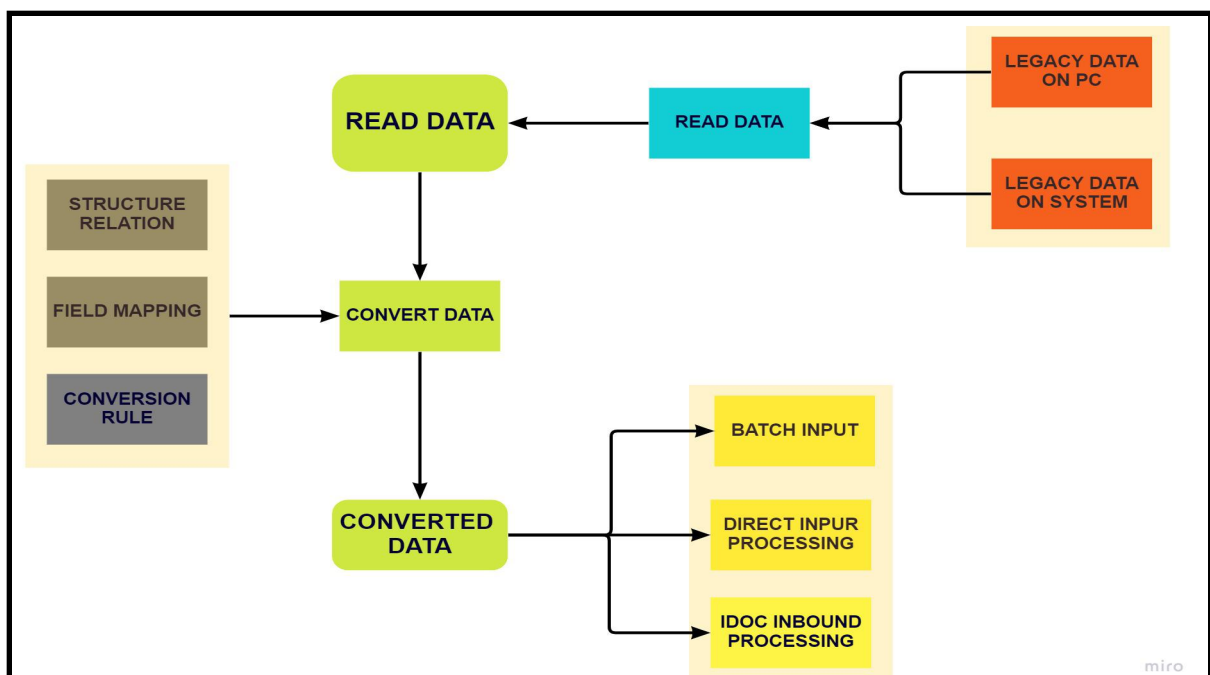


LSMW (LEGACY SYSTEM MIGRATION WORKBENCH)

- LSMW is a tool that supports the transfer of data from non-SAP systems (“Legacy Systems”) to SAP R/3 systems. This can be a one-time transfer as well as a periodic one.
- In simple word we can say to upload non sap details (ex.material data) into sap by using LSMW
- LSMW support conversion of data of the legacy system in a numerous way
- The data can be imported into sap R/3 system via batch input ,direct input, BAPI or IDOC

There are four modes of transfer

Sr.no	Mode of transfer	Details
1	Standard/batch input	Standard upload program
2	Batch input recording	Here you can create recording of your own and use it to upload
3	Bapi	Standard bapi are used to upload data
4	Idocs	Any inbound idoc function functional module to process the data



Our main objective is to enter max material entry into system in a batch mode

To start lsmw we have to use tcode **lsmw**

BEFORE FOLLOWING STEPS WE HAVE TO CREATE PROJECT SUBPROJECT AND OBJECT

Legacy System Migration Workbench

Project Selection

Project	PROJECT2	PROJECT FOR TRAINING
Subproject	MASTER DATA	FOR UPLOAD MASTER DATA
Object	MATERIAL CREATE	MATERIAL CREATION PROJECT

TO USE LSMW WE HAVE TO FOLLOW BELOW STEPS

LSM Workbench: PROJECT2, MASTER DATA, MATERIAL CREATE: ROH MATERIAL CR

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

Process Step	Last Action (Date, Time, User)
1 Maintain Object Attributes	
2 Maintain Source Structures	
3 Maintain Source Fields	
4 Maintain Structure Relations	
5 Maintain Field Mapping and Conversion Rules	
6 Maintain Fixed Values, Translations, User-Defined Routines	
7 Specify Files	
8 Assign Files	
9 Read Data	
10 Display Read Data	
11 Convert Data	
12 Display Converted Data	
13 Create Batch Input Session	
14 Run Batch Input Session	

STEP 1 MAINTAIN ATTRIBUTES

LSM Workbench: Change Object Attributes

Display <-> Change Documentation Display Interfaces


Attributes

Object: MATERIAL CREATE ROH MATERIAL CREATION
Owner: CHAITANYA003 CHAITANYA003
Data Transfer: ☒ Once-Only ☐ Periodic
File Names: ☐ System-Dependent

Object Type and Import Method

☐ Standard Batch/Direct Input
Object:
Method:
Program Name:
Program Type:
☒ Batch Input Recording
Recording: RECORDING1
☐ Business Object Method (BAPI)
Business Object:
Method:
Message Type:
Basic Type:
☐ IDoc (Intermediate Document)
Message Type:
Basic Type:
Enhancement:







CLICK TO CREATE RECORDING



Now we have to give recording to system how the material will be created

We can use data migration using bapi idoc direct input for below exercise we have used batch input recording method

Recordings of Project 'PROJECT2': Overview



      Subtree Row

Recordings

NSP(1)/800 Create Recording

RECORDING NAME

Recording: ROH RECO
Description: RECORDING A
Owner: CHAITANYA003

We have to give transaction code for which we have to use recording

I want to create material so i used mm01

Create Material (Initial Screen)

Select View(s) Org. Levels Data

Material MATERIAL AB
Industry sector M Mechanical Enginee...
Material Type CBH ROH MATERIAL A

Change Number

Copy from...
Material

NSP(1)/800 Select View(s)

View

- Basic Data 1
- Basic Data 2
- Classification
- Sales: Sales Org. Data 1
- Sales: Sales Org. Data 2
- Sales: General/Plant Data
- Foreign Trade: Export Data
- Sales Text
- Purchasing
- Foreign Trade: Import Data
- Purchase Order Text
- General Plant Data / Storage 1
- General Plant Data / Storage 2
- Accounting 1
- Accounting 2
- WM Execution
- WM Packaging

USE KEYBOARD INSTED OF MOUSE TO GET GOOD RECORDING

Org. Levels Data Default Setting

Create Material MATERIAL AB (ROH MATERIAL A)

Additional Data Org. Levels Check Screen Data

Basic da... Basic data 2 Classification Sales: sales org. 1 Sales: sales org. 2 Sales: General/Pl...

