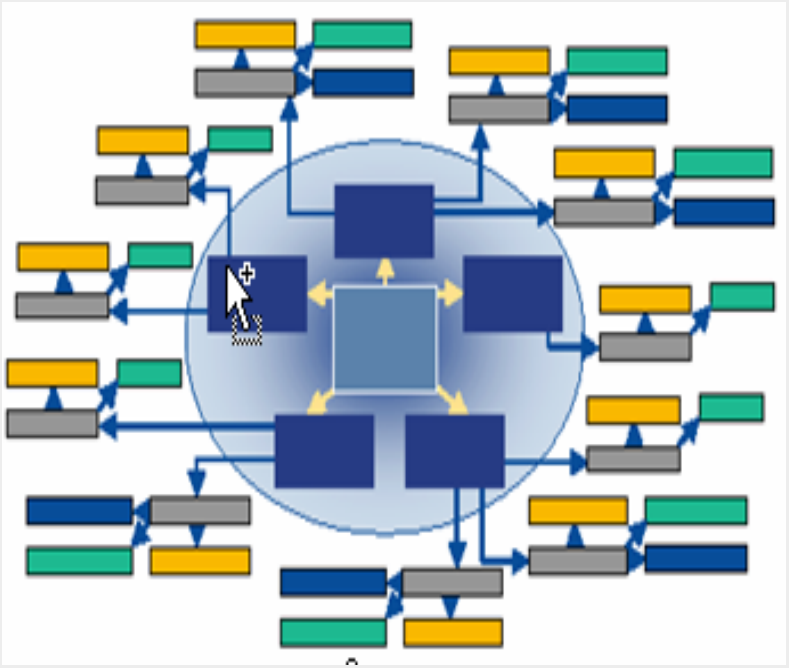
SAP BW

Lesson 05: Acquisition Part 4 Non SAP Flat File

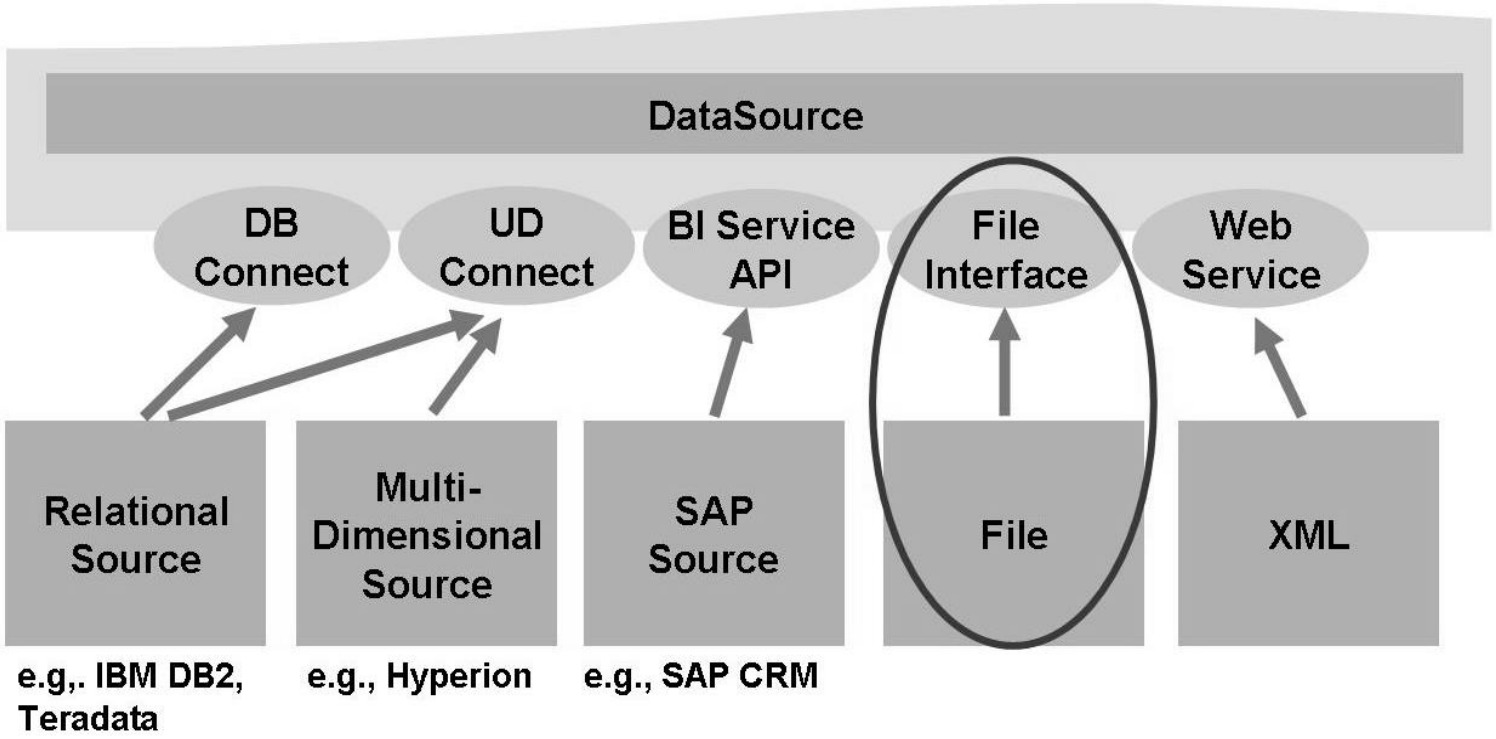
Capgemini

Data Acquisition from Non-SAP Source Systems :

FLAT FILES



DataSources Based on Flat Files



DataSources Based on Flat Files

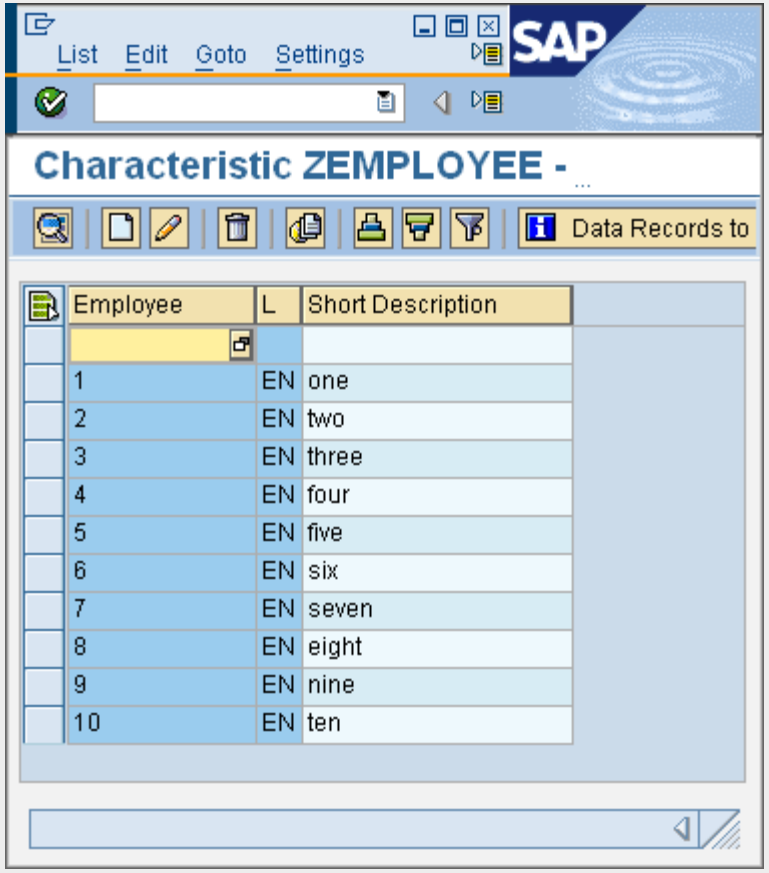
➢Object that contains all the settings necessary to load and parse a ***file*** when it is initiated by the InfoPackage:

➢**Highlights :**

- Only a few datasources should require flat files
- Automatic field proposals at design time
- Automated conversion of external data types and formats provided
- Preview option allows a double check of file parsing
- Fields can be selected as Not transferred.

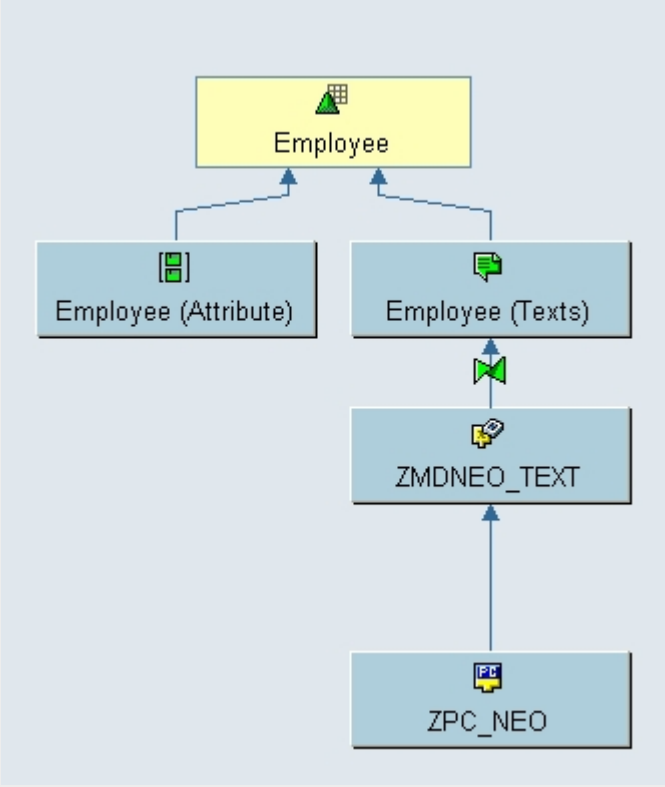
Scenario: We need to load all Employees and their Names

- Aim: we need to load Employee names as shown below



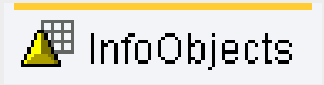
Employee	L	Short Description
1	EN	one
2	EN	two
3	EN	three
4	EN	four
5	EN	five
6	EN	six
7	EN	seven
8	EN	eight
9	EN	nine
10	EN	ten

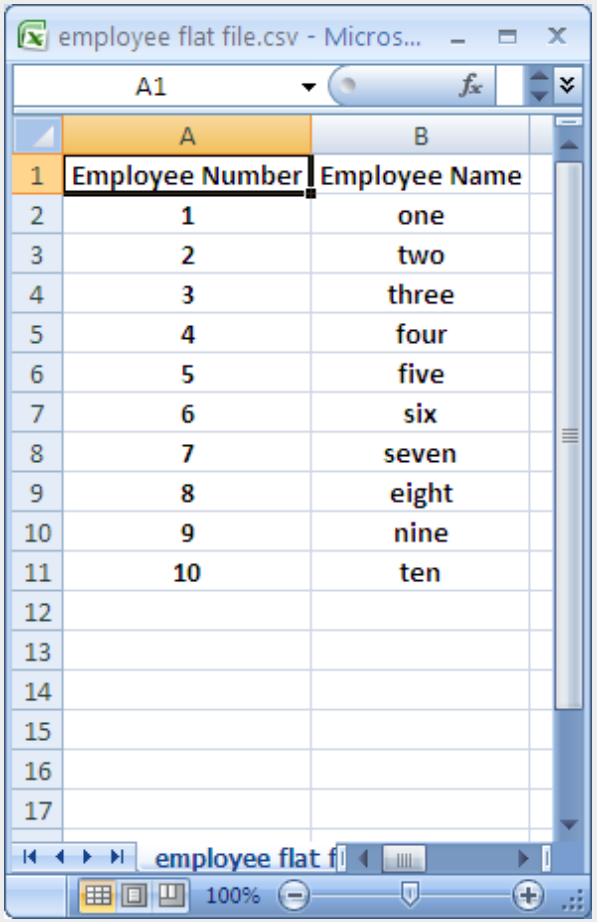
Data Flow


Employee
Employee (Attribute)
Employee (Texts)
ZMDNEO_TEXT
ZPC_NEO

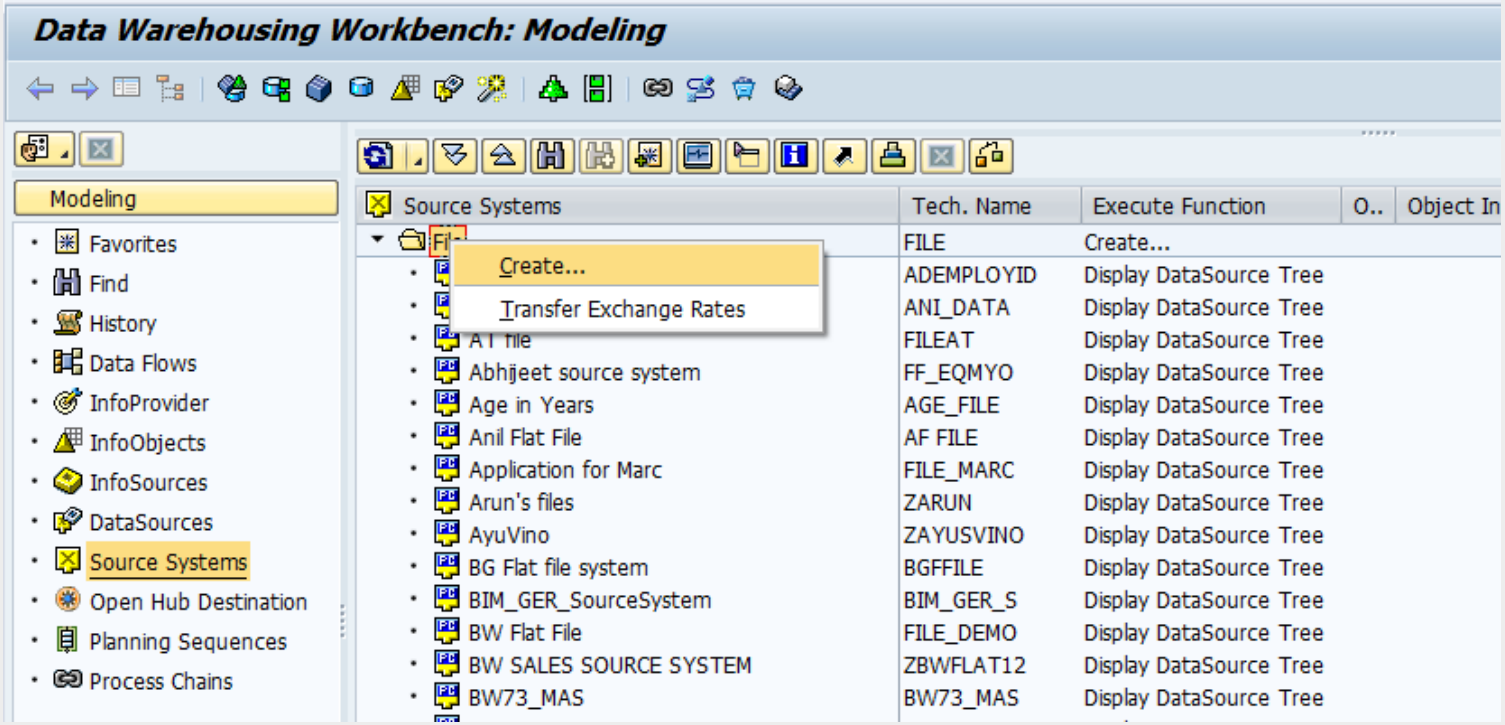
The building blocks: Identify

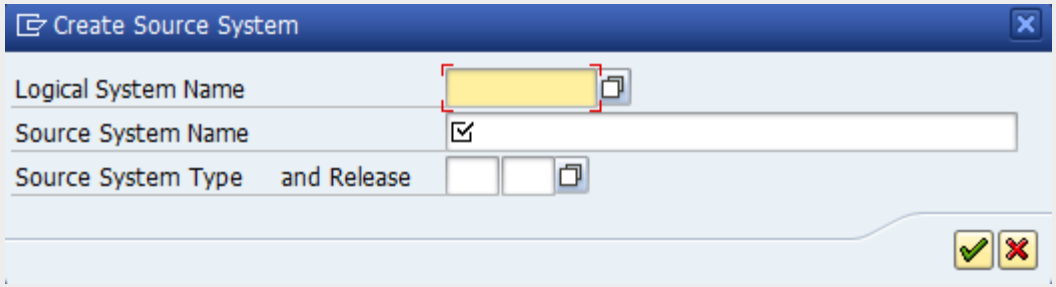
1. InfoObjects – ZEMPLOYEE and ZEMPNAME
2. Flat File Source System
3. .CSV Flat File
4. DataSource
5. InfoPackage
6. Transformation
7. DTP



