

# SAP BW: ABAP Code to Schedule APD in Background



## Applies to:

This article is applicable to all the SAP BI consultants who are accustomed with SAP ABAP skills. For more information, visit the [EDW homepage](#).

## Summary

This document explains about the ABAP Code and how to schedule APD in the Background.

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**Created on:** 20 July 2010

## Author Bio



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## Scenario

APD would fetch the data from Query and feed the data into Direct DSO. We want to schedule this in background using ABAP Code.

## Step-by-Step Solution

Solution is explained in three steps:

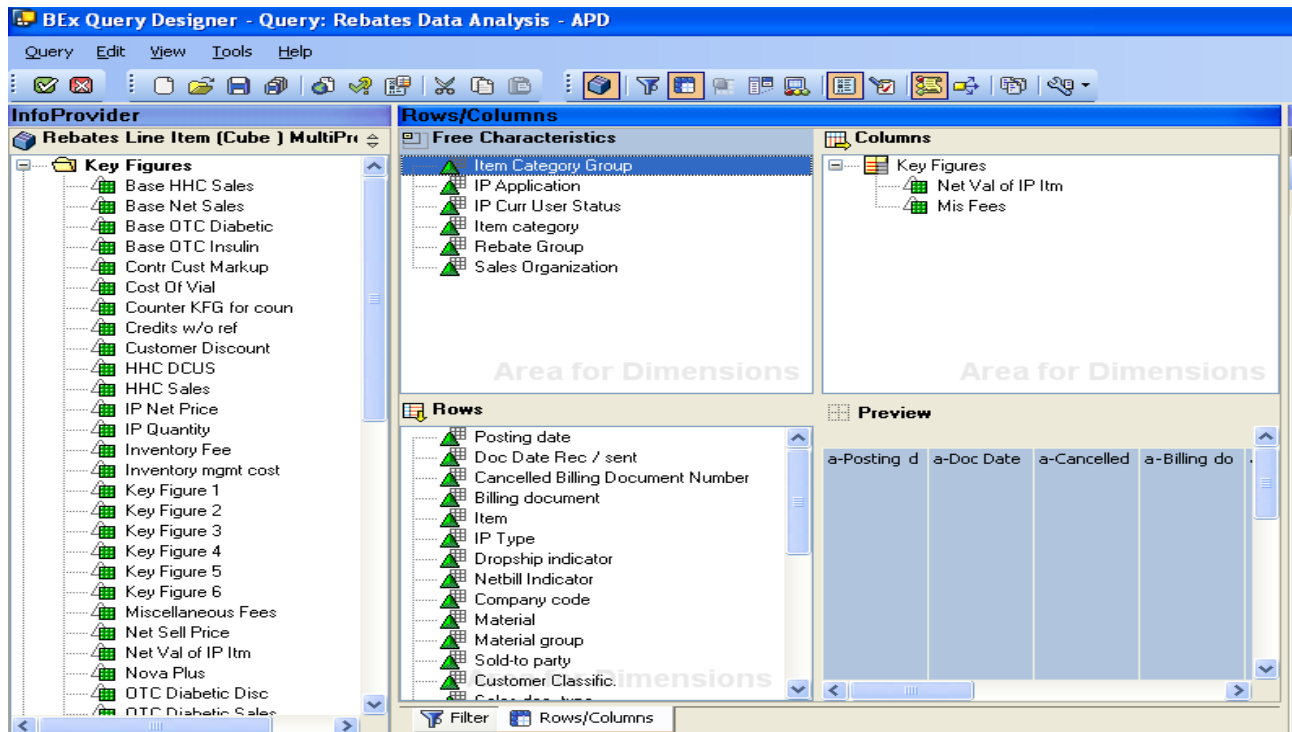
**BEx Query and APD Design:** Explains about the BEx Query and APD design

