

Lab-Homework

(OLTP)

-

(OLTP)

(Data-warehouse)

-

Execute SSIS Package

OLTP

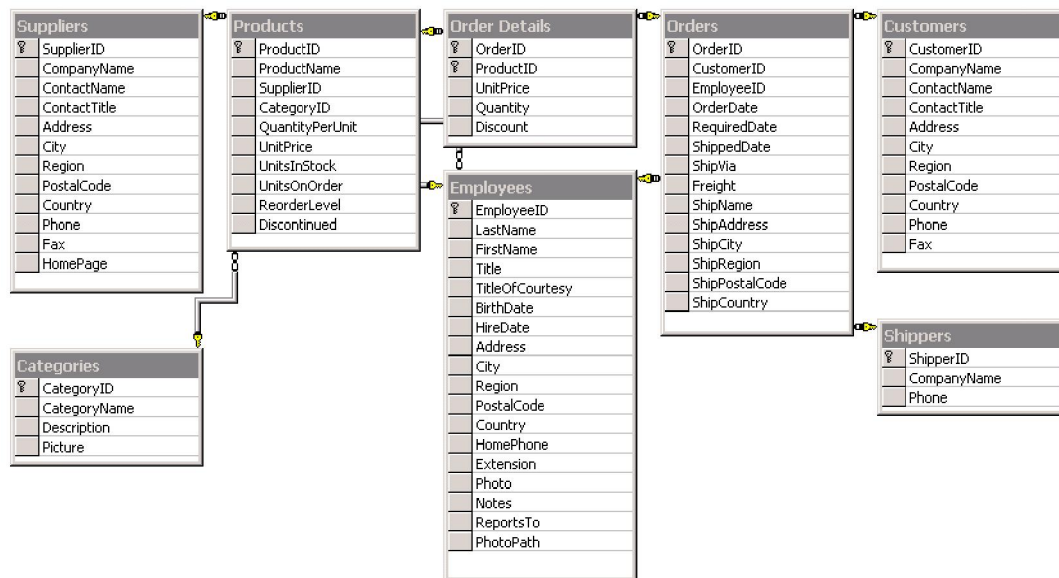
(Data-warehouse)

Northwind

OLTP

Northwind_star

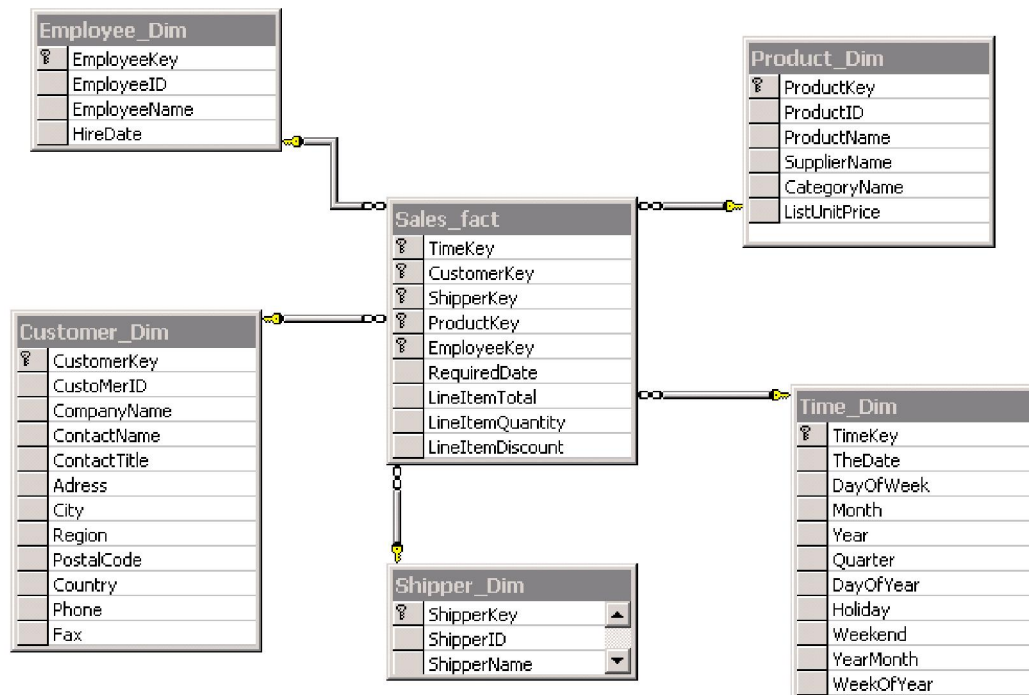
Northwind:



1 : DB Schema

OLTP

Northwind_star:



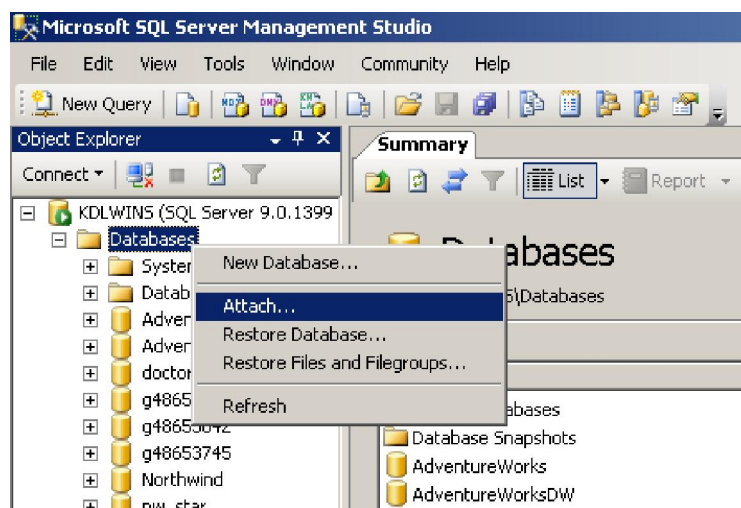
2 : DB Schema

(Data-warehouse)

1.
 - 1.1. Attach Northwind
 - 1.2. Northwind_star
 - 1.3. Northwind_star
2. SSIS Package Northwind Northwind_star ()
 - 2.1. Data Flow Dimension table
 - 2.2. Data Flow Fact Table
 - 2.3. Execute SQL Task Dimension table Fact Table
3. Execute SSIS Package Northwind Northwind_star ()

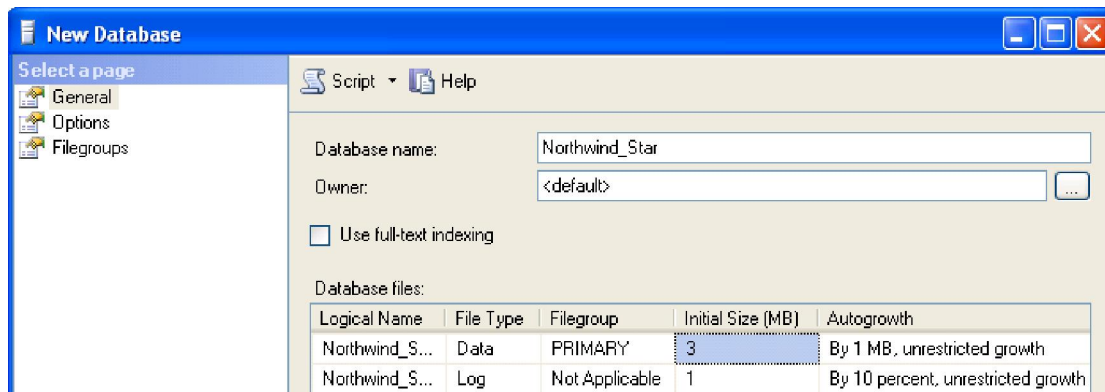
1:

- 1.1 Attach Northwind
1. MS SQL Server Management Studio MS SQL Server 2005
2. Databases Attach 3



- 3: Attach MS SQL Server Management Studio
3. "Attach Databases" Add
- NORTHWIND.MDF
4. OK

- 1.2 Northwind_star
5. MS SQL Server Management Studio Databases New
 - Database .. 4 OK



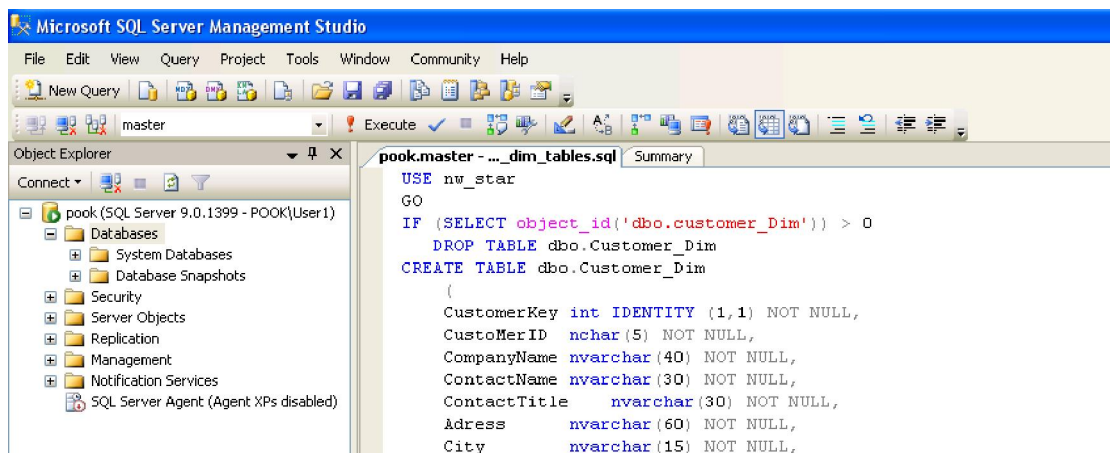
4: New Database

Database

General Page: Name..... -- *Northwind_star*
Options Page: Collation.name -- *Thai_CI_AS*

