



SAP ERP Sample Code Configuration Guide for Fulfillment Tracking Apps

SAP Logistics Business Network, Global Track and Trace Option

May 2021

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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

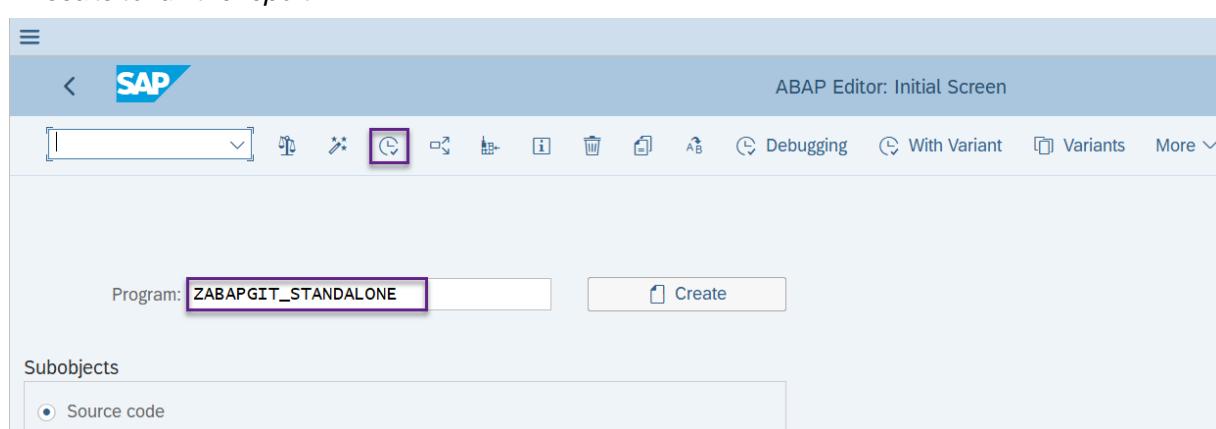
2.1.1 Install ABAPGit

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's a sidebar with sections like "Getting Started", "Setup", "Online Projects", and "Offline Projects", each with a list of links. The main content area is titled "Installation". It includes a "Summary" section stating that abapGit exists in two flavors: "standalone" and "developer". It then details the steps for installing the standalone version, which involves creating a report named `ZABAPGIT_STANDALONE` (formerly `ZABAPGIT_FULL`) and uploading ABAP code via transaction `SE38`. A "Prerequisites" section notes that SAP BASIS 702 or higher is required. A "Install Standalone Version" box contains step-by-step instructions: 1. Download ABAP code, 2. Create report `ZABAPGIT_STANDALONE`, 3. Upload code via Utilities > More Utilities > Upload/Download > Upload, 4. Activate. A note says abapGit is typically used in development systems and can be installed in a local package `$ZABAPGIT`. A final note says you can run the report via 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.

The screenshot shows the abapGit application interface. At the top, there's a navigation bar with icons for Repository List, New Online (which is highlighted with a purple border), New Offline, Settings, and Help. Below the navigation bar, the title 'Tutorial' is displayed. Under 'Online repositories', there are instructions for cloning a remote repository from GitHub. Under 'Offline repositories', it explains how to add a package as an offline repository. Finally, under 'Repository list and favorites', it provides tips for favoriting, navigating, and exploring projects.

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.

The screenshot shows the 'New Online Repository' dialog. It has fields for 'Git Repository URL' (containing the GitHub URL), 'Package' (set to 'ZGTT'), 'Branch' (set to 'Autodetect default branch'), 'Folder Logic' (set to 'Prefix Full'), and 'Display Name'. There are also checkboxes for 'Ignore Subpackages' and 'Serialize Main Language Only'. At the bottom, there are buttons for '?', 'Clone Online Repo' (which is highlighted with a purple border), 'Create Package', and 'Back'.

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 mostly "CLAS" (classes). The "Name" column lists various class names such as ZCL_GTT_MIA_AE_FILLER_DLH_GR, ZCL_GTT_MIA_AE_FILLER_DLU_PA, etc. The "Path" column shows the full ABAP path for each class. A toolbar at the top right includes buttons for "Pull", "Stage", "Diff", "Branch", "Tag", "Advanced", "View", "Refresh", and a gear icon.

Type	Name	Path
non-code and meta files		/abapgit.xml
CLAS	ZCL_GTT_MIA_AE_FILLER_DLH_GR	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_filter_dlh_gr.clas.abap
CLAS	ZCL_GTT_MIA_AE_FILLER_DLU_PA	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_filter_dlu_pa.clas.abap
CLAS	ZCL_GTT_MIA_AE_FILLER_DLU_PKN	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_filter_dlu_pkn.clas.abap
CLAS	ZCL_GTT_MIA_AE_FILLER_SHH_BH	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_filter_shh_bh.clas.abap
CLAS	ZCL_GTT_MIA_AE_FILLER_SHH_BS	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_filter_shh_bs.clas.abap
CLAS	ZCL_GTT_MIA_AE_PARAMETERS	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_parameters.clas.abap
CLAS	ZCL_GTT_MIA_AE_PERFORMER	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_performer.clas.abap
CLAS	ZCL_GTT_MIA_AE_PROCESSOR	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ae_processor.clas.abap
CLAS	ZCL_GTT_MIA_CTP_DAT_TOR_TO_DLH	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ctp_dat_tor_to_dlh.clas.abap
CLAS	ZCL_GTT_MIA_CTP_DAT_TOR_TO_DLU	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ctp_dat_tor_to_dlu.clas.abap
CLAS	ZCL_GTT_MIA_CTP_SHIPMENT_DATA	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ctp_shipment_data.clas.abap
CLAS	ZCL_GTT_MIA_CTP SND	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ctp_snd.clas.abap
CLAS	ZCL_GTT_MIA_CTP SND SH TO DLH	/lbn-gtt-standard-app/abap/zsrc/gtt_mia/zcl_gtt_mia_ctp_snd_sh_to_dlh.clas.abap

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 top bar has a SAP logo and the title "ABAP Editor: Initial Screen". Below the title is a toolbar with icons for search, copy, paste, and other functions. A status bar at the bottom shows "Program: ZABAPGIT_STANDALONE" and "Create". The main area is titled "Subobjects" and contains a list of options: "Source code" (which is selected, indicated by a checked radio button), "Variants", "Attributes", "Text elements", and "Documentation".

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

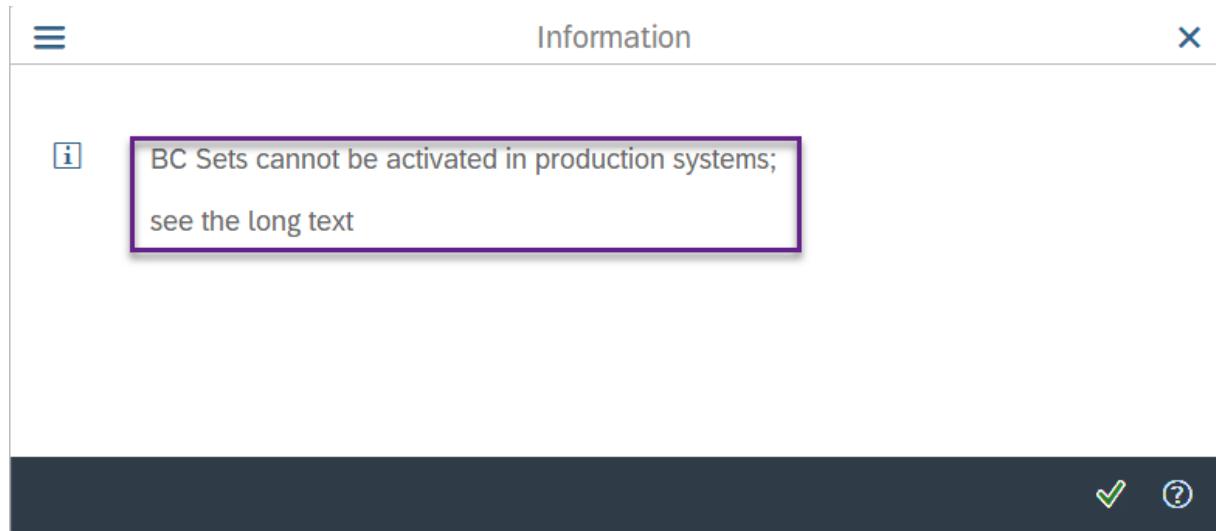
2.2.1.3 Click **Pull** to pull down the latest version code.



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.

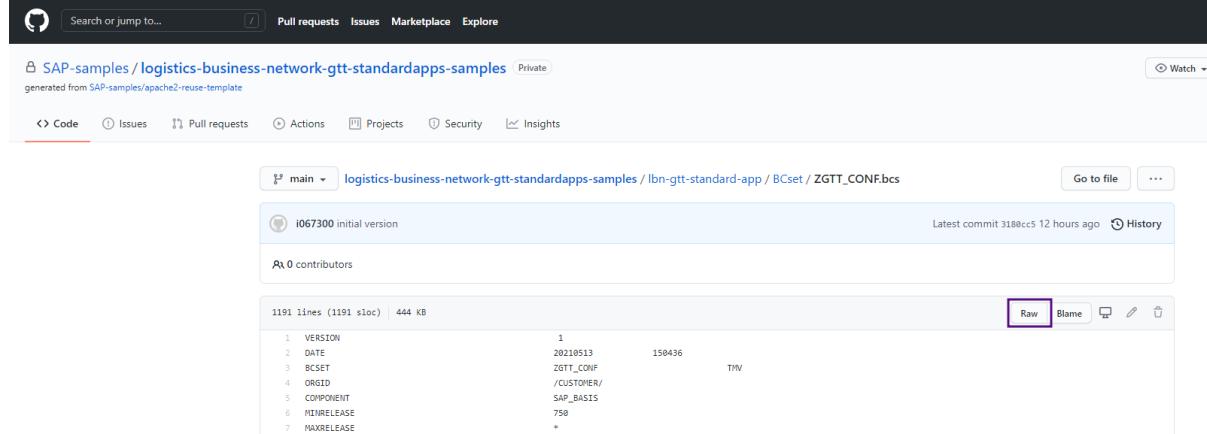


The screenshot shows the SAP Fiori Performance Assistant interface. It displays the same error message: "BC Sets cannot be activated in production systems; see the long text" and "Message no. SCPR229". Below the message, there are sections for "Diagnosis" and "System Response". Under "Diagnosis", it 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." Under "System Response", it says: "The procedure was cancelled. No data was written into customizing tables." There is also 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.

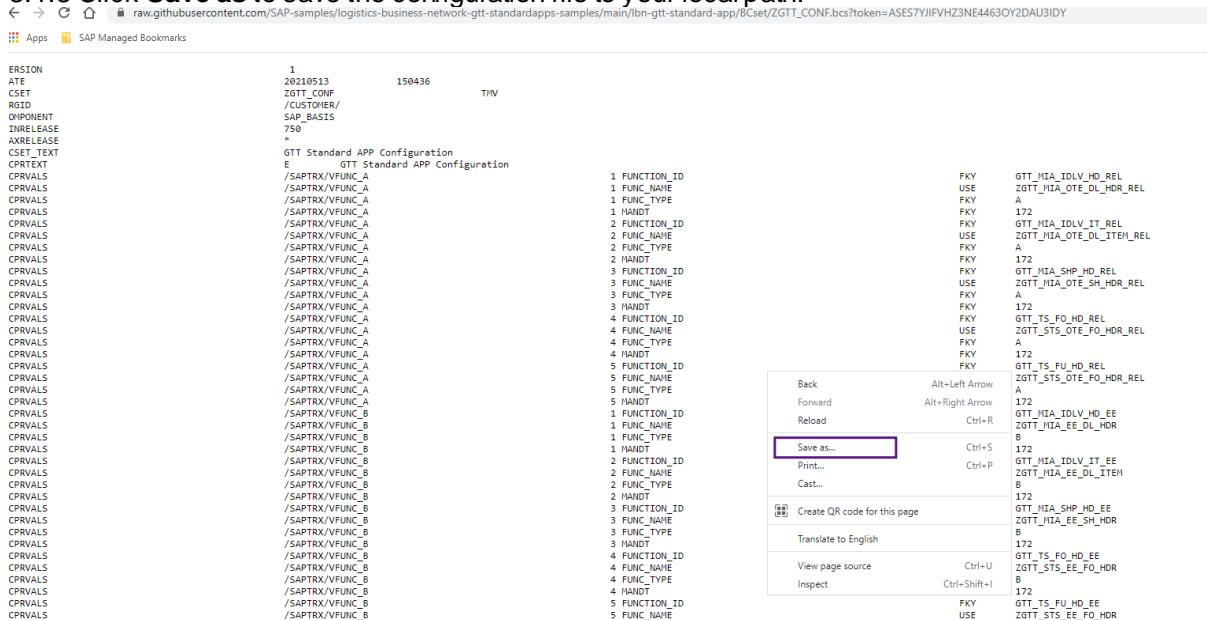


```

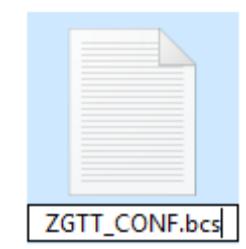
1 VERSION
2 DATE 20210513 150436
3 BCSET ZGTT_CONF
4 ORGID /CUSTOMER/
5 COMPONENT SAP_BASIS
6 MINRELEASE 750
7 MAXRELEASE =

