



SAP Logistics Business Network, Global Track and Trace Option Track Sales Orders - Deep Dive with SAP ERP Integration

Logistics Business Network
March 2021

PUBLIC

Objectives



After completing this learning module, you will be able to:

- Learn what prerequisite is necessary for Global Track and Trace Option
- Learn how to maintain IDOC configurations in ERP for integration
- Learn how to maintain extractors in ERP for integration
- Learn how to download and implement sample ABAP codes from Github
- Learn how to customize own logic based on sample codes

Agenda

A Prerequisites

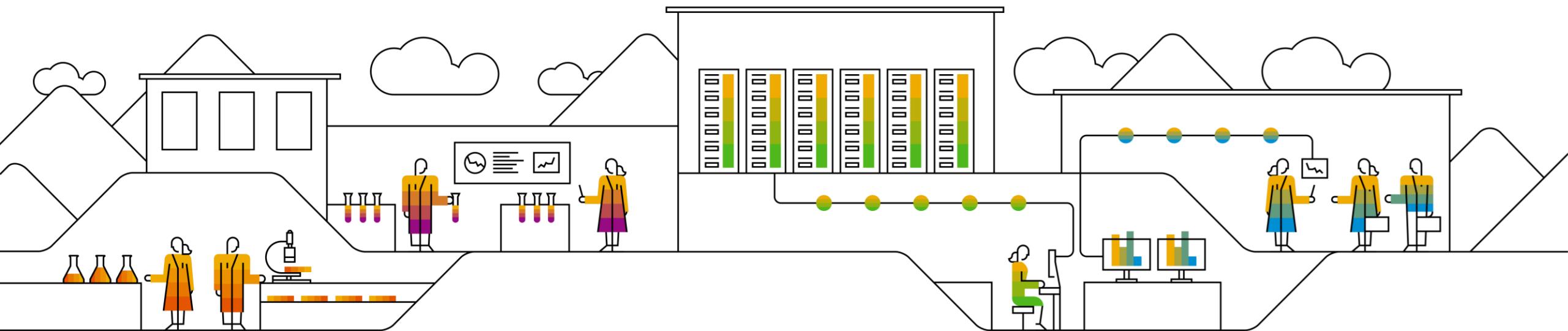
B Configuration and Implementation - Basic

 B1 IDOC Configuration

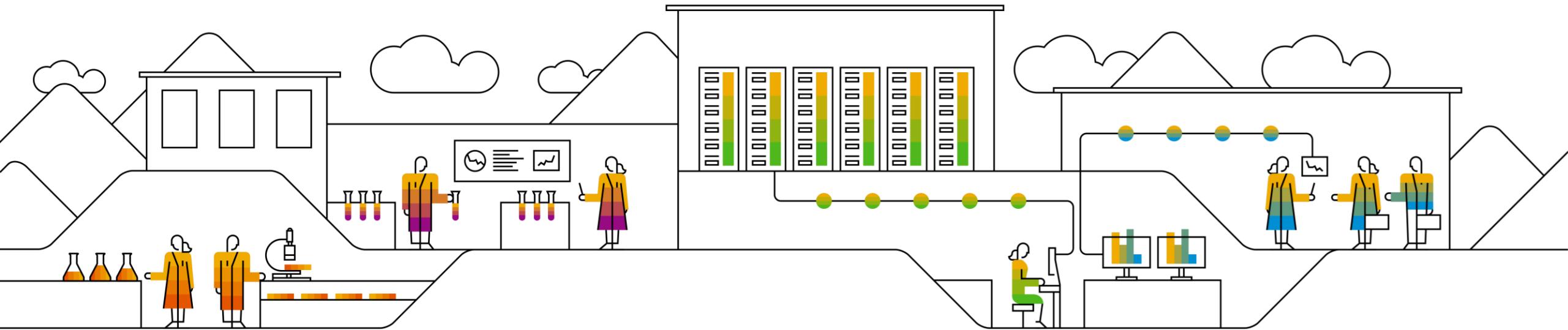
 B2 Extractor Configuration

C Download ABAP Code from GitHub

D Configuration and Coding Guide - Advanced



A) Prerequisites



STEP 1: Check the SAP Version

1-1: The SAP Product Version for GTT Version 2 shall be SAP EHP1 FOR SAP NETWEAVER 7.3 or higher

1-2: SAP NOTE 2937175 shall be implemented

1-3: The ABAP codes to support sample apps for GTT Version 2 shall be implemented in S4 HANA 1909 SP03 on premise, which is not validated in lower release, and not applicable for ECC series of products

TIPs:

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

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

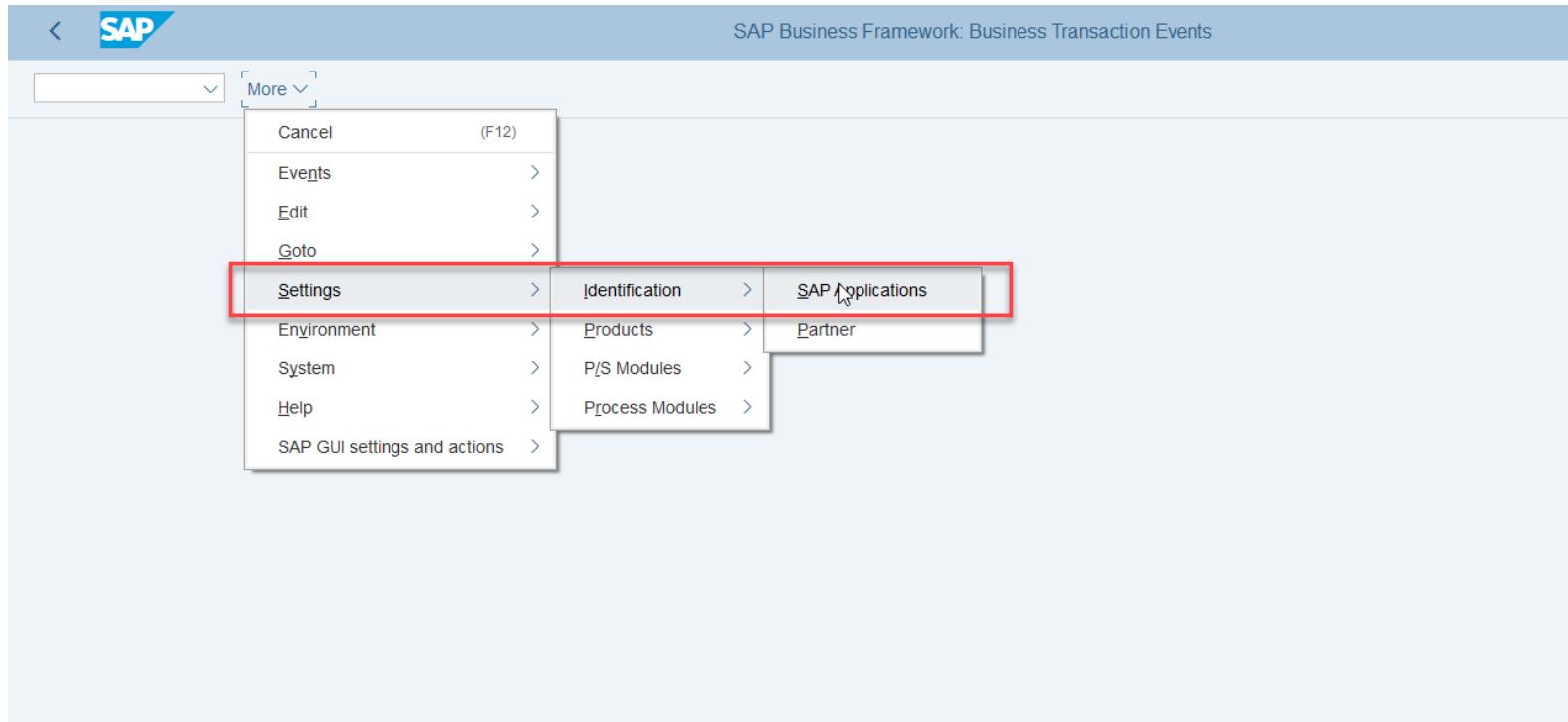
SAPNotes								
SAP Component	Number	Versi...	Score	Title	Changed On	Status	Responsible	Category
SCM-EM-AS	2959576	1	1	Amendments to EM API for LBNTT2.0	18.08.2020	In Process		Program error
SCM-EM-AS	2937175	1	1	Enhancement of IDOCs sent to GTT	16.09.2020	Released for Customer		Advance development
SCM-EM-AS	2834395	1	1	Solving ATC Issues	27.09.2019	Released for Customer		Program error
SCM-EM-AS	2819787	1	1	TM-EM integration - analyzing errors	25.07.2019	In Process		Help for error analysis
SCM-EM-AS-CNF	2798670	1	1	IMG activity inactive: Define SAP EM Extraction Functions	29.05.2019	Released for Customer		Program error
SCM-EM-AS	2609449	4	1	Delete orphaned entries in table /SAPTRX/AOTREF (2)	11.07.2019	Pilot Release		Workaround of missing
SCM-EM-AS	2502086	2	1	Aligning the BAPI processing mode with the communication mode	11.07.2017	Pilot Release		Special development
SCM-EM-AS	2339984	2	1	Orphaned EM inbound queues in application systems	18.04.2019	Released for Customer		Consulting
SCM-EM-AS	2159436	1	1	Runtime-Error "ABAP Programming" when trying to save delivery. System QSC-800	22.04.2015	In Process		Program error
SCM-EM-AS	1507998	4	1	Expert Consulting in the area of SAP Event Management	09.05.2011	Released for Customer		Consulting
IS-R-PUR-PCC	896191	3	1	FAQ: EM seasonal procurement (Consulting, Tips, Customizing)	13.07.2006	Released for Customer		FAQ

STEP 2: Log on the Development Client to Configure BTE

2-1: Ensure you have development access to the client for cross-client customizing and local development

2-2: Log on to the client and enter transaction code (T-code): **FIBF**

2-3: Click **More -> Settings -> Identification -> SAP Applications**



STEP 2: Activate SAP Event Manager Integration

2-4: Position on the Application ID: **PI-EM**

2-5: Check the field **Application Active**

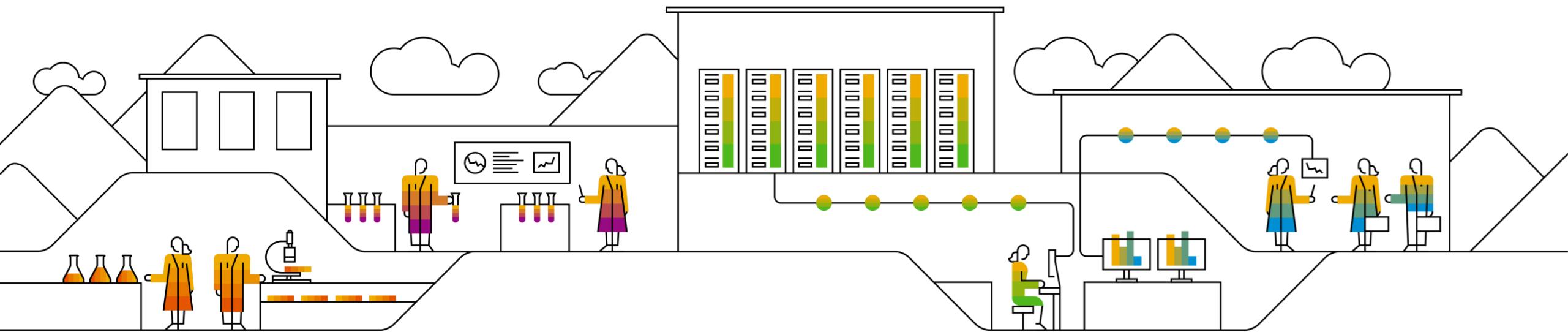
2-6: Click **Save**

The screenshot shows a SAP application interface titled "Change View 'BTE Application Indicator'. Overview". The main area is a grid table with three columns: "Appl.", "A", and "Text". The "Appl." column lists various application codes, and the "Text" column provides a brief description of each. A red box highlights the row for "PI-EM". In the "A" column for "PI-EM", there is a checkbox that is checked, indicating it is active. Other rows in the table include PM (Instandhaltung), PM-BW (Instandhaltung-BW), PM-EQM (Instandhaltung, Equipment), PM-PAM (Instandhalt. Pool Asset Mgmt), PMA-PC (Product Compliance), PMAT (Produkt - Material), PMIPUR (PMI Anschluss Einkauf), PMPUSH (MAM Push), PP-BD (Production Planning MasterData), PP-DD (Demand Driven Replenishment), PP-MRP (Material Requirements Planning), PRICAT (Preiskatalog), PS-REP (Projektsystem), PSRVA (Produkt - Service), QBEXT (External Inspection Procurement), QBEXTP (External Inspection Production), QILPO (Inspection Lot Order Integr.), RDSVFI (Dgtl. Signature Validation FI), and RDSVM (Dgtl. Signature BP Check). At the bottom of the screen, there are buttons for "+ Position...", "Entry 133 of 174", "Save", and "Cancel".

B) Configuration and Implementation

- Basic

B1. IDOC Configuration



STEP 1: Define RFC Connection for GTT

1-1: Log on to the business client

1-2: Enter T-code **SPRO** and then click **SAP Reference IMG** to open **Display IMG** page

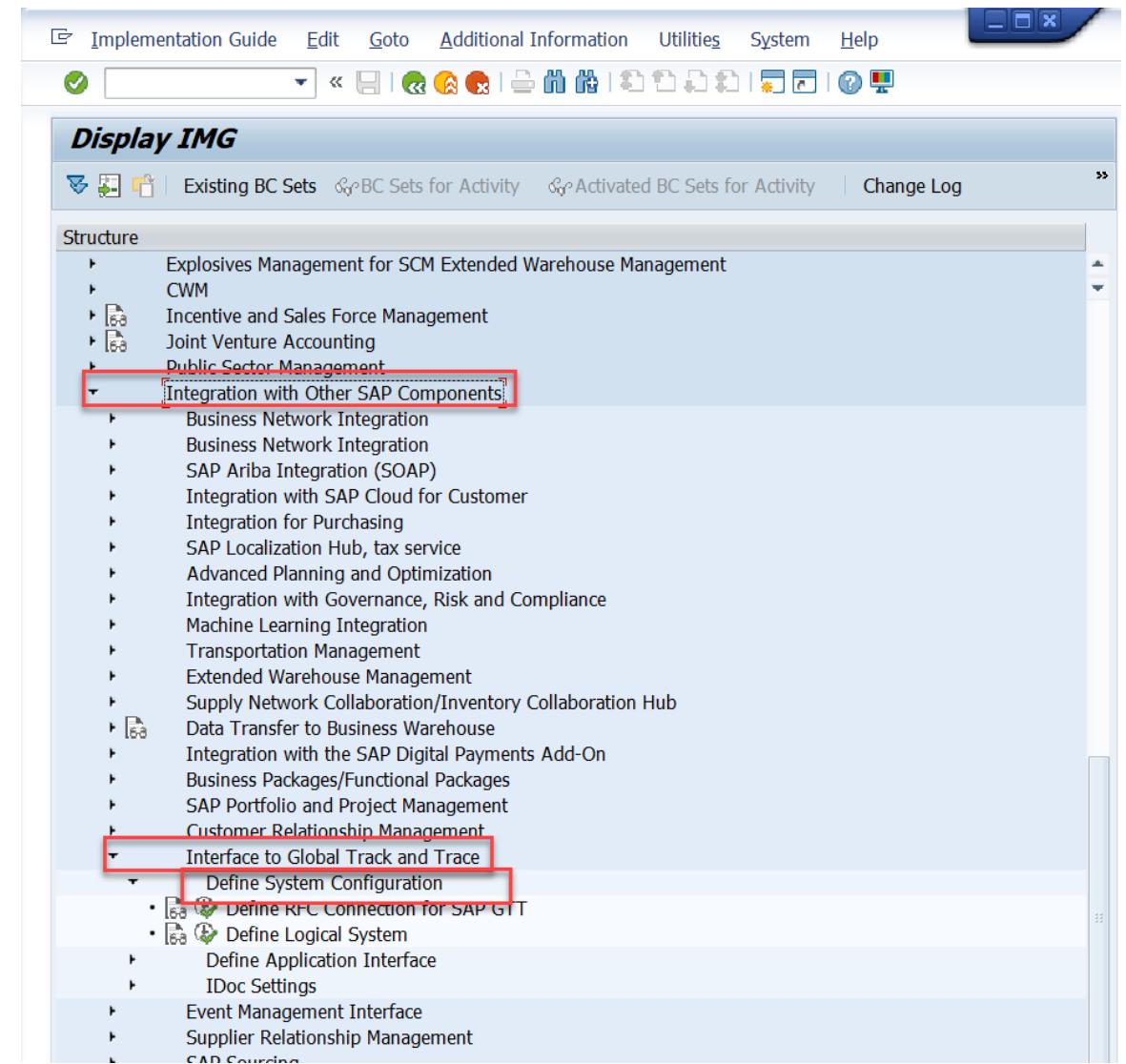
1-3: Click **Integration with Other SAP Components**

-> **Interface to Global Track and Trace**

-> **Define System Configuration**

1-4: Choose activity:

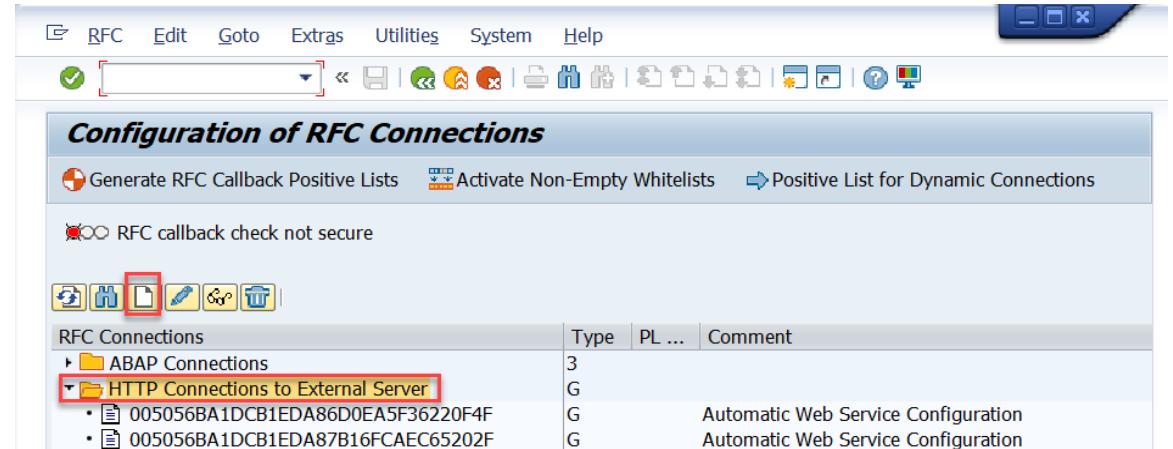
Define RFC Connection for SAP GTT



STEP 1: Define RFC Connection for GTT

1-5: Choose **HTTP Connections to External Server**, click **Create** and create a new RFC connection.

1-6: Fill in the **Destination** and choose the **Connection Type:**
'G-HTTP connection to external server'.



STEP 1: Define RFC Connection for GTT

1-7: Enter a description

1-8: In the **Technical Settings** tab, fill in the **Host, Port and Path Prefix**

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

<https://xxxxxx.gtt-flp-lbnplatform.cfapps.eu10.hana.ondemand.com>

Host: `xxxxxx.gtt-flp-lbnplatform.cfapps.eu10.hana.ondemand.com`

Port: `443`

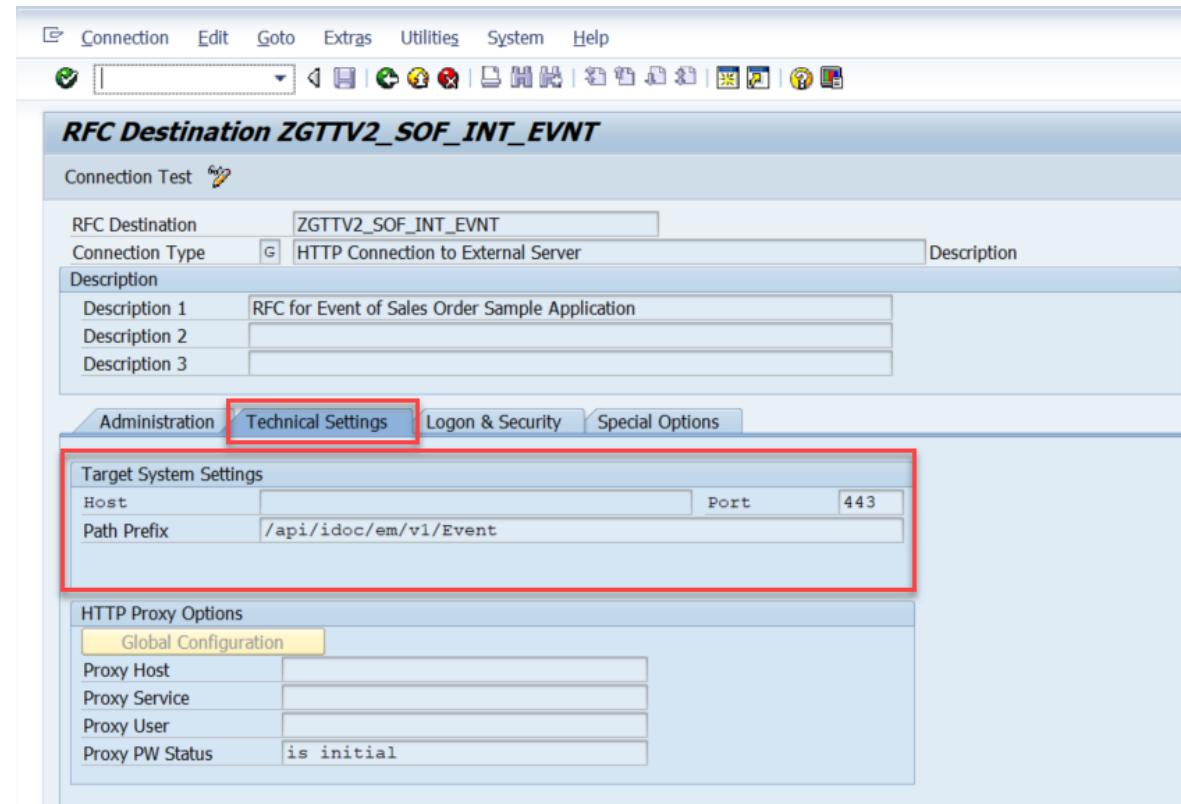
You need to configure two RFC connections separately for event and tracked process. They have different **Path Prefixes**.

For the event:

Path Prefix: `/api/idoc/em/v1/Event`

For the tracked Process:

Path Prefix: `/api/idoc/em/v1/TrackedProcess`



RFC Destination	RFC Destination Description	Host	Path Prefix	Port
ZGTTV2_SOF_INT_EVNT	RFC for Event of Sales Order Sample Application	xxxxxx.gtt-flp-lbnplatform.cfapps.eu10.hana.ondemand.com	/api/idoc/em/v1/Event	443
ZGTTV2_SOF_INT_TP	RFC for Tracked Process of Sales Order Sample Application	xxxxxx.gtt-flp-lbnplatform.cfapps.eu10.hana.ondemand.com	/api/idoc/em/v1/TrackedProcess	443

STEP 1: Define RFC Connection for GTT

1-9: In the **Logon & Security** tab, enter the Logon information.

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

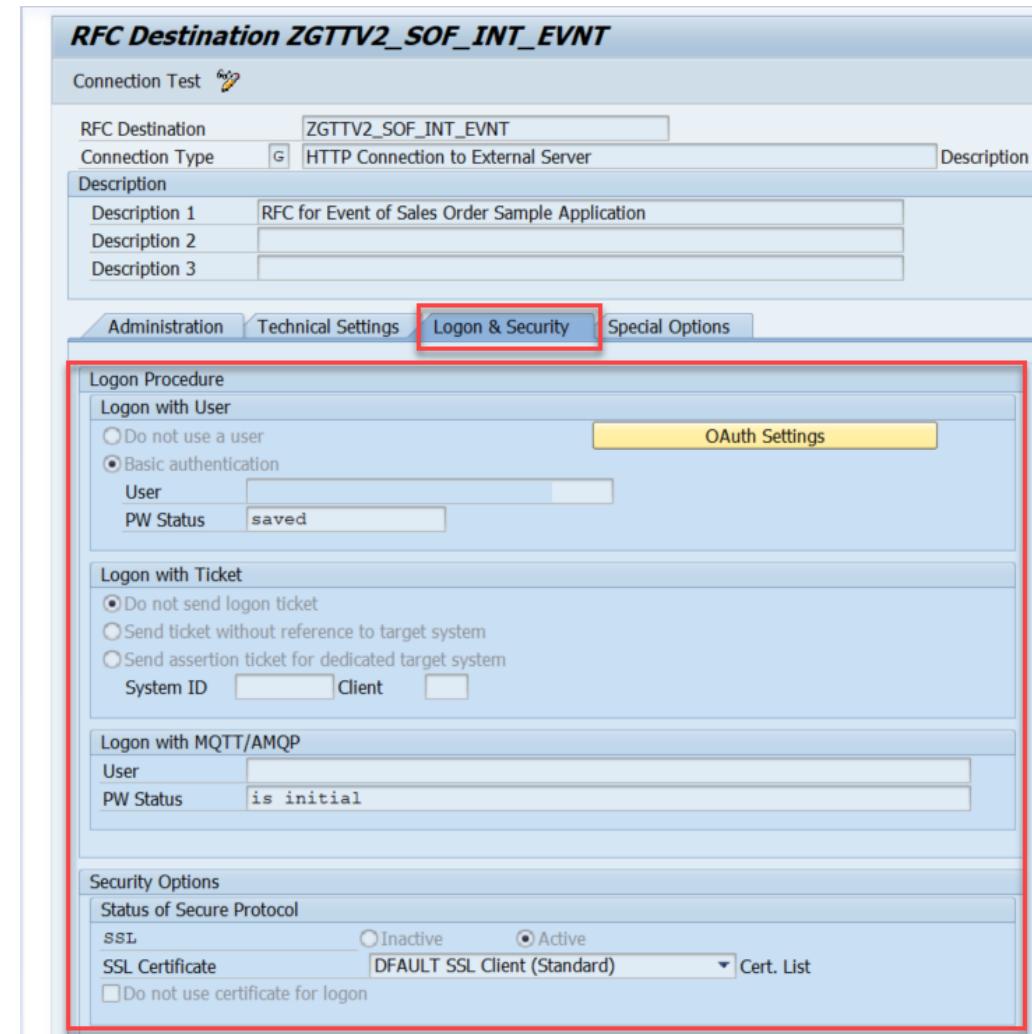
Also, SSL must be *Active*.

The recommended SSL Certificate is: *DFAULT SSL Client (Standard)*.

1-10: Save the configuration

Caution: You need to configure two RFC Connections:

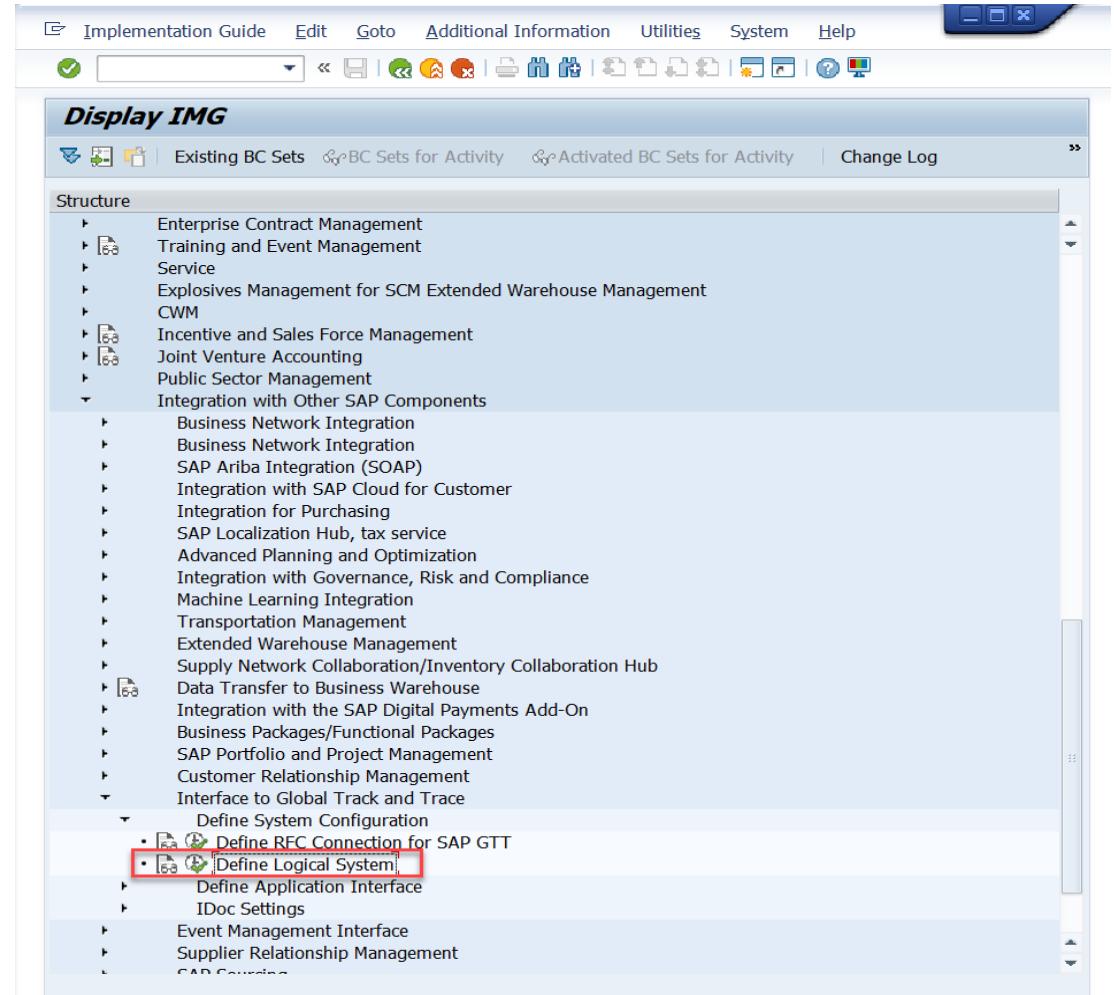
- one for event and
- the other for tracked process.



STEP 2: Define Logical System

2-1: In **Display IMG** page, click **Integration with Other SAP Components** -> **Interface to Global Track and Trace** -> **Define System Configuration**.

2-2: Choose activity **Define Logical System**.

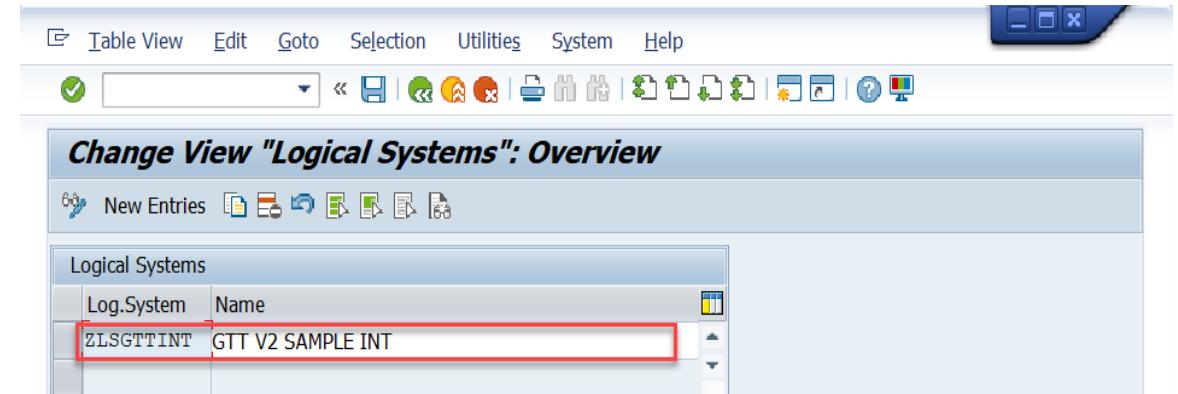


STEP 2: Define Logical System

2-3: Create **New Entries** to create a new Logical System, fill in the:

- Logical system code and
- Name of the new logical system

2-4: Save the configuration

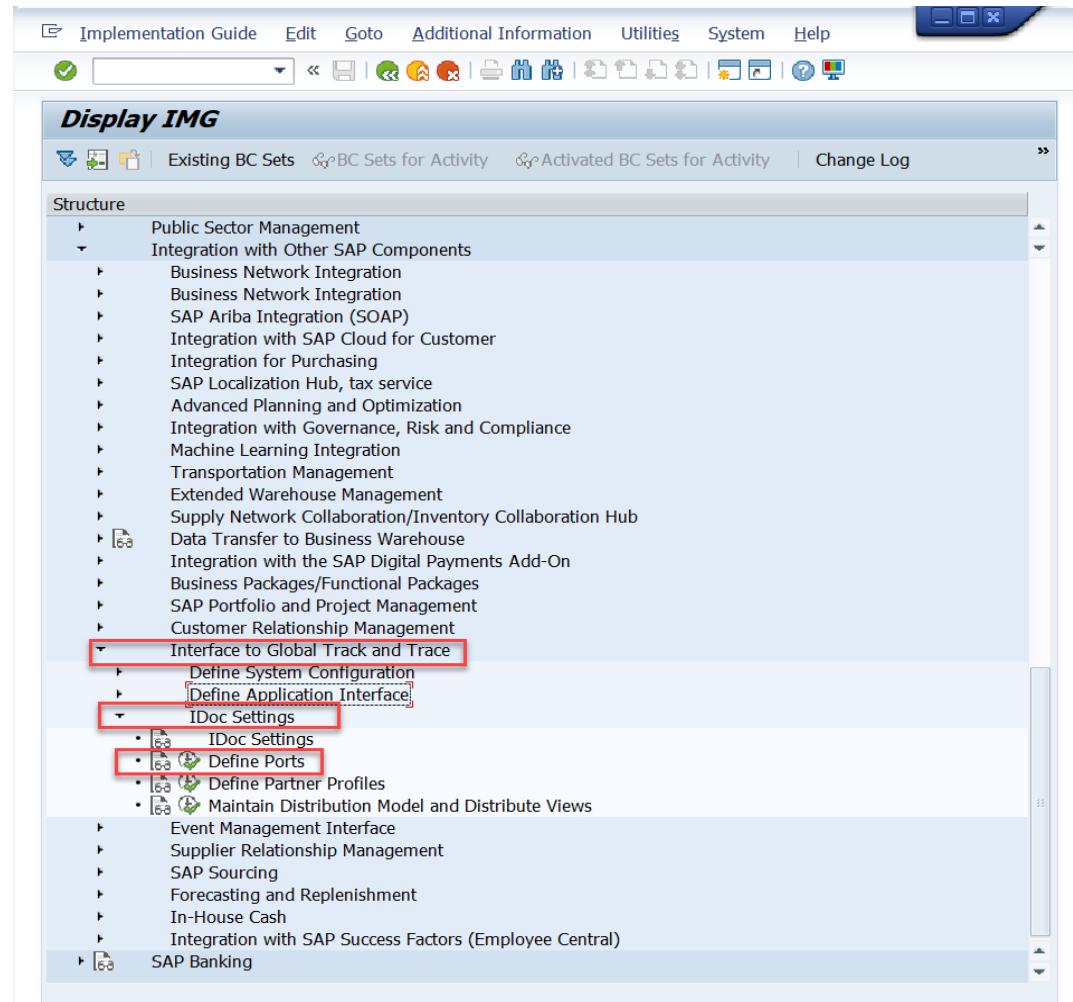


Log.System	Name
ZLSGTTINT	GTT V2 SAMPLE INT

STEP 3: Define Ports

3-1: In **Display IMG** page, click
Integration with Other SAP Components ->
Interface to Global Track and Trace ->
IDoc Settings

3-2: Choose activity **Define Ports**



STEP 3: Define Ports

3-3: Choose **XML HTTP** folder, and click **Create** to create a new port

3-4: Fill in the **RFC Destination**, it is the RFC connection you created in STEP 1

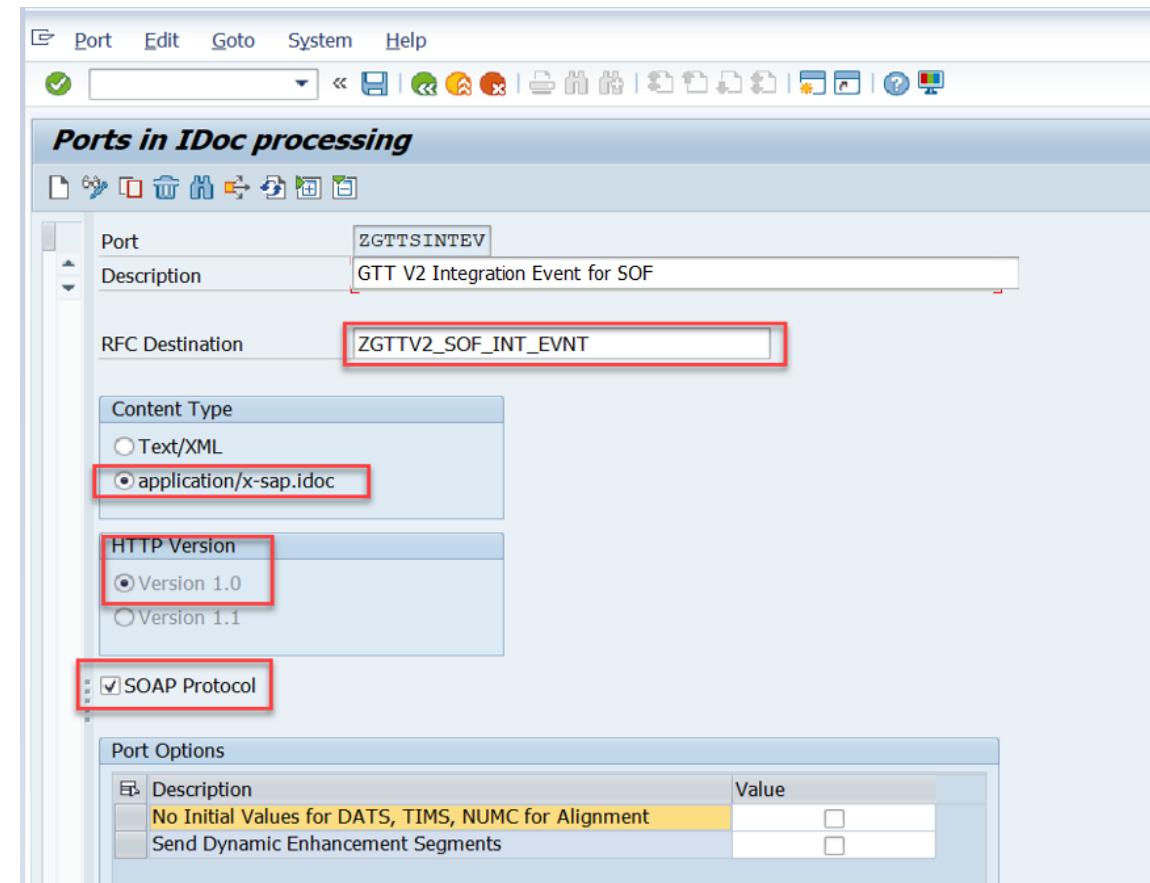
3-5: Choose **Content Type** as *application/x-sap.idoc*

3-6: Choose **HTTP Version** as *Version 1.0*

3-7: Mark it as SOAP Protocol

3-8: Save the configuration

Caution: You need to define two ports, one for event and the other for tracked process.