1.3 AllElec_star

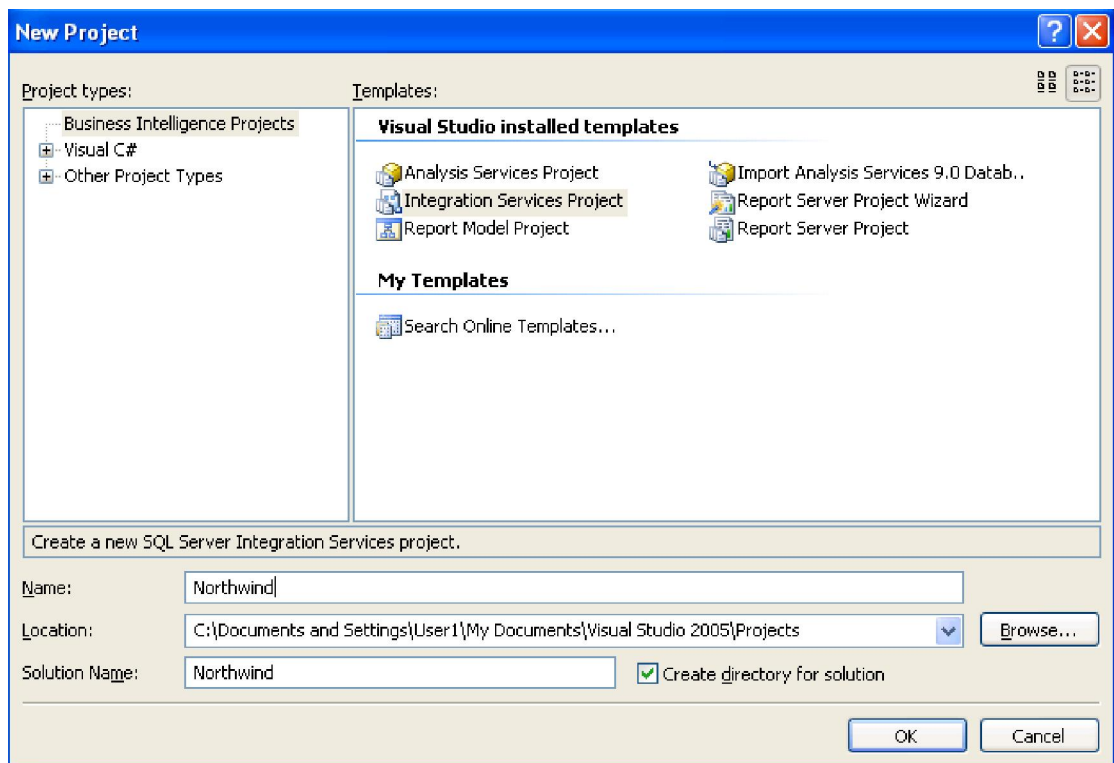
6. Dimension table
- 13.1. create_dim_tables.sql Drag Drop Management Studio (default program .sql (SQL Server Management Studio))
- 13.2. Execute



5: Dimension Table Execute SQL

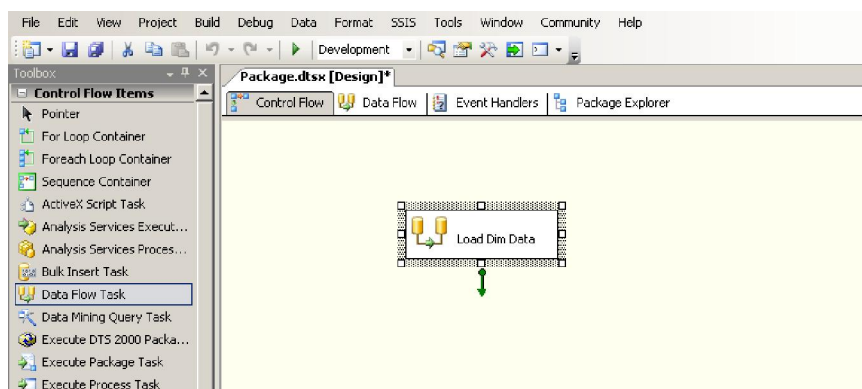
7. Fact table (6)
- \$ create_fact_table.sql Drag Drop Management Studio (default program .sql (SQL Server Management Studio))
- \$ Execute

- 2 : DTS Package Northwind Northwind_star
8. SQL Server Business Intelligence Development Studio MS SQL Server
2005 File New Project 6



6 : Project

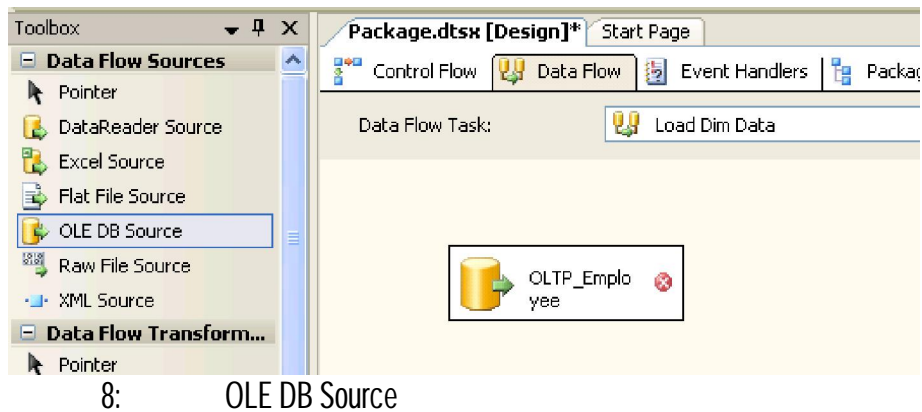
- 2.1 Data Flow Dimension table
9. Tab Control Flow double-clicks Data Flow Task Control
Flow Items Tool box 7 "Load Dim Data"



