

Analysis Process Designer (APD): Part - 1



Applies to:

SAP NetWeaver Business Warehouse (Formerly BI). Will also work on SAP BI 3.5. [Business Intelligence homepage](#).

Summary

This article gives clear picture about how to down load the InfoCube Data into .CSV file using Analysis Process Designer in SAP-BW/BI.

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Introduction

The Analysis Process Designer (APD) is a workbench with an intuitive graphical user interface for creating, executing, and monitoring analysis processes. The analysis process is primarily based on data that was consolidated in the Data Warehouse and that exists in InfoProviders.

Analysis processes (APD) can be created on a graphical user interface using drag and drop. Data from different data sources in the BI system can be combined, transformed, and prepared for analysis in several individual steps. This allows it to be resaved in data targets in the BI system (DataStore objects for direct update or InfoObjects with attributes) or in CRM systems.

Live Scenario

I have data in InfoCube and I want to save the data into Flat File in .CSV format in Desktop or Application Server. Here I'm saving the file in Desktop.

I have some Characteristics InfoObjects and Key figure InfoObjects in InfoCube, but I want to only the following four InfoObjects need to download to .CSV file.

Material	= 0MATERIAL
Batch	= 0BATCH
Calendar Day	= 0CALDAY
Amount	= 0AMOUNT

But while downloading the data into .CSV file, I want to change the format of the 0CALDAY.

Eg:

In InfoCube we can see the 0CALDAY data like 01.06.2009.

After downloading the data into Flat File we can see the 0CALDAY data like 20090601.

But I want to save the 0CALDAY data like 01/06/2009.

Steps

Follow the following simple steps.

Step: 1

Go to RSANWB Transaction code and create new Analysis Process.

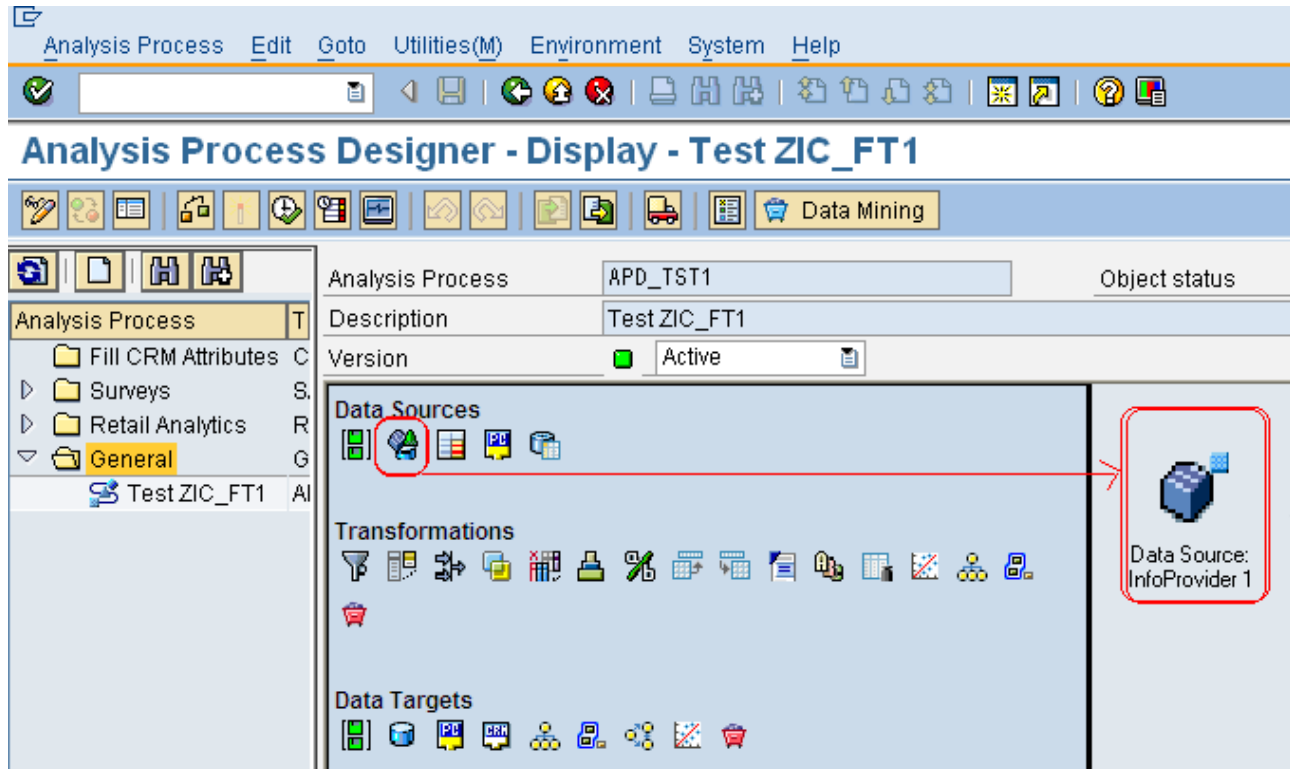
The screenshot displays the SAP Analysis Process Designer (APD) interface. The title bar reads "Analysis Process Designer - Display - Test ZIC_FT1". The main window is divided into several sections:

- Menu Bar:** Analysis Process, Edit, Goto, Utilities(M), Environment, System, Help.
- Toolbar:** Includes icons for save, undo, redo, and other standard functions, along with a "Data Mining" button.
- Left Panel (Tree View):** Shows a hierarchical structure of Analysis Processes. The "General" folder is expanded, and "Test ZIC_FT1" is selected and highlighted with a red box.

