

# **ARMDD**

## **EXERCISE 3 TUTORIAL**

Paulo Oliveira  
DEI-ISEP

Start Page - Microsoft Visual Studio

File Edit View

Navigate Backward

Server Explorer

Toolbox

SSIS Toolbox

Get

Build your fi

Maximize yo

Take advant

Develop mo

Produce mo

Recent

Today

Create D:\Te

Data D:\Te

Yesterday

Error List Variables

Ready

## Create a new project

### Recent project templates

- Integration Services Project
- Integration Services Import Project Wizard

### All languages

- vb Share Share Visual
- Analysis Services Multidimensional Project  An Analysis Services project for creating multidimensional models.
- Analysis Services Multidimensional Project An Analysis Services project for creating multidimensional models.
- Import from Server (Multidimensional) Creates a multidimensional project by extracting the metadata from an existing multidimensional on an Analysis Services server.
- Integration Services Project (Azure-Enabled) This project may be used for building high performance data integration and workflow solutions that can also be run/debugged on SSIS Platform-as-a-Service (PaaS) in Azure Data Factory.
- Integration Services Project This project may be used for building high performance data integration and workflow solutions that can be run on SSIS catalog, including extraction, transformation, and loading (ETL) operations for data warehousing.

Search for tem

Quick Launch (Ctrl+O)

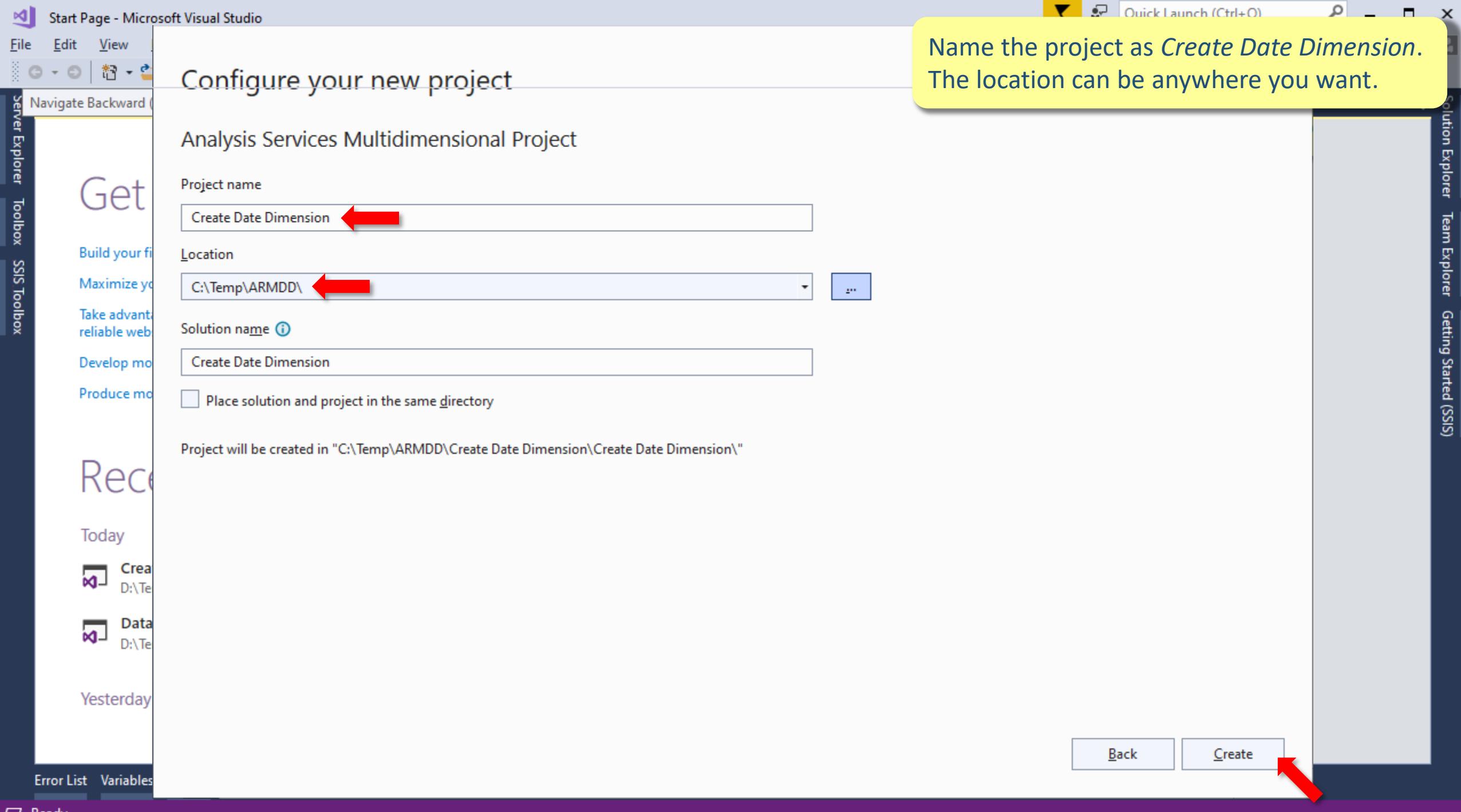
**Start Visual Studio.**

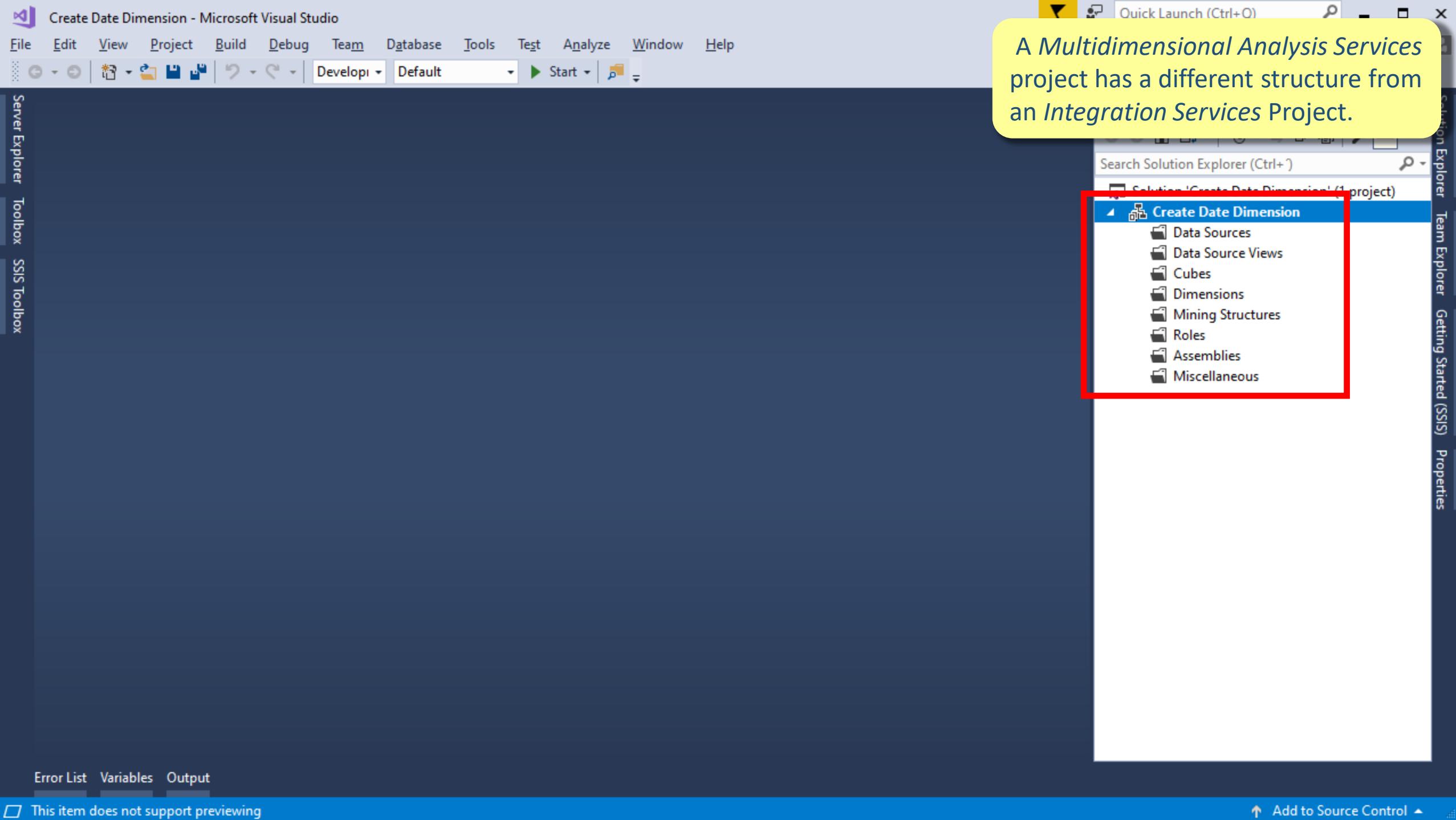
In this tutorial you will start by creating a rather complete *Date dimension*, using the facilities that *Visual Studio* provides for automatically creating this kind of dimension.

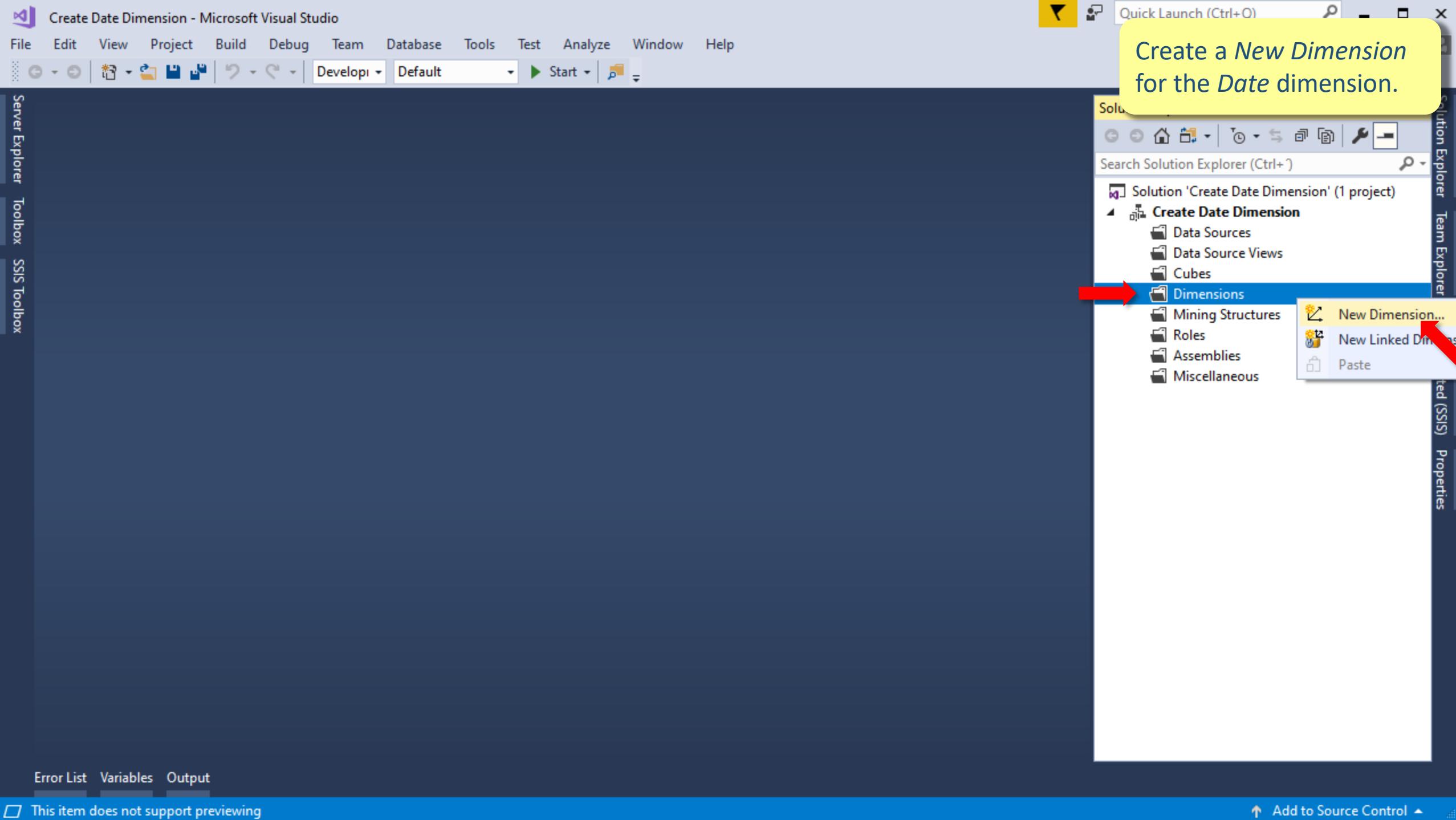
Start by creating a new *Analysis Services Multidimensional Project* for this tutorial.

Back

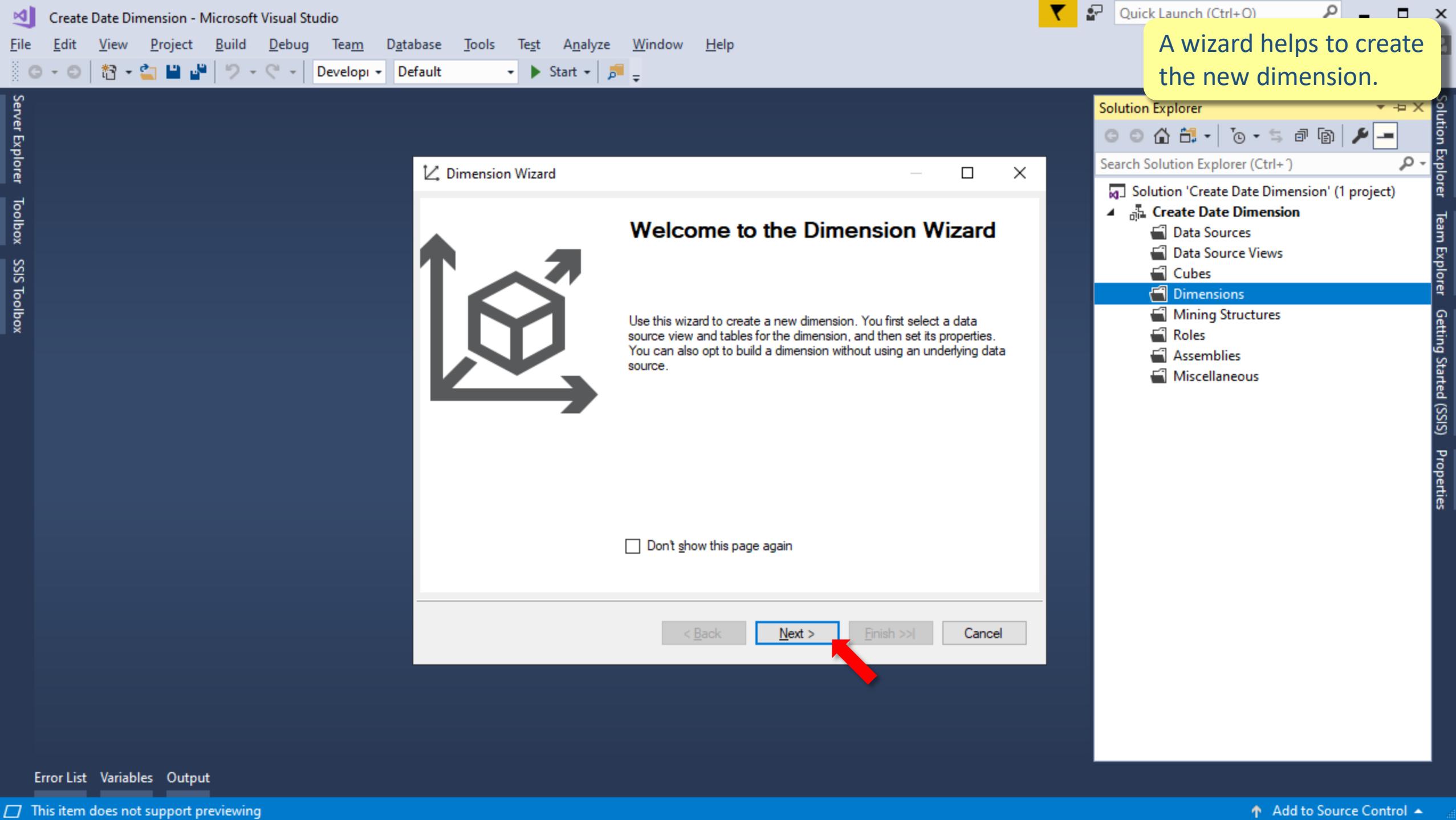
Next

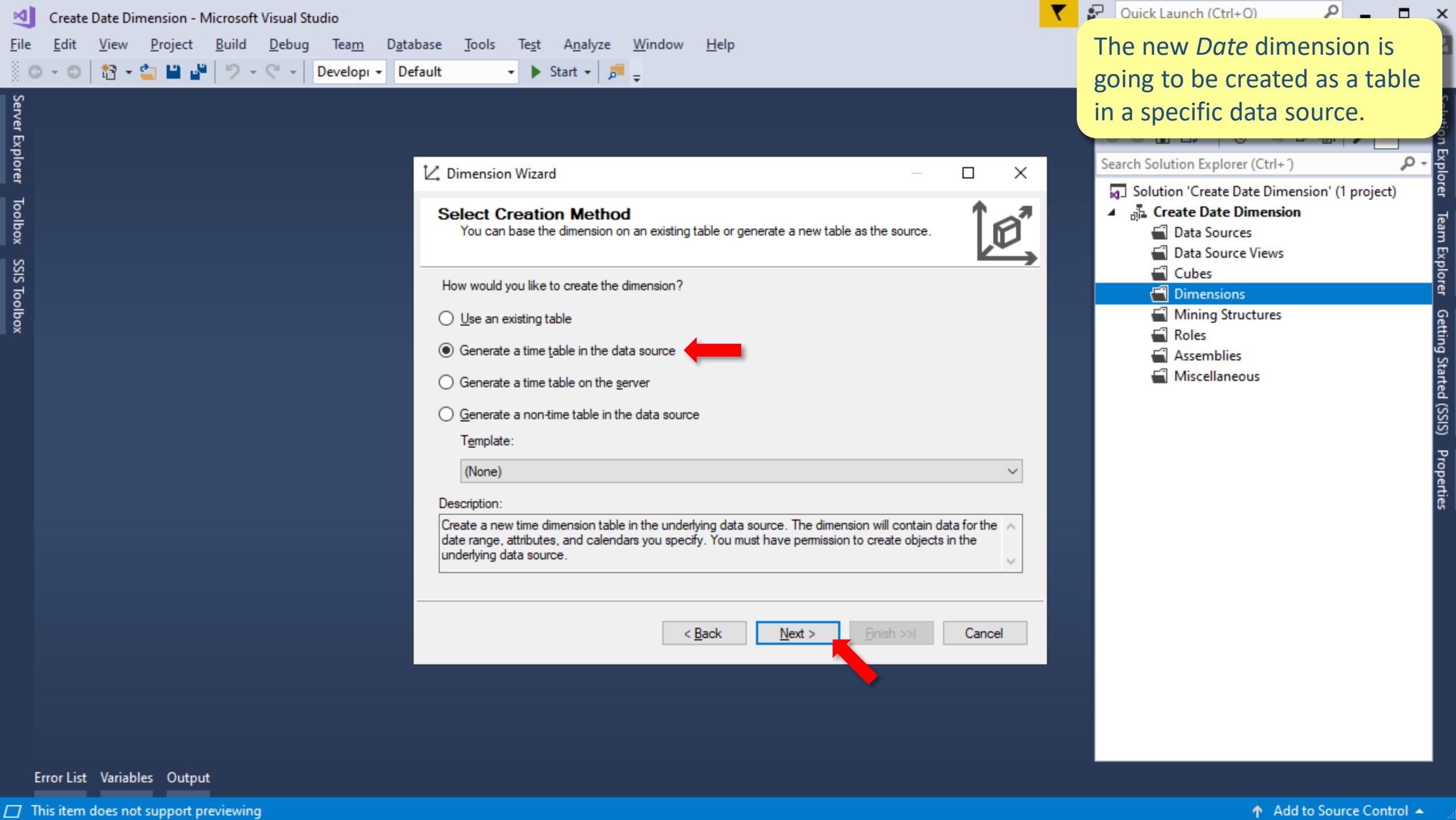


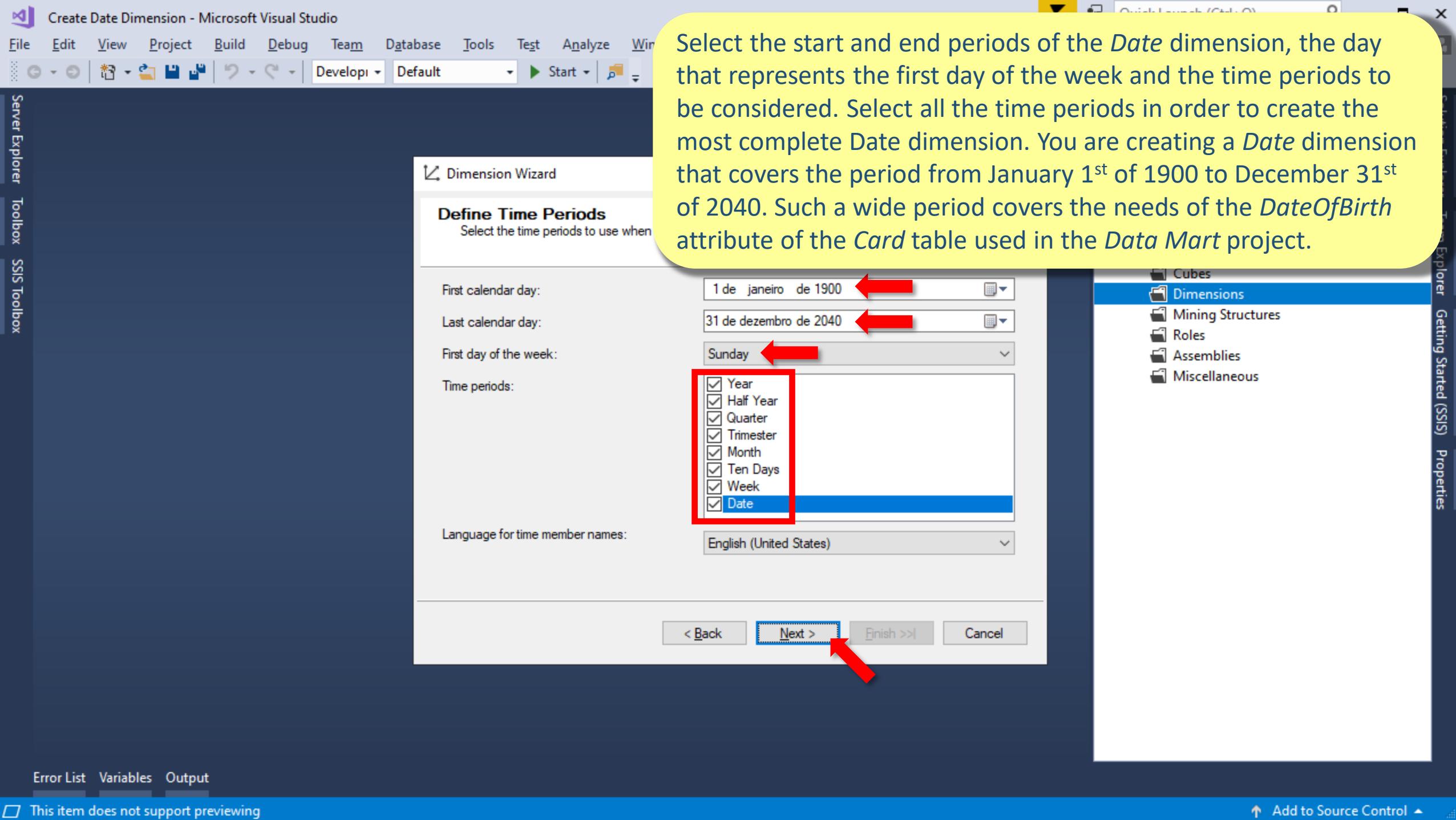




Create a New Dimension for the Date dimension.







Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

Developer Default Start

Server Explorer Toolbox SSIS Toolbox

Quick Launch (Ctrl+O)

Solution Explorer Solution Create Date Dimension (1 project)

- Create Date Dimension
  - Data Sources
  - Data Source Views
  - Cubes
  - Dimensions**
  - Mining Structures
  - Roles
  - Assemblies
  - Miscellaneous

Dimension Wizard

Select Calendars

Select the calendars for which you want to create hierarchies.

Regular calendar

Fiscal calendar

Start day and month: 1 January

Fiscal calendar naming convention: Calendar year name + 1

Reporting (or marketing) calendar

Start week and month: 1 January

Week by month pattern: Week 445

Manufacturing calendar

Start week and month: 1 January

Quarter with extra periods: 4

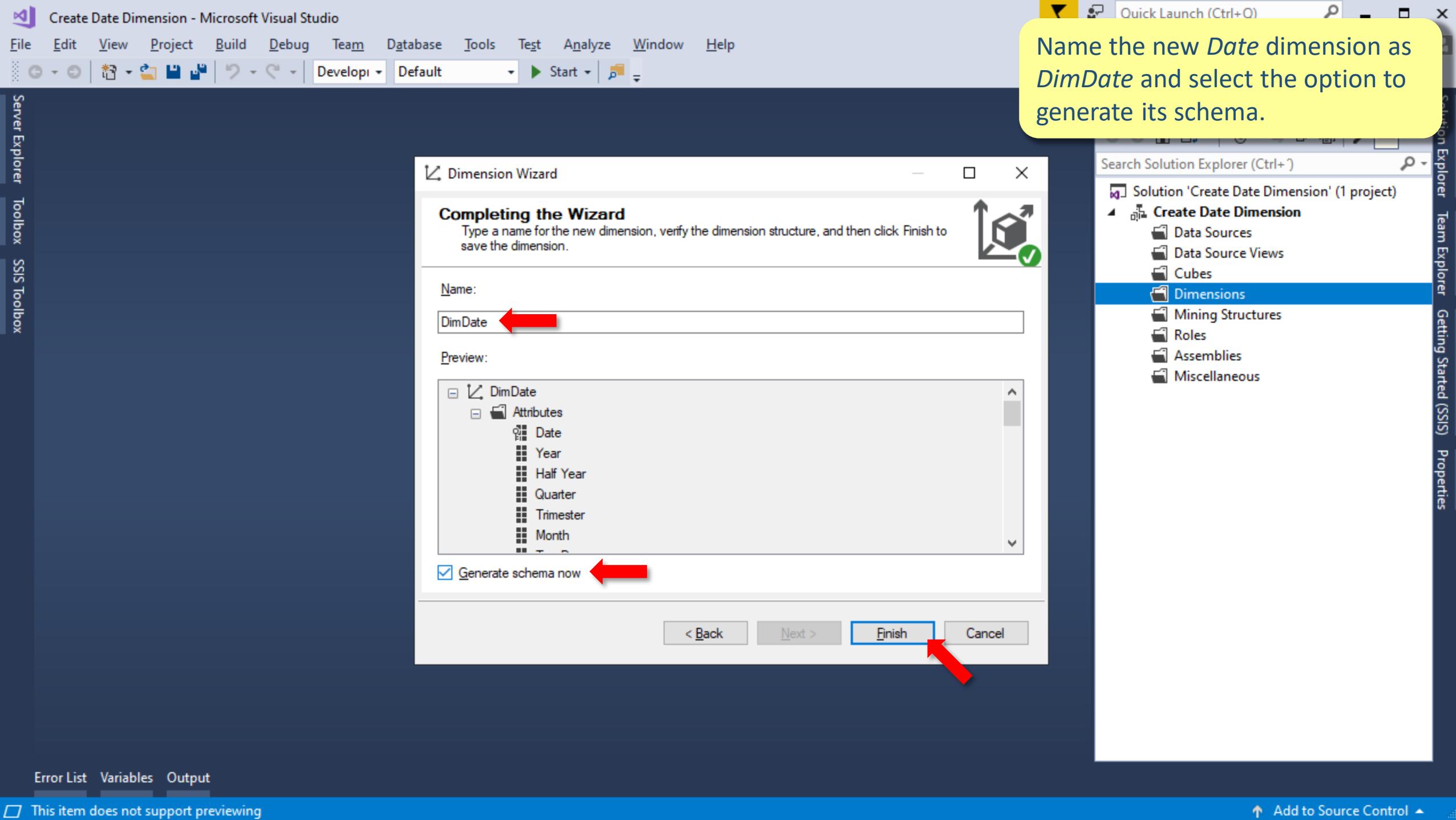
ISO 8601 calendar

< Back Next > Finish >> Cancel

This item does not support previewing

Add to Source Control

Select regular calendar (fiscal, reporting and manufacturing calendars would also be possible and generate additional date attributes) and include extra ISO 8601 calendar attributes for the *Date* dimension.



Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date

- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date
- <new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day
- <new level>

Attributes

	Name	Usage			
File	Date	Key	DayOfHalfYear	Integer	Separate column
File	Day Of Half Year	Regular	DayOfMonth	Integer	Separate column
File	Day Of Month	Regular	DayOfQuarter	Integer	Separate column
File	Day Of Quarter	Regular	-	-	-

Schema Generation Wizard

## Welcome to the Schema Generation Wizard

Use this wizard to generate a relational schema based on cube and dimension definitions. You can use this method when building a data warehouse top down, first designing the cubes and dimensions without an underlying relational data source, and then generating the necessary schema for the data source.

[Click here to generate data source view](#)

Don't show this page again

< Back Next > Finish >> Cancel

Another wizards helps to create the Date dimension schema.

Error List Variables Output

Add to Source Control ▾

Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date

- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date
- <new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day
- <new level>

Attributes

	Name	Usage			
Key	Date	Key	DayOfHalfYear	Integer	Separate column
Regular	Day Of Half Year	Regular	DayOfMonth	Integer	Separate column
Regular	Day Of Month	Regular	DayOfQuarter	Integer	Separate column
-	Day Of Quarter	-	-	-	-

Schema Generation Wizard

Specify Target

Specify the data source view in which to generate the schema.

Create a new data source view

Data source view name: Create Date Dimension

Data source: [New...](#)

A new data source view will be created for the data source you specify.

Use existing data source view

The selected data source view and its data source will be used.

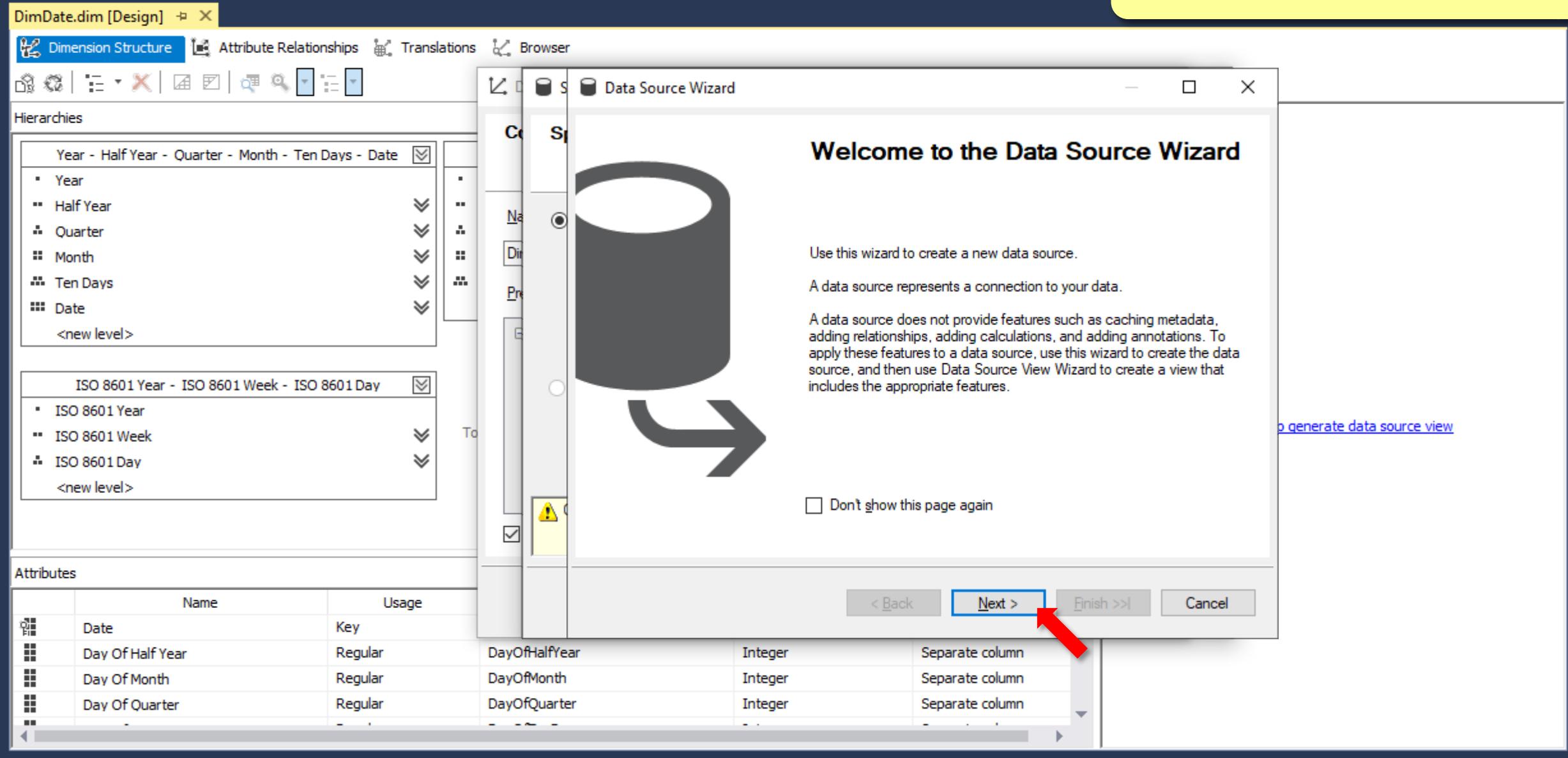
[Click here to generate data source view](#)

⚠ Create a new data source.

< Back Next >| Finish >| Cancel

Start by creating a connection to the data source where the *Date* dimension is going to be created.

Add to Source Control ▾



Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

- Year - Half Year - Quarter - Month - Ten Days - Date
- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date
- <new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day
- <new level>

Attributes

	Name	Usage			
Date	Date	Key	DayOfHalfYear	Integer	Separate column
Day Of Half Year		Regular	DayOfMonth	Integer	Separate column
Day Of Month		Regular	DayOfQuarter	Integer	Separate column
Day Of Quarter		Regular	-	-	-

Quick Launch (Ctrl+O)

Create a new connection to the data source.

Data Source Wizard

Select how to define the connection

You can select from a number of ways in which your data source will define its connection string.

Create a data source based on another object

Create a data source based on an existing or new connection

Data connections:

Data connection properties:

Property	Value
-	-

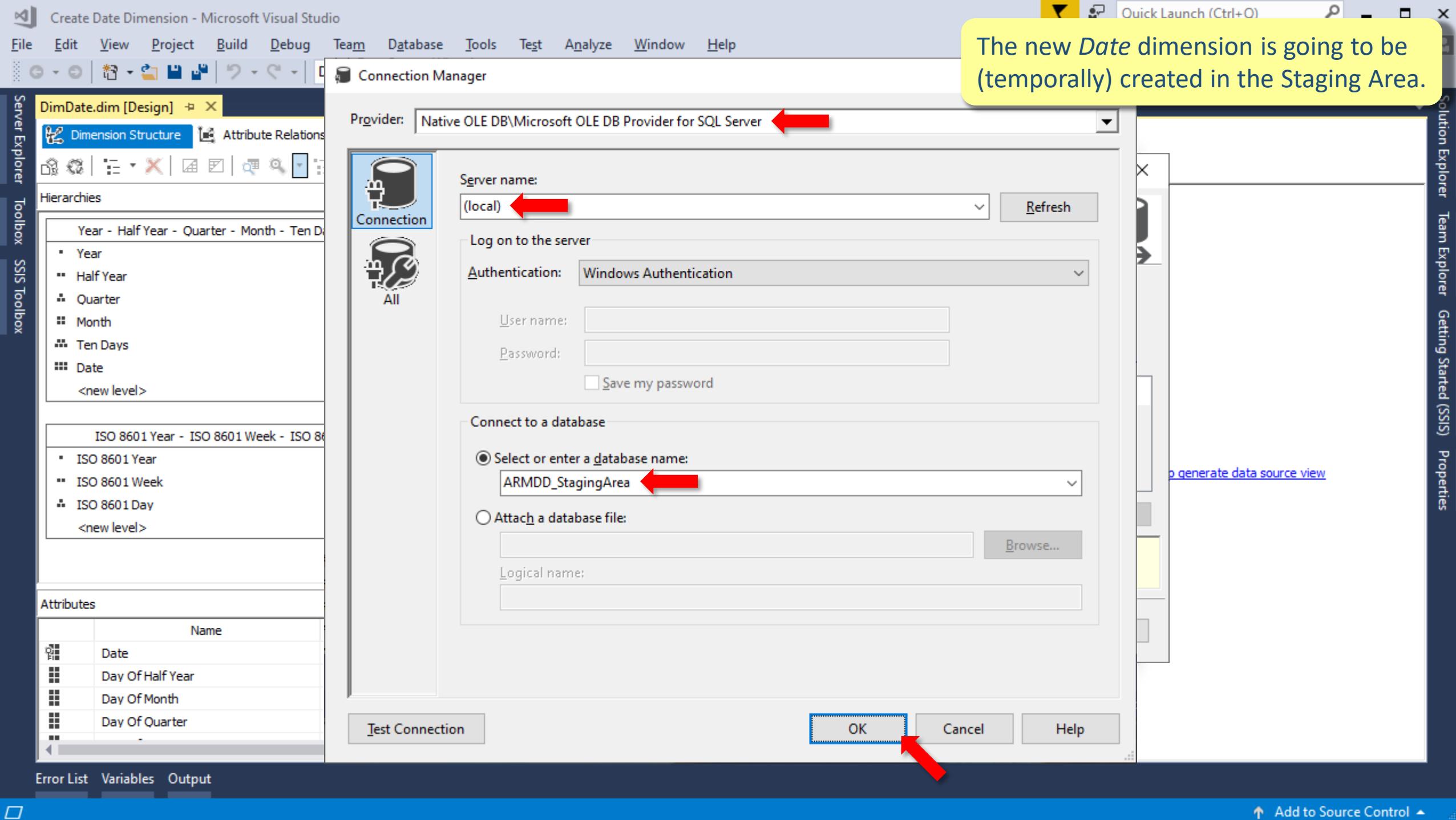
New... Delete

A valid connection must be selected.

< Back Next > Finish >> Cancel

Error List Variables Output

Add to Source Control



Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date

- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date
- <new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day
- <new level>

Attributes

	Name	Key			
Date	Date	Key	DayOfHalfYear	Integer	Separate column
Day Of Half Year		Regular	DayOfMonth	Integer	Separate column
Day Of Month		Regular	DayOfQuarter	Integer	Separate column
Day Of Quarter		Regular	-	-	-

Data Source Wizard

Select how to define the connection

You can select from a number of ways in which your data source will define its connection

Create a data source based on another object

Create a data source based on an existing or new connection

Data connections:

(local).ARMDD\_StagingArea

Data connection properties:

Property	Value
Data Source	(local)
Initial Catalog	ARMDD_StagingArea
Integrated Se...	SSPI
Provider	SQLOLEDB.1

[Click here to generate data source view](#)

New... Delete

< Back Next >| Finish >> Cancel

Error List Variables Output Add to Source Control

Server Explorer Solution Explorer Team Explorer Getting Started (SSIS) Properties

Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date
▪ Year
▪▪ Half Year
▪▪ Quarter
▪▪ Month
▪▪▪ Ten Days
▪▪▪ Date
<new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day
▪ ISO 8601 Year
▪▪ ISO 8601 Week
▪▪ ISO 8601 Day
<new level>

Attributes

	Name	Usage			
Date	Date	Key	DayOfHalfYear	Integer	Separate column
Day Of Half Year		Regular	DayOfMonth	Integer	Separate column
Day Of Month		Regular	DayOfQuarter	Integer	Separate column
Day Of Quarter		Regular	-	-	-

Impersonation Information

You can define what Windows credentials Analysis Services will use to connect to the data source.

Use a specific Windows user name and password

User name:

Password:

Use the service account

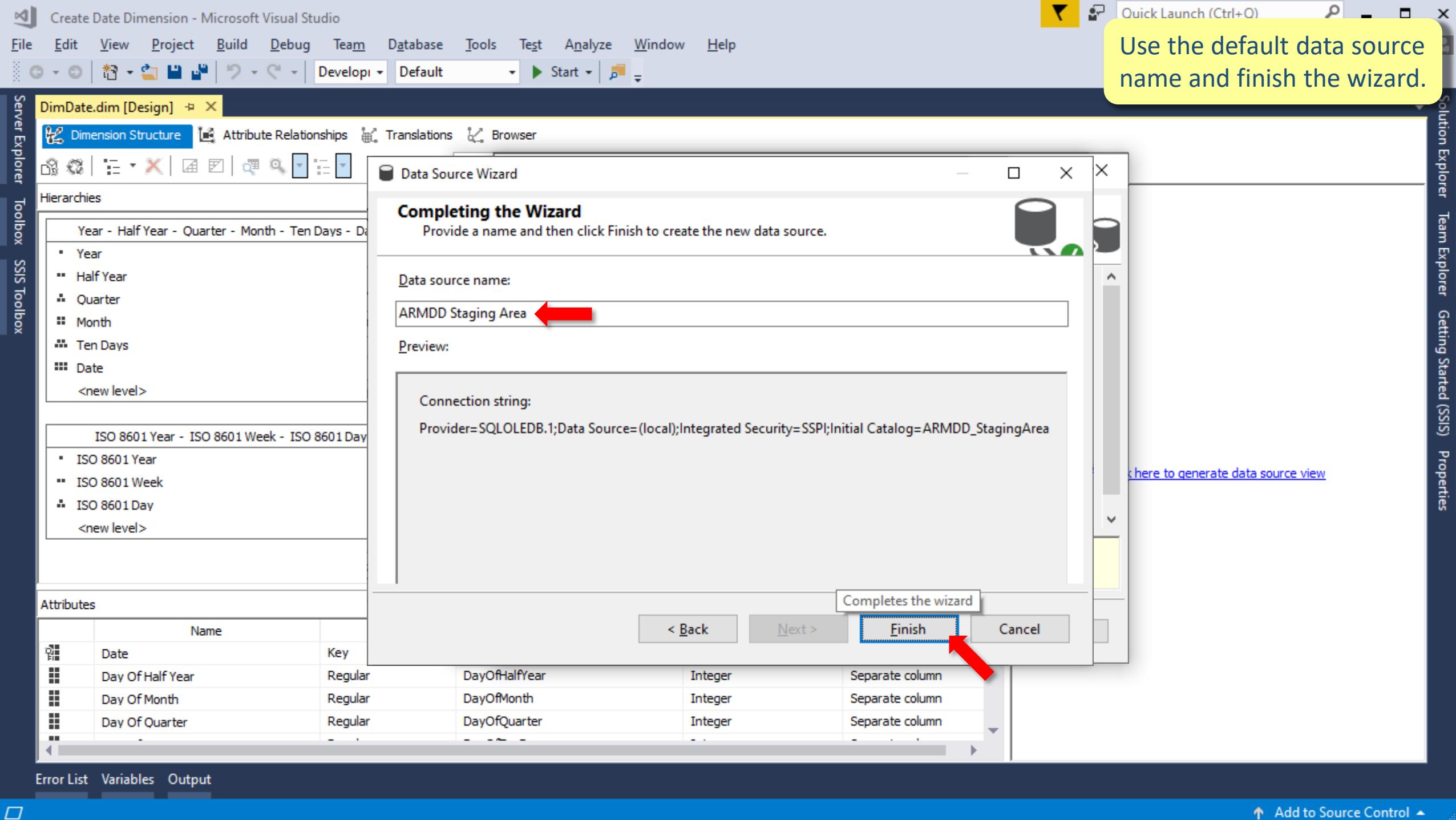
Use the credentials of the current user

Inherit

Next > Finish >> Cancel

Use the service account as the Windows credentials to connect to the data source.

Add to Source Control ▾



Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date

- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date

<new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day

<new level>

Attributes

	Name	Usage			
Key	Date	Key	DayOfHalfYear	Integer	Separate column
Regular	Day Of Half Year	Regular	DayOfMonth	Integer	Separate column
Regular	Day Of Month	Regular	DayOfQuarter	Integer	Separate column
-	Day Of Quarter	-	-	-	-

Schema Generation Wizard

**Specify Target**

Specify the data source view in which to generate the schema.

Create a new data source view

Data source view name:

Data source:

A new data source view will be created for the data source you specify.

Use existing data source view

The selected data source view and its data source will be used.

[Click here to generate data source view](#)

< Back   Cancel

Error List Variables Output

Add to Source Control

Sign in

Solution Explorer Team Explorer Getting Started (SSIS) Properties

The screenshot shows the Microsoft Visual Studio interface with the 'DimDate.dim [Design]' tab selected. On the left, there are sections for 'Hierarchies' and 'Attributes'. The 'Hierarchies' section contains two main groups: 'Year - Half Year - Quarter - Month - Ten Days - Date' and 'ISO 8601 Year - ISO 8601 Week - ISO 8601 Day'. The 'Attributes' section lists several attributes with their usage types and data types. Overlaid on the main window is the 'Schema Generation Wizard' dialog, specifically the 'Specify Target' step. This dialog has a radio button for 'Create a new data source view' selected. The 'Data source view name' field contains 'Create Date Dimension'. The 'Data source' dropdown menu is open, showing 'ARMDD Staging Area' with a red arrow pointing to it. Below the dropdown is a note stating 'A new data source view will be created for the data source you specify.' At the bottom of the dialog, there are buttons for '< Back', 'Next >', 'Finish >>', and 'Cancel'. A red arrow also points to the 'Finish >>' button. The status bar at the bottom of the screen shows 'Add to Source Control'.

Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date

- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date
- <new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day
- <new level>

Attributes

	Name	Usage			
File	Date	Key	DayOfHalfYear	Integer	Separate column
File	Day Of Half Year	Regular	DayOfMonth	Integer	Separate column
File	Day Of Month	Regular	DayOfQuarter	Integer	Separate column
File	Day Of Quarter	Regular	-	-	-

Schema Generation Wizard

Subject Area Database Schema Options

Specify the schema generation options for the subject area database.

Owning schema: Create Date Dimension

Create primary keys on dimension tables

Create indexes

Rely on referential integrity

Preserve data on regeneration

Populate time table(s): Populate

[Click here to generate data source view](#)

< Back Next > Finish >> Cancel

Unselect all the schema generation options given that we just want to generate the Date dimension schema and data.

Add to Source Control

Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date

- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date
- <new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day
- <new level>

Attributes

	Name	Usage			
File	Date	Key	DayOfHalfYear	Integer	Separate column
File	Day Of Half Year	Regular	DayOfMonth	Integer	Separate column
File	Day Of Month	Regular	DayOfQuarter	Integer	Separate column
File	Day Of Quarter	Regular	-	-	-

Schema Generation Wizard

Specify Naming Conventions

Specify the naming conventions you want to use in the new schema.

Option	Value
Separator	Underscore
Primary key column prefix	PK
Foreign key column prefix	FK
Attribute name suffix	Name
Custom rollup suffix	CustomRollup
Custom rollup properties suffix	CustomRollupProperties
Unary operator suffix	UnaryOperator
Skipped levels suffix	SkippedLevels
Value column suffix	Value

Click here to generate data source view

< Back Next > Finish >> Cancel

Accept all the defaults for the naming of the *Date* dimension attributes.

Add to Source Control

Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Database Tools Test Analyze Window Help

DimDate.dim [Design] ▾ X

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

Year - Half Year - Quarter - Month - Ten Days - Date

- Year
- Half Year
- Quarter
- Month
- Ten Days
- Date
- <new level>

ISO 8601 Year - ISO 8601 Week - ISO 8601 Day

- ISO 8601 Year
- ISO 8601 Week
- ISO 8601 Day
- <new level>

Attributes

	Name	Usage			
Key	Date	Key	DayOfHalfYear	Integer	Separate column
Regular	Day Of Half Year	Regular	DayOfMonth	Integer	Separate column
Regular	Day Of Month	Regular	DayOfQuarter	Integer	Separate column
-	Day Of Quarter	-	-	-	-

Finish the schema generation wizard.

Schema Generation Wizard

Completing the Wizard

Verify the generation options, and then click Finish.

Summary:

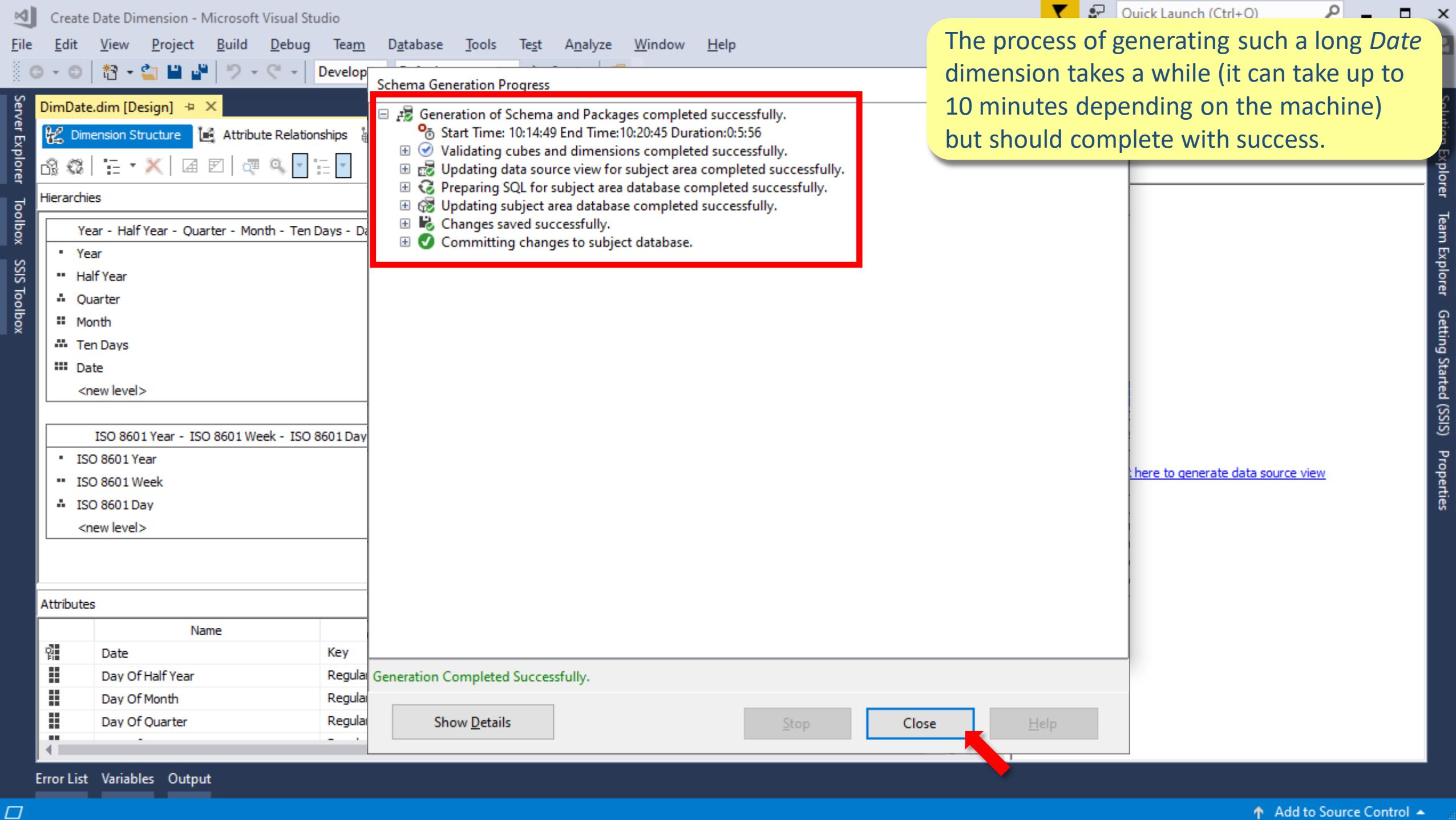
Subject Area

Data source view: Create Date Dimension  
Schema: Create Date Dimension  
Data will not be preserved  
Time table will be populated

Click here to generate data source view

< Back Next > **Finish** Cancel

Error List Variables Output Add to Source Control



The process of generating such a long *Date* dimension takes a while (it can take up to 10 minutes depending on the machine) but should complete with success.

Create Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team Format Database Data Source View Dimension Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Save the Analysis Services Project.

DimDate.dim [Design]\*

Dimension Structure Attribute Relationships Translations Browser

Hierarchies

- Year - Half Year - Quarter - Month - Ten Days - Date
  - Year
  - Half Year
  - Quarter
  - Month
  - Ten Days
  - Date
  - <new level>
- Year - Trimester - Month - Ten Days - Date
  - Year
  - Trimester
  - Month
  - Ten Days
  - Date
  - <new level>
- Year - Week - Date
  - Year
  - Week
  - Date
  - <new level>

To create a new hierarchy, drag an attribute here.

