System Settings mySAP CRM Interfacing

Version Control

Version	Date	Description and Author
0.1	01-09-05	• Initial version - Gert-Jan Stolmeijer
0.2	31-09-05	• IDOC Change
0.3	15-02-05	• User exit added and status Interface

Distribution

Name	Organisation	V 0.1	V 1.0	

1 Table of Contents

2 Introduction

This document describes the sales order interfacing from and to SAP CRM. What is described is the replication of sales orders between respectively CRM and R/3 and CRM and KIB (Tibco). Also, the replication of sales order statuses back to CRM is described.

3   Process description

Interfacing will be used for replicating the SAP CRM Sales orders to Non-SAP system and for replicating the order status from Non-sap systems to SAP CRM.
Other interfaces are not part of the scope.

4 Customizing settings

he XIF adapter can be customized for outbound and inbound interfacing. The output or input type can be IDOC or XML.

4.1 Customizing IDOC Outbound Interface

Following customizing is needed to setup the outbound interfacing using IDOC's.

4.1.1 Setup RFC destination

CRM	Define RFC Destination
Transaction code	SM59
SAP Menu	Customizing → CRM→ CRM Middleware and Related Components→ Communication Setup→ Define RFC Destinations

Test connection   Unicode Test

RFC destination   KIB - CRM
Connection type   T   TCP/IP connection

Description

Kverneland Integration Bus for CRM system

Technical settings | Logon/Security | Special Options

Activation Type

○ Start on Application Server   ● Registered Server Program
○ Start on Explicit Host
○ Start on Front End Work Station

Registered Server Program

Program ID   kib_crm_ct1_test

Gateway Options

Gateway host   Delete
Gateway service

Attributes

Created by   KA_LSSN   10.08.2005
Last changed by   KA_LSSN   10.08.2005
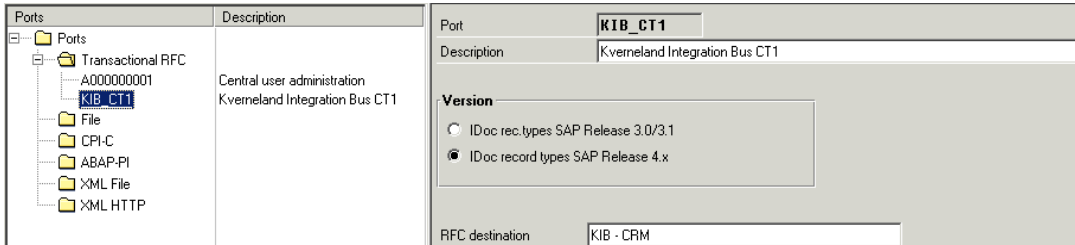
4.1.2   Setup Logical System

CRM	Define Logical System
Transaction code	SPRO
SAP Menu	Customizing → CRM→ CRM Middleware and Related Components→ Communication Setup→ Setup Logical Systems→ Define Logical System

4.1.3 Setup Receiver Port

CRM	Define receiver port
Transaction code	WE21
SAP Menu	

4.1.4 Setup Partner Profile

CRM	Define partner profile
Transaction code	WE20
SAP Menu	
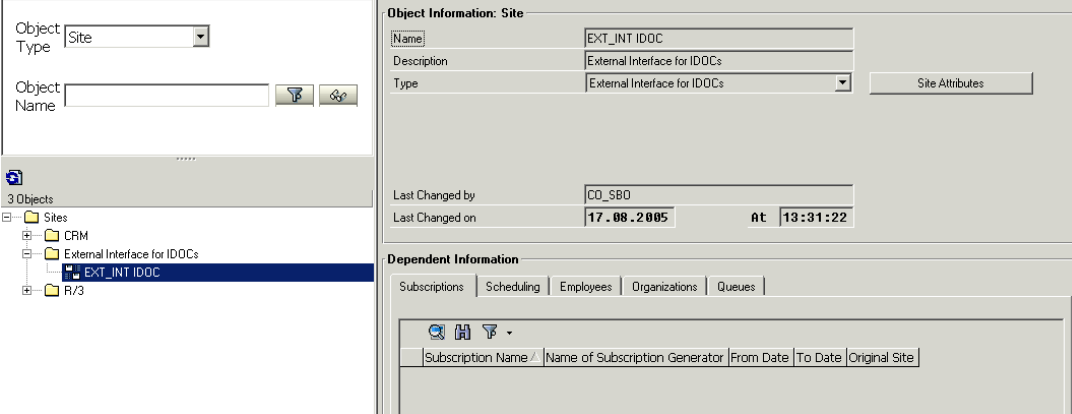
IDOC Type has been changed to CRMXIF_ORDER_SAVE_M02 !
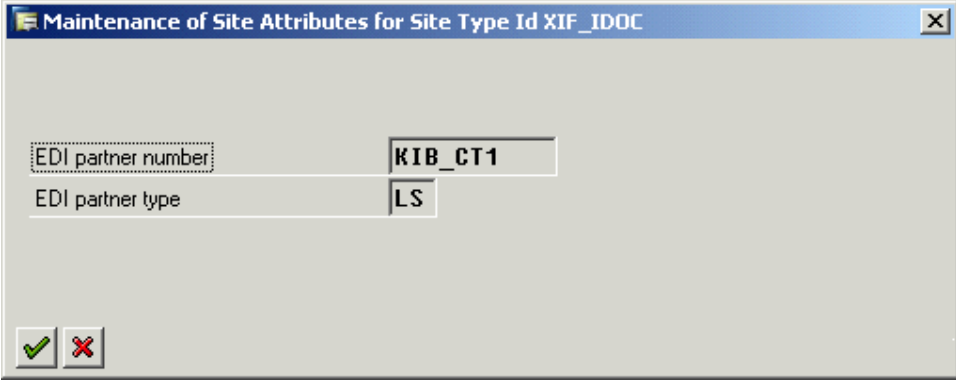
4.1.5 Setup Site

CRM	Administration Console
Transaction code	SMOEAC
SAP Menu	

Select Object Type 'Site' and press 'New' button to create a site for External Interface for IDOC's.

Select button for 'Site attributes' and assign EDI Partner.

4.1.6 Assign site and BDOC to Interface

CRM	Assign site and BDOC type to Interface Type
Transaction code	CRMXIF_C1
SAP Menu	

This customizing will assign the defined site to a BDOC type and Interface. Using the complete checkbox.

Assign Site and BDoc Type to Interface Type					
Site Name	Site Type	BDoc Type	Interface Name	Complete	Return
EXT_INT IDOC	XIF_IDOC	BUS_TRANS_MSG	±MXIF_ORDER_SAVE	☐	☐

4.2   Customizing Filters for Outbound Orders

The standard CRM system does not allow filtering on Sales Transactions (BDOC Type BUS_TRANS_MSG). This standard behaviour can be changed by setting up a new replication object following note 502037.

Before creating a new replication object for BDOC BUS_TRANS_MSG check following:
- No sales documents should be created
- Delete the subscription of publication 'All Business Transactions (MESG) in all clients of the system !!! This is client dependent.
- Delete the publication 'All Business Transactions (MESG)'. This is client independent.
- Delete the replication object 'BUS_TRANSACTION_MESSAGE'. This is client independent.

