SAP IS-U Migration Workbench: Step by Step EMIGALL



Applies to:

SAP IS-U, CRM. For more information, visit the Customer Relationship Management homepage.

Summary

SAP IS-U migration workbench (Tcode-EMIGALL) is a SAP ISU tool to migrate a legacy data into the SAP ISU system. This document is prepared for giving step by step user level information on how to navigate, configure and work with EMIGALL.

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Author Bio

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Introduction

This document is prepared for giving step by step user level information on how to navigate, configure and work with SAP IS-U migration workbench (EMIGALL).

Objective

The objectives of this document are:

- Give an overview of SAP EMIGALL
- EMIGALL Company creation
- Object configuration
- Distributed Import
- CRM replication for EMIGALL migration objects

Prerequisites

- User must have the SAP ISU and CRM experience of navigating the EMIGALL objects
- User must be aware about the SAP ISU business processes and the objects related to it.
- Must be aware about the middleware replication settings
- Middleware settings must be completed between the CRM and ISU systems.

Migration Workbench Customization

Following are the important steps in Migration Workbench configuration:

Creating Migration Company

In migration sense Company can be viewed as Project. So for migration only one company will be created.

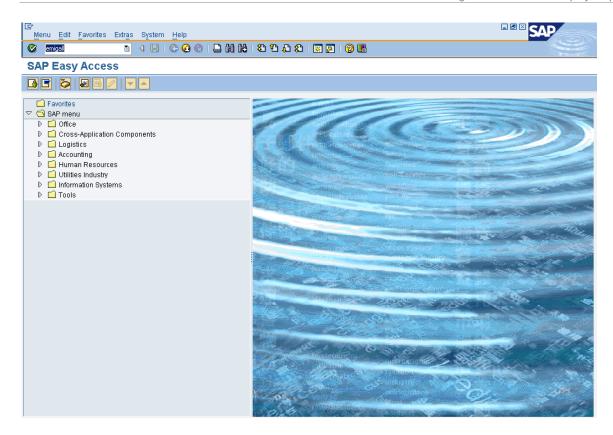
Following settings will be maintained at the migration company level:

- Company name
- Development class to use to generate the load modules
- Application server and current directory for import in the dialog work process
- > Application server and current directory for import in the batch work process
- Code page of the legacy system

To override the company parameters, user parameters will be used during the data import.

Let us go through step by step as mentioned below:

For starting the migration workbench from the easy access menu, use the transaction code EMIGALL as mentioned below:



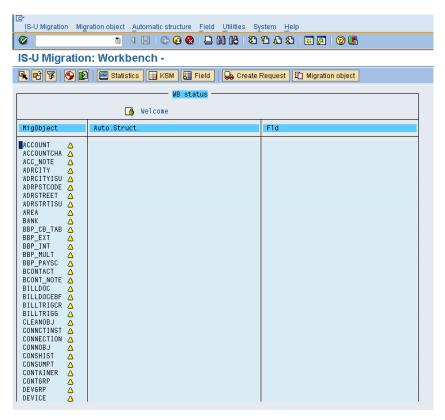
After entering the "emigall" transaction, we have to select the migration company as mentioned below:



In the above pop-up, select the company as SAP and click on Continue (Enter). After this you will get the following screen:

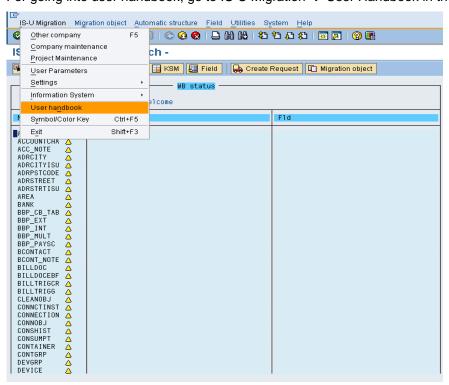
This is the default company provided by SAP which will have all the standard migration objects.

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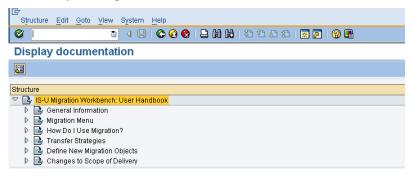
The above screen is the default migration workbench screen, which is divided into 3 sections as Migration Object (MigObject), Auto Structure(Auto Struct) and Fields(Fld).

In EMIGALL SAP has provided a user handbook of EMIGALL, which you can refer at any point of time. For going into user handbook, go to IS-U Migration → User Handbook in the menu bar as shown below:



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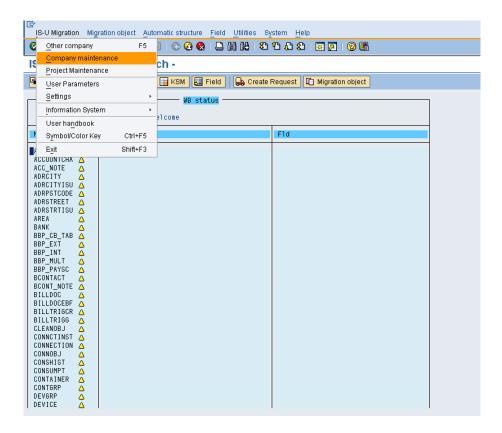
After that you will get the detail EMIGALL user handbook as shown below:



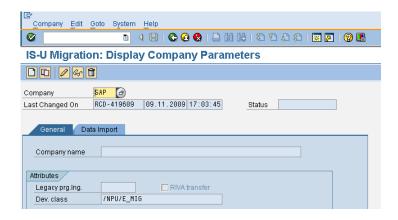
Note: Please do not make any changes in this SAP Company, as if the settings are changed here, we will not have any standard company where we can compare.

First thing we have to do is to create our own separate migration company.

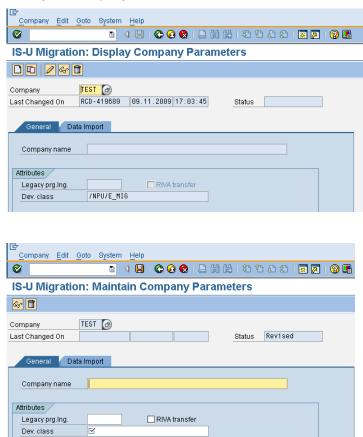
For creating a new migration company, select Company Maintenance from ISU-Migration.