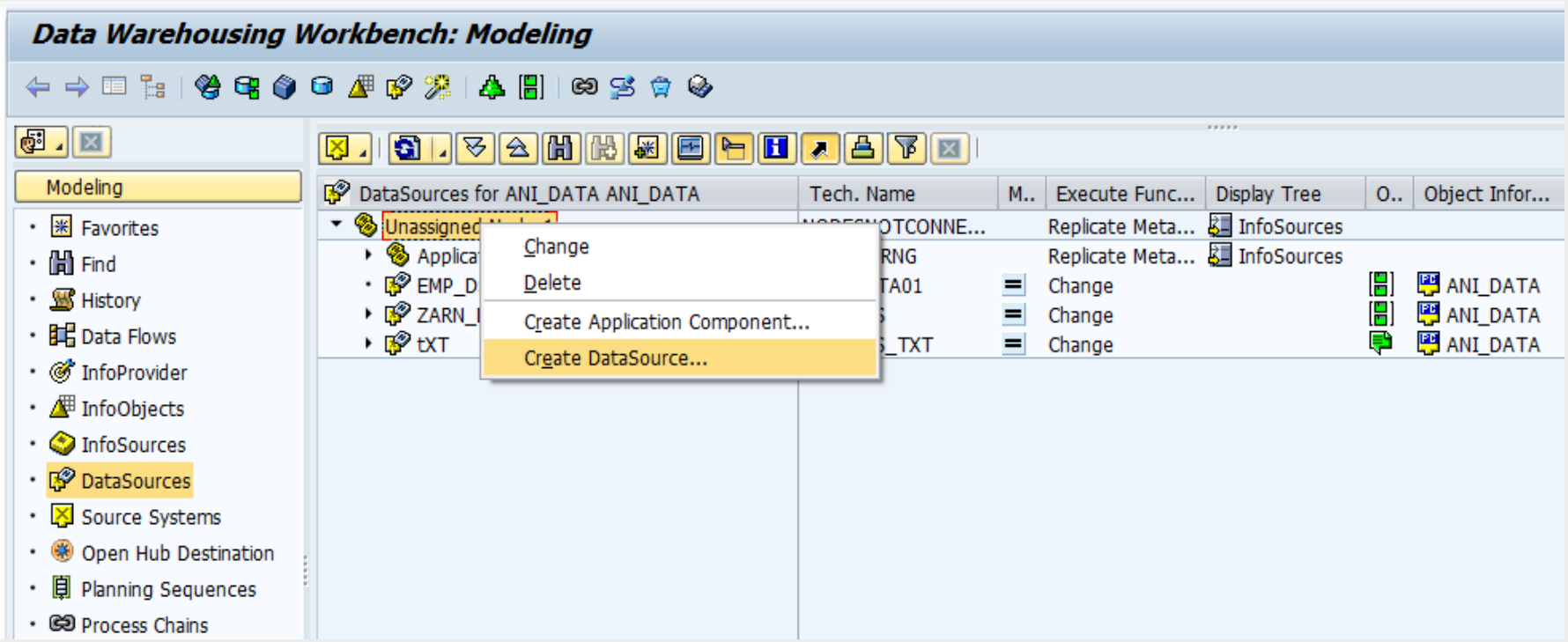


Creating a Flat File Source System

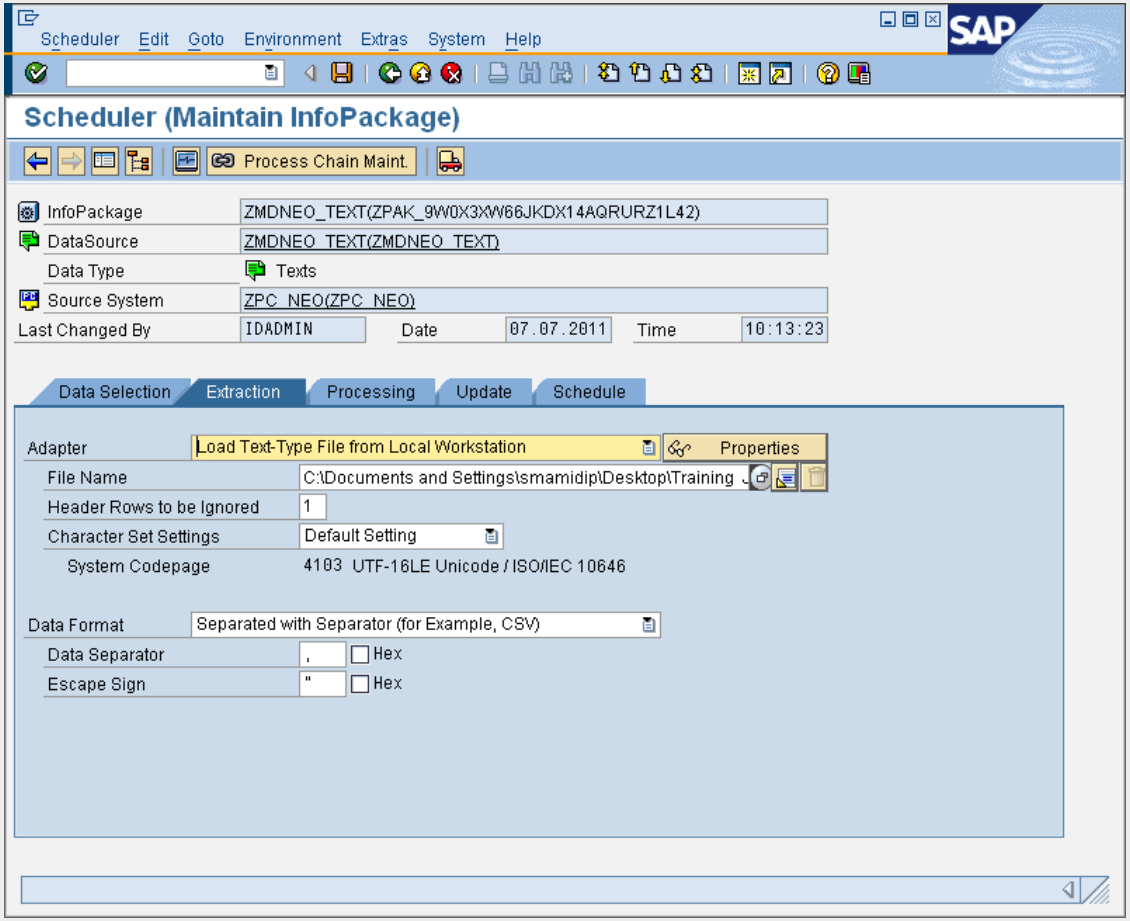




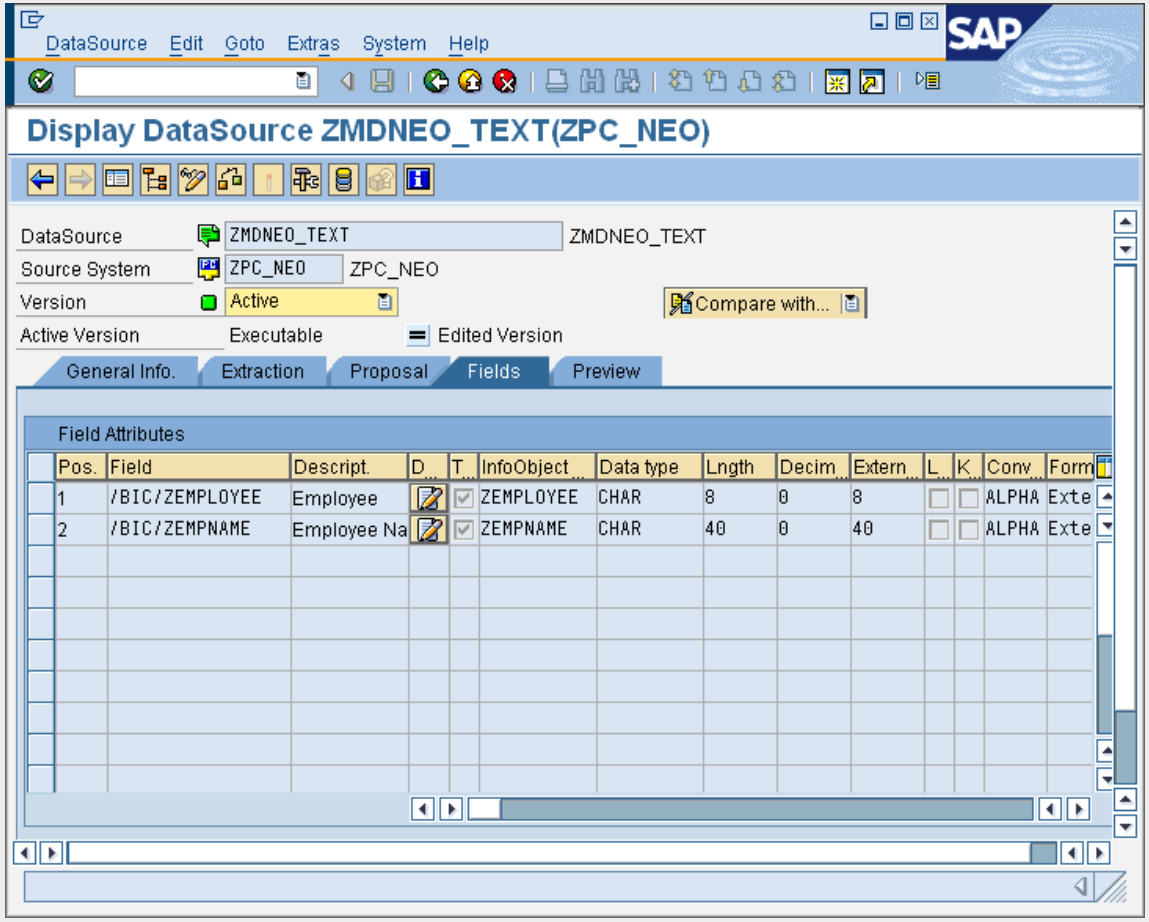
Create a DataSource



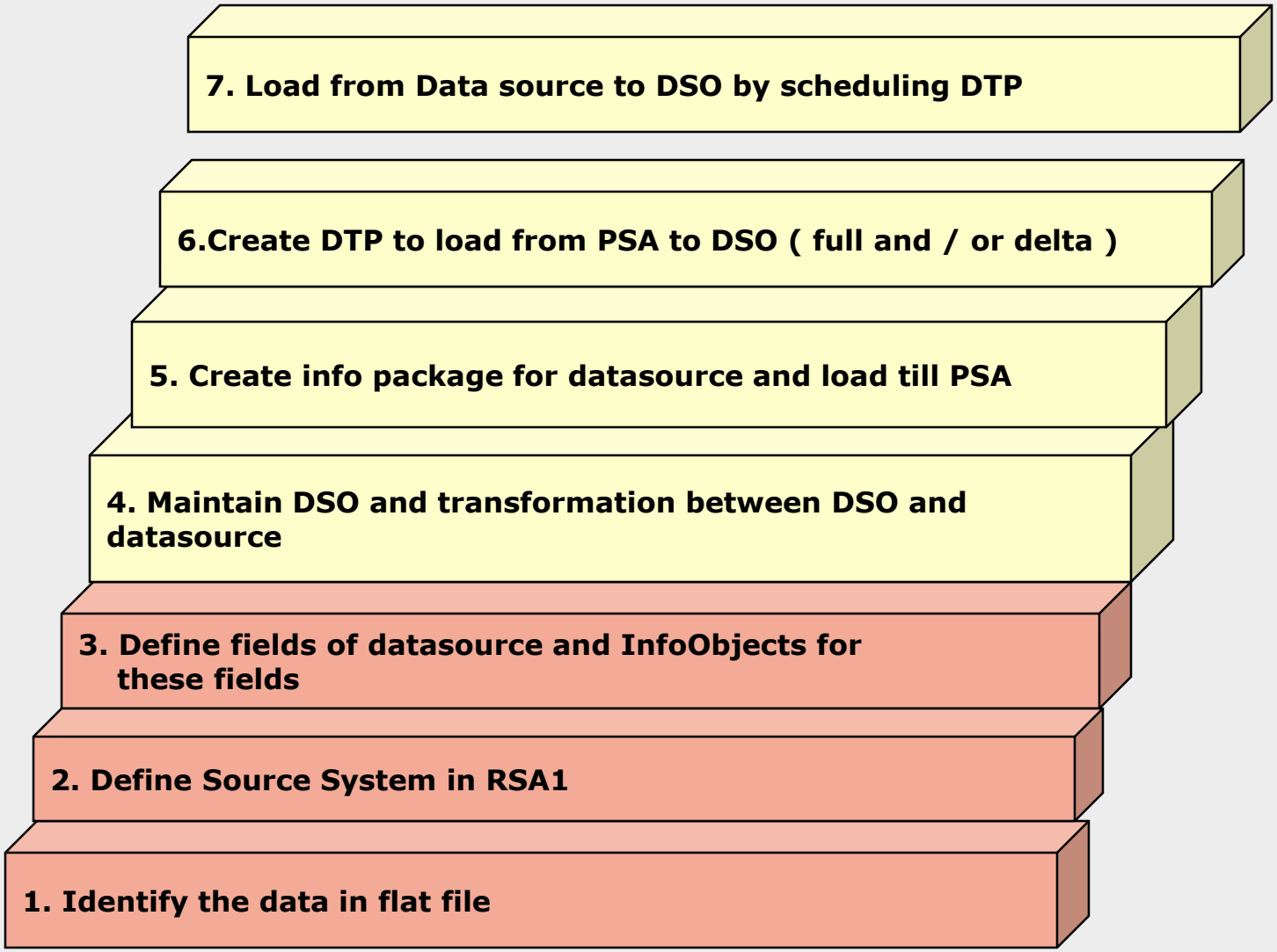
File System DataSource: Extraction Tab



DataSource: Fields



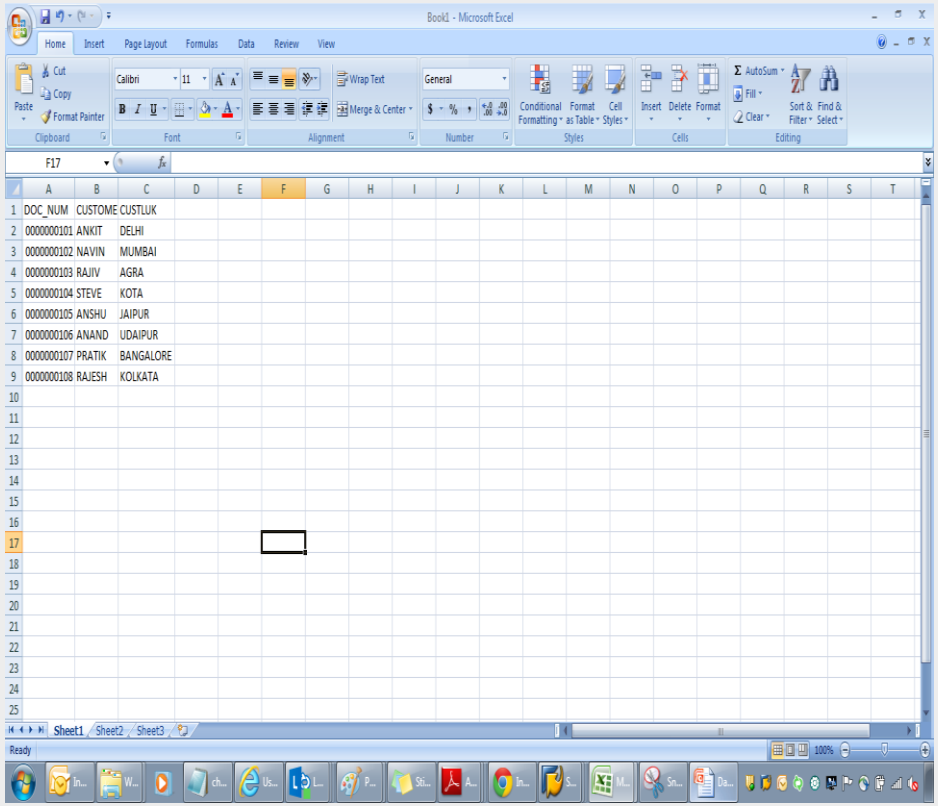
Flat File Extraction



Demo

Identify the Data

- Go to MS Excel.
- Create a flat file and enter the records to be updated in the file.
- Save the file as a .CSV file.
- NOTE: The order of the fields in the flat file should be same as that of fields in the data source.



Create a Source System

RSA1

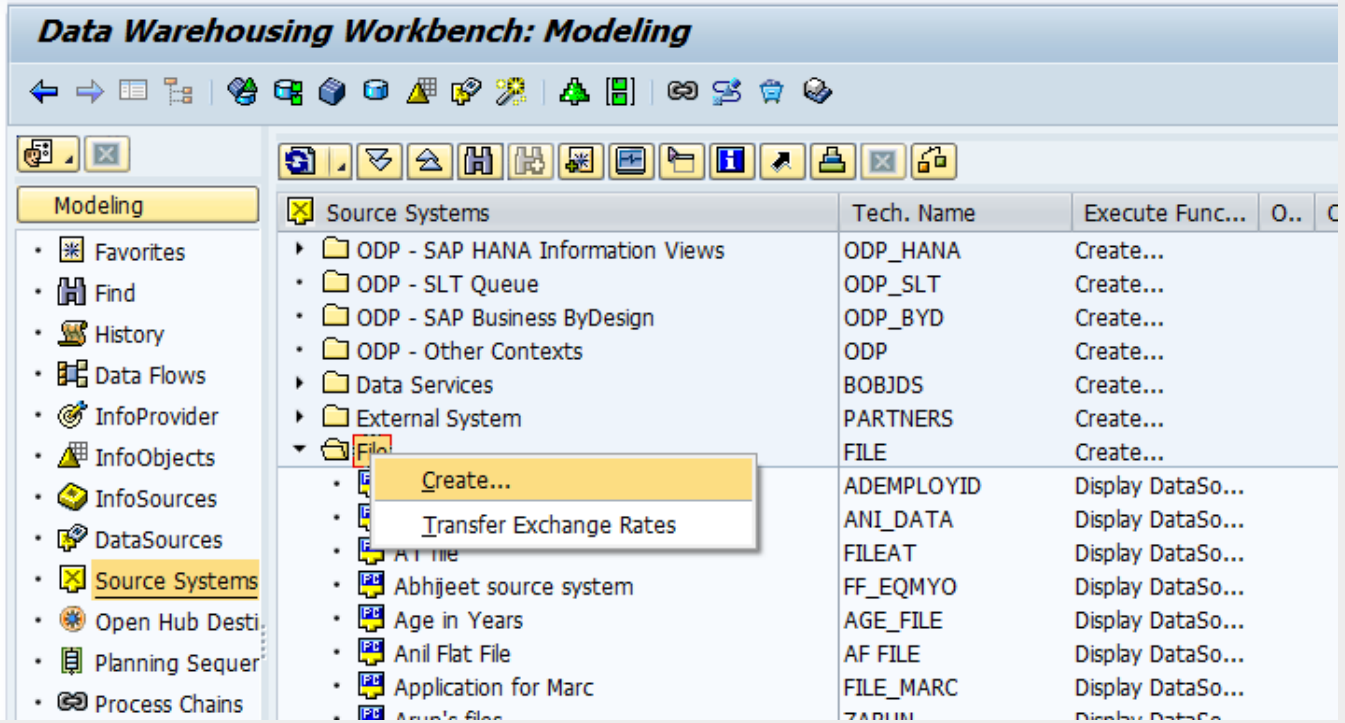
Modelling →

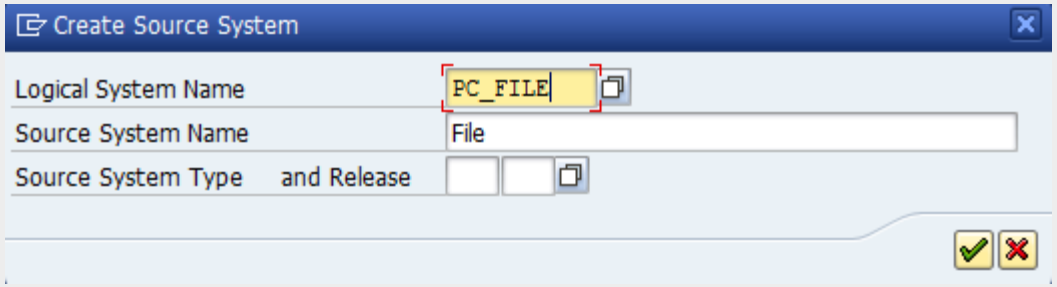
Source Systems→

File→Context Menu

Create→

New Flat File source system.