Data Source View

DimDate

- PK\_Date
- Date\_Name
- Year
- Year\_Name
- Half\_Year
- Half\_Year\_Name
- Quarter
- Quarter\_Name
- Trimester
- Trimester\_Name

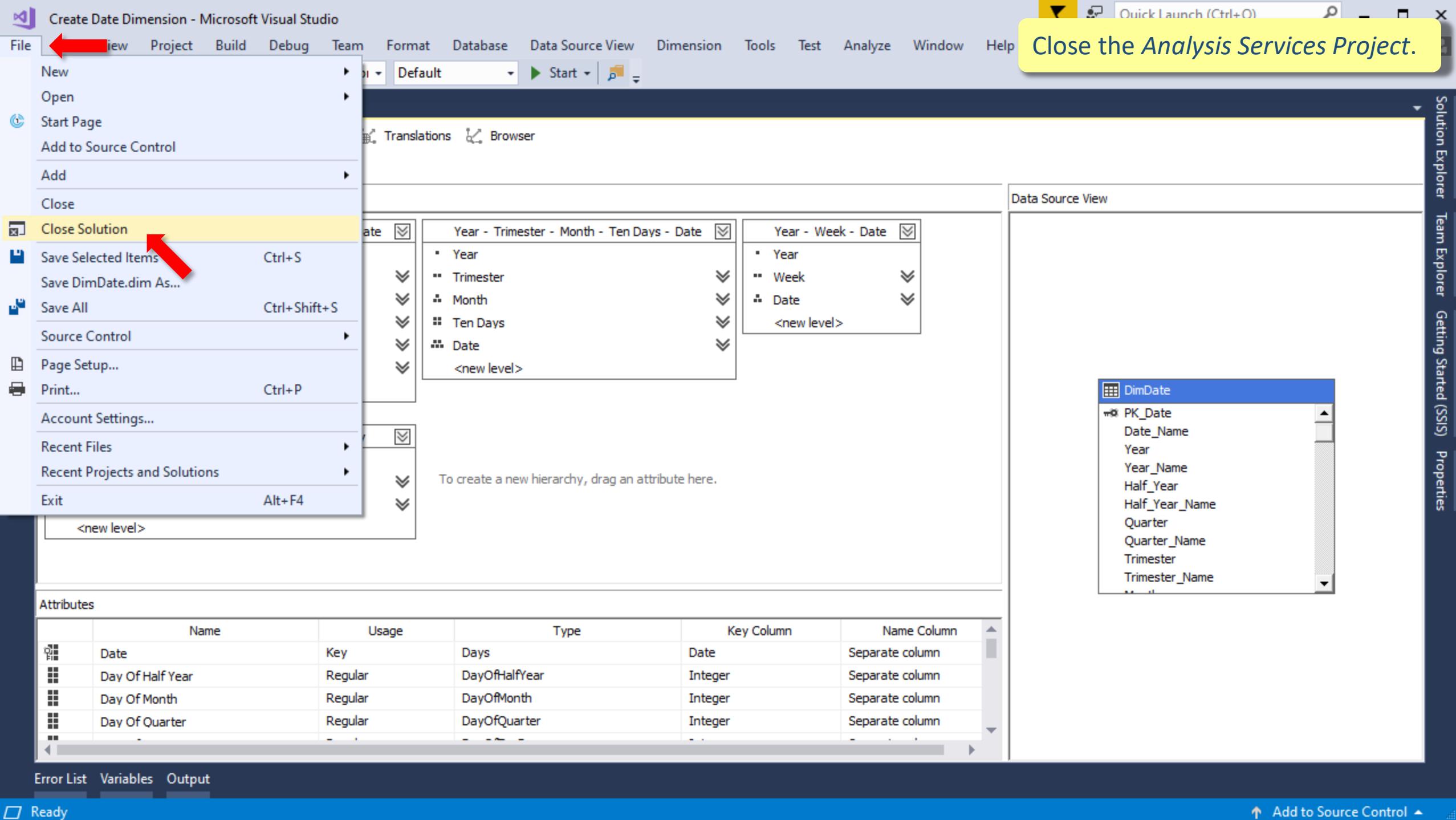
Attributes

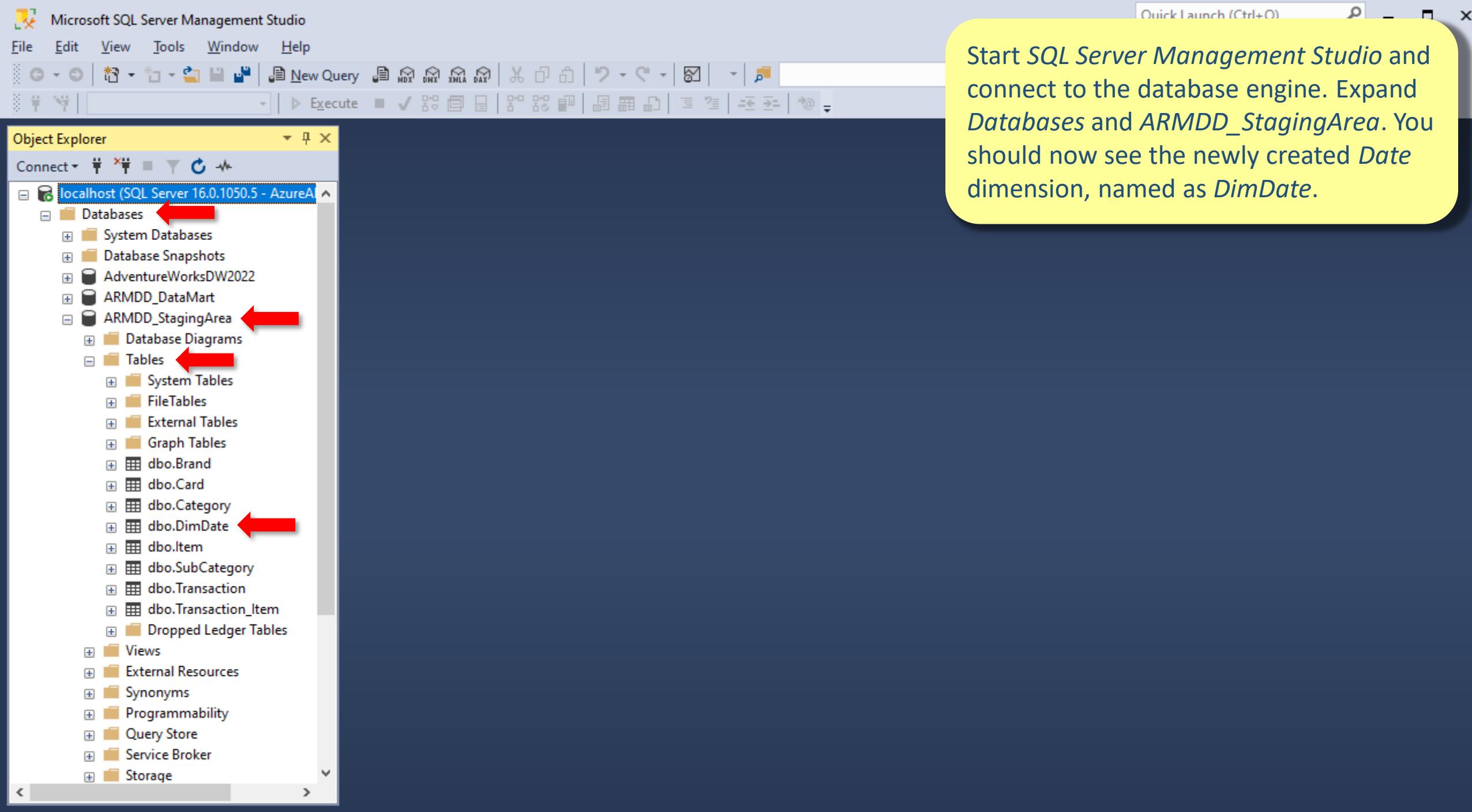
	Name	Usage	Type	Key Column	Name Column
Date	Date	Key	Days	Date	Separate column
Day Of Half Year	Day Of Half Year	Regular	DayOfHalfYear	Integer	Separate column
Day Of Month	Day Of Month	Regular	DayOfMonth	Integer	Separate column
Day Of Quarter	Day Of Quarter	Regular	DayOfQuarter	Integer	Separate column

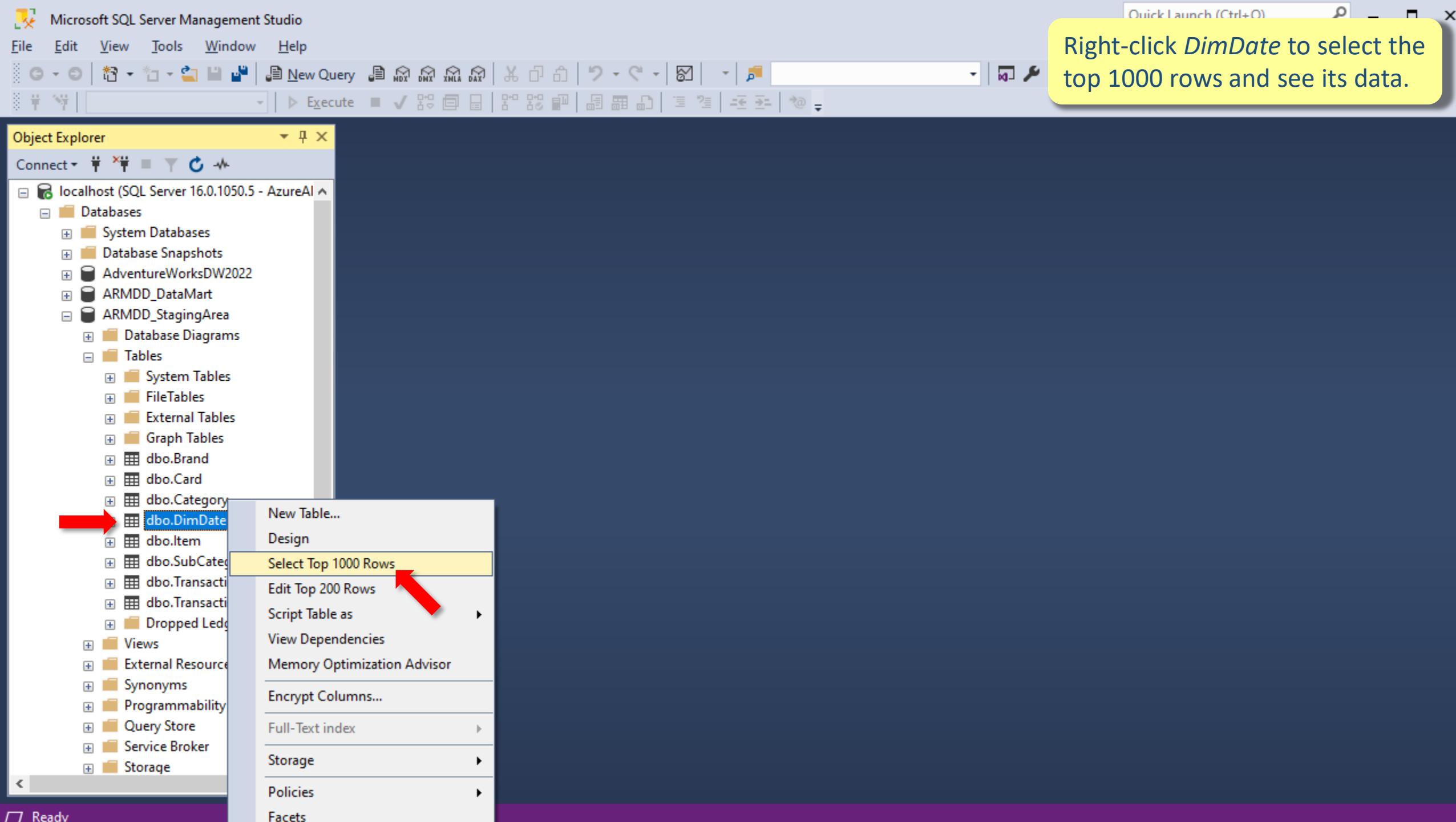
Error List Variables Output

Add to Source Control

Server Explorer Toolbox SSIS Toolbox Solution Explorer Team Explorer Getting Started (SSIS) Properties







SQLQuery1.sql - localhost.ARMDDB\_StagingArea (AzureAD\PauloOliveira (64)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDX DMX XMLA DAX

ARMDD\_StagingArea Execute

DimDate attributes and data are now visible.

Object Explorer

localhost (SQL Server 16.0.1050.5 - AzureAI)

- Databases
  - System Databases
  - Database Snapshots
  - AdventureWorksDW2022
  - ARMDD\_DataMart
  - ARMDD\_StagingArea
    - Database Diagrams
    - Tables
      - System Tables
      - FileTables
      - External Tables
      - Graph Tables
      - dbo.Brand
      - dbo.Card
      - dbo.Category
      - dbo.DimDate
      - dbo.Item
      - dbo.SubCategory
      - dbo.Transaction
      - dbo.Transaction\_Item
    - Dropped Ledger Tables
  - Views
  - External Resources
  - Synonyms
  - Programmability
  - Query Store
  - Service Broker
  - Storage

SQLQuery1.sql - loc...\\PauloOliveira (64)

```
SELECT TOP (1000) [PK_Date]
    ,[Date_Name]
    ,[Year]
    ,[Year_Name]
    ,[Half_Year]
    ,[Half_Year_Name]
    ,[Quarter]
    ,[Quarter_Name]
    ,[Trimester]
    ,[Trimester_Name]
    ,[Month]
    ,[Month_Name]
    ,[Ten_Days]
    ,[Ten_Days_Name]
    ,[Week]
    ,[Week_Name]
    ,[Day_of_Year]
```

Results Messages

PK_Date	Date_Name	Year	Year_Name	Half_Year	Half_Year_Name	Quarter	Quar...
2001-01-01 00:00:00.000	Monday, January 01 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-02 00:00:00.000	Tuesday, January 02 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-03 00:00:00.000	Wednesday, January 03 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-04 00:00:00.000	Thursday, January 04 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-05 00:00:00.000	Friday, January 05 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-06 00:00:00.000	Saturday, January 06 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-07 00:00:00.000	Sunday, January 07 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-08 00:00:00.000	Monday, January 08 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-09 00:00:00.000	Tuesday, January 09 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001
2001-01-10 00:00:00.000	Wednesday, January 10 2001	2001-01-01 00:00:00.000	Calendar 2001	2001-01-01 00:00:00.000	Semester 1, 2001	2001-01-01 00:00:00.000	Quarter 1, 2001

Query executed successfully.

localhost (16.0 RTM) | AzureAD\PauloOliveira ... | ARMDD\_StagingArea | 00:00:01 | 1,000 rows

SQLQuery1.sql - localhost.ARMDDB\_StagingArea (AzureAD\PauloOliveira (64)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

Quick Launch (Ctrl+O)

ARMDD\_StagingArea Execute

Object Explorer

localhost (SQL Server 16.0.1050.5 - AzureAI)

- Databases
  - System Databases
  - Database Snapshots
  - AdventureWorksDW2022
  - ARMDD\_DataMart
  - ARMDD\_StagingArea
    - Database Diagrams
    - Tables
      - System Tables
      - FileTables
      - External Tables
      - Graph Tables
      - dbo.Brand
      - dbo.Card
      - dbo.Category
      - dbo.DimDate
      - dbo.Item
      - dbo.SubCategory
      - dbo.Transaction
      - dbo.Transaction\_Item
    - Dropped Ledger Tables
  - Views
  - External Resources
  - Synonyms
  - Programmability
  - Query Store
  - Service Broker
  - Storage

SQLQuery1.sql - loc...\\PauloOliveira (64)

```
SELECT TOP (1000) [PK_Date]
      ,[Date_Name]
      ,[Year]
      ,[Year_Name]
      ,[Half_Year]
      ,[Half_Year_Name]
      ,[Quarter]
      ,[Quarter_Name]
      ,[Trimester]
      ,[Trimester_Name]
      ,[Month]
      ,[Month_Name]
      ,[Ten_Days]
      ,[Ten_Days_Name]
      ,[Week]
      ,[Week_Name]
      ,[Day_Of_Year]
```

Results Messages

I_8601_Day_Of_Year	ISO_8601_Day_Of_Year_Name	ISO_8601_Day_Of_Week	ISO_8601_Day_Of_Week_Name	ISO_8601_Week_Of_Year	ISO_8601_Week_Of_Year_Name
1	Day 1	1	Day 1	1	Week 1
2	Day 2	2	Day 2	1	Week 1
3	Day 3	3	Day 3	1	Week 1
4	Day 4	4	Day 4	1	Week 1
5	Day 5	5	Day 5	1	Week 1
6	Day 6	6	Day 6	1	Week 1
7	Day 7	7	Day 7	1	Week 1
8	Day 8	1	Day 1	2	Week 2
9	Day 9	2	Day 2	2	Week 2
10	Day 10	3	Day 3	2	Week 2

Query executed successfully.

localhost (16.0 RTM) | AzureAD\PauloOliveira ... | ARMDD\_StagingArea | 00:00:01 | 1,000 rows

You can horizontally scroll to see all the DimDate's attributes and their data.

Start Page - Microsoft Visual Studio

File Edit View Project Debug Team Tools Test Analyze Window Help

Start Page

# Get Started

Build your first app in 5 minutes!

Maximize your productivity with these tips and tricks for Visual Studio

Take advantage of the newest technologies to deploy beautiful, low-cost and reliable websites

Develop modern, fully-native, Android and iOS apps

Produce more, fix faster and deliver updates seamlessly

# Recent

This week

-  Data Mart.sln  
D:\Temp\ARPAD\Data Mart
-  Create Date Dimension 2.sln  
D:\Temp\ARPAD\Create Date Dimension 2
-  Create CSV Date Dimension.sln  
D:\Temp\ARPAD\Create CSV Date Dimension

The *Date* dimension could have been created directly in the *Data Mart* database (instead of the Staging Area). However, the *Date* dimension defined for the *Data Mart* project has different needs. It uses much less attributes and some of them are not present in the dimension just generated (as you'll see next). From this *Date* dimension we will create a *CSV* file and complete this file with the attributes that are still missing for the *Date* dimension. In the future, you can use this *CSV* file in any Data Warehouse/Mart project to load the *Date* dimension table.

Open project solution

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## New project

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Ready

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Rec Today

Create Data Import from Server Import from PowerPivot

Error List Variables

Ready

# Create a new project

## Recent project templates

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All languages All platforms All project types

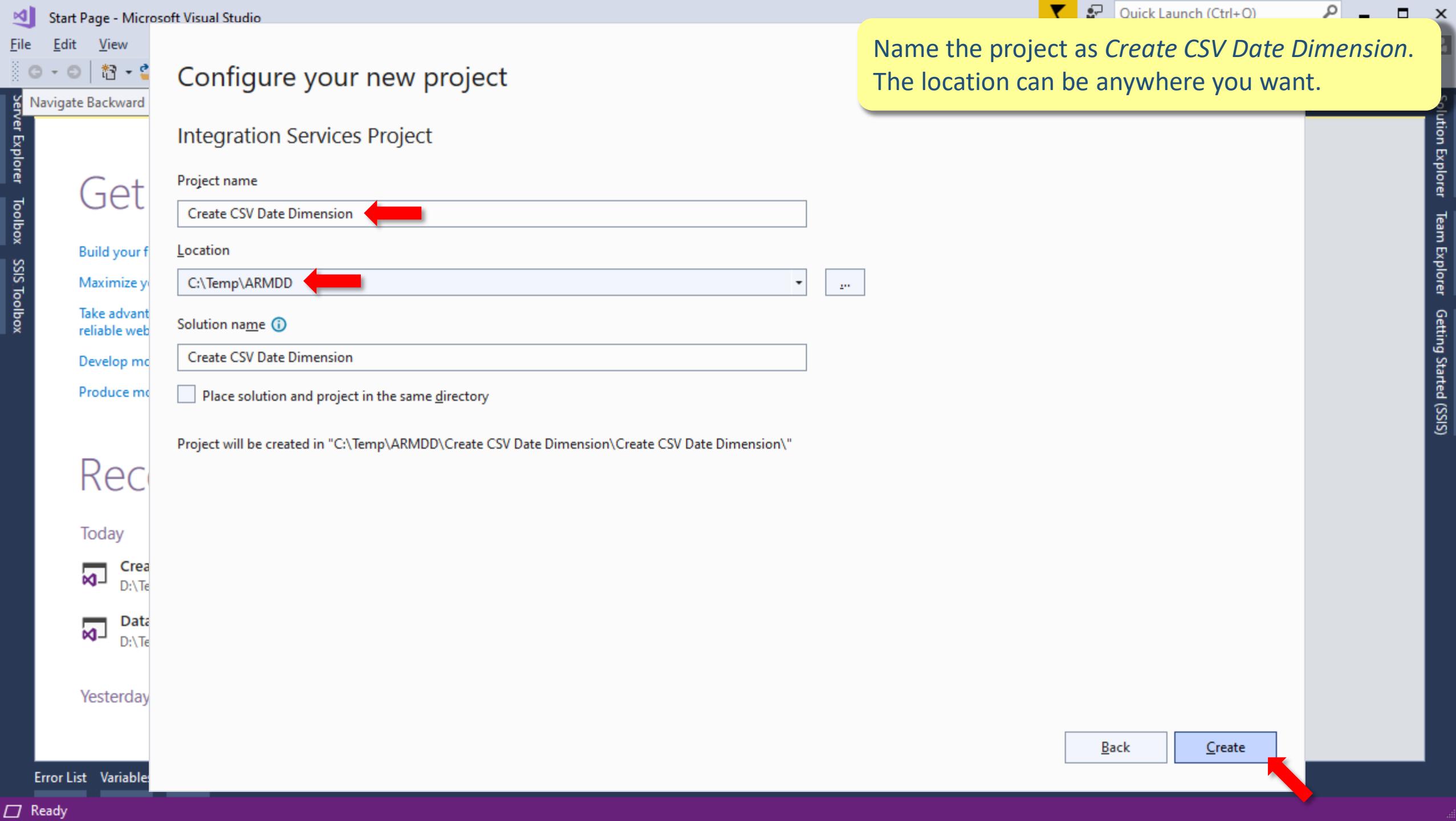
- Integration Services Project (Azure-Enabled)  
This project may be used for building high performance data integration and workflow solutions that can also be run/debugged on SSIS Platform-as-a-Service (PaaS) in Azure Data Factory.
- Integration Services Project  
This project may be used for building high performance data integration and workflow solutions that can be run on SSIS catalog, including extraction, transformation, and loading (ETL) operations for data warehousing. 
- Integration Services Import Project Wizard  
A wizard that assists you in creating a new Integration Services (SSIS) project that is based on an existing one. Import from a project deployment file (.ispac extension) or from an Integration Services catalog on an instance of SQL Server.
- Analysis Services Tabular Project  
An Analysis Services project for creating tabular models.
- Import from Server (Tabular)  
Creates a tabular project by extracting the metadata from an existing tabular database on an Analysis Services server.
- Import from PowerPivot

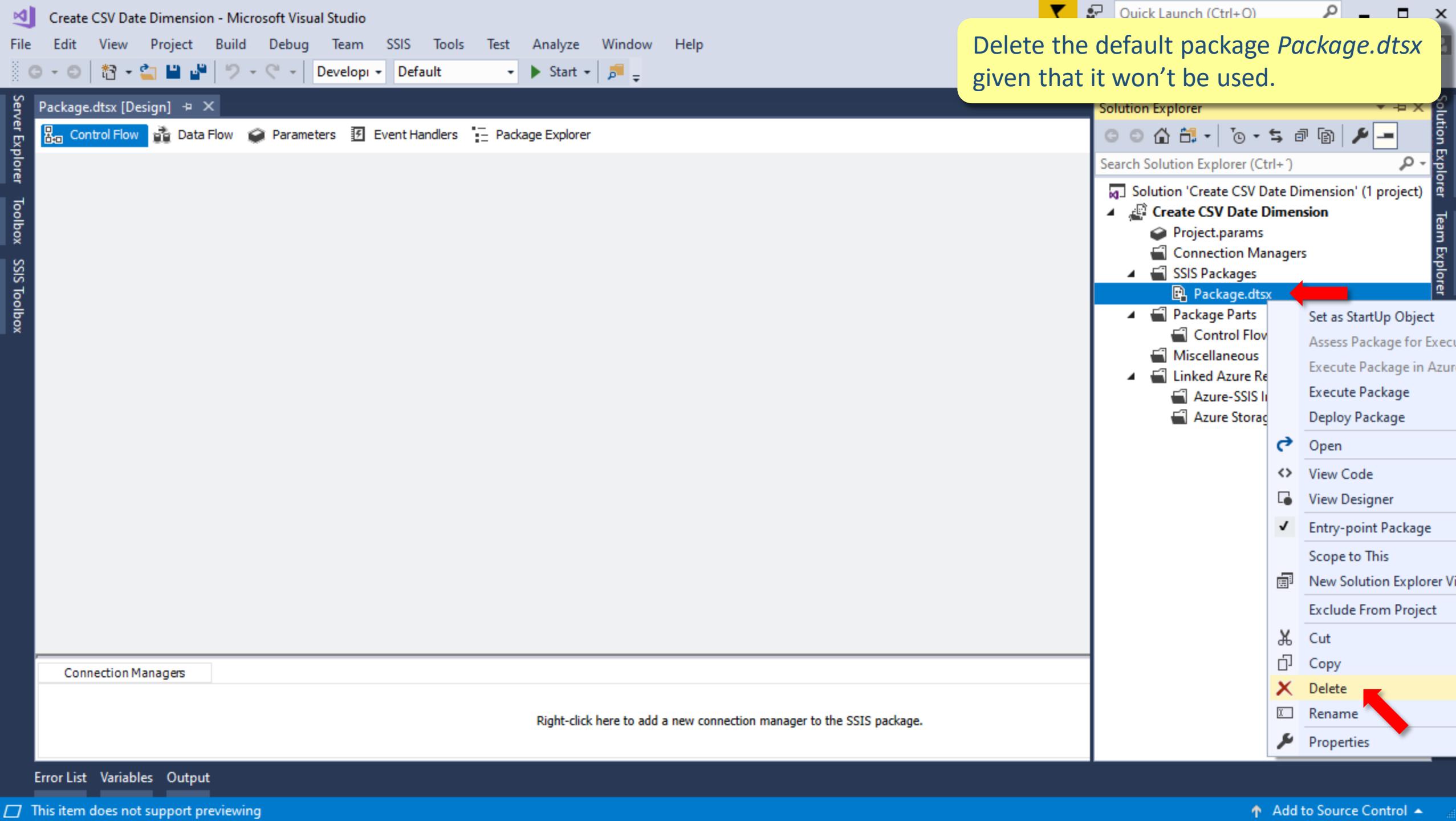
Quick Launch (Ctrl+O)

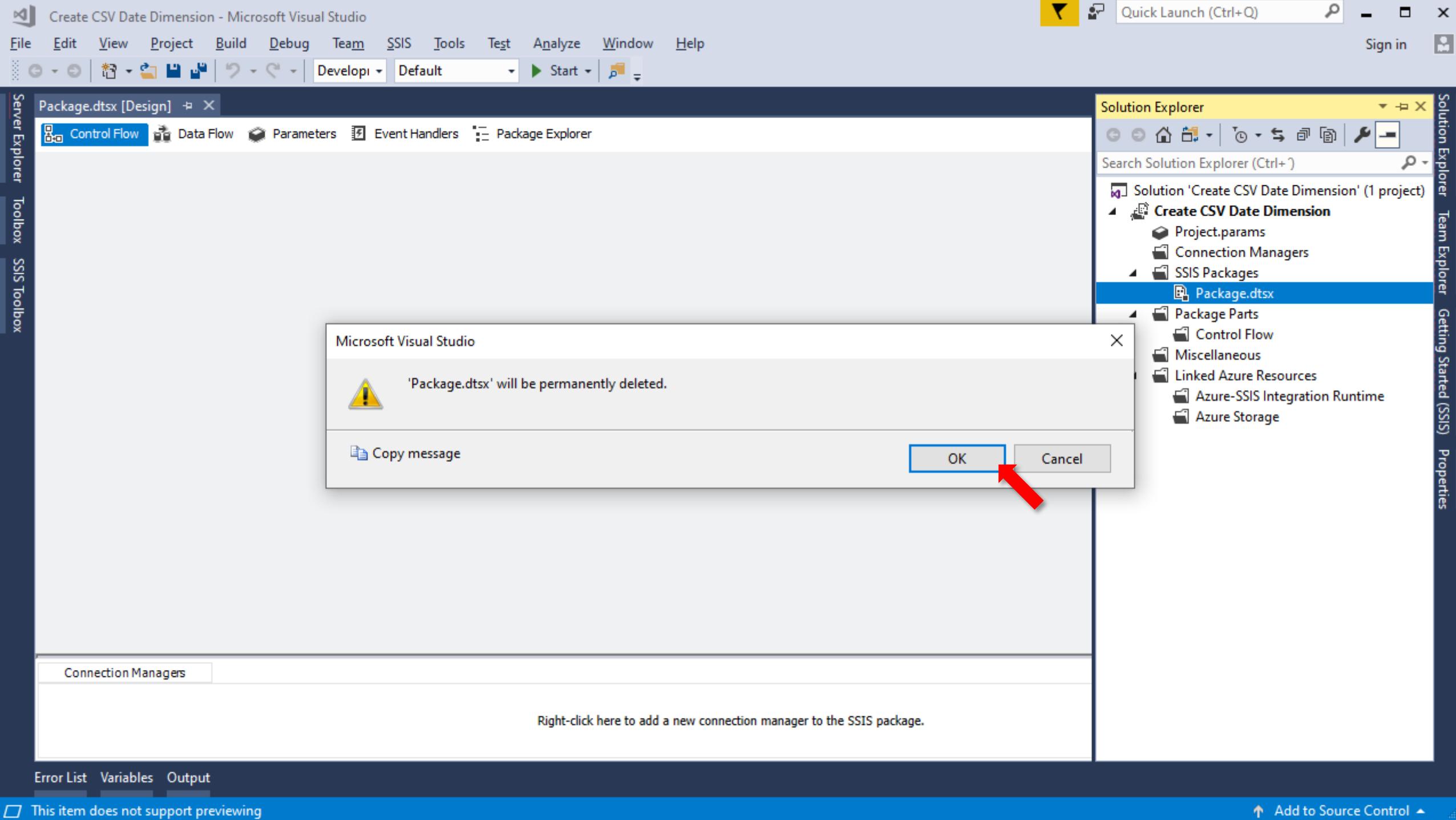
Create a new *Integration Services Project* in Visual Studio.