After your selection you will get the following screen:



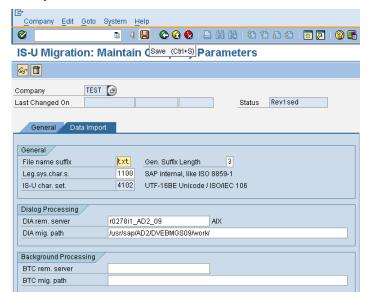
Enter your Company and click on Create:



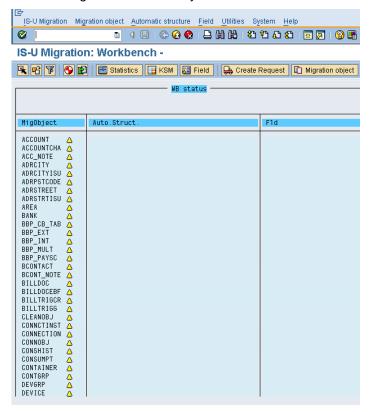
After selecting Create, we have to enter other details which are required for Migration Company as below:



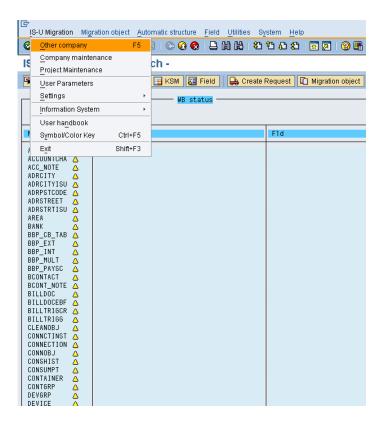
After entering the above data, click on SAVE button to save our migration company. Finally click on BACK button.



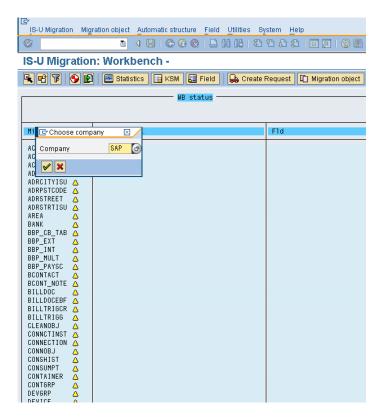
After clicking on BACK button you will be directed to default SAP company as below:



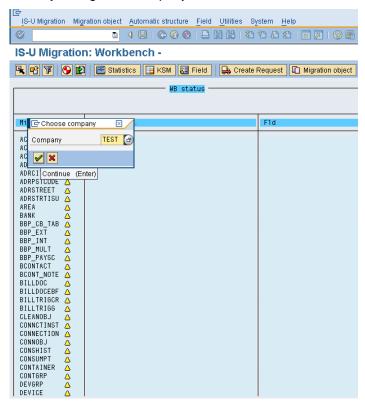
For going into your own migration company, click on **IS-U Migration** and then select **Other Company** as shown below:



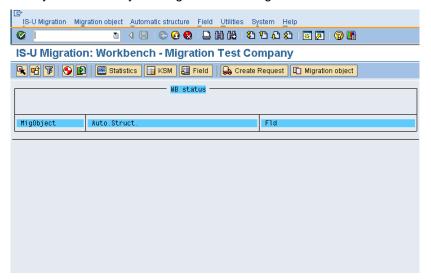
After above selection you will get the pop-up to select your migration company as below:



Select you migration company and click on continue as below:



After your selection you will get the following screen:



As you have no migration objects in your new migration company. Now we have to add the migration objects which we need to use.

Creating the new migration objects

To satisfy the data requirement for all the business processes identified within any data migration projects, migration object will be finalized based on discussion with Business Process Design Team. These objects will then be either copied from SAP Company to the new migration company configured for your project or will be created within your new migration company.

The new migration object is created with the blocking status '100' which blocks data import function to prevent new objects being unintentionally imported.

This process will be carried out for each migration object and all the migration object in scope of project will be copied to Migration Company configured for your migration project.

If any standard migration object from SAP Company is not serving the migration requirement then the IS-U Migration Workbench has an option for setting up a new migration objects that are not copied from the supplied objects from SAP Company.

Following three types of migration objects can be created in EMIGALL:

- Migration objects based on a service (function) module
- Migration objects based on a BDC recording
- Migration objects based on existing migration objects

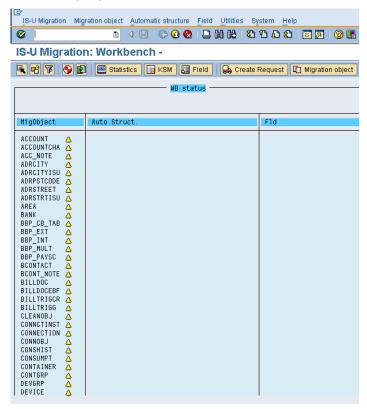
Let us see the complete process of created or copying the new migration objects in your new migration company.

Creating a migration object by copying it from SAP company to our own migration company

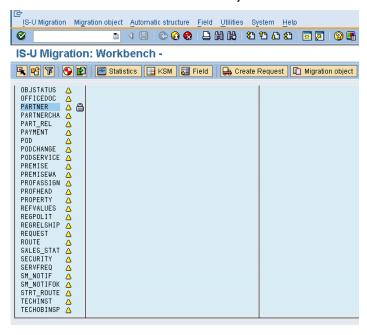
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For copying a standard migration object from SAP company to our own migration company, click on **IS-U Migration** and then select **Other Company.**

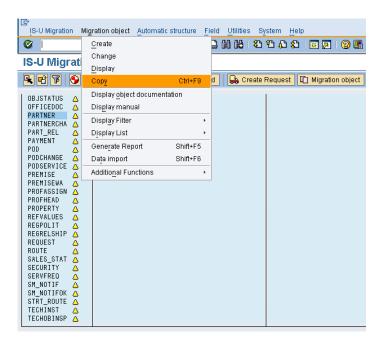
Select company as SAP and click on continue.



