

HOW TO USE LSMW

By Allen Dawkins & Amit Bhandari

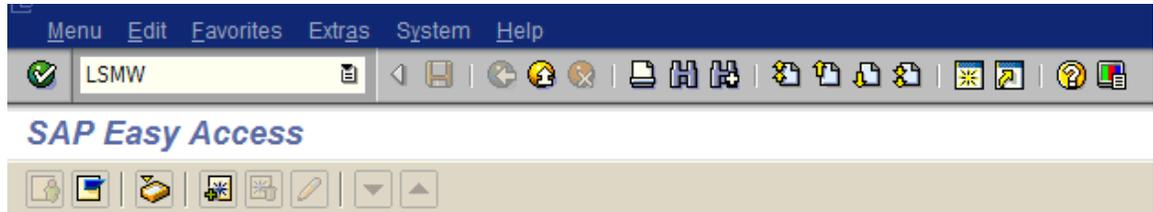
What is LSMW?

LSMW is one of SAP's best data conversion and master data creation tools. It is available for most R/3 master and transactional data. LSMW can be used for most conversion and migration tasks and can be accomplished with standard functionality. With a little ABAP coding, you can use LSMW for more complex data conversion activities.

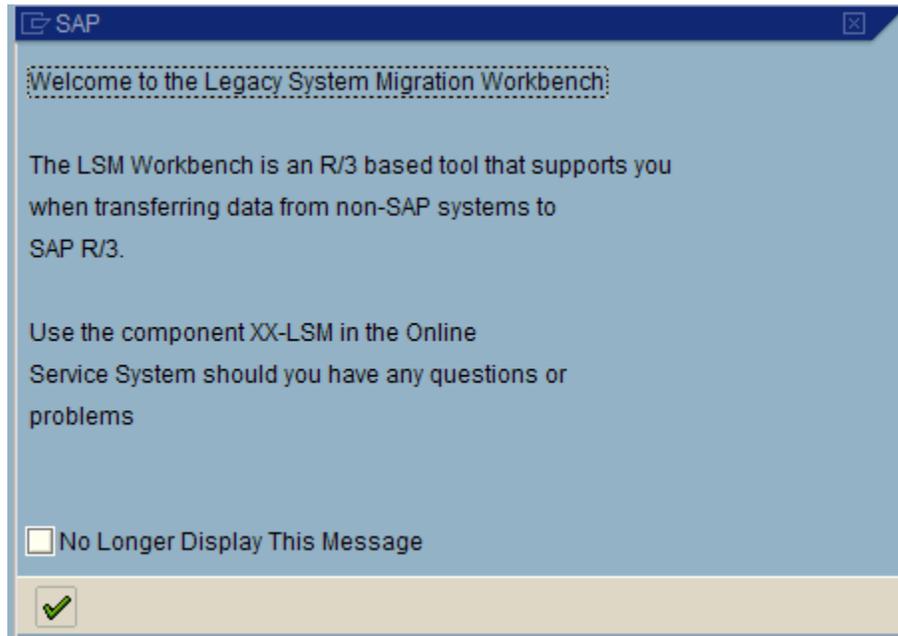
The information below will walk you through the process of creating a simple LSMW. Once you've done this you'll be able to see how useful the tool can be and how LSMW is the right choice for most conversion and migration!

STEPS FOR CREATING AN LSMW.

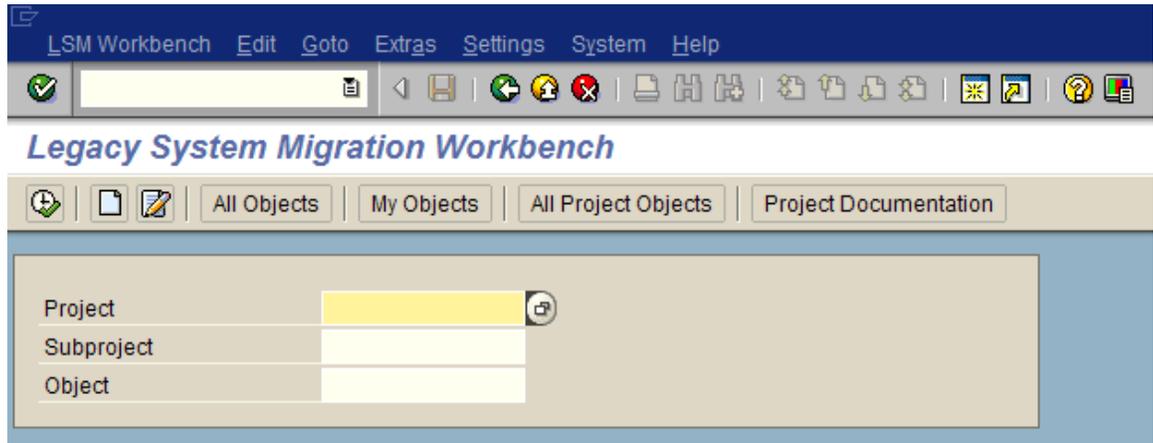
- 1) Log on to SAP
- 2) Enter transaction code "LSMW"



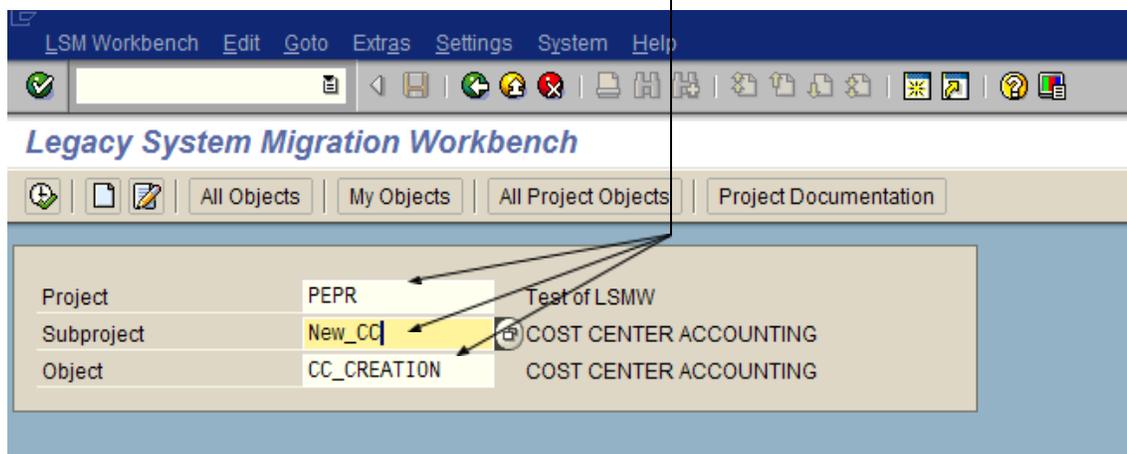
- 3) If you receive the following screen either check the white box to no longer display the message then click the green check or just click the green check to continue.



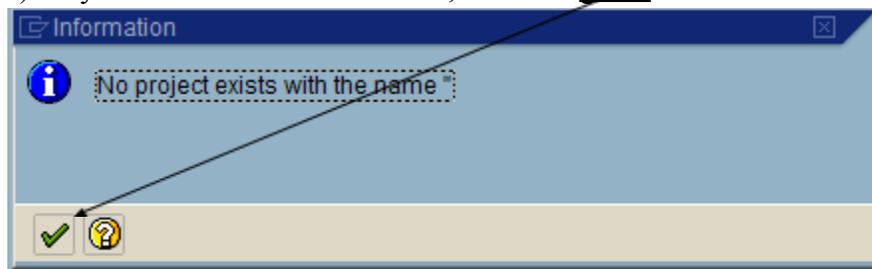
- 4) Once the screen below appears, you are now ready to begin your LSMW script creation.



- 5) Create the file by inputting the Project, Subproject, and Object.



- 6) If you receive the screen below, click the green check and continue.



7) Input the “**Name**”

Project: CONTROLLING
Controlling Module
Subproject: COST CENTER
Cost Center Accounting
Object: CCA
Name: Cost Center

8) Next click

9) The screen below now appears.

LSM Workbench: CONTROLLING, COST CENTER, CCA: Cost Center

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

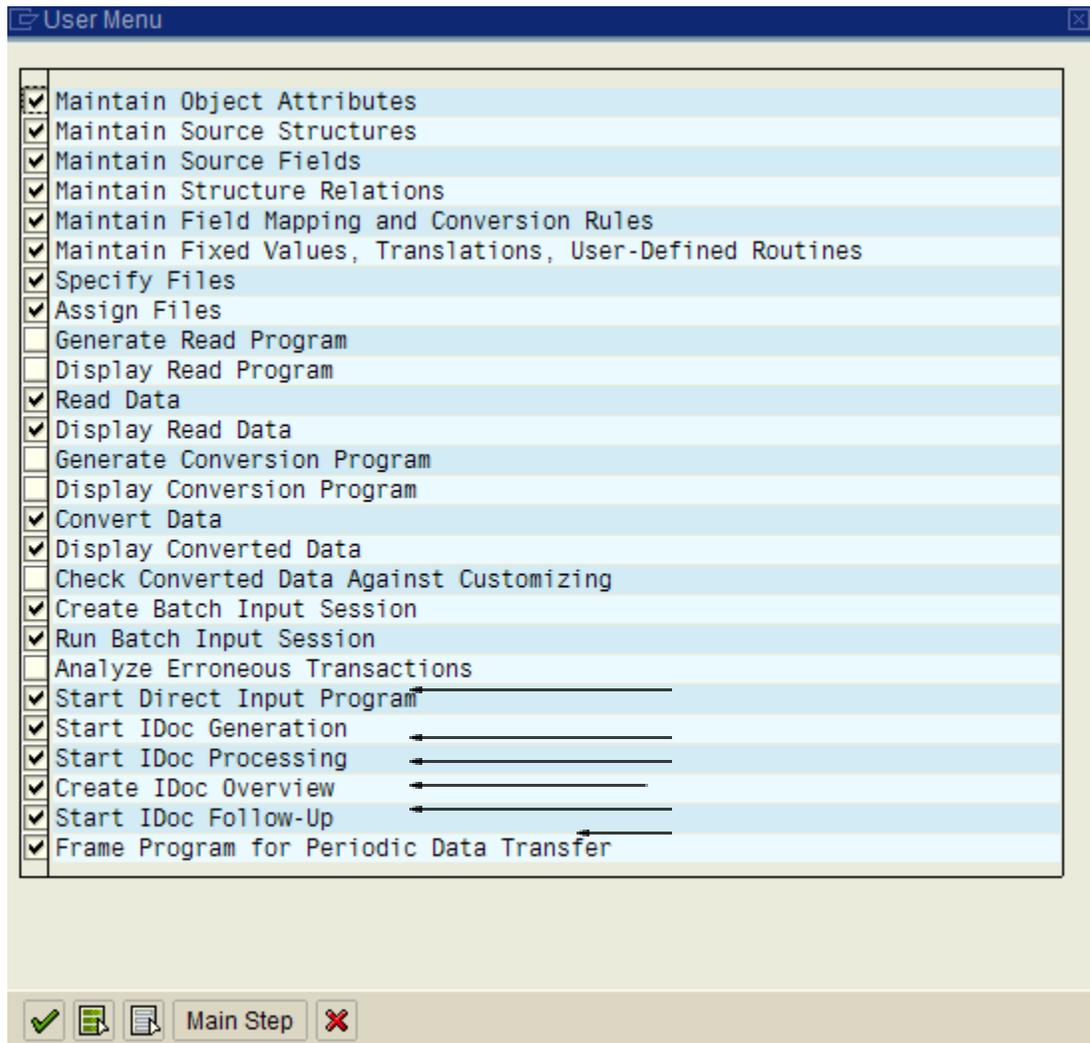
Process Step	Last Action (Date, Time, User)
<input checked="" type="radio"/> Maintain Object Attributes	
<input type="radio"/> Maintain Source Structures	
<input type="radio"/> Maintain Source Fields	
<input type="radio"/> Maintain Structure Relations	
<input type="radio"/> Maintain Field Mapping and 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	

10) Follow the menu path >Extras>User Menu

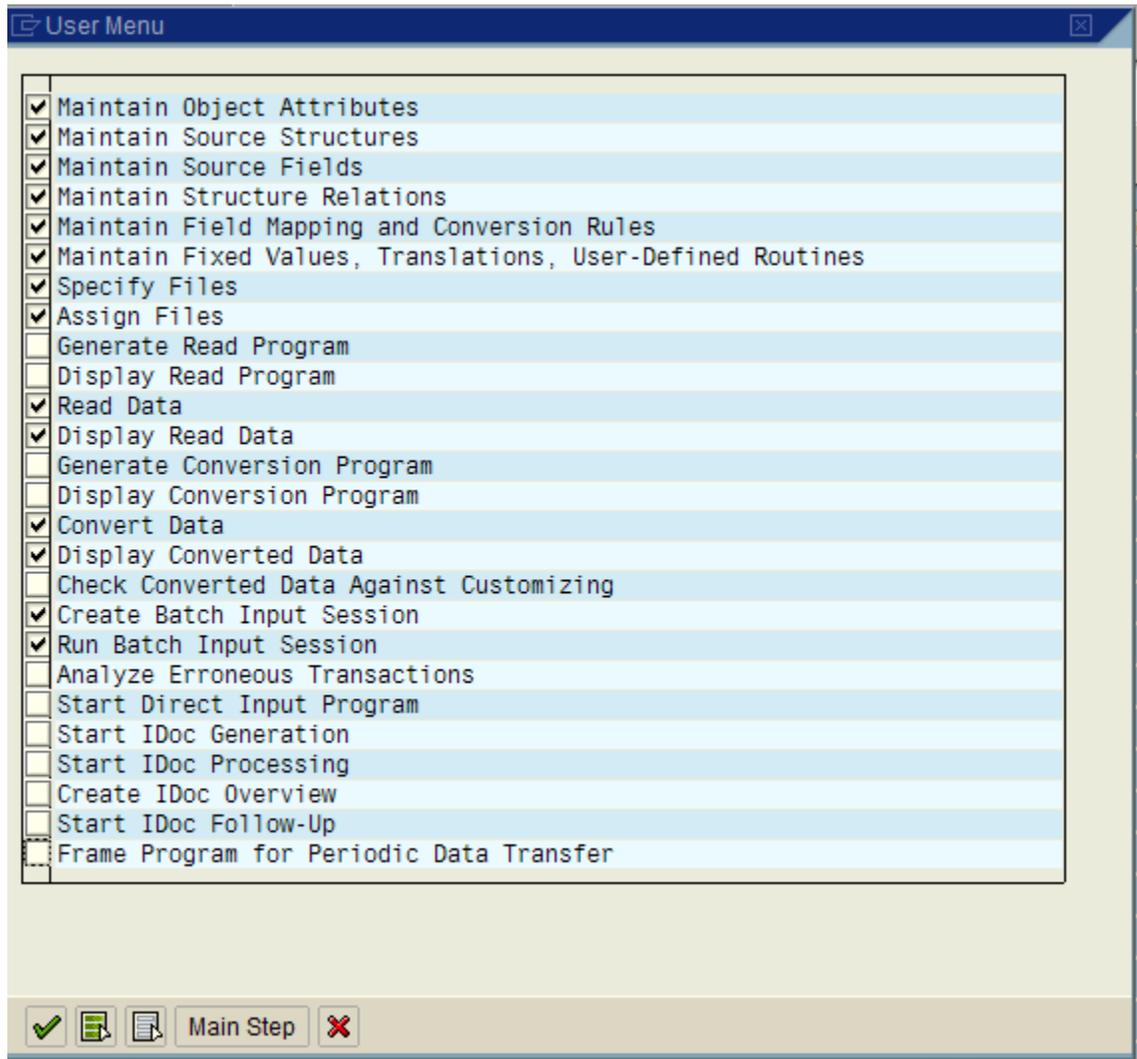
Extras | System | Help

- Reset Action Log (Shift+F9)
- Object Overview (Shift+F4)
- User Menu (Shift+F5)

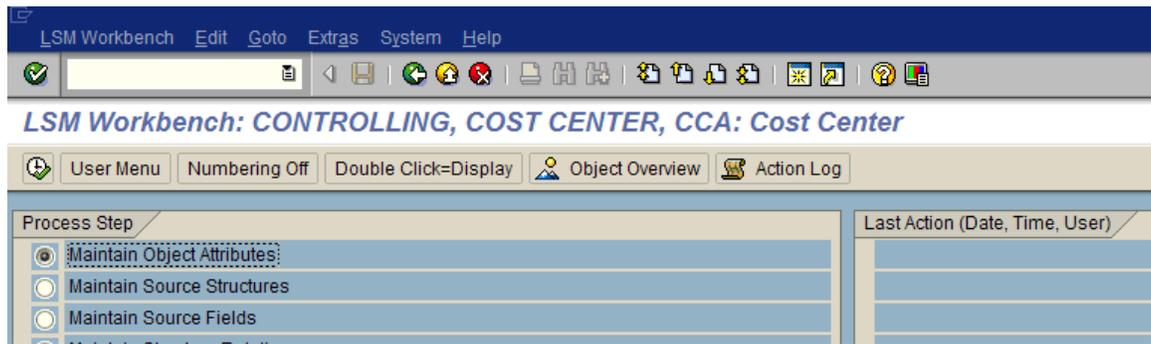
11) Next you get this screen. This allows you to set up the LSMW. Since we don't use IDOC's you can remove all the checks at the bottom of the screen.