Analysis Process	Technical Name
Fill CRM Attributes	CRM_ATTRIBUTES
Surveys	SATISFACTION
Retail Analytics	RT_ANALYTICS
General	GENERIC
Test ZIC_FT1	APD_TST1
- Right Panel (Properties):**
 - Analysis Process:** APD_TST1
 - Description:** Test ZIC_FT1
 - Version:** Active
 - Data Sources:** A section with several icons representing different data source types.
 - Transformations:** A section with various icons representing different transformation operations.
 - Data Targets:** A section with icons representing different data target types.

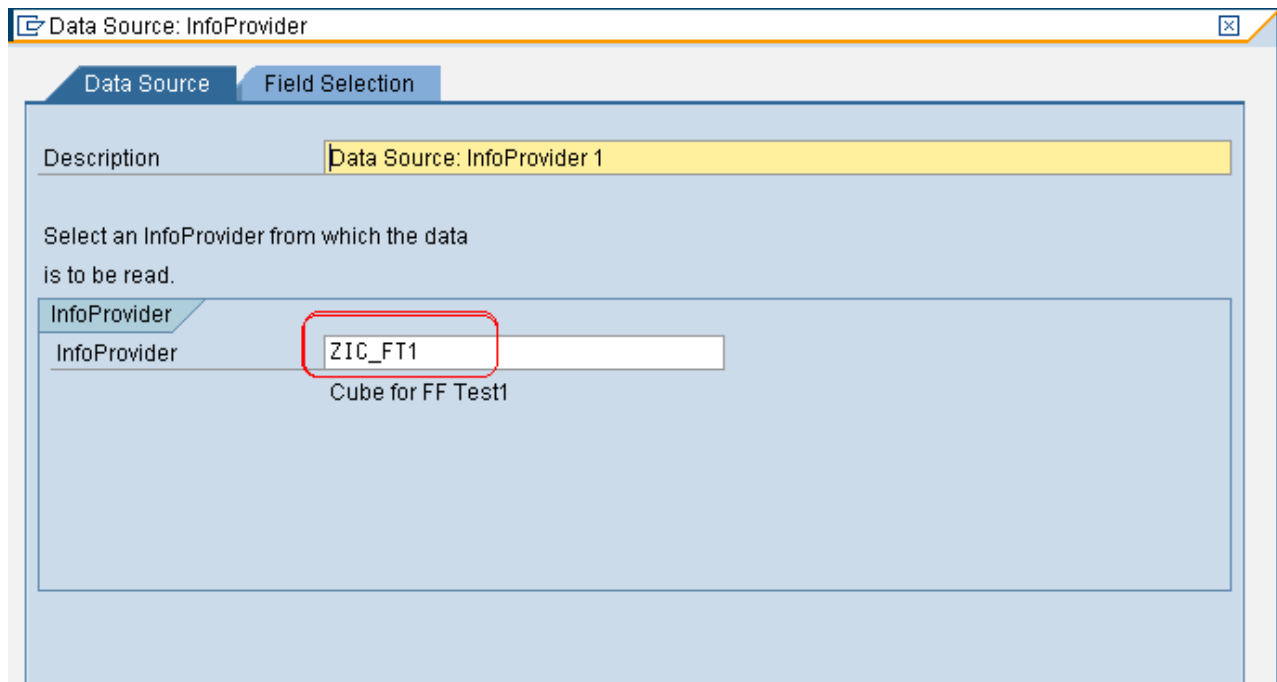
Step: 2

Drag and Drop DataSource i.e. Read Data from InfoProvider.



Step: 3

Give InfoProvider Name, here I given my InfoCube ZIC_FT1.



Step: 4

Select the required InfoObjects from Field selection and move it from right side panel to left side Panel.

See the below Screen.

Data Source: InfoProvider

Data Source | Field Selection

Selected Characteristics

Description	Field Name
Material	0MATERIAL
Batch number	0BATCH
Calendar Day	0CALDAY

Selected Key Figures

Description	Aggr...	Field Name
Amount	SUM	0AMOUNT

Available Characteristics

Description	Field Name
Activity unit	0ACT_UNIT
Calendar Year/Month	0CALMONTH
Calendar Year	0CALYEAR
Currency key	0CURRENCY
Currency key for FM area c	0FM_CURR
Division	0MATERIAL__ODIVI
Material Group	0MATERIAL__OMAT
Material Type	0MATERIAL__OMAT
Plant	0PLANT

Available Key Figures

Description	Field Name
Amount in FM area curren	0FM_AMOUNT1
Activity quantity	0QUANTOUT

Here I selected only following InfoObjects.

