

VOLUME

2

SAP Technical Delivery

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MySAP.com
Business Information Warehouse
Cookbook

Creating SAP (R/3) Source System And Establishing Connection To SAP (BW) System

Settings In SAP (R/3) Source System

STEP 1. Install Plug-In

STEP 2. Defining Source System

TRANSACTION CODE: SPRO -> SAP Ref. Img ->

If R/3 system is 4.0B -> Cross Application components -> Distribution ALE -> Basic Settings -> set up logical system -> Maintain logical systems -> New entries -> maintain the entries as : ->

Log system	Description
B3TCLNT800	Y1D Client 200
LOGSYS100	Logical system 100
LOGSYS150	Logical system 150
LOGSYS200	Logical system 200
LOGSYS300	Logical System 300
Y1DCLNT200	Client 200 on SAP system Y1D

If R/3 system is 4.6B -> Basis Components -> Distribution ALE -> Sending & Receiving Systems -> Logical Systems -> Define logical system -> New entries ->

Log.System	Description
ID3CLNT400	ID3 client 400
ID3CLNT401	ID3 client 400
ID3CLNT402	ID3 client 400
ID3CLNT525	ID3 client 400
ID3CLNT800	ID3 client 800
ID3CLNT820	.

Save -> back.

STEP 3. Assigning client to logical system







If R/3 system is 4.0B -> Cross Application components -> Distribution ALE -> Basic Settings -> set up logical system -> Assign logical systems to client -> New entries -> maintain the entries as : ->

If R/3 system is 4.6B -> Basis Components -> Distribution ALE -> Sending & Receiving Systems -> Logical Systems -> Assign client to logical system -> New entries ->

Client	Name	City	Crcy	Changed on
000	SAP AG	Walldorf	DEM	26.08.1999
800	IDES-ALE: Central FI Syst	Frankfurt - Deutschland	DEM	11.04.2001

After assigning client to logical system -> Menu bar -> goto -> Details or press



Client: 800 IDES-ALE: Central FI Syst

City: Frankfurt - Deutschland Last changed by: JUDELOBO

Logical system: YCPL01800 Date: 11.04.2001

Std currency: DEM

Client role: Customizing

Changes and transports for client-dependent objects

Changes w/o automatic recording
 Automatic recording of changes
 No changes allowed
 No transports allowed

Changes and transports for client-dependent objects

Changes w/o automatic recording
 Automatic recording of changes
 No changes allowed
 No transports allowed

Client-independent object changes

Changes to Repository and cross-client Customizing allowed

Protection: Client copier and comparison tool

Protection level 0: No restriction

Restrictions

Allows CATT processes to be started
 Currently locked due to client copy
 Protection against SAP upgrade

Prerequisites on R/3 Source System: the following user should be created on source system

Transaction Code	SU01
USER	BWALEREMOTE

Settings In SAP (BW) System

STEP 1. Define Source System

(In this you have to define the logical system in BW system with the same nomenclature as of R/3 source system naming)

(BW SYSTEM) SPRO -> BW Customizing Implementation Guide -> Business Information Warehouse -> Links to Other Systems -> General Connection Settings -> Define Logical System -> NEW ENTRIES ->

Log.System	Name
Y1DCLNT200	Y1D Client 200
YCPL01800	Y2D Client 800

SAVE -> BACK.

(BW SYSTEM) SPRO -> BW Customizing Implementation Guide -> Business Information Warehouse -> Links to Other Systems -> General Connection Settings -> Assign Client to Logical System -> NEW ENTRIES ->

STEP 2. Assign Client To The Logical System

SAME Settings can be carried out as per step 2 of the A. R/3 settings

STEP 3. Create an RFC Destination From SAP (BW) System To SAP (R/3) Source System

(BW SYSTEM) TRANSACTION CODE SM59 -> RFC Destinations -> R/3 Connections -> place cursor on R/3 connections -> edit Create ->

the following screen appears

The screenshot shows the SAP SM59 transaction screen for creating an RFC destination. The 'RFC destination' field is set to 'YCPL01800_DIALOG' and the 'ARFC' checkbox is checked. The 'Technical settings' section includes: 'Connection type' set to '3' (R/3 connection), 'Load distrib.' set to 'No', 'Target host' set to 'ycpl01', and 'System number' set to '00'. The 'Save as' options are 'HostName' and 'IP address', with 'IP address' selected and 'ycpl01' entered. The 'Security Options' section shows 'Trusted system' set to 'No' and 'Activ.' set to 'Inactiv.'. The 'Description' field contains 'Y2D Client 800'.

Logon	
Language	EN
Client	800
User	<input type="text"/>
Password	***** is still blank
<input type="checkbox"/> Current user <input type="checkbox"/> Unencrypted password (2.0)	

USER: BWALEREMOTE
Prerequisite on R/3

Attributes		
Created by	JUDELOBO	11.04.2001
Last changed by	JUDELOBO	11.04.2001

If Password for BWALEREMOTE is changed in the destination system corresponding changes should be made at here

On above screen press TEST CONNECTION BUTTON from application tool bar -> in this process BW system establishes the connection between BW and R/3 source system and displays the result -> if it is successful than the system settings are ok.

STEP 4. Create a Link To The SAP (R/3) Source System

SAP Easy access SAP Business Information Warehouse initial screen -> SAP menu -> BW Administration -> Administrator Workbench -> double click ->

Modeling -> Source systems -> Source system -> Right click -> Create -> the following screen displayed

Select SAP R/3 AUTOMATIC CREATION -> ENTER ->

Fill the above screen with appropriate attributes and fill values and save.

The source system will be displayed on the screen. ie YCPL01800

Data Extraction From SAP (R/3) Source System To SAP (BW) System

STEP 1. Logon to the SAP (R/3) Source System either from the SAP (BW) System using the Administrator Workbench or from the SAP (R/3) Source System using Transaction SBIW.

SAP Easy access SAP Business Information Warehouse initial screen -> SAP menu -> BW Administration -> Administrator Workbench -> double click ->

Modeling -> Source systems -> Source system -> Right click -> Customization for extraction -> click -> On click -> log on screen of source system will be displayed -> logon with the user & password (user should be with customization authorizations) ->

Other method :

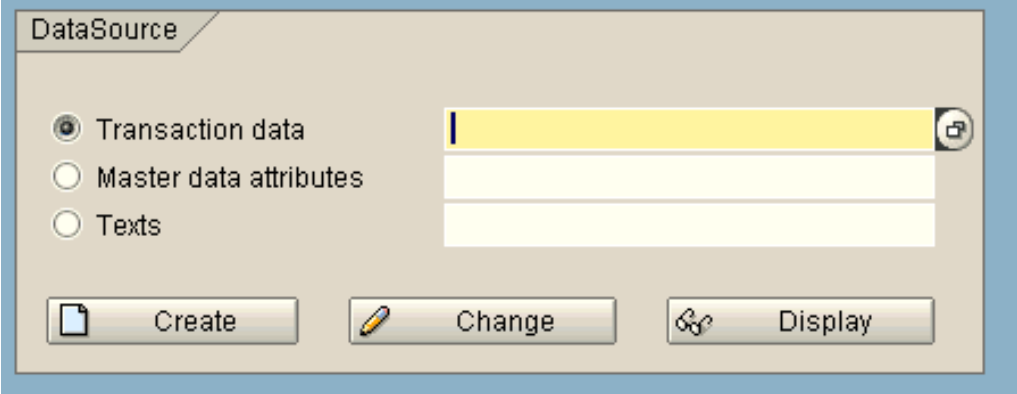
Transaction CODE : SBIW on source system -> enter ->

STEP 2. Maintain a Non-Standard DataSource (Generic DataSource – DataSource For Transaction Data) in the SAP (R/3) Source System.

