

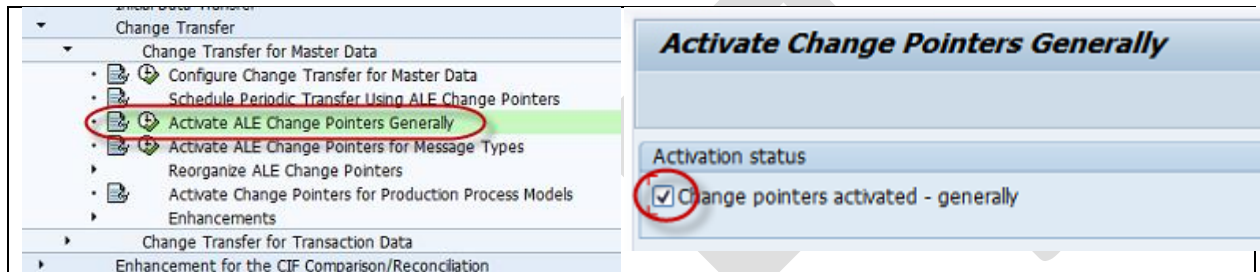
1 GUIDE TO SETUP COSMAS AND IORDER IDOCS FOR TREMCO

1.1 Purpose

This document describes the setup of the COSMAS and IORDER IDOCS for Tremco. It will not document the setup of ALE and EDI in SAP. For documentation about ALE and EDI please use general available SAP books (SAP Press), articles and the web.

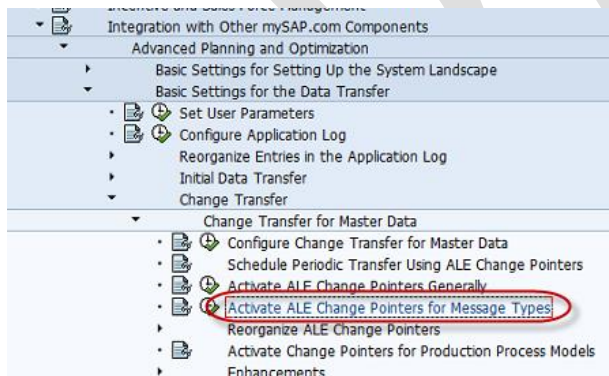
1.2 General Activation

To be able to use change pointers in an SAP system first check if the general change pointer function is set. Use the t-code 'SPRO' and look for 'Activate ALE change Pointer Generally' (see below). Make sure the checkbox is set.

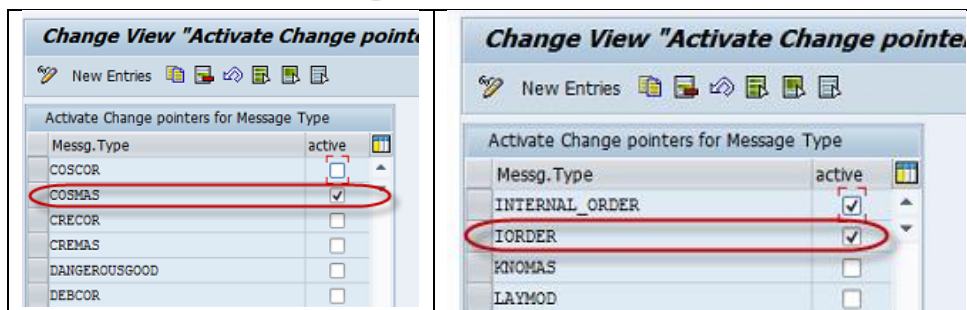


1.3 Activate COSMAS and IORDERS change pointers

To be able to use change pointers for Cost Centers and Maintenance Orders they need to be activated using t-code SPRO. Search for 'Activate ALE Change Pointers for Message Types' (see below).

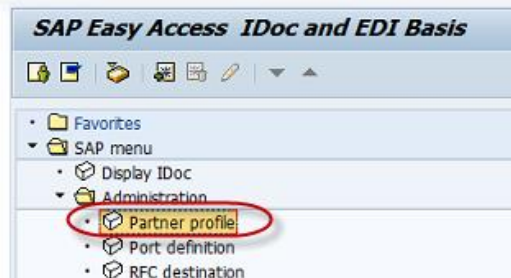


Activate both the COSMAS and IORDER change pointers by checking the checkbox.



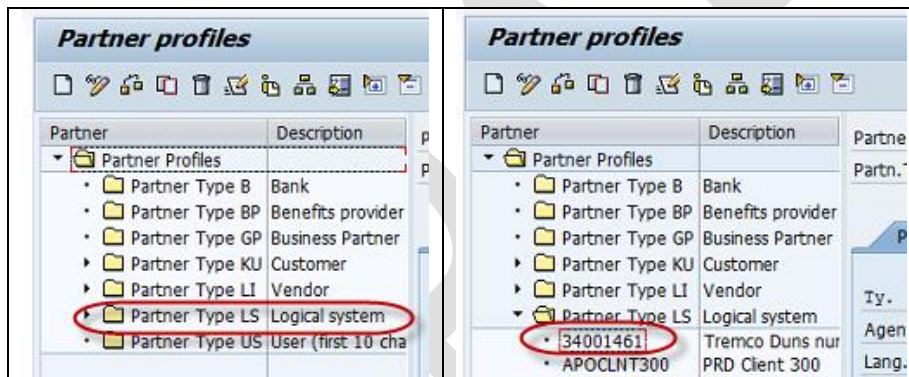
1.4 Setup of Partner profiles, Ports and RFC destination

The next step is to setup the partner profiles/logical systems, ports and RFC destinations. Below a description for setting this up for both the COSMAS and IORDER IDOCS. The setup is not sequential but sometimes a second session need to be opened to create another setup piece. We can use the t-code WEDI to setup all 3 items.

