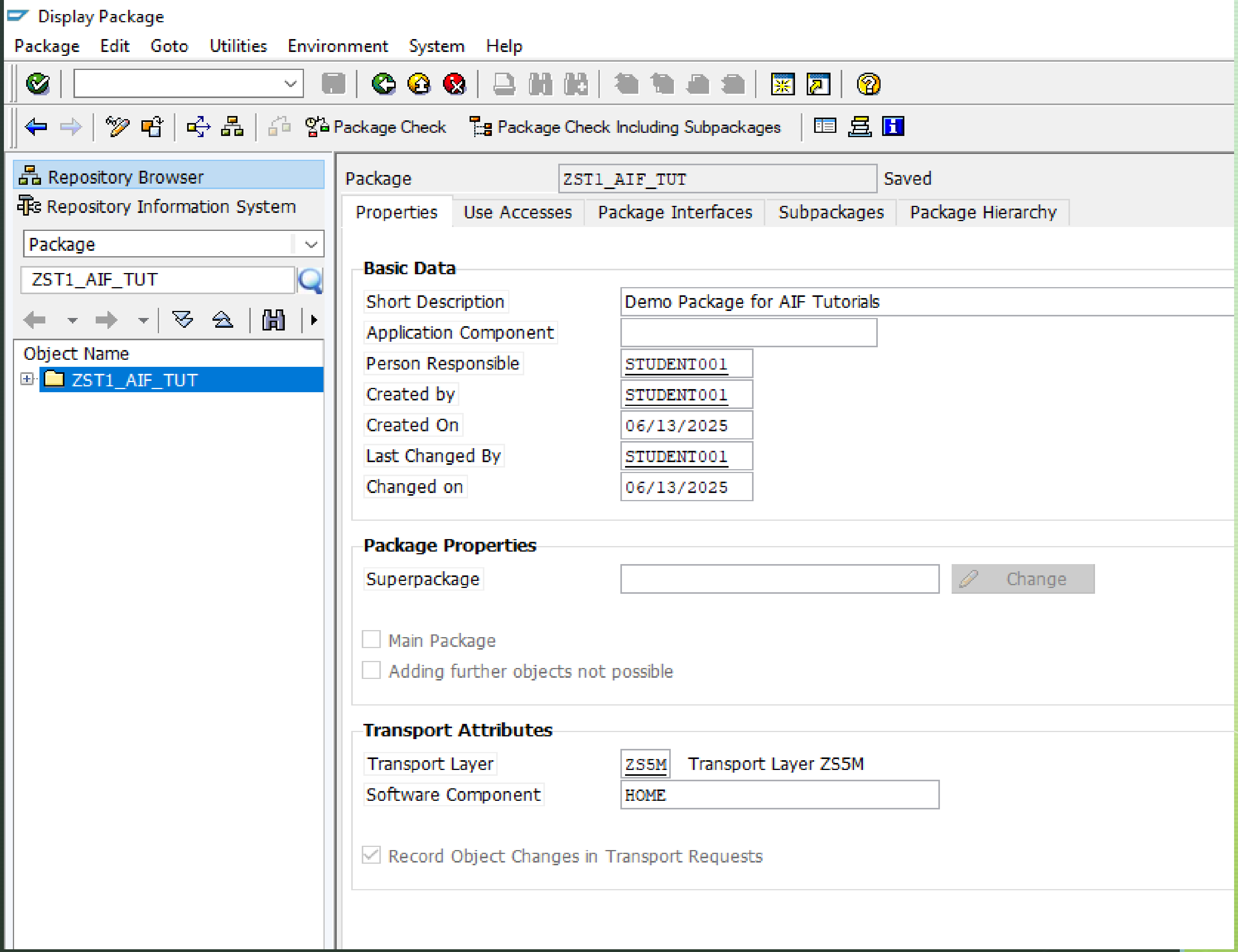
My training by tutorial
from developers.sap.com

https://developers.sap.com/tutorials/aif-proxy-monitoring-interface-create..html

Create a Simple Proxy Interface

Instructions and codes are taken from tutorial "Create a Simple Proxy Interface" (https://developers.sap.com/tutorials/).
All screenshots made from my own development performed via this tutorial

Create a package



Package ZST1_AIF_TUT
ZST1_AIF_TUT Saved

Basic Data

Short Description	Demo Package for AIF Tutorials
Application Component	
Person Responsible	STUDENT001
Created by	STUDENT001
Created On	06/13/2025
Last Changed By	STUDENT001
Changed on	06/13/2025

Package Properties

Superpackage

□ Main Package

□ Adding further objects not possible

Transport Attributes

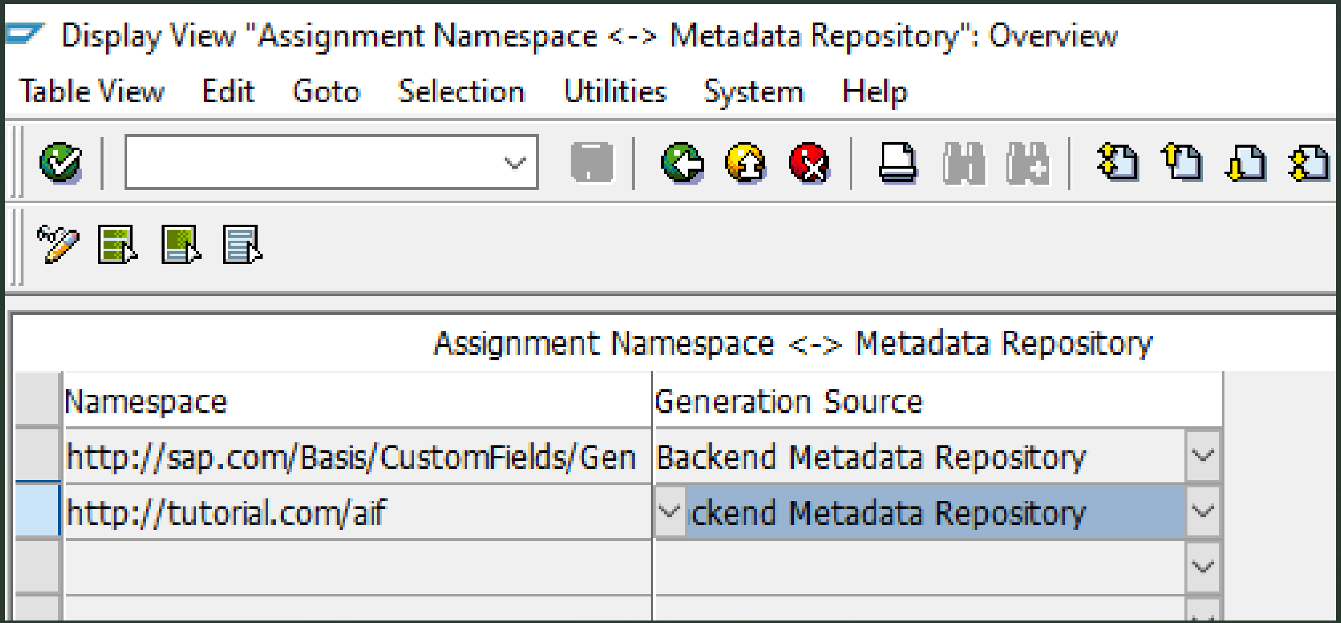
Transport Layer	ZS5M Transport Layer ZS5M
Software Component	HOME

☑ Record Object Changes in Transport Requests

Next, you need to assign a new namespace to the Backend Metadata Repository. Run transaction **Assignment Namespace Generating Application** (transaction code SPXNGENAPPL).

Switch to **Edit** mode, add a new entry, and enter or select the following details for your new namespace:

Save your changes.



Display View "Assignment Namespace <-> Metadata Repository": Overview

Assignment Namespace <-> Metadata Repository

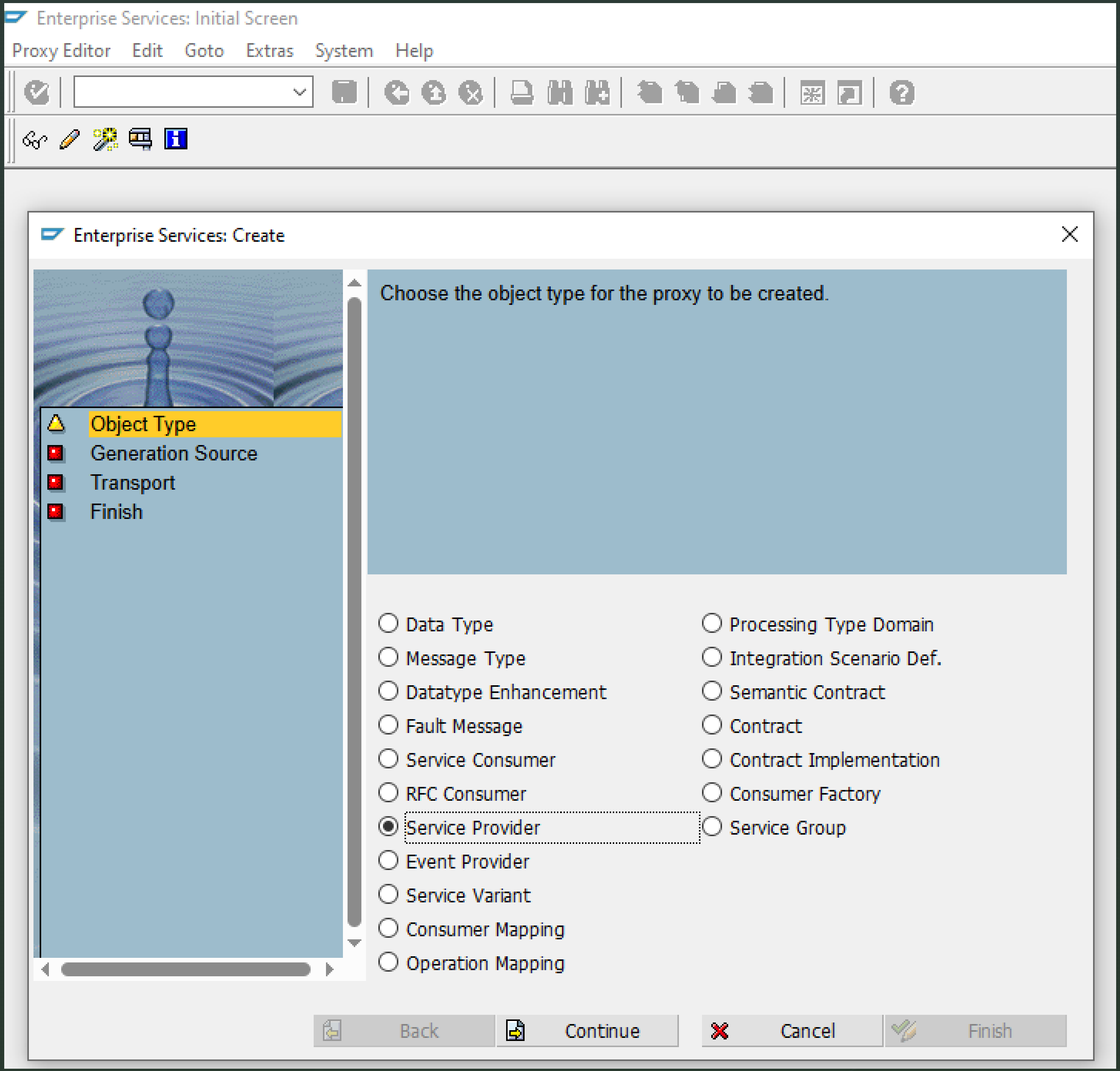
Namespace	Generation Source
http://sap.com/Basis/CustomFields/Gen	Backend Metadata Repository
http://tutorial.com/aif	ckend Metadata Repository

CREATE PROXY

To create a new service interface, run the **proxy editor** (transaction code SPROXY_START).