```

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



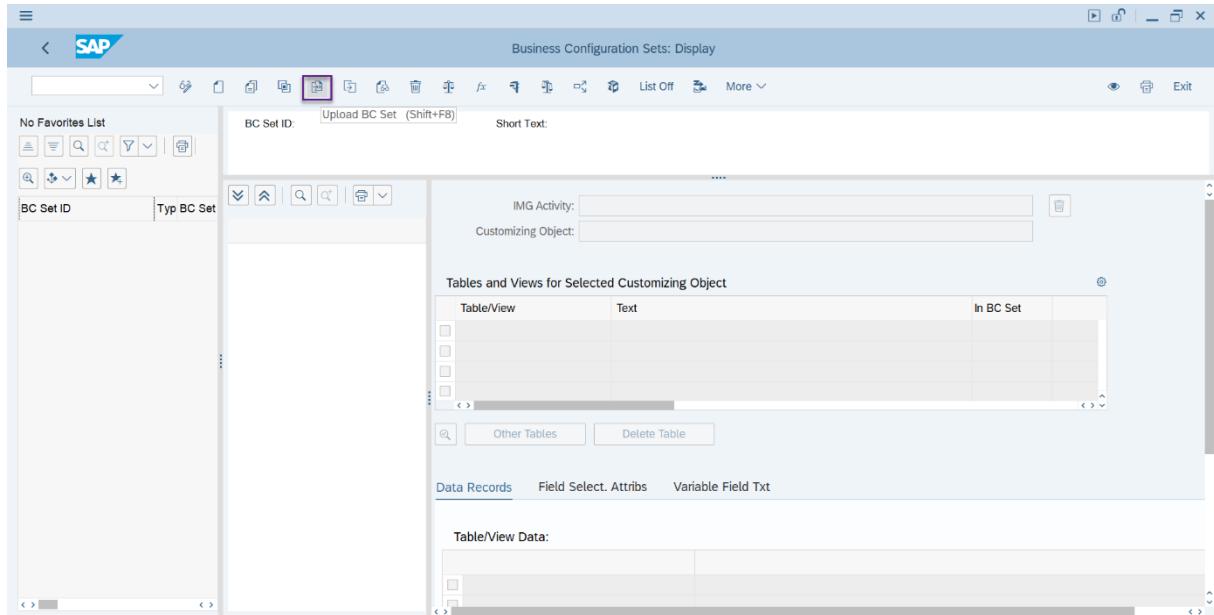
3.1.4 Change file extension to “.bcs”.



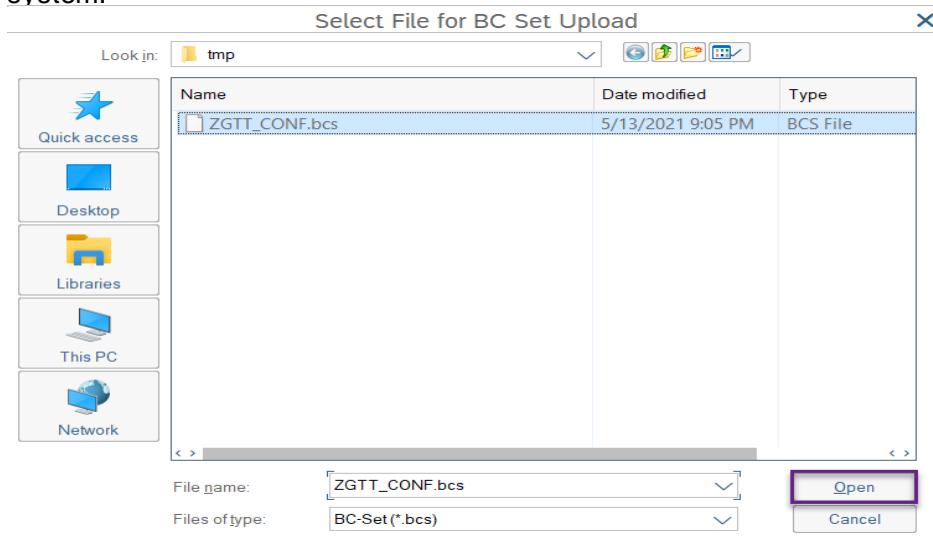
3.2 Import BC Set

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

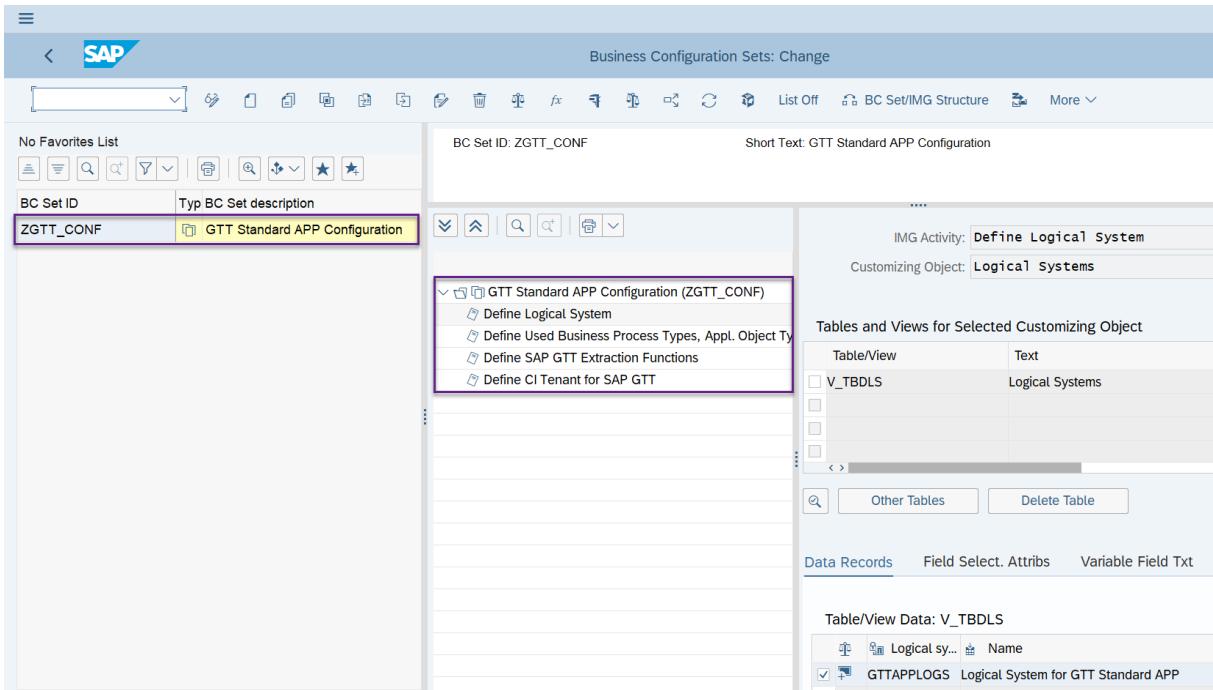
3.2.2 Select **Upload BC Set**.



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.

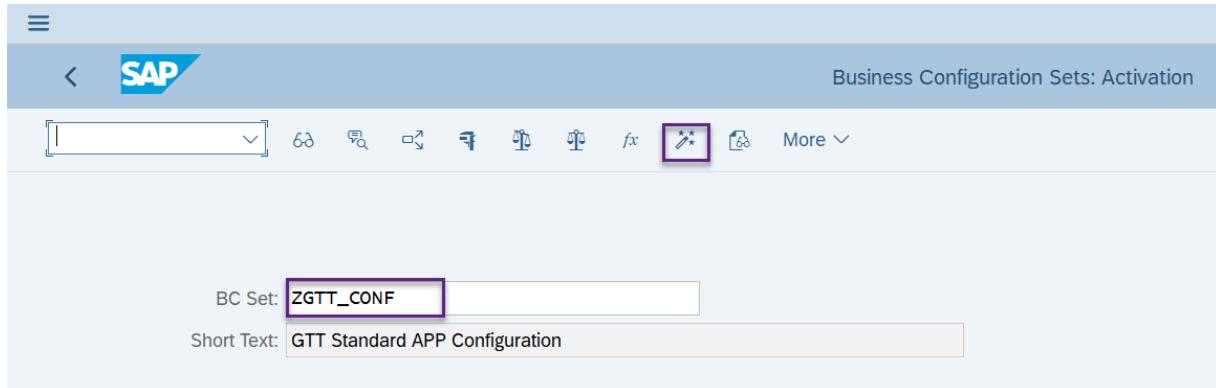


BC Set ZGTT_CONF saved

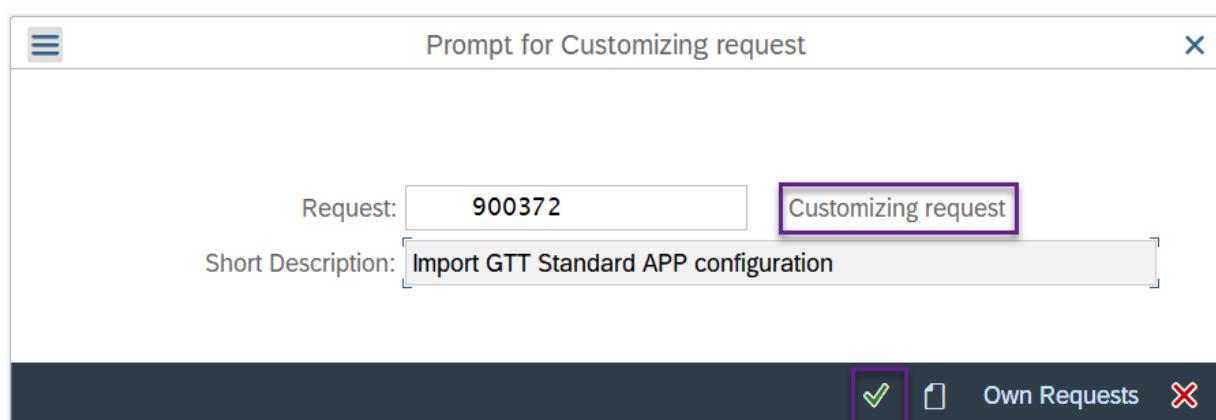
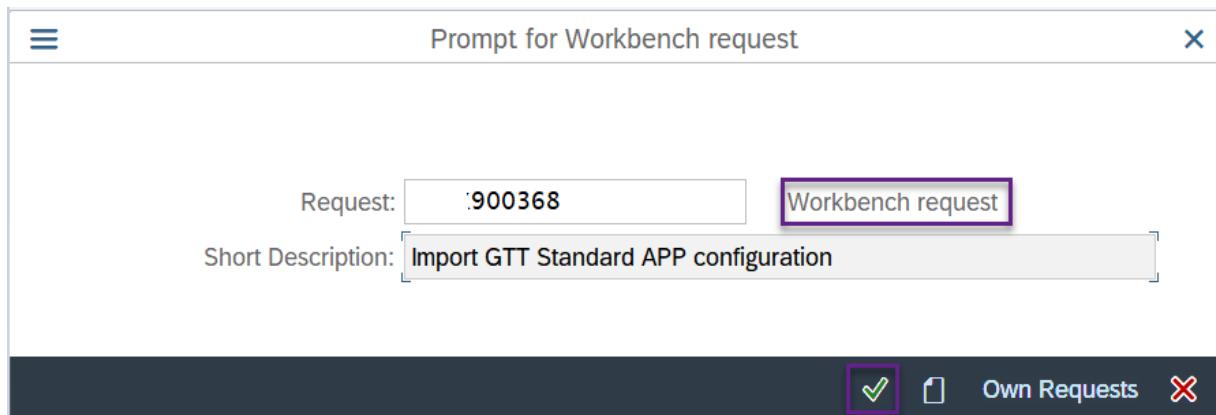
3.3 Activate BC Set

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

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

Activation Information		Activation Options	
Activated By:		Overwrite Data	
Date/Time:	13.05.2021 / 15:27:29	<input checked="" type="radio"/> Overwrite All Data	<input type="radio"/> Do Not Overwrite Default Values
System/Client:	/	Select Activation Mode	
Workbench Reqst:	900368	<input checked="" type="radio"/> Default Mode (Recommend)	<input type="radio"/> Expert Mode
Customizing Reqst:	900372	Deletion Functionality	
Activation Links:	Do Not Create	<input type="checkbox"/> Enable for Classical BC Sets	
Activation Languages:	Chinese Thai Korean Romanian Slovenian		

Messages

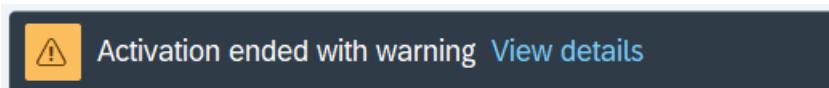
With Log

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 screenshots. The top screenshot is titled "Business Configuration Sets: Activation" and displays fields for "BC Set" (ZGTT_CONF) and "Short Text" (GTT Standard APP Configuration). The bottom screenshot is titled "Business Configuration Sets: Activation Logs" and shows the "Activation Log" tab. The log table lists activation messages for various objects like /SAPTRX/VC_AOTYPE_CTT, /SAPTRX/VC_ASFUNC_CTT, and /SAPTRX/VC_CTTSRV, indicating success or specific warnings such as "User-defined languages are not installed in the system".