For copying any migration object, first select the required migration object by double clicking on it, as shown below we have selected PARTNER object:



After selecting a migration object, go to **Migration Object** in the menu bar and select **Copy** as shown below:

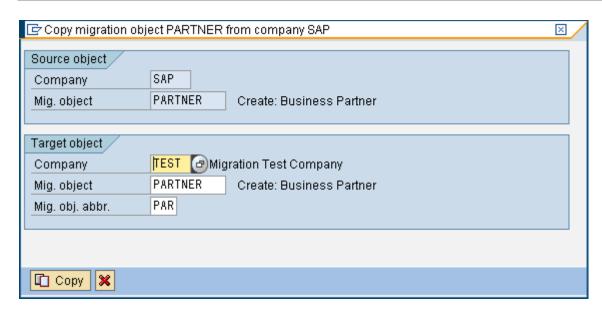


After selecting Copy you will get following screen:



Enter the target Company and click on Copy:

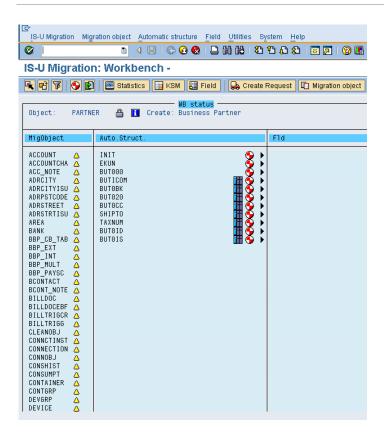
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After clicking on Copy you will get the following message:

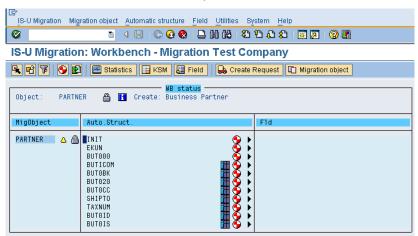


Click on Continue

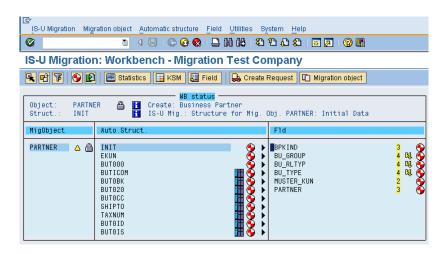


Go to your own company, now you will have a migration object PARTNER added to your company TEST.

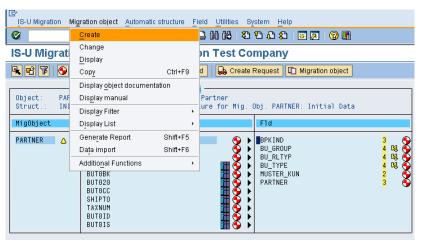
Double click on the PARTNER object as below:



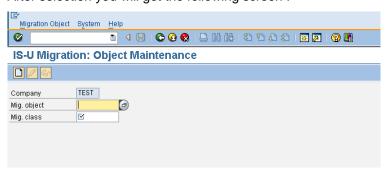
Now double click on any auto structure you will get the detail fields within that structure as shown below:



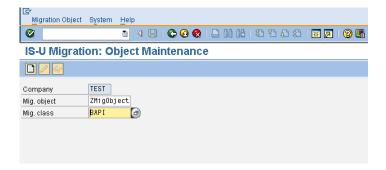
If you want to create a new migration object using a BAPI then click on **Migration object** and select **Create** as shown below:



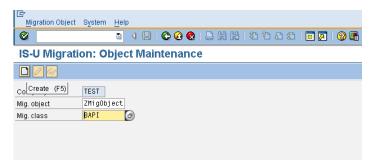
After selection you will get the following screen:



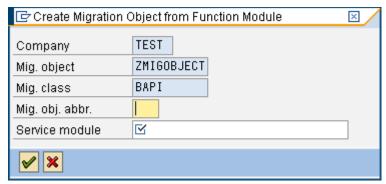
Enter the new migration object name and select the Mig. Class as BAPI:



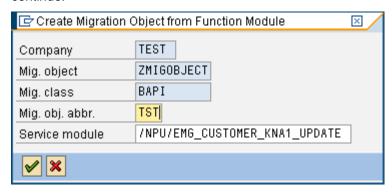
After this Click on Create button:



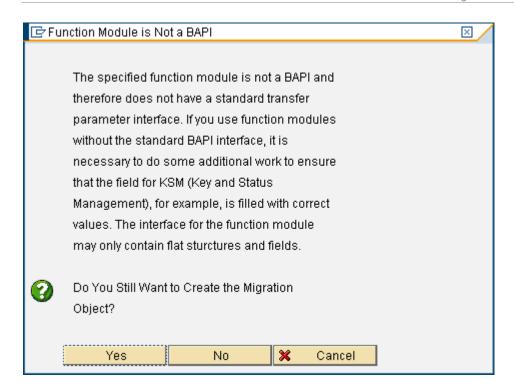
After Create you will get the following pop-up:



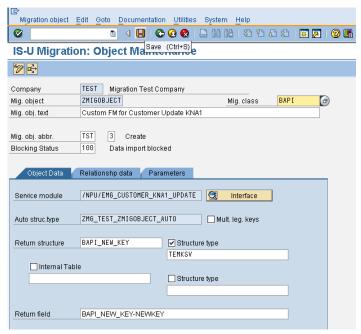
Enter the Migration Object Abbreviation and the Service module name as mentioned below and click on continue:



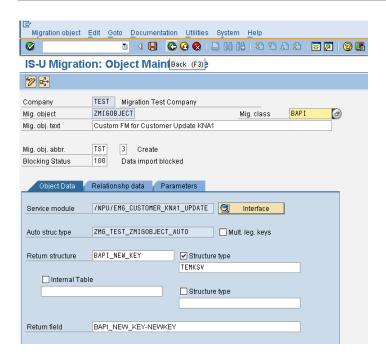
After this you will get the following confirmation screen and here select Yes:



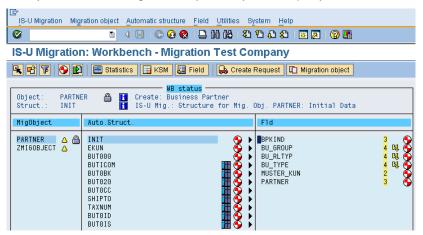
Now finally your new object will be created, here select the SAVE button as below to save your migration object:



After saving click on BACK button to return to your migration company as shown below:



Now you can see 2 migration objects in your company as below:

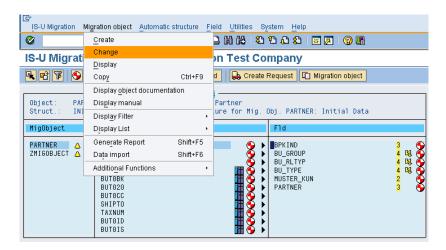


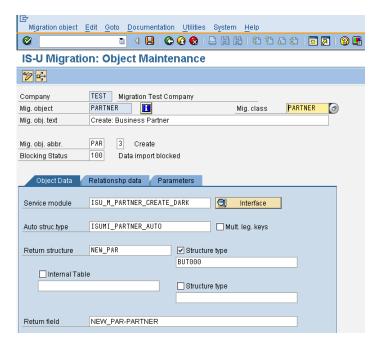
Migration Object Configuration

In this section we will see how to make configuration settings for the SAP as well as custom migration objects:

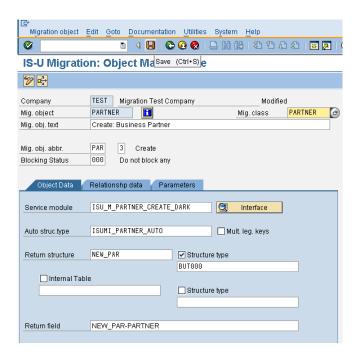
After copying or creating a new migration object go to Migration object in the menu bar and select change as shown below:

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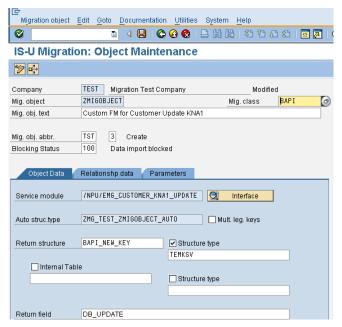
Here you have to change the Blocking Status to 000, without this you will not be able to migrate the data: So change the status to 000 and save as mentioned below:



The Return Field is the field which will be updated in the SAP KSM (Key and Status Management) table.

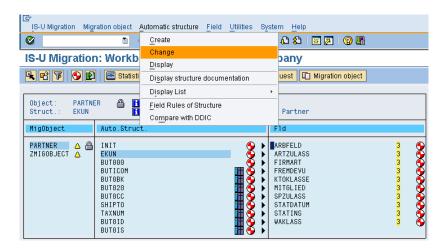
In the above screen you can see Return field has the value as New_PAR-PARTNER, it means EMIGALL will return the newly created SAP Business Partner number.

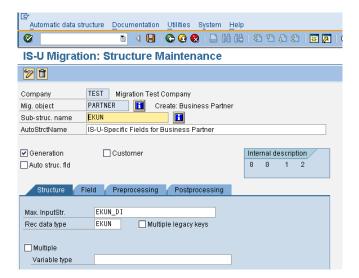
In the same manner if you see the below screen, system will update the SAP tables for this custom object and will have return field value as "DB_UPDATE" will return the value as "X" in KSM.



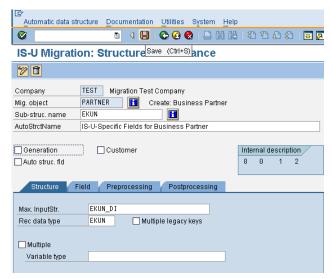
Now if you want to configure the structures inside this migration object PARTNER, and then just double click on the migration object, EMIGALL will give you all the structures which are there in this PARTNER object.

If you want to change any structure then just double click on the structure and go to **Automatic Structure** and then select **Change** in the menu as shown below

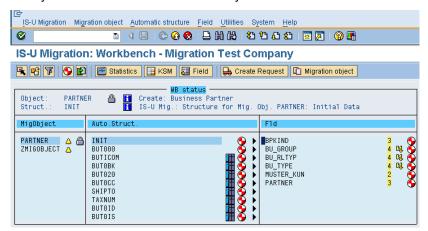




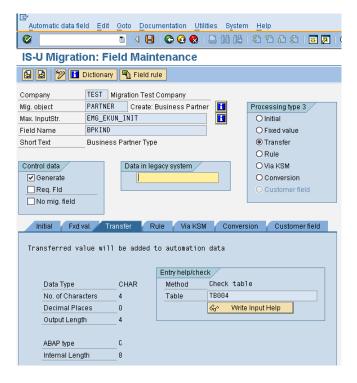
Suppose we do not want his structure then just uncheck the field **Generation**, and **Save** your setting as shown in the below screen:



Now you can see in the below screen your structure is deleted from the current list as below:



Now if you want to configure the fields within your structure then just double click on the field which you want to change then you will get the following screen:



Here EMIGALL has different options for your field configuration as mentioned below.

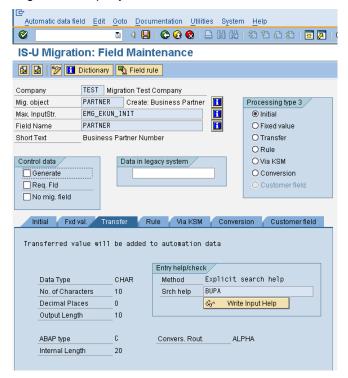
- In the EMIGALL field configuration you have to select first whether you want any specific field or not and that can be done by **Generation** check box.
- If your field is mandatory then select the check box Req. Fld
- If you do not want to use any migration field then select the check box No. mig. Field

Note: The check box is only used by SAP, hence this option should not be used. Instead if you do not want any field then just uncheck the Generation check box and Select the Processing Type as Initial.

Apart from the above settings, one more key setting i.e. **Processing Type**, is there which is mandatory for each field. These are mentioned below:

1. Initial

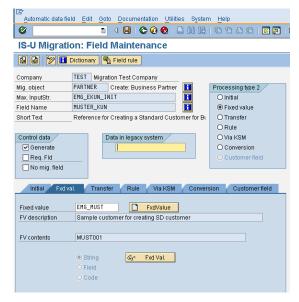
This option will be used if you do not want a field, then just select this radio button and also select the Check Box Generation. After this configuration the particular field will not be used in your migration company.



2. Fixed Value

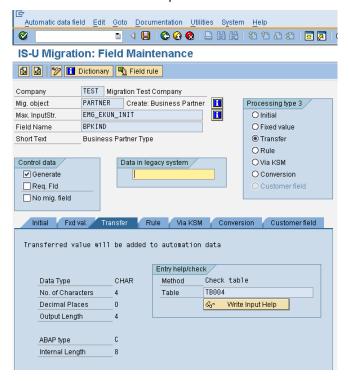
If for any particular field you want to have fixed value for example **currency**, then you can make that by selecting this option.