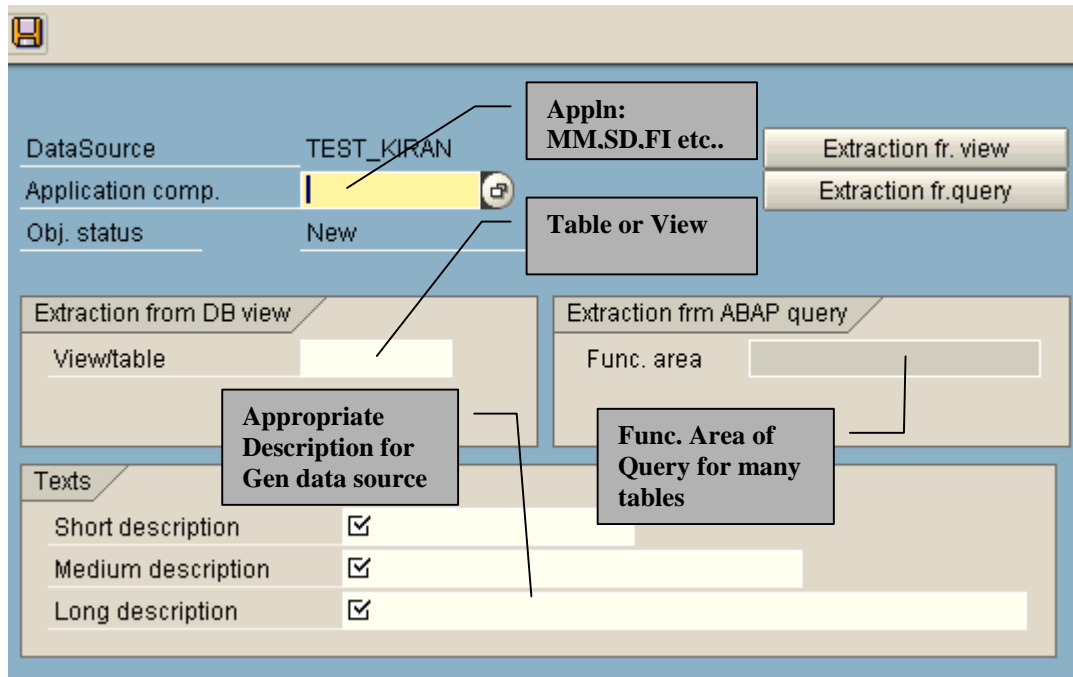
(In this process you can maintain standard or generic data sources on the source systems for the data extraction. When you install the plug-ins the same moment the DMA-Delta Management Area and all standard Data sources get installed on the source system. For any new requirement you can define new data source as generic data sources)

Business Information Warehouse -> Generic Data sources -> Maintain Generic datasources -> the following screen displayed ->

Fill the name for transaction data or as per requirement ->



Press create -> the screen appears ->

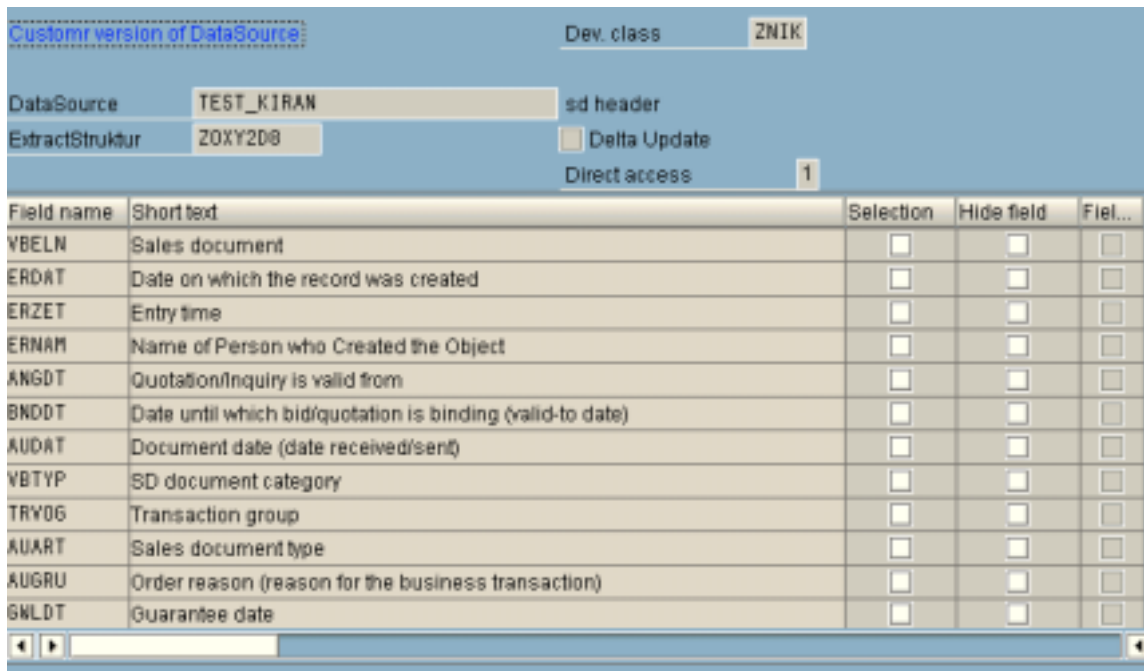


Fill the above screen and save with development class and new change request. On save the following screen will be displayed:

Note: While defining Generic Data source:

- (a) All the fields which are to be selected should have same reference table.
- (b) If any field contains the reference field other than the table for which generic data source is to be created than in such condition a view has to be maintained for that and than this view can be used to create the generic data source. This required because in the case of currency and qty fields the reference tables are not the same as in which such data is been stored. In such case a view can be maintained for the table and reference table for currency and qty.

From the following screen make the selection of fields by selection check boxes from selection column.



Save -> back -> back -> You reach BW administrator screen: Modeling

STEP 3. MetaData Upload - Replicate the Non-Standard DataSource (Generic DataSource) into SAP (BW) System.

SAP Easy access SAP Business Information Warehouse initial screen -> SAP menu -> BW Administration -> Administrator Workbench -> double click ->

Modeling -> Source systems -> Source system -> Right click -> Replicate Data sources -> click
Replication process starts and it replicates all the extract structures on the BW system

Activating Extractstructures

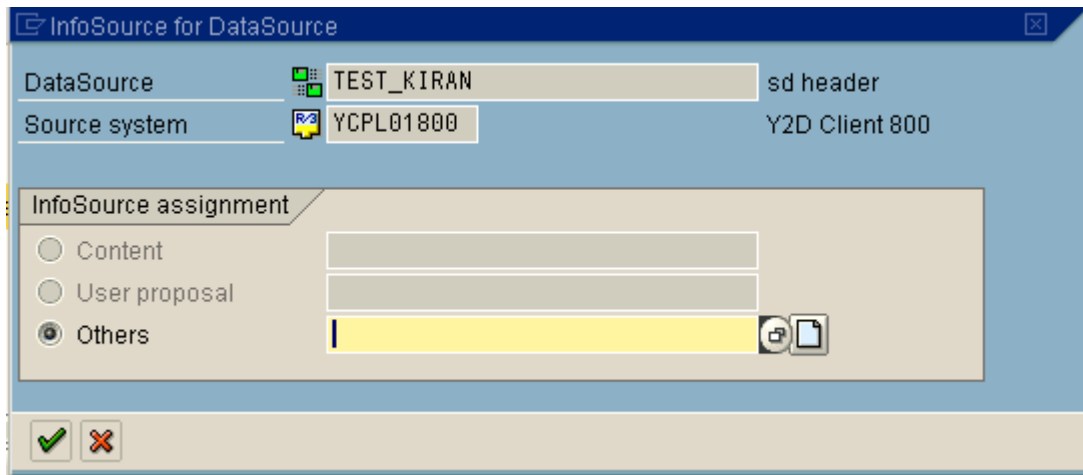
STEP 4. Assign DataSource To InfoSource And Fields To InfoObjects (Create a Transaction Data InfoSource)

SAP Easy access SAP Business Information Warehouse initial screen -> SAP menu -> BW Administration -> Administrator Workbench -> double click ->

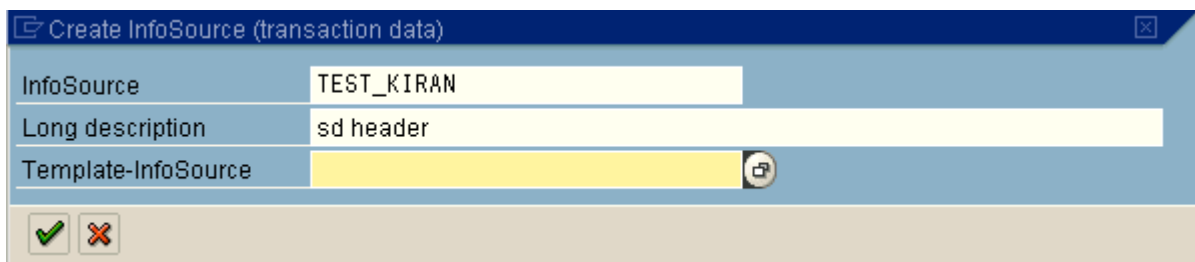
Modeling -> Source systems -> Source system -> Right click -> Data Source overview -> click ->

System displays the different application components from this tree select the application for which you have created the generic data source -> on right side of the screen press the button which has ⊖ minus sign for activation press it.

The following screen is displayed:



Fill the description for infosource in above screen in others field and press create button.