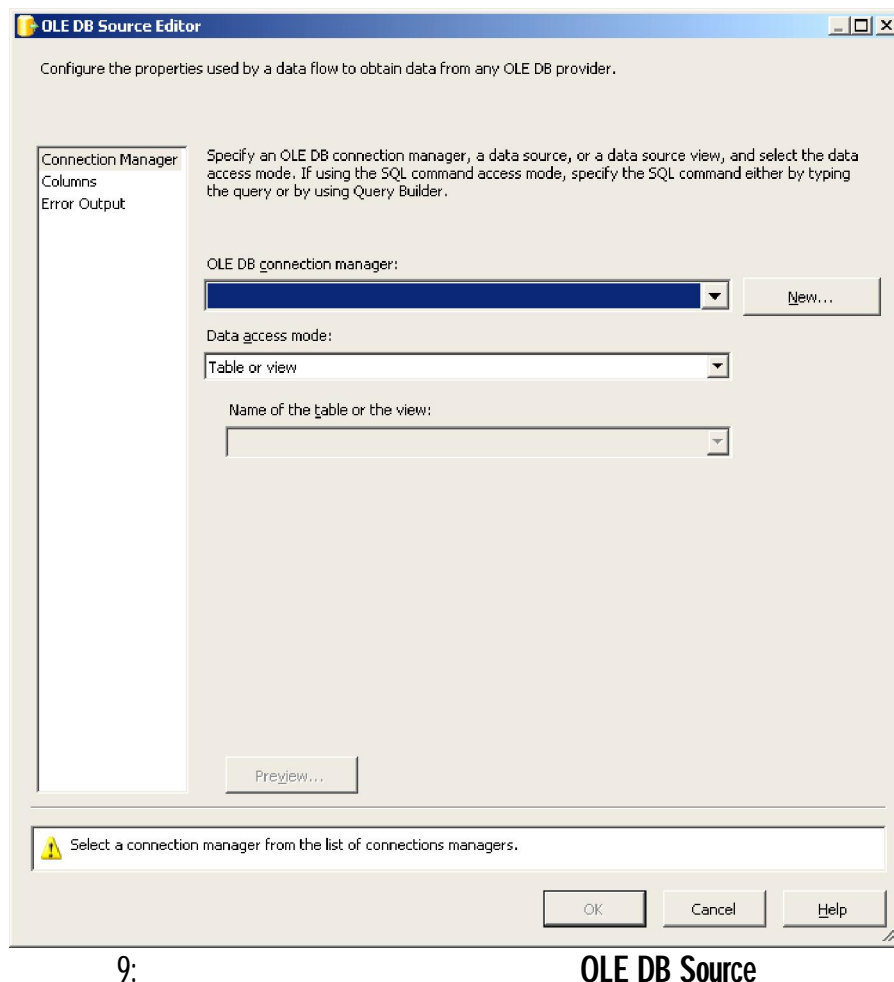
7 : Data Flow

10. Double-clicks Data Flow "Load Dim Data" Tab Data Flow

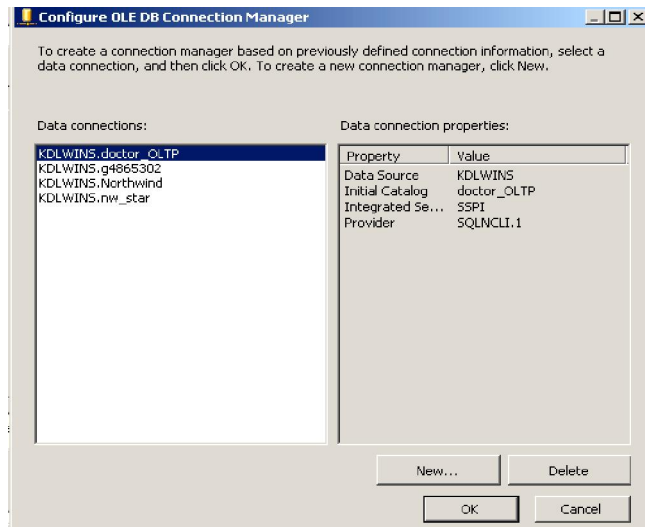
- 2.1.1 Employee_Dim
11. Double-clicks OLE DB Source Data Flow Sources Tool Box
8 OLE DB Source OLTP_Employee



12. Double-clicks **OLTP_Employee** 8 9



12.1 OLE DB Connection Manager New 9
10



10: Connection

12.2

Connection

Northwind

New...

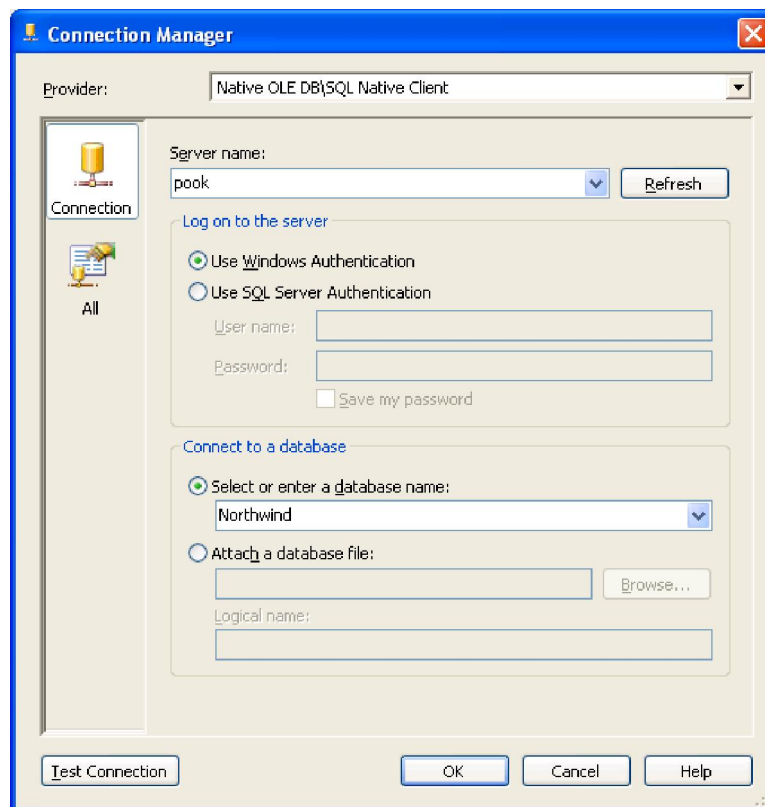
10

"Connection Manager"

12.3

Properties

OK



11: Properties

Connection Manager

12.4

10

11

OK

12.5

OLE DB Source Editor

9

Properties

12

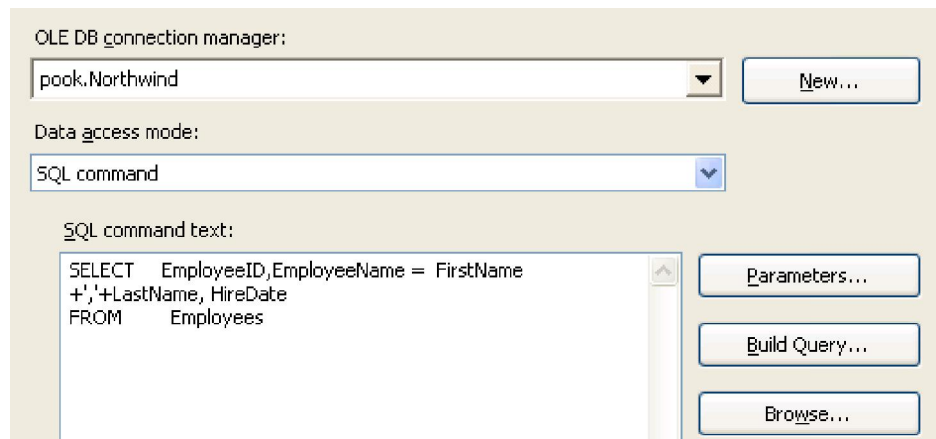
Data access mode

SQL Command

sql command

column

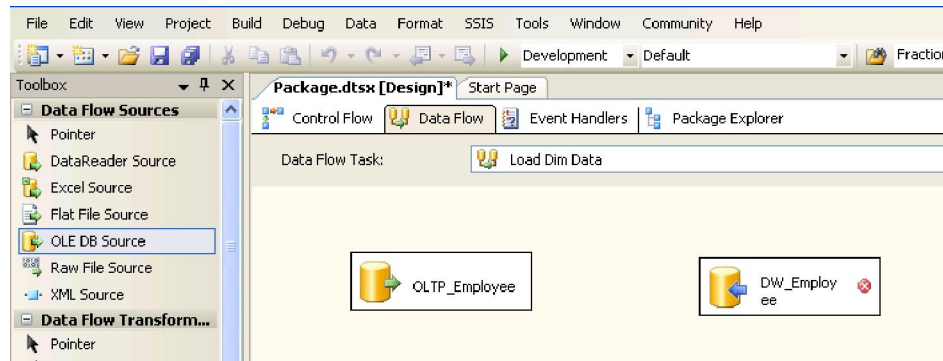
OK



12: OLE DB Source Employees

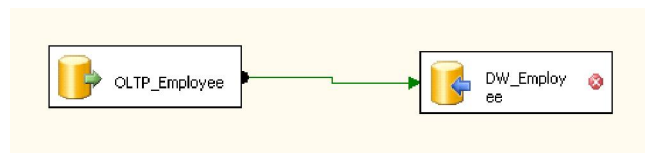
13. Double-clicks OLE DB Destination Data Flow Destination Tool Box

