



SAP ERP Sample Code Configuration Guide for Fulfillment Tracking Apps

SAP Logistics Business Network, Global Track and Trace Option

August 2021

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Document History

2108 Release:

1. Update BC set file in the GitHub
2. Chapter [4.6 Define GTT Extraction Functions](#)
 - Add "Tracking ID Extractors": GTT_MIA_IDLV_HD_TID (Tracking ID Extractor for Inbound Delivery Header)
 - Add "AOID Extractor": GTT_MIA_IDLV_HD_AOID (AOID Extractor for Inbound Delivery Header)
 - Add "AOID Extractor": GTT_MIA_IDLV_IT_AOID (AOID Extractor for Inbound Delivery Item)
 - Add "AOID Extractor": GTT_MIA_SHP_HD_AOID (AOID Extractor for Shipment Header)
 - Add "AOID Extractor": GTT_STS_AOID_TOR (AOID Extractor for FU/FO/FB)
3. Chapter [4.12.1 Define Application Object Types for Inbound Delivery Header](#)
 - Adjust "AOID Method" from "Determine from Field" to "Determine by Function"
 - Remove the value for fields "Cntl Tab. Type" and "AO ID Field"
 - Add "AOID Function" and set its value to "GTT_MIA_IDLV_HD_AOID"
 - Adjust "TrkID Method" from "Determine from Field" to "Determine by Function"
 - Remove the value for fields "Tr. ID Tab. Type", "Tracking ID Fld", "Tr. ID Code Set"
 - Add "Tr.ID Extractor" and set its value to "GTT_MIA_IDLV_HD_TID"
4. Chapter [4.12.2 Define Application Object Types for Inbound Delivery Item](#)
 - Adjust "AOID Method" from "Determine from Field" to "Determine by Function"
 - Remove the value for fields "Cntl Tab. Type" and "AO ID Field"
 - Add "AOID Function" and set its value to "GTT_MIA_IDLV_IT_AOID"
5. Chapter [4.13.1 Define Application Object Types for Shipment Header](#)
 - Adjust "AOID Method" from "Determine from Field" to "Determine by Function"
 - Remove the value for fields "Cntl Tab. Type" and "AO ID Field"
 - Add "AOID Function" and set its value to "GTT_MIA_SHP_HD_AOID"
6. Chapter [4.14.1 Define Application Object Types for Freight Unit Header](#)
 - Adjust "AOID Method" from "Determine from Field" to "Determine by Function"
 - Remove the value for field " Cntl Tab. Type " and "AO ID Field"
 - Add " AOID Function" and set its value to "GTT_STS_AOID_TOR"
7. Chapter [4.15.1 Define Application Object Types for Road Freight Order/Ocean/Air Booking Header](#)
 - Adjust "AOID Method" from "Determine from Field" to "Determine by Function"
 - Remove the value for field " Cntl Tab. Type " and "AO ID Field"
 - Add " AOID Function" and set its value to "GTT_STS_AOID_TOR"

2105 Release:

Initial version.

1. Prerequisites

1.1 Check the SAP Version

The SAP Product Version for the global track and trace option of SAP Logistics Business Network, Version 2 shall be SAP EHP1 FOR SAP NETWEAVER 7.3 or higher.

The ABAP codes to support Fulfillment Tracking apps for GTT Version 2 shall be implemented in S4 HANA 1909 SP03 on premise that is not validated in lower release, and not applicable for ECC series of products.

The following SAP NOTES shall be implemented.

[2937175 - Enhancement of IDOCs sent to GTT](#)

[2974952 - Error in Note 2937175](#)

[2959576 - Amendments to EM API for LBNTT2.0](#)

Tips:

SAP version reference:

<https://support.sap.com/en/my-support/software-downloads/support-package-stacks/product-versions.html#section>

Note-assistant reference:

<https://support.sap.com/en/my-support/knowledge-base/note-assistant.html>

1.2 Log on the Development Client to Configure BTE

1.2.1 Ensure you have development access to the client for cross-client customizing and local development.

1.2.2 Log on to the client and enter transaction code (T-code): **FIBF**.

1.2.3 Click **More->Settings -> Identification -> SAP Applications**.

1.2.4 Position on the Application ID: **PI-EM**. Check the field **Application Active**.

Appl.	A	Text
<input type="checkbox"/> PI-EM	<input checked="" type="checkbox"/>	SAP Event Manager Integration
<input type="checkbox"/> PIX	<input checked="" type="checkbox"/>	PIX Payment
<input type="checkbox"/> PM	<input checked="" type="checkbox"/>	Instandhaltung
<input type="checkbox"/> PM-BW	<input checked="" type="checkbox"/>	Instandhaltung-BW
<input type="checkbox"/> PM-EQM	<input checked="" type="checkbox"/>	Instandhaltung, Equipment

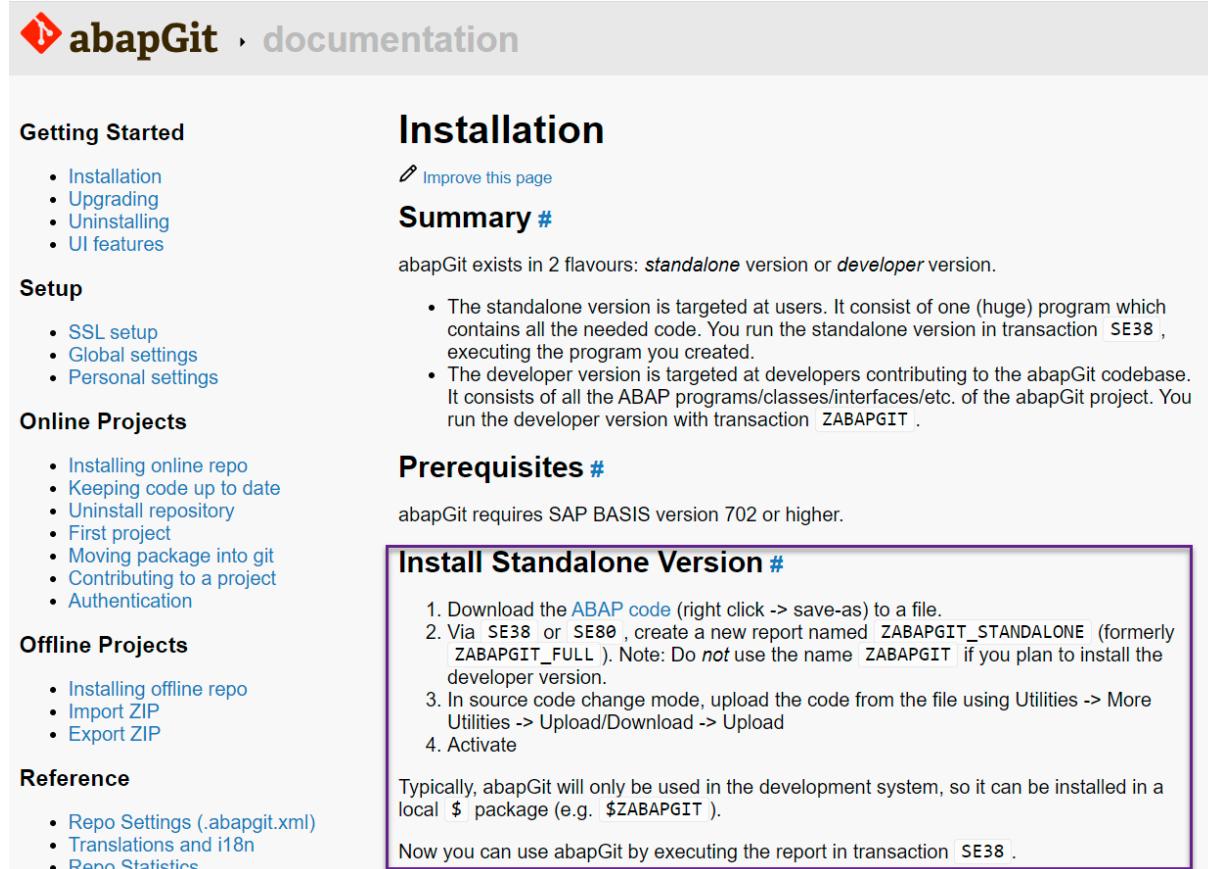
1.2.5 Click **Save**.

2. Download ABAP Code from GitHub

2.1 Initial Download ABAP Code from GitHub

2.1.1 Install ABAPGit

You need to install ABAPGit before downloading the codes from GitHub. To install ABAPGit, follow the instructions on <https://docs.abapgit.org/guide-install.html>. Make sure you **Install the standalone version** in your dev system. When installation is complete, a new report is created, `ZABAPGIT_STANDALONE`.



The screenshot shows the abapGit documentation website. The main navigation bar at the top has a logo and the text "abapGit · documentation". Below the navigation, there are several sections:

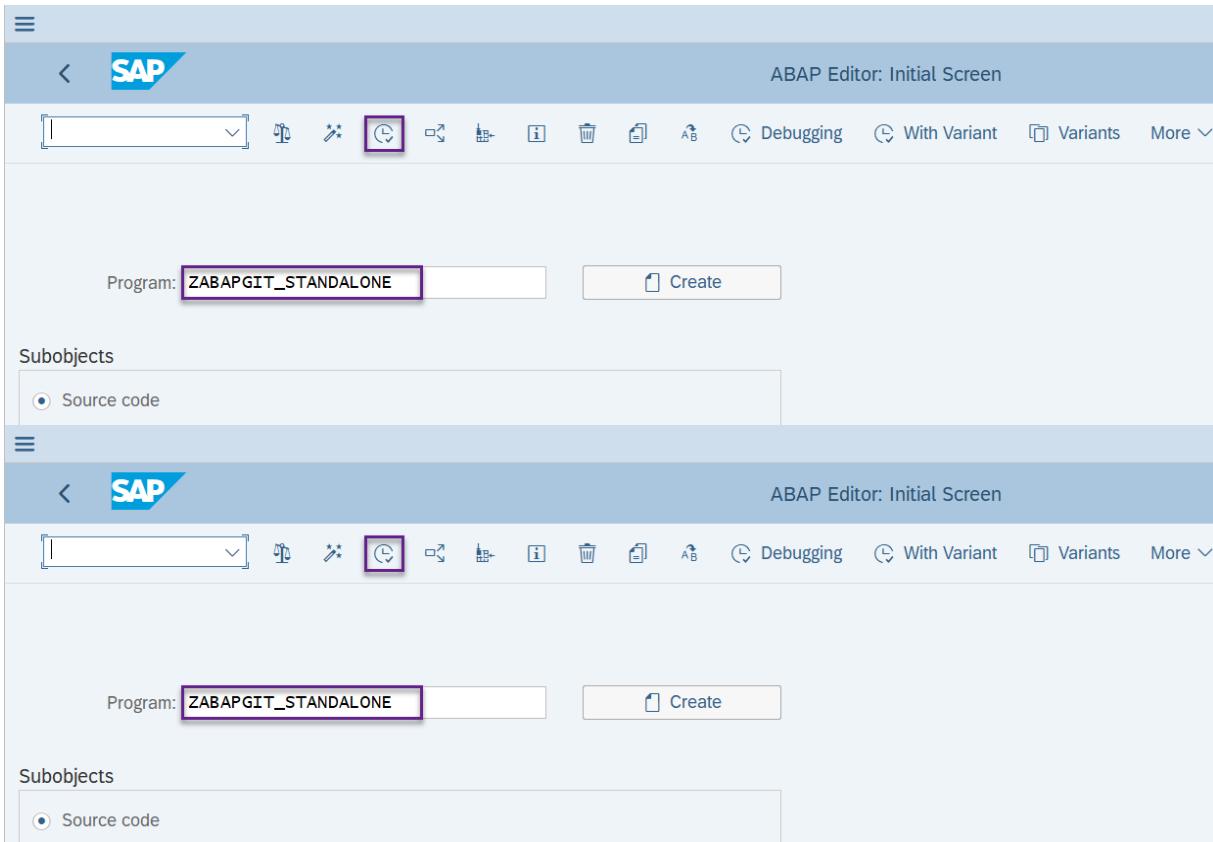
- Getting Started** (with links to Installation, Upgrading, Uninstalling, and UI features)
- Setup** (with links to SSL setup, Global settings, and Personal settings)
- Online Projects** (with links to Installing online repo, Keeping code up to date, Uninstall repository, First project, Moving package into git, Contributing to a project, and Authentication)
- Offline Projects** (with links to Installing offline repo, Import ZIP, and Export ZIP)
- Reference** (with links to Repo Settings (.abapgit.xml), Translations and i18n, and Repo Statistics)

The **Installation** section is currently selected. It contains the following content:

- A link to "Improve this page".
- Summary #**
- A note stating: "abapGit exists in 2 flavours: *standalone* version or *developer* version."
- A list of two items explaining the differences between the standalone and developer versions.
- Prerequisites #**
- A note stating: "abapGit requires SAP BASIS version 702 or higher."
- A section titled "Install Standalone Version #". It contains a numbered list of four steps:
 - Download the ABAP code (right click -> save-as) to a file.
 - Via `SE38` or `SE80`, create a new report named `ZABAPGIT_STANDALONE` (formerly `ZABAPGIT_FULL`). Note: Do *not* use the name `ZABAPGIT` if you plan to install the developer version.
 - In source code change mode, upload the code from the file using Utilities -> More Utilities -> Upload/Download -> Upload
 - Activate
- A note: "Typically, abapGit will only be used in the development system, so it can be installed in a local \$ package (e.g. `$ZABAPGIT`)."
- A note: "Now you can use abapGit by executing the report in transaction `SE38` ."

2.1.2 Download ABAP Code from GitHub

2.1.2.1 Enter T-code `SE38` and fill in the report name from [2.1.1](#), `ZABAPGIT_STANDALONE`. Click **Execute** to run the report.

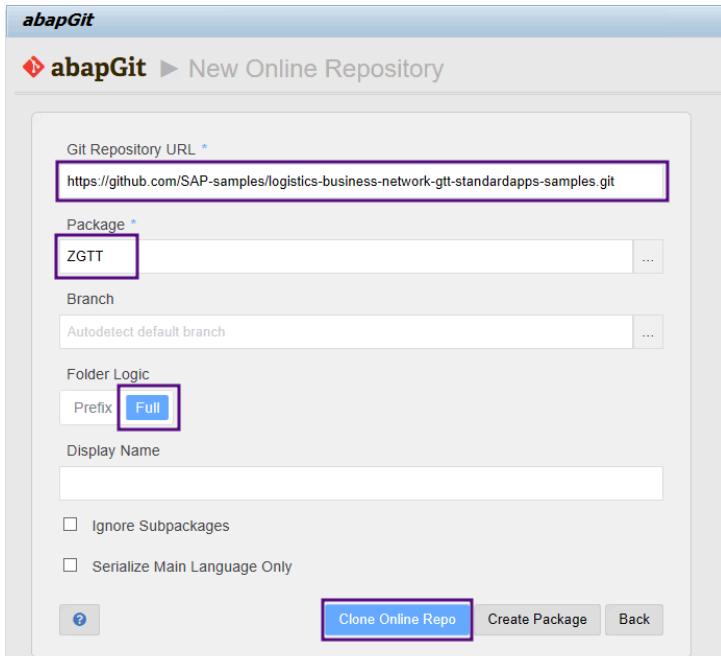


2.1.2.2 Click **New Online** to download the code.

2.1.2.3 Fill in the **Git Repository URL**.

<https://github.com/SAP-samples/logistics-business-network-gtt-standardapps-samples.git>

2.1.2.4 Fill in the **Package** where you want to create the new ABAP code. If the package does not exist yet, click **Create package** to create it. Set *Full* for **Folder Logic**. Click **Clone Online Repo** to download the code.



2.1.2.5 Assign the change to a change request. If you do not have any available change requests, you need to create a new one.

2.1.2.6 Click **Pull** to pull down the code of the latest version.

The screenshot shows the abapGit interface with the title "Repository" and the URL "GTT-V2-Standard-Apps https://SAP-samples/logistics-business-network-gtt-standardapps-samples.git". The main area displays a table with columns "Type", "Name", and "Path". The "Type" column shows icons for CLAS (class) and non-code meta files. The "Name" column lists various class names such as ZCL_GTT_MIA_AE_FILLER_DLH_GR, ZCL_GTT_MIA_AE_FILLER_DLH_PA, etc. The "Path" column shows the full ABAP path for each class. At the top of the table, there are buttons for "Pull", "Stage", "Diff", "Branch", "Tag", "Advanced", "View", "Refresh", and a gear icon.

2.1.2.7 After you download the code, you can check it with T-code **SE80**.

2.2 Update ABAP Code from GitHub

In each release, there are some changes in the public sample codes. To update your local sample codes of Fulfillment Tracking apps after a future release, do the following:

2.2.1 Update ABAP Code from GitHub

2.2.1.1 Enter T-code **SE38** and fill in the report name **ZABAPGIT_STANDALONE**. Click the **Execute** icon to run the report.

The screenshot shows the SAP ABAP Editor: Initial Screen. The title bar says "ABAP Editor: Initial Screen". The toolbar includes icons for search, copy, paste, and debugging. The "Program:" field contains "ZABAPGIT_STANDALONE". Below the program field is a "Create" button. A sidebar titled "Subobjects" has a radio button group for "Source code" (which is selected), "Variants", "Attributes", "Text elements", and "Documentation".

2.2.1.2 To access the Fulfillment Tracking apps' repository, click the button.

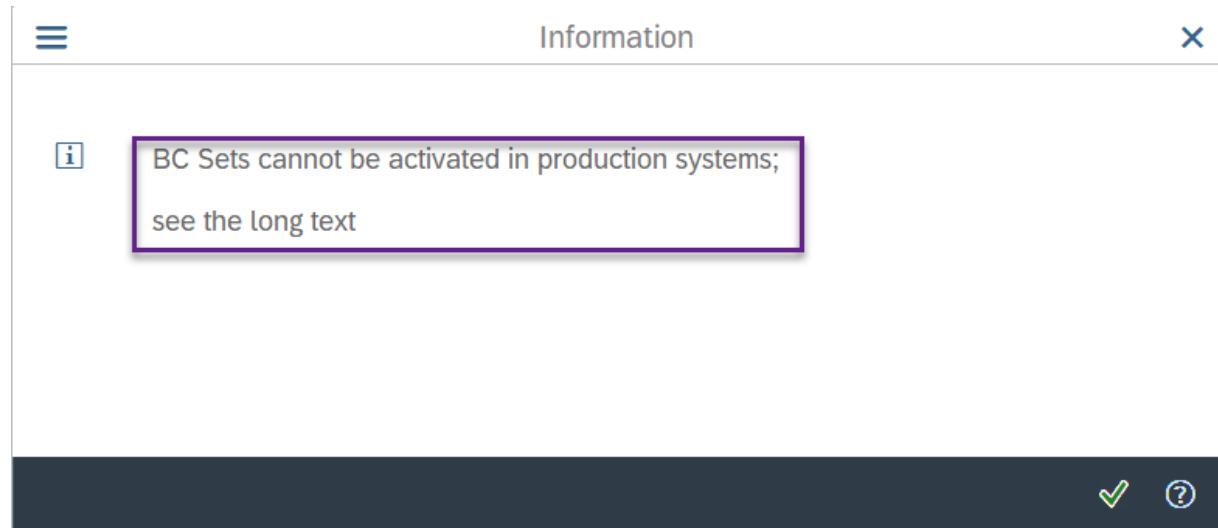
2.2.1.3 Click **Pull** to pull down the latest version code.



3. Configuration Option 1 (Import BC Set + Manual Configuration)

Prerequisite:

For this option, you must build up the system environment WITHOUT a production client for preparation. If you try to import the BC set into the system with a production client, an error will pop up.

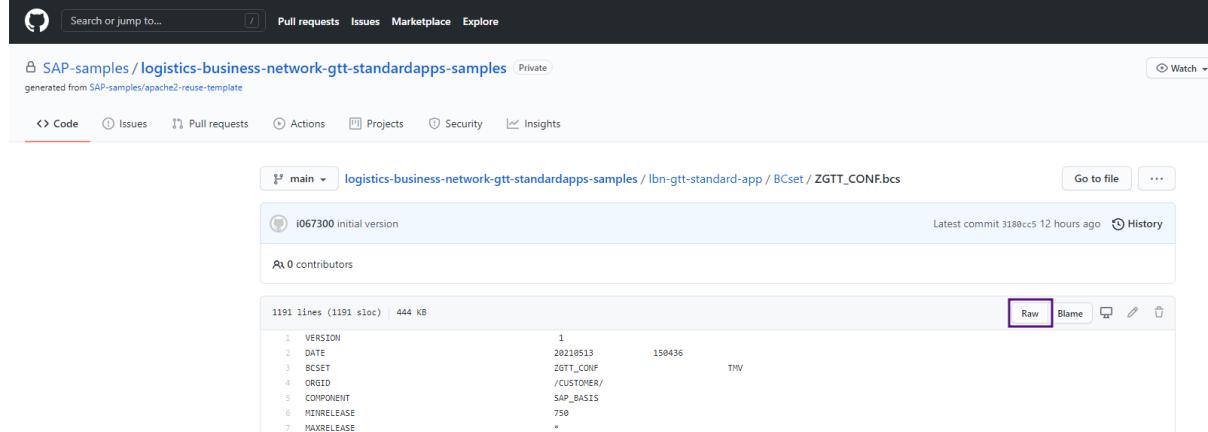


The screenshot shows the SAP Performance Assistant interface. At the top, there is a header bar with three horizontal lines on the left, the words "Performance Assistant" in the center, and a blue "X" button on the right. Below the header is a toolbar with various icons. The main content area displays an error message: "BC Sets cannot be activated in production systems; see the long text". Below the message, it says "Message no. SCPR229". Under the message, there are sections for "Diagnosis" and "System Response". The "Diagnosis" section states: "You tried to activate BC Sets in a system with at least one production client. This is not allowed. You can only activate Business Configuration Sets in systems with no production client." The "System Response" section states: "The procedure was cancelled. No data was written into customizing tables." At the bottom of the content area, there is a "Procedure" section with the instruction: "Activate the BC Set in a test system."