Type	BC Sets	Object	Message Text	Key Field	Infor...
	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/VC_CTTSRV	Customizing object /SAPTRX/VC_AOTYPE_CTT passed to activation		
	ZGTT_CONF	V_TBDLS	Customizing object /SAPTRX/VC_ASFUNC_CTT passed to activation		
	ZGTT_CONF	/SAPTRX/VC_ASFUNC_CTT	Customizing object /SAPTRX/VC_ASFUNC_CTT passed to activation		
	ZGTT_CONF	/SAPTRX/VFUNC_A	Customizing object /SAPTRX/VC_CTTSRV passed to activation		
	ZGTT_CONF	/SAPTRX/VFUNC_L	Customizing object /SAPTRX/VFUNC_A passed to activation		
	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	No difference between BC set (activation) and table data		
	ZGTT_CONF	/SAPTRX/VFUNC_H	No difference between BC set (activation) and table data		
	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	No difference between BC set (activation) and table data		

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 Reference IMG interface with the title 'Configuration of RFC Connections'. Below the title, there are three buttons: 'Generate RFC Callback Allowlist', 'Activate Non-Empty Allowlists', and 'Allowlist for Dynamic'. A note 'RFC callback check not secure' is displayed. Below these are several icons: refresh, search, create (highlighted with a purple border), edit, details, and delete. A table titled 'RFC Connections' lists the following entries:

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		

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. It has fields for 'Destination' (containing 'GTT_APP_RFC') and 'Connection Type' (set to 'G HTTP connection to external server'). At the bottom are two buttons: a green checkmark and a red X.

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:

PW Status:

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: Cert. List

Do not use certificate for logon

3.4.7 Save the configuration.

3.5 Define Ports

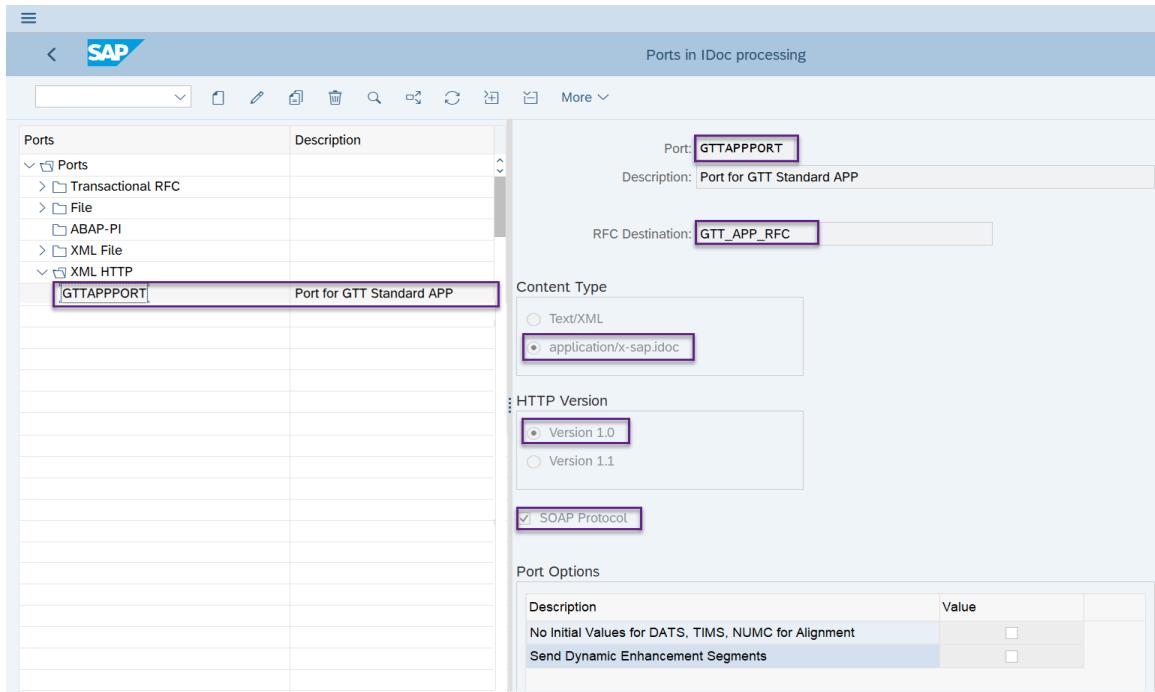
3.5.1 In Display IMG page, click **Integration with Other SAP Components -> Interface to Global Track and Trace -> IDoc Settings**. Choose activity **Define Ports**.

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**.

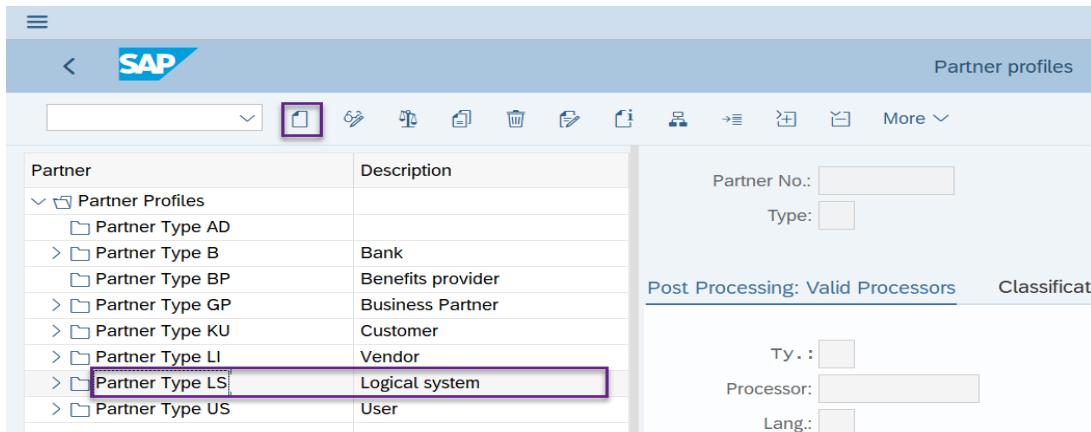


3.5.6 Save the configuration.

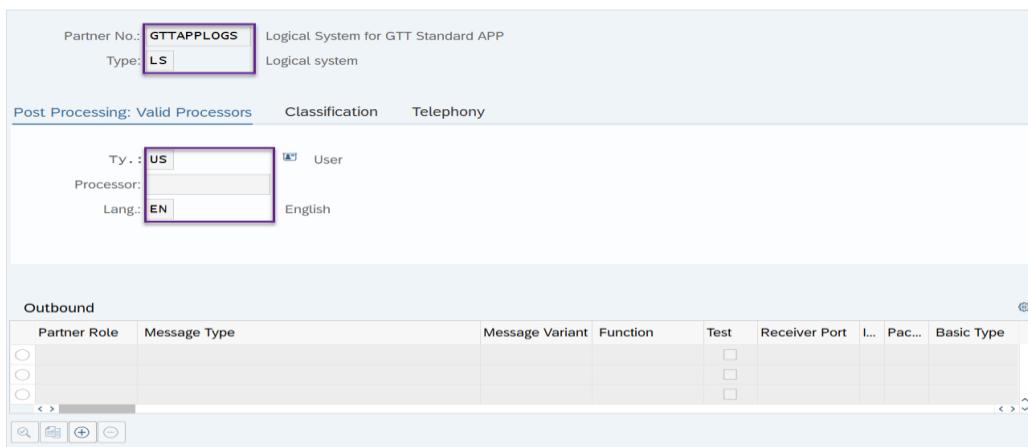
3.6 Define Partner Profiles

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**.

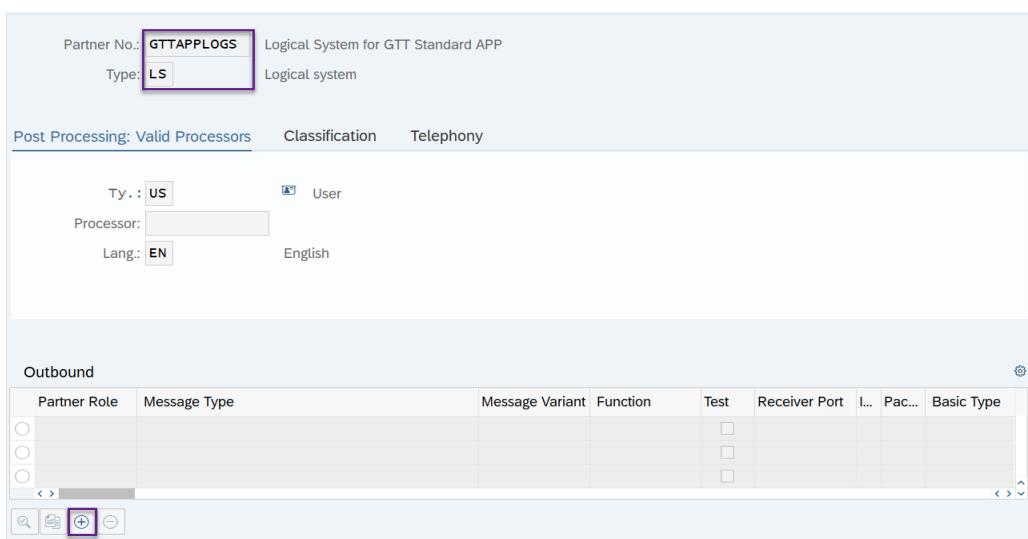
3.6.2 Choose **Partner Type LS** folder, and click **Create** to create a new partner profile.



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 displays the following details:

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

Below these settings are several tabs: **Outbound Options**, **Message Control**, **Post Processing: Valid Processors**, **Telephony**, and **EDI Standard**. The **Outbound Options** tab is currently selected.

In the **Outbound Options** section, the following values are set:

- Receiver Port:** GTTAPPOR (highlighted with a purple border)
- Pack. Size:** 0
- Queue Processing
- Output Mode:** Pass IDoc Immediately (Output Mode: 2) Collect IDocs

Under **IDoc Type**, the following settings are shown:

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

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 title bar says "RFC Destination GTT_APP_RFC". The top navigation bar includes "Connection Test" and "More". The main configuration area has "RFC Destination: GTT_APP_RFC" and "Connection Type: G HTTP Connection to External Server". Under "Description", there are three fields: "Description 1: RFC for GTT Standard APP", "Description 2:", and "Description 3:". Below this is a tab bar with "Administration", "Technical Settings" (which is highlighted with a purple border), "Logon & Security", and "Special Options". A section titled "Target System Settings" contains fields for "Host:" (with value "sat-so-01.gtt-flp-lbnplatform-pre-live.cfapps.eu10.hana.ondemand.com") and "Port:" (with value "443"). The "Path Prefix:" field (with value "/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: 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 Client

Logon with MQTT/AMQP

User:

PW Status: is initial

Security Options

Status of Secure Protocol

SSL : Inactive Active

SSL Certificate: DEFAULT SSL Client (Standard)

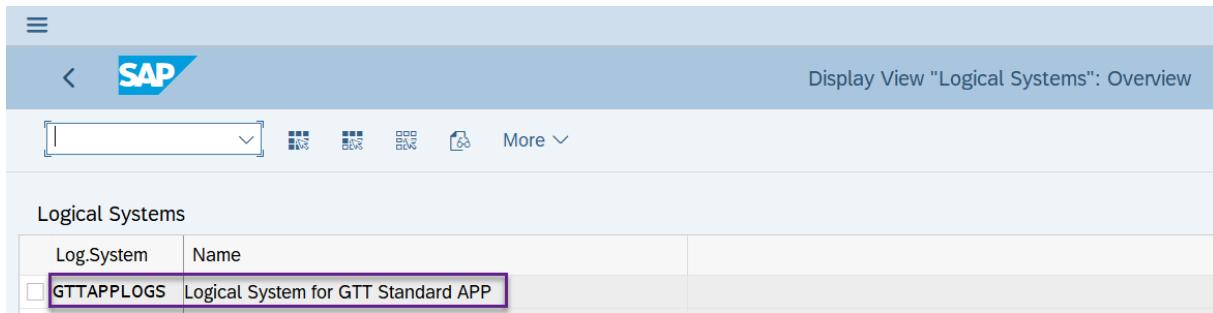
Do not use certificate for logon

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 toolbar with search and filter icons. The main area is titled "Logical Systems" and contains a table with two columns: "Log.System" and "Name". A single row is visible, containing the value "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.