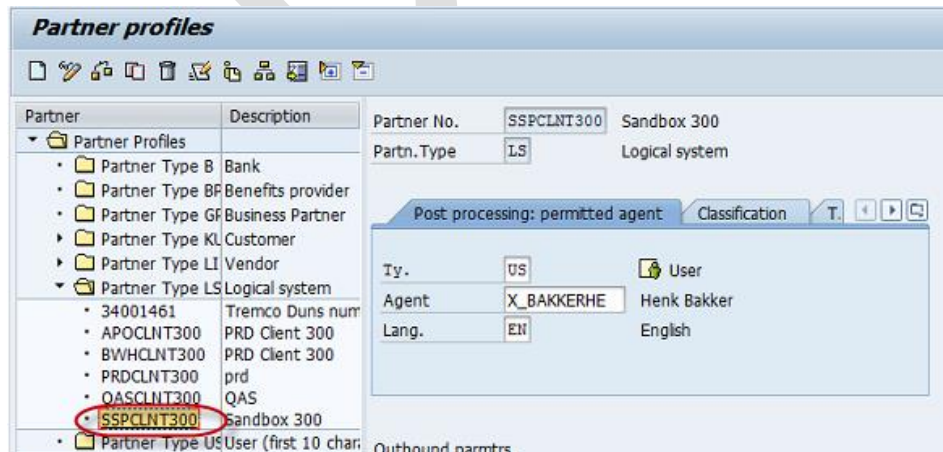


1.4.1 Partner profiles/Logical systems

First check if the logical system for the SAP system itself is setup. Ask your Basis person what the logical system for SAP is and if it is setup already. Normally you don't have access to set this up. In this case Tremco did define the systems logical system. In this case it has the name '34001461'.



Next is the process of setting up the partner profile(s) for COSMAS and IORDER. Because they are both outbound only 1 partner type would be setup. In this case it got the name 'SSCLNT300'.



1.4.1.1 Setup Partner profile message types

Part of the setup is the setup of both the message types. Part of this setup requires that other items are already be available. They could be created in a separate transaction.

Partner	Description	Partner No.	Sandbox 300
Partner Profiles		SSPLNT300	Sandbox 300
Partner Type B	Bank	Partn.Type	LS Logical system
Partner Type BF	Benefits provider		
Partner Type GF	Business Partner		
Partner Type KL	Customer		
Partner Type LI	Vendor		
Partner Type LS	Logical system		
34001461	Tremco Duns num		
APOCLNT300	PRD Client 300		
BWHCLNT300	PRD Client 300		
PRDCLNT300	prd		
QASCLNT300	QAS		
SSPLNT300	Sandbox 300		
Partner Type US	User (first 10 char)		

Partner Role	Message Type	Message va...	Me
	COSMAS		
	IORDER		

The setup of the COSMAS message type with an already defined receiver port 'CONCURPORT' and COSMAS base IDOC type COSMAS01 (standard SAP).

Partner No. SSPLNT300 Sandbox 300
Partn.Type LS Logical system
Partner Role

Message Type COSMAS Master cost center
Message code
Message function Test

Outbound Options Message Control Post Processing: Permitted Agent Tel...

Receiver port CONCURPORT File PORT FOR CONCUR FILE
Output Mode
 Transfer IDoc Immed. Start subsystem Output Mode
 Collect IDocs Do not start subsystem

IDoc Type
Basic type COSMAS01 Master cost center
Extension
View
 Cancel Processing After Syntax Error
Seg. release in IDoc type Segment Appl. Rel.

The setup of the IORDER message type with an already defined receiver port 'CONCURPORT', the IORDER base IDOC type IORDER01 (standard SAP) and the too be created IDOC extension ZORDER01.

Partner profiles: Outbound parameters

Partner No. Sandbox 300
 Partn. Type Logical system
 Partner Role

Message Type SM / PM order
 Message code
 Message function Test

Outbound Options | Message Control | Post Processing: Permitted Agent | Tel...

Receiver port File PORT FOR CONCUR FILE

Output Mode
 Transfer IDoc Immed. Start subsystem Output Mode
 Collect IDocs Do not start subsystem

IDoc Type
 Basic type SM/PM order IDoc
 Extension IDOC order enhancement
 View

Cancel Processing After Syntax Error
 Seg. release in IDoc type Segment Appl. Rel.

1.4.2 Setup of the port definitions

To be able to create both output files with IDOC data from COSMAS and IORDER it is required to setup a 'File' port.

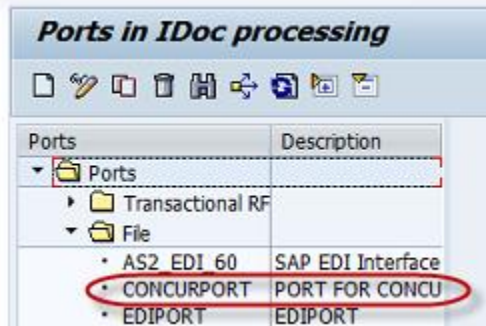
SAP Easy Access IDoc and EDI Basis

- Favorites
- SAP menu
 - Display IDoc
 - Administration
 - Partner profile
 - **Port definition**
 - RFC destination
 - IDoc administration
 - Find IDoc

