

How to Transfer Data from AS400 to BW using DB Connect

Applies to:

SAP Netweaver 2004 and SAP Netweaver 2004s. BW 3.5 & BI 7.0

Summary

This document describes how to use DB Connect to connect AS400 system to BW system running on MSSQL. A logistic application runs on a system based on a AS400 DB2 database. To be able to analyze data for the logistic application, the data must be loaded into a BW system that is based on a DBMS MSSQL.

DB Connect allows to connect the DBMS for the logistic application, and to extract data from the database tables or views and transfer it to the BW system.

DB Connect specifically deals with AS400 and BW running on MSSQL. However, we can use the same steps when primary database (i.e the data base on which BW has been installed) is different from the Source Database system.

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Introduction

DB Connect from BW offers flexible options for extracting data directly into the BW from tables and views in the database management systems that are connected to the BW in addition to the default connection.

Data Sources are used to make data known to the BW. The data is then processed in the BW in the same way as data from all other sources.

With DB Connect, we can load data from a database system that is supported by SAP, by

- Linking a database to the BW as a source system, thereby creating a direct point of access to external Relational Database Management Systems (RDBMS).
- Making metadata known to the BW by generating a Data Source.

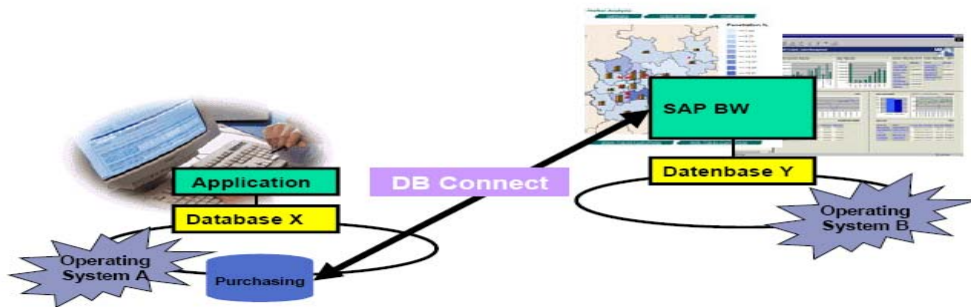


Figure 1: Example of DB connect

A logistic application runs on a system based on DBMS X(AS400) database. To be able to analyze data for the logistic application, the data must be loaded into a BW system that is based on a DBMS Y(MSSQL).

Note: DBMS Y can be same as DBMS X or different. When they are same no additional software installations are required. When DBMS X is different from DBMS Y, install database-specific client and database-specific DBSL. DB Connect allows to connect the DBMS for the logistic application, and to extract data from the database tables or views and transfer it into the BW.

DB Connect Architecture

To be able to use the DB Connect functions, a database-specific DB Client for the respective source-database management system (DBMS) on the BW Application Server must be installed. Note: Installation must be done only if the BW DBMS and the source DBMS are different.

In addition, the SAP-specific part of the database interface- the Database Shared Library (DBSL) must be installed for the corresponding source database management system on the BW Application Server.