Material MATERIAL AB MATERIAL AB

General Data

Base Unit of Measure PC Material Group 300

Old material number Ext. Matl Group

Division Lab/Office

Product alloc X-plant matl

Assign effe

TO MOVE TO NEXT TABLE PRESS TAB

Dimensions/EANs

Gross Weight Weight unit

Net Weight

Volume Volume unit

Size/dimensions

EAN/UPC EAN Category

Packaging material data

Create Material MATERIAL AB (ROH MATERIAL A)

Additional Data Org. Levels Check Screen Data

Sales text Purchas... Foreign trade import Purchase order text Plant data / stor. 1 Plant da...

Material MATERIAL AB MATERIAL AB
Plant CB50 MUMBAI PLANT

General Data
Base Unit of Measure PC Pieces Order Unit Var. OUn
Purchasing Group AB1 Material Group 300
Plant-spl.mat status Valid from
Tax ind. f. material Qual.f.FreeGoodsDis.
Material Material Group

TO GO TO NEXT VIEW PRESS ENTER TO GO TO NEXT SCREEN

Purchasing values
Purchasing value key Shipping Instr.
1st Reminder/Exped. 0 days Underdel. Tolerance 0,0 percent
2nd Reminder/Exped. 0 days Overdeliv. Tolerance 0,0 percent
3rd Reminder/Exped. 0 days Min. Del. Qty in % 0,0 percent
StdValueDelivDateVar 0 days Unltd Overdelivery Acknowledgment Req

Create Material MATERIAL AB (ROH MATERIAL A)

Additional Data Org. Levels Check Screen Data

Plant data / stor. 2 Accountin... Accounting 2 WM Execution WM Packaging Compl. / Basic Mat.

Material MATERIAL AB MATERIAL AB
Plant CB50 MUMBAI PLANT

General Data
Base Unit of Measure
Currency
Division

Current valuation
Valuation Class
VC: Sales order stk Proj. stk val. class
Price control V Price Unit 1
Moving price 150 Standard price
Total Stock 0 Total Value 0,00
Future price Valuated Un Valid from

NSP(1)/800 Last data screen reached

You are about to exit.
Do you want to save your data for this material first?

Yes No Cancel

Previous period/year Std cost estimate

Note: while creating material do not click everywhere

Only enter the field which we have maintain because system record our each action

After pressing default all we get all field required for batch input

Create Recording

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

Recording REC01 RECORDING1

5 MM01 Create Material &

5 SAPLMGMM 0060

BDC_CURSOR	RMMG1-MTART		
BDC_OKCODE	=ENTR		
RMMG1-MATNR	MATERIAL AB	MATNR	Material Number
RMMG1-MBRSH	M	MBRSH	Industry sector
RMMG1-MTART	CBH	MTART	Material Type

5 SAPLMGMM 0070

BDC_CURSOR	MSICHTAUSW-DYTXT(09)		
BDC_OKCODE	=SCHL		
MSICHTAUSW-KZSEL(01)	X	KZSEL_01	Checkbox
MSICHTAUSW-KZSEL(09)	X	KZSEL_09	Checkbox
MSICHTAUSW-KZSEL(12)	X	KZSEL_12	Checkbox
MSICHTAUSW-KZSEL(14)	X	KZSEL_14	Checkbox

5 SAPLMGMM 0080

BDC_CURSOR	RMMG1-LGORT		
BDC_OKCODE	=ENTR		
RMMG1-WERKS	CB50	WERKS	Plant

Save the recording and assign into object attribute

LSM Workbench: Change Object Attributes

Display <-> Change Documentation Display Interfaces

Attributes

Object MATERIAL CREATE ROH MATERIAL CREATION

Owner CHAITANYA003 CHAITANYA003

Data Transfer ☒ Once-Only ☐ Periodic

File Names ☐ System-Dependent

Object Type and Import Method

☐ Standard Batch/Direct Input

Object

Method

Program Name

Program Type

☒ Batch Input Recording

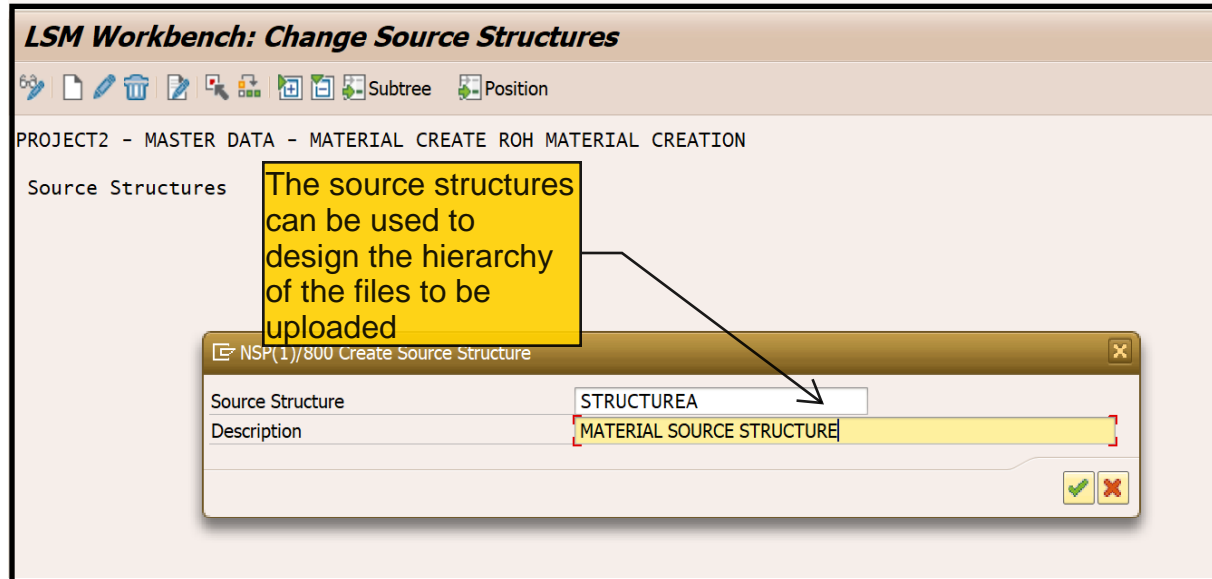
Recording REC01 RECORDING1

☐ Business Object Method (BAPI)