12) Your screen will now appear as below. Click .



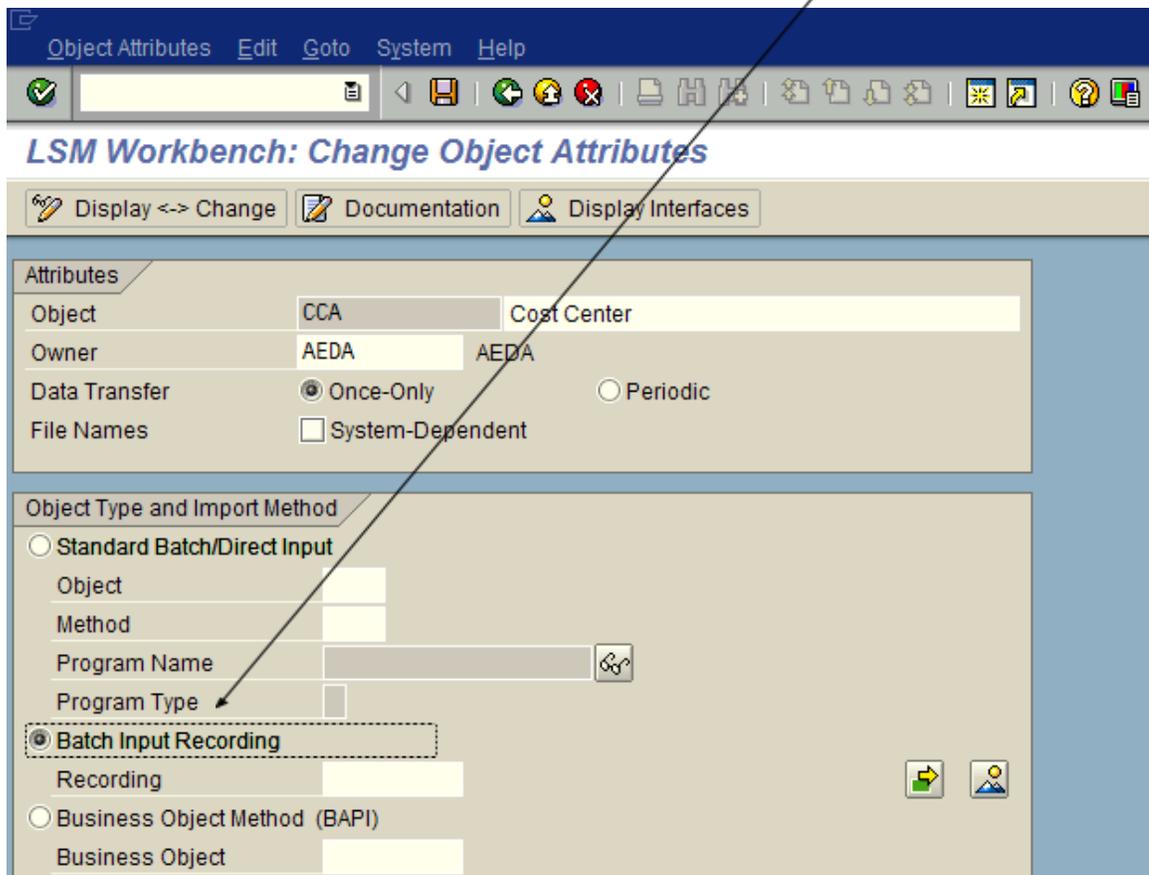
13) You will be returned to the main screen shown below. Click .



14) Now you will begin the creation of the LSMW.

STEP 1. – MAINTAIN OBJECT ATTRIBUTES

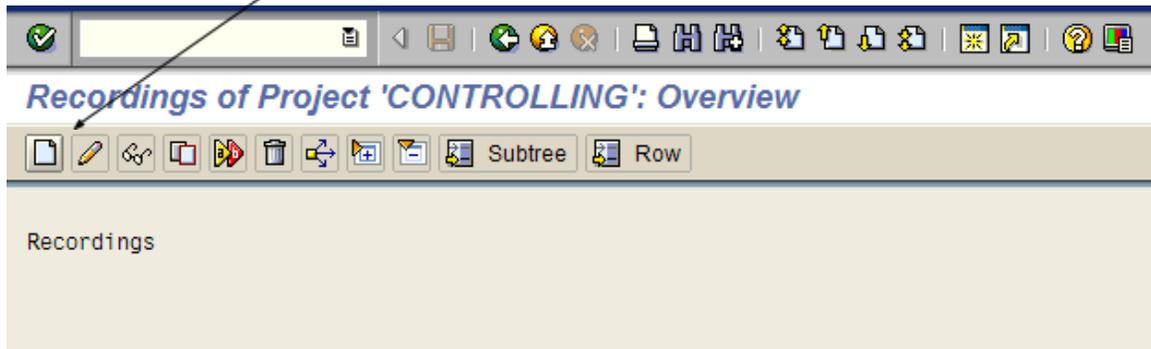
15) Next click on  **Display <-> Change** then select “Batch Input Recording”.



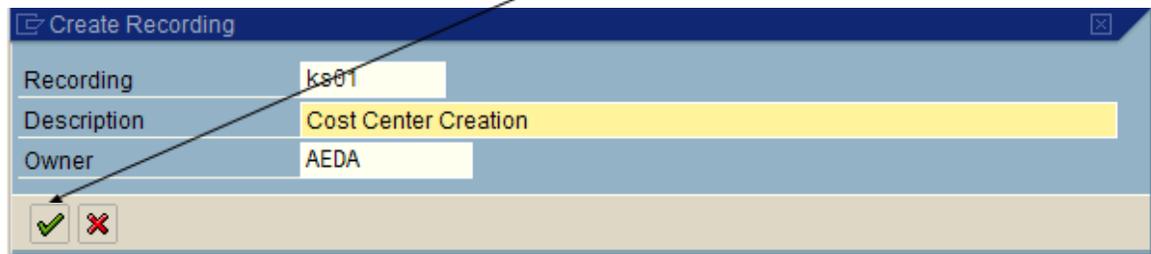
16) Next Input the Name of the recording. In this case it's **KS01**. Then click .



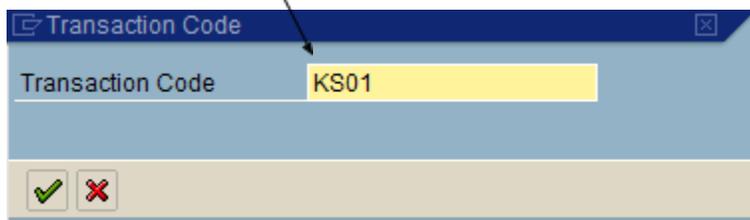
17) Next click “create”



18) Input recording fields as below then click the “green check”.



19) Input transaction code.



20) Next you're ready to being creation of the master data for your LSMW. In our example using KS01 you see the following screen.

Create Cost Center: Initial Screen

Master Data

Controlling Area	D001	
Cost Center	<input checked="" type="checkbox"/>	
Valid From	<input checked="" type="checkbox"/>	to 12/31/9999

Reference

Cost center	
Controlling Area	

21) Input data as below, then click "Master Data"

Create Cost Center: Initial Screen

Master Data

Controlling Area	D001	
Cost Center	DCLXX1234	
Valid From	01/01/2006	to 12/31/9999

Reference

Cost center	
Controlling Area	

22) Next fill in all information needed for your script. In this case for cost center creation.

Cost Center	DCLXX1234	
Controlling Area	D001	Chevron Products Company
Valid From	01/01/2006	to 12/31/9999

Basic data		Control	Templates	Address	Communication	Add. fie...
------------	--	---------	-----------	---------	---------------	-------------

Names	
Name	Name
Description	Description

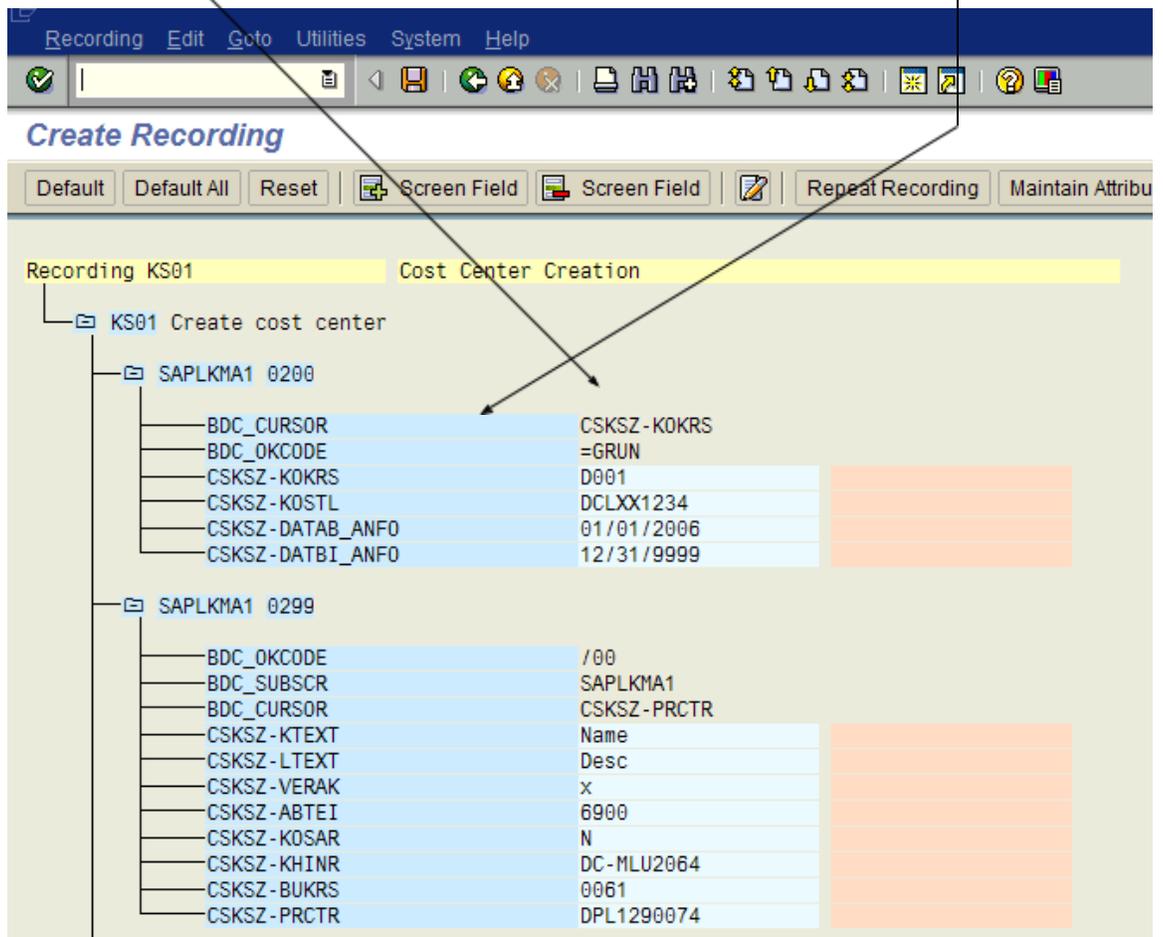
Basic data	
Person Responsible	x
Department	6900
Cost Center Category	N
Hierarchy area	DC-MLU2064
Company Code	0061
Business Area	
Currency	
Profit Center	

Cost Center	DCLXX1234	Name	
Controlling Area	D001	Chevron Products Company	
Valid From	01/01/2006	to	12/31/9999

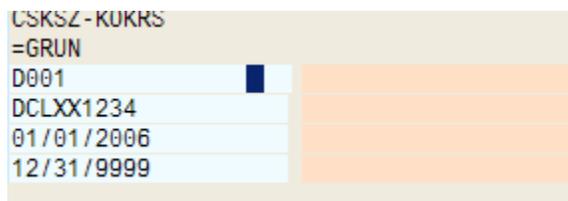
Basic data		Control	Templates	Address	Communication	Add. fie...
------------	--	---------	-----------	---------	---------------	-------------

Title			
Name	Name		
Street name	1001 Street	PO box	
Location	HOPKINSVILLE	Postal Code	42240-0047
District	CHRISTIAN	PO Box pst cde	
Country	US	Region	KY
Jurisdiction	KY4224000047		

23) Save the Recording . On the following screen you see the field names and the default values for the field names that were created from the recording.



24) Next we need to remove the default values. The purpose is to create parameter import names. To do this you must double-click into each default value name.



25) After double clicking into a “field” you will see a screen similar to the one below.

Field name CSKSZ - K0STL

Name

Name

Default Value DCLXX1234

26) Remove the default value then input the field name and the description of the field name. Click

Field name CSKSZ - K0STL

Name K0STL

Name Cost Center

Default Value

27) Then .