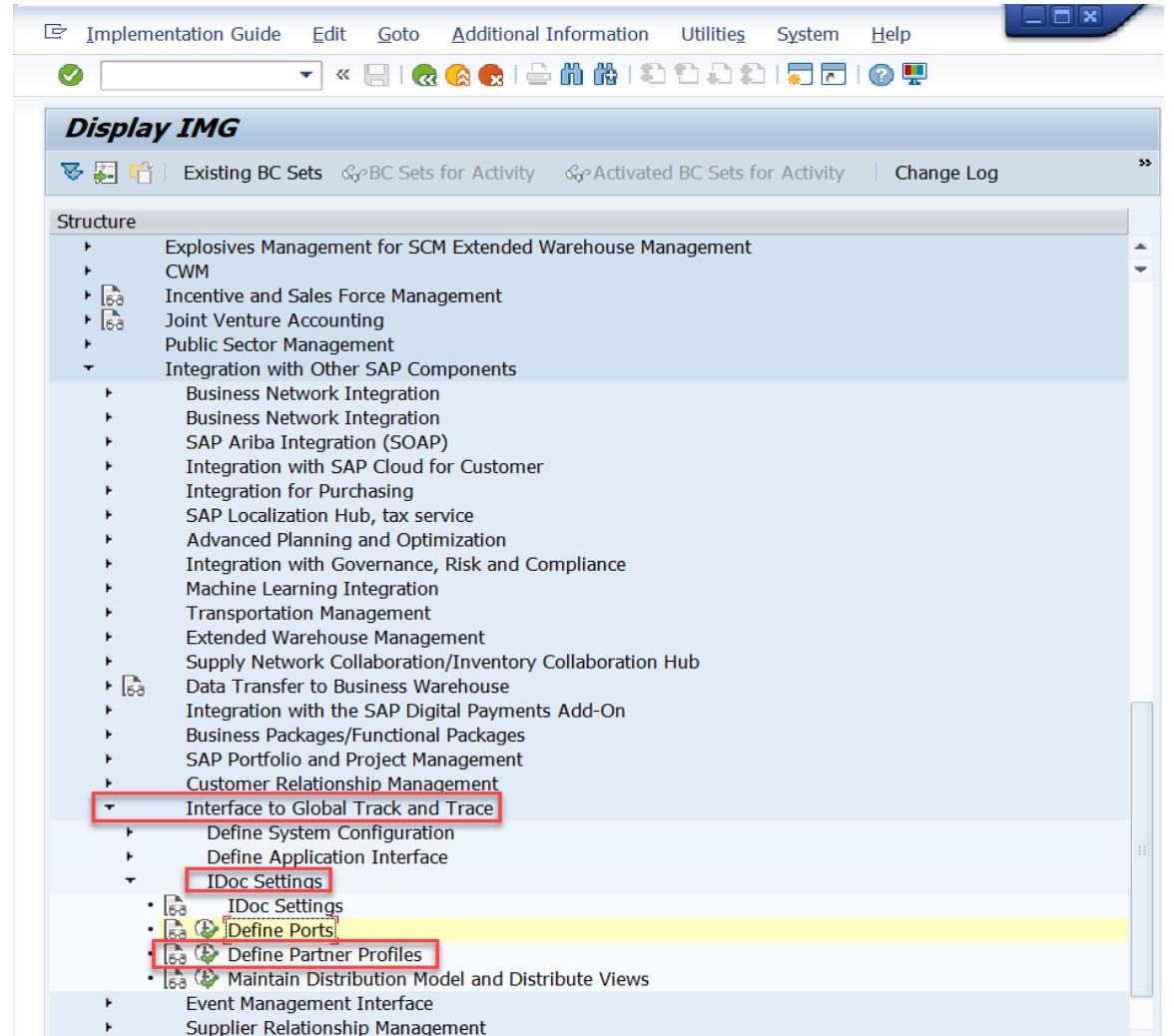


Port	Description	RFC Destination	Content Type	HTTP Version	SOAP Protocol
ZGTTSINTEV	GTT V2 Integration Event for SOF	ZGTTV2_SOF_INT_EVNT	application/x-sap.idoc	Version 1.0	Checked
ZGTTSINTTP	GTT V2 Integration Tracked Process for SOF	ZGTTV2_SOF_INT_TP	application/x-sap.idoc	Version 1.0	Checked

STEP 4: Define Partner Profiles

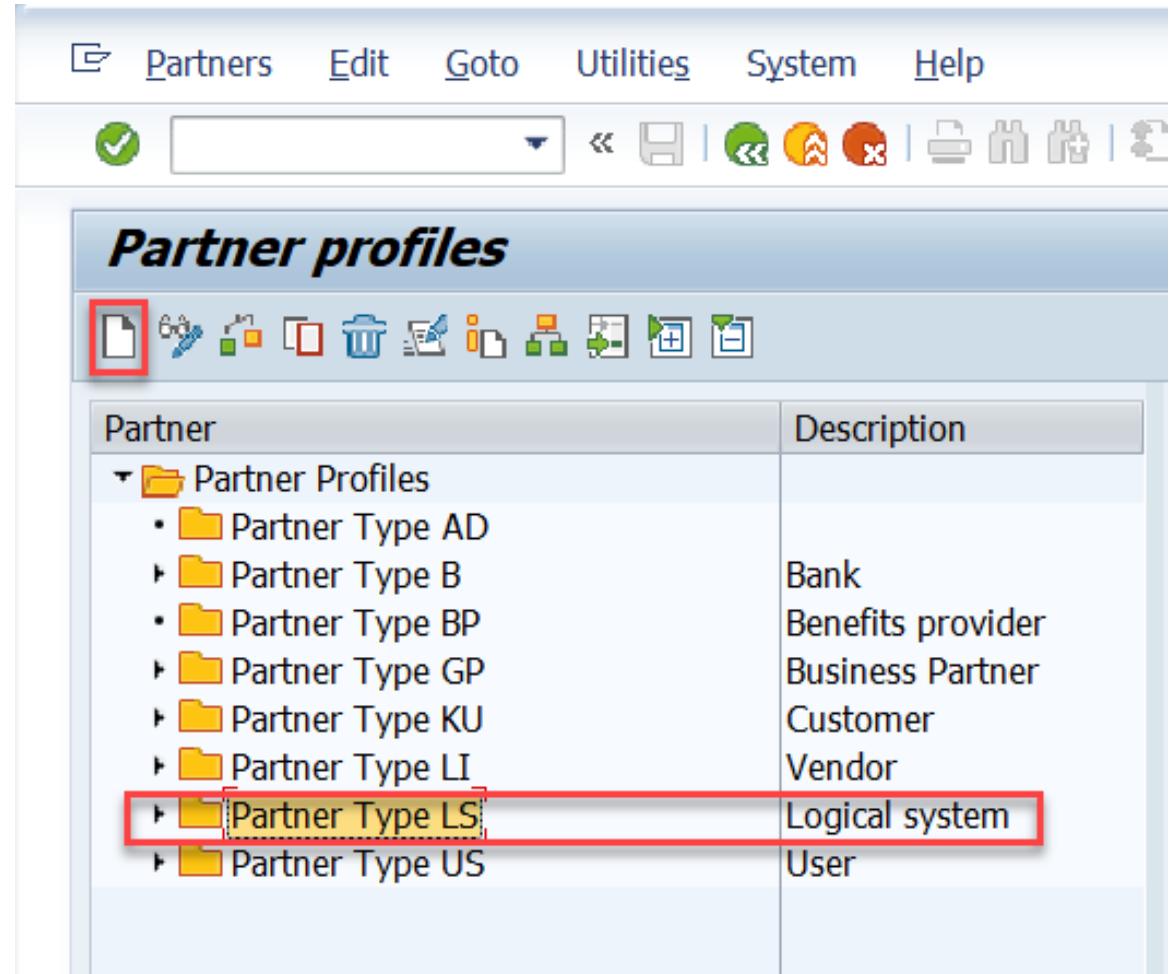
4-1: In **Display IMG** page, unfold **Integration with Other SAP Components** -> **Interface to Global Track and Trace** -> **IDoc Settings**

4-2: Choose activity **Define Partner Profiles**



STEP 4: Define Partner Profiles

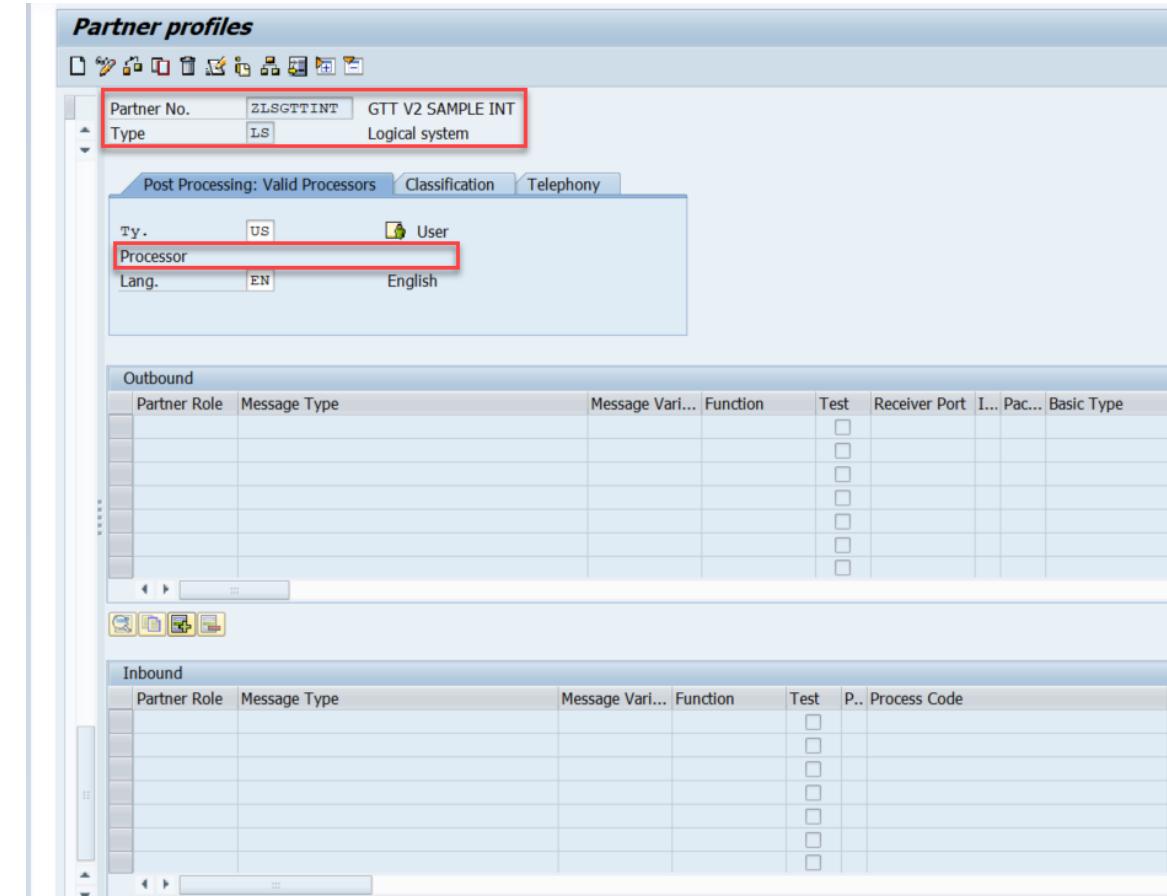
4-3: Choose **Partner Type LS** folder, and click **Create** to create a new partner profile



STEP 4: Define Partner Profiles

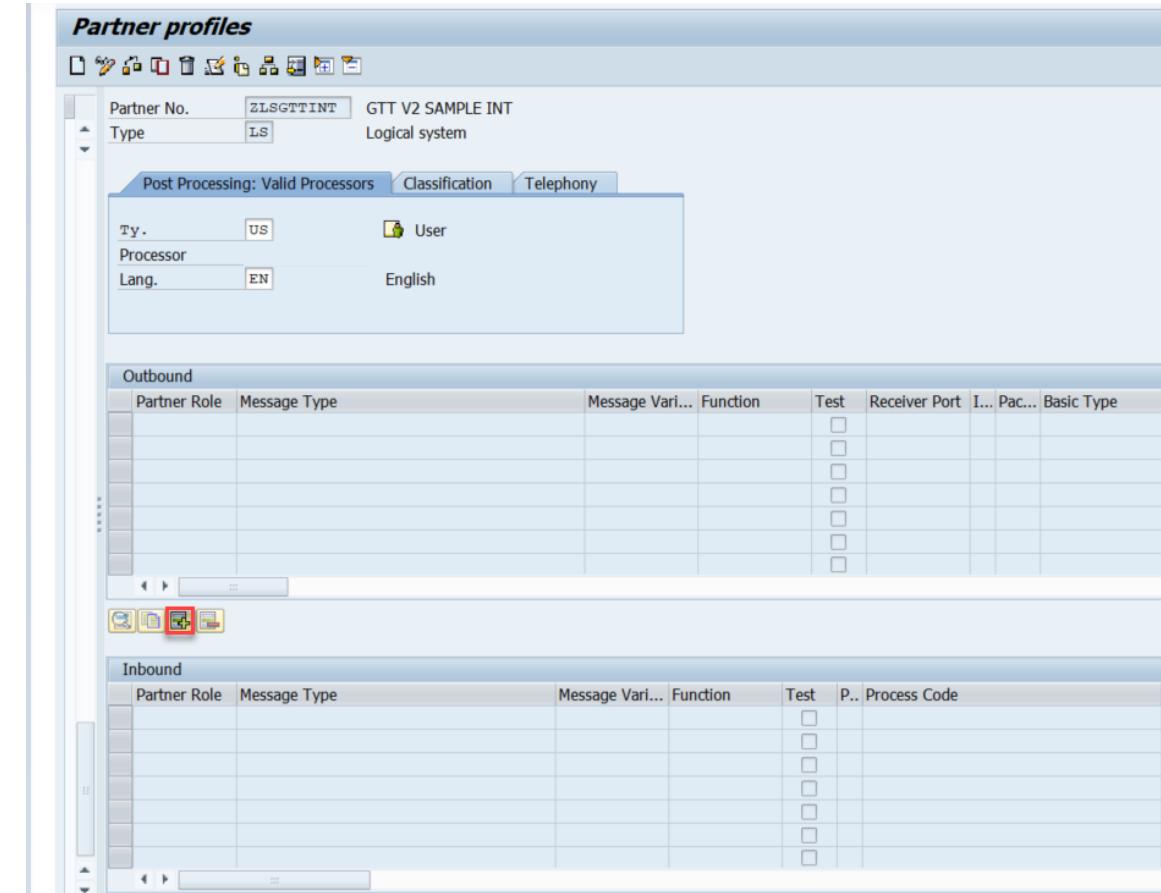
4-4: Fill in the **Partner No.** that you created in STEP 2

4-5: Fill in the **Processor** information



STEP 4: Define Partner Profiles

4-6: Click **Add** under **Outbound** box to create a new outbound parameter



STEP 4: Define Partner Profiles

4-7: Fill in the Message Type.

For the event:

Message Type: EVMSTA

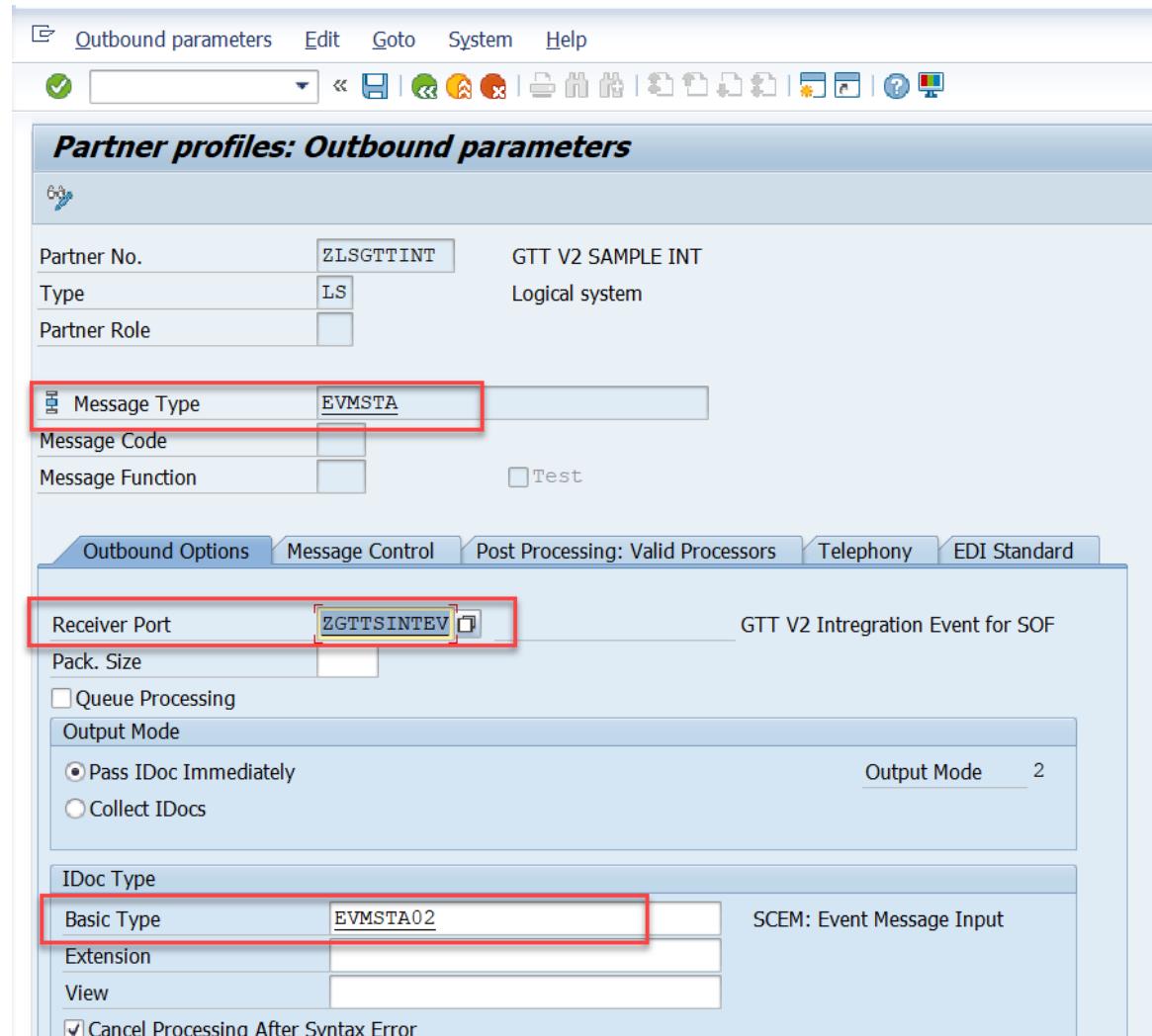
For the tracked Process:

Message Type: AOPOST

4-8: Fill in the Receiver Port, that you created in STEP 3

4-9: Save the configuration

Caution: In this step, you need to repeat steps 4-6 to 4-9 to add two outbound parameters, one for event and the other for tracked process.



STEP 4: Define Partner Profiles

4-10: Fill in the Message Type.

For the tracked Process:

Message Type: AOPOST

4-11: Fill in the Receiver Port, that you created in STEP 3

4-12: Save the configuration

Partner No.	Type	Outbound	Message Type	Receiver Port	IDoc Type
ZLSGTTINT	LS	Yes	AOPOST	ZGTTTSINTTP	EHPOST01
ZLSGTTINT	LS	Yes	EVMSTA	ZGTTTSINTEV	EVMSTA02

Partner profiles: Outbound parameters

Partner No. ZLSGTTINT GTT V2 SAMPLE INT
Type LS Logical system
Partner Role

Message Type AOPOST AOPOST

Message Code
Message Function Test

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

Receiver Port ZGTTTSINTTP ZGTTTSINTTP
GTT V2 Intregation Tracked Proc...

Pack. Size
 Queue Processing
Output Mode
 Pass IDoc Immediately Output Mode 2
 Collect IDocs

IDoc Type
Basic Type EHPOST01 EHPOST01
Extension
View
 Cancel Processing After Syntax Error
Seg. release in IDoc type Application Release

SCEM: Event Handler Posting

B) Configuration and Implementation

- Basic

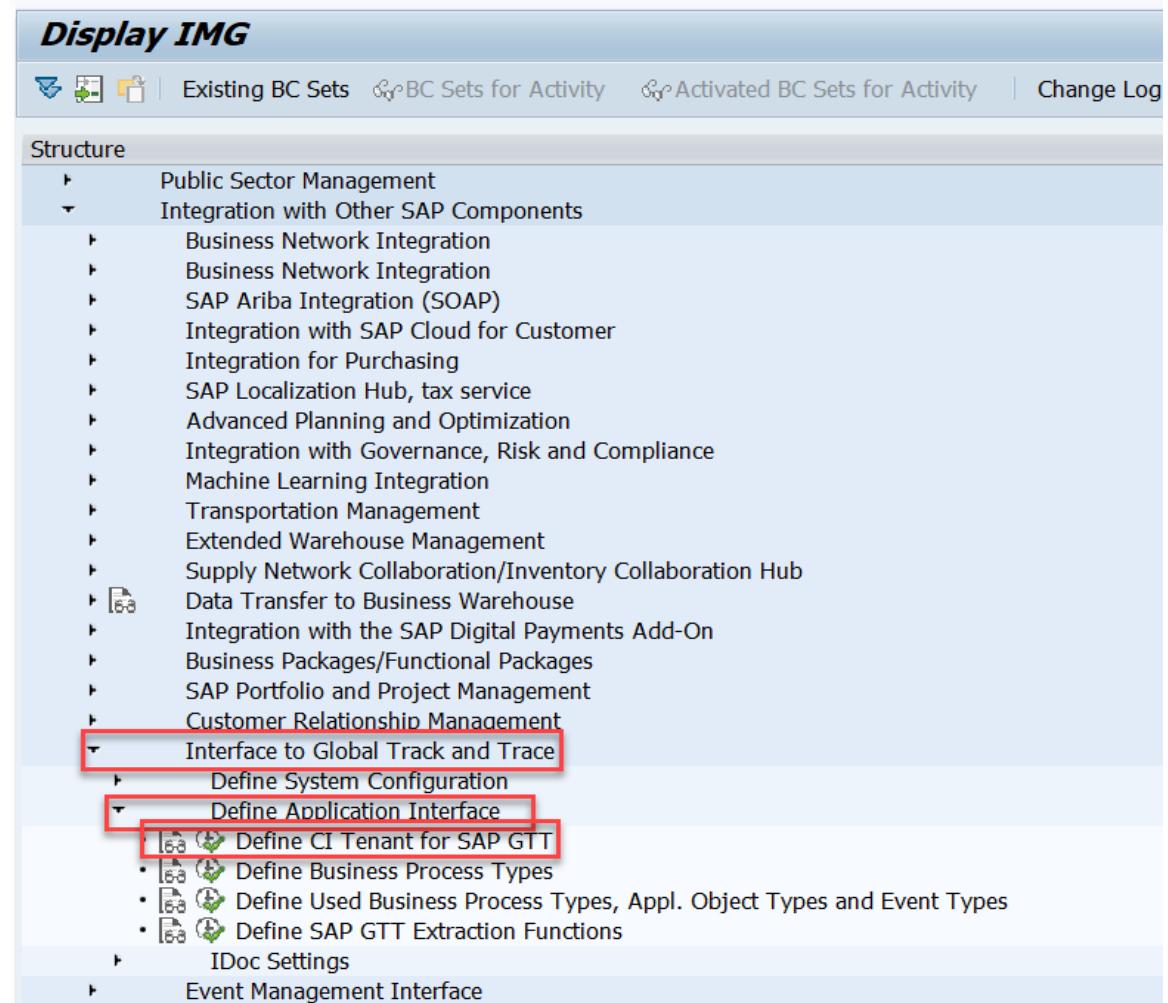
B2. Extractor Configuration



STEP 5: Define CI Tenant for GTT

5-1: In **Display IMG** page, click
Integration with Other SAP Components ->
Interface to Global Track and Trace ->
Define Application Interface

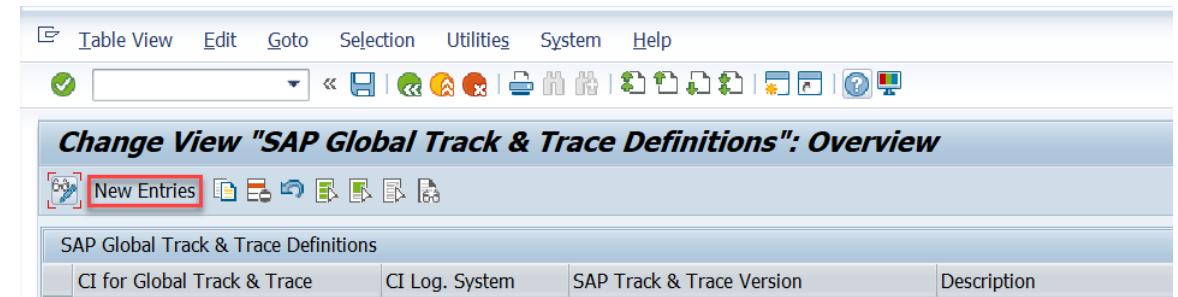
5-2: Choose activity
Define CI Tenant for SAP GTT



STEP 5: Define CI Tenant for GTT

5-3: Click **New Entries** to create a new CI tenant for GTT

5-4: Fill in the information for the new CI tenant. The **CI Log. System** is the logical system you created in STEP 2.



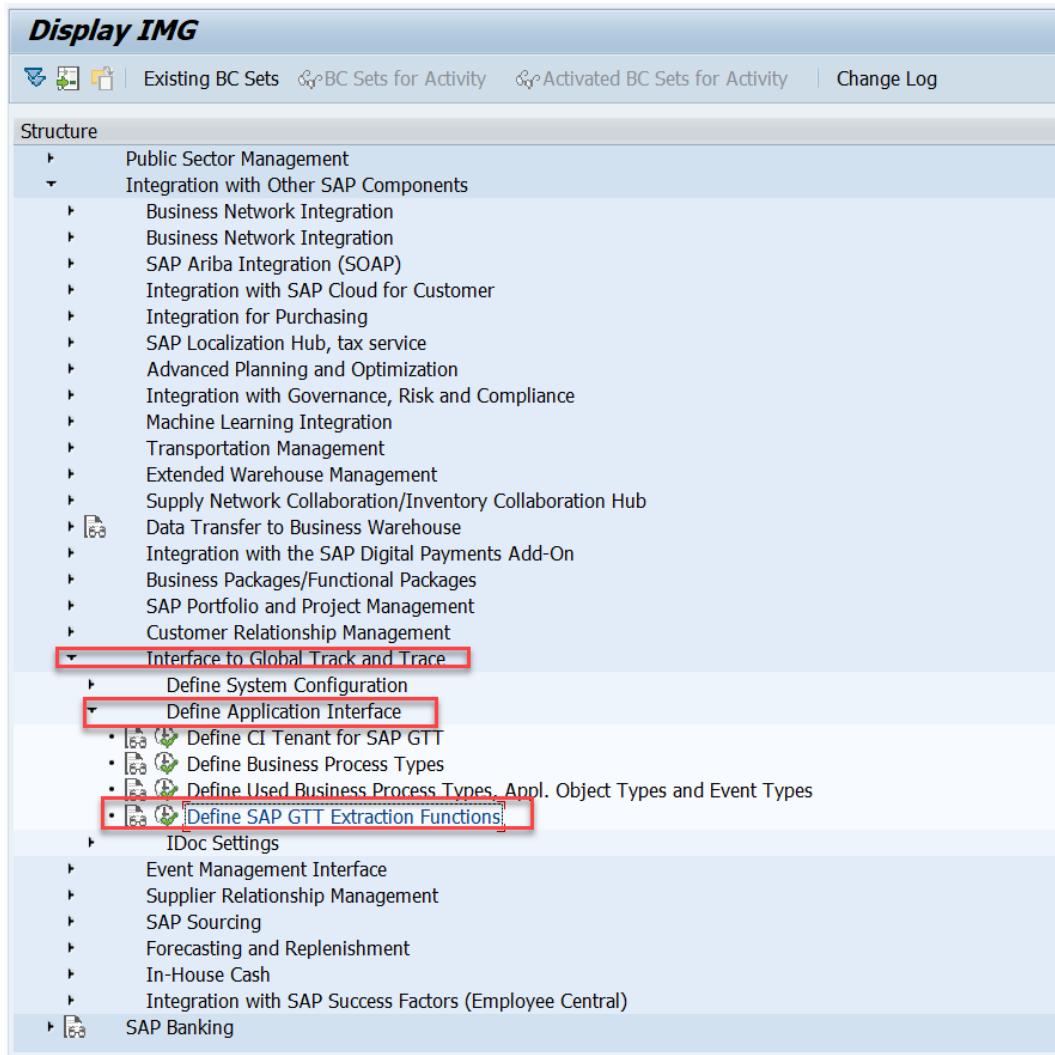
The screenshot shows the SAP Global Track & Trace Definitions Overview screen. The title bar reads "Display View 'SAP Global Track & Trace Definitions': Overview". Below the title bar is a toolbar with various icons. The main area displays a table titled "SAP Global Track & Trace Definitions" with columns: CI for Global Track & Trace, CI Log. System, SAP Track & Trace Version, and Description. A red box highlights the first row of the table, which contains the values: ZGTTSOFTINT, ZLSGTTINT, GTT1.0 Global Track & Trace, and CI For GTT V2 Integration system Sales Order Sample APP.

CI for Global Track & Trace	CI Log. System	SAP Track & Trace Version	Description
ZGTTSOFTINT	ZLSGTTINT	GTT1.0 Global Track & Trace	CI For GTT V2 Integration system Sales Order Sample APP

STEP 6: Define GTT Extraction Functions

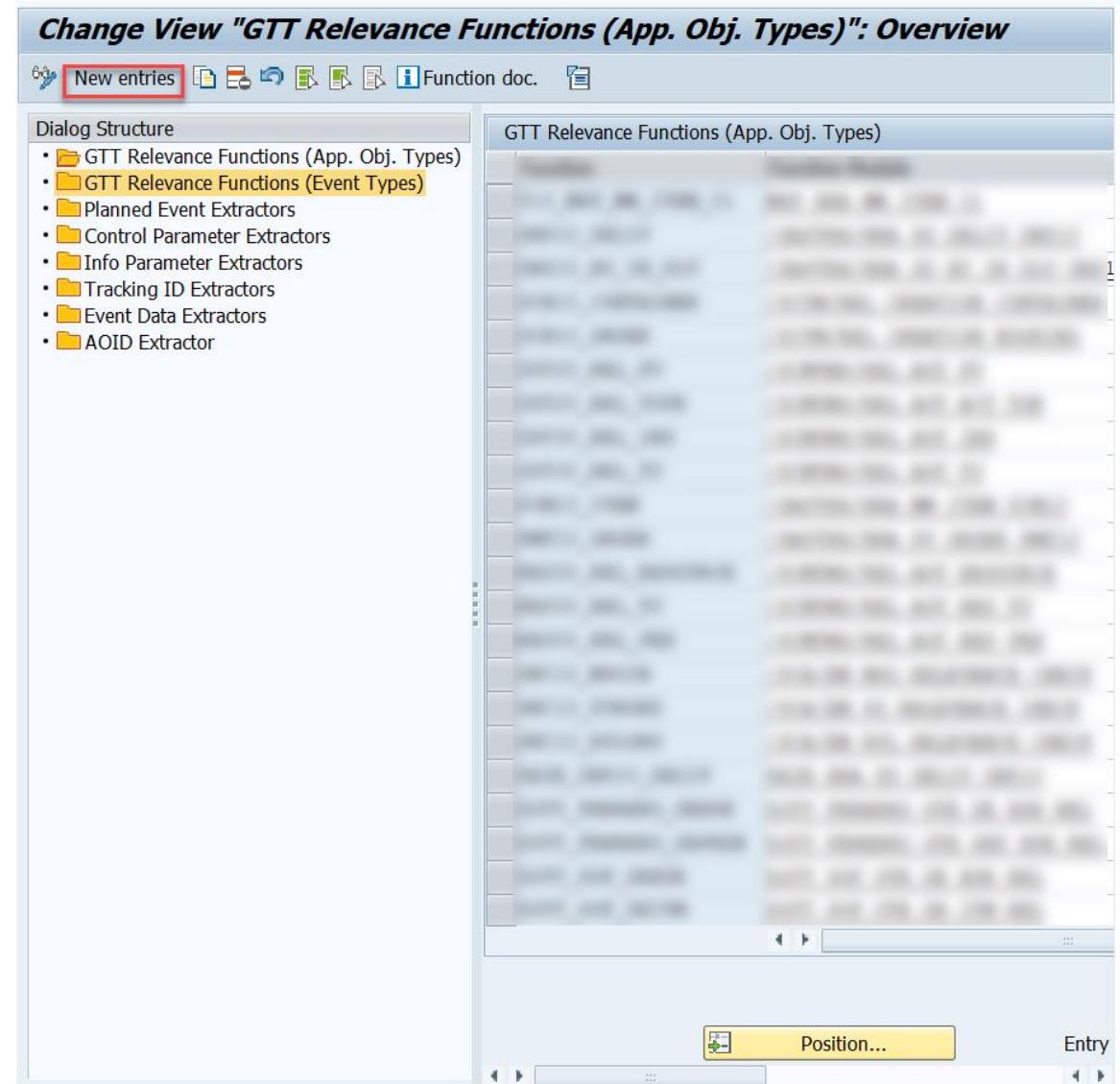
6-1: In **Display IMG** page, click
Integration with Other SAP Components ->
Interface to Global Track and Trace ->
Define Application Interface

6-2: Choose activity
Define SAP GTT Extraction Functions



STEP 6: Define GTT Extraction Functions

6-3: Choose the type of Extraction Function you want to create from the **Dialog Structure**, and click **New entries**



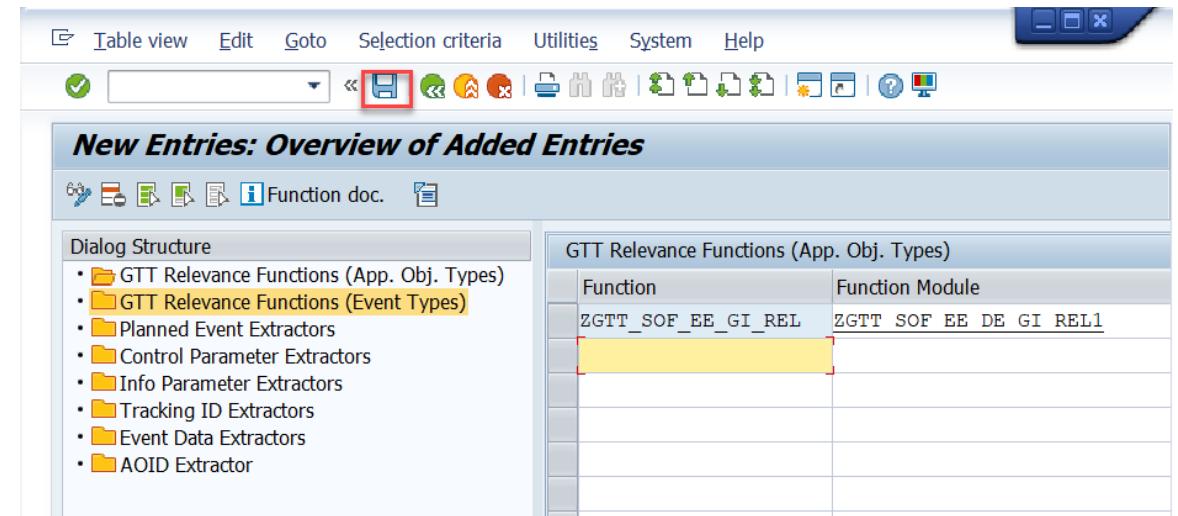
STEP 6: Define GTT Extraction Functions

6-4: Input the **Function name** and **Function Module** for the newly created extraction function

GTT Relevance Functions (App. Obj. Types)	
Function	Function Module
ZGTT_SOF_EE_GI_REL	ZGTT_SOF_EE_DE_GI_REL1

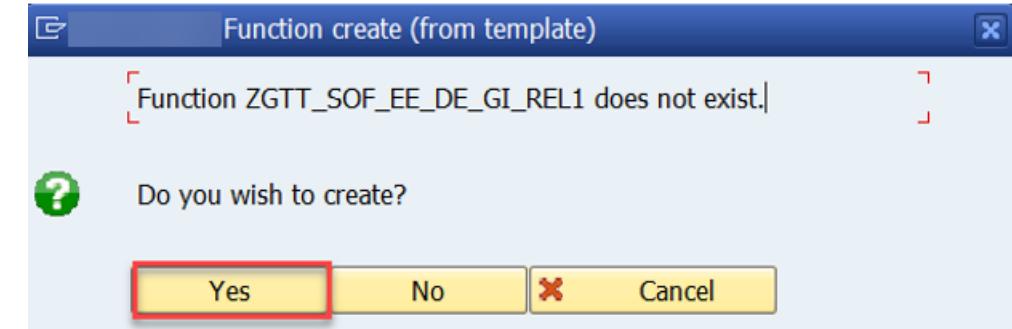
STEP 6: Define GTT Extraction Functions

6-5: Click Save



STEP 6: Define GTT Extraction Functions

6-6: If the function module you use to create the extraction function has not been created yet, then a dialog reminds you to create the function module. Click **Yes** in the dialog box.