ENTER NAME OR PRESS F4

STEP 2 MAINTAIN SOURCE STRUCTURE

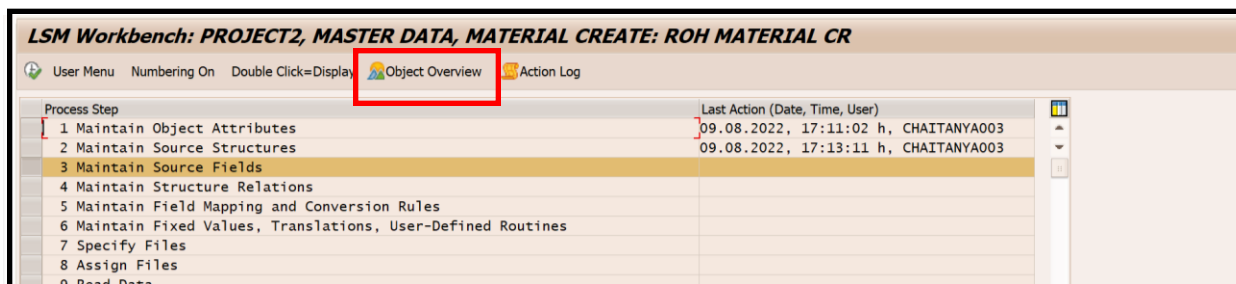
Source Structure will have all the Source fields which are recorded or captured during Method definition.



STEP 3 MAINTAIN SOURCE FIELD

In this step we have to maintain source field under source structure

To maintain this we required source field so we go to overview and copy data to excel



LSM Workbench: Object Overview (Table)

COPY ALL DATA TO EXCEL List Format

PROJECT2 - MASTER DATA - MATERIAL CREATE

Structure	Structure Description	Target Field Name	Field Description	Type	Target Length	Source
RECO1	RECORDING1	TABNAME	Table Name	CHAR	000030	
		TCODE	Transaction Code	CHAR	000020	
		MATNR	Material Number	CHAR	000018	
		MBRSH	Industry sector	CHAR	000001	
		MTART	Material Type	CHAR	000004	
		KZSEL_01	Checkbox	CHAR	000001	
		KZSEL_09	Checkbox	CHAR	000001	
		KZSEL_12	Checkbox	CHAR	000001	
		KZSEL_14	Checkbox	CHAR	000001	
		WERKS	Plant	CHAR	000004	
		LGORT	Storage Location	CHAR	000004	
		MAKTX	Material Description (Short Text)	CHAR	000040	
		MEINS	Base Unit of Measure	UNIT	000003	
		MATKL	Material Group	CHAR	000009	
		EKGRP	Purchasing Group	CHAR	000003	
		IPRKZ	Period Indicator for Shelf Life Expiration Date	CHAR	000001	
		BKLAS	Valuation Class	CHAR	000004	
		VPRSV	Price control indicator	CHAR	000001	
		PEINH	Price Unit	DEC	000006	
		VERPR	Moving Average Price/Periodic Unit Price	CURR	000015	

I copied all data into excel and i have to enter field name type length in source field

LSM Workbench: Change Source Fields

Subtree
 Position
 Fields with the Same Name

PROJECT2 - MASTER DATA - MATERIAL CREATE ROH MATERIAL CREATION

Source Fields

STRUCTUREA MATERIAL SOURCE STRUCTURE

Source Fields for Source Structure STRUCTUREA



Field Name	Type	Le...	Field description
MATNR	C	18	Material
MBRSH	C	1	Industry sector
MTART	C	4	Material Type
KZSEL_01	C	1	KZSEL_01
KZSEL_09	C	1	KZSEL_09
KZSEL_12	C	1	KZSEL_12
KZSEL_14	C	1	KZSEL_14
WERKS	C	4	
LGORT	C	4	
MAKTX	C	40	Material Description
MEINS	C	3	Base Unit of Measure
MATKL	C	9	Material Group
EKGRP	C	3	Purchasing Group
IPRKZ	C	1	IPRKZ
BKLAS	C	4	Valuation Class
VPRSV	C	1	Price control
PEINH	C	6	Price Unit
VERPR	C	15	Moving price
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

I PASTE DATA FROM EXCEL

STEP 4 MAINTAIN STRUCTURE RELATION

LSM Workbench: Change Structure Relationships

Relationship Relationship Subtree Position

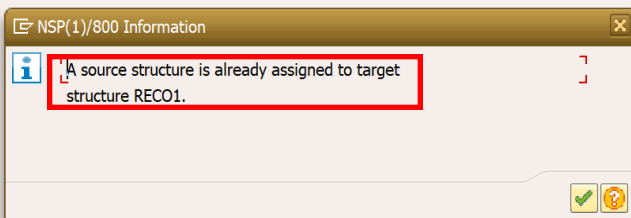
PROJECT2 - MASTER DATA - MATERIAL CREATE ROH MATERIAL CREATION