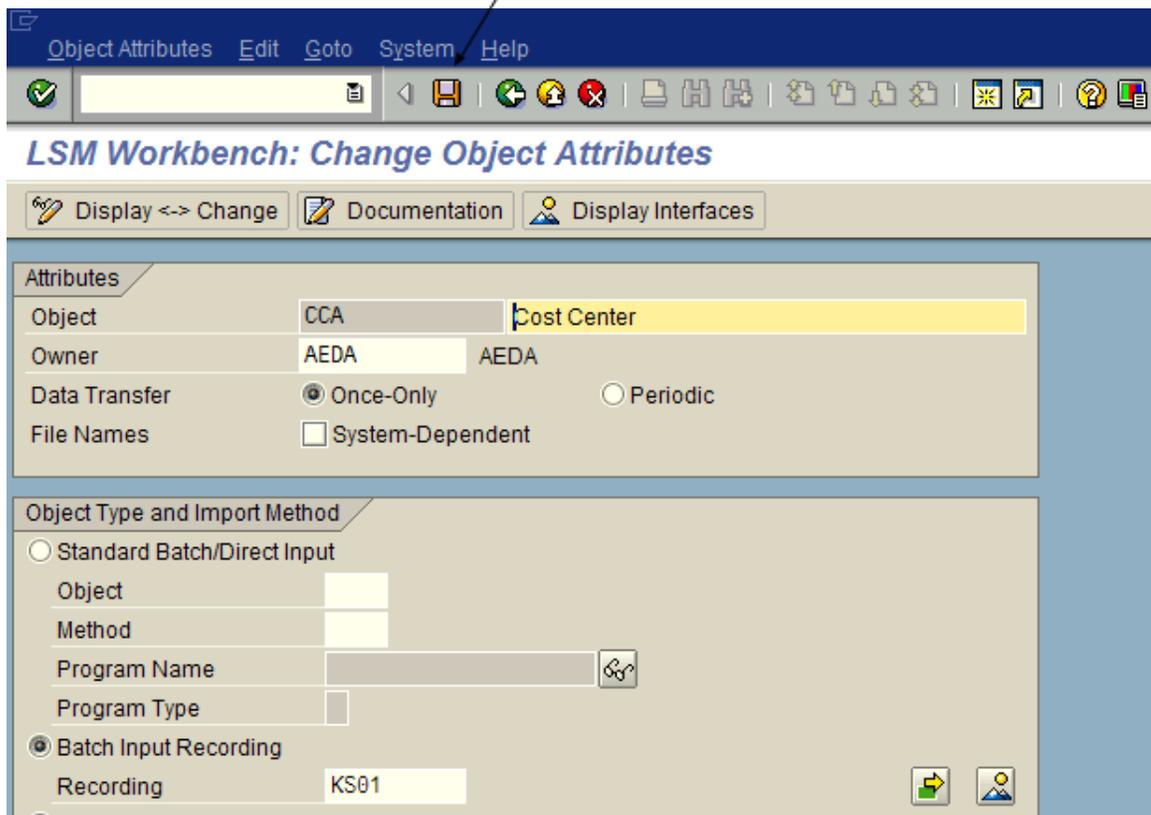
28) Click to return to initial screen.

Recordings of Project 'CONTROLLING': Overview

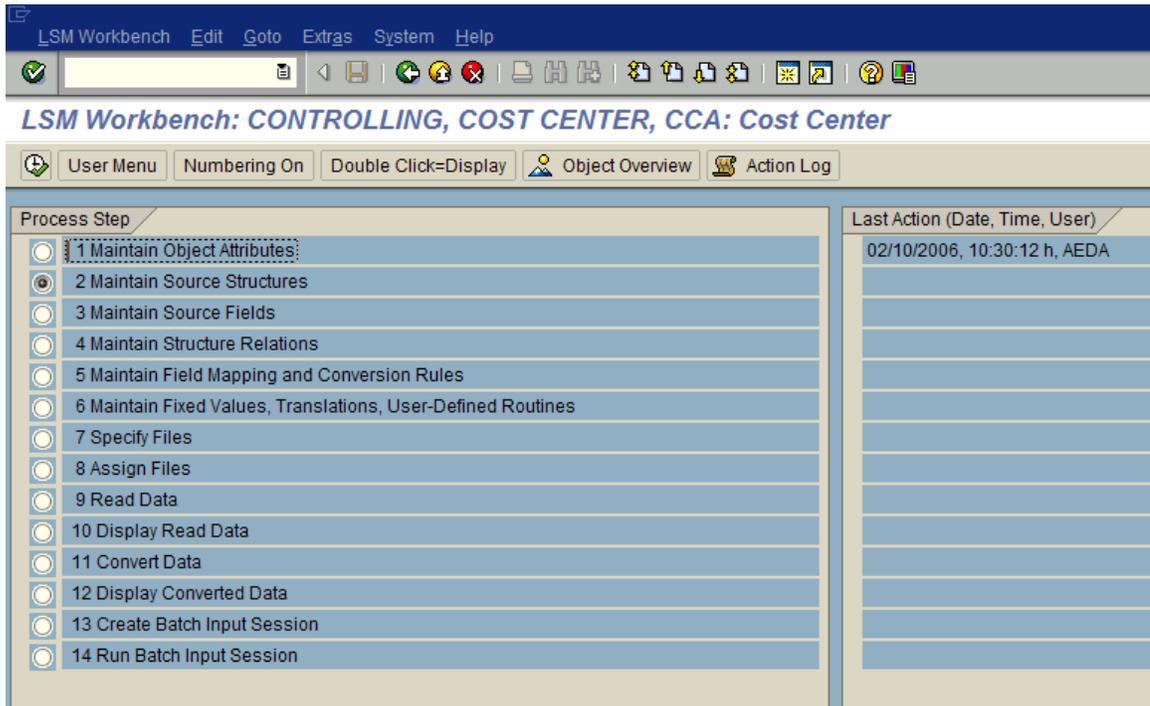
Recordings

KS01	Cost Center Creation
Transaction:	KS01 Create cost center
Owner:	AEDA AEDA

29) Click to return. . . . Then “save”.



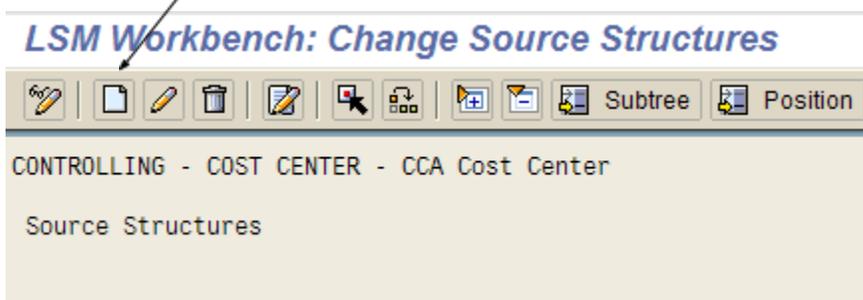
30) Next to return to Main Screen.



31) From this screen you will now move on to Step 2 of this process. Click .
32) Then click “change”



33) Click “create”



34) You will receive the screen below. Input your data then click .

Create Source Structure

Source Structure COSTCENTER

Description Cost Center Creation

35) On the screen click save. Click .

Source Structures Edit Goto Utilities System Help

LSM Workbench: Change Source Structures

CONTROLLING - COST CENTER - CCA Cost Center

Source Structures

- COSTCENTER Cost Center Creation

36) You will return to the Main Screen as below. Please note you're now ready for Step 3. Click **Maintain Source Fields**.

LSM Workbench Edit Goto Extras System Help

LSM Workbench: CONTROLLING, COST CENTER, CCA: Cost Center

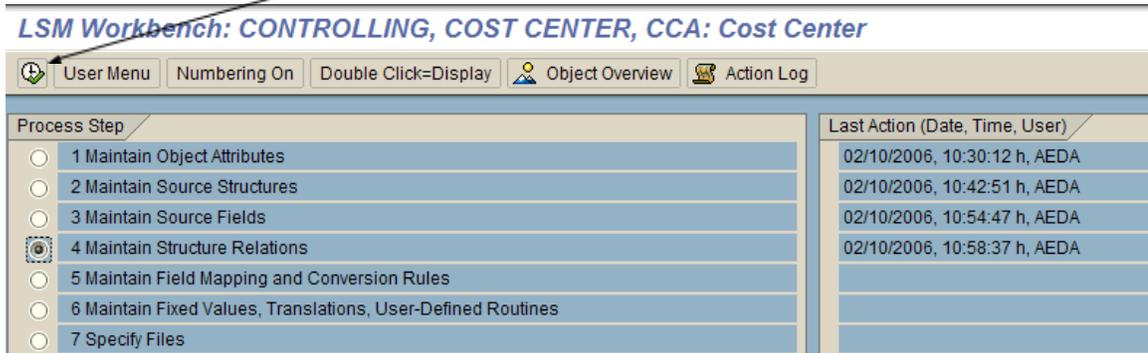
User Menu Numbering On Double Click=Display Object Overview Action Log

Process Step	Last Action (Date, Time, User)
<input type="radio"/> 1 Maintain Object Attributes	02/10/2006, 10:30:12 h, AEDA
<input type="radio"/> 2 Maintain Source Structures	02/10/2006, 10:42:51 h, AEDA
<input checked="" type="radio"/> 3 Maintain Source Fields	
<input type="radio"/> 4 Maintain Structure Relations	
<input type="radio"/> 5 Maintain Field Mapping and Conversion Rules	
<input type="radio"/> 6 Maintain Fixed Values, Translations, User-Defined Routines	
<input type="radio"/> 7 Specify Files	
<input type="radio"/> 8 Assign Files	
<input type="radio"/> 9 Read Data	
<input type="radio"/> 10 Display Read Data	

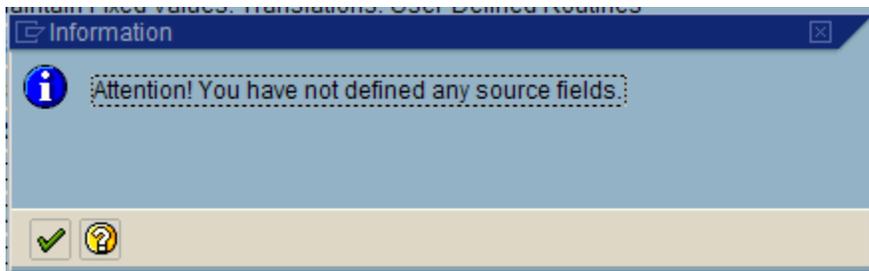
PLEASE NOTE THE FOLLOWING:

To prepare for Step 3 you will require the field names. To get these you must first go to Step 4, then Step 5 to obtain the field names, you will return to complete step 3.

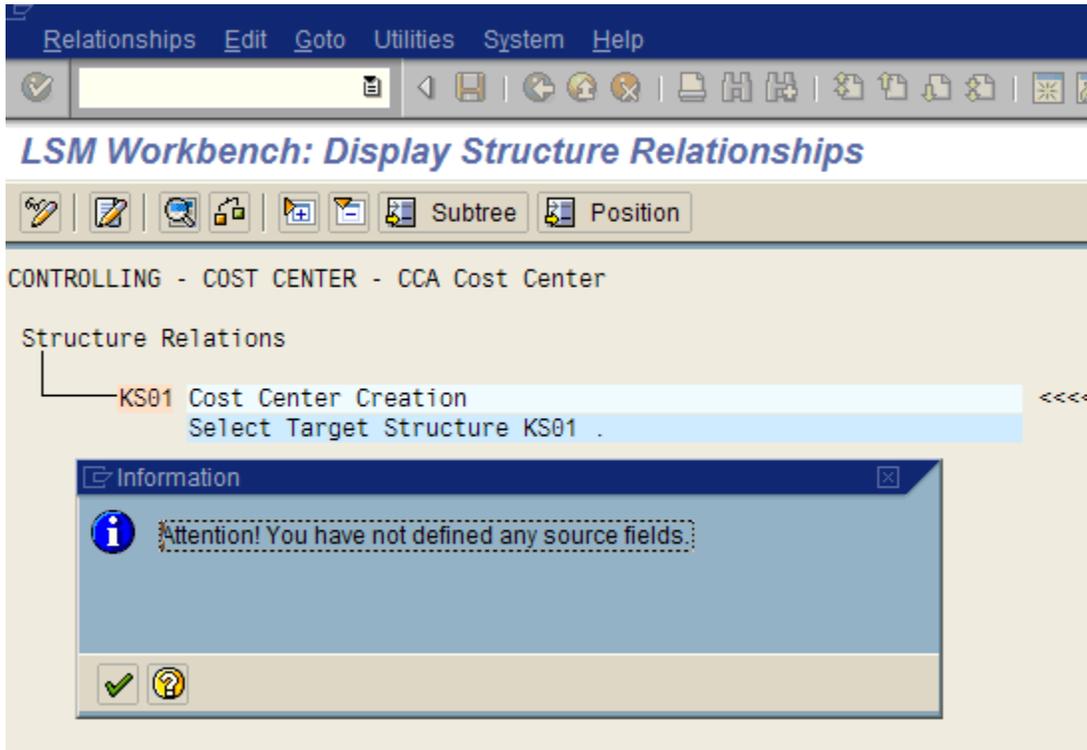
37) Click step 4, then “**execute**”.



38) You will receive the screen below since we have not completed step 3. This is a warning. Click .

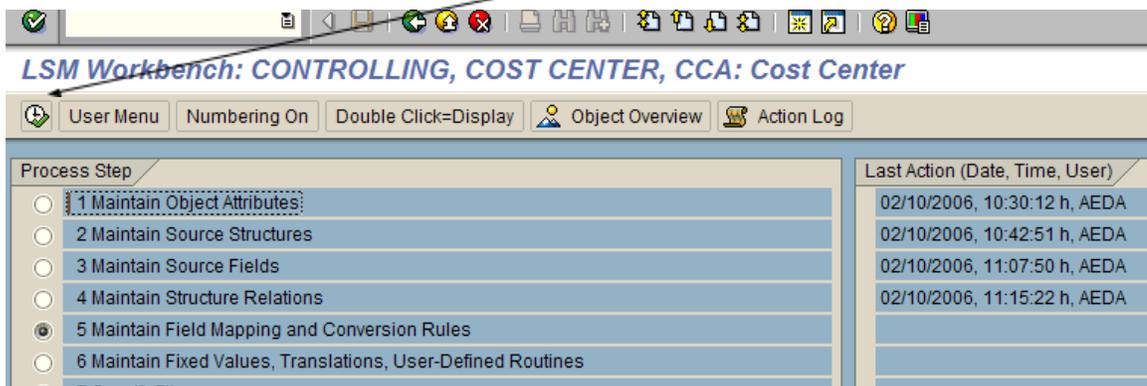


39) Click “Change” and you will receive the warning again. Click the green check and continue.

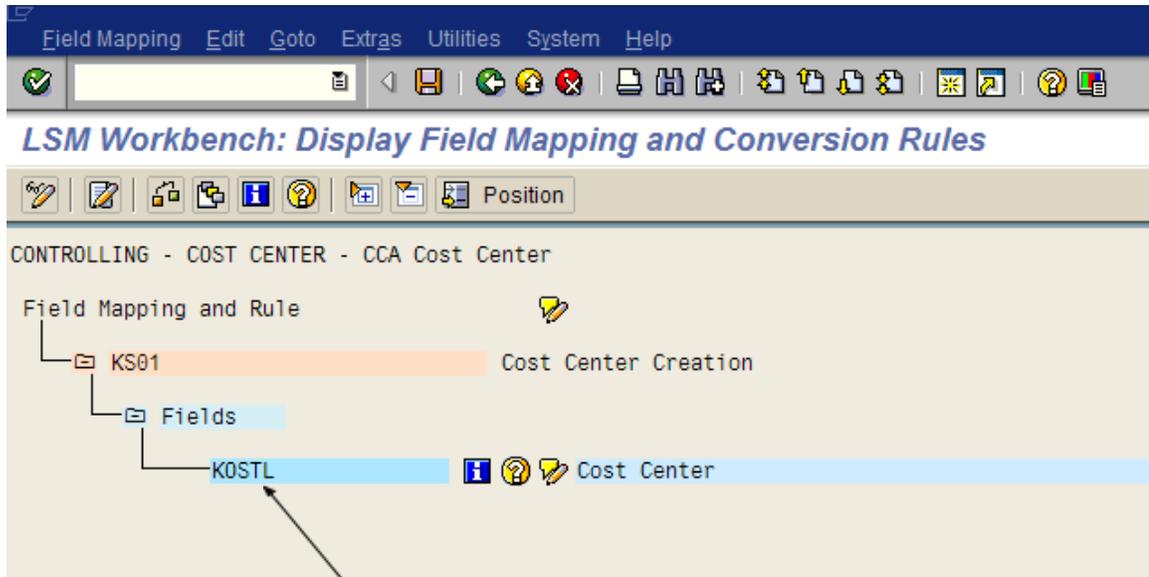


40) Click , then .