4.2.1   Setup Replication Object

CRM	Administration Console
Transaction code	SMOEAC
SAP Menu	

Select Object Type 'Replication Object'
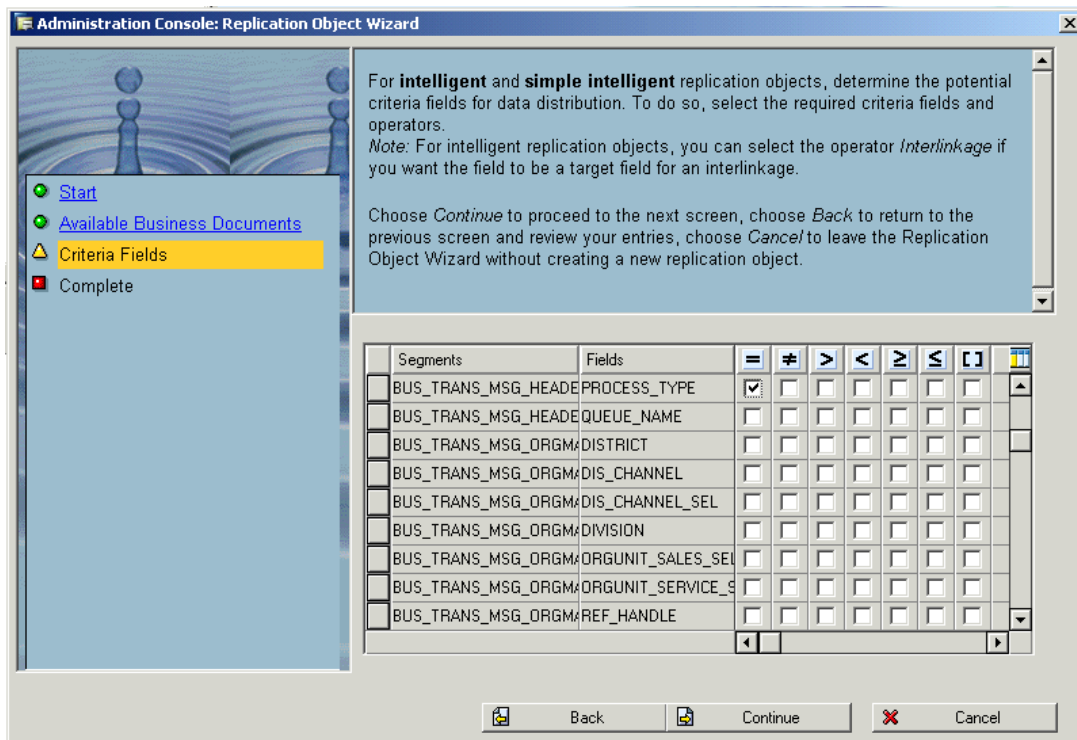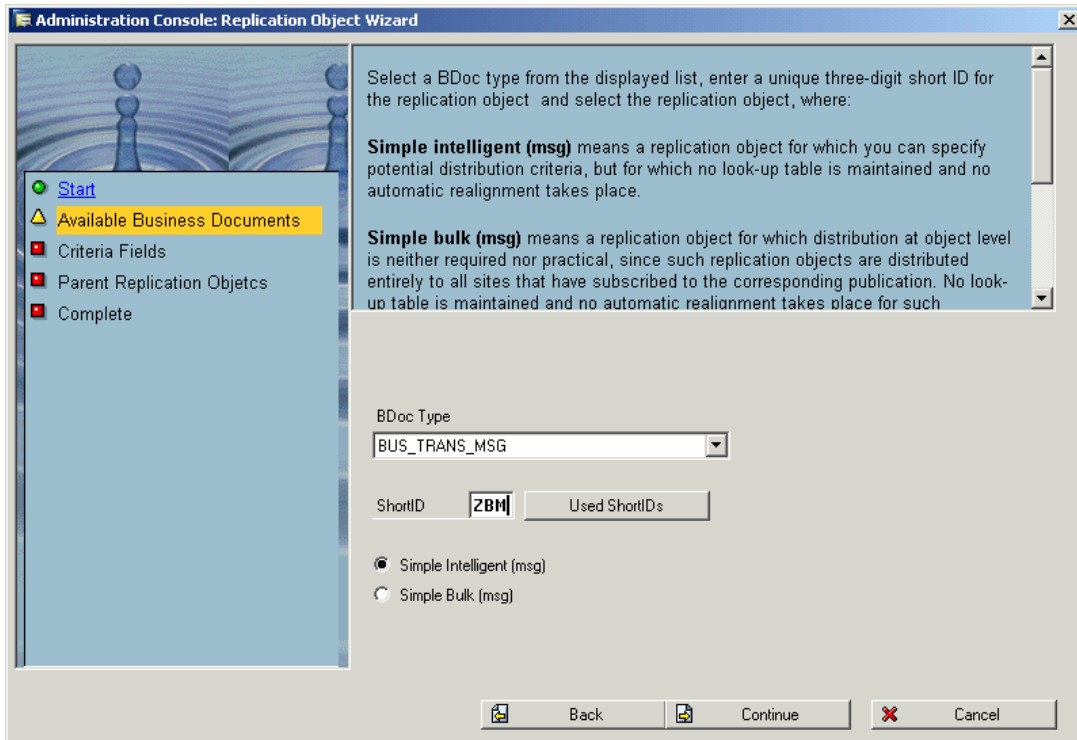
Select Process_Type and Sales_Org as possible selection fields.

4.2.2 Setup Publication

CRM	Administration Console
Transaction code	SMOEAC
SAP Menu	

Select Object Type 'Publication'
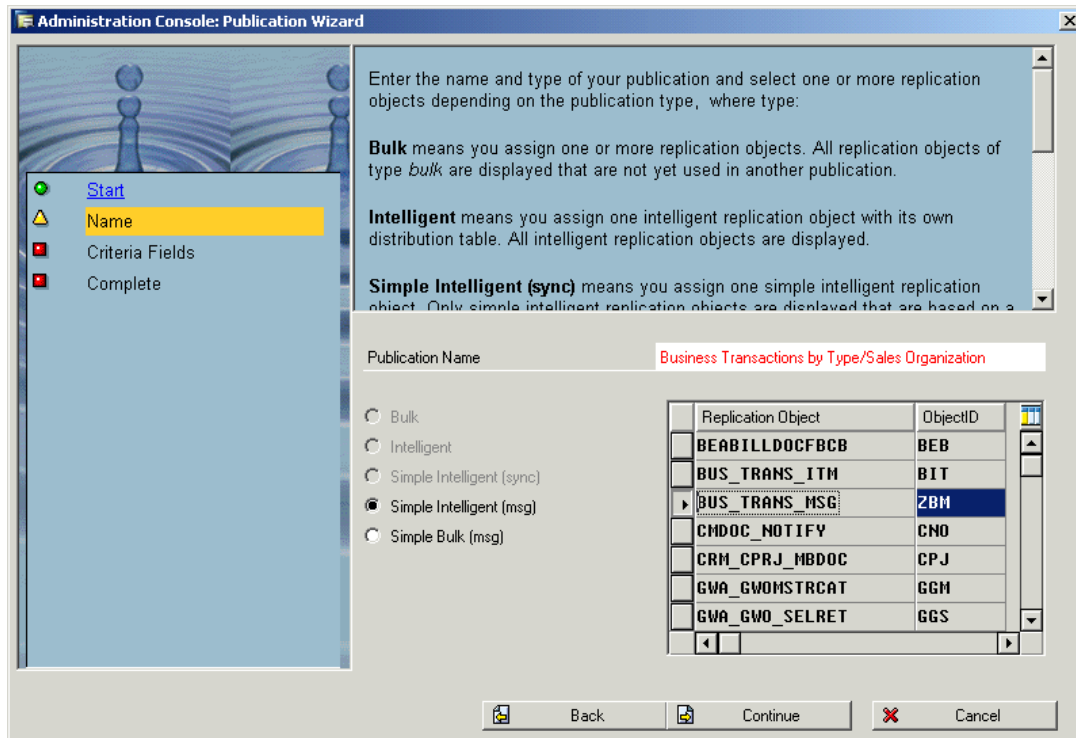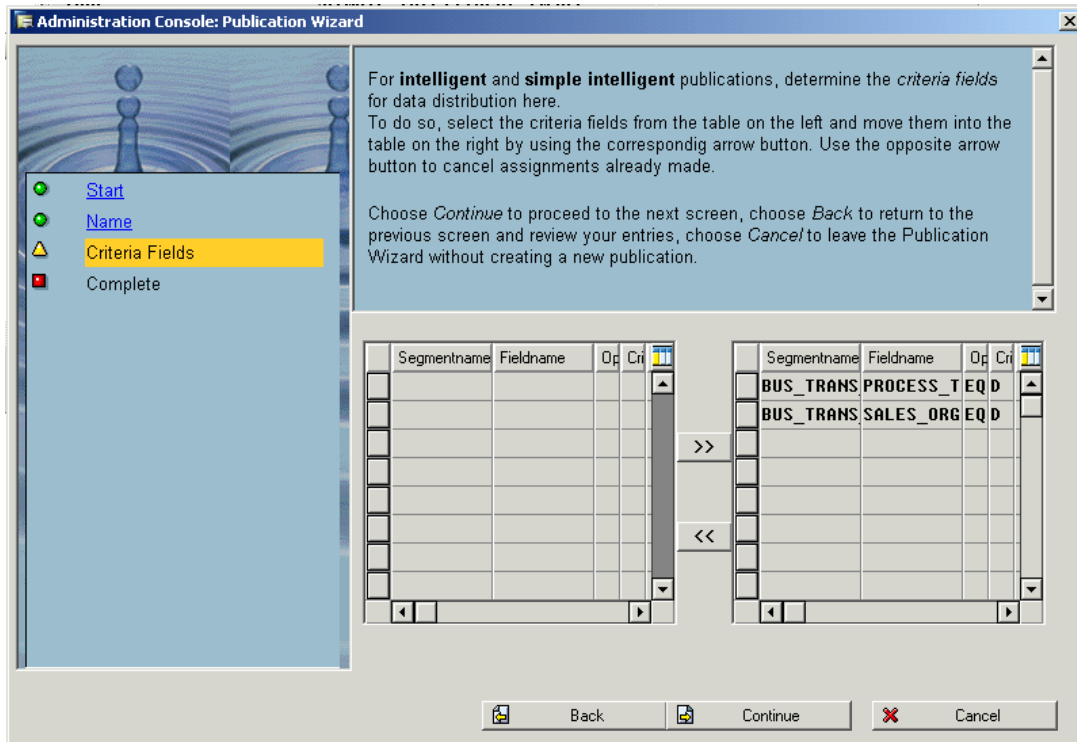
4.2.3 Setup Subscriptions