But apart from selecting this option you have to also assign the specific fixed value in the second tab **Fxd val**, as shown below:



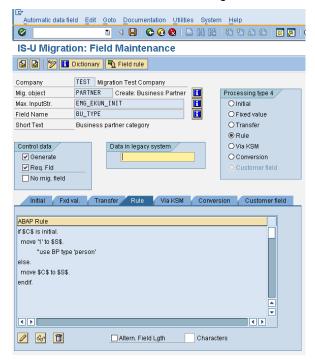
3. Transfer

This option will be only used whenever either you will be supplying the value or transformation file will have the value for this particular field.



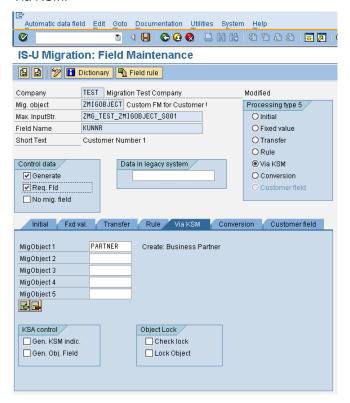
4. Rule

This option will be used if you want to set some ABAP rule for some fields like if this field has initial value then select 1, else select the value given in the file.



5. Via KSM

If in some fields you want to refer some previously migrated object then that can be achieved by this option Via KSM.



Here you can also enter multiple migration objects as per your project requirements.

Notes: If the field is not visible, then the display options (menu path Field - Display list - All) will be used to display the complete field list.

Alternatively, mass entry (menu path Automation structure - Edit fields in structure) can be used to edit several field rules at the same time.

Generating the load report

Each time changes are made in the following area, a load report needs to be generated.

- the definition of the migration object
- auto data structure
- > part of a field rule
- generation event
- the workbench or the generation program (for example SAP upgrade)

For generating the report either choose the function key 'Generate' or the menu path **MigObject - report - generate**.

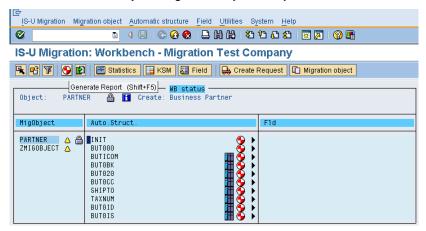
In the migration workbench the situation of the load program is represented by the colored icon. A yellow icon means that report needs to be regenerated.

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After doing all your structure and field configurations you can create a test field and migrate the test data in file editor. But before you go to file editor you have to generate a migration report for your migration object, otherwise you won't be able to go to the File Editor.

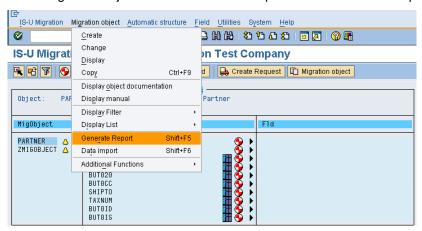
Report for Migration object can be generated as below:

First double click on your migration object and just click on the button Generate Report as shown below:

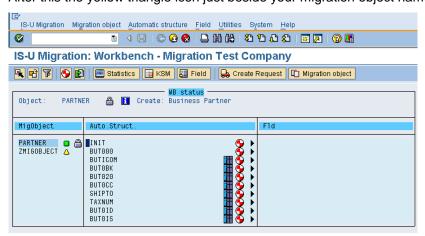


This can also be done through menu option as

Go to Migration object and then select the option as Generate the report, as shown below:



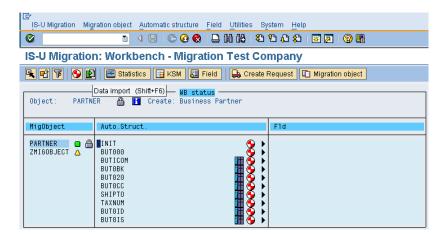
After this the yellow triangle icon just beside your migration object name will turn as green, as shown below:



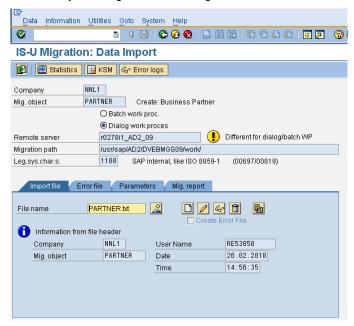
Data loading using a file editor

Now let us go to the file editor where we can actually migrate our test data.

For file editor first double click on your migration object and then click on the button **Data Import** as shown below:



After that you will get the following screen:

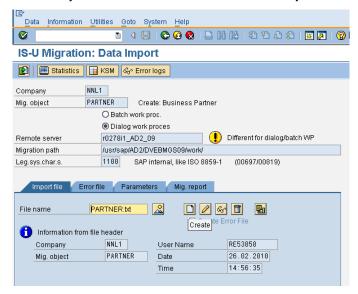


In this screen you can see the following details:

- Migration object name
- Migration company name
- Remote server
- Migration Path given at the company level
- Options for migrating the file in Dialog or Batch process

In this file editor EMIGALL will auto populate the file name as <<mi>gration object name>>.txt You can very well change this name if you do not like.

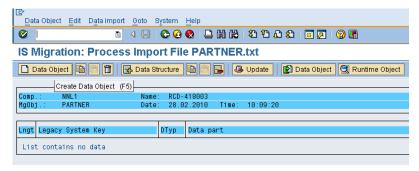
After this you have to click on the Create button just beside the file name as shown in below:



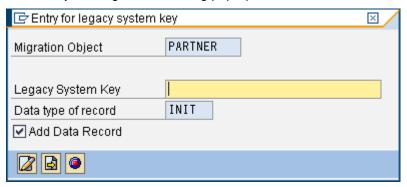
After that we will get the following screen where we can create our new file or also change existing file.



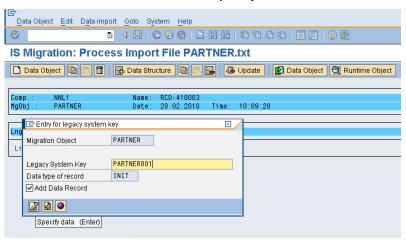
Here you have to first create the data object, just by clicking on the button **Data Object** in the menu as shown below:



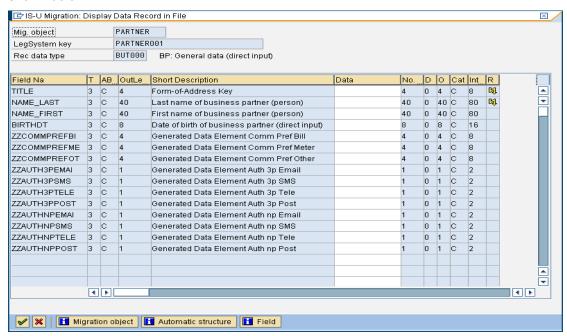
After that you will get the following pop-up:



In this pop-up we have to enter the legacy key, which will be unique for each record, for example we will enter as PARTNER001 and select **Specify Data** button as shown below:



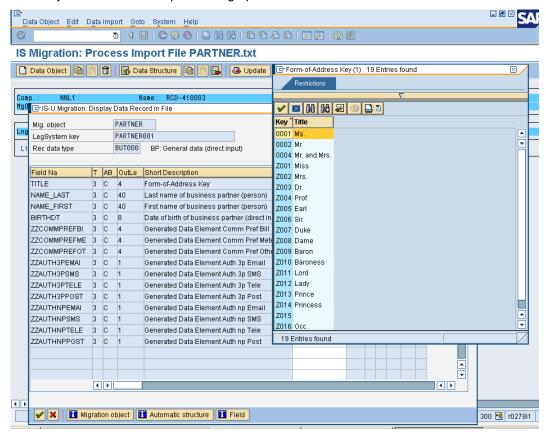
After your selection system will give you pop-up to enter actual test data for all your structures and fields as shown below:



In the above screen you can see all the configured field details where processing type is other than **Fixed Value**. Because SAP is storing the fixed value within the EMIGALL, hence you do not have to again provide the same.

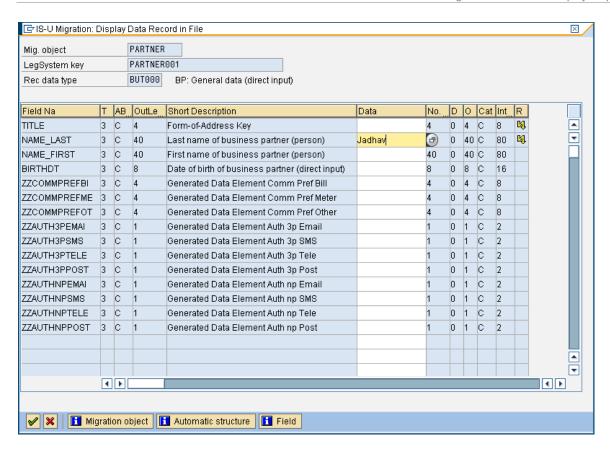
Also you can see here, which field you have configured as optional and mandatory.

Here you have option to select the value from the help by pressing F4 key as shown below for the field TITLE. This will give you a list of configured values in case field has the processing type as **Transfer** and KSM object values in case processing option is **Via KSM**:

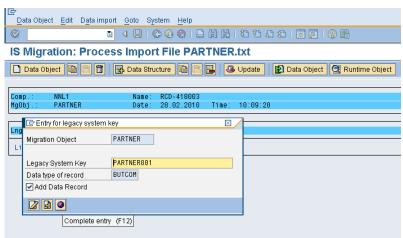


So if you enter all the required fields then you will be able to migrate. Otherwise system will give you an error message.

Let us leave some mandatory fields as Blank as shown below:

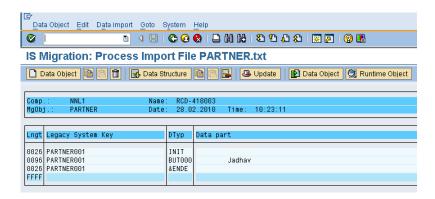


After entering all the data just click on **Complete Entry** button, to finish the data entry part as shown below:

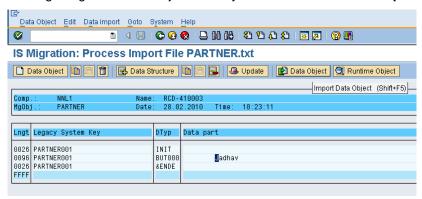


After your selection you will get the following screen:

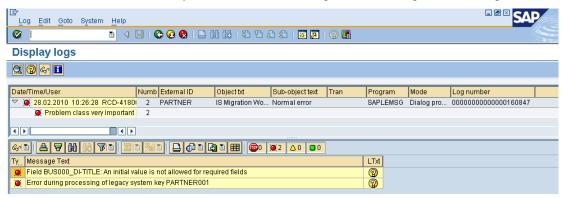
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For migrating this test data just select your record and click on Import Data Object button as shown below:

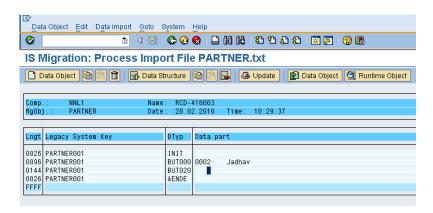


As we have left one mandatory field as Blank, we will get the following error message:

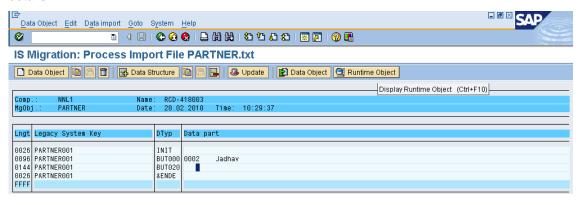


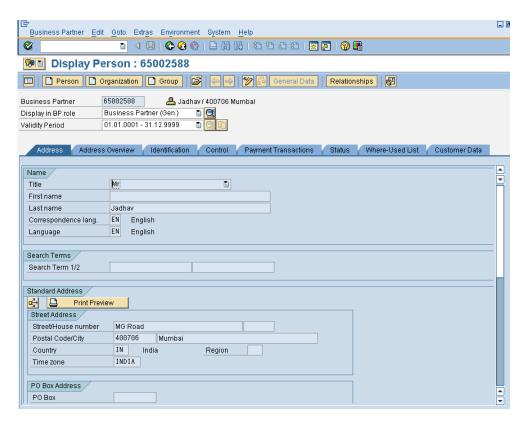
So for correcting just click on the back button and re-enter the correct/missing data and again migrate the same.

After successful migration you will get the following screen:



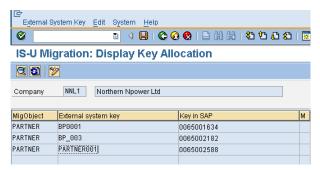
If you want to check the data in SAP transaction then just click on **Runtime Object** and you will get the details:





Here you can check all your data which you have entered in the test file before loading.

For every record migrated you can also check the KSM for your legacy key and SAP generated key as shown below:



File editor can be used only for small volume of data, if we have to migrate the data volumes, for example 10 millions, then EMIGALL has a Distributed import which we can use.

Data loading using Distributed Import

The distributed import function acts as load distributor for the import of large quantities of data.

A distributed import run will be created in the migration workbench to import the data. The following parameters can be set in the import run:

- Migration path (defaulted to SAP application server)
- Load file name
- Error file name
- Number of background processes to be used to load data
- > File size in the number of data records for distributed import. (This setting determines the number of records in the split file).

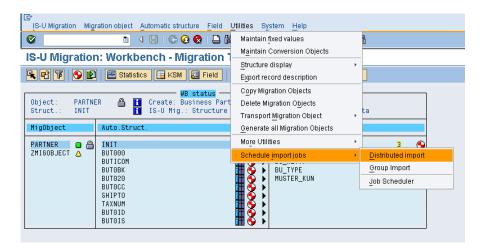
This distributed import run can be scheduled to run in the background or can be started immediately.

Before starting distributed run we need to make sure that all the performance related SAP notes and settings are done by the SAP BASIS team.

For these settings we can refer the standard SAP documentation which is attached below:



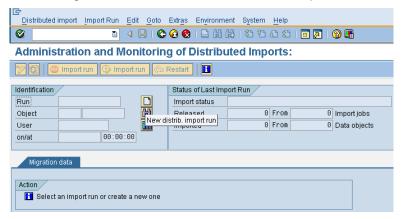
For going into the distributed import, go to Utilities→Schedule Import Jobs→Distributed Import As shown below:



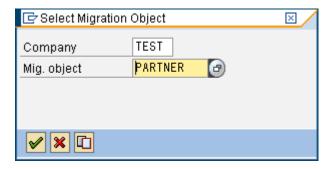
Here first you have to define the Distributed import runs:



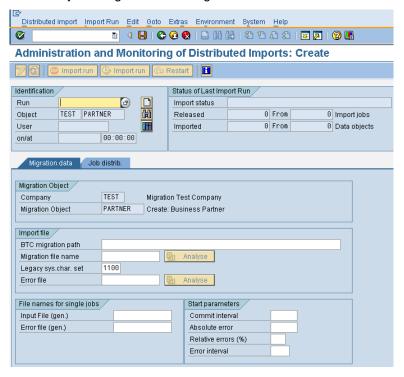
For creating a new Run click on New distributed import run as shown below:



Then enter your object in the below pop-up and click on continue:



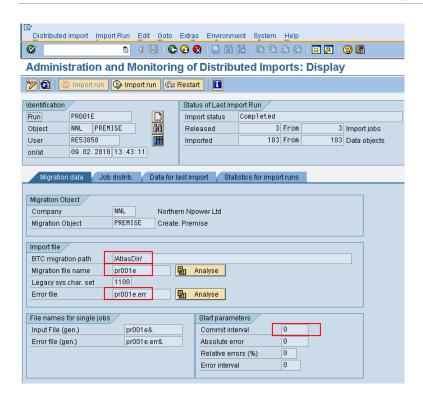
After that you will get the following screen:



Here we have to enter the details as below:

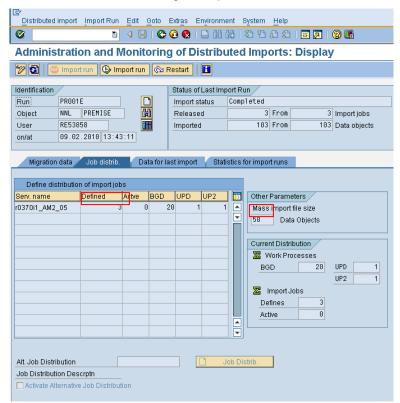
- Migration Path
- File Name
- Error File Name
- Commit Interval

After entering you can see the next tab Job distrib

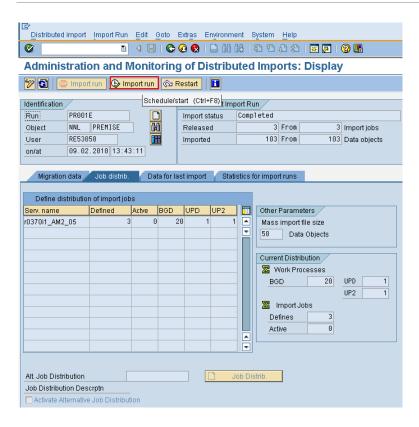


In the next tab you have to enter the following data:

- Mass Import File Size and
- No of Defined Background processes which we will be using for our job distribution



After creating your distributed Run, you have to save and then Finally start your Import Run as shown below:

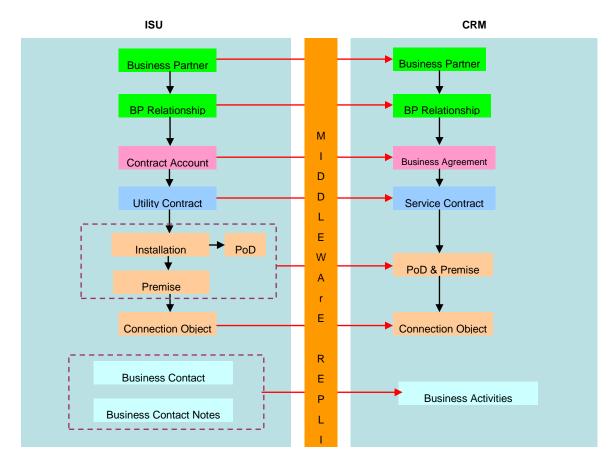


CRM Replication

There are few migration objects for which we will have to do the middleware replication into CRM system for e.g.

- PARTNER
- ACCOUNT
- BCONTACT & BCONT_NOTES
- EVERH

Following diagram explains you the details about the object relationship between the ISU and CRM systems:



The CRM Replication can be done by two methods as below:

- Initial Download and
- Request Down load

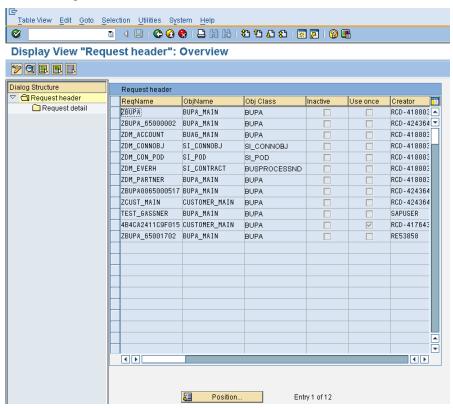
But as per recommendations from SAP Request download will give us a best performance and hence we should use the same.

Let us get some overview on how the request down load will be done.

There are 3 steps in this request download which are as below:

- Define requests
- Start request and
- Monitor request

For defining any new requests in SAP CRM system, go to the transaction code R3AR2 and then you will get the following screen:



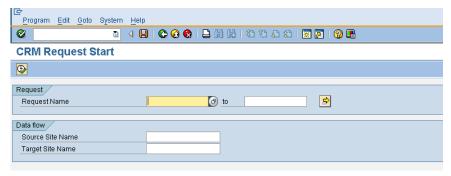
Here you have to create the new request and enter the following details:



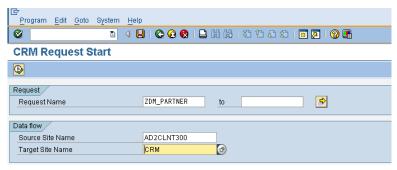


After entering the above details, just save the request.

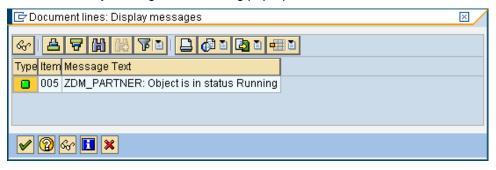
For starting your request we have to go to the tcode R3AR4 and then you will see the following screen:



Here you have to enter your Request name, source system and target system as shown below and just Click on execute:

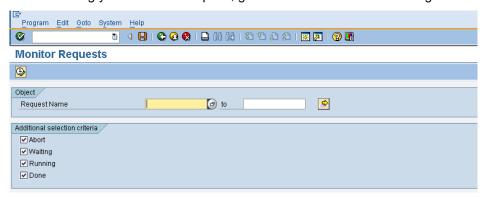


Once executed you will get the following pop-up:

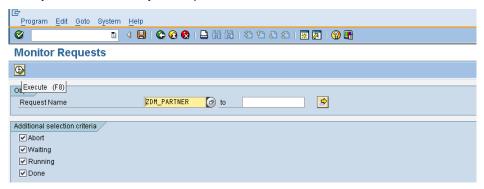


Here just click on Continue.

For monitoring your executed request, go to the tcode R3AR3 and will get the following screen:



Here you have to enter your request name and click on execute:



After that you will get the following screen which will give you an idea whether your request is successfully replicated on went into error, as shown below:



After this just go into CRM system, and check your replicated data.

Tips and Tricks

Below are some of the tips and tricks which are very useful while working with EMIGALL:

Partner

Notes:

- Structure BUTCOM is a repetitive structure in EMIGALL which will be used to migrate the landline number, mobile number, email and preferred communication channel for customers.
- The structure BUTCOM will be repeated for each type of communication for example- first repetition for landline number, then second for mobile, third for email and finally for the preferred communication channel.
- For each repetition the other fields relevant for other type of communication will have NULL value. For example if we want to migrate mobile number then email, preferred communication channel and landline numbers will be NULL
- Preferred communication channel data should be migrated in the last repetition using the structure BUTCOM otherwise the data will not be loaded.
- Structure BUT0BK is a repetitive structure in EMIGALL which will be used to migrate the multiple customer bank details.
- All the bank sort codes which are required during the migration should be already present in the system before migrating the customer bank details.
- Structure BUT020 is a repetitive structure in EMIGALL which will be used to migrate the multiple customer address details.
- Structure BUT021 is a repetitive structure which is used to assign specific address to specific address type.
- If customer has more than one address to migrate then, first BUT020 will be used to migrate all the
 multiple addresses and finally BUT021 will be used to assign the specific addresses to a specific
 address types.
- If customer has only one address and which will be only used as standard address in that case no need to assign the address to standard address type in BUT021.
- If customer has only one address and which will be used as both standard address and correspondence address, in that case assign the address to only correspondence address type in BUT021.
- Structure BUT0ID is a repetitive structure in EMIGALL which will be used to migrate the multiple special needs for a customer.
- Structure BUT0ID should have all the Fields as mandatory if this structure is populated.
- Structure BUT0CC is a repetitive structure in EMIGALL which will be used to migrate Multiple Card Details, Out of which one has to be made as Standard card using Field CCDEF.

Account

Notes

• Structure VKLOCK is a repetitive structure in EMIGALL which will be used for migrating different locks for example. Dunning lock, payment lock, etc. for already migrated business partner.

Docustat:

Notes:

- All the statistical open items will be migrated without any sign after the amount value for example.
 100.00 using the EMIGALL structure OP.
- All the statistical credit items will be migrated with a minus sign (-) after the amount value for example. 100.00- using the EMIGALL structure OP.

Document

Notes:

- All the open items will be migrated without any sign after the amount value for example. 100.00
 using structure OP and with a minus sign (-) after the amount value for example. 100.00- in the
 EMIGALL structure OPK.
- All the credit items will be migrated with a minus sign (-) after the amount value for example.
 100.00- using structure OP and without any sign after the amount value for example.
 100.00 in the EMIGALL structure OPK.

Dunning_Cs

Notes:

- Structure TAB001 is a repetitive structure in EMIGALL
- Amount in structure TAB002 will be a sum of all the amounts from repetitive structure TAB001

Payment

Notes:

- This object will be used to migrate the legacy payment data with reference to PARTNER, ACCOUNT and MOVE_IN or MOVE_IN_H and also with reference to DOCUSTAT object if any migrated for the business partner.
- All the incoming payments will be migrated without any sign after the amount value for example.
 100.00
- All the outgoing payments will be migrated with a minus sign (-) after the amount value. For example.
 100.00-

Related Content

SDN: IS-U Migration Documentation...

IS-Utilities SDN Forum

SAP Library - SAP Utilities

For more information, visit the <u>Customer Relationship Management homepage</u>

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