3.1 Download BC Set from GitHub

3.1.1 Navigate to BC Set in https://github.com/SAP-samples/logistics-business-network-gtt-standardapps-samples/blob/main/lbn-gtt-standard-app/BCset/ZGTT_CONF.bcs.

3.1.2 Click on “Raw” button.



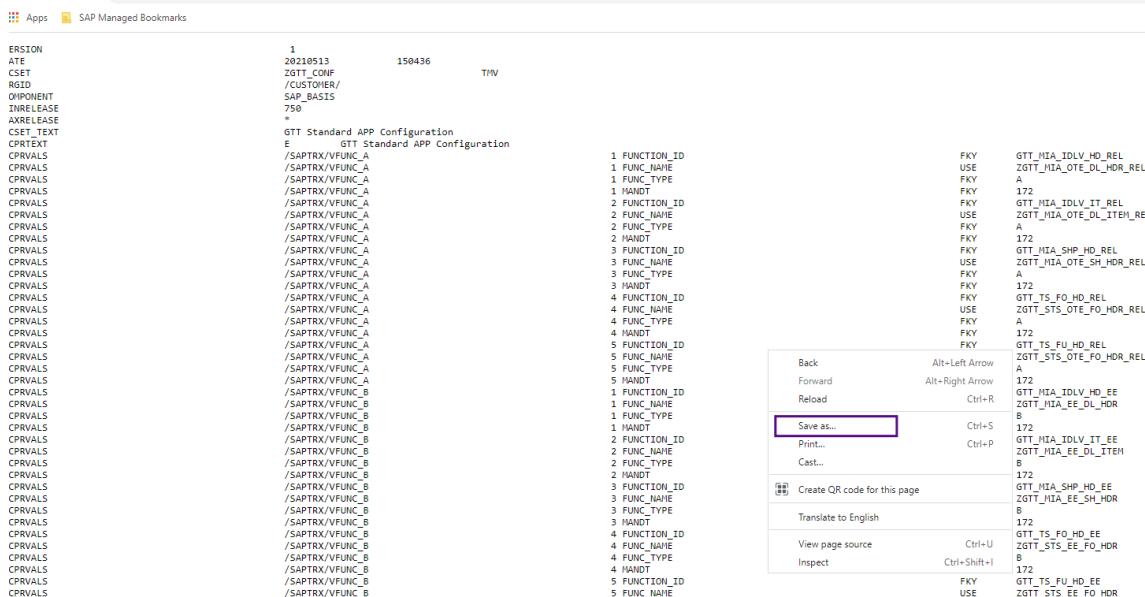
```

VERSION          1
DATE            20210513      150436
BCSET           ZGTT_CONF
COMPONENT       /CUSTOMER/
ORGID          SAP_BASIS
COMPONENT       SAP_BASIS
MINRELEASE     750
MAXRELEASE     *

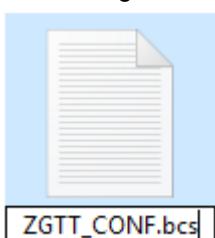
```

3.1.3 Click Save as to save the configuration file to your local path.

https://raw.githubusercontent.com/SAP-samples/logistics-business-network-gtt-standardapps-samples/main/lbn-gtt-standard-app/BCset/ZGTT_CONF.bcs?token=ASE7YJIFVHZ3NE4463OY2DAU3IDY



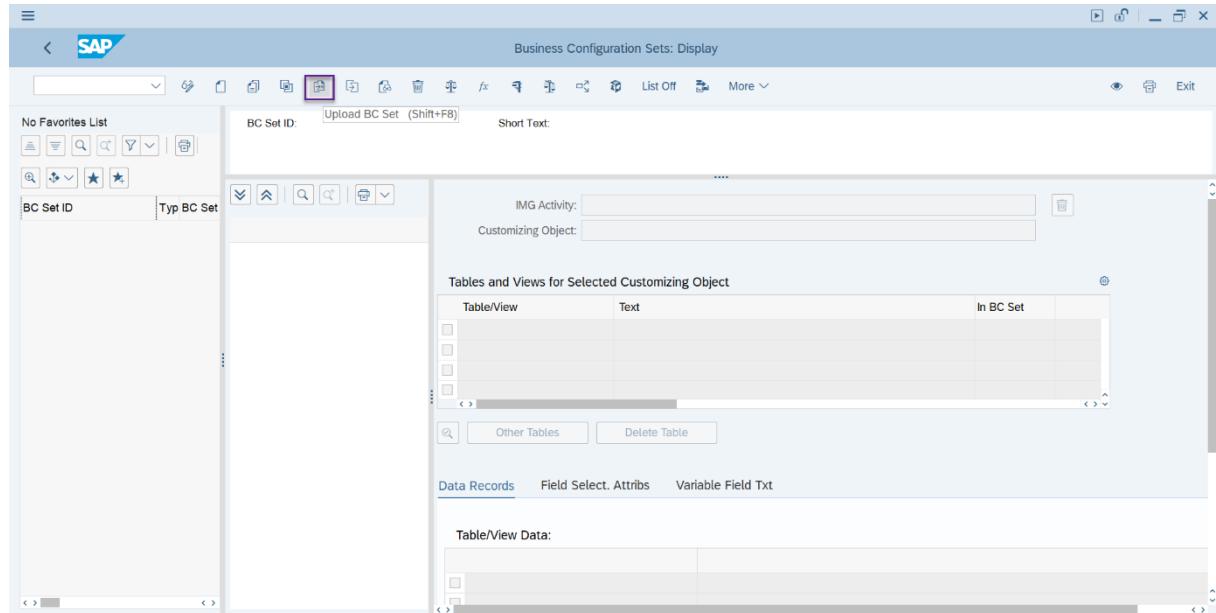
3.1.4 Change file extension to “.bcs”.



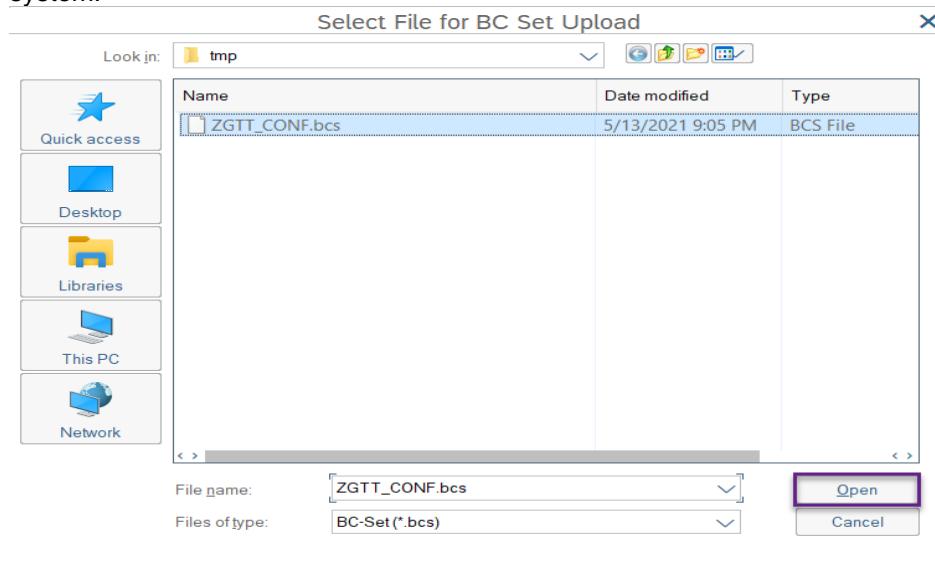
3.2 Import BC Set

3.2.1 From SAP Easy Access Menu, **Tools -> Customizing -> Business Configuration Sets -> Display and Maintain BC Sets** (Transaction Code SCPR3).

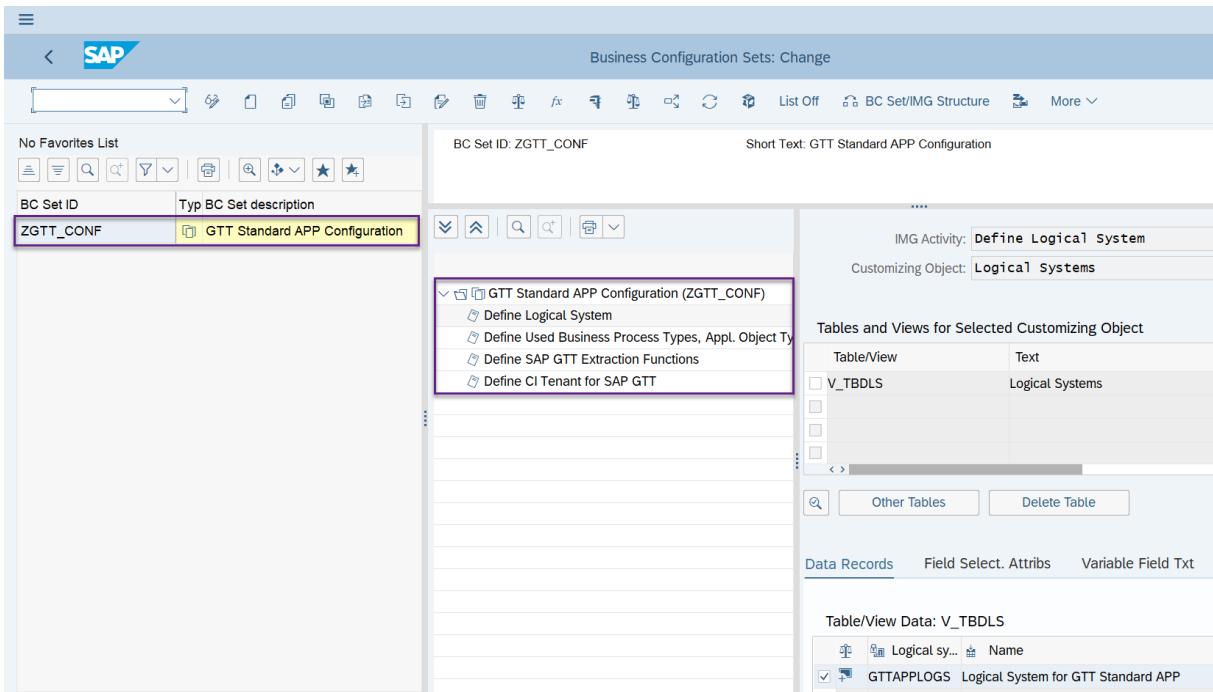
3.2.2 Select **Upload BC Set**.



3.2.3 Select the file " ZGTT_CONF.bcs", then click **Open** to upload the BC set to your development system.



All of the configurations are loaded in the system.



3.2.4 Click **Save** to save the BC Set.

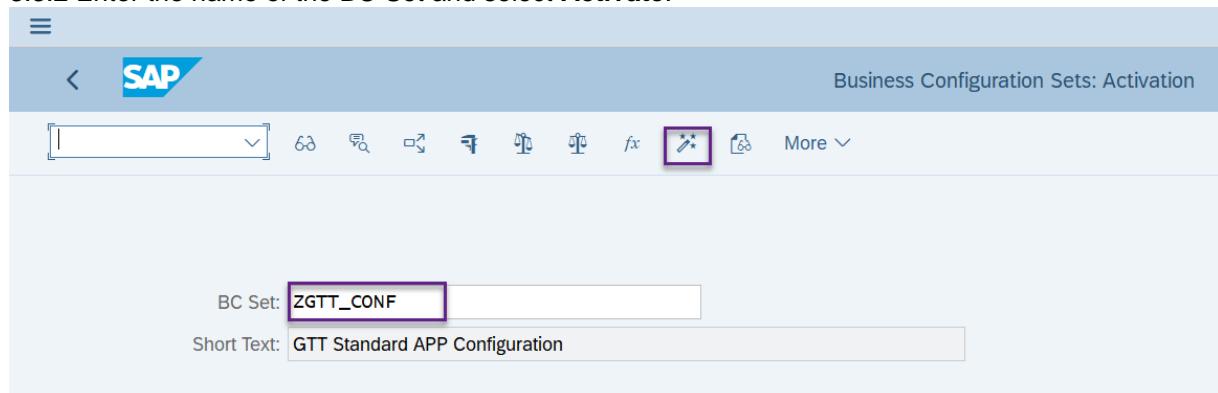


BC Set ZGTT_CONF saved

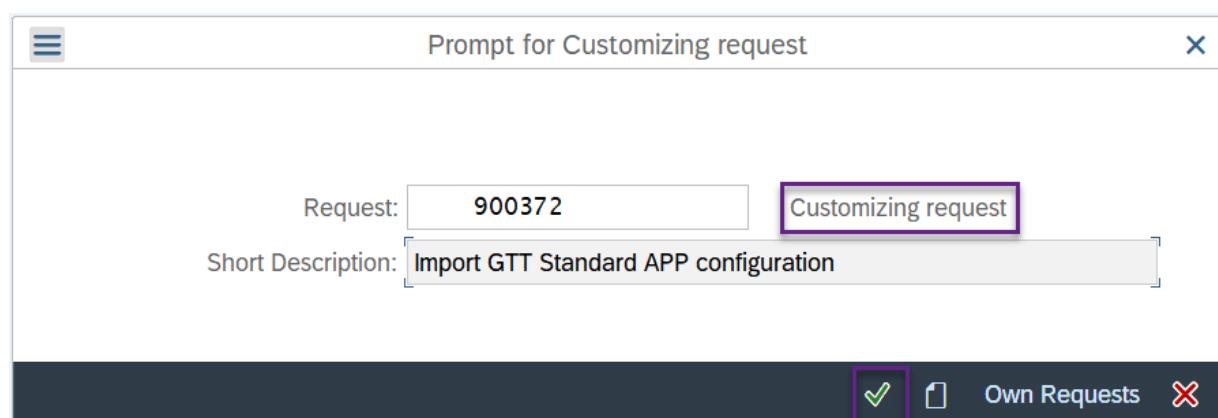
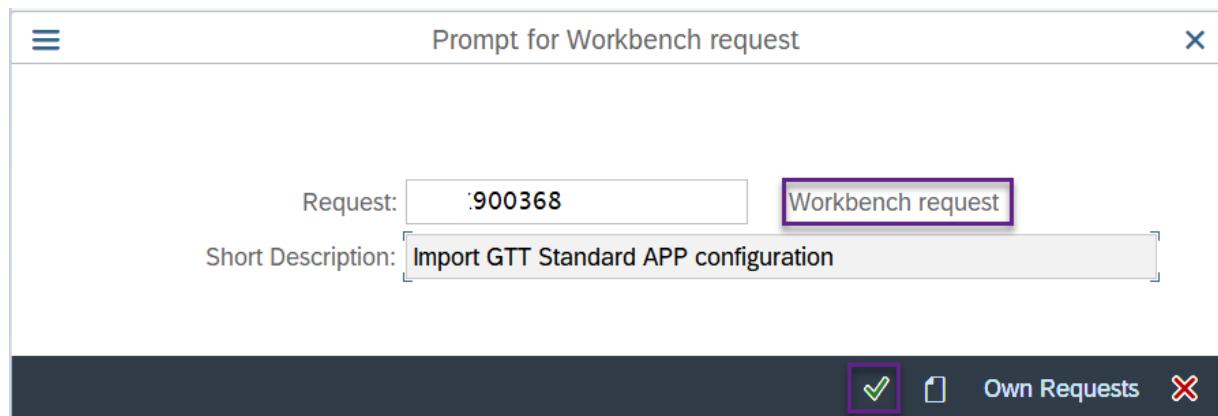
3.3 Activate BC Set

3.3.1 From SAP Easy Access Menu, **Tools -> Customizing -> Business Configuration Sets -> Activation of BC Sets** (Transaction Code SCPR20).

3.3.2 Enter the name of the BC Set and select **Activate**.



3.3.3 Provide a Workbench request and a Customizing request.



3.3.4 Various activation options are available. Choose appropriate ones and click **Continue** to proceed with the activation.

The following message is displayed:

Caution You have started the BC Set activation If you continue, new data records will be created and/or existing ones overwritten."

Activation Options

Activation Information

- Activated By: [dropdown]
- Date/Time: 13.05.2021 / 15:27:29
- System/Client: /
- Workbench Reqst: 900368
- Customizing Reqst: 900372
- Activation Links: Do Not Create

Activation Languages:

- Chinese
- Thai
- Korean
- Romanian
- Slovenian

Activation Options

Overwrite Data

- Overwrite All Data
- Do Not Overwrite Default Values

Select Activation Mode

- Default Mode (Recommende)
- Expert Mode

Deletion Functionality

- Enable for Classical BC Sets

Messages

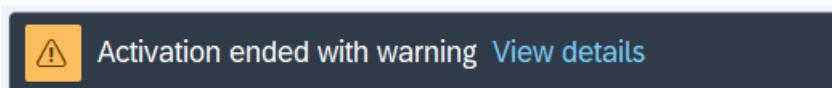
With Log

Warnings when editing object

I1	I2	I3	ED Log Text
/			⚠ Text is only transported in the original language

With Log

3.3.5 BC Set is activated and BC set data is stored in the customization tables.



3.3.6 Click **Activation Logs** to check the logs.

The image shows two SAP Fiori screens. The top screen is titled "Business Configuration Sets: Activation" and displays a form with fields: "BC Set:" (containing "ZGTT_CONF") and "Short Text:" (containing "GTT Standard APP Configuration"). The bottom screen is titled "Business Configuration Sets: Activation Logs" and shows a detailed log of activation events for "ZGTT_CONF" on "13.05.2021 um 15:27:29". The log table includes columns for Type, BC Sets, Object, Message Text, Key Field, and Info. The log entries include messages like "Main Activation Started" and "User-defined languages are not installed in the system".

Type	BC Sets	Object	Message Text	Key Field	Info
	ZGTT_CONF	/SAPTRX/VC_AOTYPE_CTT	Main Activation Started		
	ZGTT_CONF	/SAPTRX/VC_ASFUNC_CTT	User-defined languages are not installed in the system		
	ZGTT_CONF	/SAPTRX/V_CTTSRV	BC Set ZGTT_CONF passed to activate		
	ZGTT_CONF	V_TBDSL	Customizing object /SAPTRX/VC_AOTYPE_CTT passed to activation		
	ZGTT_CONF	/SAPTRX/VC_ASFUNC_CTT	Customizing object /SAPTRX/VC_ASFUNC_CTT passed to activation		
	ZGTT_CONF	/SAPTRX/V_CTTSRV	Customizing object /SAPTRX/V_CTTSRV passed to activation		
	ZGTT_CONF	V_TBDSL	Customizing object V_TBDSL passed to activation		
	ZGTT_CONF	/SAPTRX/VC_ASFUNC_CTT	Not all data was activated in all languages in object /SAPTRX/VC_ASFUNC_CTT		
	ZGTT_CONF	/SAPTRX/VFUNC_A	No difference between BC set (activation) and table data		
	ZGTT_CONF	/SAPTRX/VFUNC_L	No difference between BC set (activation) and table data		
	ZGTT_CONF	/SAPTRX/VFUNC_B	No difference between BC set (activation) and table data		
	ZGTT_CONF	/SAPTRX/VFUNC_G	No difference between BC set (activation) and table data		
	ZGTT_CONF	/SAPTRX/VC_ASFUNC_CTT	View /SAPTRX/VFUNC_H: View cluster /SAPTRX/VC_ASFUNC_CTT does not co...		
	ZGTT_CONF	/SAPTRX/VFUNC_D	No difference between BC set (activation) and table data		
	ZGTT_CONF	/SAPTRX/VFUNC_E	No difference between BC set (activation) and table data		
	ZGTT_CONF	/SAPTRX/VC_ASFUNC_CTT	View /SAPTRX/VFUNC_F: View cluster /SAPTRX/VC_ASFUNC_CTT does not co...		

3.4 Define RFC Connection for GTT

3.4.1 Log on to the business client, enter T-code **SPRO** and then click **SAP Reference IMG** to open **Display IMG page**.

3.4.2 Click **Integration with Other SAP Components -> Interface to Global Track and Trace -> Define System Configuration**. Choose activity: **Define RFC Connection for SAP GTT**

3.4.3 Choose **HTTP Connections to External Server**, click **Create** to create a new RFC connection.

The screenshot shows the SAP Business Client interface with the title bar "SAP" and the sub-title "Configuration of RFC Connections". Below the toolbar, there are three buttons: "Generate RFC Callback Allowlist", "Activate Non-Empty Allowlists", and "Allowlist for Dynamic". A status message "RFC callback check not secure" is displayed. The main area contains a table titled "RFC Connections" with columns "Type", "PL Active", and "Comment". The table lists five connections:

	Type	PL Active	Comment
> ABAP Connections	3		
> HTTP Connections to External Server	G		
> HTTP Connections to ABAP System	H		
> Internal Connections	I		
> Logical Connections	L		

Below the table are icons for refresh, search, create (highlighted with a purple border), edit, details, and delete.

3.4.4 Fill in the **Destination** and choose the **Connection Type**: “**G-HTTP connection to external server**”.

The screenshot shows the "Create Destination" dialog box with the title "Create Destination". It contains two fields: "Destination" and "Connection Type". The "Destination" field is filled with "GTT_APP_RFC". The "Connection Type" dropdown is set to "G HTTP connection to external server". At the bottom of the dialog is a dark footer bar with a green checkmark icon and a red X icon.