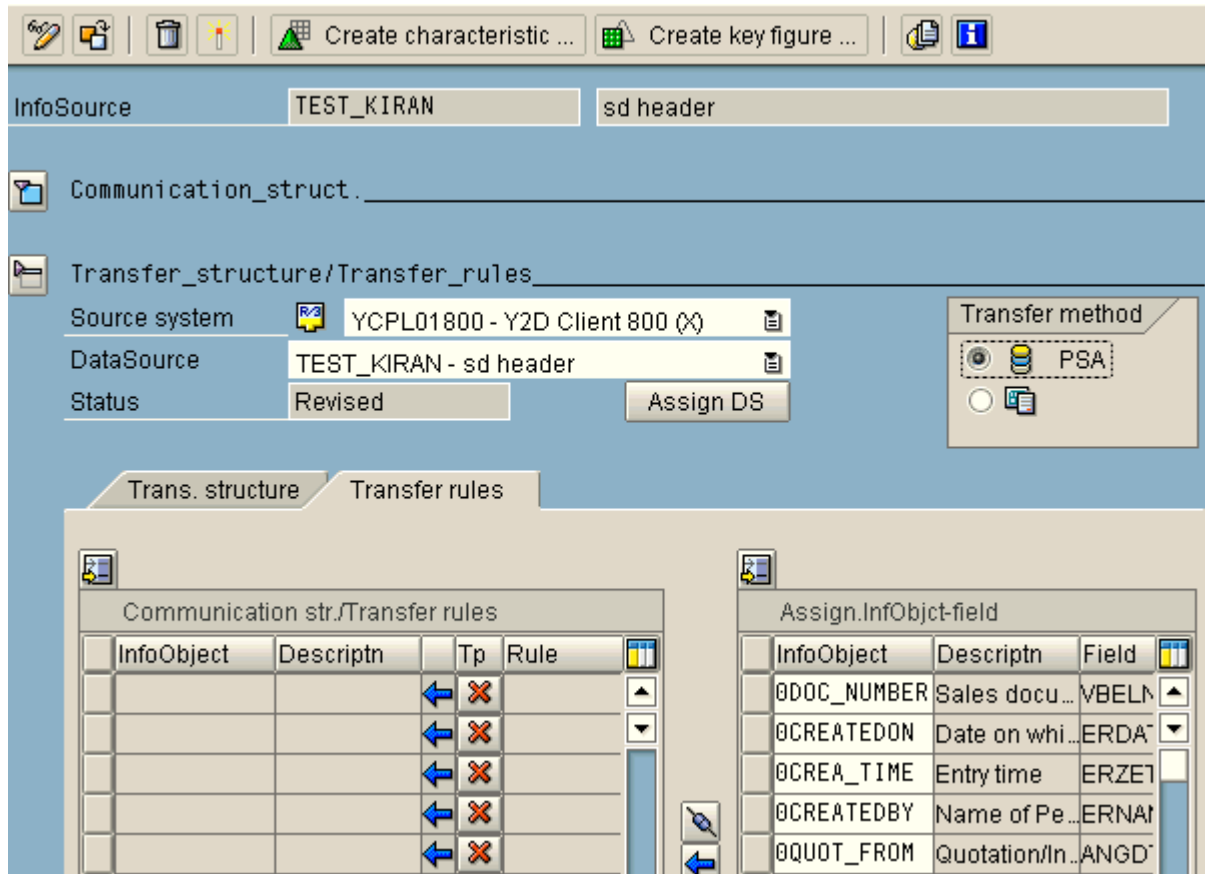


Fill the description and press enter -> Save -> the following screen displayed.

You define the transfer rules for the infosource created.

Basic rules to define transfer rules:

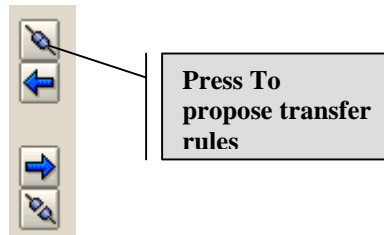
When the below displayed screen appears than some of fields doesn't gets the reference infoobject from the BW system. The reason is that no reference infoobject definition is defined in the BW system. Or system could not find the appropriate reference infoobject from the BW system. So by using F4 key find out the reference infoobject for the field which you have selected in infosource.



On pressing F4 key where reference infoobject is not found the following

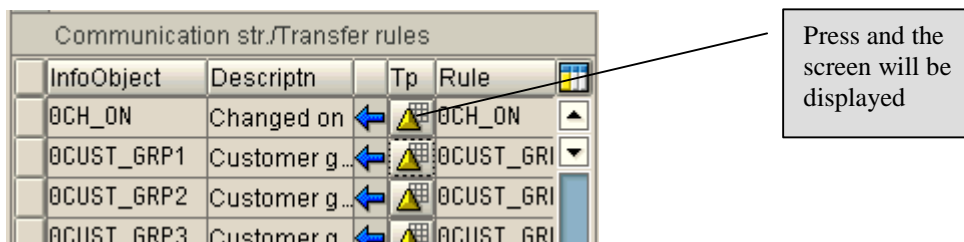


After assignment of the reference Infoobject to field of extract structure press the following button at the center of the screen.



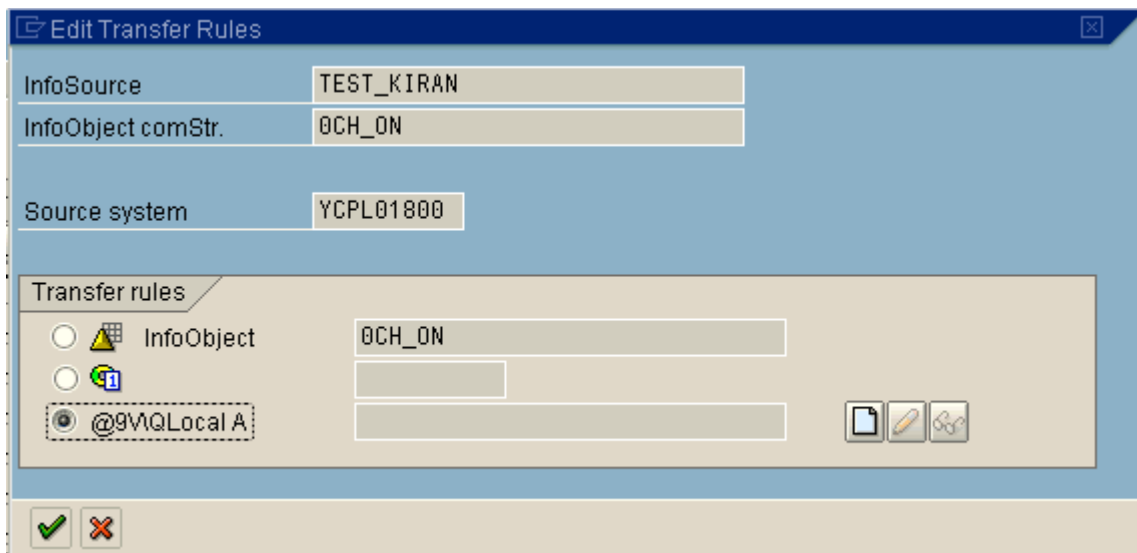
After this the all the fields with the reference of infoobject gets transferred to communication str/transfer rules . if the signal indicator is green means the rules are maintained properly.

HOW TO MAINTAIN TRANSFER RULES FOR THE INFOOBJECT:



You can define transfer rules in three ways:

- Reference of infoobject
- Assigning constant value
- Writing external routine: here give some meaningful name and press create button system will generate the code for this. Do necessary coding in the editor to specify the transfer rules.



Check communication structure

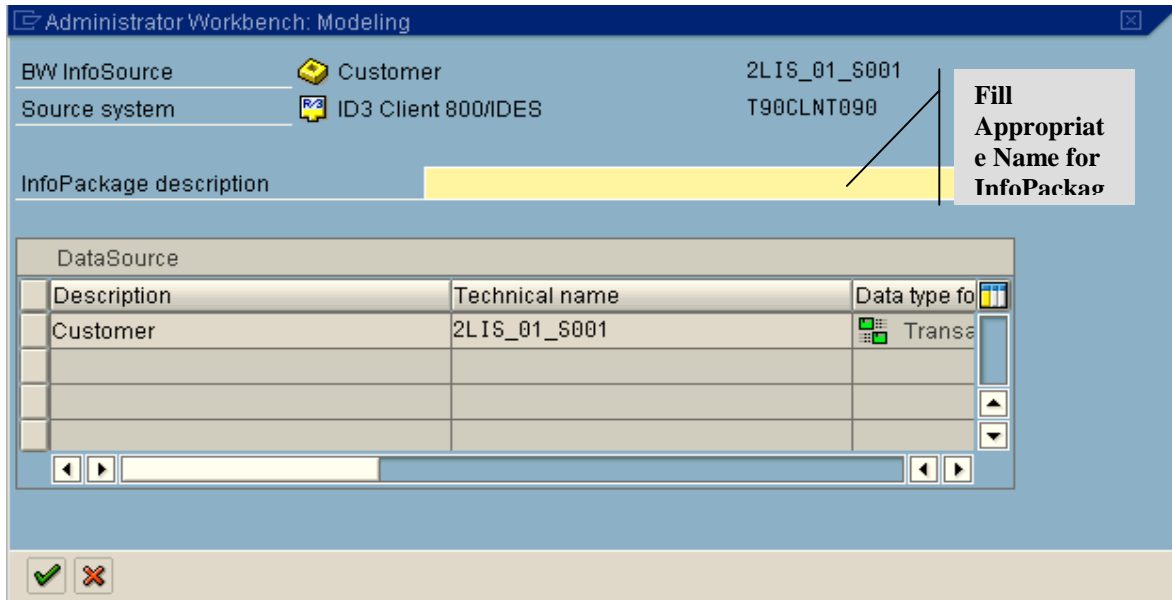
Activate -> press activate button on application tool bar.