Select a Source System

RSA1

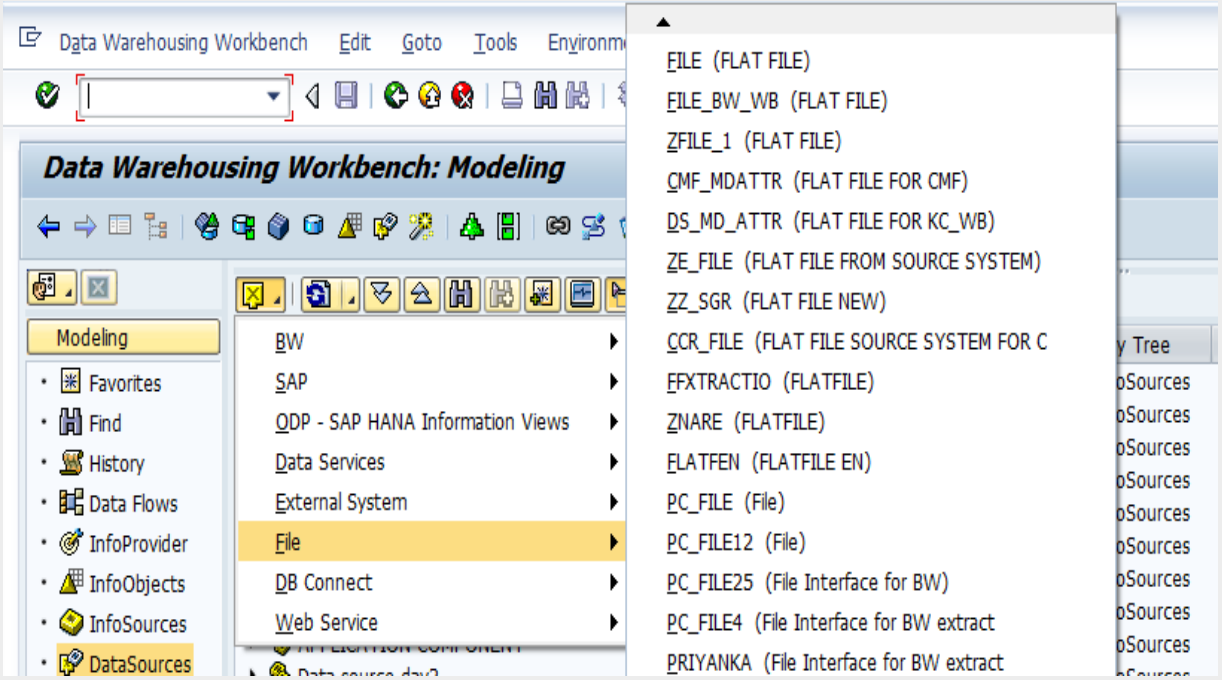
Modelling →

DataSources tab→

Context Menu →

File Source system→

Select the Source System



Create a DataSource

RSA1

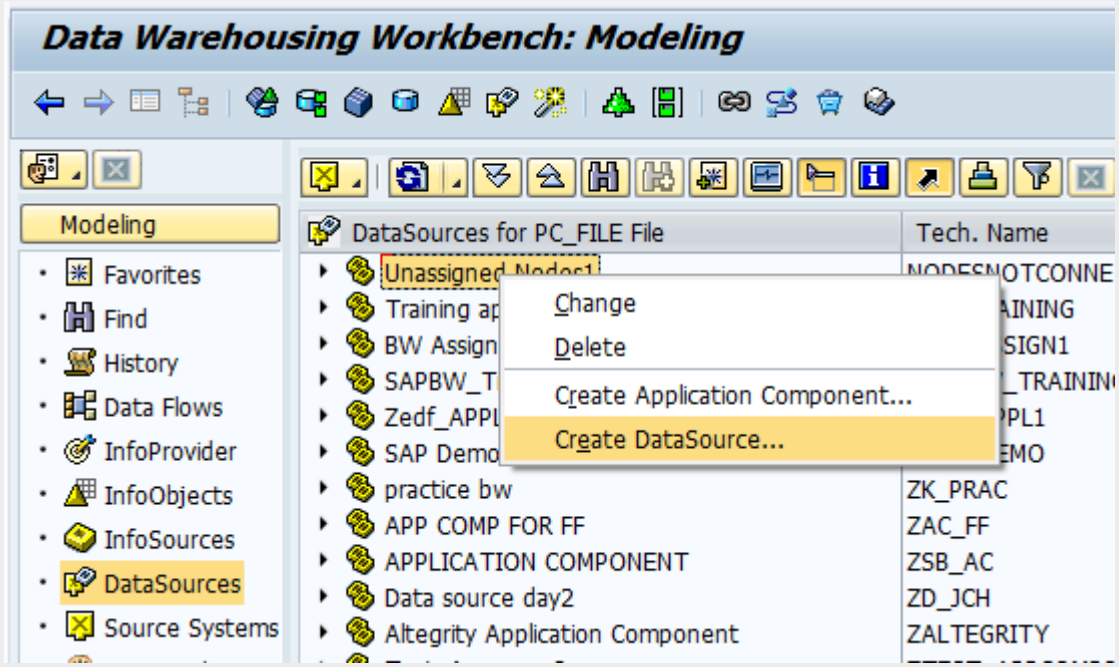
Modelling →

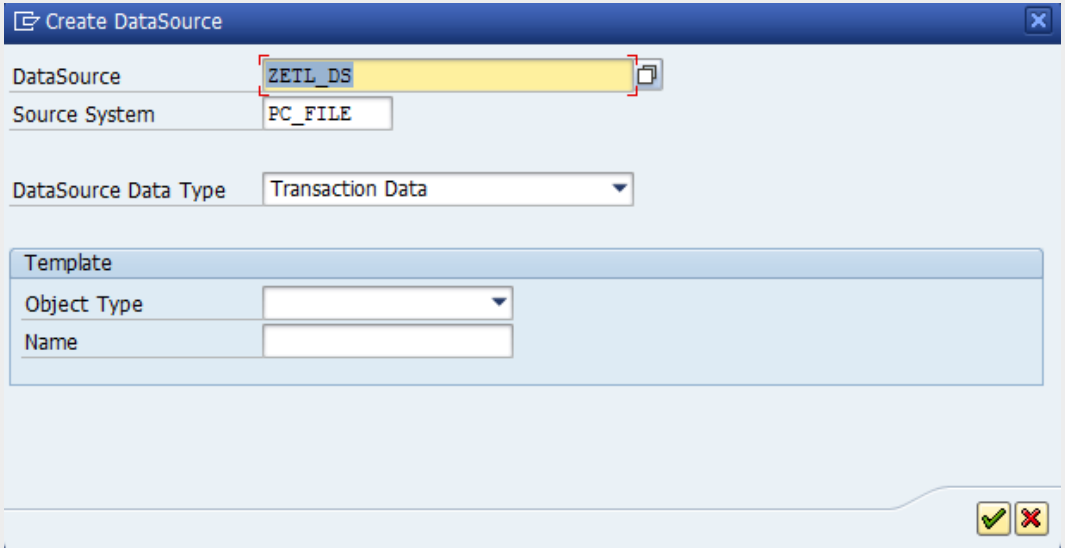
DataSources→

Application Component

Context Menu→

Create Datasource





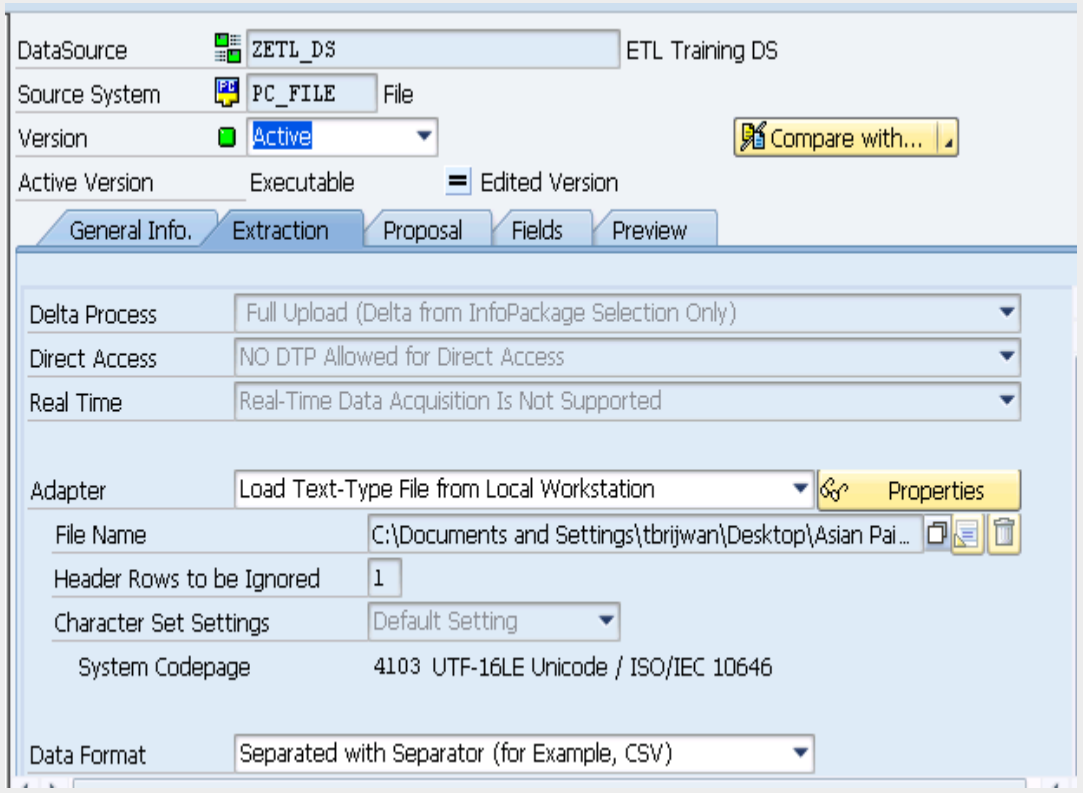
Maintain DataSource

Specify File Name

And file type

No. of header rows

to be ignored



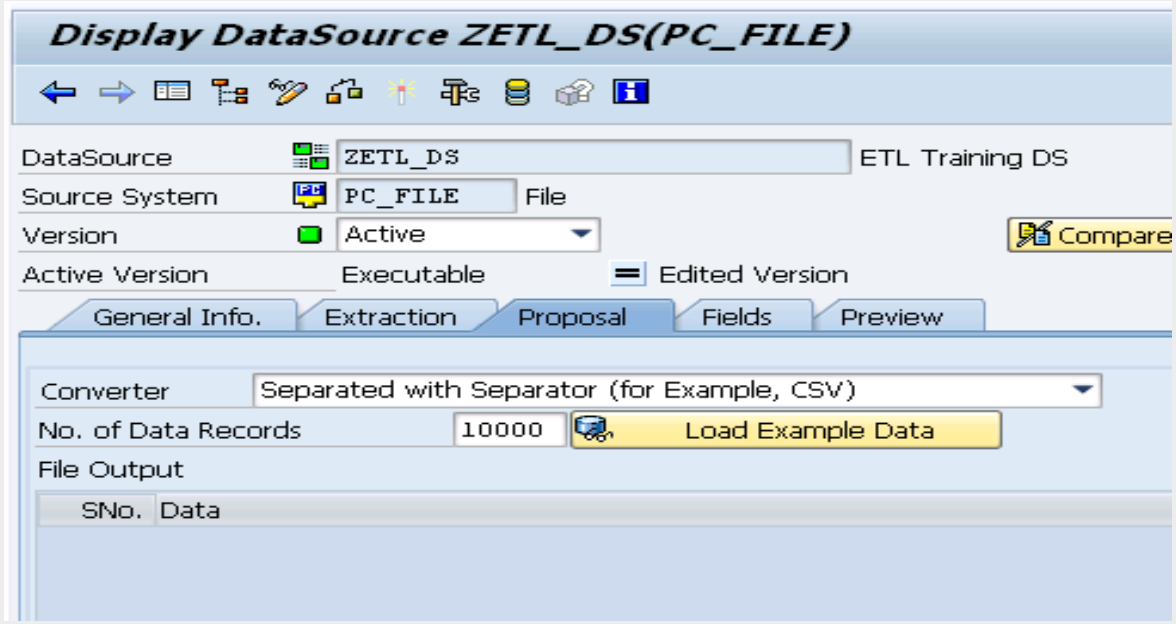
Maintain DataSource

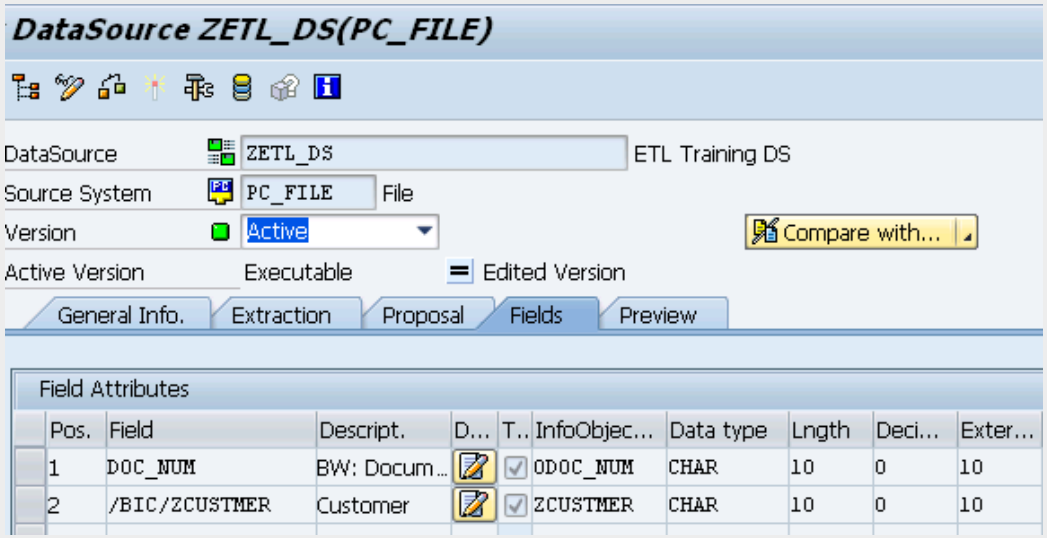
Generate Field proposal by selecting "Load Example Data"

Or

Maintain field list

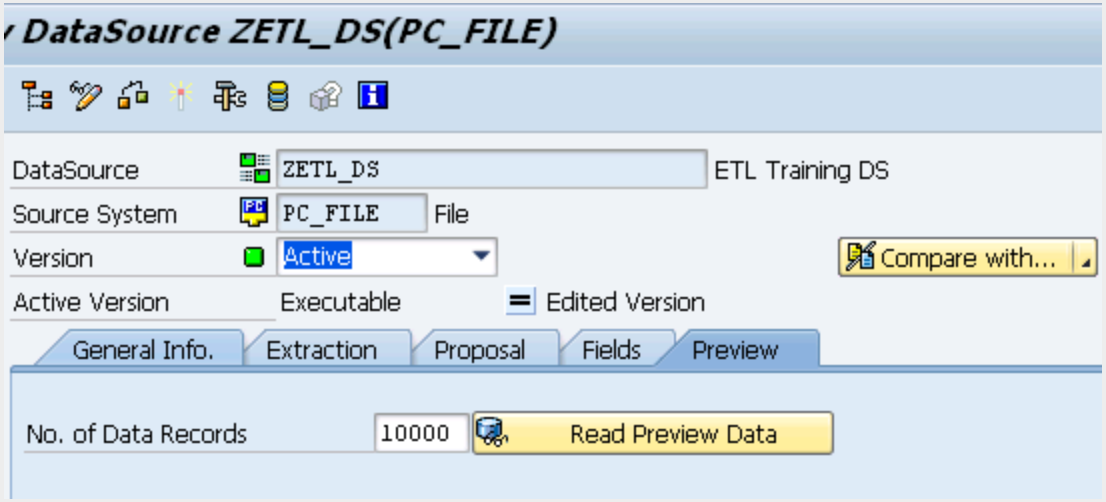
as per the requirement



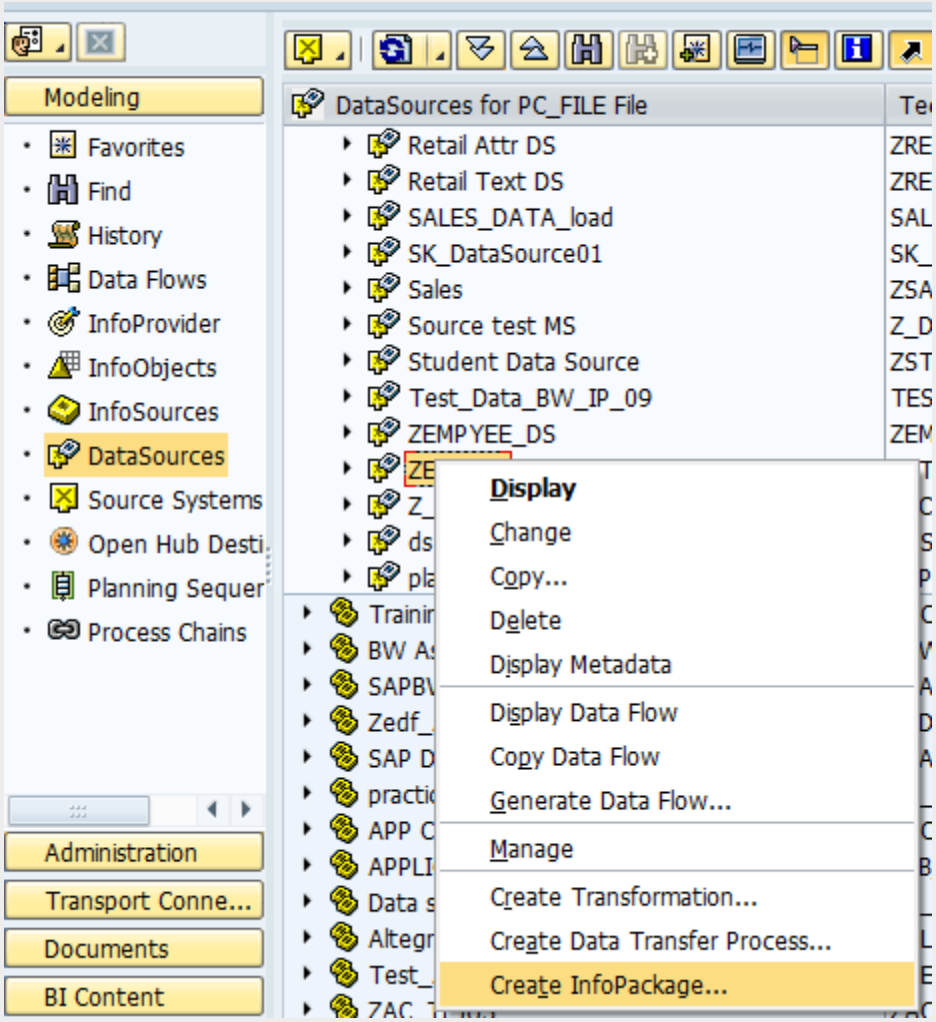


Maintain DataSource

"Read Preview Data" to review datasource structure.