3.4.5 Enter a description. In the **Technical Settings** tab, fill in the **Host**, **Port** and **Path Prefix**.

For example, the URL of solution owners is as follows:

<https://sat-so-01.gtt-flp-lbnplatform-pre-live.cfapps.eu10.hana.ondemand.com/>

Host: sat-so-01.gtt-flp-lbnplatform-pre-live.cfapps.eu10.hana.ondemand.com

Port: 443

Path Prefix: /api/idoc/em/v1/TrackedProcessAndEvent

The screenshot shows the SAP Fiori launchpad interface for configuring an RFC destination. The title bar reads "RFC Destination GTT_APP_RFC". The "Technical Settings" tab is highlighted with a purple border. The "Host" field contains "sat-so-01.gtt-flp-lbnplatform-pre-live.cfapps.eu10.hana.ondemand.com" and the "Port" field contains "443". The "Path Prefix" field contains "/api/idoc/em/v1/TrackedProcessAndEvent". Other tabs visible include "Administration", "Logon & Security", and "Special Options".

3.4.6 In the Logon & Security tab, enter the Logon information.

For the basic authentication, the GTT technical user / password is needed. You can get this from your GTT administrator.

Also, SSL must be **Active**. The recommended SSL Certificate is: DEFAULT SSL Client (Standard).

RFC Destination: GTT_APP_RFC

Connection Type: G HTTP Connection to External Server

Description

Description 1: RFC for GTT Standard APP

Description 2:

Description 3:

Administration Technical Settings **Logon & Security** Special Options

Logon Procedure

Logon with User

- Do not use a user
- Basic authentication

User: [empty]

PW Status: saved

Logon with Ticket

- Do not send logon ticket
- Send ticket without reference to target system
- Send assertion ticket for dedicated target system

System ID [empty] Client [empty]

Logon with MQTT/AMQP

User: [empty]

PW Status: is initial

Security Options

Status of Secure Protocol

SSL: Inactive Active

SSL Certificate: DEFAULT SSL Client (Standard)

Do not use certificate for logon

3.4.7 Save the configuration.

3.5 Define Ports

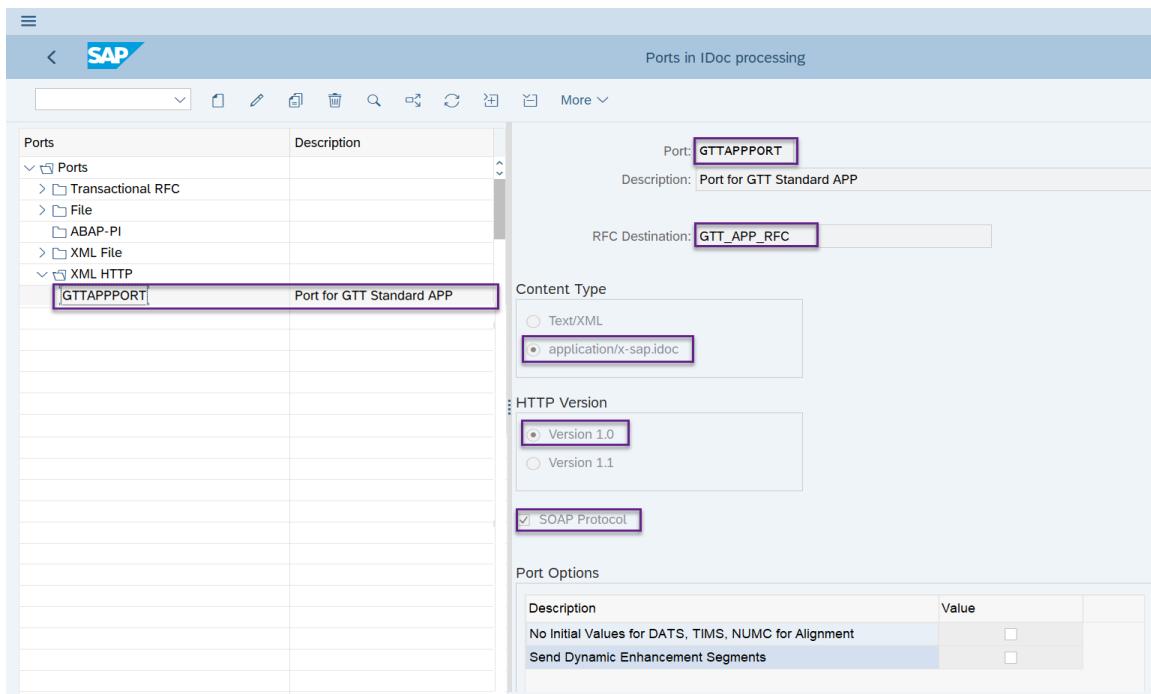
3.5.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> IDoc Settings**. Choose activity **Define Ports**.

3.5.2 Choose **XML HTTP** folder, and click **Create** to create a new port **GTTAPPPORT**.

3.5.3 Fill in the **RFC Destination**.

3.5.4 Choose **Content Type** as *application/x-sap.idoc*

3.5.5 Choose **HTTP Version** as Version 1.0. Mark it as **SOAP Protocol**.

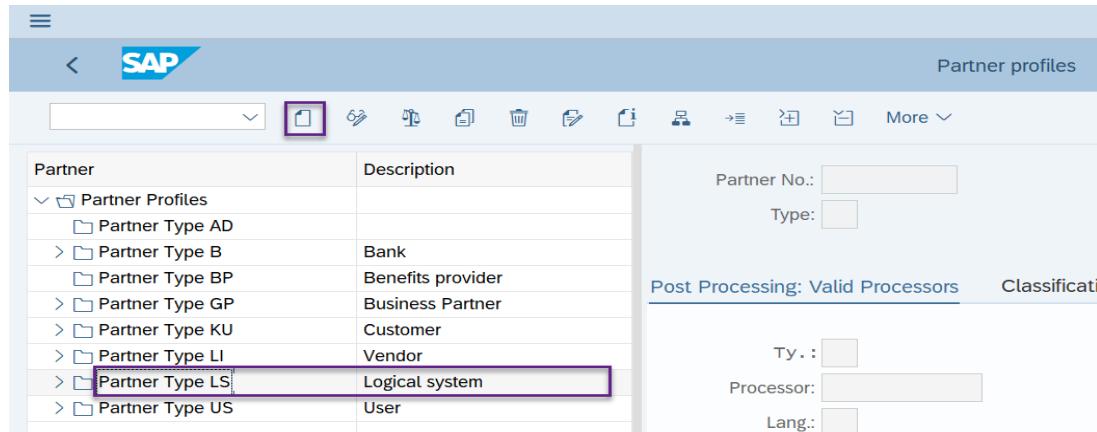


3.5.6 Save the configuration.

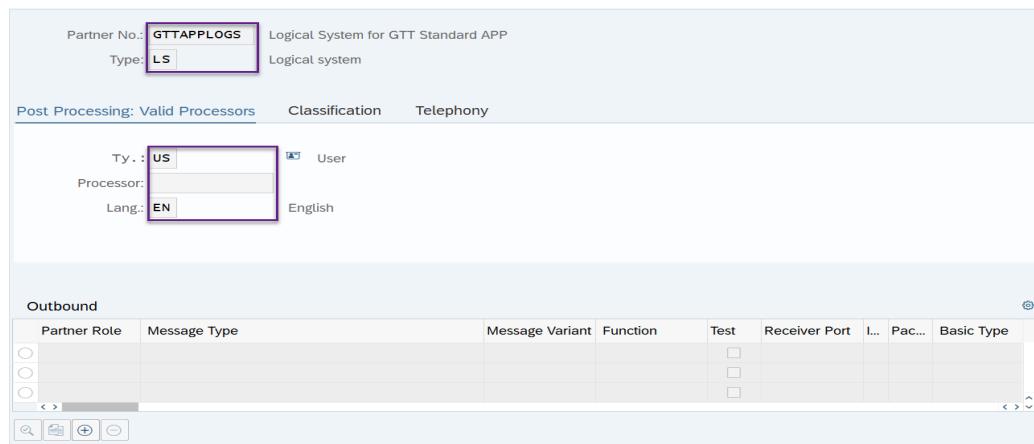
3.6 Define Partner Profiles

3.6.1 In Display IMG page, unfold **Integration with Other SAP Components -> Interface to Global Track and Trace -> IDoc Settings**. Choose activity **Define Partner Profiles**.

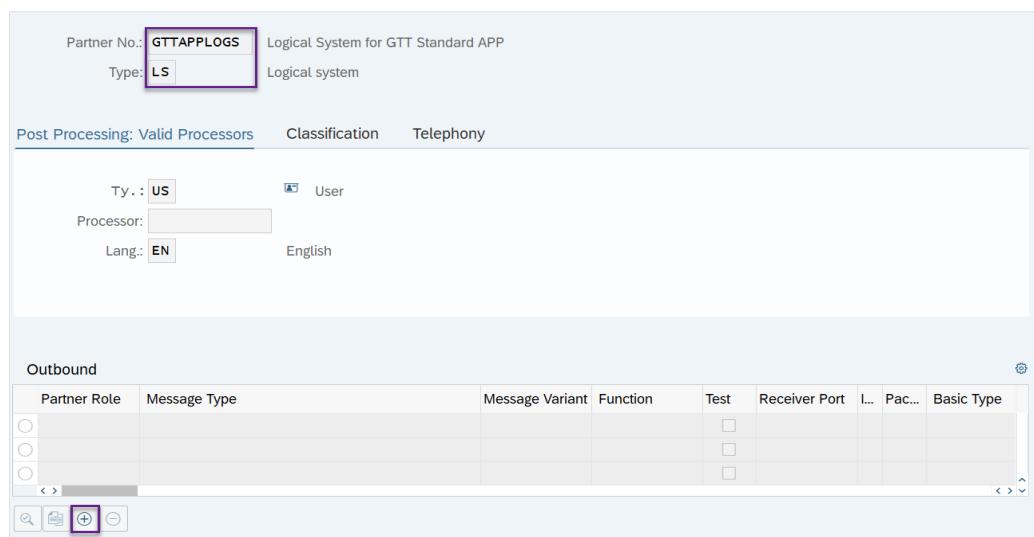
3.6.2 Choose **Partner Type LS** folder, and click **Create** to create a new partner profile.



3.6.3 Fill in the **Partner No.** that you created and fill in the **Processor** information.



3.6.4 Click **Add** under **Outbound** box to create a new outbound parameter.



3.6.5 Fill in the **Message Type** GTTMSG and Fill in the **Receiver Port** that you created in [3.5](#).

The screenshot shows the SAP Fiori interface for configuring a partner profile. The top navigation bar says "Partner profiles: Outbound parameters". The main area shows a partner profile with the following details:

- Partner No.:** GTTAPPLOGS (Logical System for GTT Standard APP)
- Type:** LS (Logical system)
- Partner Role:** (empty)
- Message Type:** GTTMSG (highlighted with a purple border)
- Message Code:** (empty)
- Message Function:** (empty) Test

Below these settings, there are tabs for **Outbound Options**, **Message Control**, **Post Processing: Valid Processors**, **Telephony**, and **EDI Standard**. Under **Outbound Options**, the following configuration is shown:

- Receiver Port:** GTTAPPOR (highlighted with a purple border)
- Pack. Size:** 0
- Queue Processing

Under **Output Mode**, the following configuration is shown:

- Pass IDoc Immediately Output Mode: 2
- Collect IDocs

Under **IDoc Type**, the following configuration is shown:

- Basic Type:** GTTMSG01 (highlighted with a purple border)
- Extension:** (empty)
- View:** (empty)
- Cancel Processing After Syntax Error
- Seg. release in IDoc type:** (empty)
- Application Release:** (empty)

3.6.6 Save the configuration.

3.7 Maintain AOT Type Restriction for Cross-Processes

Prerequisite:

ABAP code and BC set should be activated in the system.

The following entries should be maintained in transaction “ZGTT_AOTYPE_RST - AOT Types Restrictions” for Cross-Processes tracking scenario.

Restr.ID	Restr.Pos	Option	Sign	Application Obj.Type
FU_TO_IDLH	001	Equal To	Include	GTT_IDLV_HD
FU_TO_IDLI	001	Equal To	Include	GTT_IDLV_IT
SH_TO_IDLH	001	Equal To	Include	GTT_IDLV_HD
SH_TO_IDLI	001	Equal To	Include	GTT_IDLV_IT

4. Configuration Option 2 (Manual Configuration)

4.1 Define RFC Connection for GTT

4.1.1 Log on to the business client, enter T-code **SPRO** and then click **SAP Reference IMG** to open **Display IMG page**.

4.1.2 Click **Integration with Other SAP Components -> Interface to Global Track and Trace -> Define System Configuration**. Choose activity: **Define RFC Connection for SAP GTT**

4.1.3 Choose **HTTP Connections to External Server**. Click **Create** to create a new RFC connection.

RFC Connections	Type	PL Active	Comment
> ABAP Connections	3		
> HTTP Connections to External Server	G		
> HTTP Connections to ABAP System	H		
> Internal Connections	I		
> Logical Connections	L		

4.1.4 Fill in the **Destination** and choose the **Connection Type**: '**G-HTTP connection to external server**'.

* Destination:	GTT_APP_RFC
* Connection Type:	G HTTP connection to external server

4.1.5 Enter a description. In the **Technical Settings** tab, fill in the **Host**, **Port** and **Path Prefix**.

For example, the URL of solution owners is as follows :

<https://sat-so-01.gtt-flp-lbnplatform-pre-live.cfapps.eu10.hana.ondemand.com/>

Host: sat-so-01.gtt-flp-lbnplatform-pre-live.cfapps.eu10.hana.ondemand.com

Port: 443

Path Prefix: /api/idoc/em/v1/TrackedProcessAndEvent

The screenshot shows the SAP Fiori interface for configuring an RFC destination. The top navigation bar includes a back arrow, the SAP logo, and the title "RFC Destination GTT_APP_RFC". Below the title are buttons for "Connection Test" and "More". The main area is divided into sections: "RFC Destination" (set to "GTT_APP_RFC"), "Connection Type" (set to "HTTP Connection to External Server"), and "Description". Under "Description", there are three fields: "Description 1: RFC for GTT Standard APP", "Description 2:", and "Description 3:". At the bottom, tabs for "Administration", "Technical Settings" (which is highlighted with a purple border), "Logon & Security", and "Special Options" are visible. A section titled "Target System Settings" contains fields for "Host:" (with the value "sat-so-01.gtt-flp-lbnplatform-pre-live.cfapps.eu10.hana.ondemand.com") and "Port:" (with the value "443"). The "Path Prefix:" field (containing "/api/idoc/em/v1/TrackedProcessAndEvent") is also highlighted with a purple border.

4.1.6 In the **Logon & Security** tab, enter the Logon information.

For the basic authentication, the GTT technical user / password is needed. You can get this from your GTT administrator.

Also, SSL must be **Active**. The recommended SSL Certificate is: DEFAULT SSL Client (Standard).

RFC Destination: GTT_APP_RFC

Connection Type: G HTTP Connection to External Server

Description

Description 1: RFC for GTT Standard APP

Description 2:

Description 3:

Administration Technical Settings **Logon & Security** Special Options

Logon Procedure

Logon with User

- Do not use a user
- Basic authentication

User:

PW Status:

OAuth Settings

Logon with Ticket

- Do not send logon ticket
- Send ticket without reference to target system
- Send assertion ticket for dedicated target system

System ID Client

Logon with MQTT/AMQP

User:

PW Status:

Security Options

Status of Secure Protocol

SSL : Inactive Active

SSL Certificate:

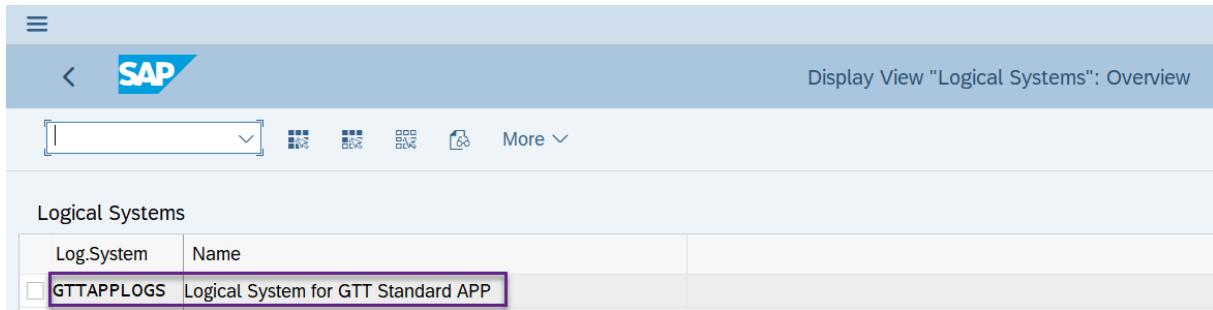
Do not use certificate for logon

4.1.7 Save the configuration.

4.2 Define Logical System

4.2.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> Define System Configuration**. Choose activity **Define Logical System**.

4.2.2 Create **New Entries** to create a new Logical System, fill in the Logical System code and Name of the new logical system.



The screenshot shows the SAP Fiori interface for managing logical systems. The title bar reads "Display View 'Logical Systems': Overview". Below the title bar is a search bar and a toolbar with icons for refresh, search, and more options. The main area is titled "Logical Systems" and contains a table with two columns: "Log.System" and "Name". A single row is visible, showing "GTTAPPLOGS" in the Log.System column and "Logical System for GTT Standard APP" in the Name column. The entire row is highlighted with a purple border.

Log.System	Name
GTTAPPLOGS	Logical System for GTT Standard APP

4.2.3 Save the configuration.

4.3 Define Ports

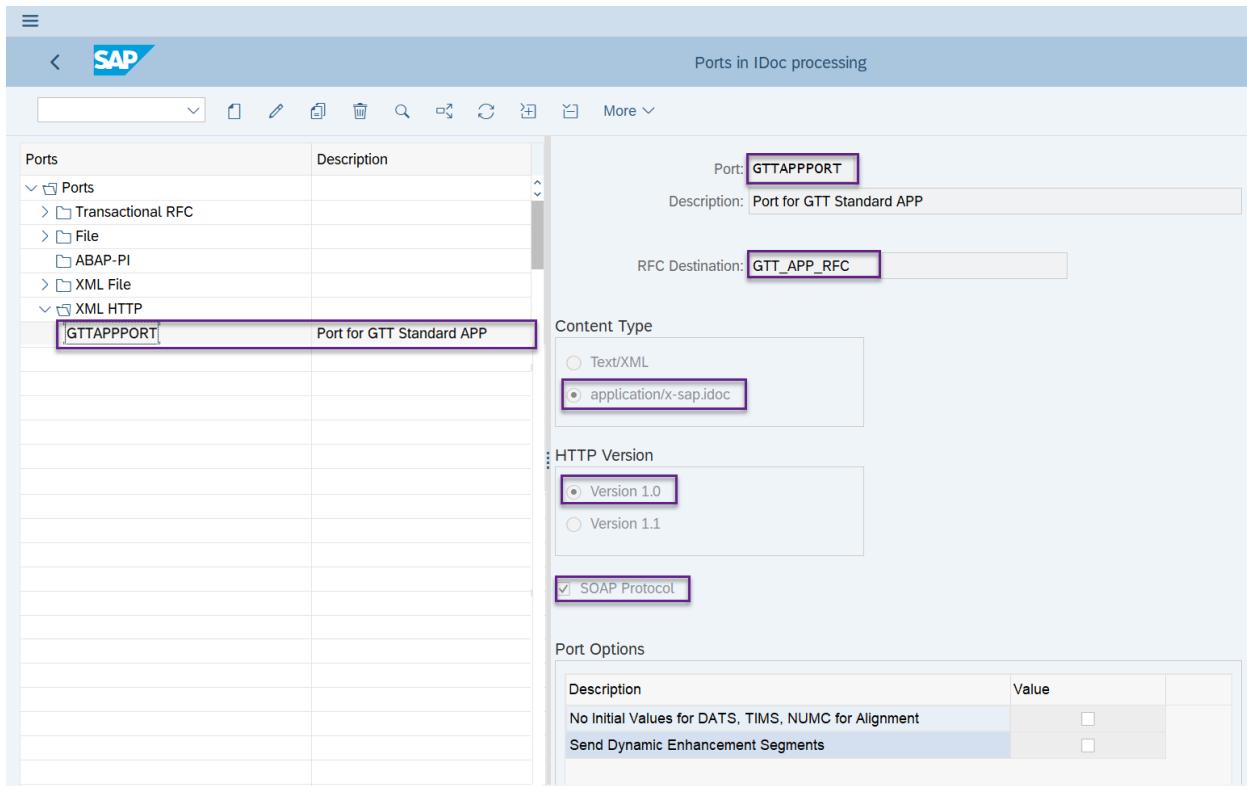
4.3.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> IDoc Settings**. Choose activity **Define Ports**.

4.3.2 Choose **XML HTTP** folder, and click **Create** to create a new port **GTTAPPPORT**.

4.3.3 Fill in the **RFC Destination**.

4.3.4 Choose **Content Type** as *application/x-sap.idoc*

4.3.5 Choose **HTTP Version** as Version 1.0. Mark it as SOAP Protocol.



4.3.6 Save the configuration.

4.4 Define Partner Profiles

4.4.1 In Display IMG page, unfold **Integration with Other SAP Components -> Interface to Global Track and Trace -> IDoc Settings**. Choose activity **Define Partner Profiles**.

4.4.2 Choose **Partner Type LS** folder, and click **Create** to create a new partner profile.

The screenshot shows the SAP Fiori interface for defining partner profiles. On the left, there's a navigation tree with categories like 'Partner Profiles', 'Partner Type AD', 'Bank', 'Benefits provider', 'Business Partner', 'Customer', 'Vendor', and 'Logical system'. The 'Logical system' node under 'Partner Type LS' is selected and highlighted with a purple border. On the right, there are input fields for 'Partner No.' (with placeholder 'GTTAPPLOGS'), 'Type' (with placeholder 'LS'), and other configuration tabs for 'Post Processing: Valid Processors', 'Classification', and 'Telephony'. Below these tabs, there are fields for 'Ty.:' (with placeholder 'US'), 'Processor:' (with placeholder 'GTTAPPLOGS'), and 'Lang.: (with placeholder 'EN').