13 OLE DB Destination Dw_CustomerDim



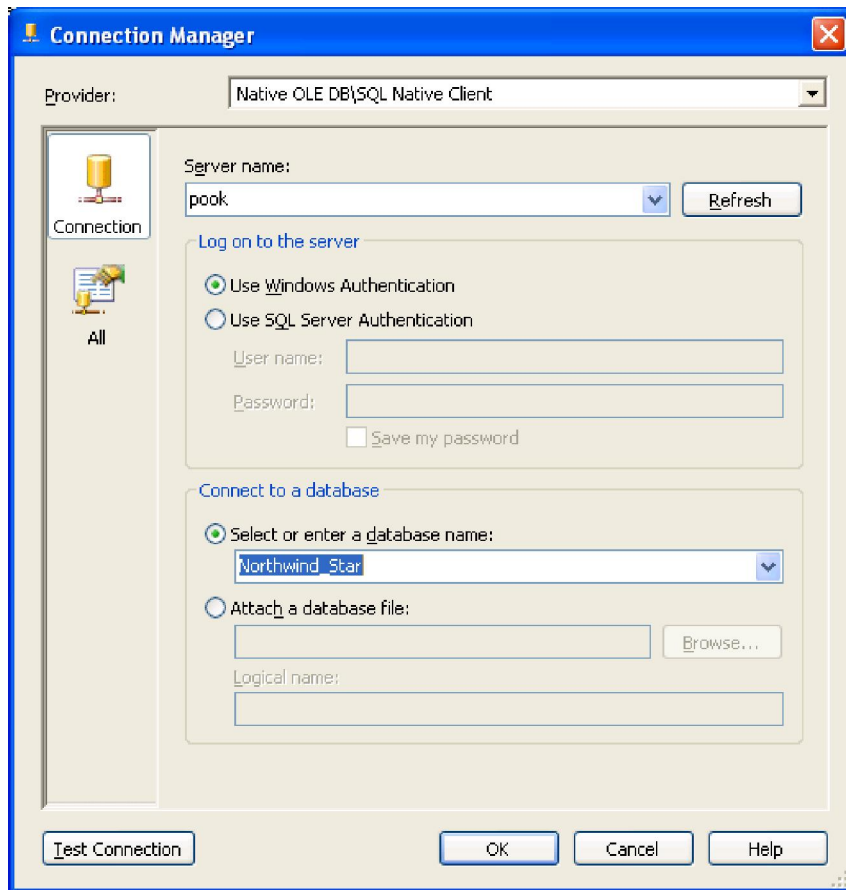
13: OLE DB Destination

14. 13 OLTP_Employee (Drag)
(Drop) DW_Employee 14



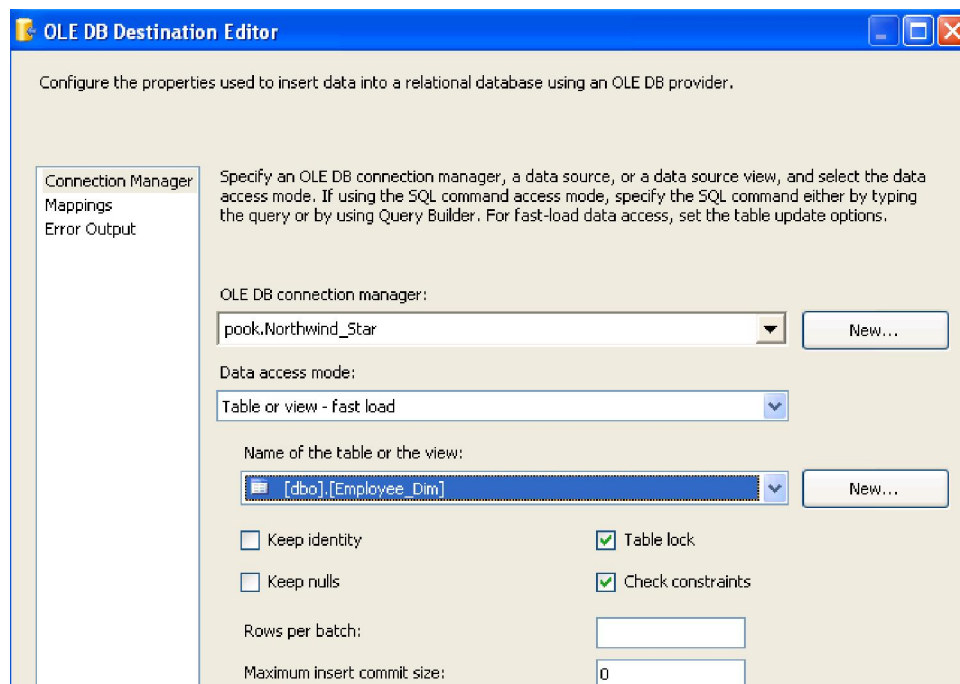
14: Link Source Destination

15. Double-Clicks DW_Employee OLE DB
Connection Manager 12
Northwind_Star 12.3 14 Northwind

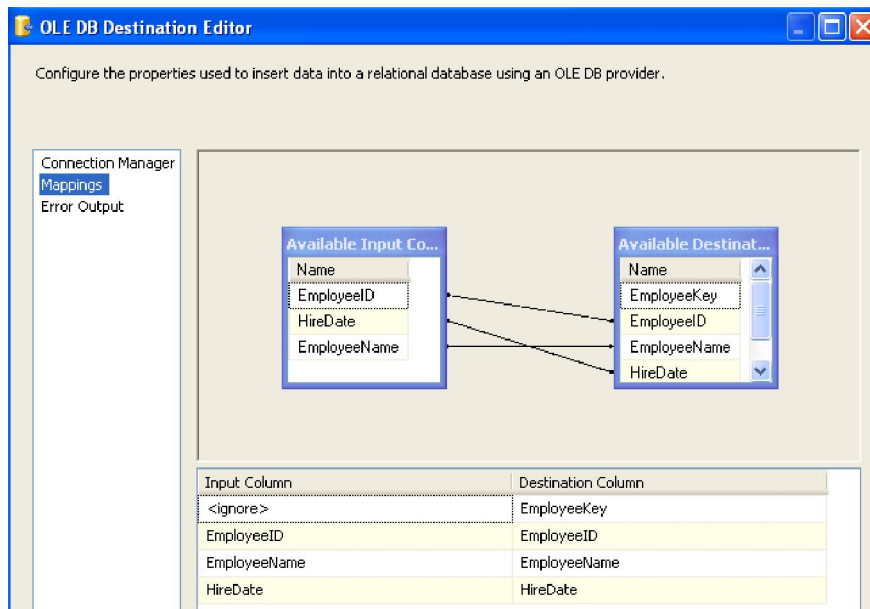


14: Connection Northwind_Star

16. Connection Manager Employee_Dim
Northwind_Star 15 Mappings Source
(OLTP_Employee) Destination (DW_Employee_Dim) 16 OK



15: Connection Manager DW_CustomerDim

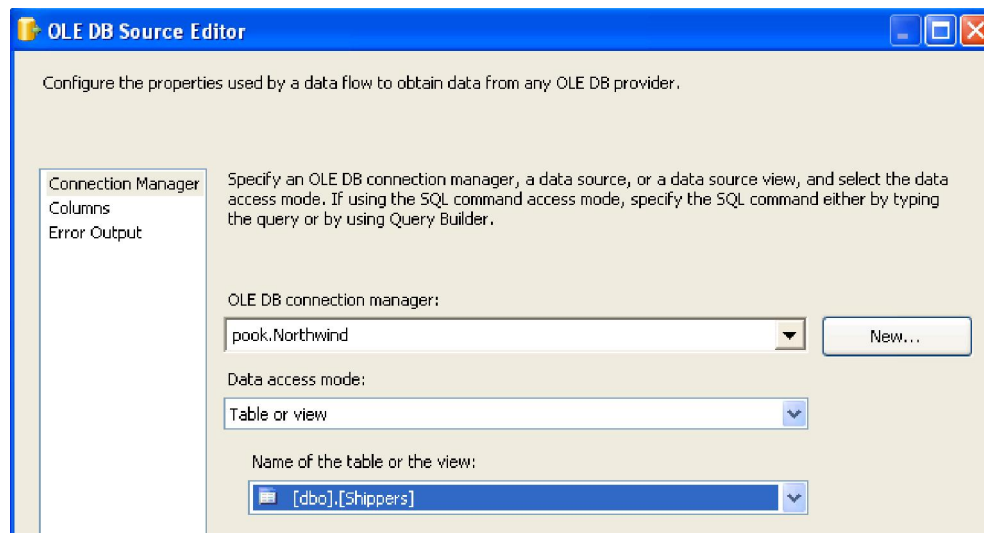


16: Mappings Source(OLTP_Employees) Destination (DW_Employee_Dim)