STEP 6: Define GTT Extraction Functions

6-7: Input the **Function Group** where the function module is to be created

6-8: Click **Copy**



STEP 6: Define GTT Extraction Functions

6-9: Use T-Code SE80 to check the function module you just created

Caution: More information on how to implement extraction functions and the relevant sample code is introduced later.

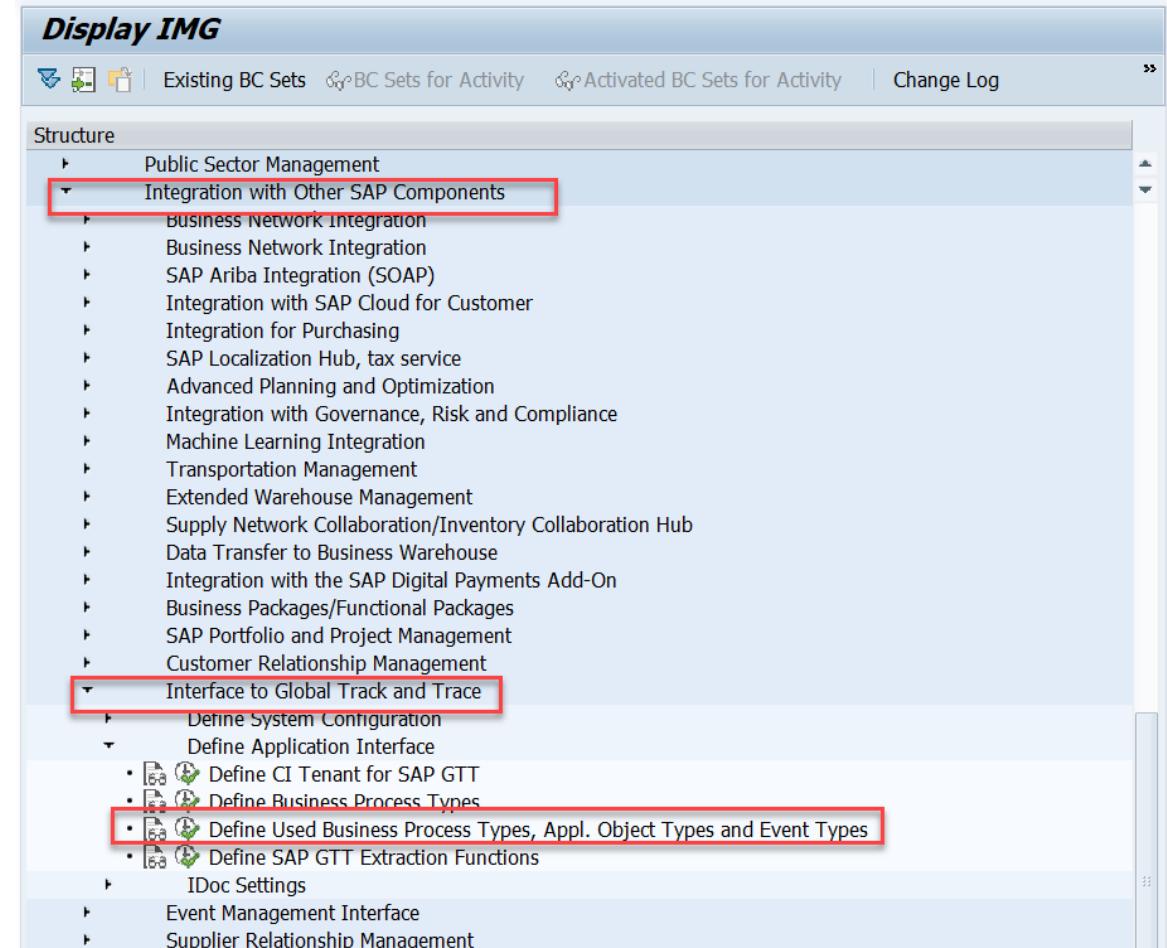
The screenshot shows the SAP Function Builder interface with the title "Function Builder: Display ZGTT_SOEE_DE_GI_REL1". The "Function Module" field contains "ZGTT_SOEE_DE_GI_REL1" and is marked as "inactive". The "Source Code" tab is selected, displaying the ABAP code for the function module. The code defines a function named ZGTT_SOEE_DE_GI_REL1 with various parameters and logic. The "Repository Browser" on the left shows the function group ZGTT_SOEE selected, and the function ZGTT_SOEE_DE_GI_REL1 is highlighted. The status bar at the bottom right indicates "Scope: FUNCTION ZGTT_SOEE_DE_GI_REL1", "ABAP", and "Ln 13 Col 48".

```
*"*
* Local Interface:
* IMPORTING
*   REFERENCE(I_APPSYS) TYPE /SAPTRX/APPLSYSTEM
*   REFERENCE(I_APP_OBJ_TYPES) TYPE /SAPTRX/AOTYPES
*   REFERENCE(I_ALL_APPL_TABLES) TYPE TRXAS_TABCONTAINER
*   REFERENCE(I_APPTYPE_TAB) TYPE TRXAS_APPTYPE_TABS_WA
*   REFERENCE(I_APP_OBJECT) TYPE TRXAS_APPOBJ_CTAB_WA
* EXPORTING
*   VALUE(E_RESULT) LIKE SY-BINPT
* TABLES
*   C_LOGTABLE STRUCTURE BAPIRET2 OPTIONAL
* EXCEPTIONS
*   PARAMETER_ERROR
*   RELEVANCE_DETERM_ERROR
*   STOP_PROCESSING
*
* Top Include
* TYPE-POOLS:trxas.
*
ENDFUNCTION.
```

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-1: In Display IMG page, click
Integration with Other SAP Components ->
Interface to Global Track and Trace ->
Define Application Interface

7-2: Choose activity **Define Used Business Process Types, Appl. Object Types and Event Types**



STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

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

In the following:

- Steps 7-3 to 7-10 demonstrate how to create an *Event Type* for a given business process type
- Steps 7-11 to 7-21 demonstrate how to create an *Application Object Type* for a given business process type

Change View "Define Used Business Process Types": Overview		
Dialog Structure	Define Used Business Process Types	
	Bus. Proc. Type	Update Mode
	EPL_NOTIF	Update Task (▼ Active)
	ESC_DELIV	Update Task ... ▼ Active
	ESC_FI_CLEARING	Update Task ... ▼ Active
	ESC_MATDOC	Update Task ... ▼ Active
	ESC_MM_INVOICE	Update Task ... ▼ Active
	ESC_PURORD	Update Task ... ▼ Active
	ESC_PURORD_FASHION	Update Task ... ▼ Active
	ESC_SHIPMT	Update Task ... ▼ Active
	ESC_SORDER	Update Task ... ▼ Active
	ESC_WRKORD	Update Task ... ▼ Active
	OCB10_ORDER	Dialog Update ▼ Active
	SNC_MSGIN	Dialog Update ▼ Active
	SNC_PURORD	Dialog Update ▼ Active
	SNC_RPLORD	Dialog Update ▼ Active
	TMS_INS	Update Task ... ▼ Active
	TMS_RES	Update Task ... ▼ Active
	TMS_TOR	Update Task ... ▼ Active

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-3: Choose the business process type from the **Define Used Business Process Types** on the right side

7-4: Double click **Define Event Types**

Change View "Define Used Business Process Types": Overview			
Define Used Business Process Types			
Bus. Proc. Type	Update Mode	BPT Process Mode	Description
EPL_NOTIF	Update Task ..	Active	Notification in SAP R/3 Enterprise
ESC_DELIV	Update Task ..	Active	Delivery in SAP R/3 Enterprise
ESC_FI_CLEARING	Update Task ..	Active	FI Clearing in SAP R/3 Enterprise
ESC_MATDOC	Update Task ..	Active	Material Document in SAP R/3 Enterprise
ESC_MM_INVOICE	Update Task ..	Active	MM Invoice in SAP R/3 Enterprise
ESC_PURORD	Update Task ..	Active	Purchase Order in SAP R/3 Enterprise
ESC_PURORD_FASHION	Update Task ..	Active	Purchase Order (Seasonal Procurement) in SAP R/3 Enterprise
ESC_SHIPMT	<input checked="" type="checkbox"/> Update Task ..	Active	Shipment (SAP R/3 Enterprise)
ESC_SORDER	Update Task ..	Active	Sales Order in SAP R/3 Enterprise
ESC_WRKORD	Update Task ..	Active	Workorder (Production, Service, Maintenance) in SAP R/3 Enterprise
OCB10_ORDER	Dialog Update ..	Active	Booking Order in Ocean Carrier Booking Process
SNC_MSGIN	Dialog Update ..	Active	SNC Inbound messages
SNC_PURORD	Dialog Update ..	Active	SNC Purchase Order
SNC_RPLORD	Dialog Update ..	Active	SNC Replenishment Order
TMS_INS	Update Task ..	Active	Instructions (SAP TM)
TMS_RES	Update Task ..	Active	Resources (SAP TM)
TMS_TOR	Update Task ..	Active	Transportation Order (SAP TM)

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-5: Click **New Entries** to create a new event type

Change View "Define Event Types": Overview		
New Entries		
Dialog Structure		
Define Used Business Process Types		
Business Process Type	Event Type	Description
ESC_SHIPMT	GTT_ARRIVAL_ACC_SO	Arrival Event for GTT Sample SO Acceptance System
ESC_SHIPMT	GTT_ARRIVAL_INT_SO	Arrival Event for GTT Sample so Integration System
ESC_SHIPMT	GTT_CHIN_ACC_SO	Check In Event for GTT Sample So Acceptance System
ESC_SHIPMT	GTT_CHIN_INT_SO	Check In Event for GTT Sample SO Integration System
ESC_SHIPMT	GTT_DEPART_ACC_SO	Departure Event for GTT Sample So Acceptance System
ESC_SHIPMT	GTT_DEPART_INT_SO	Departure Event for GTT Sample So Integration System
ESC_SHIPMT	GTT_LDED_ACC_SO	Loading End Event for GTT Sample SO Acceptance System
ESC_SHIPMT	GTT_LDED_INT_SO	Loading End Event for GTT Sample SO Integration System
ESC_SHIPMT	GTT_LDST_ACC_SO	Loading Start Event for GTT Sample SO Acceptance System
ESC_SHIPMT	GTT_LDST_INT_SO	Loading Start Event for GTT Sample SO Integration System
ESC_SHIPMT	TRA10_ROAD	Road Shipment for Transportation Visibility
ESC_SHIPMT	YSHIPMENT_ACC	Road Shipment for Transportation Visibility
ESC_SHIPMT	YSHIPMENT_INT	Road Shipment for Transportation Visibility
ESC_SHIPMT	ZGTT_SOF_ARRIVAL_ACC	Arrival Event for GTT SOF Acceptance System
ESC_SHIPMT	ZGTT_SOF_ARRIVAL_INT	Arrival Event for GTT SOF Integration System
ESC_SHIPMT	ZGTT_SOF_CHIN_ACC	Check In Event for GTT SOF Acceptance System
ESC_SHIPMT	ZGTT_SOF_CHIN_INT	Check In Event for GTT SOF Integration System
ESC_SHIPMT	ZGTT_SOF_DEPART_ACC	Departure Event for GTT SOF Acceptance System
ESC_SHIPMT	ZGTT_SOF_DEPART_INT	Departure Event for GTT SOF Integration System
ESC_SHIPMT	ZGTT_SOF_LDED_ACC	Loading End Event for GTT SOF Acceptance System
ESC_SHIPMT	ZGTT_SOF_LDED_INT	Loading End Event for GTT SOF Integration System
ESC_SHIPMT	ZGTT_SOF_LDST_ACC	Loading Start Event for GTT SOF Acceptance System

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-6: Fill in the **Event Type** and **Text** fields

7-7: Fill in the information required in the **General Data** tab. **HCI for GTT** is the CI Tenant you created in STEP 5. **Event Function** is the extractor function you created in STEP 6.

7-8: Check **GTT Relevant**

The screenshot shows the SAP Fiori interface for defining business process types. The top section displays the following details:

Bus. Proc. Type	ESC_SHIPMT
Event Type	ZGTT_SOF_CHIN_INT
Text	Check In Event

Below this, there are three tabs: General Data (selected), Control Tables, and Global Track & Trace Relevance. The General Data tab contains the following sections:

- Sequencing / Destination:** Seq. No. 10, HCI for GTT ZGTTSOFINST, CI For GTT V2 Integration system Sales Order Sa
- Data Setup:** Event Function ZGTT_SOF_EVNT_CHIN
- Behavior:** A checkbox labeled "GTT Relevant" is checked, while "Stop ET Det." and "Appl. Log Deact" are unchecked.

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-9: Fill in the **Main Object Table** and **Master Table**.

Caution:

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

The image displays two screenshots of SAP configuration interfaces for defining business processes.

Top Screenshot (Business Process Type: ESC_SHIPMT):

- General Data:** Bus. Proc. Type: ESC_SHIPMT, Event Type: ZGTT_SOF_CHIN_INT, Text: Check In Event for GTT SOF Integration System.
- Data Source for Events:** Main Obj. Table: SHIPMENT_HEADER_NEW (highlighted with a red box), Master Table: SHIPMENT_HEADER_OLD.
- Reference Between Main and Master Table:** First Field Reference from Main to Master Table.

A red box highlights the "Event on Header level" note next to the Main Obj. Table entry.

Bottom Screenshot (Business Process Type: ESC_DELIV):

- General Data:** Bus. Proc. Type: ESC_DELIV, Event Type: ZGTT_SOF_PICKING_INT, Text: Picking Event for GTT SOF Integration System.
- Data Source for Events:** Main Obj. Table: DELIVERY_ITEM_NEW (highlighted with a red box), Master Table: DELIVERY_HEADER_NEW.
- 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: (empty).
- Second Field Reference from Main to Master Table:** Uplink Field: (empty), Uplink Mode: (empty), Uplink Target Fld: (empty), Uplink Const: (empty).

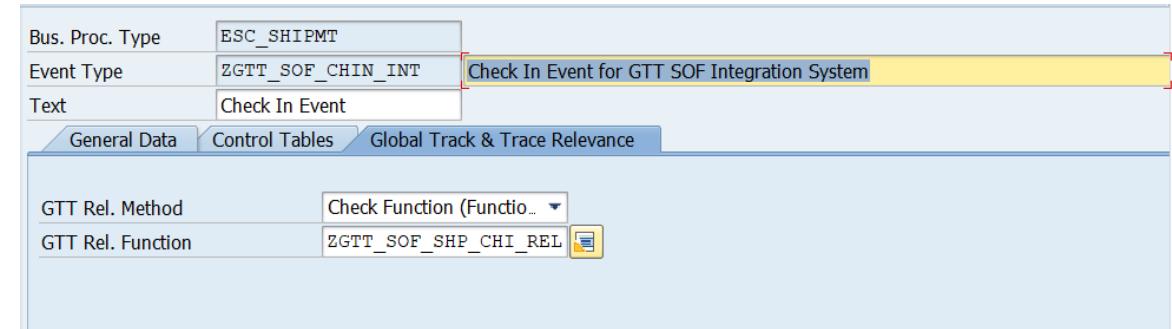
A red box highlights the "Event on Item level" note next to the Main Obj. Table entry.

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-10: In the **Global Track & Trace Relevance** tab, choose the **GTT Relevance Method** you need.

If you choose the **GTT Relevance Method Check Function**, then you need to define a relevance function according to STEP 6, and fill in the relevance function name here.

Click **Save**.



STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-11: Choose the business process type from the **Define Used Business Process Types** on the right side

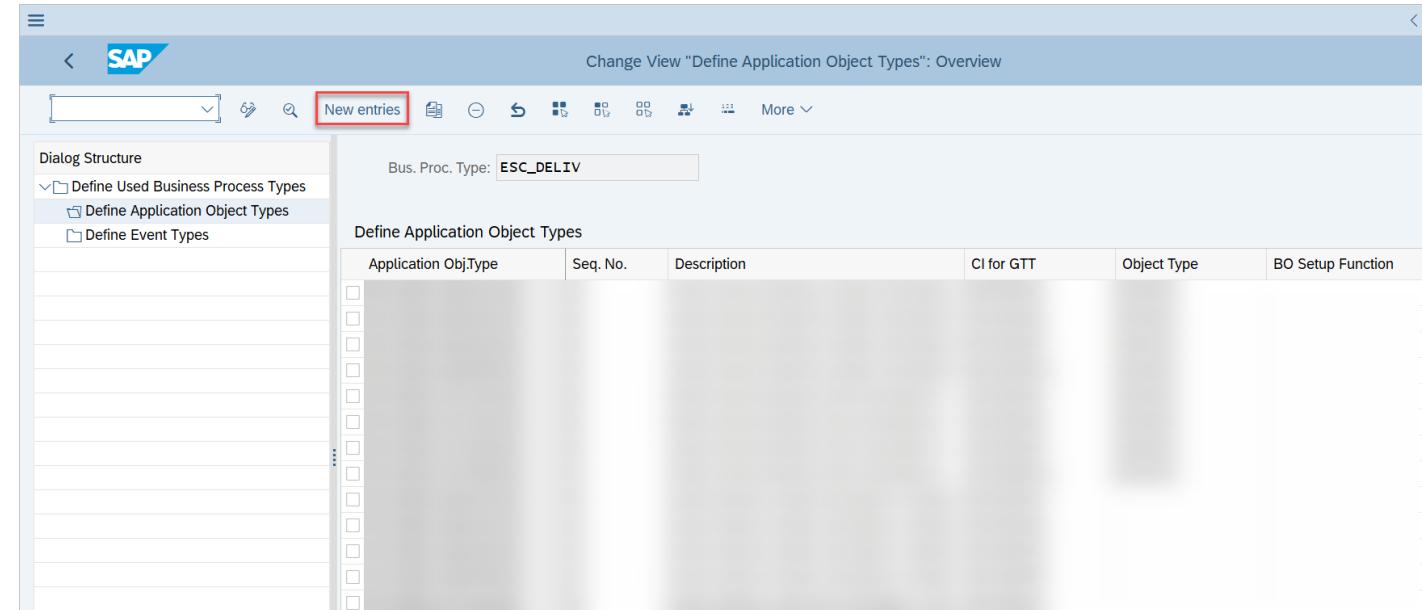
7-12: Double click **Define Application Object Types**

The screenshot shows the SAP Change View "Define Used Business Process Types". The title bar reads "Change View 'Define Used Business Process Types': Overview". The toolbar includes buttons for New Entries, Copy As..., Delete, Undo Change, Select All, Select Block, Deselect All, Configuration Help, and More. The left sidebar, titled "Dialog Structure", lists "Define Used Business Process Type", "Define Application Object Type" (which is selected and highlighted with a red box), and "Define Event Types". The main area, titled "Define Used Business Process Types", contains a table with columns: Bus. Proc. Type, Update Mode, BPT Process Mode, and Description. The table lists various business process types, each with a checkbox and a dropdown menu icon. Some rows have a red border around them, indicating selected or highlighted items. The descriptions for the listed types include: EPL_NOTIF (Notification in SAP R/3 Enterprise), ESC_DELIV (Delivery in SAP R/3 Enterprise), ESC_FI_CLEARING (FI Clearing in SAP R/3 Enterprise), ESC_MATDOC (Material Document in SAP R/3 Enterprise), ESC_MM_INVOICE (MM Invoice in SAP R/3 Enterprise), ESC_PURORD (Purchase Order in SAP R/3 Enterprise), ESC_PURORD_FASHION (Purchase Order (Seasonal Procurement) in SAP R/3 Enterprise 2.0), ESC_SHIPMT (Shipment (SAP R/3 Enterprise)), ESC_SOURDER (Sales Order in SAP R/3 Enterprise), ESC_WRKORD (Workorder (Production, Service, Maintenance) in SAP R/3 Enterprise), OCB10_ORDER (Booking Order in Ocean Carrier Booking Process), SNC_MSGIN (SNC Inbound messages), SNC_PURORD (SNC Purchase Order), SNC_RPLORD (SNC Replenishment Order), TMS_INS (Instructions (SAP TM)), TMS_RES (Resources (SAP TM)), and TMS_TOR (Transportation Order (SAP TM)).

Bus. Proc. Type	Update Mode	BPT Process Mode	Description
EPL_NOTIF	Update Task (V..)	Active	Notification in SAP R/3 Enterprise
ESC_DELIV	Update Task (V..)	Active	Delivery in SAP R/3 Enterprise
ESC_FI_CLEARING	Update Task (V..)	Active	FI Clearing in SAP R/3 Enterprise
ESC_MATDOC	Update Task (V..)	Active	Material Document in SAP R/3 Enterprise
ESC_MM_INVOICE	Update Task (V..)	Active	MM Invoice in SAP R/3 Enterprise
ESC_PURORD	Update Task (V..)	Active	Purchase Order in SAP R/3 Enterprise
ESC_PURORD_FASHION	Update Task (V..)	Active	Purchase Order (Seasonal Procurement) in SAP R/3 Enterprise 2.0
ESC_SHIPMT	Update Task (V..)	Active	Shipment (SAP R/3 Enterprise)
ESC_SOURDER	Update Task (V..)	Active	Sales Order in SAP R/3 Enterprise
ESC_WRKORD	Update Task (V..)	Active	Workorder (Production, Service, Maintenance) in SAP R/3 Enterprise
OCB10_ORDER	D Dialog Update	Active	Booking Order in Ocean Carrier Booking Process
SNC_MSGIN	D Dialog Update	Active	SNC Inbound messages
SNC_PURORD	D Dialog Update	Active	SNC Purchase Order
SNC_RPLORD	D Dialog Update	Active	SNC Replenishment Order
TMS_INS	Update Task (V..)	Active	Instructions (SAP TM)
TMS_RES	Update Task (V..)	Active	Resources (SAP TM)
TMS_TOR	Update Task (V..)	Active	Transportation Order (SAP TM)

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-13: Click **New Entries** to create a new Application Object Type



STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-14: Fill in the **Application Object Type** and **Text** fields

7-15: Fill in the information required in the **General Data** tab. **CI for GTT** is the CI Tenant you created in STEP 5.

7-16: Check **GTT Relevant**

The screenshot shows the SAP Fiori application configuration interface. The top section displays the following fields:

- Bus. Proc. Type: ESC_SHIPMT
- Appl. Obj. Type: ZGTT_SHP_INT_HD (highlighted with a red box)
- Text: Extract shipment header information to Global Track and Trace Integration (also highlighted with a red box)

Below these fields is a navigation bar with tabs: General Data (selected), Control Tables, Object Identification, Global Track & Trace Relevance, and Parameter Setup.

The General Data tab contains several sections:

- Sequencing / Destination:** Seq. No.: 20, CI for GTT: ZGTTSOFINST (highlighted with a red box). A tooltip for ZGTTSOFINST reads: CI For GTT V2 Integration system Sales Order Sampl.
- Business Object Reference:** Object Type: [empty], BO Setup Fnct.: [empty] (with a small icon).
- Behavior:** A checkbox labeled "GTT Relevant" is checked (highlighted with a red box). Other options include "Stop AO Determ." and "Appl. Log Deact".

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-17: Fill in the **Main Object table** and **Master Table**

Caution:

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

The screenshot shows the SAP Fiori interface for defining business process types, application object types, and event types. It is divided into two main sections: one for the **ESC_SHIPMT** process and one for the **ESC_DELIV** process.

ESC_SHIPMT Configuration:

- General Data:** Bus. Proc. Type: `ESC_SHIPMT`, Appl. Obj. Type: `ZGTT_SHP_INT_HD`, Text: `Extract shipment header information to Global Track and Trace Integration`.
- Control Tables:** Data Source for Created and Updated Objects: Main Obj. Table: `SHIPMENT_HEADER_NEW` (highlighted with a red box), Master Table: `SHIPMENT_HEADER_OLD`. AOT on Header Level (highlighted with a red box).
- Reference Between Main and Master Table:** First Field Reference from Main to Master Table.

ESC_DELIV Configuration:

- General Data:** Bus. Proc. Type: `ESC_DELIV`, Appl. Obj. Type: `ZGTT_DE_INT_ITEM`, Text: `Extract delivery order item information to Global Track and Trace Integration`.
- Control Tables:** Data Source for Created and Updated Objects: Main Obj. Table: `DELIVERY_ITEM_NEW` (highlighted with a red box), Master Table: `DELIVERY_HEADER_NEW`. AOT on Item Level (highlighted with a red box).
- 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: .
- Data Source for Deleted Objects:** Del.Obj. Table: `DELIVERY_ITEM_OLD` (highlighted with a red box).

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-18: If there is no customized logic to determine the AOT ID, choose **Determine from Field**, use the key field to fill the AO ID fields

7-19: When choosing **Determine by Function**, you must enter the customized information in the AOID function field.

Bus. Proc. Type: ESC_DELIV
Appl. Obj. Type: ZGTT_DE_INT_ITEM Extract delivery order item information to Global Track and Trace Integration
Text: Delivery Item

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

Method for determination of AOID

AOID Method: Determine from Field

Application Object ID Source

First Field to Build Appl. Obj. ID

Second Field to Build Appl. Obj. ID

Determine AOID By Function

AOID Function:

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

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

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-20: In the **Global Track & Trace Relevance** tab, choose the **GTT Relevance Method** you need.

If you choose the **GTT Relevance Method Check Function**, then you need to define a relevance function according to STEP 6, and fill in the relevance function name here.

The screenshot shows a configuration interface for a business process. At the top, there are three input fields: 'Bus. Proc. Type' (ESC_DELIV), 'Appl. Obj. Type' (ZGTT_DE_INT_ITEM), and 'Text' (Delivery Item). Below these, a note says 'Extract delivery order item information to Global Track and Trace Integration'. A navigation bar at the bottom includes tabs for 'General Data', 'Control Tables', 'Object Identification', 'Global Track & Trace Relevance' (which is highlighted in blue), and 'Parameter Setup'. Under the 'Global Track & Trace Relevance' tab, there are two configuration fields: 'GTT Rel. Method' (set to 'A Check Function (Function Module)') and 'GTT Rel. Function' (containing the value 'ZGTT_SOF_DEITM'). The 'GTT Rel. Function' field is highlighted with a red box.

STEP 7: Define Used Business Process Types, Appl. Object Types and Event Types

7-21: 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 STEP 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**.

The screenshot shows the SAP Fiori interface for parameter setup. At the top, there are fields for 'Bus. Proc. Type' (ESC_DELIV), 'Appl. Obj. Type' (ZGTT_DE_INT_ITEM) with a tooltip 'Extract delivery order item information to Global Track and Trace Integration', and 'Text' (Delivery Item). Below these are tabs: General Data, Control Tables, Object Identification, Global Track & Trace Relevance, and Parameter Setup (which is selected). Under the Parameter Setup tab, there are two sections: 'Tracking ID Setup' and 'Parameter Setup'. In 'Tracking ID Setup', the 'TrkID Method' dropdown is set to 'A Determine by Function', and the 'Trk.ID Function' dropdown is set to 'ZGTT_TID_DE_ITEM'. In 'Parameter Setup', the 'Ctrl Data Function' dropdown is set to 'ZGTT_OTE_DE_ITEM', and the 'Planned Event Function' dropdown is set to 'ZGTT_EE_DE_ITM'. The 'Info Data Function' dropdown is empty. The 'TrkID Method' and 'Ctrl Data Function' sections are highlighted with red boxes.

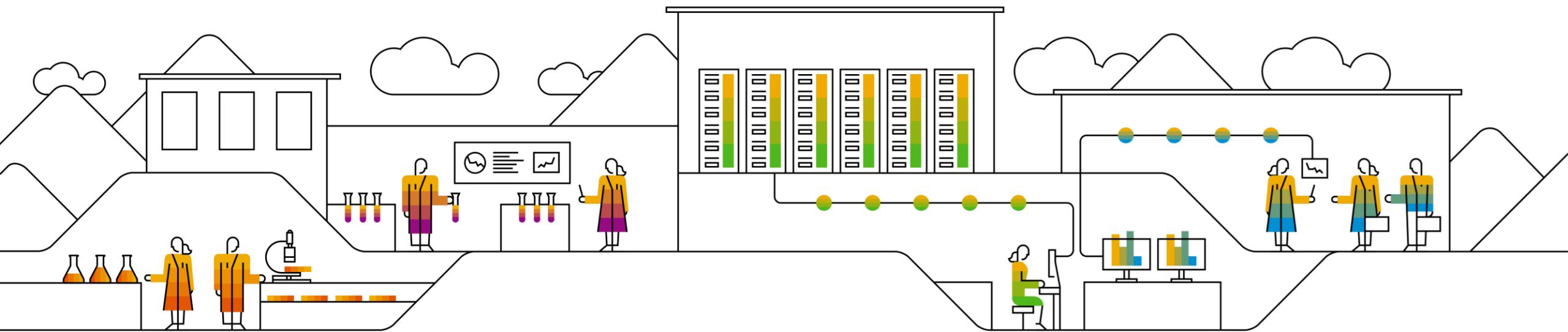
C) Download ABAP Code from GitHub

C1. Initial Download ABAP Code from GitHub (Only for TSOF)

C2. Update ABAP Code from GitHub (Only for TSOF)

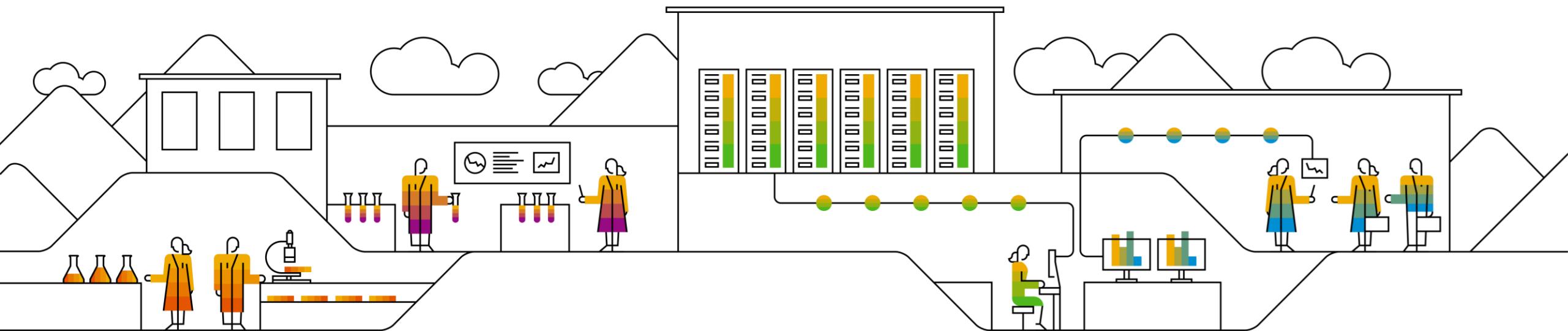
C3. Download Another ABAP Code from GitHub (Only for TPOF)

C4. Initial Download ABAP Code from GitHub (Include TSOF/TPOF/TS)



C) Download ABAP Code from GitHub

C1. Initial Download ABAP Code from GitHub (Only for TSOF)



STEP 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 page. The header reads "abapGit › documentation". The left sidebar contains links for "Getting Started", "Setup", "Online Projects", "Offline Projects", and "Reference". The main content area starts with a "Summary" section, followed by a note about the two flavours: "standalone version or developer version". The "Installation" section is highlighted with a red border. It includes a link to "Improve this page", a "Prerequisites" section (noted as SAP BASIS version 702 or higher), and a detailed "Install standalone version" section with four steps:

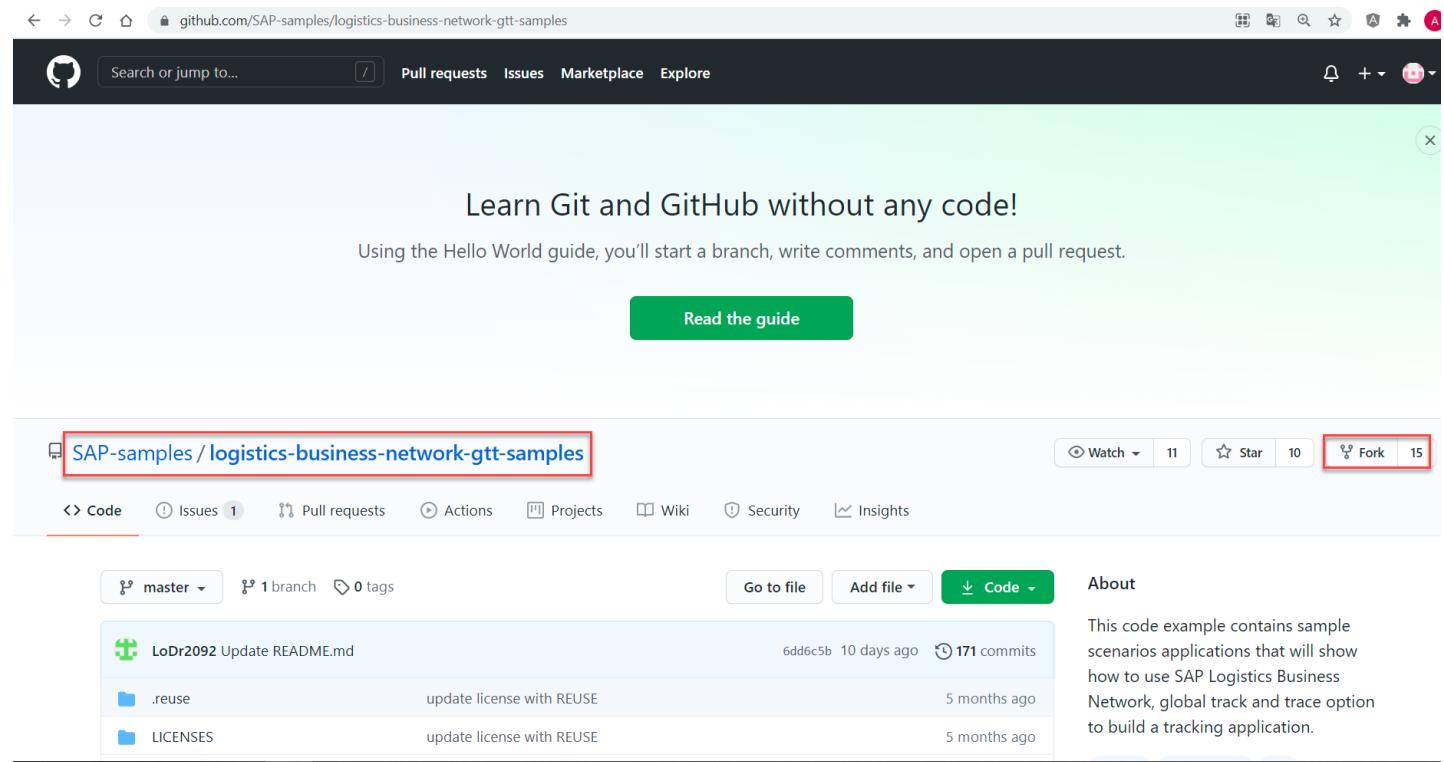
- Download the ABAP code (right click -> save-as) to a file.
- Via SE38 or SE80, create a new report named ZABAPGIT_STANDALONE (formerly ZABAPGIT_FULL). NB: Don't use the name ZABAPGIT if you plan to install the developer version.
- In source code change mode, upload the code from the file using Utilities -> More Utilities -> Upload/Download -> Upload
- Activate

Below this, a note says: "Typically, abapGit will only be used in the development system, so it can be installed in a local \$ package (e.g. \$ZABAPGIT)". A final note at the bottom says: "Now you can use abapGit by executing the report in transaction SE38".

