

**Idea /Asset Name: LSMW to upload SAP master data Materials.**

**Brief description:**

Data migration of SAP master data materials used in implementation and rollout projects.

Transaction code: MM01 Screens:

Basic Data1, MRP1, 2, 3, 4, work scheduling, Accounting1, costing1 views. (Mandatory fields)

This document shall explain step-by-step instructions to use LSMW to create Materials data relevant to SAP Production Planning.

**Feature/contents/benefits:**

It has two demonstration examples

- using Standard SAP or by Object. Batch Recording

**Technology:**

LSMW (Legacy system migration workbench) to upload master data in SAP.

**Asset Idea developed by:** Prakash.Ningaraju

| Asset Name                                | Asset Description  | POC               | Team               | Start Date | End Date  |
|---|--|-------------------|--------------------|------------|-----------|
| LSMW to upload SAP master data Materials. | Data migration of SAP master data materials used in implementation and rollout projects. This document shall explain step-by-step instructions to use LSMW to create Materials data relevant to SAP Production Planning. | prakash.ningaraju | kowsik.muthuraman  | 2/8/2010   | 3/30/2010 |
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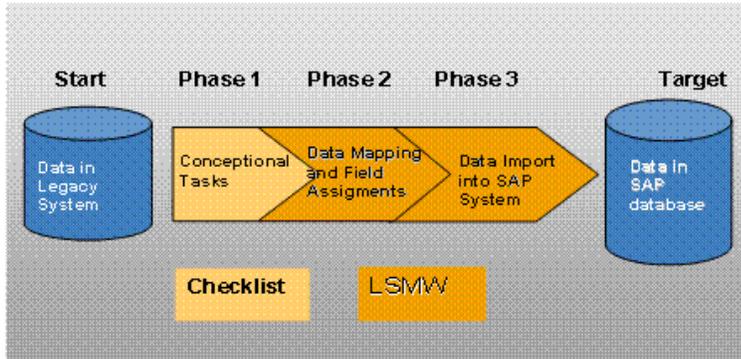
## Migration of Data with LSMW

### Prerequisites

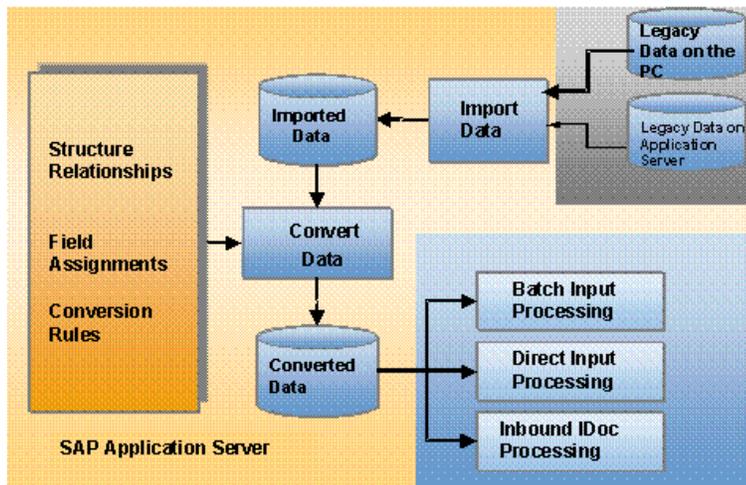
A comparison of functions between the legacy system and the SAP system must have been carried out. The data to be migrated is determined from this comparison.

Data migration comes in the end of the SAP implementation. Ideally, you must have already installed the SAP system and completed the Customizing settings for your applications.

A basic knowledge of ABAP programming is useful when you migrate external data to the SAP system with the LSM Workbench.



### Process Flow



The LSMW includes a range of administration tools that you can use to configure, monitor, document and test the migration of your data.

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LSMW supports a step-by-step procedure. On the *List of steps* screen, the next step is automatically Displayed for each step.

The following basic steps are included in the LSMW:

1. Maintaining Object Attributes Here, you define the project, subproject and the required (business) object. If a suitable SAP standard import program is not available, you can use the recording function to create a user-specific, new object.
2. Maintaining Source Structures
3. Maintaining Source Fields
4. Maintaining Structure Relationships In these steps, you define the structures and fields of the project. These describe the transfer file and must have the same format in the export program. You then relate the structures and fields of the SAP system to those of the project.
5. Maintaining Field Mapping and Conversion Rules
6. Maintaining Fixed Values, Conversions and User-Defined Routines: Here, you define the conversion rules for processing project data. The system generates the conversion program from the structure and field relationships as well as the conversion rules. You then perform Migration Customizing. That is, you assign values to the fixed values and translation values and specify the definite variants for the conversion rules.
7. Specifying Files
8. Assigning Files
9. Importing Data
10. Displaying Imported Data
11. Converting Data
12. Displaying Converted Data
13. Starting IDoc Generation
14. Starting IDoc Processing
15. Creating an IDoc Overview
16. Start IDoc-Post processing: The converted data is transferred to the SAP system. The import technique or method has already been assigned to the object by selecting the object type in the first step.

The actual data migration process is simplified as a sequence of fixed steps. On the initial screen of the LSM Workbench, the next step is displayed automatically.

## **Result**

The data from the legacy system has been imported into the SAP database. Any subsequent processes result from the type of datasets migrated.

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## 1. Using Standard Batch / Direct Input method

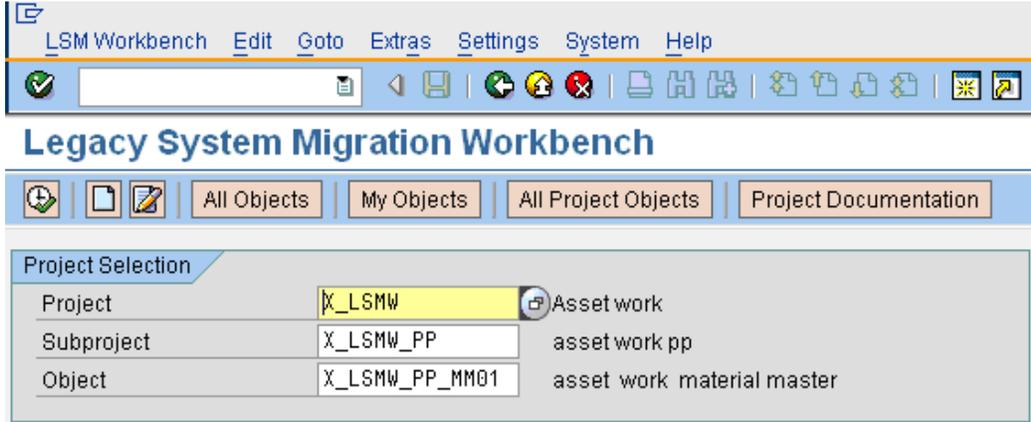
You can create LSMW for data migration as follows using standard batch / Direct Input method:

Example for MM01 (create Material SAP PP related mandatory fields)

### Transaction code: lsmw.

Call Legacy System Migration Workbench.