Structure Relations

REC01 RECORDING1

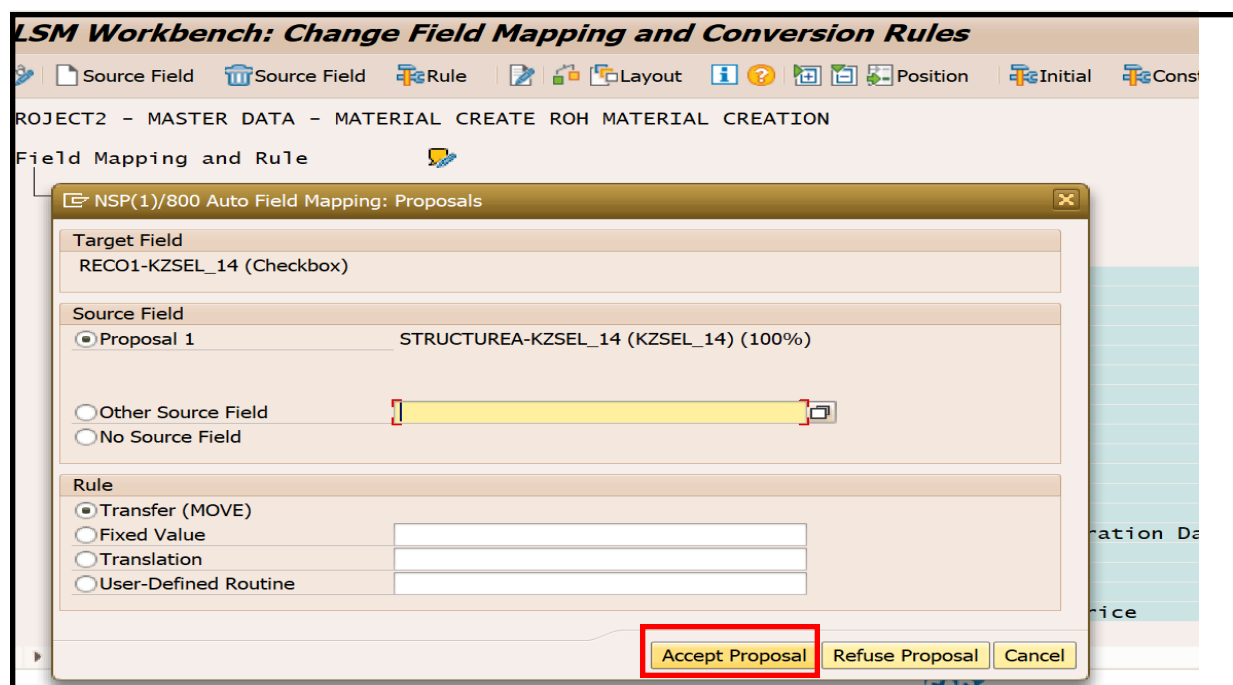
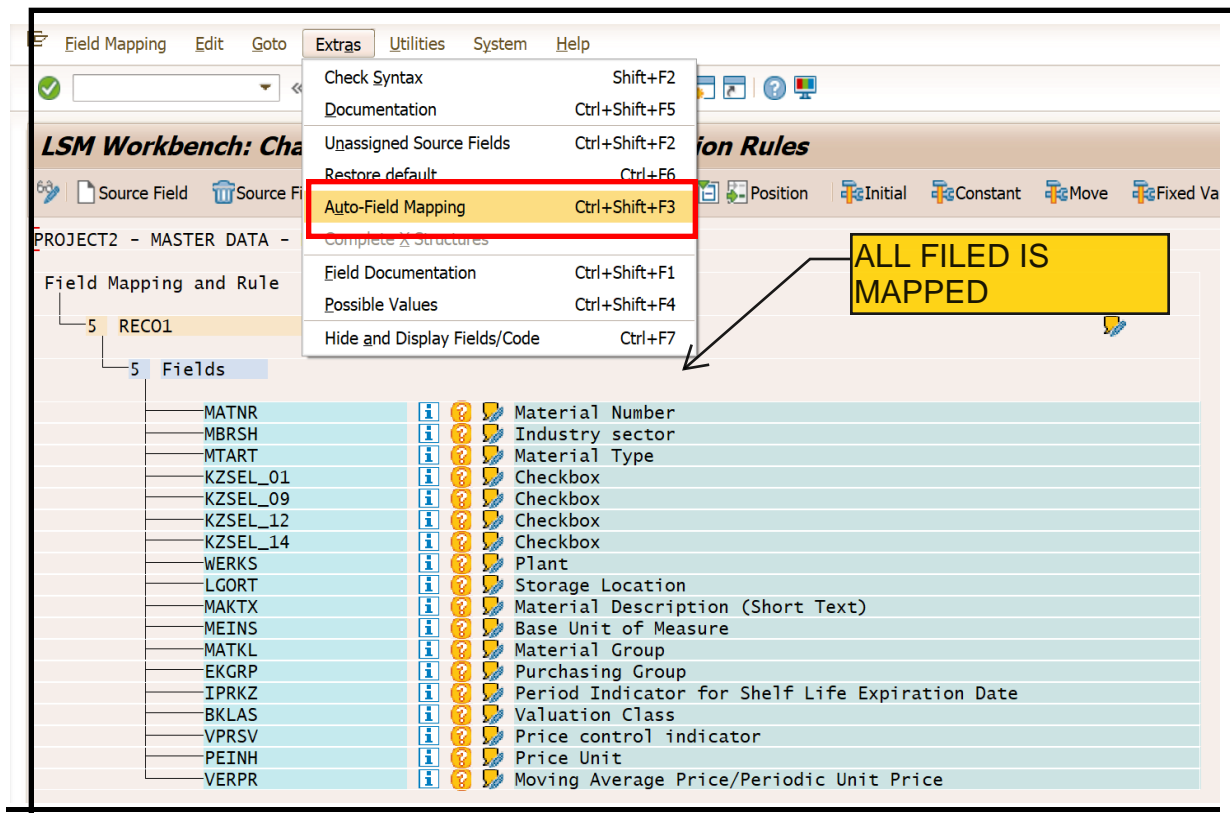
Select Target Structure REC01 .

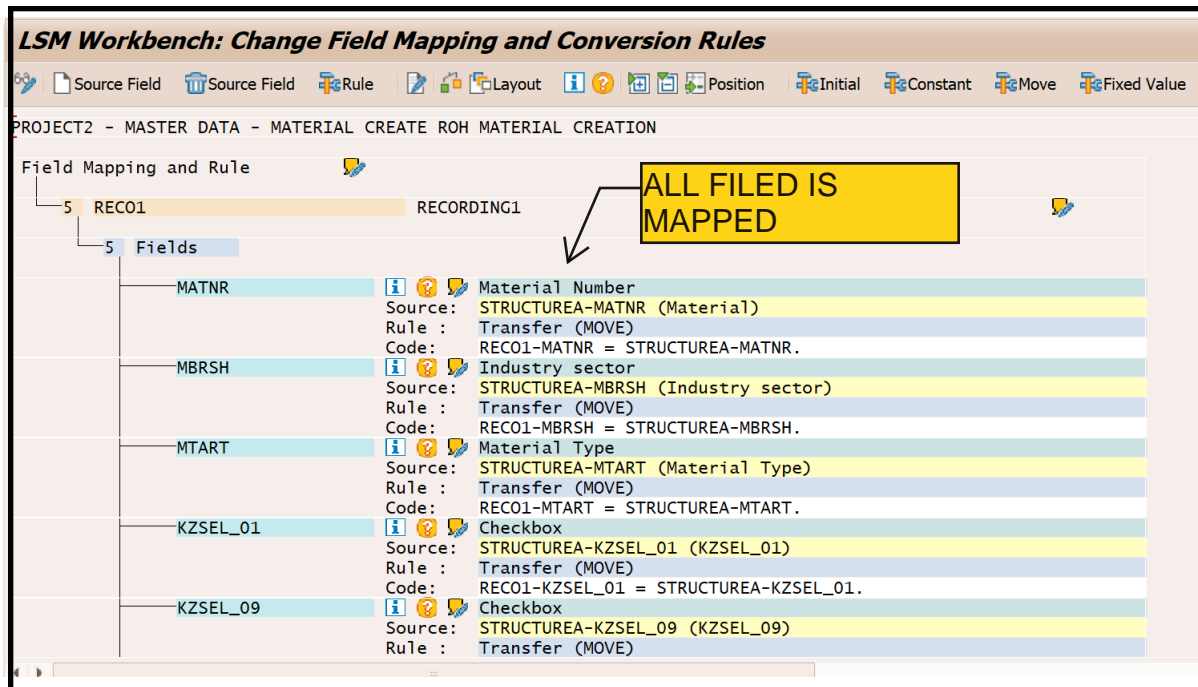
<<<< STRUCTUREA MATERIAL SOURCE STRUCTURE



