How to Bring SAP BusinessObjects Profitability and Cost Management (PCM) Result Table Data to SAP NetWeaver BW Using DB Connect

Applicable Releases:
SAP BW 7.X
SAP Business Objects PCM 7.X

Topic Area:
SAP NW Integration with SAP Business Objects Solutions

IT Scenario:
SAP NetWeaver BW Integration with SAP Business Objects Profitability and Cost Management

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**Document History**

<table>
<thead>
<tr>
<th>Document Version</th>
<th>Description</th>
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<tr>
<td>1.00</td>
<td>First official release of this guide</td>
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## Typographic Conventions

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<tr>
<td><strong>Example text</strong></td>
<td>Emphasized words or phrases in body text, graphic titles, and table titles</td>
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<td><strong>Example text</strong></td>
<td>File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.</td>
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<td>User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.</td>
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<td><code>&lt;Example text&gt;</code></td>
<td>Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.</td>
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<td><strong>EXAMPLE TEXT</strong></td>
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## Icons

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1. Business Scenario

Customers who have implemented PCM alongside an SAP BW installation may want to bring the PCM result data back to SAP BW to ensure that BW remains the single unified version of the truth in the organization. More specifically, they may want to combine PCM result data with SAP BW information and satisfy the analysis needs of the business user (for example, the PCM result data may show cost information by order document, customer and product but the business user may want to analyze costs by sales representative (which is an attribute of the customer object in BW and which may not be found in PCM) or to analyze profitability by combining cost information with revenue information (when the revenue information is only available in BW). In both of these cases, bringing the PCM result data back to SAP BW is required to satisfy important analysis requirements. These analysis requirements are often the justification for the PCM project itself.

2. Background Information

This solution offers a way for customers to bring their PCM Result data back to SAP BW using a standard feature of SAP BW called DB Connect. This document looks at the specific case of drawing from SQL Server using DB Connect, but the principle is the same for an Oracle RDBMS too.

3. Prerequisites


- If the BI DBMS and the source DBMS are different, you have to install a database-specific DB client for the respective source-database management system (DBMS) on the BI application server before you can use the DB Connect functions. In all cases, you need to license the database-specific DB client with the database manufacturer. For information about the database-specific DB client, see the information from the respective database manufacturers. In addition, the SAP-specific part of the database interface (the Database Shared Library (DBSL)) must be installed on the BI application server for the corresponding source database management system.

- For the SQL Server installation, ensure that
  - Mixed logon types (Windows auth and SQL Server auth) are setup for SQL Server
  - Ensure remote connections are possible within SQL Server Surface Area Configuration

- See also Note 512739 for an overview of Data types not supported.
4. Step-by-Step Procedure

In these steps we will ensure that the results tables in PCM have been populated, and that an SAP BW DataSource is created for a Results table.

4.1 Ensure the Results tables and views have been populated in the PCM SQL DB

1. Open your PCM Model in the Model Builder and select Model>Export…
2. In the popup window select the Results Tables you would like to fill
3. Select Export to DB button at top (Note that For Results export to DB, the “include calculated results” option is not relevant. This option exports explicit rules calculated values rather than those calculated by the allocation engine.)
4. The relevant Results tables (e.g. PPR_ACTIVITYVALUE) are now populated in the SQL DB (Note that the dimension data sent to the Results tables contains EPO Codes rather than the dimension item names. Therefore a set of views has been provided to enable viewing of the default alias dimension item names. These views would potentially be a better source of data for BW. The other option is to extract the EPO data as Master Data keys in BW Master Data and seek to combine this with data from EPO Code/Alias tables for each object.)

4.2 Create a BW Source System for SQL Server, then create a DataSource based on the SQL Table and finally upload PCM Result Data

1. Ensure all pre-requisites have been followed for both SAP BW DB Connect and for SQL Server.
2. In SAP BW, create a Source System of type DB Connect for your SQL Server database. For example, if your SQL Server was installed on server usphlrig20.phl.sap.corp and the SQL DB
used by PCM was called PCM70 then MSSQL_SERVER=usphlrig20.phl.sap.corp
MSSQL_DBNAME=PCM70 and you would make the following entries when establishing your
Source System in BW

3. Create a BW DataSource for your SQL Server Results Table. (Note that you will need to create
a BW DataSource for each PCM SQL Server Table you want to extract (unless of course you
build a BW DataSource on a SQL Server DB View). Navigate to your new Source System, right
click and select Additional Functions>Select Database Tables (3.x)

Click Save.
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DB connect: Select Tables and Views (Object Catalog)

- Source system: PCM70
- Database System: MSS
- Select Tables
- Select Views
Click Edit DataSource
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4. Check and Generate DataSource based on your selections. You can also display table contents from here.

5. The next steps depend entirely on your analysis requirement in BW.
   - This DataSource can be assigned to an existing InfoProvider or new InfoProvider (in general, for high volumes a DSO in SAP BW would be recommended)
   - Check with your SAP BW Consultant as to the best Data Modeling approach given your analysis requirements.
   - This DataSource can be combined with other DataSources from PCM (e.g. to translate EPO codes to Aliases which should match with BW Master Data Keys). For example if you intend to bring a results table such as PPR_COSTOBJECTVALUE into BW from PCM you will also need to bring across the tables that translate EPO codes into names. For example
     - Versions from PP_VERSION_NAME
     - Periods from PP_PERIOD_NAME
     - Responsibility Centres from PP_RESPCENTER_NAME
     - Line Items from PP_LINEITEM_NAME
     - Currency from PP_CURRENCY_NAME
     - Cost Objects from PP_COSTOBJECTX_NAME
   
   Note further that the NAME column from all of these tables is data type nvarchar(256) and therefore cannot be accepted by DB Connect (see Note 512739 mentioned in pre-requisites
above). In this case you must create a view in the SQL DB based on each table where the view definition would be (e.g.)

```
SELECT  LANGID, ID, MODELID, CONVERT(nvarchar(50), NAME) AS Name
FROM     PCMAPJ.dbo.PP_RESPCENTER_NAME
WHERE    (MODELID = 23)
```