Transaction code: LSMW



### 1. Maintain object attributes

Maintaining Object Attributes

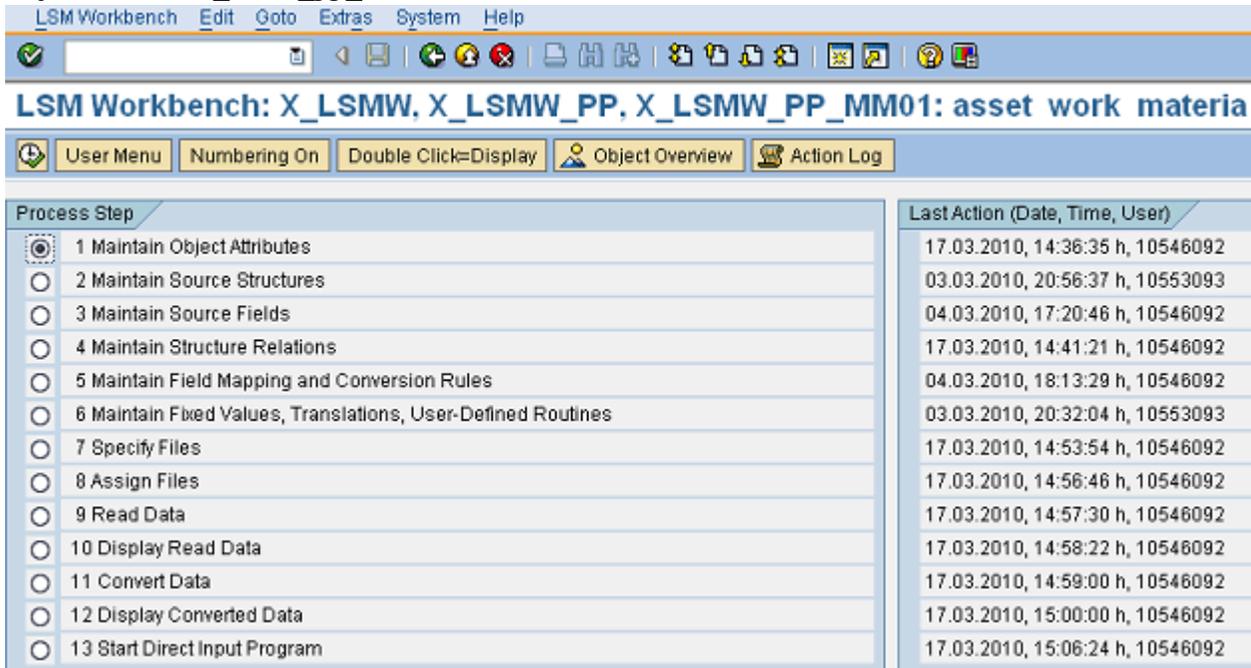
Here, you define the project, subproject and the required (business) object.

If a suitable SAP standard import program is not available, you can use the recording function to create a user-specific, new object

Enter Project name = x\_lsmw,

Sub project name = x\_lsmw\_pp

Object name = x\_lsmw\_pp\_mm01 and Execute.



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The main screen of LSMW provides wizard-like step-by-step tasks, as shown in above Figure. To complete your data conversion, you need to execute these steps in sequence. Once a step is executed, the cursor is automatically positioned to the next step.

Object Attributes Edit Goto System Help

LSM Workbench: Change Object Attributes

Display <-> Change Documentation Display Interfaces

Attributes

Object X\_LSMW\_PP\_MM01 asset work material master

Owner 10553093 Abhimanyu Roy

Data Transfer  Once-Only  Periodic

File Names  System-Dependent

Object Type and Import Method

Standard Batch/Direct Input

Object 0020 Material master

Method 0000

Program Name RMDATIND

Program Type D Direct Input

Batch Input Recording

Recording

Business Object Method (BAPI)

Business Object

Method

Message Type

Basic Type

IDoc (Intermediate Document)

Message Type

Basic Type

Enhancement

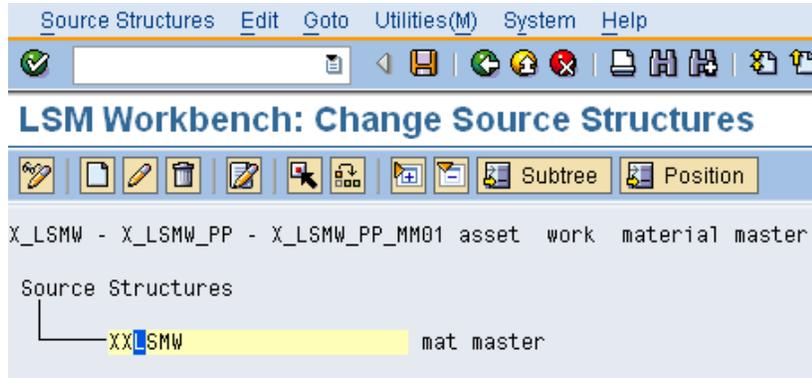
Allow Structure Assignment for EDIDC40

| Object | Name                 |
|--------|----------------------|
| 0001   | Long texts           |
| 0010   | GL A/C Master Record |
| 0020   | Material master      |
| 0030   | Material BOM         |
| 0035   | LIFO Layer           |
| 0040   | Vendor master        |
| 0050   | Customer master      |
| 0060   | Purchasing info rec. |
| 0070   | Condition record     |
| 0080   | Purchase requisition |
| 0085   | Purchase Order       |

Select object type and Import method as:  
Tick on option: Standard Batch/Direct Input  
Object: 0020 Material master

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## 2. Maintain source structures.