STEP 5. Transferring Data From The InfoSource To The DataTargets (ODS Objects / InfoCubes) In The SAP (BW) System

SAP Easy access SAP Business Information Warehouse initial screen -> SAP menu -> BW Administration -> Administrator Workbench -> double click ->

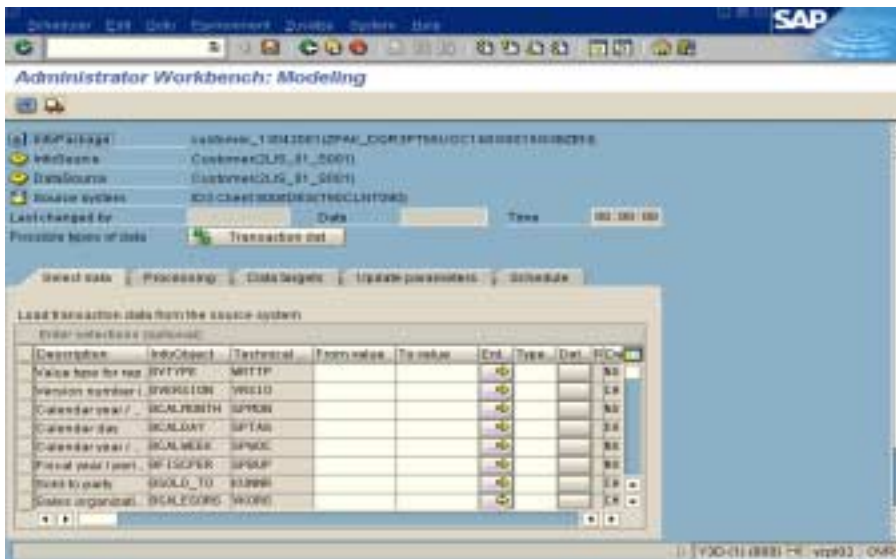
Modeling -> InfoSources -> InfoSources -> select your InfoArea -> drill down to InfoArea -> select your InfoSource -> right click -> Create InfoPackage -> click

Fill the appropriate name for InfoPackage -> Enter ->

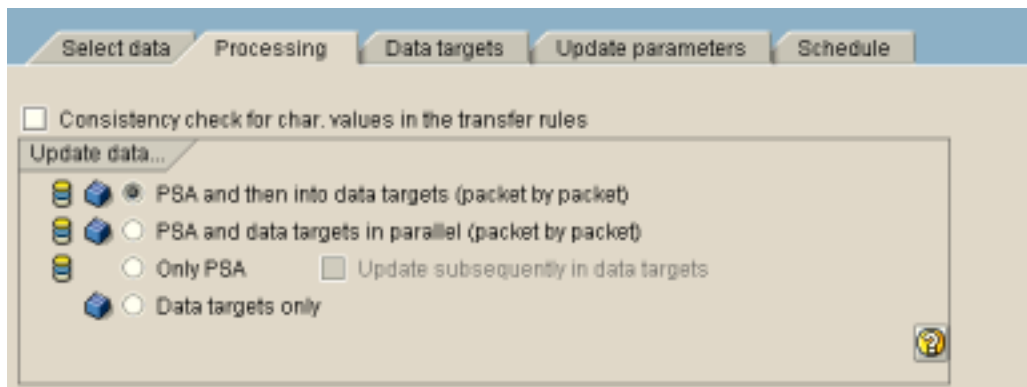


On the Screen different TabStrip used for defining different attributes to the InfoPackage:

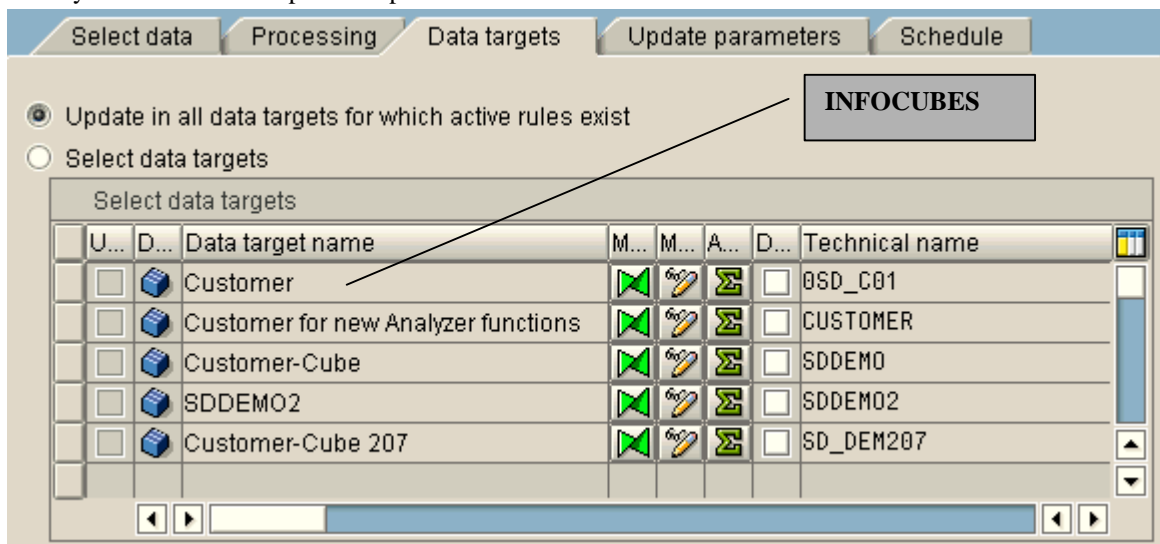
TabStrip: Select Data: as displayed in above screen. You can define data extraction for a specific value or interval.



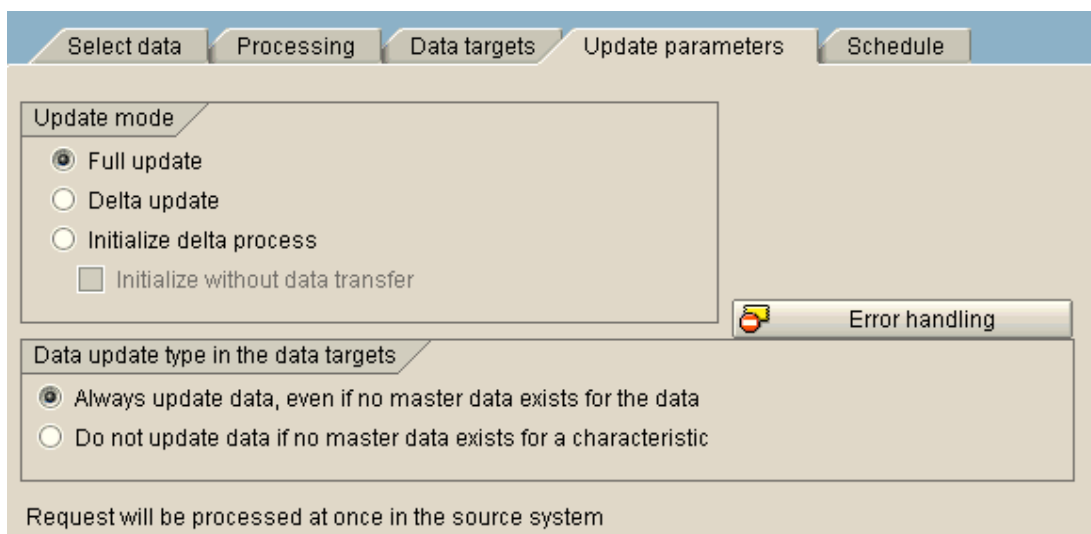
TabStrip: Processing: Here you can define the target area of the data which is to be transferred from the source system.



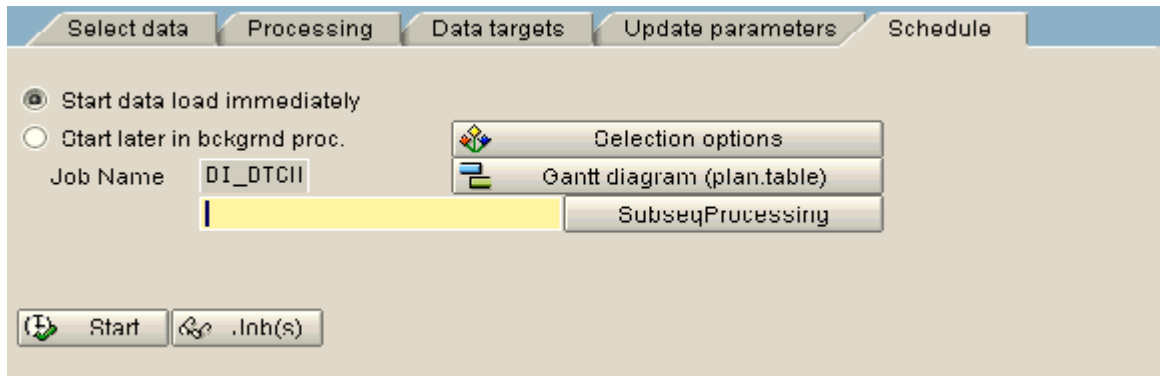
TabStrip: Data Targets: Here you can see the Infocubes (data targets) where the data is to be stored. As below screen you can define the options as per the selection.