In Enterprise Services: Initial Screen, select **Create with Wizard** and carry out the following configuration steps:

1. As **Object Type**, select **Service Provider**. Click **Continue.**
2. As **Kind of Service Provider**, select **Backend**. Click **Continue.**
3. As **Name**, enter and namespace **http://tutorial.com/aif**.
Click **Continue.**
4. For the transport options, enter your package ZST1_AIF_TUT, select a workbench request, and enter the prefix **ZAIF_**.
Select **Continue.**



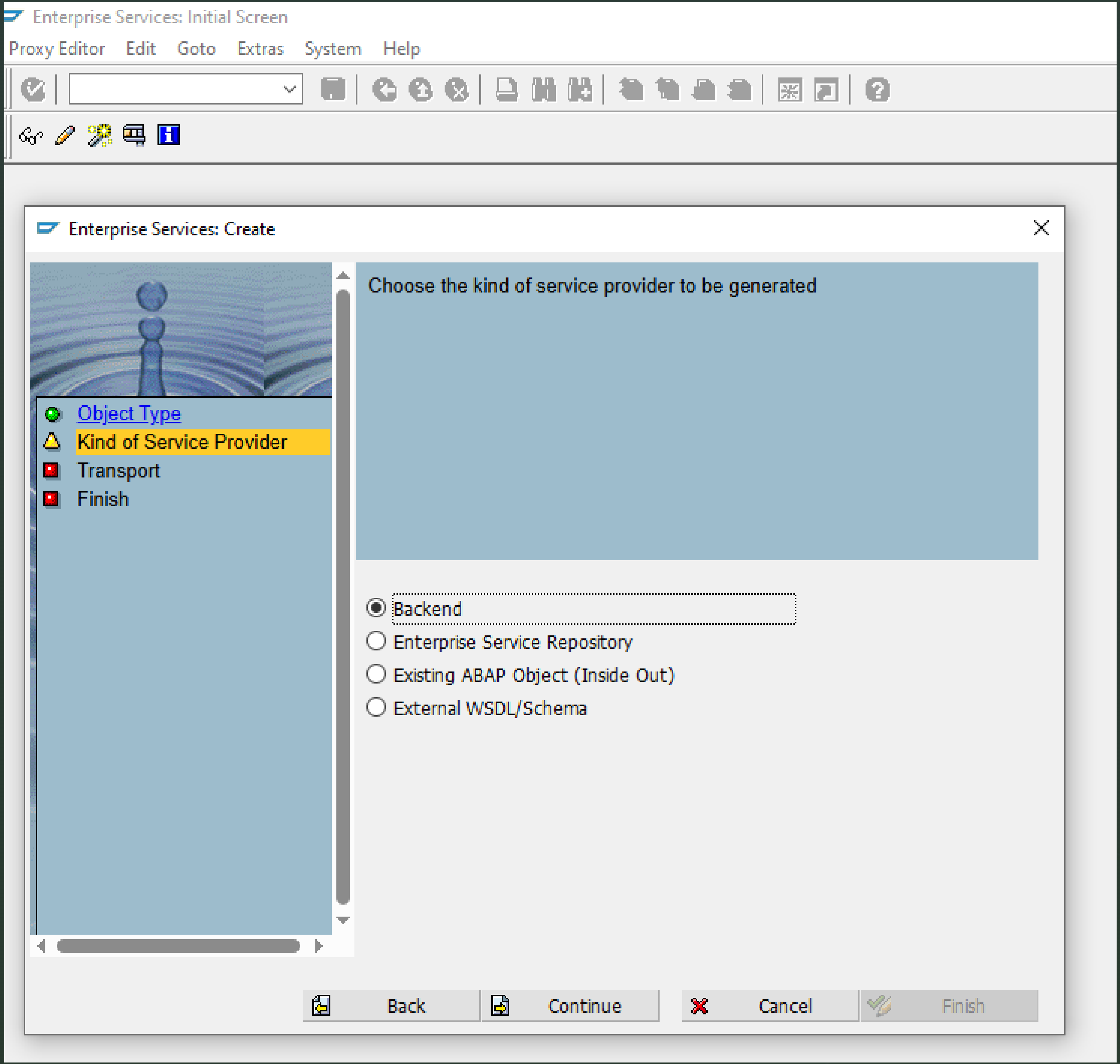
Enterprise Services: Initial Screen

Enterprise Services: Create

Choose the object type for the proxy to be created.

- Object Type
- Generation Source
- Transport
- Finish

○ Data Type
○ Message Type
○ Datatype Enhancement
○ Fault Message
○ Service Consumer
○ RFC Consumer
● Service Provider
○ Event Provider
○ Service Variant
○ Consumer Mapping
○ Operation Mapping
○ Processing Type Domain
○ Integration Scenario Def.
○ Semantic Contract
○ Contract
○ Contract Implementation
○ Consumer Factory
○ Service Group

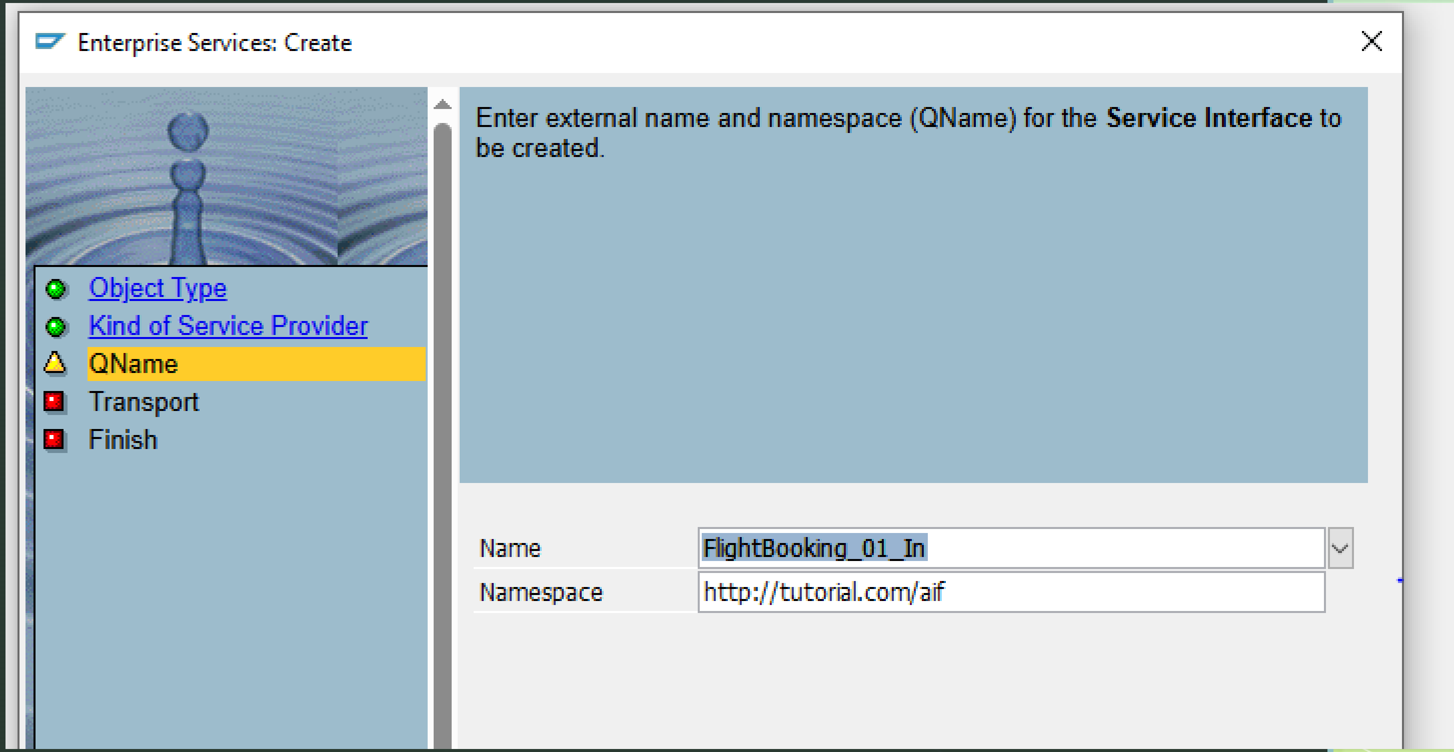


Enterprise Services: Create

Object Type
Kind of Service Provider
Transport
Finish

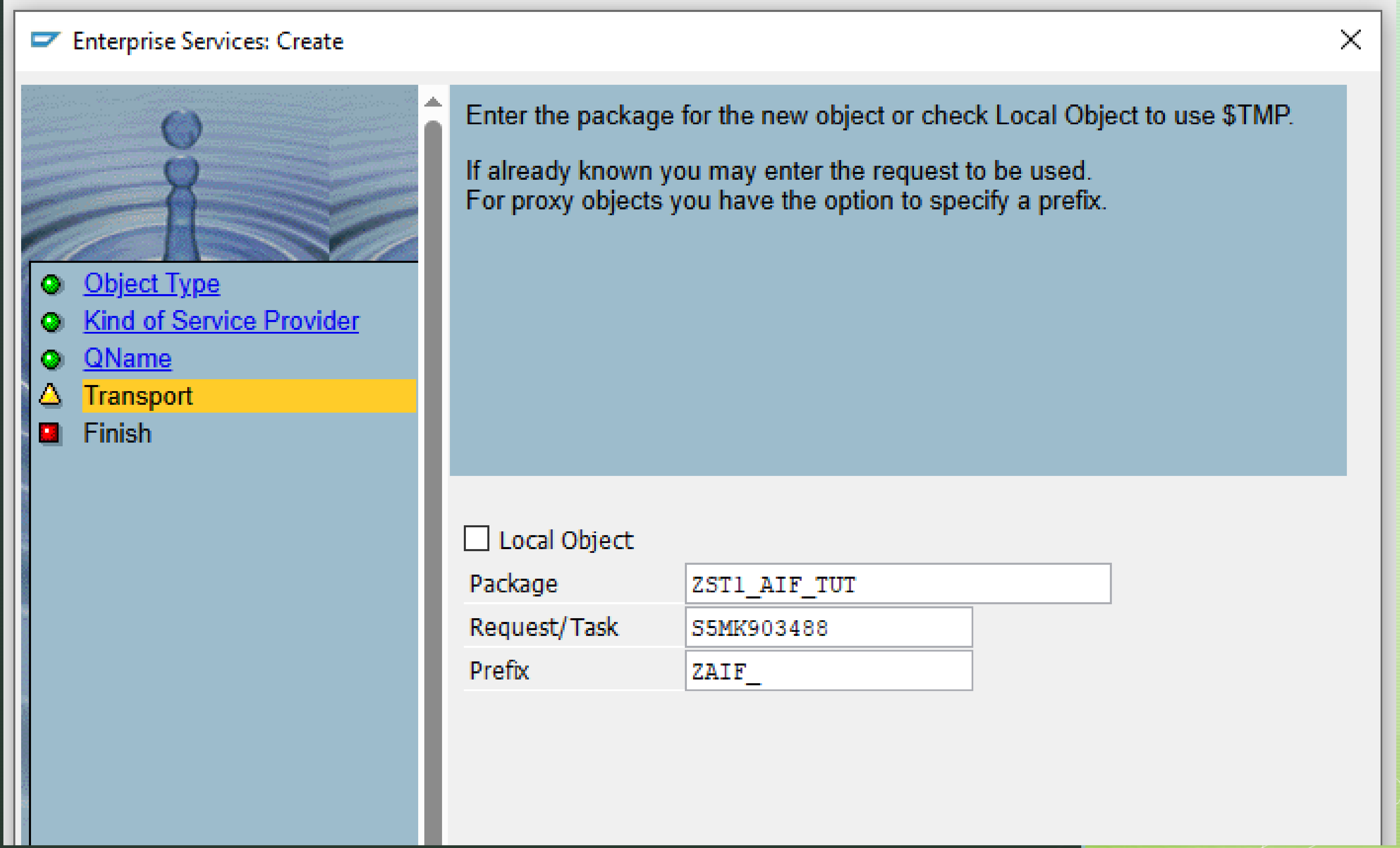
Choose the kind of service provider to be generated

● Backend
○ Enterprise Service Repository
○ Existing ABAP Object (Inside Out)
○ External WSDL/Schema



Enter external name and namespace (QName) for the **Service Interface** to be created.

Name	FlightBooking_01_In
Namespace	http://tutorial.com/aif

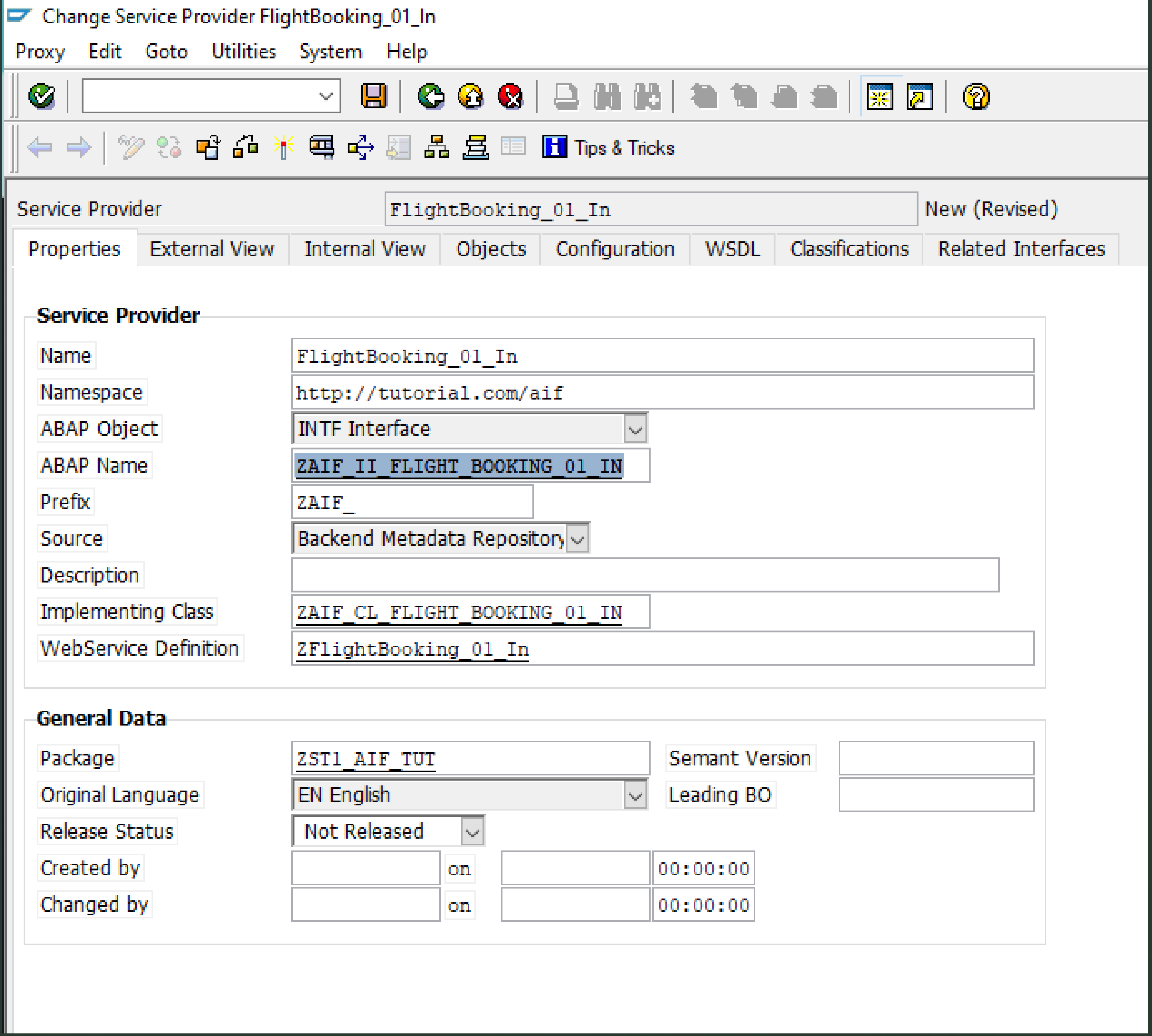


Enter the package for the new object or check Local Object to use $TMP.