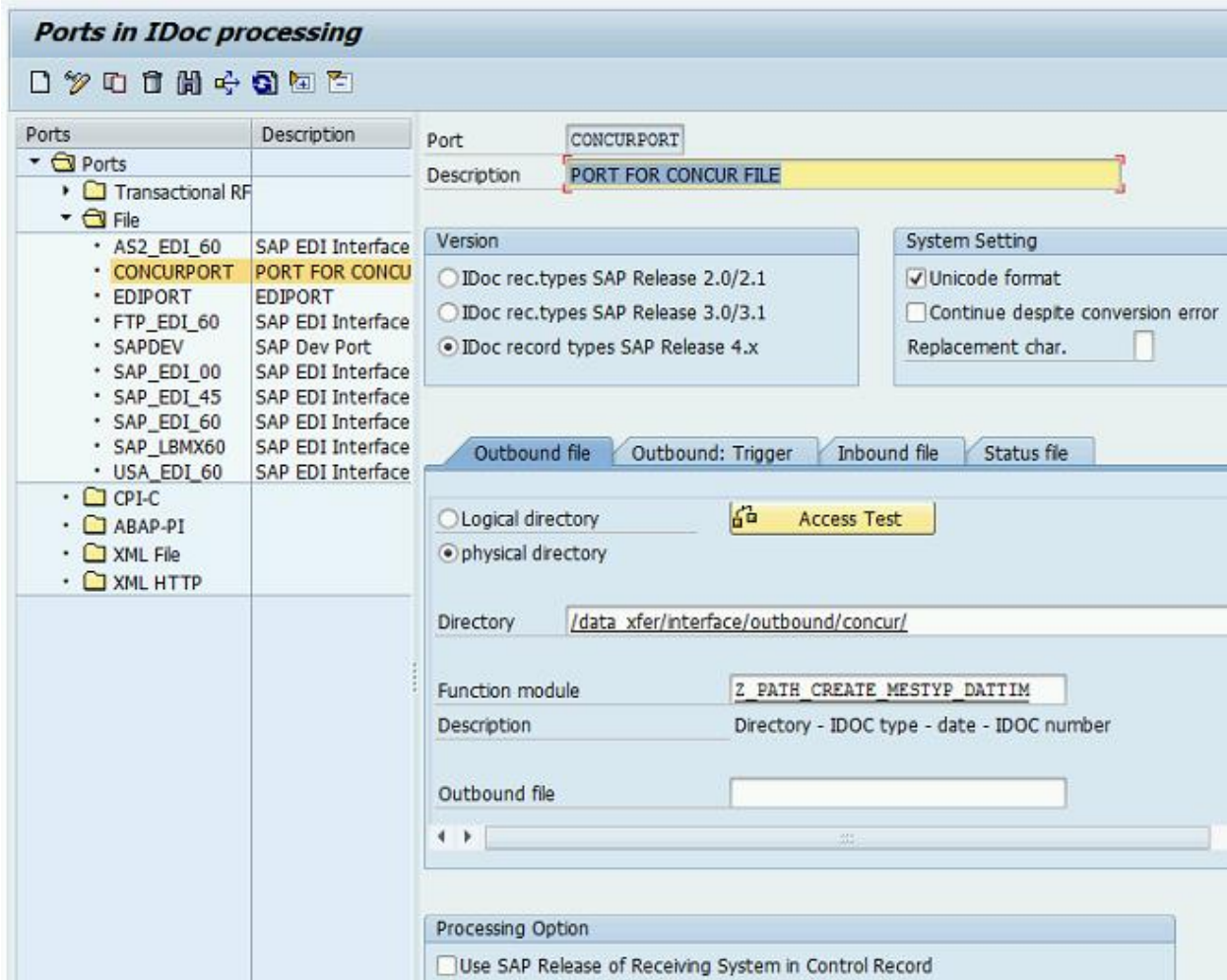
Ports in IDoc processing

Ports	Description
Ports	
Transactional RF	
File	
CPI-C	
ABAP-PI	
XML File	
XML HTTP	

For the Concur interfaces the file port is called 'CONCURPORT'. This port is specifically created for the Concur interfaces and should only be used for concur.



To be able to setup this port a number of other items in SAP should already be setup, available (see below). Ask the Basis person to setup a special directory on the application server in which the IDOC files will be stored. Make sure the directory is accessible by the SAP processes by checking the access <ACCESS TEST>. Also a function is required that specifies the file format (name). SAP did created a number of standard functions but if needed a 'Z' function module could be create to give the file a different name.



The directory created especially for concur interfaces:

/data_xfer/interface/outbound/concur

```
/data_xfer/interface/outbound/concur
root@bsapsnd:outbound/concur> ll
total 0
-rw-r--r--  1 sndadm    sapsys      0 Feb 21 08:30 test.dat
-rw-r--r--  1 sndadm    sapsys      0 Feb 21 08:30 test.txt
root@bsapsnd:outbound/concur> |
```

The function module to name the file. Use t-code se37.



Filename function module.txt

Also use t-code WE54 to connect available function modules for naming files (see below).

Change View "IDoc: Function Modules for File Names": Overview

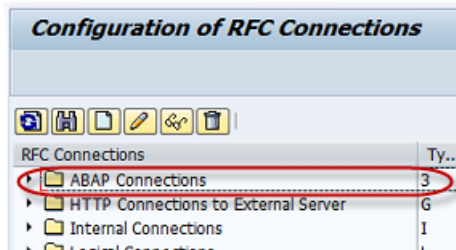
Expand <-> Collapse New Entries Delimit Variable List

Name of function module	Description
DX_PATH_CREATE	File name determination for the DX Workbench
EDI_LPATH_CREATE_CLIENT_DOCNUM	Logical directory, file name in format T_client_docnum
EDI_LPATH_CREATE_USERNAME	Logical directory, file name in SY-UNAME format
EDI_PATH_CREATE_CLIENT_DOCNUM	Directory + file name in format T_Client_Docnum
EDI_PATH_CREATE_DATE_TIME	Directory + file name in format T_CCYYMMDD_HHMMSS
EDI_PATH_CREATE_LENGTH_LE_8	Directory + file name in format NTHHMMSS.T
EDI_PATH_CREATE_MESTYP_DOCNUM	Directory + <message type>_<last 8 characters of DOCNUM
EDI_PATH_CREATE_POS_UNIX_DOS	Directory + file name (name last 8 characters of DOCNUM)
EDI_PATH_CREATE_RETAIL_STORE	Directory + file name in format T_Store_<DOCNUM 16 char.:
EDI_PATH_CREATE_USERNAME	Directory + file name in format SY-UNAME
EDI_PATH_CREATE_USERNAME_DI_TM	Directory + file name in format T_SY-UNAME_CCYYMMDD_HI
JBD_EXP_GET_OUTPUT_FILENAME	SEM-PA Export File Names
Z_PATH_CREATE_MESTYP_DATIM	Directory - IDOC type - date - IDOC number

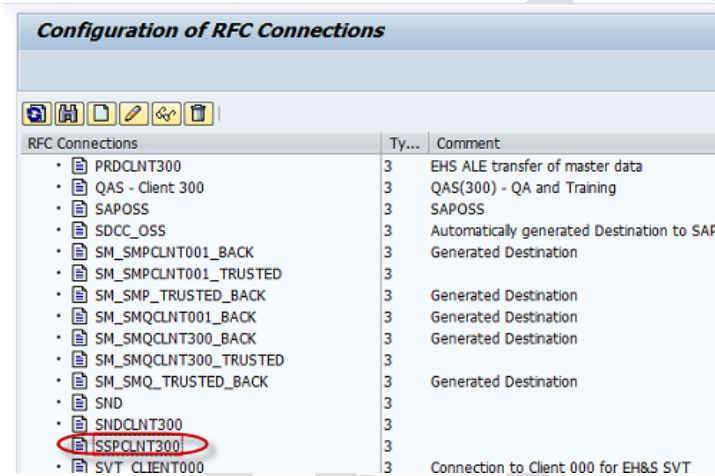
1.4.3 The setup of RFC destination

The RFC destination has the same name as the partner profile 'SCLNT300'. Goto ABAP Connections and define an RFC connection.