The screenshot shows the SAP Fiori interface for defining a port. On the left, there's a sidebar with categories like Ports, Transactional RFC, File, ABAP-PI, XML File, and XML HTTP. Under XML HTTP, a port named 'GTTAPPPORT' is selected and highlighted with a purple box. The main panel on the right contains several configuration fields:

- Port:** GTTAPPPORT
- Description:** Port for GTT Standard APP
- RFC Destination:** GTT_APP_RFC
- Content Type:** application/x-sap.idoc (selected)
- HTTP Version:** Version 1.0 (selected)
- SOAP Protocol:** Checked
- Port Options:** A table with two rows:
 - No Initial Values for DATS, TIMS, NUMC for Alignment
 - Send Dynamic Enhancement Segments

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.

Partner	Description
Partner Profiles	
Partner Type AD	
Partner Type B	Bank
Partner Type BP	Benefits provider
Partner Type GP	Business Partner
Partner Type KU	Customer
Partner Type LI	Vendor
Partner Type LS	Logical system
Partner Type US	User

Post Processing: Valid Processors Classification Telephony

Partner No.: GTTAPLOGS Processor: US
Type: LS Lang.: EN

Outbound

Partner Role	Message Type	Message Variant	Function	Test	Receiver Port	I...	Pac...	Basic Type
(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)
(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)
(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)

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

Post Processing: Valid Processors Classification Telephony

Processor: US Lang.: EN

Outbound

Partner Role	Message Type	Message Variant	Function	Test	Receiver Port	I...	Pac...	Basic Type
(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)
(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)
(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)

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

Partner No.: **GTTAPPLOGS** Logical System for GTT Standard APP
Type: **LS** Logical system

Post Processing: Valid Processors Classification Telephony

Ty.: **US** User
Processor:
Lang.: **EN** English

Outbound

Partner Role	Message Type	Message Variant	Function	Test	Receiver Port	I...	Pac...	Basic Type
(<input type="radio"/>				<input type="checkbox"/>				
(<input type="radio"/>				<input type="checkbox"/>				
(<input type="radio"/>				<input type="checkbox"/>				

+ Add

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

Partner profiles: Outbound parameters

Partner No.: **GTTAPPLOGS** Logical System for GTT Standard APP
Type: **LS** Logical system
Partner Role:

Message Type: **GTTMSG**
Message Code:
Message Function: Test

Outbound Options Message Control Post Processing: Valid Processors Telephony EDI Standard

Receiver Port: **GTTAPPRT** Port for GTT Standard APP
Pack. Size: **0**
 Queue Processing

Output Mode
 Pass IDoc Immediately Output Mode: 2
 Collect IDocs

IDoc Type
Basic Type: **GTTMSG01** LBN-TT: Process and Event Posting
Extension:
View:
 Cancel Processing After Syntax Error
Seg. release in IDoc type: Application Release:

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. It has a search bar, a 'New Entries' button highlighted with a purple box, and a toolbar with various icons. Below is a table header for 'SAP Global Track & Trace Definitions' with 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 has a search bar, a toolbar with icons, and a table header for 'SAP Global Track & Trace Definitions' with the same four columns. A row is selected, showing 'GTTAPPLOGS' in the CI for Global Track & Trace column, 'GTTAPPLOGS' in the CI Log. System column, 'GTT2.0 Logistics Business Network - Track and Trace' in the SAP Track & Trace Version column, and 'CI Tenant for GTT Standard APP' in the Description column.

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**.

This screenshot shows the 'Change View "GTT Relevance Functions (App. Obj. Types)": Overview' screen. It features a 'Dialog Structure' sidebar on the left with a tree view containing 'GTT Relevance Functions (App. Obj. Types)', '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 titled 'GTT Relevance Functions (App. Obj. Types)' with columns: Function, Function Module, and Description. The table currently contains no data rows.

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_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

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
<input checked="" type="checkbox"/> ESC_DELIV	Update Task (V1)	Active	Delivery in SAP R/3 Enterprise
<input type="checkbox"/> ESC_FI_CLEARING	Update Task (V1)	Active	FI Clearing in SAP R/3 Enterprise

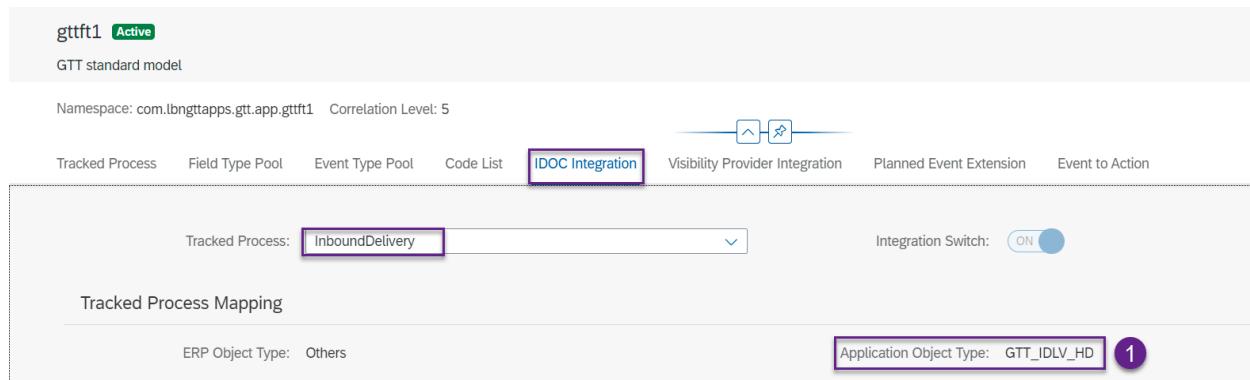
4.8.2 Click **New Entries** to create a new Application Object Type.

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

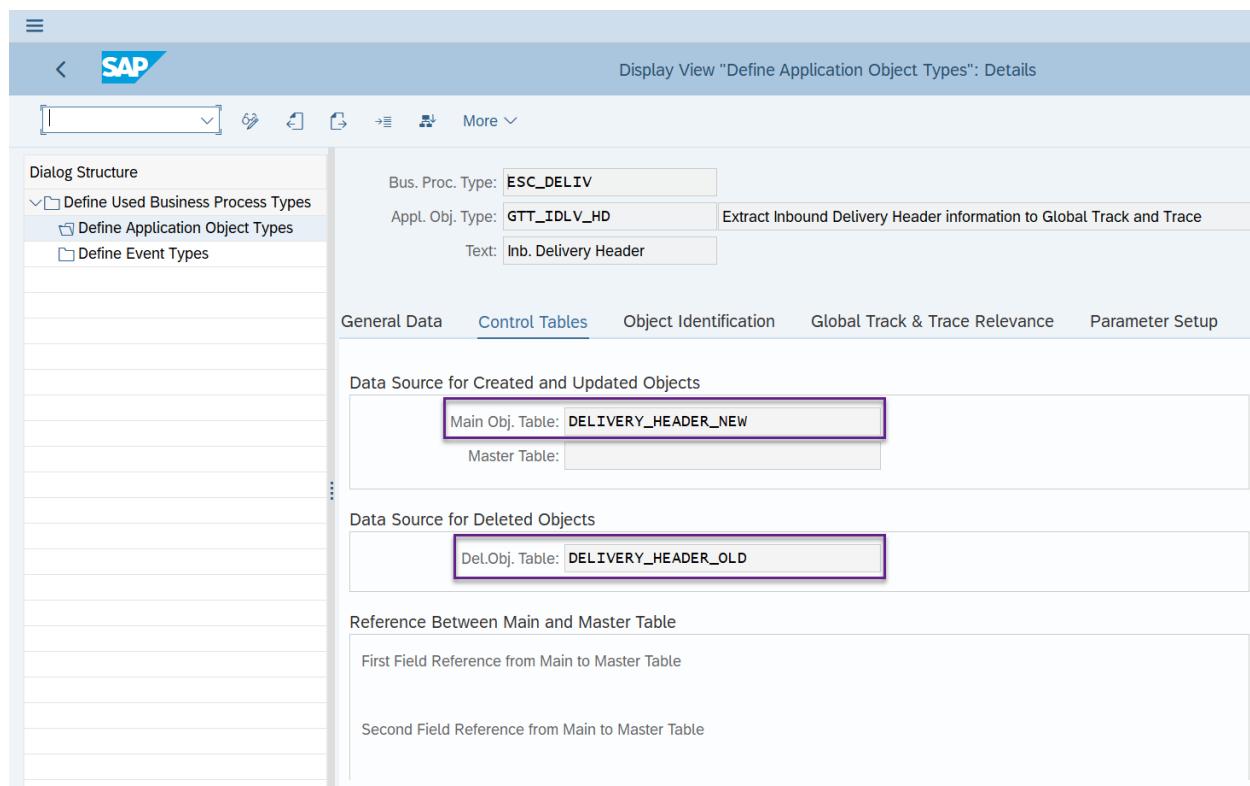
4.8.4 Fill in the information required in the **General Data** tab. **CI for GTT** is the CI Tenant you created in [4.5](#). Check **GTT Relevant**.

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.

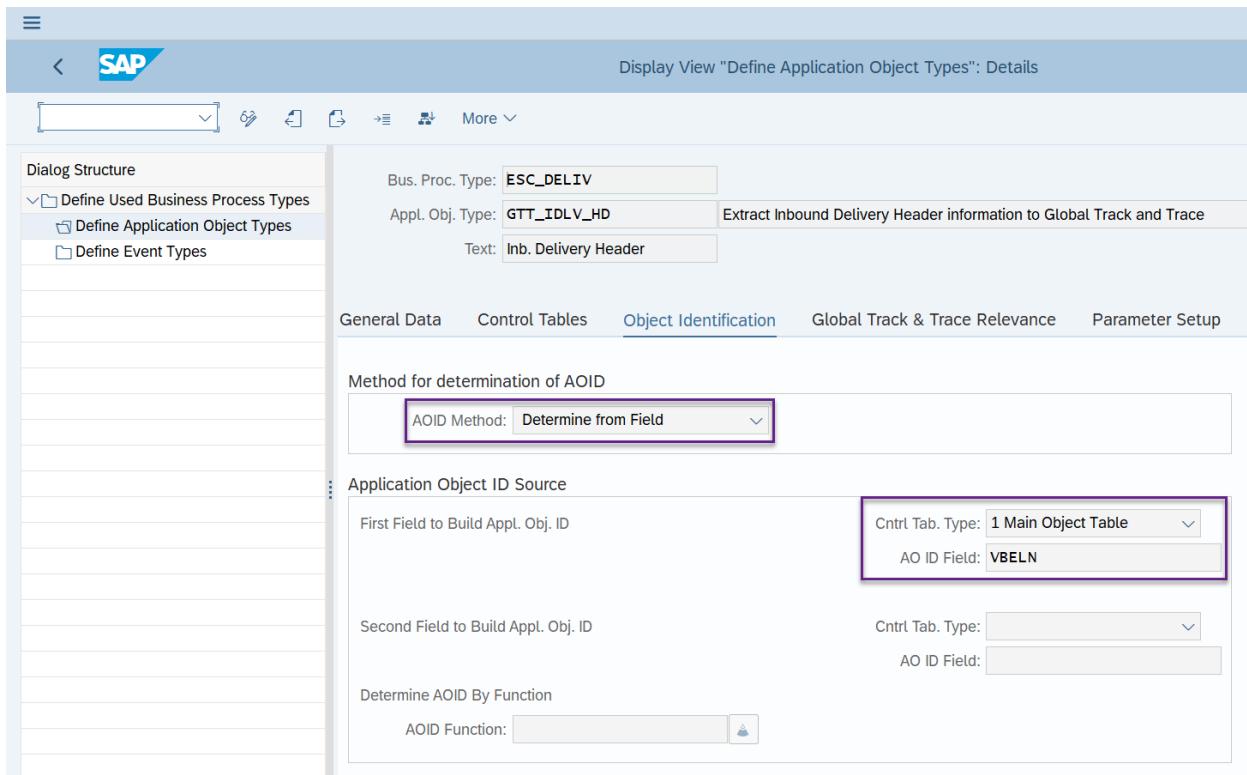


Note:

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

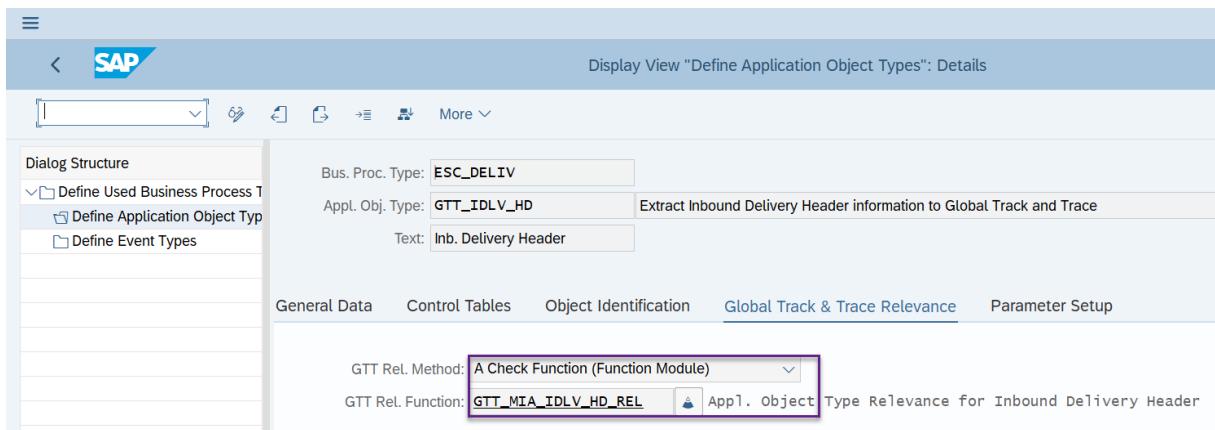
If the event type or application object type is on the item level, then you need to assign the **Main Object Table** and **Master Table**, and assign the reference between the **Main Object Table** and **Master Table**.