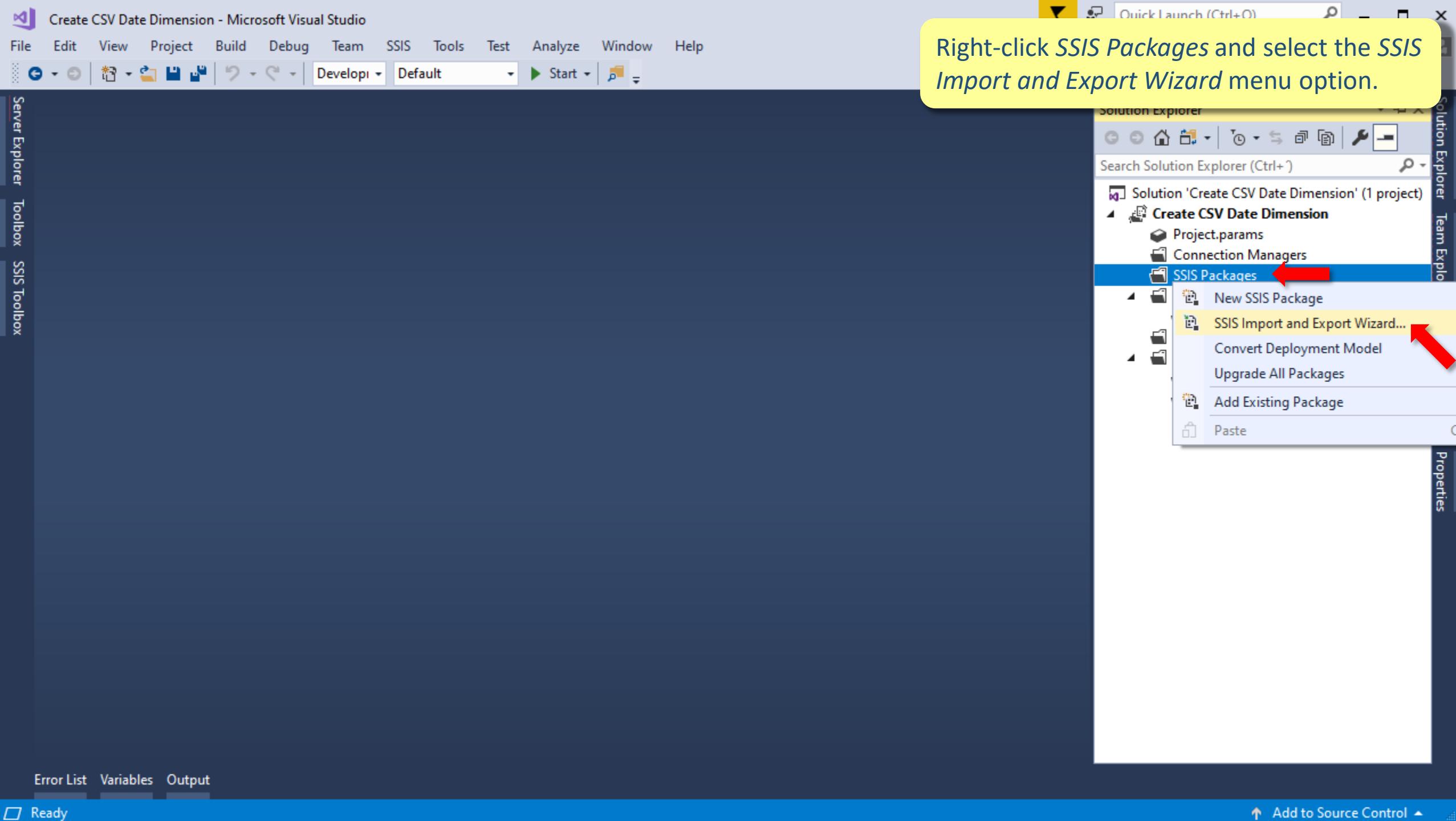
Next 

Solution Explorer Team Explorer Getting Started (SSIS)









Create CSV Date Dimension - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Developer Default Start

Server Explorer Toolbox SSIS Toolbox

SQL Server Import and Export Wizard

## Welcome to SQL Server Import and Export Wizard

This wizard helps you to create simple packages that import and export data between many popular data formats including databases, spreadsheets, and text files. The wizard can also create the destination database and the tables into which the data is inserted.

To move or copy databases and their objects from one server instance to another, cancel this wizard and use the Copy Database Wizard instead. The Copy Database Wizard is available in SQL Server Management Studio.

Do not show this starting page again.

Help < Back Next > Finish >> Cancel

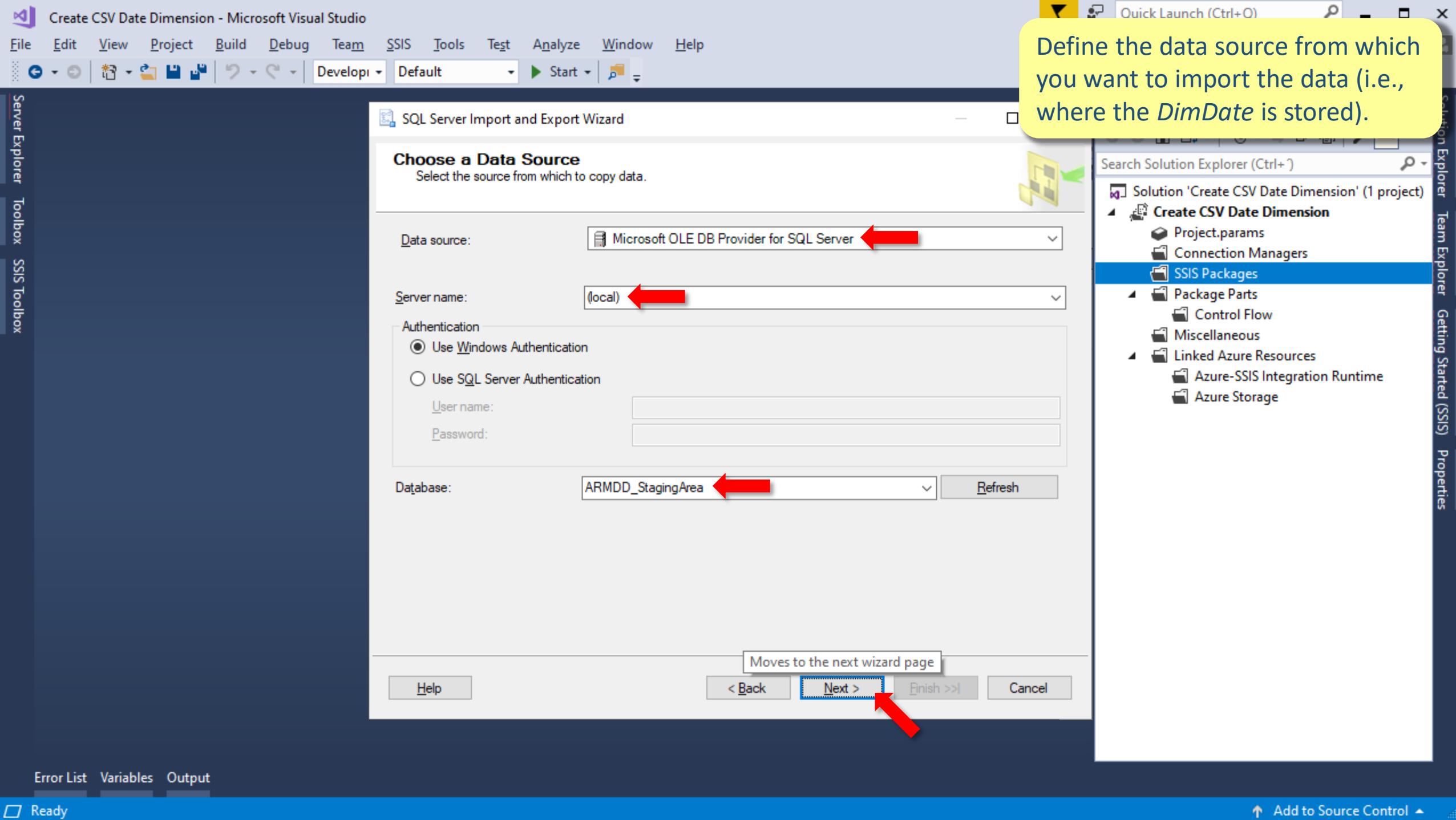
A wizards helps to create a SQL Server Import and Export package.

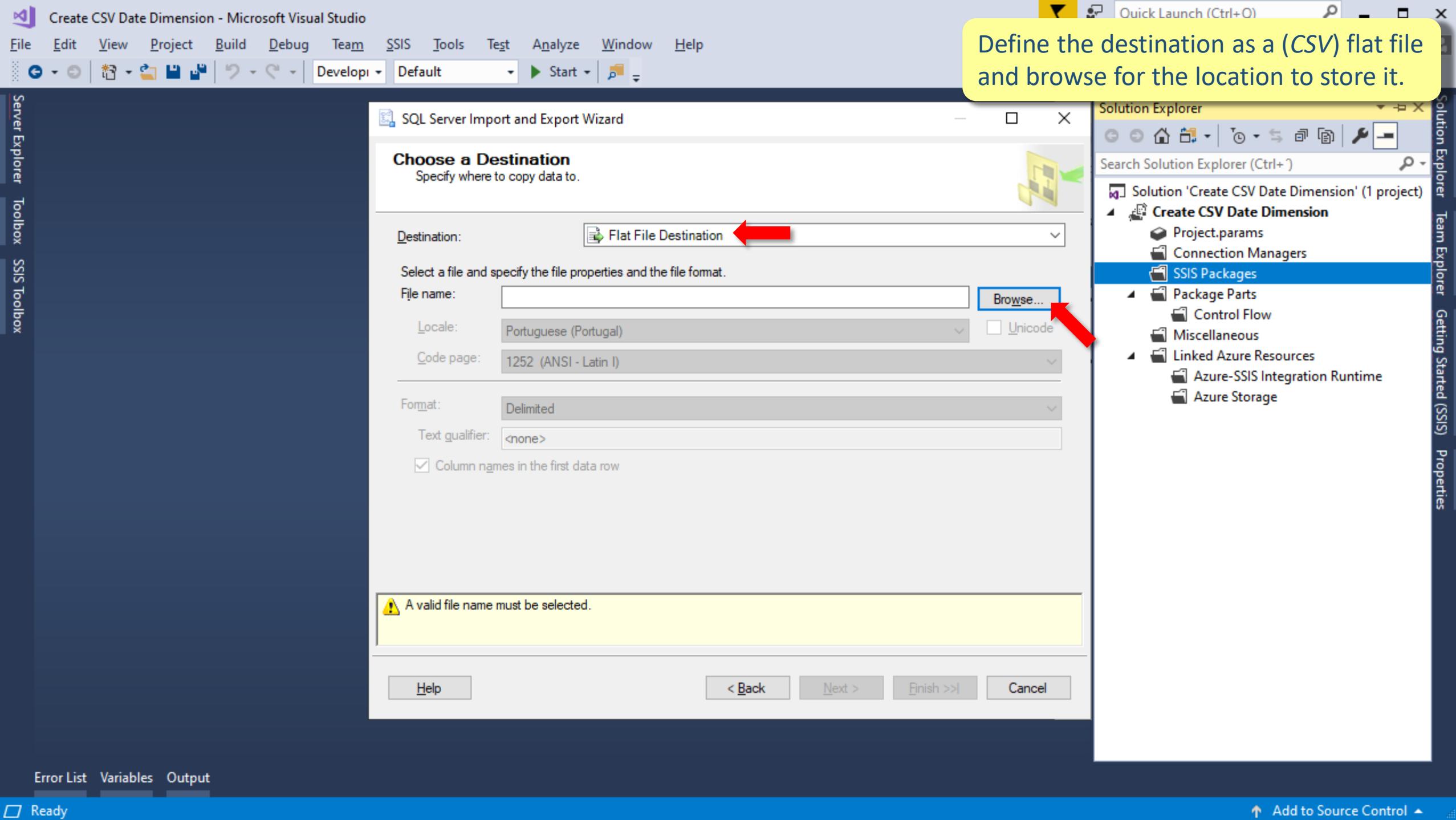
Search Solution Explorer (Ctrl+F)

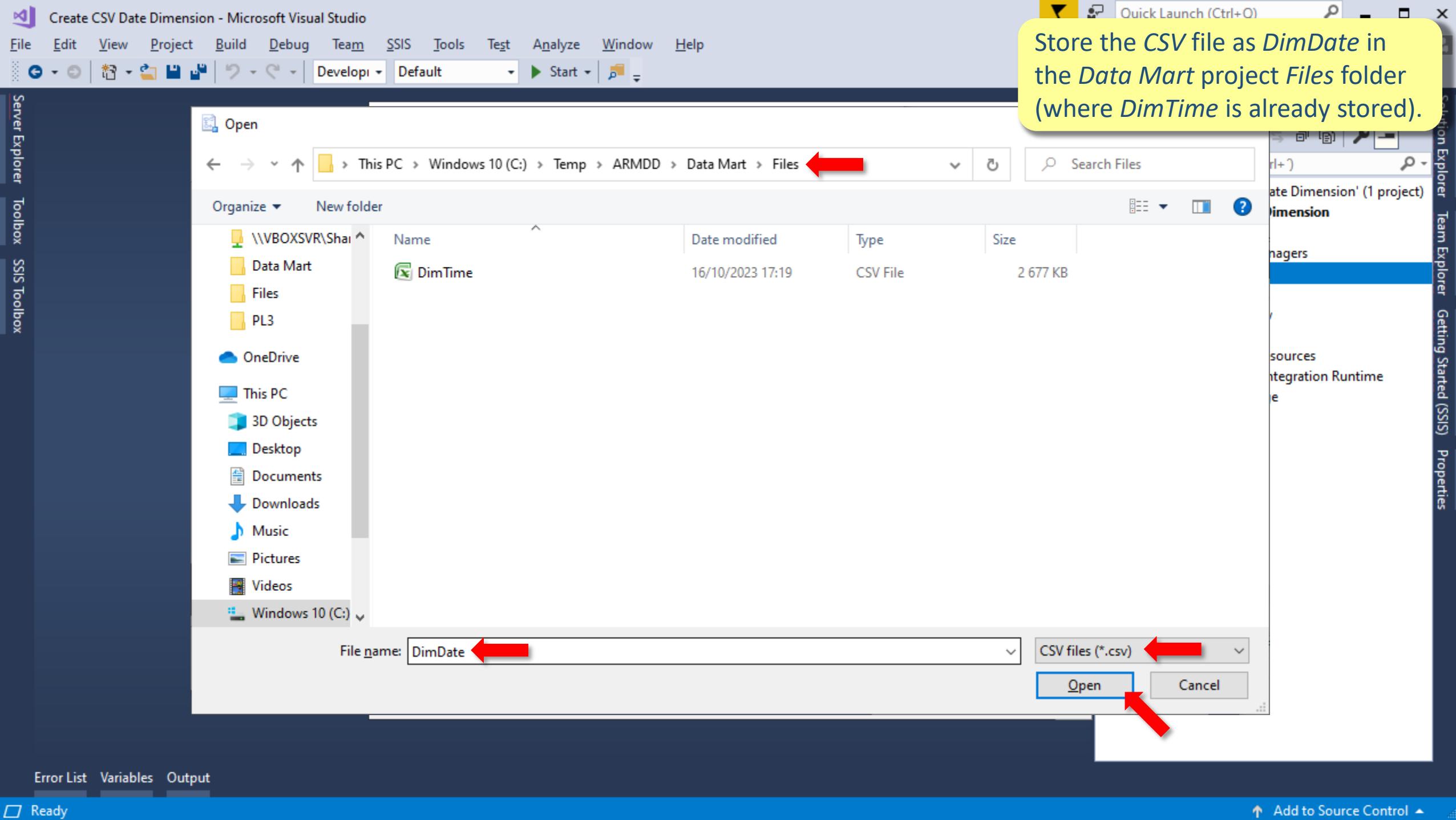
Solution 'Create CSV Date Dimension' (1 project)

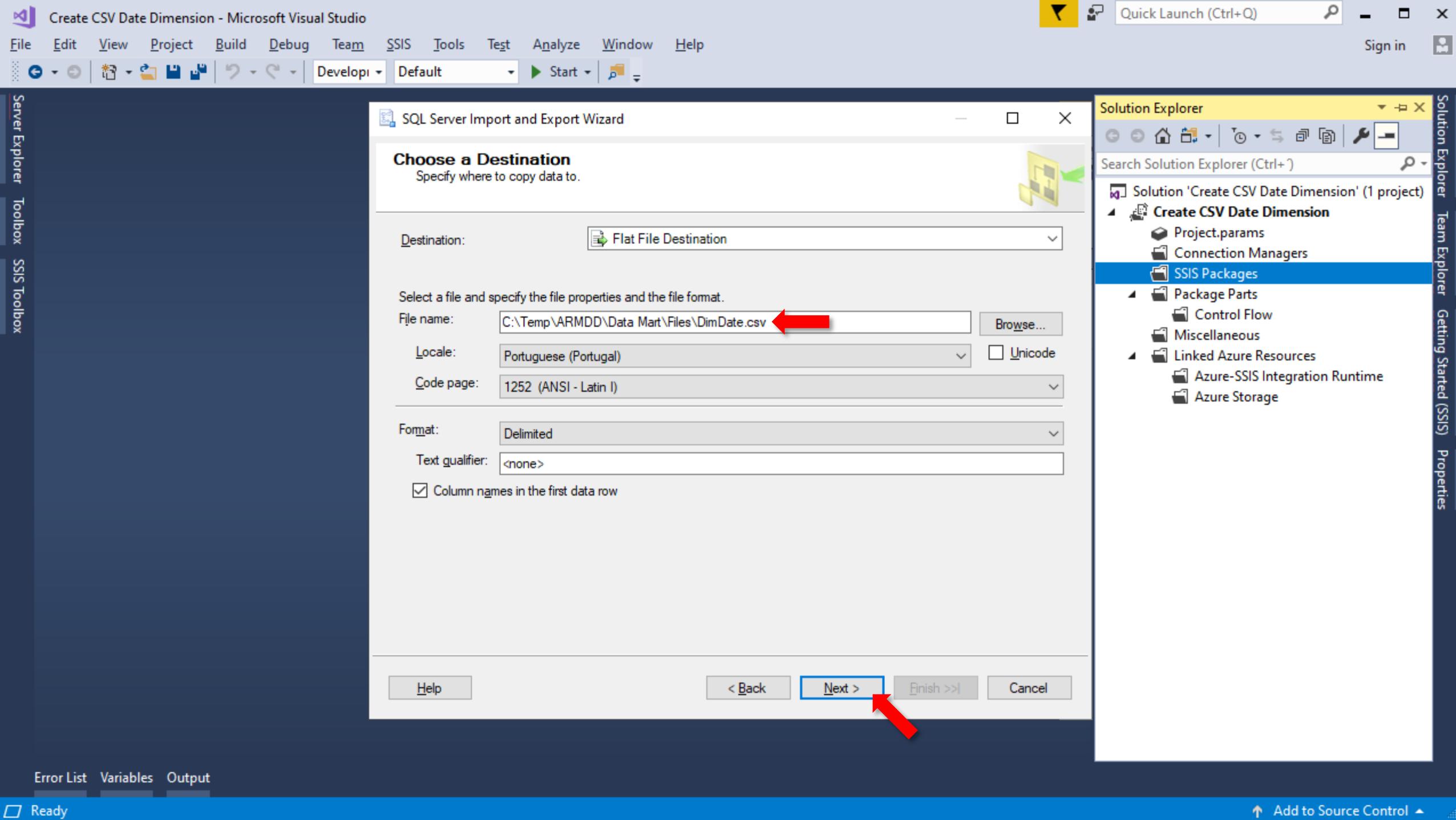
- >Create CSV Date Dimension
  - Project.params
  - Connection Managers
  - SSIS Packages
  - Package Parts
  - Control Flow
  - Miscellaneous
  - Linked Azure Resources
    - Azure-SSIS Integration Runtime
    - Azure Storage

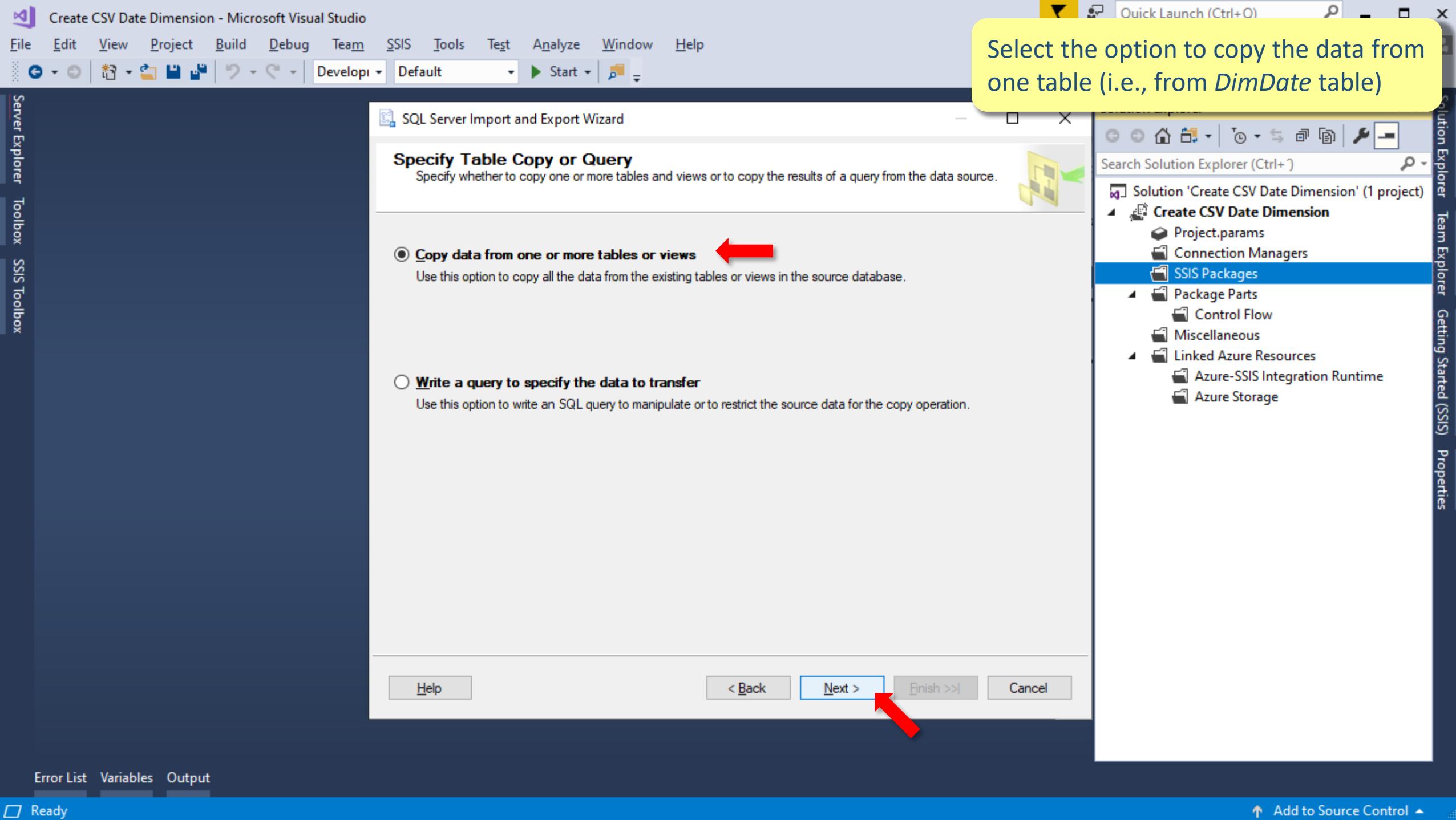
Quick Launch (Ctrl+O) Add to Source Control