If already known you may enter the request to be used.
For proxy objects you have the option to specify a prefix.

□ Local Object

Package	ZST1_AIF_TUT
Request/Task	S5MK903488
Prefix	ZAIF_



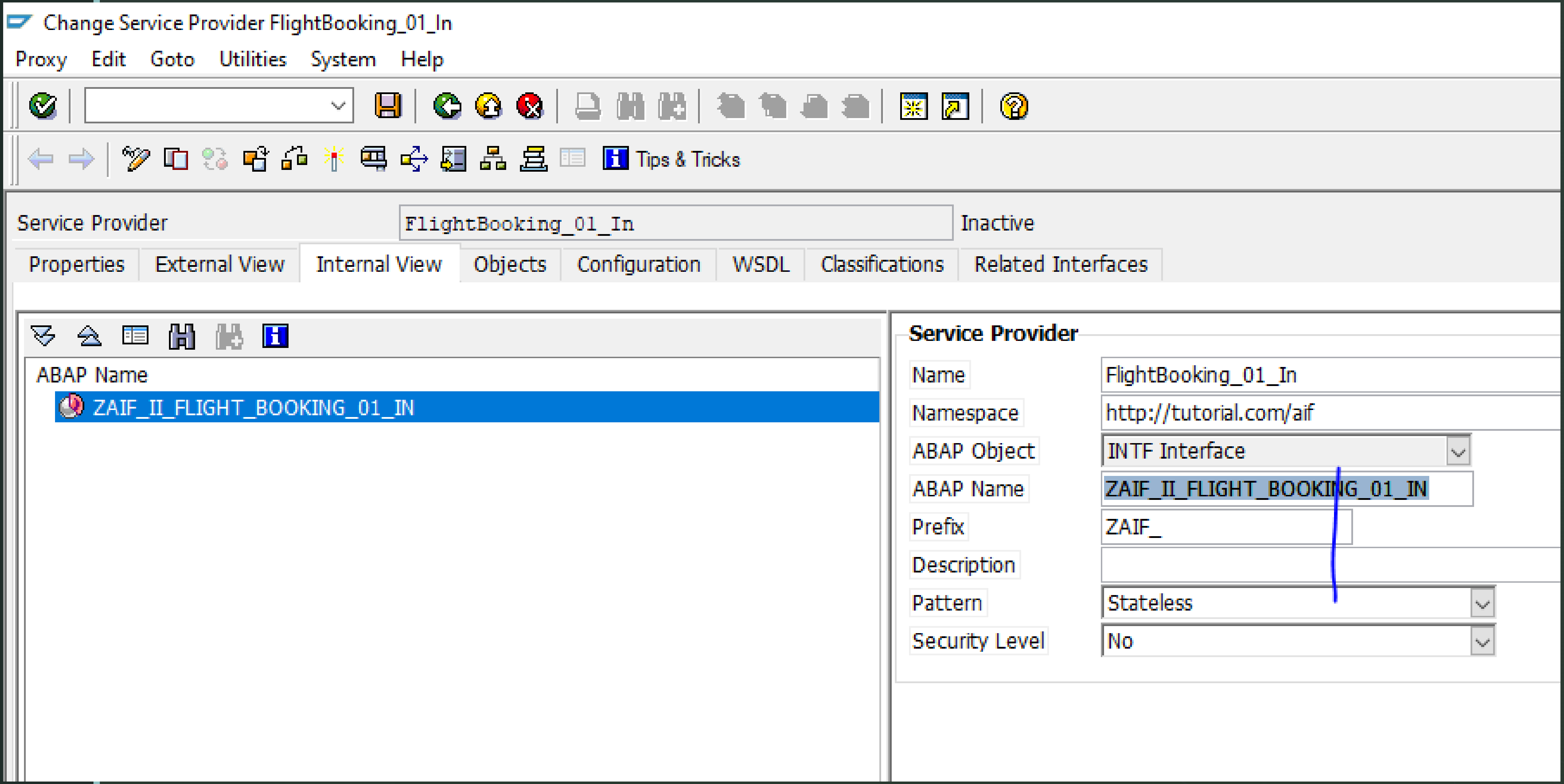
Service Provider FlightBooking_01_In New (Revised)

Service Provider

Name	FlightBooking_01_In
Namespace	http://tutorial.com/aif
ABAP Object	INTF Interface
ABAP Name	ZAIF_II_FLIGHT_BOOKING_01_IN
Prefix	ZAIF_
Source	Backend Metadata Repositor
Description	
Implementing Class	ZAIF_CL_FLIGHT_BOOKING_01_IN
WebService Definition	ZFlightBooking_01_In

General Data

Package	ZST1_AIF_TUT		Semant Version	
Original Language	EN English		Leading BO	
Release Status	Not Released			
Created by		on		00:00:00
Changed by		on		00:00:00



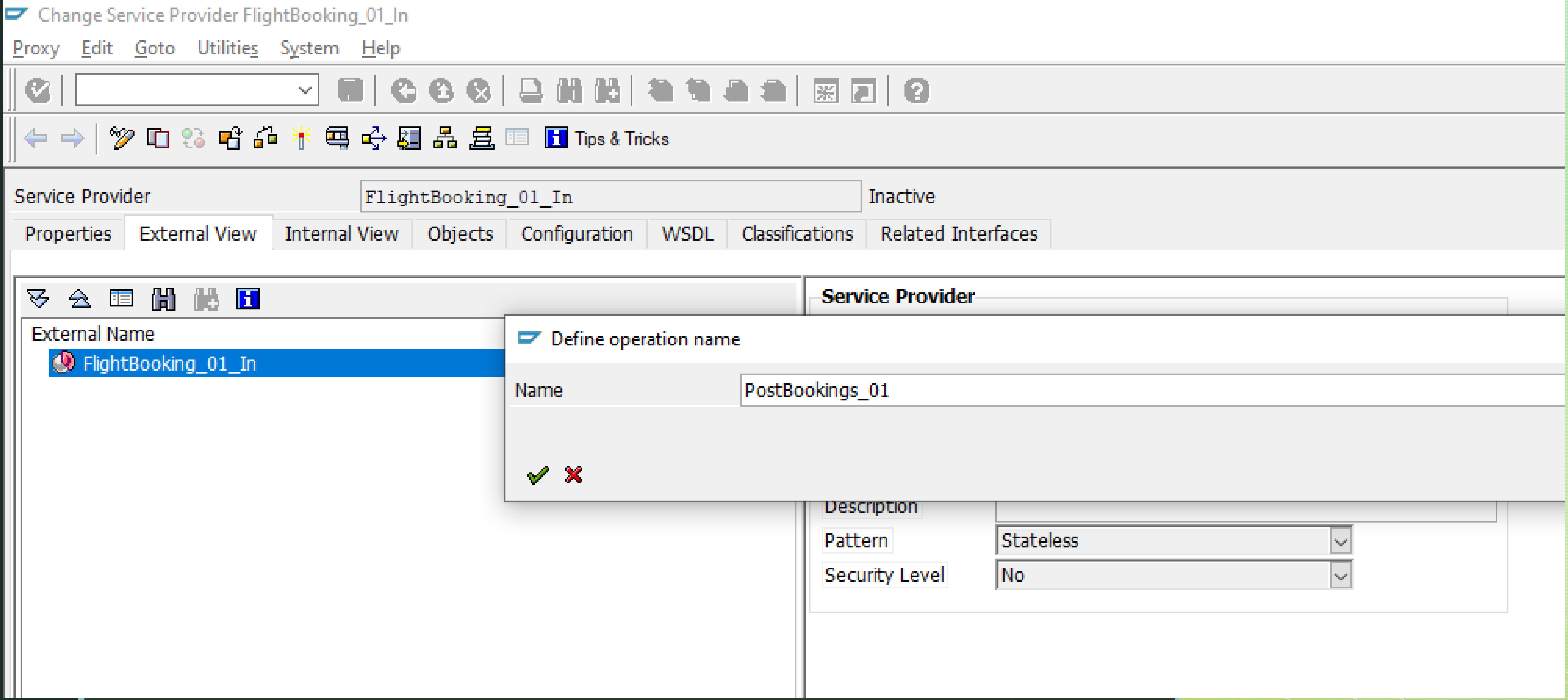
Service Provider FlightBooking_01_In Inactive

ABAP Name

ZAIF_II_FLIGHT_BOOKING_01_IN

Service Provider

Name	FlightBooking_01_In
Namespace	http://tutorial.com/aif
ABAP Object	INTF Interface
ABAP Name	ZAIF_II_FLIGHT_BOOKING_01_IN
Prefix	ZAIF_
Description	
Pattern	Stateless
Security Level	No



Change Service Provider FlightBooking_01_In

Service Provider FlightBooking_01_In Inactive

External Name

FlightBooking_01_In

Service Provider

Define operation name

Name PostBookings_01

Description

Pattern Stateless

Security Level No

DEFINE PROXY STRUCTURES

Next, you need to add an operation and a fault message type in the proxy editor.

1. Switch to the **Internal View** tab. Right-click your service provider and select **Add Operation**. Enter the operation name PostBookings_01. With the new operation selected, switch the **Pattern** of the operation to **Not Reliable** to simplify testing.

1.Right-click the operation and select **Set Request > Select Existing Message Type** from the context menu.

2.In the upcoming **Restrict Value Range** dialog, remove all filters.

3.Enter the message type **SXIDAL_FBO_REQUEST_MT** in the **ABAP Name** search filter,

4. and the namespace **http://sap.com/xi/XI/Demo/Airline** in the **Namespace** search filter,

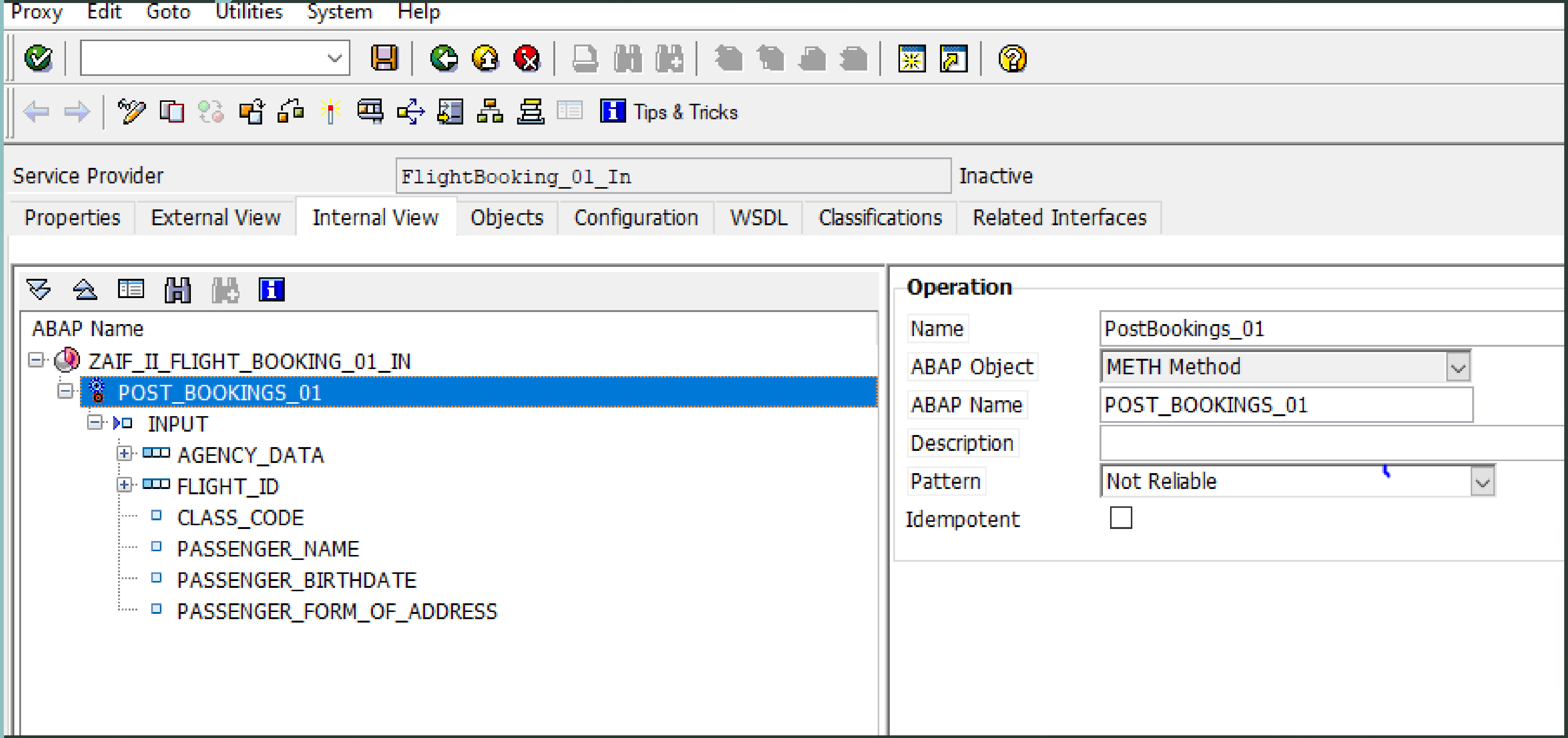
5.then press **Enter**. In the search result, select the found entry, and select **Copy**.