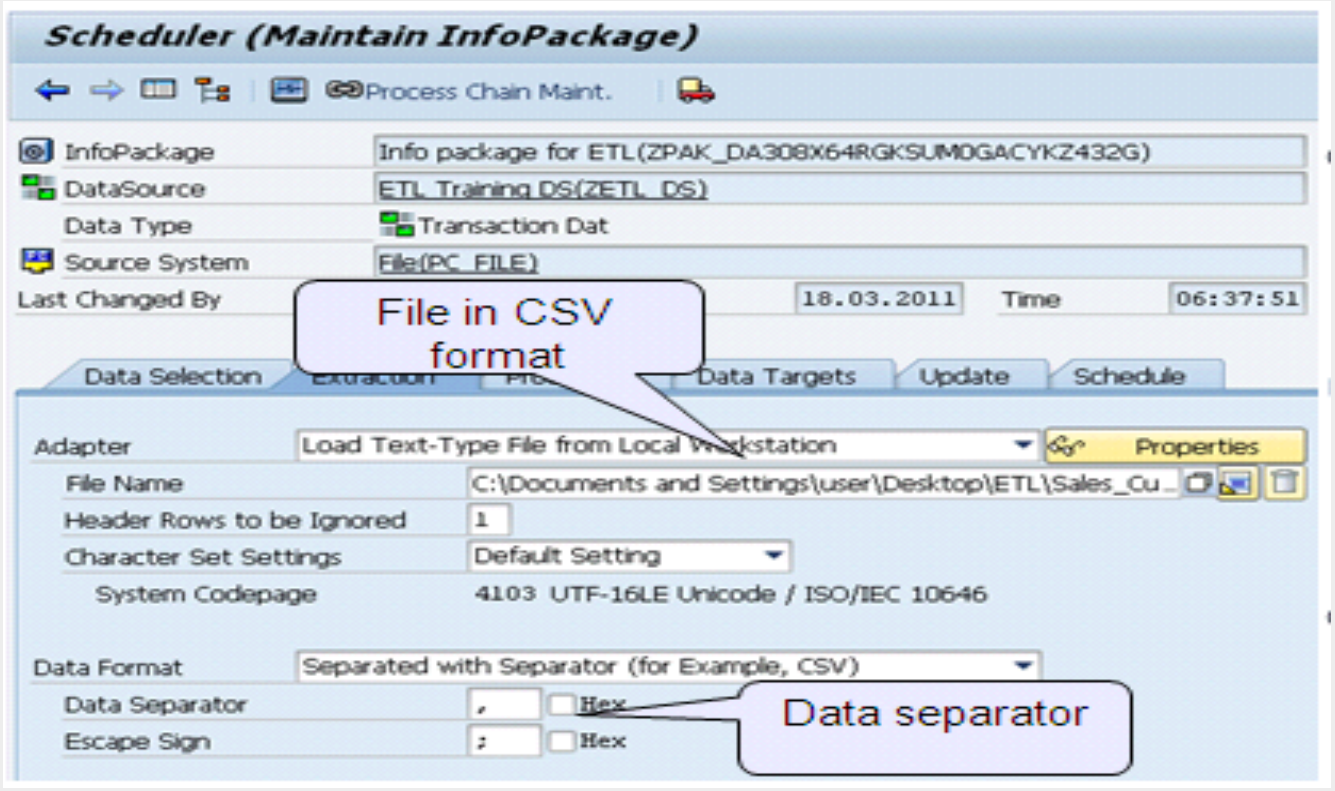
Create Infopackage



RSA1
Modelling →
DataSource →
Context menu of datasource →
Create Infopackage

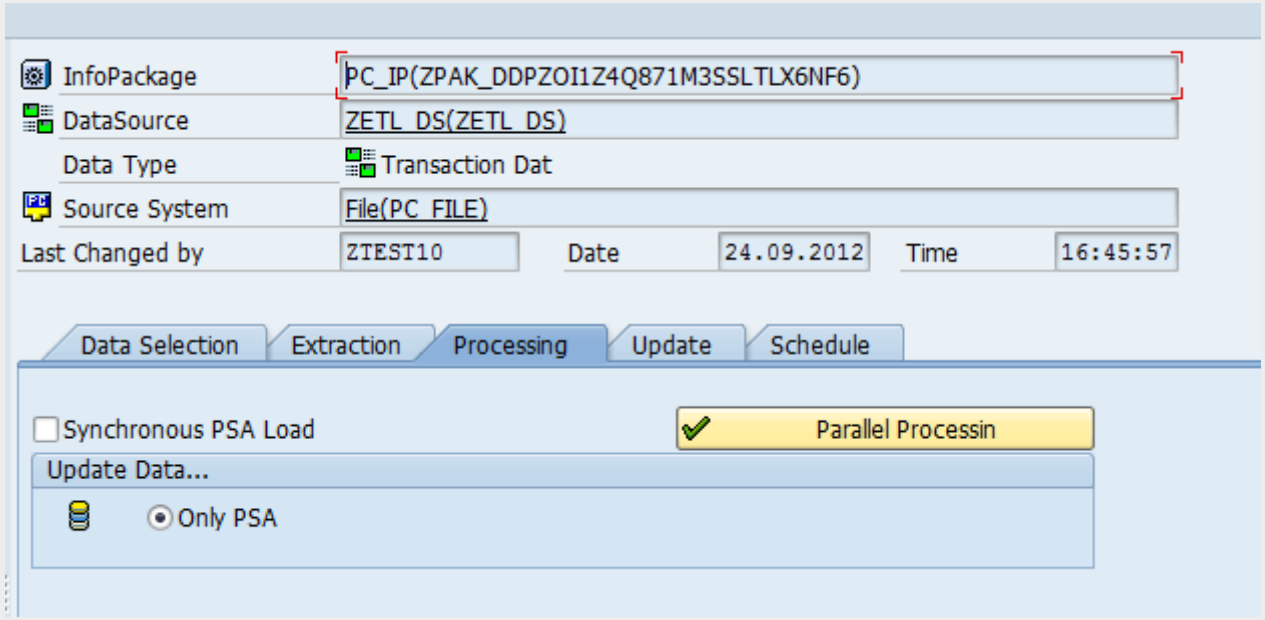
Maintain InfoPackage

- Give the name of the CSV file which you have created in the infopackage.
- Use the data separator as , and escape sign as ;



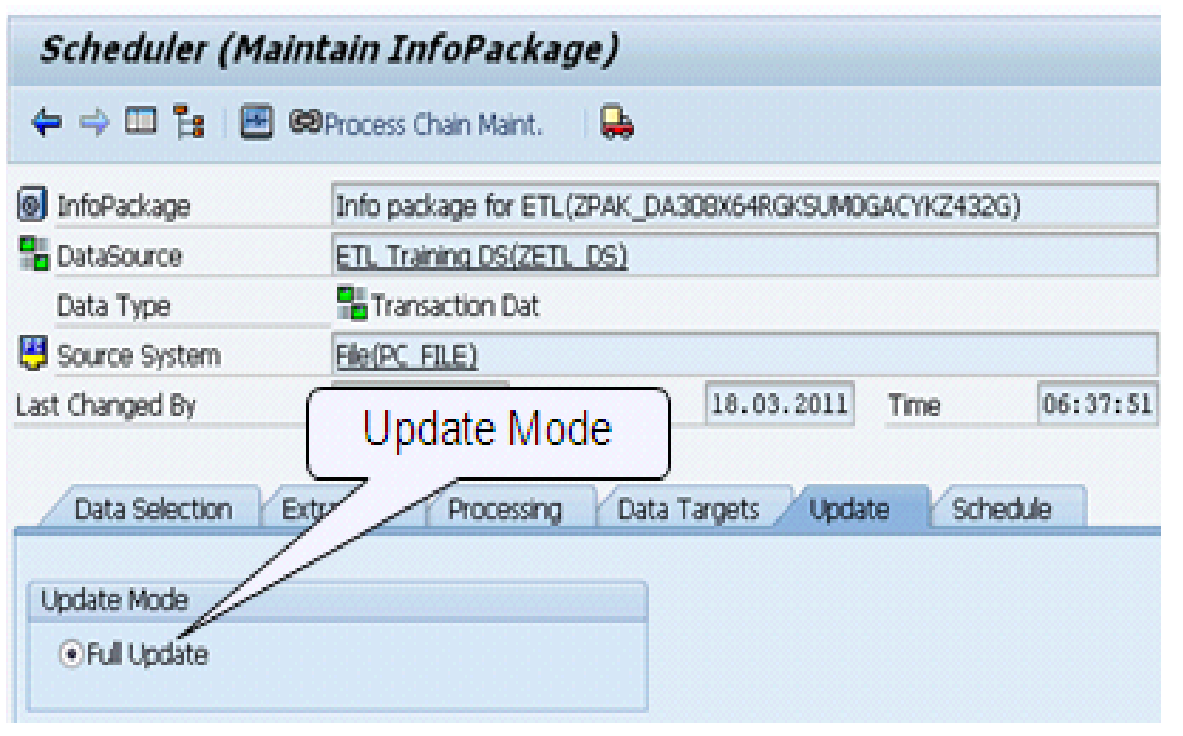
Maintain InfoPackage

➢Select Processing Mode as “Only PSA”



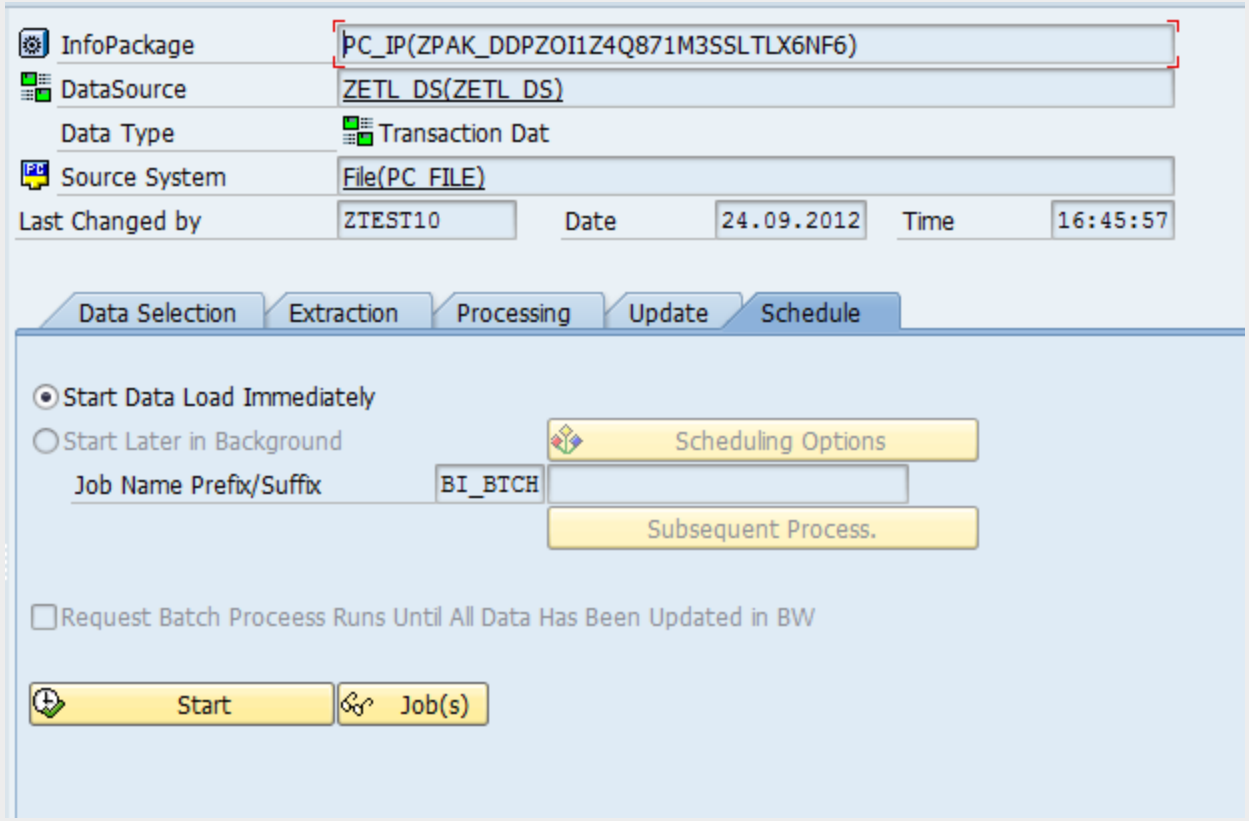
Maintain InfoPackage

- Select Update mode (full / delta).
- Note : Delta mode available only for delta capable DataSources, initialisation mandatory prior to delta