CRM	Administration Console
Transaction code	SMOEAC
SAP Menu	

Select Object Type 'Subscription'. For every Order Type and Sales Organization combination a subscription should be defined.
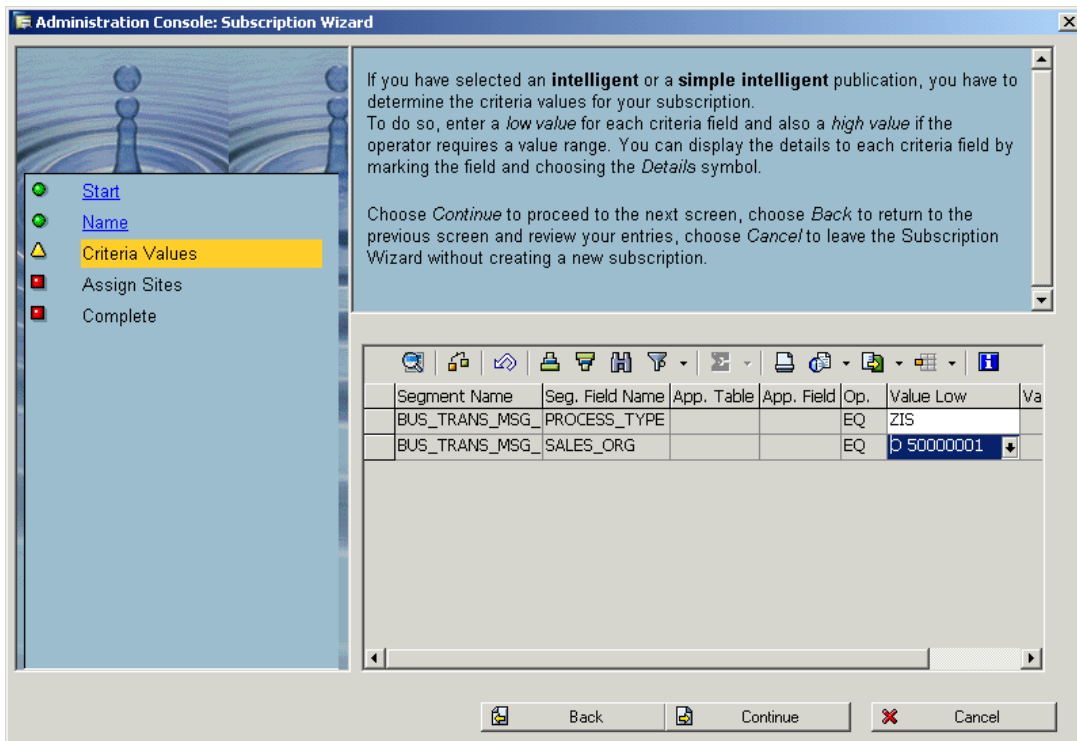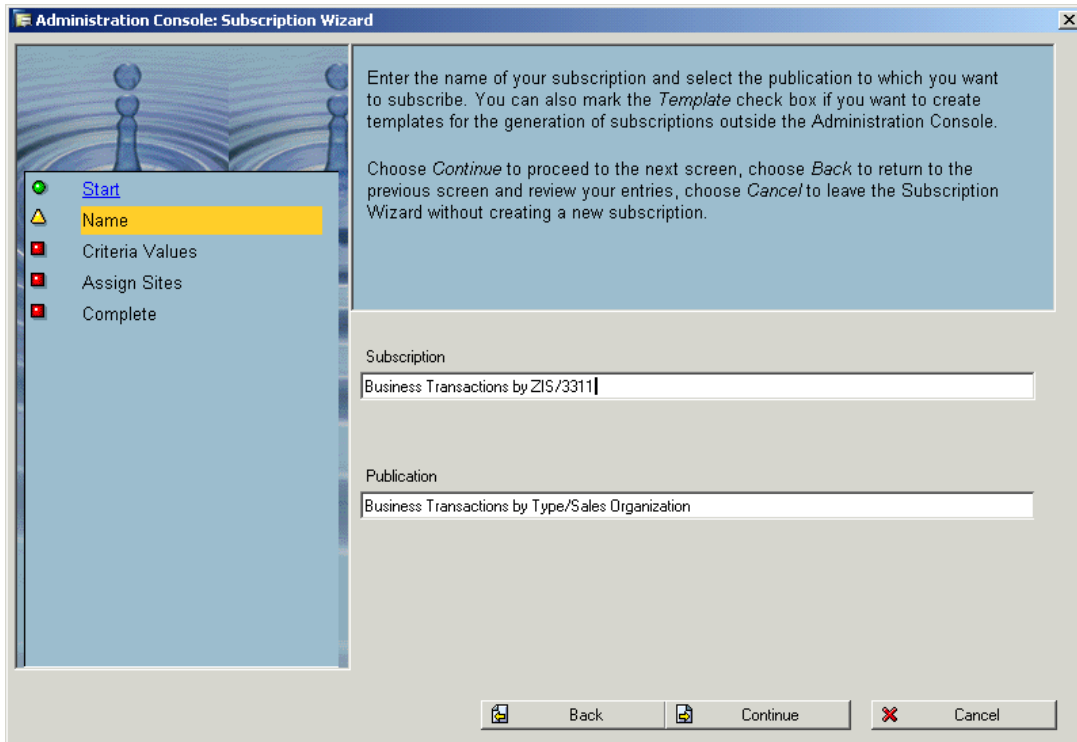
Be aware that for the criteria field SALES_ORG the sales organization definition for CMR should be used !

4.2.4 Assign Subscriptions to Sites

Using assignments of subscriptions to sites, the systems decides if the sales order should be send to the SAP R/3 system or to the KIB.

CRM	Administration Console
Transaction code	SMOEAC
SAP Menu	

Based on the sales organization assign the subscription to the correct site.
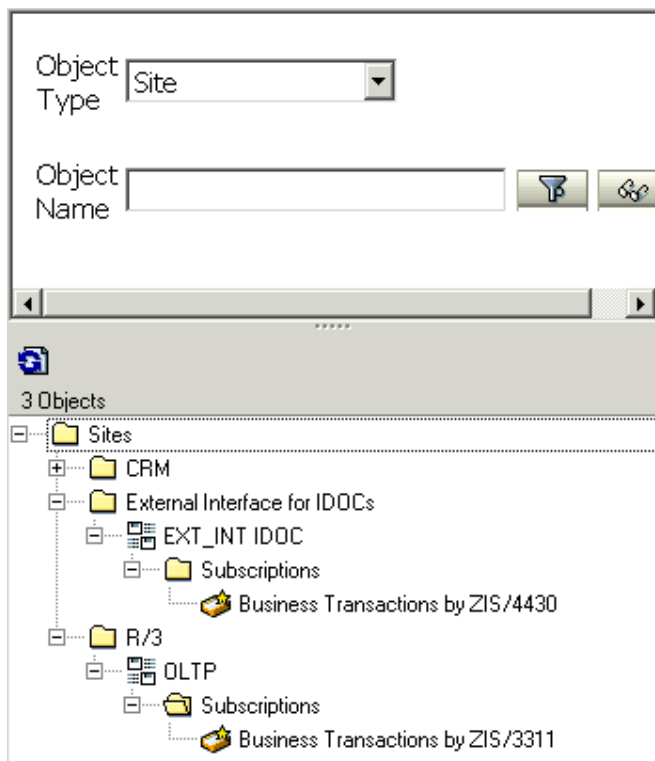
Subscription	Publication	Sales org.	Type	Org	Site
Business Transactions by ZIS/3311	Business Transactions by Type/Sales Organization	3311	ZIS	O 50000001	OLTP
Business Transactions by ZIS/3312	Business Transactions by Type/Sales Organization	3312	ZIS	O 50000002	OLTP
Business Transactions by ZIS/3360	Business Transactions by Type/Sales Organization	3360	ZIS	O 50000003	OLTP
Business Transactions by ZIS/4531	Business Transactions by Type/Sales Organization	4531	ZIS	O 50000004	OLTP
Business Transactions by ZIS/4611	Business Transactions by Type/Sales Organization	4611	ZIS	O 50000005	OLTP
Business Transactions by ZIS/4710	Business Transactions by Type/Sales Organization	4710	ZIS	O 50000006	OLTP
Business Transactions by ZIS/4730	Business Transactions by Type/Sales Organization	4730	ZIS	O 50000007	OLTP
Business Transactions by ZIS/4770	Business Transactions by Type/Sales Organization	4770	ZIS	O 50000008	OLTP
Business Transactions by ZIS/4910	Business Transactions by Type/Sales Organization	4910	ZIS	O 50000009	OLTP
Business Transactions by ZIS/4930	Business Transactions by	4930	ZIS	O 50000010	OLTP

	Type/Sales Organization				
Business Transactions by ZIS/4931	Business Transactions by Type/Sales Organization	4931	ZIS	O 50000011	OLTP
Business Transactions by ZIS/4960	Business Transactions by Type/Sales Organization	4960	ZIS	O 50000012	OLTP
Business Transactions by ZIS/3120	Business Transactions by Type/Sales Organization	3120	ZIS	O 50000051	EXT_INT IDOC
Business Transactions by ZIS/3410	Business Transactions by Type/Sales Organization	3410	ZIS	O 50000052	EXT_INT IDOC
Business Transactions by ZIS/4430	Business Transactions by Type/Sales Organization	4430	ZIS	O 50000053	EXT_INT IDOC