2.Right-click the operation and select **Add Fault > Select Existing Fault Message Type**.

3.Similar to the message type search, remove all filters. Then search for the fault message

4.type **CX_SXIDAL_TECHNICAL_PROBLEMS**.

3.Save and activate the proxy.



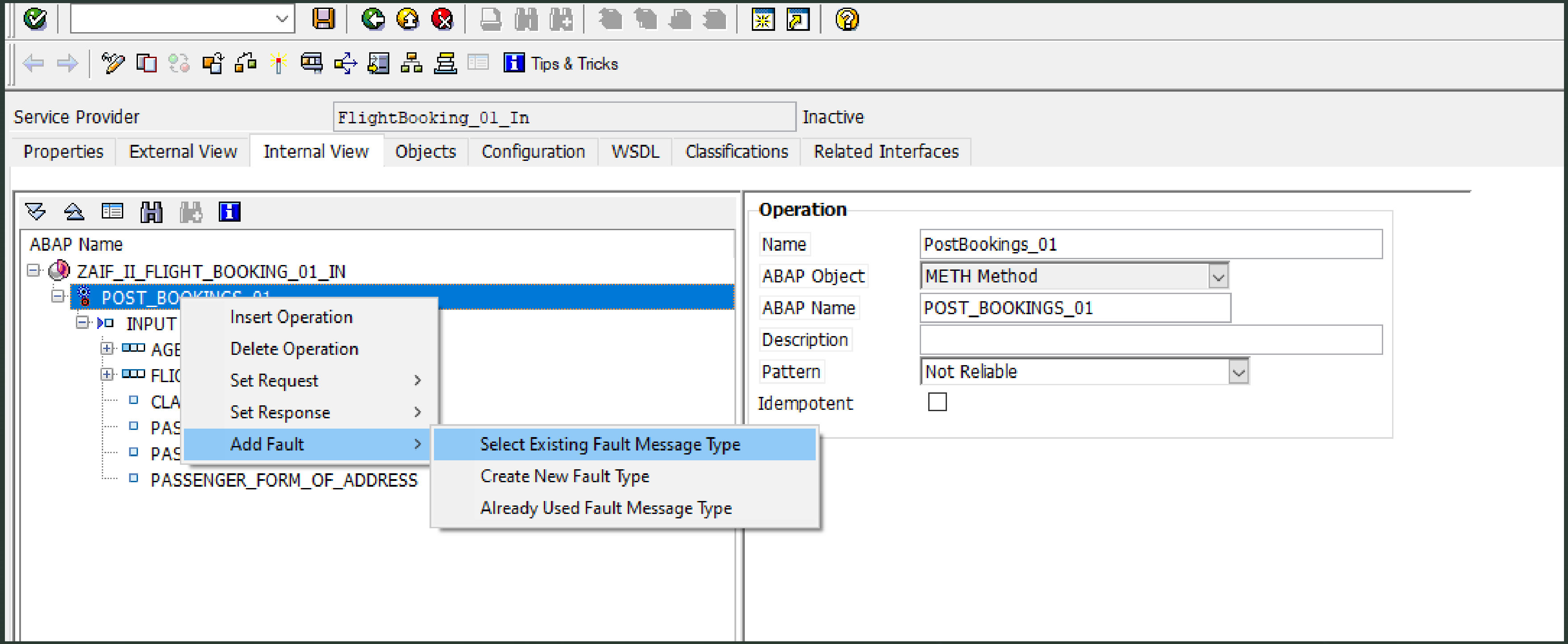
Service Provider: FlightBooking_01_In
Inactive

ABAP Name

```
⊟ ZAIF_II_FLIGHT_BOOKING_01_IN
  ⊟ POST_BOOKINGS_01
    ⊟ INPUT
      ⊞ AGENCY_DATA
      ⊞ FLIGHT_ID
        CLASS_CODE
        PASSENGER_NAME
        PASSENGER_BIRTHDATE
        PASSENGER_FORM_OF_ADDRESS
```

Operation

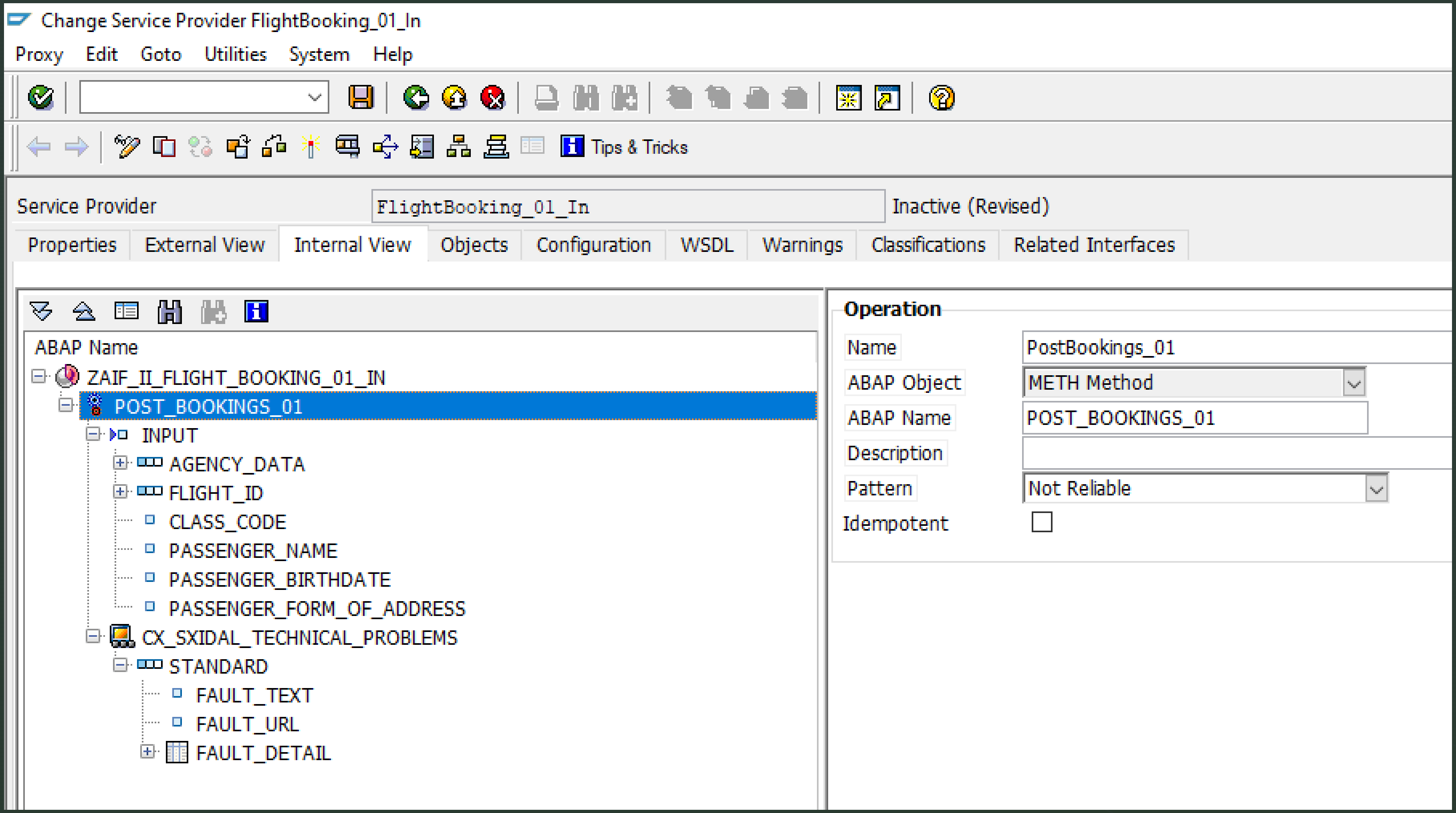
Name	PostBookings_01
ABAP Object	METH Method
ABAP Name	POST_BOOKINGS_01
Description	
Pattern	Not Reliable
Idempotent	□



Service Provider FlightBooking_01_In Inactive

Operation

Name	PostBookings_01
ABAP Object	METH Method
ABAP Name	POST_BOOKINGS_01
Description	
Pattern	Not Reliable
Idempotent	□



Change Service Provider FlightBooking_01_In

Service Provider: FlightBooking_01_In — Inactive (Revised)

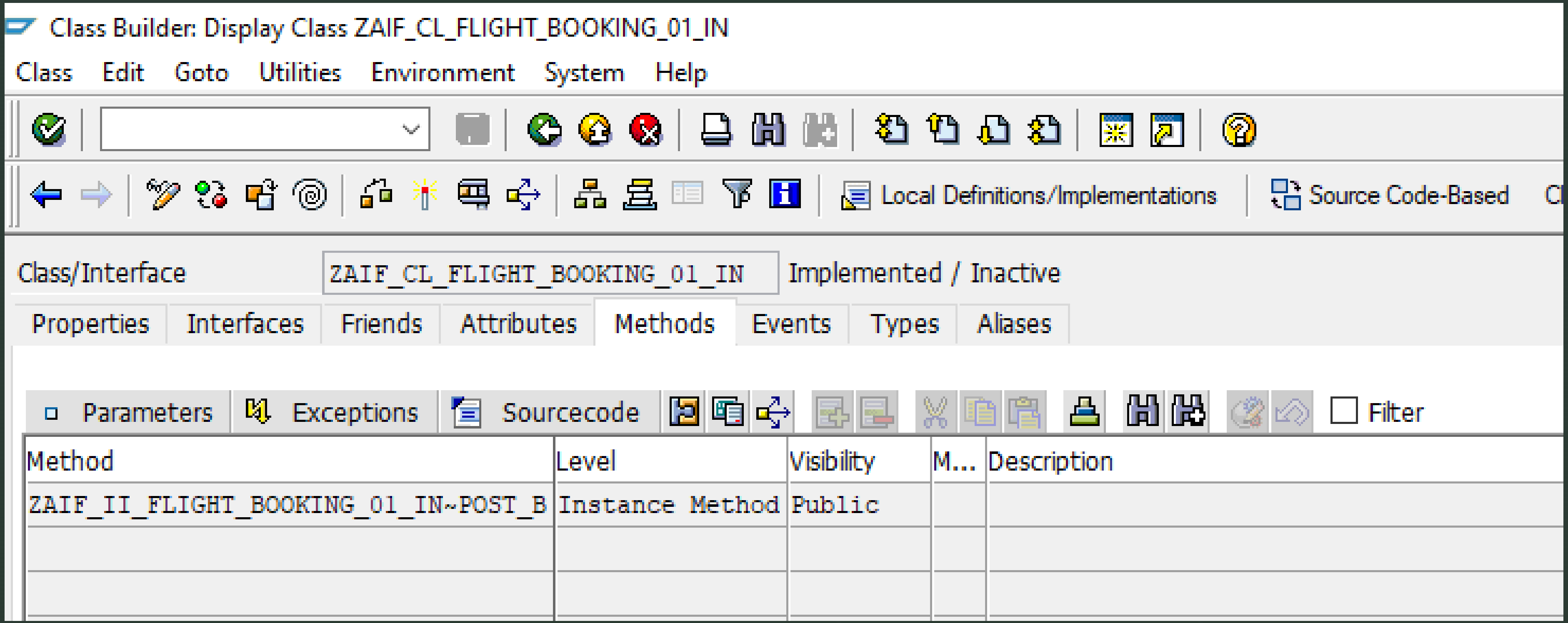
```
ABAP Name
ZAIF_II_FLIGHT_BOOKING_01_IN
  POST_BOOKINGS_01
    INPUT
      AGENCY_DATA
      FLIGHT_ID
      CLASS_CODE
      PASSENGER_NAME
      PASSENGER_BIRTHDATE
      PASSENGER_FORM_OF_ADDRESS
    CX_SXIDAL_TECHNICAL_PROBLEMS
      STANDARD
        FAULT_TEXT
        FAULT_URL
        FAULT_DETAIL
```

Operation

Name	PostBookings_01
ABAP Object	METH Method
ABAP Name	POST_BOOKINGS_01
Description	
Pattern	Not Reliable
Idempotent	□

Implement proxy class method

Finally, to book the flights in your test scenario,
the proxy class method needs to be implemented.
Switch to the **Properties** tab.
Double-click the implementing class
ZAIF_CL_FLIGHT_BOOKING_01_IN
and then double-click the method
ZAIF_II_FLIGHT_BOOKING_01_IN~POST_BOOKINGS_01.
Maintain the implementation of the method by copying
and pasting the following:



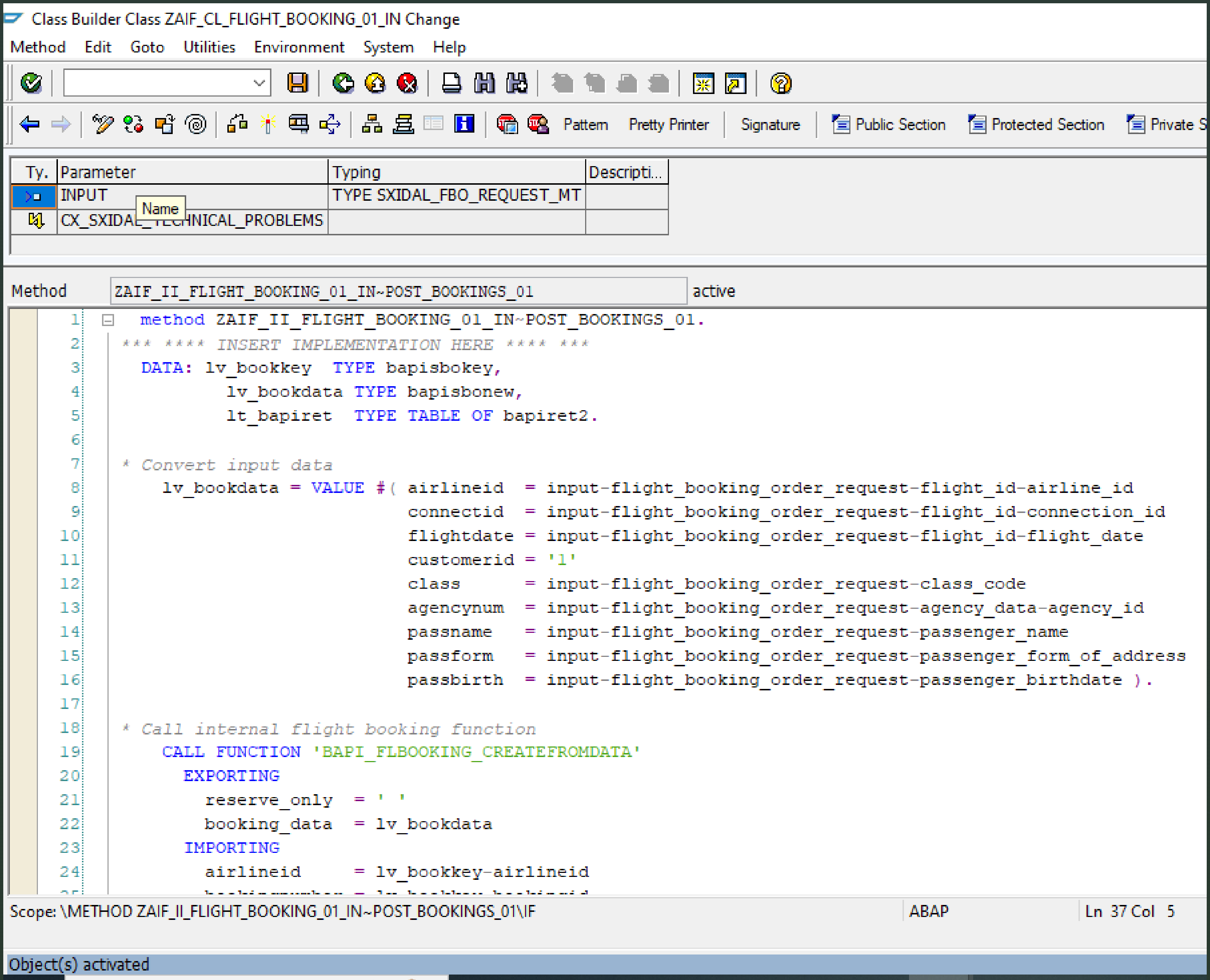
Class Builder: Display Class ZAIF_CL_FLIGHT_BOOKING_01_IN

Class/Interface ZAIF_CL_FLIGHT_BOOKING_01_IN Implemented / Inactive

Method	Level	Visibility	M...	Description
ZAIF_II_FLIGHT_BOOKING_01_IN~POST_B	Instance Method	Public		

```
 method ZAIF_II_FLIGHT_BOOKING_01_IN~POST_BOOKINGS_01.

DATA: lv_bookkey  TYPE bapisbokey,
lv_bookdata TYPE bapisbonew,
lt_bapiret  TYPE TABLE OF bapiret2.

* Convert input data
lv_bookdata = VALUE #( airlineid  = input-flight_booking_order_request-flight_id-
airline_id
              connectid  = input-flight_booking_order_request-flight_id-connection_id
              flightdate = input-flight_booking_order_request-flight_id-flight_date
              customerid = '1'
              class      = input-flight_booking_order_request-class_code
              agencynum  = input-flight_booking_order_request-agency_data-
agency_id
              passname   = input-flight_booking_order_request-passenger_name
              passform   = input-flight_booking_order_request-
passenger_form_of_address
              passbirth  = input-flight_booking_order_request-passenger_birthdate ).
```

```
* Call internal flight booking function
  CALL FUNCTION 'BAPI_FLBOOKING_CREATEFROMDATA'
   EXPORTING
    reserve_only  = ' '
    booking_data  = lv_bookdata
   IMPORTING
    airlineid     = lv_bookkey-airlineid
    bookingnumber = lv_bookkey-bookingid
   TABLES
    return        = lt_bapiret.

* error case
  IF line_exists( lt_bapiret[ type = 'E' id = 'BAPI' number ='001' ] ).

   CALL METHOD cl_proxy_fault=>raise
    EXPORTING
     exception_class_name = 'CX_SXIDAL_TECHNICAL_PROBLEMS'
     bapireturn_tab       = lt_bapiret.

  ENDIF.
ENDMETHOD.
```


Class Builder Class ZAIF_CL_FLIGHT_BOOKING_01_IN Change
Method Edit Goto Utilities Environment System Help
Pattern
Pretty Printer
Signature
Public Section
Protected Section
Private S
Name

Ty.	Parameter	Typing	Descripti...
	INPUT	TYPE SXIDAL_FBO_REQUEST_MT	
	CX_SXIDAL_TECHNICAL_PROBLEMS		

Method ZAIF_II_FLIGHT_BOOKING_01_IN~POST_BOOKINGS_01 active

```
  method ZAIF_II_FLIGHT_BOOKING_01_IN~POST_BOOKINGS_01.
*** **** INSERT IMPLEMENTATION HERE **** ***
  DATA: lv_bookkey  TYPE bapisbokey,
          lv_bookdata TYPE bapisbonew,
          lt_bapiret  TYPE TABLE OF bapiret2.

* Convert input data
    lv_bookdata = VALUE #( airlineid  = input-flight_booking_order_request-flight_id-airline_id
                           connectid  = input-flight_booking_order_request-flight_id-connection_id
                           flightdate = input-flight_booking_order_request-flight_id-flight_date
                           customerid = '1'
                           class      = input-flight_booking_order_request-class_code
                           agencynum  = input-flight_booking_order_request-agency_data-agency_id
                           passname   = input-flight_booking_order_request-passenger_name
                           passform   = input-flight_booking_order_request-passenger_form_of_address
                           passbirth  = input-flight_booking_order_request-passenger_birthdate ).

* Call internal flight booking function
    CALL FUNCTION 'BAPI_FLBOOKING_CREATEFROMDATA'
      EXPORTING
        reserve_only  = ' '
        booking_data  = lv_bookdata
      IMPORTING
        airlineid     = lv_bookkey-airlineid
        bookingnumber = lv_bookkey-bookingid
```

Scope: \METHOD ZAIF_II_FLIGHT_BOOKING_01_IN~POST_BOOKINGS_01\IF   ABAP   Ln 37 Col 5

Object(s) activated

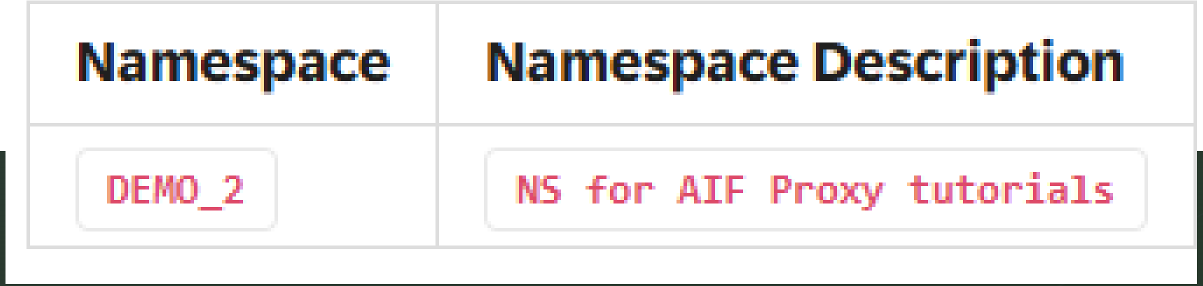
CREATE NAMESPACE

As interfaces in SAP Application Interface Framework are grouped using namespaces, you must create a namespace.

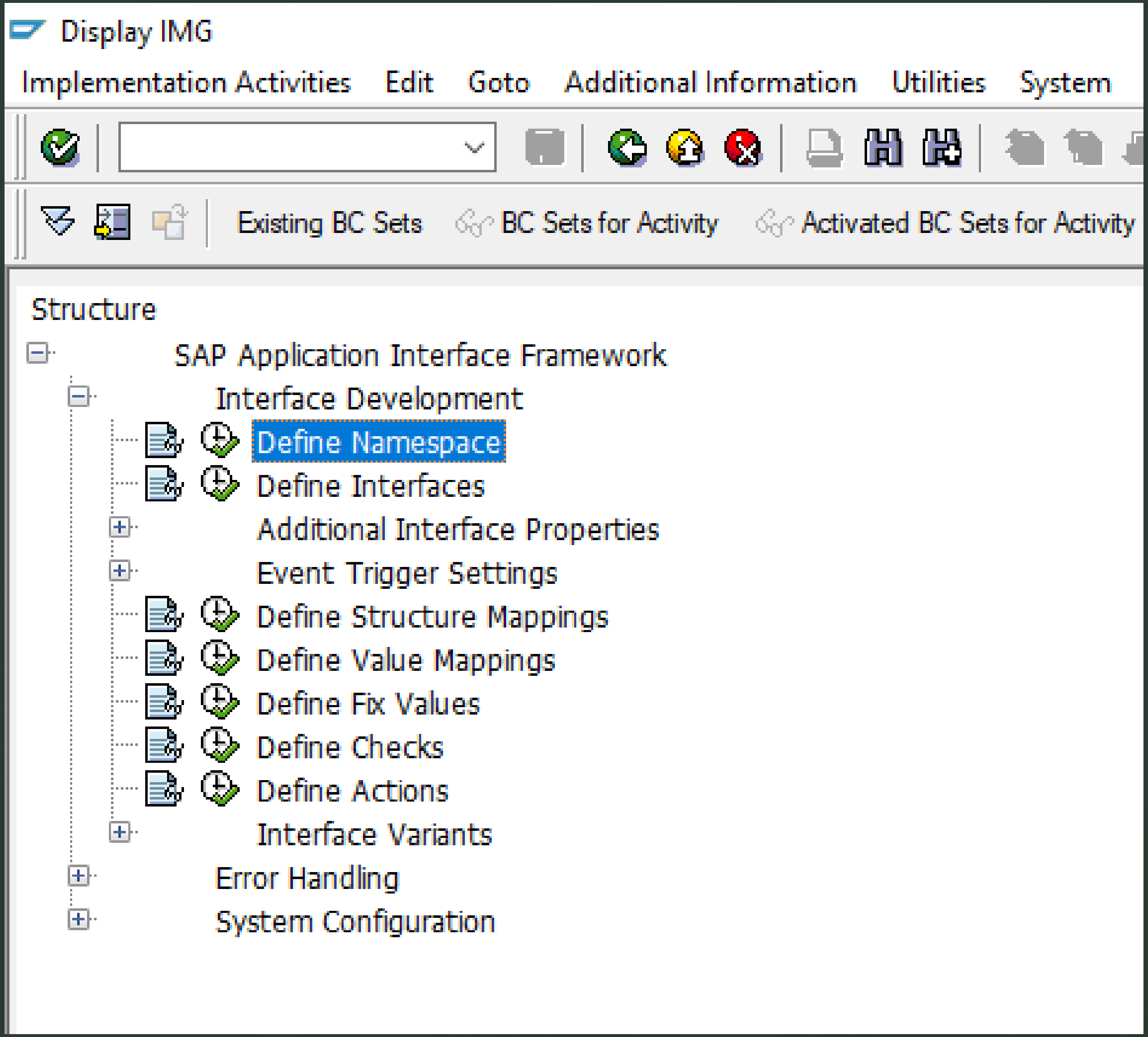
Go to **Customizing** for SAP Application Interface Framework (transaction code /n/AIF/CUST)

and navigate to **Interface Development** > **Define Namespace**.