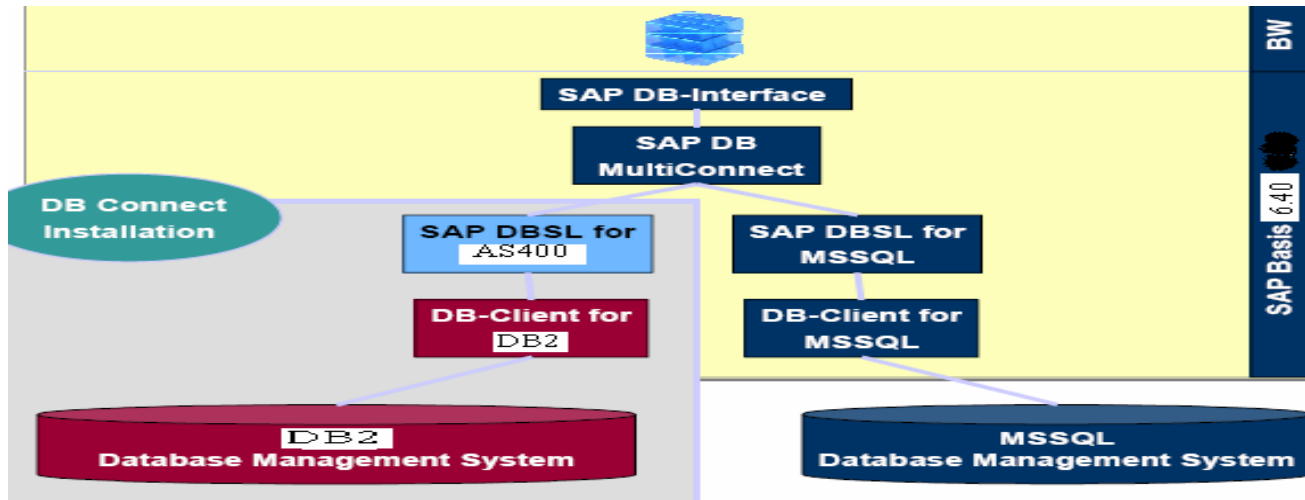


Figure 2: DB Connect Architecture

Step by Step Procedure

Installing the Database Shared Library (DBSL)

To transfer DB Connect data into a BW, install the SAP-specific part of the database interface – the DBSL for the corresponding source-database management system for each BW application server. (Only when BW system is not running on iSeries)

Please follow SAP Note 445872 to include Dynamilc Link Library DLL to access the data from DB2 UDB of iSeries.

This is a Windows DLL that can be found in the SAP Service Marketplace in the link:

<http://service.sap.com/patches>

The LIB_DBSL archive should be extracted to:

Windows: X:\usr\sap\<SID>\<INST>\exe

LinuxPPC: /usr/sap/<SID>/<INST>/exe

using: sapcar -x -f LIB_DBSL_XXXXX.car

Installing Client Software

1. Install the iSeries client software and the database interface (DBSL) for DB2 UDB for iSeries on the Windows application server.
2. Based on OS/400, install the 'iSeries Client Access for Windows' software on the Windows server. The Version of the ISeries Client Software and the installation .exe files can be confirmed with AS400 technical team.
3. Install the latest support package from the following URL: (access to IBM server is required)
<http://www-03.ibm.com/servers/eserver/iseries/access/casp.html>

iSeries Access for Windows (5722-XE1) Release Level	Latest Service Pack PTF Number	Server Maintenance	Date PTF was Available	Installed File Date	Target for Next Service Pack
V5R4M0	SI24893	Coreq and Server Notes	August 31, 2006	September 3, 2006	December 22, 2006
V5R3M0	SI24723	Coreq and Server Notes	August 9, 2006	June 9, 2005	February 9, 2007
V5R2M0	SI23978	Coreq and Server Notes	May 31, 2006	August 12, 2002	None planned

Installing XDA Database Interface

The driver delivered with Client Access may not be the most current. This section describes the method to be used for

- Downloading and installing the latest driver
- Determining whether XDA is the most recent version

Install the latest XDA database interface

-> QXDAEDRS.DLL (according to SAP Note: #751451):

The official location for information relating to the XDA client is:

<http://www.ibm.com/servers/eserver/series/access/xda/>

- for a connection to V5R4: Win64, qxdaedrs.dll: Version 10.64.0.4
- for a connection to V5R3: Win64, qxdaedrs.dll: Version 10.64.0.4
- for a connection to V5R3: Win32, qxaedrs.dll: Version 10.0.0.7

URL: <http://www-03.ibm.com/servers/eserver/series/access/xda/>

NOTE: After installation of 'iSeries Client Access for Windows' (or an installation of any support package of this product) replace the QXDAEDRS.DLL version as it is part of each 'iSeries Client Access for Windows' update.