Here you have to enter the name of Source structure and Description, Save + F3 back

## 3. Maintain source fields.

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Source Fields

| Field Name | Data Type | Description                           |
|------------|-----------|---------------------------------------|
| MTNR       | C(018)    | material number                       |
| MBRSH      | C(020)    | Industry sector                       |
| MTART      | C(020)    | Material Type                         |
| KZSEL_01   | C(001)    | X                                     |
| KZSEL_12   | C(001)    | X                                     |
| KZSEL_13   | C(001)    | X                                     |
| KZSEL_14   | C(001)    | X                                     |
| KZSEL_15   | C(001)    | X                                     |
| KZSEL_02   | C(001)    | X                                     |
| KZSEL_09   | C(001)    | X                                     |
| KZSEL_11   | C(001)    | X                                     |
| WERKS      | C(004)    | Plant                                 |
| LGORT      | C(004)    | Storage Location                      |
| MAKTX      | C(040)    | Material Description (Short Text)     |
| MEINS      | C(003)    | Base Unit of Measure                  |
| MATKL      | C(006)    | Material Group                        |
| MTPOS_MARA | C(004)    | General item category group           |
| DISGR      | C(004)    | MRP Group                             |
| DISMM      | C(002)    | MRP Type                              |
| DISPO      | C(003)    | MRP Controller (Materials Planner)    |
| DISLS      | C(002)    | Lot size (materials planning)         |
| BESKZ      | C(001)    | Procurement Type                      |
| KZKUP      | C(001)    | Indicator: Material can be co-product |
| DZEIT      | C(003)    | In-house production time              |
| PLIFZ      | C(003)    | Planned Delivery Time in Days         |
| FHORI      | C(003)    | Scheduling Margin Key for Floats      |
| PERKZ      | C(001)    | Period indicator                      |
| STRGR      | C(002)    | Planning strategy group               |
| VRMOD      | C(001)    | Consumption mode                      |
| VINT1      | C(003)    | Consumption period: backward          |

Position the cursor on a structure and click on  Table maintenance icon

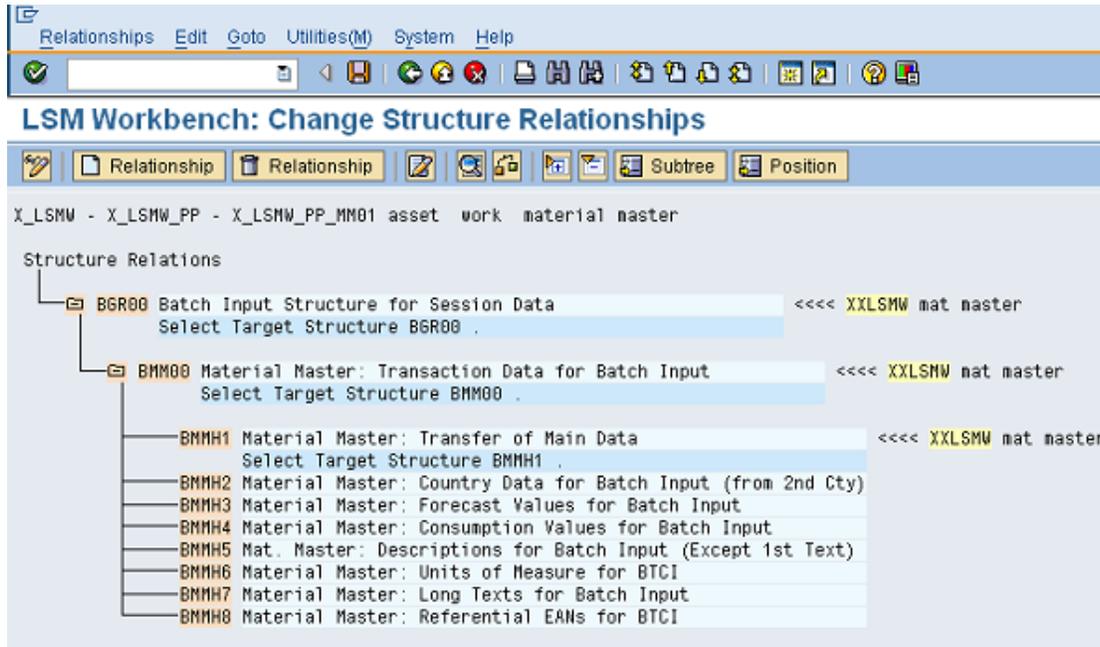
| Field Name | Type | Length | Field description                     |
|------------|------|--------|---------------------------------------|
| MTNR       | C    | 18     | material number                       |
| MBRSH      | C    | 20     | Industry sector                       |
| MTART      | C    | 20     | Material Type                         |
| KZSEL_01   | C    | 1      | X                                     |
| KZSEL_12   | C    | 1      | X                                     |
| KZSEL_13   | C    | 1      | X                                     |
| KZSEL_14   | C    | 1      | X                                     |
| KZSEL_15   | C    | 1      | X                                     |
| KZSEL_02   | C    | 1      | X                                     |
| KZSEL_09   | C    | 1      | X                                     |
| KZSEL_11   | C    | 1      | X                                     |
| WERKS      | C    | 4      | Plant                                 |
| LGORT      | C    | 4      | Storage Location                      |
| MAKTX      | C    | 40     | Material Description (Short Text)     |
| MEINS      | C    | 3      | Base Unit of Measure                  |
| MATKL      | C    | 6      | Material Group                        |
| MTPOS_MARA | C    | 4      | General item category group           |
| DISGR      | C    | 4      | MRP Group                             |
| DISMM      | C    | 2      | MRP Type                              |
| DISPO      | C    | 3      | MRP Controller (Materials Planner)    |
| DISLS      | C    | 2      | Lot size (materials planning)         |
| BESKZ      | C    | 1      | Procurement Type                      |
| KZKUP      | C    | 1      | Indicator: Material can be co-product |
| DZEIT      | C    | 3      | In-house production time              |
| PLIFZ      | C    | 3      | Planned Delivery Time in Days         |