**ABAP Code (Logic):** Details about the ABAP Code logic flow

**Execution:** Explains the process of execution.

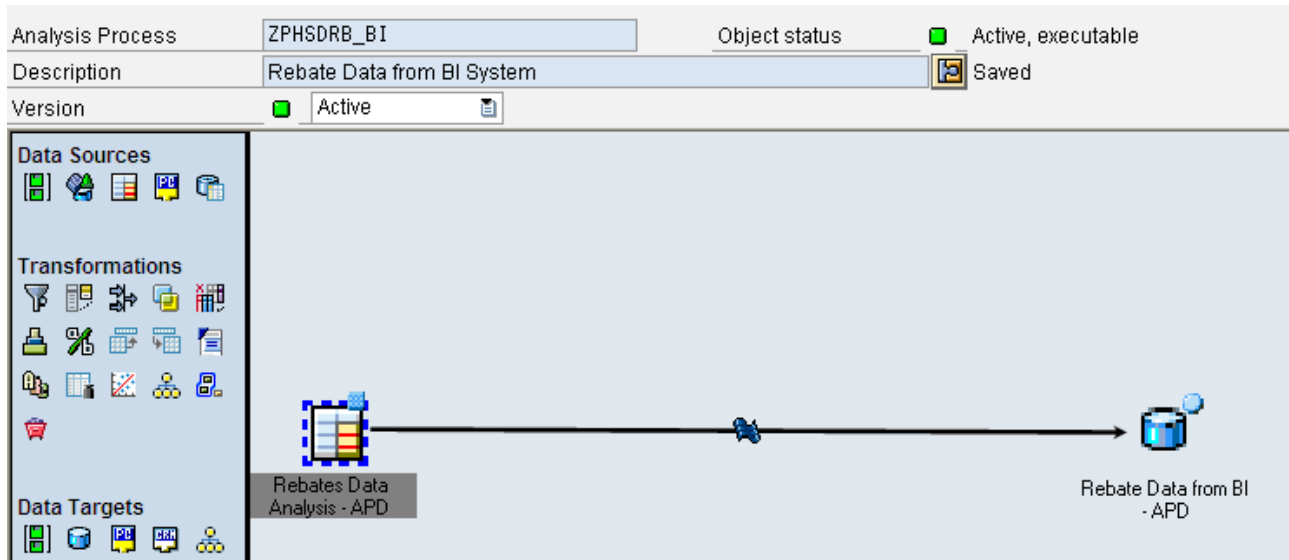
## BEx Query and APD Design

### BEx Query design



BEx Query Design whose data would be populated to Direct DSO. As the APD is executed, the data from query would be fed into the Direct DSO based on the Query Variant.

### APD



ABAP Code (Logic)

**Step1:** Save a variant for APD 'ZPHSDRB\_BI' for the ABAP Code 'RSAN\_PROCESS\_EXECUTE'

## Execute Analysis Process

Analysis Process  
 Version: A  
 Analysis Process: ZPHSDRB\_BI

Variant Name: ZPHSDRB\_BI

**Step2:** Selection Screen Input for Custom ABAP Code

## Schedule APD in Background

APD Background Schedule  
 APD Name:   
 APD Variant:

```
SELECTION-SCREEN BEGIN OF BLOCK b1 WITH FRAME TITLE text-001.
```

```
* Technical Query Name
```

```
SELECTION-SCREEN BEGIN OF LINE.
```

```
SELECTION-SCREEN COMMENT 1(40) text-002 FOR FIELD p_apd.
```

```
PARAMETERS: p_apd TYPE rsant_process-process OBLIGATORY.
```

```
SELECTION-SCREEN END OF LINE.
```

```
SELECTION-SCREEN BEGIN OF LINE.
```

```
SELECTION-SCREEN COMMENT 1(40) text-003 FOR FIELD p_var.
```

```
PARAMETERS: p_var TYPE rsrvari OBLIGATORY.
```

```
SELECTION-SCREEN END OF LINE.
SELECTION-SCREEN END OF BLOCK b1.
```

**Step3:** Pop-Up to confirm whether to schedule the APD in background:

```
w_text1 = p_apd.
w_text2 = 'Background Job Schedule (APD) ?'.
w_title = 'APD Background Job'.

CALL FUNCTION 'DD_POPUP_TO_CONFIRM_CANCEL'
  EXPORTING
    textline1      = w_text1
    TEXTLINE2      = w_text2
    title          = w_title
  IMPORTING
    ANSWER         = w_ans
  .
IF w_ans NE 'C'.
  MESSAGE i000(r9) WITH 'Processing cancelled.'.
  EXIT.
ENDIF.
```

The above function Module 'DD\_POPUP\_TO\_CONFIRM\_CANCEL' would ask the user to confirm whether the APD should be scheduled or not.