4.4.3 Fill in the **Partner No.** that you created and fill in the **Processor** information.

The screenshot shows the 'Outbound' configuration table. It has columns for 'Partner Role', 'Message Type', 'Message Variant', 'Function', 'Test', 'Receiver Port', 'I...', 'Pac...', and 'Basic Type'. There are three rows in the table, each with a small icon in the first column. At the bottom of the table, there are icons for search, add, and refresh. The 'Processor' column is highlighted with a purple border.

4.4.4 Click **Add** under the **Outbound** box to create a new outbound parameter.

Partner Role	Message Type	Message Variant	Function	Test	Receiver Port	I...	Pac...	Basic Type
	GTTMSG			<input type="checkbox"/>	GTTAPPLOGS			Logical System for GTT Standard APP

4.4.5 Fill in the Message Type GTTMSG and Fill in the Receiver Port that you created in [4.3](#).

Partner No.:	GTTAPPLOGS		Logical System for GTT Standard APP	
Type:	LS	Logical system		
Partner Role:				
Message Type:	GTTMSG			
Message Code:				
Message Function:	<input type="checkbox"/> Test			
Outbound Options	Message Control	Post Processing: Valid Processors	Telephony	EDI Standard
Receiver Port:	GTTAPPLOGS			Port for GTT Standard APP
Pack. Size:	0			
<input type="checkbox"/> Queue Processing				
Output Mode		Output Mode: 2		
<input checked="" type="radio"/> Pass IDoc Immediately				
<input type="radio"/> Collect IDocs				
IDoc Type				
Basic Type:	GTTMSG01			LBN-TT: Process and Event Posting
Extension:				
View:				
<input checked="" type="checkbox"/> Cancel Processing After Syntax Error				
Seg. release in IDoc type:	<input type="text"/>			Application Release: <input type="text"/>

4.4.6 Save the configuration.

4.5 Define CI Tenant for GTT

4.5.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> Define Application Interface**.

Choose activity **Define CI Tenant for SAP GTT**.

4.5.2 Click **New Entries** to create a new CI tenant for GTT, fill in the information for the new CI tenant. The **CI Log. System** is the logical system you created in [4.2](#).

The first screenshot shows the 'Change View "SAP Global Track & Trace Definitions": Overview' screen. A purple box highlights the 'New Entries' button in the top navigation bar. Below it, a table lists columns: CI for Global Track & Trace, CI Log. System, SAP Track & Trace Version, and Description.

The second screenshot shows the 'Display View "SAP Global Track & Trace Definitions": Overview' screen. It displays a table with one row selected. The selected row contains: GTTAPPLOGS (CI for Global Track & Trace), GTTAPPLOGS (CI Log. System), GTT2.0 Logistics Business Network - Track and Trace (SAP Track & Trace Version), and CI Tenant for GTT Standard APP (Description).

4.6 Define GTT Extraction Functions

Prerequisite:

You have already installed ABAPGit and downloaded the code of Fulfillment Tracking apps in your development system.

4.6.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> Define Application Interface**. Choose activity **Define SAP GTT Extraction Functions**.

4.6.2 Choose the type of Extraction Function you want to create from the **Dialog Structure**, and click **New entries**.

The screenshot shows the 'Change View "GTT Relevance Functions (App. Obj. Types)": Overview' screen. A purple box highlights the 'New entries' button in the top navigation bar. On the left, a 'Dialog Structure' sidebar lists categories: GTT Relevance Functions (App. Obj. Types) (selected), GTT Relevance Functions (Event Types), Planned Event Extractors, Control Parameter Extractors, Info Parameter Extractors, Tracking ID Extractors, Event Data Extractors, and AOID Extractor. The main area displays a table for 'GTT Relevance Functions (App. Obj. Types)' with columns: Function, Function Module, and Description. There are six empty rows in the table.

4.6.3 Input the **Function** name and **Function Module** for the newly created extraction function.

GTT Relevance Functions (App. Obj. Types)		
Function	Function Module	Description
GTT_MIA_IDLV_HD_REL	ZGTT_MIA_OTE_DL_HDR_REL	Appl. Object Type Relevance for Inbound Delivery Header

4.6.4 Click **Save**.

Hint:

After completing the configuration of 'Define GTT Extraction Functions', the configuration should be as follows:

Category	Extractor	Function Module Name	Description
Control Parameter Extractors	GTT_MIA_IDLV_HD_OTE	ZGTT_MIA_OTE_DL_HDR	Control Parameter Extractor for Inbound Delivery Header
	GTT_MIA_IDLV_IT_OTE	ZGTT_MIA_OTE_DL_ITEM	Control Parameter Extractor for Inbound Delivery Item
	GTT_MIA_SHP_HD_OTE	ZGTT_MIA_OTE_SH_HDR	Control Parameter Extractor for Shipment Header
	GTT_TS_FO_HD_OTE	ZGTT_STS_OTE_FO_HDR	Control Parameter Extractor for Freight Order and Freight Booking
	GTT_TS_FU_HD_OTE	ZGTT_STS_OTE_FO_HDR	Control Parameter Extractor for Freight Unit
Event Data Extractors	GTT_MIA_IDLV_HD_GR	ZGTT_MIA_EE_DL_HDR_GR	Actual event Inbound Delivery Header Goods Receipt
	GTT_MIA_IDLV_IT_PA	ZGTT_MIA_EE_DL_ITEM_PA	Actual event Inbound Delivery Item Put Away
	GTT_MIA_IDLV_IT_PKNG	ZGTT_MIA_EE_DL_ITEM_PKNG	Actual event Inbound Delivery Item Packing
	GTT_MIA_SHP_HD_ARR	ZGTT_MIA_EE_SH_HDR_ARR	Actual event Shipment Header Arrival
	GTT_MIA_SHP_HD_CI	ZGTT_MIA_EE_SH_HDR_CI	Actual event Shipment Header Check In
	GTT_MIA_SHP_HD_DEP	ZGTT_MIA_EE_SH_HDR_DEP	Actual event Shipment Header Departure
	GTT_MIA_SHP_HD_LE	ZGTT_MIA_EE_SH_HDR_LE	Actual event Shipment Header Load End
	GTT_MIA_SHP_HD_LS	ZGTT_MIA_EE_SH_HDR_LS	Actual event Shipment Header Load Start
	GTT_TS_TOR_ARRIVAL	ZGTT_STS_EE_FO_ARRIVAL	Actual Event FO/FB/FU Proof of Arrival
	GTT_TS_TOR_COUPLING	ZGTT_STS_EE_FO_COUPLING	Actual Event FO/FB/FU Coupling
	GTT_TS_TOR_DECOUPL	ZGTT_STS_EE_FO_DECOUPLING	Actual Event FO/FB/FU Decoupling
	GTT_TS_TOR_DELAY	ZGTT_STS_EE_FO_DELAY	Actual Event FO/FB/FU Delay

	GTT_TS_TOR_DEPART	ZGTT_STS_EE_FO_DEPARTURE	Actual Event FO/FB/FU Proof of Departure
	GTT_TS_TOR_FU_DELAY	ZGTT_STS_EE_FU_DELAY	Actual Event FO/FB/FU FU Delay
	GTT_TS_TOR_LOAD_END	ZGTT_STS_EE_FO_LOAD_END	Actual Event FO/FB/FU Loading End
	GTT_TS_TOR_LOAD_STR	ZGTT_STS_EE_FO_LOAD_START	Actual Event FO/FB/FU Loading Start
	GTT_TS_TOR_POD	ZGTT_STS_EE_FO_POD	Actual Event FO/FB/FU Proof of Delivery
	GTT_TS_TOR_POPU	ZGTT_STS_EE_FO_POPU	Actual Event FO/FB/FU Proof of Pick-Up
	GTT_TS_TOR_UNLD_END	ZGTT_STS_EE_FO_UNLOAD_END	Actual Event FO/FB/FU Unloading End
	GTT_TS_TOR_UNLD_STR	ZGTT_STS_EE_FO_UNLOAD_START	Actual Event FO/FB/FU Unloading Start
Planned Event Extractors	GTT_MIA_IDLV_HD_EE	ZGTT_MIA_EE_DL_HDR	Selection of EEs for Inbound Delivery Header
	GTT_MIA_IDLV_IT_EE	ZGTT_MIA_EE_DL_ITEM	Selection of EEs for Inbound Delivery Item
	GTT_MIA_SHP_HD_EE	ZGTT_MIA_EE_SH_HDR	Selection of EEs for Shipment Header
	GTT_TS_FO_HD_EE	ZGTT_STS_EE_FO_HDR	Selection of EEs for FO/FB Header
	GTT_TS_FU_HD_EE	ZGTT_STS_EE_FO_HDR	Selection of EEs for FU Header
Tracking ID Extractors	GTT_MIA_IDLV_HD_TID	ZGTT_MIA_OTE_DL_HDR_TID	Tracking ID Extractor for Inbound Delivery Header
	GTT_MIA_IDLV_IT_TID	ZGTT_MIA_OTE_DL_ITEM_TID	Tracking ID Extractor for Inbound Delivery Item
	GTT_MIA_SHP_HD_TID	ZGTT_MIA_OTE_SH_HDR_TID	Tracking ID Extractor for Shipment Header
	GTT_TS_FO_HD_TID	ZGTT_STS_OTE_FO_HEADER_TID	Tracking ID Extractor for Freight Order and Freight Booking
	GTT_TS_FU_HD_TID	ZGTT_STS_OTE_FO_HEADER_TID	Tracking ID Extractor for Freight Unit
GTT relevance function of AOT	GTT_MIA_IDLV_HD_REL	ZGTT_MIA_OTE_DL_HDR_REL	Appl. Object Type Relevance for Inbound Delivery Header
	GTT_MIA_IDLV_IT_REL	ZGTT_MIA_OTE_DL_ITEM_REL	Appl. Object Type Relevance for Inbound Delivery Item
	GTT_MIA_SHP_HD_REL	ZGTT_MIA_OTE_SH_HDR_REL	Appl. Object Type Relevance for Shipment Header
	GTT_TS_FO_HD_REL	ZGTT_STS_OTE_FO_HDR_REL	Appl. Object Type Relevance for FO/FB Header
	GTT_TS_FU_HD_REL	ZGTT_STS_OTE_FO_HDR_REL	Appl. Object Type Relevance for FU Header
GTT relevance function of Event Type	GTT_MIA_IDLV_HD_GR	ZGTT_MIA_EE_DL_HDR_GR_REL	Relevance function for Actual event Delivery Header Goods Receipt
	GTT_MIA_IDLV_IT_PA	ZGTT_MIA_EE_DL_ITEM_PA_REL	Relevance function for Actual event Delivery Item Put Away

	GTT_MIA_IDLV_IT_PKNG	ZGTT_MIA_EE_DL_ITEM_PKNG_REL	Relevance function for Actual event Delivery Item Packing
	GTT_MIA_SHP_HD_ARR	ZGTT_MIA_EE_SH_HDR_ARR_REL	Relevance function for Actual event Shipment Header Arrival
	GTT_MIA_SHP_HD_CI	ZGTT_MIA_EE_SH_HDR_CI_REL	Relevance function for Actual event Shipment Header Check In
	GTT_MIA_SHP_HD_DEP	ZGTT_MIA_EE_SH_HDR_DEP_REL	Relevance function for Actual event Shipment Header Departure
	GTT_MIA_SHP_HD_LE	ZGTT_MIA_EE_SH_HDR_LE_REL	Relevance function for Actual event Shipment Header Load End
	GTT_MIA_SHP_HD_LS	ZGTT_MIA_EE_SH_HDR_LS_REL	Relevance function for Actual event Shipment Header Load Start
	GTT_TS_TOR_ARRIVE	ZGTT_STS_EE_FO_ARRIVAL_REL	Relevance function for Actual event FO/FB/FU Arrival
	GTT_TS_TOR_COUP	ZGTT_STS_EE_FO_COUPLING_REL	Relevance function for Actual event FO/FB/FU Coupling
	GTT_TS_TOR_DECP	ZGTT_STS_EE_FO_DECOUPLING_REL	Relevance function for Actual event FO/FB/FU Decoupling
	GTT_TS_TOR_DELAY	ZGTT_STS_EE_FO_DELAY_REL	Relevance function for Actual event FO/FB/FU Delay
	GTT_TS_TOR_DEPART	ZGTT_STS_EE_FO_DEPARTURE_REL	Relevance function for Actual event FO/FB/FU Departure
	GTT_TS_TOR_FU_DELAY	ZGTT_STS_EE_FU_DELAY_REL	Relevance function for Actual event FO/FB/FU Freight Unit Delay
	GTT_TS_TOR_LEND	ZGTT_STS_EE_FO_LOAD_END_REL	Relevance function for Actual event FO/FB/FU Loading End
	GTT_TS_TOR_LSTR	ZGTT_STS_EE_FO_LOAD_START_REL	Relevance function for Actual event FO/FB/FU Loading Start
	GTT_TS_TOR_POD	ZGTT_STS_EE_FO_POD_REL	Relevance function for Actual event FO/FB/FU Proof of Delivery
	GTT_TS_TOR_POPU	ZGTT_STS_EE_FO_POPU_REL	Relevance function for Actual event FO/FB/FU Proof of Pick Up
	GTT_TS_TOR_UEND	ZGTT_STS_EE_FO_UNLOAD_END_REL	Relevance function for Actual event FO/FB/FU Unloading End
	GTT_TS_TOR_USTR	ZGTT_STS_EE_FO_UNLOAD_STRT_REL	Relevance function for Actual event FO/FB/FU Unloading Start
AOID Extractor	GTT_MIA_IDLV_HD_AOID	ZGTT_MIA_AOID_DL_HDR	AOID Extractor for Inbound Delivery Header
	GTT_MIA_IDLV_IT_AOID	ZGTT_MIA_AOID_DL_ITEM	AOID Extractor for Inbound Delivery Item

GTT_MIA_SHP_HD_AOID	ZGTT_MIA_AOID_SH_HDR	AOID Extractor for Shipment Header
GTT_STS_AOID_TOR	ZGTT_STS_AOID_TOR	AOID Extractor for FU/FO/FB

4.7 Define Used Business Process Types, Appl. Object Types and Event Types

4.7.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> Define Application Interface.**

Choose activity **Define Used Business Process Types, Appl. Object Types and Event Types.**

4.7.2 You can create event types and application object types for each business process type.

The following sections from 4.8 to 4.11 only demonstrate how to configure relevant objects. For actual configuration, refer to the scenarios configuration listed below.

Scenarios configuration:

1) Inbound delivery -> Shipment.

For this scenario, see the following configurations:

[4.12](#) Inbound Delivery Extractor Configuration

[4.13](#) Shipment Extractor Configuration

2) Inbound delivery -> Freight Unit -> Road Freight Order/Ocean/Air booking.

For this scenario, see the following configurations:

[4.12](#) Inbound Delivery Extractor Configuration

[4.14](#) Freight Unit Extractor Configuration

[4.15](#) Road Freight Order/Ocean/Air booking Extractor Configuration

4.8 Define Application Object Types for Header Level Extractor

4.8.1 As an example of AOT type's header level tracking introduction, choose the business process type ESC_DELIV from the **Define Used Business Process Types** on the right side.

Double click **Define Application Object Types**.

Bus. Proc. Type	Update Mode	BPT Process Mode	Description
ESC_DELIV	Update Task (V1)	Active	Delivery in SAP R/3 Enterprise
ESC_FI_CLEARING	Update Task (V1)	Active	FI Clearing in SAP R/3 Enterprise

4.8.2 Click **New Entries** to create a new Application Object Type.

4.8.3 Fill in the **Application Object Type** and **Text** fields.

4.8.4 Fill in the information required in the **General Data** tab. **CI for GTT** is the CI Tenant you created in [4.5](#). Check **GTT Relevant**.

Bus. Proc. Type:	ESC_DELIV	
Appl. Obj. Type:	GTT_IDLV_HD	1 Extract Inbound Delivery Header information to Global Track and Trace
Text:	Inb. Delivery Header	

General Data Control Tables Object Identification Global Track & Trace Relevance Parameter Setup

Sequencing / Destination

Seq. No.:	10	
CI for GTT:	GTTAPPLOGS	CI Tenant for GTT Standard APP

Business Object Reference

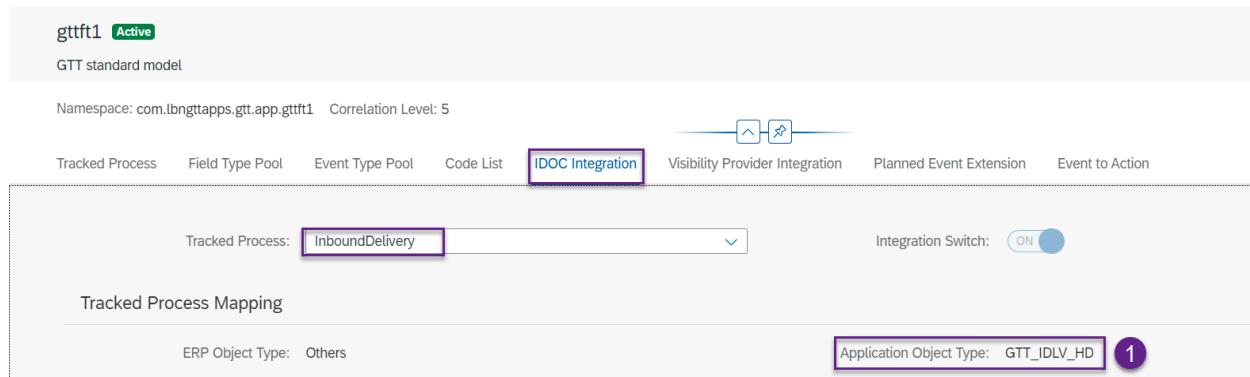
Object Type:	BUS2015	InboundDelivery
BO Setup Fnct.:		

Behavior

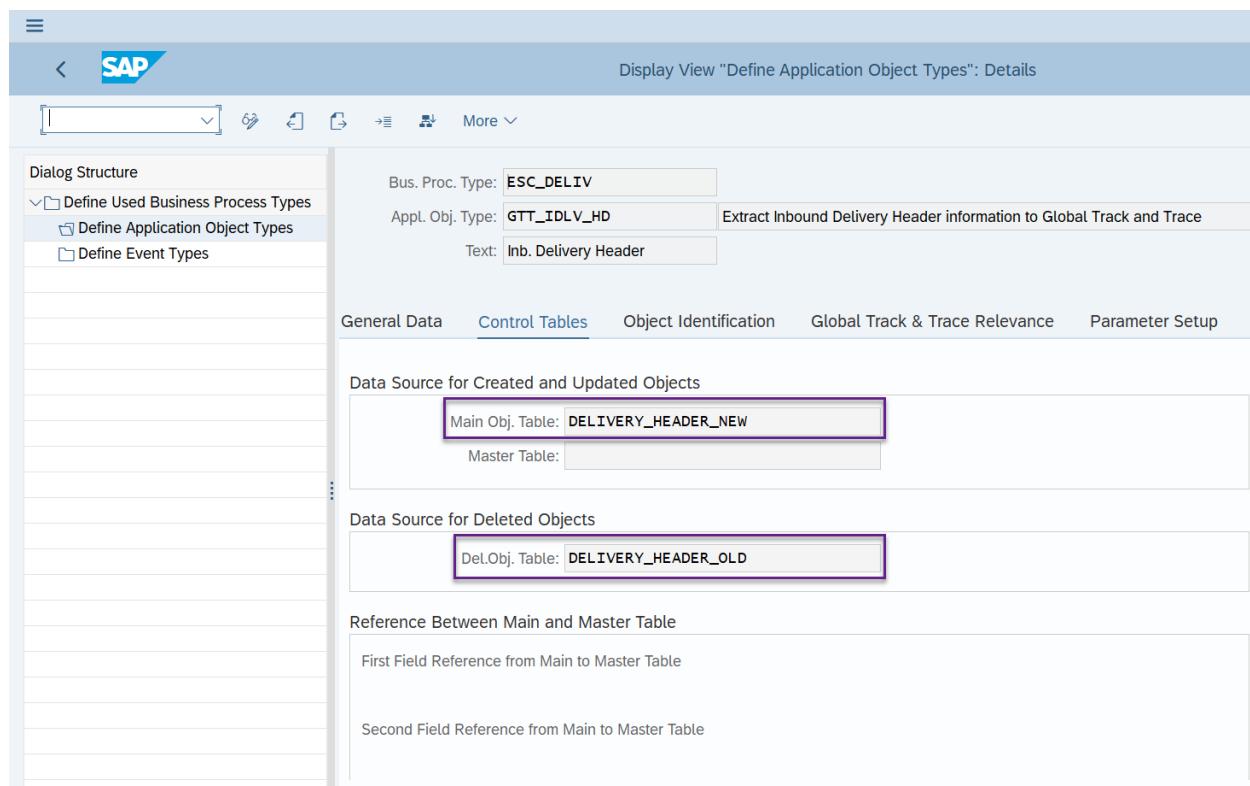
<input checked="" type="checkbox"/> GTT Relevant
<input type="checkbox"/> Stop AO Determ.
<input type="checkbox"/> Appl. Log Deact

Hint:

When you are creating Application Object Type for one Business Process Type, make sure the AOT name must be the same name defined in the corresponding model in the *Manage Models* app in GTT Version 2.