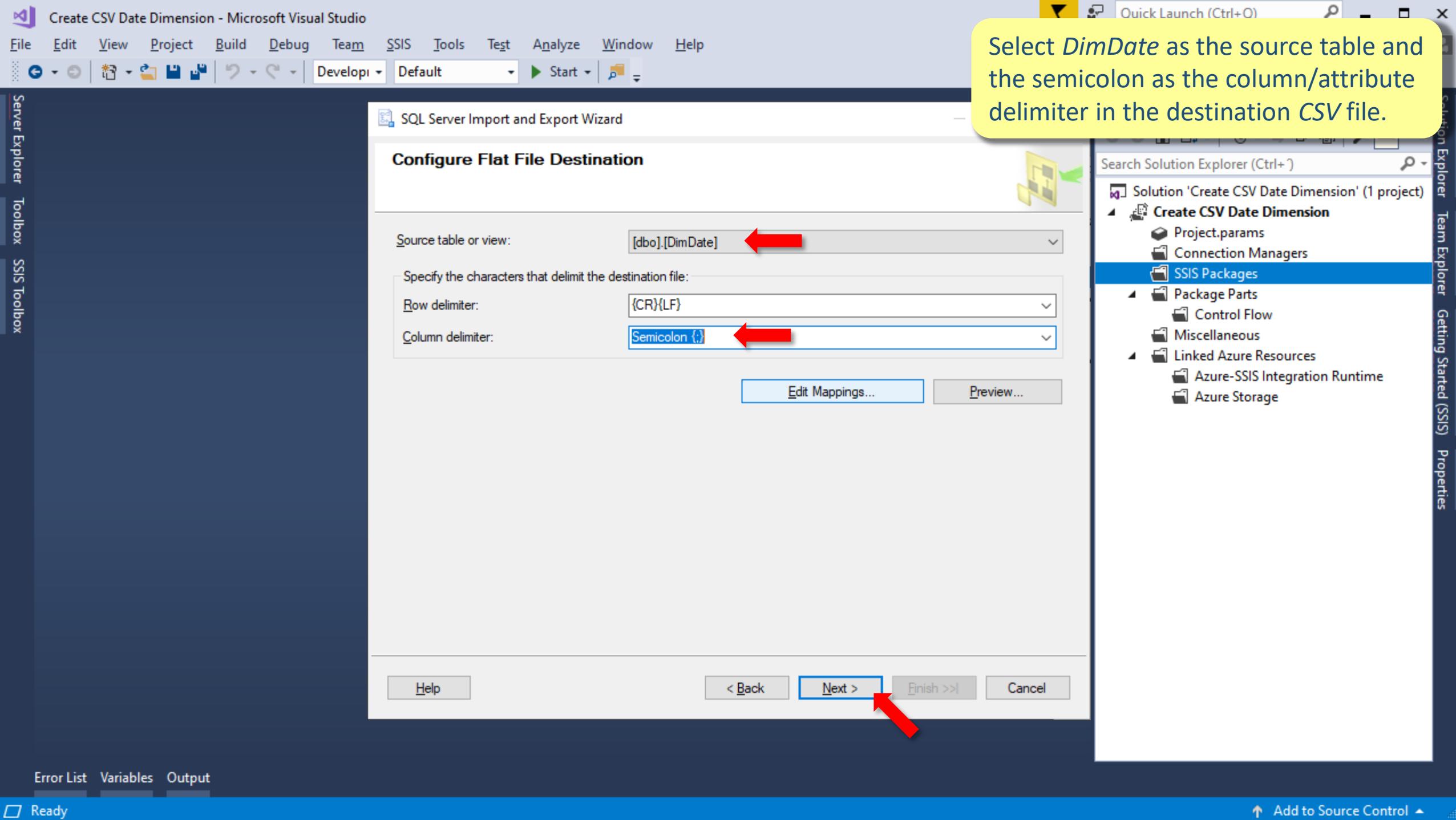


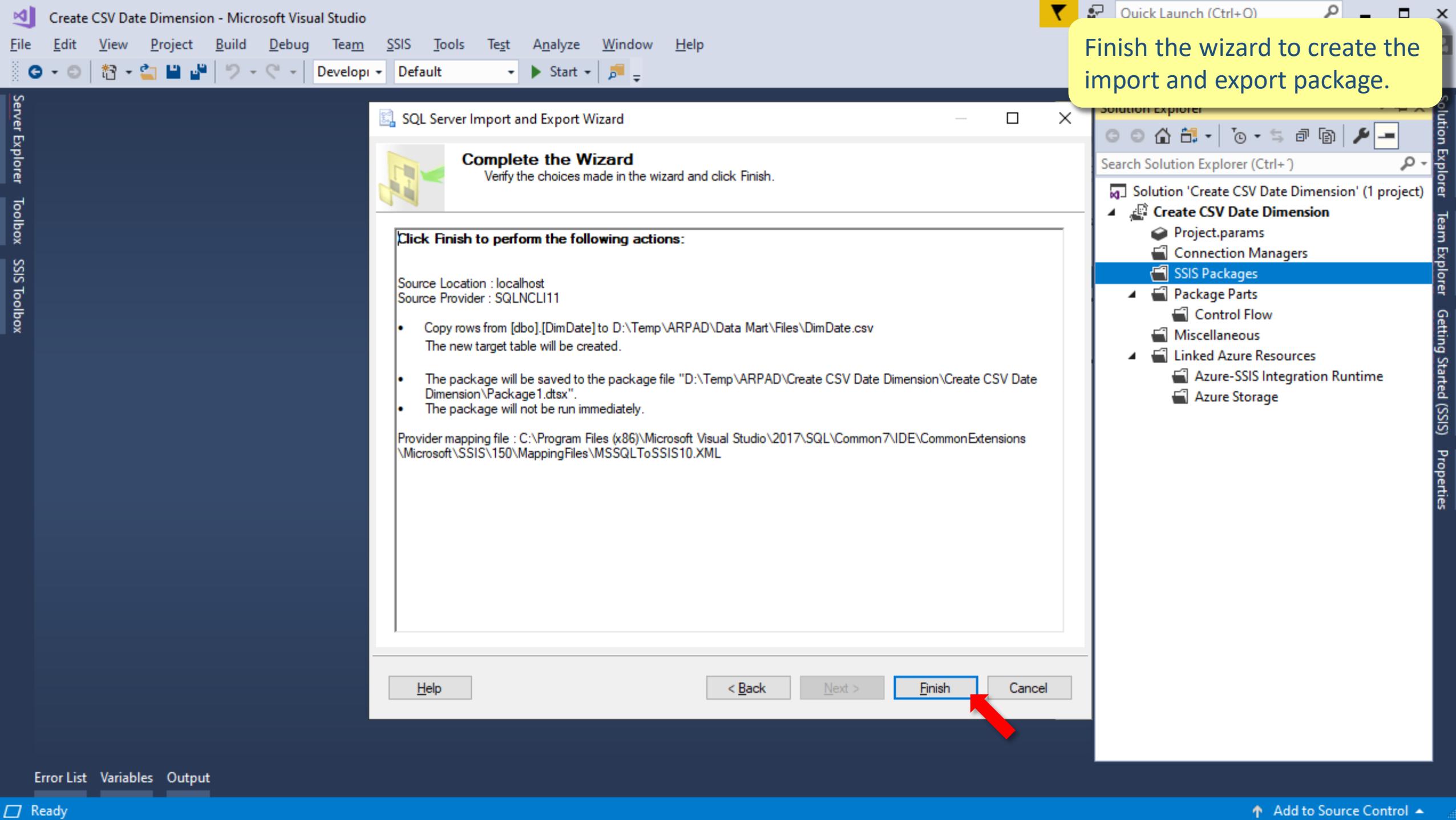


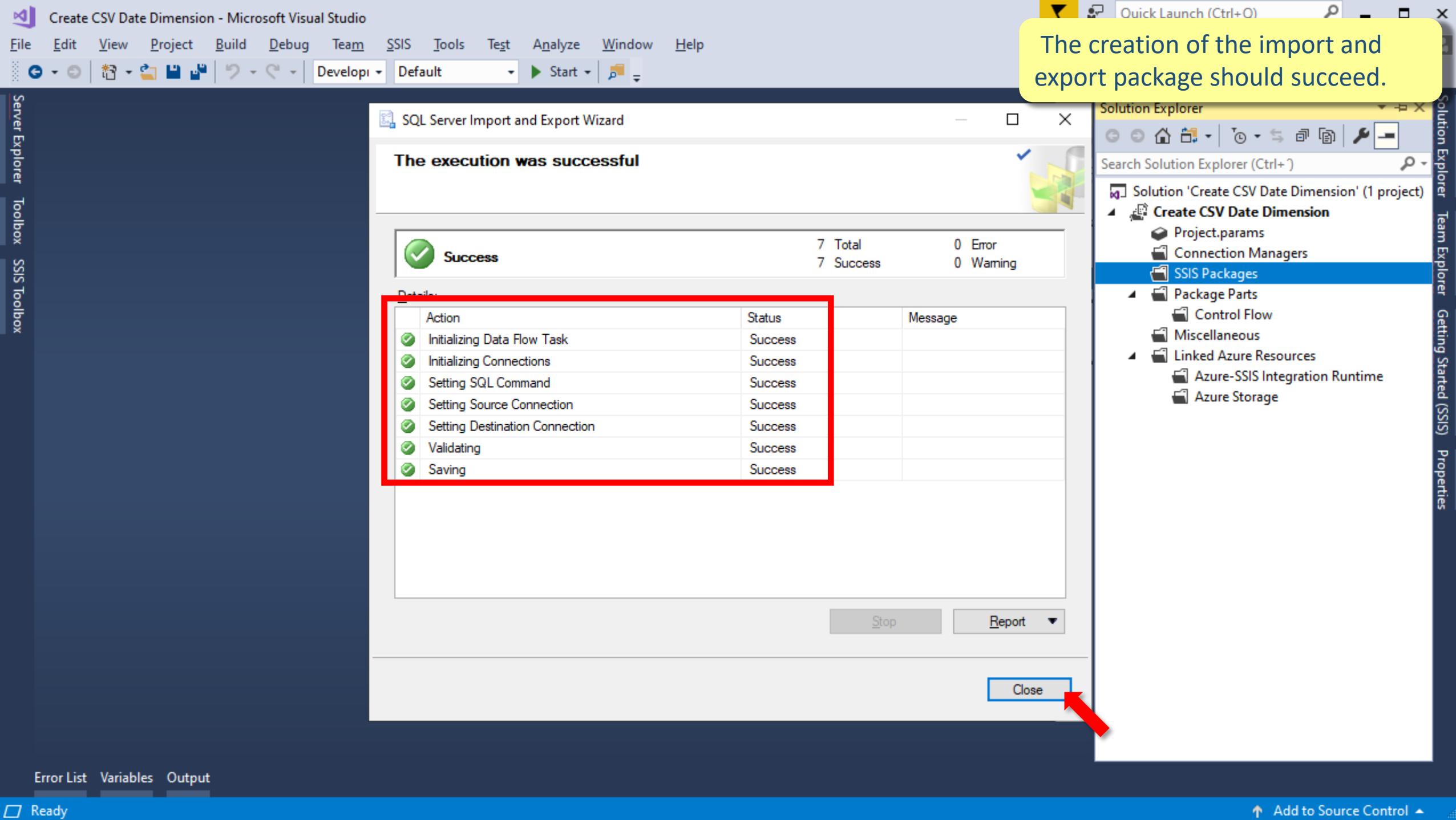


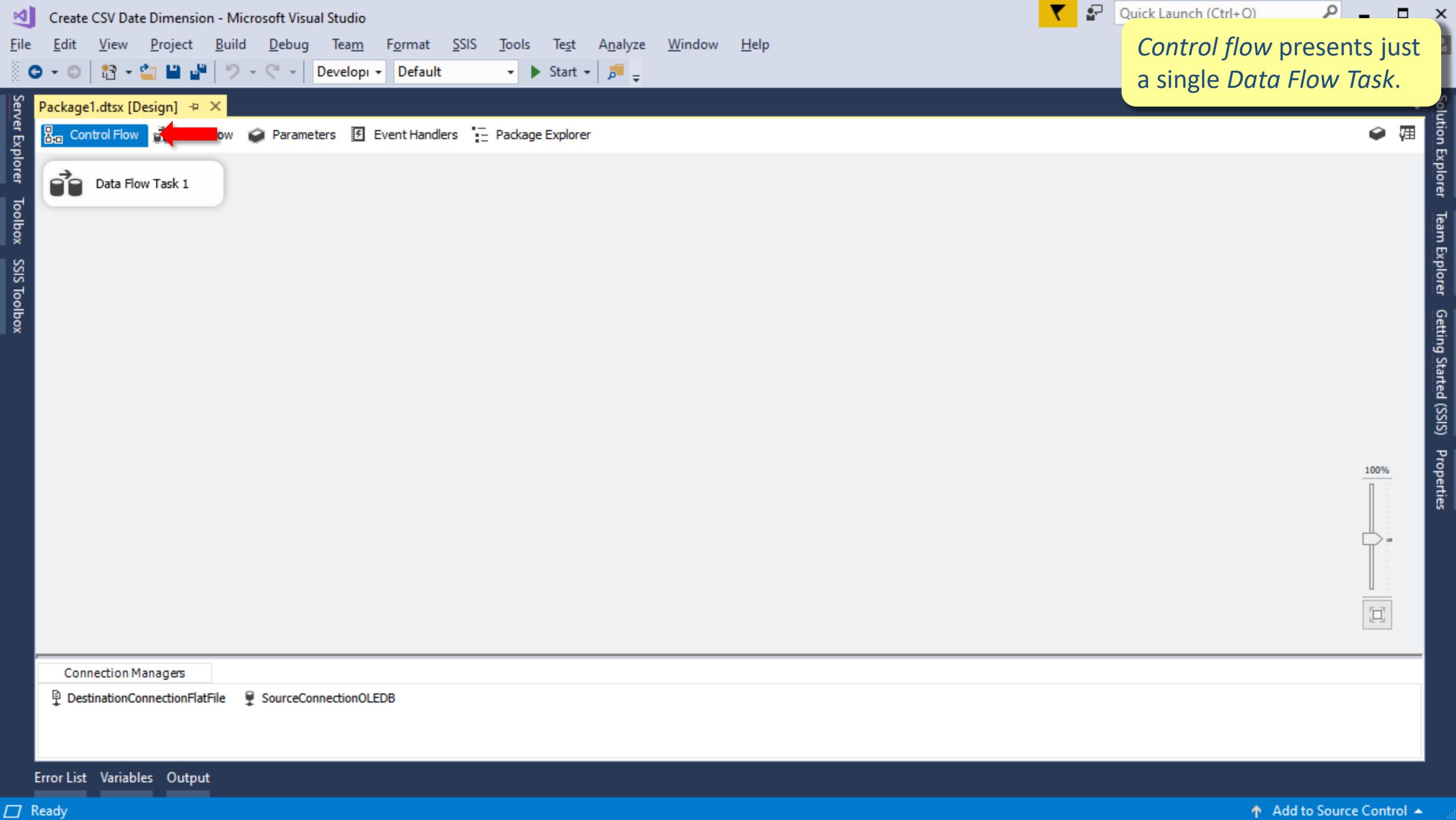


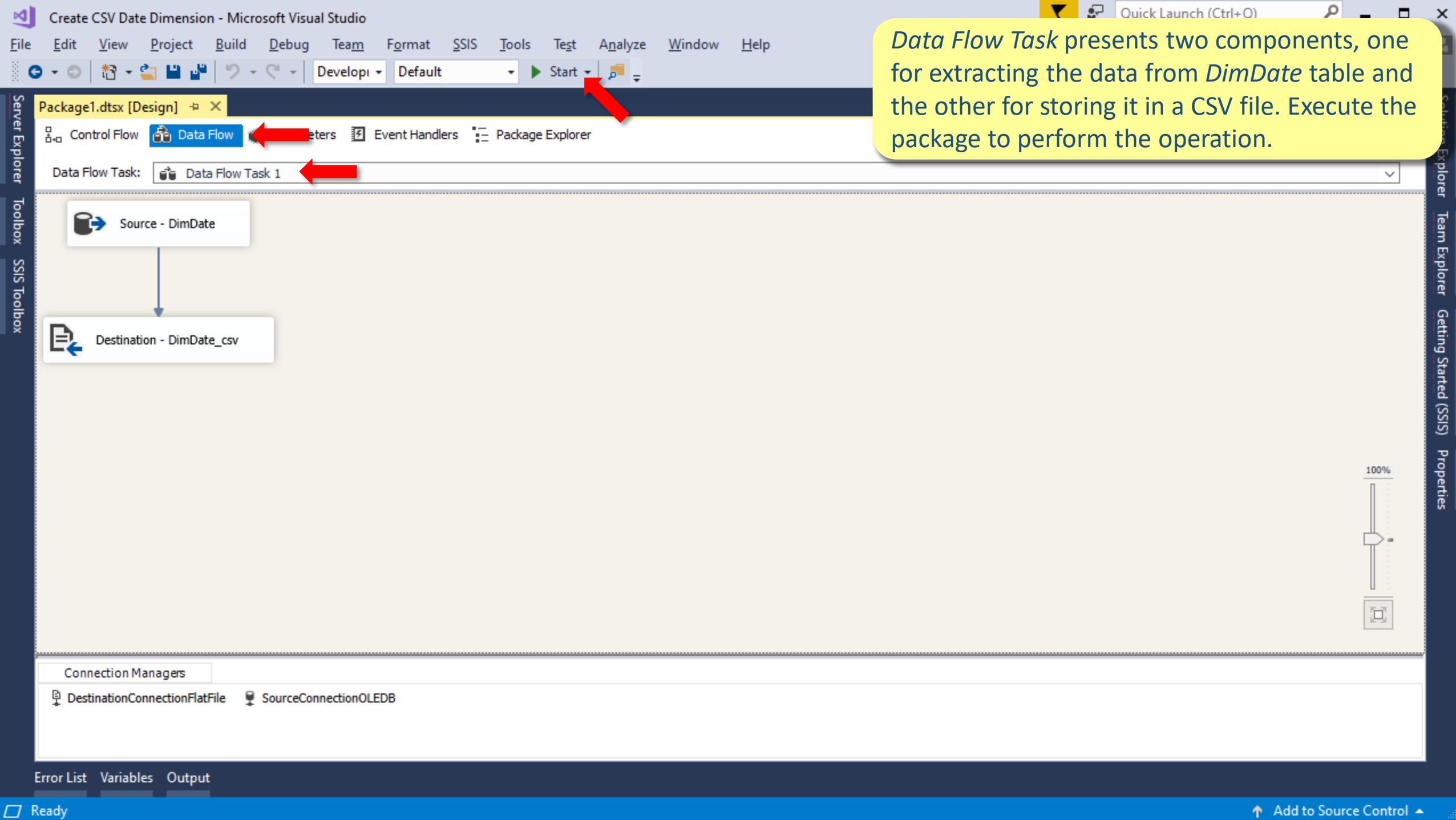


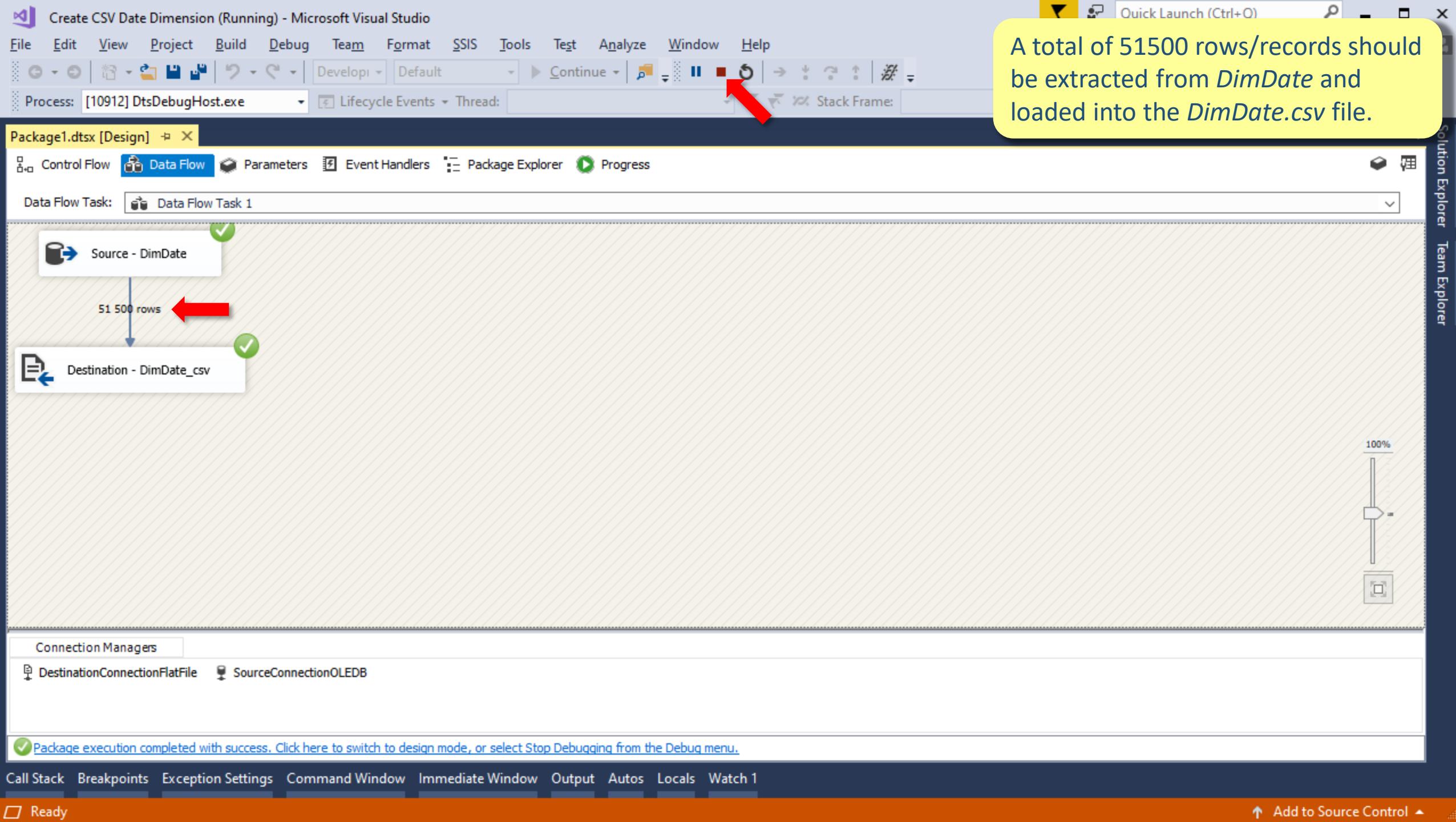














File

New Project Build Debug Team

Format SSIS Tools Test Analyze Window Help

- New
- Open
- Start Page
- Add to Source Control
- Add
- Close
- Close Solution**
- Save Selected Items Ctrl+S
- Save Selected Items As...
- Save Copy of Package1.dtsx As...
- Save All Ctrl+Shift+S
- Source Control
- Page Setup...
- Print... Ctrl+P
- Account Settings...
- Recent Files
- Recent Projects and Solutions
- Exit Alt+F4

Default Start |

Event Handlers

100%

Close the *Integration Services Project*.

Error List Variables Output

Open the DimDate.csv file in Excel (or any other spreadsheet program). Although the *Date* dimension is rather complete, a few attributes for the *Data Mart DimDate* dimension are still missing.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	
PK_Date	Date_Nam	Year	Year_Nam	Half_Year	Half_Year	Quarter	Quarter_N	Trimester	Trimester	Month	Month_N	Ten_Days	Ten_Days	Week	Week_Na	Day_Of_Y	Day_Of_Y	Day_Of_H	
#####	Monday, J	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	1	Day 1	1	
#####	Tuesday, J	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	2	Day 2	2	
#####	Wednesday, J	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	3	Day 3	3	
#####	Thursday, J	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	4	Day 4	4	
#####	Friday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	5	Day 5	5	
#####	Saturday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	6	Day 6	6	
#####	Sunday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	7	Day 7	7	
#####	Monday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	8	Day 8	8	
10	#####	Tuesday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	9	Day 9	9
11	#####	Wednesday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	10	Day 10	10
12	#####	Thursday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 2, 1	11	Day 11	11
13	#####	Friday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 2, 1	12	Day 12	12
14	#####	Saturday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 2, 1	13	Day 13	13
15	#####	Sunday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	14	Day 14	14
16	#####	Monday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	15	Day 15	15
17	#####	Tuesday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	16	Day 16	16
18	#####	Wednesday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	17	Day 17	17
19	#####	Thursday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	18	Day 18	18
20	#####	Friday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	19	Day 19	19
21	#####	Saturday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	20	Day 20	20
22	#####	Sunday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	3rd Ten Da	#####	Week 4, 1	21	Day 21	21
23	#####	Monday, Ja	#####	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 19	#####	3rd Ten Da	#####	Week 4, 1	22	Day 22	22

You may need to adjust the column widths (by dragging the column delimiter) to see their data.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	PK_Date	Day_in_Year	Year_Nam	Half_Year	Half_Year	Quarter	Quarter_N	Trimester	Trimester	Month	Month_Na	Ten_Days	Ten_Days	Week	Week_Na	Day_Of_Y	Day_Of_Y	Day_Or	
2	01/01/1900 00:00	Monday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	1 Day 1				
3	02/01/1900 00:00	Tuesday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	2 Day 2				
4	03/01/1900 00:00	Wednesday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	3 Day 3				
5	04/01/1900 00:00	Thursday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	4 Day 4				
6	05/01/1900 00:00	Friday, Jar	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	5 Day 5				
7	06/01/1900 00:00	Saturday, Ja	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 1, 1	6 Day 6				
8	07/01/1900 00:00	Sunday, Ja	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	7 Day 7				
9	08/01/1900 00:00	Monday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	8 Day 8				
10	09/01/1900 00:00	Tuesday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	9 Day 9				
11	10/01/1900 00:00	Wednesday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	1st Ten Da	#####	Week 2, 1	10 Day 10				
12	11/01/1900 00:00	Thursday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 2, 1	11 Day 11				
13	12/01/1900 00:00	Friday, Jar	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 2, 1	12 Day 12				
14	13/01/1900 00:00	Saturday, Ja	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 2, 1	13 Day 13				
15	14/01/1900 00:00	Sunday, Ja	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	14 Day 14				
16	15/01/1900 00:00	Monday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	15 Day 15				
17	16/01/1900 00:00	Tuesday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	16 Day 16				
18	17/01/1900 00:00	Wednesday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	17 Day 17				
19	18/01/1900 00:00	Thursday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	18 Day 18				
20	19/01/1900 00:00	Friday, Jar	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	19 Day 19				
21	20/01/1900 00:00	Saturday, Ja	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	2nd Ten D	#####	Week 3, 1	20 Day 20				
22	21/01/1900 00:00	Sunday, Ja	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	3rd Ten Da	#####	Week 4, 1	21 Day 21				
23	22/01/1900 00:00	Monday, J	Calendar	1 #####	Semester	#####	Quarter 1, #####	Trimester	#####	January 19	#####	3rd Ten Da	#####	Week 4, 1	22 Day 22				

You can horizontally scroll to see all the DimDate.csv attributes and data.

	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	
1	Quarter_C	Trimester	Trimester	Half_Year	Half_Year	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Week_Of	Year_Name
2	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, J		1 Day 1		1 Day 1		1 Week 1			
3	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, J		2 Day 2		2 Day 2		1 Week 1			
4	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, J		3 Day 3		3 Day 3		1 Week 1			
5	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, J		4 Day 4		4 Day 4		1 Week 1			
6	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, Jan		5 Day 5		5 Day 5		1 Week 1			
7	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, J		6 Day 6		6 Day 6		1 Week 1			
8	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, Ja		7 Day 7		7 Day 7		1 Week 1			
9	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, J		8 Day 8		1 Day 1		2 Week 2			
10	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, J		9 Day 9		2 Day 2		2 Week 2			
11	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, J		10 Day 10		3 Day 3		2 Week 2			
12	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, J		11 Day 11		4 Day 4		2 Week 2			
13	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, Ja		12 Day 12		5 Day 5		2 Week 2			
14	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, Ja		13 Day 13		6 Day 6		2 Week 2			
15	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, Ja		14 Day 14		7 Day 7		2 Week 2			
16	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, Ja		15 Day 15		1 Day 1		3 Week 3			
17	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, Ja		16 Day 16		2 Day 2		3 Week 3			
18	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, Ja		17 Day 17		3 Day 3		3 Week 3			
19	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, Ja		18 Day 18		4 Day 4		3 Week 3			
20	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, Ja		19 Day 19		5 Day 5		3 Week 3			
21	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, Ja		20 Day 20		6 Day 6		3 Week 3			
22	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, Ja		21 Day 21		7 Day 7		3 Week 3			
23	Quarter 1		1 Trimester		1 Semester	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, Ja		22 Day 22		1 Day 1		4 Week 4			

Although a Year attribute exists it is not in the proper year format (i.e., yyyy).

