

Integrating SAP BW with Microsoft BI – Using Open Hub Technology



Applies to:

SAP Business Intelligence 7.0. For more information, visit the [EDW homepage](#).

Summary

This paper will take you through the process of integrating SAP BI 7.0 and Microsoft BI. The paper gives how the Open Hub is used to transfer data to the SSIS layer at the MS BI end.

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Table of Contents

Introduction	3
Open Hub Technology from SAP BW	3
Microsoft Connector for Business Intelligence	3
The Step by Step Solution	4
Related Content.....	15
Disclaimer and Liability Notice.....	16

Introduction

This paper explains how to integrate SAP BW7.0 with Microsoft BI at the SSIS layer. The How-to guide describes the steps that are necessary to integrate the SAP BW 7.0 and the MS BI system by using the Open Hub technology.

Open Hub Technology from SAP BW

In order to integrate both the Business Intelligence systems, we would be using the SAP BW Open Hub technology to transfer the data to the Microsoft Business Intelligence system at the SSIS layer.

The open hub will be configured for a 3rd party destination which in this context is the MS BI which supports the underlying SQL Server 2008 R2 database.

Microsoft Connector for Business Intelligence

Microsoft Connector 1.0 for SAP BI is an add-in for SQL Server Integration Services. It provides an efficient and streamlined solution for integrating non-SAP data sources with SAP BI. It also enables the construction of data warehouse solutions for SAP data in SQL Server 2008, where SAP BI is exposed as a data source of SQL Server.

Microsoft Connector 1.0 for SAP BI has the following requirements:

- Windows Server 2003 and later, Windows Vista, or Microsoft Windows XP Professional with Service Pack 2.
- SQL Server 2008 Integration Services. Microsoft Connector 1.0 for SAP BI needs to be installed on the same computer where Integration Services is installed.
- Windows Installer 4.5 and later.
- Extracting data using Microsoft Connector 1.0 for SAP BI from SAP BI system requires the SAP Open Hub license. For more information about SAP licensing, consult your SAP representative.
- On the SAP BI system, SAP_BW component support package level 16 (as part of SAP NetWeaver Support Pack Stack 14) is required. SAP_BW component support package level 17 or higher is strongly recommended.
- To use Microsoft Connector 1.0 for SAP BI in 32-bit (64-bit) mode on any 32-bit (64-bit) operating system, The 32-bit (64-bit) version of librfc32.dll needs to be copied to the following location: %windir%\system32.
- To use Microsoft Connector 1.0 for SAP BI in 32-bit mode on a 64-bit operating system, the 32-bit librfc32.dll needs to be copied to the following location: %windir%\SysWow64.

The Step by Step Solution

1. The first step is to create the required RFC connection between SAP BW and MS BI.

Go to TCODE-> SM59 for creating the RFC.

You may require special authorization to perform this activity. Get in touch with your basis colleague to configure the RFC.

Configuration of RFC Connections

RFC Connections	Type	Comment
ABAP Connections	3	
HTTP Connections to External Server	G	
HTTP Connections to ABAP System	H	
Internal Connections	I	
SNA/CPI-C connections	S	
TCP/IP connections	T	
CALLTP_WindowsNT	T	Transport Tools: tp Interface *generated*
D31_CHIDS113_D31	T	chids113_PORTAL_D31
DOCUMENTATION_HELP	T	Call WinHelp and WinWord from R/3
EU_SCRP_WN32	T	Graphical Screen Painter (WindowsNT / Windows95)
F1_HELP_SERVER	T	Windows RFC server for F1 help on fields, messages and
F1_HELP_SERVER_32	T	Windows RFC server for F1 help on fields, messages and
F1_HELP_SERVER_40	T	Windows RFC server for F1 help on fields, messages and
GFW_ITS_RFC_DEST	T	Generated RFC destination for IGS
IGS_RFC_DEST	T	Generated RFC destination for IGS
LCRSAPRFC	T	LCRSAPRFC
LOCAL_EXEC	T	Starts the Program 'RFCEXEC' on Front End Machine
LOCAL_EXEX	T	Runs rfexec for X terminals
LOCAL_PRINT	T	
MDX_PARSER	T	MDX Parser for ODBO BAPI
MSSAPBI	T	RFC: MS Connector for SAPBI
MSSQL_CFGCK	T	functions to check SQL Server clients

2. Give the RFC Description. Make sure you check the Registered Server Prog. Radio button in Activation Type.

For Prog Id. Give the name as 'MSSAPBI_PROG'.

Enter the Gateway Host and Gateway Service of the SAP BW server.

RFC Destination MSSAPBI

Connection Test Unicode Test

RFC Destination: MSSAPBI

Connection Type: T TCP/IP Connection Description

Description

Description 1: RFC: MS Connector for SAPBI

Description 2: RFC: MS Connector for SA

Description 3:

Administration Technical Settings Logon & Security MDMP & Unicode Special Options