Material = 0MATERIAL
 Batch = 0BATCH
 Calendar Day = 0CALDAY
 Amount = 0AMOUNT

Step: 5

Then Drag and Drop Write Data to File.

The screenshot displays the SAP Analysis Process Designer (APD) interface. The title bar reads "Analysis Process Designer - Change - Test ZIC_FT1". The main window shows the "Analysis Process" configuration for "APD_TST1" with a description of "Test ZIC_FT1". The "Data Sources" section contains "Data Source: InfoProvider 1". The "Data Targets" section contains "Data Target: File 1", which is highlighted with a red circle. A red arrow points from this icon to the canvas area, where it is being dragged to be placed on the process flow.

Analysis Process: APD_TST1
Object status: Active, executable
Description: Test ZIC_FT1
Version: Active
Not Saved

Data Sources
Data Source: InfoProvider 1

Transformations

Data Targets
Data Target: File 1

Step: 6

Select the Client Workstation and give File path and Write Mode in Data Target Tab.

Data Target: File

Data Target | CSV File Properties

Description: Data Target: File 1

Specify Where the File Should Be Generated

Write Data to

Client Workstation

Application Server

Logical File Name

File: C:\Documents and Settings\Reddy.csv

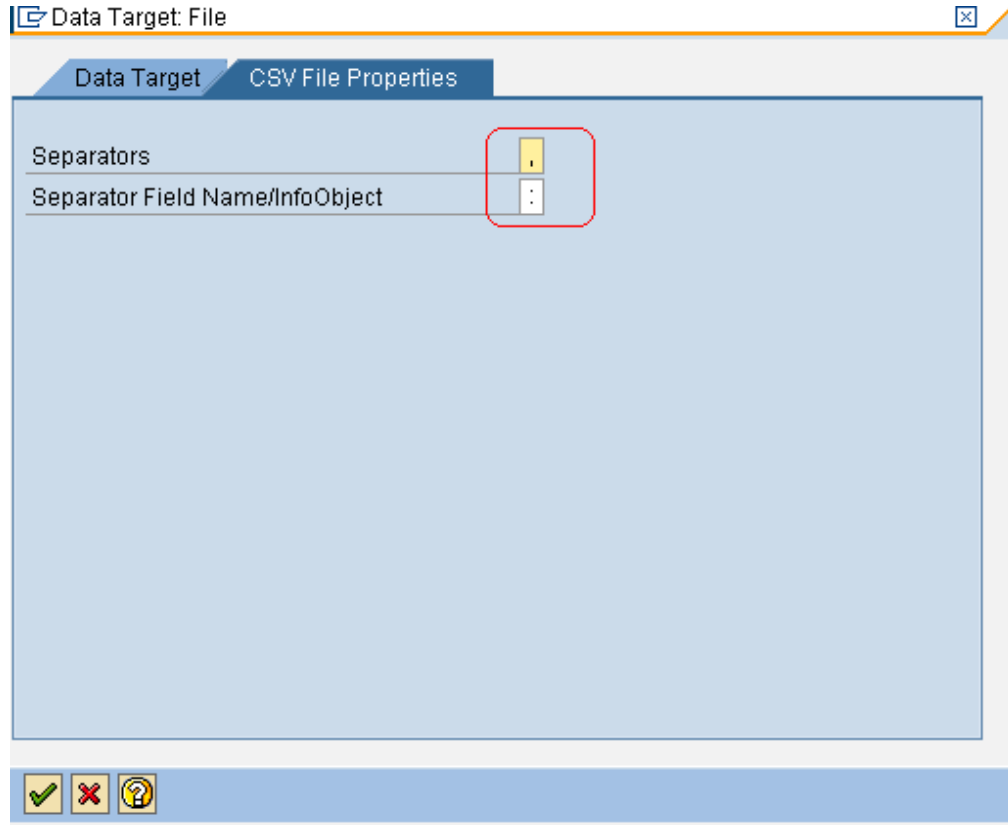
Extended Settings

Write Mode: Create File Again. If Already Available: Overwrite

Insert Header Row with Field Names in the First Row of the File

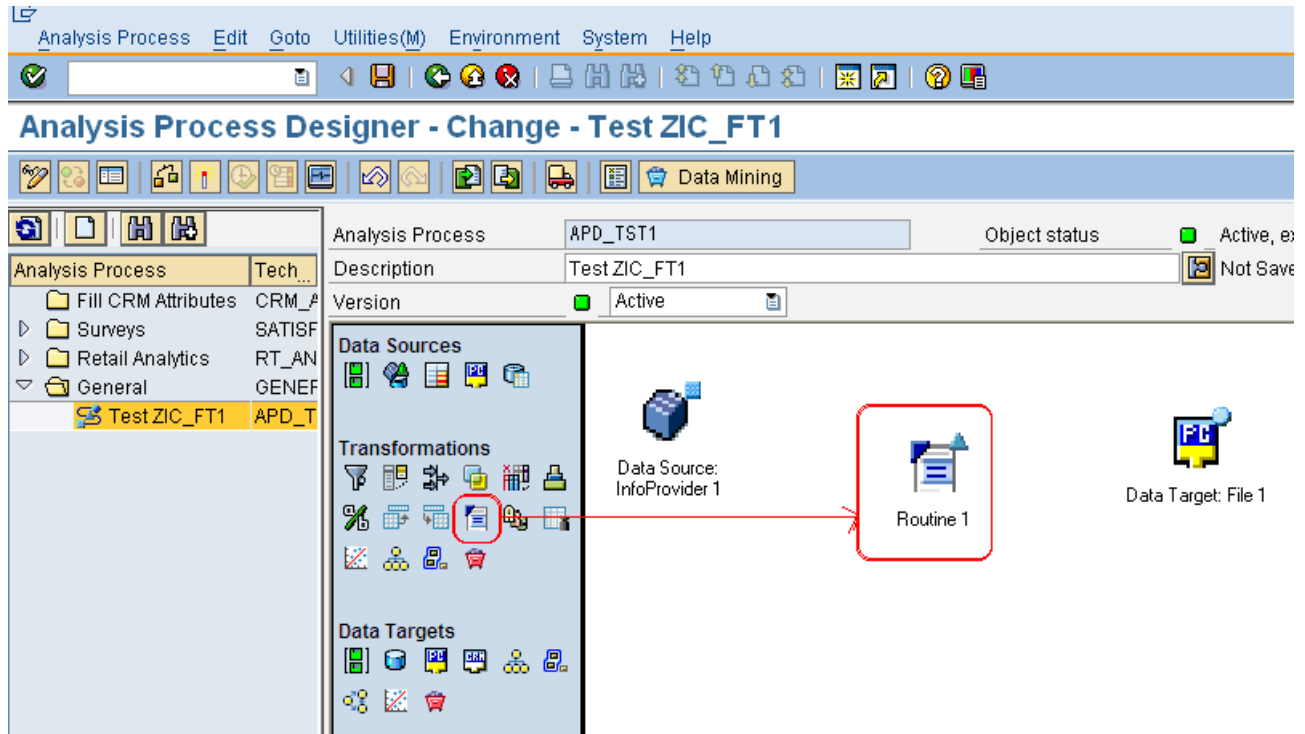
Step: 7

Set the Separators and Separator Field Name/InfoObject in CSV File Properties tab.