41) You're now on the initial screen. Automatically step 5 is selected or you may manually make the selection. Click “**Execute**”.



42) On the screen below all fields that you created will be listed. In our example we only selected one field (**KOSTL**) as a parameter in the first step and all other fields were kept as defaults.

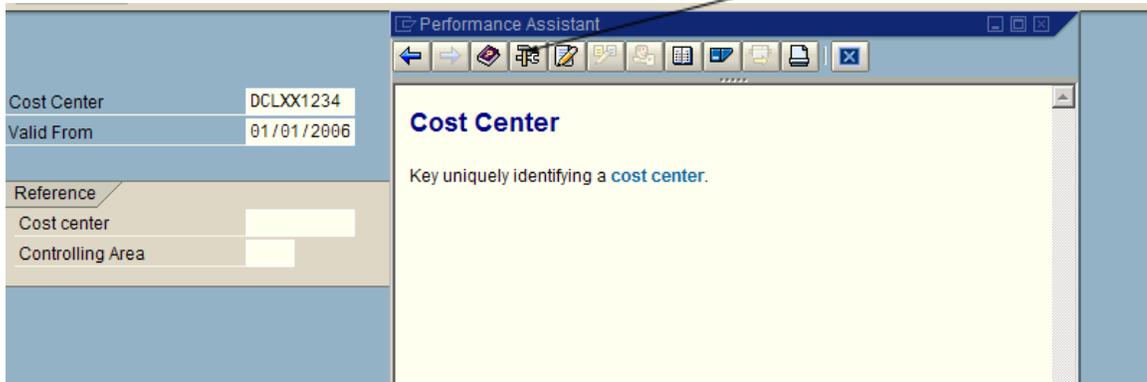


43) Make a list of all the fields or copy to an Excel file. You will use later in the exercise. The format of your Excel file should appear as below.

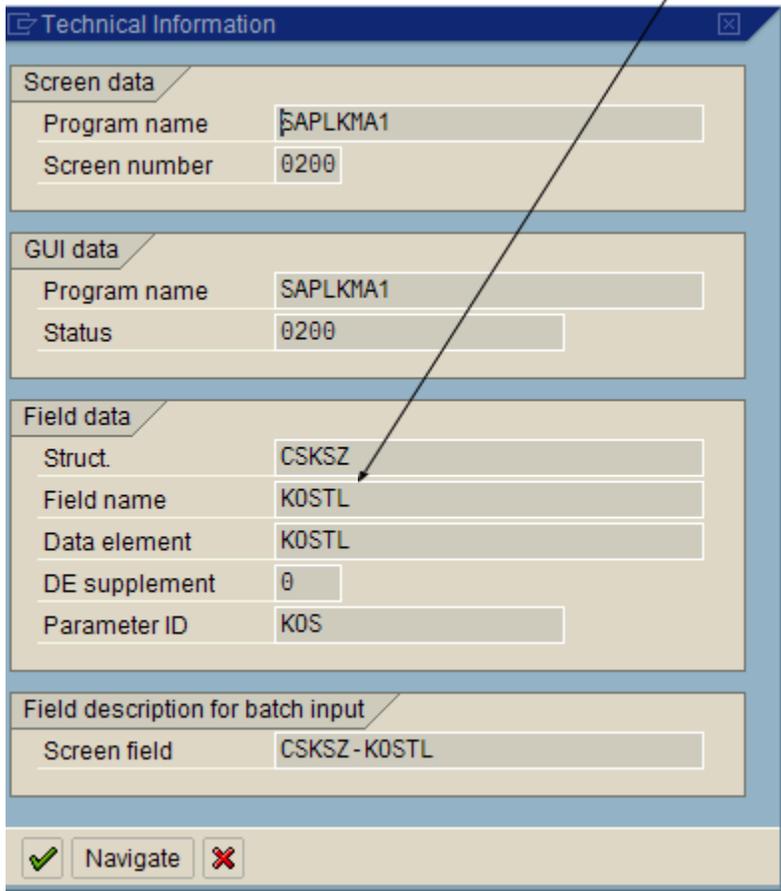
A	B	C	D
Field Name	Character	Length	
KOSTL			

The Character and Length fields will be obtained from Technical help. To do this:

44) Open a new SAP Session, enter transaction code KS01. Click in the Cost Center field then click “F1 help”. The screen below appears. Click on “Technical Information.”



45) From the screen below double-click on the **field name**.



46) Locate each of your field names and get the “Data Type” and “Length”. In our example “Data Type = Char however in LSMW selection could be different. For instance CHAR = “C”, etc.

Dictionary: Display Structure

Structure: CSKSZ Active
 Short Description: Cost center: CSKS + CSKSD + CSKT

Attributes Components Entry help/check Currency/quantity fields

Built-in type 4 / 122

Component	RT...	Component type	Data Type	Length	Deci...	Short Description
<u>KOSTL</u>	<input type="checkbox"/>	KOSTL	CHAR	10	0	Cost Center
<u>DATBI</u>	<input type="checkbox"/>	DATBI	DATS	8	0	Valid To Date
<u>DATAB</u>	<input type="checkbox"/>	DATAB	DATS	8	0	Valid-From Date
<u>BKZKP</u>	<input type="checkbox"/>	BKZKP	CHAR	1	0	Lock Indicator for Actual Primary Postings
<u>PKZKP</u>	<input type="checkbox"/>	PKZKP	CHAR	1	0	Lock Indicator for Plan Primary Costs
<u>BUKRS</u>	<input type="checkbox"/>	BUKRS	CHAR	4	0	Company Code
<u>GSBER</u>	<input type="checkbox"/>	GSBER	CHAR	4	0	Business Area
<u>KOSAR</u>	<input type="checkbox"/>	KOSAR	CHAR	1	0	Cost Center Category
<u>VERAK</u>	<input type="checkbox"/>	VERAK	CHAR	20	0	Person Responsible

47) Input your data to your Excel file as below. Save the file as a “.txt” format. This is always required when importing data to LSMW.

A	B	C	D
Field Name	Character	Length	
KOSTL	C	10	

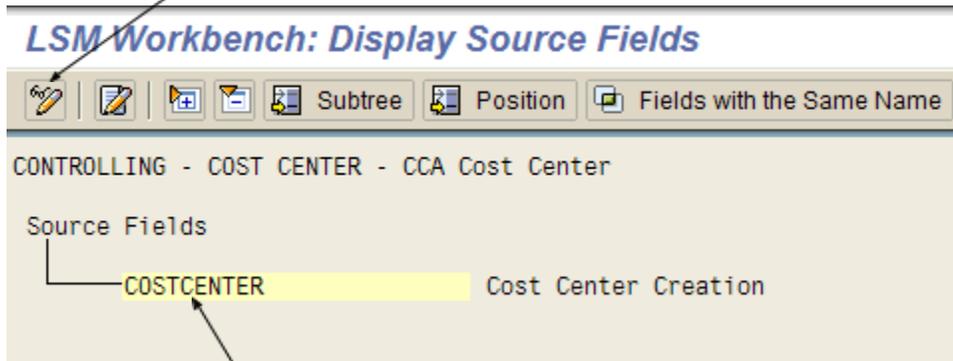
48) After the excel sheet is complete we can now go to the third step. Click step 3 then execute.

LSM Workbench: CONTROLLING, COST CENTER, CCA: Cost Center

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

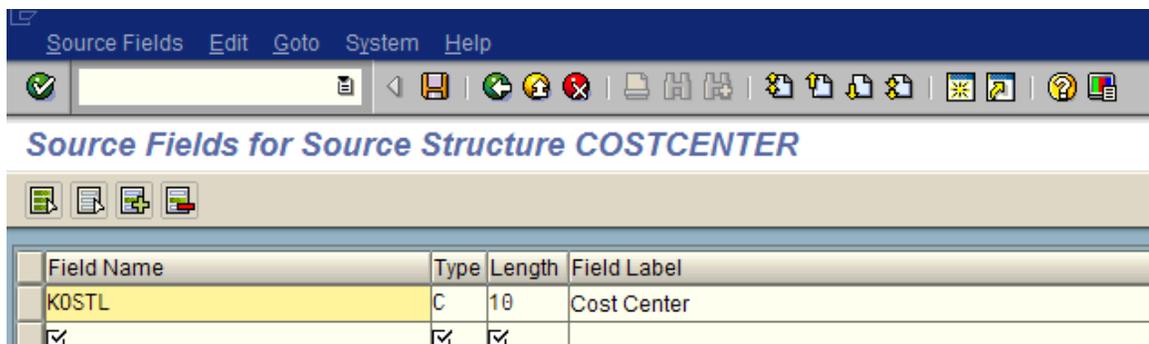
Process Step	Last Action (Date, Time, User)
<input type="radio"/> 1 Maintain Object Attributes	02/10/2006, 10:30:12 h, AEDA
<input type="radio"/> 2 Maintain Source Structures	02/10/2006, 10:42:51 h, AEDA
<input checked="" type="radio"/> 3 Maintain Source Fields	02/10/2006, 11:07:50 h, AEDA
<input type="radio"/> 4 Maintain Structure Relations	02/10/2006, 11:15:22 h, AEDA
<input type="radio"/> 5 Maintain Field Mapping and Conversion Rules	
<input type="radio"/> 6 Maintain Fixed Values, Translations, User-Defined Routines	

49) Click change on the screen below

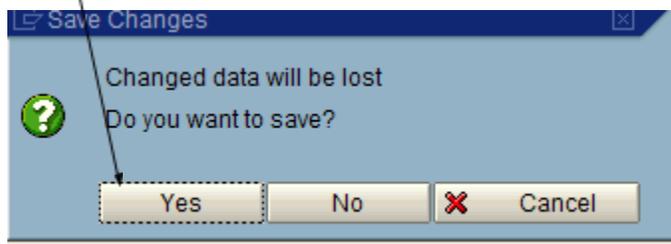


50) Select "Source Structure" click for "Table Maintenance.

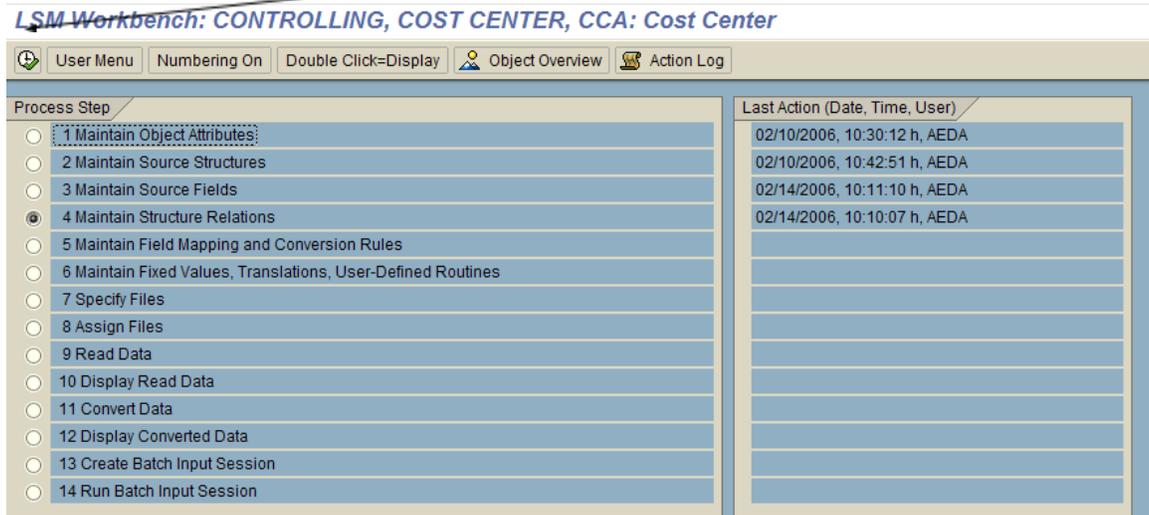
51) You will see the screen below. You will need to input the "field name", "type", "length". The field label will default. This information is taken from the Excel Sheet that you created earlier.



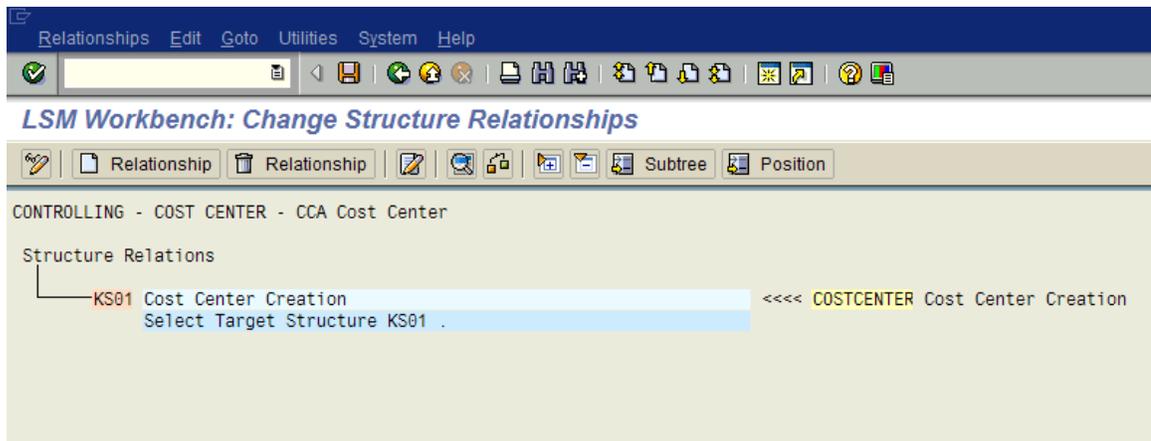
52) Press <enter> then , then twice. You will receive the screen below, click "yes".