4.8.5 Fill in the **Main Object table** and **Master Table** in the **Control Tables** tab.

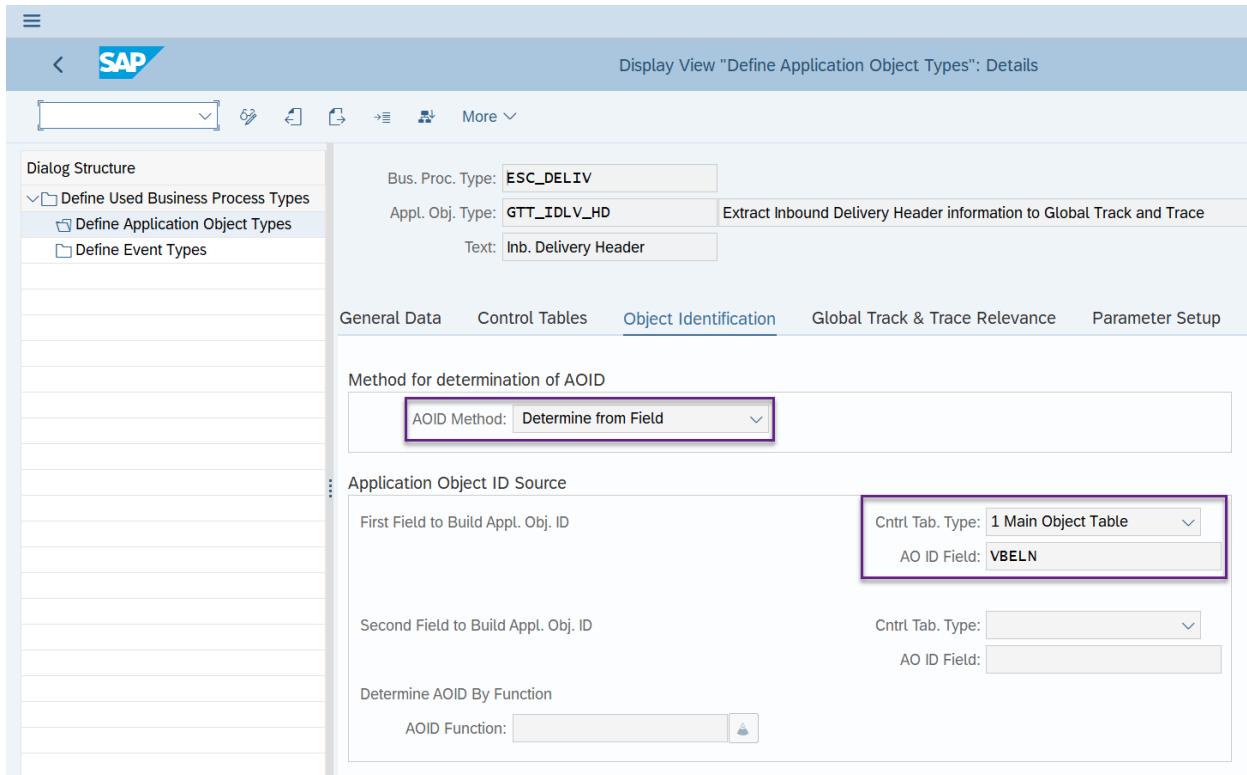


Note:

If the event type or application object type is on the header level, then you only need to assign the **Main Object Table**.

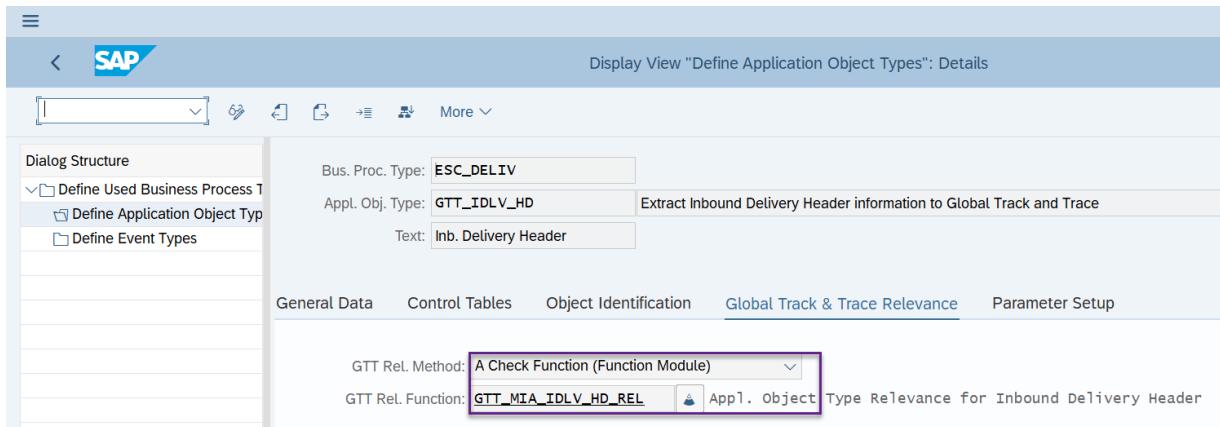
If the event type or application object type is on the item level, then you need to assign the **Main Object Table** and **Master Table**, and assign the reference between the **Main Object Table** and **Master Table**.

4.8.6 If there is no customized logic to determine the AOT ID, choose **Determine from Field**, and use the key field to fill the AO ID fields. When choosing **Determine by Function**, you must enter the customized information in the AOID function field.



4.8.7 In the **Global Track & Trace Relevance** tab, choose the **GTT Relevance Method** you need.

If you choose the **GTT Relevance Method** as *Check Function*, then you need to define a relevance function according to [4.6](#), and fill in the relevance function name here.



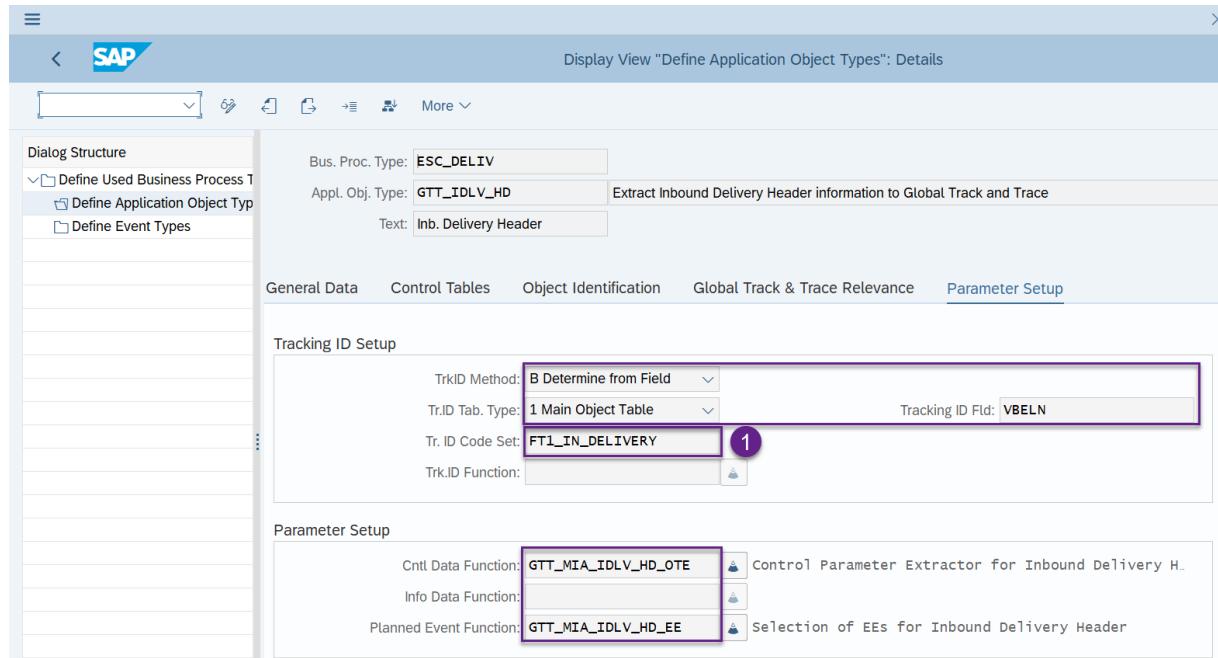
4.8.8 In the **Parameter Setup** tab, choose the **TrkID Method** as you need.

If you choose the **TrkID Method** as *Determine by Function*, then you need to define a tracking ID function according to [4.6](#), and fill in the relevance function name here.

If no customized logic exists, for **TrkID Method** choose *Determine from Field*, then you need to fill the key field and name the Code Set for the AOT.

Fill in the extractor functions for **Control Data**, **Info Data(optional)**, **Planned Event**.

Click **Save**.



Hint:

In the AOT you maintained, make sure the name of Tracking ID Type is the same name defined in the corresponding process type of the model in the *Manage Models* app in GTT Version 2.

If the Tracking ID Type is determined by Field, input the value source field in the Tracking ID field, and the Code Set that refers to the Tracking ID Type for the AOT as below.

4.9 Define Application Object Types for Item Level Extractor

4.9.1 As an example of AOT type's item level tracking introduction, choose the business process type ESC_DELIV from the **Define Used Business Process Types** on the right side. Double click **Define Application Object Types**.

Bus. Proc. Type	Update Mode	BPT Process Mode	Description
ESC_DELIV	Update Task (V1)	Active	Delivery in SAP R/3 Enterprise
ESC_FI_CLEARING	Update Task (V1)	Active	FI Clearing in SAP R/3 Enterprise

4.9.2 Click **New Entries** to create a new Application Object Type.

4.9.3 Fill in the **Application Object Type** and **Text** fields.

4.9.4 Fill in the information required in the **General Data** tab. **CI for GTT** is the CI Tenant you created in [4.5](#). Check **GTT Relevant**.

Bus. Proc. Type:	ESC_DELIV
Appl. Obj. Type:	GTT_IDLV_IT
Text:	Inb. Delivery Item

Seq. No.:	10
CI for GTT:	GTTAPPLOGS

Object Type:	BUS2015	InboundDelivery
BO Setup Fnct.:		

<input checked="" type="checkbox"/> GTT Relevant
<input type="checkbox"/> Stop AO Determ.
<input type="checkbox"/> Appl. Log Deact

4.9.5 Fill in the **Main Object table** and **Master Table** in the **Control Tables** tab.

Display View "Define Application Object Types": Details

Dialog Structure

- Define Used Business Process Types
- Define Application Object Types**
- Define Event Types

Bus. Proc. Type: ESC_DELIV
Appl. Obj. Type: GTT_IDLV_IT Extract Inbound Delivery Item information to Global Track and Trace
Text: Inb. Delivery Item

General Data **Control Tables** Object Identification Global Track & Trace Relevance Parameter Setup

Data Source for Created and Updated Objects

Main Obj. Table:	DELIVERY_ITEM_NEW
Master Table:	DELIVERY_HEADER_NEW

Data Source for Deleted Objects

Del.Obj. Table:	DELIVERY_ITEM_OLD
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Reference Between Main and Master Table

First Field Reference from Main to Master Table

Uplink Field:	VBELN	Uplink Mode:	R
Uplink Target Fld:	VBELN	Uplink Const:	

Second Field Reference from Main to Master Table

Uplink Field:		Uplink Mode:	
Uplink Target Fld:		Uplink Const:	

4.9.6 Fill in the **AOID method** in the **Object Identification** tab.

Display View "Define Application Object Types": Details

Dialog Structure

- Define Used Business Process Types
- Define Application Object Types**
- Define Event Types

Bus. Proc. Type: ESC_DELIV
Appl. Obj. Type: GTT_IDLV_IT Extract Inbound Delivery Item information to Global Track and Trace
Text: Inb. Delivery Item

General Data Control Tables **Object Identification** Global Track & Trace Relevance Parameter Setup

Method for determination of AOID

AOID Method:	Determine from Field
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Application Object ID Source

First Field to Build Appl. Obj. ID

Cntrl Tab. Type:	1 Main Object Table
AO ID Field:	VBELN

Second Field to Build Appl. Obj. ID

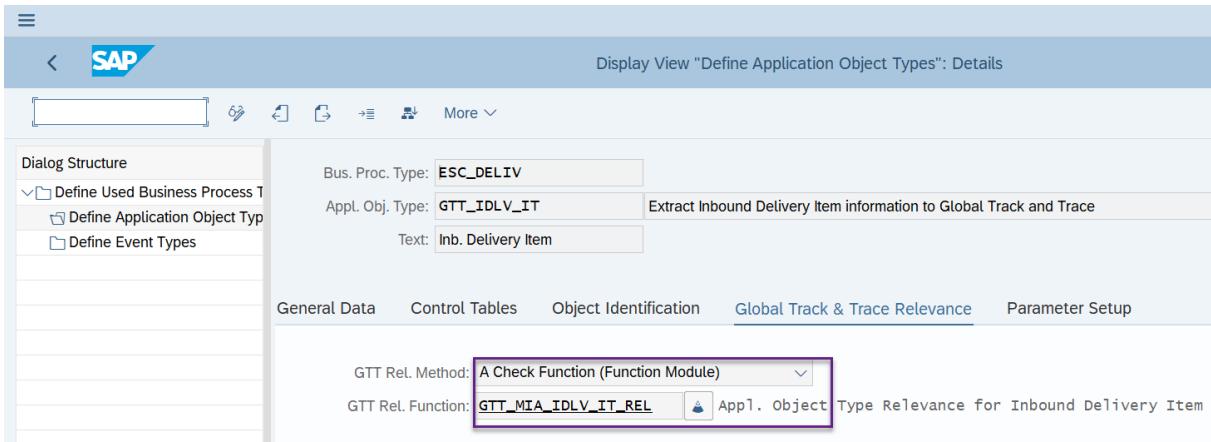
Cntrl Tab. Type:	1 Main Object Table
AO ID Field:	POSNR

Determine AOID By Function

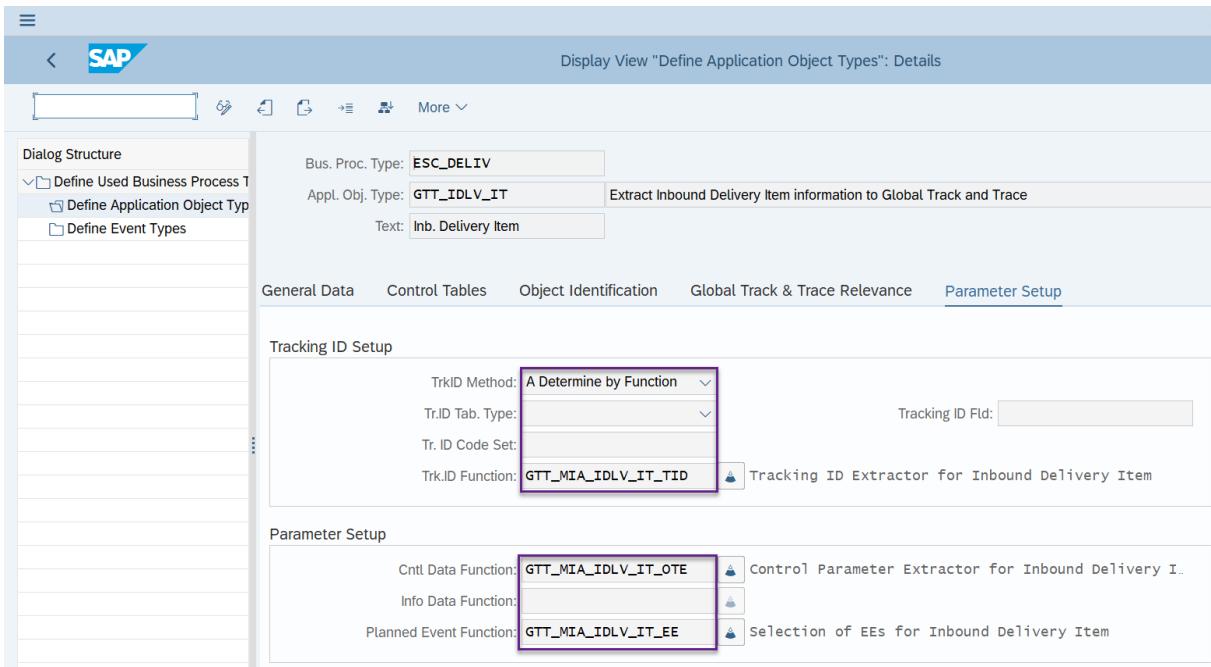
AOID Function:	
----------------	--

4.9.7 In the **Global Track & Trace Relevance** tab, choose the **GTT Relevance Method** you need.





4.9.8 In the **Parameter Setup** tab, choose the **TrkID Method** as you need.



4.10 Define Event Types for Header Level Extractor

4.10.1 As an example of event's header level tracking introduction, choose the business process type ESC_MATDOC from the **Define Used Business Process Types** on the right side. Double click **Define Event Types**.

Bus. Proc. Type	Update Mode	BPT Process Mode	Description
<input checked="" type="checkbox"/> ESC_MATDOC	Update Task (V1)	Active	Material Document in SAP R/3 Enterprise
<input type="checkbox"/> ESC_MM_INVOICE	Update Task (V1)	Active	MM Invoice in SAP R/3 Enterprise

4.10.2 Click **New Entries** to create a new event type.

4.10.3 Fill in the **Event Type** and **Text** fields.

4.10.4 Fill in the information required in the **General Data** tab. **HCI for GTT** is the CI Tenant you created in [4.5. Event Function](#) is the extractor function you created in [4.6](#). Check **GTT Relevant**.

Bus. Proc. Type:	ESC_MATDOC
Event Type:	GTT_EVT_IDLV_GR
Text:	Delivery GR

General Data	Control Tables	Global Track & Trace Relevance
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Sequencing / Destination
Seq. No.: 10
HCI for GTT: GTTAPPLOGS

Data Setup
Event Function: GTT_MIA_IDLV_HD_GR

Behavior
<input checked="" type="checkbox"/> GTT Relevant
<input type="checkbox"/> Stop ET Det.
<input type="checkbox"/> Appl. Log Deact

4.10.5 Fill in the **Main Object Table** and **Master Table** in the **Control Tables** tab.

Bus. Proc. Type: ESC_MATDOC

Event Type: GTT_EVT_IDLV_GR Delivery Header Goods Receipt Event

Text: Delivery GR

Main Obj. Table: MATERIAL_HEADER

Old Main Obj. Table:

Old Master Table:

Caution:

If the event type or application object type is on the header level, then you only need to assign the **Main Object Table**.

If the event type or application object type is on the item level, then you need to assign the **Main Object Table** and **Master Table**, and assign the reference between the **Main Object Table** and **Master Table**.

4.10.6 In the **Global Track & Trace Relevance** tab, choose the **GTT Relevance Method** you need. If you choose the **GTT Relevance Method** as *Check Function*, then you need to define a relevance function according to [4.6](#), and fill in the relevance function name here. Click **Save**.

Bus. Proc. Type: ESC_MATDOC

Event Type: GTT_EVT_IDLV_GR Delivery Header Goods Receipt Event

Text: Delivery GR

GTT Rel. Method: A Check Function (Function...)

GTT Rel. Function: GTT_MIA_IDLV_HD_GR

Relevance function for Actu...

4.11 Define Event Types for Item Level Extractor

4.11.1 As an example of the event's item level tracking introduction, choose the business process type ESC_DELIV from the **Define Used Business Process Types** on the right side. Double click **Define Event Types**.

Bus. Proc. Type	Update Mode	BPT Process Mode	Description
<input checked="" type="checkbox"/> ESC_DELIV	Update Task (V1)	Active	Delivery in SAP R/3 Enterprise
<input type="checkbox"/> ESC_FT_CLEARING	Update Task (V1)	Active	FI Clearing in SAP R/3 Enterprise

4.11.2 Click **New Entries** to create a new event type.

4.11.3 Fill in the **Event Type** and **Text** fields.

4.11.4 Fill in the information required in the **General Data** tab. **HCI for GTT** is the CI Tenant you created in [4.5. Event Function](#) is the extractor function you created in [4.6](#). Check **GTT Relevant**.

4.11.5 Fill in the **Main Object Table** and **Master Table** in the **Control Tables** tab.

Bus. Proc. Type: ESC_DELIV
Event Type: GTT_EVT_IDLV_PA Delivery Item Put Away Event
Text: Put Away Event

General Data Control Tables Global Track & Trace Relevance

Data Source for Events

Main Obj. Table:	DELIVERY_ITEM_NEW
Master Table:	DELIVERY_HEADER_NEW
Old Main Obj. Table:	DELIVERY_ITEM_OLD
Old Master Table:	DELIVERY_HEADER_OLD

Reference Between Main and Master Table

First Field Reference from Main to Master Table

Uplink Field:	VBELN	Uplink Mode:	R
Uplink Target Fld:	VBELN	Uplink Const:	

Second Field Reference from Main to Master Table

Uplink Field:		Uplink Mode:	
Uplink Target Fld:		Uplink Const:	

Caution:

If the event type or application object type is on the header level, then you only need to assign the **Main Object Table**.

If the event type or application object type is on the item level, then you need to assign the **Main Object Table** and **Master Table**, and assign the reference between the **Main Object Table** and **Master Table**.

4.11.6 In the **Global Track & Trace Relevance** tab, choose the **GTT Relevance Method** you need. If you choose the **GTT Relevance Method** as *Check Function*, then you need to define a relevance function according to [4.6](#), and fill in the relevance function name here. Click **Save**.

Bus. Proc. Type: ESC_DELIV
Event Type: GTT_EVT_IDLV_PA Delivery Item Put Away Event
Text: Put Away Event

General Data Control Tables Global Track & Trace Relevance

GTT Rel. Method: A Check Function (Function...)

GTT Rel. Function: GTT_MIA_IDLV_IT_PA

Relevance function for Actu...