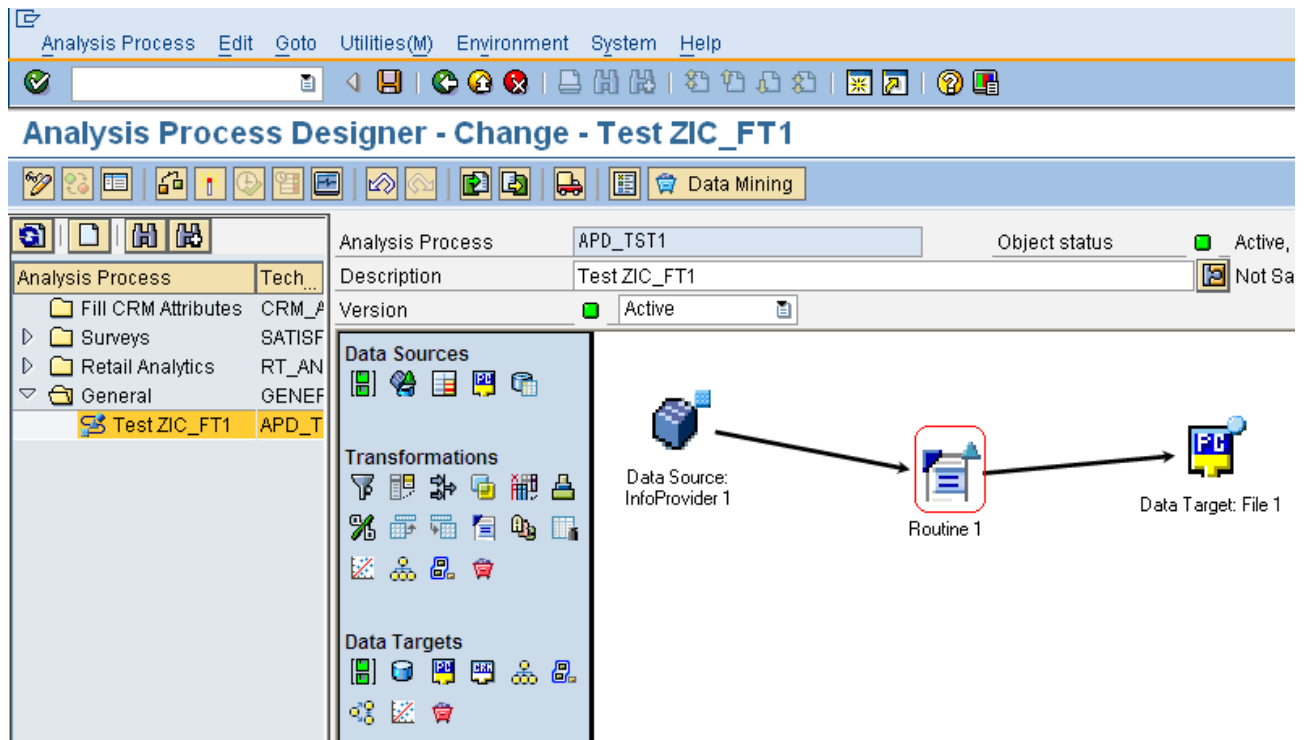
Step: 8

Drag and Drop ABAP Routine from Transformations. See the below Screen.



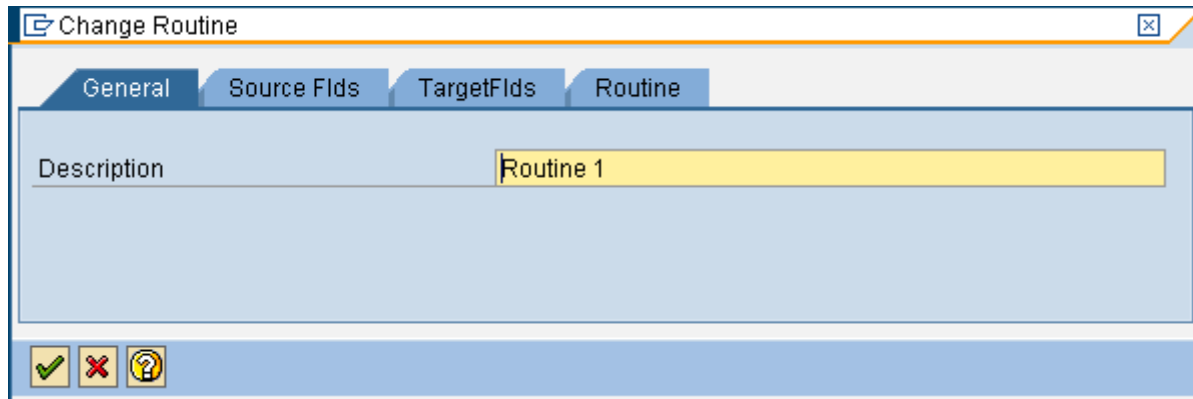
Step: 9

Map the Objects like below and double click Routine.



Step: 10

See Genera Tab and give Description.