Activation Type

Start on Application Server

Start on Explicit Host

Start on Front-End Work Station

Registered Server Program

Registered Server Program

Program ID: MSSAPBI_PROG

Start Type of External Program

Default Gateway Value

Remote Execution

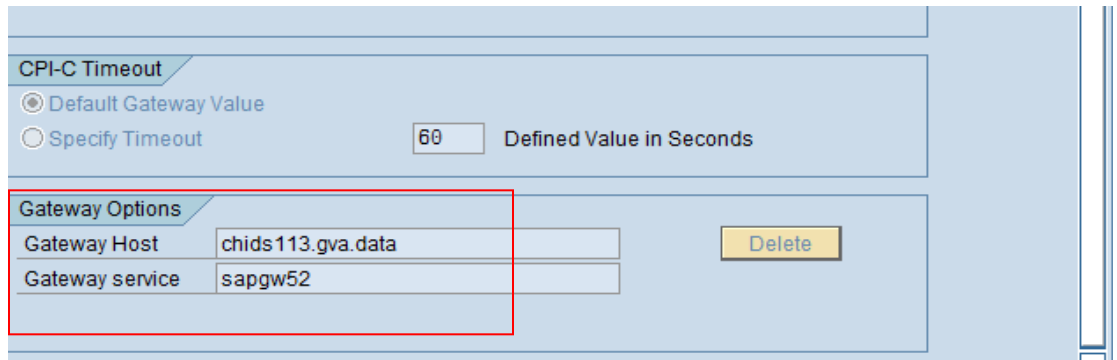
Remote Shell

Secure Shell

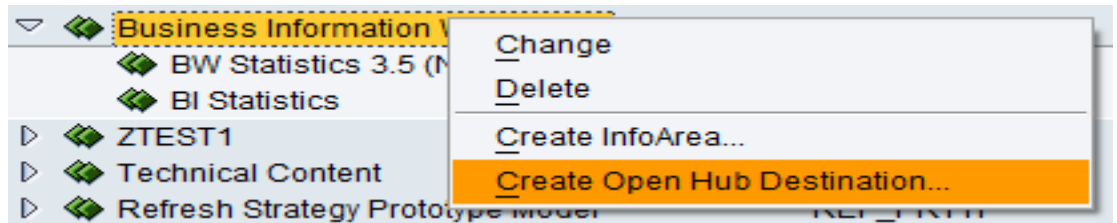
CPI-C Timeout

Default Gateway Value

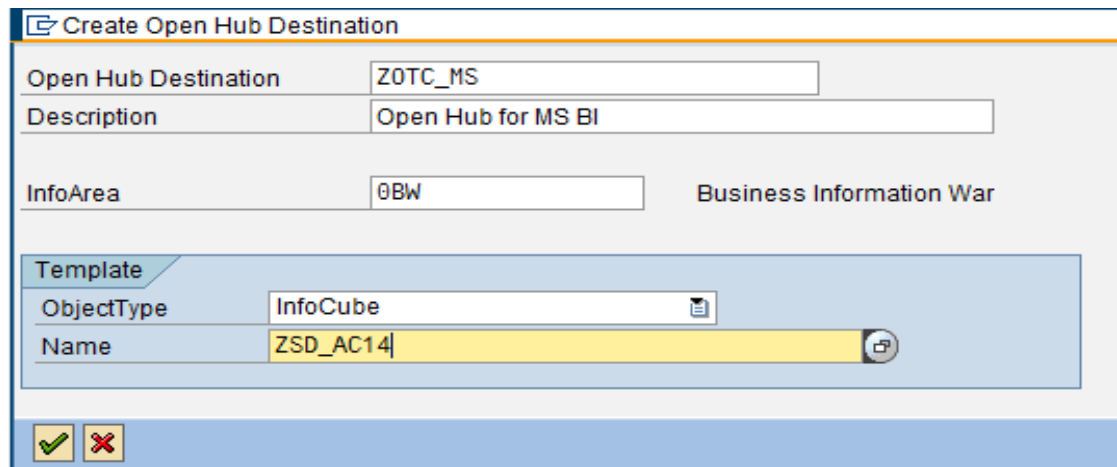
Specify Timeout: 60 Defined Value in Seconds



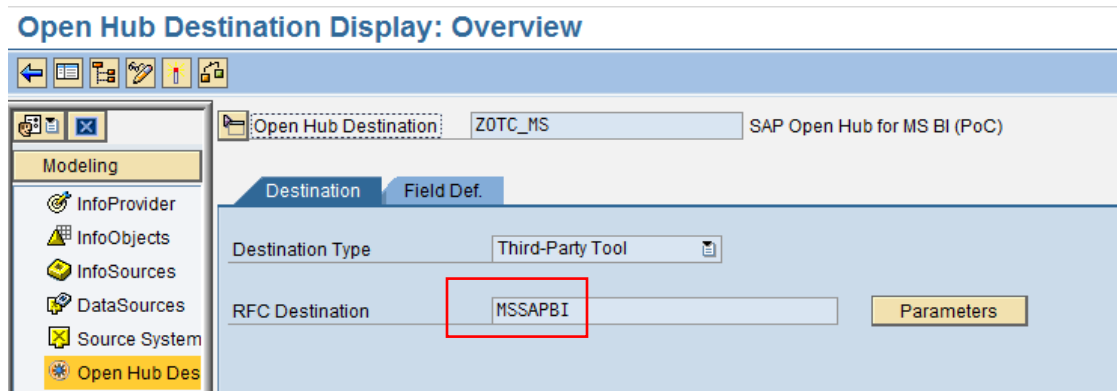
3. The next step is to create an Open Hub on the relevant Info Provider for which you want the data to be transferred to the destination system.



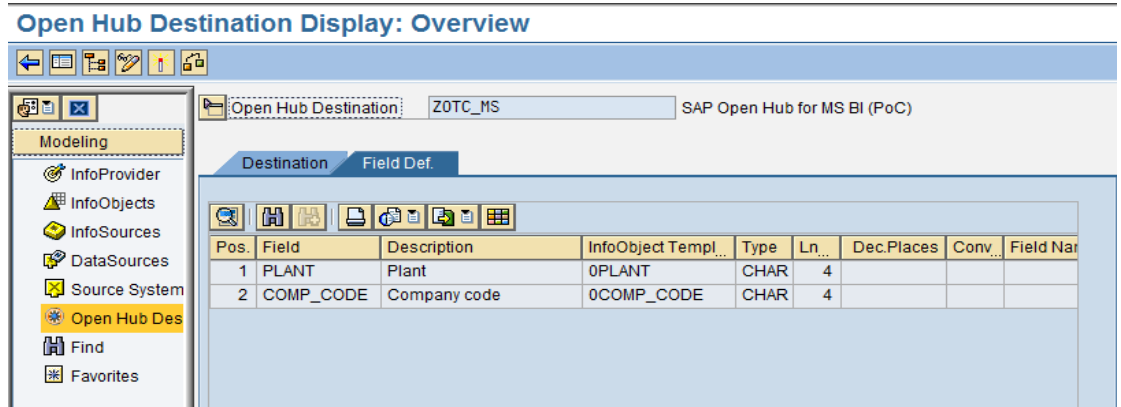
4. Give the relevant technical name and description along with the Info Provider name on which the Open Hub needs to be created



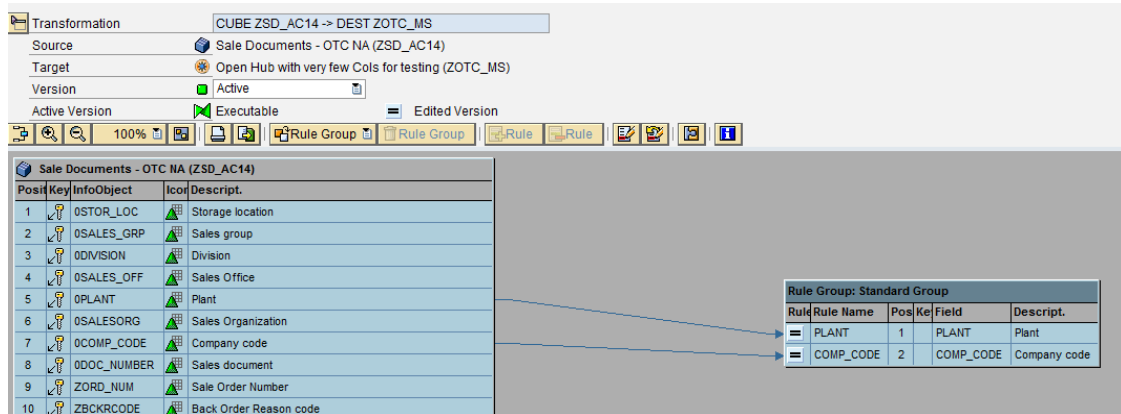
5. The destination type is a 3rd party (MS BI) and the RFC name has to be given as created in Step 1 above.