Enter Field names, Type, Length and description. Save + F3 back

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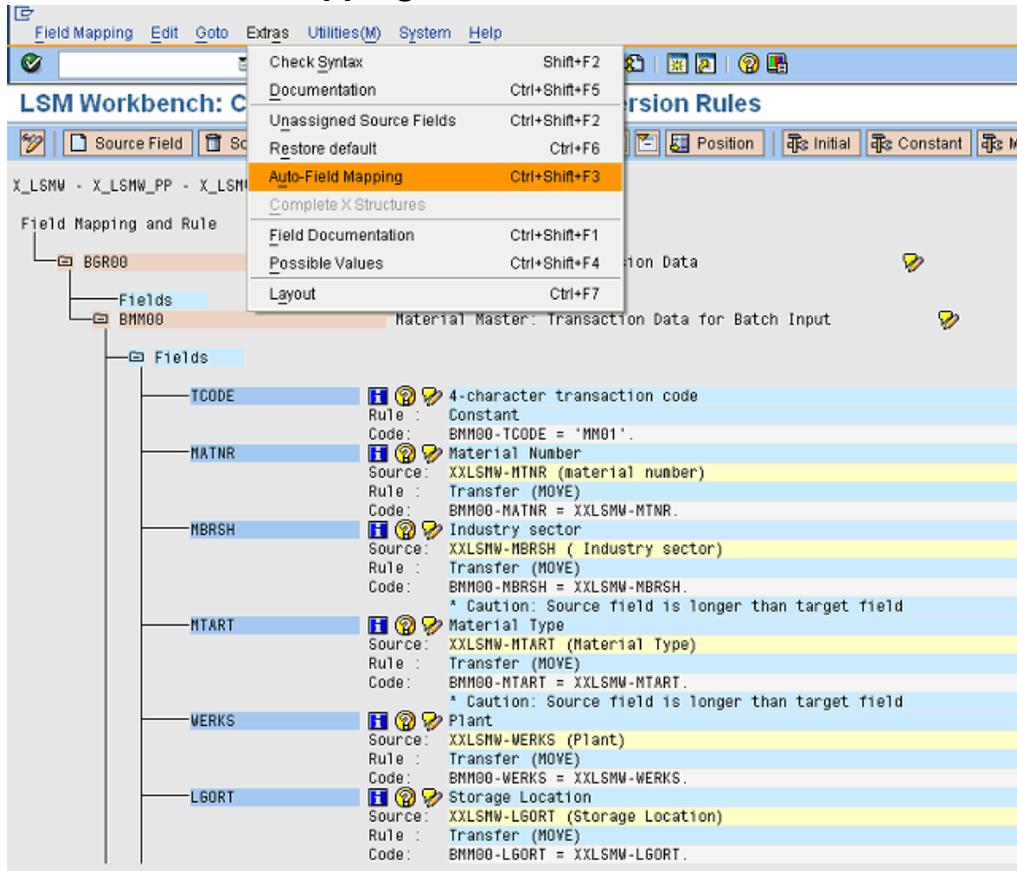
| Field Name | Type | Length | Field Description                                   |
|------------|------|--------|---|
| MTNR       | C    | 18     | material number                                     |
| MBRSH      | C    | 20     | Industry sector                                     |
| MTART      | C    | 20     | Material Type                                       |
| KZSEL_01   | C    | 1      | X   |
| KZSEL_12   | C    | 1      | X   |
| KZSEL_13   | C    | 1      | X   |
| KZSEL_14   | C    | 1      | X   |
| KZSEL_15   | C    | 1      | X   |
| KZSEL_02   | C    | 1      | X   |
| KZSEL_09   | C    | 1      | X   |
| KZSEL_11   | C    | 1      | X   |
| WERKS      | C    | 4      | Plant   |
| LGORT      | C    | 4      | Storage Location                                    |
| MAKTX      | C    | 40     | Material Description (Short Text)                   |
| MEINS      | C    | 3      | Base Unit of Measure                                |
| MATKL      | C    | 6      | Material Group                                      |
| MTPOS_MARA | C    | 4      | General item category group                         |
| DISGR      | C    | 4      | MRP Group   |
| DISMM      | C    | 2      | MRP Type  |
| DISPO      | C    | 3      | MRP Controller (Materials Planner)                  |
| DISLS      | C    | 2      | Lot size (materials planning)                       |
| BESKZ      | C    | 1      | Procurement Type                                    |
| KZKUP      | C    | 1      | Indicator: Material can be co-product               |
| DZEIT      | C    | 3      | In-house production time                            |
| PLIFZ      | C    | 3      | Planned Delivery Time in Days                       |
| FHORI      | C    | 3      | Scheduling Margin Key for Floats                    |
| PERKZ      | C    | 1      | Period indicator                                    |
| STRGR      | C    | 2      | Planning strategy group                             |
| VRMOD      | C    | 1      | Consumption mode                                    |
| VINT1      | C    | 3      | Consumption period: backward                        |
| VINT2      | C    | 3      | Consumption period: forward                         |
| MTVFP      | C    | 2      | Checking Group for Availability Check               |
| ALTSL      | C    | 1      | Method for Selecting Alternative Bills of Material  |
| SBDKZ      | C    | 1      | Dependent requirements ind. for individual and coll |
| FEVOR      | C    | 3      | Production scheduler                                |
| XCHPF      | C    | 1      | Batch management requirement indicator              |
| BKLAS      | C    | 4      | Valuation Class                                     |
| VPRSV      | C    | 1      | Price control indicator                             |
| PEINH      | C    | 11     | Price Unit  |
| STPRS      | C    | 11     | Standard price                                      |
| EKALR      | C    | 1      | Material Is Costed with Quantity Structure          |
| HKMAT      | C    | 1      | Material-related origin                             |
| AWSLS      | C    | 10     | Variance key  |
| LOSGR      | C    | 10     | Lot Size for Product Costing                        |

## 4. Maintain structure relations

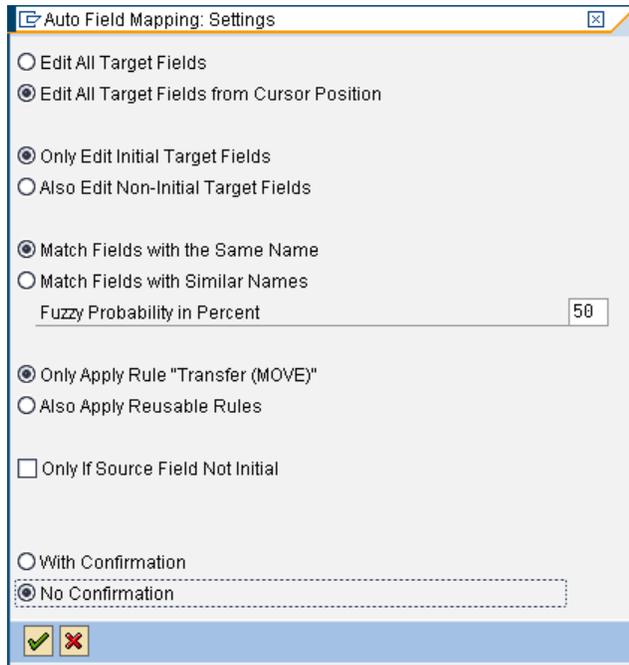


Click on create relationship the default structure relations are from standard SAP. Save + F3 back

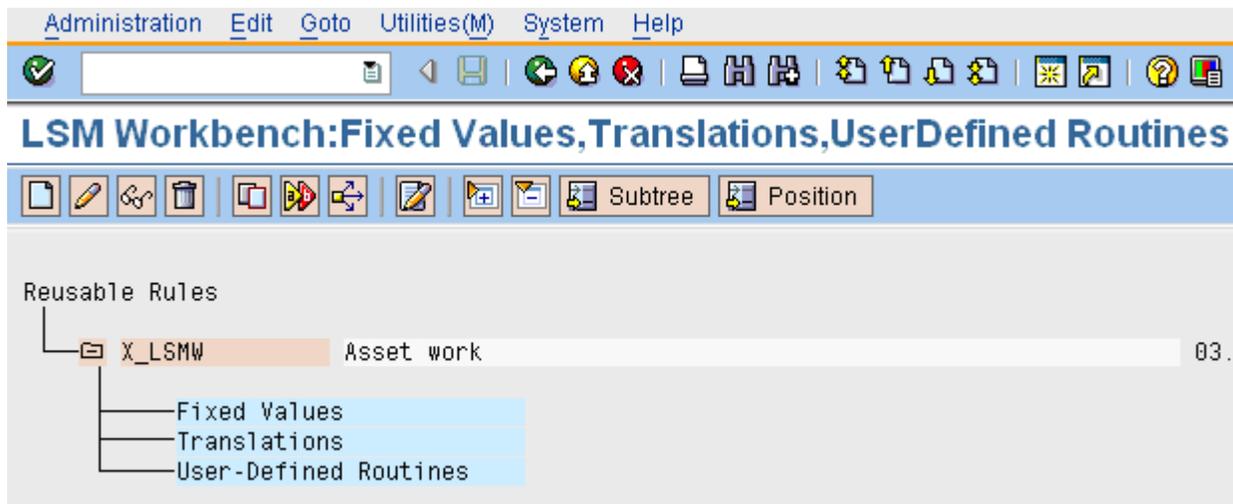
## 5. Maintain field mapping & conversion rule