TabStrip: Update Parameters: Here you can define update parameters for data targets for which data is to be updated.



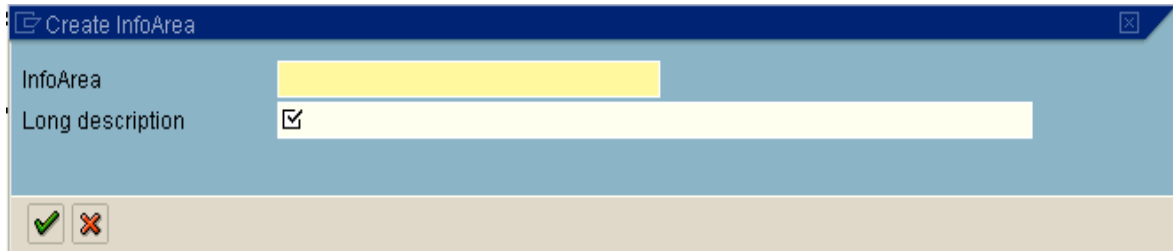
TabStrip: Schedule: You can carryout the scheduling of the data transfers from this option.



You can check the data transfer by clicking on monitoring button or monitor the data transfer process.

CREATING INFOAREA

SAP Easy access SAP Business Information Warehouse initial screen -> SAP menu -> BW Administration -> Administrator Workbench -> double click -> Modeling -> Data Targets -> Data targets -> right click -> Create InfoArea -> click ->



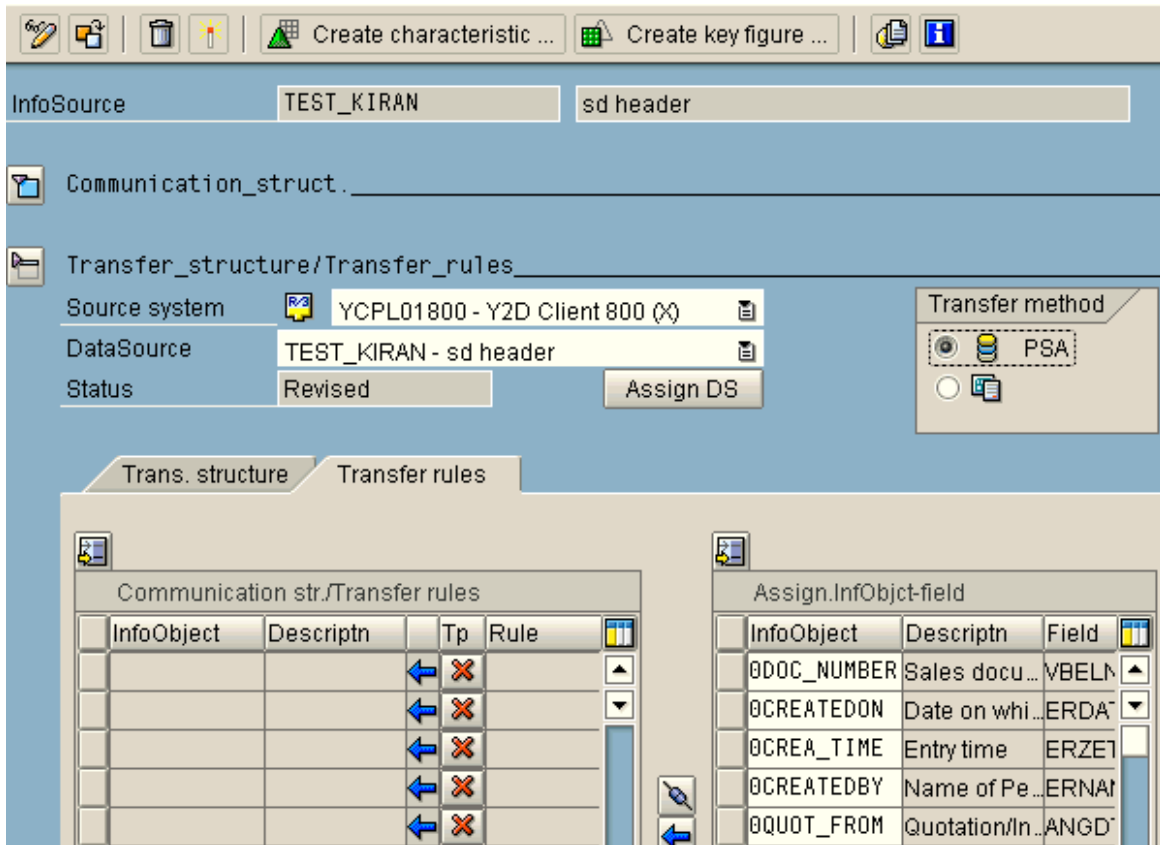
The screenshot shows a dialog box titled "Create InfoArea". It has a blue header bar with the title and a close button. Below the header, there are two input fields. The first field is labeled "InfoArea" and contains a yellow highlight. The second field is labeled "Long description" and contains a checkmark icon and a yellow highlight. At the bottom of the dialog, there are two buttons: a green checkmark and a red "X".

Fill the description and press enter -> Save -> the following screen displayed.

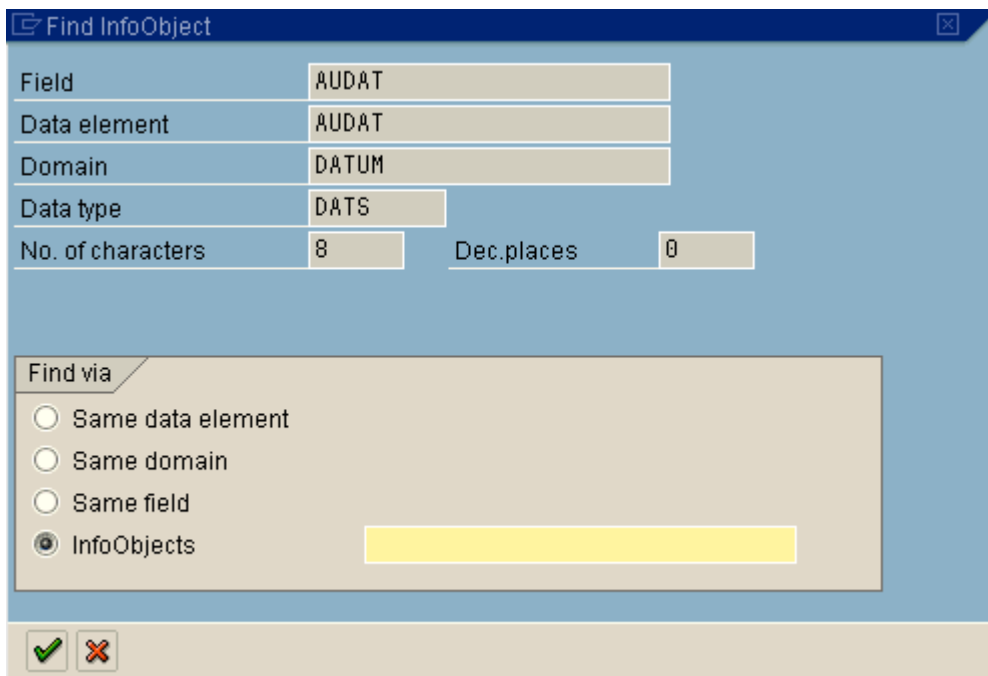
You define the transfer rules for the infosource created.

Basic rules to define transfer rules:

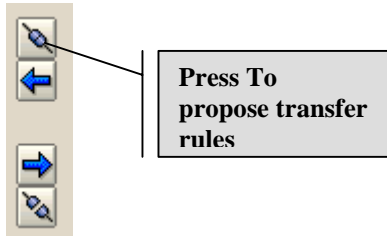
When the below displayed screen appears than some of fields doesn't gets the reference infoobject from the BW system. The reason is that no reference infoobject definition is defined in the BW system. Or system could not find the appropriate reference infoobject from the BW system. So by using F4 key find out the reference infoobject for the field which you have selected in infosource.