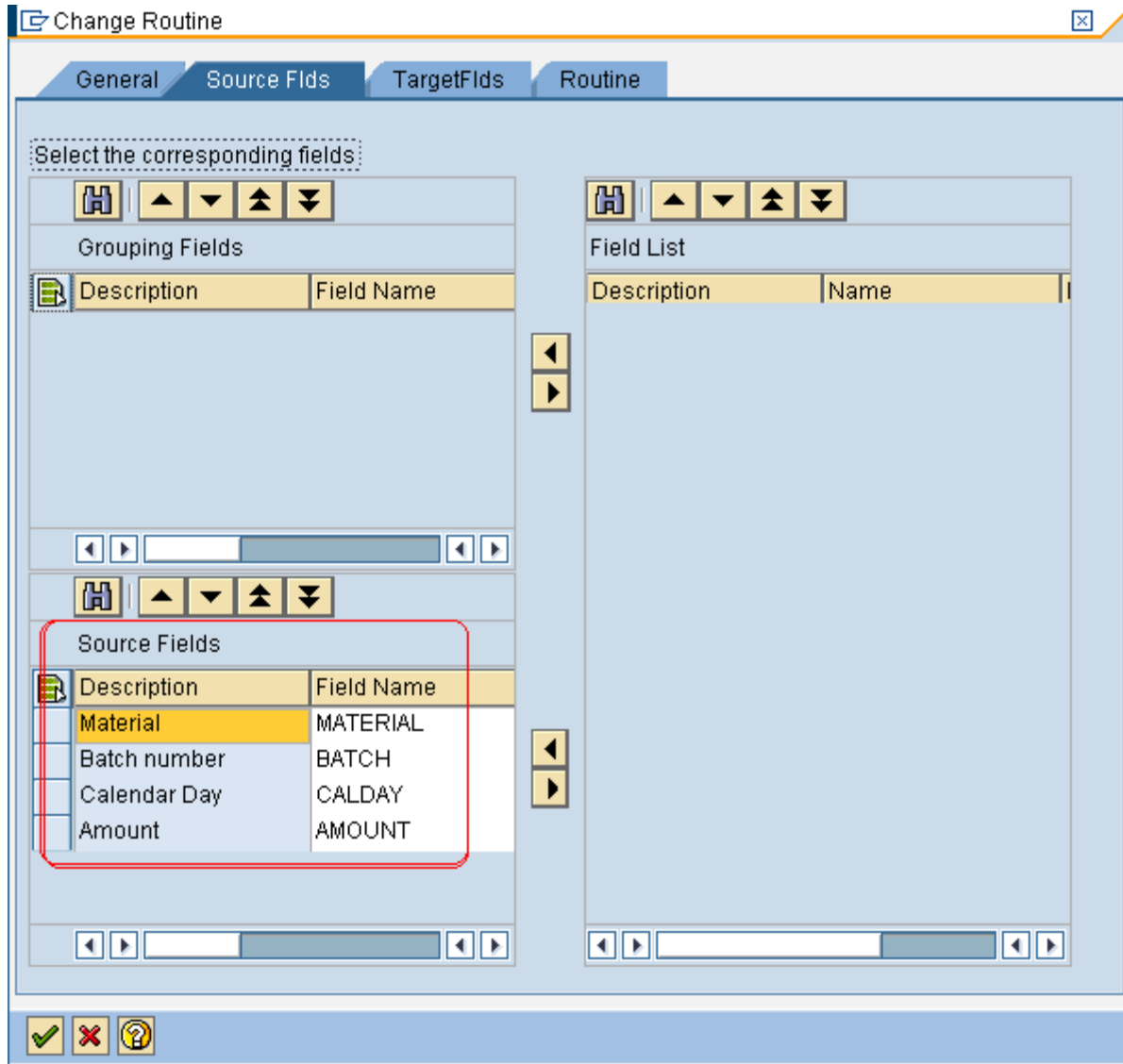


The screenshot shows a dialog box titled "Change Routine" with a close button in the top right corner. Below the title bar are four tabs: "General", "Source Flds", "TargetFlds", and "Routine". The "General" tab is currently selected. Inside the dialog, there is a "Description" label followed by a text input field containing the text "Routine 1". At the bottom of the dialog, there are three icons: a green checkmark, a red X, and a yellow lightbulb.

Step: 11

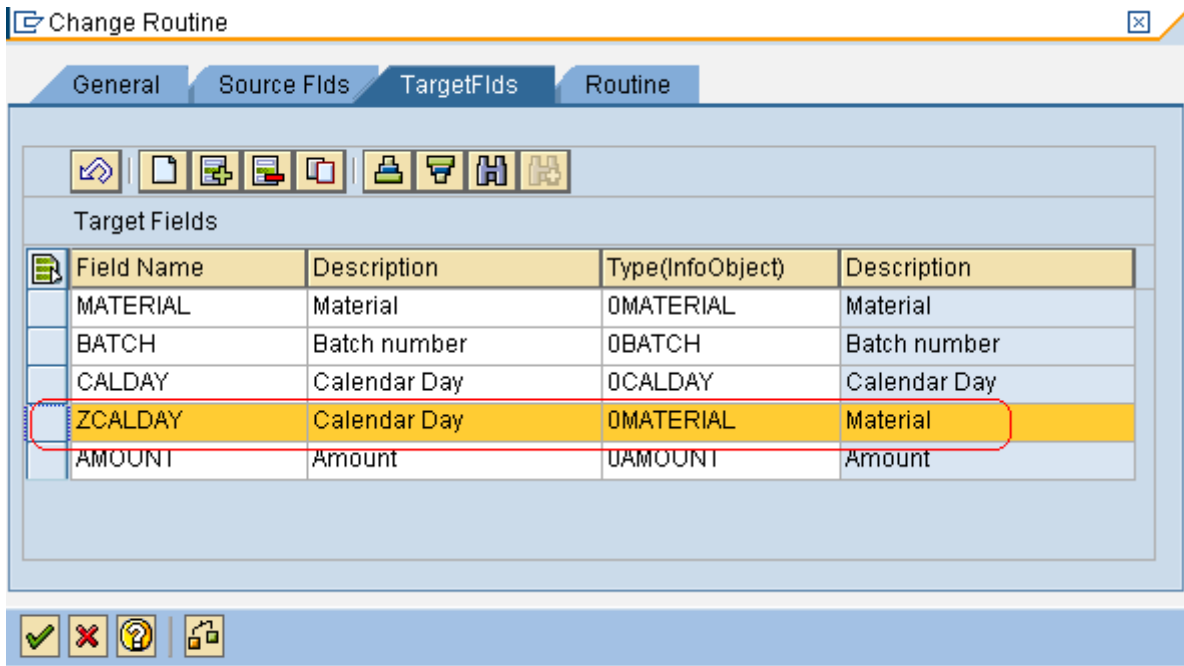
Maintain the following InfoObjects in Source Fields in Source Flds Tab.