Display/change, click on Auto field mapping or  
Click on source field, select exact field from structure and enter repeat these steps for all fields.  
Save + F3 back

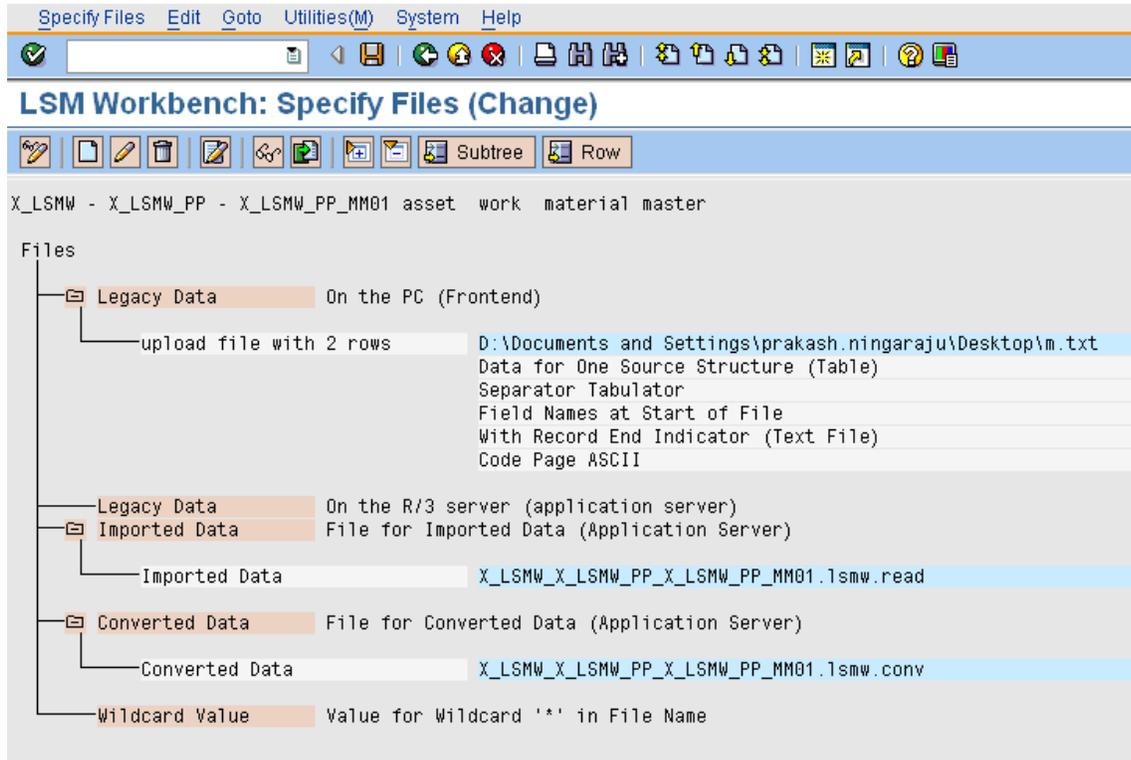


## 6. Maintain fixed values, transaction, user defined

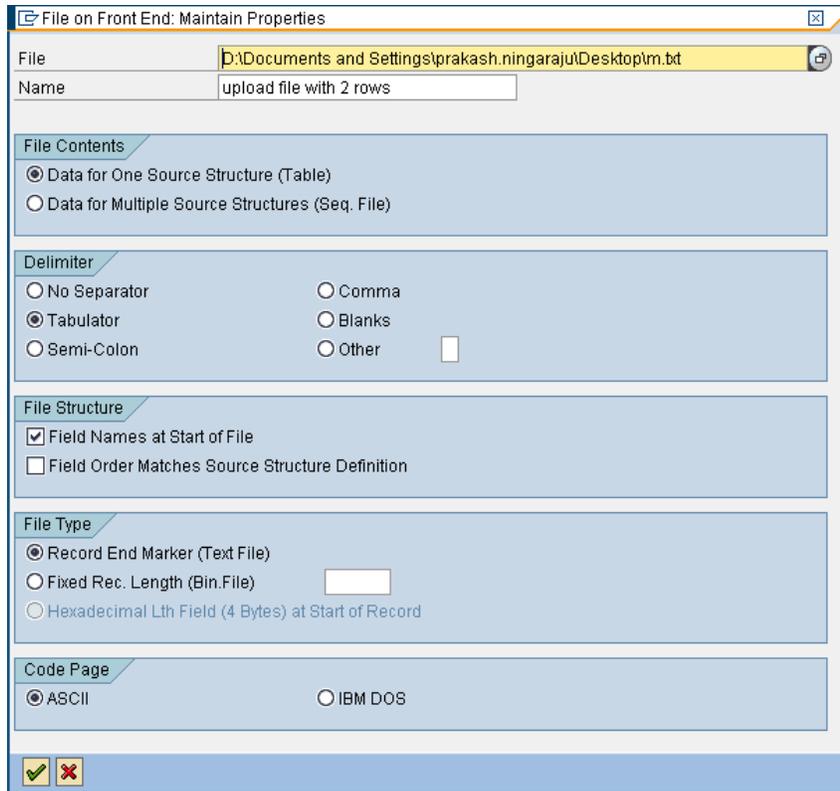


To make modification with input data but generally not required.  
Execute, Save + back