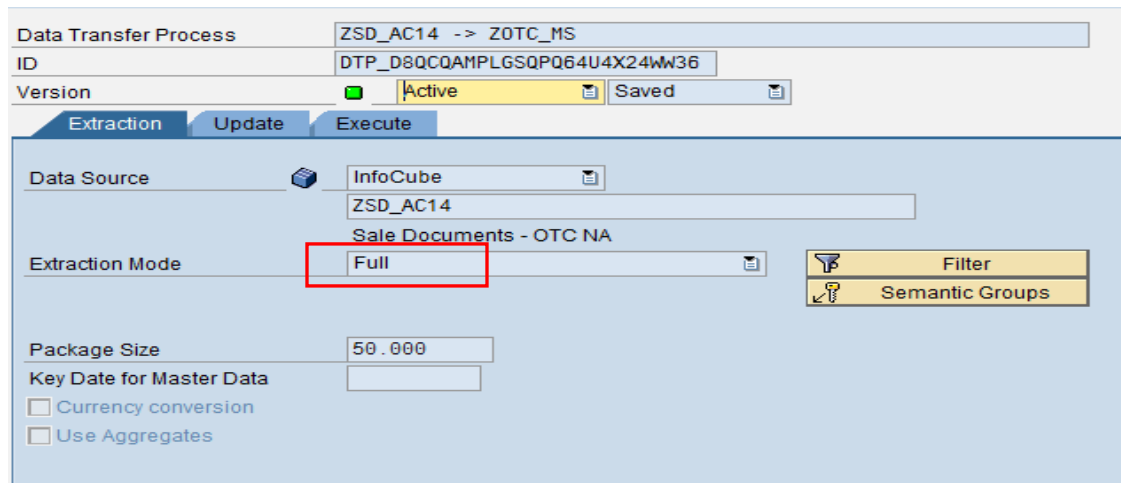
6. Create an Open Hub on a couple of fields of the Info Provider to begin with.



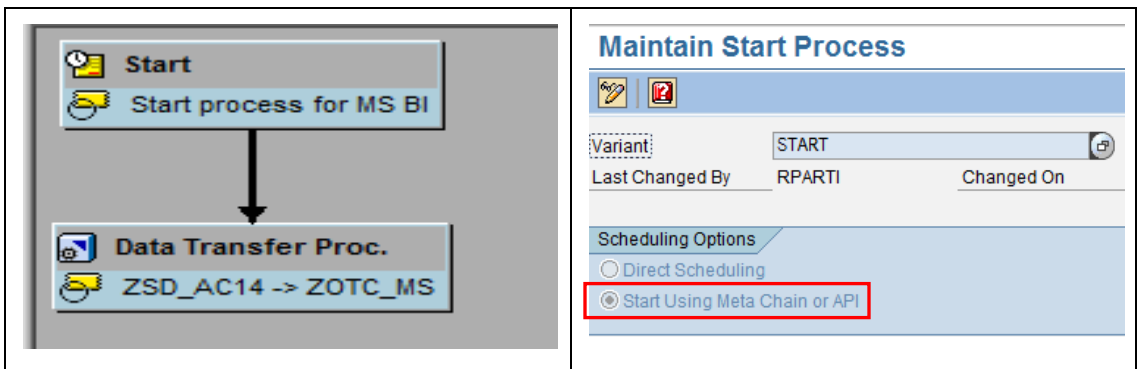
7. Perform the required transformation between the Info Provider and the Open Hub