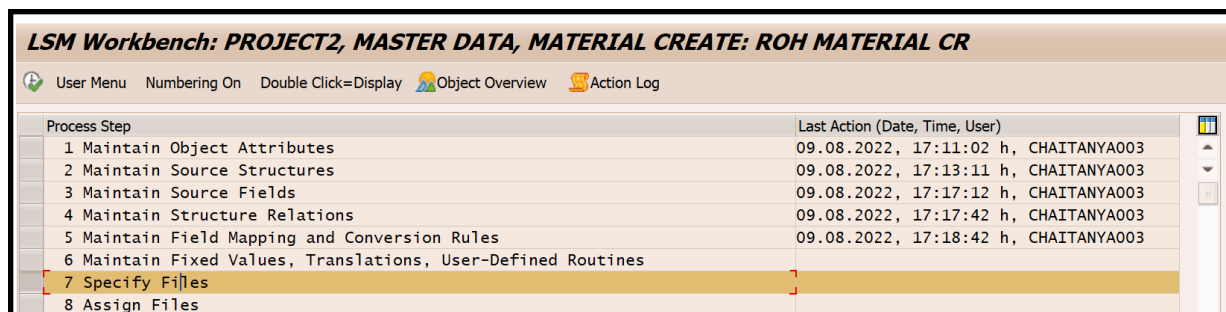
STEP 5 MAINTAIN FIELD MAPPING

In this step we assign source field to target field and define how the field content will be converted

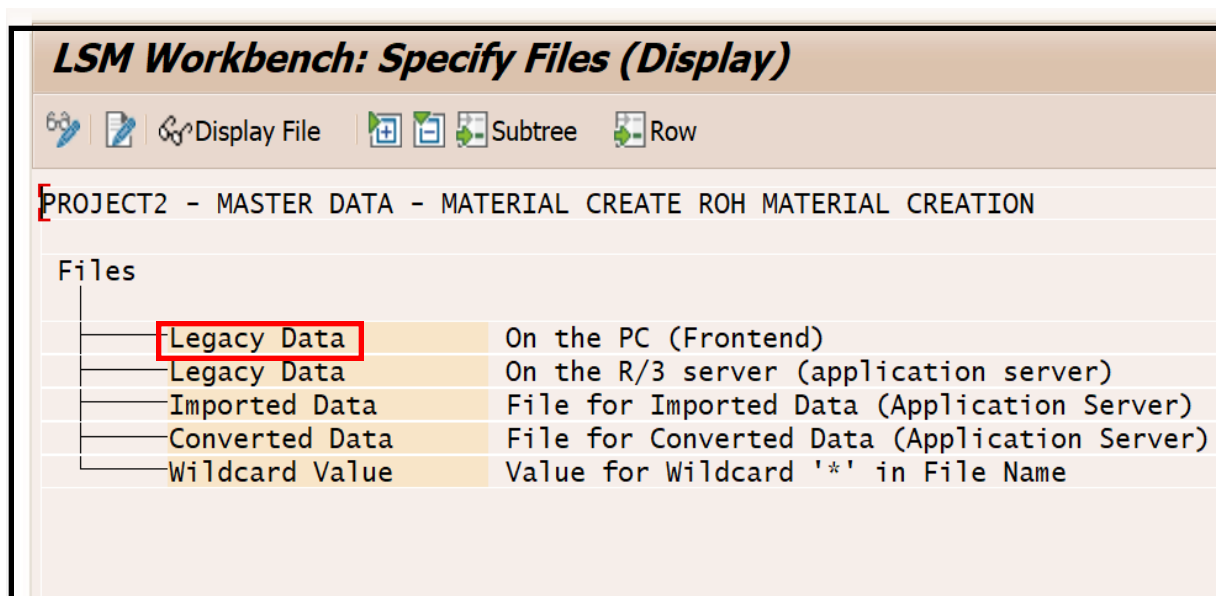




Now our configuration process is complete from next we have to do every time when we have to add material



STEP 6 SPECIFY FILES



I transpose the field and entered the required material in excel sheet to be enter in system

	WERKS	LGORT	MAKTX	MEINS	MATKL	EKGRP	IPRKZ	BKLAS	VPRSV	PEINH	VERPR
1	CB50	SL01	PENA	PC	300	D		1500 V		1	
2	CB50	SL01	PENB	PC	300	D		1500 V		1	
3	CB50	SL01	PENC	PC	300	D		1500 V		1	
4	CB50	SL01	PEND	PC	300	D		1500 V		1	
5	CB50	SL01	PENE	PC	300	D		1500 V		1	
6	CB50	SL01	PENE	PC	300	D		1500 V		1	

I copied all details to notepad

*New Text Document - Notepad

File

Edit

View

MATNR	MBRSH	MTART	KZSEL_01	KZSEL_09	KZSEL_12	KZSEL_14	WERKS	LGORT	MAKTX	MEINS	MATKL	EKGRP	IPRKZ	BKLAS	VPRSV	PEINH	VERPR
PENA	M	CBH	X	X	X	X	CB50	SL01	PENA	PC	300		D	1500	V	1	150
PENB	M	CBH	X	X	X	X	CB50	SL01	PENB	PC	300		D	1500	V	1	400
PENC	M	CBH	X	X	X	X	CB50	SL01	PENC	PC	300		D	1500	V	1	200
PEND	M	CBH	X	X	X	X	CB50	SL01	PEND	PC	300		D	1500	V	1	500
PENE	M	CBH	X	X	X	X	CB50	SL01	PENE	PC	300		D	1500	V	1	700

