



FAQs for Track Shipments Template App

SAP Business Network Global Track and Trace

October 2021

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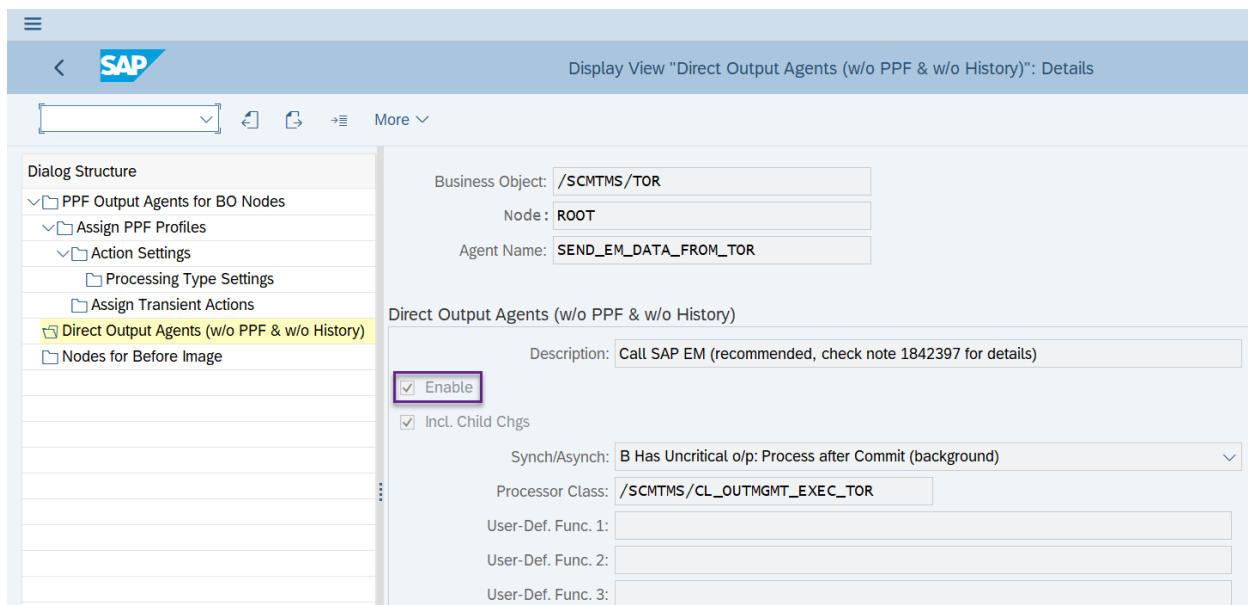
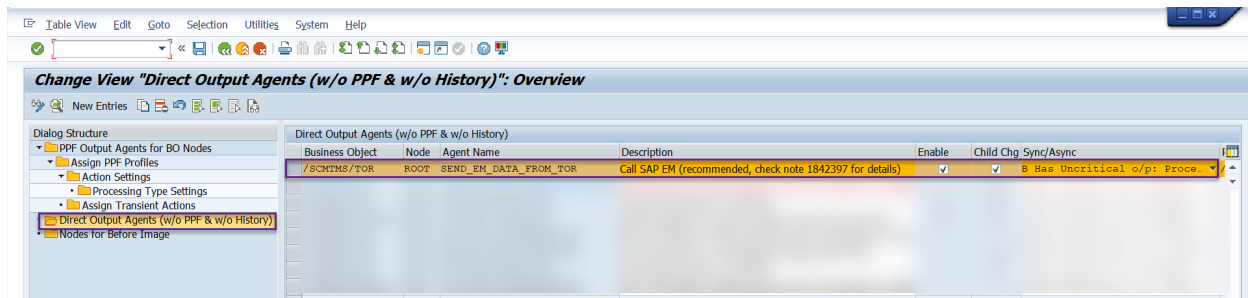
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1. After the configuration in GTT and SAP TM systems, we found that the freight unit / freight order / freight booking IDOC cannot be sent to the GTT system, how can we do the troubleshooting?