Select **New Entries** and enter the following name and description for your new namespace:



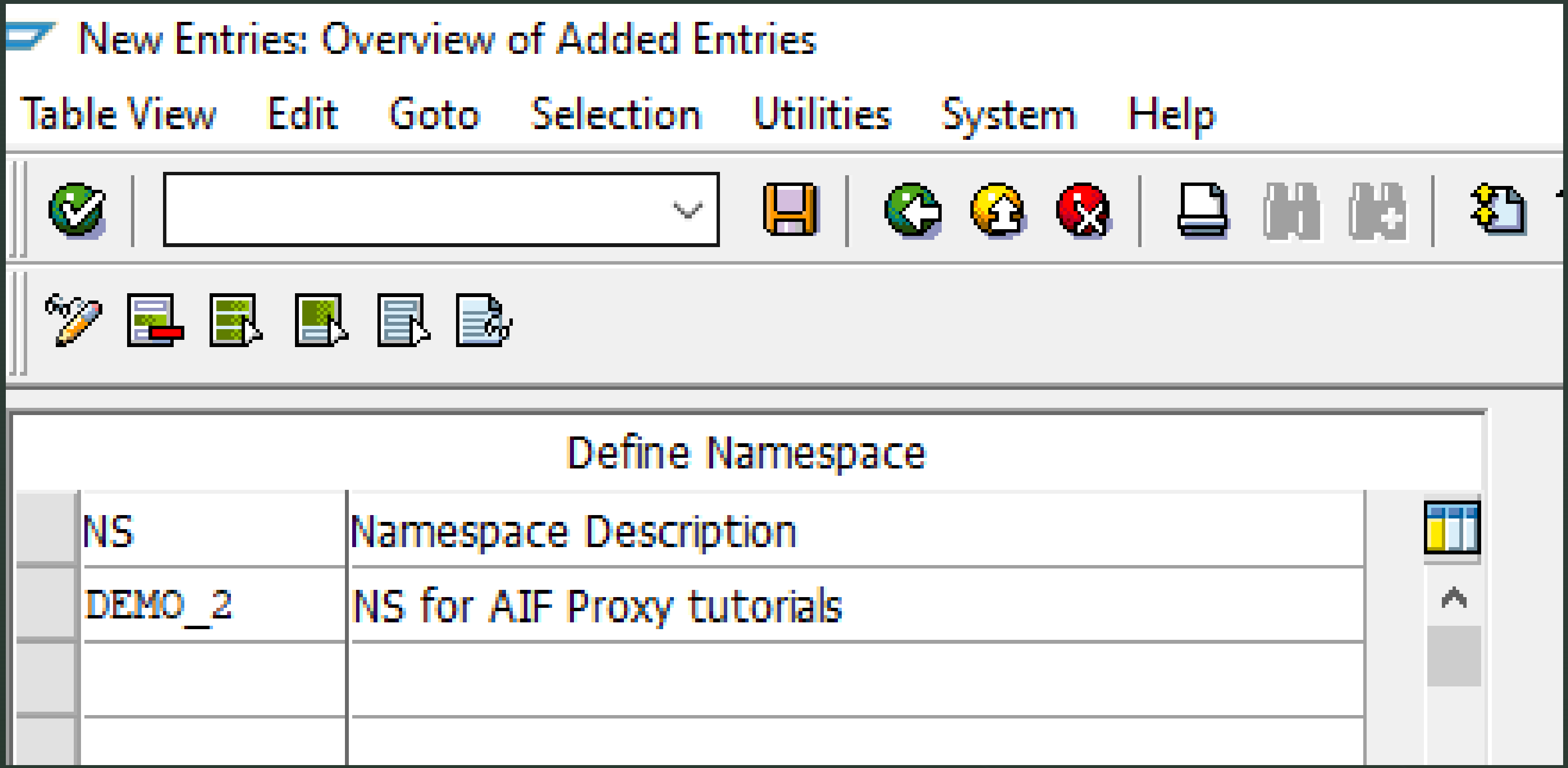
Namespace	Namespace Description
DEMO_2	NS for AIF Proxy tutorials



Display IMG

Structure

- SAP Application Interface Framework
  - Interface Development
    - Define Namespace
    - Define Interfaces
    - Additional Interface Properties
    - Event Trigger Settings
    - Define Structure Mappings
    - Define Value Mappings
    - Define Fix Values
    - Define Checks
    - Define Actions
    - Interface Variants
  - Error Handling
  - System Configuration

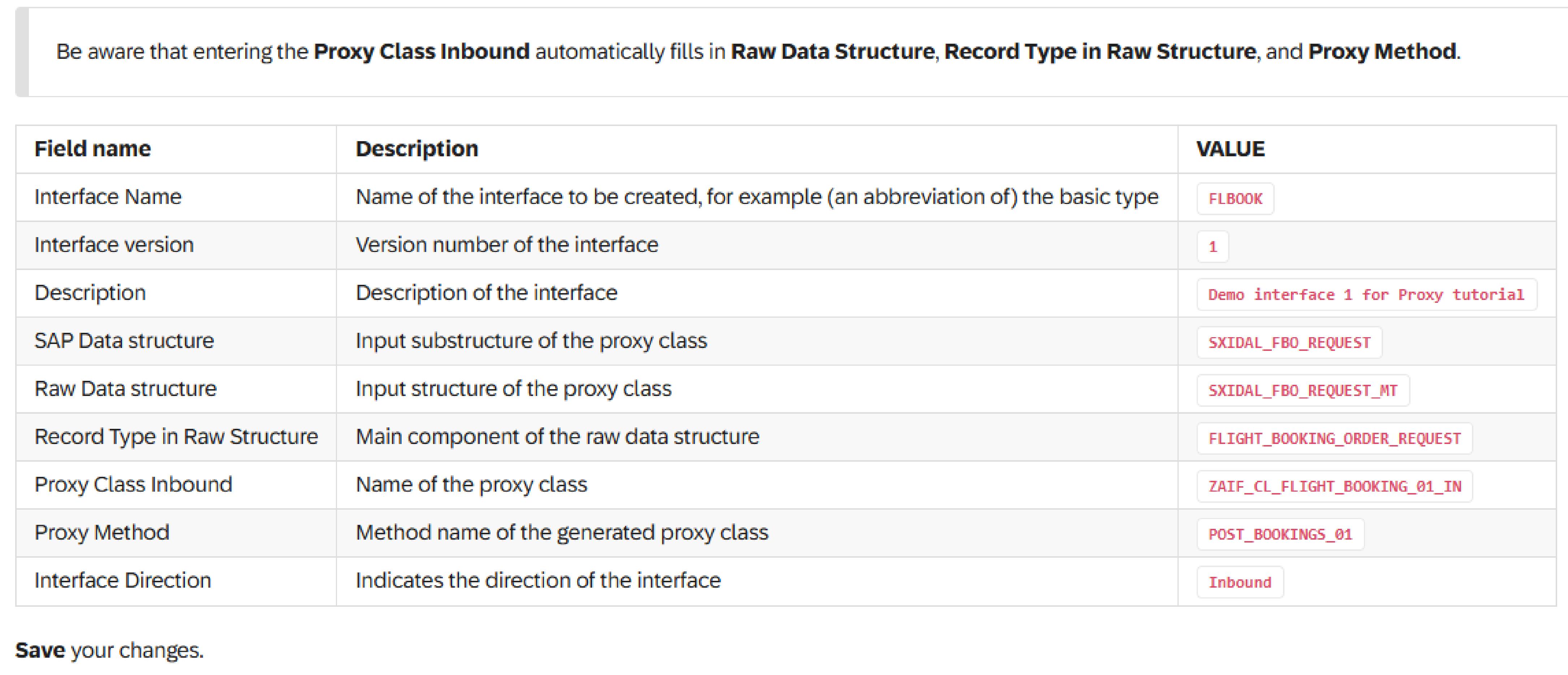


Define Namespace

NS	Namespace Description
DEMO_2	NS for AIF Proxy tutorials

CREATE INTERFACE

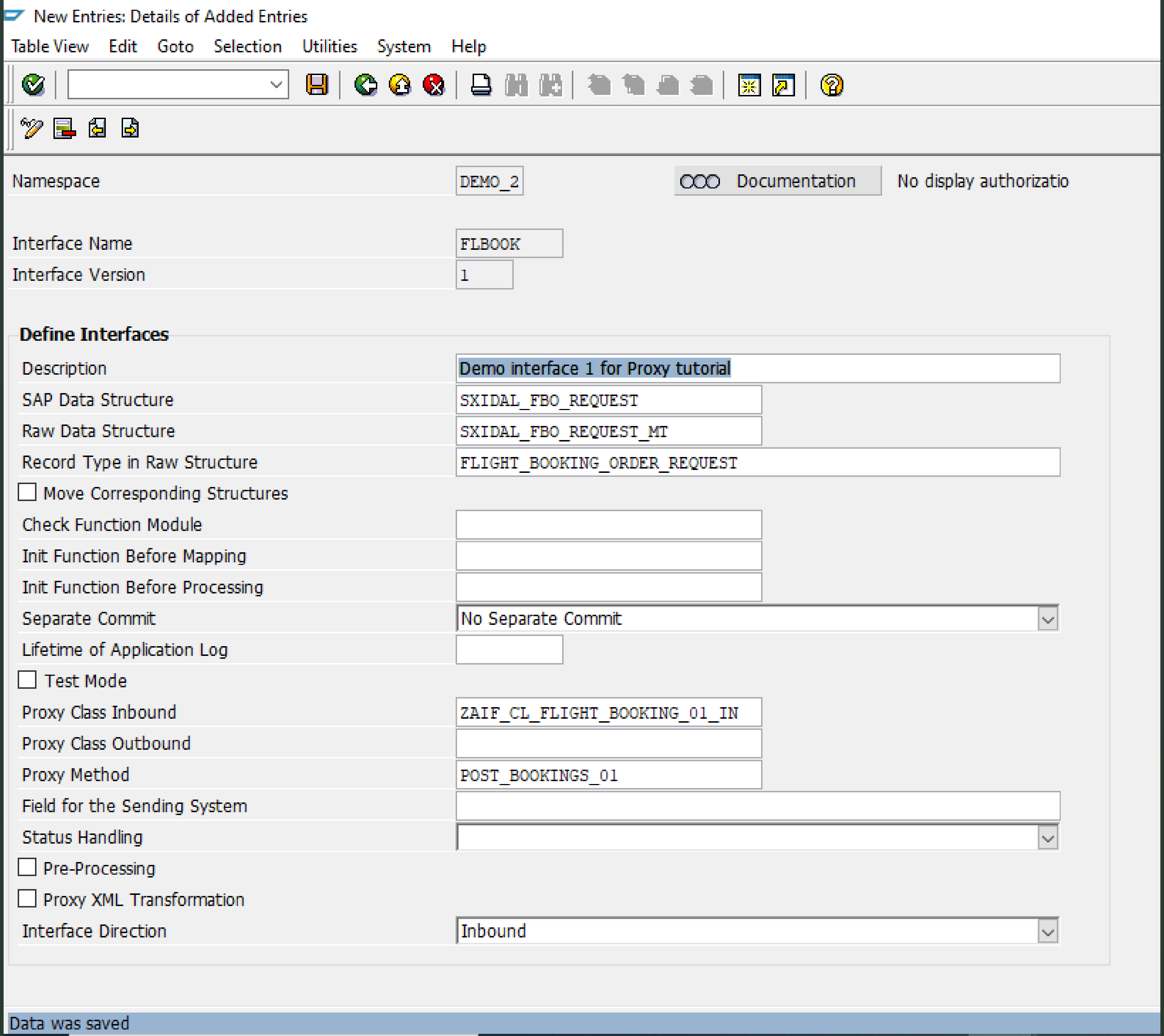
While still in **Customizing** (transaction code /n/AIF/CUST), navigate to **Interface Development** > **Define Interfaces**.
In the upcoming dialog, enter your previously created namespace **DEMO_2**
and press **Enter**.
Select **New Entries** and enter the following parameters based on your proxy class and implementation.
You can double-check this information in transaction code SPROXY



> Be aware that entering the **Proxy Class Inbound** automatically fills in **Raw Data Structure**, **Record Type in Raw Structure**, and **Proxy Method**.

Field name	Description	VALUE
Interface Name	Name of the interface to be created, for example (an abbreviation of) the basic type	`FLBOOK`
Interface version	Version number of the interface	`1`
Description	Description of the interface	`Demo interface 1 for Proxy tutorial`
SAP Data structure	Input substructure of the proxy class	`SXIDAL_FBO_REQUEST`
Raw Data structure	Input structure of the proxy class	`SXIDAL_FBO_REQUEST_MT`
Record Type in Raw Structure	Main component of the raw data structure	`FLIGHT_BOOKING_ORDER_REQUEST`
Proxy Class Inbound	Name of the proxy class	`ZAIF_CL_FLIGHT_BOOKING_01_IN`
Proxy Method	Method name of the generated proxy class	`POST_BOOKINGS_01`
Interface Direction	Indicates the direction of the interface	`Inbound`

Save your changes.