8. Create a DTP for the Open Hub Created above and give the extraction mode as 'Full'

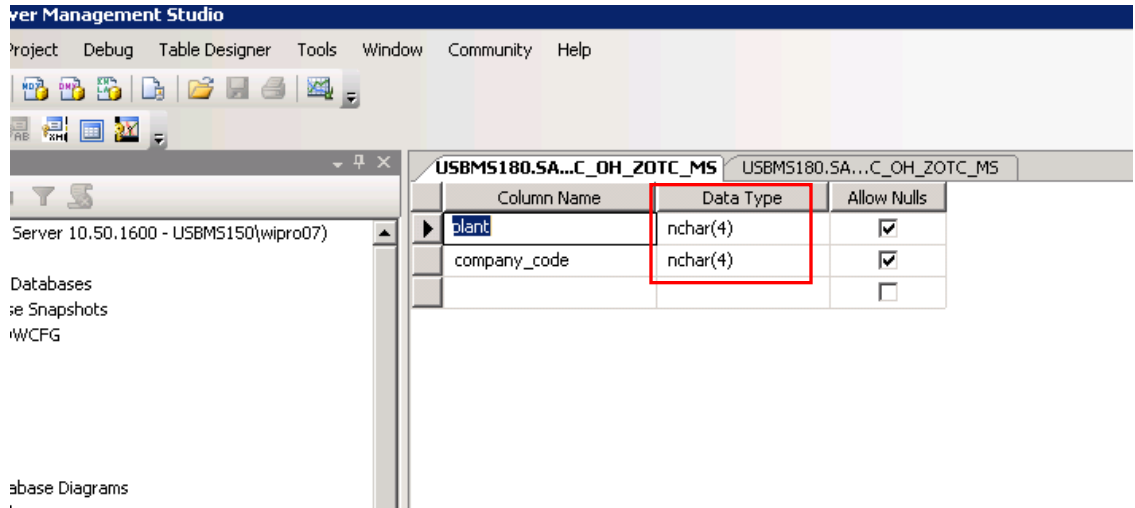


9. Create a Process Chain in RSPC (ZOH_MSBI_PC) which includes the Open Hub DTP

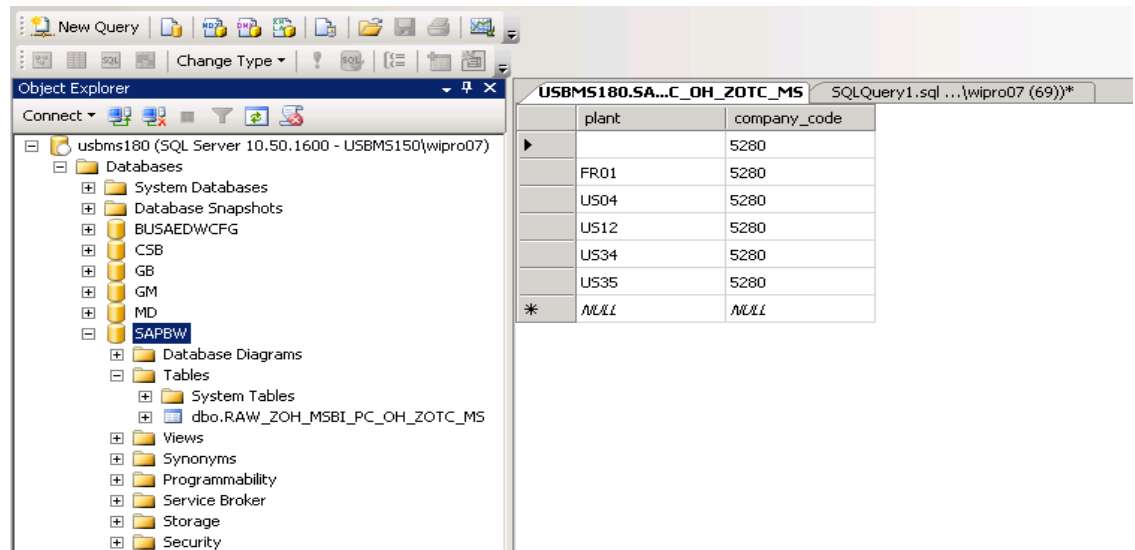


The start process should be set to 'Start using Meta Chain or API' property

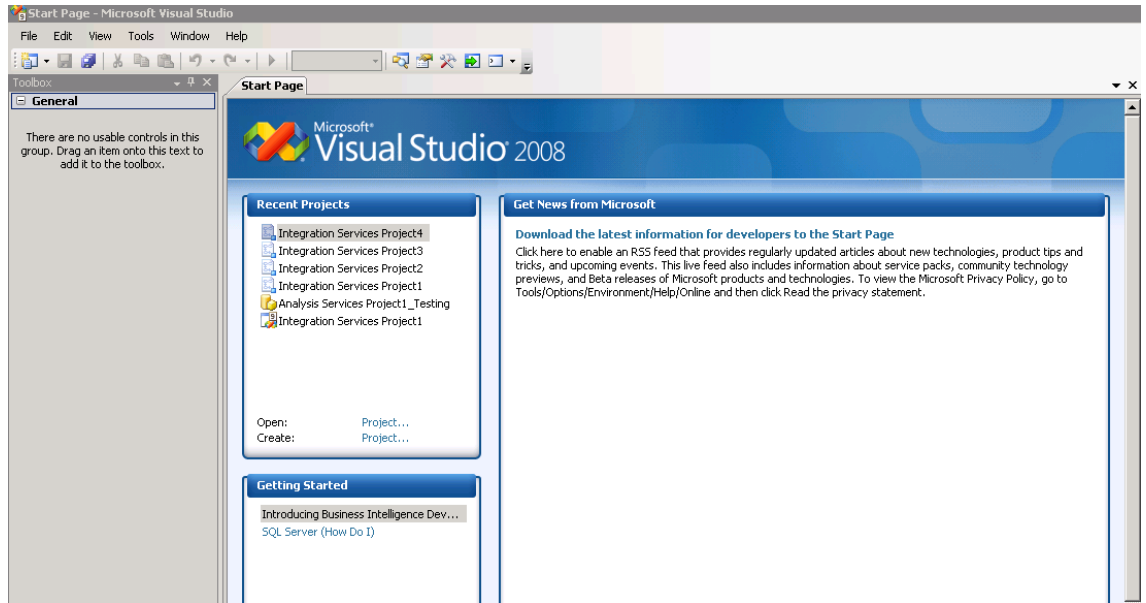
10. For Configuration on the MS BI Side, create the relevant database table on SQL Server 2008. Since SAP BW is a Unicode system, the Data type for the fields in Open Hub should be configured in the similar manner on the SQL Server also.



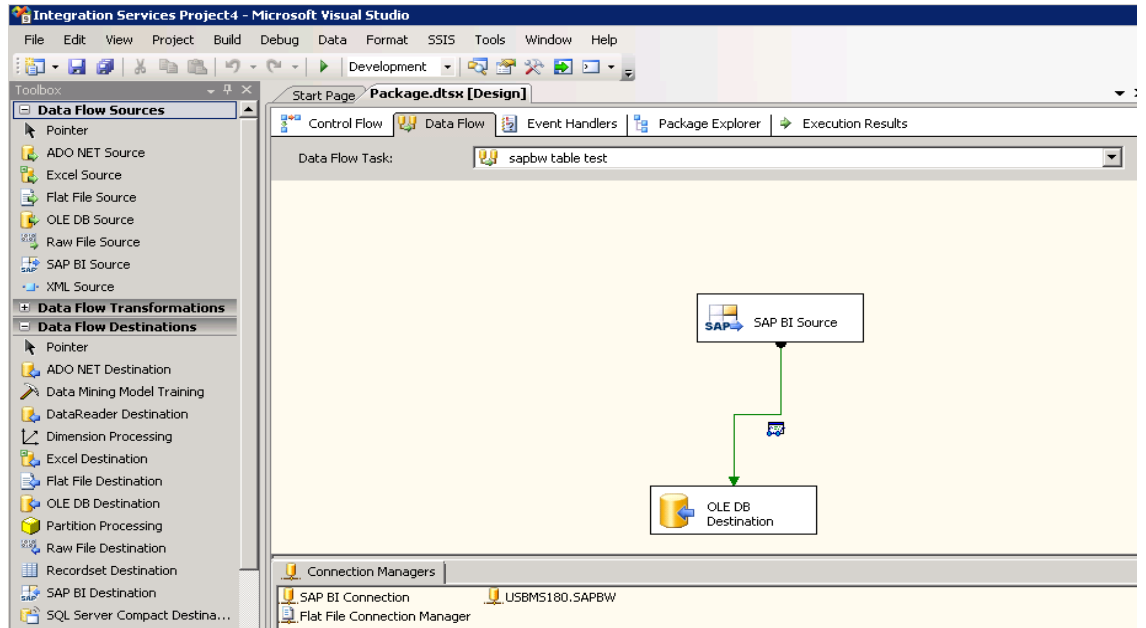
11. Try inserting few records into the table in order to check if insertion, modification and deletion can be performed on the table at the SQL server side.