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.



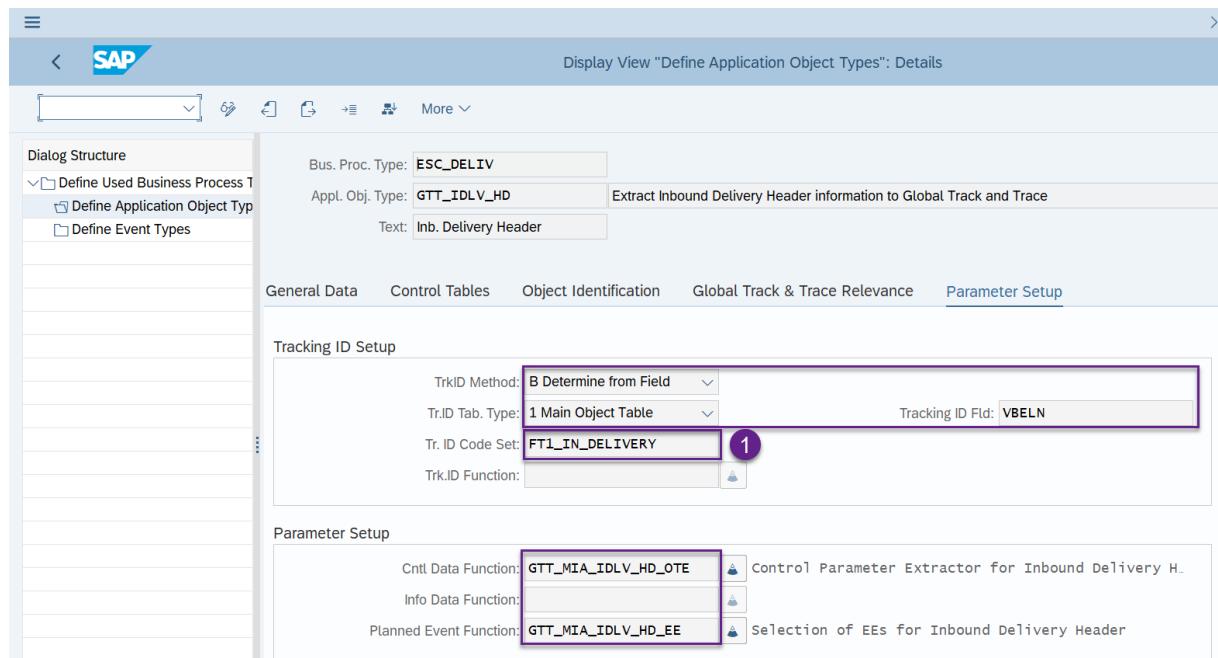
4.8.8 In the **Parameter Setup** tab, choose the **TrkID Method** as you need.

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**.

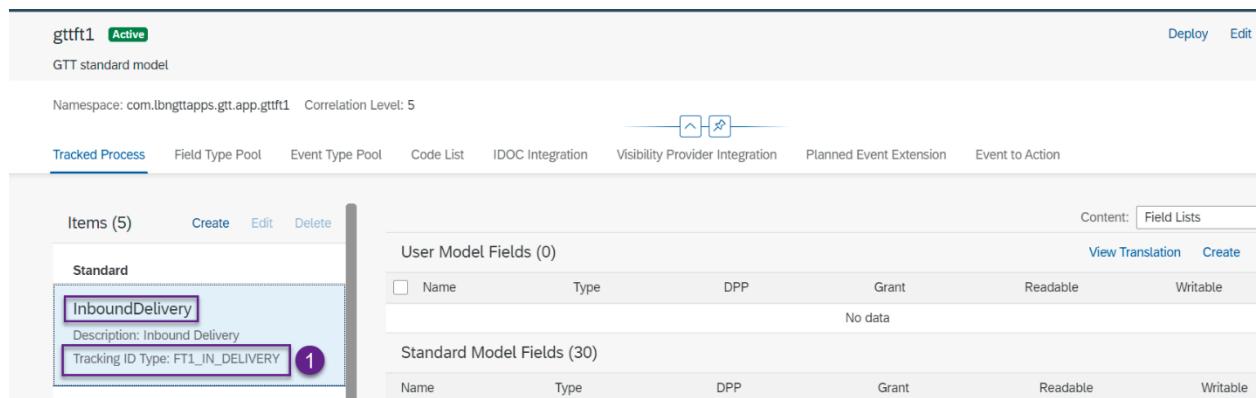
Click **Save**.



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
<input checked="" type="checkbox"/> ESC_DELIV	Update Task (V1)	Active	Delivery in SAP R/3 Enterprise
<input type="checkbox"/> 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:	<input checked="" type="text"/> GTT_IDLV_IT
Text:	Inb. Delivery Item

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

Sequencing / Destination

Seq. No.:	10
CI for GTT:	<input checked="" type="text"/> GTTAPPLOGS
CI Tenant for GTT Standard APP	

Business Object Reference

Object Type:	BUS2015
BO Setup Fnct.:	<input type="button"/>

Behavior

<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 (selected)
- 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

Control Tables (Selected)

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 (selected)
- 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

Object Identification (Selected)

Method for determination of AOID

AOID Method:	Determine from Field
--------------	----------------------

Application Object ID Source

First Field to Build Appl. Obj. ID

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

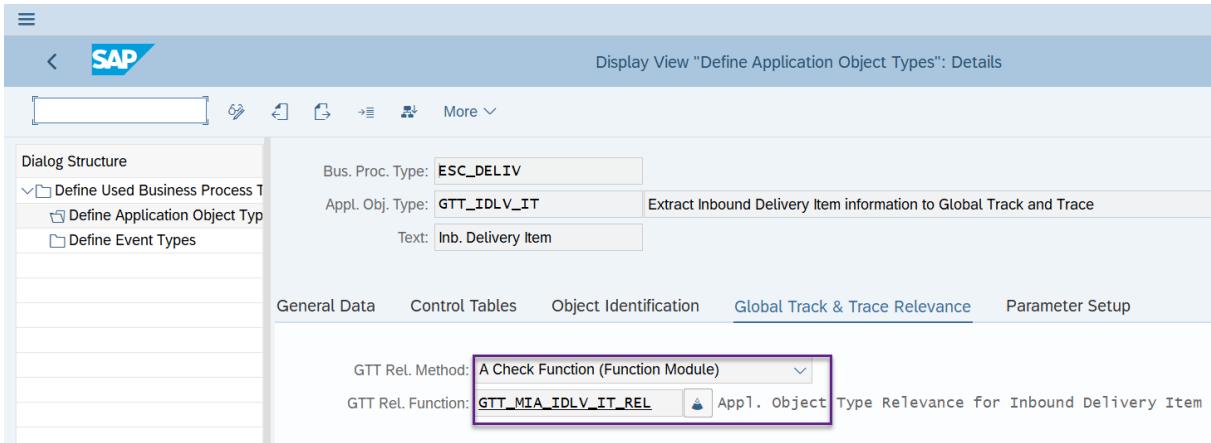
Second Field to Build Appl. Obj. ID

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

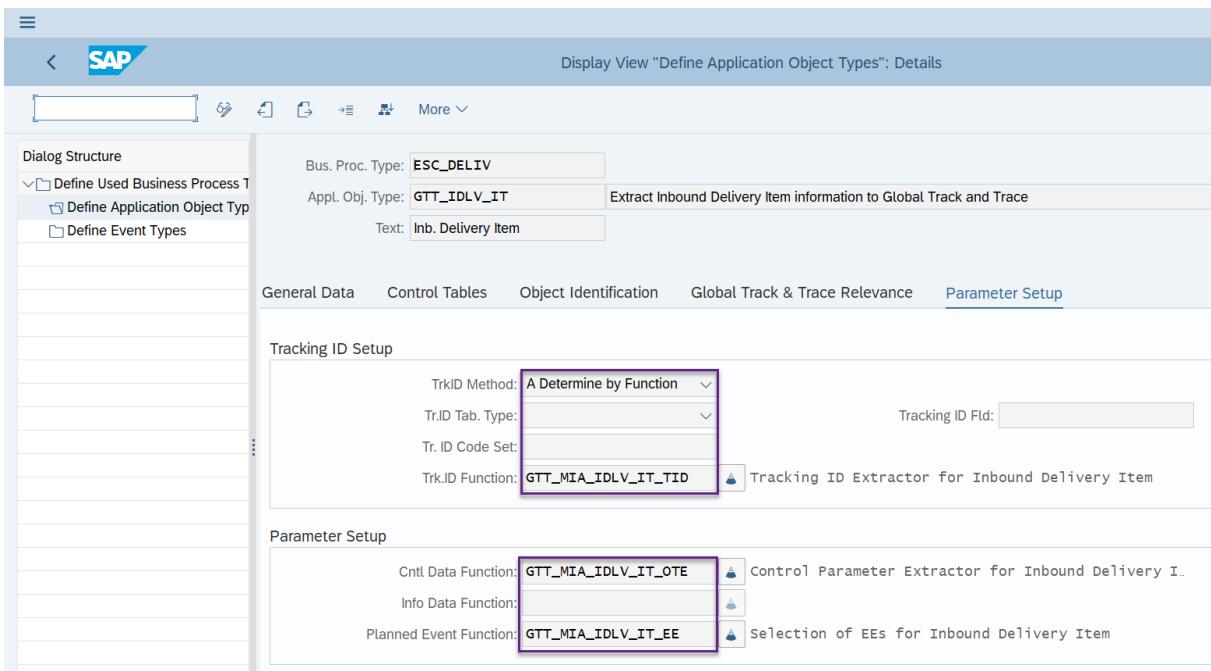
Determine AOID By Function

AOID Function:	
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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

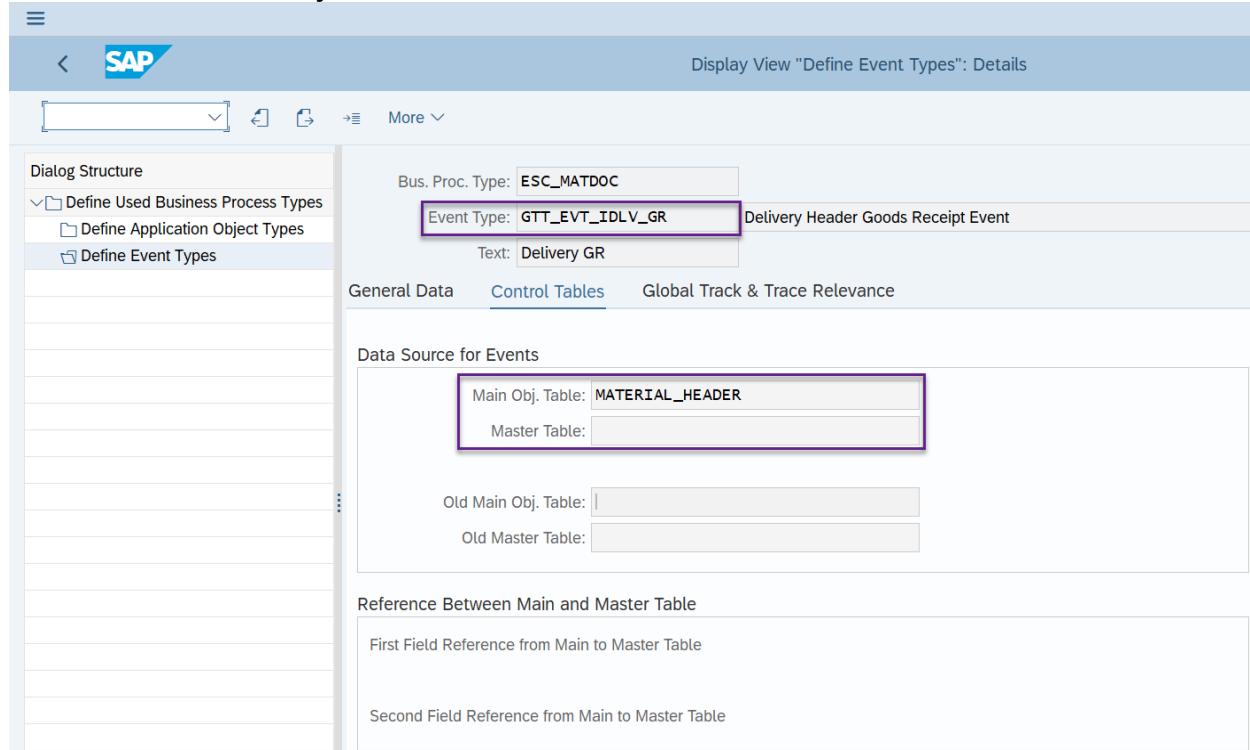
General Data	Control Tables	Global Track & Trace Relevance
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Sequencing / Destination
Seq. No.: 10
HCI for GTT: GTTAPPLOGS

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.