Configuring Communication

Check whether the QXDAEDRSJOB job is running on the iSeries containing the source database. This job receives remote queries on the iSeries database and answers these. If this job does not run,

a) On the remote-DB server, execute the following command: STRTCPSVR

SERVER (*EDRSJOB)

b) Make sure that the job is started WRKACTJOB SBS(QSYSWRK)

Request AS400 Job scheduler to run the job all the time, and also check the timings of Maintenance down time, so that the extraction will not be scheduled during that time.

Creating DBCON Entry

Each connection that wants to call a source system (AS400) using the DB Connect must be described by a record in the DBCON table. This entry is generated when the source system is created in the Administrator workbench. Alternatively, transaction SM30 can be used to create this entry in advance.

For the connection with an iSeries database, set the attributes of the DBCON table as follows:

- DB connection (CON_NAME): a connection name of own choice. This is also the name of the source system.
- DBMS: DB4
- User name (USER_NAME): User name on the iSeries.

NOTE: For the DB Connect in BW, a restriction applies whereby the user name (USER_NAME) and source database library (AS4_DB_LIBRARY) must be identical.

- DB password (PASSWORD): The password of the iSeries user. The password must be entered in upper case.

- Verb.Info (CON_ENV): This field contains information that is required to set up a connection. The details of which are as follows:

AS4_HOST: The host name of the remote DB server.

AS4_DB_LIBRARY: The name of the library in the source database that contains the required data.

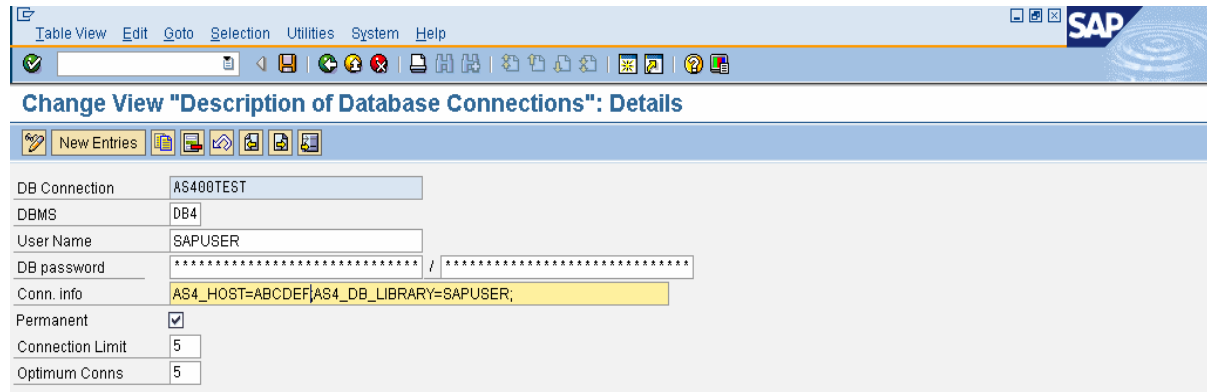


Figure 3: DBCON Entry SM30

After connecting the AS400 database, ensure that the required tables and views are present in the AS4_DB_LIBRARY. This will help the user to pull data from it. Then generate the DataSource for each table or view depending on the requirement.

To transfer data from a database source system, the metadata (that is, the tables or view and field information in BW) has to first exist in the form of a DataSource.

Generate a DataSource for a database source system using the context menu for a database source system _ Select Database Tables.

1. Make a table selection for a database source system.
2. Create a connection to the database source system.
3. Select the table fields for a specific table for the database source system and specify whether these need to be available for selection in the BW system.
4. Generate the DataSource. This includes the set of fields that need to be read from the database source system during extraction.

From the steps 5 to 10 describes the procedure to generate the datasource with screen shots.