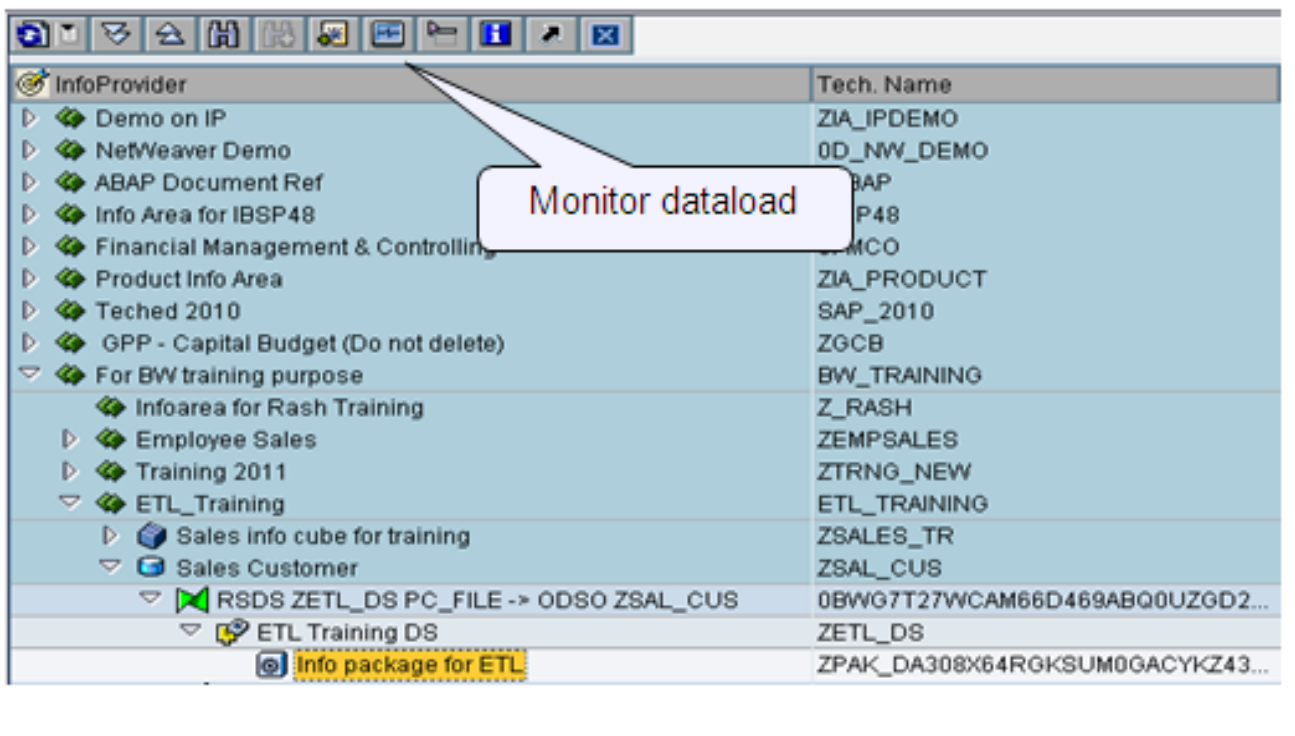
Maintain InfoPackage

➢Load data immediately or Schedule Data Load later in background

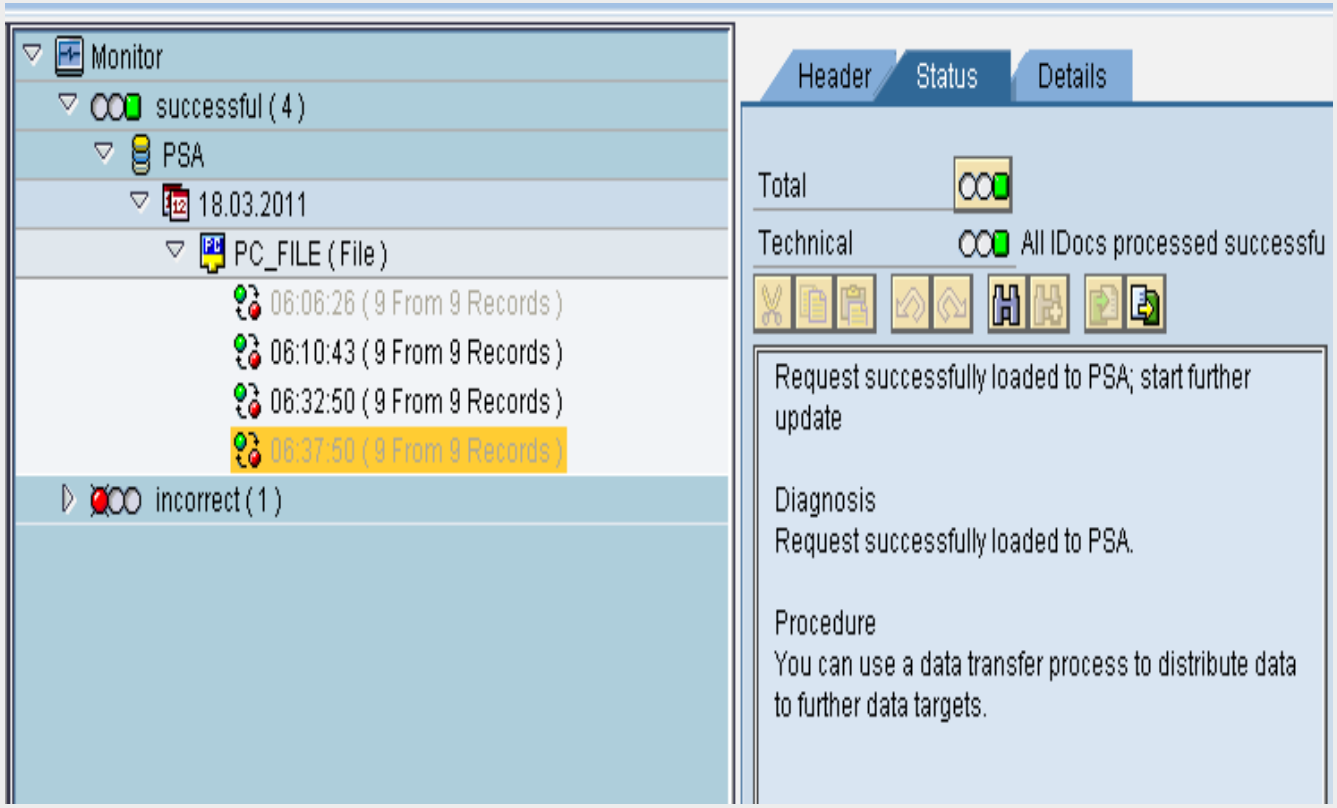


Monitor Data Load

➢Select info package and press Monitor



Monitor Data Load

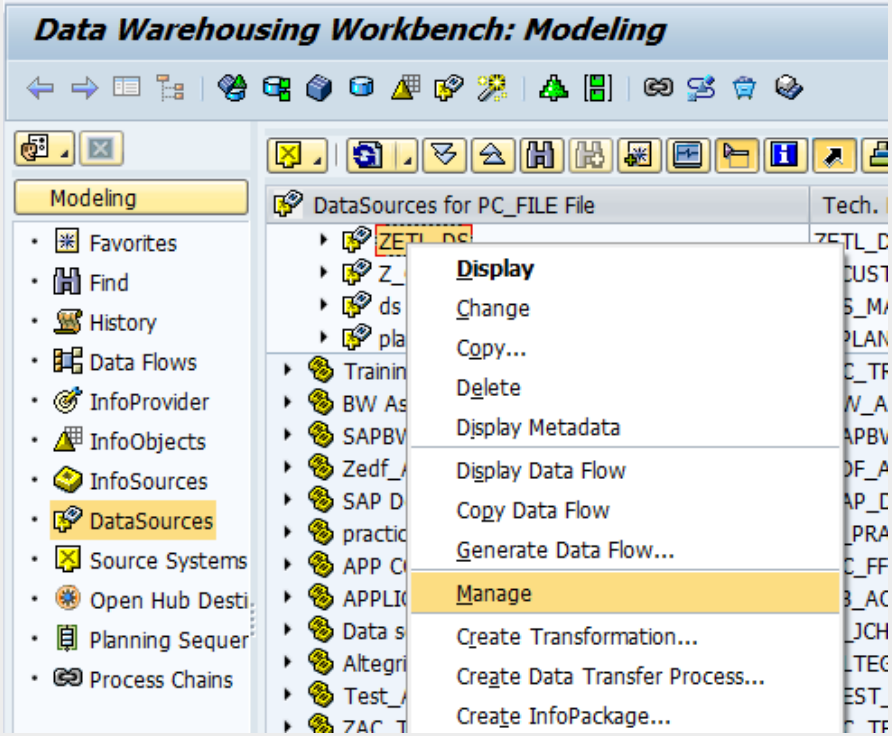


Green : Load Successful

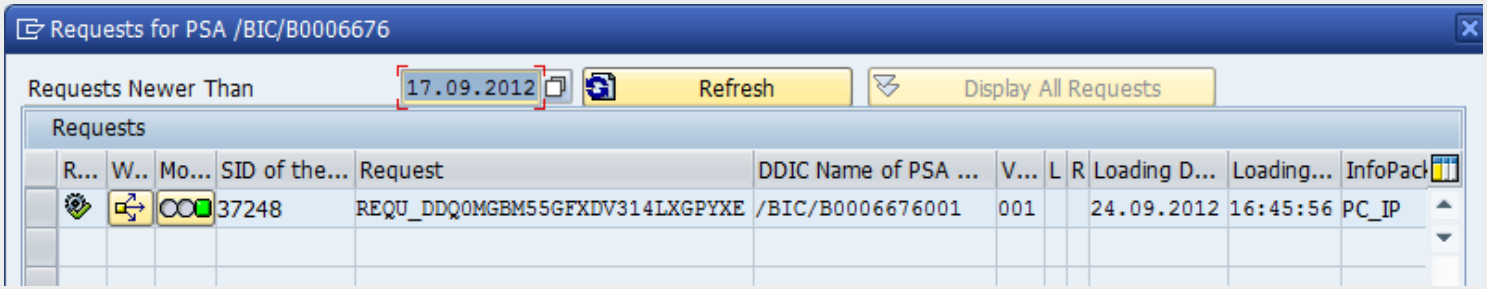
Yellow: Dataload Running

Red: Data Load Failed

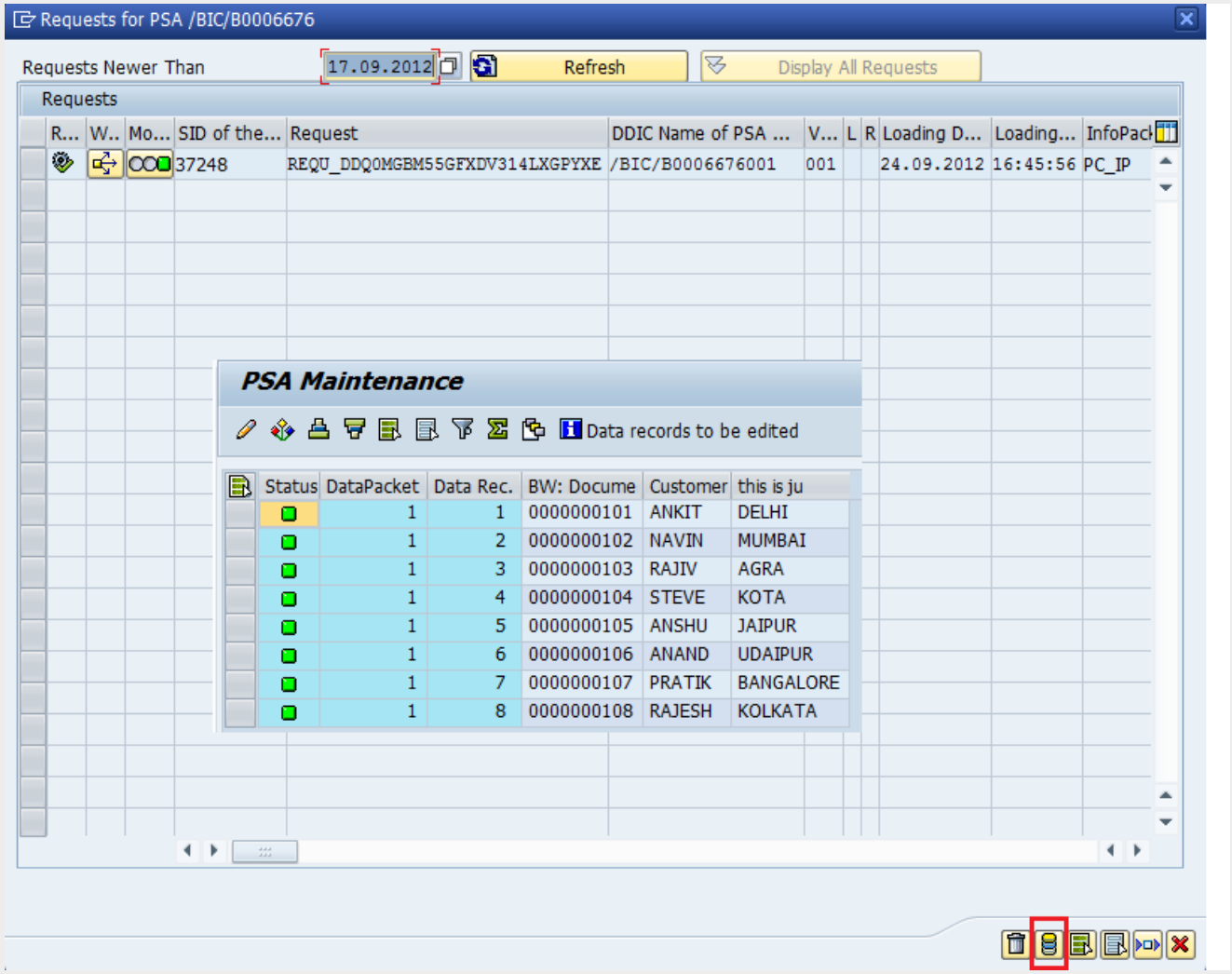
Manage PSA



RSA1
Modelling →
DataSource →
Context menu of
datasource →
Manage

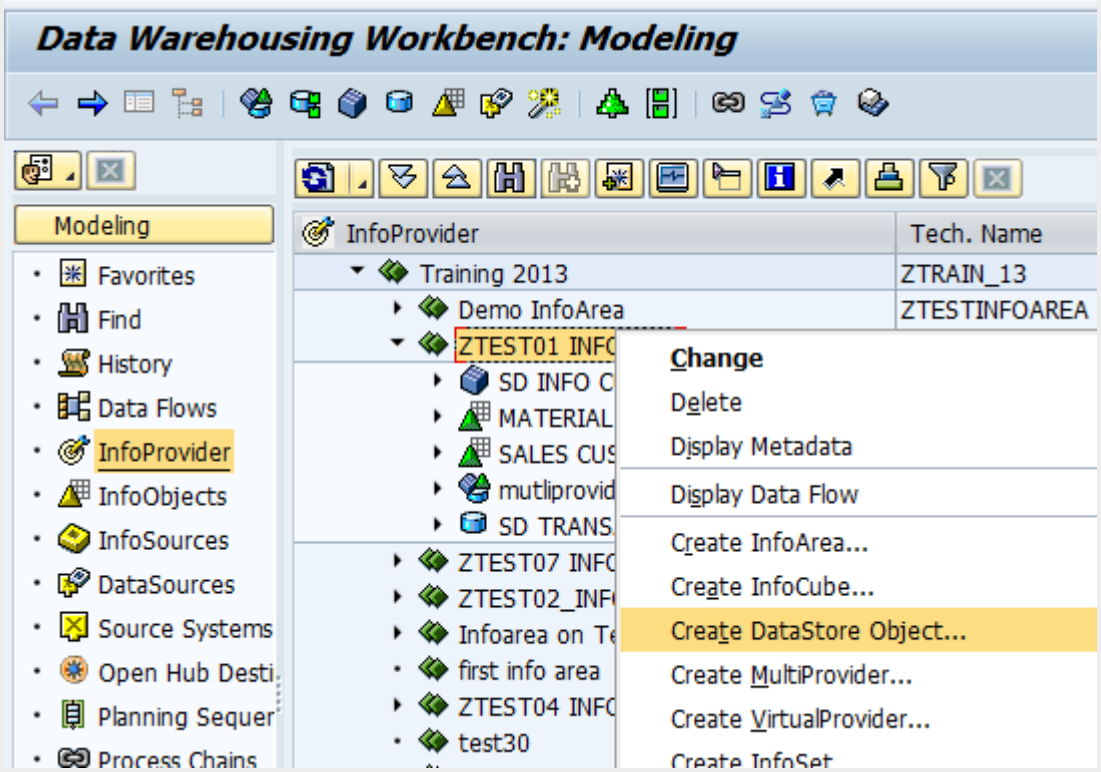


Manage PSA



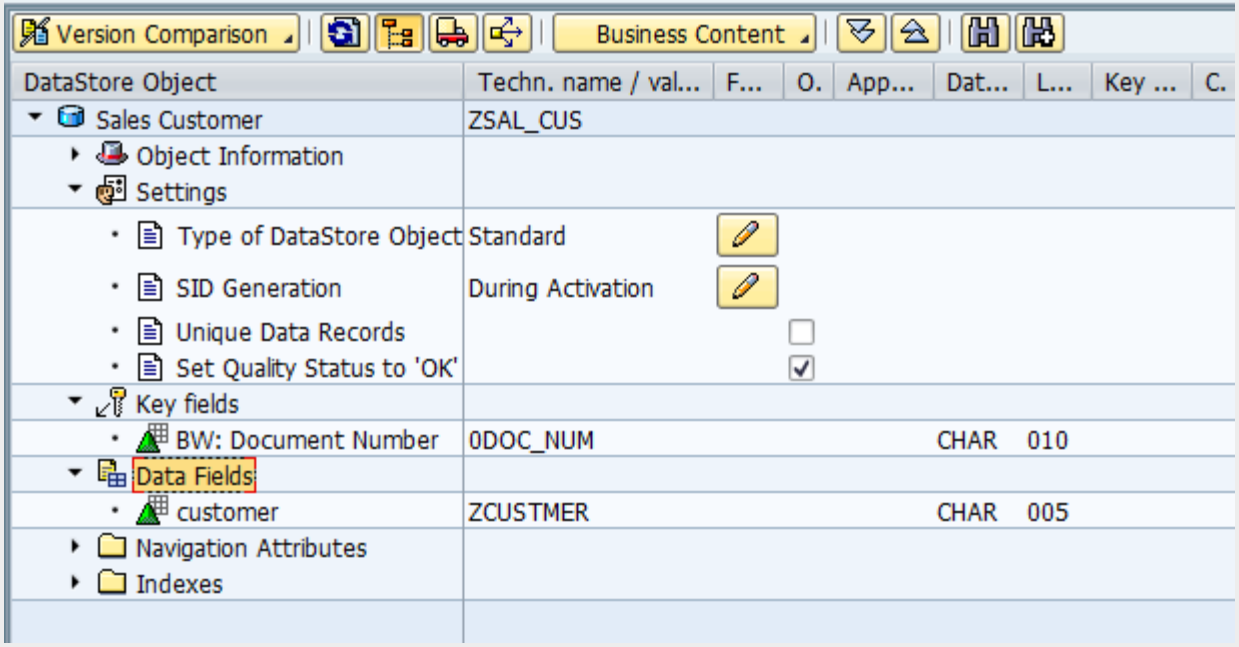
RSA1
Modelling →
DataSource →
Context menu
of datasource →
Manage

Maintain InfoProvider (DSO)