5 Customizing Status Interface

5.1.1 Maintain structure relation

Within the structure the segment 'Business Transaction: Item' is relevant:

```
Structure Relations

   E101CRMXIF_BUSTRANS          Interface: Business Transaction

      E101CRMXIF_ACTIVITY_X       IF Business Transaction: Activity
      E101CRMXIF_LEAD_X           IF Business Transaction: Lead
      E101CRMXIF_OPPORTUNITY_X    IF Business Transaction: Opportunity
      E101CRMXIF_PARTNER_XT       IF Business Transaction: Partner
      E101CRMXIF_ORGMAN_X         IF Business Transaction: Organizational Units
      E101CRMXIF_PRICING_X        IF Business Transaction: Pricing Parameters
      E101CRMXIF_BILLPLAN_XT      IF Business Transaction: Billing Plan
      E101CRMXIF_BILLING_X        IF Business Transaction: Billing
      E101CRMXIF_CANCEL_X         IF Business Transaction: Cancellation
      E101CRMXIF_SUBJECT_XT       IF Business Transaction: Subject
      E101CRMXIF_REF_OBJECT_XT    IF Business Transaction: Reference Object
      E101CRMXIF_SALES_X          IF Business Transaction: Sales
      E101CRMXIF_SHIPPING_X       IF Business Transaction: Shipping
      E101CRMXIF_PAYPLAN_X        IF Business Transaction: Payment Plan
      E101CRMXIF_APPOINTMENT_XT   IF Business Transaction: Appointments
      E101CRMXIF_CUMULATED_H_X    IF Business Transaction: Transaction Cumulated Value
      E101CRMXIF_STATUS_H_X       IF Business Transaction: Status Summarization
      E101CRMXIF_STATUS_XT        IF Business Transaction: Status
      E101CRMXIF_DOC_FLOW_XT      IF Business Transaction: Interlinkages
      E101CRMXIF_ATTACHMENT_LINK  Link to Attachment for external Interface CRM
      E101CRMXIF_TEXT_XT          IF Business Transaction: Texts
      E101CRMXIF_CUSTOMER_H_X     IF Business Transaction: Customer Enhancements
      E101CRMXIF_BUSTRANS_ITEM    IF Business Transaction: Item              <<<< ORDERSTATUS Order status change
      E101CRMXIF_ACTIVE_SWITCH    IF Business Transaction: Tax Flag Inbound Processing
      E101CRMXIF_BUSTRANS_F       Interface Business Transaction X-Flags
```

Within the segment 'Business Transaction: Item' the segment 'Status' is relevant:

```
   E101CRMXIF_BUSTRANS_ITEM    IF Business Transaction: Item                <<<< ORDERSTATUS Order status change

      E101CRMXIF_PRODUCT_I_X        IF Business Transaction: Item Product Data
      E101CRMXIF_FINPROD_I_X        IF Business Transaction: Financing Product Item
      E101CRMXIF_SERVICE_I_X        IF Business Transaction: Service Item
      E101CRMXIF_ORDPRP_I_X         IF Business Transaction: Product List Item
      E101CRMXIF_PRICING_I_X        IF Business Transaction: Pricing Item
      E101RMXIF_PRICING_PARAM_I_X   IF Business Transaction: Item Pricing Parameter
      E101CRMXIF_PRCD_COND_XT       IF Business Transaction: Pricing Conditions Item
      E101CRMXIF_CONFIG_X           IF Business Transaction: Configuration
      E101CRMXIF_PARTNER_I_XT       IF Business Transaction: Partner Item
      E102CRMXIF_ORGMAN_X           IF Business Transaction: Organizational Units
      E101CRMXIF_BILLPLAN_X         IF Business Transaction: Billing Plan
      E102CRMXIF_BILLING_X          IF Business Transaction: Billing
      E102CRMXIF_CANCEL_X           IF Business Transaction: Cancellation
      E102CRMXIF_SUBJECT_XT         IF Business Transaction: Subject
      E102CRMXIF_REF_OBJECT_XT      IF Business Transaction: Reference Object
      E102CRMXIF_SALES_X            IF Business Transaction: Sales
      E102CRMXIF_SHIPPING_X         IF Business Transaction: Shipping
      E102CRMXIF_APPOINTMENT_XT     IF Business Transaction: Appointments
      E101CRMXIF_CUMULATED_I_XT     IF Business Transaction: Cumulation Value Item
      E102CRMXIF_STATUS_XT          IF Business Transaction: Status              <<<< ORDERSTATUS Order status change
      E101CRMXIF_DOC_FLOW_I_XT      IF Business Transaction:Item Interlinkages
      E102CRMXIF_ATTACHMENT_LINK    Link to Attachment for external Interface CRM
      E102CRMXIF_TEXT_XT            IF Business Transaction: Texts
      E101CRMXIF_SCHEDLIN_I_X       IF Business Transaction: Item Quantities
      E101CRMXIF_SCHEDLIN_XT        IF Business Transaction: Schedule Line Item
      E101CRMXIF_CUSTOMER_I_X       IF Business Transaction: Customer Enhancements
      E101CRMXIF_BUSTRANS_ITEM_F    IF Business Transaction: Item X-Flags
```

5.1.2 Maintain field mapping and conversion rules

5.1.2.1 Business transaction level

There are two lines that pertain to the highest level of the business transaction:
E101CRMXIF_BUSTRANS and E101CRMXIF_BUSTRANS_F.
The settings for E101CRMXIF_BUSTRANS are shown below. A field value is considered a change value (new value) if the field is flagged for change, otherwise a field value is used for selecting the appropriate object.

```
E101CRMXIF_BUSTRANS          Interface: Business Transaction

  Fields

      APPL_SNAME          Structure Name, No Business Significance
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-APPL_SNAME = 'CRMXIF_BUSTRANS'.
      OBJECT_TASK         IF Business Transaction: Method Flag Header
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-OBJECT_TASK = 'U'.
      OBJECT_GUID         Internal Key
      OBJECT_ID           Business Transaction Number
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-OBJECT_ID = '10750061'.
      PROCESS_TYPE        Business Transaction Type
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-PROCESS_TYPE = 'ZIS'.
      OBJECT_TYPE         Business Transaction Category
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-OBJECT_TYPE = 'BUS2000115'.
      POSTING_DATE        Posting Date for a Business Transaction
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-POSTING_DATE = '20050825'.
      DESCRIPTION         Transaction Description
      DESCR_LANGUAGE      Language Key of Description
      DESCR_LANGUAGE_ISO  Language Key (ISO)
      LOGICAL_SYSTEM      Logical System
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-LOGICAL_SYSTEM = 'K1_CT1_200'.
      CRM_RELEASE         SAP R/3 Release
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-CRM_RELEASE = 'BBPCRM 400'.
      CLIENT              Client
          Rule :  Constant
          Code:   E101CRMXIF_BUSTRANS-CLIENT = '200'.
      CREATED_AT          Transaction Was Created at This Time
      CREATED_BY          User that Created the Transaction
      CHANGED_AT          Time of Last Change to the Transaction
```

The CRM IDoc, of type CRMXIF_ORDER_SAVE_M01, contains *object_task* flags at the Header, Item and Schedule Line levels. The value of the flag at a particular level, determines the task performed at the corresponding level of the Business Transaction. The values of the *object_task* flag can be:

- I: Insert
- U: Update
- D: Delete
- C: Current State (only supported at header level)

For our IDOC we set all the *object_taks* flags to U, because we only want to update a status. Further selection values (what transaction are we looking for) that are specified here are the *object_id*, the *process_type*, the *posting_date*, the *logical_system*, the *CRM_release* and the *client*. These settings make sure the correct business transaction is addressed.