2.1.2 Shipper_Dim

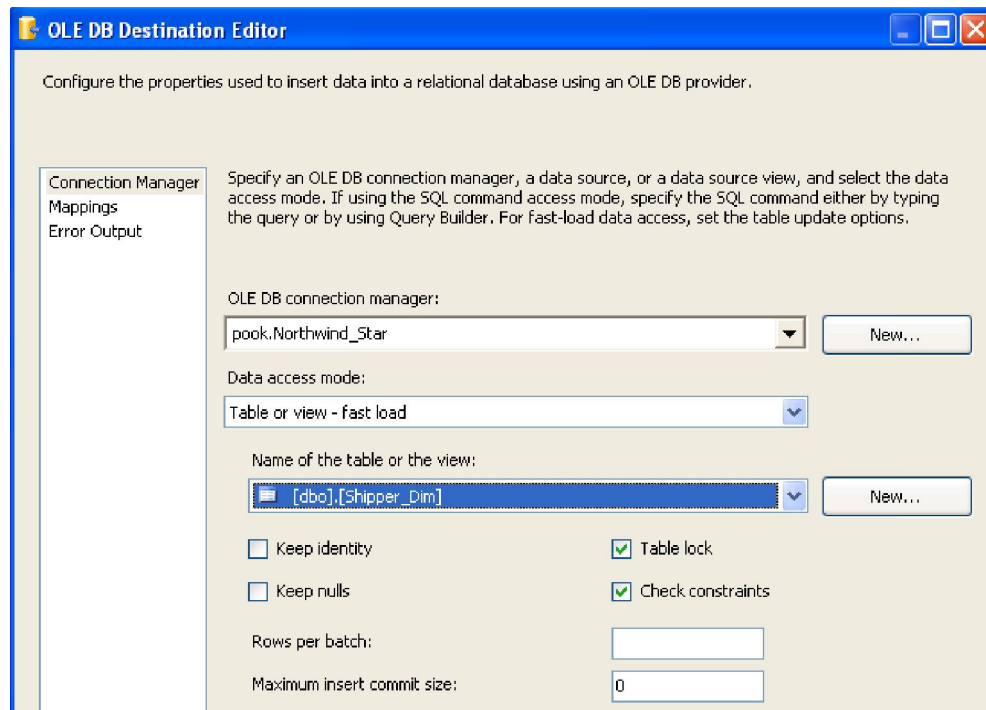
17. OLE DB Datasource OLTP_Shipper 11

Connection Manager OLTP_Shipper 17 OK

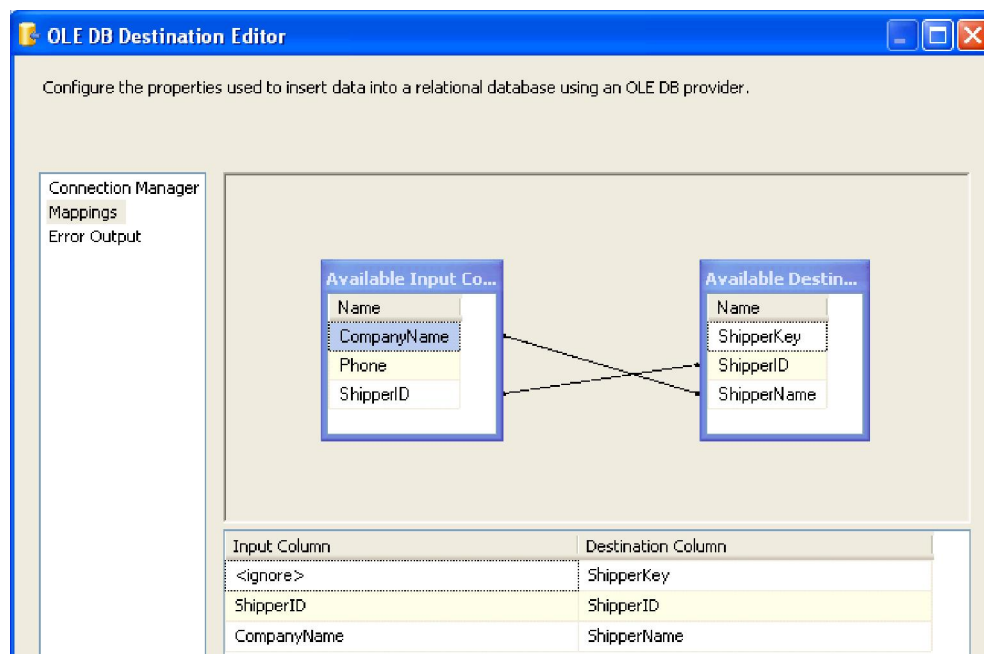


17: Connection Manager OLTP_Shipper

18. OLE DB Destination DW_Shipper Link OLTP_Shipper
DW_ShipperDim 13 - 16 Connection Manager
18 Mappings DW_ShipperDim 19 OK



18: Connection Manager DW_ShipperDim



19: Mappings Source (OLTP_Items) Destination (DW_ShipperDim)

2.1.3

19. OLE DB Datasource **Product_Dim** 11
 Connection Manager **OLTP_Product** Data access mode SQL Command
 sql command OK

20. OLE DB Destination **DW_Product** Link **OLTP_Product**
DW_ProductDim 13 - 16 Connection Manager
 21 Mappings **DW_ProductDim** 22 OK

OLE DB Destination Editor

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

Connection Manager
 Mappings
 Error Output

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.

OLE DB connection manager:
 pook.Northwind_Star New...

Data access mode:
 Table or view - fast load

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

☐ Keep identity ☒ Table lock
☐ Keep nulls ☒ Check constraints

Rows per batch:

Maximum insert commit size:

21: Connection Manager **DW_ProductDim**

OLE DB Destination Editor

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

Connection Manager
 Mappings
 Error Output

Available Input Co... Available Destina...

Input Column Destination Column

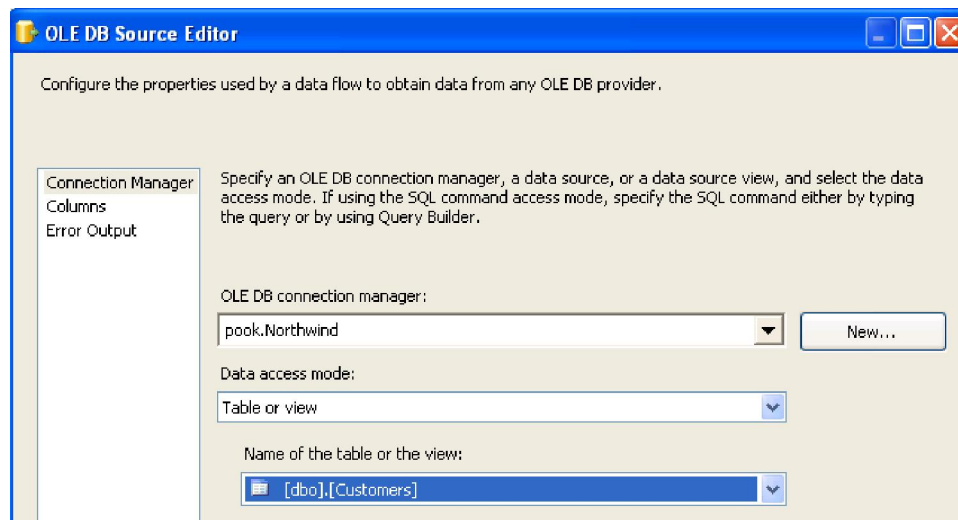
<Ignore>	ProductKey
ProductID	ProductID
ProductName	ProductName
CompanyName	SupplierName
CategoryName	CategoryName
UnitPrice	ListUnitPrice

22: Mappings Source (**OLTP_Product**) Destination (**DW_ProductDim**)

2.1.4

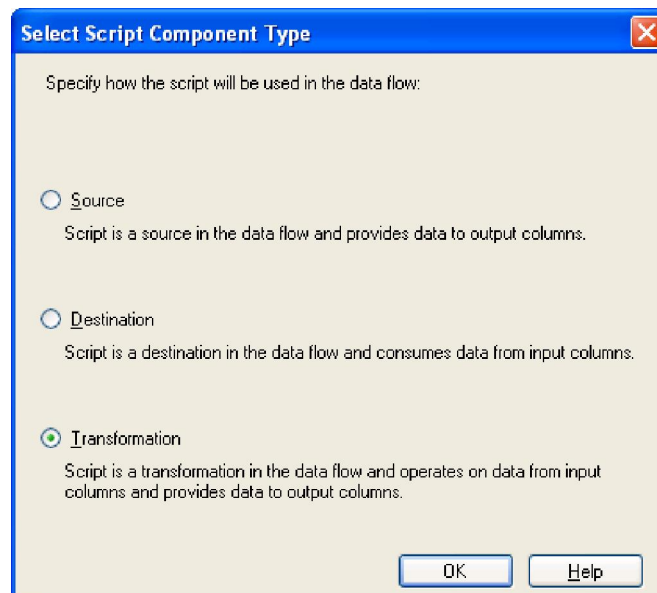
Customer_Dim

21. OLE DB Datasource **OLTP_Customer** 11
Connection Manager **OLTP_Customer** 23 OK



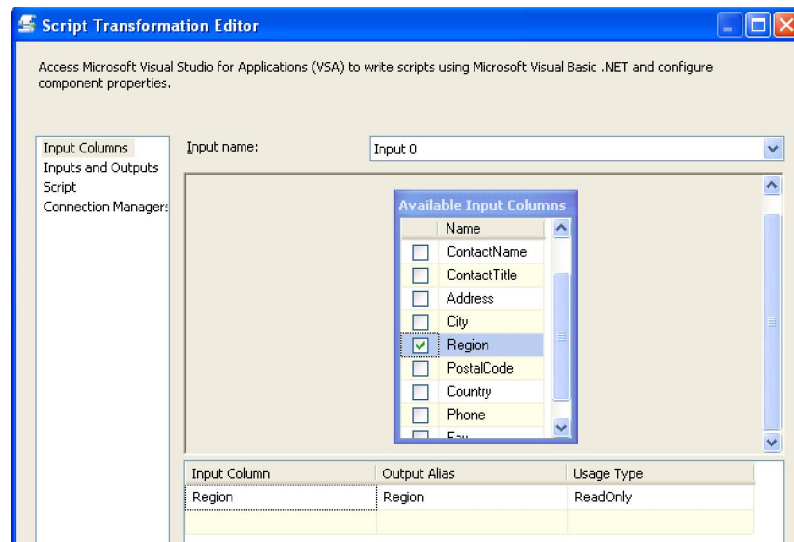
23: Connection Manager **OLTP_Customer**