Step 1: Check the integration of SAP TM and SAP EM

The Post Processing Framework (PPF) is used to trigger the communication from SAP Transportation Management (SAP TM) to SAP Event Management (SAP EM). You need to maintain the output management adapter for this communication to work.

- Log onto SAP Business Client, enter T-code `SPRO` and then click [SAP Reference IMG](#) to open the [Display IMG](#) page. Go to node [Cross-Application Components -> Processes and Tools for Enterprise Applications -> Reusable Objects and Functions for BOPF Environment -> PPF Adapter for Output Management -> Maintain Output Management Adapter Settings](#).
- In the [Dialog Structure](#) section, choose [Direct Output Agents \(w/o PPF & w/o History\)](#).
- Choose the entry shown in the screenshot and enable it.



- In the [Dialog Structure](#) section, choose [Nodes for Before Image](#).

e. Create the following three entries:

Change View "Nodes for Before Image": Overview

Dialog Structure

- PPF Output Agents for BO Nodes
 - Assign PPF Profiles
 - Action Settings
 - Processing Type Settings
 - Assign Transient Actions
 - Direct Output Agents (w/o PPF & w/o History)
 - Nodes for Before Image

Nodes for Before Image

Business Object	Node	Sub Node Name
/SCMTMS/TOR	ROOT	EXECUTIONINFORMATION
/SCMTMS/TOR	ROOT	ITEM_TR
/SCMTMS/TOR	ROOT	STOP

Step 2: Check the trigger point of the generation of freight unit / freight order / freight booking IDOC

a. Go to T-code SE19, fill in the [Enhancement Implementation](#) with "ZSST_GTT_EI_SEND_TOR_DATA" and click [Display](#).

BADl Builder: Initial Screen for Implementations

Edit Implementation

☒ New BADl

Enhancement Implementation:

☐ Classic BADl

Implementation:

- b. Ensure that the Enhancement Implementation “ZSST_GTT_EI_SEND_TOR_DATA” is active. In the Enh. Implementation Elements tab, ensure that BAdI Implementation “ZSST_GTT_BI_SEND_TOR_DATA” is active.

The screenshot shows the SAP Enhancement Implementation ZSST_GTT_EI_SEND_TOR_DATA Display screen. The top bar includes the SAP logo and the title "Enhancement Implementation ZSST_GTT_EI_SEND_TOR_DATA Display". Below the title bar, there is a search field and a toolbar with various icons. The main content area is divided into two tabs: "Properties" and "Enh. Implementation Elements". The "Enh. Implementation Elements" tab is active, showing the BAdI Implementation "ZSST_GTT_BI_SEND_TOR_DATA" with a description "Implementation: Send TOR Data to Event Management". The "Runtime Behavior" section shows that the "Implementation is active" checkbox is checked, and the "Runtime Behavior" dropdown is set to "The implementation will be called". The "Properties of BAdI Definition" section shows the BAdI Definition Name as "/SCMTMS/SEND_TOR_DATA", the Description as "Send TOR Data to Event Management", the Interface as "/SCMTMS/IF_SEND_TOR_DATA", and the Instance Creation Mode as "No Reuse of BAdI Instance".

Step 3: Check the freight unit type settings

- a. On the IMG, go to SAP Transportation Management -> Transportation Management -> Planning -> Freight Unit -> Define Freight Unit Types.

- b. In the table, open the applicable freight unit type to be tracked with SAP Event Management.
 - In the [Integration Settings](#), fill in the [Application Obj.Type](#) field.