5.1.2.2 Business Item Level

There are two lines that pertain to the highest level of the business transaction item:
E101CRMXIF_BUSTRANS_ITEM and E101CRMXIF_BUSTRANS_ITEM_F.
An example of the settings for E101CRMXIF_BUSTRANS_ITEM is shown below:

```
⌐🗁 E101CRMXIF_BUSTRANS              Interface: Business Transaction                    🖋
  └─🖿 Fields
   └─🗁 E101CRMXIF_BUSTRANS_ITEM       IF Business Transaction: Item                   🖋
      └─🖿 Fields
              APPL_SNAME          ℹ ❔ 🖋 Structure Name, No Business Significance
                              Rule :  Constant
                              Code:   E101CRMXIF_BUSTRANS_ITEM-APPL_SNAME = 'CRMXIF_BUSTRANS_ITEM'.
              OBJECT_TASK         ℹ ❔ 🖋 IF Business Transaction: Method Flag Item
                              Rule :  Constant
                              Code:   E101CRMXIF_BUSTRANS_ITEM-OBJECT_TASK = 'U'.
              ITEM_GUID           ℹ ❔ 🖋 Item GUID for External Interface
              ITEM_NUMBER         ℹ ❔ 🖋 Item Number in Document
                              Code:   E101CRMXIF_BUSTRANS_ITEM-ITEM_NUMBER = '0000000010'.
              ITEM_NUMBER_EXT     ℹ ❔ 🖋 External item number
              CREATED_AT          ℹ ❔ 🖋 Transaction Was Created at This Time
              CREATED_BY          ℹ ❔ 🖋 User that Created the Transaction
              CHANGED_AT          ℹ ❔ 🖋 Time of Last Change to the Transaction
              CHANGED_BY          ℹ ❔ 🖋 Transaction Last Changed By
              OBJECT_TYPE         ℹ ❔ 🖋 CRM Item Object Type
              ITEM_TYPE           ℹ ❔ 🖋 Item Category
              PARENT_ITEM         ℹ ❔ 🖋 Item GUID for External Interface
              NUMBER_PARENT       ℹ ❔ 🖋 Higher-Level Item Number in Document
              ALTERNATIVE_ITEM    ℹ ❔ 🖋 Item GUID for External Interface
              NUMBER_ALTERN       ℹ ❔ 🖋 Item for Which This Item is an Alternative in the Document
              ITEM_LANGUAGE       ℹ ❔ 🖋 Short Text Language for an Item
              ITEM_LANGUAGE_ISO   ℹ ❔ 🖋 Language Key (ISO)
              ORDER_DATE          ℹ ❔ 🖋 Posting Date
              SUBSTITUT_REASON    ℹ ❔ 🖋 Reason for Product Substitution
              ITEM_USAGE          ℹ ❔ 🖋 Usage of Higher-Level Item
              ITEM_TYPE_USAGE     ℹ ❔ 🖋 Item Category Usage
              ORDERED_PRODUCT     ℹ ❔ 🖋 Product Name Entered
              PRODUCT_DESCRIPTION ℹ ❔ 🖋 Product Description
              PRODUCT_GTIN        ℹ ❔ 🖋 Global Trade Item Number (GTIN)
              PRODUCT_GUID        ℹ ❔ 🖋 Product Number (Internal)
              PRODUCT_ID          ℹ ❔ 🖋 Product ID
              PARTNER_PROD        ℹ ❔ 🖋 Product Number of Business Partner
              DESCRIPTION_UC      ℹ ❔ 🖋 Product Description in Upper Case for F4 Help
              PRODUCT_ID_40       ℹ ❔ 🖋 Value of Alternative ID for Products or Individual Objects
```
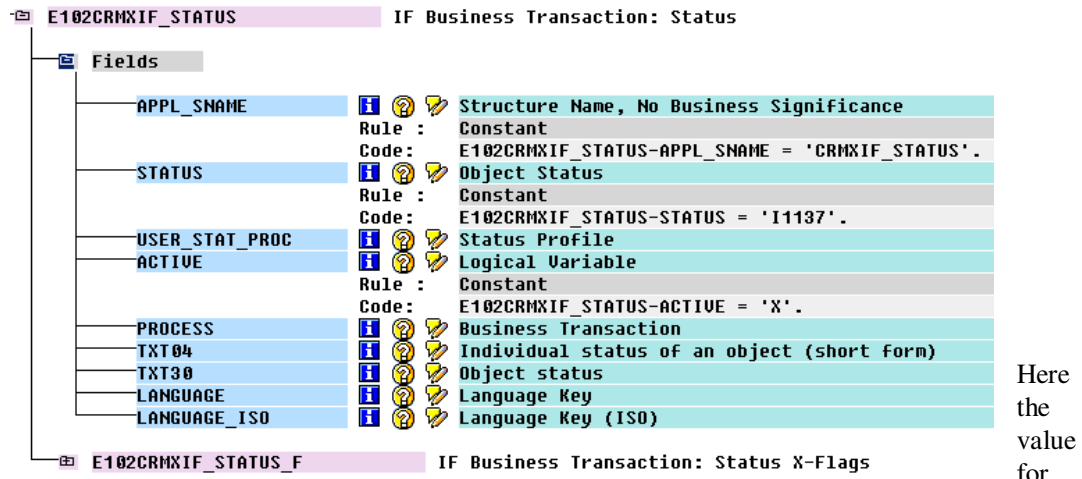
The values here show either the relevant selection (in this case we want to change item 10), or the new values for this item. A field value is considered a change value (new value) if the field is flagged for change, otherwise a field value is used for selecting the appropriate object.

The segment ending with _F contains the change flags. Here the fields that contain change values should have an 'X' assigned. In the settings E101CRMXIF_BUSTRANS_ITEM_F no fields are flagged for change, because at this level nog changes are made. We just want to select the correct item.

5.1.2.3 Item status level

Just as the business transaction item segment the status segment contains two lines pertaining to the highest (and now only) level of this segment. In our case E102CRMXIF_STATUS and E102CRMXIF_STATUS_F.
An example for the settings of E102CRMXIF_STATUS is shown below:

```
🗂 E102CRMXIF_STATUS                    IF Business Transaction: Status

  🗐 Fields

        APPL_SNAME         🔳 ⑦ 📝 Structure Name, No Business Significance
                           Rule :    Constant
                           Code:     E102CRMXIF_STATUS-APPL_SNAME = 'CRMXIF_STATUS'.
        STATUS             🔳 ⑦ 📝 Object Status
                           Rule :    Constant
                           Code:     E102CRMXIF_STATUS-STATUS = 'I1137'.
        USER_STAT_PROC     🔳 ⑦ 📝 Status Profile
        ACTIVE             🔳 ⑦ 📝 Logical Variable
                           Rule :    Constant
                           Code:     E102CRMXIF_STATUS-ACTIVE = 'X'.
        PROCESS            🔳 ⑦ 📝 Business Transaction
        TXT04              🔳 ⑦ 📝 Individual status of an object (short form)
        TXT30              🔳 ⑦ 📝 Object status                                    Here
        LANGUAGE           🔳 ⑦ 📝 Language Key                                      the
        LANGUAGE_ISO       🔳 ⑦ 📝 Language Key (ISO)                                value
                                                                                     for
  🗐 E102CRMXIF_STATUS_F                IF Business Transaction: Status X-Flags
```
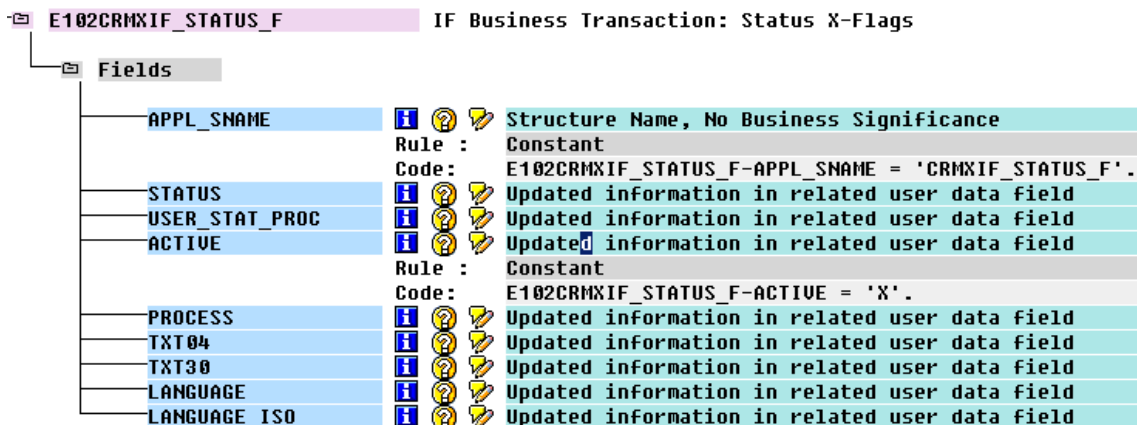
the *status* field acts as a selection value (what status are we talking about) and the flagged for change (see below) *active* field acts as a change value (what should be the new value for this field).
The fields are given the values I1005 and X respectively. This means that the status I1005 ('Completed') should be activated.
The line ending with _F contains the change flags. Here the fields that contain change values should have an 'X' assigned, in our case the field *active*:

```
🗂 E102CRMXIF_STATUS_F                  IF Business Transaction: Status X-Flags

    🗐 Fields

          APPL_SNAME       🔳 ⑦ 📝 Structure Name, No Business Significance
                           Rule :    Constant
                           Code:     E102CRMXIF_STATUS_F-APPL_SNAME = 'CRMXIF_STATUS_F'.
          STATUS           🔳 ⑦ 📝 Updated information in related user data field
          USER_STAT_PROC   🔳 ⑦ 📝 Updated information in related user data field
          ACTIVE           🔳 ⑦ 📝 Updated information in related user data field
                           Rule :    Constant
                           Code:     E102CRMXIF_STATUS_F-ACTIVE = 'X'.
          PROCESS          🔳 ⑦ 📝 Updated information in related user data field
          TXT04            🔳 ⑦ 📝 Updated information in related user data field
          TXT30            🔳 ⑦ 📝 Updated information in related user data field
          LANGUAGE         🔳 ⑦ 📝 Updated information in related user data field
          LANGUAGE_ISO     🔳 ⑦ 📝 Updated information in related user data field
```

Finish this IDoc and generate an instance. In the next paragraph the steps are shown to adjust this IDoc to contain more status segments and more item segments.
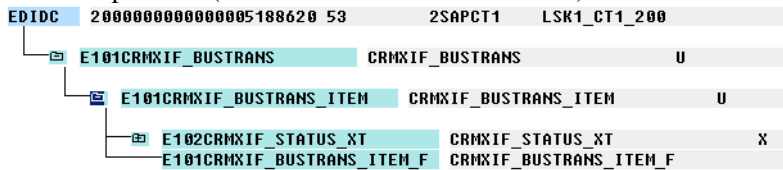
6   Adjusting the IDoc to your needs

6.1   Replicating segments

An IDoc created with the transaction **lsmw** (refer to the appendix for screenshots) consists of only one segment per object type and attribute. If, for example, multiple items have to be addressed, the item

segment has to be replicated. This can be done with the help of the 'Test tool for IDoc processing' (transaction **we19**).