STEP 2: Fork Sample Code Repository

2-1. Navigate to sample code in
<https://github.com/SAP-samples/logistics-business-network-gtt-samples>

2-2. Click the “Fork” button, it will copy the newest version of sample codes into the user’s account and meanwhile it will navigate to the user’s own repository.



STEP 3: Change Configuration File ‘.abapgit.xml’

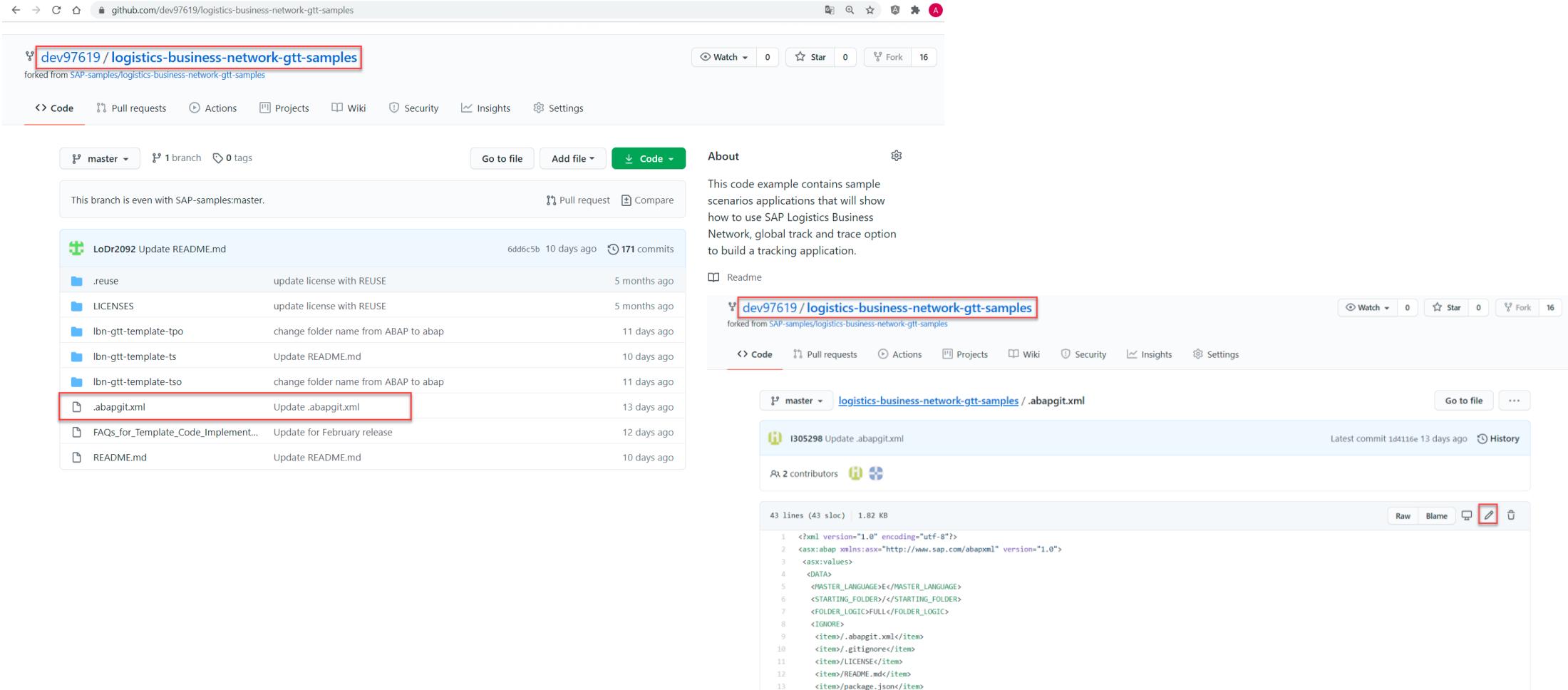
3-1: In the user’s account repository, click the file ‘.abapgit.xml’.

The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository is a fork from 'SAP-samples/logistics-business-network-gtt-samples'. The 'Code' tab is selected. The 'master' branch is active, with 1 branch and 0 tags. A message indicates the branch is even with SAP-samples:master. The commit history lists several changes, including one for '.abapgit.xml' which is highlighted with a red box. The commit details show it was updated 13 days ago. To the right of the code area, there is an 'About' section describing the repository as containing sample scenarios for SAP Logistics Business Network, global track and trace options, and a 'Readme' link. Below that is a 'Releases' section stating 'No releases published' and a 'Create a new release' link. Finally, a 'Packages' section states 'No packages published' and a 'Publish your first package' link.

File	Description	Time Ago
.abapgit.xml	Update .abapgit.xml	13 days ago
FAQs_for_Template_Code_Implement...	Update for February release	12 days ago
README.md	Update README.md	10 days ago

STEP 3: Change Configuration File ‘.abapgit.xml’

3-2: Click  button to edit the file.



The screenshot shows a GitHub repository page for `dev97619/logistics-business-network-gtt-samples`. The repository has 16 forks. The main repository page shows a list of commits, with one commit highlighted: `I305298 Update .abapgit.xml`. This commit was made by `dev97619` 13 days ago. The commit message is "Update .abapgit.xml". The file `.abapgit.xml` is shown in the code editor with the following content:

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <asx:abap xmlns:asx="http://www.sap.com/abapxml" version="1.0">
3   <asx:values>
4     <DATA>
5       <MASTER_LANGUAGE>E</MASTER_LANGUAGE>
6       <STARTING_FOLDER>./</STARTING_FOLDER>
7       <FOLDER_LOGIC>FULL</FOLDER_LOGIC>
8       <IGNORE>
9         <item>./.abapgit.xml</item>
10        <item>./.gitignore</item>
11        <item>./LICENSE</item>
12        <item>./README.md</item>
13        <item>./package.json</item>
```

STEP 3: Change Configuration File ‘.abapgit.xml’

3-3: Add the sentence of ‘<STARTING_FOLDER>/lbn-gtt-template-tso/abap/zsrc/</STARTING_FOLDER>’ as below.

3-4: Commit change.

The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository is a fork from 'SAP-samples/logistics-business-network-gtt-samples'. The 'Code' tab is selected. In the code editor, the '.abapgit.xml' file is open, showing its XML content. A specific line of code, '<STARTING_FOLDER>/lbn-gtt-template-tso/abap/zsrc/</STARTING_FOLDER>', is highlighted with a red box. To the right, a 'Commit changes' dialog is displayed. The 'Update .abapgit.xml' field contains the text 'Add an optional extended description...'. Below it, two radio button options are shown: one selected for 'Commit directly to the master branch.' and another for 'Create a new branch for this commit and start a pull request.' A large green 'Commit changes' button is at the bottom of the dialog, also highlighted with a red box.

```
<?xml version="1.0" encoding="utf-8"?>
<asx:abap xmlns:asx="http://www.sap.com/abapxml" version="1.0">
<asx:values>
<DATA>
<MASTER_LANGUAGE>E</MASTER_LANGUAGE>
<STARTING_FOLDER>/lbn-gtt-template-tso/abap/zsrc/</STARTING_FOLDER>
<FOLDER_LOGIC>FULL</FOLDER_LOGIC>
<IGNORE>
<item>./.abapgit.xml</item>
<item>./.gitignore</item>
```

Commit changes

Update .abapgit.xml

Add an optional extended description...

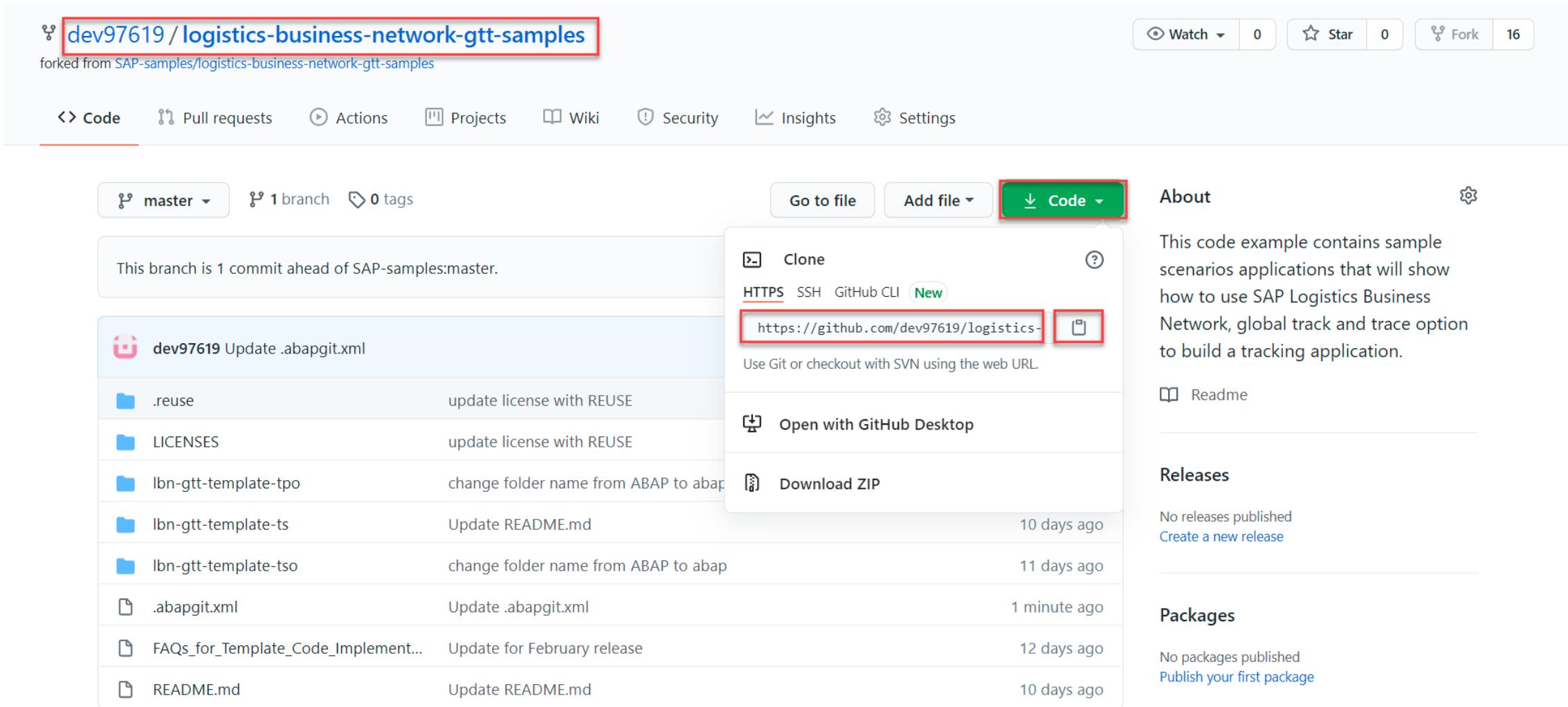
-o- Commit directly to the master branch.

! Create a new branch for this commit and start a pull request. [Learn more about pull requests](#).

Commit changes **Cancel**

STEP 3: Change Configuration File ‘.abapgit.xml’

3-5: Go to the root and copy the repository URL by clicking  button.



The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository has been forked from SAP-samples/logistics-business-network-gtt-samples. The 'Code' tab is selected. The repository has 1 branch and 0 tags. The master branch is ahead of SAP-samples:master by 1 commit. A list of recent commits is shown, including updates to the '.abapgit.xml' file and other files like '.reuse', 'LICENSES', and various template files. On the right side, there's a 'Code' dropdown menu with options for 'Clone', 'SSH', 'GitHub CLI', and a copy link. The 'Clone' section shows the HTTPS URL: <https://github.com/dev97619/logistics-business-network-gtt-samples>. Below the URL, it says 'Use Git or checkout with SVN using the web URL.' The repository also includes sections for 'About', 'Readme', 'Releases', and 'Packages'.

dev97619 / logistics-business-network-gtt-samples

forked from SAP-samples/logistics-business-network-gtt-samples

Code Pull requests Actions Projects Wiki Security Insights Settings

master 1 branch 0 tags

This branch is 1 commit ahead of SAP-samples:master.

dev97619 Update .abapgit.xml

.reuse update license with REUSE

LICENSES update license with REUSE

Ibn-gtt-template-tpo change folder name from ABAP to abap

Ibn-gtt-template-ts Update README.md

Ibn-gtt-template-tso change folder name from ABAP to abap

.abapgit.xml Update .abapgit.xml

FAQs_for_Template_Code_Implement... Update for February release

README.md Update README.md

Clone

HTTPS SSH GitHub CLI New

<https://github.com/dev97619/logistics-business-network-gtt-samples> 

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

10 days ago

11 days ago

1 minute ago

12 days ago

10 days ago

About

This code example contains sample scenarios applications that will show how to use SAP Logistics Business Network, global track and trace option to build a tracking application.

Readme

Releases

No releases published

Create a new release

Packages

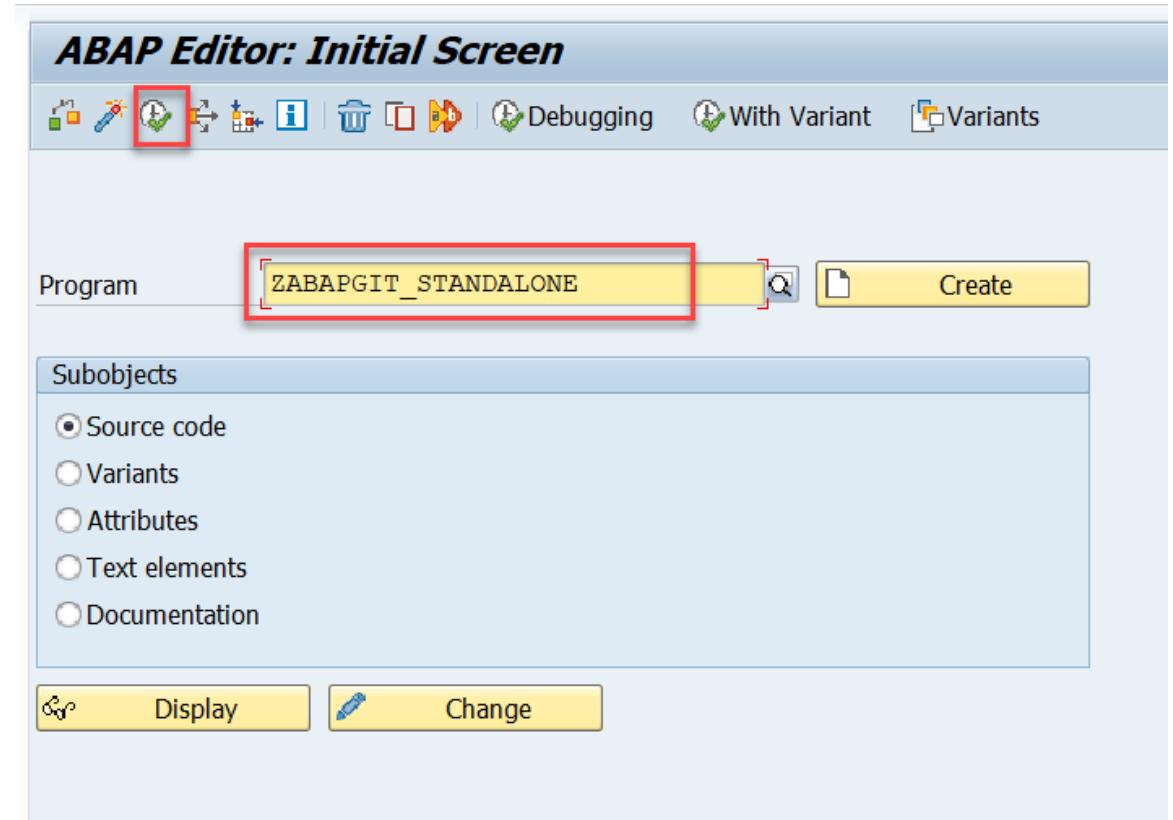
No packages published

Publish your first package

STEP 4: Download ABAP Code from GitHub

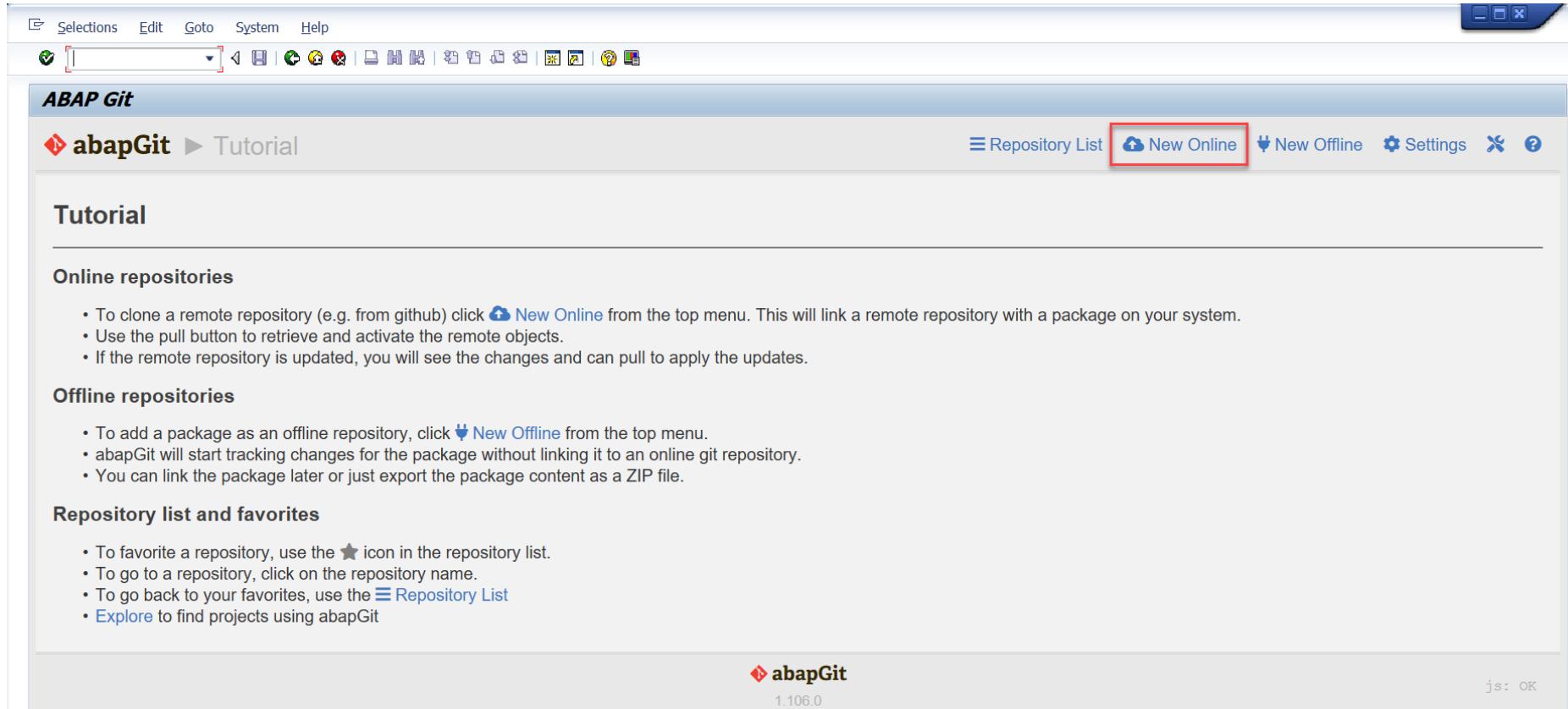
4-1: Enter T-code *SE38* and fill in the report name from STEP 1,
ZABAPGIT_STANDALONE.

4-2: Click **Execute** to run the report.



STEP 4: Download ABAP Code from GitHub

4-3: Click **New Online** to download the code.



STEP 4: Download ABAP Code from GitHub

4-4: Fill in the **Git Repository URL** in step 3-5:

<https://github.com/dev97619/logistics-business-network-gtt-samples.git>

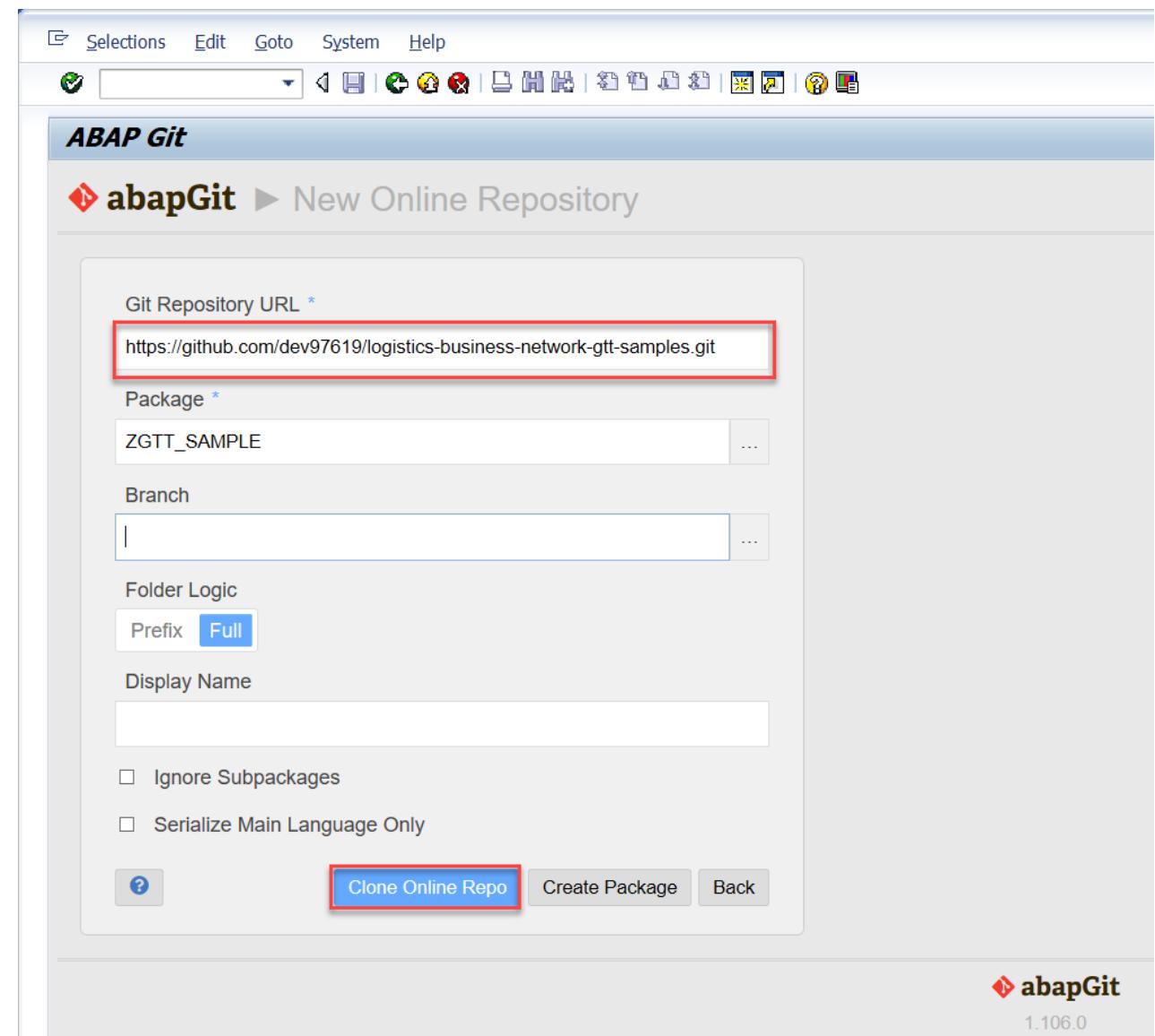
Caution:

This URL is the user account's repository URL, not the public sample code's repository URL.

4-5: 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.

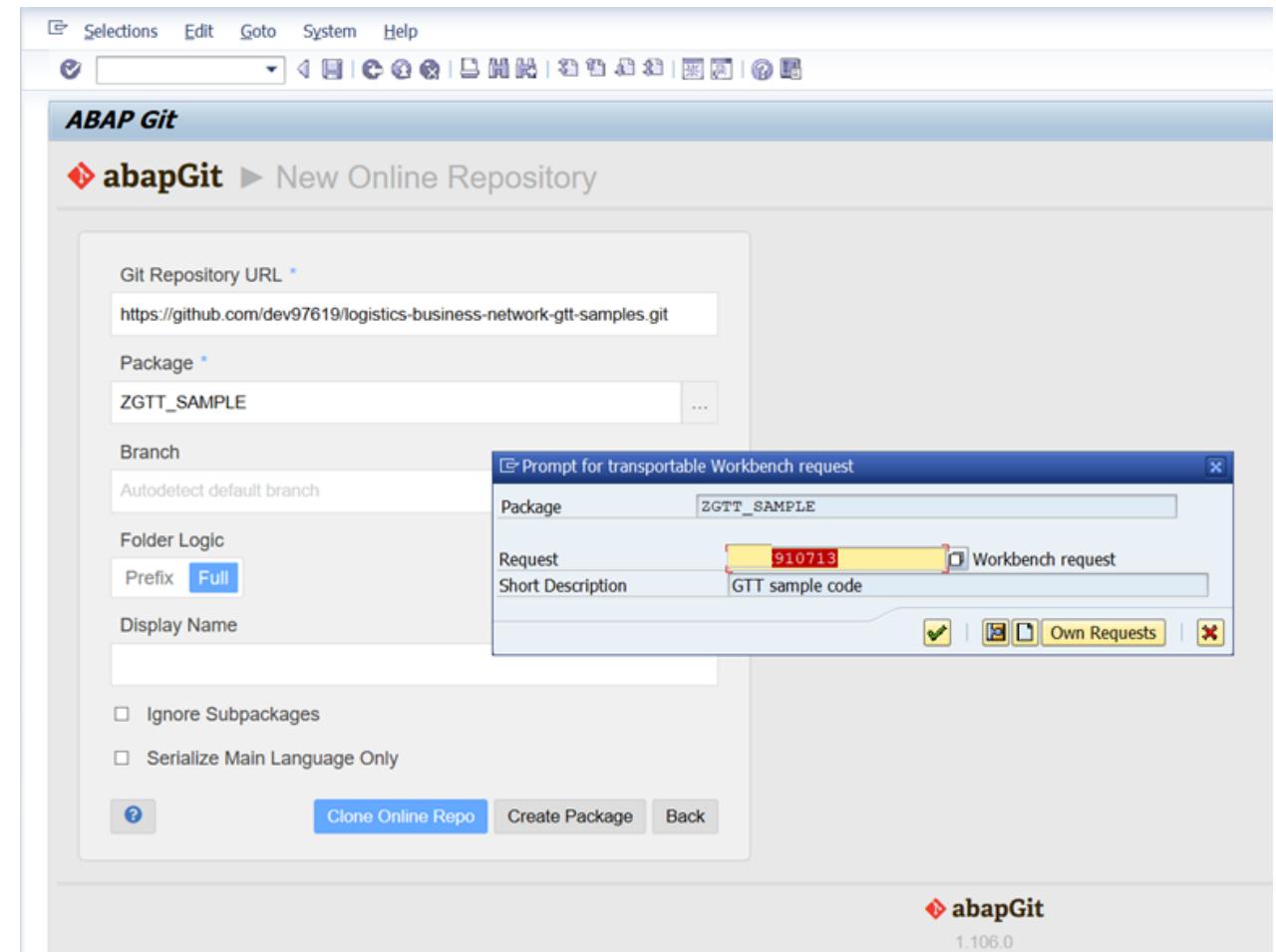
4-6: Set *Full* for **Folder Logic**

4-7: Click **Clone Online Repo** to download the code.



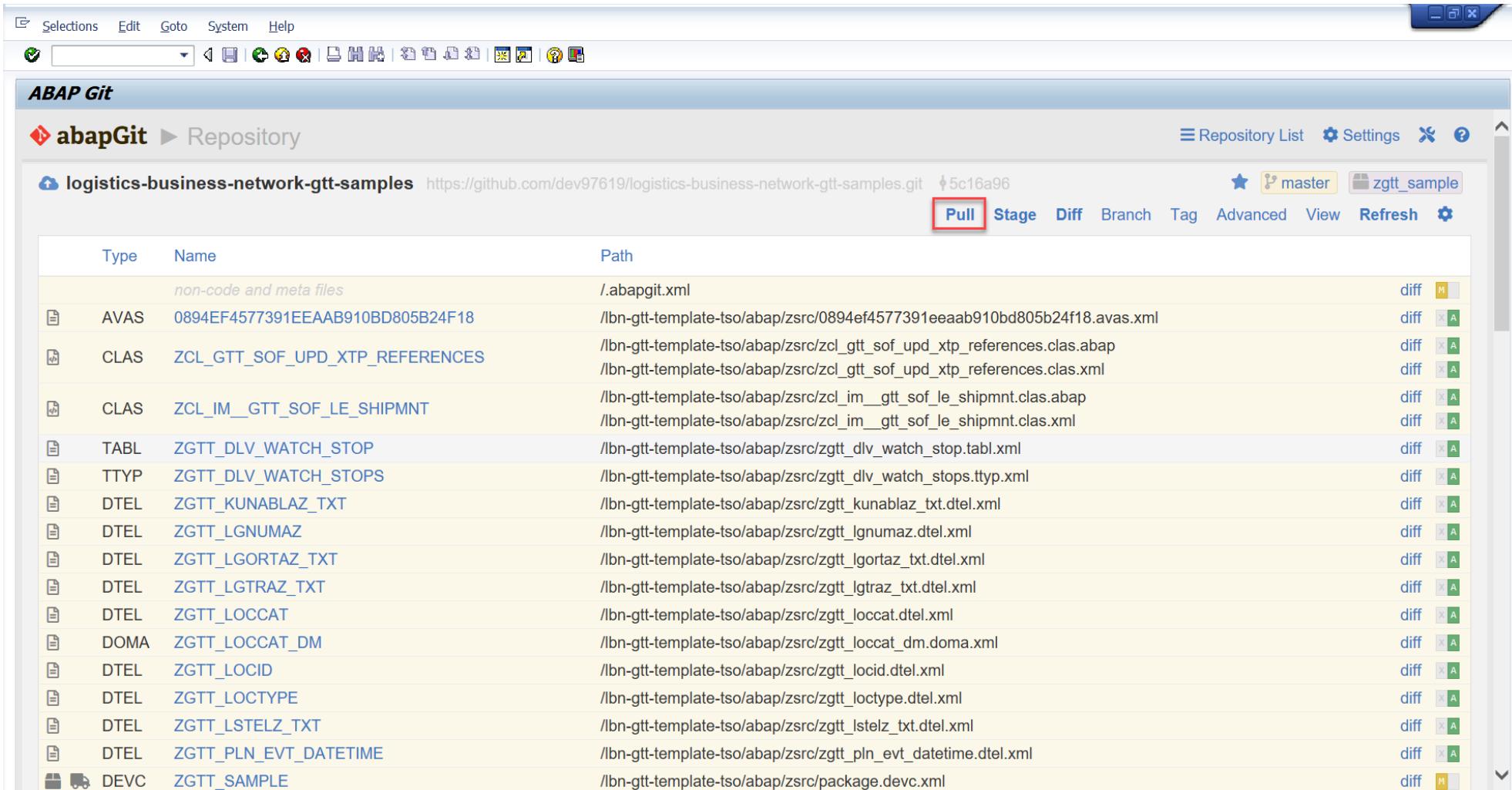
STEP 4: Download ABAP Code from GitHub

4-8: Assign the change to a change request. If you do not have any available change request, you need to create a new one.



STEP 4: Download ABAP Code from GitHub

4-9: Click **Pull** to pull down the latest version code.

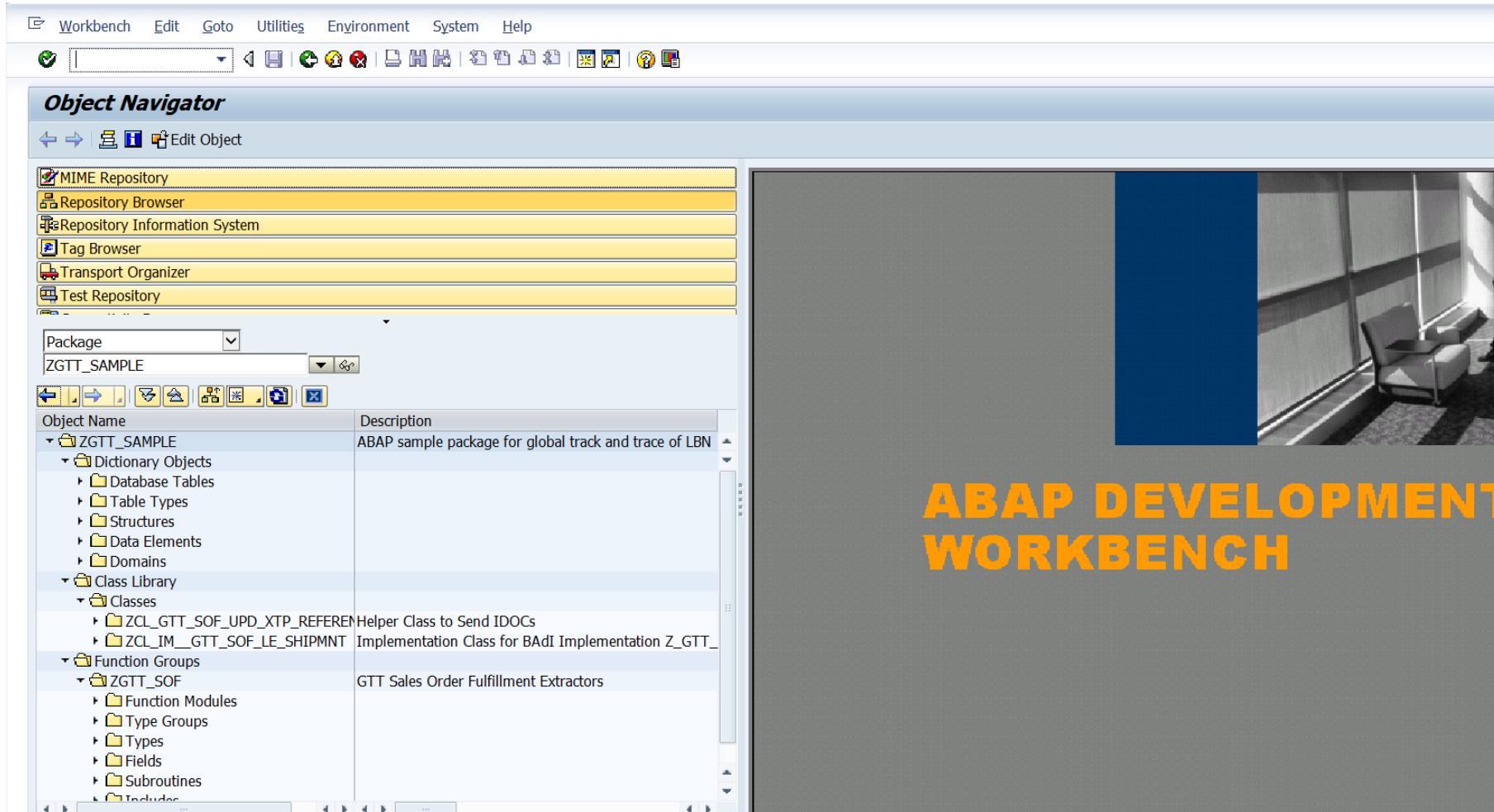


The screenshot shows the ABAP Git interface within an SAP application. The title bar includes 'Selections', 'Edit', 'Goto', 'System', and 'Help'. The main menu has icons for 'File', 'Edit', 'Goto', 'System', 'Help', and various SAP-specific functions like 'ZS', 'ZC', 'ZI', etc. The top navigation bar shows 'ABAP Git' and 'abapGit ► Repository'. Below it, the repository details are shown: 'logistics-business-network-gtt-samples' at 'https://github.com/dev97619/logistics-business-network-gtt-samples.git' with commit hash '5c16a96'. The master branch is selected. A toolbar below the repository details includes 'Pull' (highlighted with a red box), 'Stage', 'Diff', 'Branch', 'Tag', 'Advanced', 'View', 'Refresh', and a settings gear icon. The main content area displays a table of files with columns 'Type', 'Name', and 'Path'. Each row also includes a 'diff' link and a status indicator (green with 'A').

Type	Name	Path	diff
	non-code and meta files	.abapgit.xml	[diff]
AVAS	0894EF4577391EEAAB910BD805B24F18	/lbn-gtt-template-tso/abap/zsrc/0894ef4577391eeaab910bd805b24f18.avas.xml	[diff]
CLAS	ZCL_GTT_SOF_UPD_XTP_REFERENCES	/lbn-gtt-template-tso/abap/zsrc/zcl_gtt_sof_upd_xtp_references.clas.abap	[diff]
		/lbn-gtt-template-tso/abap/zsrc/zcl_gtt_sof_upd_xtp_references.clas.xml	[diff]
CLAS	ZCL_IM_GTT_SOF_LE_SHIPMNT	/lbn-gtt-template-tso/abap/zsrc/zcl_im_gtt_sof_le_shipmnt.clas.abap	[diff]
		/lbn-gtt-template-tso/abap/zsrc/zcl_im_gtt_sof_le_shipmnt.clas.xml	[diff]
TABL	ZGTT_DLV_WATCH_STOP	/lbn-gtt-template-tso/abap/zsrc/zggt_dlv_watch_stop.tabl.xml	[diff]
TTYP	ZGTT_DLV_WATCH_STOPS	/lbn-gtt-template-tso/abap/zsrc/zggt_dlv_watch_stops.ttyp.xml	[diff]
DTEL	ZGTT_KUNABLAZ_TXT	/lbn-gtt-template-tso/abap/zsrc/zggt_kunablaz_txt.dtel.xml	[diff]
DTEL	ZGTT_LGNUCMAZ	/lbn-gtt-template-tso/abap/zsrc/zggt_lgnumaz.dtel.xml	[diff]
DTEL	ZGTT_LGORAZ_TXT	/lbn-gtt-template-tso/abap/zsrc/zggt_lgortaz_txt.dtel.xml	[diff]
DTEL	ZGTT_LGTRAZ_TXT	/lbn-gtt-template-tso/abap/zsrc/zggt_lgtraz_txt.dtel.xml	[diff]
DTEL	ZGTT_LOCCAT	/lbn-gtt-template-tso/abap/zsrc/zggt_loccat.dtel.xml	[diff]
DOMA	ZGTT_LOCCAT_DM	/lbn-gtt-template-tso/abap/zsrc/zggt_loccat_dm.doma.xml	[diff]
DTEL	ZGTT_LOCID	/lbn-gtt-template-tso/abap/zsrc/zggt_locid.dtel.xml	[diff]
DTEL	ZGTT_LOCTYPE	/lbn-gtt-template-tso/abap/zsrc/zggt_loctype.dtel.xml	[diff]
DTEL	ZGTT_LSTELZ_TXT	/lbn-gtt-template-tso/abap/zsrc/zggt_lstelz_txt.dtel.xml	[diff]
DTEL	ZGTT_PLN_EVT_DATETIME	/lbn-gtt-template-tso/abap/zsrc/zggt_pln_evt_datetime.dtel.xml	[diff]
DEVC	ZGTT_SAMPLE	/lbn-gtt-template-tso/abap/zsrc/package.devc.xml	[diff]

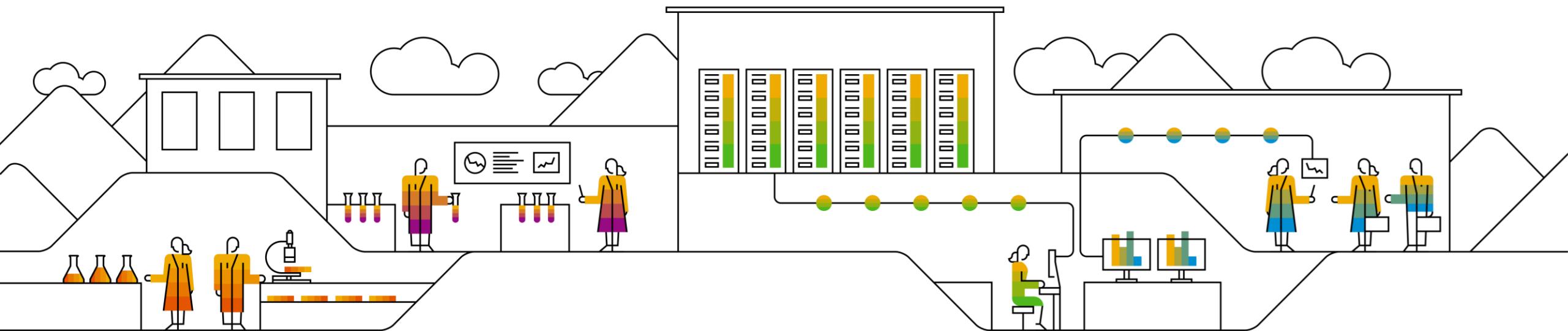
STEP 4: Download ABAP Code from GitHub

4-10: After you download the code, you can check them with T-code **SE80**.



C) Download ABAP Code from GitHub

C2. Update ABAP Code from GitHub (Only for TSOF)

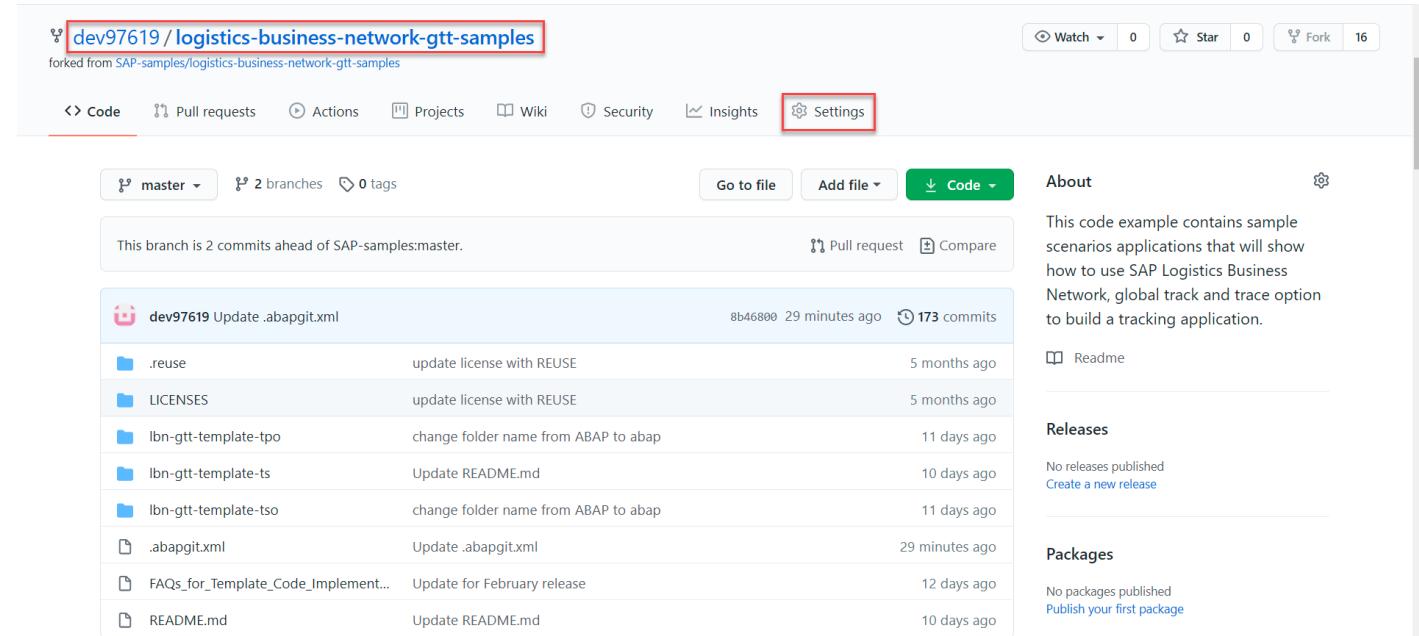


STEP 1: Delete the User's Account Repository

1-1: Assume you've already installed the sample code of TSOF to your local SAP system with the version of the previous release.

In the latest release, there is some code changes in the public sample code, you need to update the local code according to the latest public sample code.

1-2: Navigate to the user's account repository, and click "Settings".



STEP 1: Delete the User's Account Repository

1-3: Scroll down and find the button “Delete this repository” and click it.

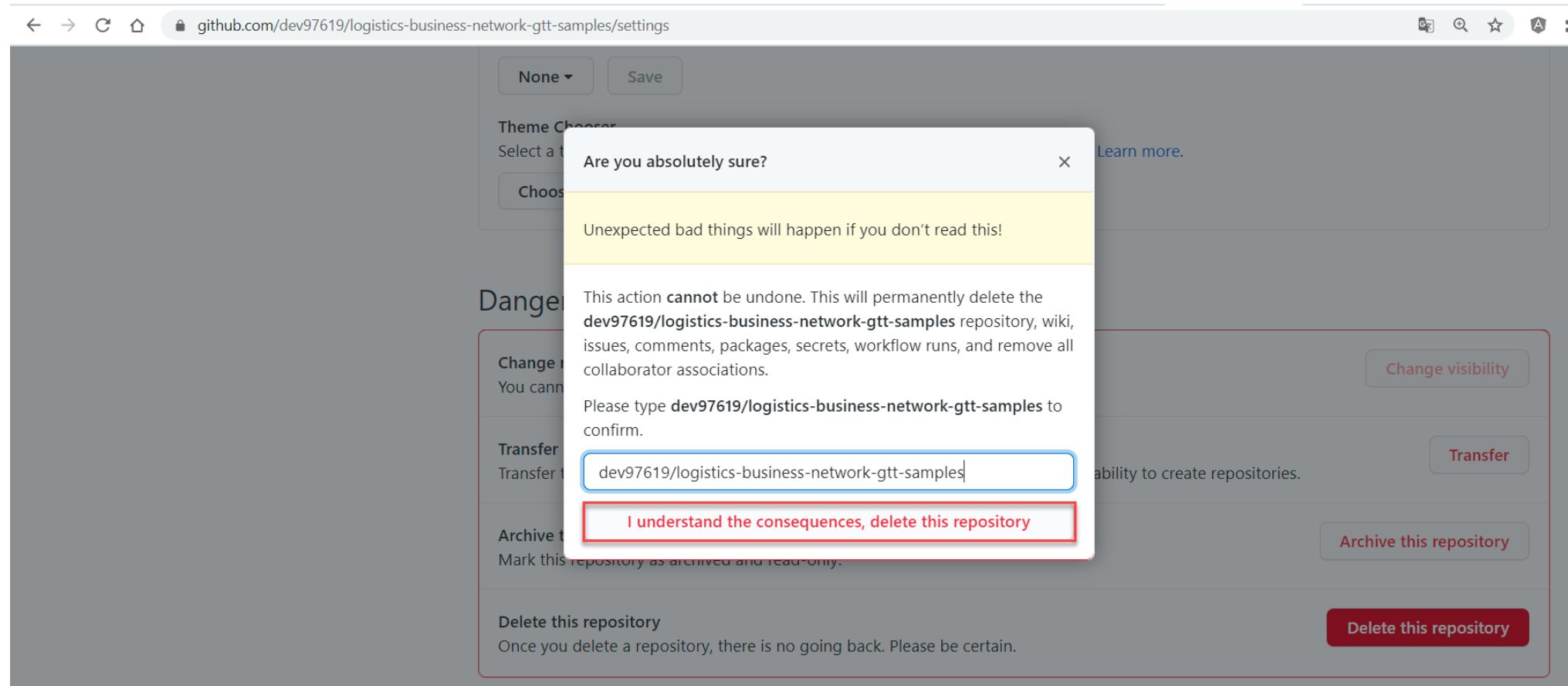
The screenshot shows a GitHub repository settings page for 'github.com/dev97619/logistics-business-network-gtt-samples/settings'. At the top, there is a 'Theme Chooser' section with a 'None' dropdown, a 'Save' button, and a 'Choose a theme' button. Below this is a 'Danger Zone' section with four options:

- Change repository visibility**: You cannot change the visibility of a fork. Please [duplicate the repository](#). [Change visibility](#)
- Transfer ownership**: Transfer this repository to another user or to an organization where you have the ability to create repositories. [Transfer](#)
- Archive this repository**: Mark this repository as archived and read-only. [Archive this repository](#)
- Delete this repository**: Once you delete a repository, there is no going back. Please be certain. [Delete this repository](#)

The 'Delete this repository' button is highlighted with a red border.

STEP 1: Delete the User's Account Repository

1-4: The popup shows some warning messages. Follow the instructions then click the button "I understand the consequences, delete this repository".



STEP 1: Delete the User's Account Repository

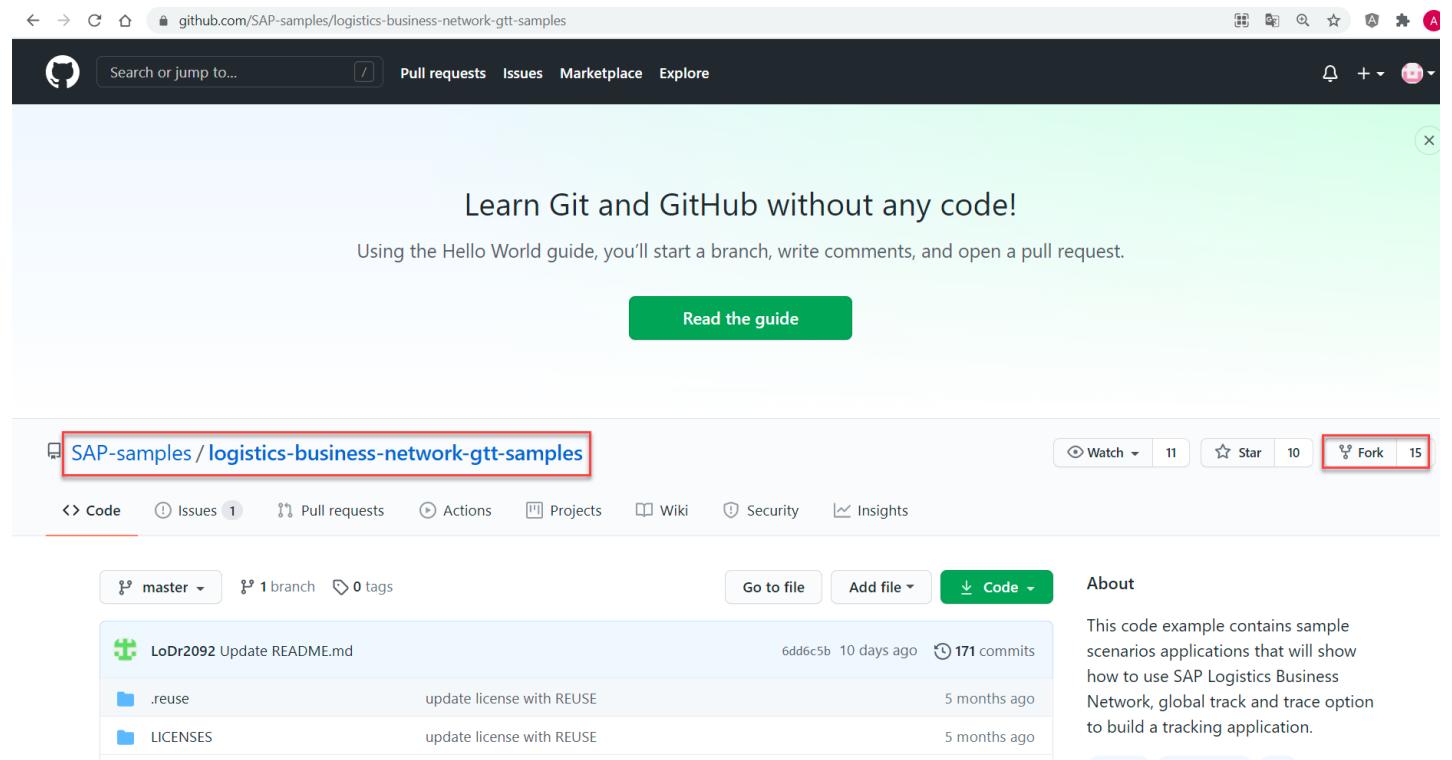
1-5: The user's account repository is deleted.

The screenshot shows a GitHub-style interface. At the top, there is a dark header bar with the GitHub logo, a search bar, and navigation links for "Pull requests", "Issues", "Marketplace", and "Explore". To the right of the header are icons for notifications, a plus sign, and a profile picture. Below the header, a light blue banner displays a success message: "Your repository \"dev97619/logistics-business-network-gtt-samples\" was successfully deleted." An "X" icon is at the end of this banner. The main content area has a white background. On the left, there is a sidebar with sections for "Create your first project" (with "Create repository" and "Import repository" buttons), "Working with a team?", and a "Create an organization" button. A large, semi-transparent green overlay is centered over the main content. It features the text "Learn Git and GitHub without any code!" in bold, followed by a descriptive paragraph: "Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request." Below this text are two buttons: a green one labeled "Read the guide" and a white one labeled "Start a project".

STEP 2: Fork Sample Code Repository

2-1. Navigate to sample code in
<https://github.com/SAP-samples/logistics-business-network-gtt-samples>

2-2. Click the “Fork” button, it will copy the newest version of sample codes into the user’s account and meanwhile it will navigate to the user’s own repository.



STEP 2: Fork Sample Code Repository

2-3: The newest version of the sample codes is copied to the user's account.

The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository has 16 forks. The 'Code' tab is selected. The master branch is up-to-date with SAP-samples:master. A list of recent commits is shown, along with sections for About, Readme, Releases, and Packages.

About
This code example contains sample scenarios applications that will show how to use SAP Logistics Business Network, global track and trace option to build a tracking application.

Readme

Releases
No releases published
[Create a new release](#)

Packages
No packages published
[Publish your first package](#)

File	Description	Time Ago
LoDr2092 Update README.md	update license with REUSE	5 months ago
.reuse	update license with REUSE	5 months ago
LICENSES	update license with REUSE	5 months ago
Ibn-gtt-template-tpo	change folder name from ABAP to abap	11 days ago
Ibn-gtt-template-ts	Update README.md	10 days ago
Ibn-gtt-template-tso	change folder name from ABAP to abap	11 days ago
.abapgit.xml	Update .abapgit.xml	13 days ago
FAQs_for_Template_Code_Implement...	Update for February release	12 days ago
README.md	Update README.md	10 days ago

STEP 3: Change Configuration File ‘.abapgit.xml’

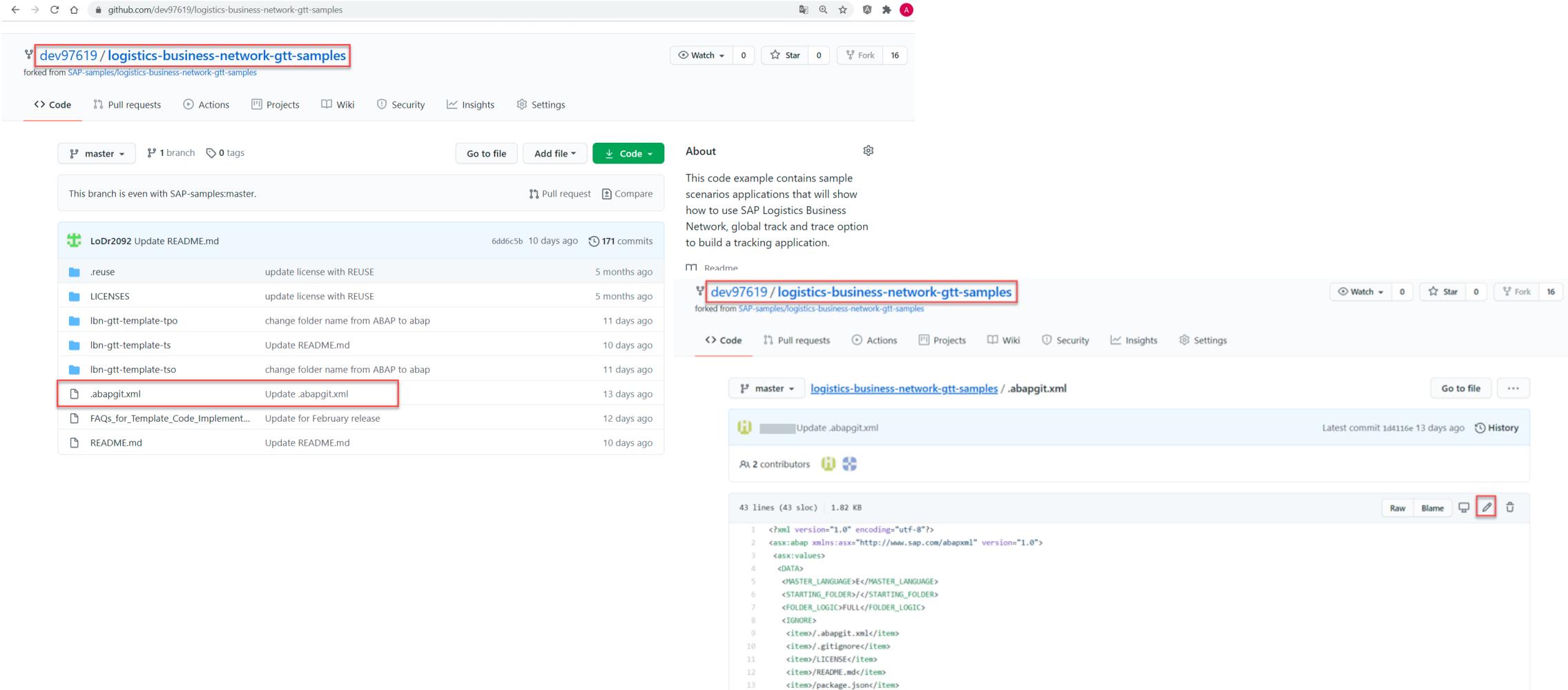
3-1: In the user’s account repository, click the file ‘.abapgit.xml’.

The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository is a fork from 'SAP-samples/logistics-business-network-gtt-samples'. The 'Code' tab is selected. The 'master' branch is active, with 1 branch and 0 tags. A message indicates the branch is even with SAP-samples:master. The commit history lists several changes, including one for '.abapgit.xml' which is highlighted with a red box. The commit details show it was updated 13 days ago. To the right of the commit list, there is an 'About' section describing the repository as containing sample scenarios for SAP Logistics Business Network, global track and trace options, and a 'Readme' link. Below that is a 'Releases' section stating 'No releases published' and a 'Create a new release' link. Finally, there is a 'Packages' section stating 'No packages published' and a 'Publish your first package' link.

File	Description	Time Ago
.abapgit.xml	Update .abapgit.xml	13 days ago
FAQs_for_Template_Code_Implement...	Update for February release	12 days ago
README.md	Update README.md	10 days ago

STEP 3: Change Configuration File ‘.abapgit.xml’

3-2: Click  button to edit the file.



The screenshot shows two GitHub repository pages. The top page is for the forked repository `dev97619 / logistics-business-network-gtt-samples`. The bottom page is for the original repository `logistics-business-network-gtt-samples`.

Top Repository (Forked):

- Branch:** master
- Commits:** 171 commits
- Latest Commit:** LoDr2092 Update README.md (6dd6c5b, 10 days ago)
- File List:** .reuse, LICENSES, lbn-gtt-template-tpo, lbn-gtt-template-ts, lbn-gtt-template-tso, .abapgit.xml, FAQs_for_Template_Code_Implement..., README.md
- .abapgit.xml Commit:** Update .abapgit.xml (13 days ago)

Bottom Repository (Original):

- Branch:** master
- Commits:** 1 commit (1d4116e, 13 days ago)
- File List:** Update .abapgit.xml
- Content of .abapgit.xml:**