On pressing F4 key where reference infoobject is not found the following

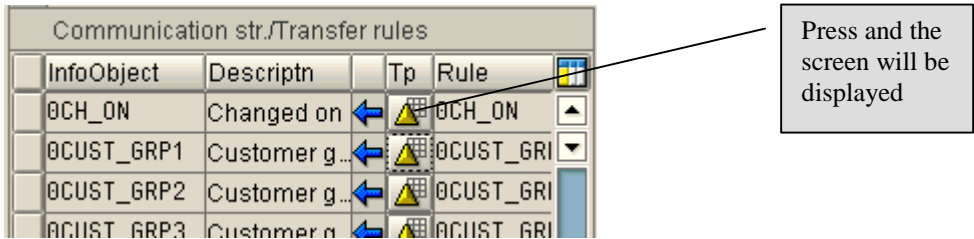


After assignment of the reference Infoobject to field of extract structure press the following button at the center of the screen



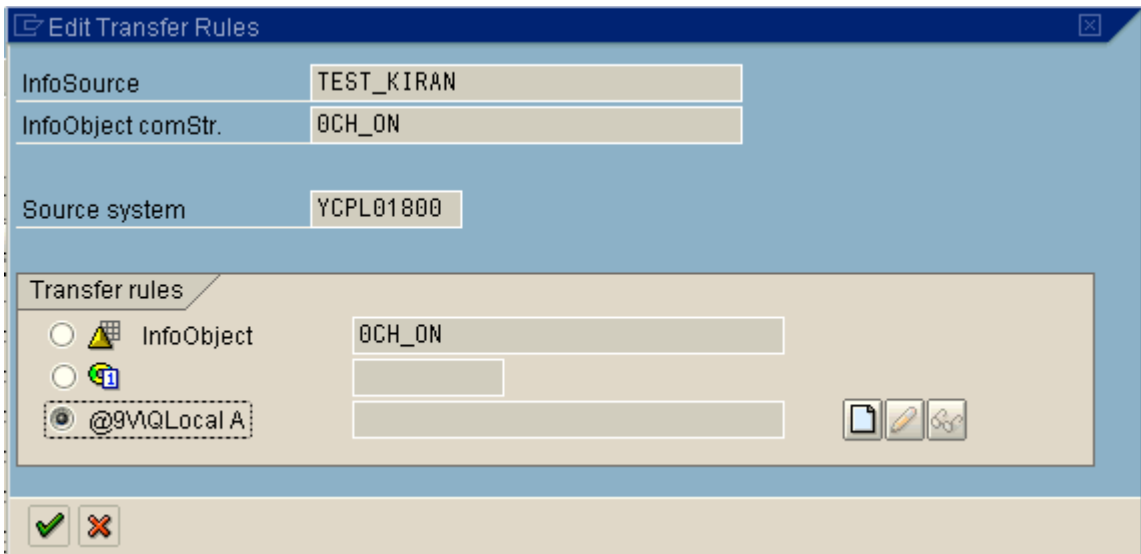
After this the all the fields with the reference of infoobject gets transferred to communication str/transfer rules . if the signal indicator is green means the rules are maintained properly.

HOW TO MAINTAIN TRANSFER RULES FOR THE INFOOBJECT:



You can define transfer rules in three ways:

- Reference of infoobject
- Assigning constant value
- Writing external routine: here give some meaningful name and press create button system will generate the code for this. Do necessary coding in the editor to specify the transfer rules.



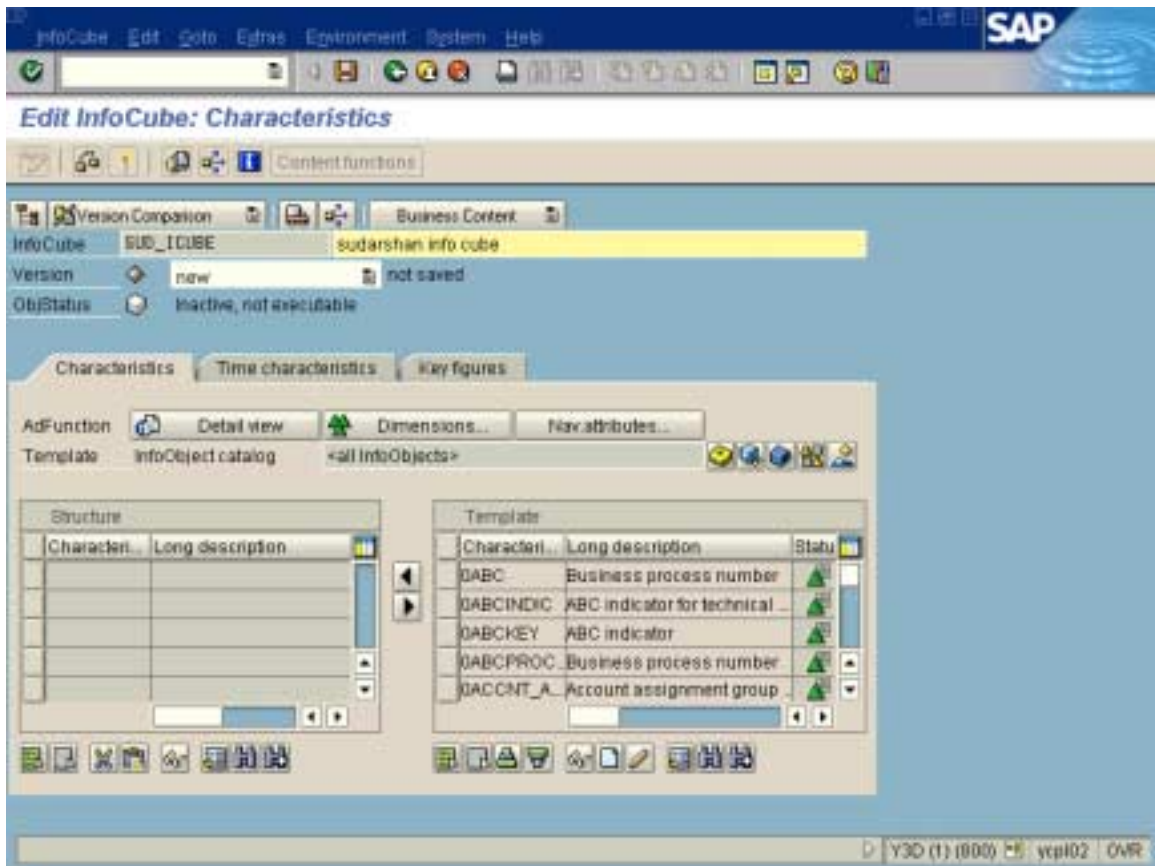
CREATING INFOCUBE

SAP Easy access SAP Business Information Warehouse initial screen -> SAP menu -> BW Administration -> Administrator Workbench -> double click -> Modeling -> Data Targets -> Select the InfoArea created in step no 6. -> right click -> Create InfoCube -> click ->

The screenshot shows the 'Edit InfoCube' dialog box with the following fields and options:

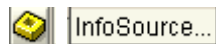
- InfoCube:** sud_icube (text field), sudarshan info cube (description field)
- InfoArea:** SINFOAREA (text field), Sudarshan infoarea (description field)
- Copy from:** Two empty text fields for selecting a source InfoCube and InfoArea.
- InfoCube type:**
 - Basic Cube
 - MultiCube
 - SAP RemoteCube
 - With InfoSource: [text field]
 - Clear source s
 - Gen. Remote Cube
 - With source system: [text field]
- System type (namespace):**
 - SAP (delivered by SAP)
 - CUS (generated by user)
 - PAR (Partner)
 - Namespace: [text field]

Fill the appropriate name and description and select InfoCube type -> press create button from the same screen.
(You can copy the InfoCube from existing one)



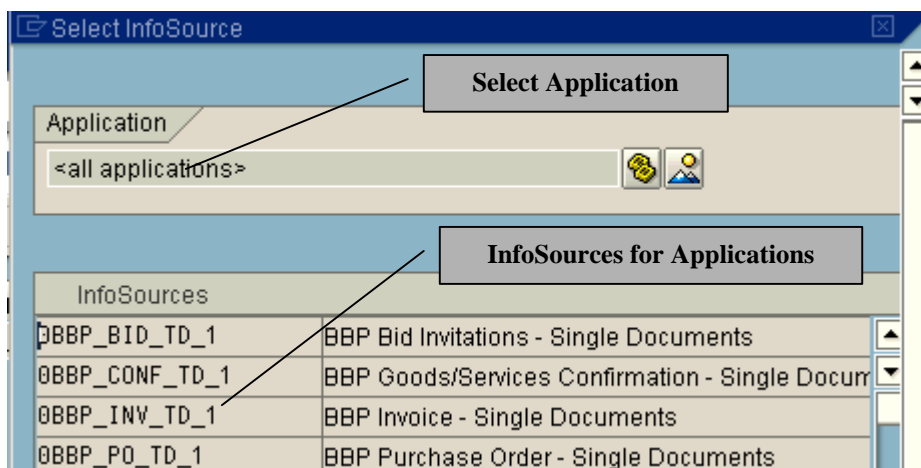
In the above screen you can assign your required InfoSources to the InfoCubes.