## 7. Specify files.

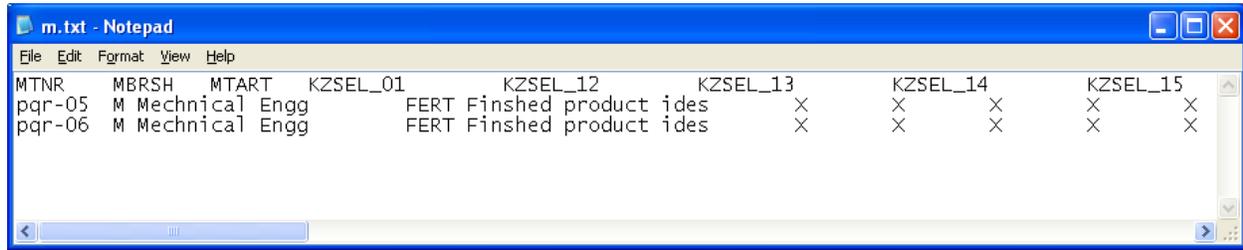


Display/change, click on legacy data attach flat file and enter description select tabulator enter. Save + back



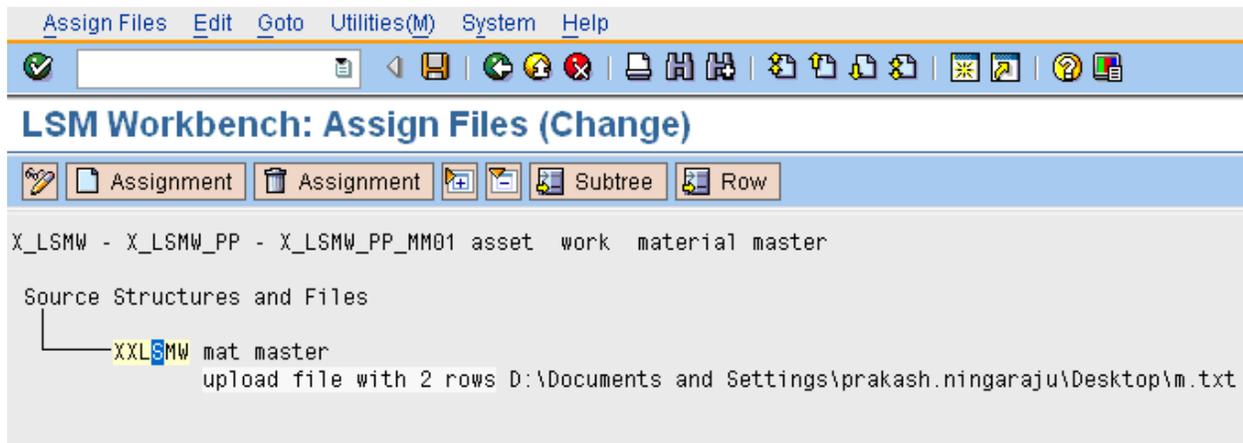
Select Tabulator because legacy data is in .txt format  
File structure and Type are important.

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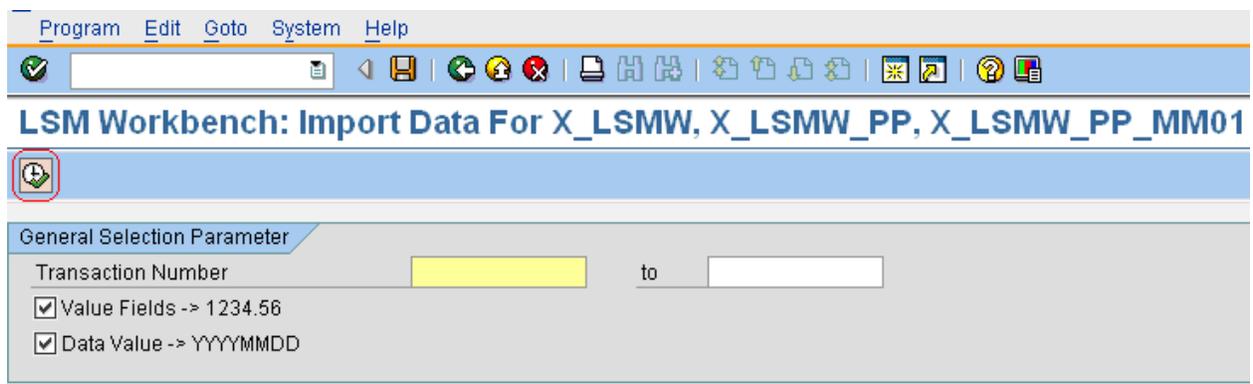
  
D:\Documents and Settings\prakash.nin

## 8. Assign file



Execute. One source structure therefore 1 row is default  
Display/change. Save + back

## 9. Import data.



Execute.  
Display/change. Save + back

ITP Asset: LSMW to upload SAP master data Materials

LSM Workbench: Import Data For X\_LSMW, X\_LSMW\_PP, X\_LSMW\_PP\_MM01

17.03.2010 - 14:57:17

File(s) Read: D:\Documents and Settings\prakash.ningaraju\Desktop\m.txt  
 File Written: X\_LSMW\_X\_LSMW\_PP\_X\_LSMW\_PP\_MM01.lsmw.read

| Source Structure | Read | Written | Not Written |
|------------------|------|---------|-------------|
| XXLSMW           | 2    | 2       | 0           |

Transactions Read: 2  
 Records Read: 2  
 Transactions Written: 2  
 Records Written: 2

## 10. Display imported data

Imported Data

LSM Workbench: Imported Data

Field Contents Change Display Display Colour Legend

File X\_LSMW\_X\_LSMW\_PP\_X\_LSMW\_PP\_MM01.lsmw.read

| Row | Struct.    | Conts.  |
|-----|------------|---|
|     | LSMWX_LSMW | X_LSMW_PP X_LSMW_PP_MM01 ECF 8002010031714571310546092                                      |
| 1   | XXLSMW     | pqr-05 M Mechanical Engg FERT Finished productXXXXXXXX10000001lsmw for asset work pp master |
| 2   | XXLSMW     | pqr-06 M Mechanical Engg FERT Finished productXXXXXXXX10000001lsmw for asset work pp master |

Enter ok, it shows the number of records equal to the rows in input text file. F3 Back

Click on the line to see the details as follows.

