

How to Create 'Where used lists' for Hierarchies in BEX Queries



Applies to:

SAP BW (3.5) / SAP BI (7.x). For more information, visit the [EDW homepage](#).

Summary

This article contains an ABAP report which is used to find out what queries contain a reference to a certain hierarchy.

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Author Bio



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Business Scenario

In the query designer you can access the where used lists of characteristics, key figures and many more query dependent objects. However hierarchies are saved against the InfoObject and there is no direct link. If you wish to delete a hierarchy you want to make sure it's not being used.

Processing Logic

To achieve the above requirement I have created an ABAP report. This report will give us required information with below given processing logic,

The information associating query elements and hierarchy can be found in the property table RSZELTPROP using the field HIENM. With this we can link this UID's with BEX reporting component UID's this linking information can be found in RSZELTXREF table.

The elements are not stored directly in the query so this reference needs to be done twice, once to the ROW, COLL, AGG element type, and then once more until the SHT type elements.

Finally we use these UID's against the COMPID's of main reporting table RSRREPDIR and the RSZELTTXT to get a more information on the query, such as description and author.

How to use the program

When you run the report you are presented with two fields. Only the Hierarchy field is used to run the report. The InfoObject field is used to filter the hierarchy F4 if you do not know the name of the hierarchy exactly.

Find the Where used list of Hierarchies in Bex Queries

Use InfoObject to find Hierarchy or input Hierarchy directly

InfoObject	<input type="text"/>	<input type="button" value="🔍"/>
Hierarchy name	<input checked="" type="checkbox"/>	

Parameters Used

InfoObject: This is technical name of InfoObject on which hierarchy is based.

Hierarchy name: This is the name of the hierarchy as seen in RSH1.

Example

If the InfoObject field is entered, the F4 help on the hierarchy name will show all Hierarchies that exist on that InfoObject.

Find the Where used list of Hierarchies in Bex Queries

Use InfoObject to find Hierarchy or input Hierarchy directly

InfoObject: BKCLUB

Hierarchy name:

Hierarchy name 1 Entry

Short Description	Name of a hierarchy	Ver	To
UEFA	UEFA		31.12.9999

✓ * H I X

Choose from the hierarchies (in this case only one) and execute. A list of all queries that contain the hierarchy is returned.

Find the Where used list of Hierarchies in Bex Queries

🔍 🖨️ 🗑️ 📄 📁 📧 📧 📧 📧 📧

InfoCube	Query	Long description	Author	Changed by
STATS	BK_STATS_PLAYERS	Goal Scoring Stats	I027737	I027737
STATS	BK_STATS_EX_AUT	BK_STATS_EX_AUT	ALEREMOTE	ALEREMOTE
STATS	STATS_NAV	STATS_NAV	I027737	I027737
STATS	ZBRIAN_RATIO	ZBRIAN_RATIO	I027737	I027737
STATS	HIER_CLUB	HIER_CLUB	CETEST	CETEST
STATS	BK_HIER_NOT_ASS	BK_HIER_NOT_ASS	I027737	I027737
STATS	BK_TOPN	BK_TOPN	I027737	I027737
STATS	BK_CLUB_HIER	BK_CLUB_HIER	I027737	I027737

Source code

```

*&-----*
*& Report  ZBW_HIER_WHERE_USED
*&
*& TITLE: Find the where used list of query restrictions
*&
*& CREATED ON: 11 Jan 2012
*&
*& CREATED BY: Brian Keenan
*&
*& DESCRIPTION: This program can be used to find the Queries that a
*&                particular hierarchy is used in.
*&-----*
REPORT  ZBW_HIER_WHERE_USED.

***** Type Declarations *****
TYPES:

BEGIN OF ty_output,
  infocube TYPE rsinfocube,      "Infoprovider name
  compid TYPE rszcompid,        "Query Technical Name
  txtlg TYPE rstxtlg,          "Query Description
  author TYPE xuauthor,        "Query Owner
  lastuser type LAST_USER,     "Last Changed by
END OF ty_output.

***** ALV References *****
DATA: go_alv      TYPE REF TO  cl_salv_table,
      go_columns TYPE REF TO  cl_salv_columns,
      go_funcs   TYPE REF TO  cl_salv_functions,
      go_ex      TYPE REF TO  CX_ROOT.

***** Internal Tables *****
DATA:
it_output TYPE STANDARD TABLE OF ty_output,

it_rszeltcomp TYPE STANDARD TABLE OF rszeltxref,
it_rszeltquery TYPE STANDARD TABLE OF rszeltxref,
it_rszeltprop TYPE STANDARD TABLE OF rszeltprop,
it_rsrreaddir TYPE STANDARD TABLE OF rsrreaddir,
it_rszelttxt TYPE STANDARD TABLE OF rszelttxt,
it_rszeltxref TYPE STANDARD TABLE OF rszeltxref,
it_rshredir TYPE STANDARD TABLE OF rshiedir.
***** Work Areas *****
DATA:

wa_output TYPE ty_output,
wa_rsrreaddir TYPE rsrreaddir,
wa_rszelttxt TYPE rszelttxt,
wa_rszeltprop TYPE rszeltprop.

*****
* SELECTION SCREEN DETAILS
*****
*

```

* Select from the char and the hierarchy name, the char is only useful
 * to help locate the hierarchy, it is not obligatory.

