

Step by Step Procedure to Create Primary and Secondary Indexes in BW



Applies to:

SAP BW 3.x and 7.x. For more information, visit the Business Intelligence homepage.

Summary

This article explains the step by step approach to delete and recreate primary and secondary indexes of InfoObjects in BW.

Authors: Archit Agrawal, Subba Rao Moganti

Company: Infosys Limited

Created on: 20 October 2011

Author Bio



Subba Rao Moganti is working with Infosys Limited for past five years. He has got rich experience on BW Implementation/Support Projects in SAP BW 7.0.



Archit holds MBA – Finance from JBIMS and B.Tech from NIT, Bhopal. He is a techno-functional consultant with interest/experience in SAP BPC/Bank Analyzer/BI/ABAP.

Table of Contents

Introduction:	3
Scenario:.....	3
Check Primary and Secondary Indexes:	4
Step by Step Approach.....	6
Step1:	6
Step2:	6
Step 3:.....	7
Step 4:.....	7
Step 5.....	8
Creating the Primary or Secondary Index:	9
Related Content.....	10
Disclaimer and Liability Notice.....	11

Introduction:

Indexes help in improving performance by retrieving data faster from the tables. Indexes are considered to be copy of the database table with reduced fields and data in a sorted order.

The Primary Index contains the key fields of the table and a pointer to the non key fields of the table. This Primary Index gets created whenever we create any table in SE11 or when we create InfoProvider in BW. One can create further indexes and are called Secondary Indexes. This is necessary if the table is frequently accessed in a way that does not take advantage of the primary index.

In our project, we faced a peculiar scenario, where primary index was getting deleted when we were doing the selective deletion (using custom program) in the InfoProvider.

Scenario:

Name of the primary index: '0'.

Example:

Cube Name: Z_SL_IC

Table name: /BIC/FZ_SL_IC

Primary index name will be: "/BIC/FZ_SL_IC~0"

The below example is with the secondary index but the procedure is exactly the same for primary index.

Cube Name: Z_SL_IC

InfoArea	Index Name	Index Type	Action	Icon
pia's infoarea	Z_P_1		Change	
New Sales Info cube	Z_SL_ICNW	=	Manage	Σ
New Sales Info cube 1	C_Z_SL_I	=	Manage	
Sales Info Cube	Z_SL_IC	=	Manage	Σ
Z_IC_KN	Z_IC_KN	=	Manage	

Check Primary and Secondary Indexes:

In Transaction SE14, we can see indexes for a particular table.

Click on the Indexes highlighted in the above screenshot.

We will be deleting index 010 in this example.

The below screenshot shows the status of Index in the database:

ABAP Dictionary: Utility for Database Indexes

Storage Parameters Object Log

Index ID	/BIC/FZ_SL_IC - 010
Short text	Index using Dimension Z_SL_ICP
Last changed	INF122405 29.06.2010
Status	Active Saved
	Exists in the database