```
<?xml version="1.0" encoding="utf-8"?>
<asx:abap xmlns:asx="http://www.sap.com/abapxml" version="1.0">
<asx:values>
<DATA>
<MASTER_LANGUAGE>E</MASTER_LANGUAGE>
<STARTING_FOLDER></STARTING_FOLDER>
<FOLDER_LOGIC>FULL</FOLDER_LOGIC>
<IGNORE>
<item>/.abapgit.xml</item>
<item>/.gitignore</item>
<item>LICENSE</item>
<item>README.md</item>
<item>package.json</item>

```

STEP 3: Change Configuration File ‘.abapgit.xml’

3-3: Add the sentence of ‘<STARTING_FOLDER>/lbn-gtt-template-tso/abap/zsrc/</STARTING_FOLDER>’ as below.

3-4: Commit change.

The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository is a fork from 'SAP-samples/logistics-business-network-gtt-samples'. The 'Code' tab is selected. In the code editor, the file '.abapgit.xml' is open, showing the following XML content:

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <asx:abap xmlns:asx="http://www.sap.com/abapxml" version="1.0">
3   <asx:values>
4     <DATA>
5       <MASTER_LANGUAGE>E</MASTER_LANGUAGE>
6       <STARTING_FOLDER>/lbn-gtt-template-tso/abap/zsrc/</STARTING_FOLDER>
7       <FOLDER_LOGIC>FULL</FOLDER_LOGIC>
8     <IGNORE>
9       <item>/.abapgit.xml</item>
10      <item>/.gitignore</item>
```

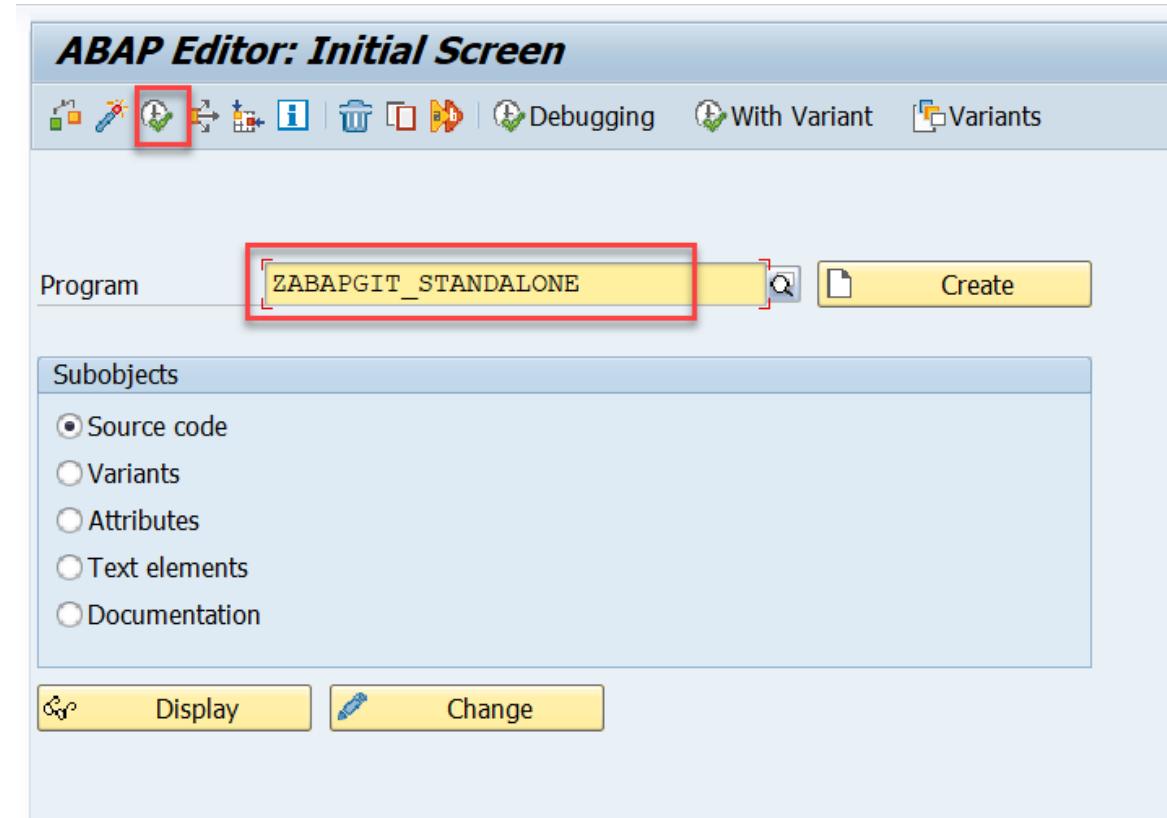
The line '6 <STARTING_FOLDER>/lbn-gtt-template-tso/abap/zsrc/</STARTING_FOLDER>' is highlighted with a red box. A modal dialog titled 'Commit changes' is displayed over the code editor. The dialog contains the following fields:

- Input field: Update .abapgit.xml
- Text area: Add an optional extended description...
- Radio buttons:
 - o- Commit directly to the master branch.
 - ! Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)
- Buttons at the bottom: 'Commit changes' (highlighted with a red box) and 'Cancel'

STEP 4: Update ABAP Code from GitHub

4-1: Enter T-code *SE38* and fill in the report name *ZABAPGIT_STANDALONE*.

4-2: Click **Execute** to run the report.



STEP 4: Update ABAP Code from GitHub

4-3: Check if the URL is changed or not after your recreation of repository copy. Access the TSOF Repository by clicking  button.

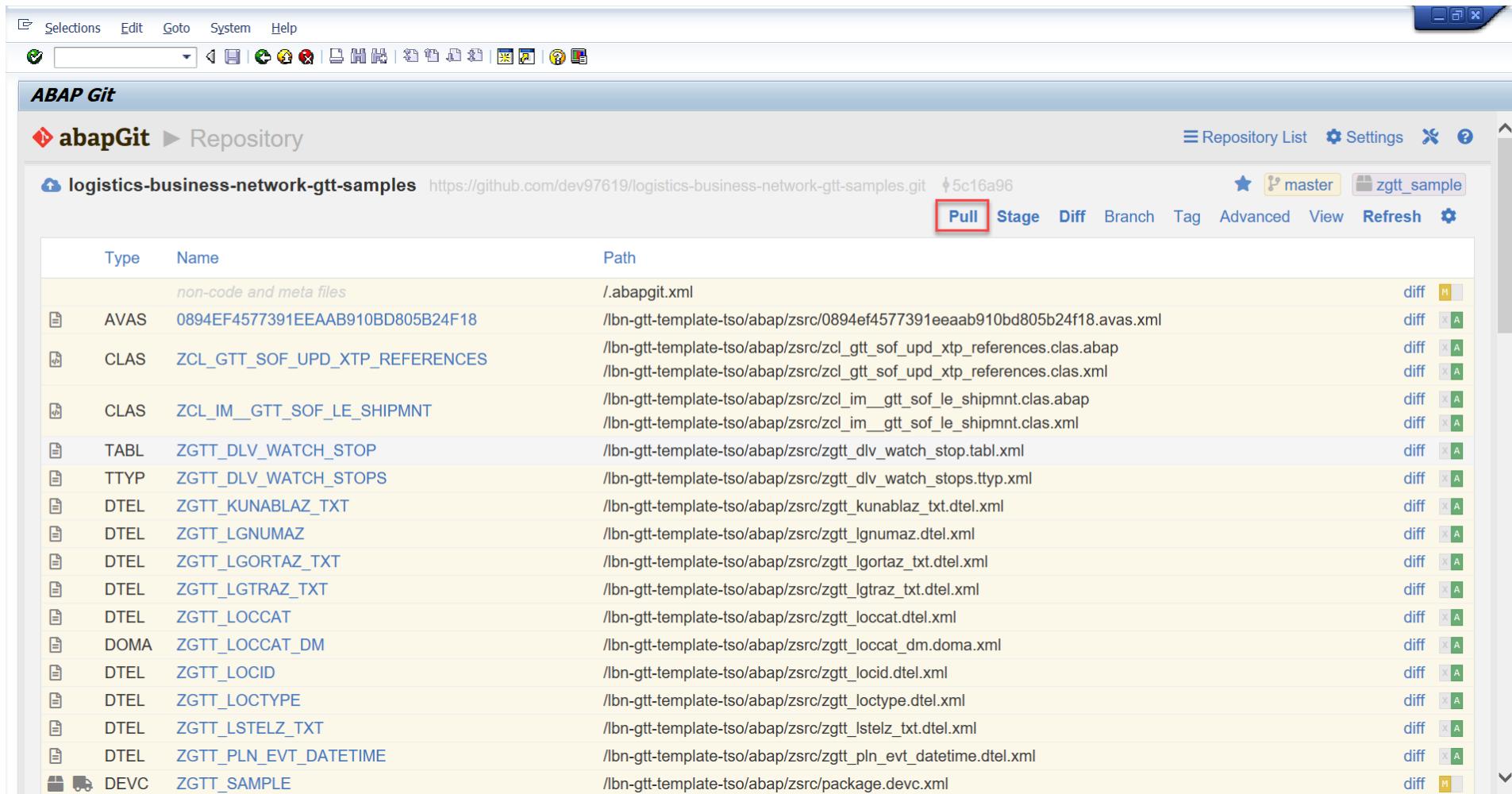


The screenshot shows the ABAP Git interface within an SAP application. The title bar includes standard SAP menu items: Selections, Edit, Goto, System, Help. Below the menu is a toolbar with various icons. The main area is titled "ABAP Git" and shows a "Repository List". A navigation bar at the top of the list area includes "abapGit" (with a red diamond icon), "Repository List", and buttons for "New Online", "New Offline", "Settings", and help. Below the navigation is a filter bar with a "Filter:" input field, "Only Favorites" checked, and "Detail" checked. The repository list table has columns: Name, Url, Package, Branch, and Action. One row is visible: "logistics-business-network-gtt-samples" with Url "github.com/dev97619/logistics-business-network-gtt-samples.git", Package "zgtt_sample", Branch "master", and Action buttons for "Check", "Stage", "Patch", "Settings", and a red-bordered ">". At the bottom of the list area is the "abapGit" logo and version "1.106.0". The status bar at the bottom right shows "js: OK".

Name	Url	Package	Branch	Action
logistics-business-network-gtt-samples	github.com/dev97619/logistics-business-network-gtt-samples.git	zgtt_sample	master	Check Stage Patch Settings 

STEP 4: Update ABAP Code from GitHub

4-4: Click **Pull** to pull down the latest version code.

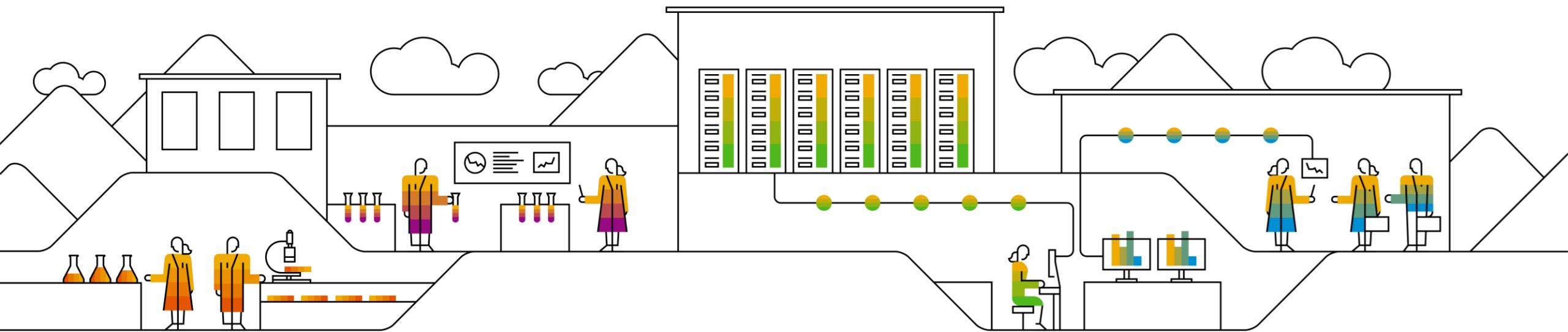


The screenshot shows the SAP ABAP Git interface. At the top, there's a toolbar with various icons. Below it, the title bar says "ABAP Git". Underneath, the repository path "abapGit Repository" is shown, followed by the repository name "logistics-business-network-gtt-samples" and its URL "https://github.com/dev97619/logistics-business-network-gtt-samples.git". The commit hash "5c16a96" is also displayed. A "master" branch is selected, indicated by a yellow background. The main area is a table with columns "Type", "Name", and "Path". The "Pull" button in the header is highlighted with a red box. The table lists several files and their paths, such as "AVAS", "ZCL_GTT_SOUPD_XTP_REFERENCES", "ZCL_IM_GTT_SOUPD_LE_SHIPMNT", etc., along with their corresponding XML and ABAP paths. Each row has a "diff" link and a status indicator (M, A, or M/A).