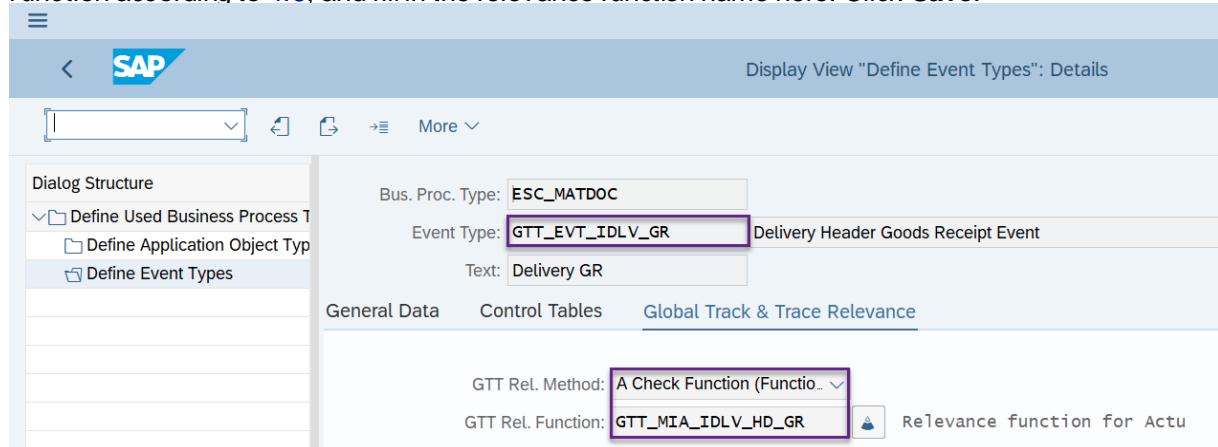


Caution:

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**.



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**.

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

Seq. No.:	10
HCI for GTT:	GTTPLOGS

Event Function:	GTT_MIA_IDLV_IT_PA
-----------------	--------------------

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

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

The screenshot shows the SAP Fiori interface for defining event types. The 'Control Tables' tab is selected. In the 'Data Source for Events' section, the 'Main Obj. Table' field contains 'DELIVERY_ITEM_NEW' and the 'Master Table' field contains 'DELIVERY_HEADER_NEW'. Both of these fields are highlighted with a purple border. Below this, there are sections for 'Reference Between Main and Master Table' and 'Second Field Reference from Main to Master Table', both of which are currently empty.

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**.

The screenshot shows the SAP Fiori interface for defining event types. The 'Global Track & Trace Relevance' tab is selected. In the 'GTT Rel. Method' dropdown, 'A Check Function (Function)' is selected. In the 'GTT Rel. Function' field, 'GTT_MIA_IDLV_IT_PA' is entered and highlighted with a purple border. A tooltip 'Relevance function for Actu...' is visible next to the field.

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 from Field
Object Identification – Application Object ID Source – First Field to Build Appl. Obj. ID	Cntrl Tab. Type	Main Object Table
	AO ID Field	VBELN
Global Track & Trace Relevance	GTT Rel. Method	Check Function (Function Module)
	GTT Rel. Function	GTT_MIA_IDLV_HD_REL
Parameter Setup	TrkID Method	Determine from Field
	Tr. ID Tab. Type	Main Object Table
	Tracking ID Fld	VBELN
	Tr. ID Code Set	FT1_IN_DELIVERY
	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 from Field
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 – 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 PutAway 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 from Field
Object Identification – Application Object ID Source – First Field to Build Appl. Obj. ID	Cntrl Tab. Type	Main Object Table
	AO ID Field	TKNUM
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
	CI 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 from Field
Object Identification – Application Object ID Source – First Field to Build Appl. Obj. ID	Cntl Tab. Type	Main Object Table
	AO ID Field	TOR_ID
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	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

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 from Field
Object Identification – Application Object ID Source – First Field to Build Appl. Obj. ID	Cntl Tab. Type	Main Object Table
	AO ID Field	TOR_ID
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

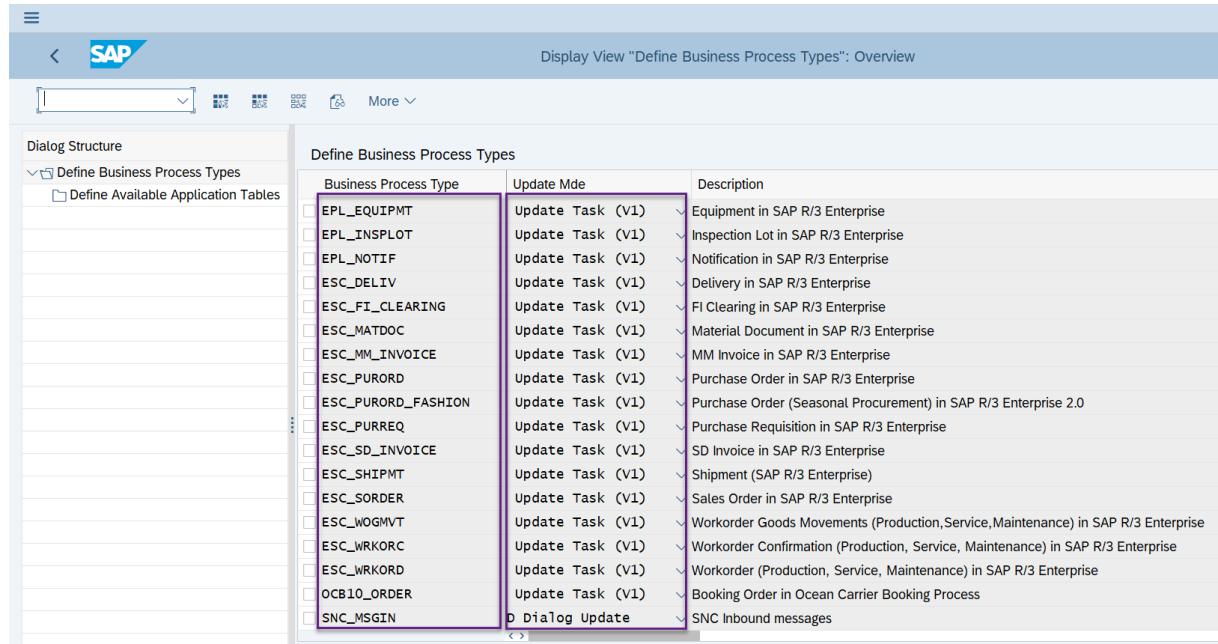
Segment	Field	Value
Header	Bus. Proc. Type	TMS_TOR
	Event Type	GTT_EVT_TOR_UNLEND
	Description	FO/FB/FU Unloading End Event
	Text	Unloading End Event
General Data	Seq. No.	0
	HCI for GTT	GTTAPPLOGS
	Event Function	GTT_TS_TOR_UNLD_END
	GTT Relevant	X
Control Tables	Main Obj. Table	TOR_ROOT
Global Track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



The screenshot shows the SAP Display View "Define Business Process Types": Overview. The left sidebar shows the "Dialog Structure" with "Define Business Process Types" selected. The main area displays a table titled "Define Business Process Types" with three columns: "Business Process Type", "Update Mde", and "Description". The table lists various business process types, each associated with an "Update Task (V1)" entry and a corresponding description. The descriptions include: Equipment in SAP R/3 Enterprise, Inspection Lot in SAP R/3 Enterprise, Notification in SAP R/3 Enterprise, Delivery in SAP R/3 Enterprise, FI Clearing in SAP R/3 Enterprise, Material Document in SAP R/3 Enterprise, MM Invoice in SAP R/3 Enterprise, Purchase Order in SAP R/3 Enterprise, Purchase Order (Seasonal Procurement) in SAP R/3 Enterprise 2.0, Purchase Requisition in SAP R/3 Enterprise, SD Invoice in SAP R/3 Enterprise, Shipment (SAP R/3 Enterprise), Sales Order in SAP R/3 Enterprise, Workorder Goods Movements (Production, Service, Maintenance) in SAP R/3 Enterprise, Workorder Confirmation (Production, Service, Maintenance) in SAP R/3 Enterprise, Workorder (Production, Service, Maintenance) in SAP R/3 Enterprise, Booking Order in Ocean Carrier Booking Process, and SNC Inbound messages.

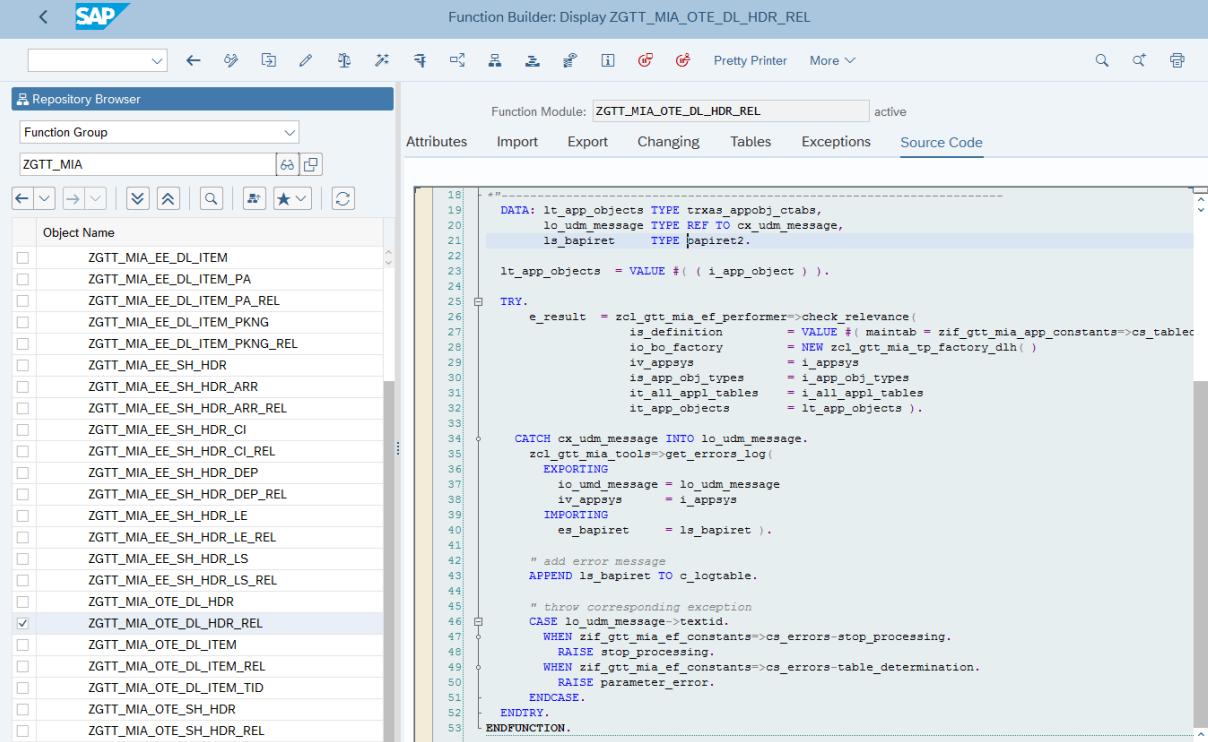
Business Process Type	Update Mde	Description
EPL_EQUIPMT	Update Task (V1)	Equipment in SAP R/3 Enterprise
EPL_INSPLOT	Update Task (V1)	Inspection Lot in SAP R/3 Enterprise
EPL_NOTIF	Update Task (V1)	Notification in SAP R/3 Enterprise
ESC_DELIV	Update Task (V1)	Delivery in SAP R/3 Enterprise
ESC_FI_CLEARING	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	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.