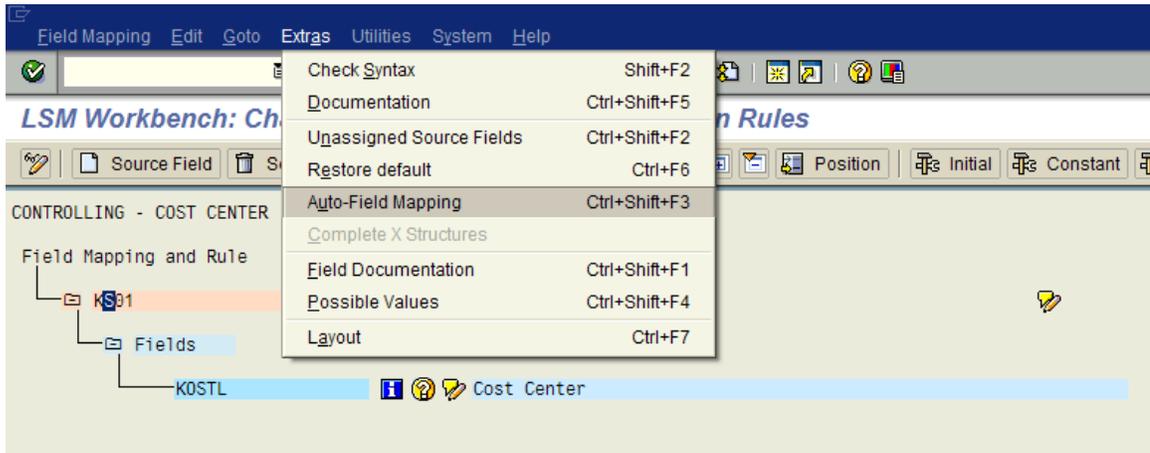
53) We are now ready to begin step 4. Click “Execute”.



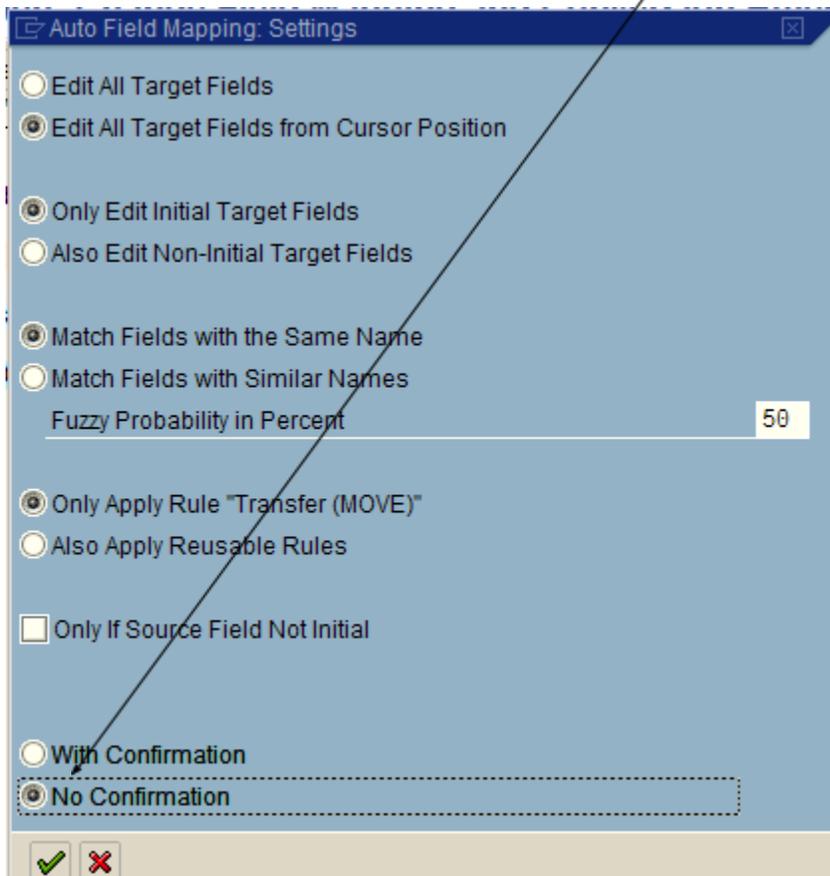
54) You will see the screen below. Click



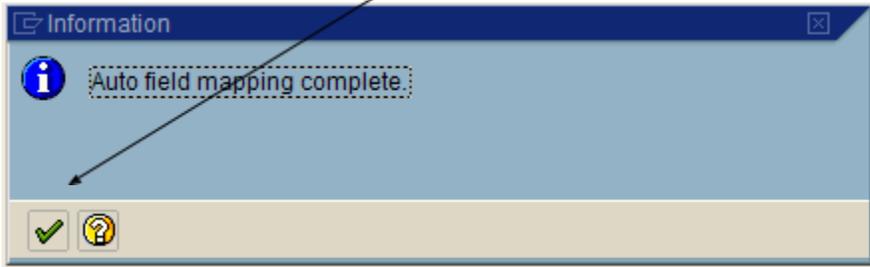
57) Click “Change”, then click once on the Structure Name, then Click “Extras”>Auto-Field Mapping>



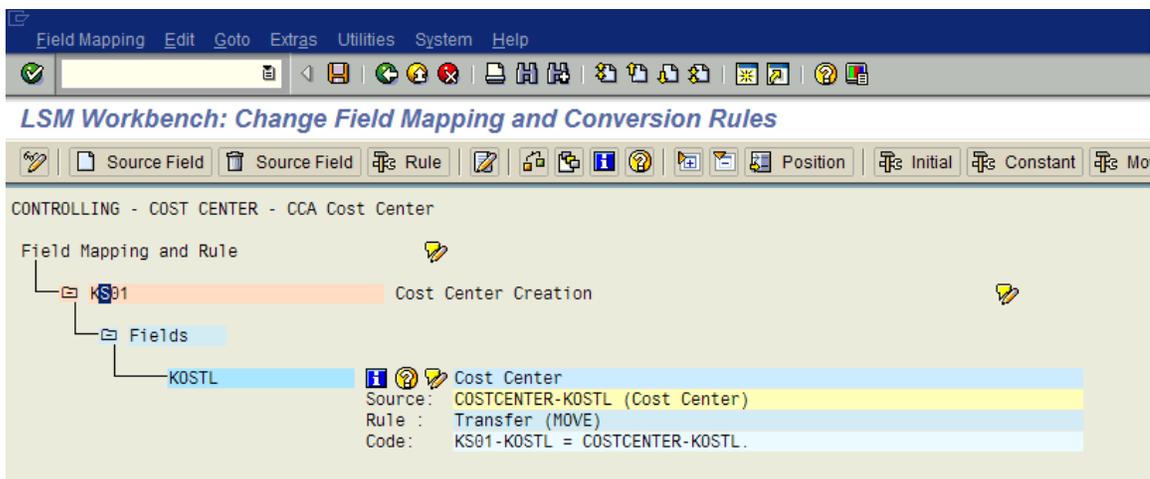
58) You will see the screen below. Click “No Confirmation”, then “return”.



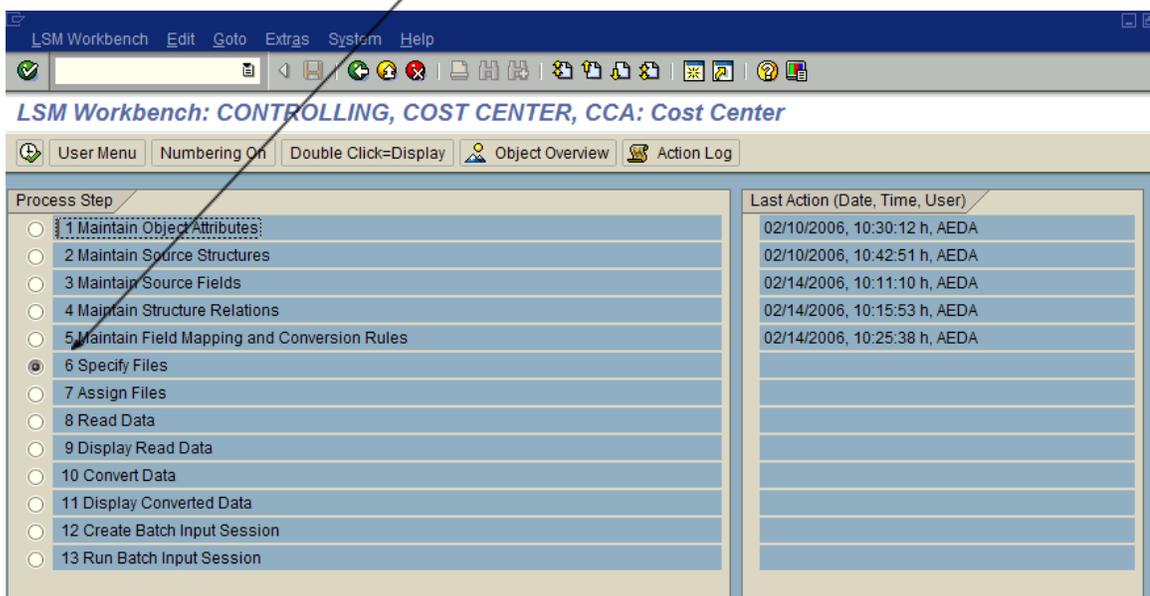
59) On the screen below, Click <Enter>.



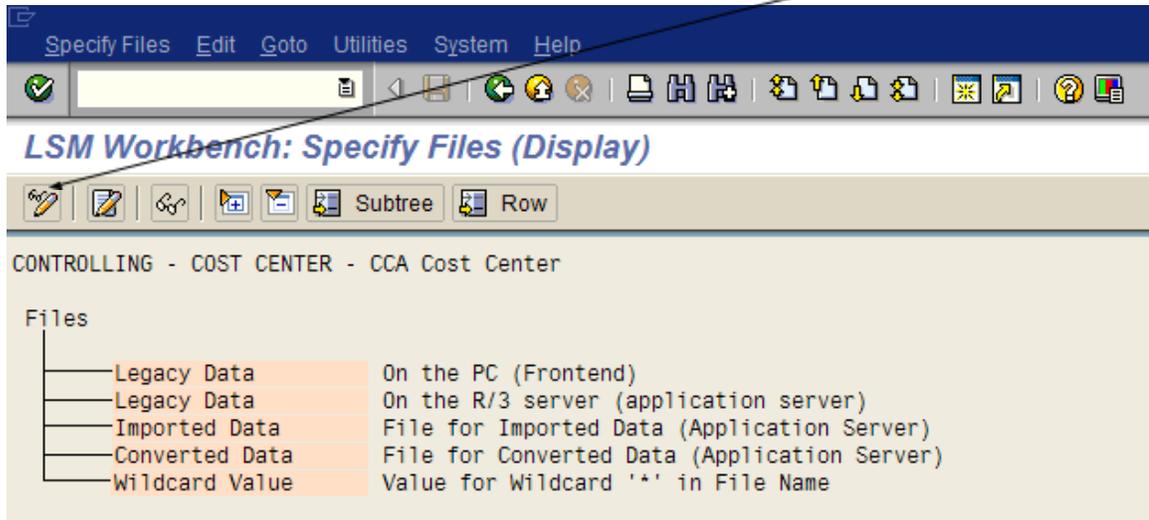
60) On the next screen click <save>, then <return>.



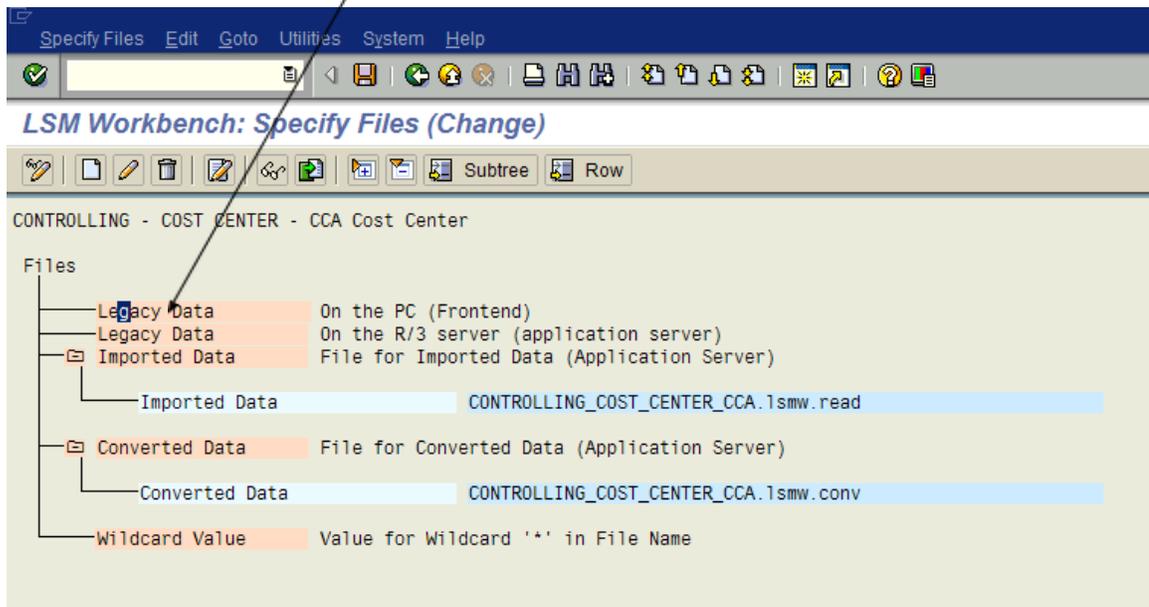
61) You're now ready for Step 6. Click <Execute>



62) The screen below appears. It offers several options of importing data. In our example we want to import data saved on our PC. Therefore we need to select the first option "Legacy Data On the PC (Frontend)" then click **<change>**



63) Double click on the first option.



64) On the screen below you will select the file to import from you Desktop
(Please remember the location of the file).

Next put in the file name (in the “Name” field)

Select “Tabulator”.

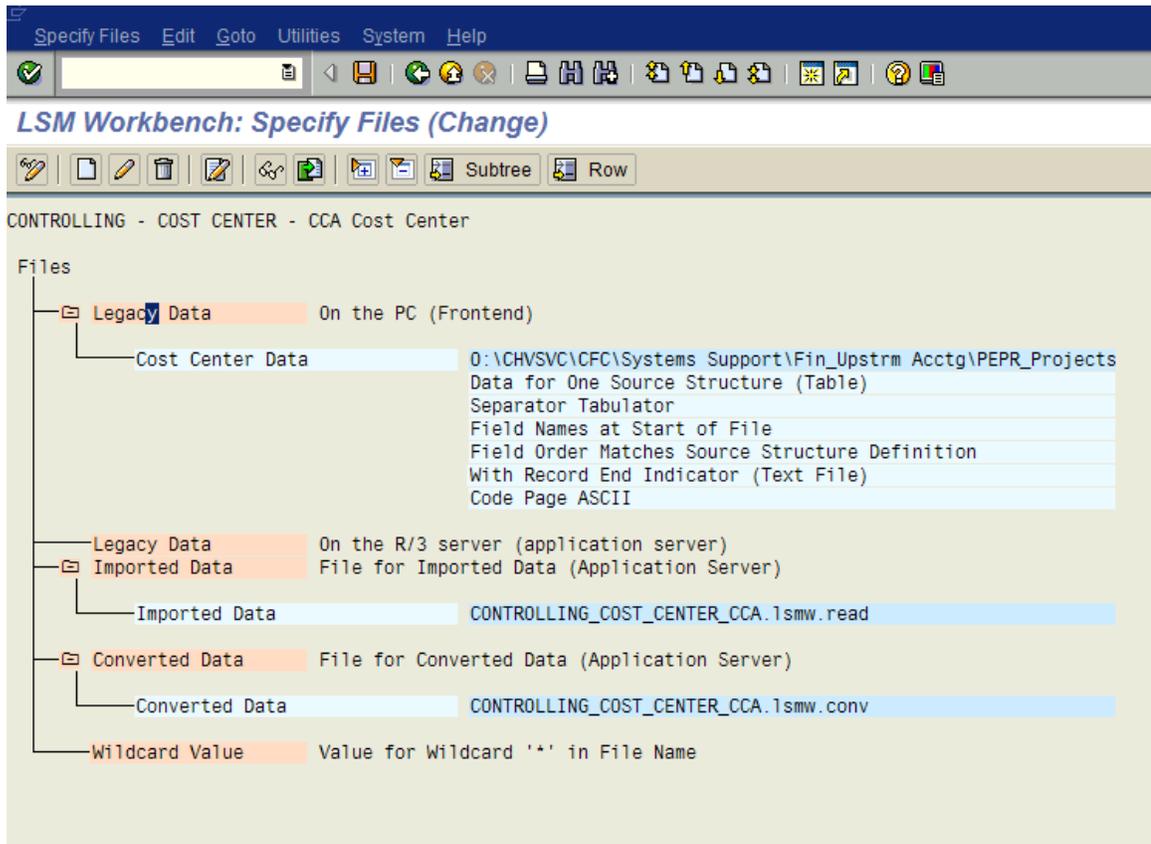
Under File Structure ensure that both items are checked. Click <enter>.