**Step4:** Job is schedule for APD 'ZPHSDRB\_BI'

```
DATA: number          TYPE tbtcjob-jobcount,
      name            TYPE tbtcjob-jobname VALUE 'ZAPD_JOB_SCHEDULE',
      print_parameters TYPE pri_params,
      l_text(90).

SET PARAMETER ID 'RSAN_PROCESS' FIELD p_apd.

CALL FUNCTION 'JOB_OPEN'
  EXPORTING
    jobname      = name
  IMPORTING
    jobcount     = number
  EXCEPTIONS
    cant_create_job = 1
    invalid_job_data = 2
    jobname_missing = 3
    OTHERS        = 4.

IF sy-subrc = 0.
  SUBMIT rsan_process_execute
    USING SELECTION-SET p_var
    TO SAP-SPOOL
    SPOOL PARAMETERS print_parameters
    WITHOUT SPOOL DYNPRO
    VIA JOB name NUMBER number
  AND RETURN.

IF sy-subrc = 0.
```

```

CALL FUNCTION 'JOB_CLOSE'
  EXPORTING
    jobcount      = number
    jobname       = name
    strtimmed     = 'X'
  EXCEPTIONS
    cant_start_immediate = 1
    invalid_startdate   = 2
    jobname_missing     = 3
    job_close_failed    = 4
    job_nosteps         = 5
    job_notex           = 6
    lock_failed        = 7
    OTHERS              = 8.
IF sy-subrc = 0.
  CONCATENATE 'APD: ' p_apd 'released successfully.' INTO l_text SEPARATE
D BY space.
  MESSAGE i000(r9) WITH l_text.
ENDIF.
ENDIF.
ENDIF.

```

- Function Module 'JOB\_OPEN' would initiate a background job for APD 'ZPHSDRB\_BI'
- For submitting the APD job, statement SUBMIT would be used.
- Function Module 'JOB\_CLOSE' is used for closing the Job.
- Background job 'ZAPD\_JOB\_SCHEDULE' is created, which can be monitored using transaction SM37.

### Execution

**Step1:** Go to Custom ABAP Code to execute the APD in background

### Schedule APD in Background

APD Background Schedule	
APD Name	ZPHSDRB_BI
APD Variant	ZPHSDRB_BI

Execute the above APD.

**Step2:** Confirm to schedule APD in background

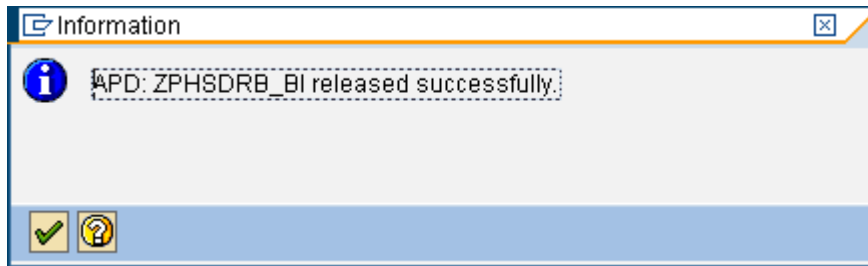
APD Background Job

ZPHSDRB\_BI

Background Job Schedule (APD) ?

Click 'Continue' to schedule the APD.

After Clicking 'Confirm', it would give you information about the successful scheduling of the APD



### Step3: Monitor the APD using standard APD Monitor

Restriction of Display of the Analysis Runs			
Field Name	from	To	
Analysis Process	ZPHSDRB_BI		
Start Time	07/14/2010 - 01:20:16	12/12/9999 - 23:59:59	
Maximum Number of Hits	500		

Header		Log	
	Analysis Run	ARUN_4IKB50XCFZFW39NHEACX8846N	
	Status	○○● Successfully Completed	
	Start	07/21/2010	01:16:25
	End	07/21/2010	01:16:45
	Started By	T1FDP5Q	
	Job Name	ZAPD_JOB_SCHEDULE	01162400

Monitor shows the successful completion of APD.

Transaction: **RSANWB**













### Step4: Check the Spool created for the concerned APD

Transaction **SM37**

Job	Ln	Job CreatedBy	Status	Start date	Start time	Duration(sec.)	Delay (sec.)
ZAPD_JOB_SCHEDULE		T1FDP5Q	Finished	07/21/2010	01:16:25	21	0
*Summary						21	0

*SPOOL Details*

Data statistics	Number of
Records passed	12

Type	Message text
	
	Execute analysis process ZPHSDRB_BI, version A
	Execute Analysis Process
	
	Processing started for analysis process ZPHSDRB_BI
	Source data is being read and the result is being calculated
	Old data in DataStore object PHSDRBBI was deleted
	0 records written to DataStore object PHSDRBBI
	Data successfully written to the data target of the analysis process
	
	Processing completed successfully for analysis process ZPHSDRB_BI
	

Contains the SPOOL details after the execution of APD in background.



## Related Content

[SAP Help Link1](#)

[SDN Link1](#)

[SDN Link2](#)

For more information, visit the [EDW homepage](#).

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