5. Right click on the **Source Systems** and select the **Select Database Tables** as shown in figure 4.

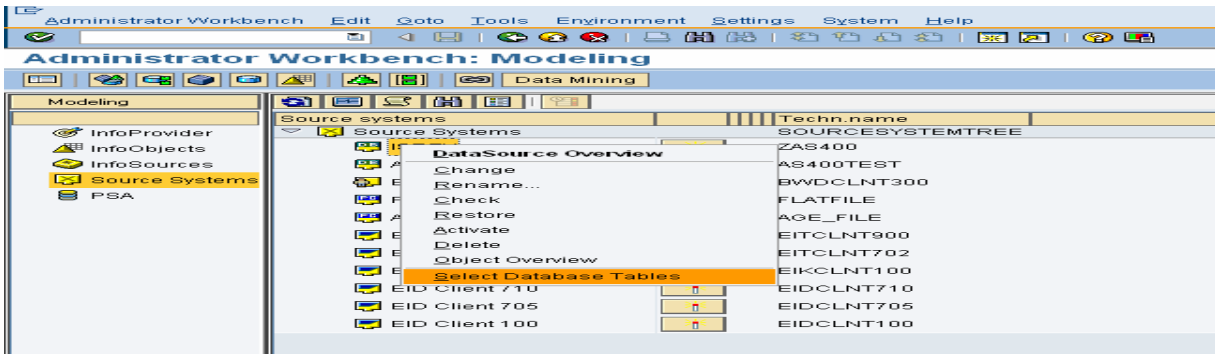


Figure 4: Select database tables

6. Click **Execute** to list out the table

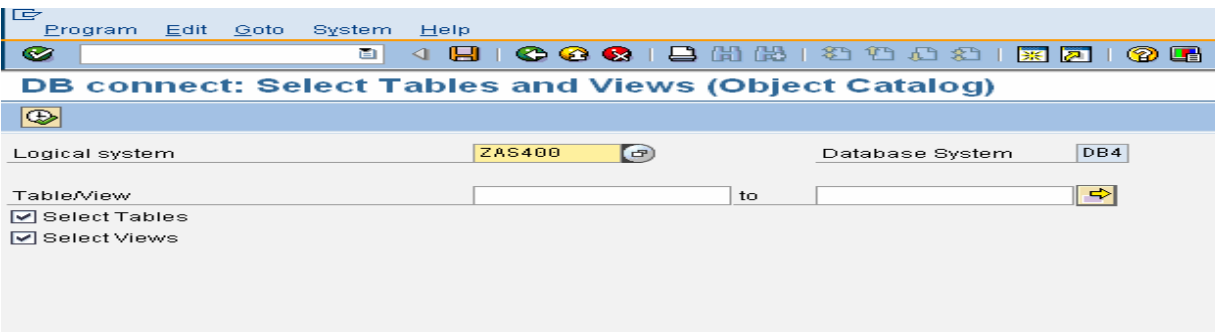


Figure 5: Execute to get View/ Table List

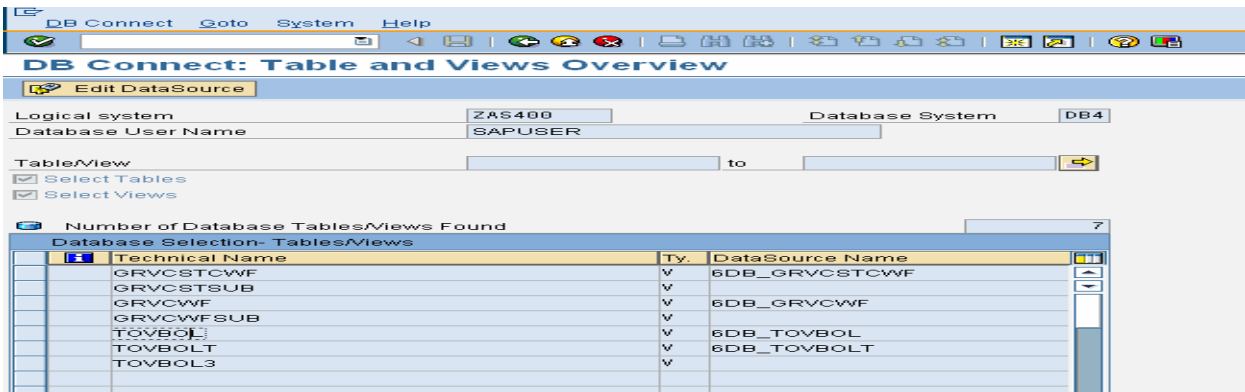


Figure 6: Table/View List

7. Double click on the table for which Data source needs to be generated. It will show all the fields in the table, select the fields according to the requirement.