The screenshot shows a dialog box titled "File on Front End: Maintain Properties". It contains several sections with various options and checkboxes. Annotations with arrows point to specific fields:

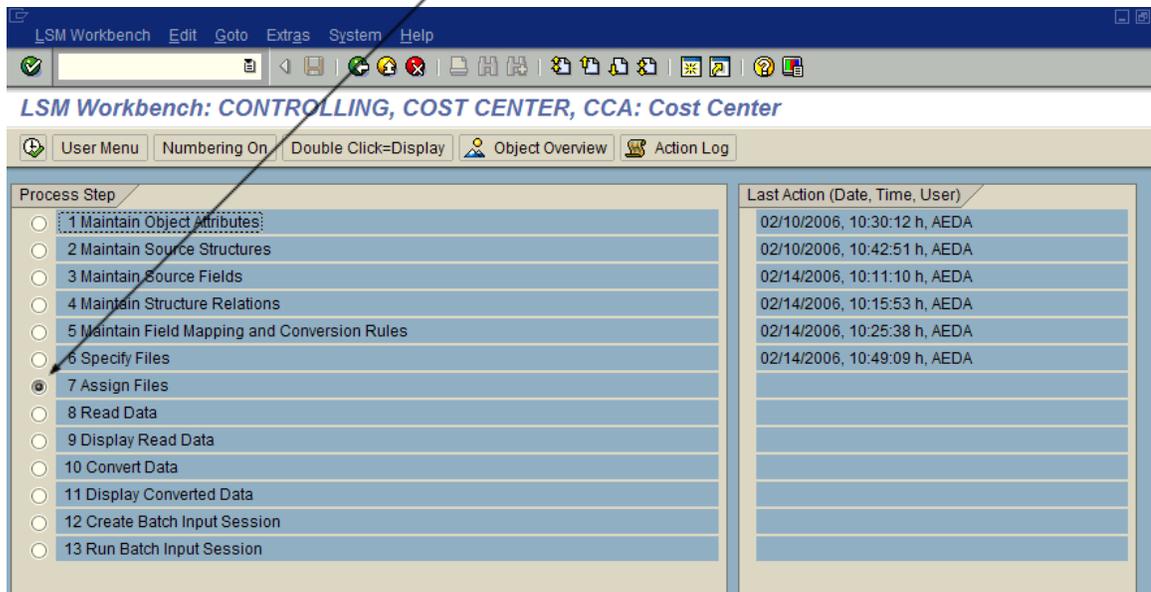
- File:** O:\CHVSVC\CFC\System Support\Fin_Upstrm Acctg\PEPR_Projects\Nuts\...
- Name:** Cost Center Data
- File Contents:** Data for One Source Structure (Table), Data for Multiple Source Structures (Seq. File)
- Separators:** No Separator, Tabulator, Comma, Blanks, Semi-Colon, Other
- File Structure:** 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

At the bottom left, there are two icons: a green checkmark and a red X.

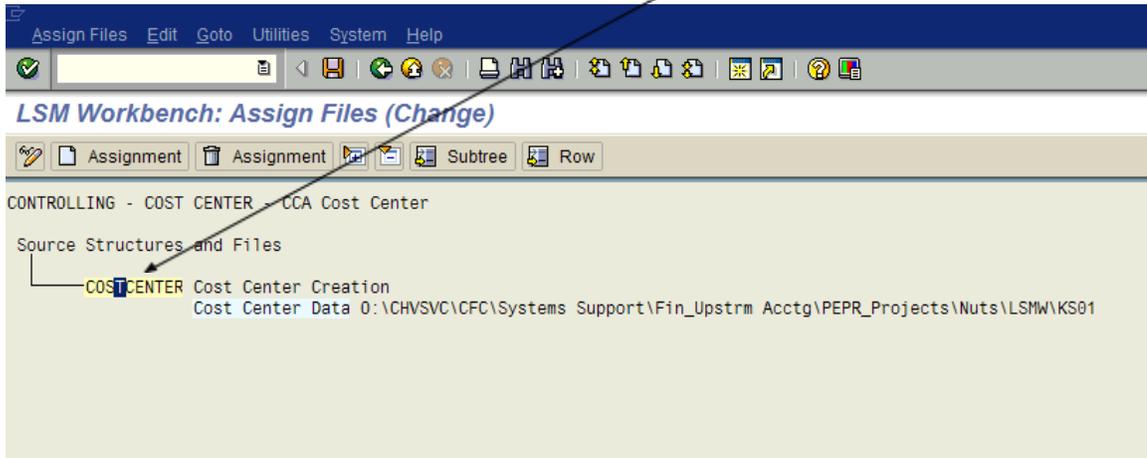
65) Click <save>, Click <return>.



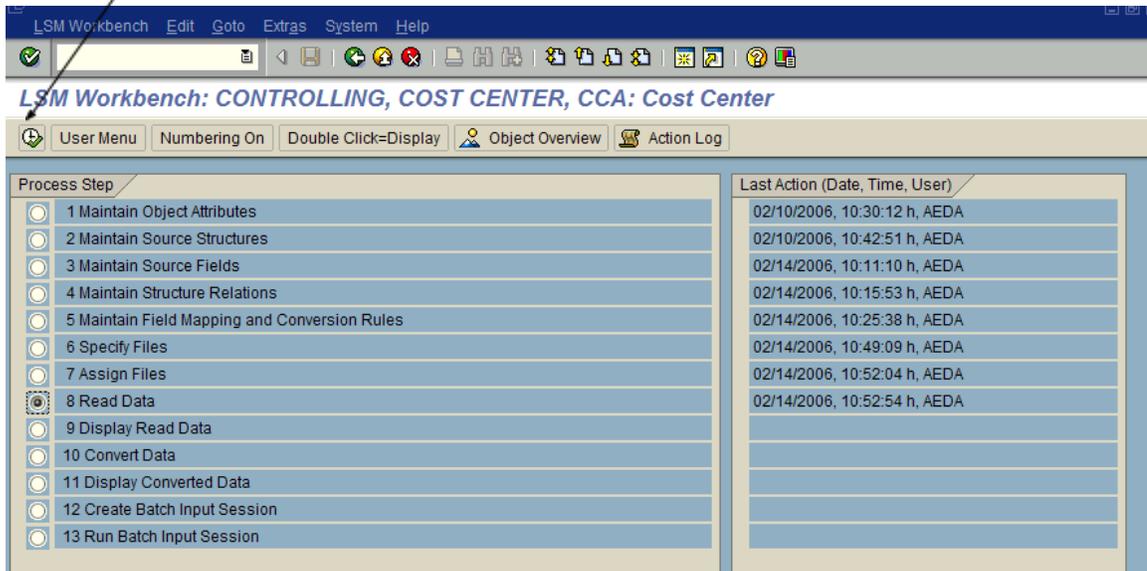
66) You are now ready for Step 7. Click <execute>.



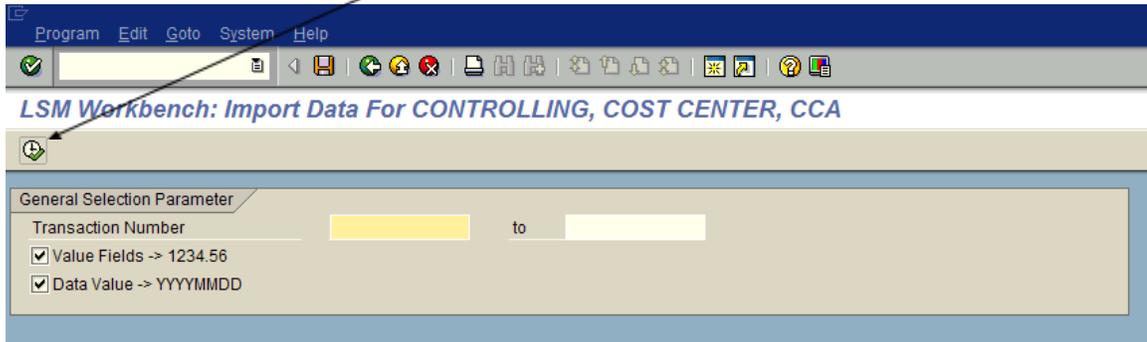
67) On the screen below click <change>, Select the **source structure**, then <save>, then <return>.



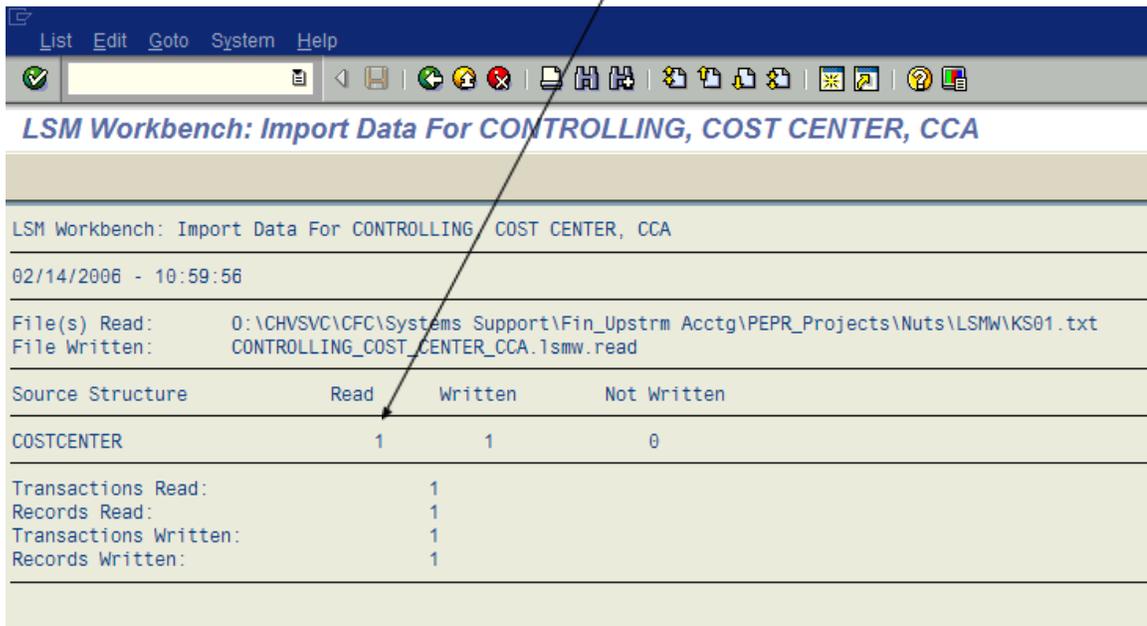
68) You can now test to see if LSMW will read your data on the “text” file.
Execute Step 8.



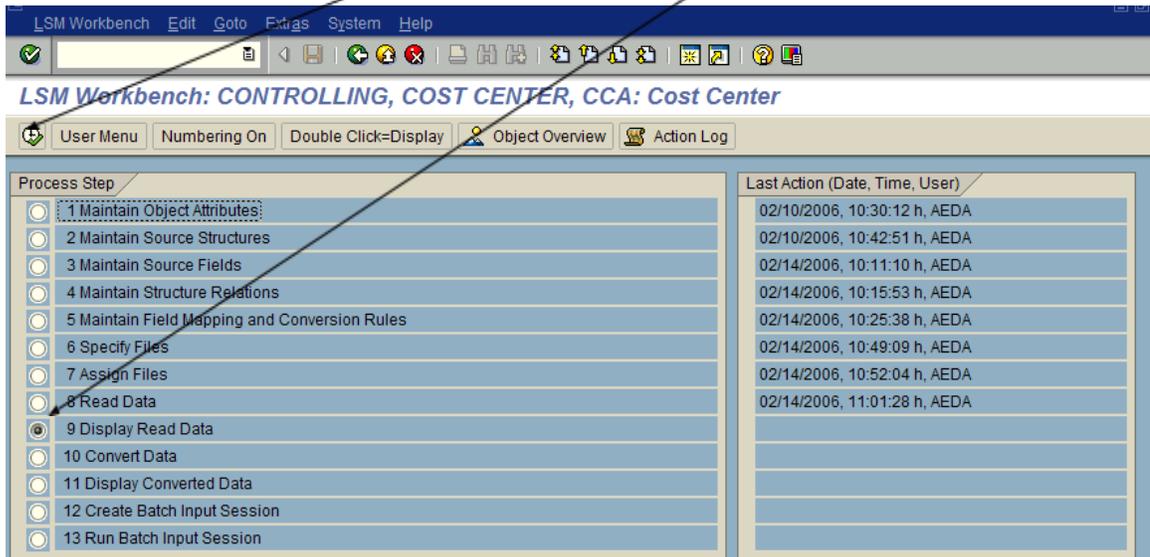
69) From the screen below, click **<execute>**. LSMW will read the data from your text file.



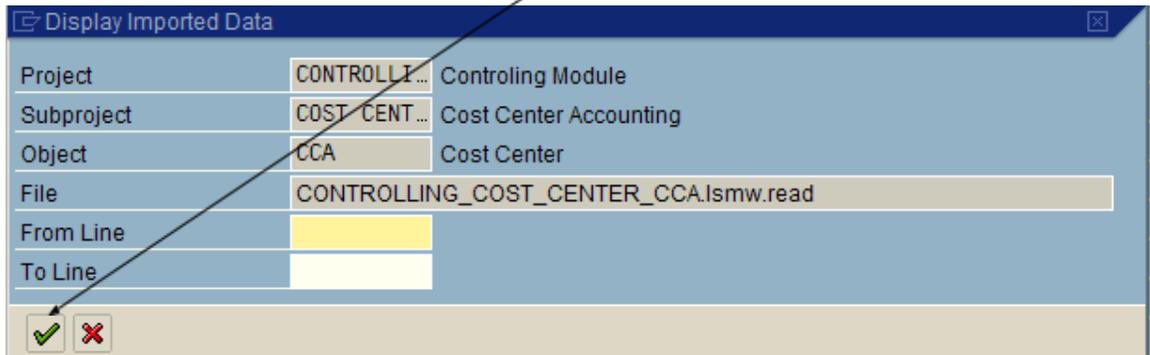
70) The screen below shows that we have **one record** being read from our “.txt” file. Click <return> twice to return to the Main Screen.



71) You are now ready to **execute** Step 9. This step displays the data.