Type	Name	Path	diff
	<i>non-code and meta files</i>	/abapgit.xml	M
AVAS	0894EF4577391EEAAB910BD805B24F18	//lbn-gtt-template-tso/abap/zsrc/0894ef4577391eeaab910bd805b24f18.avas.xml	A
CLAS	ZCL_GTT_SOUPD_XTP_REFERENCES	//lbn-gtt-template-tso/abap/zsrc/zcl_gtt_sof_upd_xtp_references.clas.abap //lbn-gtt-template-tso/abap/zsrc/zcl_gtt_sof_upd_xtp_references.clas.xml	A
CLAS	ZCL_IM_GTT_SOUPD_LE_SHIPMNT	//lbn-gtt-template-tso/abap/zsrc/zcl_im_gtt_sof_le_shipmnt.clas.abap //lbn-gtt-template-tso/abap/zsrc/zcl_im_gtt_sof_le_shipmnt.clas.xml	A
TABL	ZGTT_DLV_WATCH_STOP	//lbn-gtt-template-tso/abap/zsrc/zggt_dlv_watch_stop.tabl.xml	A
TTYP	ZGTT_DLV_WATCH_STOPS	//lbn-gtt-template-tso/abap/zsrc/zggt_dlv_watch_stops.ttyp.xml	A
DTEL	ZGTT_KUNABLAZ_TXT	//lbn-gtt-template-tso/abap/zsrc/zggt_kunablaTxt.dtel.xml	A
DTEL	ZGTT_LGNUMAZ	//lbn-gtt-template-tso/abap/zsrc/zggt_lgnumaz.dtel.xml	A
DTEL	ZGTT_LGORAZ_TXT	//lbn-gtt-template-tso/abap/zsrc/zggt_lgoraz_txt.dtel.xml	A
DTEL	ZGTT_LGTRAZ_TXT	//lbn-gtt-template-tso/abap/zsrc/zggt_lgtraz_txt.dtel.xml	A
DTEL	ZGTT_LOCCAT	//lbn-gtt-template-tso/abap/zsrc/zggt_locat.dtel.xml	A
DOMA	ZGTT_LOCCAT_DM	//lbn-gtt-template-tso/abap/zsrc/zggt_locat_dm.doma.xml	A
DTEL	ZGTT_LOCID	//lbn-gtt-template-tso/abap/zsrc/zggt_locid.dtel.xml	A
DTEL	ZGTT_LOCTYPE	//lbn-gtt-template-tso/abap/zsrc/zggt_loctype.dtel.xml	A
DTEL	ZGTT_LSTELZ_TXT	//lbn-gtt-template-tso/abap/zsrc/zggt_lstelz_txt.dtel.xml	A
DTEL	ZGTT_PLN_EVT_DATETIME	//lbn-gtt-template-tso/abap/zsrc/zggt_pln_evt_datetime.datetime.dtel.xml	A
DEV	ZGTT_SAMPLE	//lbn-gtt-template-tso/abap/zsrc/package.devcl.xml	M

C) Download ABAP Code from GitHub

C3. Download Another ABAP Code from GitHub (Only for TPOF)



STEP 1: Fork Sample Code Repository

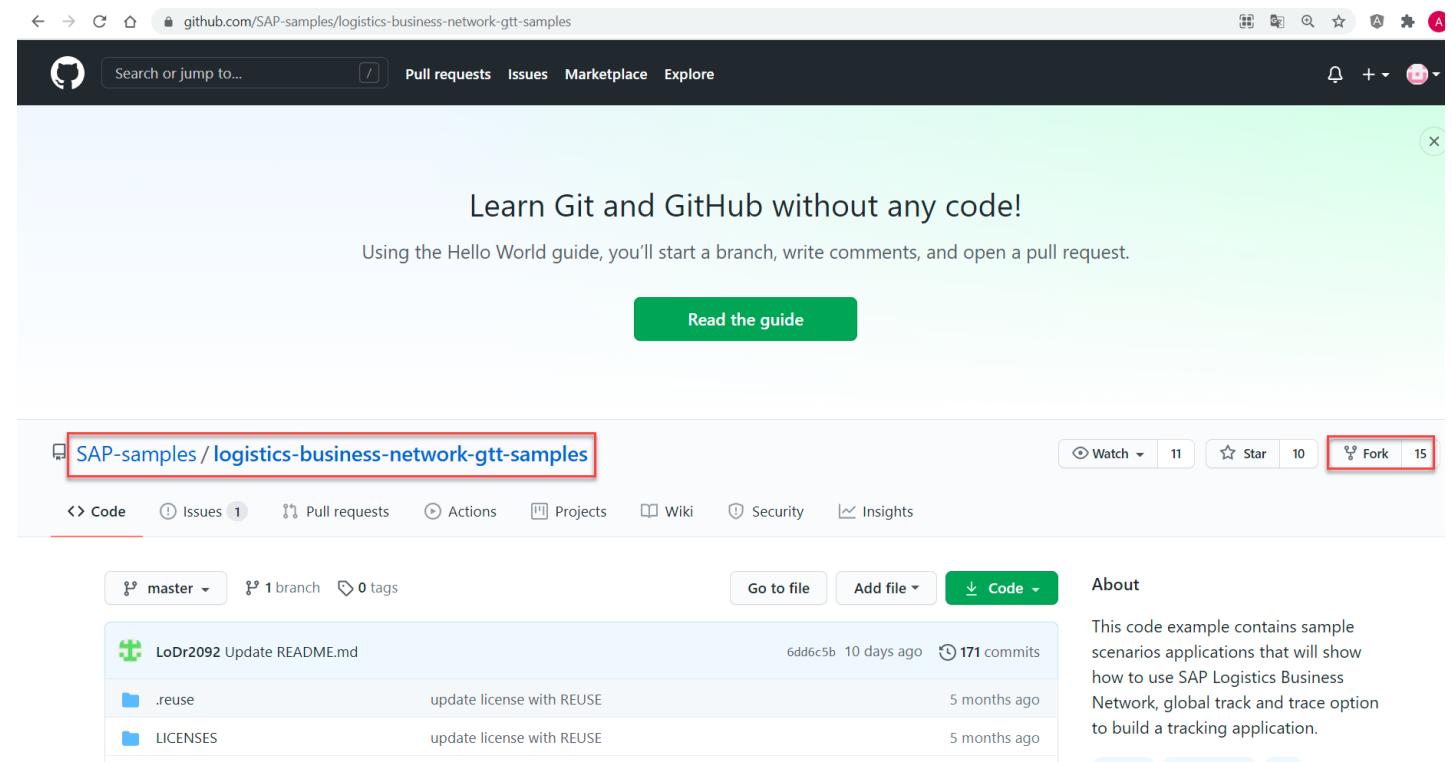
Prerequisite:

You must have already completed procedure C1 and have installed ABAPGit and the sample code of TSOF to your local SAP system.

To install the TPOF do the following:

1-1. Navigate to sample code in
<https://github.com/SAP-samples/logistics-business-network-gtt-samples>

1-2. Click the “Fork” button, it will copy the newest version of sample codes into the user’s account and meanwhile it will navigate to the user’s own repository.



STEP 2: Change Configuration File ‘.abapgit.xml’

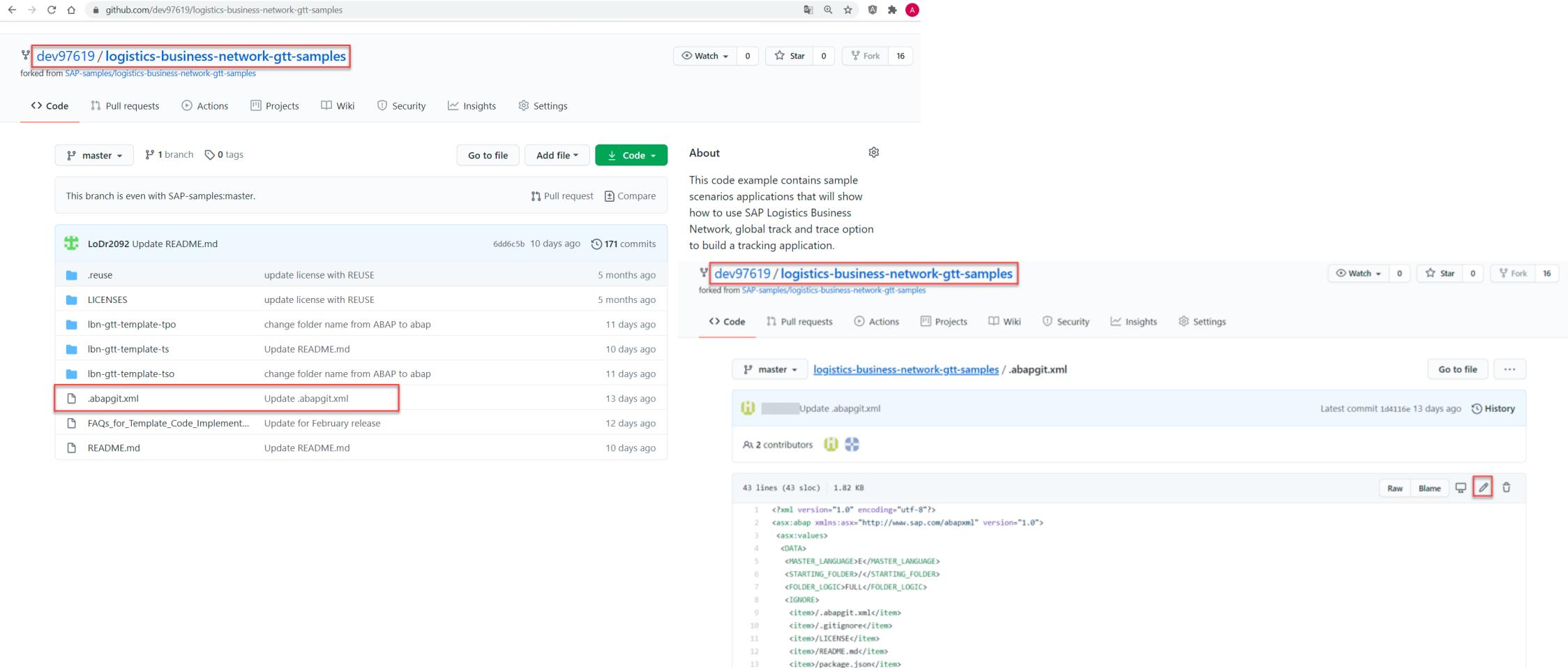
2-1: In the user’s account repository, click the file ‘.abapgit.xml’.

The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository is a fork from 'SAP-samples/logistics-business-network-gtt-samples'. The 'Code' tab is selected. The 'master' branch is active, with 1 branch and 0 tags. A message indicates the branch is even with SAP-samples:master. The commit history lists several changes, including one for '.abapgit.xml' which is highlighted with a red box. The commit details show it was updated 13 days ago. To the right of the code area, there is an 'About' section describing the repository as containing sample scenarios for SAP Logistics Business Network, global track and trace options, and a 'Readme' link. Below that is a 'Releases' section stating 'No releases published' and a 'Create a new release' link. Finally, a 'Packages' section states 'No packages published' and a 'Publish your first package' link.

File	Description	Time Ago
.reuse	update license with REUSE	5 months ago
LICENSES	update license with REUSE	5 months ago
Ibn-gtt-template-tpo	change folder name from ABAP to abap	11 days ago
Ibn-gtt-template-ts	Update README.md	10 days ago
Ibn-gtt-template-tso	change folder name from ABAP to abap	11 days ago
.abapgit.xml	Update .abapgit.xml	13 days ago
FAQs_for_Template_Code_Implement...	Update for February release	12 days ago
README.md	Update README.md	10 days ago

STEP 2: Change Configuration File ‘.abapgit.xml’

2-2: Click  button to edit the file.



The screenshot shows two views of a GitHub repository. The top view is the repository page for `dev97619 / logistics-business-network-gtt-samples`. The bottom view is a detailed look at the `.abapgit.xml` file within the repository.

Repository Page:

- Branch: master
- Commits: 171 commits
- Latest commit: 6dd6c5b 10 days ago
- File list:
 - `.reuse`: update license with REUSE
 - `LICENSES`: update license with REUSE
 - `lbn-gtt-template-tpo`: change folder name from ABAP to abap
 - `lbn-gtt-template-ts`: Update README.md
 - `lbn-gtt-template-tso`: change folder name from ABAP to abap
 - `.abapgit.xml`: Update .abapgit.xml
 - `FAQs_for_Template_Code_Implement...`: Update for February release
 - `README.md`: Update README.md

.abapgit.xml File View:

```
<?xml version="1.0" encoding="utf-8"?>
<asx:abap xmlns:asx="http://www.sap.com/abapxml" version="1.0">
  <asx:values>
    <DATA>
      <MASTER_LANGUAGE>E</MASTER_LANGUAGE>
      <STARTING_FOLDER>/</STARTING_FOLDER>
      <FOLDER_LOGIC>FULL</FOLDER_LOGIC>
      <IGNORE>
        <item>.abapgit.xml</item>
        <item>.gitignore</item>
        <item>LICENSE</item>
        <item>README.mdc</item>
        <item>package.json</item>
      </IGNORE>
    </DATA>
  </asx:values>
</asx:abap>
```

STEP 2: Change Configuration File ‘.abapgit.xml’

2-3: Add the sentence of ‘<STARTING_FOLDER> /lbn-gtt-template-tpo/abap/zsrc/ </STARTING_FOLDER>’ as below.

2-4: Commit change.

The screenshot shows a GitHub commit dialog for the file '.abapgit.xml' in the repository 'logistics-business-network-gtt-samples'. The file content is displayed on the left, showing XML code. A red box highlights the line '<STARTING_FOLDER> /lbn-gtt-template-tpo/abap/zsrc/ </STARTING_FOLDER>'. On the right, the 'Commit changes' dialog is open, containing fields for the commit message ('Update .abapgit.xml') and a description, along with radio buttons for committing directly to the master branch or creating a new branch. The 'Commit changes' button is highlighted with a red border.

dev97619 / logistics-business-network-gtt-samples

forked from SAP-samples/logistics-business-network-gtt-samples

Code Pull requests Actions Projects Wiki Security Insights Settings

logistics-business-network-gtt-samples / .abapgit.xml in master Cancel Changes

<> Edit file Preview changes

```
1  <?xml version="1.0" encoding="utf-8"?>
2  <asx:abap xmlns:asx="http://www.sap.com/abapxml" version="1.0">
3  <asx:values>
4  <DATA>
5  <MASTER_LANGUAGE>E</MASTER_LANGUAGE>
6  <STARTING_FOLDER>/lbn-gtt-template-tpo/abap/zsrc/</STARTING_FOLDER>
7  <FOLDER_LOGIC>FULL</FOLDER_LOGIC>
8  <IGNORE>
9  <item>/.abapgit.xml</item>
10 <item>/.gitignore</item>
```

Commit changes

Update .abapgit.xml

Add an optional extended description...

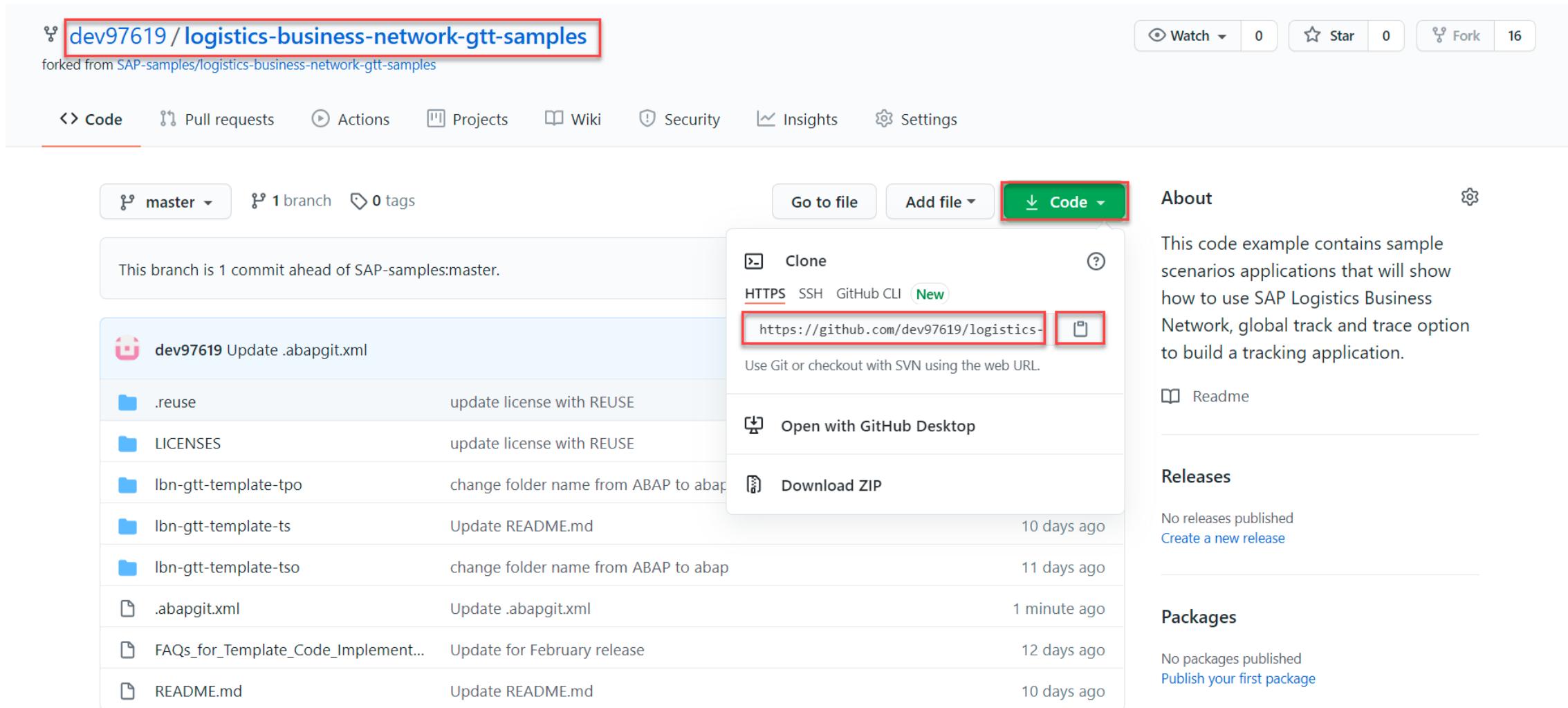
-o- Commit directly to the master branch.

⚡ Create a new branch for this commit and start a pull request. [Learn more about pull requests](#).

Commit changes Cancel

STEP 2: Change Configuration File ‘.abapgit.xml’

2-5: Go to the root and copy the repository URL by clicking  button.



The screenshot shows a GitHub repository page for 'dev97619 / logistics-business-network-gtt-samples'. The repository has been forked from SAP-samples/logistics-business-network-gtt-samples. The 'Code' tab is selected. On the right, there's a 'Code' dropdown menu with a 'Clone' option. The 'Clone' section displays the repository URL: <https://github.com/dev97619/logistics-business-network-gtt-samples>. A red box highlights both the URL and the copy icon. Below the URL, it says 'Use Git or checkout with SVN using the web URL.' To the left, a list of recent commits is shown:

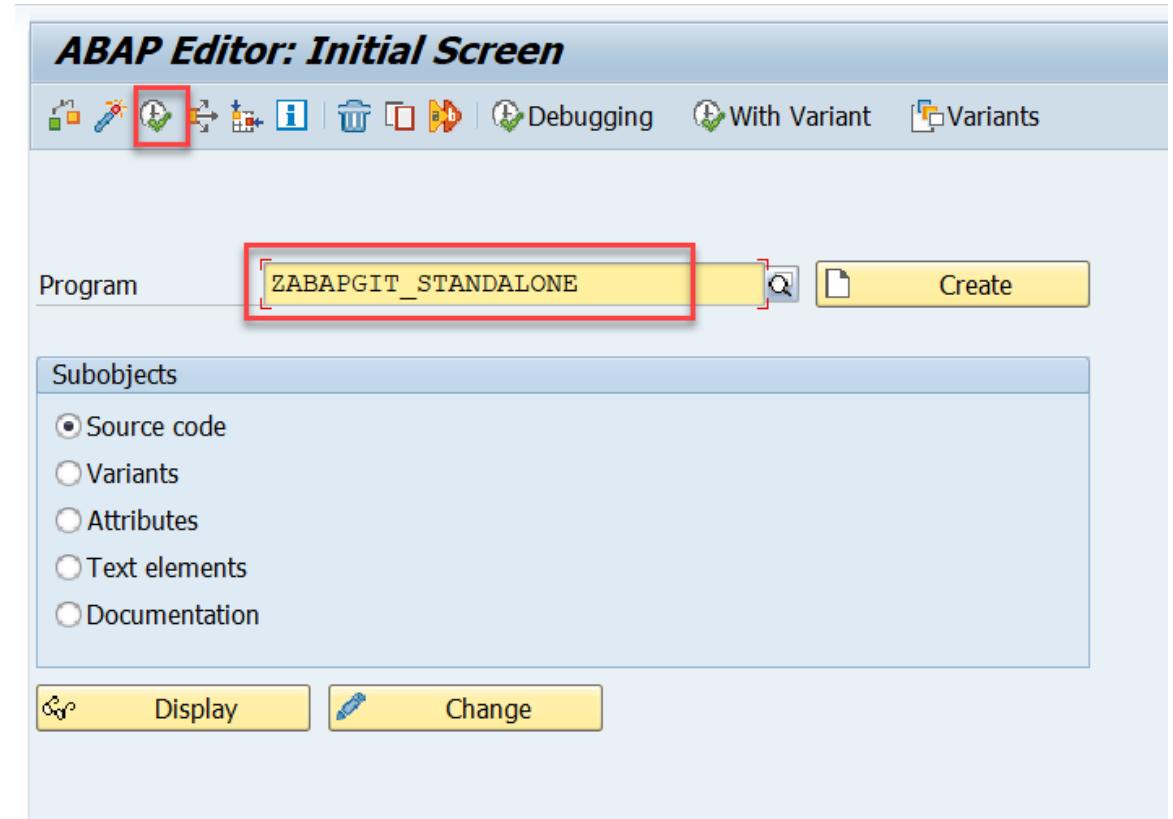
- dev97619 Update .abapgit.xml
- .reuse update license with REUSE
- LICENSES update license with REUSE
- Ibn-gtt-template-tpo change folder name from ABAP to abap
- Ibn-gtt-template-ts Update README.md
- Ibn-gtt-template-tso change folder name from ABAP to abap
- .abapgit.xml Update .abapgit.xml
- FAQs_for_Template_Code_Implement... Update for February release
- README.md Update README.md

On the right side of the page, there are sections for 'About', 'Readme', 'Releases', and 'Packages'.

STEP 3: Remove TSOF Repository in ABAPGit

3-1: Enter T-code **SE38** and fill in the report name **ZABAPGIT_STANDALONE**.

3-2: Click **Execute** to run the report.



STEP 3: Remove TSOF Repository in ABAPGit

3-3: Access the TSOF Repository by clicking  button.



The screenshot shows the ABAPGit interface with the following details:

- Toolbar:** Selections, Edit, Goto, System, Help.
- Repository List:** Title: abapGit ► Repository List. Buttons: New Online, New Offline, Settings, ?.
- Filter:** Filter field, Only Favorites, Detail.
- Table Headers:** Name, Url, Package, Branch, Action.
- Table Data:**

Name	Url	Package	Branch	Action
logistics-business-network-gtt-samples	github.com/dev97619/logistics-business-network-gtt-samples.git	zgtt_sample	master	Check Stage Patch Settings 
- Footer:** abapGit 1.106.0, js: OK.

STEP 3: Remove TSOF Repository in ABAPGit

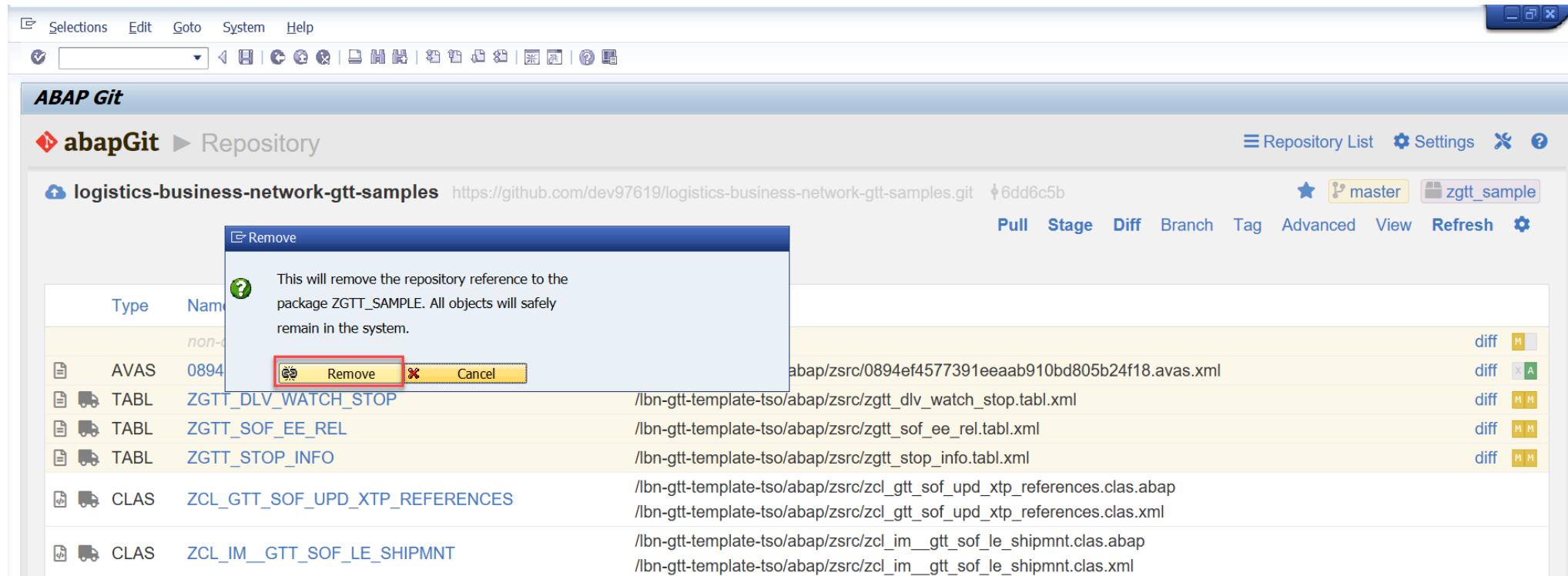
3-4: Under the “Advanced” menu, choose and click “Remove”.

The screenshot shows the ABAPGit interface with the following details:

- Toolbar:** Selections, Edit, Goto, System, Help.
- Repository Header:** logistics-business-network-gtt-samples, URL: https://github.com/dev97619/logistics-business-network-gtt-samples.git, Commit: 6dd6c5b.
- Repository List:** Shows a list of objects with their types (AVAS, TABL, CLAS, TTYP, DTEL) and names.
- Advanced Menu:** A dropdown menu with the following options:
 - Reset Local (Force Pull)
 - Checkout commit
 - Background Mode
 - Change Remote
 - Make Off-line
 - Force Stage
 - Transport to Branch
 - Add all objects to transport request
 - Syntax Check
 - Run Code Inspector
 - Update Local Checksums
 - Beta - Data
 - Remove** (highlighted with a red box)
 - Uninstall

STEP 3: Remove TSOF Repository in ABAPGit

3-5: Click “Remove” button in the popup window. The reference to TSOF repository will be removed.

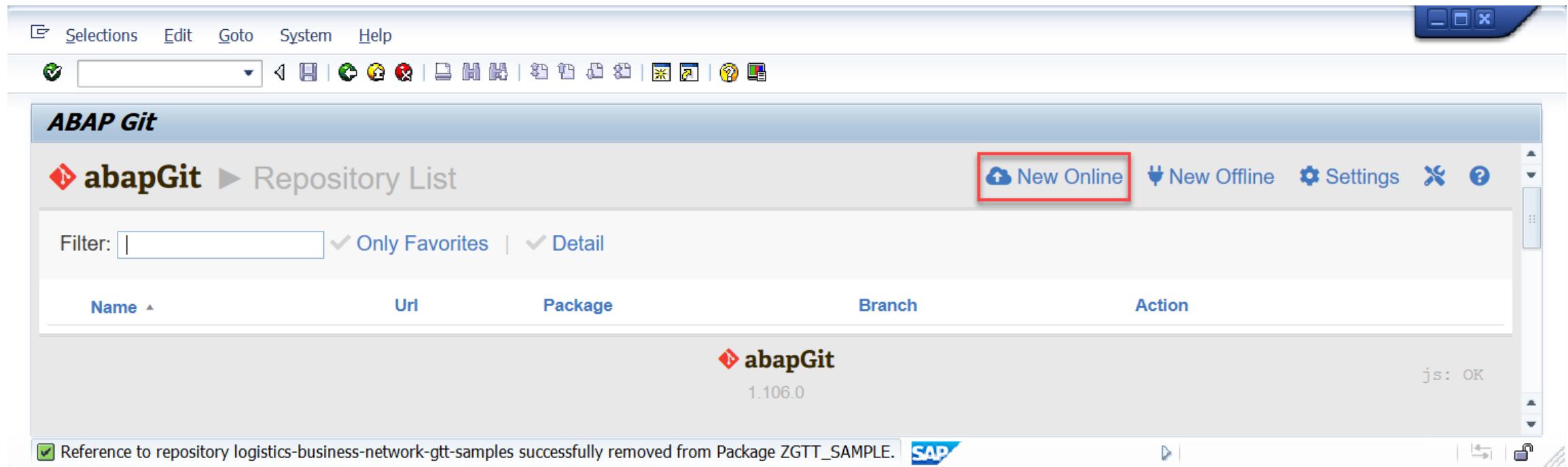


3-6: After repository removal you will see the following message:



STEP 4: Download TPOF Code from GitHub

4-1: Click **New Online** to download the code.



STEP 4: Download TPOF Code from GitHub

4-2: Fill in the **Git Repository URL** in step 2-5:

<https://github.com/dev97619/logistics-business-network-gtt-samples.git>

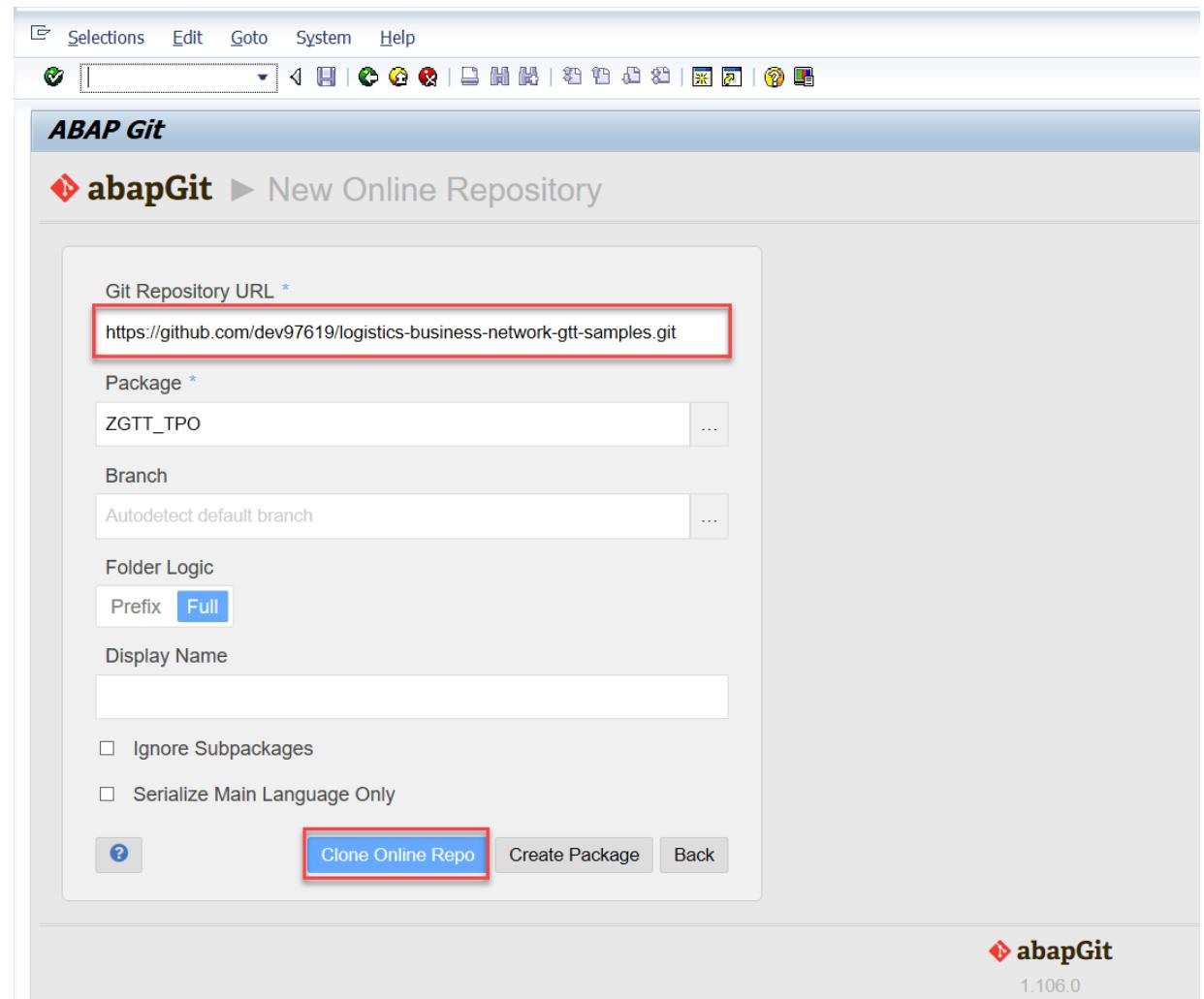
Caution:

This URL is the user's account repository URL, not the public sample code's repository URL.

4-3: 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.

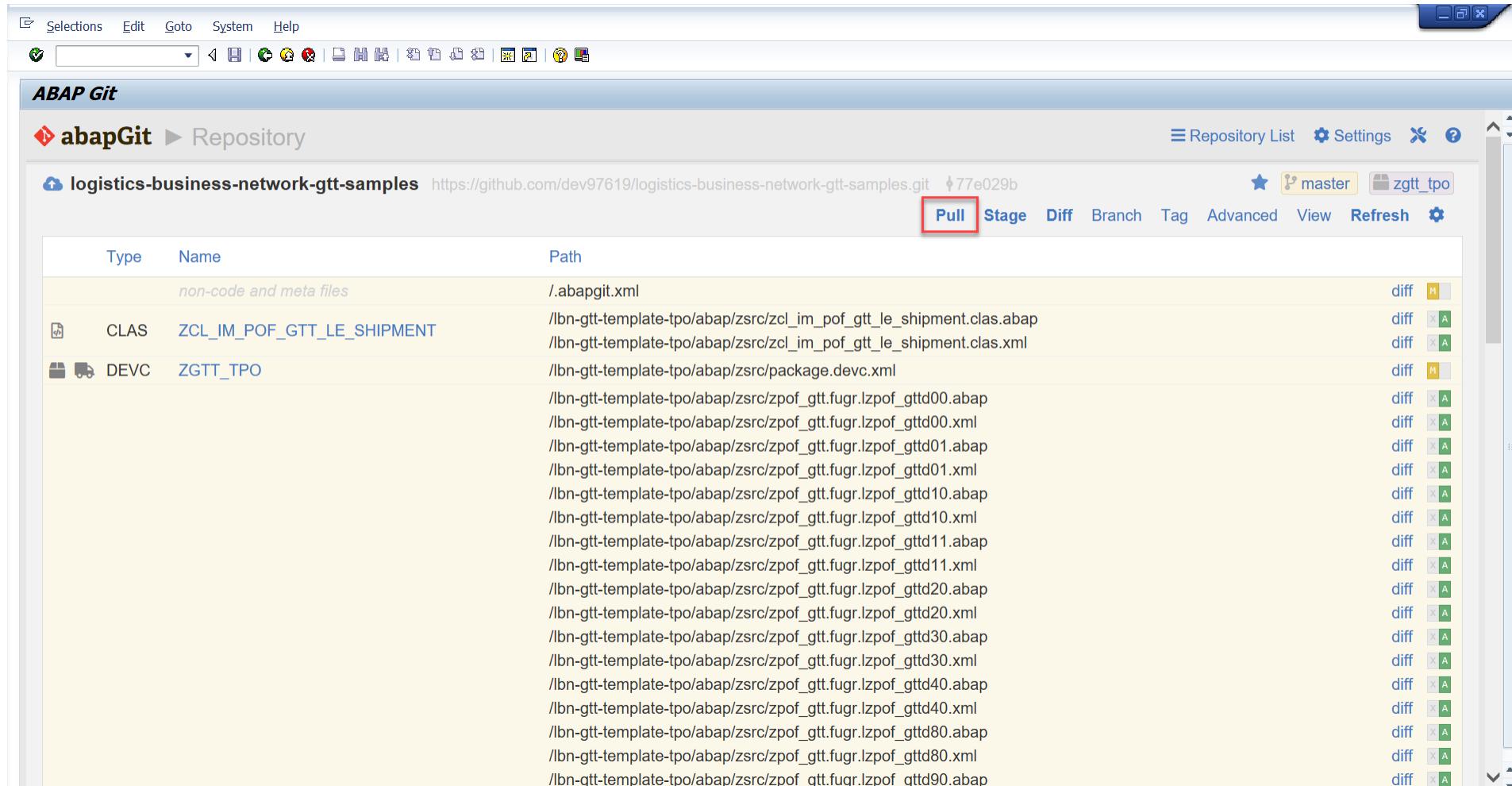
4-4: Set **Full** for **Folder Logic**

4-5: Click **Clone Online Repo** to download the code.