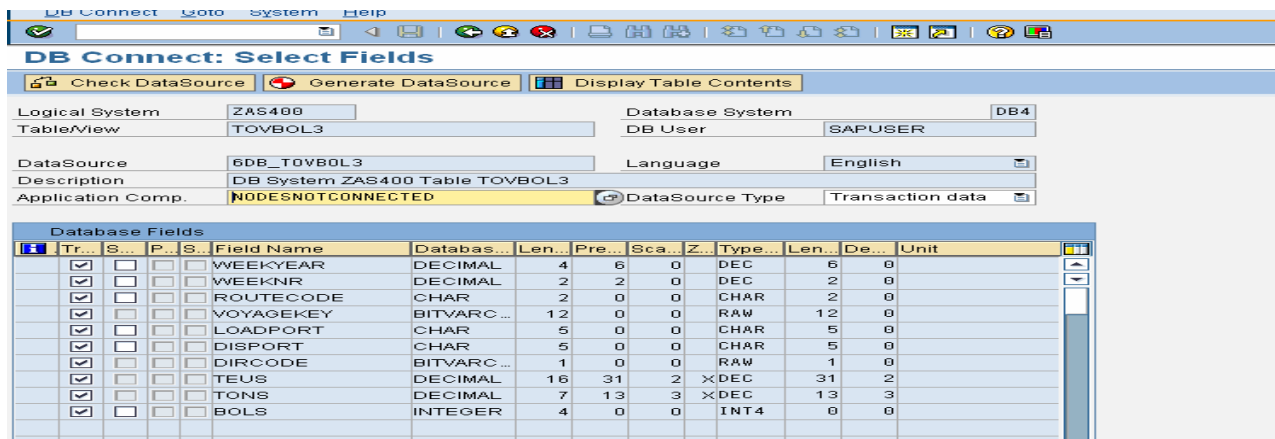


Figure 7: Selected Table / View with the fields

8. Click **Display Table Contents**. A maximum of 20 data records are displayed for field selection.
9. Click **Check DataSource**

The field names are checked for upper and lower case, special characters, and field length. The system also checks whether an assignment for an ABAP data type exists for the fields.

10. Click **Generate Data Source**

A DataSource is generated from the table/view, whose technical name is composed of the prefix 6DB_ plus the technical name of the table/view. Since the DataSource name in BW is limited to 30 characters, the technical name of the database tables/views cannot be longer than 26 characters. Tables/views with longer technical names are therefore not available for extraction.

For the DataSource to be generated, specify the source system tree for the AWB under which it should be classified. For the database source system, this application component hierarchy corresponds to the hierarchy in the InfoSource tree. In the standard setting, the DataSource is assigned to the application component NODESNOTCONNECTED (non-assigned nodes).

Conclusion

The DataSource is generated and is visible in the DataSource overview for a database source system in the AWB. After assigning the DataSource to an existing or a new InfoSource, and the DataSource fields to InfoObjects, activate the transfer rules and create an InfoPackage by defining the selections for the data request.

Note: Data can be loaded only via a PSA. We cannot use the Delta Update method with DB Connect. In this case, a delta request is possible using the selections (time stamp, for example).

Related Content

Please include at least three references to SDN documents or web pages.

- [Note 523381 - BW: External DB connect for an iSeries database as of 3.0B](#)
- [Note 445872 - iSeries: DB multiconnect from Windows / LinuxPPC to iSeries](#)
- [Note 751451 - iSeries: XDA Database client for Windows and LinuxPPC](#)
- [Note 146624 - AS/400: Database Multiconnect with EXEC SQL and ADBC](#)
- [Note 743113 - iSeries: Known Issues with V5R3M0](#)

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