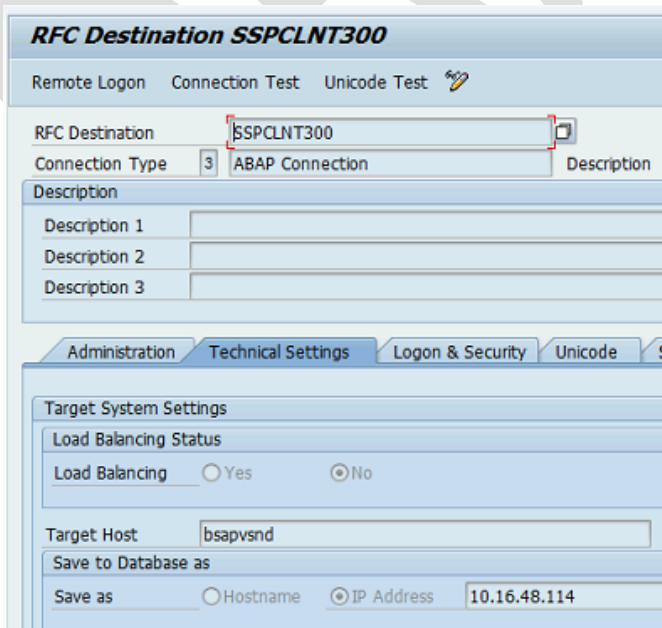
Step 1:



Step 2:

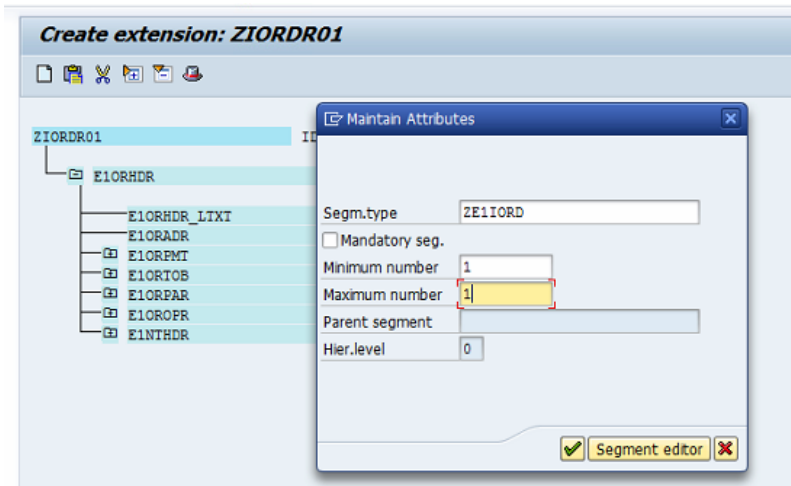


Step 3:



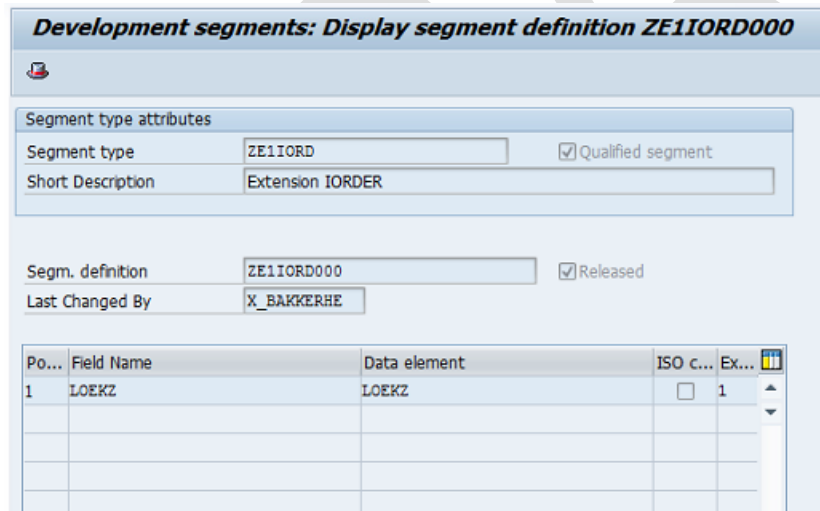
Define the target host and IP address.

Select the segment level you want to add your new segment. Select that particular segment and click on the create segment button and place your already created segment. See next how to create the new segment. Save and release (option under edit tab).



1.4.4.1 Create the extension segment

Use the t-code we31 to create a new segment. Specify the name of the new segment, the description and the field name(s) in the new segment. Make sure that you press the save and release the segment for use.



1.4.5 Assign extension to output type

The next step is to add the extension to the output type using t-code we82.

Display View "Output Types and Assignment to IDoc Types": Overview

Message Type	Basic type	Extension	Release
IOAUPD	AUPD01		46A
IORDER	IORDER01	ZIORDR01	702
IORUPD	IORUPD01		46A
ISMBPEX_SAVE	ISMBPEX_SAVE01		46C
ISMBP_CHANGE	ISMBP_CHANGE01		46C
ISMBP_CREATE	ISMBP_CREATE01		46C
ISM_MATMAS	ISM_MATMAS03		46C
IST_EBS_ARC_MSG	IST_EBS_ARC_DOC		46A
IST_EBS_BUPART_..	IST_EBS_BUPART_..		46A
IST_EBS_COACC_M..	IST_EBS_COACC_D..		46A

1.4.6 Assign function, base type and extension

Next is to replace the line with IDOC_OUTPUT_IORDER With the new function module, base type and extension.

IDOC_INPUT_WP_FLO	WP_FLO02		WP_FLO
IDOC_INPUT_WP_PLU	WP_PLU02		WP_PLU_RT
IDOC_OUTPUT_ACTNOM	OILNOM01		ACTNOM
IDOC_OUTPUT_DESADV01	DELVRV05		DELINF
IDOC_OUTPUT_IORDER	IORDER01	ZIORDR01	IORDER
IDOC_OUTPUT_OIJ_NOM_COMM	OIJ_NOM_DET..		OIJ_NOM_COMM

Display View "IDoc: Assignment of FM to Log. Message and..."

FM Name	F.. BasicType	Enhanc.	Messg. Type	V...
ZKFBC MX IDOC INPUT	ZKFBC NFE..		ZKFBC MX_IN	
ZMASTERIDOC_CREATE_SMD_IORDER	IORDER01	ZIORDR01	IORDER	

SAP WE57 bsapvsnd INS

Make sure that in the details it is specified as outbound interface (double click on line).

Display View "IDoc: Assignment of FM to L

Function module: ZMASTERIDOC_CREATE_SMD_IORDER

Function type: Function module

Basic type: IORDER01

Extension: ZIORDER01

Message Type: IORDER

Message Variant:

Mess. function:

Object Type:

IDoc: Assignment of FM to Log. Message and IDoc Type

Direction: Outbound

Description: SM / PM order

1.4.7 Create user exit for extension ZORDR01

To create an extension use t-code cmod. Create a project (ZIORDERS) and use the enhancement IWMI0001. Use the function exit depicted below and create the user exit code.