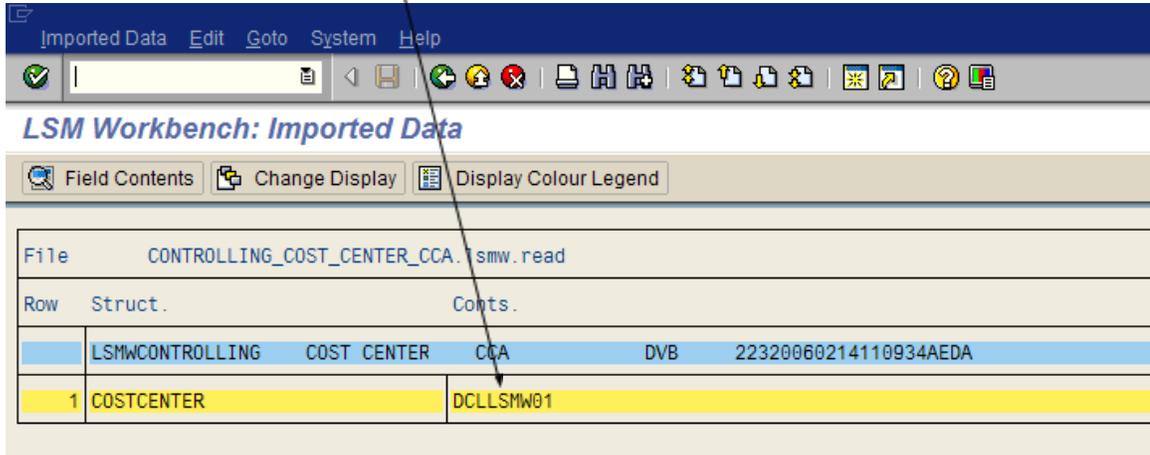


72) You will see the screen below. Click **<enter>**

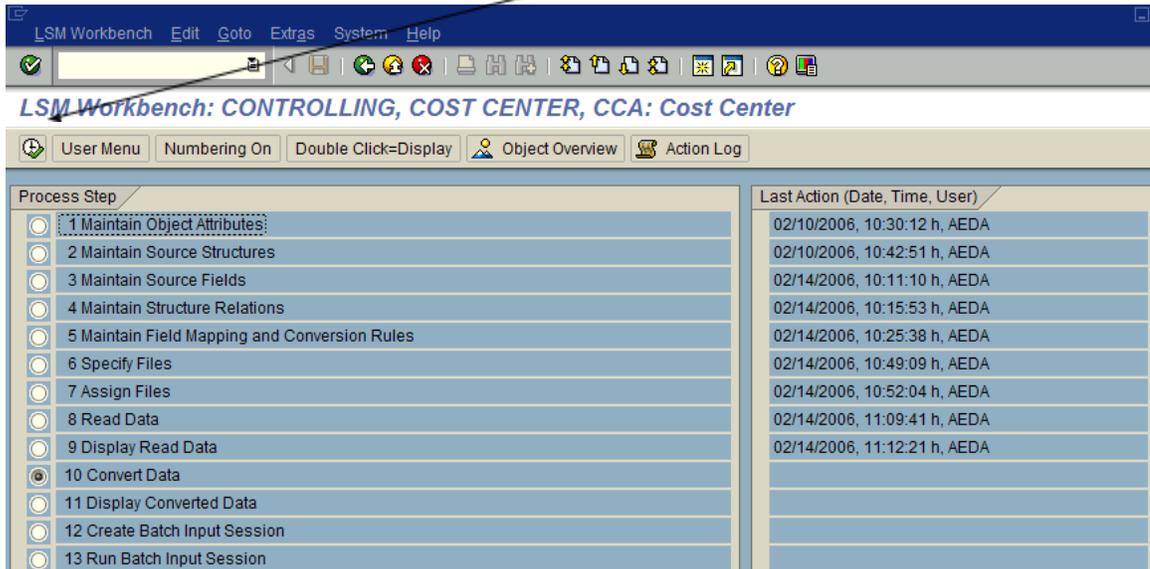


(Please Note: If you wish to just use particular lines in your LSMW can use the "From Line" and "To Line" to tell LSMW which lines from your file that you wish to process. LSMW will only select those lines.)

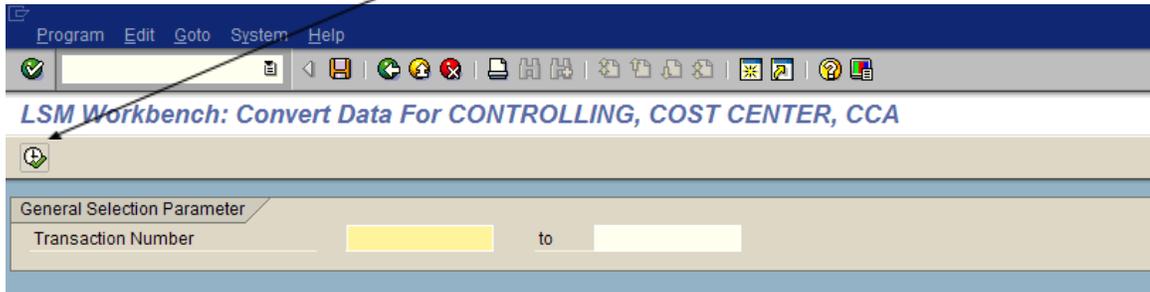
73) The screen below shows that we will load one cost center. In this example the cost center is **“DCLLSMW01”**. The purpose here is to verify that all the data that you wish to load is being captured. Click <return>.



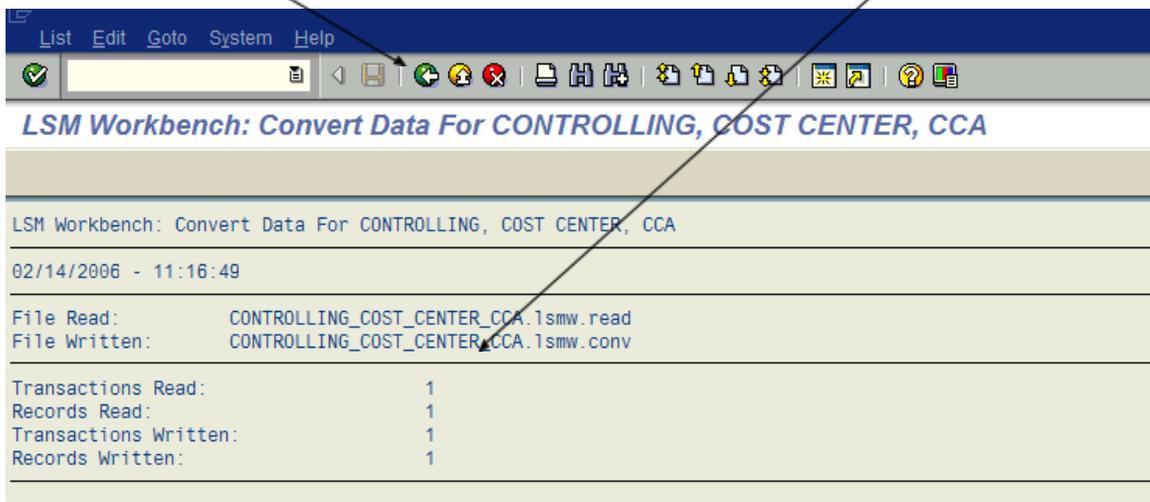
74) Next you're ready to convert the data. That is the data is being converted from your .txt file to the LSMW language. **Execute** Step 10.



75) From the screen below. Click **<execute>**. NOTE TO FILE EXPLAIN THE NUMBER OF RECORDS CONVERTED.



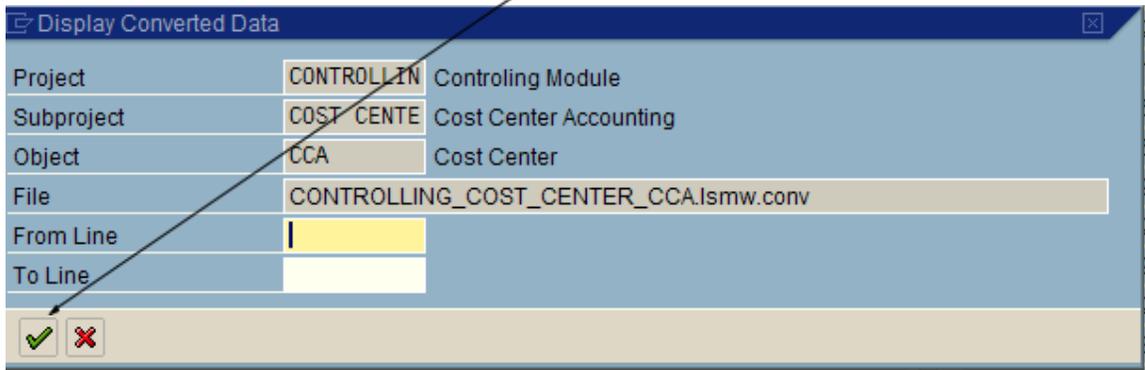
76) The screen below shows that in our example one record is being converted. Click **<return>** twice to return to the main screen.



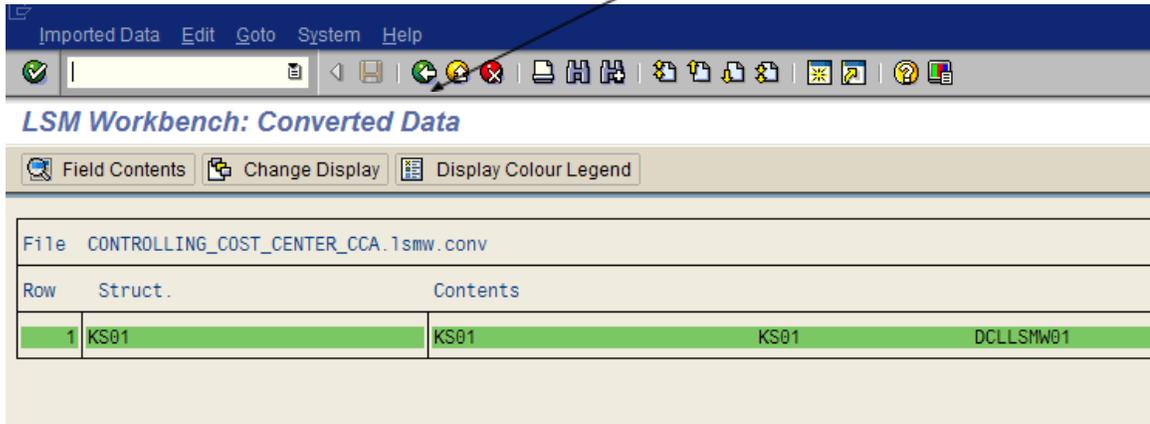
77) Now you're ready to display the data that you have converted. Click <execute>.



78) The screen below appears. Click <enter>.



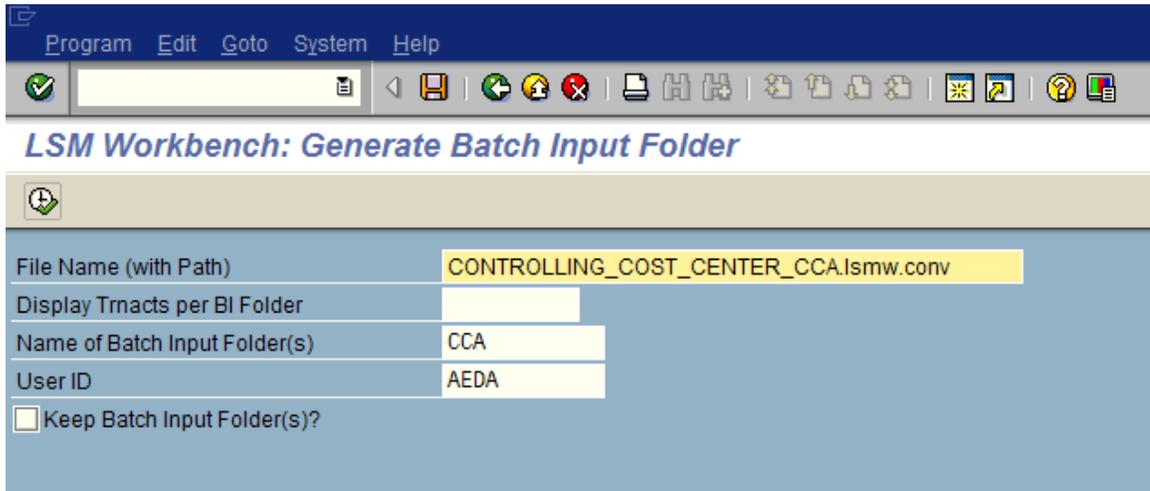
79) You will now see the data converted. In this example cost center “DCLLSMW01” is being displayed. Click <return> to the main screen.



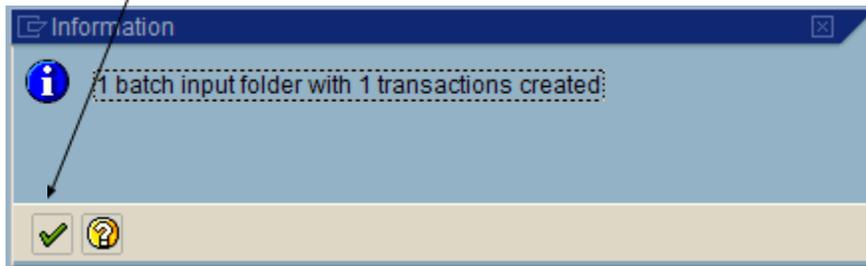
80) Next you want to “Create Batch Input Session”. Execute Step 12.



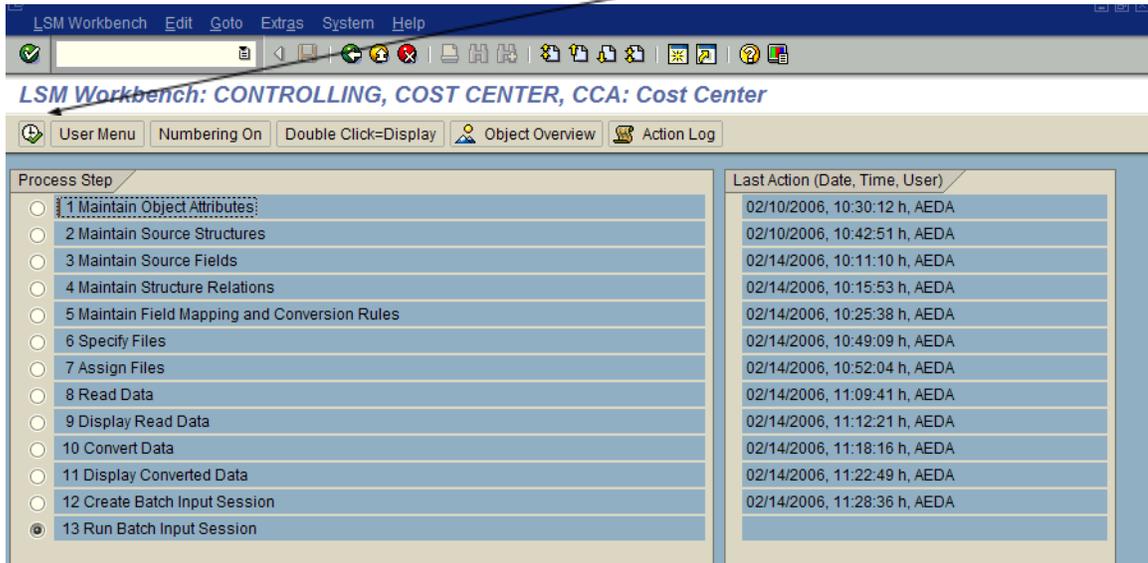
81) The screen below appears. Click <execute>. This will create an SAP BDC session (SM35).