22. Script Component 24 Link OLTP_Customer
script component



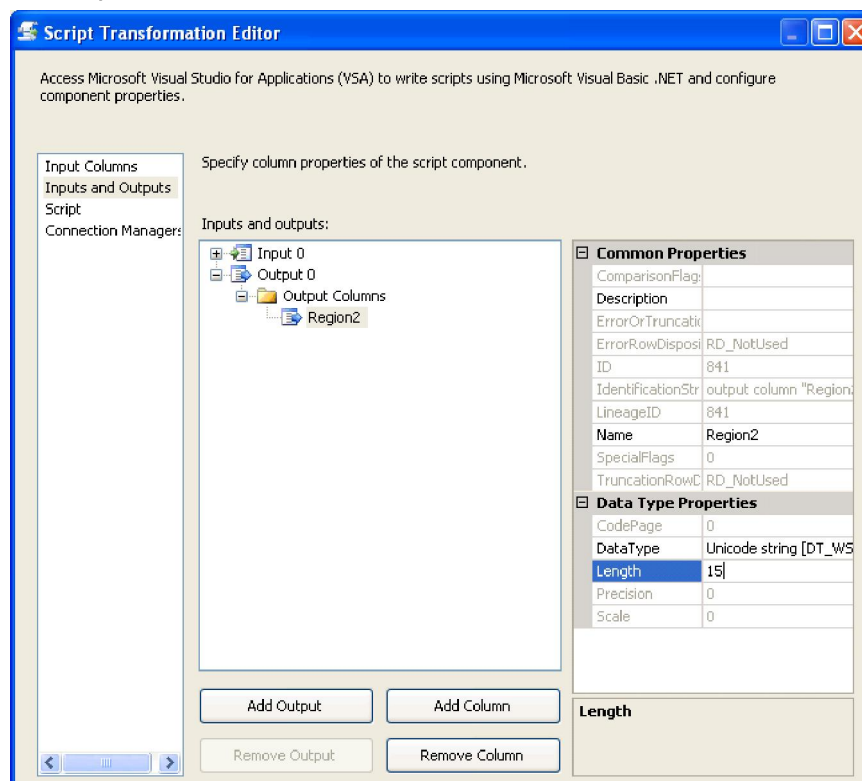
24 Script Component Type

23. Script Component 25



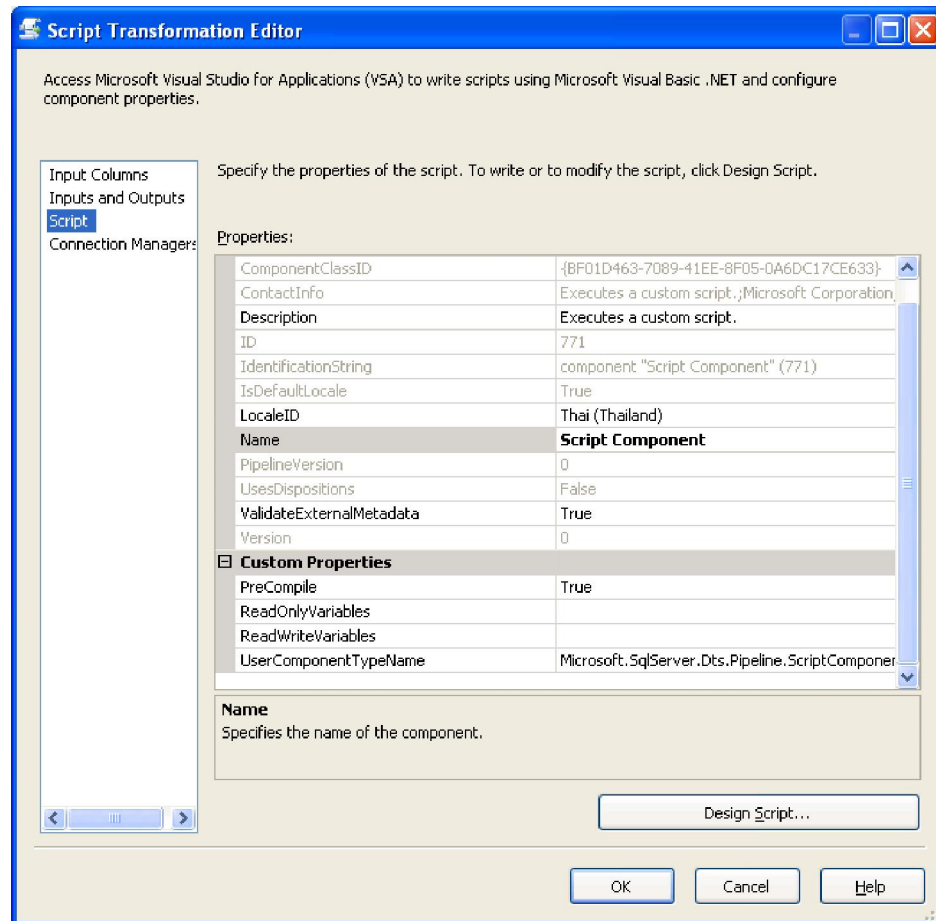
25 Input Column Script Component

24. Inputs and Outputs Properties 26 Output Add Column Region2



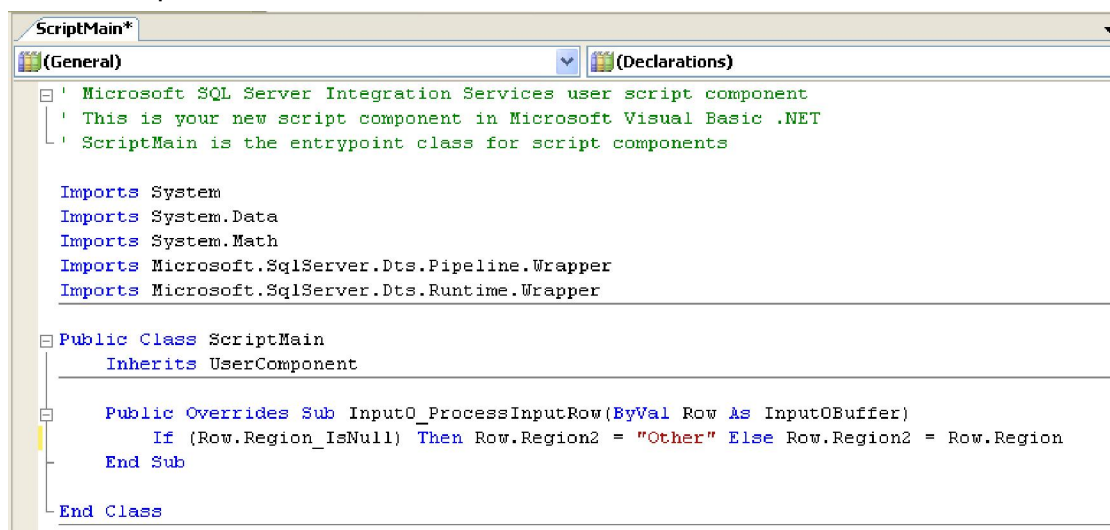
26 Output Column Script Component

25. Script Design Script 27



27 Design Script Script Component

26. Script 28



28 Script

27. Link Manager Script Component DW_CustomerDim Connection Manager
29 Mappings DW_CustomerDim 30 OK

OLE DB Destination Editor

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

Connection Manager
Mappings
Error Output

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.

OLE DB connection manager:
pook.Northwind_Star New...

Data access mode:
Table or view - fast load

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

☐ Keep identity ☒ Table lock
☐ Keep nulls ☒ Check constraints

Rows per batch:

Maximum insert commit size:

29: Connection Manager DW_CustomerDim

OLE DB Destination Editor

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

Connection Manager
Mappings
Error Output

Available Input Columns:

Name
CustomerID
CompanyName
ContactName
ContactTitle
Address
City
Region
PostalCode
Country
Phone
Fax
Region2

Available Destination Columns:

Name
CustomerKey
CustoMerID
CompanyName
ContactName
ContactTitle
Address
City
Region
PostalCode
Country
Phone
Fax

Mappings:

Input Column	Destination Column
<ignore>	CustomerKey
CustomerID	CustoMerID
CompanyName	CompanyName
ContactName	ContactName
ContactTitle	ContactTitle
Address	Address
City	City
Region	Region
PostalCode	PostalCode
Country	Country
Phone	Phone
Fax	Fax

30: Mappings Source (OLTP_Customer) Destination (DW_CustomerDim)

2.1.5

Time_Dim

28. OLE DB Datasource OLTP_Time 12

Connection Manager OLTP_Time 31 OK

OLE DB Source Editor

Configure the properties used by a data flow to obtain data from any OLE DB provider.

Connection Manager
Columns
Error Output

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.

OLE DB connection manager:
pook.Northwind New...