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| Field Name | Field Text                        | Field Value                        |
|------------|-----------------------------------|------------------------------------|
| MTNR       | material number                   | pqr-05                             |
| MBRSH      | Industry sector                   | M Mechanical Engg                  |
| MTART      | Material Type                     | FERT Finished product              |
| KZSEL_12   | X                                 | X                                  |
| KZSEL_13   | X                                 | X                                  |
| KZSEL_14   | X                                 | X                                  |
| KZSEL_15   | X                                 | X                                  |
| KZSEL_02   | X                                 | X                                  |
| KZSEL_09   | X                                 | X                                  |
| KZSEL_11   | X                                 | X                                  |
| WERKS      | Plant                             | 1000                               |
| L6ORT      | Storage Location                  | 0001                               |
| MAKTX      | Material Description (Short Text) | lsmw for asset work pp master data |
| MEINS      | Base Unit of Measure              | EA                                 |
| MATKL      | Material Group                    | 001                                |

## 11. Convert data

General Selection Parameter

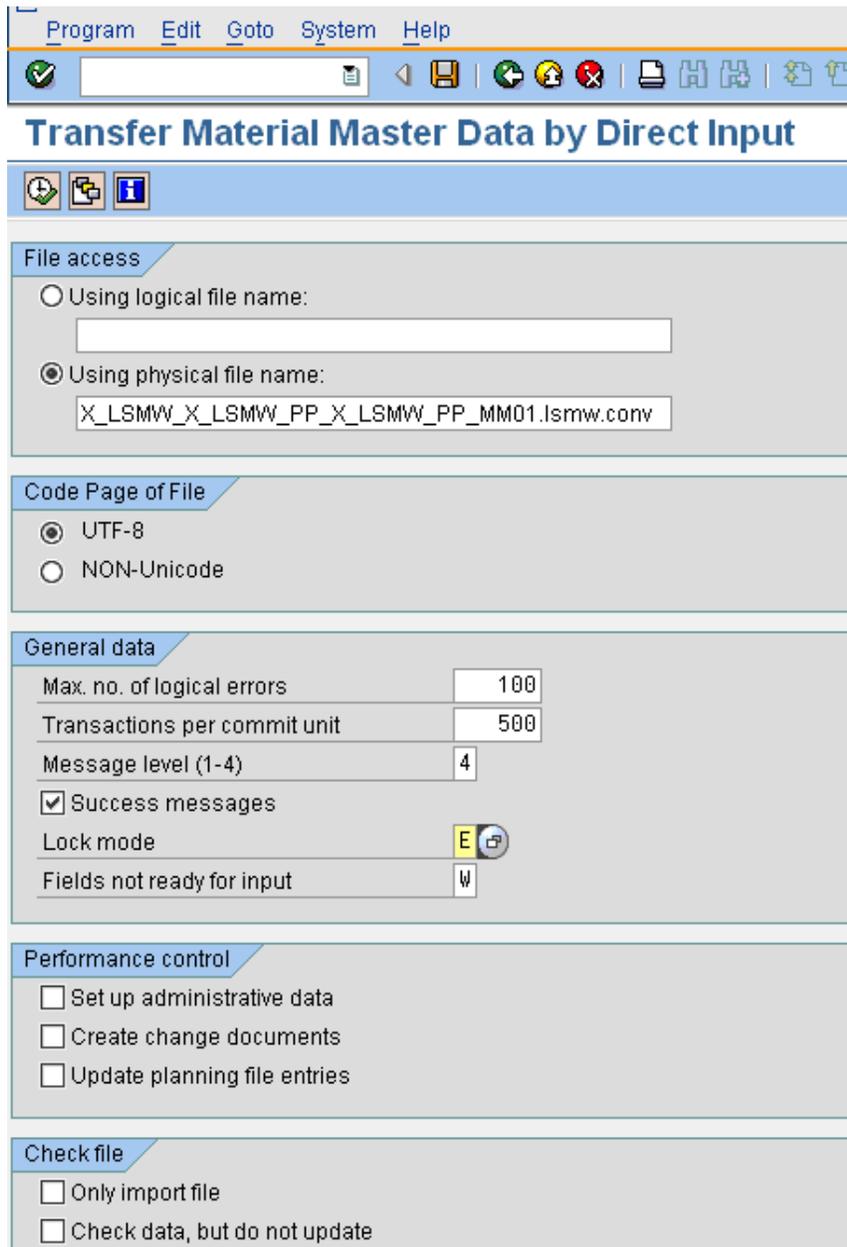
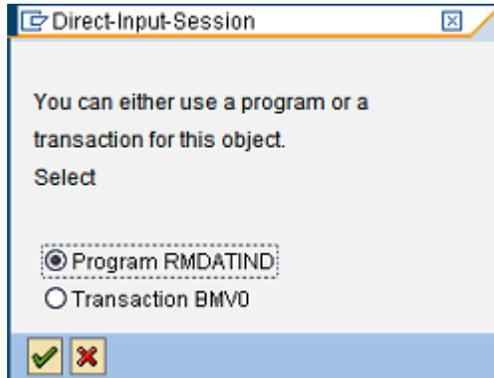
Transaction Number  to