LS NSP(1)/800 File on Front End: Maintain Properties

File Name: C:\Users\Acer\OneDrive\Desktop\PROJECT2\New Text Document.txt

Name: PROJECT 2 UPLOAD FILE

File Contents

☒ Data for One Source Structure (Table)

☐ Data for Multiple Source Structures (Seq. File)

Delimiter

☒ No Separator

☐ Comma

☐ Tabulator

☐ Blanks

☐ Semi-Colon

☐ Other

File Structure

☒ Field Names at Start of File

☒ Field Order Matches Source Structure Definition

File Type

☒ Record End Marker (Text File)

☐ Fixed Rec. Length (Bin.File)

☐ Hexadecimal Lth Field (4 Bytes) at Start of Record

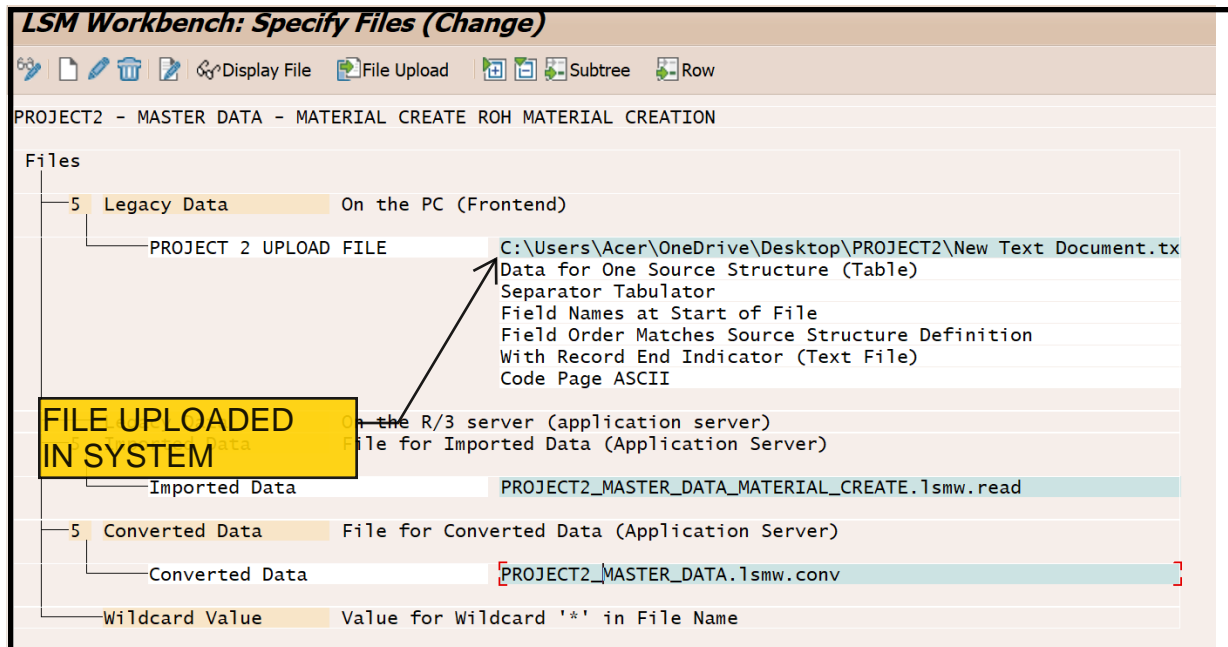
Code Page

☒ ASCII

☐ IBM DOS

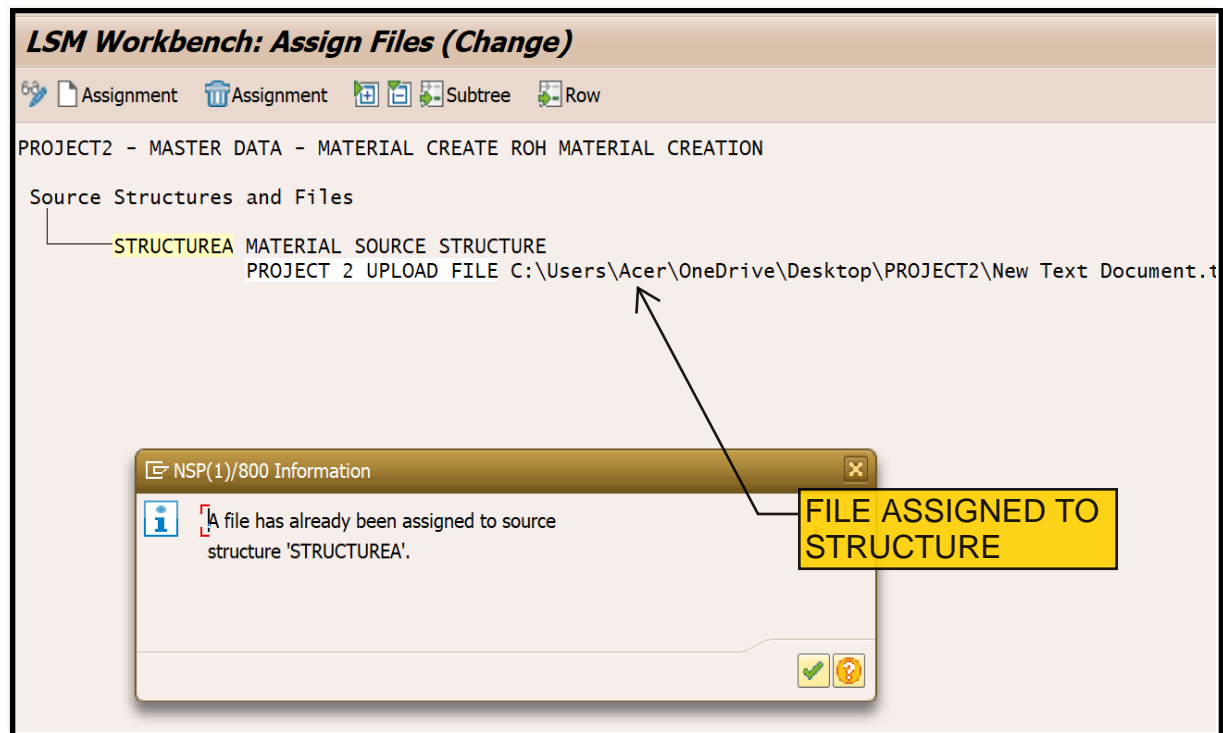
I GAVE PATH OF NOTEPAD FILE

I have uploaded notepad file in system



STEP 7 ASSIGN FILES

In this step we allow the file to use for upload



STEP 8 READ DATA

In this step we allow system to read the data

LSM Workbench: Import Data For PROJECT2, MASTER DATA, MATERIAL CREATE

LSM Workbench: Import Data For PROJECT2, MASTER DATA, MATERIAL CREATE

09.08.2022 - 17:26:41

File(s) Read: C:\Users\Acer\OneDrive\Desktop\PROJECT2\New Text Document.txt

File Written: PROJECT2_MASTER_DATA_MATERIAL_CREATE.lsmw.read

SYSTEM READ 5 DATA

Source Structure	Read	Written	Not Written
STRUCTUREA	5	5	0

Transactions Read:	Records Read:	Transactions Written:	Records Written:
5	5	5	5

STEP 9 DISPLAY DATA

In this step system show uploaded data

LSM Workbench: Imported Data

Field Contents

File Contents PROJECT2_MASTER_DATA_MATERIAL_CREATE.lsmw.read

Row	Hierarchy	Level	Structure	Conts.
			File Information	LSMWPROJECT2 MASTER DATA MATERIAL CREATENSP 80020220809172638CHAITANYA003
1	01		STRUCTUREA	PENA MCBH XXXXCB50SL01PENA PC 300 D1500V1 150
2	01		STRUCTUREA	PENB MCBH XXXXCB50SL01PENB PC 300 D1500V1 400
3	01		STRUCTUREA	PENC MCBH XXXXCB50SL01PENC PC 300 D1500V1 200
4	01		STRUCTUREA	PEND MCBH XXXXCB50SL01PEND PC 300 D1500V1 500
5	01		STRUCTUREA	PENE MCBH XXXXCB50SL01PENE PC 300 D1500V1 700

LSM Workbench: Imported Data

Structure STRUCTUREA

Field Name	Field Text	Field Length	Field Value