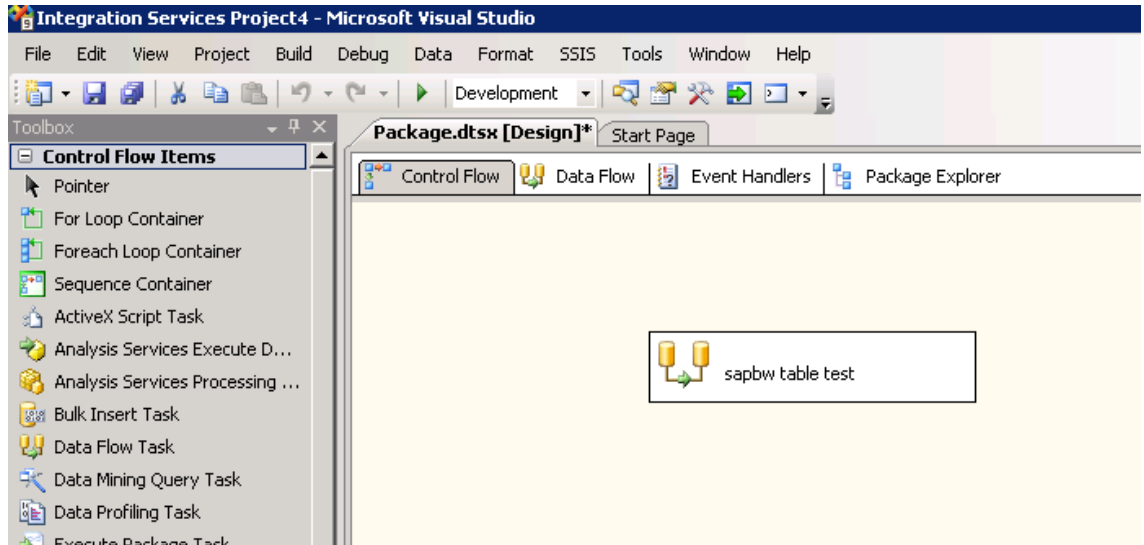
- Open the MS Business Intelligence Studio



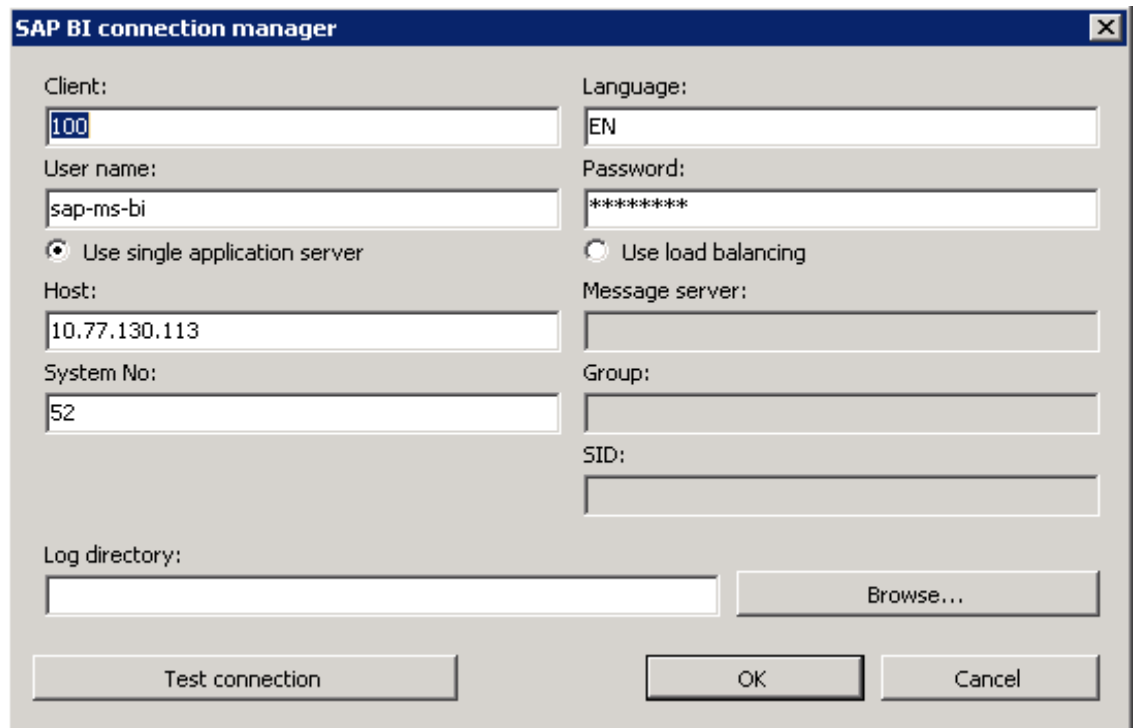
- Add the relevant SAP BI Source Object and OLEDB Destination Object in the Data Flow tab.