4.12 Inbound Delivery Extractor Configuration

4.12.1 Define Application Object Types for Inbound Delivery Header

Segment	Field	Value
Header	Bus. Proc. Type	ESC_DELIV
	Appl. Obj. Type	GTT_IDLV_HD
	Description	Extract Inbound Delivery Header information to Global Track and Trace
	Text	Inb. Delivery Header
General Data	Seq. No.	10
	CI for GTT	GTTAPPLOGS
	Object Type	BUS2015
	GTT Relevant	X
Control Tables	Main Obj. Table	DELIVERY_HEADER_NEW
	Del. Obj. Table	DELIVERY_HEADER_OLD
Object Identification	AOID Method	Determine by Function
Object Identification – Application Object ID Source – First Field to Build Appl. Obj. ID	Cntrl Tab. Type	Main Object Table
	AO ID Field	VBELN
Object Identification – Application Object ID Source – Determine AOID by Function	AOID Extractor	GTT_MIA_IDLV_HD_AOID
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_IDLV_HD_REL
Parameter Setup	TrkID Method	Determine by Function
	Tr. ID Tab. Type	Main Object Table
	Tracking ID Fld	VBELN
	Tr. ID Code Set	FT1_IN_DELIVERY
	Tr.ID Extractor	GTT_MIA_IDLV_HD_TID
	Ctrl Data Function	GTT_MIA_IDLV_HD_OTE
	Planned Event Function	GTT_MIA_IDLV_HD_EE

4.12.2 Define Application Object Types for Inbound Delivery Item

Segment	Field	Value
Header	Bus. Proc. Type	ESC_DELIV
	Appl. Obj. Type	GTT_IDLV_IT
	Description	Extract Inbound Delivery Item information to Global Track and Trace
	Text	Inb. Delivery Item
General Data	Seq. No.	10
	CI for GTT	GTTAPPLOGS
	Object Type	BUS2015
	GTT Relevant	X
Control Tables	Main Obj. Table	DELIVERY_ITEM_NEW
	Master Table	DELIVERY_HEADER_NEW
	Del. Obj. Table	DELIVERY_ITEM_OLD
Control Tables – Reference Between Main and Master Table – First Field Reference from Main to Master Table	Uplink Field	VBELN
	Uplink Mode	R
	Uplink Target Fld	VBELN
Object Identification	AOID Method	Determine by Function
Object Identification – Application Object ID Source – First Field to Build Appl. Obj. ID	Cntrl Tab. Type	Main Object Table
	AO ID Field	VBELN
Object Identification – Application Object ID Source – Determine AOID by Function	AOID Extractor	GTT_MIA_IDLV_IT_AOID
Object Identification – Application Object ID Source – Second Field to Build Appl. Obj. ID	Cntrl Tab. Type	Main Object Table
	AO ID Field	POSNR
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_IDLV_IT_REL
Parameter Setup	TrkID Method	Determine by Function
	Trk. ID Function	GTT_MIA_IDLV_IT_TID
	Ctrl Data Function	GTT_MIA_IDLV_IT_OTE
	Planned Event Function	GTT_MIA_IDLV_IT_EE

4.12.3 Define Event Types for Inbound Delivery Header

Segment	Field	Value
Header	Bus. Proc. Type	ESC_MATDOC
	Event Type	GTT_EVT_IDLV_GR
	Description	Delivery Header Goods Receipt Event
	Text	Delivery GR
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_IDLV_HD_GR
	GTT Relevant	X
Control Tables	Main Obj. Table	MATERIAL_HEADER
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_IDLV_HD_GR

4.12.4 Define Event Types for Inbound Delivery Item

Segment	Field	Value
Header	Bus. Proc. Type	ESC_DELIV
	Event Type	GTT_EVT_IDLV_PA
	Description	Delivery Item Put Away Event
	Text	Put Away Event
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_IDLV_IT_PA
	GTT Relevant	X
Control Tables	Main Obj. Table	DELIVERY_ITEM_NEW
	Master Table	DELIVERY_HEADER_NEW
	Old Main Obj. Table	DELIVERY_ITEM_OLD
	Old Master Table	DELIVERY_HEADER_OLD
Control Tables – Reference Between Main and Master Table – First Field Reference from Main to Master Table	Uplink Field	VBELN
	Uplink Mode	R
	Uplink Target Fld	VBELN
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_IDLV_IT_PA

Segment	Field	Value
Header	Bus. Proc. Type	ESC_DELIV
	Event Type	GTT_EVT_IDLV_PACK
	Description	Delivery Item Packing Event
	Text	Delivery Packing
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_IDLV_IT_PKNG
	GTT Relevant	X
Control Tables	Main Obj. Table	DELIVERY_ITEM_NEW
	Master Table	DELIVERY_HEADER_NEW
	Old Main Obj. Table	DELIVERY_ITEM_OLD
	Old Master Table	DELIVERY_HEADER_OLD
Control Tables – Reference Between Main and Master Table – First Field Reference from Main to Master Table	Uplink Field	VBELN
	Uplink Mode	R
	Uplink Target Fld	VBELN
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_IDLV_IT_PKNG

4.12.5 Cross-processes for Inbound Delivery

Prerequisite:

ABAP code and BC set should be activated in the system.

The following entries should be maintained in transaction “ZGTT_AOTYPE_RST - AOT Types Restrictions” for the cross-processes tracking scenario.

Restr.ID	Restr.Pos	Option	Sign	Application Obj.Type
FU_TO_IDLH	001	Equal To	Include	GTT_IDLV_HD
FU_TO_IDLI	001	Equal To	Include	GTT_IDLV_IT
SH_TO_IDLH	001	Equal To	Include	GTT_IDLV_HD
SH_TO_IDLI	001	Equal To	Include	GTT_IDLV_IT

4.13 Shipment Extractor Configuration

4.13.1 Define Application Object Types for Shipment Header

Segment	Field	Value
Header	Bus. Proc. Type	ESC_SHIPMT
	Appl. Obj. Type	GTT_SHP_HD
	Description	Extract Shipment Header information to Global Track and Trace
	Text	Shipment Header
General Data	Seq. No.	10
	CI for GTT	GTTAPPLOGS
	GTT Relevant	X
Control Tables	Main Obj. Table	SHIPMENT_HEADER_NEW
	Del. Obj. Table	SHIPMENT_HEADER_OLD
Object Identification	AOID Method	Determine by Function
Object Identification – Application Object ID Source – First Field to Build Appl. Obj. ID	Cntrl Tab. Type	Main Object Table
	AO ID Field	TKNUM
Object Identification – Application Object ID Source – Determine AOID by Function	AOID Extractor	GTT_MIA_SHP_HD_AOID
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_SHP_HD_REL
Parameter Setup	TrkID Method	Determine by Function
	Trk. ID Function	GTT_MIA_SHP_HD_TID
	Ctrl Data Function	GTT_MIA_SHP_HD_OTE
	Planned Event Function	GTT_MIA_SHP_HD_EE

4.13.2 Define Event Types for Shipment Header

Segment	Field	Value
Header	Bus. Proc. Type	ESC_SHIPMT
	Event Type	GTT_EVT_SHP_ARRIVE
	Description	Shipment Header Arrival Event
	Text	Arrival Event
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_SHP_HD_ARR
	GTT Relevant	X
Control Tables	Main Obj. Table	SHIPMENT_HEADER_NEW
	Old Main Obj. Table	SHIPMENT_HEADER_OLD
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_SHP_HD_ARR



Segment	Field	Value
Header	Bus. Proc. Type	ESC_SHIPMT
	Event Type	GTT_EVT_SHP_CHECKIN
	Description	Shipment Header Check In Event
	Text	Check In Event
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_SHP_HD_CI
	GTT Relevant	X
Control Tables	Main Obj. Table	SHIPMENT_HEADER_NEW
	Old Main Obj. Table	SHIPMENT_HEADER_OLD
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_SHP_HD_CI

Segment	Field	Value
Header	Bus. Proc. Type	ESC_SHIPMT
	Event Type	GTT_EVT_SHP_DEPART
	Description	Shipment Header Departure Event
	Text	Departure Event
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_SHP_HD_DEP
	GTT Relevant	X
Control Tables	Main Obj. Table	SHIPMENT_HEADER_NEW
	Old Main Obj. Table	SHIPMENT_HEADER_OLD
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_SHP_HD_DEP

Segment	Field	Value
Header	Bus. Proc. Type	ESC_SHIPMT
	Event Type	GTT_EVT_SHP_LOADEND
	Description	Shipment Header Load End Event
	Text	Departure Event
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_SHP_HD_LE



	GTT Relevant	X
Control Tables	Main Obj. Table	SHIPMENT_HEADER_NEW
	Old Main Obj. Table	SHIPMENT_HEADER_OLD
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_SHP_HD_LE

Segment	Field	Value
Header	Bus. Proc. Type	ESC_SHIPMT
	Event Type	GTT_EVT_SHP_LOADSTAR
	Description	Shipment Header Load Start Event
	Text	Load Start Event
General Data	Seq. No.	10
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_MIA_SHP_HD_LS
	GTT Relevant	X
Control Tables	Main Obj. Table	SHIPMENT_HEADER_NEW
	Old Main Obj. Table	SHIPMENT_HEADER_OLD
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_SHP_HD_LS

4.14 Freight Unit Extractor Configuration

4.14.1 Define Application Object Types for Freight Unit Header

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Appl. Obj. Type	GTT_FU
	Description	Extract FU Information to Global Track and Trace
	Text	FU Header
General Data	Seq. No.	10
	CI for GTT	GTTAPPLOGS
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
	Del. Obj. Table	TOR_ROOT
Object Identification	AOID Method	Determine by Function
Object Identification – Application Object ID Source – Determine AOID By Function	Cntl Tab. Type	Main Object Table
	AOID Function	GTT_STS_AOID_TOR
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)



	GTT Rel. Function	GTT_TS_FU_HD_REL
Parameter Setup	Trk.ID Method	Determine by Function
	Tr. Function	GTT_TS_FU_HD_TID
	Ctrl Data Function	GTT_TS_FU_HD_OTE
	Planned Event Function	GTT_TS_FU_HD_EE

4.14.2 Define Event Types for Freight Unit Header

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_ARRIVE
	Description	FO/FB/FU Arrival Event
	Text	Arrival Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_ARRIVAL
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_ARRIVE

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_COUPLE
	Description	FO/FB/FU Coupling Event
	Text	Coupling Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_COUPLING
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_COUP

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_DECOUPLE
	Description	FO/FB/FU Decoupling Event
	Text	Decoupling Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_DECOUPL
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_DECP

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_UNLSTART
	Description	FO/FB/FU Unloading Start Event
	Text	Unloading Start
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_UNLD_STR
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_USTR

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_DELAY
	Description	FO/FB/FU Delay Event
	Text	Delay Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_DELAY
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT



Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_DELAY

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_DEPART
	Description	FO/FB/FU Departure Event
	Text	Departure Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_DEPART
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_DEPART

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_FU_DELAY
	Description	FU Delay Event
	Text	FU Delay Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_FU_DELAY
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_FU_DELAY

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_LOADEND
	Description	FO/FB/FU Loading End Event
	Text	Loading End Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_LOAD_END



	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_LEND

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_LOADSTR
	Description	FO/FB/FU Loading Start Event
	Text	Loading Start Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_LOAD_STR
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_LSTR

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_POD
	Description	FO/FB/FU Proof of Delivery Event
	Text	POD Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_POD
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_POD

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_POPU
	Description	FO/FB/FU Proof of Pickup Event
	Text	POPU Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_POPU
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_POPU

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_UNLEND
	Description	FO/FB/FU Unloading End Event
	Text	Unloading End Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_UNLD_END
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_UEND

4.15 Road Freight Order/Ocean/Air Booking Extractor Configuration

4.15.1 Define Application Object Types for Road Freight Order/Ocean/Air Booking Header

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Appl. Obj. Type	GTT_SHP_HD
	Description	Extract FO/FB information to Global Track and Trace
	Text	FO/FB Header
General Data	Seq. No.	10
	CI for GTT	GTTAPPLOGS
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
	Del. Obj. Table	TOR_ROOT
Object Identification	AOID Method	Determine by Function
Object Identification – Application Object ID Source – Determine AOID By Function	Cntl Tab. Type	Main Object Table
	AOID Function	GTT_STS_AOID_TOR
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_FO_HD_REL
Parameter Setup	Trk.ID Method	Determine by Function
	Tr. Function	GTT_TS_FO_HD_TID
	Ctrl Data Function	GTT_TS_FO_HD_OTE
	Planned Event Function	GTT_TS_FO_HD_EE

4.15.2 Define Event Types for Road Freight Order/Ocean/Air Booking Header

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_ARRIVE
	Description	FO/FB/FU Arrival Event
	Text	Arrival Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_ARRIVAL
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_ARRIVE



Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_COUPLE
	Description	FO/FB/FU Coupling Event
	Text	Coupling Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_COUPLING
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_COUP

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_DECOUPLE
	Description	FO/FB/FU Decoupling Event
	Text	Decoupling Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_DECOUPL
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_DECP

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_UNLSTART
	Description	FO/FB/FU Unloading Start Event
	Text	Unloading Start
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_UNLD_STR
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT



Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_USTR

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_DELAY
	Description	FO/FB/FU Delay Event
	Text	Delay Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_DELAY
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_DELAY

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_DEPART
	Description	FO/FB/FU Departure Event
	Text	Departure Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_DEPART
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_DEPART

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_LOADEND
	Description	FO/FB/FU Loading End Event
	Text	Loading End Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_LOAD_END



	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_LEND

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_LOADSTR
	Description	FO/FB/FU Loading Start Event
	Text	Loading Start Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_LOAD_STR
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_LSTR

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_POD
	Description	FO/FB/FU Proof of Delivery Event
	Text	POD Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_POD
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_POD

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_POPU
	Description	FO/FB/FU Proof of Pickup Event
	Text	POPUP Event
General Data	Seq. No.	0



	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_POPU
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_POPU

Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_UNLEND
	Description	FO/FB/FU Unloading End Event
	Text	Unloading End Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_UNLD_END
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_TS_TOR_UEND

5. Configuration and Coding Guide - Advanced

5.1 Available Contexts for the Extractors' Modules

5.1.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> Define Application Interface.**
Choose activity **Define Business Process Types**

5.1.2 Select the **Business Process Types** to find all the context tables and their structure info.

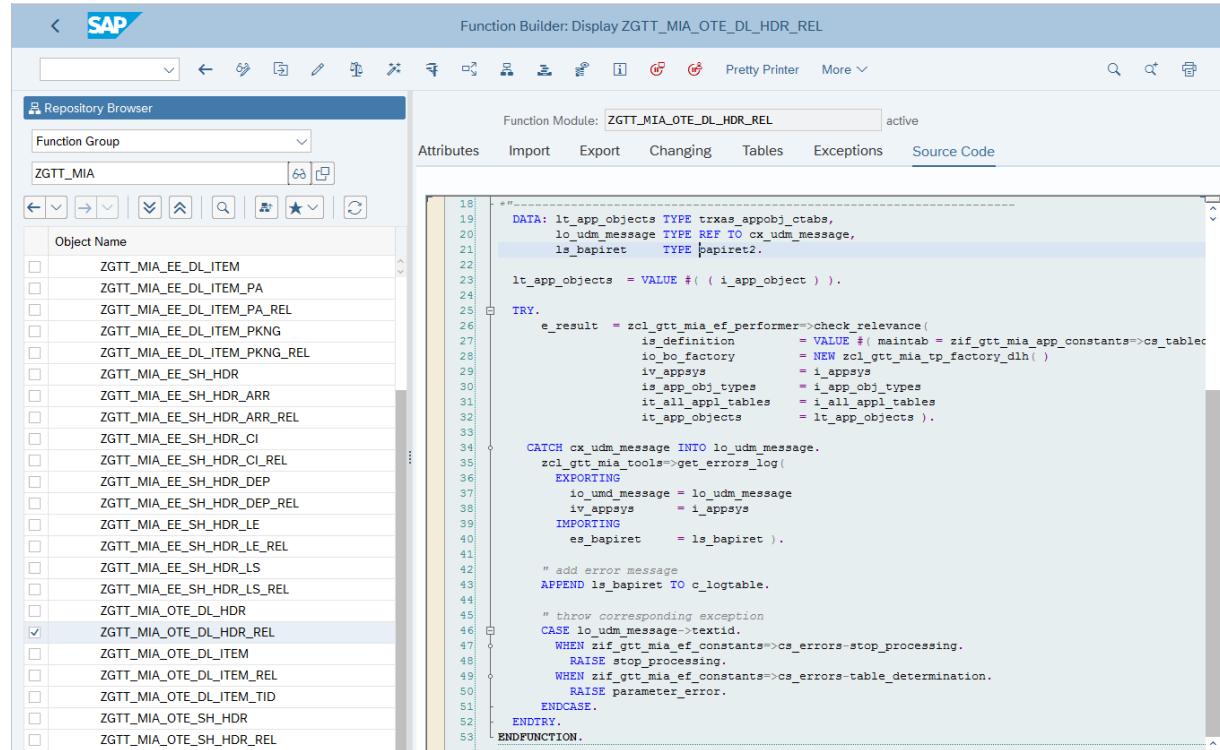
Business Process Type	Update Mde	Description
EPL_EQUIPMT	Update Task (V1)	Equipment in SAP R/3 Enterprise
EPL_INSPLOT	Update Task (V1)	Inspection Lot in SAP R/3 Enterprise
EPL_NOTIF	Update Task (V1)	Notification in SAP R/3 Enterprise
ESC_DELIV	Update Task (V1)	Delivery in SAP R/3 Enterprise
ESC_FI_CLEARING	Update Task (V1)	FI Clearing in SAP R/3 Enterprise
ESC_MATDOC	Update Task (V1)	Material Document in SAP R/3 Enterprise
ESC_MM_INVOICE	Update Task (V1)	MM Invoice in SAP R/3 Enterprise
ESC_PURORD	Update Task (V1)	Purchase Order in SAP R/3 Enterprise
ESC_PURORD_FASHION	Update Task (V1)	Purchase Order (Seasonal Procurement) in SAP R/3 Enterprise 2.0
ESC_PURREQ	Update Task (V1)	Purchase Requisition in SAP R/3 Enterprise
ESC_SD_INVOICE	Update Task (V1)	SD Invoice in SAP R/3 Enterprise
ESC_SHIPMT	Update Task (V1)	Shipment (SAP R/3 Enterprise)
ESC_SORDER	Update Task (V1)	Sales Order in SAP R/3 Enterprise
ESC_WOGMVT	Update Task (V1)	Workorder Goods Movements (Production,Service,Maintenance) in SAP R/3 Enterprise
ESC_WRKORD	Update Task (V1)	Workorder Confirmation (Production, Service, Maintenance) in SAP R/3 Enterprise
OCB10_ORDER	Update Task (V1)	Workorder (Production, Service, Maintenance) in SAP R/3 Enterprise
SNC_MSGIN	D Dialog Update	Booking Order in Ocean Carrier Booking Process
		SNC Inbound messages

5.2 Coding Tips in the GTT Relevance Function Modules

To customize the GTT relevance function modules, key points are as follows:

1. Make sure that the Main / Master tables follow the configuration of corresponding AOT or Event Type.
2. Add customization logics to determine the output parameters E_RESULT.

See the sample code of function: ZGTT_MIA_OTE_DL_HDR_REL.

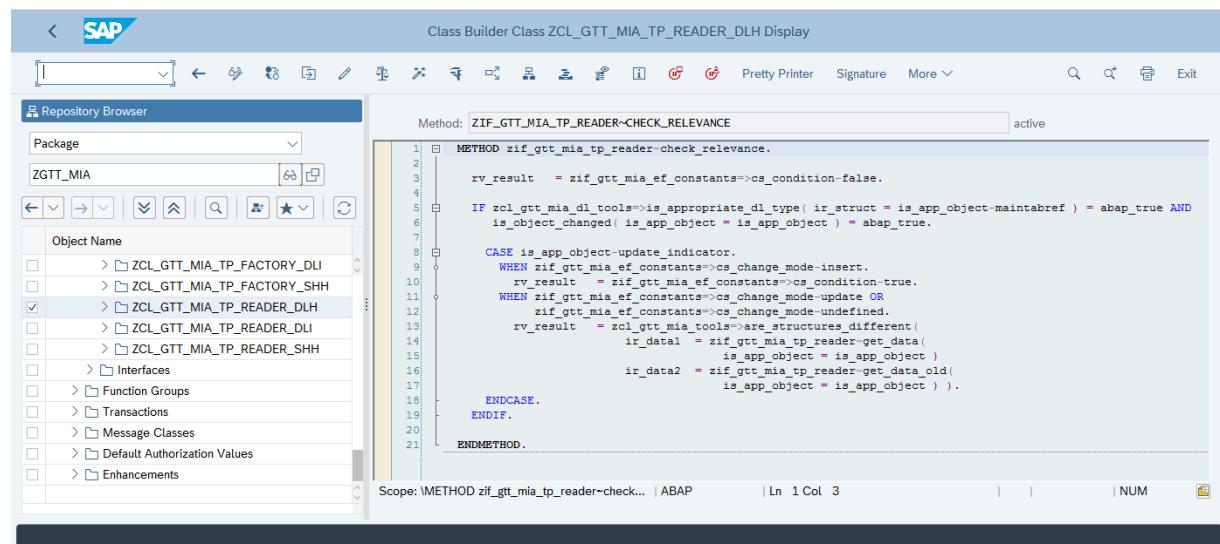


```

Function Module: ZGTT_MIA_OTE_DL_HDR_REL
-----+
18  DATA: lt_app_objects TYPE trxas_appobj_ctabs,
19    lo_udm_message TYPE REF TO cx_udm_message,
20    ls_bapiret TYPE bapiret2.
21
22  lt_app_objects = VALUE #( ( i_app_object ) ).
23
24  TRY.
25    e_result = zcl_gtt_mia_ef_performer->check_relevance(
26      is_definition = VALUE #( maintab = zif_gtt_mia_app_constants->cs_tablec
27      io_bo_factory = NEW zcl_gtt_mia_tp_factory_dih( )
28      iv_appsyst
29      is_app_obj_types
30      it_all_appl_tables
31      it_app_objects
32      )
33
34  CATCH cx_udm_message INTO lo_udm_message.
35    zcl_gtt_mia_tools->get_errors_log(
36      EXPORTING
37        io_udm_message = lo_udm_message
38        iv_appsyst
39      IMPORTING
40        es_bapiret = ls_bapiret .
41
42    " add error message
43    APPEND ls_bapiret TO c_logtable.
44
45    " throw corresponding exception
46    CASE lo_udm_message->textid.
47      WHEN zif_gtt_mia_ef_constants->cs_errors_stop_processing.
48        RAISE stop_processing.
49      WHEN zif_gtt_mia_ef_constants->cs_errors_table_determination.
50        RAISE parameter_error.
51      ENDCASE.
52    ENDTRY.
53  ENDFUNCTION.