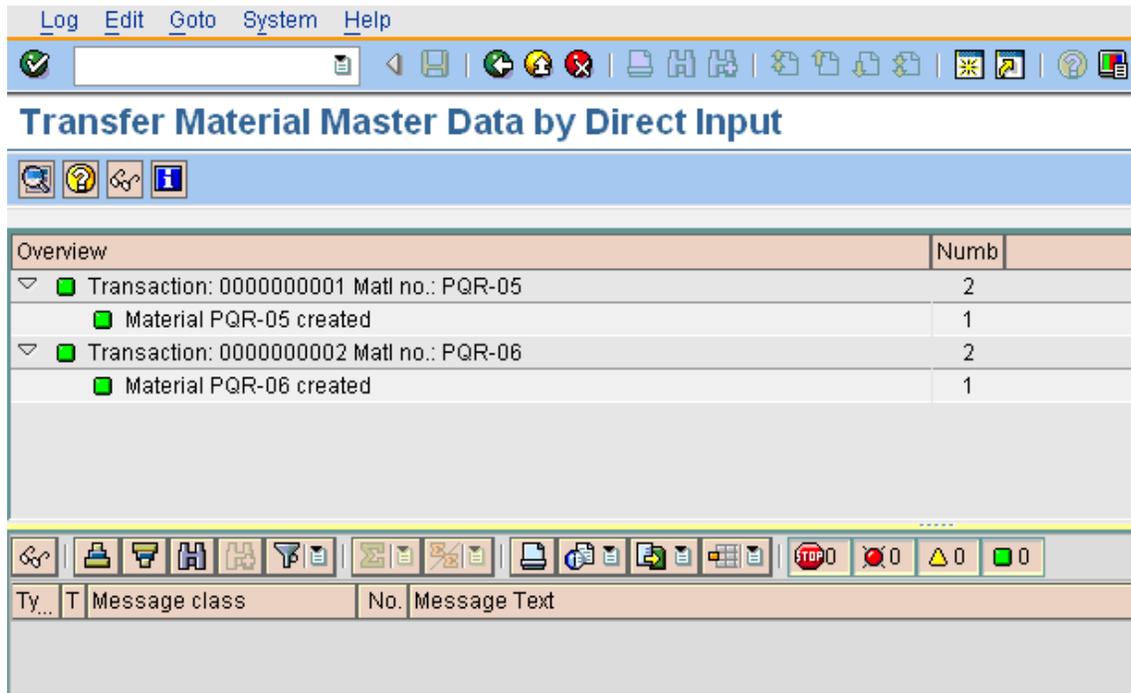
Execute



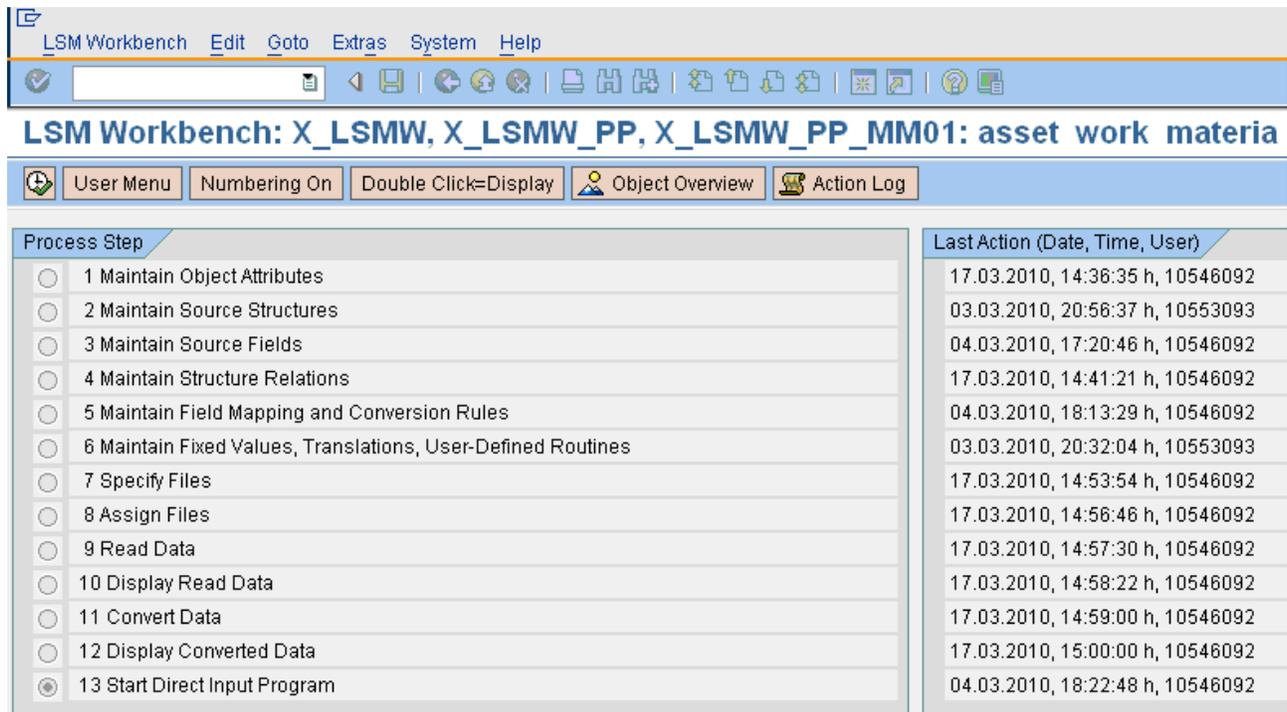
### 13. Start Direct Input Program

Execute





F3 back.

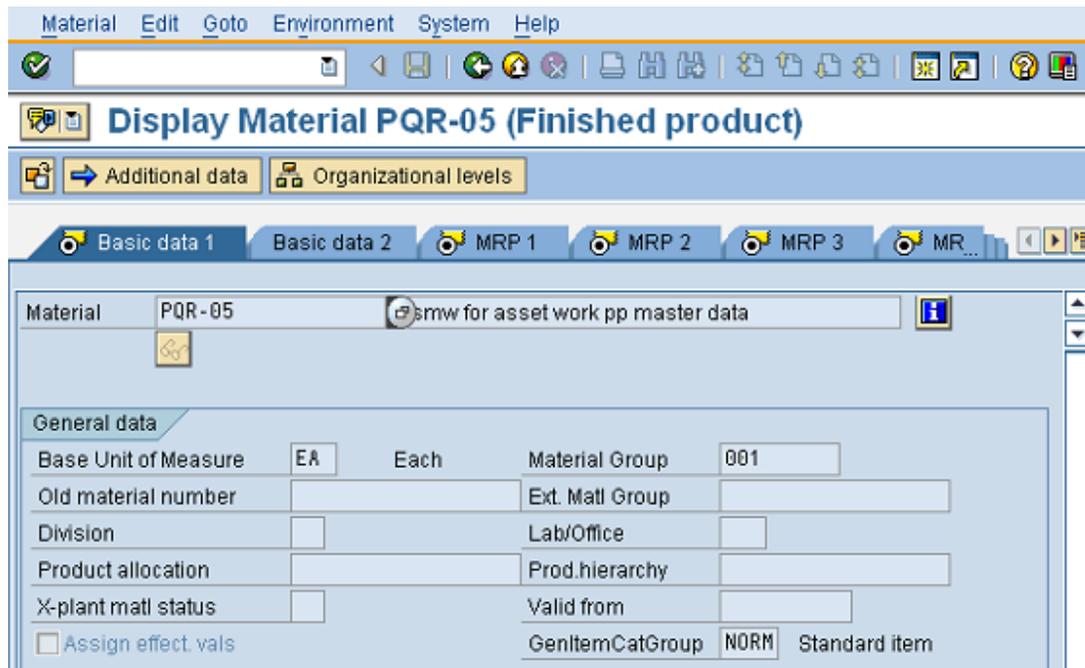
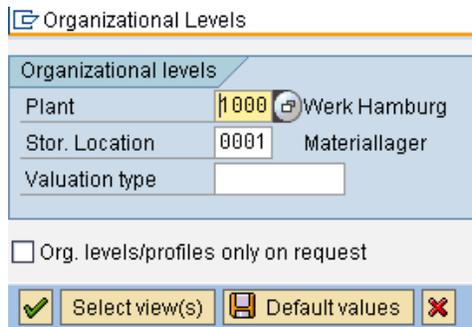
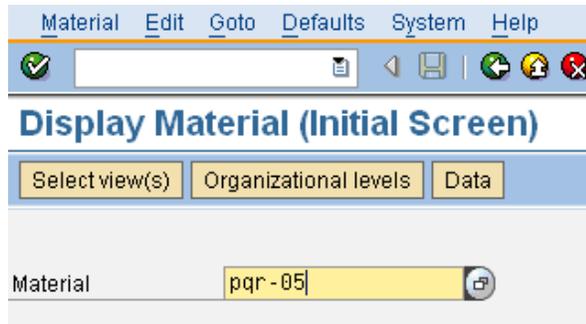


**Result**

The 13 steps of LSMW are executed and the data from legacy system has been imported into the SAP database.

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The 2 materials in the .txt file are created in SAP. Check transaction code: MM03



Result:

The data from the legacy system has been imported into the SAP database.