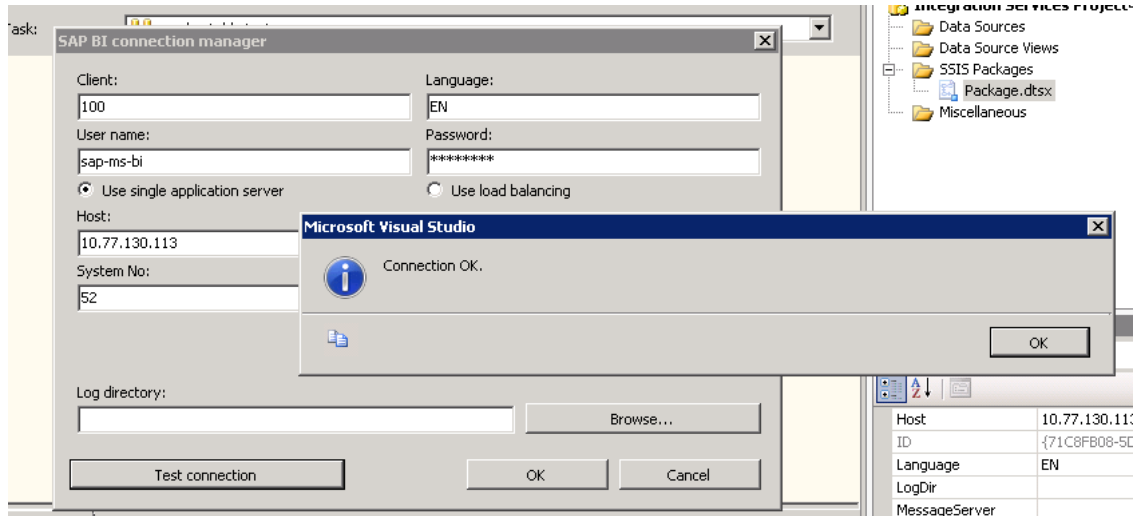
14. Add the Control Flow component. This component controls the Data Flow as configured in step 13.