Material = 0MATERIAL
 Batch = 0BATCH
 Calendar Day = 0CALDAY
 Amount = 0AMOUNT



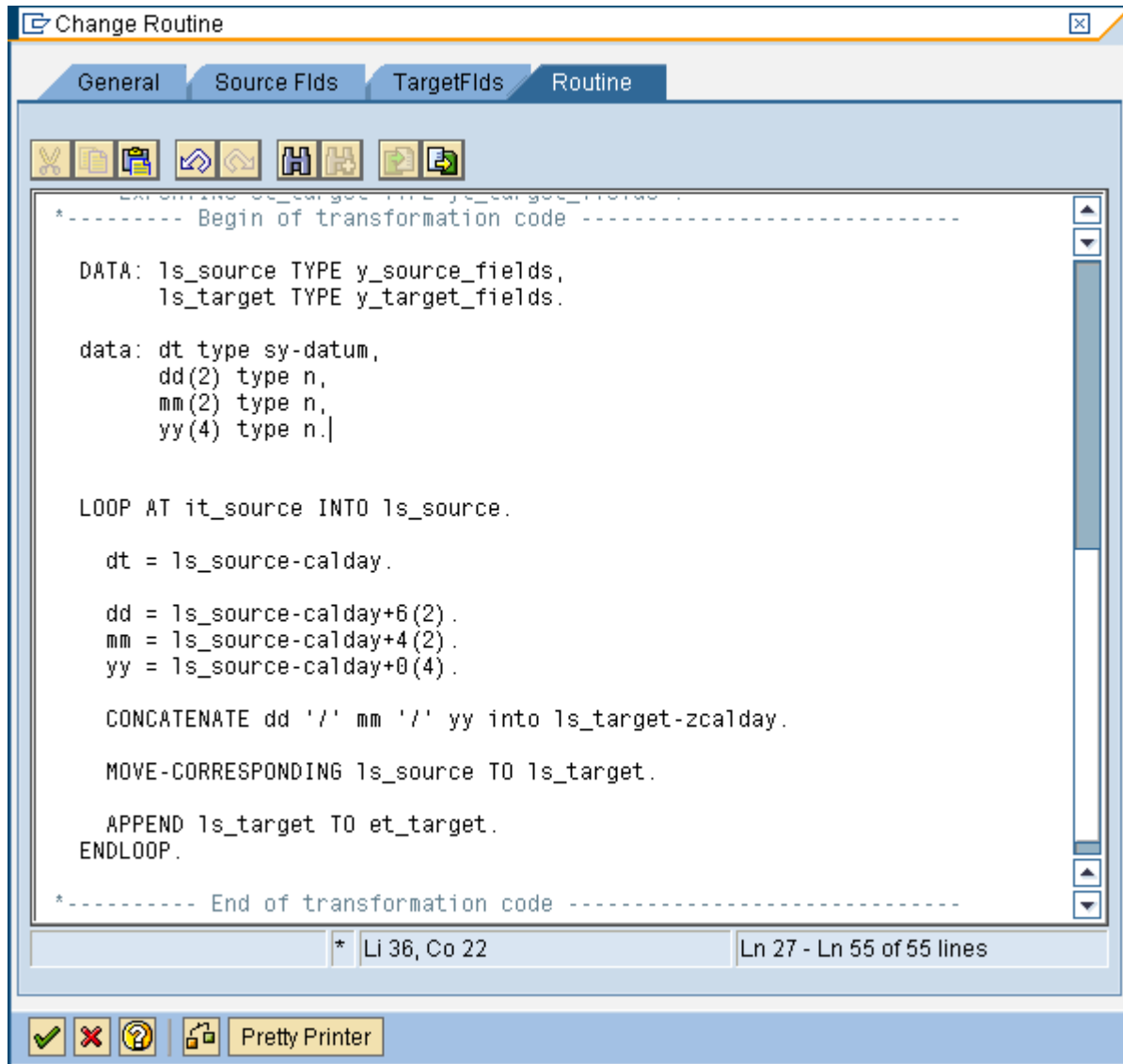
Step: 12

You can see the selected Fields in Target Fields in TargetFlds tab, here I added ZCALDAY field and given Type (InfoObject) is 0MATERIAL. Because if we add '/' to date then the length is not enough for 0CALDAY, so instead of 0CALDAY, I given 0MATERIAL it is having length 18.



Step: 13

Code:



Write the following code in Routine Tab.

```

*----- Begin of transformation code -----

DATA: ls_source TYPE y_source_fields,
      ls_target TYPE y_target_fields.

data: dt type sy-datum,
      dd(2) type n,
      mm(2) type n,
      yy(4) type n.

LOOP AT it_source INTO ls_source.