DimDate																						
PK_Date	Date_Nam	Year	Year_Nam	Half_Year	Half_Year	Quarter	Quarter_N	Trimester	Trimester	Month	Month_N	Ten_Days	Ten_Days	Week	Week_Na	Day_Of_Y	Day_Of					
01/01/1900 00:00	Monday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 1, 1	Day 1	1 Day 1					
02/01/1900 00:00	Tuesday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 1, 1	Day 2	2 Day 2					
03/01/1900 00:00	Wednesday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 1, 1	Day 3	3 Day 3					
04/01/1900 00:00	Thursday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 1, 1	Day 4	4 Day 4					
05/01/1900 00:00	Friday, Jar	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 1, 1	Day 5	5 Day 5					
06/01/1900 00:00	Saturday, Ja	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 1, 1	Day 6	6 Day 6					
07/01/1900 00:00	Sunday, Ja	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 2, 1	Day 7	7 Day 7					
08/01/1900 00:00	Monday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 2, 1	Day 8	8 Day 8					
09/01/1900 00:00	Tuesday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 2, 1	Day 9	9 Day 9					
10/01/1900 00:00	Wednesday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 2, 1	Day 10	10 Day 10					
11/01/1900 00:00	Thursday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 2, 1	Day 11	11 Day 11					
12/01/1900 00:00	Friday, Jar	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 2, 1	Day 12	12 Day 12					
13/01/1900 00:00	Saturday, Ja	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 2, 1	Day 13	13 Day 13					
14/01/1900 00:00	Sunday, Ja	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 3, 1	Day 14	14 Day 14					
15/01/1900 00:00	Monday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 3, 1	Day 15	15 Day 15					
16/01/1900 00:00	Tuesday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 3, 1	Day 16	16 Day 16					
17/01/1900 00:00	Wednesday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 3, 1	Day 17	17 Day 17					
18/01/1900 00:00	Thursday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 3, 1	Day 18	18 Day 18					
19/01/1900 00:00	Friday, Jar	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 3, 1	Day 19	19 Day 19					
20/01/1900 00:00	Saturday, Ja	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 3, 1	Day 20	20 Day 20					
21/01/1900 00:00	Sunday, Ja	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 4, 1	Day 21	21 Day 21					
22/01/1900 00:00	Monday, J	01/01/1900 00:00	01/01/1900 00:00	Calendar	Semester	Quarter	Quarter 1,	Trimester	January 19	Month	Month_N	Ten_Days	Ten_Days	Week	Week 4, 1	Day 22	22 Day 22					

Create a new column at the end of the existing columns (BS column), label it Year (yyyy) and introduce the following formula: Year(C2)

	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
1	Trimester	Half_Year	Half_Year	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)			
2	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, J		1 Day 1		1 Day 1		1 Week 1	=YEAR(C2)			
3	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, J		2 Day 2		2 Day 2		1 Week 1				
4	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday,		3 Day 3		3 Day 3		1 Week 1				
5	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday,		4 Day 4		4 Day 4		1 Week 1				
6	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, Jar		5 Day 5		5 Day 5		1 Week 1				
7	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday,		6 Day 6		6 Day 6		1 Week 1				
8	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, Ja		7 Day 7		7 Day 7		1 Week 1				
9	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, J		8 Day 8		1 Day 1		2 Week 2				
10	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, J		9 Day 9		2 Day 2		2 Week 2				
11	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday,		10 Day 10		3 Day 3		2 Week 2				
12	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday,		11 Day 11		4 Day 4		2 Week 2				
13	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, Jar		12 Day 12		5 Day 5		2 Week 2				
14	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday,		13 Day 13		6 Day 6		2 Week 2				
15	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, Ja		14 Day 14		7 Day 7		2 Week 2				
16	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, J		15 Day 15		1 Day 1		3 Week 3				
17	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, J		16 Day 16		2 Day 2		3 Week 3				
18	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday,		17 Day 17		3 Day 3		3 Week 3				
19	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday,		18 Day 18		4 Day 4		3 Week 3				
20	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, Jar		19 Day 19		5 Day 5		3 Week 3				
21	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday,		20 Day 20		6 Day 6		3 Week 3				
22	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, Ja		21 Day 21		7 Day 7		3 Week 3				
23	Trimester		1 Semester	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, J		22 Day 22		1 Day 1		4 Week 4				

Double click the right end cell corner (when the mouse pointer changes to a small cross) to copy the formula to the other cells.

	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
1	Trimester	Half_Year	Half_Year	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)			
2	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, J		1 Day 1		1 Day 1		1 Week 1	1900			
3	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, J		2 Day 2		2 Day 2		1 Week 1				
4	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday,		3 Day 3		3 Day 3		1 Week 1				
5	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday,		4 Day 4		4 Day 4		1 Week 1				
6	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, Jar		5 Day 5		5 Day 5		1 Week 1				
7	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday,		6 Day 6		6 Day 6		1 Week 1				
8	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, Ja		7 Day 7		7 Day 7		1 Week 1				
9	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, J		8 Day 8		1 Day 1		2 Week 2				
10	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, J		9 Day 9		2 Day 2		2 Week 2				
11	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday,		10 Day 10		3 Day 3		2 Week 2				
12	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday,		11 Day 11		4 Day 4		2 Week 2				
13	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, Jar		12 Day 12		5 Day 5		2 Week 2				
14	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday,		13 Day 13		6 Day 6		2 Week 2				
15	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, Ja		14 Day 14		7 Day 7		2 Week 2				
16	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, J		15 Day 15		1 Day 1		3 Week 3				
17	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, J		16 Day 16		2 Day 2		3 Week 3				
18	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday,		17 Day 17		3 Day 3		3 Week 3				
19	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday,		18 Day 18		4 Day 4		3 Week 3				
20	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, Jar		19 Day 19		5 Day 5		3 Week 3				
21	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday,		20 Day 20		6 Day 6		3 Week 3				
22	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, Ja		21 Day 21		7 Day 7		3 Week 3				
23	Trimester		1 Semester	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, J		22 Day 22		1 Day 1		4 Week 4				

The formula is automatically copied to the other cells.

DimDate																			
	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
1	Trimester	Half_Year	Half_Year	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)		
2	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, J		1 Day 1		1 Day 1		1 Week 1		1900		
3	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, J		2 Day 2		2 Day 2		1 Week 1		1900		
4	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday,		3 Day 3		3 Day 3		1 Week 1		1900		
5	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday,		4 Day 4		4 Day 4		1 Week 1		1900		
6	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, Jar		5 Day 5		5 Day 5		1 Week 1		1900		
7	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday,		6 Day 6		6 Day 6		1 Week 1		1900		
8	Trimester		1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, Ja		7 Day 7		7 Day 7		1 Week 1		1900		
9	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, J		8 Day 8		1 Day 1		2 Week 2		1900		
10	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, J		9 Day 9		2 Day 2		2 Week 2		1900		
11	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday,		10 Day 10		3 Day 3		2 Week 2		1900		
12	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday,		11 Day 11		4 Day 4		2 Week 2		1900		
13	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, Jar		12 Day 12		5 Day 5		2 Week 2		1900		
14	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday,		13 Day 13		6 Day 6		2 Week 2		1900		
15	Trimester		1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, Ja		14 Day 14		7 Day 7		2 Week 2		1900		
16	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, J		15 Day 15		1 Day 1		3 Week 3		1900		
17	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, J		16 Day 16		2 Day 2		3 Week 3		1900		
18	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday,		17 Day 17		3 Day 3		3 Week 3		1900		
19	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday,		18 Day 18		4 Day 4		3 Week 3		1900		
20	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, Jar		19 Day 19		5 Day 5		3 Week 3		1900		
21	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday,		20 Day 20		6 Day 6		3 Week 3		1900		
22	Trimester		1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, Ja		21 Day 21		7 Day 7		3 Week 3		1900		
23	Trimester		1 Semester	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, J		22 Day 22		1 Day 1		4 Week 4		1900		

Although a *Month Name* attribute exists it is not in the proper format (i.e., just the month name without the year).

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Year	Year_Nam	Half_Year	Half_Year	Quarter	Quarter_N	Trimester	Trimester	Month	Month_Name	Ten_Days	Ten_Days	Week	Week_Na	Day_Of_Y	Day_Of_Y	Day_Of_H	Day_Of_
2	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	####	1st Ten Da	#####	Week 1, 1	1 Day 1	1 Day 1		
3	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 1, 1	2 Day 2	2 Day 2		
4	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 1, 1	3 Day 3	3 Day 3		
5	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 1, 1	4 Day 4	4 Day 4		
6	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 1, 1	5 Day 5	5 Day 5		
7	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 1, 1	6 Day 6	6 Day 6		
8	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 2, 1	7 Day 7	7 Day 7		
9	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 2, 1	8 Day 8	8 Day 8		
10	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 2, 1	9 Day 9	9 Day 9		
11	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	1st Ten Da	#####	Week 2, 1	10 Day 10	10 Day 10		
12	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 2, 1	11 Day 11	11 Day 11		
13	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 2, 1	12 Day 12	12 Day 12		
14	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 2, 1	13 Day 13	13 Day 13		
15	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 3, 1	14 Day 14	14 Day 14		
16	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 3, 1	15 Day 15	15 Day 15		
17	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 3, 1	16 Day 16	16 Day 16		
18	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 3, 1	17 Day 17	17 Day 17		
19	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 3, 1	18 Day 18	18 Day 18		
20	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 3, 1	19 Day 19	19 Day 19		
21	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	2nd Ten D	#####	Week 3, 1	20 Day 20	20 Day 20		
22	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	3rd Ten Da	#####	Week 4, 1	21 Day 21	21 Day 21		
23	01/01/1900 00:00	Calendar	#####	Semester	#####	Quarter 1,	#####	Trimester	#####	January 1900	#####	3rd Ten Da	#####	Week 4, 1	22 Day 22	22 Day 22		

	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BO	Year (yyyy)	MonthName	
1	Half_Year	Half_Year	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	1900	=LEFT(L2;SEARCH(" ";L2)-1)	
2	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Monday, J		1 Day 1		1 Day 1		1 Week 1	1900	=LEFT(L2;SEARCH(" ";L2)-1)	
3	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Tuesday, J		2 Day 2		2 Day 2		1 Week 1	1900		
4	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Wednesday,		3 Day 3		3 Day 3		1 Week 1	1900		
5	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Thursday,		4 Day 4		4 Day 4		1 Week 1	1900		
6	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Friday, Ja		5 Day 5		5 Day 5		1 Week 1	1900		
7	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Saturday,		6 Day 6		6 Day 6		1 Week 1	1900		
8	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Sunday, Ja		7 Day 7		7 Day 7		1 Week 1	1900		
9	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Monday, J		8 Day 8		1 Day 1		2 Week 2	1900		
10	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Tuesday, J		9 Day 9		2 Day 2		2 Week 2	1900		
11	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Wednesday,		10 Day 10		3 Day 3		2 Week 2	1900		
12	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Thursday,		11 Day 11		4 Day 4		2 Week 2	1900		
13	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Friday, Ja		12 Day 12		5 Day 5		2 Week 2	1900		
14	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Saturday,		13 Day 13		6 Day 6		2 Week 2	1900		
15	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Sunday, Ja		14 Day 14		7 Day 7		2 Week 2	1900		
16	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Monday, J		15 Day 15		1 Day 1		3 Week 3	1900		
17	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Tuesday, J		16 Day 16		2 Day 2		3 Week 3	1900		
18	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Wednesday,		17 Day 17		3 Day 3		3 Week 3	1900		
19	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Thursday,		18 Day 18		4 Day 4		3 Week 3	1900		
20	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Friday, Ja		19 Day 19		5 Day 5		3 Week 3	1900		
21	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Saturday,		20 Day 20		6 Day 6		3 Week 3	1900		
22	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Sunday, Ja		21 Day 21		7 Day 7		3 Week 3	1900		
23	1 Semester	#####	ISO8601C	#####	Week 4, 1	#####	Monday, J		22 Day 22		1 Day 1		4 Week 4	1900		

Create a new column at the end of the existing columns (BT column), name it MonthName and introduce the following formula: `LEFT(L2;SEARCH(" ";L2)-1)`  
The formula extracts the left characters until the space position minus 1.

Double click the right end cell corner  
to copy the formula to the other cells.

DimDate																			
	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1	Half_Year	Half_Year	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName		
2	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Monday, J		1 Day 1		1 Day 1		1 Week 1		1900	January			
3	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Tuesday, J		2 Day 2		2 Day 2		1 Week 1		1900				
4	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Wednesday,		3 Day 3		3 Day 3		1 Week 1		1900				
5	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Thursday,		4 Day 4		4 Day 4		1 Week 1		1900				
6	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Friday, Ja		5 Day 5		5 Day 5		1 Week 1		1900				
7	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Saturday,		6 Day 6		6 Day 6		1 Week 1		1900				
8	1 Semester	#####	ISO8601C	#####	Week 1, 1	#####	Sunday, Ja		7 Day 7		7 Day 7		1 Week 1		1900				
9	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Monday, J		8 Day 8		1 Day 1		2 Week 2		1900				
10	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Tuesday, J		9 Day 9		2 Day 2		2 Week 2		1900				
11	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Wednesday,		10 Day 10		3 Day 3		2 Week 2		1900				
12	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Thursday,		11 Day 11		4 Day 4		2 Week 2		1900				
13	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Friday, Ja		12 Day 12		5 Day 5		2 Week 2		1900				
14	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Saturday,		13 Day 13		6 Day 6		2 Week 2		1900				
15	1 Semester	#####	ISO8601C	#####	Week 2, 1	#####	Sunday, Ja		14 Day 14		7 Day 7		2 Week 2		1900				
16	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Monday, J		15 Day 15		1 Day 1		3 Week 3		1900				
17	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Tuesday, J		16 Day 16		2 Day 2		3 Week 3		1900				
18	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Wednesday,		17 Day 17		3 Day 3		3 Week 3		1900				
19	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Thursday,		18 Day 18		4 Day 4		3 Week 3		1900				
20	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Friday, Ja		19 Day 19		5 Day 5		3 Week 3		1900				
21	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Saturday,		20 Day 20		6 Day 6		3 Week 3		1900				
22	1 Semester	#####	ISO8601C	#####	Week 3, 1	#####	Sunday, Ja		21 Day 21		7 Day 7		3 Week 3		1900				
23	1 Semester	#####	ISO8601C	#####	Week 4, 1	#####	Monday, J		22 Day 22		1 Day 1		4 Week 4		1900				

The formula is automatically copied to the other cells.

	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1	Half_Year	Half_Year	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName			
2	1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, J		1 Day 1		1 Day 1		1 Week 1		1900	January			
3	1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, J		2 Day 2		2 Day 2		1 Week 1		1900	January			
4	1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday,		3 Day 3		3 Day 3		1 Week 1		1900	January			
5	1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday,		4 Day 4		4 Day 4		1 Week 1		1900	January			
6	1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, Ja		5 Day 5		5 Day 5		1 Week 1		1900	January			
7	1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday,		6 Day 6		6 Day 6		1 Week 1		1900	January			
8	1 Semester	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, Ja		7 Day 7		7 Day 7		1 Week 1		1900	January			
9	1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, J		8 Day 8		1 Day 1		2 Week 2		1900	January			
10	1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, J		9 Day 9		2 Day 2		2 Week 2		1900	January			
11	1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday,		10 Day 10		3 Day 3		2 Week 2		1900	January			
12	1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday,		11 Day 11		4 Day 4		2 Week 2		1900	January			
13	1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, Ja		12 Day 12		5 Day 5		2 Week 2		1900	January			
14	1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday,		13 Day 13		6 Day 6		2 Week 2		1900	January			
15	1 Semester	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, Ja		14 Day 14		7 Day 7		2 Week 2		1900	January			
16	1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, J		15 Day 15		1 Day 1		3 Week 3		1900	January			
17	1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, J		16 Day 16		2 Day 2		3 Week 3		1900	January			
18	1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday,		17 Day 17		3 Day 3		3 Week 3		1900	January			
19	1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday,		18 Day 18		4 Day 4		3 Week 3		1900	January			
20	1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, Ja		19 Day 19		5 Day 5		3 Week 3		1900	January			
21	1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday,		20 Day 20		6 Day 6		3 Week 3		1900	January			
22	1 Semester	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, Ja		21 Day 21		7 Day 7		3 Week 3		1900	January			
23	1 Semester	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, J		22 Day 22		1 Day 1		4 Week 4		1900	January			

An attribute just containing the day of the week (i.e., without the date) is also missing. Create a new column at the end of the existing columns (BU column) labeled as *DayOfWeek* and introduce *Monday* in the first cell followed by *Tuesday* in the second cell. Automatically all the remaining values appear, and you need just to accept them by an *Enter*.

	BG	BH	BI	BJ	BK	BL	BM	BN	ISO_8601_1	ISO_8601_2	ISO_8601_3	ISO_8601_4	ISO_8601_5	ISO_8601_6	ISO_8601_7	ISO_8601_8	ISO_8601_9	ISO_8601_10	ISO_8601_11	ISO_8601_12	Year (yyyy)	MonthName	DayOfWeek	
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	1900	January		
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900	1	Day 1														1900	January	Monday
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900	2	Day 2														1900	January	Tuesday
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900	3	Day 3														1900	January	Wednesday
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900	4	Day 4														1900	January	Thursday
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900	5	Day 5														1900	January	Friday
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900	6	Day 6														1900	January	Saturday
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900	7	Day 7														1900	January	Sunday
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900	8	Day 8														1900	January	Monday
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900	9	Day 9														1900	January	Tuesday
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900	10	Day 10														1900	January	Wednesday
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900	11	Day 11														1900	January	Thursday
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900	12	Day 12														1900	January	Friday
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900	13	Day 13														1900	January	Saturday
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900	14	Day 14														1900	January	Sunday
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900	15	Day 15														1900	January	Monday
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900	16	Day 16														1900	January	Tuesday
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900	17	Day 17														1900	January	Wednesday
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900	18	Day 18														1900	January	Thursday
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900	19	Day 19														1900	January	Friday
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900	20	Day 20														1900	January	Saturday
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900	21	Day 21														1900	January	Sunday
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900	22	Day 22														1900	January	Monday

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Calibri 11 A A Wrap Text General Conditional Formatting Merge & Center Number Cell Styles Insert Delete Format AutoSum Fill Clear Sort & Filter Select

Font Alignment Number Styles Cells Editing

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	Year (yyyy)	MonthName	DayOfWeek							
2	#####	ISO8601C	#####	Week 1, 1	#####	Monday, January 01 1900		1	Day 1		1	Day 1		1	Week 1	1900	January
3	#####	ISO8601C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2	Day 2		2	Day 2		1	Week 1	1900	January
4	#####	ISO8601C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3	Day 3		3	Day 3		1	Week 1	1900	January
5	#####	ISO8601C	#####	Week 1, 1	#####	Thursday, January 04 1900		4	Day 4		4	Day 4		1	Week 1	1900	January
6	#####	ISO8601C	#####	Week 1, 1	#####	Friday, January 05 1900		5	Day 5		5	Day 5		1	Week 1	1900	January
7	#####	ISO8601C	#####	Week 1, 1	#####	Saturday, January 06 1900		6	Day 6		6	Day 6		1	Week 1	1900	January
8	#####	ISO8601C	#####	Week 1, 1	#####	Sunday, January 07 1900		7	Day 7		7	Day 7		1	Week 1	1900	January
9	#####	ISO8601C	#####	Week 2, 1	#####	Monday, January 08 1900		8	Day 8		1	Day 1		2	Week 2	1900	January
10	#####	ISO8601C	#####	Week 2, 1	#####	Tuesday, January 09 1900		9	Day 9		2	Day 2		2	Week 2	1900	January
11	#####	ISO8601C	#####	Week 2, 1	#####	Wednesday, January 10 1900		10	Day 10		3	Day 3		2	Week 2	1900	January
12	#####	ISO8601C	#####	Week 2, 1	#####	Thursday, January 11 1900		11	Day 11		4	Day 4		2	Week 2	1900	January
13	#####	ISO8601C	#####	Week 2, 1	#####	Friday, January 12 1900		12	Day 12		5	Day 5		2	Week 2	1900	January
14	#####	ISO8601C	#####	Week 2, 1	#####	Saturday, January 13 1900		13	Day 13		6	Day 6		2	Week 2	1900	January
15	#####	ISO8601C	#####	Week 2, 1	#####	Sunday, January 14 1900		14	Day 14		7	Day 7		2	Week 2	1900	January
16	#####	ISO8601C	#####	Week 3, 1	#####	Monday, January 15 1900		15	Day 15		1	Day 1		3	Week 3	1900	January
17	#####	ISO8601C	#####	Week 3, 1	#####	Tuesday, January 16 1900		16	Day 16		2	Day 2		3	Week 3	1900	January
18	#####	ISO8601C	#####	Week 3, 1	#####	Wednesday, January 17 1900		17	Day 17		3	Day 3		3	Week 3	1900	January
19	#####	ISO8601C	#####	Week 3, 1	#####	Thursday, January 18 1900		18	Day 18		4	Day 4		3	Week 3	1900	January
20	#####	ISO8601C	#####	Week 3, 1	#####	Friday, January 19 1900		19	Day 19		5	Day 5		3	Week 3	1900	January
21	#####	ISO8601C	#####	Week 3, 1	#####	Saturday, January 20 1900		20	Day 20		6	Day 6		3	Week 3	1900	January
22	#####	ISO8601C	#####	Week 3, 1	#####	Sunday, January 21 1900		21	Day 21		7	Day 7		3	Week 3	1900	January
23	#####	ISO8601C	#####	Week 4, 1	#####	Monday, January 22 1900		22	Day 22		1	Day 1		4	Week 4	1900	January

An attribute for the *Weekend* is also missing. Create a new column at the end of the existing columns (BV column) labeled as *Weekend* and introduce *No* in the first cell (given that it is a Monday). Drag/copy the value (i.e., *No*) for the next four cells (until Friday).

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName	DayOfWeek	Weekend		
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900		1	Day 1		1	Day 1		1	Week 1	1900	January	Monday
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2	Day 2		2	Day 2		1	Week 1	1900	January	Tuesday
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3	Day 3		3	Day 3		1	Week 1	1900	January	Wednesday
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900		4	Day 4		4	Day 4		1	Week 1	1900	January	Thursday
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900		5	Day 5		5	Day 5		1	Week 1	1900	January	Friday
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900		6	Day 6		6	Day 6		1	Week 1	1900	January	Saturday
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900		7	Day 7		7	Day 7		1	Week 1	1900	January	Sunday
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900		8	Day 8		1	Day 1		2	Week 2	1900	January	Monday
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900		9	Day 9		2	Day 2		2	Week 2	1900	January	Tuesday
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900		10	Day 10		3	Day 3		2	Week 2	1900	January	Wednesday
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900		11	Day 11		4	Day 4		2	Week 2	1900	January	Thursday
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900		12	Day 12		5	Day 5		2	Week 2	1900	January	Friday
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900		13	Day 13		6	Day 6		2	Week 2	1900	January	Saturday
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900		14	Day 14		7	Day 7		2	Week 2	1900	January	Sunday
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900		15	Day 15		1	Day 1		3	Week 3	1900	January	Monday
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900		16	Day 16		2	Day 2		3	Week 3	1900	January	Tuesday
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900		17	Day 17		3	Day 3		3	Week 3	1900	January	Wednesday
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900		18	Day 18		4	Day 4		3	Week 3	1900	January	Thursday
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900		19	Day 19		5	Day 5		3	Week 3	1900	January	Friday
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900		20	Day 20		6	Day 6		3	Week 3	1900	January	Saturday
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900		21	Day 21		7	Day 7		3	Week 3	1900	January	Sunday
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900		22	Day 22		1	Day 1		4	Week 4	1900	January	Monday

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Font Alignment Number Styles Cells Editing

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName	DayOfWeek	Weekend		
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900		1	Day 1		1	Day 1	1	Week 1	1900	January	Monday	No
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2	Day 2		2	Day 2	1	Week 1	1900	January	Tuesday	No
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3	Day 3		3	Day 3	1	Week 1	1900	January	Wednesday	No
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900		4	Day 4		4	Day 4	1	Week 1	1900	January	Thursday	No
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900		5	Day 5		5	Day 5	1	Week 1	1900	January	Friday	No
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900		6	Day 6		6	Day 6	1	Week 1	1900	January	Saturday	
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900		7	Day 7		7	Day 7	1	Week 1	1900	January	Sunday	
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900		8	Day 8		1	Day 1	2	Week 2	1900	January	Monday	
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900		9	Day 9		2	Day 2	2	Week 2	1900	January	Tuesday	
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900		10	Day 10		3	Day 3	2	Week 2	1900	January	Wednesday	
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900		11	Day 11		4	Day 4	2	Week 2	1900	January	Thursday	
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900		12	Day 12		5	Day 5	2	Week 2	1900	January	Friday	
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900		13	Day 13		6	Day 6	2	Week 2	1900	January	Saturday	
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900		14	Day 14		7	Day 7	2	Week 2	1900	January	Sunday	
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900		15	Day 15		1	Day 1	3	Week 3	1900	January	Monday	
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900		16	Day 16		2	Day 2	3	Week 3	1900	January	Tuesday	
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900		17	Day 17		3	Day 3	3	Week 3	1900	January	Wednesday	
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900		18	Day 18		4	Day 4	3	Week 3	1900	January	Thursday	
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900		19	Day 19		5	Day 5	3	Week 3	1900	January	Friday	
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900		20	Day 20		6	Day 6	3	Week 3	1900	January	Saturday	
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900		21	Day 21		7	Day 7	3	Week 3	1900	January	Sunday	
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900		22	Day 22		1	Day 1	4	Week 4	1900	January	Monday	

Introduce the values Yes  
for Saturday and Sunday.

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName	DayOfWeek	Weekend	
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900		1 Day 1		1 Day 1		1 Week 1		1900 January	Monday	No	
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2 Day 2		2 Day 2		1 Week 1		1900 January	Tuesday	No	
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3 Day 3		3 Day 3		1 Week 1		1900 January	Wednesday	No	
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900		4 Day 4		4 Day 4		1 Week 1		1900 January	Thursday	No	
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900		5 Day 5		5 Day 5		1 Week 1		1900 January	Friday	No	
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900		6 Day 6		6 Day 6		1 Week 1		1900 January	Saturday	Yes	
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900		7 Day 7		7 Day 7		1 Week 1		1900 January	Sunday	Yes	
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900		8 Day 8		1 Day 1		2 Week 2		1900 January	Monday		
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900		9 Day 9		2 Day 2		2 Week 2		1900 January	Tuesday		
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900		10 Day 10		3 Day 3		2 Week 2		1900 January	Wednesday		
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900		11 Day 11		4 Day 4		2 Week 2		1900 January	Thursday		
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900		12 Day 12		5 Day 5		2 Week 2		1900 January	Friday		
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900		13 Day 13		6 Day 6		2 Week 2		1900 January	Saturday		
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900		14 Day 14		7 Day 7		2 Week 2		1900 January	Sunday		
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900		15 Day 15		1 Day 1		3 Week 3		1900 January	Monday		
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900		16 Day 16		2 Day 2		3 Week 3		1900 January	Tuesday		
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900		17 Day 17		3 Day 3		3 Week 3		1900 January	Wednesday		
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900		18 Day 18		4 Day 4		3 Week 3		1900 January	Thursday		
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900		19 Day 19		5 Day 5		3 Week 3		1900 January	Friday		
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900		20 Day 20		6 Day 6		3 Week 3		1900 January	Saturday		
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900		21 Day 21		7 Day 7		3 Week 3		1900 January	Sunday		
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900		22 Day 22		1 Day 1		4 Week 4		1900 January	Monday		

Select all the values and double click on the right end cell corner to copy the values to the other cells.