RSA1
Modelling →
InfoProvider→
Context Menu
Info Area→
Create DataStore Object

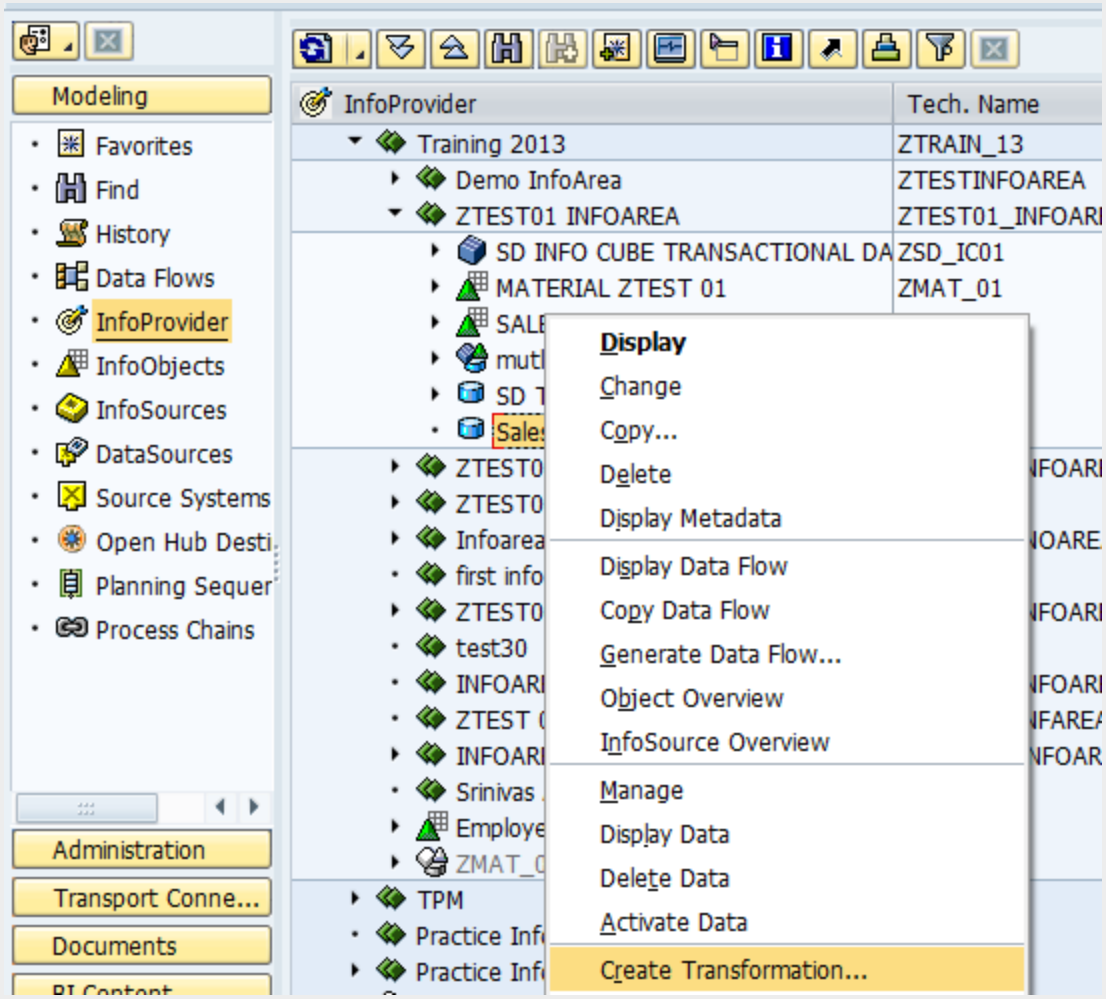
Maintain InfoProvider (DSO)



Maintain DSO :Key fields and Data fields

Save and Activate DSO definition(It is different from Activation of data requests- shown later)

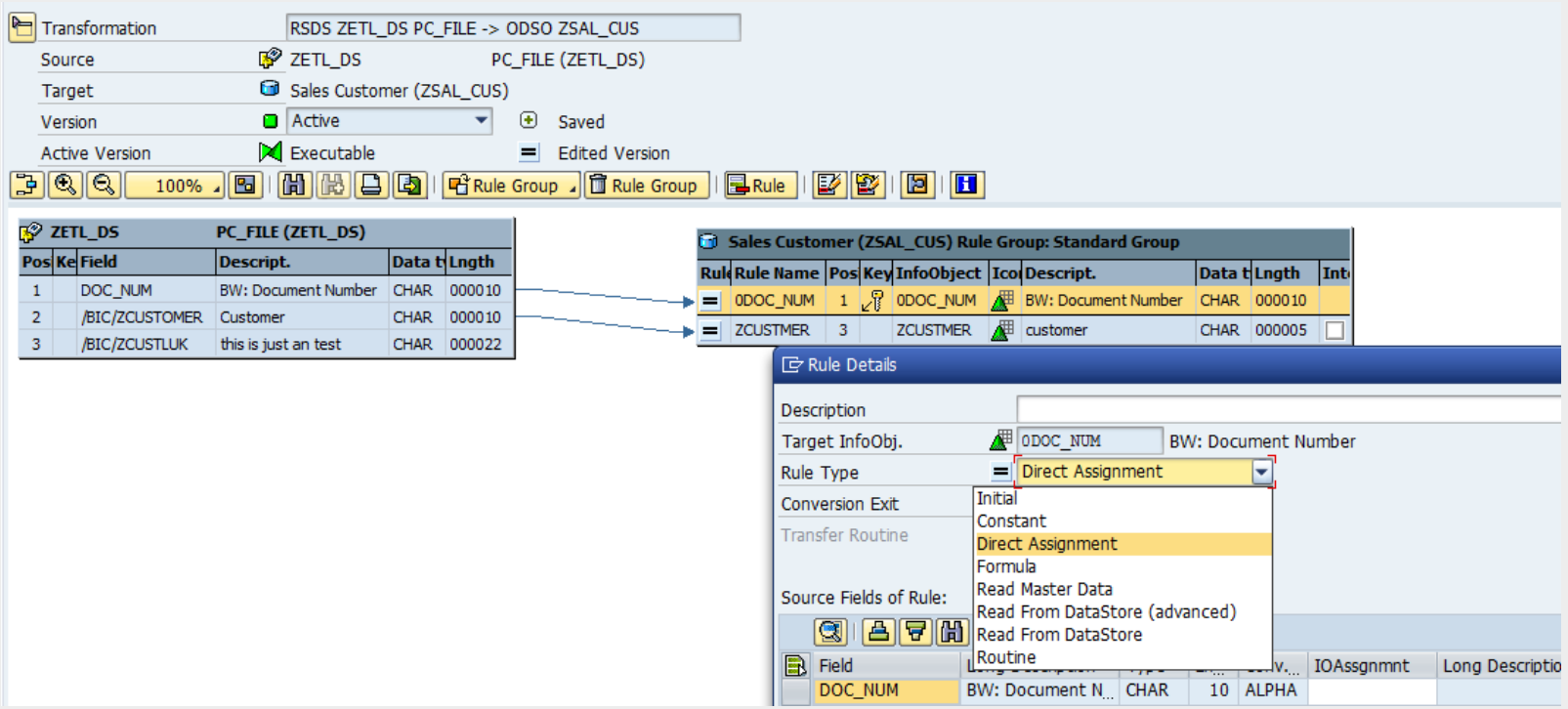
Create Transformation



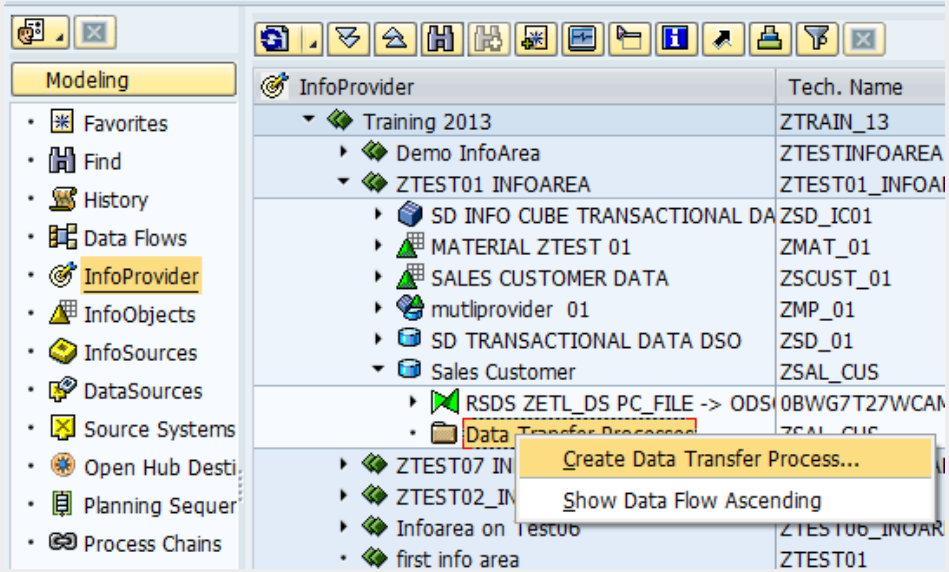
RSA1
Modelling →
InfoProvider→
Context Menu
→
Create Transformation

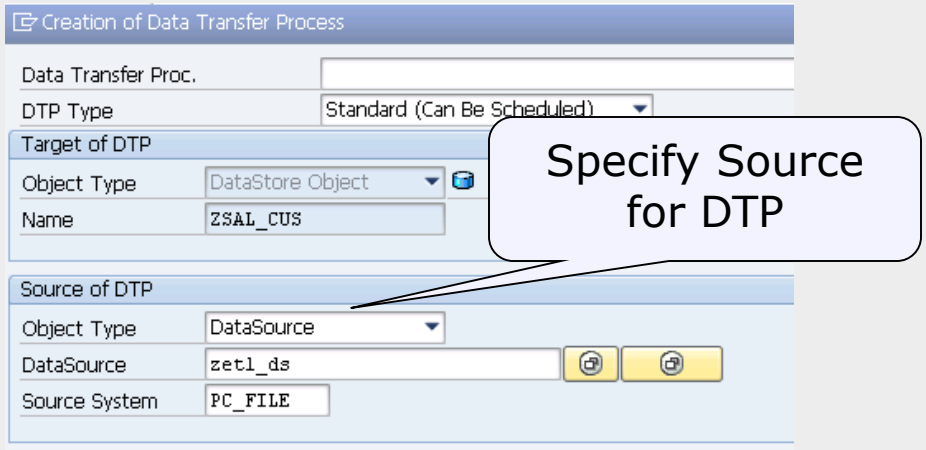
Maintain Transformation Rules

➢Maintain Mappings in Transformation Rules



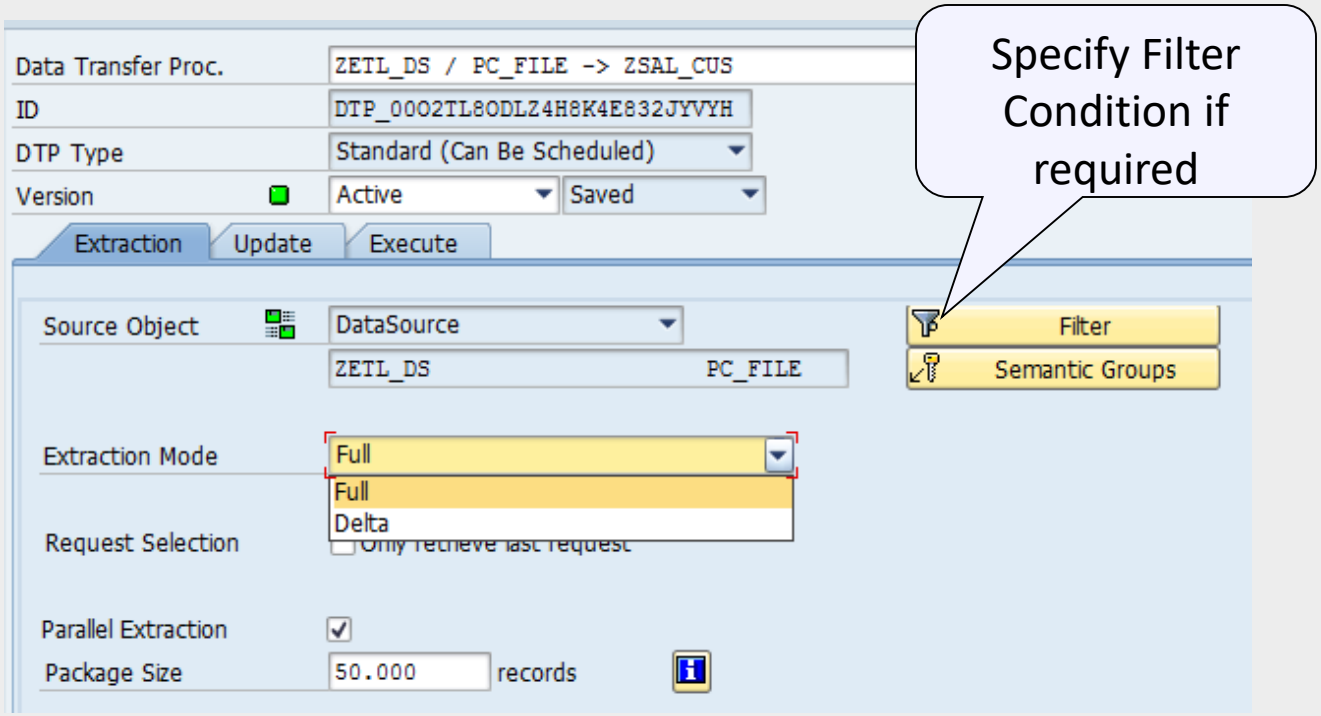
Create Data Transfer Process





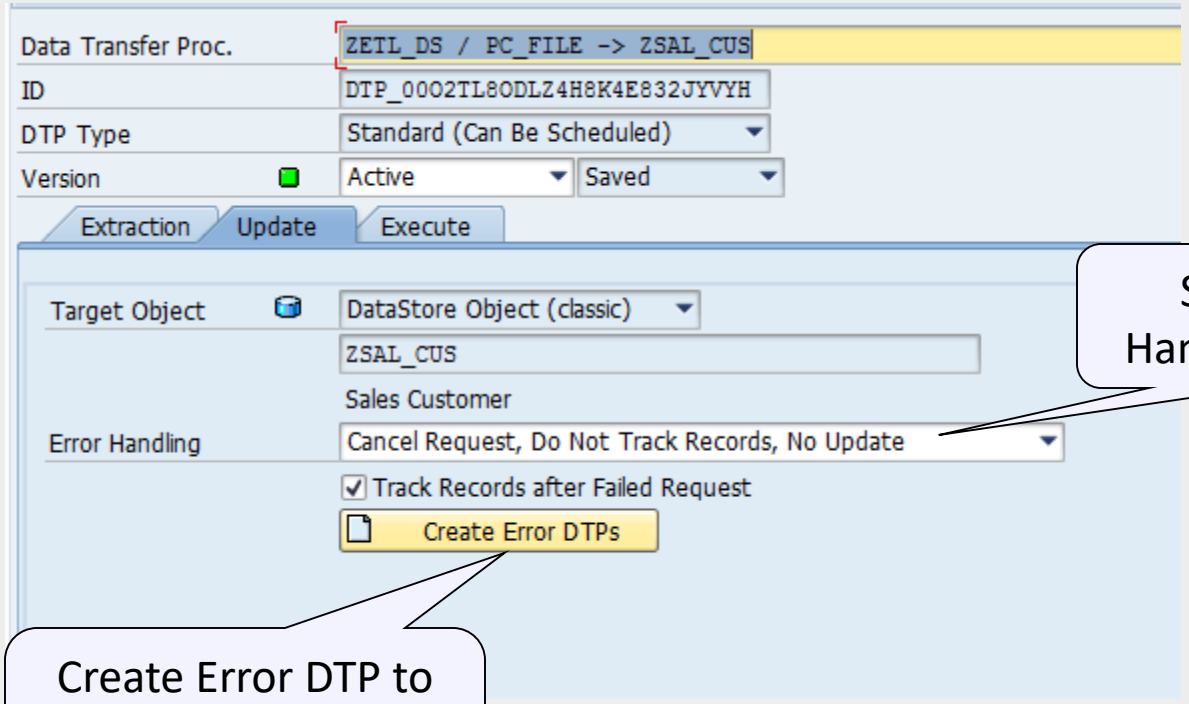
RSA1
Modelling →
InfoProvider→
Context Menu of Data Transfer Process
→
Create Data Transfer Process

Maintain Data Transfer Process



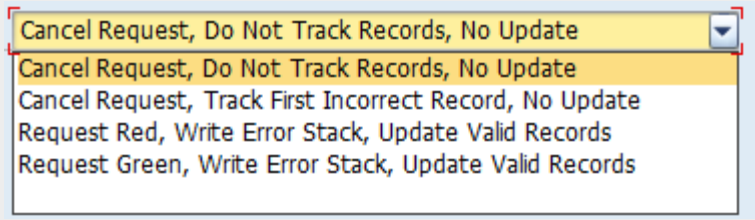
Extraction Mode :
Full : All the requests available in the source will be loaded
Delta :Only unloaded requests will be loaded