SELECTION-SCREEN BEGIN OF BLOCK blk1 WITH FRAME TITLE text-001.

PARAMETERS: p_char LIKE RSHIEDIR-IOBJNM.
 PARAMETERS p_hier LIKE RSHIEDIR-HIENM OBLIGATORY.

SELECTION-SCREEN END OF BLOCK blk1.

 * SELECTION OF DATA

* Check the validity of the input
 SELECT * FROM RSHIEDIR INTO TABLE it_rshredir WHERE HIENM = p_hier.
 IF sy-subrc <> 0.
 * No Hierarchies used in queries so Exit
 MESSAGE 'No Hierarchy exists of this name' TYPE 'I'.
 EXIT.

ENDIF.
 *find all the Hierarchies elements from the value supplied
 *by the parameter p_hier
 SELECT *
 from RSZELTPROP
 INTO TABLE it_rszeltprop
 WHERE HIENM = p_hier.
 IF it_rszeltprop IS INITIAL.
 * No Hierarchies used in queries so Exit
 MESSAGE 'The Hierarchy is not used in any query' TYPE 'I'.
 EXIT.
 ENDIF.

*Now get the reference ID's for this unique eltuid's.
 *So we now can get the containing elements of our
 *Hierarchy element.

SELECT *
 FROM rszeltxref
 INTO TABLE it_rszeltcomp
 FOR ALL ENTRIES IN it_rszeltprop
 WHERE objvers = 'A' AND
 teltuid = it_rszeltprop-eltuid.
 *It is important to remember here that the hierarchy
 *elements are no linked directly to the query, They
 *are linked to AGG, ROW or COL.
 *We now find the reference of these elements which
 *are linked to the queries SHT and SOB elements.

SELECT *
 FROM rszeltxref
 INTO TABLE it_rszeltquery
 FOR ALL ENTRIES IN it_rszeltcomp
 WHERE objvers = 'A' AND
 teltuid = it_rszeltcomp-seltuid.
 IF sy-subrc = 0.

* Now get the actual reports from reporting table.
 * So we should the query details now.
 SELECT *

```

FROM rsrreaddir
INTO TABLE it_rsrreaddir
FOR ALL ENTRIES IN it_rszeltquery
WHERE objvers = 'A' AND
comptype = 'REP' AND
compuid = it_rszeltquery-seltuid.
IF sy-subrc = 0.
* get the query txt description for all found queries.
  SELECT *
  FROM rszelttxt
  INTO TABLE it_rszelttxt
  FOR ALL ENTRIES IN it_rsrreaddir
  WHERE objvers = 'A' AND
  eltuid = it_rsrreaddir-compuid.
ENDIF.
ENDIF.
* Loop through the descriptions and also assign the
* text to the output to make this more clear.
LOOP AT it_rsrreaddir INTO wa_rsrreaddir.
  CLEAR: wa_output, wa_rszelttxt.
  MOVE-CORRESPONDING wa_rsrreaddir TO wa_output.
  * get the query description.
  READ TABLE it_rszelttxt INTO wa_rszelttxt WITH KEY
  eltuid = wa_rsrreaddir-compuid.
  IF sy-subrc = 0.
    wa_output-txtlg = wa_rszelttxt-txtlg.
  ENDIF.
  APPEND wa_output TO it_output.
ENDLOOP.
*Now do the display of the results
TRY .
  cl_salv_table=>factory(
    IMPORTING
      r_salv_table = go_alv
    CHANGING
      t_table = it_output ).
  " set column optimized
  go_columns = go_alv->get_columns( ).
  go_columns->set_optimize( ).
  " set functions
  go_funcs = go_alv->get_functions( ).
  go_funcs->set_all( ).
  go_alv->display( ).
  CATCH cx_salv_msg INTO go_ex.
  MESSAGE go_ex TYPE 'E'.
ENDTRY.

```

Note: Also remember to maintain the text elements in the SE38 for the report.

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TEST-001 Use InfoObject to find Hierarchy or input Hierarchy directly
P_CHAR   InfoObject
P_HIER   Hierarchy name

```

Related Content

[Important Tables in SAP BI \(NW2004\)](#)

<http://www.help.sap.com>

[SAP WIKI BW Reporting](#)

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

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