

Trigger an Event Using Program and then Trigger a Process Chain by Event



Applies to:

SAP BI Source System. For more information, visit the [Business Intelligence homepage](#).

Summary

This article gives clear picture of creating an Event, storing variables in standard variant table TVARVC using report ,use of stored global variable in DTP filter and triggering a process chain based on event.

Author: Lovina Dsouza

Company: L&T Infotech

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Author Bio

Lovina Dsouza has been working with L&T Infotech for last 2.7 years and has worked on BI and ABAP Objects.

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Introduction

This article addresses the following requirements.

- Trigger an Event using Program
- Populate data in DTP filter using ABAP code
- Trigger a process chain using EVENT which is triggered by program

Example

Create a Simple Report which will check field **z_DATE** from TABLE1 with System date. If match is found then store the corresponding values of Fiscal year and Forecast cycle from TABLE1 into TVARVC table and then raise an Event **EVENT1**.

The values of Fiscal year and Forecast cycle from TVARVC will be accessed in DTP filter.

And EVENT1 will trigger the process chain with required values in DTP filter.

Following would be the Entries in **Table1**

Follow below Steps

- 1) Create an Event
- 2) Create entries in Global Table
- 3) Create a Report to Trigger an Event
- 4) Create a Process chain
- 5) Write code in DTP filter

FISCYEAR	FORECYCLE	Z_DATE
2009	Cycle1	10.12.2009
2008	Cycle2	11.11.2008

1. First step is to create an event **EVENT1** in SM62

The screenshot shows the SAP SM62 interface for 'Background Events: Overview and Administration'. The 'BckProcEvnts' tab is active. A table lists various background events. An 'Event Definition' dialog box is open, showing the following details:

Created By	Background Processing Event	Description	Changed by	Date	Time
SAP	SAP_ARCHIVING_DELETE_FINISHED	ADK: All archive files in session: Status "Deletion completed"	SAP	01.12.1999	22:00:53
SAP	SAP_ARCHIV			01.12.1999	22:01:17
SAP	SAP_BRANC			09.02.1995	14:20:07
SAP	SAP_CSM_TR	Event		20.11.2000	14:59:09
SAP	SAP_DBA_AC	Description		03.08.1995	14:10:53
SAP	SAP_END_O			07.09.1993	13:29:38
SAP	SAP_EVTHIS			18.10.2005	09:13:53
SAP	SAP_IMPORT			26.10.1998	08:46:30
SAP	SAP_IMPORT			26.10.1998	08:46:43
SAP	SAP_LANGUAGE_FILL	Language filling	SAP	16.01.1995	16:58:07
SAP	SAP_LANGUAGE_IMPORT	Language import	SAP	16.01.1995	16:57:57

The 'Event Definition' dialog box shows the event name 'EVENT1' and the description 'Event to Trigger a process Chain'. There is a 'System' checkbox which is currently unchecked. A 'Save' button is visible at the bottom right of the dialog.

2. Create two variables **Z_FISCYEAR (Forecast Cycle)** , **Z_FRCYLE(Fiscal Year)** in TVARVC table as shown below.

TVARVC table is the Table of Variant Variables (Client-Specific)

