this conversion will fail.

The fix how-ever is quite easy. All you need to do is assure that all checks are done on an alphanumeric level.

Correct	Incorrect
<pre> IF(@object_type = '13') BEGIN     --Do stuff on A/R Invoice END  IF(@object_type = '17') BEGIN     --Do stuff on Sales Order END </pre> <p><i>All we do is add '' around the values</i></p>	<pre> IF(@object_type = 13) BEGIN     --Do stuff on A/R Invoice END  IF(@object_type = 17) BEGIN     --Do stuff on Sales Order END </pre>

If you find it hard to find all instances in a very long modification you can alternative do the following

Correct	Incorrect
<pre> IF(ISNUMERIC(@object_type) = 1) BEGIN      IF(@object_type = 13)     BEGIN         --Do stuff on A/R Invoice     END      IF(@object_type = 17)     BEGIN         --Do stuff on Sales Order     END  END </pre> <p><i>Here we surround the 'Incorrect' code to only run if the object_type in fact is numeric</i></p>	<pre> IF(@object_type = 13) BEGIN     --Do stuff on A/R Invoice END  IF(@object_type = 17) BEGIN     --Do stuff on Sales Order END </pre>

### Sample 2: The problem

This is a sample of a SBO\_SP\_transactionNotification that have been modified incorrectly by another add-on (In this case a Praxis Add-on).

```

SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
ALTER proc [dbo].[SBO_SP_TransactionNotification]
@object_type nvarchar(20),          -- SBO Object Type
@transaction_type nchar(1),        -- [A]dd, [U]pdate, [D]elete, [C]ancel, C[L]ose
@num_of_cols_in_key int,
@list_of_key_cols_tab_del nvarchar(255),
@list_of_cols_val_tab_del nvarchar(255)
AS
begin
-- Return values
declare @error int                -- Result (0 for no error)
declare @error_message nvarchar (200)  -- Error string to be displayed
select @error = 0
select @error_message = N'Ok'
-----
INSERT INTO PRX Transaction Queue (
    object_type,
    transaction_type,
    num_of_cols_in_key,
    list_of_key_cols_tab_del,
    list_of_cols_val_tab_del
) VALUES (
    @object_type,
    @transaction_type,
    @num_of_cols_in_key,
    @list_of_key_cols_tab_del,
    @list_of_cols_val_tab_del
)
-----
-- Select the return values
select @error, @error_message
end

```

← The issue

As you can see, there have been added an extra INSERT SQL statement and that is the issue since it is not able to accept the data given to it.

**Sample 2: How to fix it**

Since the INSERT SQL here was not expecting alphanumeric we need to make sure that it is only executed when the @object\_type is numeric.

Correct	Incorrect
<pre data-bbox="145 443 783 1086"> IF (ISNUMERIC(@object_type) = 1) BEGIN      INSERT INTO PRX_Transaction_Queue (         object_type,         transaction_type,         num_of_cols_in_key,         list_of_key_cols_tab_del,         list_of_cols_val_tab_del     ) VALUES (         @object_type,         @transaction_type,         @num_of_cols_in_key,         @list_of_key_cols_tab_del,         @list_of_cols_val_tab_del     )  END </pre> <p data-bbox="169 1099 783 1158"><i>Here we surround the 'Incorrect' code to only run if the object_type in fact is numeric</i></p>	<pre data-bbox="831 555 1433 987"> INSERT INTO PRX_Transaction_Queue (     object_type,     transaction_type,     num_of_cols_in_key,     list_of_key_cols_tab_del,     list_of_cols_val_tab_del ) VALUES (     @object_type,     @transaction_type,     @num_of_cols_in_key,     @list_of_key_cols_tab_del,     @list_of_cols_val_tab_del ) </pre>

**Sample 3: The Problem**

If there is an incorrect reference to a non-existing database object in the code this can cause an issue as well.

```

-- ADD YOUR CODE HERE

SELECT * FROM SOME_TABLE_THAT_DOES_NOT_EXIST

```

Here there are code that refer to a table that does not exist (Perhaps it existed at some point but was later removed but this modification referring to it was left there). In such a case no objects can be added at all in the SAP database and this code should be removed in 99% of the cases.

In very rare case this has been added as an add-on is about to make the tables but due to a change in SBO8.81 this modification can also affect the creation of the tables as the action of creating a table now

also is sent through the SBO\_SP\_TransactionNotification and you end you with Problem 3 failing to create the user table/field/key/udo.

### Sample 3: The Fix

In such a case the ISNUMERIC(@object\_Type) trick is not enough as UDT/UDF/UDK/UDO have objecttypes '153', '152', '193' and '206' that are all numeric and also records are added to these tables (using @object\_type '137'). For that reason you need to something like this if you can't remove the missing object reference.

```

-- ADD YOUR CODE HERE

IF((ISNUMERIC(@object_type) = 1 AND @object_type NOT IN ('153', '152', '193', '206', '137')))
BEGIN
    SELECT * FROM SOME_TABLE_THAT_DOES_NOT_EXIST
END

```

## 2. Incorrect object\_type (Normally only an issue if the database have been created prior to SBO2005)

Please find the following line of code

```
@object_type nvarchar(20),          -- SBO Object Type
```

And make sure that the type is “nvarchar(20)”... if there instead of “nvarchar(20)” shows “int” you have found the problem.

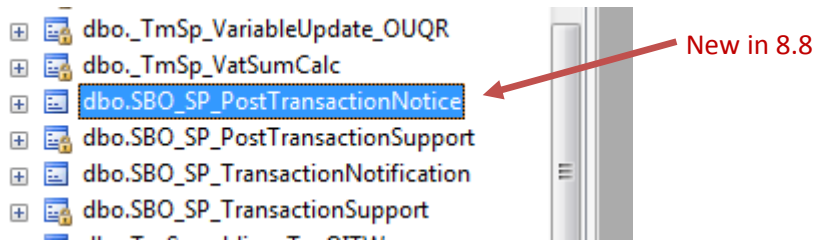
Correct	Incorrect
@object_type nvarchar(20), @transaction_type nchar(1), @num_of_cols_in_key int, @list_of_key_cols_tab_del nvarchar(255), @list_of_cols_val_tab_del nvarchar(255)	@object_type int, @transaction_type nchar(1), @num_of_cols_in_key int, @list_of_key_cols_tab_del nvarchar(255), @list_of_cols_val_tab_del nvarchar(255)

To fix the problem simply replace the “int” with “nvarchar(20)” and

- Press F5 or the execute button to apply the change.

## New in 8.8: SBO\_SP\_PostTransactionNotice

Prior to SAP Business One 8.8 it only place you were allowed to add SQL was the SBO\_SP\_TransactionNotification. In SBO 8.8 and higher SAP now also have a variant of the "SBO\_SP\_TransactionNotification" called "SBO\_SP\_PostTransactionNotice"



This stored procedure run after the normal "SBO\_SP\_TransactionNotification", but other than that they both have the same structure and can both hold the issue. If you have the issues mentioned in this document and that trying the above fixes you still have issue, you should check the "SBO\_SP\_PostTransactionNotice" for the same flaws using the same methods.

## More information

If you like to know more, please check out the following SAP notes describing the problem on <http://service.sap.com/notes>:

- Note number: 967470
- Note number: 1070297
- Note number: 841475

Detailed information about the SBO\_SP\_Transaction Notification can be found at:

(<https://www.sdn.sap.com/irj/servlet/prt/portal/prtroot/docs/library/uuid/e991e2b9-0901-0010-0395-ef5268b00aaf>)