Maintain Data Transfer Process

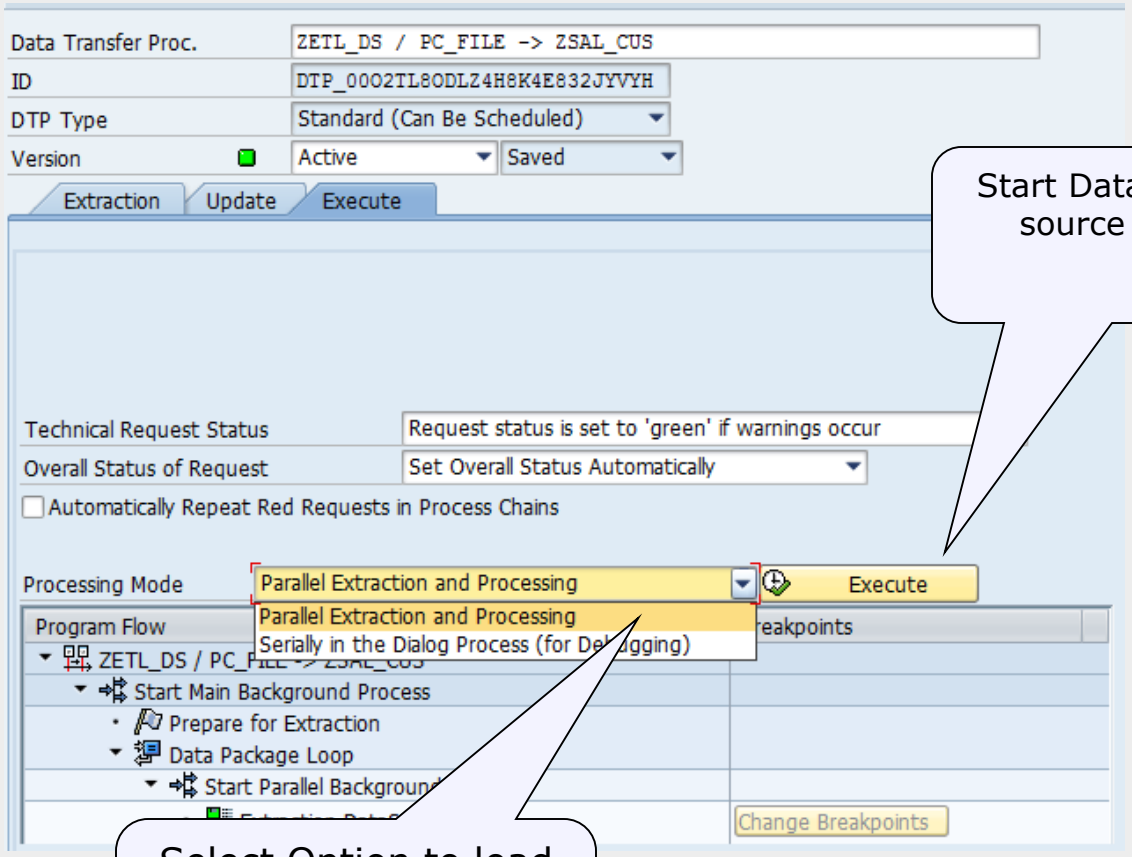


Select Error Handling Options

Create Error DTP to update Errorneous Records



Maintain Data Transfer Process



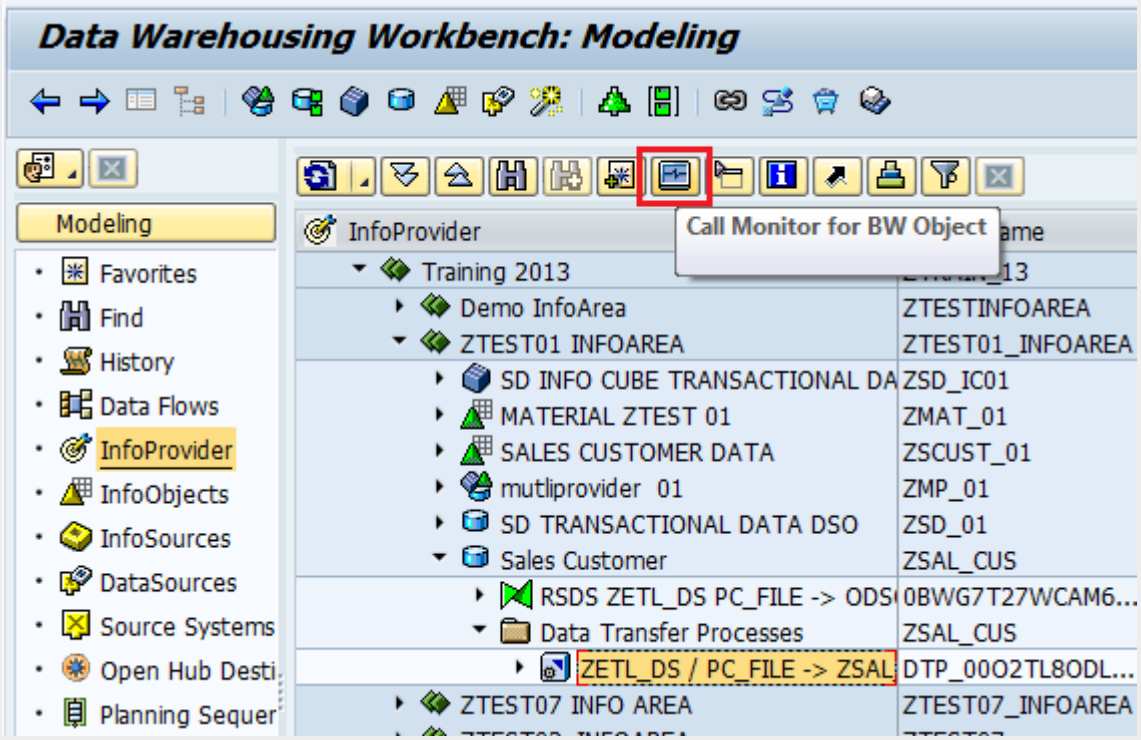
Start Data Load from source to target

Select Option to load / simulate data load for debugging

Execute: To start data load from source to target

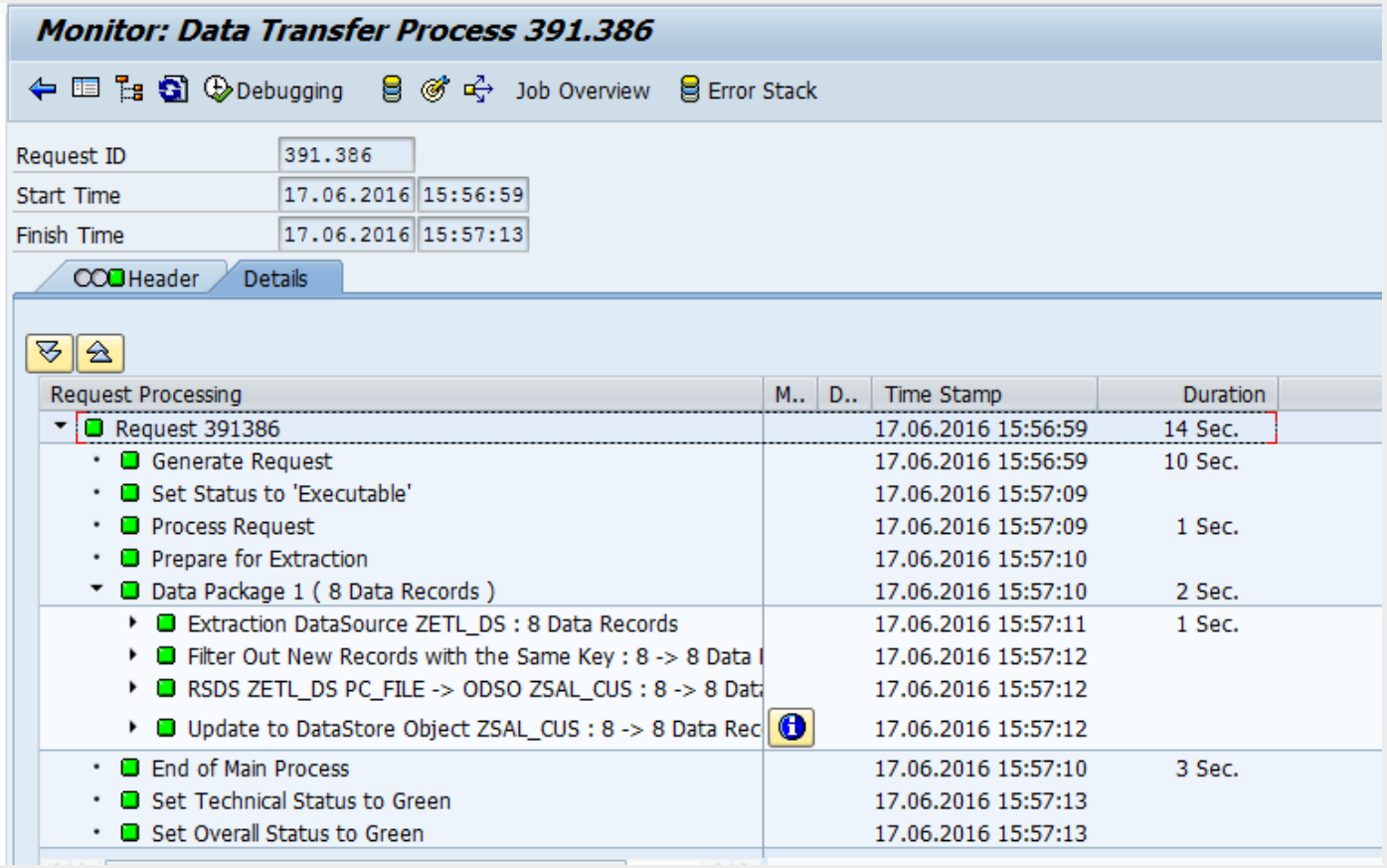
To Debug routines : Select "Serially in the Dialog Process (for Debugging)"