DB index nme /BIC/FZ_SL_IC~010

Execute database operation

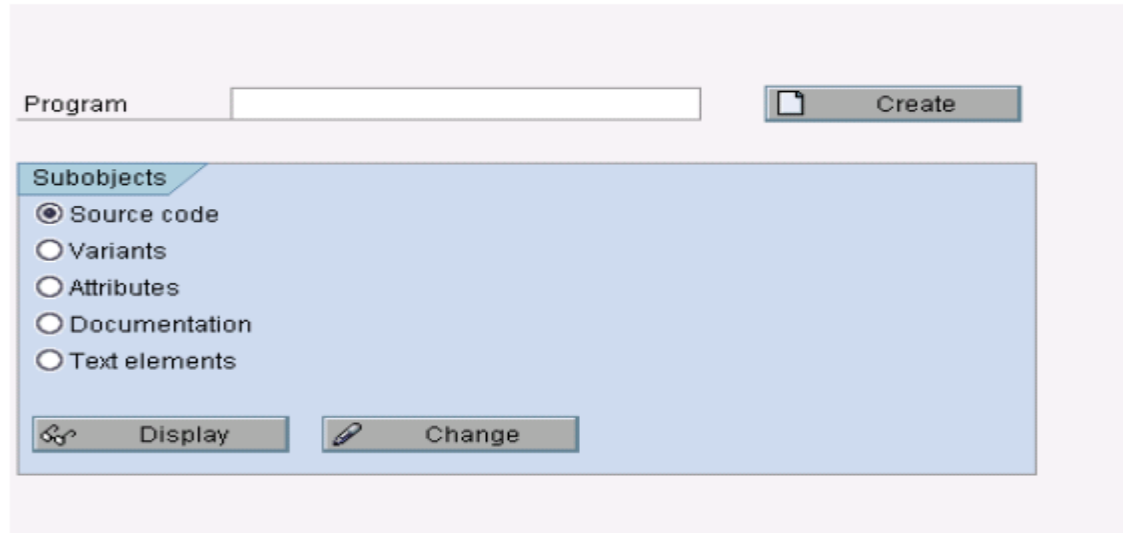
Processing type

- Direct
- Background
- Enter for mass processing

Step by Step Approach

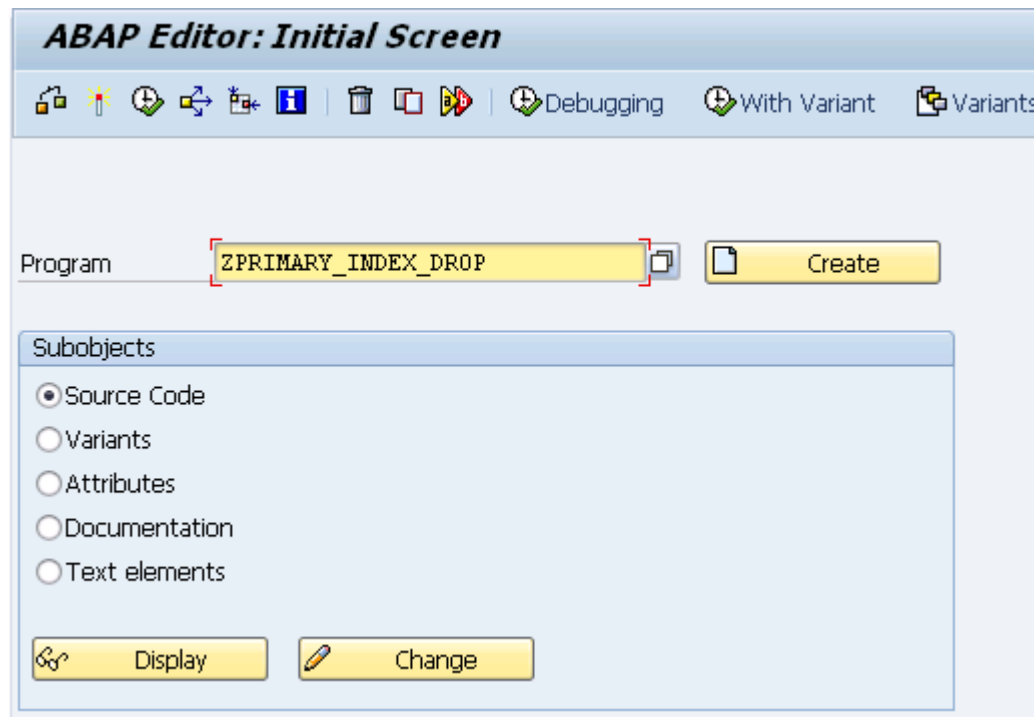
Step1:

Go to Tcode SE38.



Step2:

Enter the name of the program "ZPRIMARY_INDEX_DROP"



Step 3:

Click on Create and specify the attributes as shown below and Click on Save

Below screen appears

Step 4:

Index name and Table name has to be changed if you are executing the below program for your requirements.

Write the program as mentioned below:

```
REPORT ZPRIMARY_INDEX_DROP.
```

```
CALL FUNCTION 'DD_DROP_INDEX'
  EXPORTING
    DBSYS           = SY-DBSYS
    NO_EXEC         = ' '
    PRID           = 0
    PROGNAM        = ' '
    TABNAME         = '/BIC/FZ_SL_IC'
    DB_CHECK_FLAG  = 'X'
    INDEXNAME      = '010'
  * IMPORTING
  * GENPROG        =
  * SUBRC          =
  EXCEPTIONS
    INDEX_NOT_DROPPED      = 1
    PROGRAM_NOT_GENERATED = 2
    PROGRAM_NOT_WRITTEN   = 3
    OTHERS                  = 4
.
IF SY-SUBRC <> 0.
  MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
    WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.
```

Step 5

After executing the above ABAP program, the index for the table gets deleted and the status for the same is shown in the below screenshot.

ABAP Dictionary: Utility for Database Indexes

Storage Parameters Object Log

Index ID: /BIC/FZ_SL_IC - 010

Short text: Index using Dimension Z_SL_ICP

Last changed: INF122405 29.06.2010

Status: Active Saved

Does not exist in the database

DB index nme

Execute database operation

Processing type

Direct

Background

Enter for mass processing

Create database index

Delete database index

Creating the Primary or Secondary Index:

The below ABAP program is used for creating both the primary index and the secondary indexes.

```
CALL FUNCTION 'DD_CREATE_INDEX'
  EXPORTING
    DBSYS                = SY-DBSYS
    INDEXNAME            = '010'
    NO_EXEC              = ' '
    PRID                 = 0
    PROGNAME             = ' '
    TABNAME              = '/BIC/FZ_SL_IC'
  * IMPORTING
  *   GENPROG            =
  * EXCEPTIONS
  *   BASETAB_ERROR     = 1
  *   DB_ERROR          = 2
  *   DD_ERROR          = 3
  *   INDEX_EXISTS     = 4
  *   OTHERS            = 5
  .
IF SY-SUBRC <> 0.
  MESSAGE ID SY-MSGID TYPE SY-MSGTY NUMBER SY-MSGNO
    WITH SY-MSGV1 SY-MSGV2 SY-MSGV3 SY-MSGV4.
ENDIF.
```

After executing the above ABAP program, the Index gets generated in the database. Below screenshot shows the status of Index in the database.

ABAP Dictionary: Utility for Database Indexes

Storage Parameters Object Log

Index ID: /BIC/FZ_SL_IC - 010

Short text: Index using Dimension Z_SL_ICP

Last changed: INF122405 29.06.2010

Status: Active Saved

Exists in the database

DB index nme: /BIC/FZ_SL_IC~010

Execute database operation

Processing type

Direct

Background

Enter for mass processing

Create database index

Delete database index

Activate and adjust database

Related Content

help.sap.com

<http://forums.sdn.sap.com/thread.jspx?threadID=1742477>

<http://forums.sdn.sap.com/thread.jspx?threadID=530410>

Disclaimer and Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.