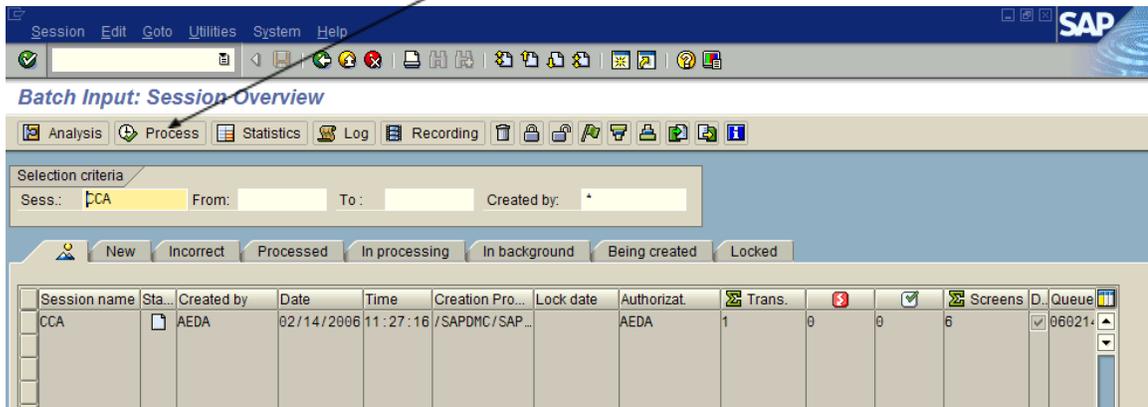
82) The message below appears that you have created a Batch Input session. Click <enter>.



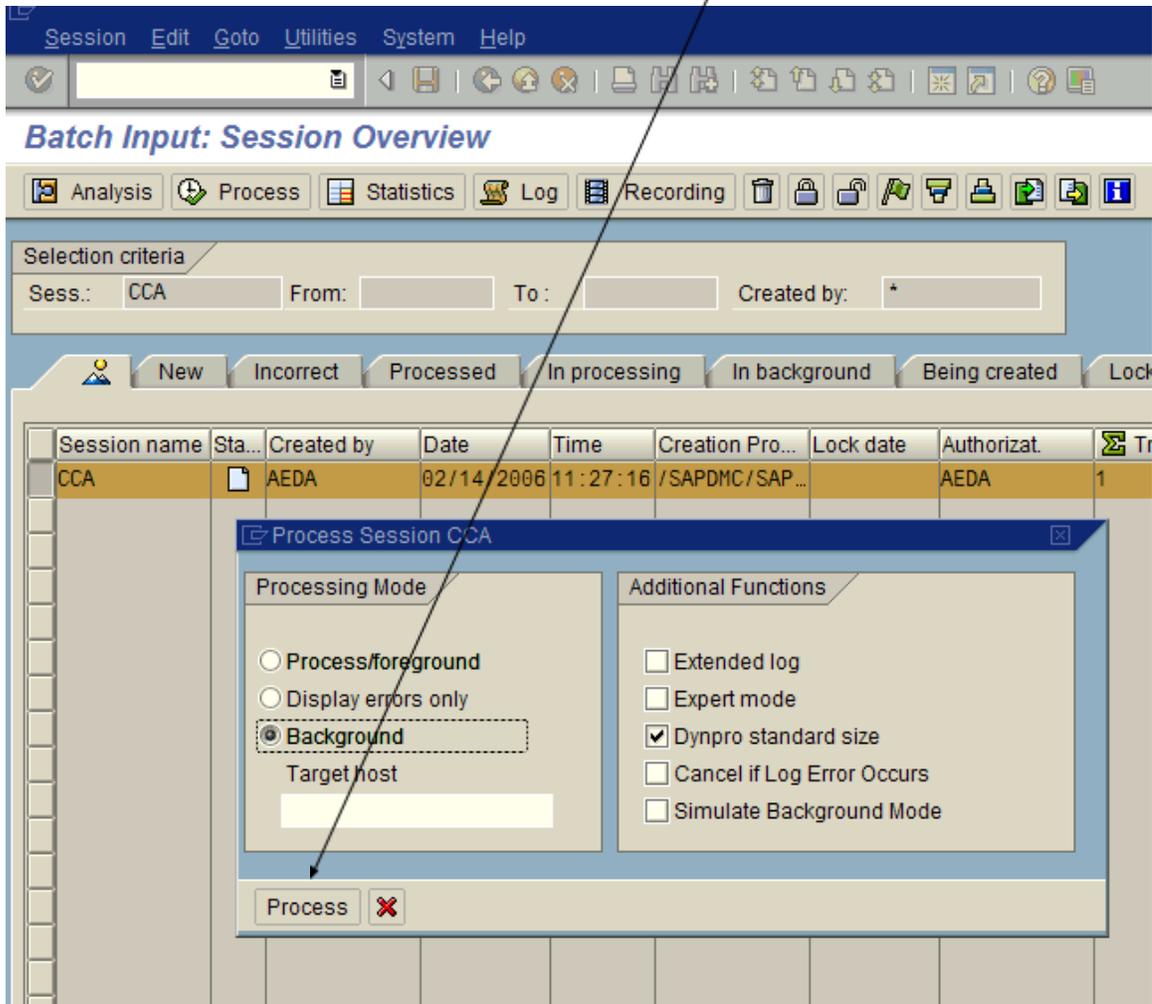
83) You are now ready to process the BDC session. You do this by **executing** step 13 “Run Batch Input Session”.



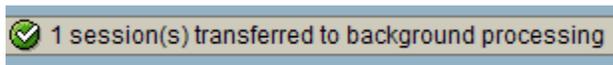
84) You are automatically taken to transaction SM35. You now need to process the BDC session by clicking on <Process>.



85) Select the session, Click Process, and a dialog box appears. You need to choose your preferred processing mode. In our example we're choosing to process the session in "Background". Click **<Process>**.



86) You will see the message below.



EXPORT/IMPORT LSMW TO OTHER CLIENTS

The LSMW can be exported and imported to other SAP Clients for execution. No transports are necessary as in the case of CATT/eCATT. Follow the instruction on the following pages to do this.

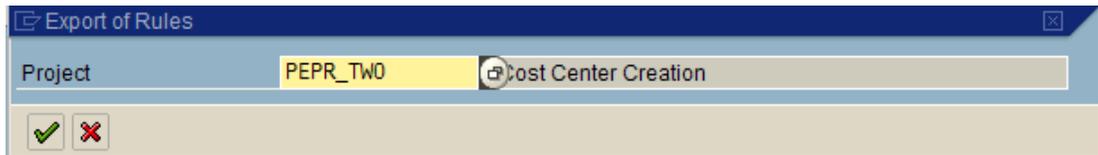
- 1) Go to transaction LSMW
- 2) Choose the Project you wish to Export.

Project	PEPR_TWO	Cost Center Creation
Subproject	COST_CENTER	Creat New Cost Center through LSMW.
Object	CCA	Cost Center Creation

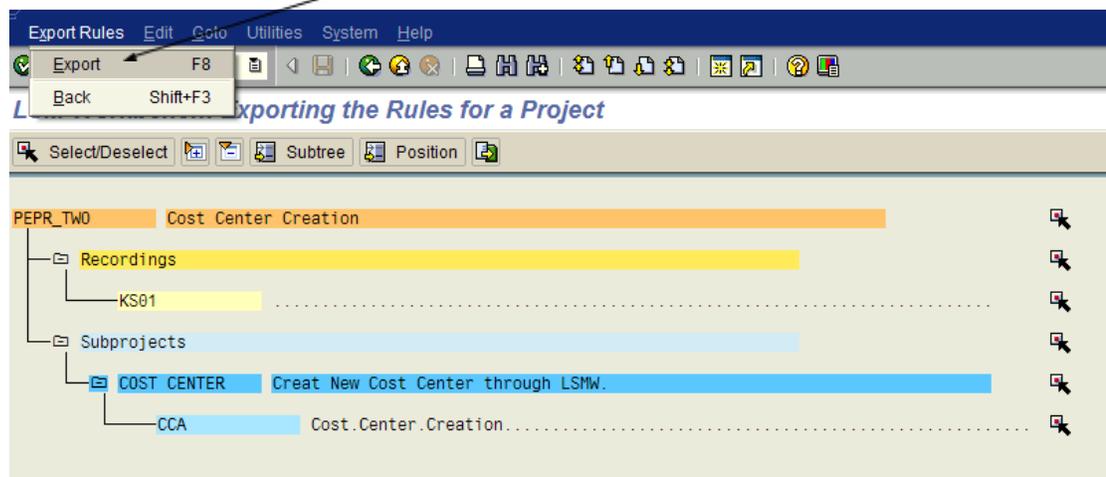
- 3) Click >Extras>Export Project



- 4) When the screen below appears, click



- 5) From the next screen **click >Export Rules>Export**



6) Select a location on your local drive to store the file and save it there.



7) You will receive a screen similar to below.



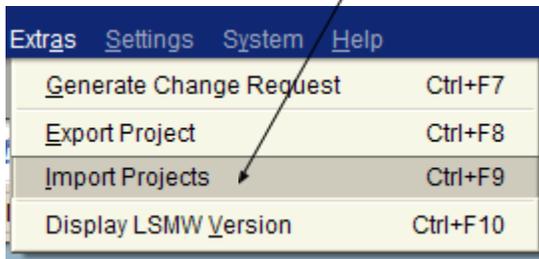
8) Click .

IMPORTING LSMW

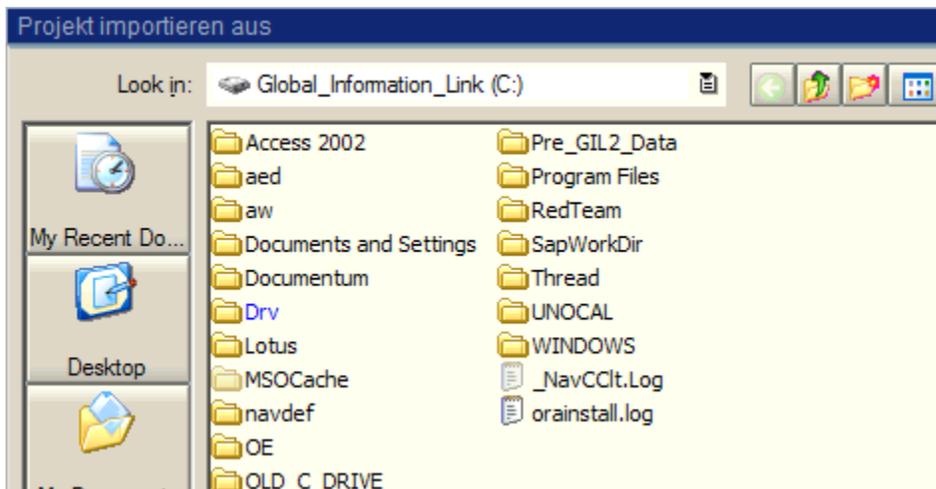
9) To Import LSMW log on to the client in which you wish to import to.

10) Go to Transaction code LSMW.

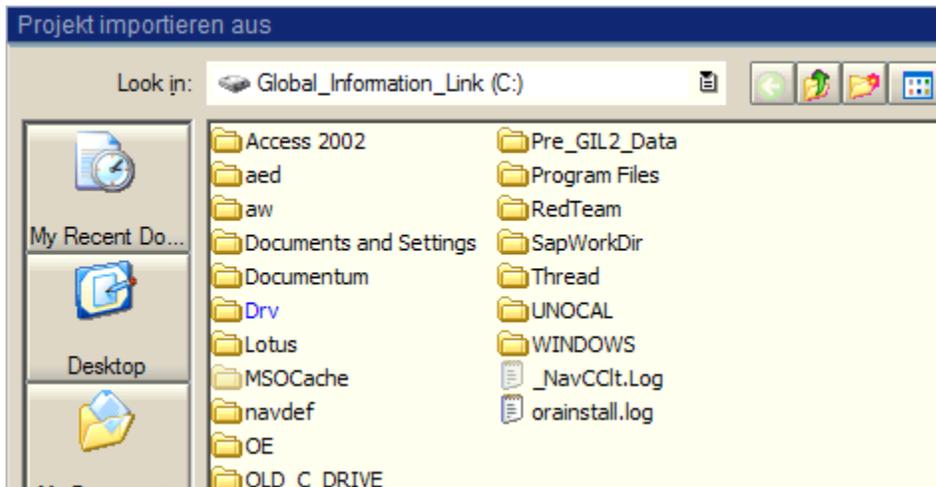
11) **Click >Extras>Import Projects**



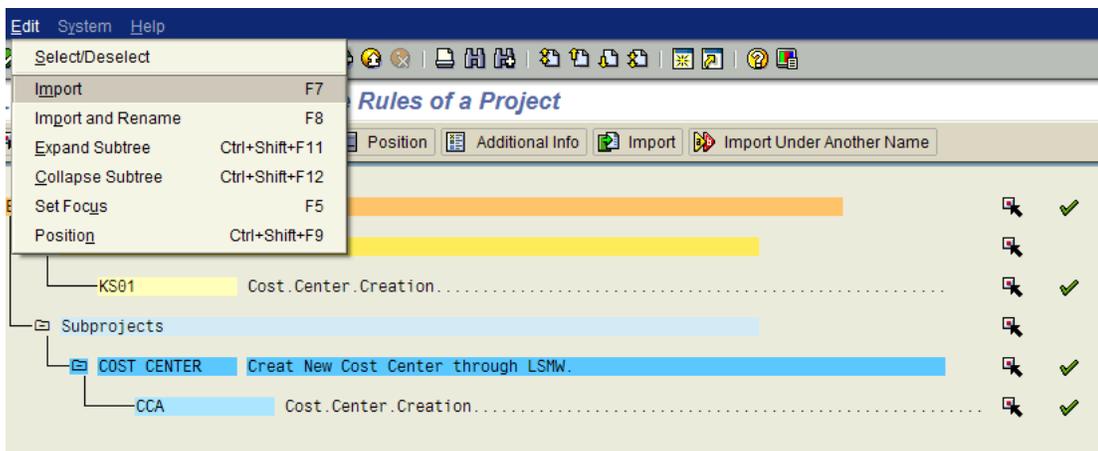
12) Choose the file from the location you exported it to.



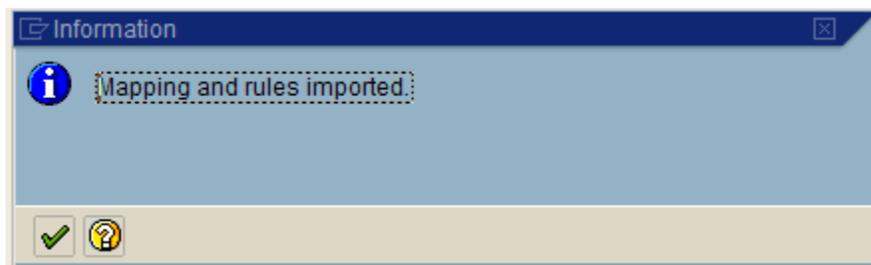
13) You will receive the screen below. Click the green check and continue.



14) From the following screen **Click >Edit>Import**



15) You will see the screen below. Click the green check.



16) You are now ready to execute the LSMW in the client.