MATNR	Material	18	PENA
MBRSH	Industry sector	1	M
MTART	Material Type	4	CBH
KZSEL_01	KZSEL_01	1	X
KZSEL_09	KZSEL_09	1	X
KZSEL_12	KZSEL_12	1	X
KZSEL_14	KZSEL_14	1	X
WERKS		4	CB50
LGORT		4	SL01
MAKTX	Material Description	40	PENA
MEINS	Base Unit of Measure	3	PC
MATKL	Material Group	9	300
EKGRP	Purchasing Group	3	
IPRKZ	IPRKZ	1	D
BKLAS	Valuation Class	4	1500
VPRSV	Price control	1	V
PEINH	Price Unit	6	1
VERPR	Moving price	15	150

I HAVE SHOWN
FOLR LINE 1 ITEM

STEP 10 CONVERT DATA

In this step system convert own manually non system data into sap data

LSM Workbench: Convert Data For PROJECT2, MASTER DATA, MATERIAL CREATE

LSM Workbench: Convert Data For PROJECT2, MASTER DATA, MATERIAL CREATE

09.08.2022 - 17:28:01

File Read: PROJECT2_MASTER_DATA_MATERIAL_CREATE.lsmw.read

File Written: PROJECT2_MASTER_DATA.lsmw.conv

Transactions Read:	Records Read:	Transactions Written:	Records Written:
5	5	5	5

STEP 11 DISPLAY DATA

In this step system show converted sap data

LSM Workbench: Converted Data

Field Contents

File Contents PROJECT2_MASTER_DATA.lsmw.conv

Row	Hierarchy	Level	Structure	Contents
1	00	RECO1	RECO1	MM01 PENA MCBH XXXXCB50SL01PENA
2	00	RECO1	RECO1	MM01 PENB MCBH XXXXCB50SL01PENB
3	00	RECO1	RECO1	MM01 PENC MCBH XXXXCB50SL01PENC
4	00	RECO1	RECO1	MM01 PEND MCBH XXXXCB50SL01PEND
5	00	RECO1	RECO1	MM01 PENE MCBH XXXXCB50SL01PENE

LSM Workbench: Converted Data

Structure RECO1

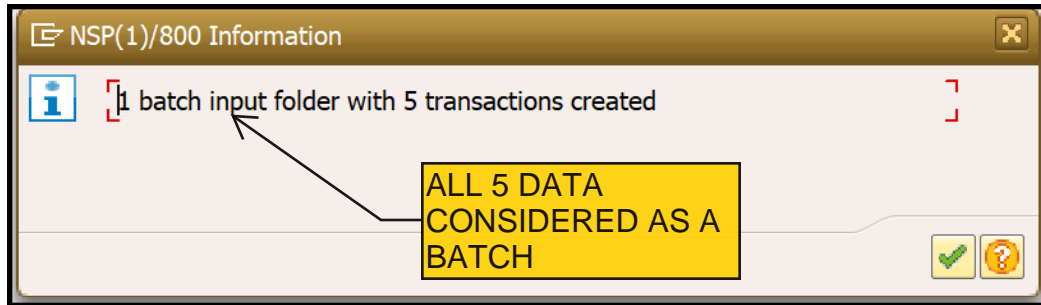
Fld Name	Fld Text	Field Length	FldValue
TABNAME	Table Name	30	RECO1
TCODE	Transaction Code	20	MM01
MATNR	Material Number	18	PENA
MBRSH	Industry sector	1	M
MTART	Material Type	4	CBH
KZSEL_01	Checkbox	1	X
KZSEL_09	Checkbox	1	X
KZSEL_12	Checkbox	1	X
KZSEL_14	Checkbox	1	X
WERKS	Plant	4	CB50
LGORT	Storage Location	4	SL01
MAKTX	Material Description (Short Text)	40	PENA
MEINS	Base Unit of Measure	3	PC
MATKL	Material Group	9	300
EKGRP	Purchasing Group	3	
IPRKZ	Period Indicator for Shelf Life Expiration Date	1	D
BKLAS	Valuation Class	4	1500
VPRSV	Price control indicator	1	V
PEINH	Price Unit	6	1
VERPR	Moving Average Price/Periodic Unit Price	15	150