Monitor DTP Load



Select DTP and press Monitor

Monitor DTP Load

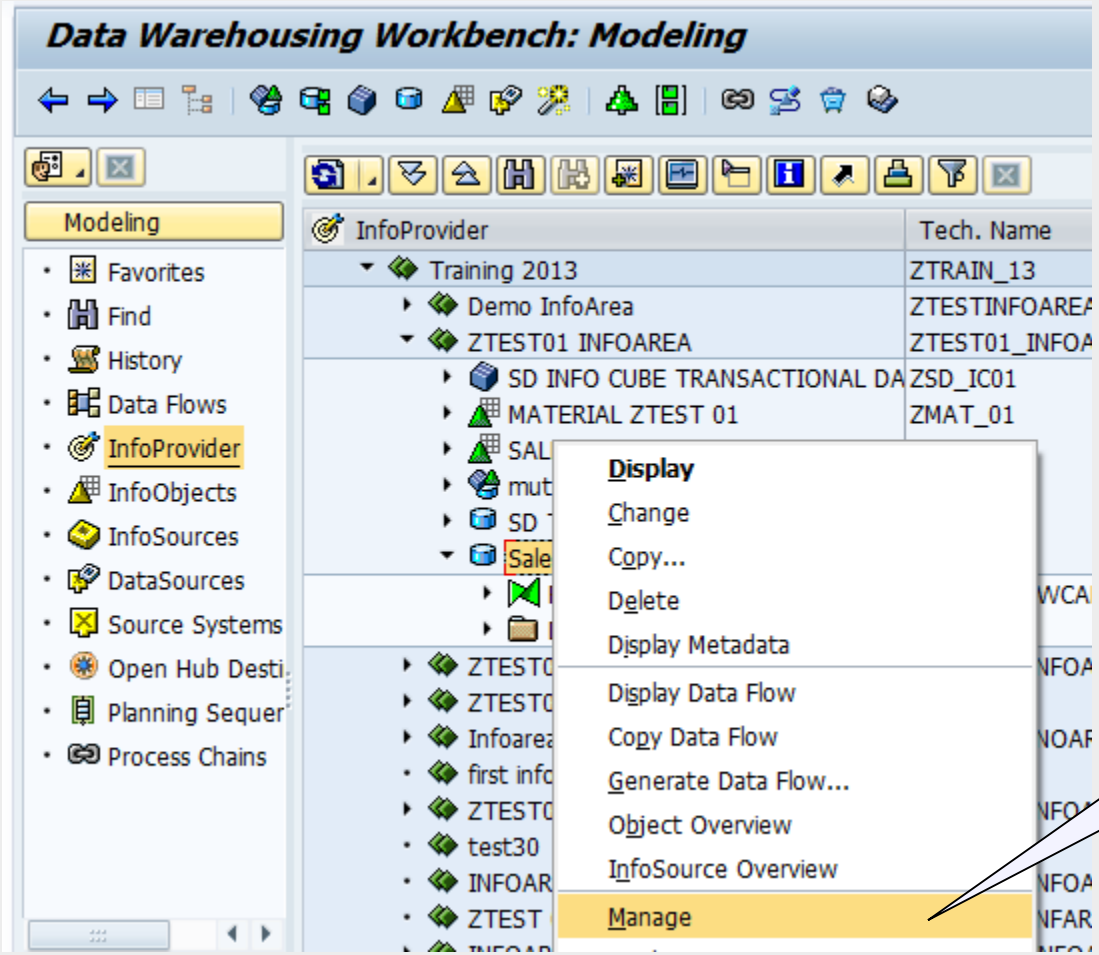


Green : Load Successful

Yellow: Dataload Running

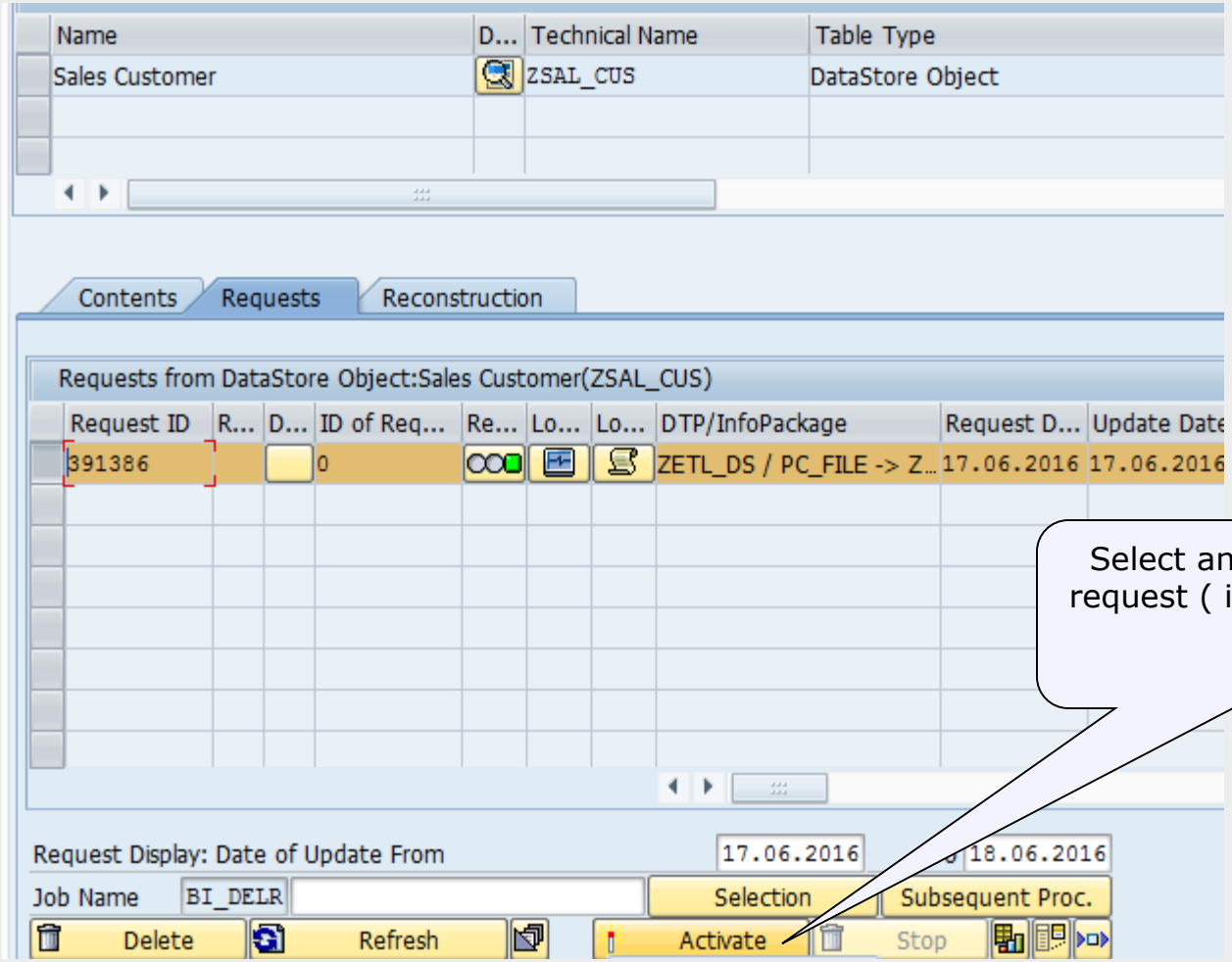
Red: Data Load Failed

Manage DSO Requests

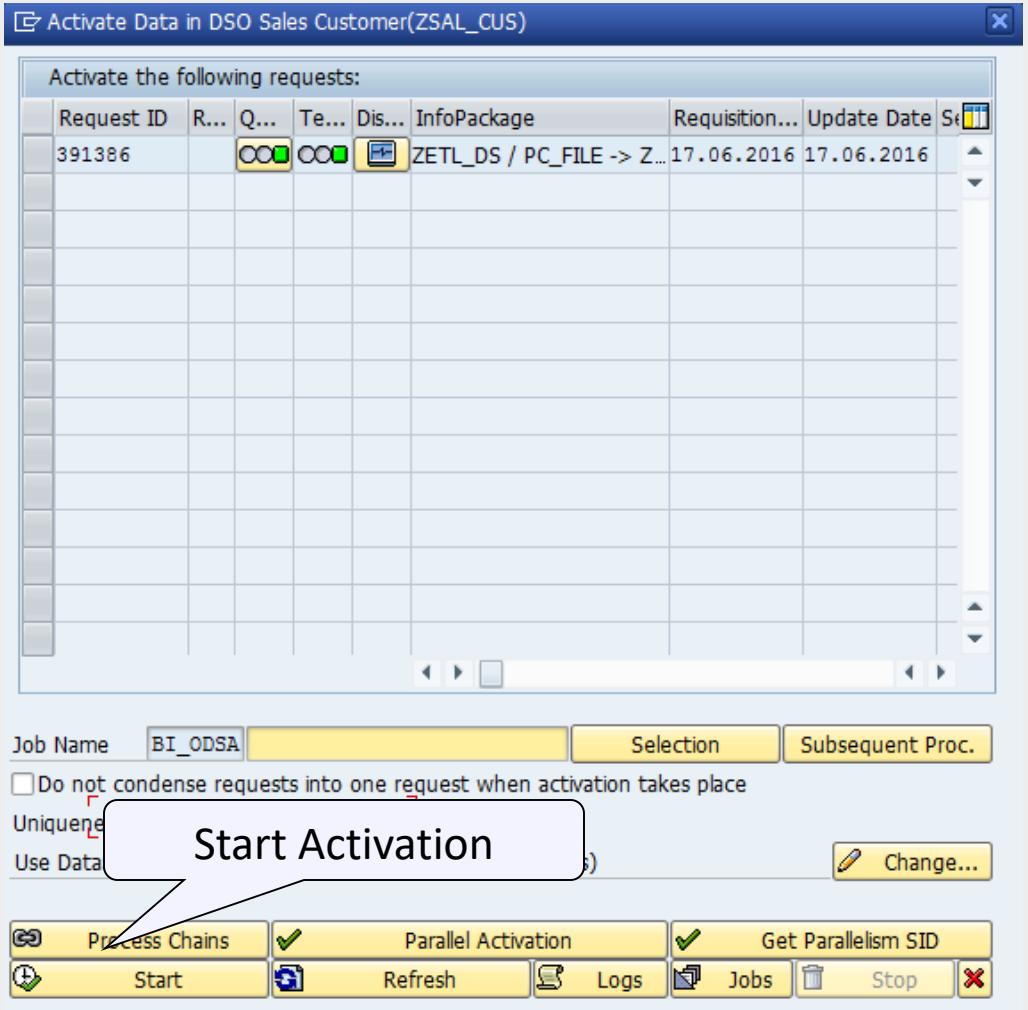


Select Context Menu of DSO and select Manage

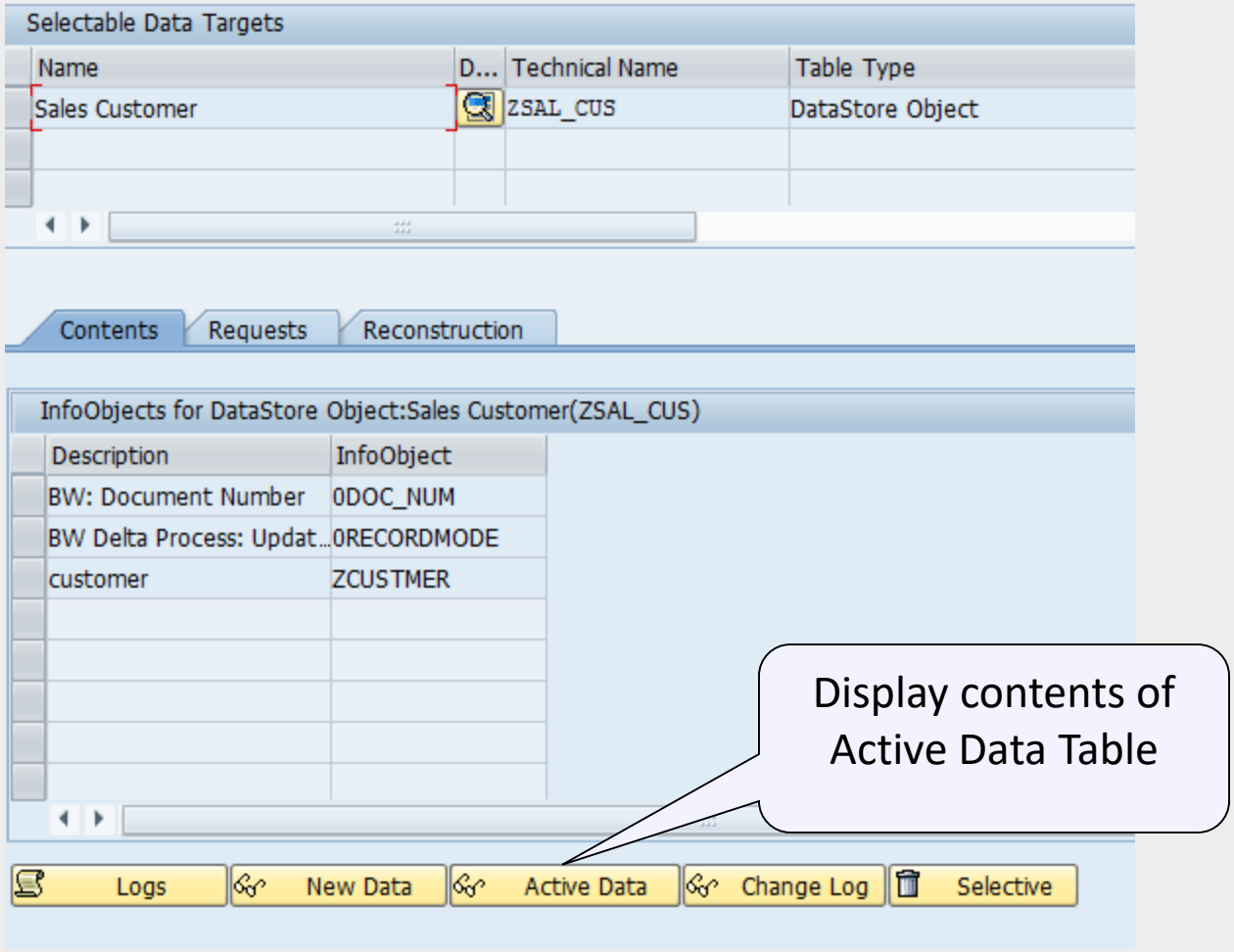
Manage DSO Requests



Manage DSO Requests

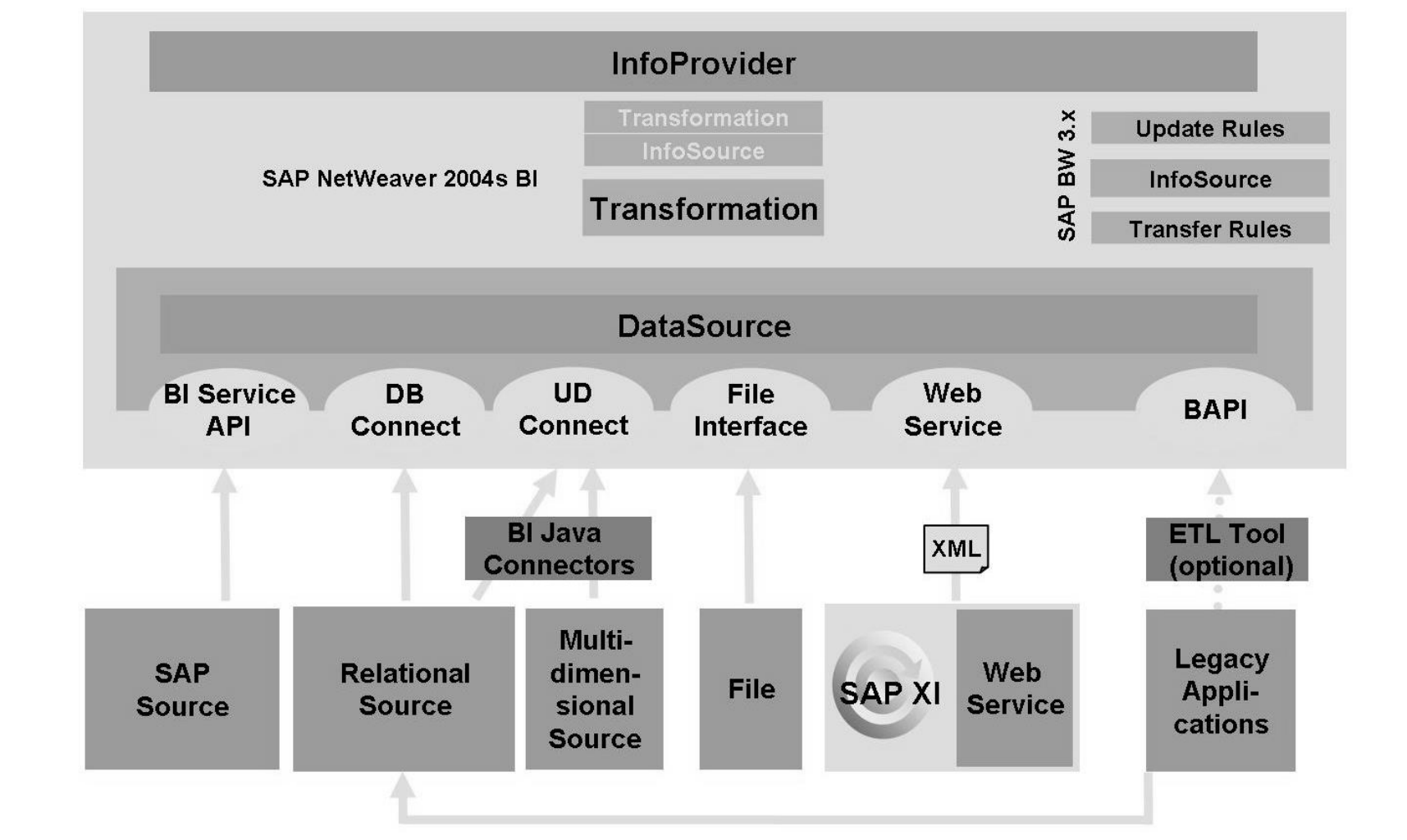


Manage DSO Requests

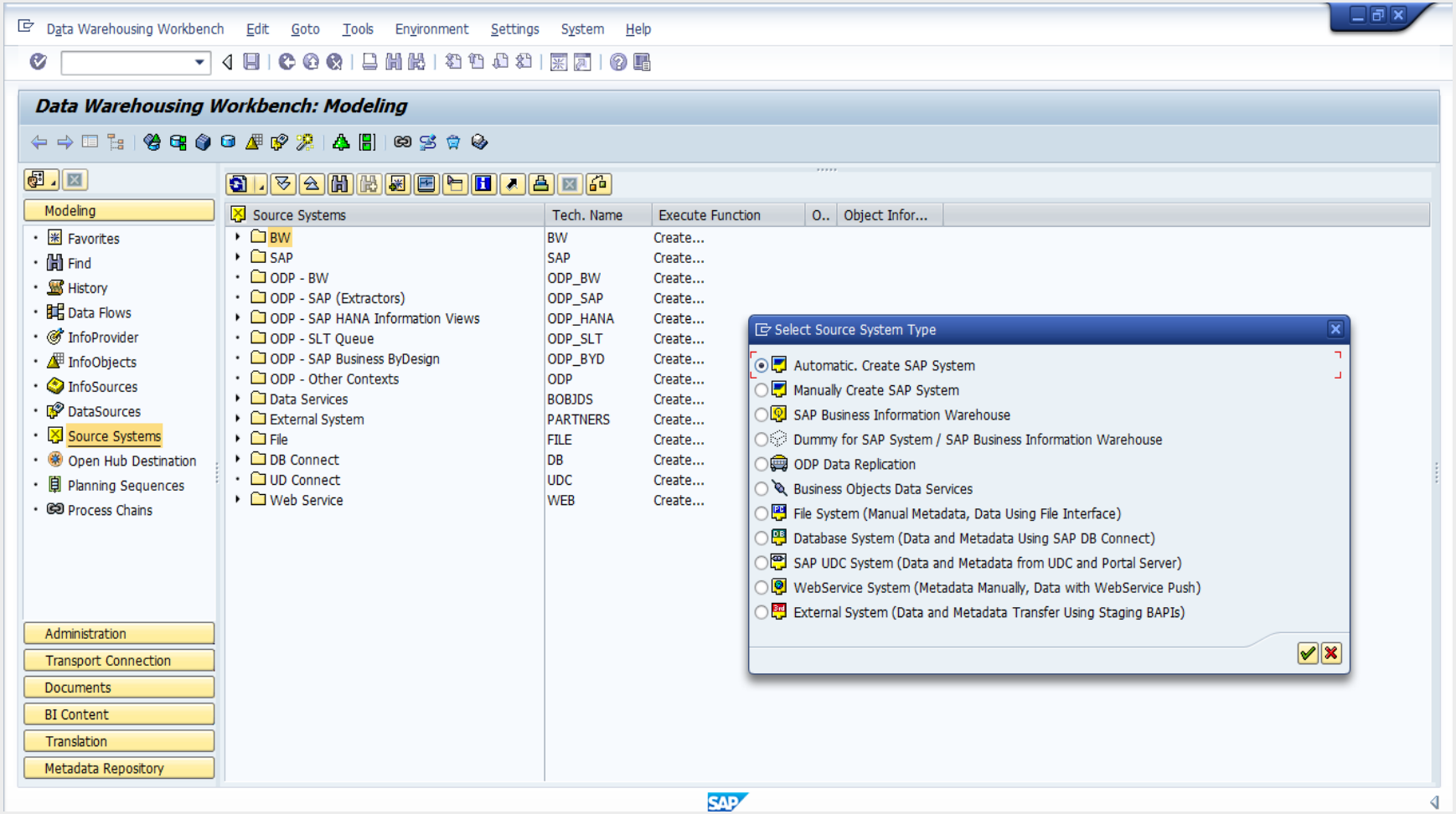


Summary

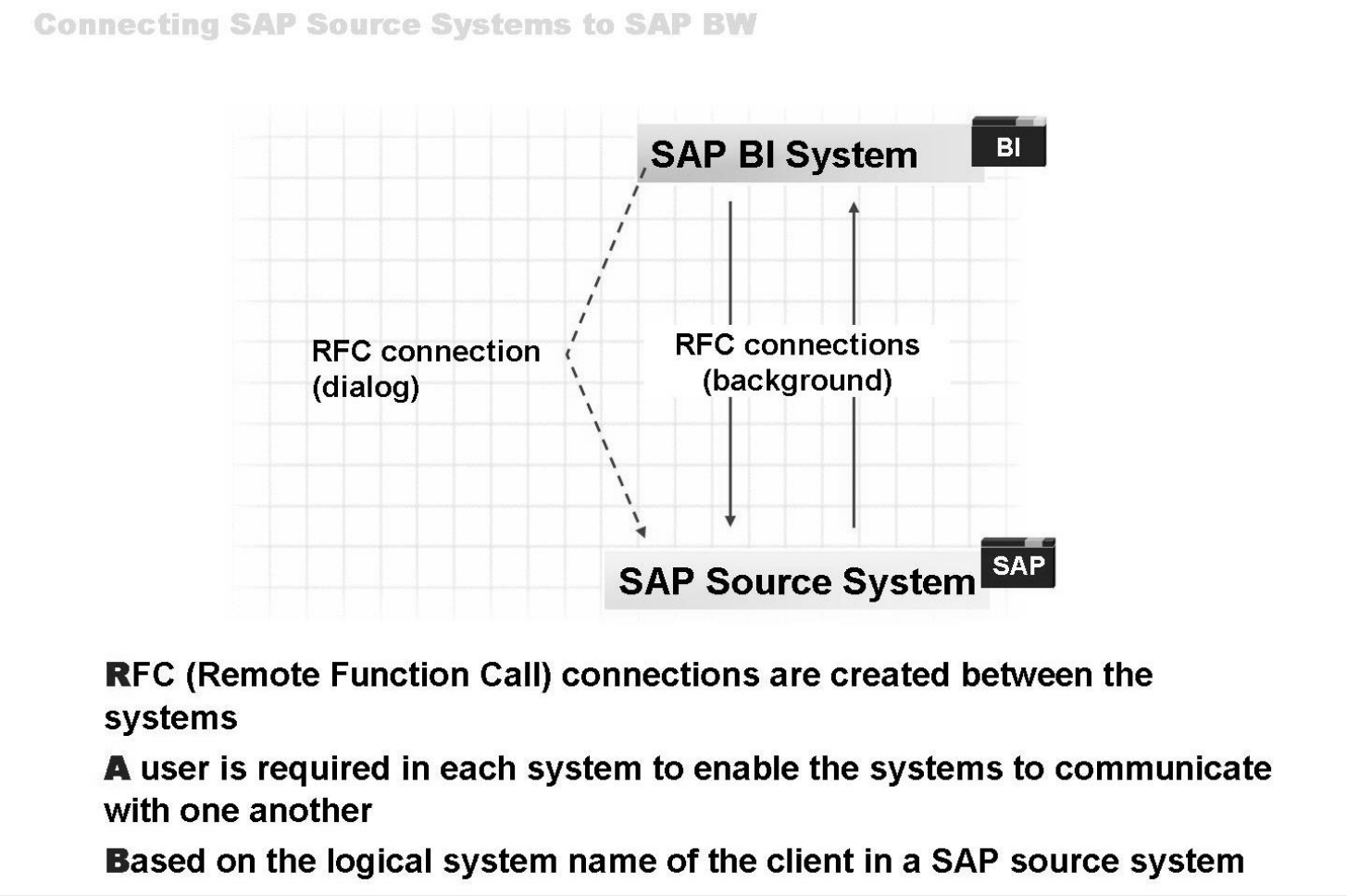
Data Acquisition with the Service API



RSA1 ☐ Source Systems: Creation/Maintenance



Connecting SAP Source Systems to an BI System



RFC (Remote Function Call) connections are created between the systems

A user is required in each system to enable the systems to communicate with one another

Based on the logical system name of the client in a SAP source system

Connection Configuration

➢A connection between a source system and an BI system consists of a series of individual connections and settings that are made in both systems:

- . RFC Connections
- . ALE Settings
- . Partner Profiles
- . Ports
- . IDoc Types
- . IDoc Segments
- . BI Settings

RFC Connections – Features

➢Transaction SM59 to maintain RFC connections.

➢RFC connections are based on ALE technology (Application Link Enabling).

- ALE is a technology for the construction and operation of distributed applications.
- It provides for the efficient and controlled exchange of messages and keeps data consistent in loosely connected SAP application systems.
- The applications are integrated using synchronous and asynchronous communication, rather than a central database.

➢RFC connections are created based on the logical system name.

- This allows a client to be uniquely identified in an SAP system landscape.

RFC Connections – Features

- A second RFC connection (with _DIALOG as the suffix to the technical name) is created to enable jump from the BI system to the SAP source system during online processing (for example, out of the monitor assistant, or to make Customizing settings in the source system).

- No user is specified in this connection.

- BI users must therefore log on their source system user names and passwords before jumping to the SAP source system.

BI service API

➢The BI service API (Application Programming Interface) is based exclusively on SAP technology and is used at various points within the BI architecture:

- To transfer data and metadata from SAP source systems
- With XML/SOAP-based data transfer
- With data transfer using the Data Mart Interface

SAP Service API: Scope

➢Configuration of source system connections

➢Delta Queue (clip board for delta records)

➢Data Extraction monitored by exchanging of messages (status information) between systems (Info -Idocs monitoring)

➢Less down time initialization(system data is mirrored)

- Customizing Datasources
- Replication of Datasources (meta Data)
- control parameters for data Transfer
- Remote cube technology (direct access)
- Test tool for extraction of data (extractor checker)

SAP Service API (2): Tools

- The delta queue is a central temporary repository for delta records (= new and changed records) in the SAP source system.
- Reduced downtime: You can also reduce downtime by executing delta initialization runs in mirror systems.

- Customizing Datasources: Transaction SBIW
- Replication: RSA1 ☐ Datasources☐ Choose a datasource ☐ Right-click ☐ Replicate
- Test tool for extraction: RSA3