```

The function module uses class ZCL_GTT_MIA_TP_READER_DLH to do the check.



```

Method: ZIF_GTT_MIA_TP_READER-CHECK_RELEVANCE
-----+
1  METHOD zif_gtt_mia_tp_reader-check_relevance.
2
3    rv_result = zif_gtt_mia_ef_constants->cs_condition-false.
4
5    IF zcl_gtt_mia_dl_tools->is_appropriate_dl_type( ir_struct = is_app_object-maintabref ) = abap_true AND
6      is_object_changed( is_app_object = is_app_object ) = abap_true.
7
8      CASE is_app_object-update_indicator.
9        WHEN zif_gtt_mia_ef_constants->cs_change_mode-insert.
10         rv_result = zif_gtt_mia_ef_constants->cs_condition-true.
11        WHEN zif_gtt_mia_ef_constants->cs_change_mode-update OR
12          zif_gtt_mia_ef_constants->cs_change_mode-undefined.
13          rv_result = zcl_gtt_mia_tools->are_structures_different(
14            ir_data1 = zif_gtt_mia_tp_reader->get_data(
15              is_app_object = is_app_object )
16            ir_data2 = zif_gtt_mia_tp_reader->get_data_oid(
17              is_app_object = is_app_object ) ).
18        ENDCASE.
19      ENDIF.
20
21  ENDMETHOD.

```

5.3 Coding Tips in the Tracking ID Function Modules

To customize the Tracking ID function modules, key points are as follows:

1. Make sure that the Main / Master tables follow the configuration of corresponding AOT.
2. Add customization logics to fill in the output table E_TRACKIDDATA.
3. The Tracking ID Type needs to be the same as the definition in the process type of model in the *Manage Models* app.
4. GTT V2 accepts delta transport for tracking IDs, which means only the newly-created / changed / deleted tracking IDs shall be filled in, while the ones without changes need to be ignored in the logic.
5. The tracking ID for its own process type needs to be filled in for each process update.
6. In case of tracking ID deletion, the field ACTION shall be filled in with 'D'.

See sample code of function: ZGTT_MIA_OTE_DL_ITEM_TID.

The screenshot shows the SAP Function Builder interface with the title "Function Builder: Display ZGTT_MIA_OTE_DL_ITEM_TID". The left pane is a "Repository Browser" showing a list of objects under "ZGTT_MIA", with "ZGTT_MIA_OTE_DL_ITEM_TID" selected. The right pane displays the ABAP source code for the function module:

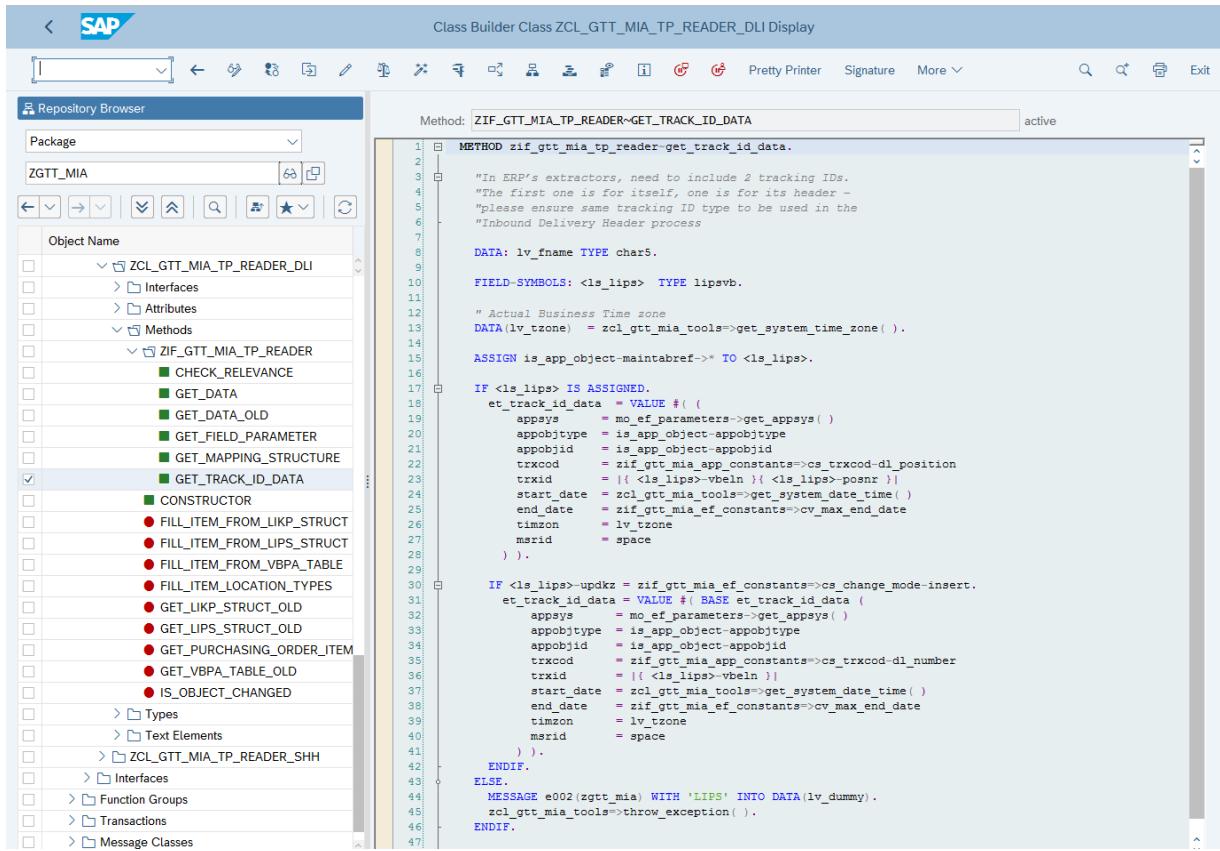
```

19| DATA: lo_udm_message TYPE REF TO cx_udm_message,
20|     ls_bapiret TYPE bapiret.
21|
22| TRY.
23|   zcl_gtt_mia_ef_performer->get_track_id_data(
24|     EXPORTING
25|       is_definition      = VALUE #(
26|         maintab      = zif_gtt_mia_app_constants->cs_tabledef_dl_item_new
27|         mastertab    = zif_gtt_mia_app_constants->cs_tabledef_dl_header_new )
28|       io_bo_factory = NEW zcl_gtt_mia_tp_factory_dli( )
29|       iv_applsys   = i_applsys
30|       is_app_obj_types = i_app_obj_types
31|       it_all_appl_tables = i_all_appl_tables
32|       it_app_type_cntl_tabs = i_app_type_cntl_tabs
33|       it_app_objects = i_app_objects
34|     IMPORTING
35|       et_track_id_data = e_trackiddata[] )
36|
37|
38| CATCH cx_udm_message INTO lo_udm_message.
39|   zcl_gtt_mia_tools->get_errors_log(
40|     EXPORTING
41|       io_udm_message = lo_udm_message
42|       iv_applsys   = i_applsys
43|     IMPORTING
44|       es_bapiret = ls_bapiret ).
45|
46|   " add error message
47|   APPEND ls_bapiret TO e_logtable.
48|
49|   " throw corresponding exception
50|   CASE lo_udm_message->textid.
51|     WHEN zif_gtt_mia_ef_constants->cs_errors_stop_processing.
52|       RAISE stop_processing.
53|     WHEN zif_gtt_mia_ef_constants->cs_errors_table_determination.
54|       RAISE table_determination_error.
55|   ENDCASE.
56| ENDTRY.

```

Scope: FUNCTION zgtt_mia_ote_dl_item_tid | ABAP | Ln 19 Col 2

The corresponding Track ID data is filled by ZCL_GTT_MIA_TP_READER_DLI class:



The screenshot shows the SAP Class Builder interface. The left pane is the Repository Browser, displaying the package ZGTT_MIA and the class ZCL_GTT_MIA_TP_READER_DLI. The right pane shows the code for the method ZIF_GTT_MIA_TP_READER~GET_TRACK_ID_DATA. The code is written in ABAP and handles the logic for extracting tracking IDs from LIPS data.

```

1 METHOD zif_gtt_mia_tp_reader~get_track_id_data.
2   "In ERP's extractors, need to include 2 tracking IDs.
3   "The first one is for itself, one is for its header -
4   "please ensure same tracking ID type to be used in the
5   "Inbound Delivery Header process
6
7   DATA: lv_fname TYPE char5.
8
9   FIELD-SYMBOLS: <ls_lips> TYPE lipsvbl.
10
11   " Actual Business Time zone
12   DATA(lv_tzone) = zcl_gtt_mia_tools->get_system_time_zone( ).
13
14   ASSIGN is_app_object-maintabref->* TO <ls_lips>.
15
16   IF <ls_lips> IS ASSIGNED.
17     et_track_id_data = VALUE #( (
18       appsys      = mo_ef_parameters->get_appsyst( )
19       appobjtype = is_app_object-appobjtype
20       appobjid   = is_app_object-appobjid
21       trxxcd     = zif_gtt_mia_app_constants->cs_trxcod-dl_position
22       trxid      = #( <ls_lips>-vbeln )( <ls_lips>-posnr )
23       start_date = zcl_gtt_mia_tools->get_system_date_time( )
24       end_date   = zif_gtt_mia_ef_constants->cv_max_end_date
25       timzon    = lv_tzone
26       msrid     = space
27     ) .
28   )
29
30   IF <ls_lips>-updkz = zif_gtt_mia_ef_constants->cs_change_mode-insert.
31     et_track_id_data = VALUE #! BASE et_track_id_data (
32       appsys      = mo_ef_parameters->get_appsyst( )
33       appobjtype = is_app_object-appobjtype
34       appobjid   = is_app_object-appobjid
35       trxxcd     = zif_gtt_mia_app_constants->cs_trxcod-dl_number
36       trxid      = #( <ls_lips>-vbeln )
37       start_date = zcl_gtt_mia_tools->get_system_date_time( )
38       end_date   = zif_gtt_mia_ef_constants->cv_max_end_date
39       timzon    = lv_tzone
40       msrid     = space
41     ) .
42   ENDIF.
43   ELSE.
44     MESSAGE e002(zgtt_mia) WITH 'LIPS' INTO DATA(lv_dummy).
45     zcl_gtt_mia_tools->throw_exception( ).
46   ENDIF.
47

```

5.4 Coding Tips in the Control Parameter Function Modules

To customize the Control Parameter function modules, key points are as follows:

1. Make sure that the Main / Master tables follow the configuration of corresponding AOT.
2. Add customization logics to fill in the output table E_CONTROL_DATA.
3. GTT V2 asks for full transport for all the control parameters, which means all the fields needs to be extracted in all cases, no matter whether their values have been changed or not.
4. To fill in the composition (table) fields defined in the *Manage Models* app, use the parameter field PARAMINDEX to specify the line number. If the field is empty, GTT regards it as a simple flat field.
5. To clear a composition, fill in the key field using invalid values, for which the key attribute has been checked in the *Manage Models* app. It's not recommended to fill in a code list type field to clear a composition even if it's a key field.
6. The fields with fixed names 'ACTUAL_BUSINESS_DATETIME' and 'ACTUAL_BUSINESS_TIMEZONE' are mandatory fields to be transported for event handling sequencing in GTT Version 2.
7. The fields with fixed names 'ACTUAL_TECHNICAL_TIMEZONE' and 'ACTUAL_TECHNICAL_DATETIME' are optional and recommended for fixing IDOC sequencing issue (after object creation in S/4 actual event might be processed before object creation in GTT via TP request, which leads to an error)
8. In the *Manage Models* app, click the *IDOC Integration* tab to map the parameter names and model field names.
9. For DATE or DATETIME fields, when the source value is initial like '00000000' '0000000000000000', then only enable PARAMNAME and PARAMINDEX in the extractor code, and do not enable VALUE for IDOC sending.
10. For amount field which has reference currency, ensure to call BAPI 'BAPI_CURRENCY_CONV_TO_EXTERNAL' using the reference currency to make the amount tracked correctly by GTT Version 2. The BAPI will output the conversion result in 4 decimals as fixed, which needs additional rounding in the extractor if the corresponding field defined in the tracking model is less than 4 decimals.
11. In the shipment extractor, add the prefix LBN# into the fields SERVICE AGENT LBN ID for integration with Visibility Providers.

See sample code of function: ZGTT_MIA_OTE_DL_ITEM

The screenshot shows the SAP Function Builder interface with the title "Function Builder: Display ZGTT_MIA_OTE_DL_ITEM". The function module "ZGTT_MIA_OTE_DL_ITEM" is selected. The code editor displays the following ABAP code:

```

19 DATA: lo_udm_message TYPE REF TO cx_udm_message,
20   ls_bapiret      TYPE bapiret2.
21
22 TRY.
23   zcl_gtt_mia_ef_performer->get_control_data(
24     EXPORTING
25       is_definition      = VALUE #( 
26         maintab        = zif_gtt_mia_app_constants->cs_tabledef-dl_item_new
27         mastertab       = zif_gtt_mia_app_constants->cs_tabledef-dl_header_new )
28       io_bo_factory    = NEW zcl_gtt_mia_tp_factory_dli( )
29       iv_appsys       = i_appsys
30       is_app_obj_types = i_app_obj_types
31       it_all_appl_tables = i_all_appl_tables
32       it_app_type_ntnl_tabs = i_app_type_ntnl_tabs
33       it_app_objects   = i_app_objects
34     CHANGING
35       ct_control_data = e_control_data[] ).
36
37 CATCH cx_udm_message INTO lo_udm_message.
38   zcl_gtt_mia_tools->get_errors_log(
39     EXPORTING
40       io_udm_message = lo_udm_message
41       iv_appsys      = i_appsys
42     IMPORTING
43       es_bapiret     = ls_bapiret ).
44
45   " add error message
46   APPEND ls_bapiret TO e_logtable.
47
48   " throw corresponding exception
49   CASE lo_udm_message->textid.
50     WHEN zif_gtt_mia_ef_constants->cs_errors-stop_processing.
51       RAISE stop_processing.
52     WHEN zif_gtt_mia_ef_constants->cs_errors-table_determination.
53       RAISE table_determination_error.
54   ENDCASE.
55
56 ENDTRY.
57 ENDFUNCTION.

```

Control data is prepared by ZCL_GTT_MIA_TP_READER_DLI class:

The screenshot shows the SAP Class Builder interface with the title "Class Builder Class ZCL_GTT_MIA_TP_READER_DLI Display". The method "ZIF_GTT_MIA_TP_READER~GET_DATA" is selected. The code editor displays the following ABAP code:

```

1 METHOD zif_gtt_mia_tp_reader-get_data.
2
3   FIELD-SYMBOLS: <ls_item> TYPE ts_dl_item.
4
5   rr_data = NEW ts_dl_item( ).
6
7   ASSIGN rr_data->* TO <ls_item>.
8
9   fill_item_from_likp_struct(
10   EXPORTING
11     ir_likp = is_app_object-mastertabref
12   CHANGING
13     cs_dl_item = <ls_item> .
14
15   fill_item_from_lips_struct(
16   EXPORTING
17     ir_lips = is_app_object-maintabref
18   CHANGING
19     cs_dl_item = <ls_item> .
20
21   fill_item_from_vbpa_table(
22   EXPORTING
23     ir_vbpa = mo_ef_parameters->get_appl_table(
24       iv_tabledef = zif_gtt_mia_app_constants->cs_tabledef-dl_partners_new )
25     iv_vbeln = <ls_item>-vbeln
26     iv_posnr = cv_posnr_empty
27   CHANGING
28     cs_dl_item = <ls_item> .
29
30   fill_item_location_types(
31   CHANGING
32     cs_dl_item = <ls_item> .
33
34 ENDMETHOD.

```

Fields mapping is set up in the *Manage Models* app in the *IDOC Integration* section:

The screenshot shows the SAP Model Details interface for a model named gttft1 (Active). The 'IDOC Integration' tab is selected. The 'Tracked Process' dropdown is set to 'InboundDelivery'. The 'Integration Switch' is turned 'ON'. The 'Standard Model Fields' table is displayed, mapping fields from the tracked process to IDOC segments.

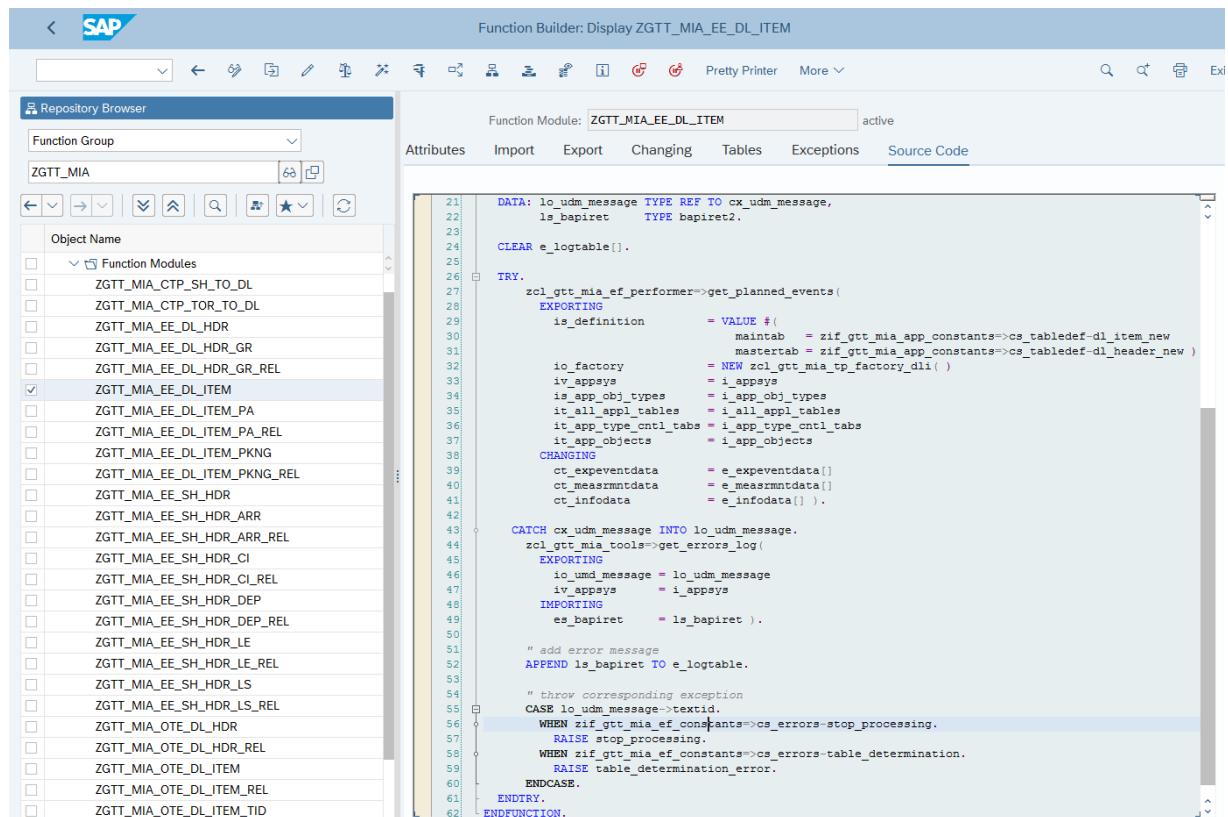
Field	IDOC Segment	IDOC Field
inboundDeliveryNo	E1EHPCP	YN_DL_DELETEVERY
supplierId	E1EHPCP	YN_DL_VENDOR_ID
supplierLocationType	E1EHPCP	YN_DL_VENDOR_LOC_TYPE
plannedDeliveryDate	E1EHPCP	YN_DL_PLANNED_DLV_DATE
documentDate	E1EHPCP	YN_DL_DOCUMENT_DATE
totalWeight	E1EHPCP	YN_DL_TOTAL_WEIGHT
netWeight	E1EHPCP	YN_DL_NET_WEIGHT
weightUoM	E1EHPCP	YN_DL_WEIGHT_UNITS
volume	E1EHPCP	YN_DL_VOLUME
volumeUoM	E1EHPCP	YN_DL_VOLUME_UNITS

5.5 Coding Tips in the Planned Event Function Modules

To customize the Planned Event function modules, key points are as follows:

1. Make sure that the Main / Master tables follow the configuration of corresponding AOT.
2. Add customization logics to fill in the output table E_EXPEVENTDATA.
3. By default, except that no changes are made on the model configuration, GTT Version 2 will ask for full transport for all the planned events, which means that all the events needs to be extracted in all cases, no matter whether their values have been changed. If nothing is transported, the planned events will be removed in GTT Version 2.
4. The field MILESTONE is mandatory to be transported.
5. The field EVT_EXP_DATETIME is optional, but needs to be filled in with relevant time zone EVT_EXP_TZONE together if it needs to be transported.
6. The field LOC_ID1 is optional, but needs to be filled in with relevant location type LOCTYPE together if it needs to be transported. The values for field LOCTYPE are limited by the Manage Locations app in GTT Version 2.
7. The field LOCID2 is mandatory to specify event match key of each stop (combination of the Shipment Number and Stop ID) for shipment tracking
8. The field MILESTONENUM is recommended to specify in order to implement custom sorting logic instead of sorting by planned business datetime.

See sample code of function: ZGTT_MIA_EE_DL_ITEM:



The screenshot shows the SAP Function Builder interface with the title "Function Builder: Display ZGTT_MIA_EE_DL_ITEM". The left pane is the "Repository Browser" showing a tree structure of function modules under "ZGTT_MIA". The right pane displays the source code for the selected function module. The code is written in ABAP and handles the retrieval of planned events from a specific performer (ZGTT_MIA_APP_CONSTANTS) and then processes them to generate output data (E_EXPEVENTDATA).