I HAVE SHOWN
FOR LINE 1

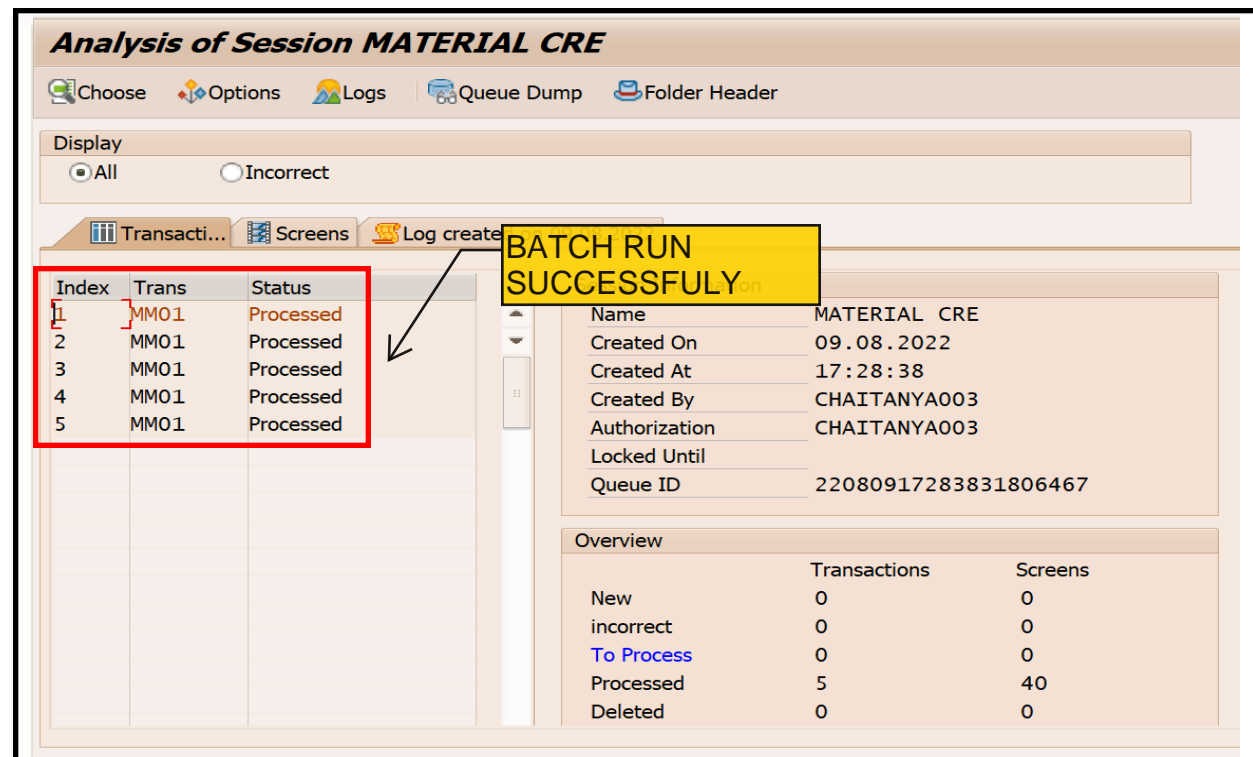
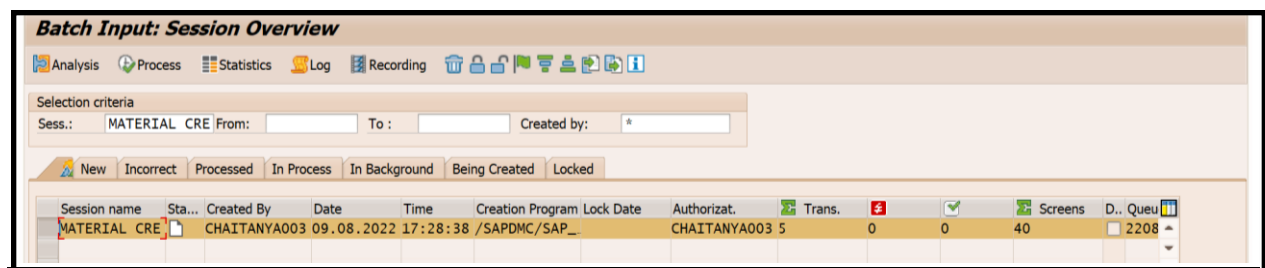
STEP 12 CREATE BATCH INPUT

In this step system considered all enter data as a batch input

After execute we get below msg



STEP 13 RUN BATCH INPUT



Result

We can see material is created in system automatically in mm60

Materials List												
Material	Plant	Val. Type	Description	Last Chg	MTyp	Mat G	Val C	Pr.	Price	Crcy	/	Created by
BRGA	CB50		BRGA		CBH	300	1500 S	1.500,00	EUR	1		CHAITANYA003
BRGB	CB50		BRGB		CBH	300	1500 S	300,00	EUR	1		CHAITANYA003
BRGC	CB50		BRGC		CBH	300	1500 S	400,00	EUR	1		CHAITANYA003
BRGD	CB50		BRGD		CBH	300	1500 S	500,00	EUR	1		CHAITANYA003
LSMW51	CB50		LSMW51		CBH	300		1.500,00	EUR	1		CHAITANYA003
LSMWA1	CB50		LSMWA1		CBH	300	PC AB1	1.500,00	EUR	1		CHAITANYA003
MATERIAL AB	CB50		MATERIAL AB		CBH	300	PC AB1	150,00	EUR	1		CHAITANYA003
MATERIAL C	CB50		MATERIAL C		CBH	300	PC AB1	400,00	EUR	1		CHAITANYA003
MATERIAL D	CB50		MATERIAL D		CBH	300	PC AB1	500,00	EUR	1		CHAITANYA003
PENA	CB50		PENA		CBH	300	PC AB1	150,00	EUR	1		CHAITANYA003
PENB	CB50		PENB		CBH	300	PC AB1	400,00	EUR	1		CHAITANYA003
PENC	CB50		PENC		CBH	300	PC AB1	200,00	EUR	1		CHAITANYA003
PEND	CB50		PEND		CBH	300	PC AB1	500,00	EUR	1		CHAITANYA003
PENE	CB50		PENE		CBH	300	PC AB1	700,00	EUR	1		CHAITANYA003
X	CB50		LSMWA1		CBH	300	PC AB1	1.500,00	EUR	1		CHAITANYA003