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName	DayOfWeek	Weekend	
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900		1 Day 1		1 Day 1		1 Week 1		1900 January	Monday	No	
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2 Day 2		2 Day 2		1 Week 1		1900 January	Tuesday	No	
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3 Day 3		3 Day 3		1 Week 1		1900 January	Wednesday	No	
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900		4 Day 4		4 Day 4		1 Week 1		1900 January	Thursday	No	
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900		5 Day 5		5 Day 5		1 Week 1		1900 January	Friday	No	
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900		6 Day 6		6 Day 6		1 Week 1		1900 January	Saturday	Yes	
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900		7 Day 7		7 Day 7		1 Week 1		1900 January	Sunday	Yes	
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900		8 Day 8		1 Day 1		2 Week 2		1900 January	Monday		
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900		9 Day 9		2 Day 2		2 Week 2		1900 January	Tuesday		
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900		10 Day 10		3 Day 3		2 Week 2		1900 January	Wednesday		
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900		11 Day 11		4 Day 4		2 Week 2		1900 January	Thursday		
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900		12 Day 12		5 Day 5		2 Week 2		1900 January	Friday		
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900		13 Day 13		6 Day 6		2 Week 2		1900 January	Saturday		
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900		14 Day 14		7 Day 7		2 Week 2		1900 January	Sunday		
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900		15 Day 15		1 Day 1		3 Week 3		1900 January	Monday		
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900		16 Day 16		2 Day 2		3 Week 3		1900 January	Tuesday		
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900		17 Day 17		3 Day 3		3 Week 3		1900 January	Wednesday		
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900		18 Day 18		4 Day 4		3 Week 3		1900 January	Thursday		
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900		19 Day 19		5 Day 5		3 Week 3		1900 January	Friday		
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900		20 Day 20		6 Day 6		3 Week 3		1900 January	Saturday		
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900		21 Day 21		7 Day 7		3 Week 3		1900 January	Sunday		
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900		22 Day 22		1 Day 1		4 Week 4		1900 January	Monday		

The sequence is automatically copied to the other cells.

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName	DayOfWeek	Weekend	
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900		1 Day 1		1 Day 1		1 Week 1		1900 January	Monday	No	
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2 Day 2		2 Day 2		1 Week 1		1900 January	Tuesday	No	
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3 Day 3		3 Day 3		1 Week 1		1900 January	Wednesday	No	
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900		4 Day 4		4 Day 4		1 Week 1		1900 January	Thursday	No	
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900		5 Day 5		5 Day 5		1 Week 1		1900 January	Friday	No	
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900		6 Day 6		6 Day 6		1 Week 1		1900 January	Saturday	Yes	
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900		7 Day 7		7 Day 7		1 Week 1		1900 January	Sunday	Yes	
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900		8 Day 8		1 Day 1		2 Week 2		1900 January	Monday	No	
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900		9 Day 9		2 Day 2		2 Week 2		1900 January	Tuesday	No	
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900		10 Day 10		3 Day 3		2 Week 2		1900 January	Wednesday	No	
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900		11 Day 11		4 Day 4		2 Week 2		1900 January	Thursday	No	
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900		12 Day 12		5 Day 5		2 Week 2		1900 January	Friday	No	
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900		13 Day 13		6 Day 6		2 Week 2		1900 January	Saturday	Yes	
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900		14 Day 14		7 Day 7		2 Week 2		1900 January	Sunday	Yes	
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900		15 Day 15		1 Day 1		3 Week 3		1900 January	Monday	No	
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900		16 Day 16		2 Day 2		3 Week 3		1900 January	Tuesday	No	
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900		17 Day 17		3 Day 3		3 Week 3		1900 January	Wednesday	No	
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900		18 Day 18		4 Day 4		3 Week 3		1900 January	Thursday	No	
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900		19 Day 19		5 Day 5		3 Week 3		1900 January	Friday	No	
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900		20 Day 20		6 Day 6		3 Week 3		1900 January	Saturday	Yes	
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900		21 Day 21		7 Day 7		3 Week 3		1900 January	Sunday	Yes	
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900		22 Day 22		1 Day 1		4 Week 4		1900 January	Monday	No	

Save the DimDate.csv file.

The screenshot shows a Microsoft Excel spreadsheet titled "DimDate.csv - Excel". The ribbon at the top includes tabs for File, Home, Insert, Page Layout, Formulas, Data, Review, View, Developer, Team, and a "Tell me what you want to do..." search bar. The "File" tab is highlighted with a red arrow pointing to it. A yellow callout bubble on the right side of the ribbon says "Save the DimDate.csv file." The main content area displays a table with 23 rows and 19 columns. The columns are labeled BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, and BW. The first row contains labels for ISO\_8601-related fields. Subsequent rows provide data for each day of January 1900, including ISO\_8601 codes, week numbers, days of the month, years, month names, day names, and various flags like DayOfWeek and Weekend. The table is styled with standard Excel fonts and colors, and the "DimDate" tab is selected at the bottom.

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW		
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName	DayOfWeek	Weekend			
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900		1	Day 1		1	Day 1		1	Week 1	1900	January	Monday	No
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2	Day 2		2	Day 2		1	Week 1	1900	January	Tuesday	No
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3	Day 3		3	Day 3		1	Week 1	1900	January	Wednesday	No
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900		4	Day 4		4	Day 4		1	Week 1	1900	January	Thursday	No
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900		5	Day 5		5	Day 5		1	Week 1	1900	January	Friday	No
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900		6	Day 6		6	Day 6		1	Week 1	1900	January	Saturday	Yes
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900		7	Day 7		7	Day 7		1	Week 1	1900	January	Sunday	Yes
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900		8	Day 8		1	Day 1		2	Week 2	1900	January	Monday	No
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900		9	Day 9		2	Day 2		2	Week 2	1900	January	Tuesday	No
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900		10	Day 10		3	Day 3		2	Week 2	1900	January	Wednesday	No
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900		11	Day 11		4	Day 4		2	Week 2	1900	January	Thursday	No
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900		12	Day 12		5	Day 5		2	Week 2	1900	January	Friday	No
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900		13	Day 13		6	Day 6		2	Week 2	1900	January	Saturday	Yes
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900		14	Day 14		7	Day 7		2	Week 2	1900	January	Sunday	Yes
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900		15	Day 15		1	Day 1		3	Week 3	1900	January	Monday	No
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900		16	Day 16		2	Day 2		3	Week 3	1900	January	Tuesday	No
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900		17	Day 17		3	Day 3		3	Week 3	1900	January	Wednesday	No
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900		18	Day 18		4	Day 4		3	Week 3	1900	January	Thursday	No
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900		19	Day 19		5	Day 5		3	Week 3	1900	January	Friday	No
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900		20	Day 20		6	Day 6		3	Week 3	1900	January	Saturday	Yes
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900		21	Day 21		7	Day 7		3	Week 3	1900	January	Sunday	Yes
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900		22	Day 22		1	Day 1		4	Week 4	1900	January	Monday	No

Confirm the save as a CSV file.

File Home Insert Page Layout Formulas Data Review View Developer Team Tell me what you want to do...

Calibri 11 A A Wrap Text General Conditional Formatting Merge & Center % , Number Cell Styles Insert Delete Format Cells Sort & Find & Filter Clear Editing

Font Alignment Number Styles Cells Editing

BG1 ISO\_8601\_Year

	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
1	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601_Day_Name	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	ISO_8601	Year (yyyy)	MonthName	DayOfWeek	Weekend	
2	#####	ISO8601 C	#####	Week 1, 1	#####	Monday, January 01 1900		1 Day 1		1 Day 1		1 Week 1		1900 January	Monday	No	
3	#####	ISO8601 C	#####	Week 1, 1	#####	Tuesday, January 02 1900		2 Day 2		2 Day 2		1 Week 1		1900 January	Tuesday	No	
4	#####	ISO8601 C	#####	Week 1, 1	#####	Wednesday, January 03 1900		3 Day 3		3 Day 3		1 Week 1		1900 January	Wednesday	No	
5	#####	ISO8601 C	#####	Week 1, 1	#####	Thursday, January 04 1900								1900 January	Thursday	No	
6	#####	ISO8601 C	#####	Week 1, 1	#####	Friday, January 05 1900								1900 January	Friday	No	
7	#####	ISO8601 C	#####	Week 1, 1	#####	Saturday, January 06 1900								1900 January	Saturday	Yes	
8	#####	ISO8601 C	#####	Week 1, 1	#####	Sunday, January 07 1900								1900 January	Sunday	Yes	
9	#####	ISO8601 C	#####	Week 2, 1	#####	Monday, January 08 1900								1900 January	Monday	No	
10	#####	ISO8601 C	#####	Week 2, 1	#####	Tuesday, January 09 1900		10 Day 10		3 Day 3		2 Week 2		1900 January	Tuesday	No	
11	#####	ISO8601 C	#####	Week 2, 1	#####	Wednesday, January 10 1900		11 Day 11		4 Day 4		2 Week 2		1900 January	Wednesday	No	
12	#####	ISO8601 C	#####	Week 2, 1	#####	Thursday, January 11 1900		12 Day 12		5 Day 5		2 Week 2		1900 January	Thursday	No	
13	#####	ISO8601 C	#####	Week 2, 1	#####	Friday, January 12 1900		13 Day 13		6 Day 6		2 Week 2		1900 January	Friday	No	
14	#####	ISO8601 C	#####	Week 2, 1	#####	Saturday, January 13 1900		14 Day 14		7 Day 7		2 Week 2		1900 January	Saturday	Yes	
15	#####	ISO8601 C	#####	Week 2, 1	#####	Sunday, January 14 1900		15 Day 15		1 Day 1		3 Week 3		1900 January	Sunday	Yes	
16	#####	ISO8601 C	#####	Week 3, 1	#####	Monday, January 15 1900		16 Day 16		2 Day 2		3 Week 3		1900 January	Monday	No	
17	#####	ISO8601 C	#####	Week 3, 1	#####	Tuesday, January 16 1900		17 Day 17		3 Day 3		3 Week 3		1900 January	Tuesday	No	
18	#####	ISO8601 C	#####	Week 3, 1	#####	Wednesday, January 17 1900		18 Day 18		4 Day 4		3 Week 3		1900 January	Wednesday	No	
19	#####	ISO8601 C	#####	Week 3, 1	#####	Thursday, January 18 1900		19 Day 19		5 Day 5		3 Week 3		1900 January	Thursday	No	
20	#####	ISO8601 C	#####	Week 3, 1	#####	Friday, January 19 1900		20 Day 20		6 Day 6		3 Week 3		1900 January	Friday	No	
21	#####	ISO8601 C	#####	Week 3, 1	#####	Saturday, January 20 1900		21 Day 21		7 Day 7		3 Week 3		1900 January	Saturday	Yes	
22	#####	ISO8601 C	#####	Week 3, 1	#####	Sunday, January 21 1900		22 Day 22		1 Day 1		4 Week 4		1900 January	Sunday	Yes	
23	#####	ISO8601 C	#####	Week 4, 1	#####	Monday, January 22 1900								1900 January	Monday	No	

DimDate

Microsoft Excel

Some features in your workbook might be lost if you save it as CSV (Comma delimited).  
Do you want to keep using that format?

Yes No Help

Start Page - Microsoft Visual Studio

File Edit View Project Debug Team Tools Test Analyze Window Help

Quick Launch (Ctrl+Q)

Start Page

**Get Started**

Build your first app in 5 minutes!

Maximize your productivity with these tips and tricks for Visual Studio

Take advantage of the newest technologies to deploy beautiful, low-cost and reliable websites

Develop modern, fully-native, Android and iOS apps

Produce more, fix faster and deliver updates seamlessly

**Recent**

This week

- Data Mart.sln**  
D:\Temp\ARPAD\Data Mart
- Create Date Dimension 2.sln**  
D:\Temp\ARPAD\Create Date Dimension 2
- Create CSV Date Dimension.sln**  
D:\Temp\ARPAD\Create CSV Date Dimension

**Open**

Get code from a remote version control system or open something on your local drive.

Checkout from:

- Azure DevOps

---

- Open Project / Solution**
- Open Folder**

**New project**

Search project templates

Recent project templates:

- Analysis Services M... Analysis Services
- Integration Serv... Business Intelligence
- Analysis Services M... Analysis Services

Create new project...

Next you will use the data from the *CSV Date* dimension (now including all the needed attributes) to load the *Date* dimension of the *Data Mart* project.

**Developer News**

Visual Studio 2019 v16.8 and v16.9 Preview 1 Release  
Visual Studio team is proud to announce the release of Visual Studio 2019 v16.8 and v16.9 Preview 1. These releases have several notable f...  
NEW 12 de novembro de 2020

Announcing the Release of the Git Experience in Visual Studio  
We're excited to announce that our new Git tooling is now the default source control experience in Visual Studio 2019, beginning wit...  
NEW 12 de novembro de 2020

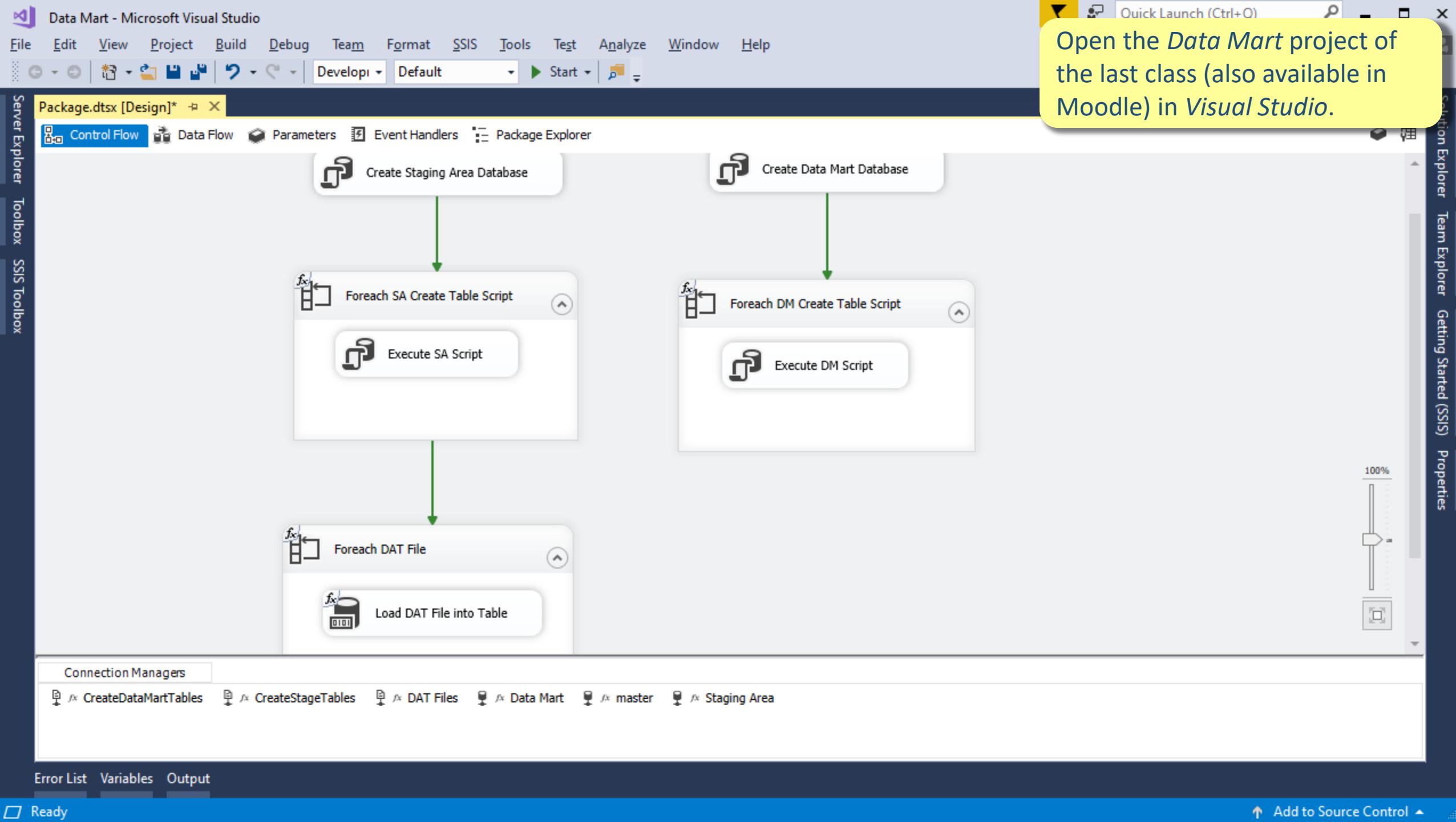
Announcing .NET 5.0  
We're excited to release .NET 5.0 today and for you to start using it. It's a major release — including C# 9 and F# 5 — with a broad set of n...  
NEW 12 de novembro de 2020

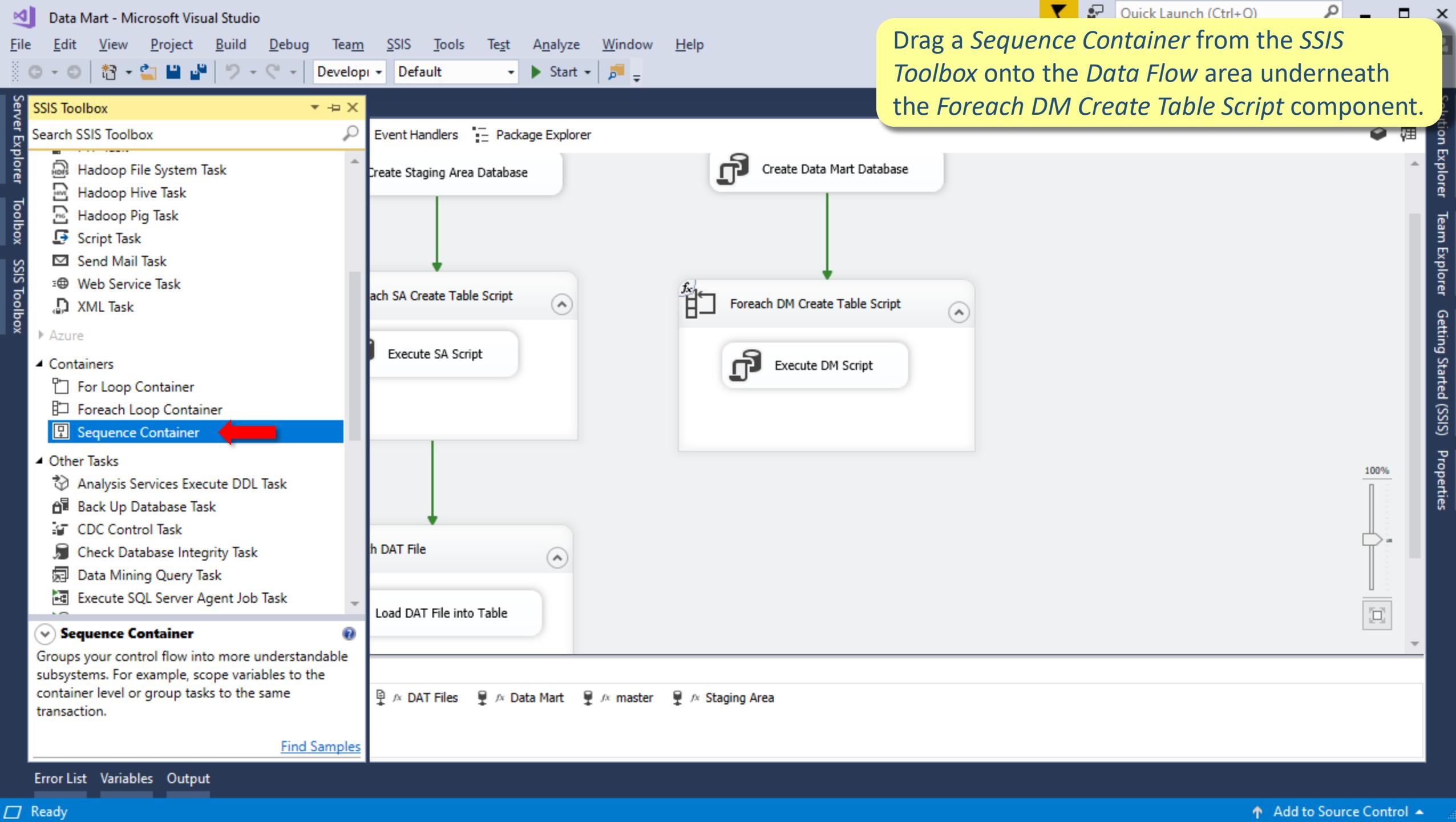
Announcing ASP.NET Core in .NET 5

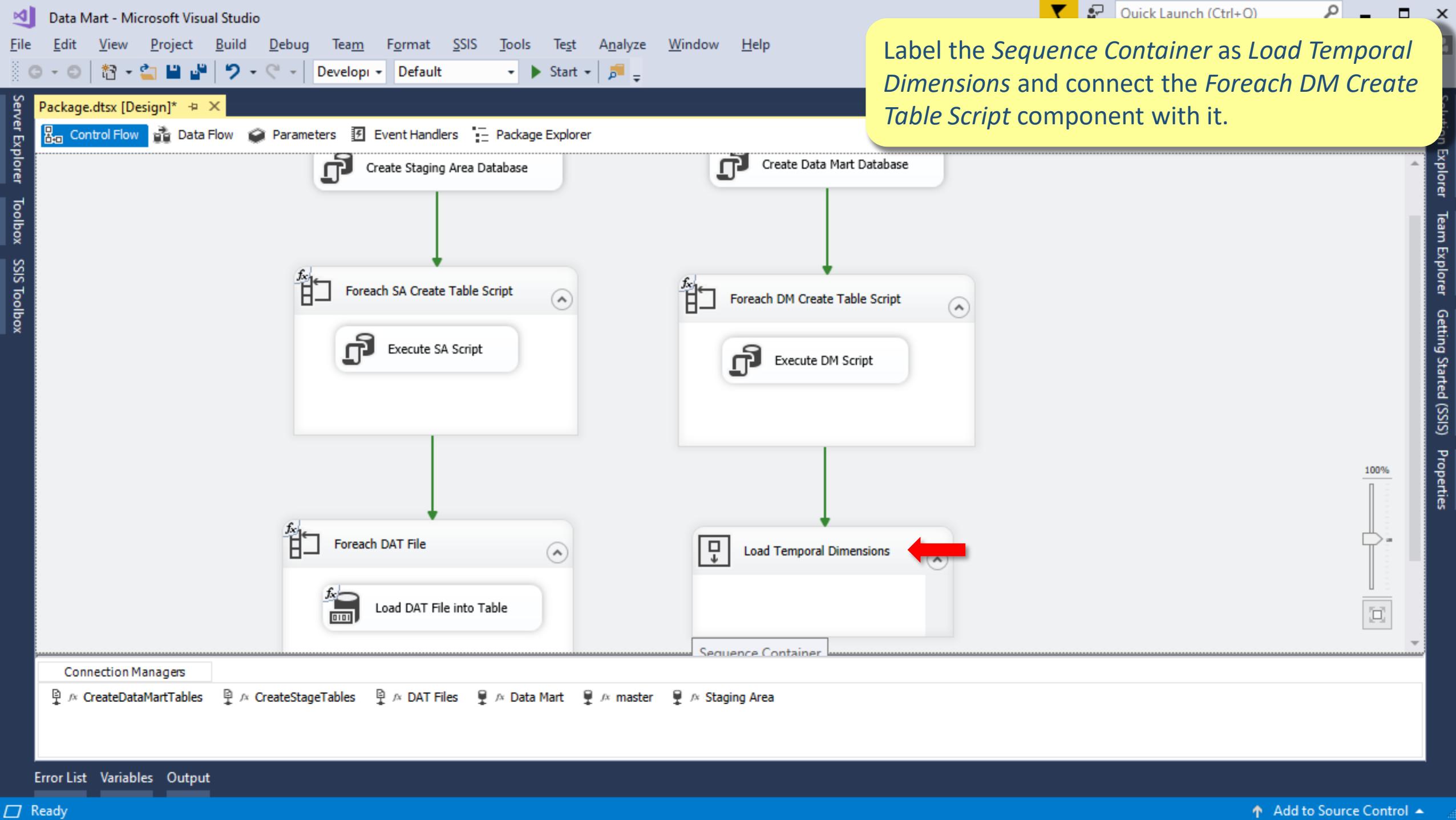
More news...