Data access mode:
SQL command

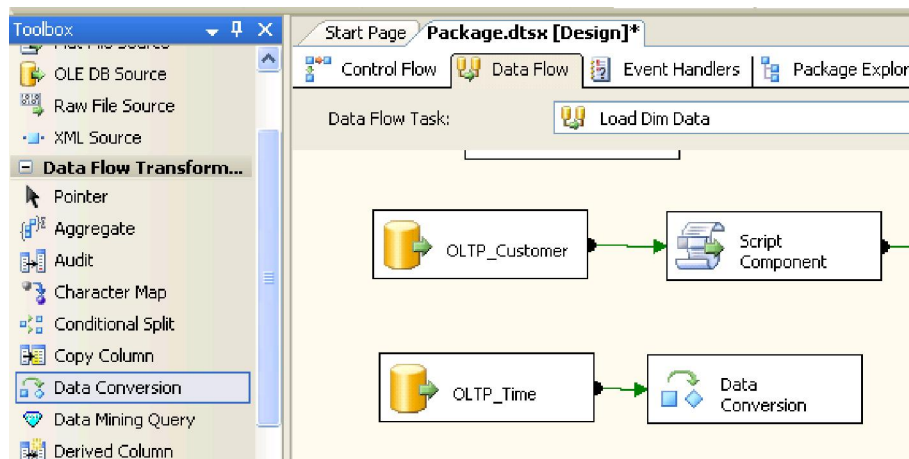
SQL command text:

```
DayOfWeek=DateName(dw,S.ShippedDate),
Month=DatePart(mm,S.ShippedDate),
Year=DatePart(yy,S.ShippedDate),
Quarter=DatePart(qq,S.ShippedDate),
DayOfYear=DatePart(dy,S.ShippedDate),
Holiday='N',
Weekend=case DatePart(dw,S.ShippedDate)
when(1) then 'Y'
when(7) then 'Y'
else 'N'
end,
YearMonth = DateName(month,S.ShippedDate) + '-' +
DateName(year,S.ShippedDate),
WeekOfYear=DatePart(wk,S.ShippedDate)
FROM Orders S
WHERE S.ShippedDate IS NOT NULL
```

Parameters...
Build Query...
Browse...
Parse Query

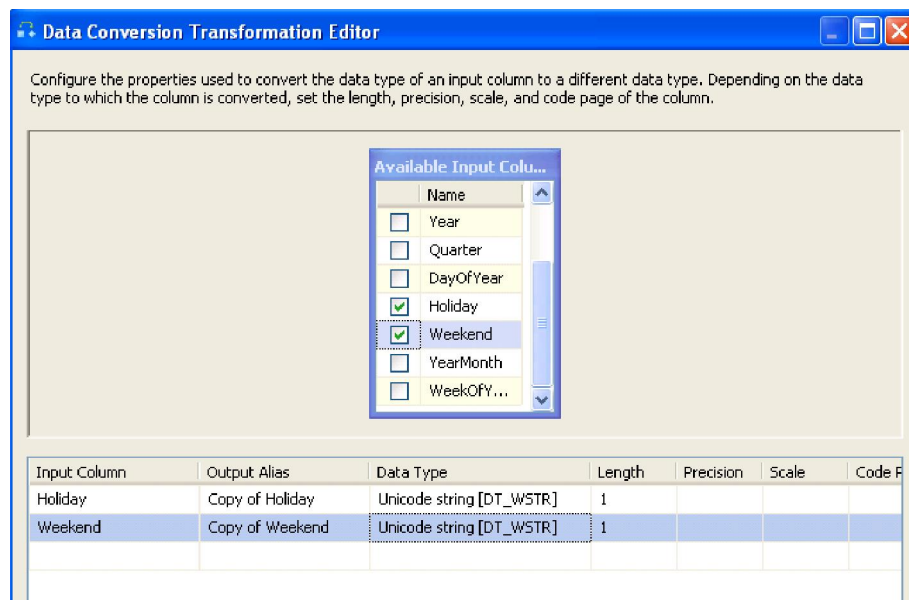
31 Connection Manager OLTP_Time

29. Data Conversion Link OLTP_Time Data Conversion 32



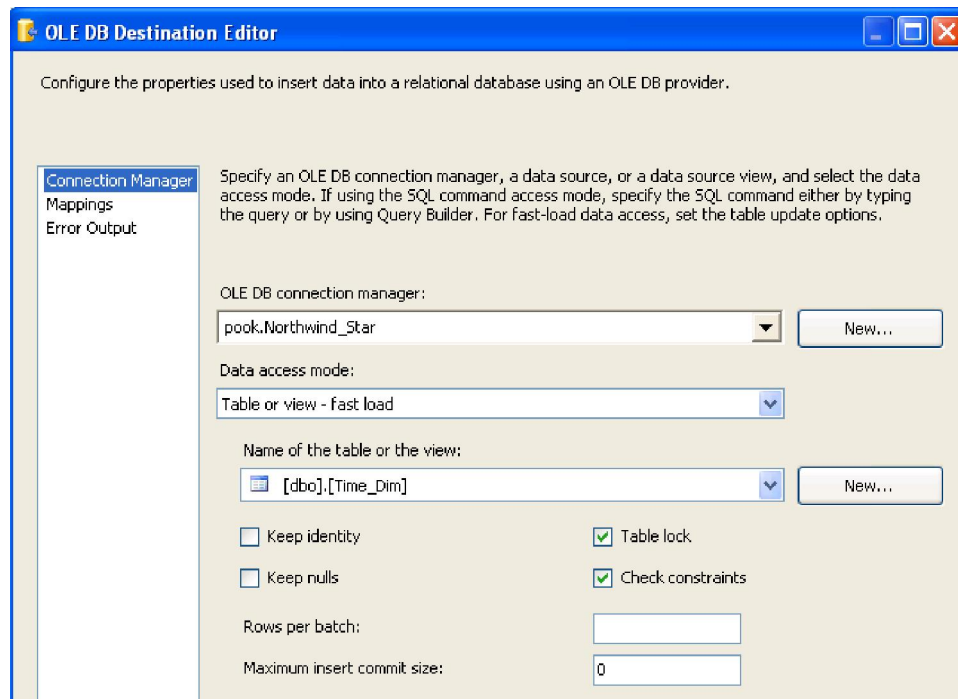
32 Data Conversion

30. Data Conversion 33 (Data Type)

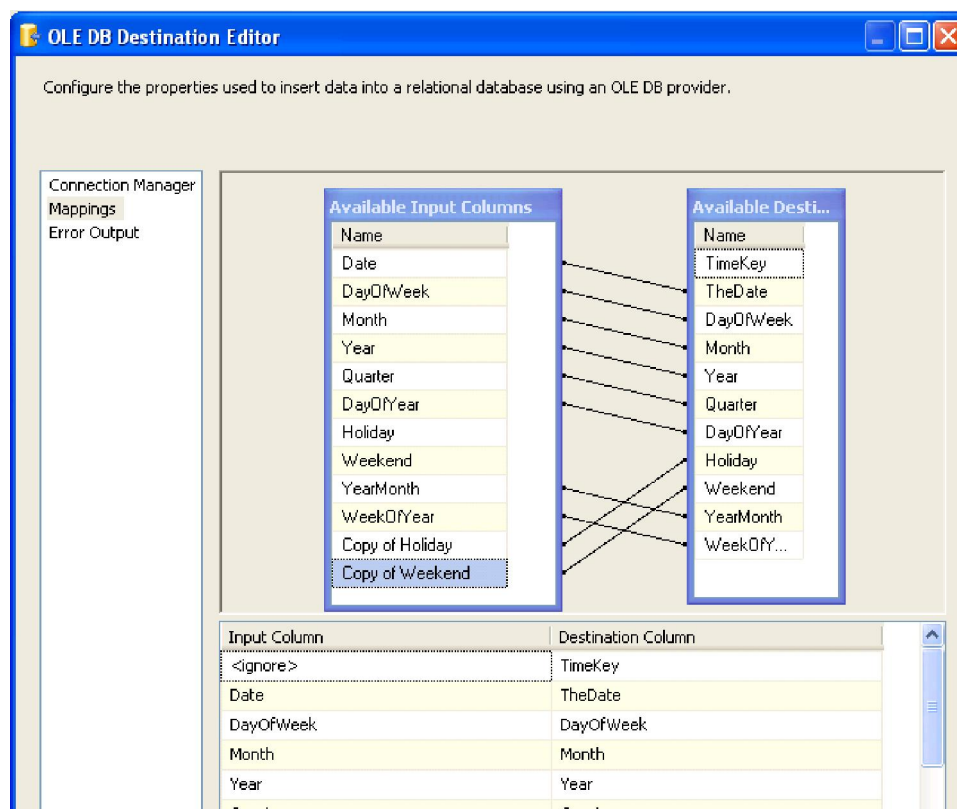


33 Data Conversion

31. OLE DB Destination DW_TimeDim Link Data Conversion
DW_TimeDim Connection Manager 34 Mappings
DW_TimeDim 35 OK



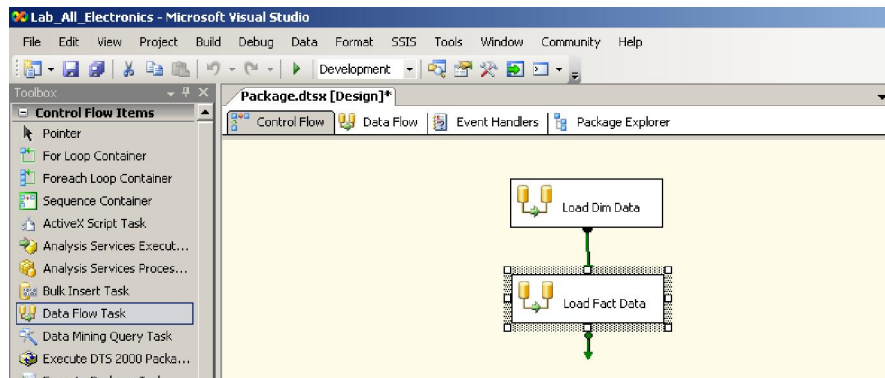
34: Connection Manager DW_TimeDim



35: Mappings Source (OLTP_Time) Destination (DW_TimeDim)