Assigning InfoSources to InfoCubes

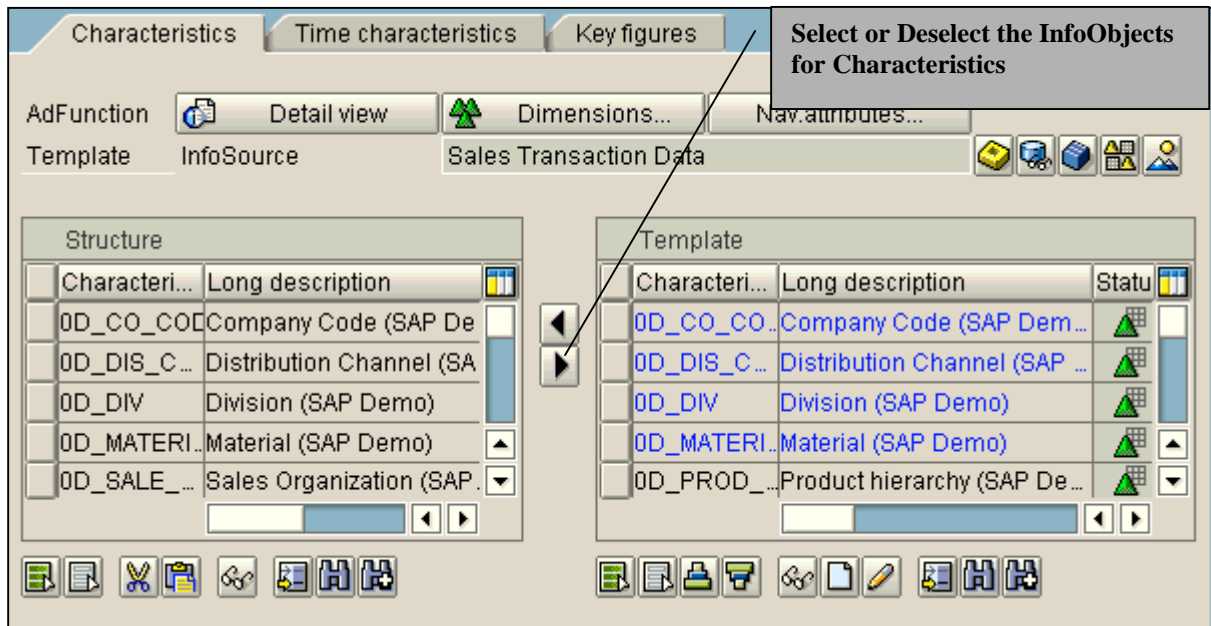


From the above screen -> press the button

The following screen will be displayed from where you can make the selection of InfoSources based on the application areas.



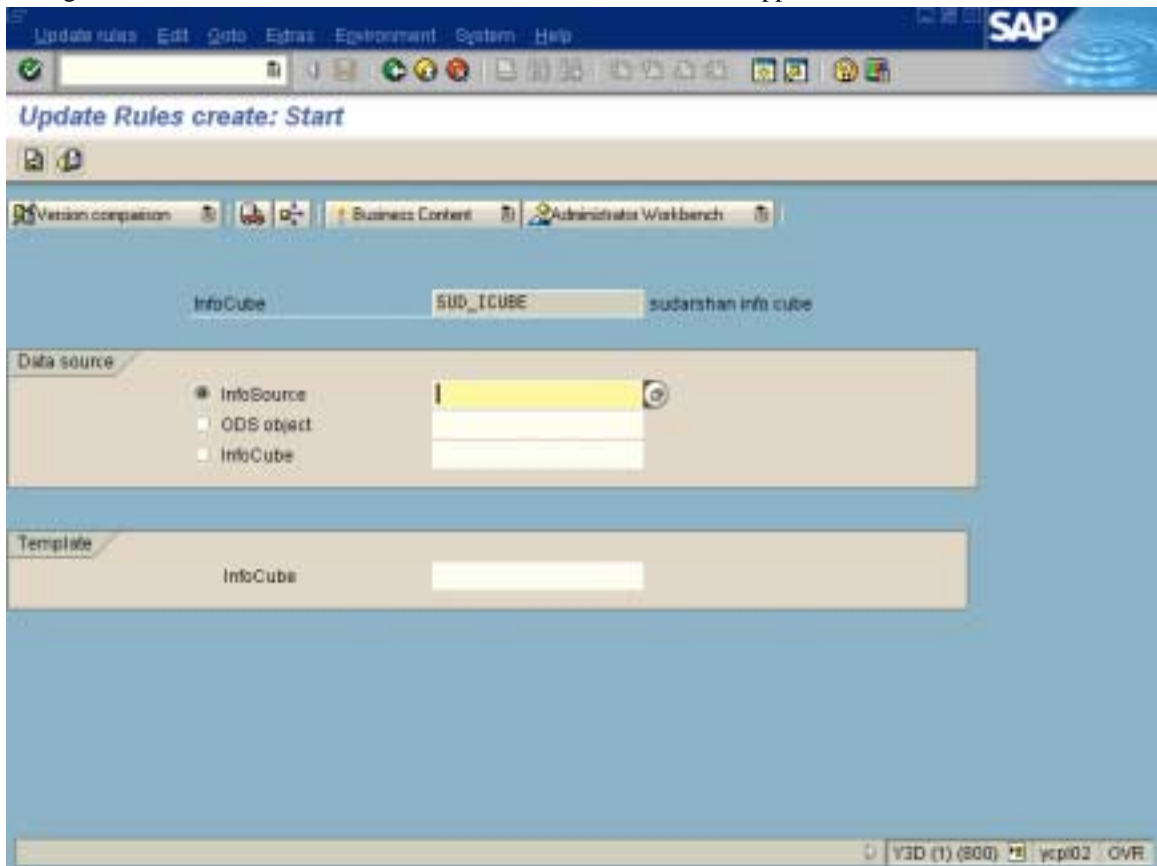
On selection of InfoSources for the InfoCube the fields gets gets transferred to InfoCube – TabStrip Characteristics



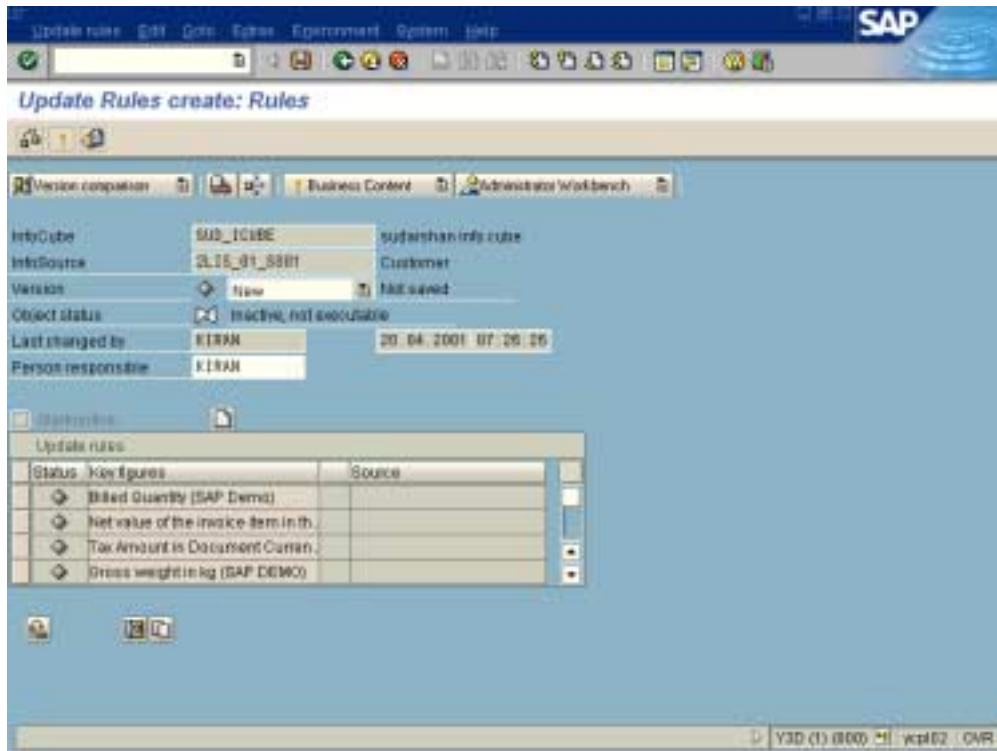
From above screen using different TabStrips you can define TIME CHARACTERISTICS AND KEY FIGURES.