Data Browser: Table TVARVC Select Entries 2

MANDT	NAME	TYPE	NUMB	SIGN	OPTI	LOW	HIGH	CLIE_INDEP
400	Z_FISCYEAR	P	1	I	EQ	2009		
400	Z_FRCYLE	P	1	I	EQ	FIRM		

3. Create a report to fetch Fiscal Year and Forecast cycle from TABLE1 ,store values in TVARVC table and then raise an event EVENT1.

```
SELECT SINGLE
  FISCYEAR
  FORECYCLE
FROM TABLE1
INTO (w_fiscyear,
      w_forecycle)
WHERE Z_DATE EQ sy-datum.
```

```
IF sy-subrc EQ 0.
```

```
* update the entries in TVARVC where name eq 'Z_FISCYEAR'.
```

```
UPDATE tvarvc
  SET low = w_fiscyear
  WHERE name EQ z_fiscyear.
```

```
IF sy-subrc EQ 0.
```

```
  COMMIT WORK.
```

```
ENDIF.
```

```
* update the entries in TVARVC where name eq 'Z_FRCYCLE'.
```

```
UPDATE tvarvc
  SET low = w_forecycle
  WHERE name EQ z_frcyle.
```

```
IF sy-subrc EQ 0 .
```

```
  COMMIT WORK.
```

```
ENDIF.
```

```
CALL FUNCTION 'BP_EVENT_RAISE'
  EXPORTING
```

```

eventid                = EVENT1
*   EVENTPARM           = ' '
*   TARGET_INSTANCE    = ' '
EXCEPTIONS
bad_eventid            = 1
eventid_does_not_exist = 2
eventid_missing        = 3
raise_failed           = 4
OTHERS                  = 5.

IF sy-subrc NE 0.

ENDIF.

```

4. Now create a process chain based on EVENT1

Maintain Start Process

Variant: START_PROCESS

Start Time

Immediate | Date/Time | After job | After event | At operation mode

Date/Time

After job

At operation mode

After event

Event: EVENT1

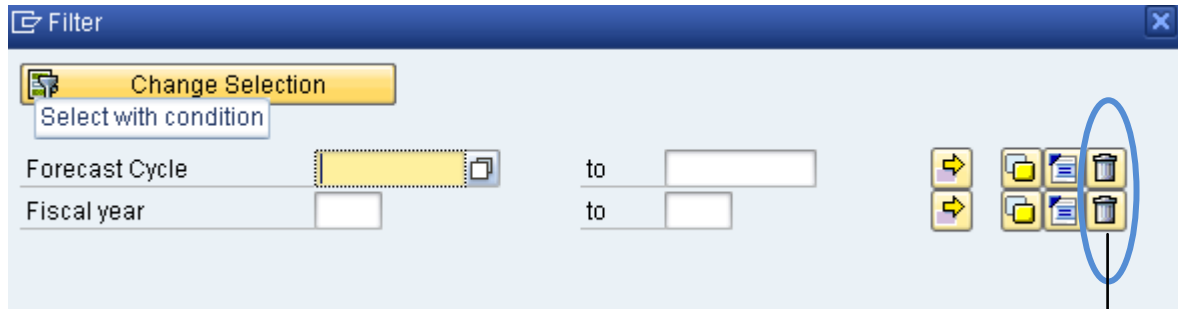
Parameter:

Periodic job

Check

5. The filter for DTP will be set based on forecast cycle and Fiscal year values store in standard table.

This DTP is used in our process chain.



DTP filter code is written over here

Below is the code written for both variables to fetch filter selection.

For Forecast cycle :

```

DATA: l_idx LIKE sy-tabix.
      READ TABLE l_t_range WITH KEY
            fieldname = FORECYCLE
            l_idx = sy-tabix.
*.....

      SELECT SINGLE low INTO l_t_range-low FROM tvarvc WHERE name EQ
z_frcyle.

      IF sy-subrc EQ 0.

            l_t_range-sign = I.

            l_t_range-option = EQ.

      ENDIF.
      IF l_idx <> 0.
            MODIFY l_t_range INDEX l_idx.
      ELSE.
            APPEND l_t_range.
      ENDIF.
      p_subrc = 0.

```

For Fiscal Year

```
DATA: l_idx LIKE sy-tabix.
      READ TABLE l_t_range WITH KEY
            fieldname = 0FISCYEAR.
      l_idx = sy-tabix.
*.....

      SELECT SINGLE low INTO l_t_range-low FROM tvarvc WHERE name EQ
            z_fiscyear.
      IF sy-subrc EQ 0.

            l_t_range-sign = I.
            l_t_range-option = EQ.

      ENDIF.
      IF l_idx <> 0.
            MODIFY l_t_range INDEX l_idx.
      ELSE.
            APPEND l_t_range.
      ENDIF.
      p_subrc =
```

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