Integration Settings

Dangerous Goods Profile:

Customs Profile:

Application Obj.Type:

☐ BW Relevance

Note: the value of [Application Obj.Type](#) shown in the screenshot is just an example. Make sure the value you filled in is the same as the ones in the other two fields:

- [Appl.Obj.Type](#) field
 (Navigation Path: IMG->Integration with Other SAP Components->Interface to Global Track and Trace -> Define Application Interface, choose [Define Used Business Process Types](#), [Appl. Object Types](#) and [Event Types](#).
 In the table, choose [Business Process Type TMS_TOR](#) and click [Define Application Object Types](#).)

Display View "Define Application Object Types": Details

Bus. Proc. Type:

Appl. Obj. Type: Extract freight unit information to Global Track and Trace-Acc

Text:

[General Data](#) [Control Tables](#) [Object Identification](#) [Global Track & Trace Relevance](#) [Parameter Setup](#)

Sequencing / Destination

Seq. No.:

CI for GTT: CI For GTT SST Sample APP - Acceptance

- **Application Object Type** field in the “sof” model in the Manage Models app.

sof Active Edit Deploy Draft Runtime Deployed

Sales Order Fulfillment

Namespace: com.lbgngtsamples.gtt.app.sof Correlation Level: 5 Model Category: User Defined Model Cache: Off

Tracked Process Field Type Pool Event Type Pool Code List **IDOC Integration** Visibility Provider Integration Planned Event Extension Event to Action

Tracked Process: **FreightUnit** Integration Switch: **ON**

Tracked Process Mapping

ERP Object Type: Others Application Object Type: **ZGTT_SHP_FU_ACC**

Name	IDOC	Event Code
Tracked Process		
FreightUnitEvent	E1EHPAO	

Field	IDOC Segment	IDOC Field
freightUnitNo	E1EHPCP	YN_SHP_NO
shippingType	E1EHPCP	YN_SHP_SHIPPING_TYPE

- In the **Execution Settings**, the **Execution Tracking Relevance** field is set to “Execution Tracking with External Event Management”.

Execution Settings

Execution Tracking Relevance: **3 Execution Tracking with External Ev...**

Display Mode for Execution Tab: **Actual Events from TM and EM, Expe...**

Propagation Mode: **Standard Propagation**

Last Exp. Event: **UNLOAD_END**

☐ Immediate Processing

Step 4: Check the freight order type settings

- a. On the IMG, go to [SAP Transportation Management > Transportation Management > Freight Order Management > Freight Order > Define Freight Order Types](#).
- b. In the table, open the applicable freight order type to be tracked with SAP Event Management.
 - In the [Integration Settings](#), fill in the [Application Object Type](#) field.

Integration Settings

Dangerous Goods Profile:	<input type="text"/>
Customs Profile:	<input type="text"/>
Document Creation Relevance:	N No External Document Creation <input type="button" value="v"/>
Delivery Profile:	<input type="text"/>
EWM Integration Profile:	<input type="text"/>
Application Object Type:	<input type="text" value="ZGTT_SHP_ACC_HD"/>

☒ BW Relevance

Note: the value of [Application Obj.Type](#) shown in the screenshot is just an example. Make sure the value you filled in is the same as the ones in the other two fields:

- [Appl. Obj. Type](#) field
(Navigation Path: IMG-> Integration with Other SAP Components-> Interface to Global Track and Trace -> Define Application Interface, choose [Define Used Business Process Types, Appl. Object Types and Event Types](#), choose [Business Process Type TMS_TOR](#)->Define Application Object Types.)
- [Application Object Type](#) field in the “sof” model in the Manage Models app.

- In the [Execution Settings](#), the [Execution Tracking Relevance](#) field is set to “Execution Tracking with External Event Management”.