Display ZIORDERS

Enhancement assignments | Enhancement

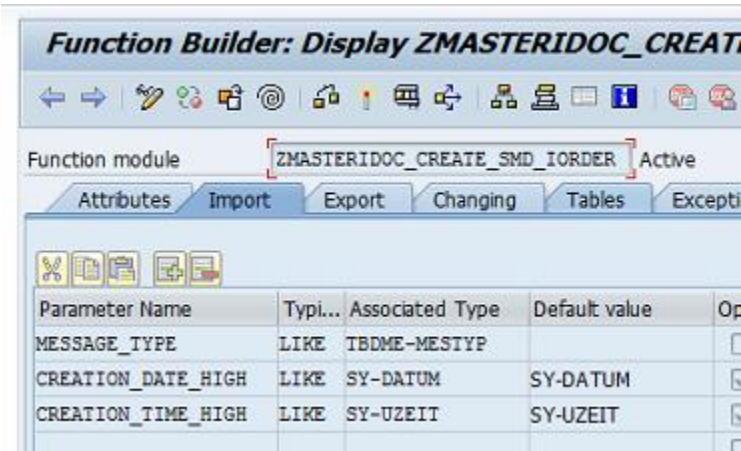
Project		■	ZIORDERS Extend Idoc Orders01
Enhancement	Impl	■	Exp IWMI0001 User exits for SM/PM IDOCs
Function exit	✓	■	EXIT_SAPLISMPM_IDOCS_001
		■	EXIT_SAPLISMPM_UPD_IDOCS_001
		■	EXIT_SAPLISMPM_UPD_IDOCS_002
		■	EXIT_SAPLISMPM_UPD_IDOCS_003

userexit
extension.txt

Function Module for new IDOC

1.4.8 Function module for new IDOC IORDER01

Below is depicted the Import attributes and attached the Function module (se37).



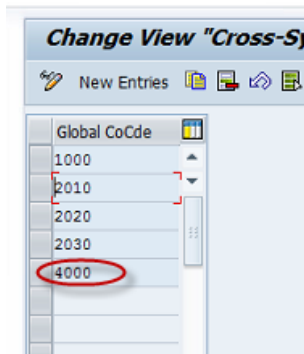

FM IDOC.txt

DRAFT

1.4.9 Global company codes (OB72, OBV7 & OBB5) - COSMAS

For the COSMAS interface it is required that we use cross company codes. They need to be defined with t-code OB72 (Global Company codes), OBB5 (Assign company code -> Cross company code).

USE OB72:



OBB5

The screenshot shows a SAP Change View window titled "Change View 'Assign company code -> Cross-system company'". Below the title bar is a toolbar with icons for a list, a search, and a refresh. A table with the following columns is displayed: CoCd, Company Name, City, and Global CoCde.

CoCd	Company Name	City	Global CoCde
0010	Country Template US	U.S.A.	
1000	Tremco Incorporated	Beachwood, Ohio	1000
1100	Paramount Technical Prod	Spearfish	
1500	Tremco Barrier Solutions	Reynoldsburg, OH	
2000	Tremco Canada Division	Toronto	
2010	RPM Canada Company	Toronto	2010
2020	RPM Canada Investment Co	Toronto	2020
2030	RPM Canada Undist. Div.	Toronto	2030
3000	Republic Powdered Metals	Medina, Ohio	
3100	Haartz-Mason	Haartz-Mason, Inc	
3200	RPM Mass	Watertown	
4000	Weatherproofing Tech.	Beachwood, Ohio	
5000	The Euclid Chemical Co.	Cleveland, Ohio	

To be replaced with (enter 4000) Cross company code.

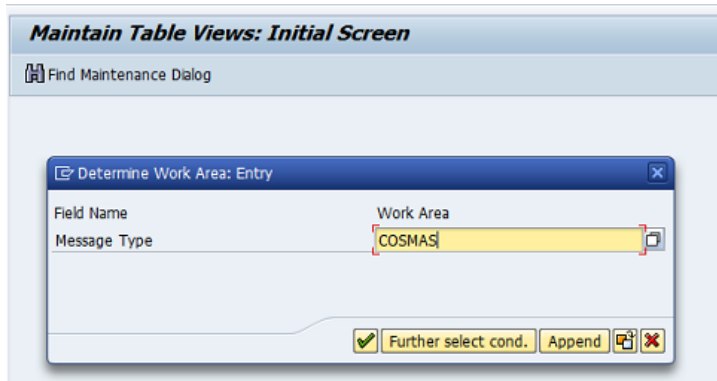
The screenshot shows the same SAP Change View window as above, but the value 4000 has been entered in the "Global CoCde" field for the row "Weatherproofing Tech.". The value 4000 is circled in red.

CoCd	Company Name	City	Global CoCde
0010	Country Template US	U.S.A.	
1000	Tremco Incorporated	Beachwood, Ohio	1000
1100	Paramount Technical Prod	Spearfish	
1500	Tremco Barrier Solutions	Reynoldsburg, OH	
2000	Tremco Canada Division	Toronto	
2010	RPM Canada Company	Toronto	2010
2020	RPM Canada Investment Co	Toronto	2020
2030	RPM Canada Undist. Div.	Toronto	2030
3000	Republic Powdered Metals	Medina, Ohio	
3100	Haartz-Mason	Haartz-Mason, Inc	
3200	RPM Mass	Watertown	
4000	Weatherproofing Tech.	Beachwood, Ohio	4000
5000	The Euclid Chemical Co.	Cleveland, Ohio	

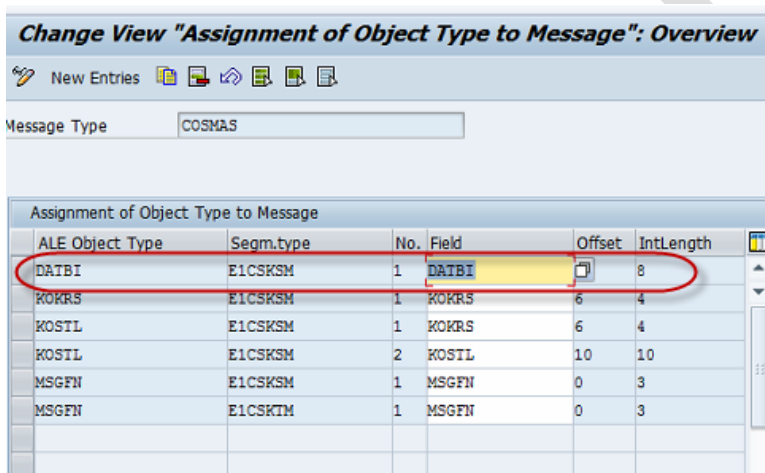
1.4.10 Interface filter setup

To be able to filter IDOCS for specific values in specific fields use t-code BD59 and t-code BD95 to define the fields that can be used as filter.