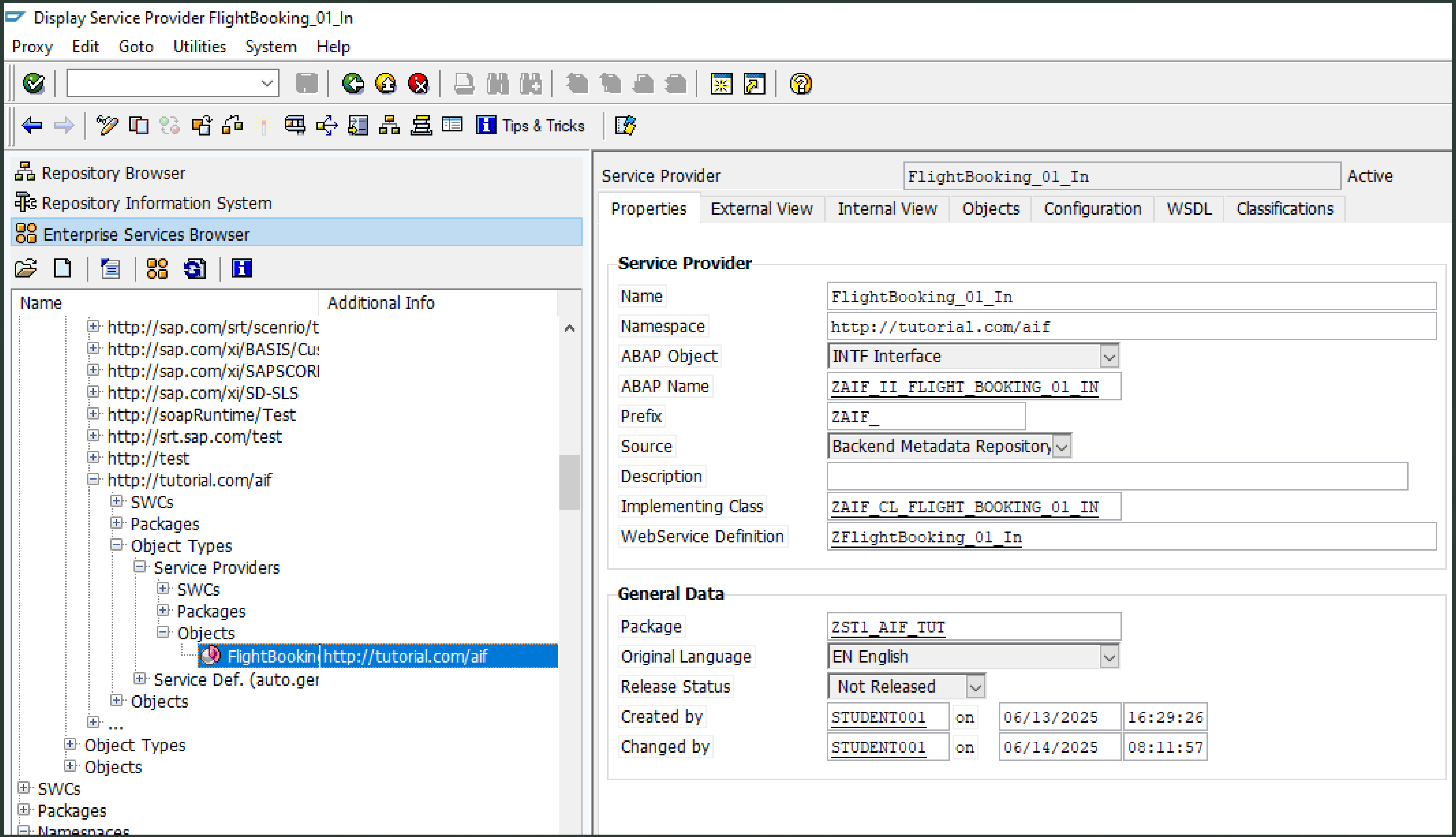
Namespace	DEMO_2
Interface Name	FLBOOK
Interface Version	1

No display authorizatio

Define Interfaces

Description	Demo interface 1 for Proxy tutorial
SAP Data Structure	SXIDAL_FBO_REQUEST
Raw Data Structure	SXIDAL_FBO_REQUEST_MT
Record Type in Raw Structure	FLIGHT_BOOKING_ORDER_REQUEST
☐ Move Corresponding Structures	
Check Function Module	
Init Function Before Mapping	
Init Function Before Processing	
Separate Commit	No Separate Commit
Lifetime of Application Log	
☐ Test Mode	
Proxy Class Inbound	ZAIF_CL_FLIGHT_BOOKING_01_IN
Proxy Class Outbound	
Proxy Method	POST_BOOKINGS_01
Field for the Sending System	
Status Handling	
☐ Pre-Processing	
☐ Proxy XML Transformation	
Interface Direction	Inbound

Data was saved



Display Service Provider FlightBooking_01_In

Service Provider FlightBooking_01_In Active

Service Provider

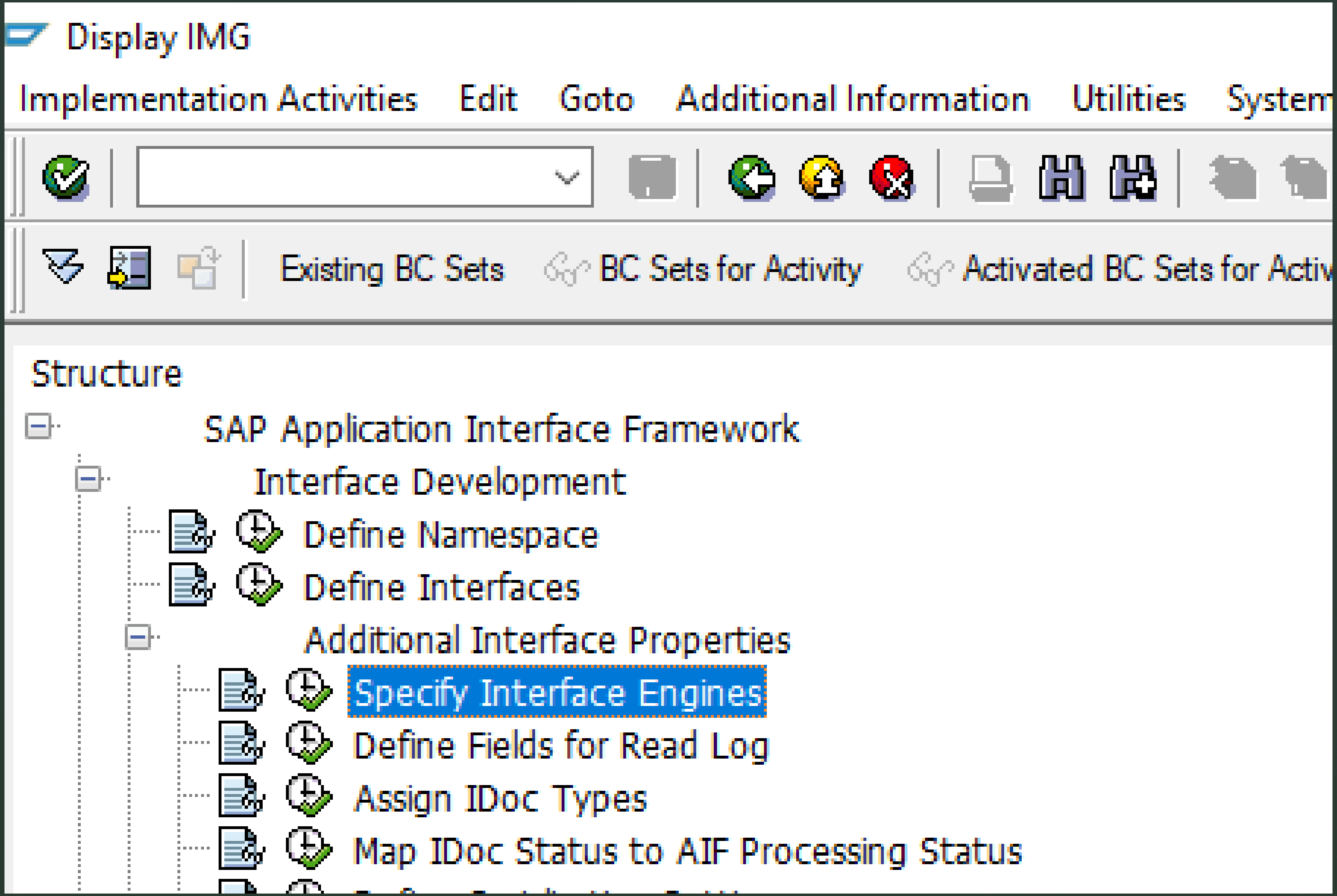
Name	FlightBooking_01_In
Namespace	http://tutorial.com/aif
ABAP Object	INTF Interface
ABAP Name	ZAIF_II_FLIGHT_BOOKING_01_IN
Prefix	ZAIF_
Source	Backend Metadata Repository
Description	
Implementing Class	ZAIF_CL_FLIGHT_BOOKING_01_IN
WebService Definition	ZFlightBooking_01_In

General Data

Package	ZST1_AIF_TUT			
Original Language	EN English			
Release Status	Not Released			
Created by	STUDENT001	on	06/13/2025	16:29:26
Changed by	STUDENT001	on	06/14/2025	08:11:57

SPECIFY INTEERFACE ENGINES

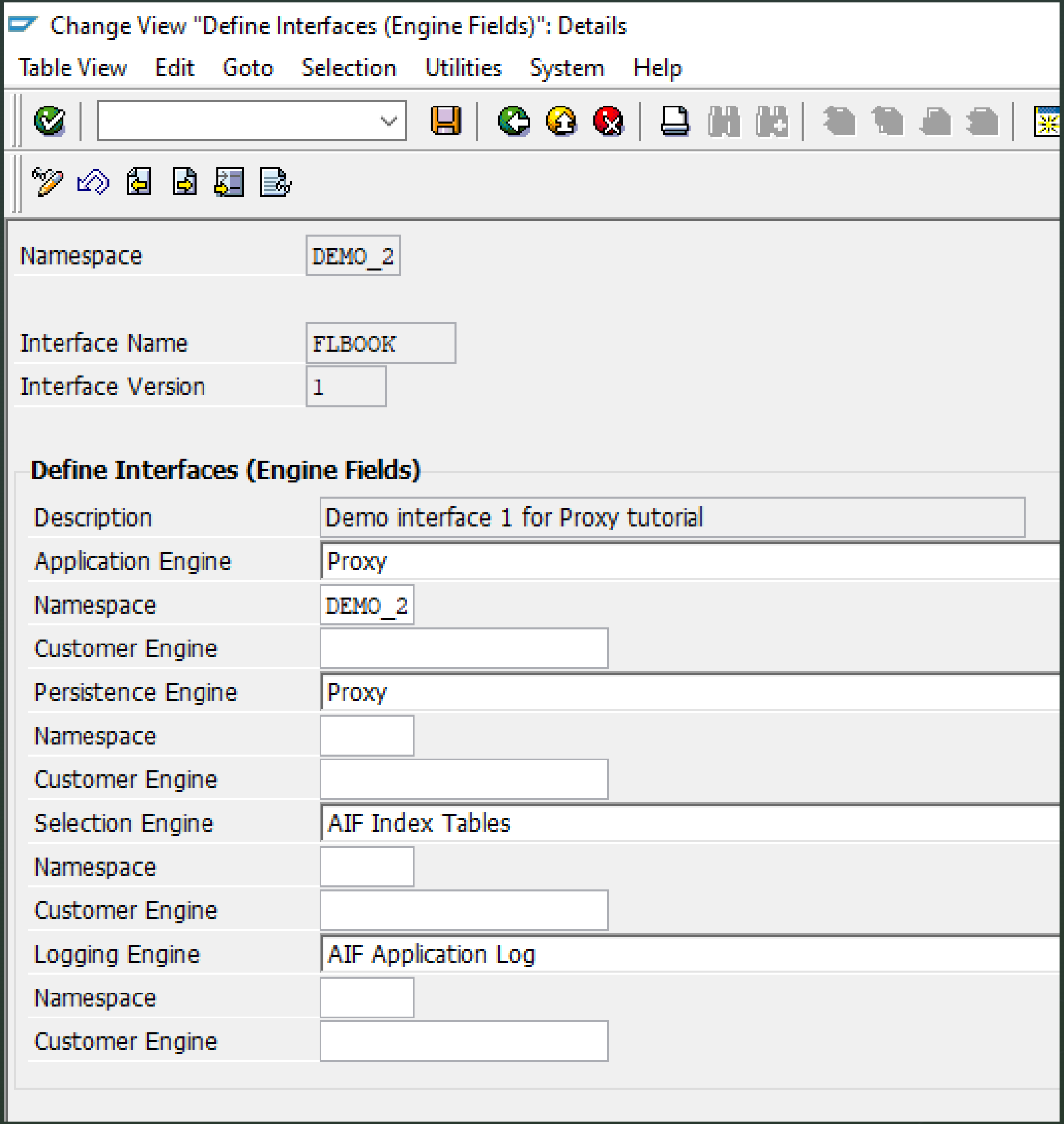
Next, you have to select the engines that should be used to handle the messages that are processed.
If you create a new interface, by default, SAP Application Interface Framework handles the messages as proxy messages,
so you can keep the default settings.
To double-check the settings, go to **Customizing** for SAP Application Interface Framework (transaction code /AIF/CUST)
and navigate to **Interface Development** > **Additional Interface Properties** > **Specify Interface Engines**.
In the upcoming dialog, enter your beforehand created namespace **DEMO_2**, and press **Enter**.
Check that the following engines are preselected:



Display IMG

Structure

- SAP Application Interface Framework
  - Interface Development
    - Define Namespace
    - Define Interfaces
    - Additional Interface Properties
      - Specify Interface Engines
      - Define Fields for Read Log
      - Assign IDoc Types
      - Map IDoc Status to AIF Processing Status