Execution Settings

Execution Tracking Relevance:	3 Execution Tracking with External Event M... ▼
Check Condition "Ready for Exec":	
Display Mode for Execution Tab:	Actual Events from TM and EM, Expected ... ▼
Expected Event for Goods Issue:	
Expected Event for Goods Receipt:	
Last Exp. Event:	ARRIV_DEST
<input type="checkbox"/> Immediate Processing	
Execution Propagation Mode:	Standard Propagation ▼
Discrepancy Profile:	

Step 5: Check the freight booking type settings

- On the IMG, go to [SAP Transportation Management > Transportation Management > Freight Order Management > Freight Booking > Define Freight Booking Types](#).
 - In the table, open the applicable freight booking type to be tracked with SAP Event Management.
- In the [Integration Settings](#), fill in the [Application Object Type](#) field.

Integration Settings

Dangerous Goods Profile:	DG1
Customs Profile:	
Document Creation Relevance:	N No External Document Creation ▼
Delivery Profile:	
EWM Integr. Profile:	
Application Object Type:	ZGTT_SHP_ACC_HD
<input checked="" type="checkbox"/> BW Relevance	

Note: the value of [Application Obj.Type](#) shown in the screenshot is just an example. Make sure the value you filled in is the same as the ones in the other two fields:

- [Appl. Obj. Type](#) field

(Navigation Path: IMG->Integration with Other SAP Components->

Interface to Global Track and Trace -> Define Application Interface, choose [Define Used](#)

Business Process Types, Appl. Object Types and Event Types, choose Business Process Type TMS_TOR->Define Application Object Types.)

- Application Object Type field in the “sof” model in the Manage Models app.
- In the Execution Settings, the Execution Tracking Relevance field is set to “Execution Tracking with External Event Management”.

Execution Settings

Execution Tracking Relevance:	3 Execution Tracking with External Event Management
Display Mode for Execution Tab:	Actual Events from TM and EM, Expected Events from EM
Immediate Processing:	Life Cycle Is Not to Be Set to "In Process" Immediately
Expected Event for Goods Issue:	
Expected Event for Goods Receipt:	
Last Exp. Event:	UNLOAD_END
Execution Propagation Mode:	Standard Propagation
Check Condition "Ready for Exec":	
Discrepancy Profile:	

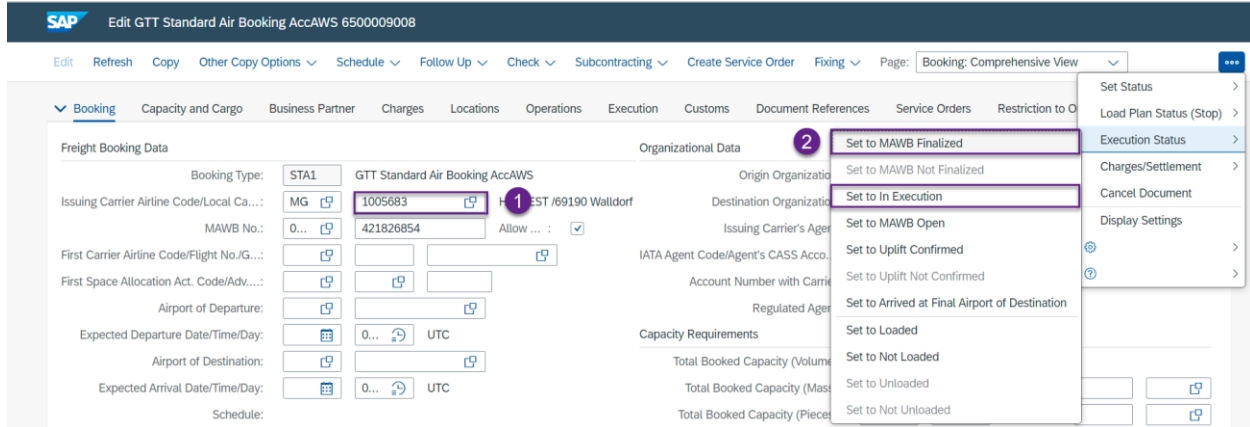
Step 6: Check the freight order / freight booking master data

To send freight orders or freight bookings to the GTT system, do the following:

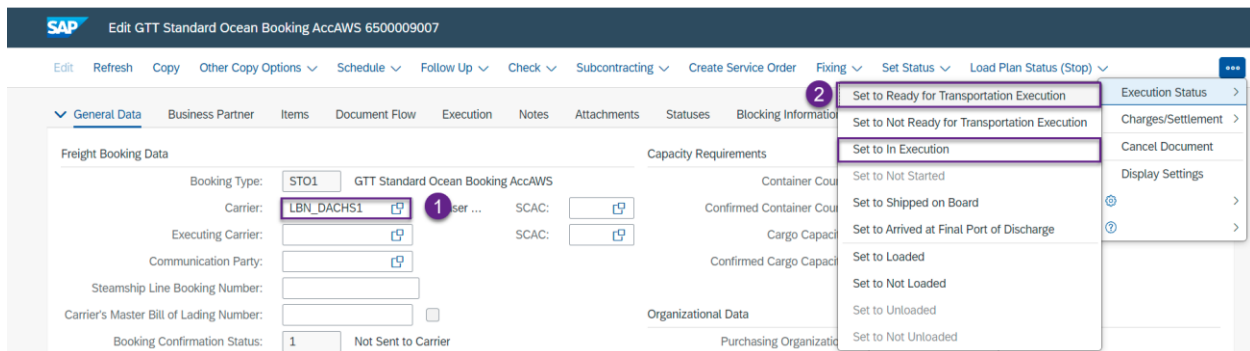
- a. Assign the carrier.
- b. Change the execution status.
 - For freight orders: in the [Execution Status](#) tab on the top, change the [Execution Status](#) to "Set to Ready for Transportation Execution" or "Set to In Execution".

The screenshot displays the SAP GTT Standard Freight Order Type AccAWS 6100063618 interface. The 'Execution Status' dropdown menu is open, showing options: 'Set to Ready for Transportation Execution', 'Set to Not Ready for Transportation Execution', 'Set to In Execution', 'Set to Not Started', 'Set to Checked Out', 'Set to Departed', 'Set to Arrived', 'Set to Checked In', 'Set to Loaded', 'Set to Not Loaded', 'Set to Unloaded', and 'Set to Not Unloaded'. The 'Set to Ready for Transportation Execution' and 'Set to In Execution' options are highlighted with a purple box and a circled '2'. The 'Carrier' field in the 'Transportation' section is highlighted with a purple box and a circled '1', showing the value 'LBN_CAR100'. The 'General Data' tab is active, showing fields for 'Truck', 'Cargo Information', and 'General Information'.

- For freight bookings:
 - Air booking: in the **Execution Status** tab on the top, change the **Execution Status** to "Set to MAWB Finalized" or "Set to In Execution".



- Ocean booking: in the **Execution Status** tab on the top, change the **Execution Status** to "Set to Ready for Transportation Execution" or "Set to In Execution".



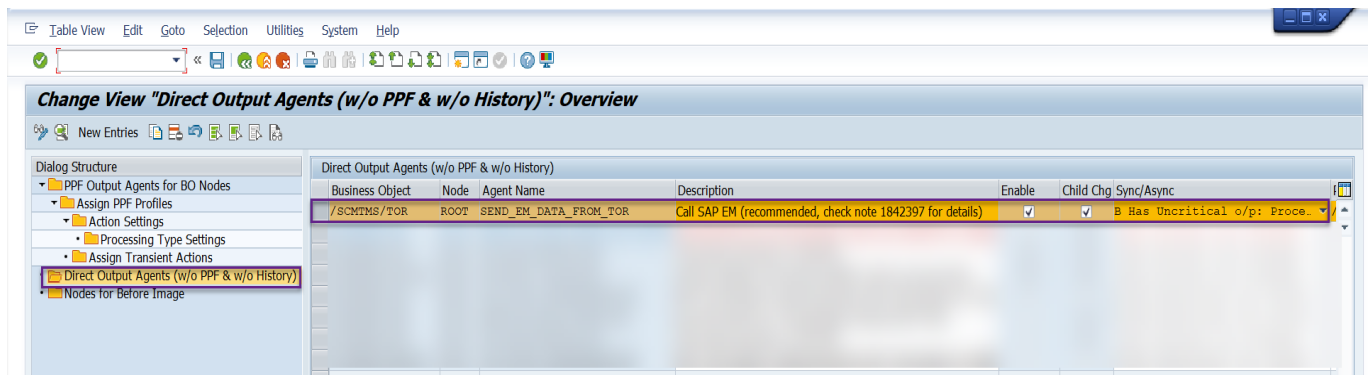
2. Are there easier ways to debug the generation of freight unit / freight order / freight booking IDOC?