15. Configure the SAP BI Connection manager. Enter the relevant SAP BW server credentials.

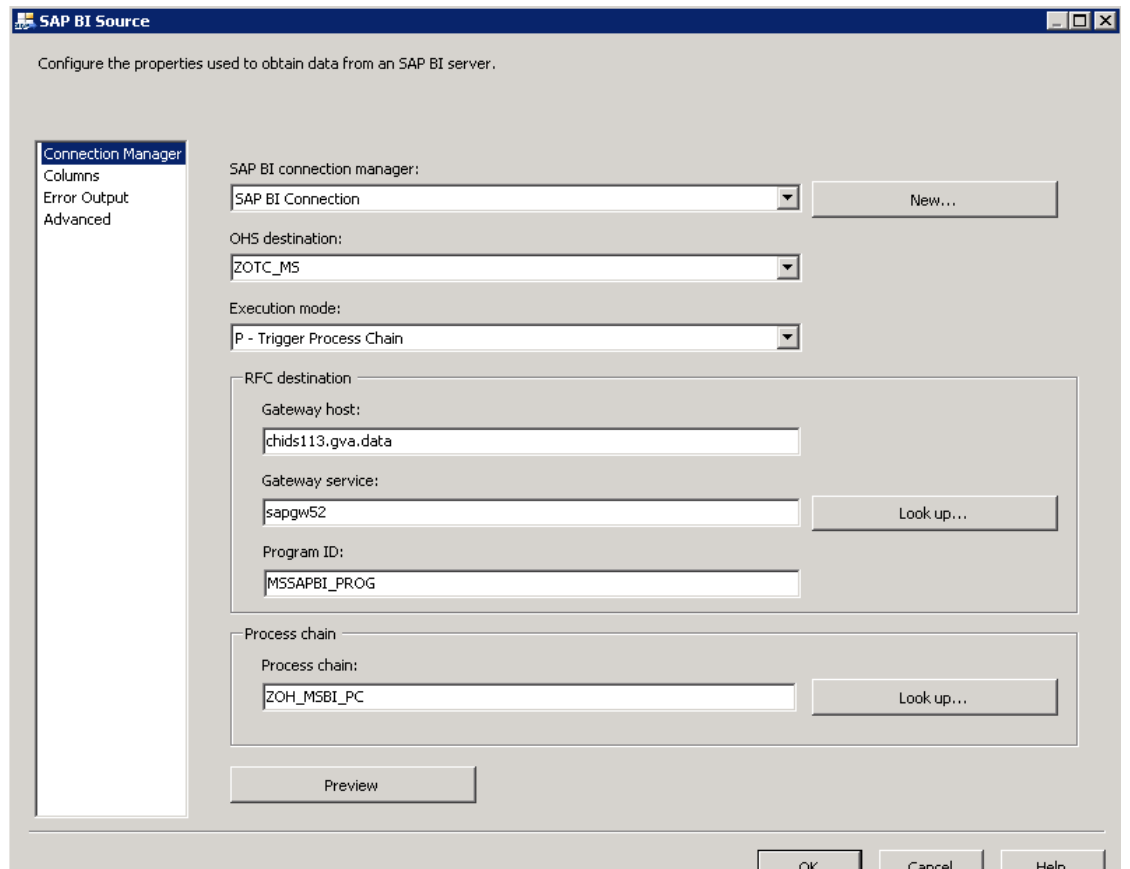


16. Test the SAP BI Connection Manager for connection establishment.

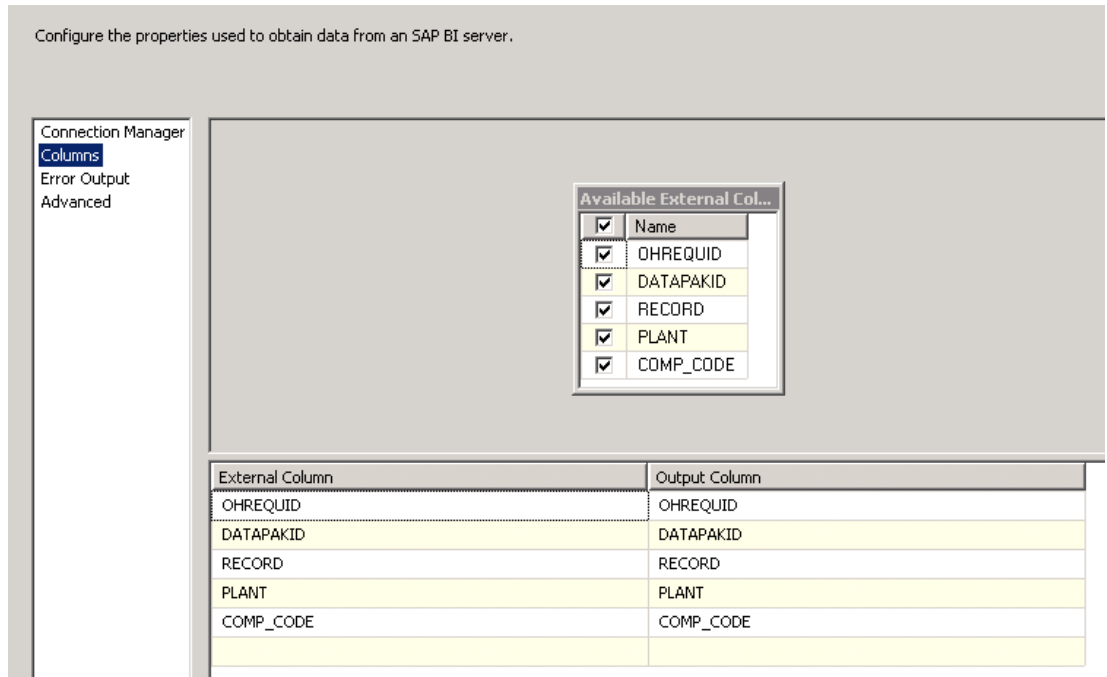


17. Configure the SAP BI Source by double clicking on the SAP BI Source object as shown in step 13.

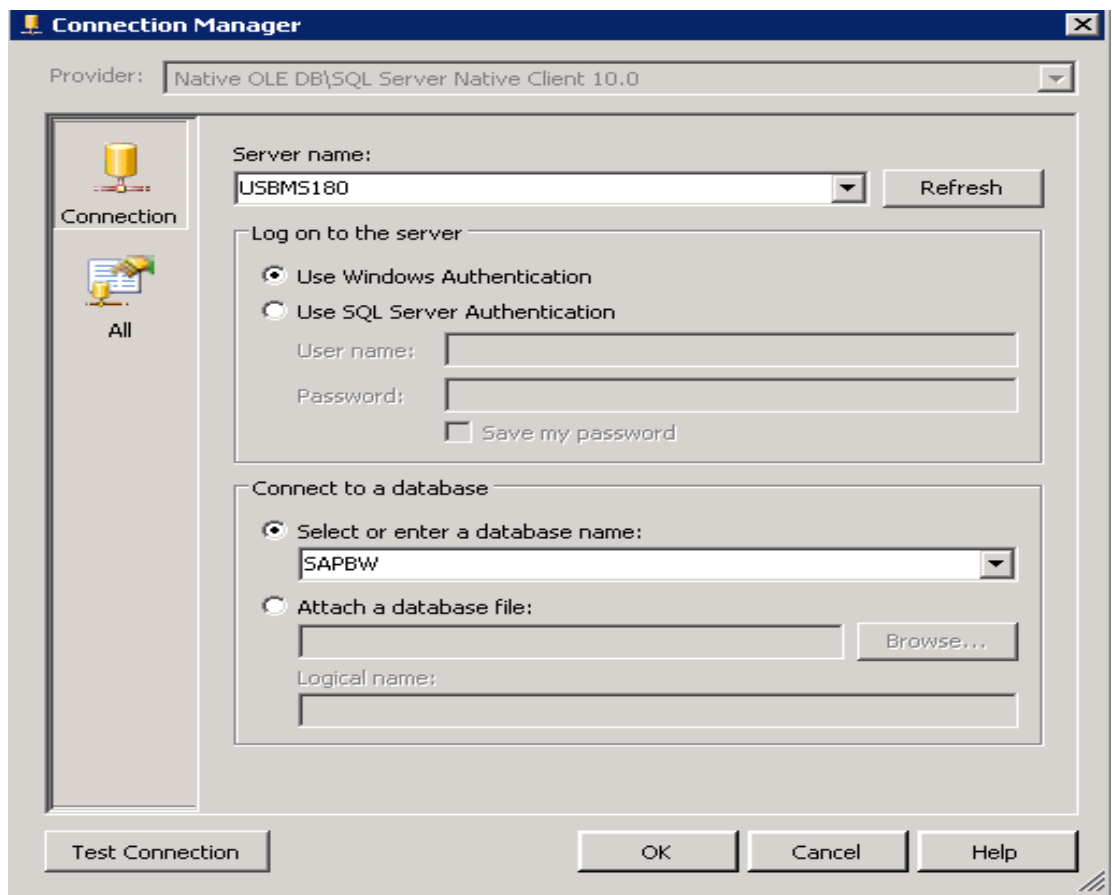
Enter the Open Hub tech. name, Process Chain tech. name and the SAP BW server credentials.



18. Check the Cols. Section to view the relevant fields for which the data would be transferred.



19. Configure the OLEDB Connection manager with the SQL Server database credentials.



20. Double click on the OLEDB Destination Editor to configure the connection between the SAP BI source and OLEDB destination

OLE DB Destination Editor

Configure the properties used to insert data into a relational database using an OLE DB provider.

Specify an OLE DB connection manager, a data source, or a data source view, and select the data access mode. If using the SQL command access mode, specify the SQL command either by typing the query or by using Query Builder. For fast-load data access, set the table update options.

Connection Manager
Mappings
Error Output

OLE DB connection manager:
USBMS180.SAPBW New...

Data access mode:
Table or view - Fast load

Name of the table or the view:
[dbo].[RAW_ZOH_MSBI_PC_OH_ZOTC_MS] New...