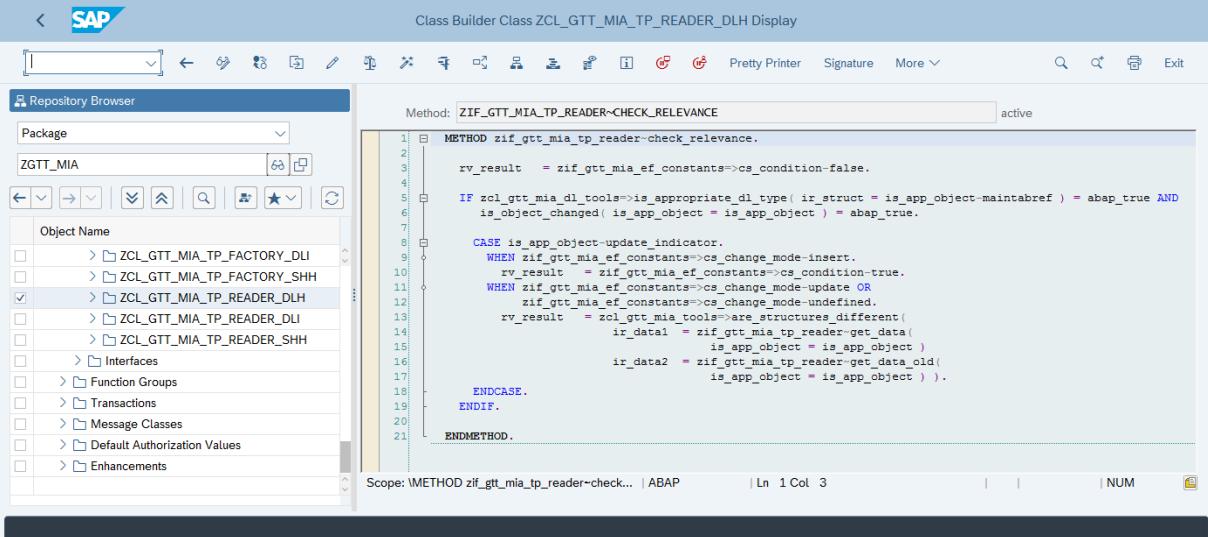
The screenshot shows the SAP Function Builder interface with the function module ZGTT_MIA_OTE_DL_HDR_REL selected. The code editor displays the following ABAP code:

```

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_dlh( )
28     iv_apps = i_apps
29     is_app_obj_types = i_app_obj_types
30     it_all_appl_tables = i_all_appl_tables
31     it_app_objects = lt_app_objects .
32
33 CATCH cx_udm_message INTO lo_udm_message.
34   zcl_gtt_mia_tools->get_errors_log(
35     EXPORTING
36       io_udm_message = lo_udm_message
37       iv_apps = i_apps
38     IMPORTING
39       es_bapiret = ls_bapiret .
40
41   " add error message
42   APPEND ls_bapiret TO c_logtable.
43
44   " throw corresponding exception
45   CASE lo_udm_message->textid.
46     WHEN zif_gtt_mia_ef_constants->cs_errors-stop_processing.
47       RAISE stop_processing.
48     WHEN zif_gtt_mia_ef_constants->cs_errors-table_determination.
49       RAISE parameter_error.
50     ENDCASE.
51   ENDTRY.
52
53 ENDFUNCTION.

```

The function module uses class ZCL_GTT_MIA_TP_READER_DLH to do the check.



The screenshot shows the SAP Class Builder interface with the method ZIF_GTT_MIA_TP_READER-CHECK_RELEVANCE selected. The code editor displays the following ABAP code:

```

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_old(
17            is_app_object = is_app_object ) ).
18
19     ENDCASE.
20   ENDIF.
21
22 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:

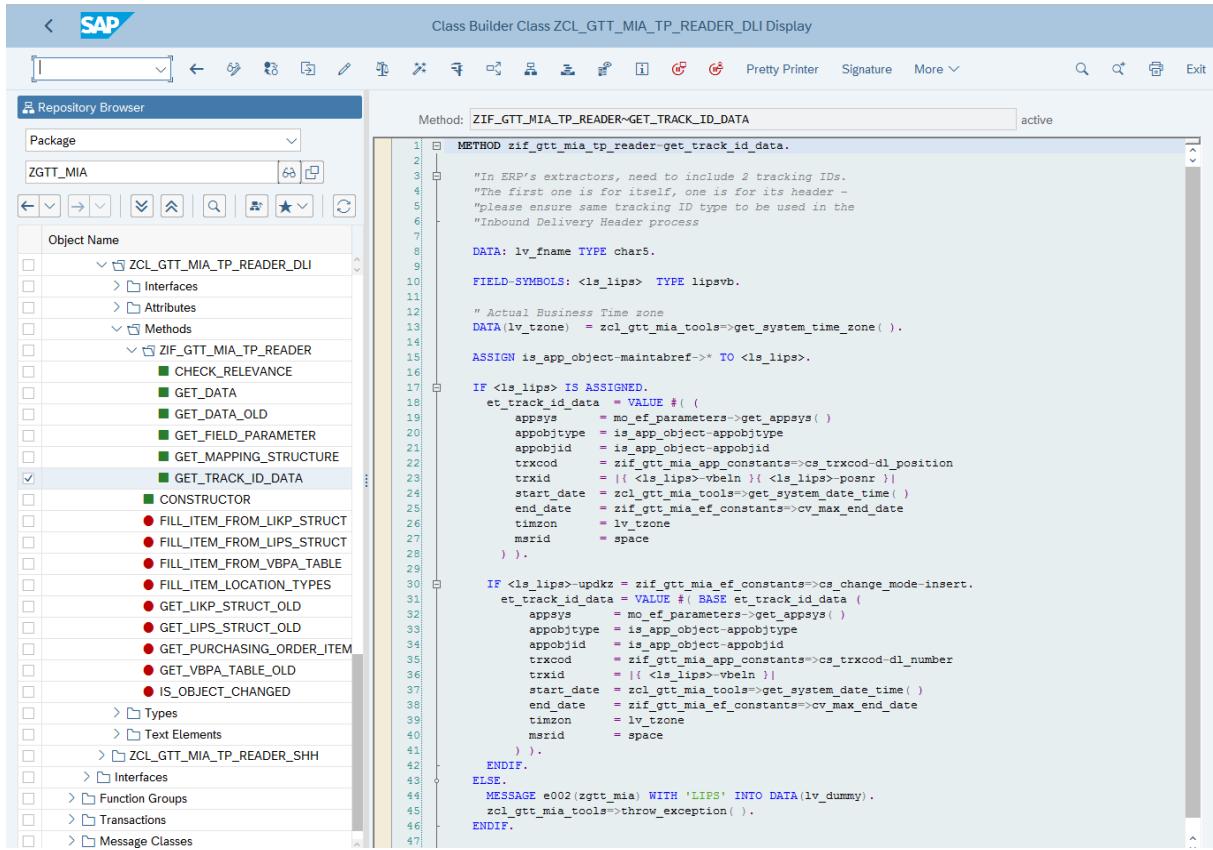
```

19| DATA: lo_udm_message TYPE REF TO cx_udm_message,
20|       ls_bapiret TYPE bapiret2.
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_dll( )
29|     iv_appsya         = i_appsya
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_appsya     = i_appsya
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->txid.
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_id | 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 with the following details:

- Title Bar:** Class Builder Class ZCL_GTT_MIA_TP_READER_DLI Display
- Toolbar:** Includes standard SAP icons for file operations like New, Open, Save, Print, etc.
- Repository Browser:**
 - Package: ZGTT_MIA
 - Object Name: ZCL_GTT_MIA_TP_READER_DLI
 - Methods:
 - ZIF_GTT_MIA_TP_READER
 - CHECK_RELEVANCE
 - GET_DATA
 - GET_DATA_OLD
 - GET_FIELD_PARAMETER
 - GET_MAPPING_STRUCTURE
 - GET_TRACK_ID_DATA
 - CONSTRUCTOR
 - FILL_ITEM_FROM_LIKP_STRUCT
 - FILL_ITEM_FROM_LIPS_STRUCT
 - FILL_ITEM_FROM_VBPA_TABLE
 - FILL_ITEM_LOCATION_TYPES
 - GET_LIKP_STRUCT_OLD
 - GET_LIPS_STRUCT_OLD
 - GET_PURCHASING_ORDER_ITEM
 - GET_VBPA_TABLE_OLD
 - IS_OBJECT_CHANGED
 - Types
 - Text Elements
 - ZCL_GTT_MIA_TP_READER_SHH
 - Interfaces
 - Function Groups
 - Transactions
 - Message Classes
- Method Editor:**
 - Method: ZIF_GTT_MIA_TP_READER~GET_TRACK_ID_DATA
 - Code Content:


```

1 METHOD zif_gtt_mia_tp_reader-get_track_id_data.
2
3   "In ERP's extractors, need to include 2 tracking IDs.
4   "The first one is for itself, one is for its header -
5   "please ensure same tracking ID type to be used in the
6   "Inbound Delivery Header process
7
8   DATA: lv_fname TYPE char5.
9
10  FIELD-SYMBOLS: <ls_lips> TYPE lipsvb.
11
12  " Actual Business Time zone
13  DATA(lv_tzone) = zcl_gtt_mia_tools->get_system_time_zone( ).
14
15  ASSIGN is_app_object-maintabref->* TO <ls_lips>.
16
17  IF <ls_lips> IS ASSIGNED.
18    et_track_id_data = VALUE #((
19      appsys = mo_ef_parameters->get_appsyst( )
20      appobjtype = is_app_object-appobjtype
21      appobjid = is_app_object-appobjid
22      trxcod = zif_gtt_mia_app_constants->cs_trxcod-dl_position
23      trxid = ||(<ls_lips>-vheln ||<ls_lips>-posnr |||
24      start_date = zcl_gtt_mia_tools->get_system_date_time( )
25      end_date = zif_gtt_mia_ef_constants->cv_max_end_date
26      timzon = lv_tzone
27      merid = space
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      trxcod = zif_gtt_mia_app_constants->cs_trxcod-dl_number
36      trxid = ||(<ls_lips>-vheln |||
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      merid = space
41    )).
42  ENDIF.
43 ELSE.
44   MESSAGE e002(zggt_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 "Source Code" tab is selected. The code implements a function that performs various database operations like SELECT, INSERT, UPDATE, and DELETE on tables such as ZIF_GTT_MIA_APP_CONSTANTS, ZIF_GTT_MIA_APP_TABLES, and ZIF_GTT_MIA_APP_OBJECTS. It also interacts with BAPIs like BAPIRET and BAPIAPPY.

```

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_bc_factory      = NEW zcl_gtt_mia_tp_factory_dli( )
29   iv_apppays        = i_apppsys
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_ctrl_tabs
33   it_app_objects    = i_app_objects
34
35 CHANGING
36   ct_control_data   = e_control_data[] .
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_apppays    = i_apppsys
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.
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" tab is selected, showing the implementation of the GET_DATA method. The code uses various SAP objects like LIKP, LIPS, and VBPA to populate a DLITEM structure.

```

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 (Status: Active). The model is a GTT standard model with a namespace of com.lbnngtapps.gtt.app.gttft1 and a correlation level of 5. The IDOC Integration tab is selected. The Tracked Process is set to InboundDelivery, and the Integration Switch is turned On. The Tracked Process Mapping section shows that the ERP Object Type is Others and the Application Object Type is GTT_IDLV_HD. The Tracked Process / Events section lists two entries: Tracked Process (InboundDeliveryEvent) and Event Types (GoodsReceipt). The Standard Model Fields section displays a table mapping fields from the standard model to the IDOC structure.

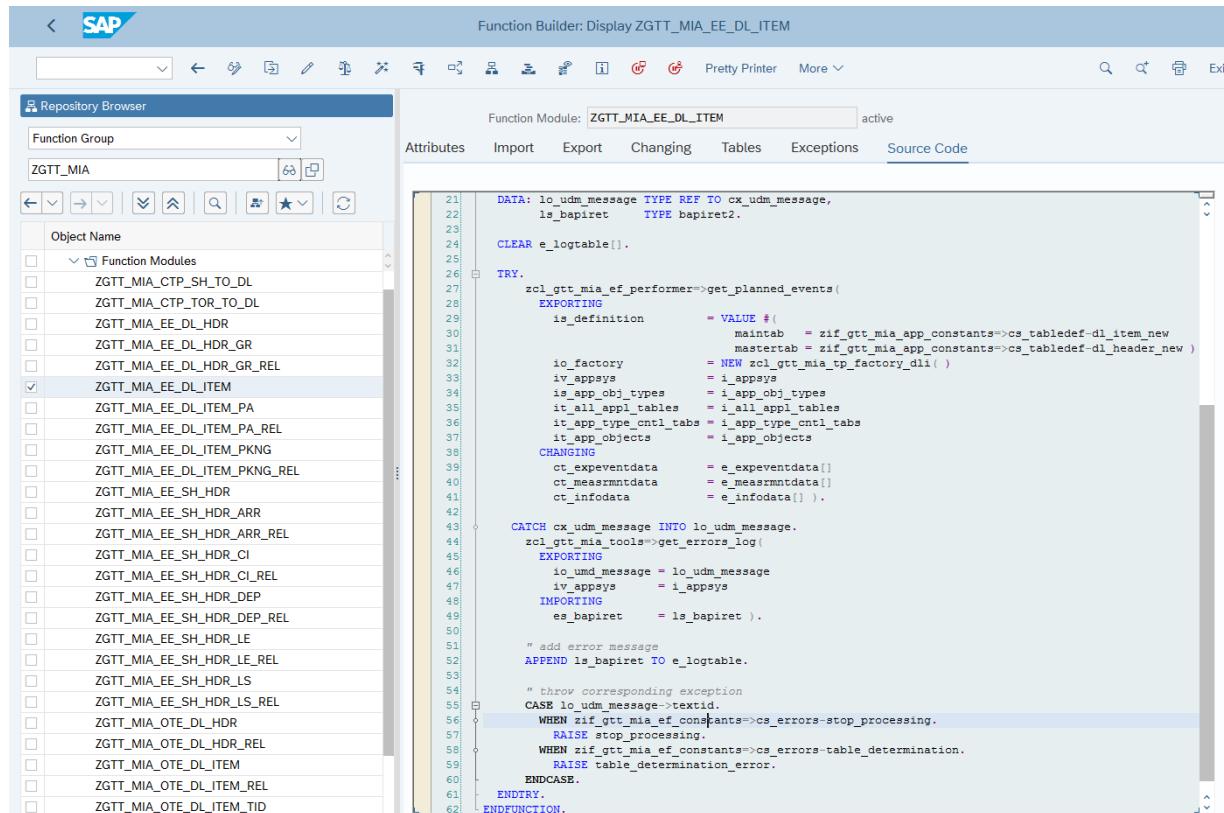
Field	IDOC Segment	IDOC Field
inboundDeliveryNo	E1EHPCP	YN_DL_DELETEVERY
supplierId	E1EHPCP	YN_DL_VENDOR_ID
supplierLocationType	E1EHPCP	YN_DL_VENDOR_LOC_TYPE
plannedDeliveryDate	E1EHPCP	YN_DL_PLANNED_DLV_DATE
documentDate	E1EHPCP	YN_DL_DOCUMENT_DATE
totalWeight	E1EHPCP	YN_DL_TOTAL_WEIGHT
netWeight	E1EHPCP	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 the Shipment number and stop ID (match key) in case of shipment tracking.

See sample code of function: ZGTT_MIA_EE_DL_ITEM:



The screenshot shows the SAP Function Builder interface with the title bar "Function Builder: Display ZGTT_MIA_EE_DL_ITEM". The left sidebar shows the "Repository Browser" with the path "Function Group > ZGTT_MIA > Object Name > Function Modules > ZGTT_MIA_EE_DL_ITEM". The main area displays the source code for the function:

```

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         = NEW zcl_gtt_mia_tp_factory_dll( 
33           i_appsyst
34           = i_appsyst
35           is_app_obj_types
36           = i_app_obj_types
37           it_all_appl_tables
38           = i_all_appl_tables
39           it_app_type_cnci_tabs
40           = i_app_type_cnci_tabs
41           it_app_objects
42           = i_app_objects
43             CHANGING
44               ct_expeventdata
45               = e_expeventdata[]
46               ct_measxmtdata
47               = e_measxmtdata[]
48               ct_infodata
49               = e_infodata[] ).
50
51   CATCH cx_udm_message INTO lo_udm_message.
52   zcl_gtt_mia_tools->get_errors_log(
53     EXPORTING
54       io_udm_message = lo_udm_message
55       iv_appsyst    = i_appsyst
56     IMPORTING
57       es_bapiret   = ls_bapiret .
58
59     " add error message
60     APPEND ls_bapiret TO e_logtable.
61
62   ENDTRY.
63 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   " initiate relevance flags
7   lo_relevance->initiate( ).
8
9   " store calculated relevance flags
10  lo_relevance->update( ).
11
12  add_goods_receipt_event(
13    EXPORTING
14      is_app_objects = is_app_objects
15      io_relevance = lo_relevance
16    CHANGING
17      ct_expeventdata = ct_expeventdata .
18
19  add_shipment_events(
20    EXPORTING
21      is_app_objects = is_app_objects
22    CHANGING
23      ct_expeventdata = ct_expeventdata .
24
25
26 ENDMETHOD.

```

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

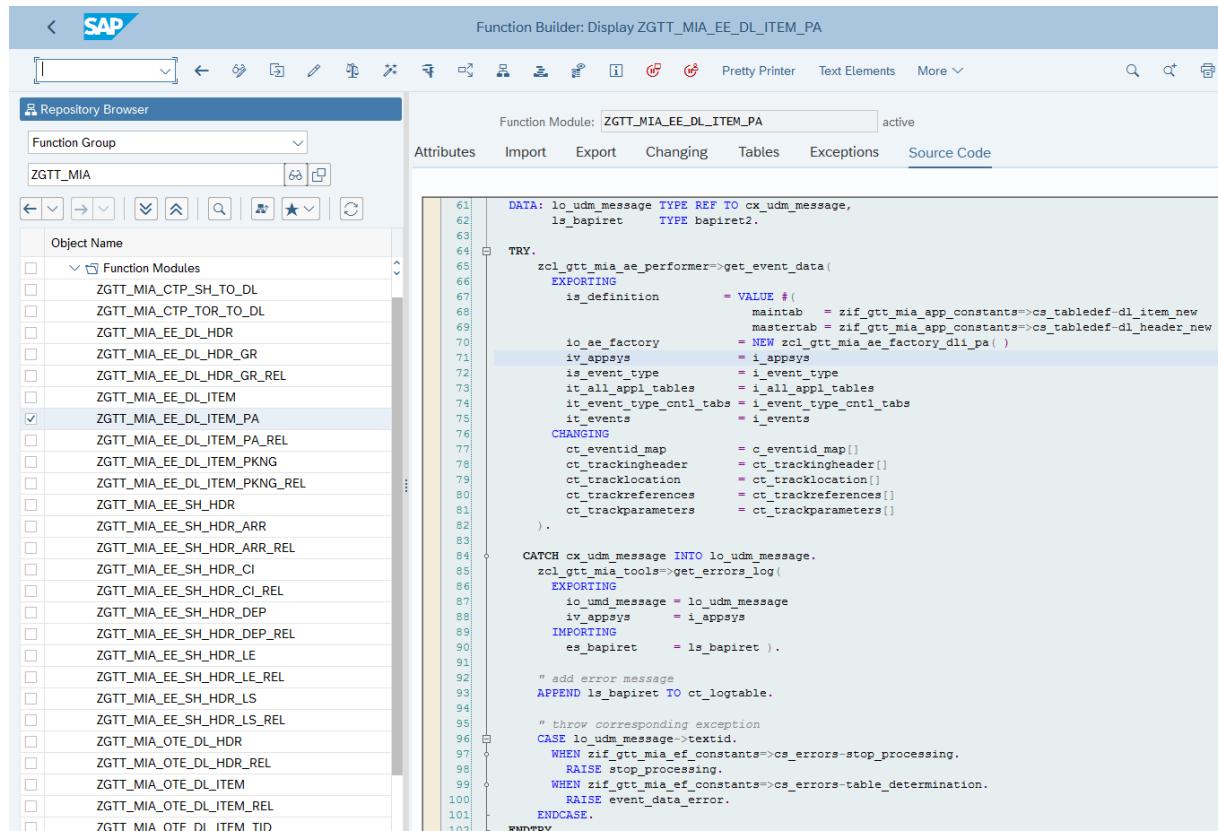
Field	IDOC Segment	IDOC Field
reversal	E1EVMPAR	REVERSAL_INDICATOR

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, CATCH, and ENDTRY. It uses various SAP objects like cx_udm_message, zcl_gtt_mia_ae_performer, and ct_trackingheader.

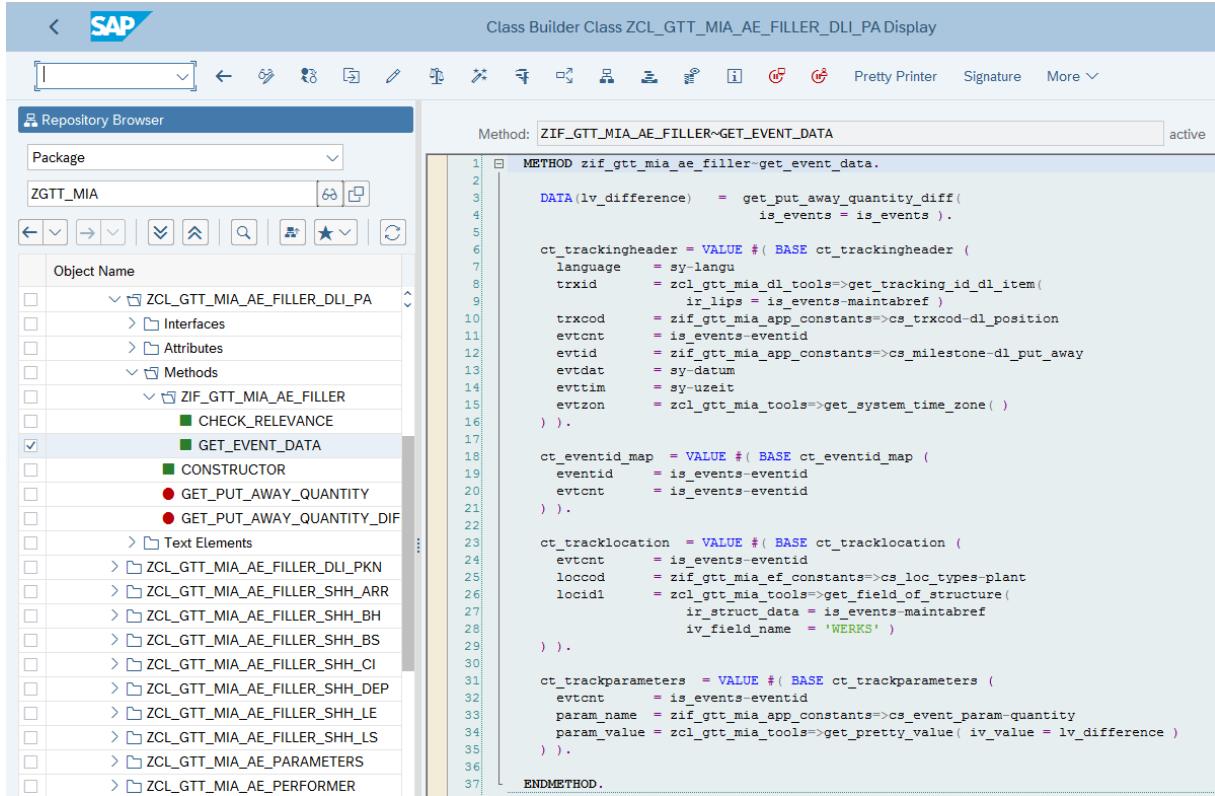
```

Function Module: ZGTT_MIA_EE_DL_ITEM_PA active
Attributes Import Export Changing Tables Exceptions Source Code

61 DATA: lo_udm_message TYPE REF TO cx_udm_message,
62     ls_bapiret    TYPE bapiret2.
63
64 TRY.
65     zcl_gtt_mia_ae_performer->get_event_data(
66         EXPORTING
67             is_definition      = VALUE #(          maintab   = zif_gtt_mia_app_constants->cs_tabledef_dl_item_new
68                               masterstab = zif_gtt_mia_app_constants->cs_tabledef_dl_header_new )
69             io_ue_factory    = NEW zcl_gtt_mia_ae_factory_dli_pa( )
70             iv_appsys        = i_appsys
71             is_event_type     = i_event_type
72             it_all_appl_tables = i_all_appl_tables
73             it_event_type_cntl_tabs = i_event_type_cntl_tabs
74             it_events         = i_events
75         CHANGING
76             ct_eventid_map    = c_eventid_map[]
77             ct_trackingheader = ct_trackingheader[]
78             ct_tracklocation  = ct_tracklocation[]
79             ct_trackreferences = ct_trackreferences[]
80             ct_trackparameters = ct_trackparameters[])
81     .
82
83     CATCH cx_udm_message INTO lo_udm_message.
84         zcl_gtt_mia_tools->get_errors_log(
85             EXPORTING
86                 io_udm_message = lo_udm_message
87                 iv_appsys      = i_appsys
88             IMPORTING
89                 es_bapiret     = ls_bapiret).
90
91         " add error message
92         APPEND ls_bapiret TO ct_logtable.
93
94         " throw corresponding exception
95         CASE lo_udm_message->textid.
96             WHEN zif_gtt_mia_ef_constants->cs_errors_stop_processing.
97                 RAISE stop_processing.
98             WHEN zif_gtt_mia_ef_constants->cs_errors_table_determination.
99                 RAISE event_data_error.
100            ENDCASE.
101
102 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 "Object Name" section lists methods: CHECK_RELEVANCE, GET_EVENT_DATA (selected), CONSTRUCTOR, GET_PUT_AWAY_QUANTITY, and GET_PUT_AWAY_QUANTITY_DIF. The right pane displays the source code for the "GET_EVENT_DATA" 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_dli_tools->get_tracking_id_dl_item(
9       ir_lips = is_events-maintabref )
10    trxcod = zif_gtt_mia_app_constants->cs_trxcod-dl_position
11    evcnt = is_events-eventid
12    evtid = zif_gtt_mia_app_constants->cs_milestone-dl_put_away
13    evdat = sy-datum
14    evtim = 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     evcnt = is_events-eventid
25     loccod = zif_gtt_mia_ef_constants->cs_loc_types-plant
26     locidl = 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     evcnt = 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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