In the simple form (as created with transaction lsmw) our IDoc looks something like this:

```
EDIDC   200000000000005188620 53          2SAPCT1    LSK1_CT1_200

        E101CRMXIF_BUSTRANS           CRMXIF_BUSTRANS               U

            E101CRMXIF_BUSTRANS_ITEM    CRMXIF_BUSTRANS_ITEM         U

                E102CRMXIF_STATUS_XT      CRMXIF_STATUS_XT             X
            E101CRMXIF_BUSTRANS_ITEM_F  CRMXIF_BUSTRANS_ITEM_F
```

Within the segment of the business transaction item we have only one status segment. In the test tool we can now select a segment and copy and paste it in the IDoc. The next steps replicate the segment of the document item status, so we can address more than one status for this item:

1. Select the segment to copy (in this case E102CRMXIF_STATUS) and click the button Copy:
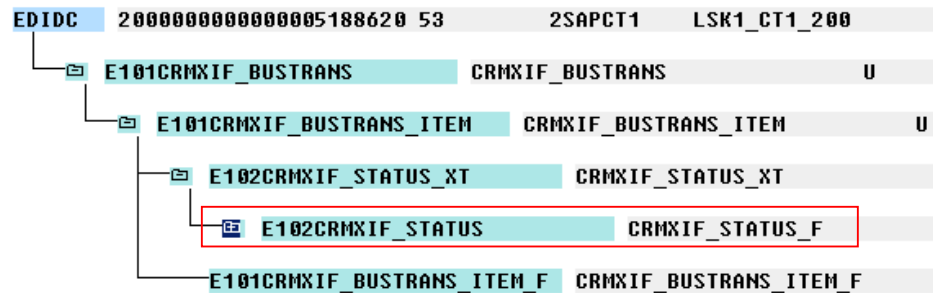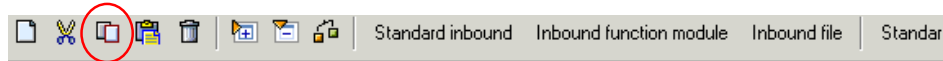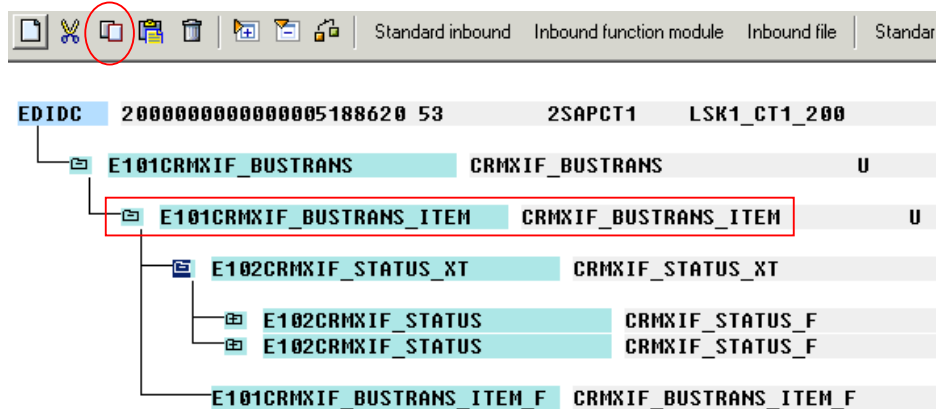

2. Click the button Paste and choose 'At the same level'. There are now two status segments:
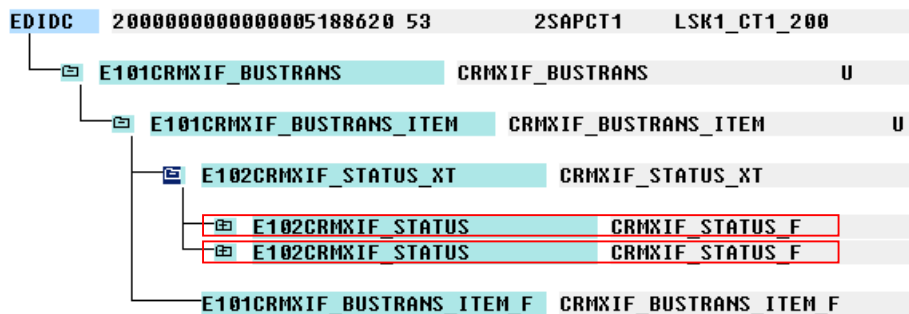

Any number of segments can be added this way. We now have an IDoc that addresses two statuses within one document item. To add a segment for another document item the routine is the same as above. Keep in mind that when a segment is copied, all children of this segment are copied along with it (a whole subtree is copied).

In the following steps we are going to replicate the segment of the business transaction item. The new item will have two status segments, just like the source segment:

1. Select the segment to copy (in this case E102CRMXIF_BUSTRANS_ITEM) and click button Copy

2. Click the button Paste and choose 'At the same level'. There are now two item segments:
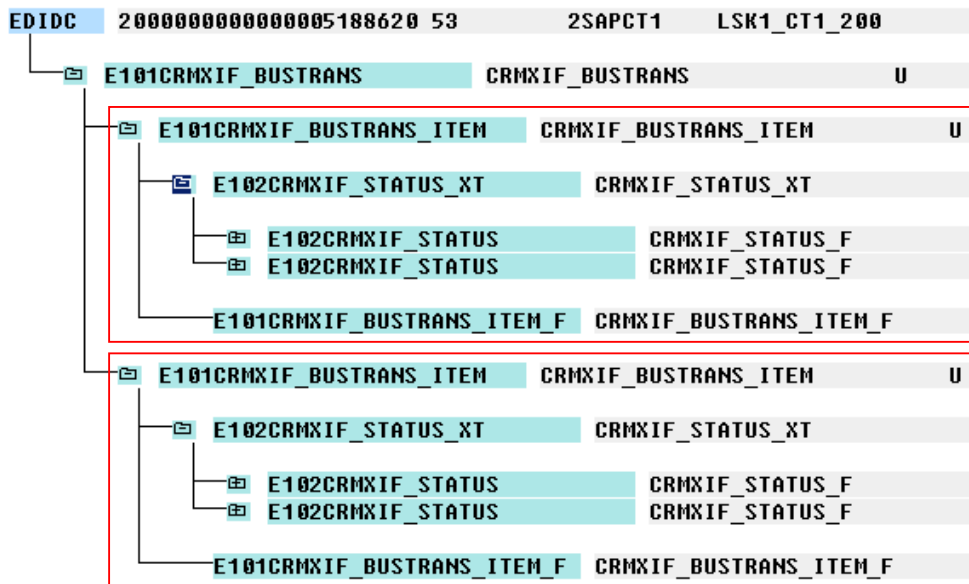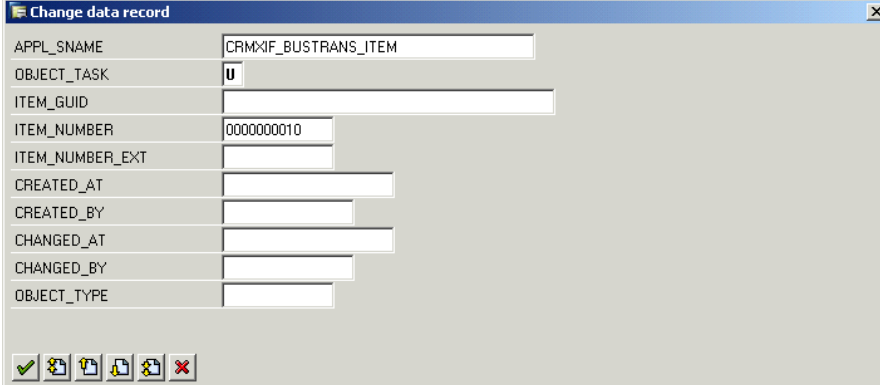

In the next paragraph an example is given of the settings for one such item segment.