Namespace	DEMO_2
Interface Name	FLBOOK
Interface Version	1

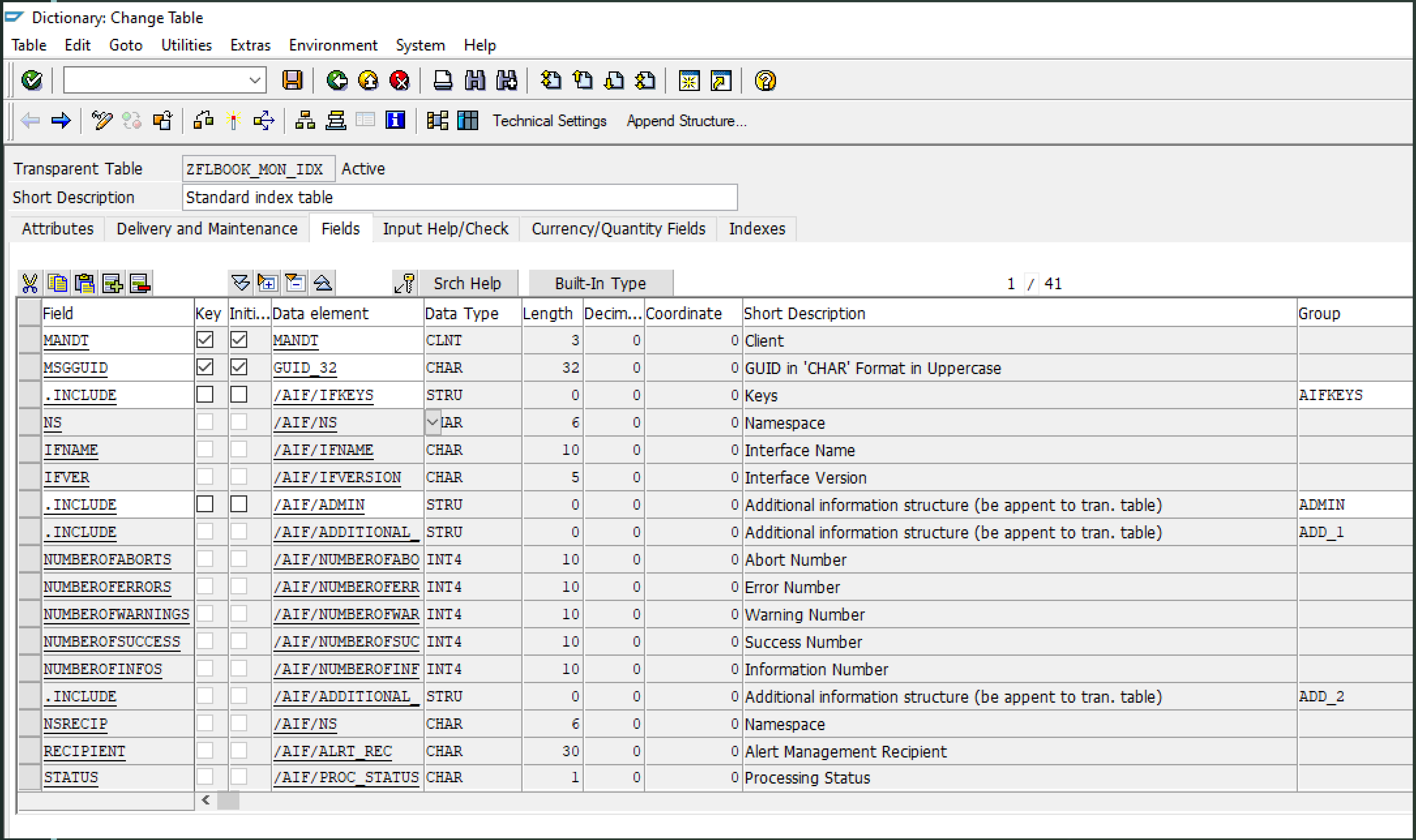
Define Interfaces (Engine Fields)

Description	Demo interface 1 for Proxy tutorial
Application Engine	Proxy
Namespace	DEMO_2
Customer Engine	
Persistence Engine	Proxy
Namespace	
Customer Engine	
Selection Engine	AIF Index Tables
Namespace	
Customer Engine	
Logging Engine	AIF Application Log
Namespace	
Customer Engine	

Create interface-specific single index table

It’s recommended to implement an interface-specific single index table to ensure full flexibility, especially if you expect a high load of messages or if you plan to define key fields for your interface (now or later).

1. Create a table via transaction SE11. You can use table /AIF/STD_IDX_TBL as a template by entering **/AIF/STD_IDX_TBL** in the field **Database table**, right-clicking it and selecting **Copy…**. Enter the name **ZFLBOOK_MON_IDX** for the new table and select **Continue**. When prompted, enter package **ZDEMO**, which you created earlier.
2. After creating the single index table, activate it by selecting **Display** and then **Activate**.



Dictionary: Change Table

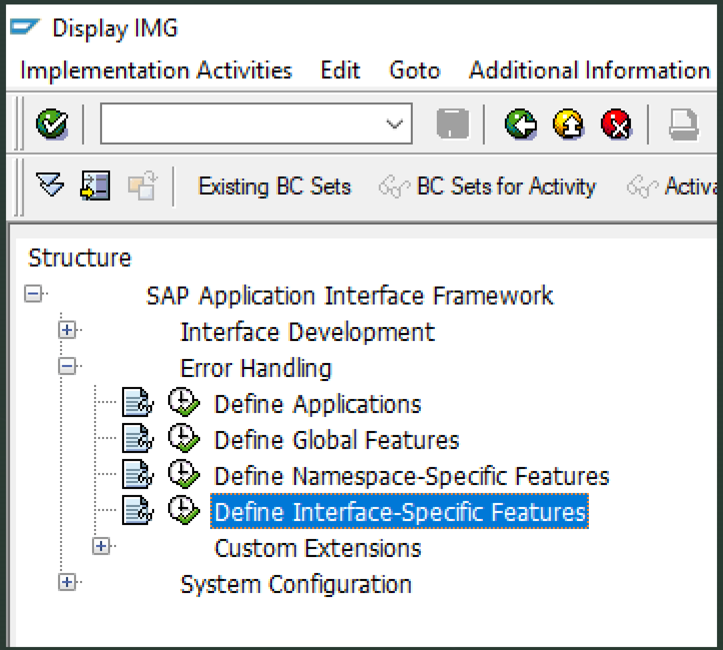
Transparent Table: ZFLBOOK_MON_IDX Active

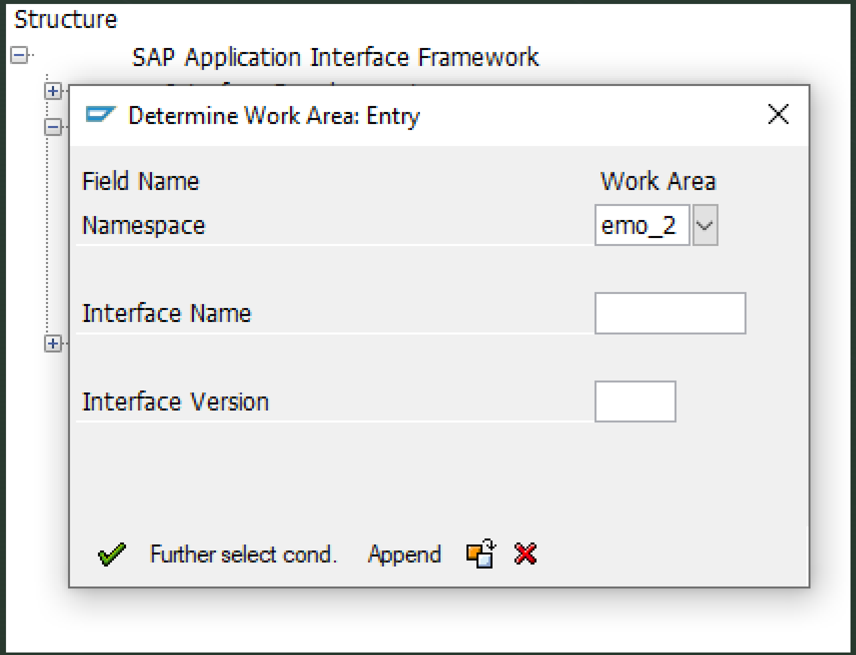
Short Description: Standard index table

Attributes | Delivery and Maintenance | Fields | Input Help/Check | Currency/Quantity Fields | Indexes

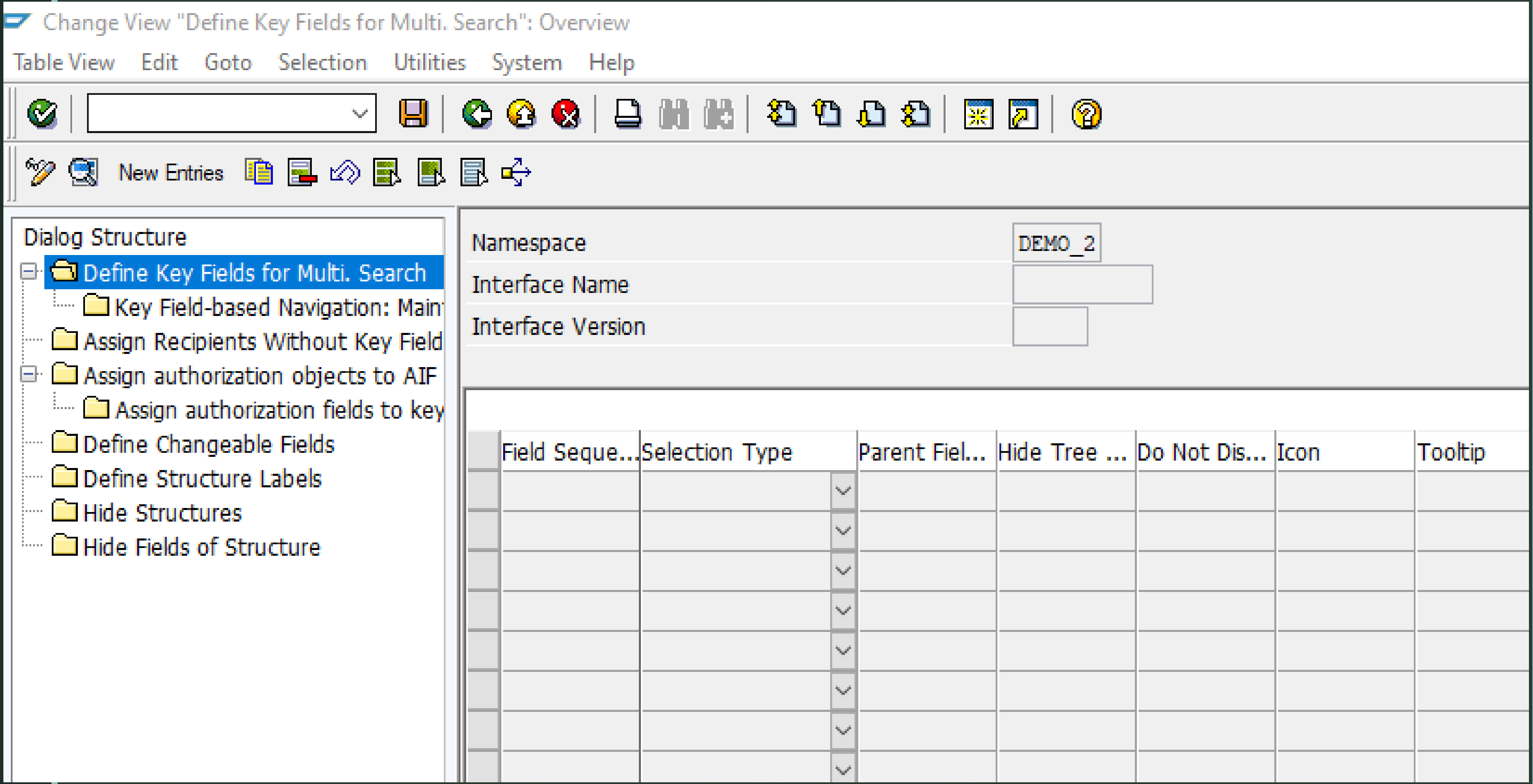
1 / 41

Field	Key	Initi...	Data element	Data Type	Length	Decim...	Coordinate	Short Description	Group
MANDT	☑	☑	MANDT	CLNT	3	0	0	Client	
MSGGUID	☑	☑	GUID_32	CHAR	32	0	0	GUID in 'CHAR' Format in Uppercase	
.INCLUDE	☐	☐	/AIF/IFKEYS	STRU	0	0	0	Keys	AIFKEYS
NS	☐	☐	/AIF/NS	AR	6	0	0	Namespace	
IFNAME	☐	☐	/AIF/IFNAME	CHAR	10	0	0	Interface Name	
IFVER	☐	☐	/AIF/IFVERSION	CHAR	5	0	0	Interface Version	
.INCLUDE	☐	☐	/AIF/ADMIN	STRU	0	0	0	Additional information structure (be appent to tran. table)	ADMIN
.INCLUDE	☐	☐	/AIF/ADDITIONAL_	STRU	0	0	0	Additional information structure (be appent to tran. table)	ADD_1
NUMBEROFABORTS	☐	☐	/AIF/NUMBEROFABO	INT4	10	0	0	Abort Number	
NUMBEROFERRORS	☐	☐	/AIF/NUMBEROFERR	INT4	10	0	0	Error Number	
NUMBEROFWARNINGS	☐	☐	/AIF/NUMBEROFWAR	INT4	10	0	0	Warning Number	
NUMBEROFSUCCESS	☐	☐	/AIF/NUMBEROFSUC	INT4	10	0	0	Success Number	
NUMBEROFINFOS	☐	☐	/AIF/NUMBEROFINF	INT4	10	0	0	Information Number	
.INCLUDE	☐	☐	/AIF/ADDITIONAL_	STRU	0	0	0	Additional information structure (be appent to tran. table)	ADD_2
NSRECIP	☐	☐	/AIF/NS	CHAR	6	0	0	Namespace	
RECIPIENT	☐	☐	/AIF/ALRT_REC	CHAR	30	0	0	Alert Management Recipient	
STATUS	☐	☐	/AIF/PROC_STATUS	CHAR	1	0	0	Processing Status	




Structure
SAP Application Interface Framework
Determine Work Area: Entry
Further select cond.
Append

Field Name	Work Area
Namespace	emo_2
Interface Name	
Interface Version	



Change View "Define Key Fields for Multi. Search": Overview

Dialog Structure

- Define Key Fields for Multi. Search
  - Key Field-based Navigation: Main
- Assign Recipients Without Key Field
- Assign authorization objects to AIF
  - Assign authorization fields to key
- Define Changeable Fields
- Define Structure Labels
- Hide Structures
- Hide Fields of Structure

Namespace	DEMO_2
Interface Name	
Interface Version	

Field Seque...	Selection Type	Parent Fiel...	Hide Tree ...	Do Not Dis...	Icon	Tooltip

TO BE CONTINUED