Keep identity Table lock
 Keep nulls Check constraints

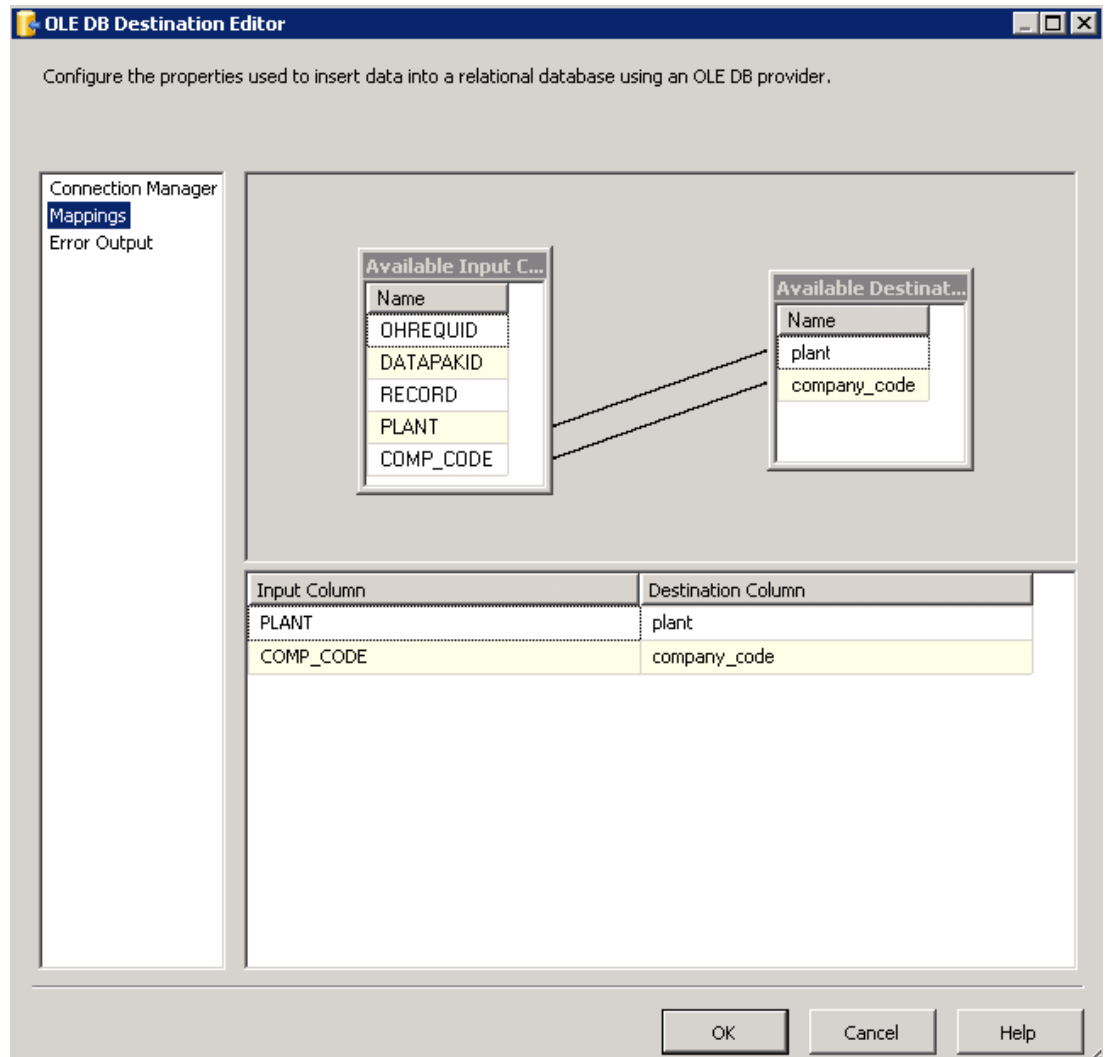
Rows per batch:

Maximum insert commit size:

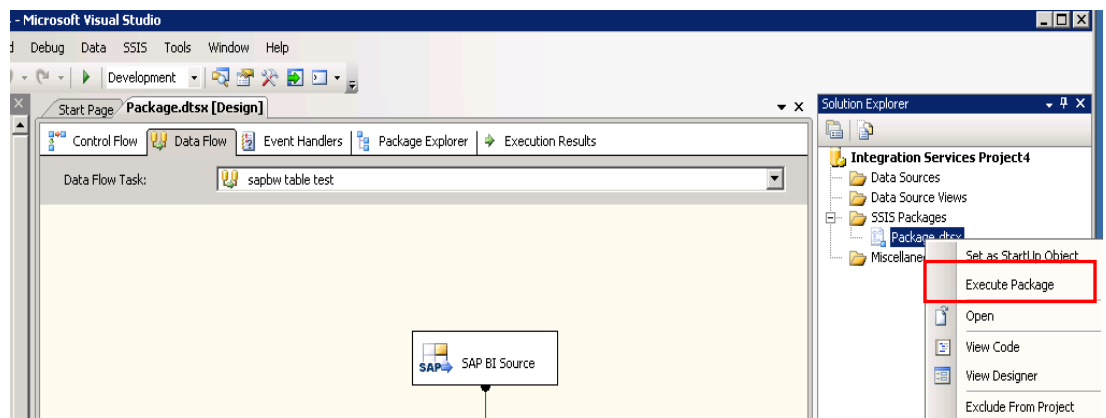
Preview...

OK Cancel Help

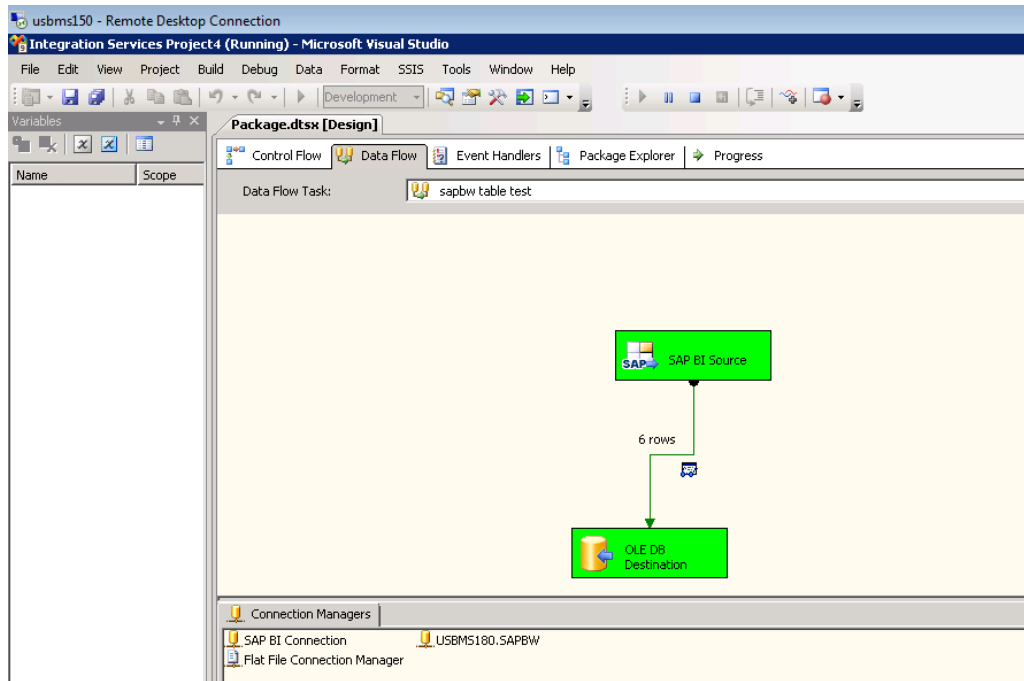
21. Perform the Column mappings for the destination table in SQL Server.



22. Execute the Package to test the data transfer by rt. Clicking on the SSIS Package.



23. The data flow from SAP BI Source to OLEDB Destination has transferred 6 records into the SQL Server Database table.



Related Content

<http://msdn.microsoft.com/en-us/library/dd299430.aspx>

http://help.sap.com/saphelp_nw04/helpdata/en/ce/c2463c6796e61ce10000000a114084/content.htm

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