6.2 Settings for the business transaction item segment

There are two lines that pertain to the highest level of the business transaction item:
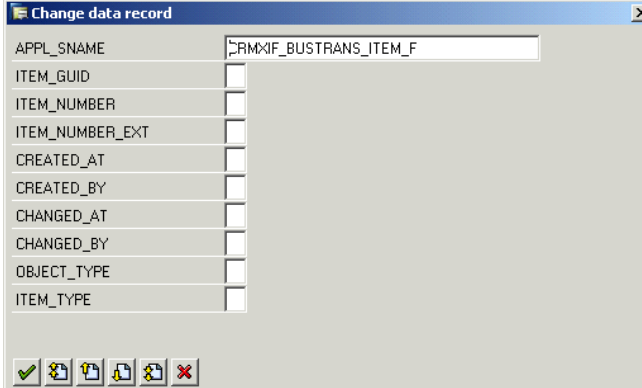E101CRMXIF_BUSTRANS_ITEM and E101CRMXIF_BUSTRANS_ITEM_F.
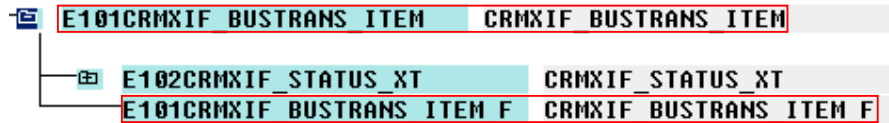
The settings for E101CRMXIF_BUSTRANS_ITEM (screenshot taken from transaction we19 after dubbelclicking the line) are shown below:

These fields show either the relevant selection (in this case we want to change item 10), or the new values. A field value is considered a change value (new value) if the field is flagged for change, otherwise a field value is used for selecting the appropriate object. Not all fields are shown here. Browse through the fields with the arrow options.

The line ending with _F contains the change flags. Here the fields that contain change values should have an 'X' assigned. The edit screen for E101CRMXIF_BUSTRANS_ITEM_F looks like this:
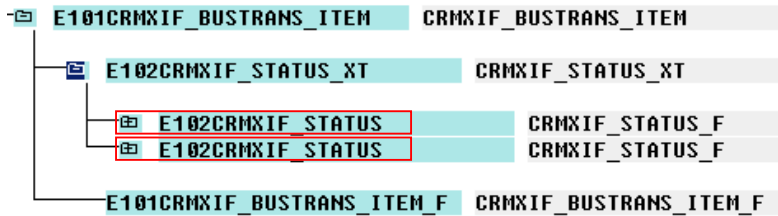

Here no flags are set, because in our case no changes have to be made on this level. We only want to select item 10.
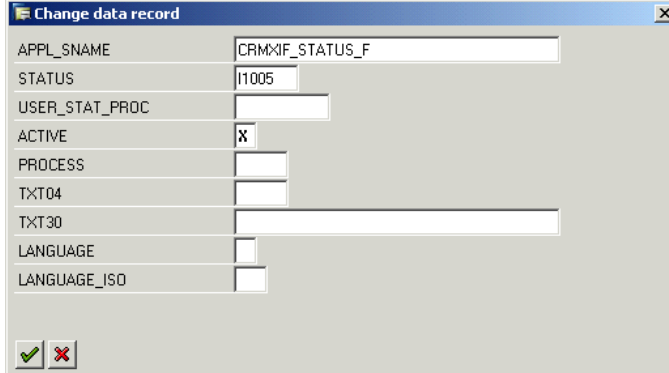
6.3 Settings for the status segment

The item segment contains two status segments:

```
E101CRMXIF_BUSTRANS_ITEM        CRMXIF_BUSTRANS_ITEM

    E102CRMXIF_STATUS_XT         CRMXIF_STATUS_XT

        E102CRMXIF_STATUS         CRMXIF_STATUS_F
        E102CRMXIF_STATUS         CRMXIF_STATUS_F

    E101CRMXIF_BUSTRANS_ITEM_F   CRMXIF_BUSTRANS_ITEM_F
```

In this paragraph an example is given of the settings for one such segment.

Just as the business transaction item segment the status segment contains two lines pertaining to the highest (and now only) level of this segment. In our case E102CRMXIF_STATUS and E102CRMXIF_STATUS_F:

```
E102CRMXIF_STATUS              CRMXIF_STATUS_F

        E102CRMXIF_STATUS_F    CRMXIF_STATUS_F
```

The settings for E102CRMXIF_STATUS (screenshot taken from transaction we19 after dubbelclicking the line) are shown below:
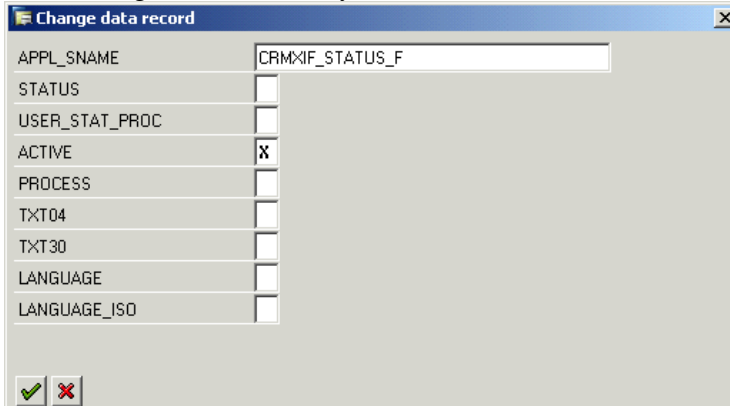

Here the value for the *status* field acts as a selection value (what status are we talking about) and the flagged for change (see below) *active* field acts as a change value (what should be the new value for this field).

The fields are given the values I1005 and X respectively. This means that the status I1005 ('Completed') should be activated.

The line ending with _F contains the change flags. Here the fields that contain change values should have an 'X' assigned. The edit screen for E102CRMXIF_STATUS_F is given on the next page.

These settings indicate that only the value *active* should be set to a value:

Repeat this step for all statuses that should be set.

6.4 Order status change initiated by the KIB

The system status of sales order items can be set to **delivered** and/or **completed** with an IDOC. The system status of the sales order header is automatically changed accordingly (and so are the user statuses). A sales order starts with system and user status **open** when created, at item level as well as header level. In the table below a status overview is given following input from the IDOC.

IDOC setting		Item level		Header level	
Completed (I005)	**Delivered (I1137)**	**System status**	**User status**	**System status**	**User status**
x		Completed	Completed	In process/ Completed*	In process/ Completed*
	x	In process Delivered	In process	In process	In process
x	x	Completed Delivered	Completed	In process/ Completed*	In process/ Completed*

* The header assumes the status **completed** only after all items are assigned the status **completed**. (If an order is only partially completed, the header status remains **In process**)

The rows in this table represent three independent scenario's. Any of these scenario's can be processed individually. When processing these scenario's one after another, order is not relevant (no interaction).

Example
IDOC 5176 activates the status **I1137** ('delivered') for item **10** of sales order **10750088**. A screenshot of the transaction *we19* for this IDOC is shown below:
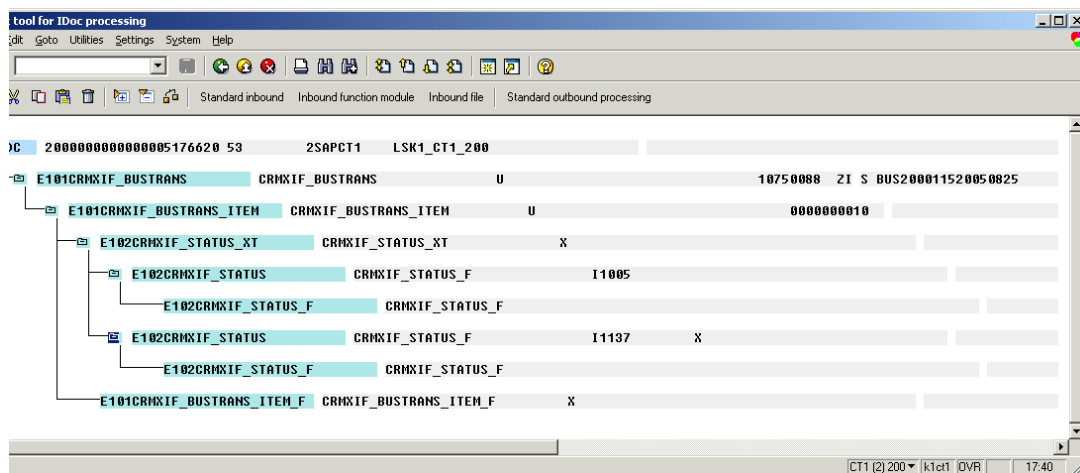
The status I1137 as activated with the following settings:

Change data record	
APPL_SNAME	CRMXIF_STATUS_F
STATUS	I1137
USER_STAT_PROC	
ACTIVE	X
PROCESS	
TXT04	
TXT30	
LANGUAGE	
LANGUAGE_ISO	

Basic Settings for Using External Interfaces

Various settings must be made within CRM Middleware as well as the XIF (external interface) adapter attached to it in order to be able to use external interfaces.