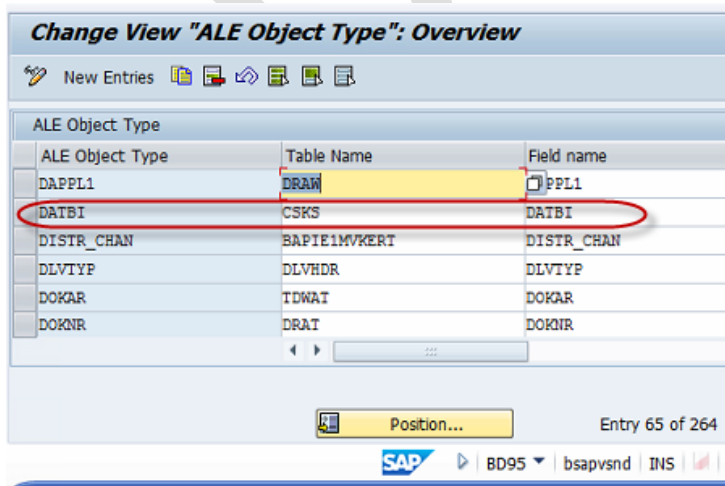
For COSMAS we need to add the date field. Below is depicted how to add this for COSMAS.



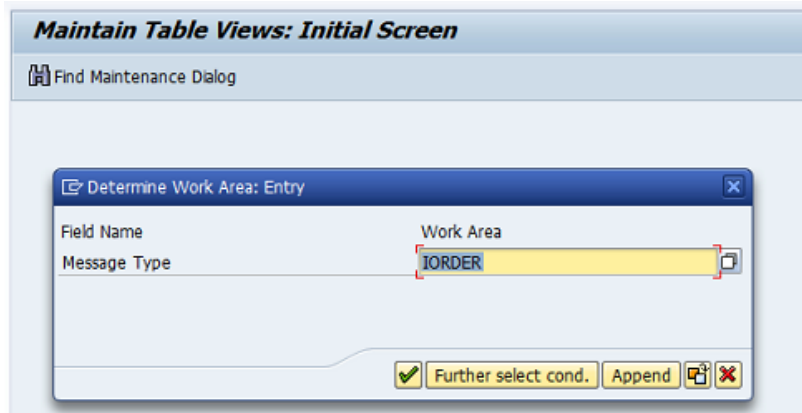
Add field for filter DATBI.



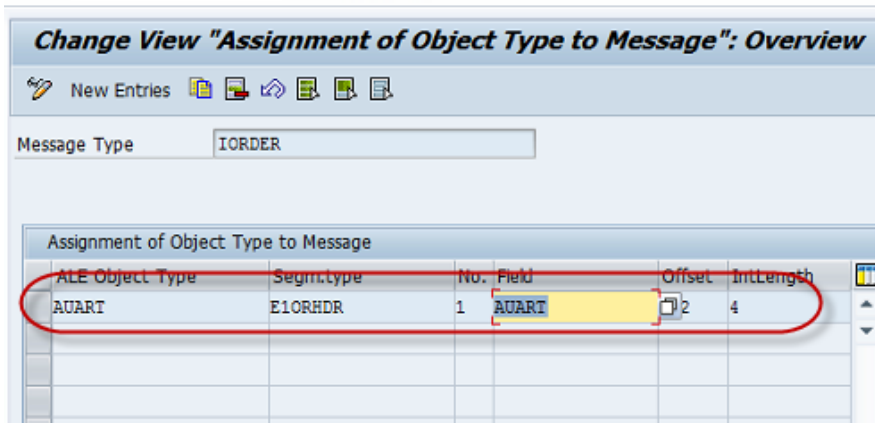
T-code BD95.



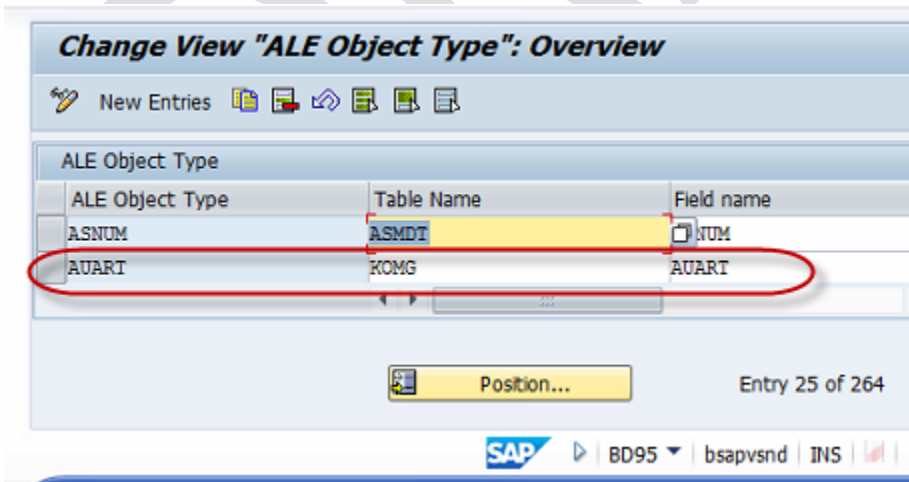
For IORDER we need to add the type field. Below is depicted how to add this for IORDER.



Add field for filter AUART.



T-code BD95.



1.4.11 Create Distribution model (bd64)

Now we can create a distribution model. In the distribution model we specify for both IDOC types the receiving and sending logical systems and filter parameters.

The screenshot shows the 'Display Distribution Model' interface in SAP. The main table lists distribution models with columns for 'Distribution Model', 'Description/ technical name', and 'Busine'. The tree view is expanded to show the following structure:

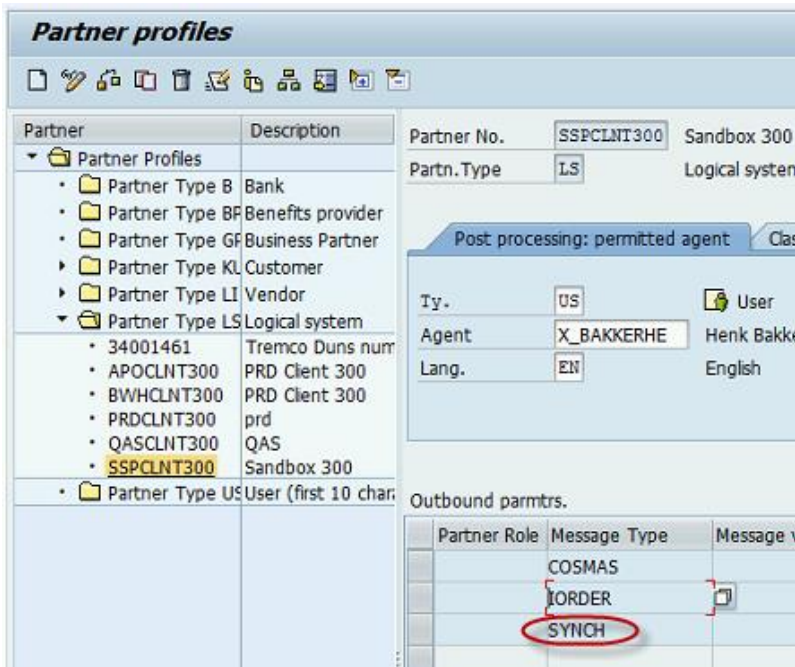
- Model views
 - ALE EHS Model CHRMAS / CHLMAS (0034001461)
 - ALE MODEL (ALE MODEL)
 - Tremco Duns number for EDI Processing (0034001461)
 - Sandbox 300 (SSPCLNT300)
 - COSMAS (Master cost center)
 - Data filter active
 - Filter group
 - Valid To (Valid To Date)
 - 99990531
 - 99991231
 - Controlling Area (Controlling Area)
 - 0010 (No short text maintained)
 - IORDER (SM / PM order)
 - Data filter active
 - Filter group
 - Order Type (Order Type)
 - ZM01 (30, Service / Inspection Order)
 - ZMTB (30, TBS Service / Inspection Order)
 - SLL-LEG (SLL-LEG)

Next step is to generate the distribution model.

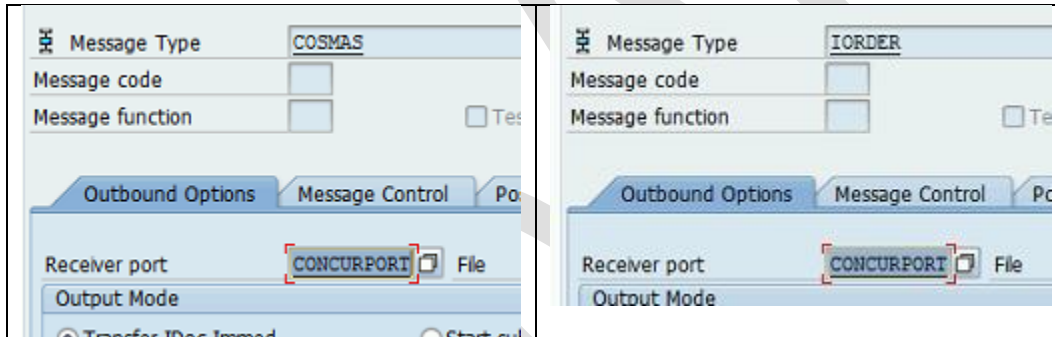
The screenshot shows the 'Generate Partner Profile' dialog box in SAP. The parameters are as follows:

- Model View: ALE MODEL
- Partner System: (empty)
- Check Run:
- Default Parameters for Partner Profile
 - Postprocessing: Authorized Users
 - Ty.: US User
 - ID: X_BAKKERHE Henk Bakker
 - Outb. Parameters
 - Version: 3 IDoc record types from Version 4.0 onwards
 - Pack. Size: 100 IDocs
 - Output Mode
 - Transfer IDoc immediately
 - Collect IDocs and transfer
 - Inb. Parameters
 - Processing
 - Trigger immediately

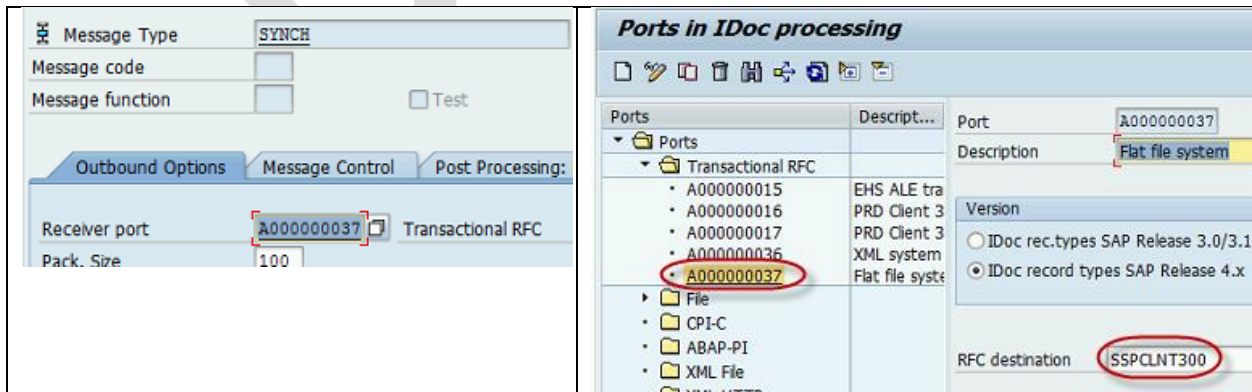
After successful generation we can see that an extra message type 'SYNCH' is create (see below).



Please make sure that the receiving ports are setup correctly.



For the SYNCH message type we need a Transactional RFC (check if available).



1.4.12 Define IORDER entry for BD21

Use t-code BD60 to add the following entry.

The screenshot shows the SAP transaction BD60 interface. The title bar reads "Change View 'Additional Data for Message Type': Details". The "Message Type" field is set to "IORDER". The "Additional Data for Message Type" section contains the following fields:

- Reference Message Type: IORDER
- Format Function Module: ZMASTERIDOC_CREATE_SMD_IORDER
- Reducible Message Type

The "Classification Data" section contains the following fields:

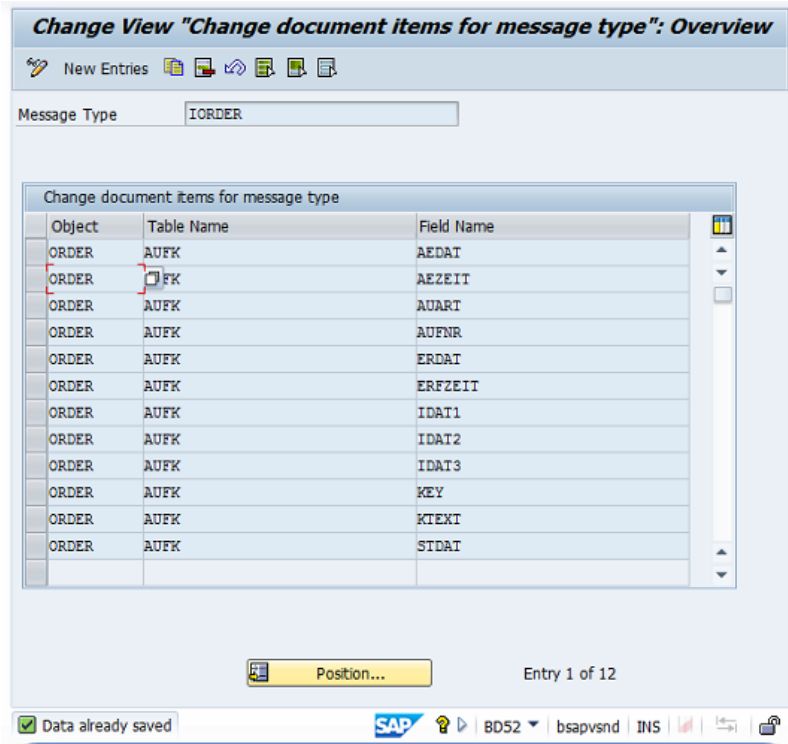
- Classifiable Object: [Empty]
- ALE Object Type: [Empty]

The bottom section shows the following metadata:

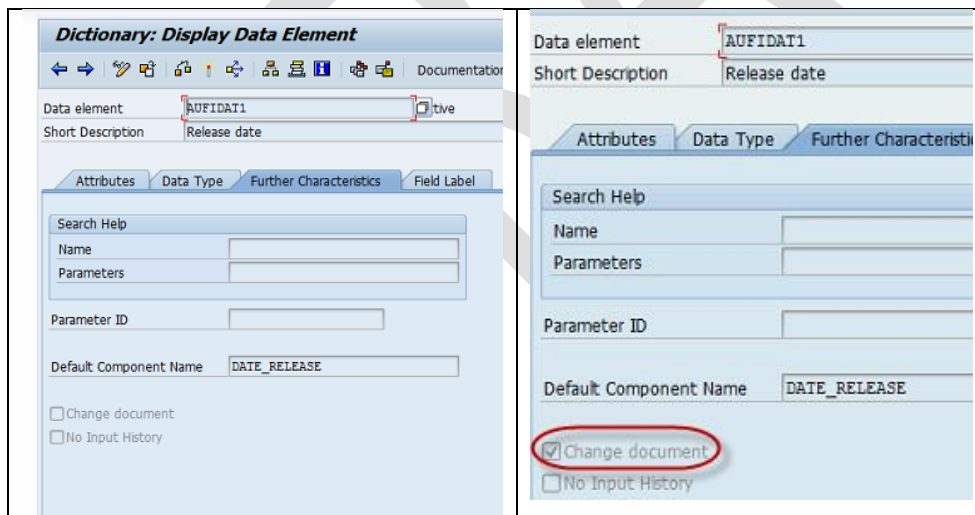
- Created by: X_BAKKERHE
- Created on: 03/31/2014
- Changed by: [Empty]
- Changed On: [Empty]

1.4.13 Define the change pointer fields for IORDER

For COSMAS the change pointers have already been defined by SAP. For the IDOC IORDER use t-code BD52 to define all the fields that should be a change pointer. For the initial create of the document define the field 'KEY' as change pointer.



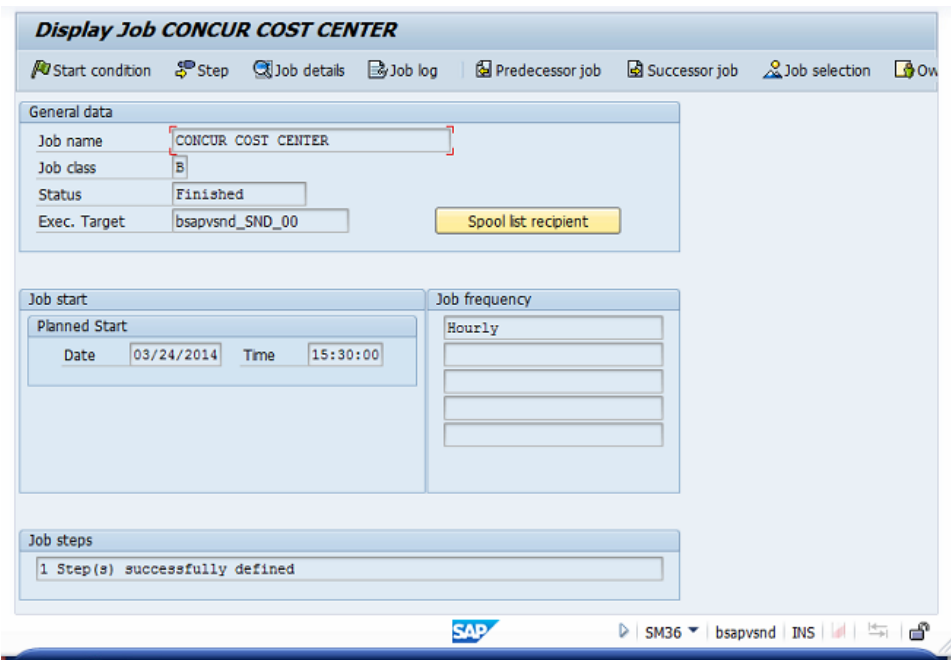
Because SAP normally using change pointers only for Master Data changes it is required that for every field we check the field element type for the option Change document (see below as example for IDAT1).



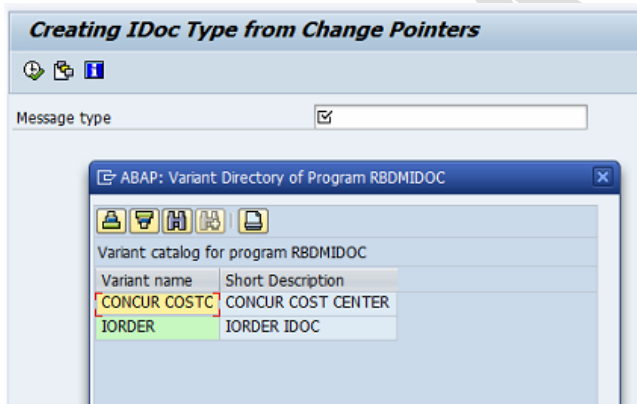
1.4.14 Setup Hourly jobs for execution of BD21 with variant for COSMAS and IORDER

Last thing to do is to setup the jobs that will generate every hour the COSMAS and IORDER files based on the changes in change pointers. The job is running t-code bd21 with a variant.

JOB:



Variant:



Variant itself:

