

LSMW: Upload Master Data using Batch Input Recording



Applies to:

All modules of SAP where upload of data need to be performed using 'Batch Input Recording'. For more information, visit the [Master Data Management homepage](#).

Summary

LSMW is the tool provided by SAP in order to upload huge amount of data from legacy file to R/3 system. This article describes in detail how to upload master data in SAP HR module. However similar steps can be followed for other modules as well.

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Author Bio



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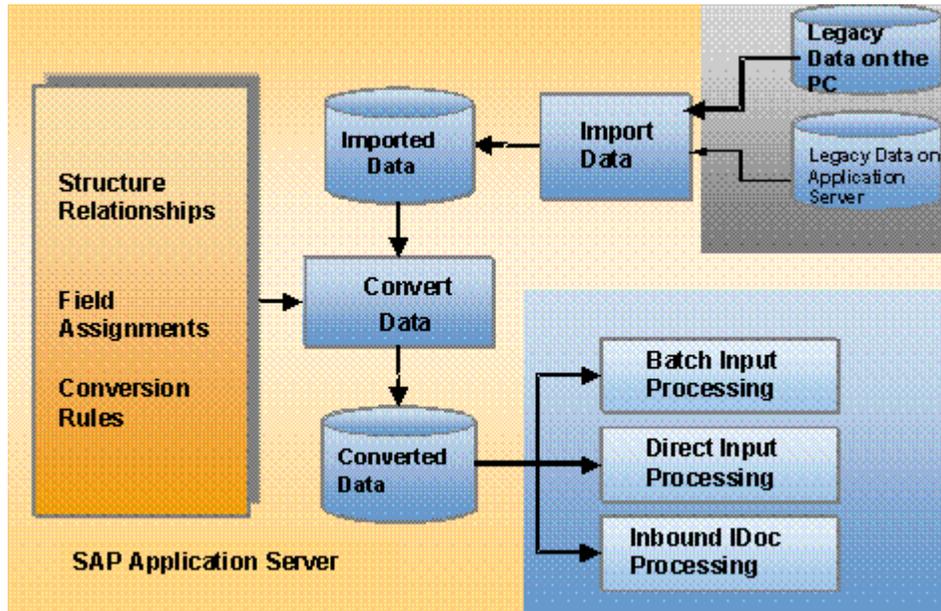
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Introduction

The Legacy System Migration Workbench (LSMW) is a tool to transfer data from legacy systems into an R/3 System. LSMW supports a step-by-step procedure, if one step is executed and saved then next step automatically follows. Apart from creation of project/ subproject/ object and recording, there are 14 basic steps included in LSMW. This article explains clearly about each and every step.

Process Flow:



As an example, I am showing how to upload primary address for an employee i.e. Infotype 0006 with Subtype 1.

Creating Project/ Subproject and Object:

Go to LSMW T.code→

Give the name of the Project, Subproject and Object as desired

Legacy System Migration Workbench

Project Selection

Project	Cre_IT0006
Subproject	Cre_IT0006
Object	Cre_IT0006

Now place cursor in Project field and click on create and give description of each as shown below and press enter.

Project	CRE_IT0006
	Creation of IT0006 through LSMW
Subproject	CRE_IT0006
	Creation of IT0006 through LSMW
Object	CRE_IT0006
Name	Creation of IT0006 through LSMW

Recording:

In menu bar, Goto → Recordings → (as shown below)

LSM Workbench Edit Goto Extras Settings System Help

Administration Ctrl+F1
Recordings Ctrl+F2
 Back F3

All Objects My Objects All Project Objects Project Documentation

Project Selection

Project	CRE_IT0006	Creation of IT0006 through LSMW
Subproject	CRE_IT0006	Creation of IT0006 through LSMW
Object	CRE_IT0006	Creation of IT0006 through LSMW

Now, Select 'Recordings' and create → Give recording name and description

Recordings of Project 'CRE_IT0006': Overview

Subtree Row

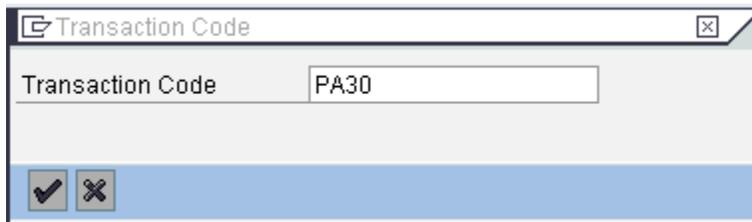
Recordings

Create Recording

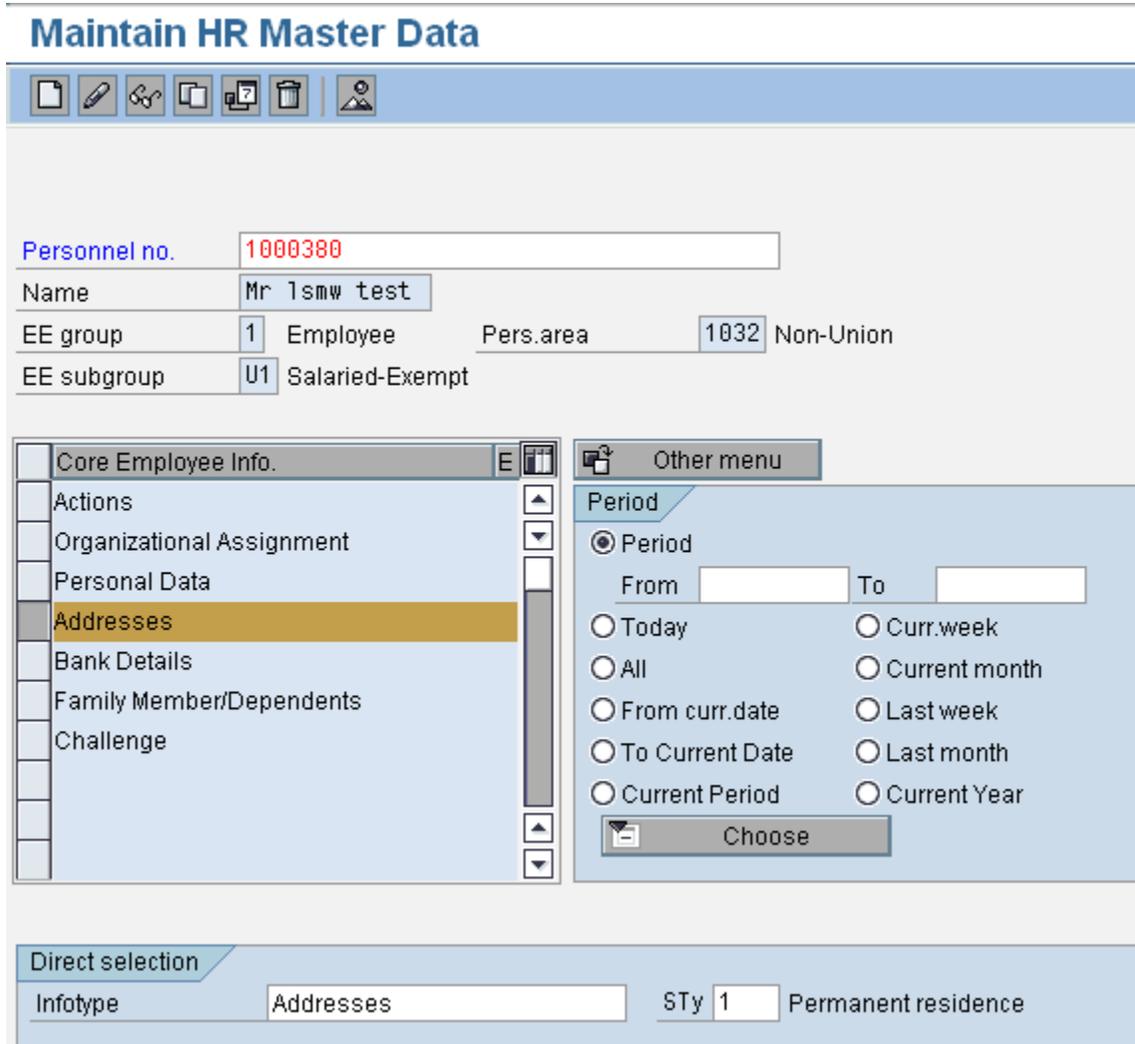
Recording	Rec_IT6
Description	Record to upload subtype1 for IT6
Owner	SRIRAMJU

Note: In recording we show path, so that the system follows the same way while uploading the data from legacy to R/3 system

Give Transaction code as 'PA30' (to maintain master data for an employee) →



In Master data maintain screen, give Personnel No, infotype and subtype (if any), and click on create



In Create Address screen, enter fields which you want to upload and save

Create Addresses

Foreign address

Personnel No Name
 EE group Employee Personnel ar Non-Union
 EE subgroup Salaried-Exempt Status
 Start to

Address

Address type

c/o

Address line 1

Address line 2

City/county

State/zip code

Country Key

Telephone Number

Communications

Type	<input type="text"/>	Number	<input type="text"/>	Exte	<input type="text"/>
Type	<input type="text"/>	Number	<input type="text"/>	Exte	<input type="text"/>
Type	<input type="text"/>	Number	<input type="text"/>	Exte	<input type="text"/>
Type	<input type="text"/>	Number	<input type="text"/>	Exte	<input type="text"/>

Now, click on Default All and save and press back

Create Recording

Default **Default All** Reset Screen Field Screen Field Repeat Recording Maintain Attributes

Recording REC_IT6 Record to upload subtype1 for IT6

- PA30 Maintain HR Master Data
 - SAPMP50A 1000
 - BDC_OKCODE /00
 - RP50G-PERNR 1000380 PERNR Personnel Number
 - BDC_SUBSCR SAPMP50A
 - BDC_SUBSCR SAPMP50A
 - RP50G-TIMR6 X TIMR6 Time period indicator:
 - BDC_SUBSCR SAPMP50A
 - BDC_CURSOR RP50G-SUBTY
 - RP50G-CHOIC 0006 CHOIC Infotype selection for
 - RP50G-SUBTY 1 SUBTY Subtype
 - SAPMP50A 1000
 - BDC_CURSOR RP50G-PERNR
 - BDC_OKCODE =INS
 - RP50G-PERNR 1000380 PERNR Personnel Number
 - BDC_SUBSCR /1PAPAXX/HDR_20060A
 - BDC_SUBSCR SAPMP50A
 - BDC_SUBSCR SAPMP50A

Note: We are clicking 'Default all' button, so that all the fields which we touched during recording are included.

Now recording is completed.

Recordings of Project 'CRE_IT0006': Overview

Subtree Row

Recordings

- REC_IT6 Record to upload subtype1 for IT6
 - Transaction: PA30 Maintain HR Master Data
 - Owner: ECCABAP02 ECCABAP02

Processing basic steps in LSMW:

Basically, LSMW need to be configured 14 basic steps. Below you will find detailed step-by step procedure

LSM Workbench: CRE_IT0006, CRE_IT0006, CRE_IT0006: C

User Menu Numbering Off Double Click=Display Object Overview Action Log

Process Step	
<input checked="" type="radio"/>	Maintain Object Attributes
<input type="radio"/>	Maintain Source Structures
<input type="radio"/>	Maintain Source Fields
<input type="radio"/>	Maintain Structure Relations
<input type="radio"/>	Maintain Field Mapping and Conversion Rules
<input type="radio"/>	Maintain Fixed Values, Translations, User-Defined Routines
<input type="radio"/>	Specify Files
<input type="radio"/>	Assign Files
<input type="radio"/>	Read Data
<input type="radio"/>	Display Read Data
<input type="radio"/>	Convert Data
<input type="radio"/>	Display Converted Data
<input type="radio"/>	Create Batch Input Session
<input type="radio"/>	Run Batch Input Session

Step 1: Maintain Object Attributes

Select this radio button and click on execute → *(Do same for other steps)*

Now, click on Display/ Change icon *(do this for every step, because by default it will be display mode)*

Here, we are telling system that what kind recording should take into consideration while performing upload.

Select 'Batch Input Recording' and give name as shown below

Save and back *(Note: Without any user intervention, radio button will come to next step)*

LSM Workbench: Change Object Attributes

Display <-> Change Documentation Display Interfaces		
Attributes		
Object	CRE_IT0006	Creation of IT0006 through LSMW
Owner	ECCABAP02	ECCABAP02
Data Transfer	<input checked="" type="radio"/> Once-Only <input type="radio"/> Periodic	
File Names	<input type="checkbox"/> System-Dependent	
Object Type and Import Method		
<input type="radio"/> Standard Batch/Direct Input		
Object	<input type="text"/>	
Method	<input type="text"/>	
Program Name	<input type="text"/>	
Program Type	<input type="text"/>	
<input checked="" type="radio"/> Batch Input Recording		
Recording	<input type="text" value="REC_IT6"/>	Record to upload subtype1 for IT6
<input type="radio"/> Business Object Method (BAPI)		
Business Object	<input type="text"/>	
Method	<input type="text"/>	
Message Type	<input type="text"/>	
Basic Type	<input type="text"/>	
<input type="radio"/> IDoc (Intermediate Document)		
Message Type	<input type="text"/>	
Basic Type	<input type="text"/>	
Enhancement	<input type="text"/>	

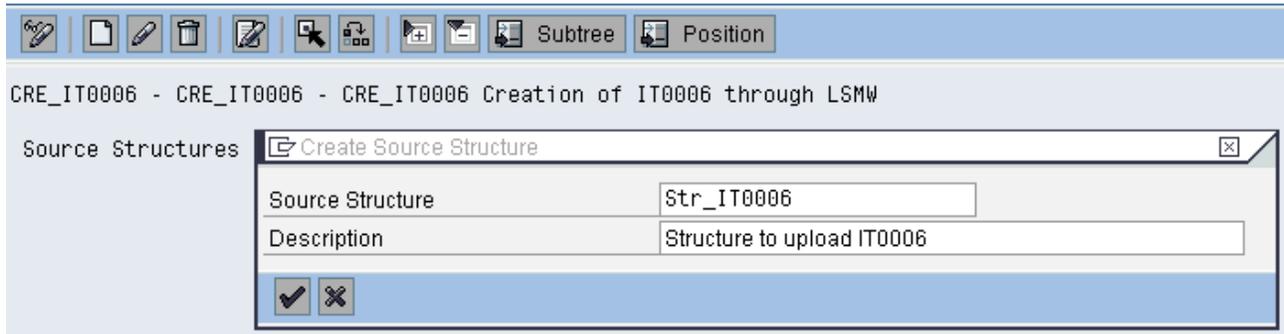
Step 2: Maintain Source Structures

Source structures are helpful in building hierarchical relationships. While uploading the data system always checks highest level structure first before going for subordinate structure.

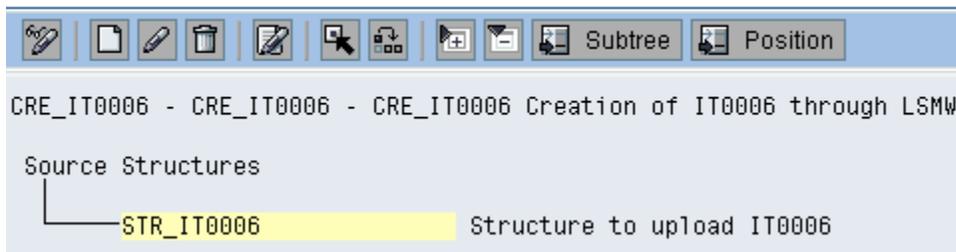
Select source structure and create→

Enter details as shown below→

LSM Workbench: Change Source Structures



LSM Workbench: Change Source Structures



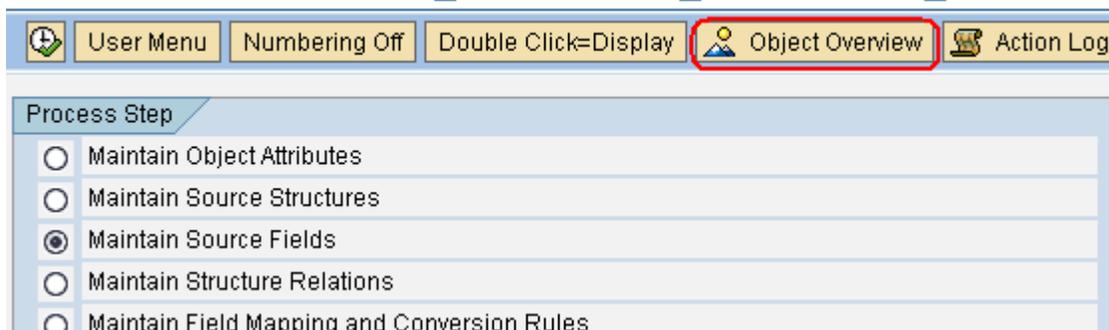
Save and back.

Step 3: Maintain Source Fields

Here we assign all the fields which need to upload to source structure.

Click on Object Overview→ select table→

LSM Workbench: CRE_IT0006, CRE_IT0006, CRE_IT0006: C



LSM Workbench: Object Overview (Table)

Target Fields		Type	Length	Sou
Field Name	Field Description			File
REC_IT6 - Record to upload subtype1 for IT6				
TABNAME	Table Name	CHAR	030	
TCODE	Transaction Code	CHAR	020	
PERNR	Personnel Number	NUMC	008	
TIMR6	Time period indicator: Period	CHAR	001	
CHOIC	Infotype selection for HR master data maintenance	CHAR	035	
SUBTY	Subtype	CHAR	004	
BEGDA	Start Date	DATS	010	
ENDDA	End Date	DATS	010	
STRAS	Street and House Number	CHAR	060	
ORT01	City	CHAR	040	
ORT02	District	CHAR	040	
STATE	Region (State, Province, County)	CHAR	003	
PSTLZ	Postal Code	CHAR	010	
LAND1	Country Key	CHAR	003	

Copy the fields and length in excel sheet (for temporary)

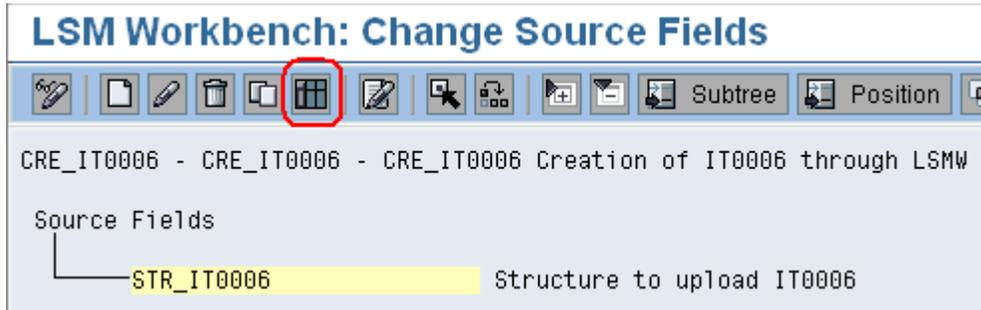
Note: exclude TABNAME and TCODE which are not required to maintain separately, system will take these from recording we made.

Make excel sheet as shown

	A	B	C
1	Field Name	Type	Length
2	PERNR	c	8
3	TIMR6	c	1
4	CHOIC	c	35
5	SUBTY	c	4
6	BEGDA	c	10
7	ENDDA	c	10
8	STRAS	c	60
9	ORT01	c	40
10	ORT02	c	40
11	STATE	c	3
12	PSTLZ	c	10
13	LAND1	c	3
14			

Now select 'Maintain Source Fields' button and execute →

Click on 'table maintenance' →



Paste from the excel sheet which we maintained.

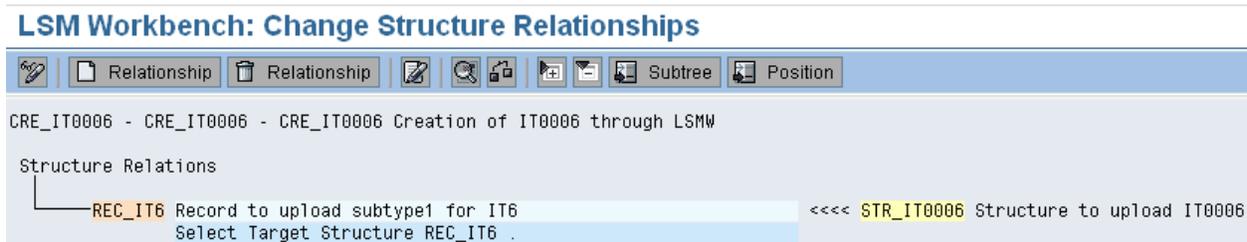
Field Name	Type	Le...	Field description
PERNR	c	8	
TIMR6	c	1	
CHOIC	c	35	
SUBTY	c	4	
BEGDA	c	10	
ENDDA	c	10	
STRAS	c	60	
ORT01	c	40	
ORT02	c	40	
STATE	c	3	
PSTLZ	c	10	
LAND1	c	3	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Save and back

Step 4: Maintain Structure Relations

Here we check whether structure relations between legacy and R/3 established or not.

In this step there is no need to change, just save and come back.



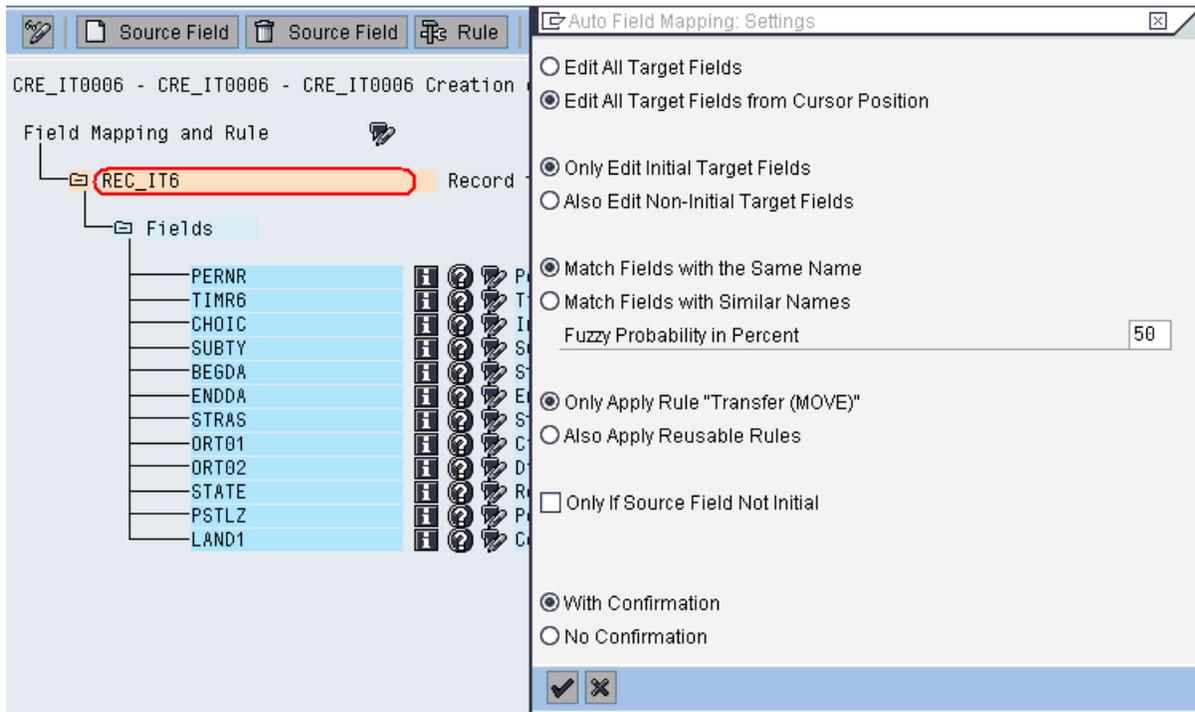
Step 5: Display Field Mapping and Conversion

Here we establish the relationship between legacy and R/3 based on object fields.

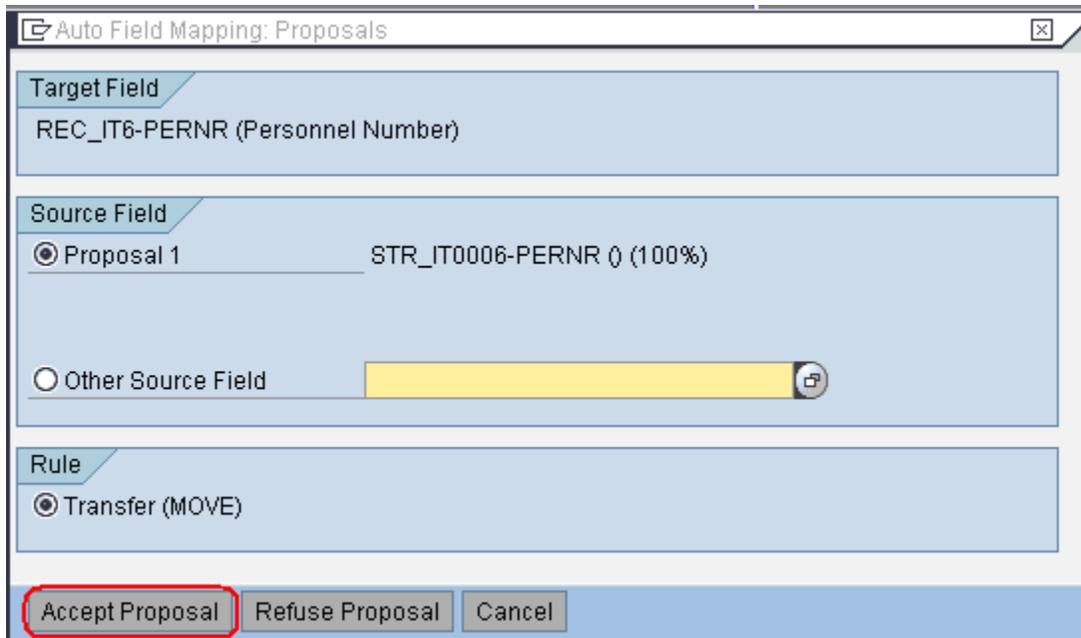
In menu bar, go to Extras → Auto Field Mapping →

Note: Make sure that you select your recording before auto field mapping

LSM Workbench: Change Field Mapping and Conversion Rules



Now accept proposal for all the fields which need to upload



After auto field mapping complete, save and back.

Step 6: Maintain Fixed Values, Translations, User-Defined Routines

No need to maintain this step, unless and until if there exist any user defined routines, which helpful for reusable.

Step 7: Specify Files

In this step, you specify the location of the legacy file.

Note: Generally we receive legacy file in excel format, so save this file as Text (Tab delimited).

Now, double click on 'Legacy Data – On the PC (Front End)' →

File	C:\Documents and Settings\sriramra\Desktop\0006IT-Upload1.txt		
Name	Upload 0006IT		
File Contents			
<input checked="" type="radio"/> Data for One Source Structure (Table)			
<input type="radio"/> Data for Multiple Source Structures (Seq. File)			
Delimiter			
<input type="radio"/> No Separator		<input type="radio"/> Comma	
<input checked="" type="radio"/> Tabulator		<input type="radio"/> Blanks	
<input type="radio"/> Semi-Colon		<input type="radio"/> Other <input type="text" value=""/>	
File Structure			
<input type="checkbox"/> Field Names at Start of File			
<input checked="" type="checkbox"/> Field Order Matches Source Structure Definition			
File Type			
<input checked="" type="radio"/> Record End Marker (Text File)			
<input type="radio"/> Fixed Rec. Length (Bin.File)		<input type="text" value=""/>	
<input type="radio"/> Hexadecimal Lth Field (4 Bytes) at Start of Record			
Code Page			
<input checked="" type="radio"/> ASCII		<input type="radio"/> IBM DOS	
<input checked="" type="checkbox"/> <input type="checkbox"/>			

Save and back

Step 8: Assign Files

Here, we just check whether file is assigned to source structure or not.

LSM Workbench: Assign Files (Change)

CRE_IT0006 - CRE_IT0006 - CRE_IT0006 Creation of IT0006 through LSMW

Source Structures and Files

- STR_IT0006 Structure to upload IT0006
Upload 0006IT C:\Documents and Settings\sriramra\Desktop\0006IT-Upload1.txt

Save and back.

Step 9: Read Data

Here our legacy data is read

LSM Workbench: Import Data For CRE_IT0006, CRE_IT0006, CRE_IT0006

General Selection Parameter

Transaction Number to

Value Fields -> 1234.56

Data Value -> YYYYMMDD

Execute→Now, next screen shows how many number of records have been read.

Step 10: Display Read Data

Here, we can display all for part of the data by giving line numbers

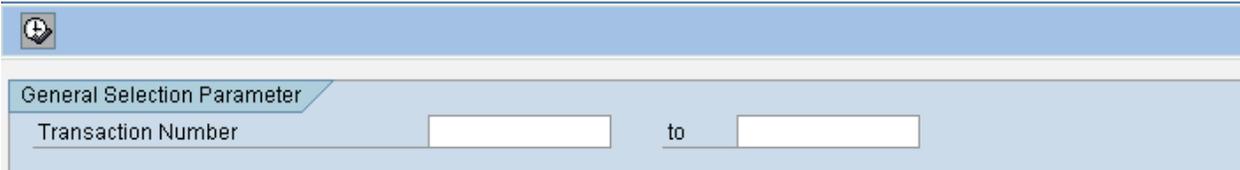
Project	CRE_IT0006	Creation of IT0006 through LSMW
Subproject	CRE_IT0006	Creation of IT0006 through LSMW
Object	CRE_IT0006	Creation of IT0006 through LSMW
File	CRE_IT0006_CRE_IT0006_CRE_IT0006.lsmw.read	
From Line	<input type="text"/>	
To Line	<input type="text"/>	

Check, whether data has been correctly fit into fields

Step 11: Convert Data

Here, whatever data has been read will convert to SAP standards.

LSM Workbench: Convert Data For CRE_IT0006, CRE_IT0006, CRE_IT0006



Execute → Now, it shows how many records have been converted. It should be same as data which have been read in step 9.

Step 12: Display Converted Data

Here, converted data can be viewed for cross check.

Fld Name	Fld Text	FldValue
PERNR	Personnel Number	1000381
TIMR6	Time period indicator: Period	X
CHOIC	Infotype selection for HR master data maintenance	0002
SUBTY	Subtype	1
BEGDA	Start Date	01.01.2006
ENDDA	End Date	31.12.9999
STRAS	Street and House Number	Alex Street
ORT01	City	New Jersey
ORT02	District	25
STATE	Region (State, Province, County)	NJ
PSTLZ	Postal Code	07010
LAND1	Country Key	USA

Data from the legacy file is fitting to correct fields, so we configured all prior steps without any mistake.

Note: If data is not fitting correctly, then we need to cross check Step3 and Step5.

Step 13: Create Batch Input Session

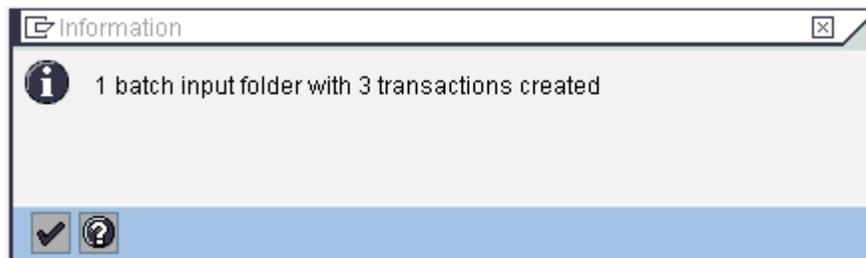
In this step, we create session for batch input

Make sure you check box for 'Keep batch input folder' is active

LSM Workbench: Generate Batch Input Folder

File Name (with Path)	CRE_IT0006_CRE_IT0006_CRE_IT0006.lsmw.conv
Display Trans. per BI Folder	
Name of Batch Input Folder(s)	CRE_IT0006
User ID	ECCABAP02
<input checked="" type="checkbox"/> Keep batch input folder(s)?	

Execute



Step 14: Run Batch Input Session

Here we run the batch input session which we created in step 13.

Select Session and execute process

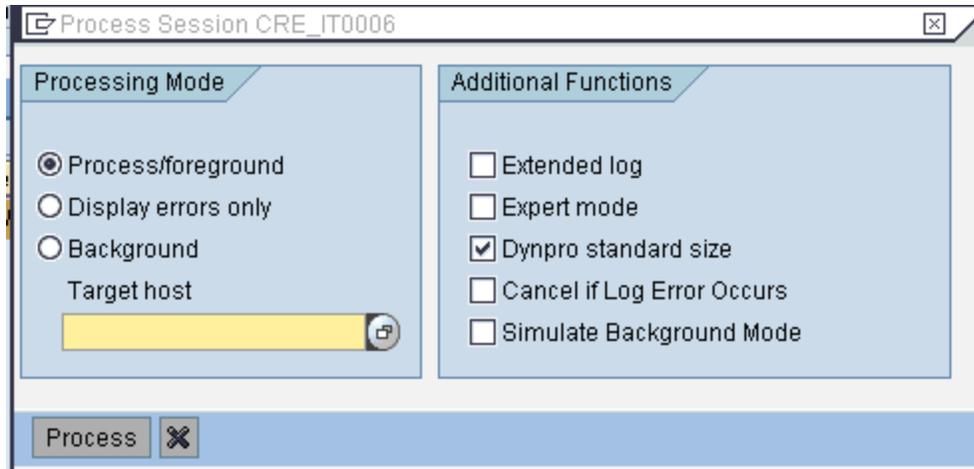
Batch Input: Session Overview

Analysis **Process** Statistics Log Recording [Icons]

Selection criteria
 Sess.: CRE_IT0006 From: [] To: [] Created by: *

New Incorrect Processed In Process In Background Being Created Locked

Session name	Stat.	Created By	Date	Time	Creation Prog.	Lock Date	Authorizat.	Trans.
CRE_IT0006	[Icon]	ECCABAP02	04.11.2010	11:51:54	/SAPDMC/SAP_L		ECCABAP02	3



Here we can choose options, how upload should be done.

It is recommendable that, first 3 to 4 records upload foreground to make sure data is uploading correct, for rest of records select 'Display errors only'.

Now legacy data will we upload to Master data of employees in SAP system.

Related Content

Please include at least three references to SDN documents or web pages.

www.sap-img.com

www.help.sap.com

www.sdn.sap.com

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