STEP 4: Download ABAP Code from GitHub

4-6: Click **Pull** to pull down the latest version code.



The screenshot shows the SAP ABAP Git interface. At the top, there's a toolbar with various icons and a menu bar with 'Selections', 'Edit', 'Goto', 'System', and 'Help'. Below the toolbar, the title bar says 'ABAP Git' and 'abapGit Repository'. Underneath, it displays the repository details: 'logistics-business-network-gtt-samples' and its URL 'https://github.com/dev97619/logistics-business-network-gtt-samples.git'. It also shows the commit hash '77e029b' and the current branch 'master'. A 'zgtt_tpo' folder icon is also present. The main area is a table with columns 'Type', 'Name', and 'Path'. The 'Type' column includes icons for 'non-code and meta files', 'CLAS' (class), and 'DEVC' (development class). The 'Name' column lists file names like '.abapgit.xml', 'ZCL_IM_POF_GTT_LE_SHIPMENT', and 'ZGTT_TPO'. The 'Path' column shows the full path for each file. At the top of this table, there are several buttons: 'Pull' (highlighted with a red box), 'Stage', 'Diff', 'Branch', 'Tag', 'Advanced', 'View', 'Refresh', and a gear icon. The entire interface has a light blue background with dark blue header bars.

C) Download ABAP Code from GitHub

C4. Initial Download ABAP Code from GitHub (include TSOF/TPOF/TS)



STEP 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.

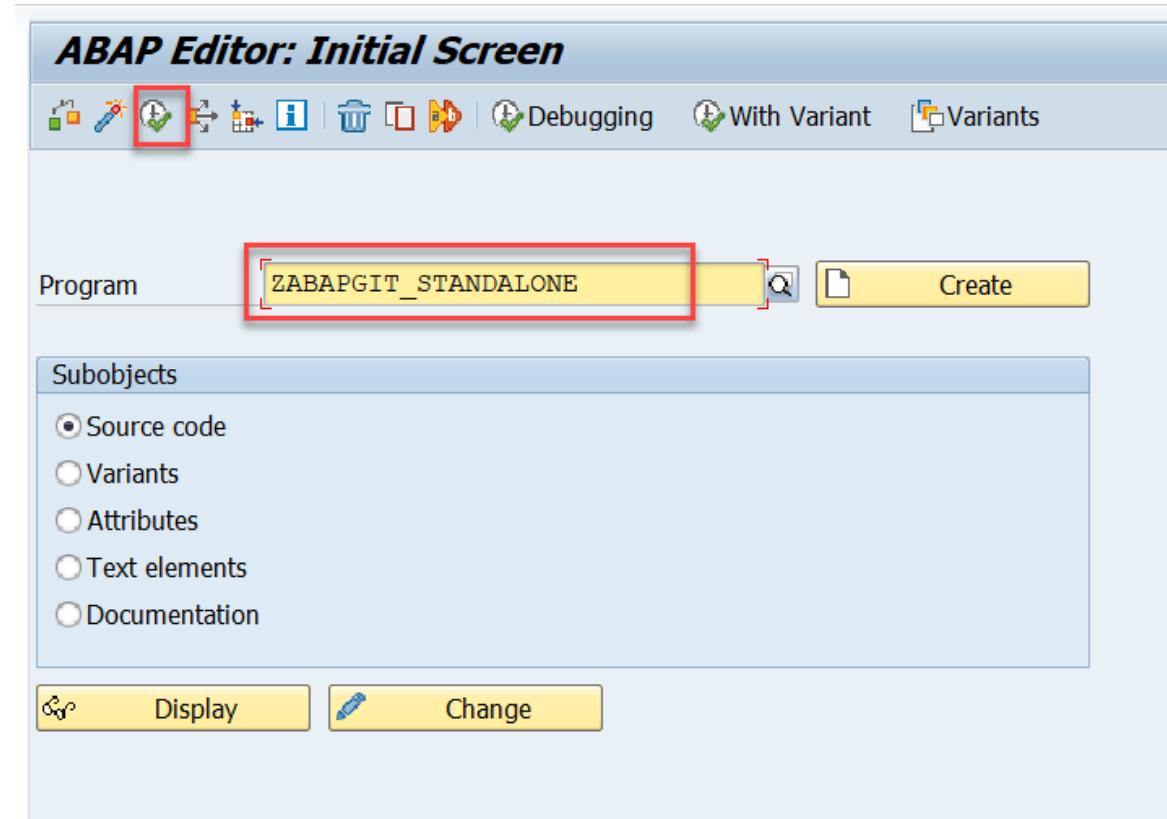
When installation is complete, a new report is created, **ZABAPGIT_STANDALONE**.

The screenshot shows the abapGit documentation page. The header reads "abapGit › documentation". The left sidebar has sections for "Getting Started" (Installation, Upgrading, Uninstalling, UI features), "Setup" (SSL setup, Proxy configuration, Development version), "Online Projects" (Installing online repo, Keeping code up to date, Uninstall repository, First project, Moving package into git, Contributing to a project), "Offline Projects" (Import zip, Export zip), and "Reference" (Repo Settings (abapgit.xml), Supported object types, Icon Legend, User Exits, Authorizations, Namespaces). The main content area starts with a "Summary" section stating that abapGit exists in two flavours: standalone or developer version. It then describes the standalone version as targeted at users and the developer version as targeted at developers. Below this is a "Prerequisites" section requiring SAP BASIS version 702 or higher. The "Install standalone version" section is highlighted with a red border and contains four numbered steps: 1. Download the ABAP code (right click -> save-as) to a file. 2. Via SE38 or SE80, create a new report named ZABAPGIT_STANDALONE (formerly ZABAPGIT_FULL). NB: Don't use the name ZABAPGIT if you plan to install the developer version. 3. In source code change mode, upload the code from the file using Utilities -> More Utilities -> Upload/Download -> Upload. 4. Activate. A note below says typically abapGit will only be used in the development system so it can be installed in a local \$ package (e.g. \$ZABAPGIT). A final note says now you can use abapGit by executing the report in transaction SE38.

STEP 2: Download ABAP Code

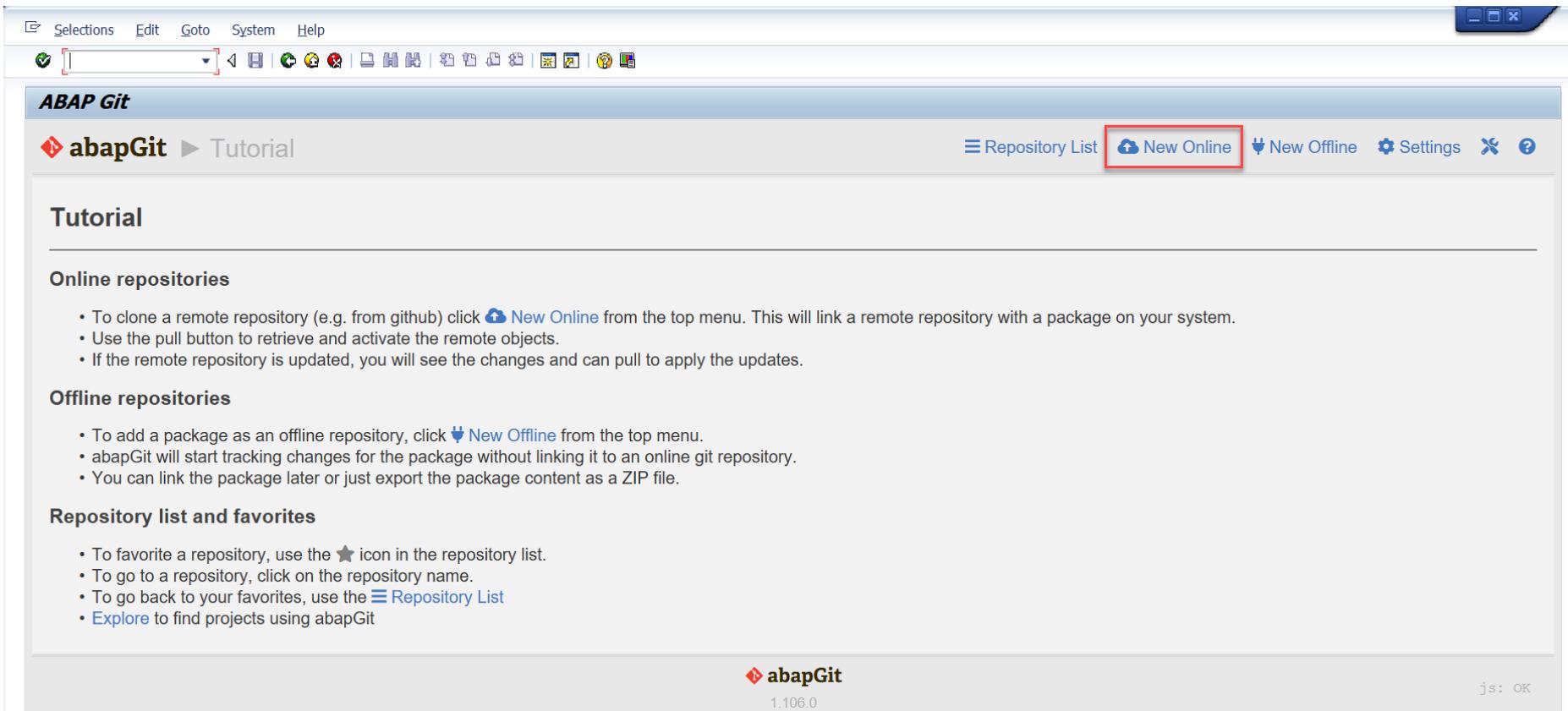
2-1: Enter T-code **SE38** and fill in the report name from STEP 1,
ZABAPGIT_STANDALONE.

2-2: Click **Execute** to run the report.



STEP 2: Download ABAP Code

2-3: Click **New Online** to download the code.



The screenshot shows the SAP ABAP Git interface. At the top, there's a toolbar with icons for Selections, Edit, Goto, System, and Help. Below the toolbar is a menu bar with ABAP Git, abapGit, Tutorial, Repository List, New Online (which is highlighted with a red box), New Offline, Settings, and Help. The main content area has a title 'Tutorial'. Under 'Online repositories', there's a list of instructions: 'To clone a remote repository (e.g. from github) click New Online from the top menu. This will link a remote repository with a package on your system.', 'Use the pull button to retrieve and activate the remote objects.', and 'If the remote repository is updated, you will see the changes and can pull to apply the updates.' Under 'Offline repositories', there's a list of instructions: 'To add a package as an offline repository, click New Offline from the top menu.', 'abapGit will start tracking changes for the package without linking it to an online git repository.', and 'You can link the package later or just export the package content as a ZIP file.' At the bottom, there's a footer with the abapGit logo and version 1.106.0, and a status message 'js: OK'.

STEP 2: Download ABAP Code

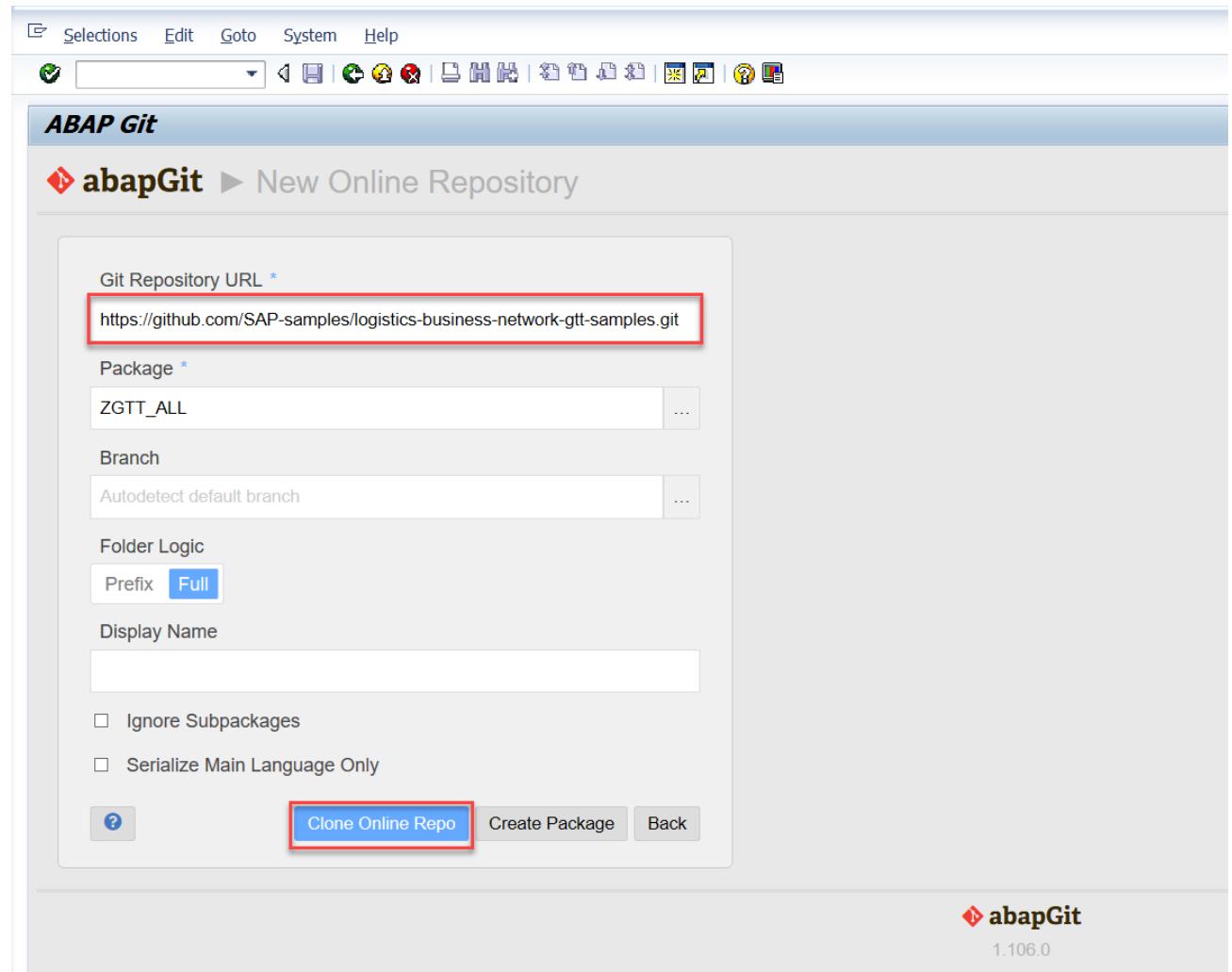
2-4: Fill in the **Git Repository URL**:

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

2-5: 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.

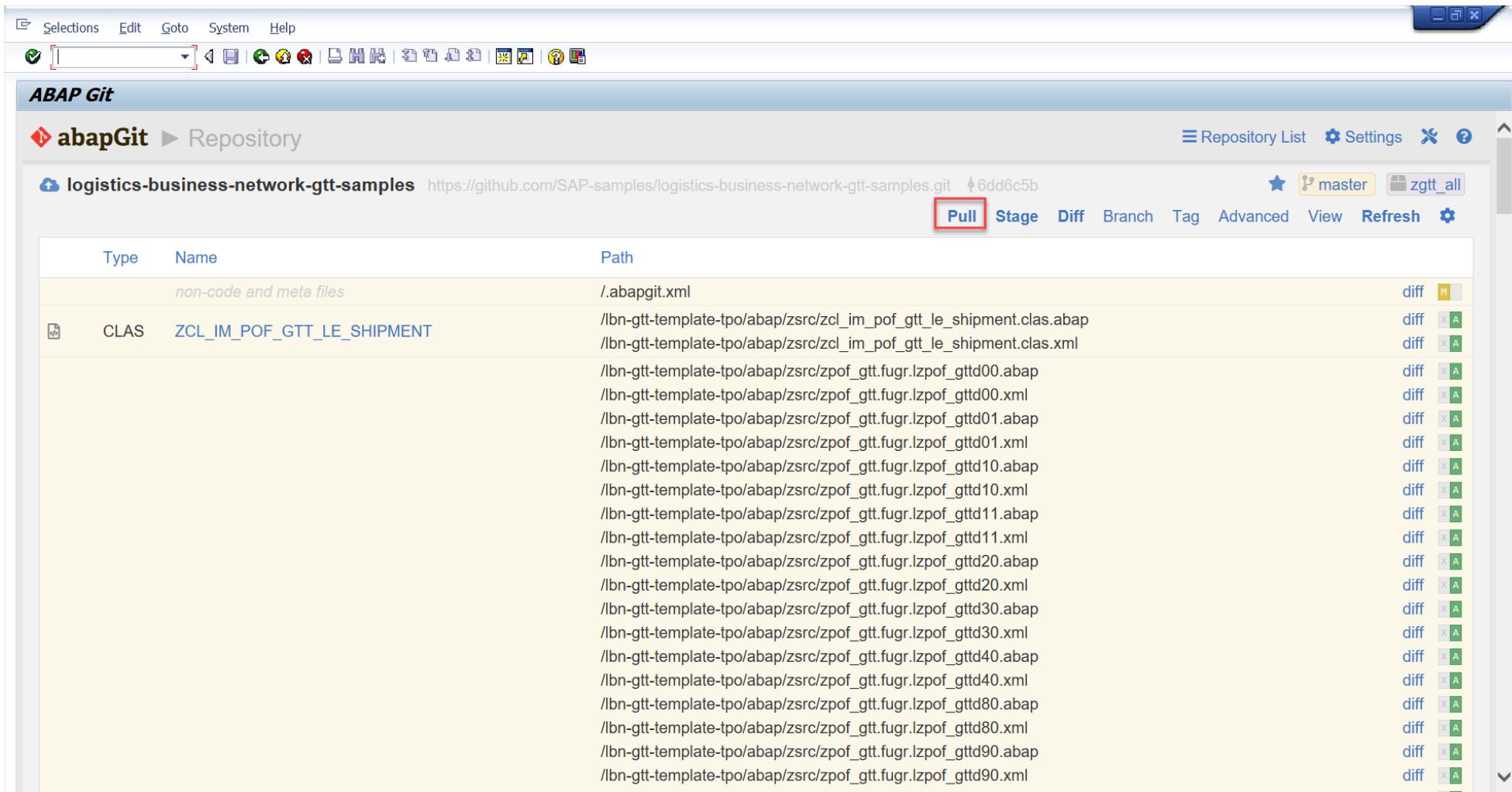
2-6: Set *Full* for **Folder Logic**

2-7: Click **Clone Online Repo** to download the code.



STEP 2: Download ABAP Code

2-8: Click **Pull** to pull down the latest version code.

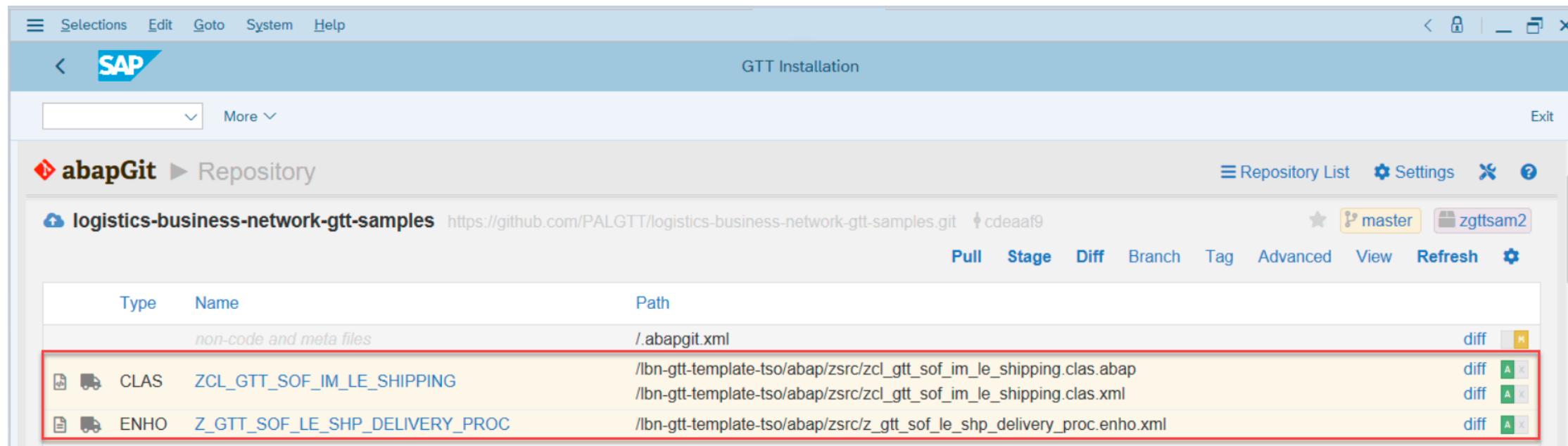


The screenshot shows the ABAP Git interface within the SAP IDE. The title bar includes 'Selections', 'Edit', 'Goto', 'System', and 'Help'. Below the title bar is a toolbar with various icons. The main area is titled 'ABAP Git' and shows the path 'abapGit > Repository'. A repository card for 'logistics-business-network-gtt-samples' is displayed, including its URL and a commit hash. The 'Pull' button is highlighted with a red box. Below the card is a table listing files and their paths. The table has columns for 'Type', 'Name', and 'Path'. The 'Type' column shows 'non-code and meta files' and 'CLAS'. The 'Name' column lists file names like '.abapgit.xml', 'ZCL_IM_POF_GTT_LE_SHIPMENT', and various ABAP and XML files under the path '/bn-gtt-template-tpo/'. The 'Path' column shows the full file paths. To the right of each row are 'diff' buttons and status indicators (M, A, or C).

Type	Name	Path	diff	status
	non-code and meta files	.abapgit.xml	diff	M
CLAS	ZCL_IM_POF_GTT_LE_SHIPMENT	/bn-gtt-template-tpo/abap/zsrc/zcl_im_pof_gtt_le_shipment.clas.abap	diff	A
	/bn-gtt-template-tpo/abap/zsrc/zcl_im_pof_gtt_le_shipment.clas.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt00.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt00.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt01.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt01.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt10.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt10.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt11.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt11.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt20.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt20.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt30.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt30.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt40.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt40.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt80.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt80.xml	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt90.abap	diff	A	
	/bn-gtt-template-tpo/abap/zsrc/zpof_gtt.fugr.lzpos_gtt90.xml	diff	A	

Known Issue: Remotely Deleted Object Cannot be Synchronized to the Local Object

Symptom: If the user updates the ABAP code by report ZABAPGIT_STANDALONE, there will be a code difference as below:



The screenshot shows the SAP GTT Installation interface with a GitHub repository named 'logistics-business-network-gtt-samples'. The repository URL is <https://github.com/PALGTT/logistics-business-network-gtt-samples.git>. The commit hash is cdeaaaf9. The master branch is selected. A red box highlights the 'diff' column for two specific files: 'ZCL_GTT_SOFTWARE_SHIPPING' and 'Z_GTT_SOFTWARE_SHIPPING_DELIVERY_PROC'. Both rows show a 'diff' icon with a green 'A' and a red 'X'.

Type	Name	Path	diff
	non-code and meta files	/abapgit.xml	[diff icon]
CLAS	ZCL_GTT_SOFTWARE_SHIPPING	/Ibn-gtt-template-tso/abap/zsrc/zcl_gtt_software_im_le_shipping.clas.abap /Ibn-gtt-template-tso/abap/zsrc/zcl_gtt_software_im_le_shipping.clas.xml	[diff icon] [diff icon]
ENHO	Z_GTT_SOFTWARE_SHIPPING_DELIVERY_PROC	/Ibn-gtt-template-tso/abap/zsrc/z_gtt_software_im_le_shipping_delivery_proc.enho.xml	[diff icon]

This is because the enhancement implementation Z_GTT_SOFTWARE_SHIPPING_DELIVERY_PROC is already obsolete and removed from the GitHub, the report ZABAPGIT_STANDALONE cannot remove the object which was already deleted in GitHub.

Known Issue: Remotely Deleted Object Cannot be Synchronized to the Local Object

Solution:

Option 1:

1-1) Deactivate the BADI implementation.

Option 2:

2-1) Delete the enhancement implementation Z_GTT_SOF_LE_SHP_DELIVERY_PROC

2-2) Delete the BADI implementation class ZCL_GTT_SOF_IM_LE_SHIPPING

Notes:

Option 1: Objects deactivated and can be used after activation in the future.

Option 2: Objects deleted completely and would not be shown in the ABAPGit during code download.

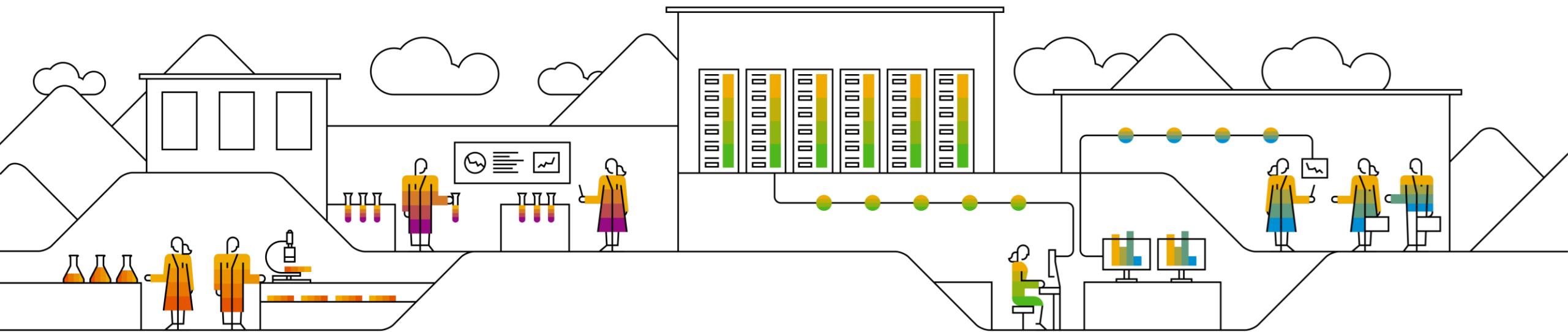
Known Issue: Remotely Deleted Object Cannot be Synchronized to the Local Object

For option 1: Use transaction code SE19 and deactivate the BADI implementation.

The screenshot shows two SAP application windows. The top window is titled "BAdI Builder: Initial Screen for Implementations". It has tabs for "Check", "Delete implementation", "Copy implementation", "Rename implementation", "Application help", and "More". Below the tabs, there's a section for "Edit Implementation" with a radio button for "New BAdI" selected. The "Enhancement implementation" field contains the value "Z_GTT_SOF_LE_SHP_DELIVERY_PROC", which is highlighted with a red box. The bottom window is titled "Enhancement Implementation Z_GTT_SOF_LE_SHP_DELIVERY_PROC Display". It also has tabs for "Properties", "History", "Technical Details", and "Implementation Elements". The "Implementation Elements" tab is active. It shows a table with one row under "BAdI Implementations". The row contains the value "Z_GTT_SOF_IM_LE_SHIPPING" and a checkbox labeled "Implementation". To the right of the table, there are fields for "BAdI Implementation" (set to "Z_GTT_SOF_IM_LE_SHIPPING") and "Description" (set to "Implementation: GTT - Enhancement to update the imputed sales orders' delivery list"). There are also checkboxes for "Default Implementation" and "Example Implementation", both of which are unchecked. A checked checkbox labeled "Active" is present. Under "Runtime Behavior", there is a checked checkbox labeled "Implementation is active" and a note below it stating "Runtime Behavior: The implementation will not be called".

D) Configuration and Coding Guide

- Advanced



1: Maintain AOT Type

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

The image shows two screenshots of the SAP GTT (Global Trace and Trace) interface. The left screenshot displays the 'Define Application Object Types' screen under 'Define Used Business Process'. It shows a business process type 'ESC_SORDER' and an application object type 'ZGTT_SO_INT_HD' (highlighted with a red box). The right screenshot shows the 'Manage Models' application for the 'sof' namespace, specifically the 'IDOC Integration' tab. It lists a tracked process 'SalesOrder' and its mapping to an ERP object type 'Others'. The application object type 'ZGTT_SO_INT_HD' is also highlighted with a red box in this section.

SAP GTT - Define Application Object Types (Left):

- Bus. Proc. Type: ESC_SORDER
- Appl. Obj. Type: ZGTT_SO_INT_HD (highlighted)
- Text: Sales Order Header

SAP GTT - IDOC Integration Tab (Right):

- Tracked Process: SalesOrder
- Integration Switch: ON
- Tracked Process Mapping:
 - ERP Object Type: Others
 - Application Object Type: ZGTT_SO_INT_HD (highlighted)
- Tracked Process / Events (2):
 - SalesOrderEvent: E1EHPAO
 - Completion: E1EVMDR02
- User Model Fields:

Field	IDOC Segment	IDOC Field
salesOrderNo	E1EHPCP	YN_SO_NO
shipToPartyId	E1EHPCP	YN_SO_SHIPTO
netValue	E1EHPCP	YN_NET_VALUE
currency	E1EHPCP	YN_NET_VALUE_CURRENCY

2: Maintain Tracking ID Type

In the AOT you maintained, make sure the name of Tracking ID Type is as same as the name defined in the corresponding process type of the model in 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 which is referring to the Tracking ID Type for the AOT as below.

The image displays two SAP application screenshots side-by-side, illustrating the configuration of Tracking ID Types.

SAP AOT Screenshot:

- Header:** Display View "Define Application Object Types": Details
- Bus. Proc. Type:** ESC_SORDER
- Appl. Obj. Type:** ZGTT_SO_INT_HD
- Text:** Extract sales order header information to Global Track and Trace Integration
- Tracking ID Setup:**
 - TrkID Method: B Determine from Field
 - Tr.ID Tab. Type: 1 Main Object Table
 - Tr.ID Code Set: SALES_ORDER (highlighted with a red box)
 - TrkID Function: VBELN
- Parameter Setup:**
 - Cntl Data Function: ZGTT_OTE_SO_HD
 - Info Data Function:
 - Planned Event Function:

SAP Manage Models App Screenshot:

- Header:** Model Details - Internal - Test
- SOF:** Active
- Tracked Process:** Sales Order Fulfillment
- Items (6):**
 - SalesOrder: Description: Sales Order, Tracking Id Type: SALES_ORDER (highlighted with a red box)
 - SalesOrderItem: Description: Sales Order Item, Tracking Id Type: SALES_ORDER_ITEM
 - Delivery: Description: Outbound Delivery, Tracking Id Type: OUTBOUND_DELIVERY
 - DeliveryItem: Description: Outbound Delivery Item
- User Model Fields (16):**
 - Name: SalesOrder
 - Description: Sales Order
 - Tracking Id Type: SALES_ORDER (highlighted with a red box)
 - Net Value
 - Currency
 - Purchase Order Number
 - Document Creation Date
 - Incoterms
- Edit Tracked Process Dialog:**
 - Item is used by other objects
 - Name: SalesOrder
 - Description: Sales Order
 - Tracking Id Type: SALES_ORDER (highlighted with a red box)

3: Make the customization logic in the function modules and assign them to the extractor function.

You can assign customization function models to the following extractor function:

1. GTT relevance function of AOT for tracked process tracking
2. GTT relevance function of Event Type for event tracking
3. Planned Event Extractors
4. Control Parameter Extractors
5. Info Parameter Extractors(optional)
6. Tracking ID Extractors
7. Event Data Extractors
8. AOT ID Extractors

Function	Function Module	Description
ZGTT_SOF_DEHDR	ZGTT_SOF_OTE_DE_HDR_REL	Extractor for relevance determination for Delivery Order Header
ZGTT_SOF_DEITM	ZGTT_SOF_OTE_DE_ITM_REL	Extractor for relevance determination for Delivery Order Items
ZGTT_SOF_SHPHDR	ZGTT_SOF_OTE_SHP_HDR_REL	Extractor for relevance determination for Shipment
ZGTT_SOF_SOHDR	ZGTT_SOF_OTE_SO_HDR_REL	Extractor for relevance determination for Sales Order Header
ZGTT_SOF_SOITM	ZGTT_SOF_OTE_SO_ITM_REL	Extractor for relevance determination for Sales Order Items

Please select one category above, create the extractor function and assign the corresponding modules.

For customization of GTT relevance and AOT ID, you need to enable *Determine by Function* option.

For customization of Tracking ID Type, you need to enable *Check Function(Function Module)* option.