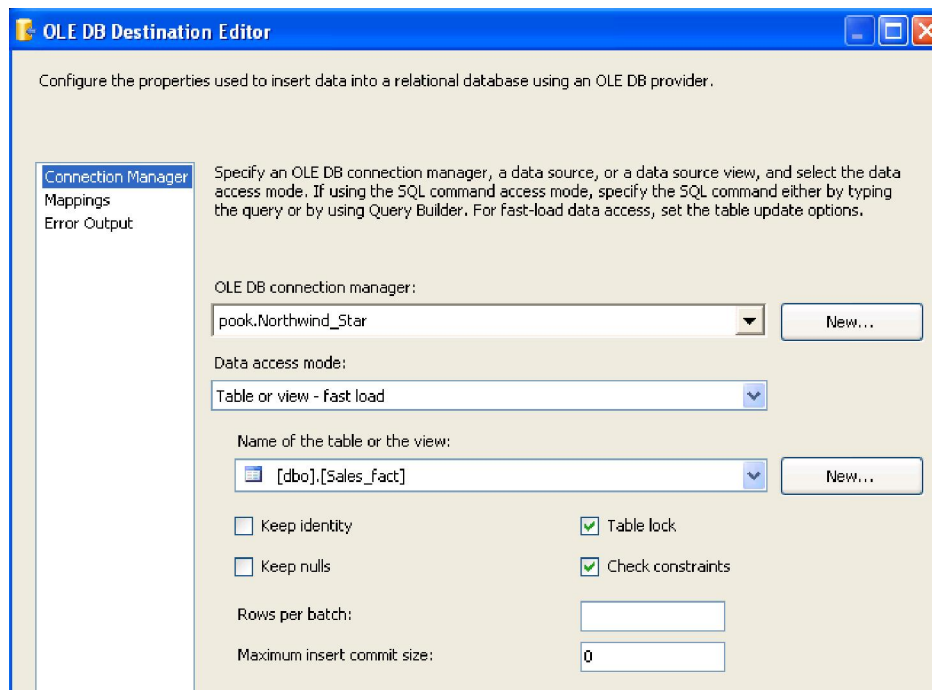
2.2 Data Flow Fact Table

32. Data Flow Load Fact Data 10 Data
Flow "Load Dim Data" Data Flow "Load Fact Data"
Data Flow "Load Dim Data" Data Flow "Load
Fact Data" 36

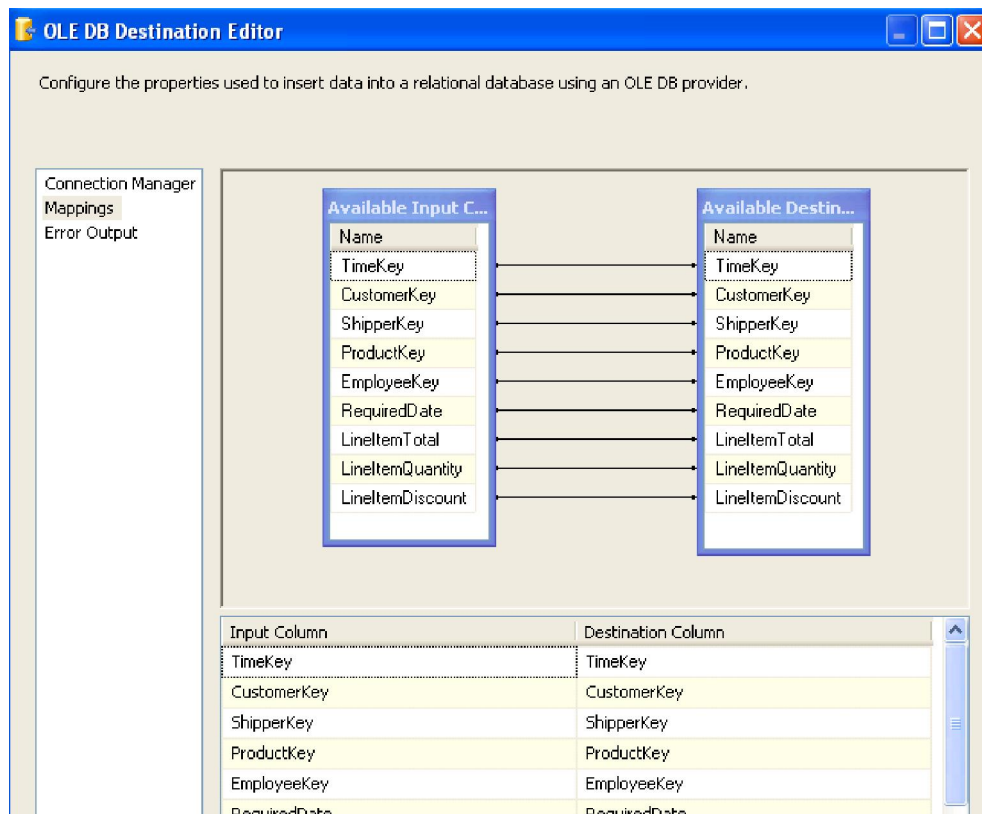


36: Data Flow "Load Fact Data"

33. Double-Clicks Data Flow "Load Fact Data" Tab Data Flow
34. OLE DB Datasource OLTP_Order 11
Connection Manager OLTP_Order OK
35. OLE DB Destination DW_Fact Link OLTP_Order
DW_Fact 13 - 16 Connection Manager 38
Mappings DW_Fact 39 OK



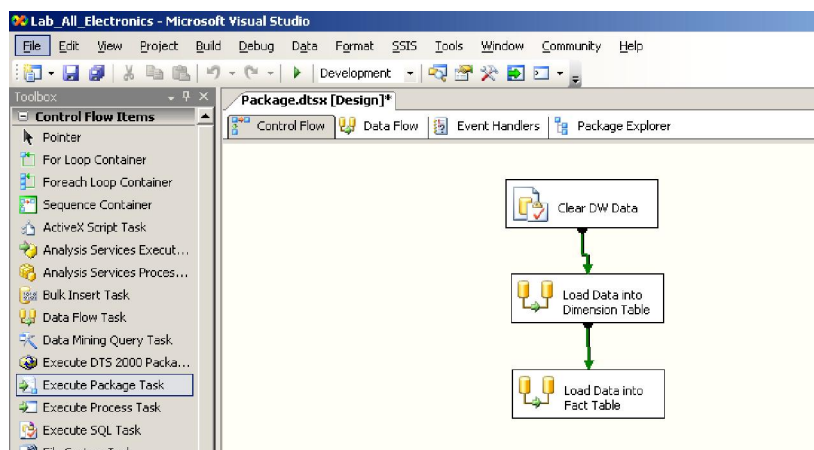
38: Connection Manager DW_Fact



39: Mappings Source (OLTP_Order) Destination (DW_Fact)

2.3 Execute SQL Task Dimension table Fact table Load

36. Tab Control Flow Execute SQL Task
Control Flow Items Tool Box Link Data Flow "Load Dim Data"
40 "Clear DW Data"



40: Execute SQL Task

37. Double-Clicks "Clear DW Data" Properties 41

Execute SQL Task

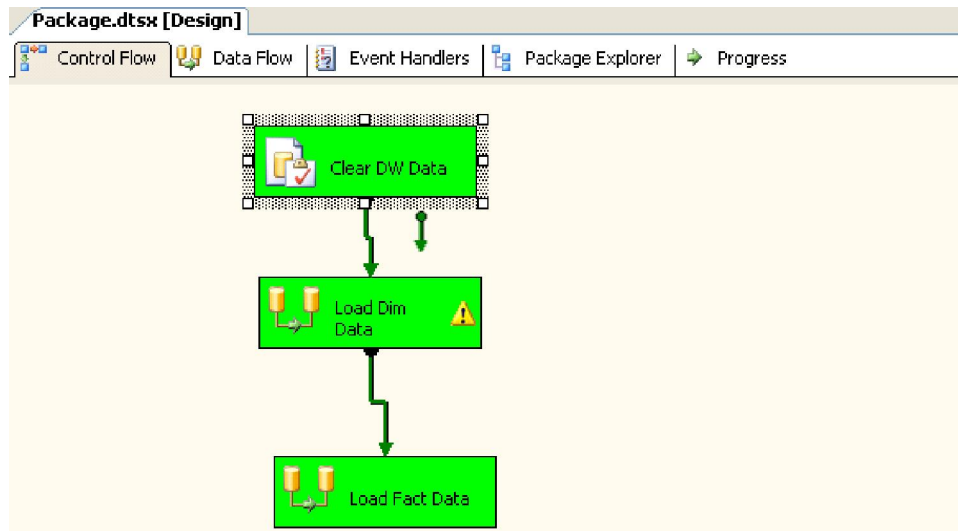
```

Connection      --      Servename.AllElec_Star
SQL Statement    --      delete from Customer_dim
                  delete from Time_dim
                  delete from Product_dim
                  delete from Time_dim
                  delete from Shipper_dim
                  delete from Sales_fact

```

Project

22



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