Creating update rules (Assigning infosource/s to InfoCube)

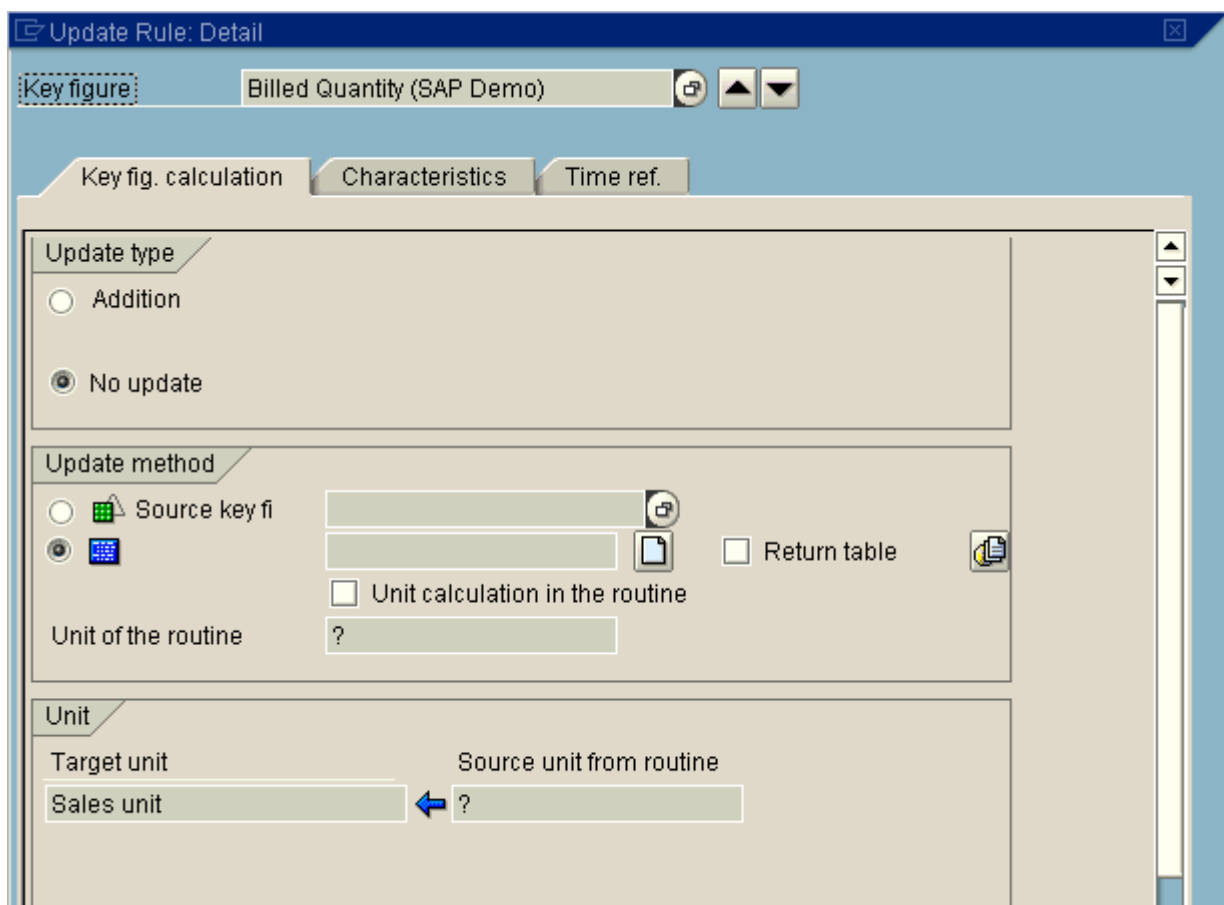
FROM the edit InfoCube screen -> Environment -> Update Rules -> Create -> click -> Assign the InfoSource to InfoCube -> Press next screen button from application toolbar ->



If in the above screen status is grey than the key figures are not activated (the reason is that source InfoObject is not assigned) to assign InfoObject double click on keyfigure or select keyfigure and press details button -> the following button will be displayed ->






On the above screen set Update type as Addition , Specify Update method , You can specify the source keyfigure by using drilldown option or pressing F4 key, on this select the appropriate source keyfigure or you can write external routine for determining the keyfigure.



From the above screen you can specify the characteristics and time characteristics for determining the keyfigure. After defining characteristics and time ref from the tabstrips check the rule and press enter this step will constitute your key figure-determining rule. Repeat the above procedure for other keyfigures.

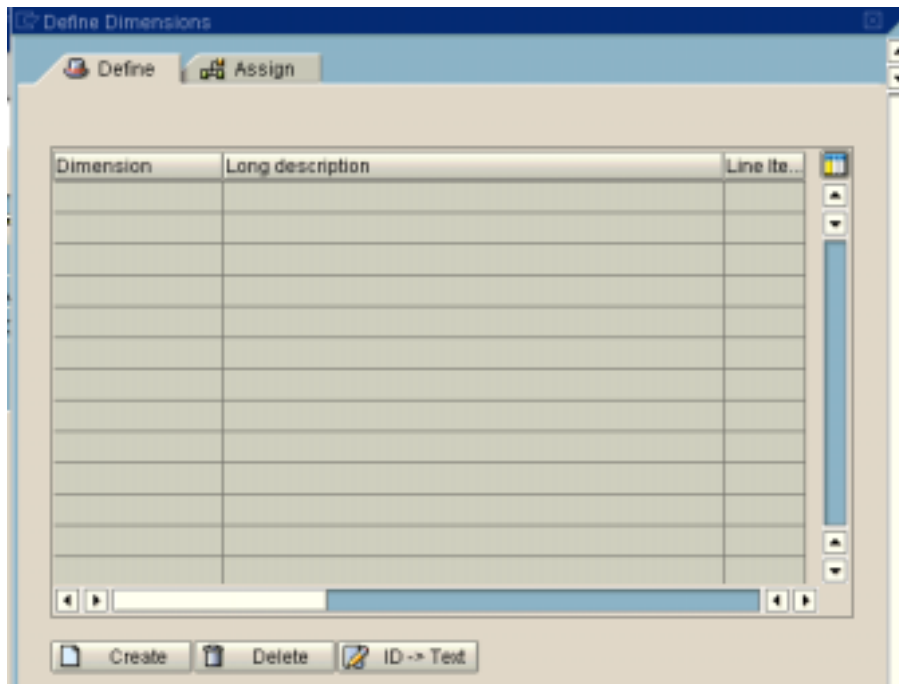
After maintaining update rules for the InfoCube activate the InfoCube.

Version and object appears

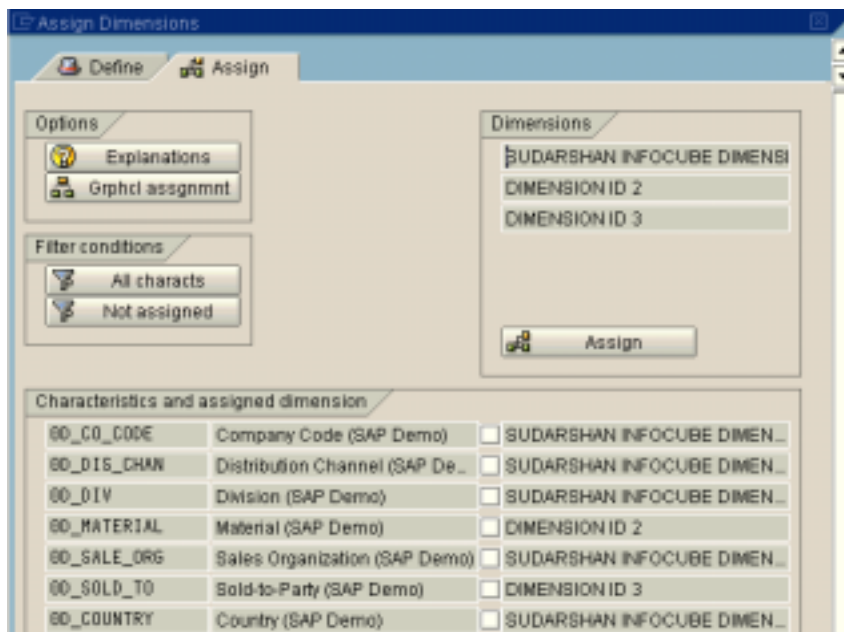
Version		Active	 Saved
Object status		Active, executable	

Creating Dimensions

After creating Time characteristics and Key figures press Dimension button to create Dimensions for InfoCube.



Press Create button (above screen) -> A dimension name will be generated fill the description for that. After that click on Assign TabStrip -> The following screen will be displayed



Assign the characteristics to dimensions -> enter -> check and activate the InfoCube ->.

CREATING CHARACTERISTICS

Characteristic J_1AFITPV: Detail

Long description: TAX TYPES
Short description: TAX TYPES
Version: New
Object Status: Inactive, not executable

Dictionary

Data element: /BIC/OIJ_1AFITPV
Data Type: CHAR - Character string
Length: 2
Lowercase letters:
Conversion route: ALPHA
Output length: 2
SID table:

Miscellaneous

Exclusively attribute
Person respons.:
Content release:
Constant:

Last change

By: KIRAN
On: 21.04.2001 14:58:21

FROM R/3 SYS. TAKE THE DATA TYPE AND LEN. FROM DATA DOMAIN