4: Sample Codes for Sales Order Fulfillment Application

To support the Sales Order Fulfillment Application, the sample codes in Github covers the following cases by function group ZGTT_SOF:

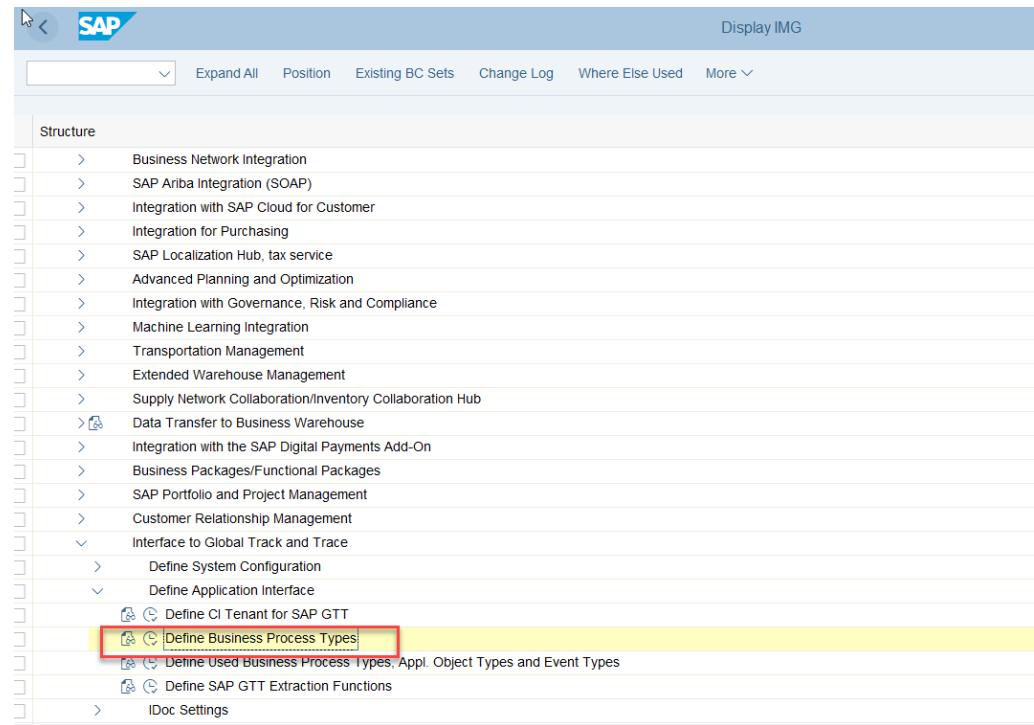
Category	Business Process Type	Function Module Name	Description
Control Parameter Extractors	ESC_DELIV	ZGTT_SOF_OTE_DE_HD	Function for setup of control parameters of delivery header
Control Parameter Extractors	ESC_DELIV	ZGTT_SOF_OTE_DE_ITM	Function for setup of control parameters of delivery item
Control Parameter Extractors	ESC_SHIPMT	ZGTT_SOF_OTE_SHP_HD	Function for setup of control parameters of shipment
Control Parameter Extractors	ESC_SORDER	ZGTT_SOF_OTE_SO_HD	Function for setup of control parameters of sales order header
Control Parameter Extractors	ESC_SORDER	ZGTT_SOF_OTE_SO_ITM	Function for setup of control parameters of sales order item
Event Data Extractors	ESC_DELIV	ZGTT_SOF_EE_DE_GI	SOF Extractor: Actual Event of Goods Issue
Event Data Extractors	ESC_DELIV	ZGTT_SOF_EE_DE_PACKING	SOF Extractor: Actual Event of Packing
Event Data Extractors	ESC_DELIV	ZGTT_SOF_EE_DE_PICKING	SOF Extractor: Actual Event of Picking
Event Data Extractors	ESC_DELIV	ZGTT_SOF_EE_DE POD	SOF Extractor: Actual Event of POD
Event Data Extractors	ESC_SHIPMT	ZGTT_SOF_EE_SHP_ARRIVAL	SOF Extractor: Actual Event of Arrival
Event Data Extractors	ESC_SHIPMT	ZGTT_SOF_EE_SHP_CHECKIN	SOF Extractor: Actual Event of Check In
Event Data Extractors	ESC_SHIPMT	ZGTT_SOF_EE_SHP_DEPARTURE	SOF Extractor: Actual Event of Departure
Event Data Extractors	ESC_SHIPMT	ZGTT_SOF_EE_SHP_LOAD_END	SOF Extractor: Actual Event of Loading End
Event Data Extractors	ESC_SHIPMT	ZGTT_SOF_EE_SHP_LOAD_START	SOF Extractor: Actual Event of Loading Start
GTT relevance function of AOT	ESC_DELIV	ZGTT_SOF_OTE_DE_HDR_REL	Extractor for relevance determination for Delivery Order Header
GTT relevance function of AOT	ESC_DELIV	ZGTT_SOF_OTE_DE_ITM_REL	Extractor for relevance determination for Delivery Order Items
GTT relevance function of AOT	ESC_SHIPMT	ZGTT_SOF_OTE_SHP_HDR_REL	Extractor for relevance determination for Shipment
GTT relevance function of AOT	ESC_SORDER	ZGTT_SOF_OTE_SO_HDR_REL	Extractor for relevance determination for Sales Order Header
GTT relevance function of AOT	ESC_SORDER	ZGTT_SOF_OTE_SO_ITM_REL	Extractor for relevance determination for Sales Order Items
GTT relevance function of Event Type	ESC_DELIV	ZGTT_SOF_EE_DE_GI_REL	Extractor for relevance determination for Goods Issue Event
GTT relevance function of Event Type	ESC_DELIV	ZGTT_SOF_EE_DE_PACKING_REL	Extractor for relevance determination for Packing Event
GTT relevance function of Event Type	ESC_DELIV	ZGTT_SOF_EE_DE_PICKING_REL	Extractor for relevance determination for Picking Event
GTT relevance function of Event Type	ESC_DELIV	ZGTT_SOF_EE_DE POD_REL	Extractor for relevance determination for POD Event
GTT relevance function of Event Type	ESC_SHIPMT	ZGTT_SOF_EE_SHP_ARRIVAL_REL	Extractor for relevance determination for Arrival Event
GTT relevance function of Event Type	ESC_SHIPMT	ZGTT_SOF_EE_SHP_CHECKIN_REL	Extractor for relevance determination for Check In Event
GTT relevance function of Event Type	ESC_SHIPMT	ZGTT_SOF_EE_SHP_DEPARTURE_REL	Extractor for relevance determination for Departure Event
GTT relevance function of Event Type	ESC_SHIPMT	ZGTT_SOF_EE_SHP_LOAD_END_REL	Extractor for relevance determination for Loading End Event
GTT relevance function of Event Type	ESC_SHIPMT	ZGTT_SOF_EE_SHP_LOAD_START_REL	Extractor for relevance determination for Loading Start
Planned Event Extractors	ESC_DELIV	ZGTT_SOF_EE_DE HD	SOF Extractor: Planned Event for Delivery Header of Outbound Delivery
Planned Event Extractors	ESC_DELIV	ZGTT_SOF_EE_DE_ITM	SOF Extractor: Planned Event for Delivery Item of Outbound Delivery
Planned Event Extractors	ESC_SHIPMT	ZGTT_SOF_EE_SHP_HD	SOF Extractor: Planned Event for Shipment
Tracking ID Extractors	ESC_DELIV	ZGTT_ADD_TRACKID_OTE_DEITEM	Function for setup of tracking IDs of delivery item
Tracking ID Extractors	ESC_SHIPMT	ZGTT_ADD_TRACKID_OTE_SHPHDR	Function for setup of tracking IDs of shipment
Tracking ID Extractors	ESC_SORDER	ZGTT_ADD_TRACKID_OTE_SOITEM	Function for setup of tracking IDs of sales order item

5: Available Contexts for the extractors' modules

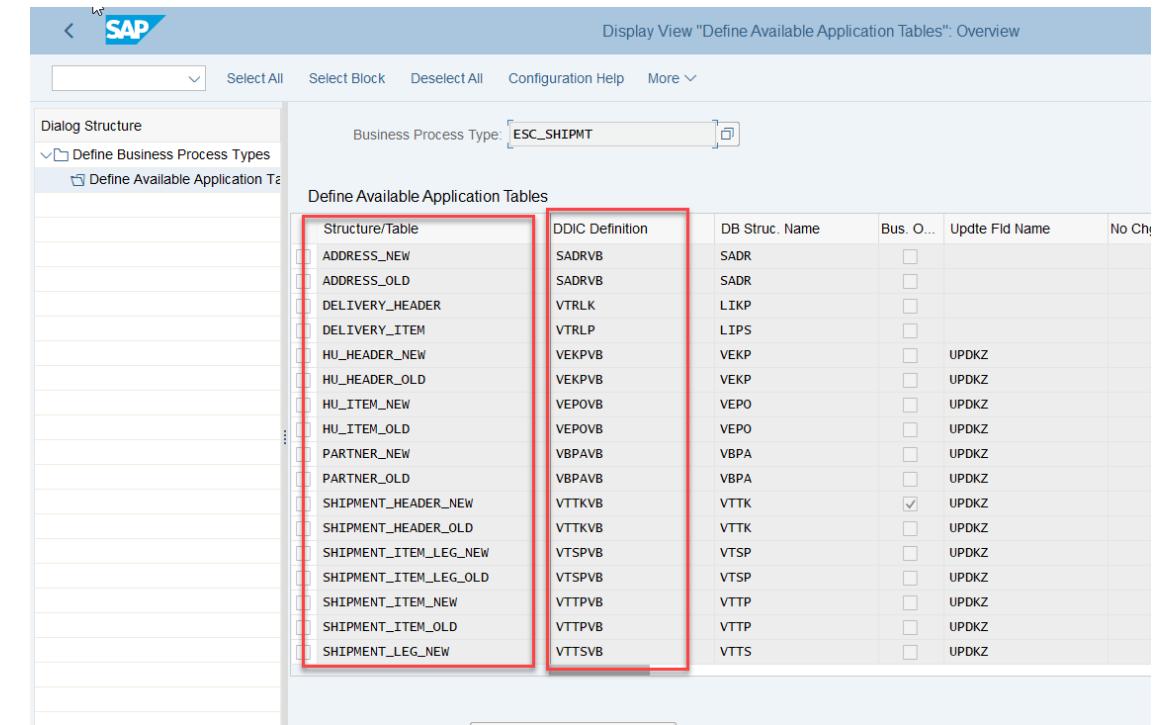
5-1: In Display IMG page, click
Integration with Other SAP Components -> Interface to Global Track and Trace -> Define Application Interface

5-2: Choose activity **Define Business Process Types**

5-3: Please select the Business Process Types to find all the context tables and their structure info.



The screenshot shows the SAP Display IMG interface. The top navigation bar includes 'Expand All', 'Position', 'Existing BC Sets', 'Change Log', 'Where Else Used', and 'More'. The main area is titled 'Structure' and lists various integration components. Under 'Interface to Global Track and Trace', the 'Define Application Interface' option is expanded, revealing the 'Define Business Process Types' link, which is highlighted with a red box.



The screenshot shows the SAP Display View "Define Available Application Tables" overview. The top navigation bar includes 'Select All', 'Select Block', 'Deselect All', 'Configuration Help', and 'More'. The left sidebar shows the 'Dialog Structure' with 'Define Business Process Types' selected. The main area displays a table with columns: 'Structure/Table' and 'DDIC Definition'. The first two rows of this table are highlighted with a red box. The table also includes columns for 'DB Struc. Name', 'Bus. O...', 'Updt Fld Name', and 'No Ch...'. A search bar at the top right is set to 'ESC_SHIPMT'.

Structure/Table	DDIC Definition	DB Struc. Name	Bus. O...	Updt Fld Name	No Ch...
ADDRESS_NEW	SADRVB	SADR	<input type="checkbox"/>		
ADDRESS_OLD	SADRVB	SADR	<input type="checkbox"/>		
DELIVERY_HEADER	VTRLK	L1KP	<input type="checkbox"/>		
DELIVERY_ITEM	VTRLP	LIPS	<input type="checkbox"/>		
HU_HEADER_NEW	VEKPB	VEKP	<input type="checkbox"/>	UPDKZ	
HU_HEADER_OLD	VEKPB	VEKP	<input type="checkbox"/>	UPDKZ	
HU_ITEM_NEW	VEPOVB	VEPO	<input type="checkbox"/>	UPDKZ	
HU_ITEM_OLD	VEPOVB	VEPO	<input type="checkbox"/>	UPDKZ	
PARTNER_NEW	VBPAVB	VBPA	<input type="checkbox"/>	UPDKZ	
PARTNER_OLD	VBPAVB	VBPA	<input type="checkbox"/>	UPDKZ	
SHIPMENT_HEADER_NEW	VTTKVB	VTTK	<input checked="" type="checkbox"/>	UPDKZ	
SHIPMENT_HEADER_OLD	VTTKVB	VTTK	<input type="checkbox"/>	UPDKZ	
SHIPMENT_ITEM_LEG_NEW	VTSPVB	VTSP	<input type="checkbox"/>	UPDKZ	
SHIPMENT_ITEM_LEG_OLD	VTSPVB	VTSP	<input type="checkbox"/>	UPDKZ	
SHIPMENT_ITEM_NEW	VTPPVB	VTPP	<input type="checkbox"/>	UPDKZ	
SHIPMENT_ITEM_OLD	VTPPVB	VTPP	<input type="checkbox"/>	UPDKZ	
SHIPMENT_LEG_NEW	VTTSVB	VTTS	<input type="checkbox"/>	UPDKZ	

6: Coding Tips in the GTT relevance function modules

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

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

See sample code of function: *ZGTT_SOF_OTE_SHP_HDR_REL*

```
Function Builder: Display ZGTT_SOF_OTE_SHP_HDR_REL

Function Module: ZGTT_SOF_OTE_SHP_HDR_REL active

Attributes Import Export Changing Tables Exceptions Source Code

28      <ls_xvttk>      TYPE vttkb.
29
30      * <1> Check if Main table is Shipment or not.
31      IF i_app_object-maintabdef >* qc_bpt_shipment_header_new.
32          PERFORM create_logtable_ao_rel
33              TABLES c_logtable
34                  USING i_app_object-maintabdef
35                      space
36                      i_app_obj_types-treelfunc
37                      i_app_object-appobjtype
38                      i_apays.
39          RAISE parameter_error.
40      ELSE.
41          * Read Main Object Table (Shipment - VTTK)
42          ASSIGN i_app_object-maintabref->* TO <ls_xvttk>.
43      ENDIF.
44
45      * J. Check Relevance of AOT IN OTE
46      PERFORM check_act_relevance_shp
47          USING <ls_xvttk>
48          CHANGING lv_act_relevance.
49          CHECK lv_act_relevance IS NOT INITIAL.
50
51      * When shipment is newly created, check relevance of GTT: only when delivery has been assigned.
52      IF <ls_xvttk>-updtk EQ gc_insert.
53          PERFORM check_delivery_assignment
54              USING i_all_appl_tables
55      ENDIF.
56
57
Scope FUNCTION zgtt_sof_ote_shp_hdr_rel
| ABAP | Ln 18 Col 50 |
```

7: 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 are following the configuration of corresponding AOT.
 2. Add customization logics to fill the output table *E_TRACKIDDATA*.
 3. The Tracking ID Type need to be the same as the definition in the process type of model in Manage Models app.
 4. GTT v2 accepts delta transport for tracking IDs, which means that only the newly-created / changed / deleted tracking IDs shall be filled, while the ones without change need to be ignored in the logic.
 5. The tracking ID for its own process type needs to be filled for each process update.
 6. In case of tracking ID deletion, the field *ACTION* shall be filled with 'D'.

See sample code of function:

ZGTT ADD TRACKID OTE SHPHDR

SAP Function Builder: Display ZGTT_ADD_TRACKID_OTE_SHPHDR

Function Module: ZGTT_ADD_TRACKID_OTE_SHPHDR active

Attributes Import Export Changing Tables Exceptions Source Code

```
76 e_trackiddata-trxcod = 'SHIPMENT_ORDER'.
77 e_trackiddata-trxid = <ls_xvttk>-tnum.
78 CONCATENATE '0' sy-datum sy-zeuit INTO e_trackiddata-start_date.
79 e_trackiddata-end_date = '099991231000000'.
80 e_trackiddata-timzon = lv_tzone.
81 e_trackiddata-msrid = space.
82 APPEND e_trackiddata.
83
84 e_trackiddata-trxcod = 'RESOURCE'.
85 CLEAR e_trackiddata-start_date.
86 CLEAR e_trackiddata-end_date.
87 CLEAR e_trackiddata-timzon.
88
89 IF <ls_xvttk>-updckz = 'I'.
90   IF <ls_xvttk>-vsart = '01' AND <ls_xvttk>-extil IS NOT INITIAL.
91     CONCATENATE <ls_xvttk>-tnum <ls_xvttk>-extil INTO e_trackiddata-trxid.
92     e_trackiddata-msrid = space.
93     APPEND e_trackiddata.
94   ELSEIF <ls_xvttk>-vsart = '04' AND <ls_xvttk>-signi IS NOT INITIAL.
95     CONCATENATE <ls_xvttk>-tnum <ls_xvttk>-signi INTO e_trackiddata-trxid.
96     e_trackiddata-msrid = space.
97     APPEND e_trackiddata.
98   ENDIF.
99 ELSEIF <ls_xvttk>-updckz = 'U'.
100  READ TABLE lt_yvtt INTO ls_yvtt INDEX 1.
101  CHECK ls_yvtt IS NOT INITIAL.
102
103  IF <ls_xvttk>-vsart <> ls_yvtt-vsart.
104    IF <ls_xvttk>-vsart = '01' AND <ls_xvttk>-extil IS NOT INITIAL.
```

8: Coding Tips in the Control Parameter function modules

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

1. Make sure that the Main / Master tables are following the configuration of corresponding AOT.
2. Add customization logics to fill the output table *E_CONTROL_DATA*.
3. GTT v2 asks for full transport for all the control parameters, which means that all the fields needs to be extracted in all cases, no matter whether their values have been changed.
4. To fill in the composition (table) fields defined in Manage Model 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 the key field using invalid values, for which key attribute has been checked in Manage Model app. It's not recommended to fill a code list type field to clear a composition even if it's a key field.**
6. The field with fixed name '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 Manage Models app, click tab *IDOC Integration* 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 please ensure to only enable *PARAMNAME* and *PARAMINDEX* in the extractor code, 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_SOF_OTE_SHP_HD*

8: Coding Tips in the Control Parameter Function Modules

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

The screenshot shows the SAP Manage Models app interface. At the top, there's a navigation bar with the SAP logo, 'Model Details' dropdown (set to 'Internal - Test'), and user icons. Below the navigation bar, the model name 'sof' is shown with a status of 'Active'. A 'Sales Order Fulfillment' description is present. On the right, there are 'Edit' and 'Draft View' buttons.

The main content area has tabs: 'Tracked Process', 'Field Type Pool', 'Event Type Pool', 'Code List', 'IDOC Integration' (which is selected and highlighted in blue), 'Visibility Provider Integration', 'Planned Event Extension', and 'Event to Action'. Below these tabs, there are two input fields: 'Tracked Process:' with a dropdown menu containing 'Shipment' and 'Integration Switch:' with a toggle switch set to 'ON'.

A section titled 'Tracked Process Mapping' contains two labels: 'ERP Object Type: Others' and 'Application Object Type: ZGTT_SHP_INT_HD'.

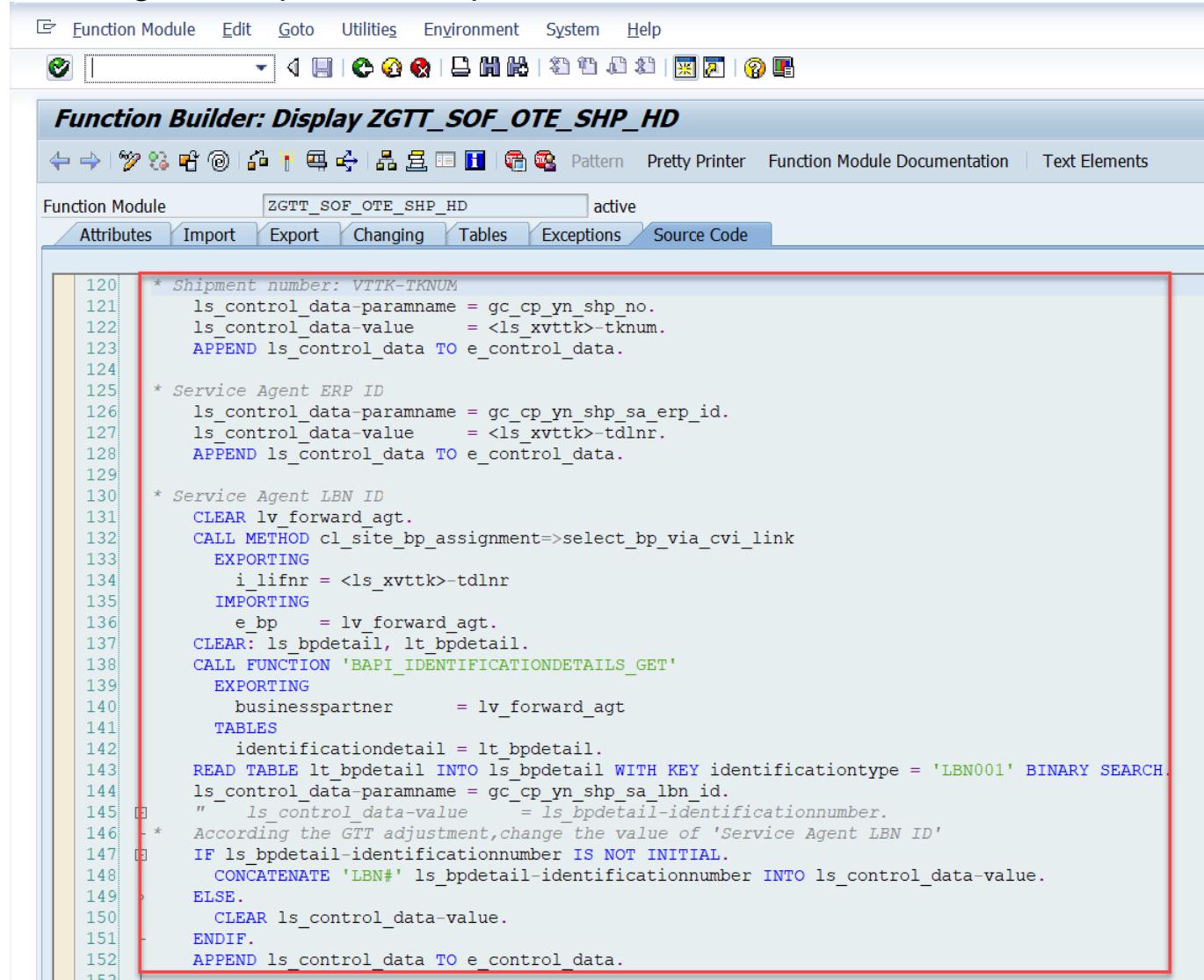
Below this, a table titled 'Tracked Process / Events (26)' lists tracked processes and event types. The table has columns for 'Name', 'IDOC', and 'Event Code'. It includes rows for 'Tracked Process' (ShipmentEvent, E1EHPAO) and various 'Event Types' (LoadingStart, POD, Departure, Arrival, LoadingEnd).

To the right of the tracked process table is another table titled 'User Model Fields', which is highlighted with a red border. This table maps application object fields to IDOC segments and fields. The columns are 'Field', 'IDOC Segment', and 'IDOC Field'. The data is as follows:

Field	IDOC Segment	IDOC Field
shipmentNo	E1EHPCP	YN_SHP_NO
serviceAgentLbNId	E1EHPCP	YN_SHP_SA_LBN_ID
transportationMode	E1EHPCP	YN_SHP_TRANSPORTATION_MODE
dangerousGoods	E1EHPCP	YN_SHP_CONTAIN_DGOODS
forwardingAgentTrackingId	E1EHPCP	YN_SHP_FA_TRACKING_ID
> stops		
shippingType	E1EHPCP	YN_SHP_SHIPPING_TYPE
> resourceTPs		

8: Coding Tips in the Control Parameter Function Modules

Main logic of shipment is implemented in function module ZGTT_SOF_OTE_SHP_HD



The screenshot shows the SAP Function Builder interface with the title "Function Builder: Display ZGTT_SOF_OTE_SHP_HD". The function module "ZGTT_SOF_OTE_SHP_HD" is active. The "Source Code" tab is selected. The code is as follows:

```
120 * Shipment number: VTTK-TKNUM
121 ls_control_data-paramname = gc_cp_yn_shp_no.
122 ls_control_data-value     = <ls_xvttk>-tknum.
123 APPEND ls_control_data TO e_control_data.
124
125 * Service Agent ERP ID
126 ls_control_data-paramname = gc_cp_yn_shp_sa_erp_id.
127 ls_control_data-value     = <ls_xvttk>-tdlnr.
128 APPEND ls_control_data TO e_control_data.
129
130 * Service Agent LBN ID
131 CLEAR lv_forward_agt.
132 CALL METHOD cl_site_bp_assignment=>select_bp_via_cvi_link
    EXPORTING
        i_lifnr = <ls_xvttk>-tdlnr
    IMPORTING
        e_bp     = lv_forward_agt.
133 CLEAR: ls_bpdetail, lt_bpdetail.
134 CALL FUNCTION 'BAPI_IDENTIFICATIONDETAILS_GET'
    EXPORTING
        businesspartner      = lv_forward_agt
    TABLES
        identificationdetail = lt_bpdetail.
135 READ TABLE lt_bpdetail INTO ls_bpdetail WITH KEY identificationtype = 'LBN001' BINARY SEARCH.
136 ls_control_data-paramname = gc_cp_yn_shp_sa_lbn_id.
137 "   ls_control_data-value     = ls_bpdetail-identificationnumber.
138 * According the GTT adjustment, change the value of 'Service Agent LBN ID'
139 IF ls_bpdetail-identificationnumber IS NOT INITIAL.
140     CONCATENATE 'LBN#' ls_bpdetail-identificationnumber INTO ls_control_data-value.
141 ELSE.
142     CLEAR ls_control_data-value.
143 ENDIF.
144 APPEND ls_control_data TO e_control_data.
```

9: 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 are following the configuration of corresponding AOT.
2. Add customization logics to fill the output table *E_EXPEVENTDATA*.
3. As default except no change made on the model configuration, GTT version 2 asks 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 need to be filled with relevant time zone *EVT_EXP_TZONE* together if it needs to be transported.
6. The field *LOC_ID1* is optional, but need to be filled with relevant location type *LOCTYPE* together if it needs to be transported. The values for field *LOCTYPE* are limited by *Manage Locations* app in GTT Version 2.
7. The field *LOCID2* is mandatory to specify the stop ID (match key) in case of shipment tracking.

See sample code of function: *ZGTT_SOF_EE_SHP_HD*

Name	IDOC	Event Code
Tracked Process		
ShipmentEvent	E1EHPAO	
Event Types		
LoadingStart	E1EVMHDR02	LOAD_BEGIN
POD	E1EVMHDR02	POD
Departure	E1EVMHDR02	DEPARTURE
Arrival	E1EVMHDR02	ARRIV_DEST
LoadingEnd	E1EVMHDR02	LOAD_END
CheckIn	E1EVMHDR02	CHECK_IN

9: Coding Tips in the Planned Event Function Modules

Main logic of shipment Planned Events is implemented in function module ZGTT_SOF_EE_SHP_HD

The screenshot shows the SAP Function Builder interface with the title "Function Builder: Display ZGTT_SOF_EE_SHP_HD". The function module "ZGTT_SOF_EE_SHP_HD" is active. The "Source Code" tab is selected. The code is written in ABAP and handles planned events for a shipment. A red box highlights the following code segments:

```
125 * Planned Load-Start
126   ls_expeventdata-milestone  = 'LOAD_BEGIN'.
127 *
128 * Get Planned Load-Start datetime
129   PERFORM set_local_timestamp
130     USING <ls_xvttk>-dplbg
131       <ls_xvttk>-uplbg
132     CHANGING ls_expeventdata-evt_exp_datetime.
133   APPEND ls_expeventdata TO e_expeventdata.
134
135 * Planned Load-End
136   ls_expeventdata-milestone  = 'LOAD_END'.
137 *
138 * Get Planned Load-End datetime
139   PERFORM set_local_timestamp
140     USING <ls_xvttk>-dplen
141       <ls_xvttk>-uplen
142     CHANGING ls_expeventdata-evt_exp_datetime.
143   APPEND ls_expeventdata TO e_expeventdata.
144
145   CLEAR lt_stops.
146   CALL FUNCTION 'ZGTT_GET_STOPS_FROM_SHIPMENT'
147     EXPORTING
148       iv_tknum      = <ls_xvttk>-tknum
149       it_vtts_new  = lt_xvtt
150     IMPORTING
151       et_stops     = lt_stops.
152
153   LOOP AT lt_stops INTO ls_stop.
154     IF ls_stop-locat = 'S'.
155       ls_expeventdata-milestone  = 'DEPARTURE'.
156     ELSE.
157       ls_expeventdata-milestone  = 'ARRIV_DEST'.
158     ENDIF.
```

10: 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 are following the configuration of corresponding Event Type.
2. Add customization logics to fill the output table *CT_TRACKINGHEADER*, *CT_TRACKLOCATION*, *C_EVENTID_MAP*.
3. If the event has user-defined fields in Manage Models application, fill 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 *Manage Models* app, click tab *IDOC Integration* to map the user-defined parameter names and model field names.

See sample code of function: *ZGTT_SOF_EE_DE_PICKING*

10: Coding Tips in the Event Data Function Modules

To set up mapping of event type user-defined parameters, go to the *IDOC Integration* section of *Manage Models* app, select corresponding event type and set values of IDOC Field:

The screenshot shows the SAP Model Details interface for the 'sof' model, which is active. The 'IDOC Integration' tab is selected. The interface includes sections for Tracked Process Mapping, Tracked Process / Events (4), and User Model Fields.

Tracked Process Mapping:

- Tracked Process: DeliveryItem
- Integration Switch: ON

Tracked Process / Events (4):

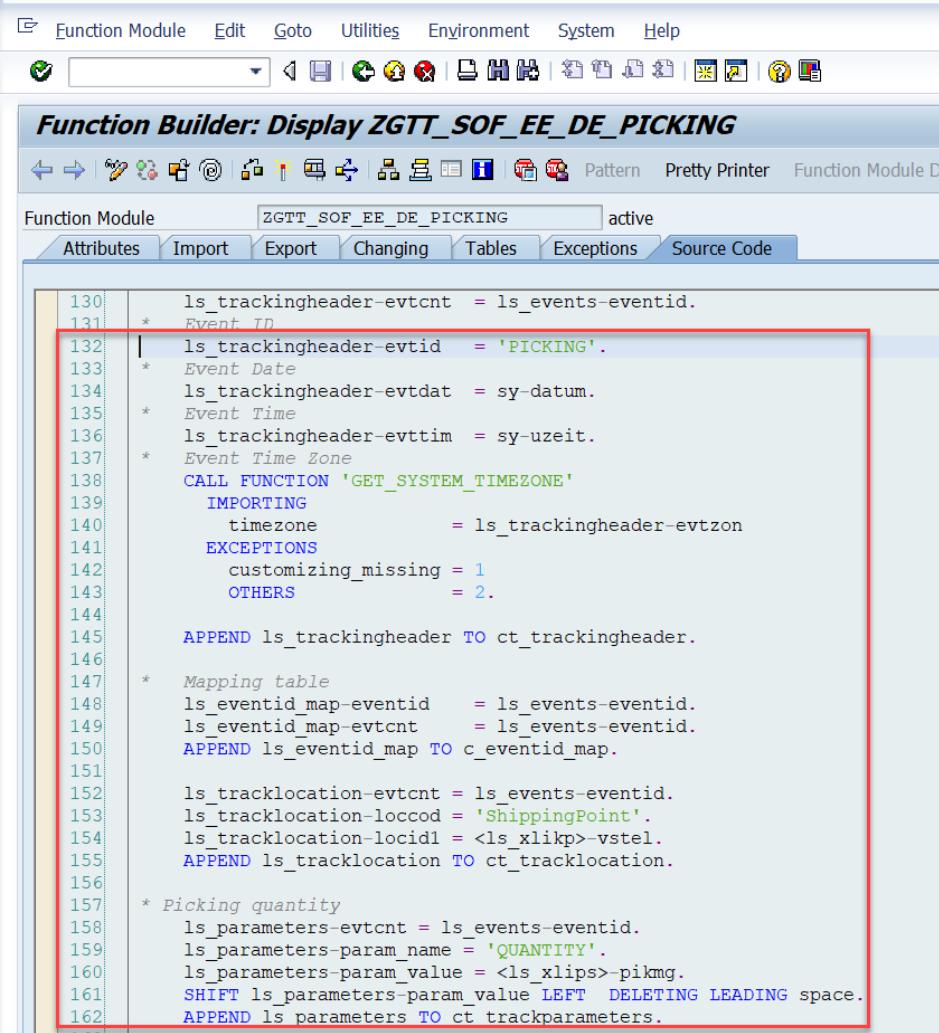
Name	IDOC	Event Code
Tracked Process		
DeliveryItemEvent	E1EHPAO	
Event Types		
Picking	E1EVMPAR	PICKING
Packing	E1EVMPAR	PACKING
DeliveryItemPOD	E1EVMPAR	DLV POD

User Model Fields:

Field	IDOC Segment	IDOC Field
quantity	E1EVMPAR	QUANTITY

10: Coding Tips in the Event Data Function Modules

Main logic of delivery item picking event is implemented in function module **ZGTT_SOF_EE_DE_PICKING**



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

```
130 ls_trackingheader-evtcnt = ls_events-eventid.
131 * Event ID
132 | ls_trackingheader-evtid = 'PICKING'.
133 * Event Date
134 ls_trackingheader-evtdat = sy-datum.
135 * Event Time
136 ls_trackingheader-evttim = sy-uzeit.
137 * Event Time Zone
138 CALL FUNCTION 'GET_SYSTEM_TIMEZONE'
139   IMPORTING
140     timezone      = ls_trackingheader-evtzon
141   EXCEPTIONS
142     customizing_missing = 1
143     OTHERS          = 2.
144
145 APPEND ls_trackingheader TO ct_trackingheader.
146
147 * Mapping table
148 ls_eventid_map-eventid = ls_events-eventid.
149 ls_eventid_map-evtcnt = ls_events-eventid.
150 APPEND ls_eventid_map TO c_eventid_map.
151
152 ls_tracklocation-evtcnt = ls_events-eventid.
153 ls_tracklocation-loccod = 'ShippingPoint'.
154 ls_tracklocation-locidl = <ls_xlikp>-vstel.
155 APPEND ls_tracklocation TO ct_tracklocation.
156
157 * Picking quantity
158 ls_parameters-evtcnt = ls_events-eventid.
159 ls_parameters-param_name = 'QUANTITY'.
160 ls_parameters-param_value = <ls_xlips>-pikmg.
161 SHIFT ls_parameters-param_value LEFT DELETING LEADING space.
162 APPEND ls_parameters TO ct_trackparameters.
```

11: Enhancement codes for cross-processes tracking

The Sales Order Fulfillment application asks for cross-processes tracking, which is used in below cases:

- When the shipment process is updated and transported to GTT, the preceding delivery and item process, and their planned events needs to be updated and transported to GTT.

IMPORTANT: To enable cross-processes tracking, please update the below sample codes after downloading:

- Replace your Delivery AOT type name in Method *BEFORE_UPDATE* of BADI implementation *Z_GTT_SOF_LE_SHIPMNT*

The screenshot shows the SAP Business Add-In Builder interface for the implementation *Z_GTT_SOF_LE_SHIPMNT*. The top navigation bar includes links for Next Object, Display <-> Change, Other Object, Check, Display object list, Display navigation window, Application help, and Definition Document. The main area displays the following fields:

Implementation Name:	<input type="text" value="Z_GTT_SOF_LE_SHIPMNT"/>	<input checked="" type="checkbox"/> Active
Implementation Short Text:	GTT - Enhancement to update the impacted delivery orders	
Definition Name:	<input type="text" value="BADI_LE_SHIPMENT"/>	
Runtime Behavior:	<input type="text" value="Implementation will be called"/>	

Below these fields, under the **Interface** tab, are the following entries:

Interface Name:	<input type="text" value="IF_EX_BADI_LE_SHIPMENT"/>
Name of Implementing Class:	<input type="text" value="ZCL_IM_GTT_SOF_LE_SHIPMNT"/>

A table lists the methods and their implementation types:

Method	Implementation Type	Description
AT_SAVE	ABAP ABAP code	Process Shipments During "At Save" Context
BEFORE_UPDATE	ABAP ABAP code	Process Shipments During "Before Update" Context
IN_UPDATE	ABAP ABAP code	Process Shipments During "In Update" Context

At the bottom, there is a field for the Default Implementation Class:

Default Implementation Class:	<input type="text"/>
-------------------------------	----------------------

11: Enhancement codes for cross-processes tracking

The cross processes tracking scenarios cover below:

Shipment -> Delivery and 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

12: Known Issues

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.

2. IDOC sequencing issue

Currently, on the ERP side, when you report actual events while creating the process, the IDOCs might be sent in an incorrect order. For example, entering a PICK quantity and saving the new delivery in ERP will generate a PICK event IDOC and a delivery order IDOC. If the event IDOC approaches GTT prior to the order IDOC, it will lead to processing failure.

This issue is covered now, see the solution provided in these topics:

- 8: Coding Tips in the Control Parameter Function Modules
- 10: Coding Tips in the Event Data Function Modules
- 13: Solution of IDOC sequencing issue

13: Solution of IDOC Sequencing Issue

1. Implement corrections provided in the note <https://launchpad.support.sap.com/#/notes/2959576>

2. Create CI tenant.

Select “**GTT2.0 Logistics Business Network - Track and Trace**” for SAP Track & Trace Version

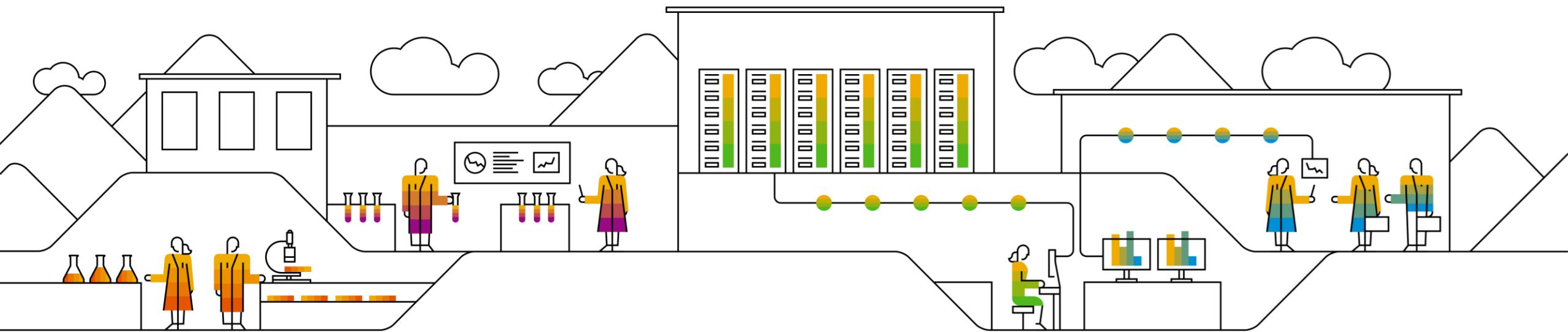
3. Create RFC destination

You need to configure only one RFC connection for both event and tracked process.

They have the same **Path Prefix**:
`/api/idoc/em/v1/TrackedProcessAndEvent`

The image contains two screenshots of SAP GUI screens. The top screenshot shows the 'SAP Global Track & Trace Definitions' table with one entry: CI for Global Track & Trace (ZGTTSOFIN2), CI Log. System (ZLSGTTINT), SAP Track & Trace Version (GTT2.0 Logistics Business N...), and Description (CI For GTT V2 Integration system Sales Order Sample APP). The bottom screenshot shows the 'RFC Destination ZGTTV2_SOF_INT2' configuration screen. It includes fields for RFC Destination (ZGTTV2_SOF_INT2), Connection Type (HTTP Connection to External Server), and three Description fields (Description 1: RFC for Tracked Process of Sales Order Sample Application, Description 2: blank, Description 3: blank). At the bottom, there are tabs for Administration, Technical Settings, Logon & Security, and Special Options. The 'Target System Settings' section shows Host and Port (443) fields, and the Path Prefix field is highlighted with a red box and contains the value `/api/idoc/em/v1/TrackedProcessAndEvent`.

Thanks



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