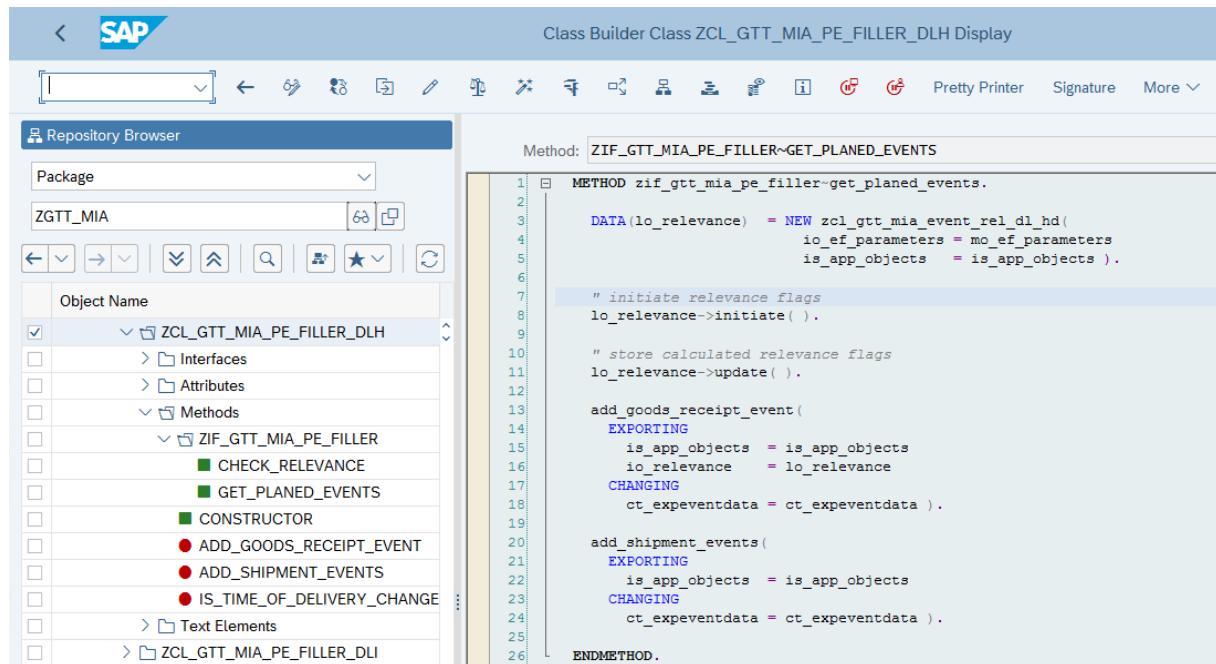
```

Function Builder: Display ZGTT_MIA_EE_DL_ITEM
Function Module: ZGTT_MIA_EE_DL_ITEM active
Attributes Import Export Changing Tables Exceptions Source Code

21: DATA: lo_udm_message TYPE REF TO cx_udm_message,
22: ls_bapiret TYPE bapiret2.
23:
24: CLEAR e_logtable[].
25:
26: TRY.
27:   zcl_gtt_mia_ef_performer->get_planned_events(
28:     EXPORTING
29:       is_definition      = VALUE #((
30:         maintab          = zif_gtt_mia_app_constants->cs_tabledef_dl_item_new
31:         masterstab        = zif_gtt_mia_app_constants->cs_tabledef_dl_header_new )
32:         io_factory        = NEW zcl_gtt_mia_tp_factory_dli( )
33:         iv_applsys        = i_applsys
34:         is_app_obj_types  = i_app_obj_types
35:         it_all_appl_tables = i_all_appl_tables
36:         it_app_type_cntl_tabs = i_app_type_cntl_tabs
37:         it_app_objects    = i_app_objects
38:       CHANGING
39:         ct_expeventdata   = e_expeventdata()
40:         ct_measurndata    = e_measurndata()
41:         ct_infodata       = e_infodata()).
42:
43:   CATCH cx_udm_message INTO lo_udm_message.
44:   zcl_gtt_mia_tools->get_errors_log(
45:     EXPORTING
46:       io_udm_message = lo_udm_message
47:       iv_applsys     = i_applsys
48:     IMPORTING
49:       es_bapiret     = ls_bapiret ).
50:
51:   " add error message
52:   APPEND ls_bapiret TO e_logtable.
53:
54:   " throw corresponding exception
55:   CASE lo_udm_message->textid.
56:     WHEN zif_gtt_mia_ef_constants->cs_errors_stop_processing.
57:       RAISE stop_processing.
58:     WHEN zif_gtt_mia_ef_constants->cs_errors_table_determination.
59:       RAISE table_determination_error.
60:
61:   ENDCASE.
62: ENDTRY.
ENDFUNCTION.

```

Main logic of Inbound Delivery Item is implemented in class ZCL_GTT_MIA_PE_FILLER_DLH:



```

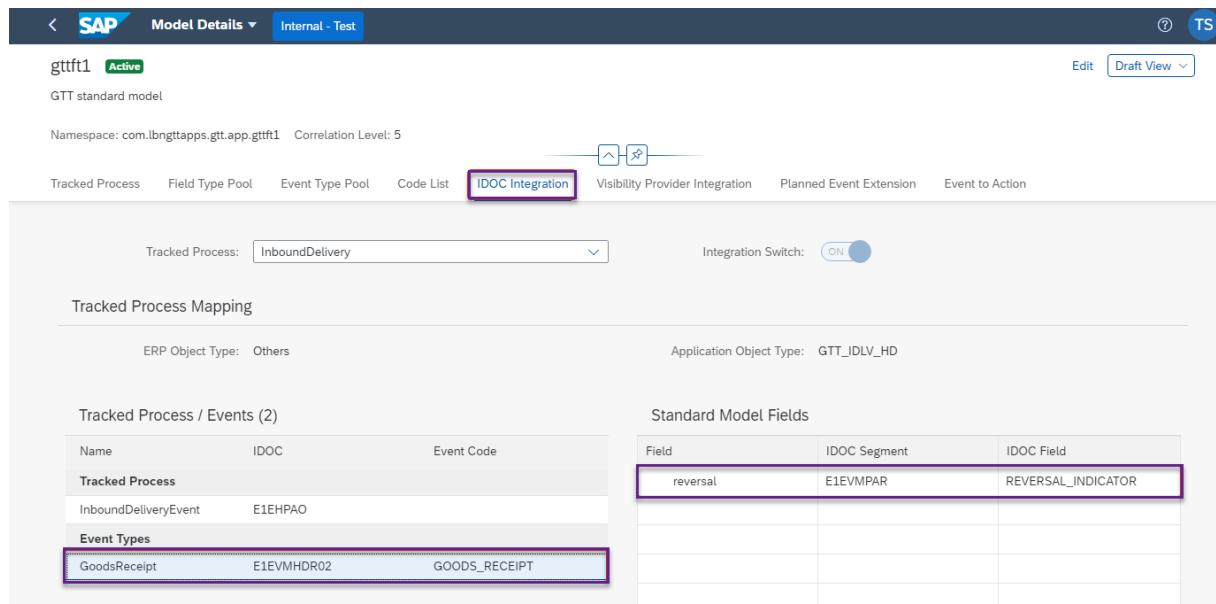
Class Builder Class ZCL_GTT_MIA_PE_FILLER_DLH Display

Method: ZIF_GTT_MIA_PE_FILLER~GET_PLANED_EVENTS

1 METHOD zif_gtt_mia_pe_filler~get_planed_events.
2   DATA(lo_relevance) = NEW zcl_gtt_mia_event_rel_dl_hd(
3     io_ef_parameters = mo_ef_parameters
4     is_app_objects = is_app_objects .
5
6
7   " initiate relevance flags
8   lo_relevance->initiate( ).
9
10  " store calculated relevance flags
11  lo_relevance->update( ).
12
13  add_goods_receipt_event(
14    EXPORTING
15      is_app_objects = is_app_objects
16      io_relevance = lo_relevance
17    CHANGING
18      ct_expeventdata = ct_expeventdata .
19
20  add_shipment_events(
21    EXPORTING
22      is_app_objects = is_app_objects
23    CHANGING
24      ct_expeventdata = ct_expeventdata .
25
26 ENDMETHOD.

```

Event parameters mapping is set up in the *IDOC Integration* tab of the *Manage Models* app:



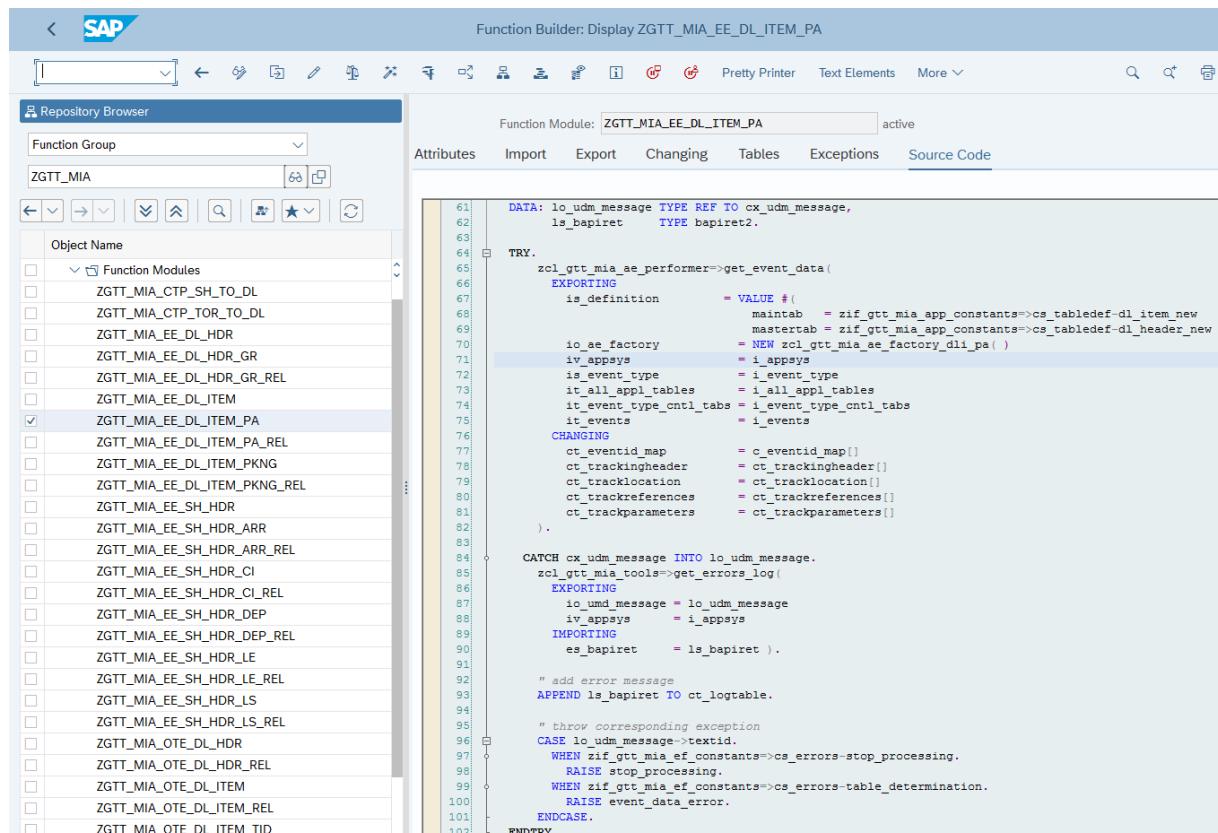
Field	IDOC Segment	IDOC Field
reversal	E1EVMPAR	REVERSAL_INDICATOR

5.6 Coding Tips in the Event Data Function Modules

To customize the Event Data function modules, key points are as follows:

1. Make sure that the Main / Master tables follow the configuration of corresponding Event Type.
2. Add customization logic to fill in the output table CT_TRACKINGHEADER, CT_TRACKLOCATION, C_EVENTID_MAP.
3. If the event has user-defined fields in the *Manage Models* app, fill in the table CT_TRACKPARAMETERS.
4. Add two technical parameters with fixed names 'ACTUAL_TECHNICAL_TIMEZONE' and 'ACTUAL_TECHNICAL_DATETIME' which are recommended for fixing IDOC sequencing issue (after object creation in S/4 actual event might be processed before object creation in GTT via TP request, which leads to an error)
5. If the event has reference table information, fill in the table CT_TRACKREFERENCES.
6. The field CT_TRACKINGHEADER-SRCCOD, SRCID, SRCTX is used for event reason transport.
7. In the *Manage Models* app, click the *IDOC Integration* tab to map the user-defined parameter names and model field names.

See sample code of function: ZGTT_MIA_EE_DL_ITEM_PA.



The screenshot shows the SAP Function Builder interface with the title "Function Builder: Display ZGTT_MIA_EE_DL_ITEM_PA". The left pane is the "Repository Browser" showing a tree structure of function modules under "ZGTT_MIA". The right pane displays the source code for the selected function module. The code is written in ABAP and includes sections for DATA, TRY, and CATCH.

```

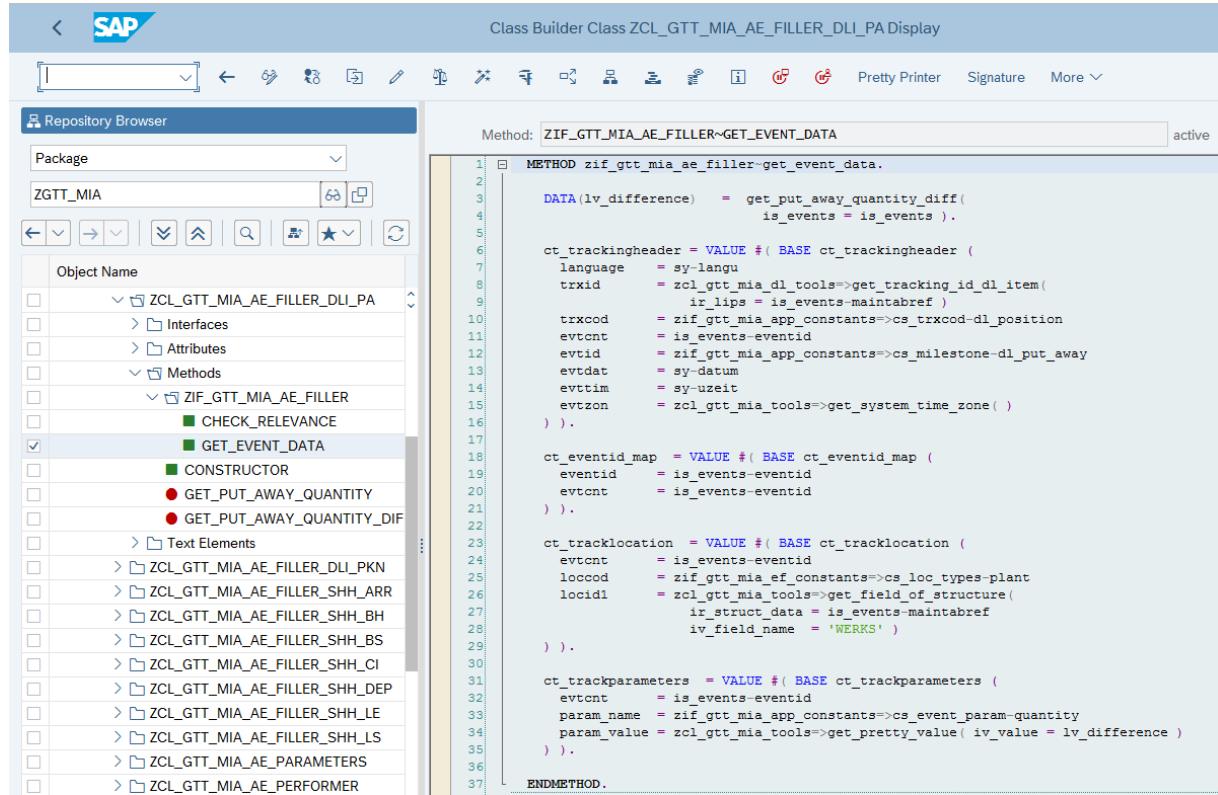
DATA: lo_udm_message TYPE REF TO cx_udm_message,
      ls_bapiret   TYPE bapiret2.

TRY.
  zcl_gtt_mia_ae_performer->get_event_data(
    EXPORTING
      is_definition      = VALUE #(          maintab  = zif_gtt_mia_app_constants->cs_tabledef_dl_item_new
                                    mastertab = zif_gtt_mia_app_constants->cs_tabledef_dl_header_new )
                                    = NEW zcl_gtt_mia_ae_factory_dli_pa( )
      io_ae_factory     = i_apps
      iv_apps
      is_event_type     = i_event_type
      it_all_appl_tables = i_all_appl_tables
      it_event_type_ctrl_tabs = i_event_type_ctrl_tabs
      it_events         = i_events
    CHANGING
      ct_eventid_map    = c_eventid_map[]
      ct_trackingheader = ct_trackingheader[]
      ct_tracklocation  = ct_tracklocation[]
      ct_trackreferences = ct_trackreferences[]
      ct_trackparameters = ct_trackparameters[])
  .
CATCH cx_udm_message INTO lo_udm_message.
  zcl_gtt_mia_tools->get_error_log(
    EXPORTING
      io_udm_message = lo_udm_message
      iv_apps = i_apps
    IMPORTING
      es_bapiret = ls_bapiret).
  " add error message
  APPEND ls_bapiret TO ct_logtable.

  " throw corresponding exception
CASE lo_udm_message->textid.
  WHEN zif_gtt_mia_ef_constants->cs_errors-stop_processing.
    RAISE stop_processing.
  WHEN zif_gtt_mia_ef_constants->cs_errors-table_determination.
    RAISE event_data_error.
ENDCASE.
ENDTRY.

```

Main logic of Inbound Delivery Item is implemented in class ZCL_GTT_MIA_AE_FILLER_DLI_PA:



The screenshot shows the SAP Class Builder interface. The title bar reads "Class Builder Class ZCL_GTT_MIA_AE_FILLER_DLI_PA Display". The left pane is a "Repository Browser" showing a package structure under "ZGTT_MIA". The "Methods" section is expanded, and the "GET_EVENT_DATA" method is selected. The right pane displays the source code for this method.

```

1 METHOD zif_gtt_mia_ae_filler-get_event_data.
2
3   DATA(lv_difference) = get_put_away_quantity_diff(
4     is_events = is_events ).
5
6   ct_trackingheader = VALUE #( BASE ct_trackingheader (
7     language = sy-langu
8     trxid = zcl_gtt_mia_dl_tools->get_tracking_id_dl_item(
9       ir_lips = is_events-maintabref )
10    trxcod = zif_gtt_mia_app_constants->cs_trxcod-dl_position
11    event = is_events-eventid
12    evtid = zif_gtt_mia_app_constants->cs_milestone-dl_put_away
13    evtdate = sy-datum
14    evttim = sy-uzzeit
15    evtzon = zcl_gtt_mia_tools->get_system_time_zone( )
16  )).
17
18   ct_eventid_map = VALUE #( BASE ct_eventid_map (
19     eventid = is_events-eventid
20     evtcnt = is_events-eventid
21   )).
22
23   ct_tracklocation = VALUE #( BASE ct_tracklocation (
24     evntcnt = is_events-eventid
25     loccod = zif_gtt_mia_ef_constants->cs_loc_types-plant
26     locid1 = zcl_gtt_mia_tools->get_field_of_structure(
27       ir_struct_data = is_events-maintabref
28       iv_field_name = 'WERKS' )
29   )).
30
31   ct_trackparameters = VALUE #( BASE ct_trackparameters (
32     evtcnt = is_events-eventid
33     param_name = zif_gtt_mia_app_constants->cs_event_param-quantity
34     param_value = zcl_gtt_mia_tools->get_pretty_value( iv_value = lv_difference )
35   )).
36
37 ENDMETHOD.

```

5.7 Enhancement Codes for Cross-processes Tracking

The Fulfillment Tracking apps ask for cross-processes tracking, which is used in the following cases:

1. When the shipment process is updated and transported to GTT, the preceding inbound delivery and item process, and their planned events need to be updated and transported to GTT.
2. When the freight unit is updated and transported to GTT, the preceding inbound delivery and item process need to be updated and transported to GTT.

The cross-process tracking scenarios cover the following:

Shipment -> Inbound Delivery and Inbound Delivery Item:

1. Tracking ID (Delta Transport)
 - Case: Shipment Create / Delete with Delivery
 - Case: Shipment Assign / Unassign Delivery
2. Shipment Composition (Full Transport)
 - Case: Shipment Create / Delete with Delivery
 - Case: Shipment Assign / Unassign Delivery
3. Planned Event in Delivery (Full Transport)
 - Case: Shipment Create / Delete with Delivery / with stage
 - Case: Shipment Assign / Unassign Delivery / with stage
 - Case: Stage Assign / Unassign Delivery
 - Case: Stage Insert / Delete
 - Case: Stage Location Update
 - Case: Stage Planned Datetime Update
4. Planned Event in Delivery Item (Full Transport)
 - Case: Shipment Create / Delete with Delivery / with stage
 - Case: Shipment Assign / Unassign Delivery / with stage
 - Case: Stage Assign / Unassign Delivery
 - Case: Stage Insert / Delete
 - Case: Stage Location Update
 - Case: Stage Planned Datetime Update

Freight Unit -> Inbound Delivery and Inbound Delivery Item:

1. Freight Unit Relevant
 - Case: Freight Unit Create / Delete with Delivery
2. Freight Unit Composition
 - Case: Freight Unit Create / Delete with Delivery

5.8 Known Issue

5.8.1 Planned Event Extension Not Enabled

Currently, on the ERP side, the EXTENSION segment of process IDOC is not enabled for the planned event part, which means that you cannot make the user-defined fields for planned events in the *Manage Models* app.

The workaround is to make use of Control Parameter's segment in IDOC and make the field mapping on the tracked process level in the *Manage Models* app.



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