From Support Package 06 onwards you should use message types CRMXIF_*_SAVE_M (M stands for mass processing) or CRMXIF_*_SAVE_S (S stands for single processing) because, in contrast to the message type CRMXIF_*_SAVE, they contain corresponding segment names in an IDoc XML display. CRMXIF_*_SAVE message types already in use may be retained, but non-corresponding names may not.

Customizing IDoc-Outbound

1. Create a suitable RFC destination in the SAP IMG **Define Target Systems for RFC Calls** (for example,a TCP/IP connection to the Business Connector).

2. Create a logical system (for example, **CRM_XML_BC**, a connection to the Business Connector).

3. Create a receiver port (transactional RFC) in SAP IMG **Define Port**, indicating the RFC destination you created earlier.

4. Create a partner profile, for example, partner type **LS** with the partner number **CRM_XML_BC**, in the SAP IMG **Maintain Partner Profile Manually**.

5. Enter all outbound parameters for the logical system CRM_XML_BC in Create Outbound Parameters in the Outbound Parameters window (for example Transfer IDocs at once, Basic Type CRMXIF_*_SAVE01, Message Type CRMXIF_*_SAVE_M, Create or Generate Receiver Port as before).

6. Create a site (transaction SMOEAC). To do this, select Object Type **Sites** and **Create Object**. Assign your site a suitable name and select Site Type **External Interface for IDocs**. Assign the partner profile created previously as a Site Attribute.

7. Use object type Subscriptions to maintain a subscription for publication of the object with the predefined site.

8. Create an entry for the new site using XIF customizing transaction CRMXIF_C1 via F4 help (BDoc Type = <objname>, IF Type = 'CRMXIF_*_SAVE_M', Set relevant flag for complete Data and Return). The flag Flag for complete data is only relevant for the objects "order", "business partner", and "business partner relationship". It flags whether only delta changes or the object instance should be transferred completely. The object "business document" is always sent completely, regardless of flag status.

Customizing XML-Outbound

1. Create an HTTP connection to an external server (connection type G or H) in SAP IMG **Define Target Systems for RFC Calls**. If the external server is an SAP System (type H), the SOAP service path prefix is "/sap/bc/soap/rfc". The standard service number (port) for HTTP is 8080. The current HTTP port for the receiving system can be determined in the SAP System using transaction SMICM -> Goto -> Services.

2. Create a site within the Middleware Administration Console (transaction SMOEAC). To do this, select object type **Sites**, then **Create Object**. Give the site a suitable name, and then select site type **External Interface for XML**. Assign the HTTP destination you created earlier as a site attribute.

3. Follow points 6) to 8) from Customizing IDoc-Outbound.

Customizing IDoc-Inbound

1. Create a logical system (for example, CRM_XML_BC) in SAP IMG **Define Logical System**.

2. Create a partner profile, for example, with partner type **LS** and with partner number **CRM_XML_BC**, in the SAP IMG **Maintain Partner Profile Manually**. Enter a suitable message type CRMXIF_*_SAVE_M in the Inbound Parameters window.

Customizing XML-Inbound

1. No Customizing is necessary in the CRM System for receiving SOAP/XML documents. You can create or view the corresponding HTTP port (standard number 8080) using transaction SMICM -> Goto -> Services. The SOAP inbound service can be reached using the path "/sap/bc/soap/rfc". The complete URL for SOAP messages is "http://<appservername>:8080/sap/bc/soap/rfc".

B. Appendix B: Note 502037

Symptom

The standard online replication model for transaction data in the messaging flow (publication "All Business Transactions (MESG)") does not support filtering.

Other terms

All Business Transactions (MESG), Load to R/3 backend with filtering, BUS_TRANSACTION_MESSAGE, Filtering, R/3 backend, SMOEAC, Administration Console, replication model, data exchange, All Business Transactions (MESG), BUS_TRANS_MSG

Reason and Prerequisites

You want to filter business transaction data (such as sales documents) to be loaded to an R/3 backend.

However, the standard publication "All Business Transactions (MESG)" is of type "Simple bulk (msg)" and therfore does not support filtering.

Solution

To be able to filter the business transaction data, you must delete the existing replication model for business object type BUS_TRANSACTION_MESSAGE and recreate it with filtering allowed.

Perform the following steps:

In your development system:

1. Make sure that no new sales documents are created by locking the online user and deregistering all inbound queues of the object type.

2. Delete the subscription of publication "All Business Transactions (MESG)" in the Administration Console (transaction code SMOEAC)

3. Delete the publication "All Business Transactions (MESG)".

4. Delete the replication object "BUS_TRANSACTION_MESSAGE".

5. Create a new replication object "BUS_TRANSACTION_MESSAGE" of type "simple intelligent (msg)" and select the relevant criteria fields with the correct operator. (For sales documents, see Note 497434).

6. Create a new publication, such as "Sales Documents by Field1 Field2." and assign the relevant criteria fields to it.

7. Create a new subscription, such as "Sales Documents by AAA BBB..." for the new publication

8. Assign the subscription to the R/3 backend site.

9. Unlock the user and re-register the inbound queues.

10. Test your changes.

Do not not release the transport request with your changes before you have performed the first two steps below in your test and productive systems.

In your test and productive systems:

1. Make sure that no new sales documents are created by locking the online user and deregistering all inbound queues of the object type.

2. Delete the subscription for publication "All Business Transactions (MESG)" in the Administration Console.

3. Release the transport request with the changes in the development system to transport them to your test and productive systems.

4. Generate the runtime data using transaction SMOGPP in your import client (normally client 000)

5. Create a new subscription such as "Sales Documents by AAA BBB ..."

6. Assign the subscription to the R/3 backend site.

7. Unlock the user and re-register the inbound queues.

A. Appendix C: BADI Implementation

Following BADI has been implemented to correct an error situation. When creating an order in CRM with status error, the order will not be replicated to the KIB. When changing the order to correct the error, the order will be send to the KIB with an update indication. However this should be an initial indication.

Implementation name	Z_MAP_XIF_DATA	Inactive
Implementation short text	Change mapping of order data fields from/to KIB	
Definition name	CRMXIF_ORDER_MAP	

Attributes | Interface

Interface name	IF_EX_CRMXIF_ORDER_MAP
Name of implementing class:	ZCL_IM__MAP_XIF_DATA

Method	Implementation type	Description
CHANGE_MAPPED_DATA_OUT	ABAP ABAP Code	Change Mapping in Output
CHANGE_MAPPED_DATA_IN	ABAP ABAP Code	Change Mapping in Inbox

```
METHOD if_ex_crmxif_order_map~change_mapped_data_out .

*** Anton de Gier, 020206:
*** Implementation for Kverneland EPOS 2.
*** The coding below checks if an order has been sent to the KIB
*** by checking on the field CRMD-SALES-submission. If this field
*** is initial this is the first time, the field will be filled
to
*** indicate that the order has been processed before.
*** if the order has not been processed before, but the
OBJECT_TASK
*** field in the CS_DATA_MAPPED table (which contains the order
*** data about to be sent to KIB) is U, this means that the order
*** has been changed in CRM but was initially saved with errors
and
*** not sent to the KIB. The KIB cannot handle this and so the
*** OBJECT_TASK field has to be set to I.


  DATA: cv_sales TYPE crmd_sales.
  DATA: cv_jest TYPE crm_jest.

  DATA: cv_data_mapped TYPE crmxif_bustrans.
  DATA: lv_guid TYPE crmd_link.

  CLEAR cv_sales.
  CLEAR cv_data_mapped.
  CLEAR lv_guid.
```

```
    LOOP AT cs_data_mapped INTO cv_data_mapped.

*** get link GUID
    SELECT SINGLE * FROM crmd_link INTO lv_guid WHERE
    guid_hi = cv_data_mapped-object_guid AND
    objtype_hi EQ '05' AND
    objtype_set EQ '11'.

***select help field we abuse as indicator

    SELECT SINGLE * FROM crmd_sales INTO cv_sales WHERE guid =
     lv_guid-guid_set.

    IF cv_sales-submission IS INITIAL. "order not processed by
KIB
*** check if the order status is equal to 'contains errors'
*** if the order contains errors, do not set the indicator
      SELECT SINGLE * FROM crm_jest INTO cv_jest WHERE
        objnr = cv_data_mapped-object_guid AND stat = 'I1030'.

      IF sy-subrc = 0 AND cv_jest-inact = ' '.
*** order contains errors, so do nothing
      ELSE.
        IF cv_data_mapped-object_task EQ 'U'.
          cv_data_mapped-object_task = 'I'.
          MODIFY cs_data_mapped FROM cv_data_mapped.
        ENDIF. "object task U

*** tell the system order has been processed.
        MOVE 'X' TO cv_sales-submission.
        UPDATE crmd_sales FROM cv_sales.
      ENDIF.  "Order contains errors

    ENDIF. "lv_submission
  ENDLOOP. " cs_data_mapped

ENDMETHOD.
```