Yes, there are two ways.

Option 1: Debug in PPF asynchronous mode

In the IMG, go to node [Cross-Application Components -> Processes and Tools for Enterprise Applications -> Reusable Objects and Functions for BOPF Environment -> PPF Adapter for Output Management -> Maintain Output Management Adapter Settings](#).

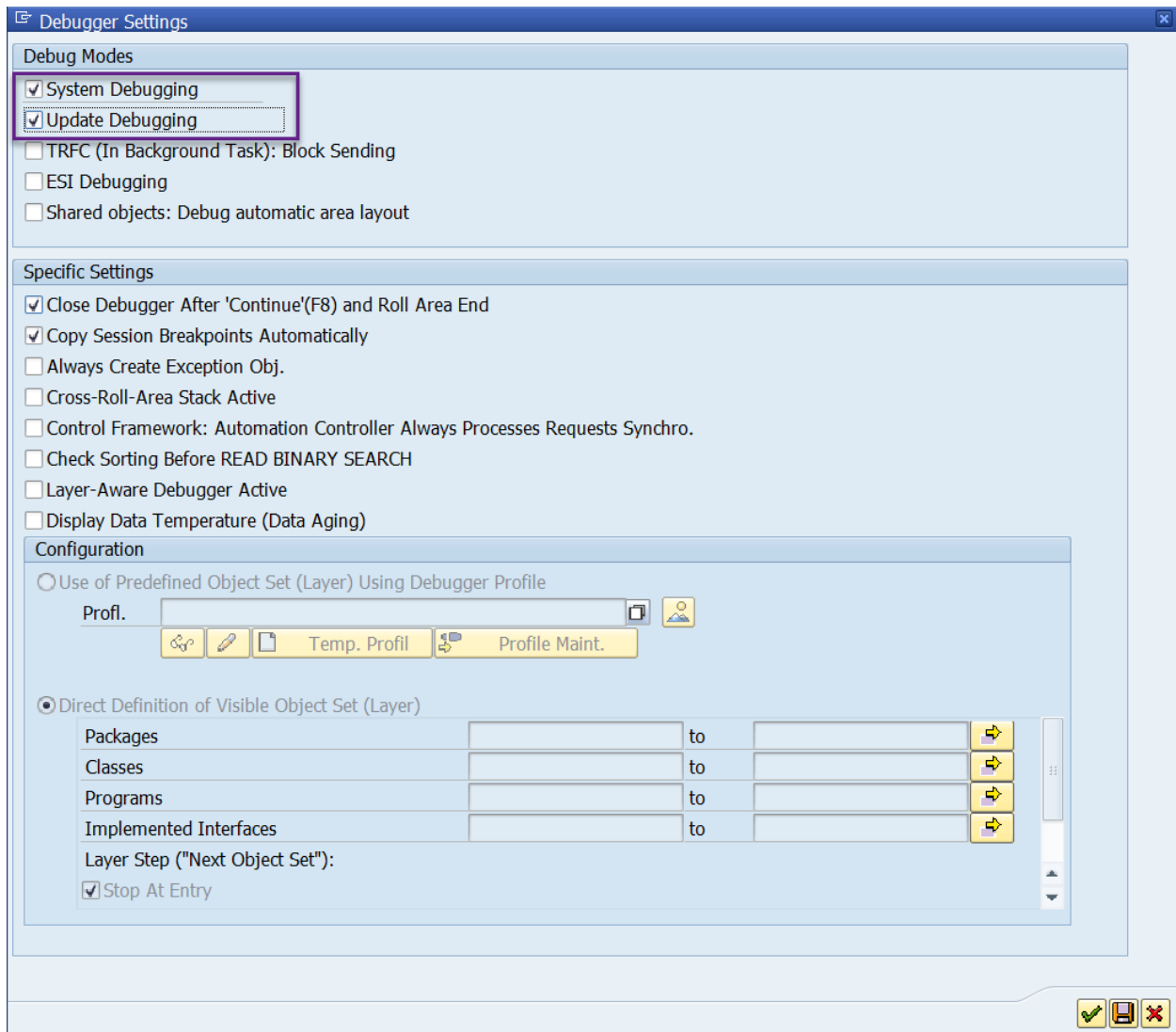
In the [Dialog Structure](#) section, choose [Direct Output Agents \(w/o PPF & w/o History\)](#). Ensure that the following entry is enabled:



Note: in this entry, the value of [Synch/Asynch](#) column is "B Has Uncritical o/p Process after Commit (background)".

Debug procedures are as follows:

- 1) Activate "System Debugging" and "Update Debugging".



- 2) Set a break point in method /SCMTMS/IF_SEND_TOR_DATA~CALL_EVENT_MGR of the BAdI implementing class ZSST_GTT_CL_SEND_TOR_DATA and start the debugging.

Option 2: Debug in PPF synchronous mode

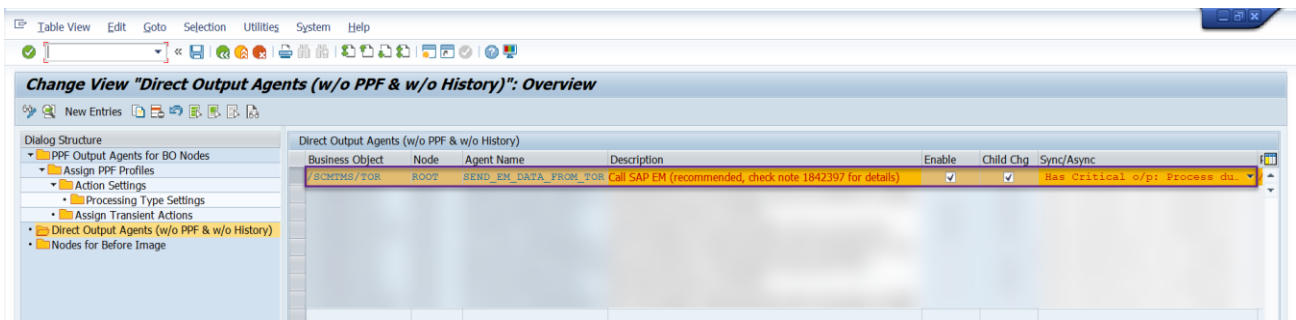
On the IMG, go to node [Cross-Application Components ->](#)

[Processes and Tools for Enterprise Applications ->](#)

[Reusable Objects and Functions for BOPF Environment -> PPF Adapter for Output Management ->](#)

[Maintain Output Management Adapter Settings.](#)

In the [Dialog Structure](#) section, choose [Direct Output Agents \(w/o PPF & w/o History\)](#). Ensure that the following entry is enabled:



Note: in this entry, the value of [Synch/Asynch](#) column is "Has Critical o/p: Process during Save - before Commit".

Now you can set a break point in method `/SCMTMS/IF_SEND_TOR_DATA~CALL_EVENT_MGR` of the BAdI implementing class `ZSST_GTT_CL_SEND_TOR_DATA` and start the debugging.

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