```

```

dt = ls_source-calday.

dd = ls_source-calday+6(2).
mm = ls_source-calday+4(2).
yy = ls_source-calday+0(4).

CONCATENATE dd '/' mm '/' yy into ls_target-zcalday.

MOVE-CORRESPONDING ls_source TO ls_target.

APPEND ls_target TO et_target.
ENDLOOP.

*----- End of transformation code -----

```

Complete Routine Code in Routine Tab, it is just for your reference.

```

REPORT RSAN_WB_ROUTINE_TEMP_REPORT .

TYPES: BEGIN OF y_source_fields ,
        MATERIAL TYPE /BI0/OIMATERIAL ,
        BATCH TYPE /BI0/OIBATCH ,
        CALDAY TYPE /BI0/OICALDAY ,
        AMOUNT TYPE /BI0/OIAMOUNT ,
        END OF y_source_fields .
TYPES: yt_source_fields TYPE STANDARD TABLE OF y_source_fields .

TYPES: BEGIN OF y_target_fields ,
        MATERIAL TYPE /BI0/OIMATERIAL ,
        BATCH TYPE /BI0/OIBATCH ,
        CALDAY TYPE /BI0/OICALDAY ,
        ZCALDAY TYPE /BI0/OIMATERIAL ,
        AMOUNT TYPE /BI0/OIAMOUNT ,
        END OF y_target_fields .
TYPES: yt_target_fields TYPE STANDARD TABLE OF y_target_fields .
*----- Begin of type definitions -----

*TYPES: ...

*----- End of type definitions -----
FORM compute_data_transformation
    USING      it_source TYPE yt_source_fields
              ir_context TYPE REF TO if_rsan_rt_routine_context
    EXPORTING et_target TYPE yt_target_fields .
*----- Begin of transformation code -----

DATA: ls_source TYPE y_source_fields,
      ls_target TYPE y_target_fields.

data: dt type sy-datum,
      dd(2) type n,
      mm(2) type n,
      yy(4) type n,
      c1 type c.

```

```
LOOP AT it_source INTO ls_source.
```

```
dt = ls_source-calday.
```

```
dd = ls_source-calday+6(2).
```

```
mm = ls_source-calday+4(2).
```

```
yy = ls_source-calday+0(4).
```

```
CONCATENATE dd '/' mm '/' yy into ls_target-zcalday.
```

```
MOVE-CORRESPONDING ls_source TO ls_target.
```

```
APPEND ls_target TO et_target.
```

```
ENDLOOP.
```

```
*----- End of transformation code -----  
ENDFORM.
```

Step: 14

Then Save , Activate and Execute.

The screenshot displays the SAP Analysis Process Designer (APD) interface. The title bar reads "Analysis Process Designer - Change - Test ZIC_FT1". The main window shows a process diagram with three components: "Data Source: InfoProvider 1", "Routine 1", and "Data Target: File 1", connected by arrows. The left sidebar contains a tree view with "Test ZIC_FT1" selected. The top menu bar includes "Analysis Process", "Edit", "Goto", "Utilities(M)", "Environment", "System", and "Help". The top toolbar contains various icons, with "Save", "Activate", and "Execute" highlighted by red circles. The bottom status bar shows "Object status" as "Active, executable" and "Saved".

Once you execute it, it will display the following screen with Success Symbol.

Display logs

Type	Message Text
Success	-----
Success	Execute analysis process APD_TST1, version A
Success	Execute Analysis Process
Success	-----
Success	Processing started for analysis process APD_TST1
Success	Data is written to the following file:
Success	--- Workstation: pspcsmd16
Success	--- File name: C:\Documents and Settings\Reddy
Success	Source data is being read and the result is being calculated
Success	File was overwritten. 3 records were written
Success	Data successfully written to the data target of the analysis process
Success	-----
Success	Processing completed successfully for analysis process APD_TST1
Success	-----

Result

InfoCube Data:

"ZIC_FT1", List output

Material	Batch	Plant	0CALDAY	0CALMONT...	0CALYEAR	Activity u...	Currency	0FM_CURR	Amount	...AMOUN...	0QUANTO...
M1	B5	P6	01.06.2009	200906	2009	EA	INR	INR	200.00	1,000.00	5
M3	B1	P2	01.06.2009	200906	2009	EA	INR	INR	400.00	2,800.00	7
M2	B6	P2	02.06.2009	200906	2009	EA	USD	USD	300.00	1,800.00	6

File Data

Open the file and see the data in the file, you can find the required date format in D column.

A	B	C	D	E
MATERIAL:0MATERIAL	BATCH:0BATCH	CALDAY:0CALDAY	ZCALDAY:0MATERIAL	AMOUNT:0AMOUNT
M1	B5	20090601	01/06/2009	200
M2	B6	20090602	02/06/2009	300
M3	B1	20090601	01/06/2009	400

Related Content

[Analysis Process Designer](#)

[Using Customer Exit Variables in BW Reports Part - 3](#)

[How to use Customer Exit Variables in BW Reports: Part - 2](#)

[Using Customer Exit Variables in BW or BI Reports Part - 1](#)

[Using Text Variables with Customer Exits in Report Headings](#)

[Using Text Variables with Customer Exits in Report Headings](#)

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