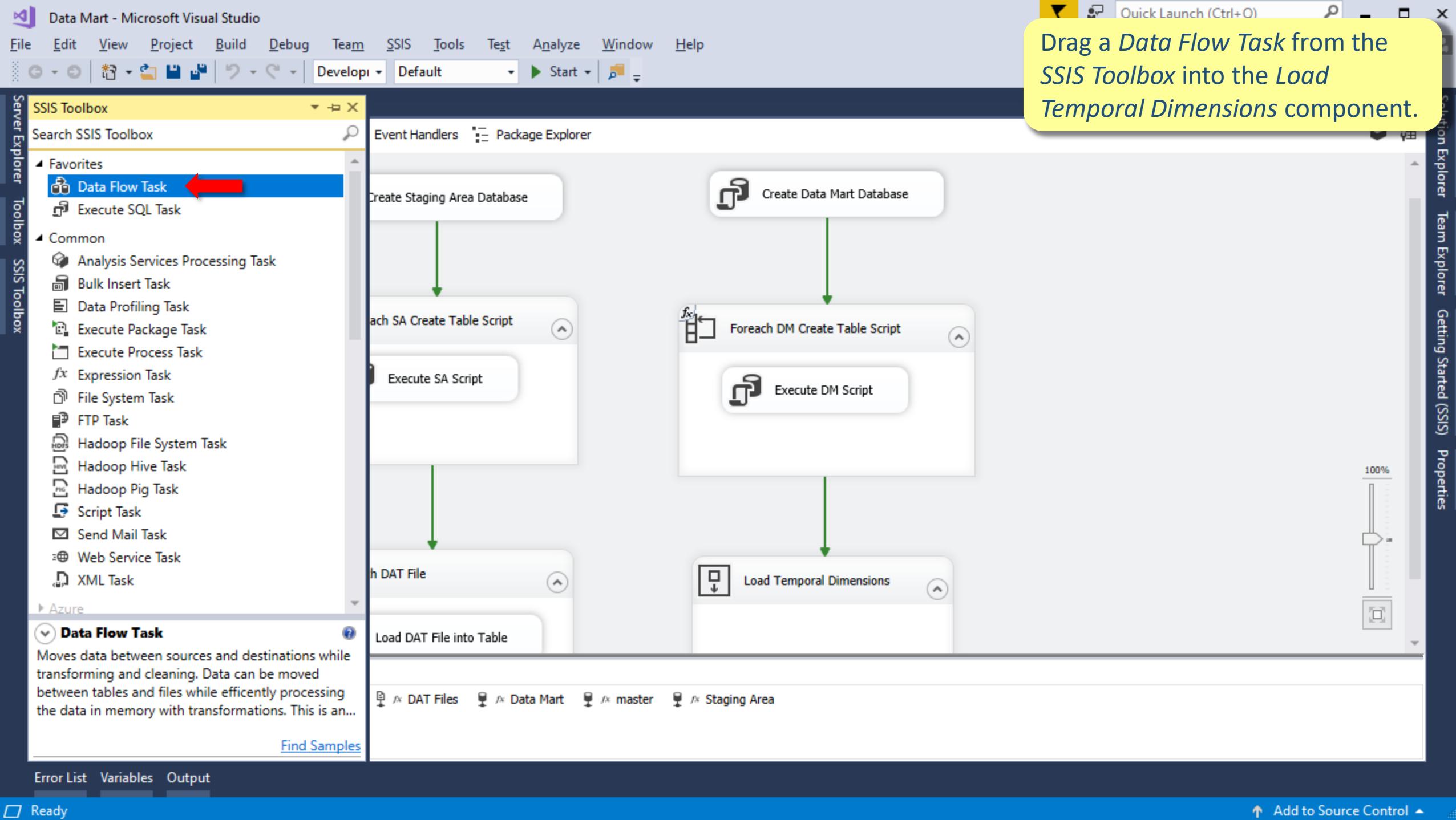
Error List Variables Output

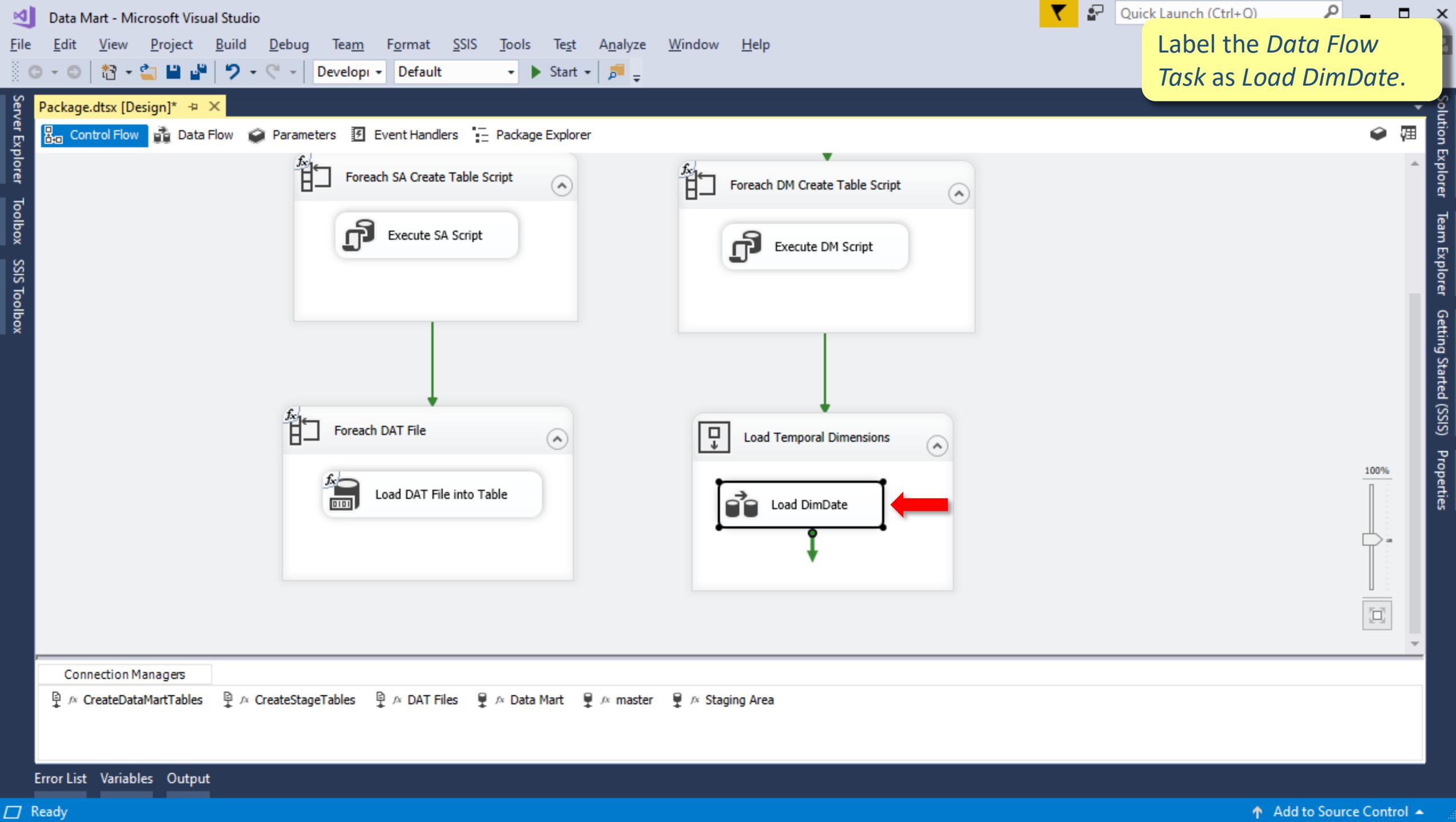
Ready

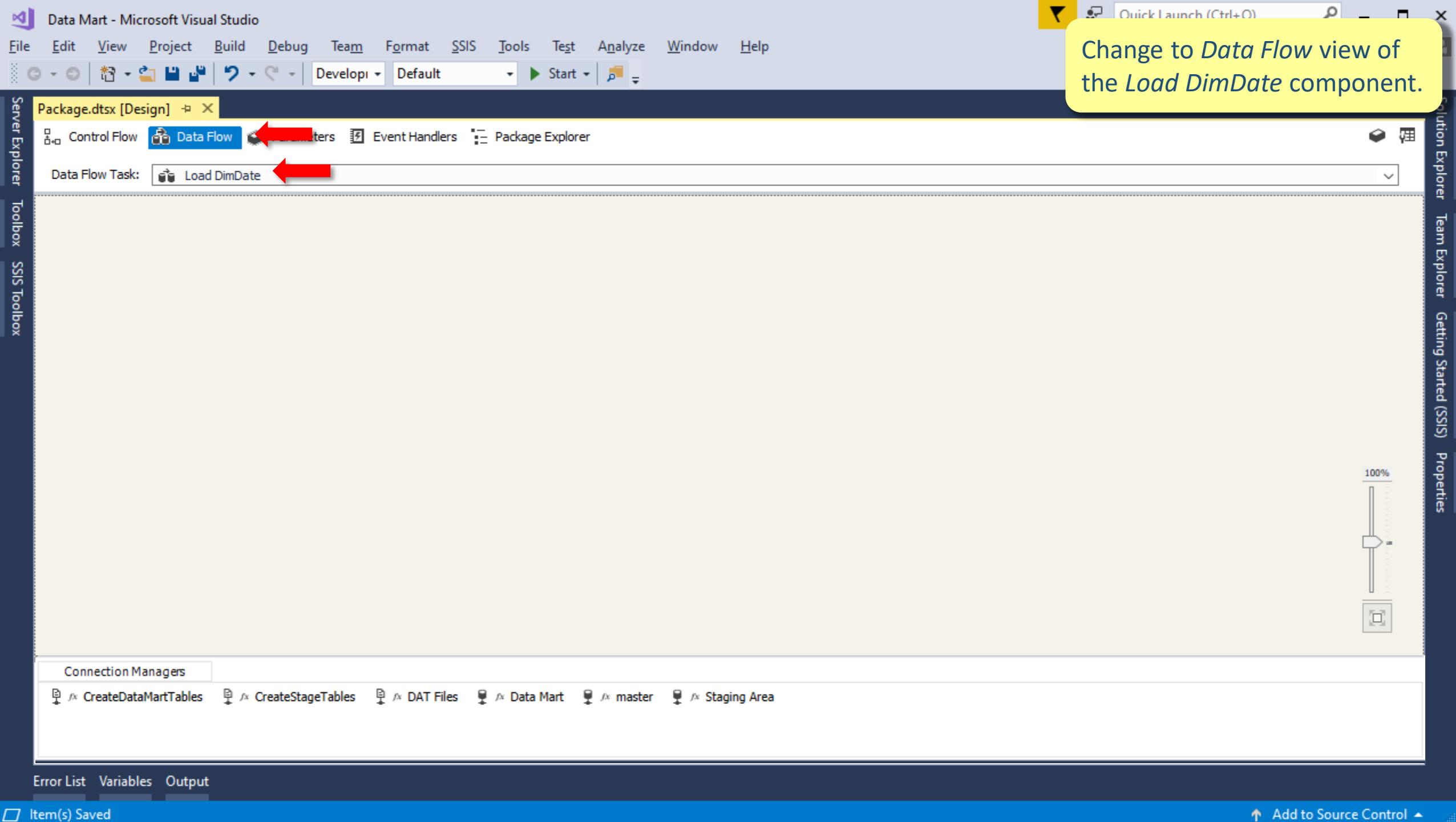






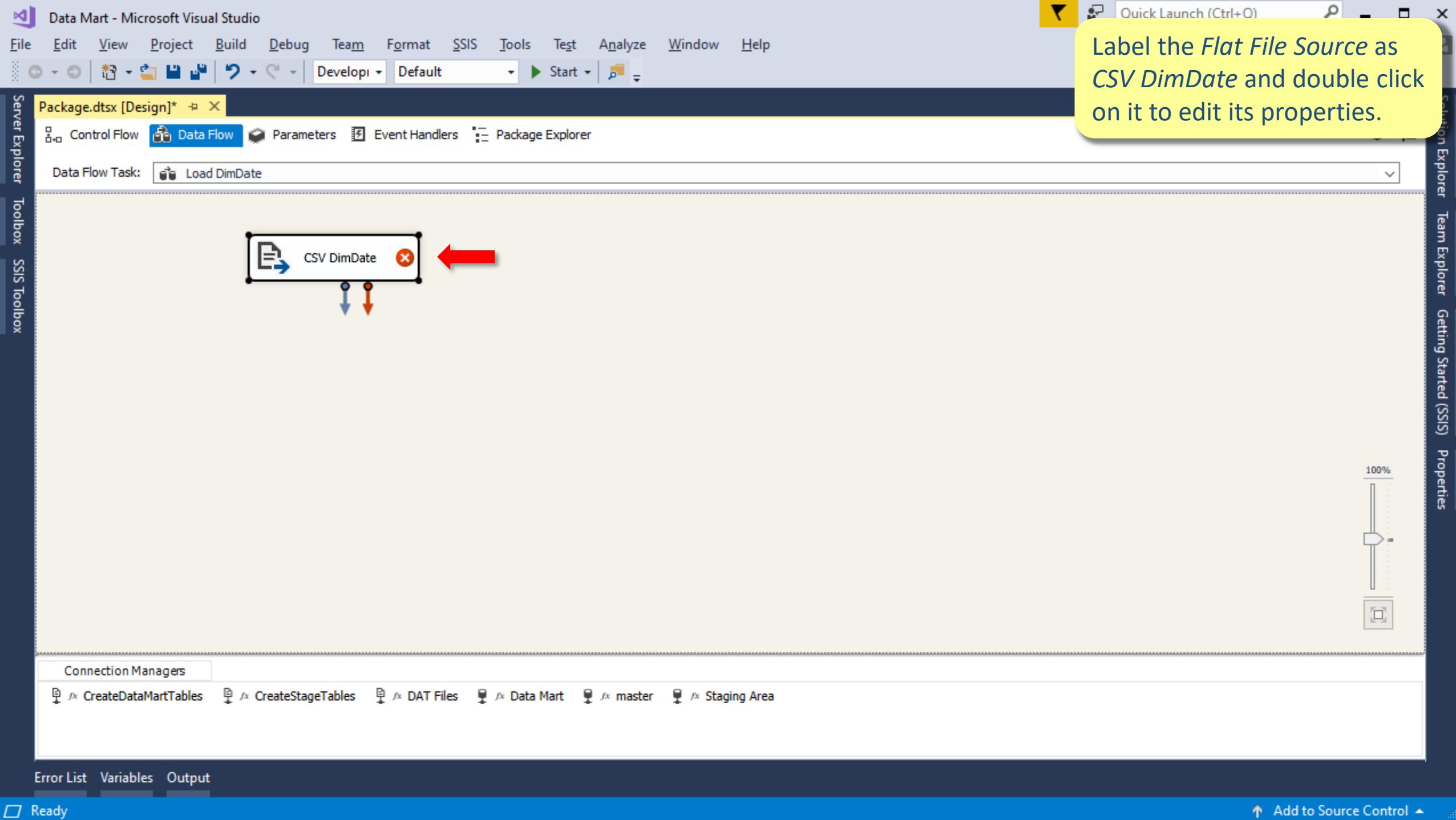


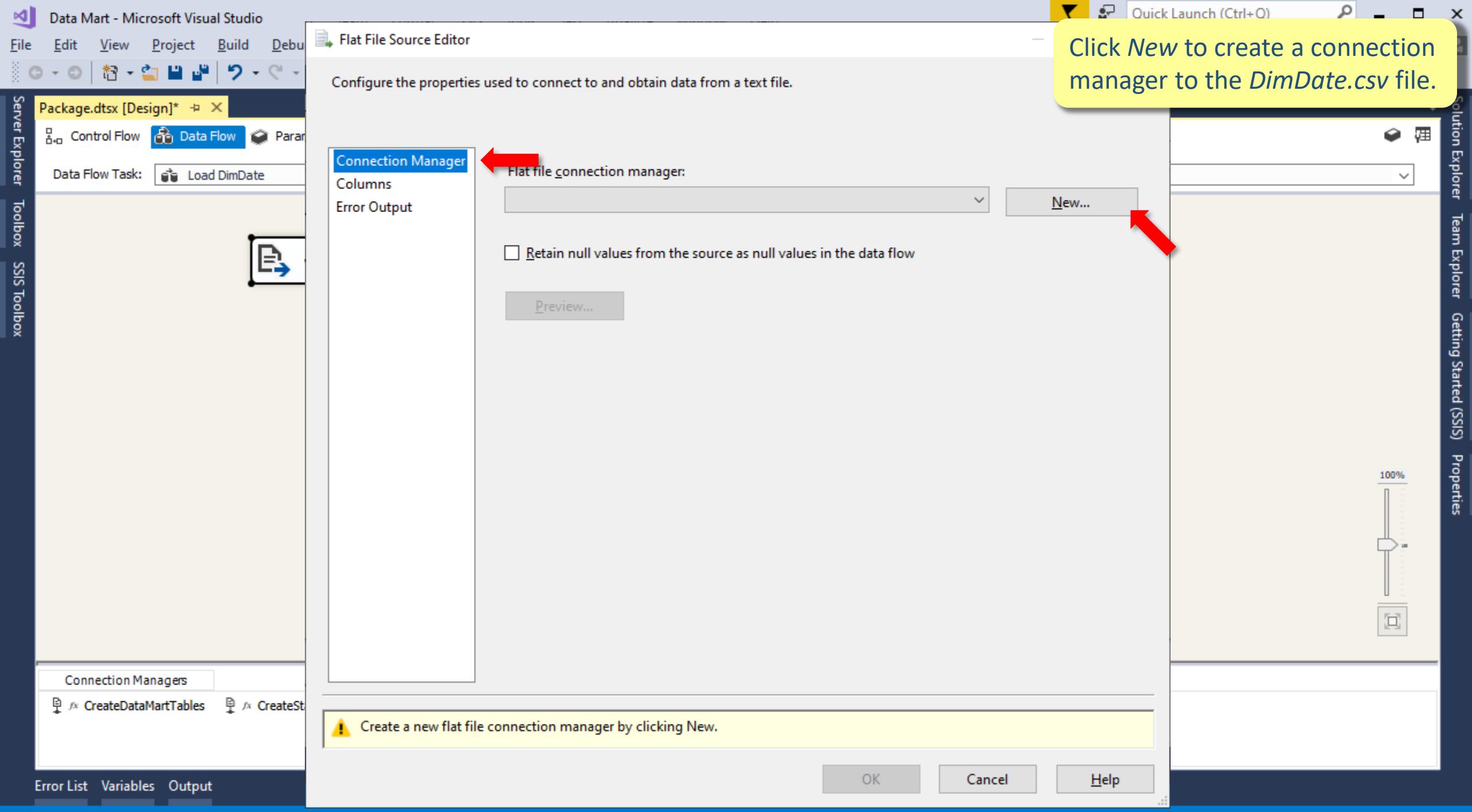


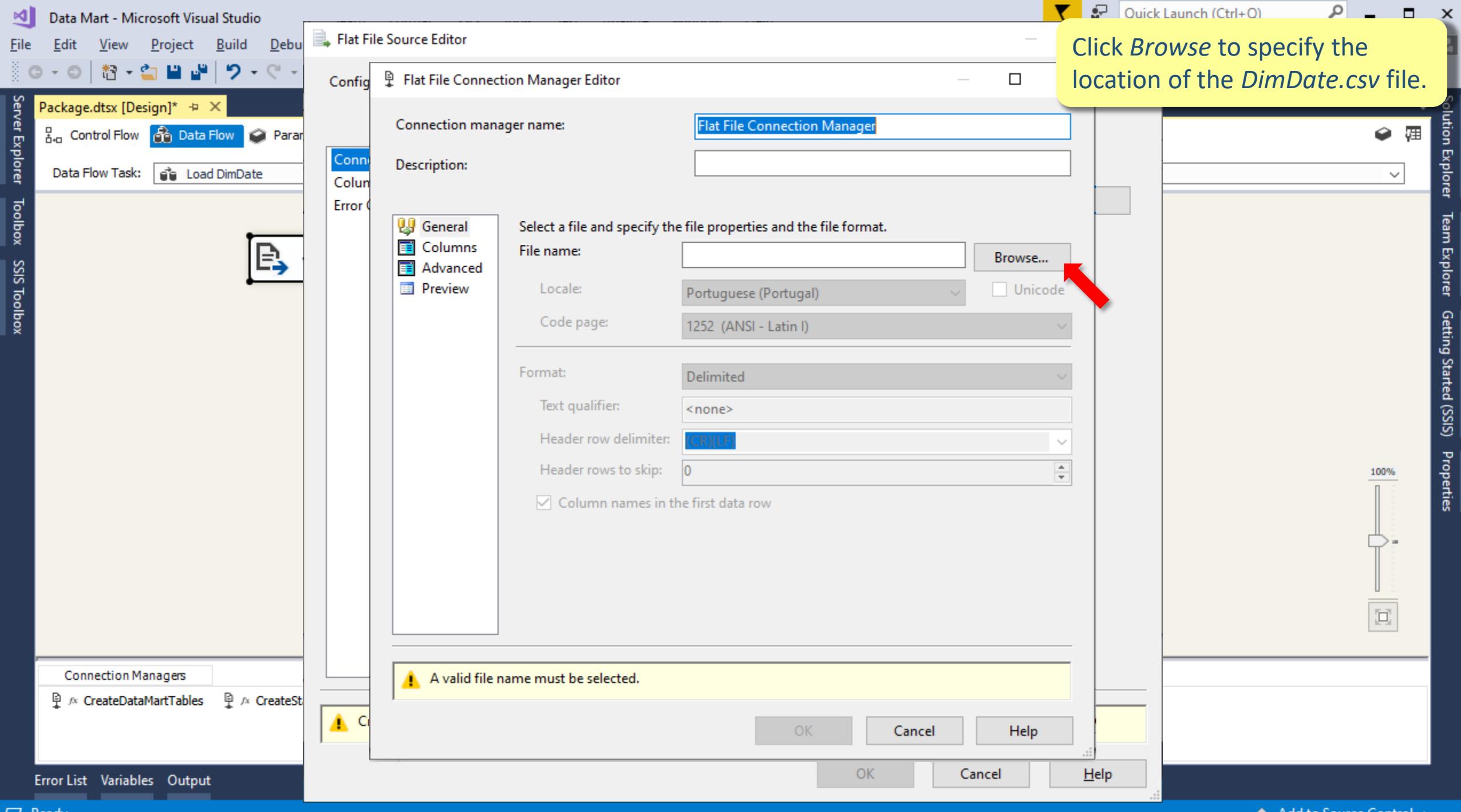


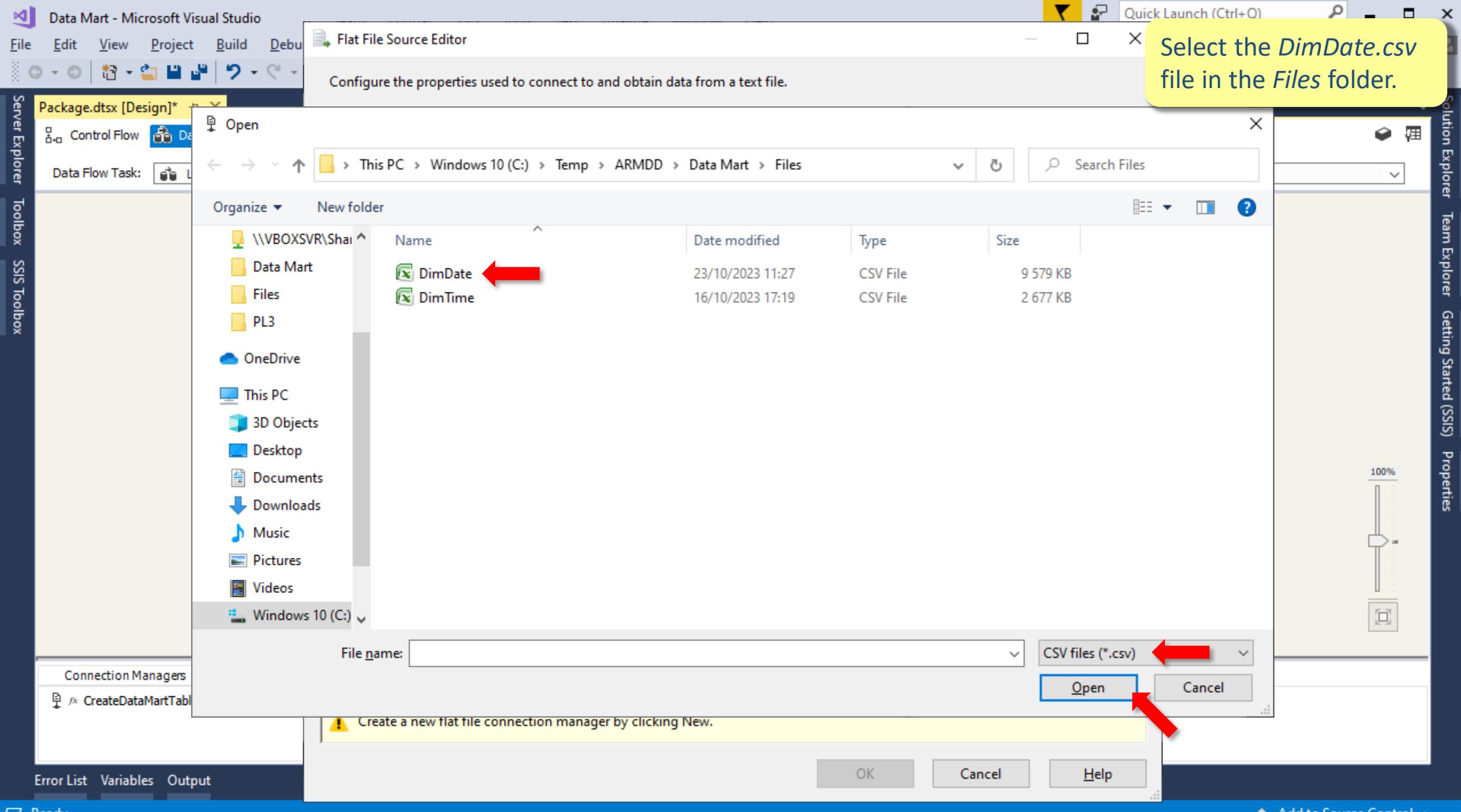
Change to *Data Flow* view of  
the *Load DimDate* component.











Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

Server Explorer Toolbox SSIS Toolbox

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

CSV Dim

General Columns Advanced Preview

Flat File Connection Manager Editor

Connection manager name: Flat File Connection Manager

Description:

Select a file and specify the file properties and the file format.

File name: C:\Temp\ARMDD\Data Mart\Files\DimDate.csv

Locale: Portuguese (Portugal)  Unicode

Code page: 1252 (ANSI - Latin I)

Format: Delimited

Text qualifier: <none>

Header row delimiter: {CR}{LF}

Header rows to skip: 0

Column names in the first data row

Columns are not defined for this connection manager.

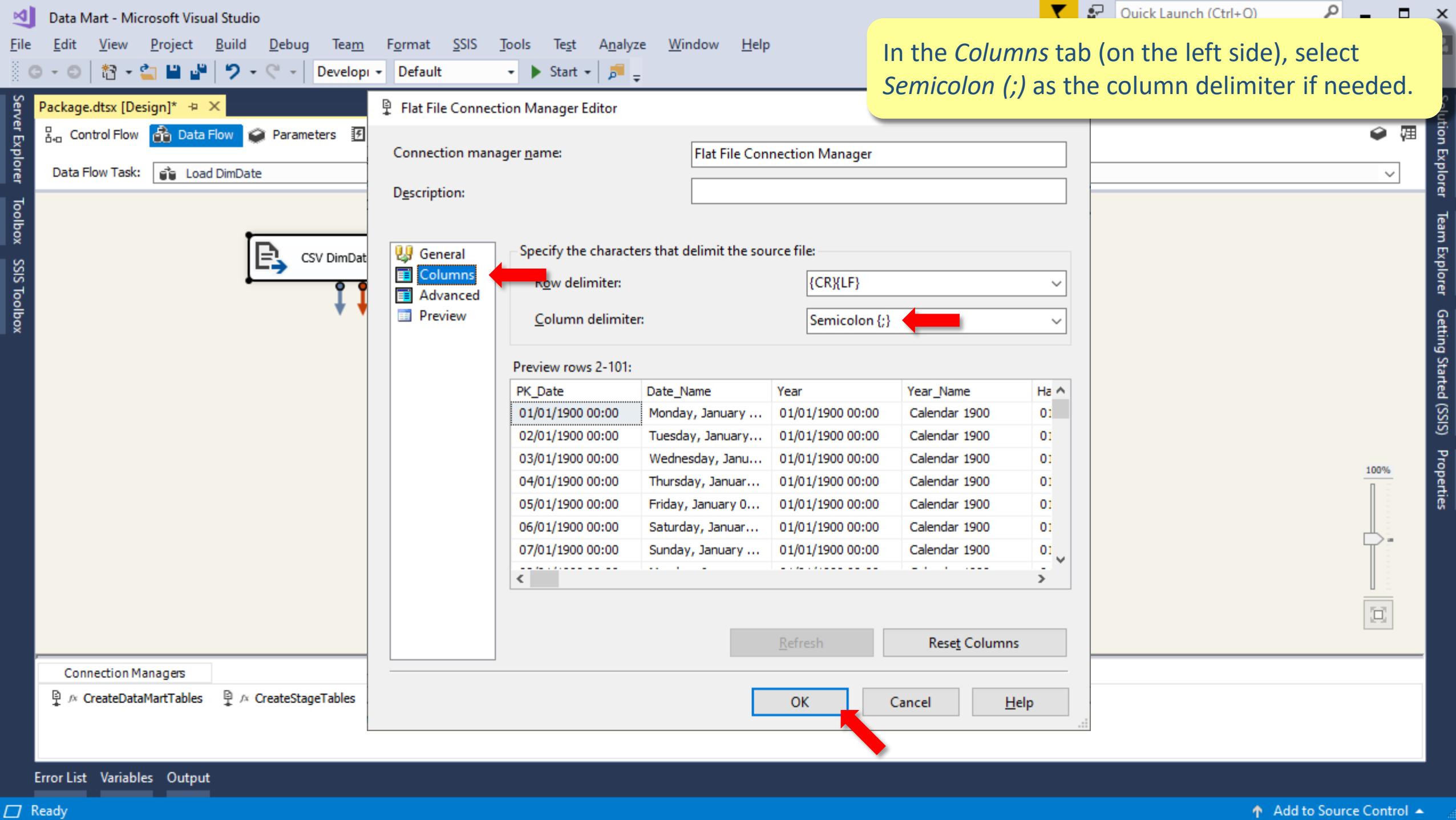
OK Cancel Help

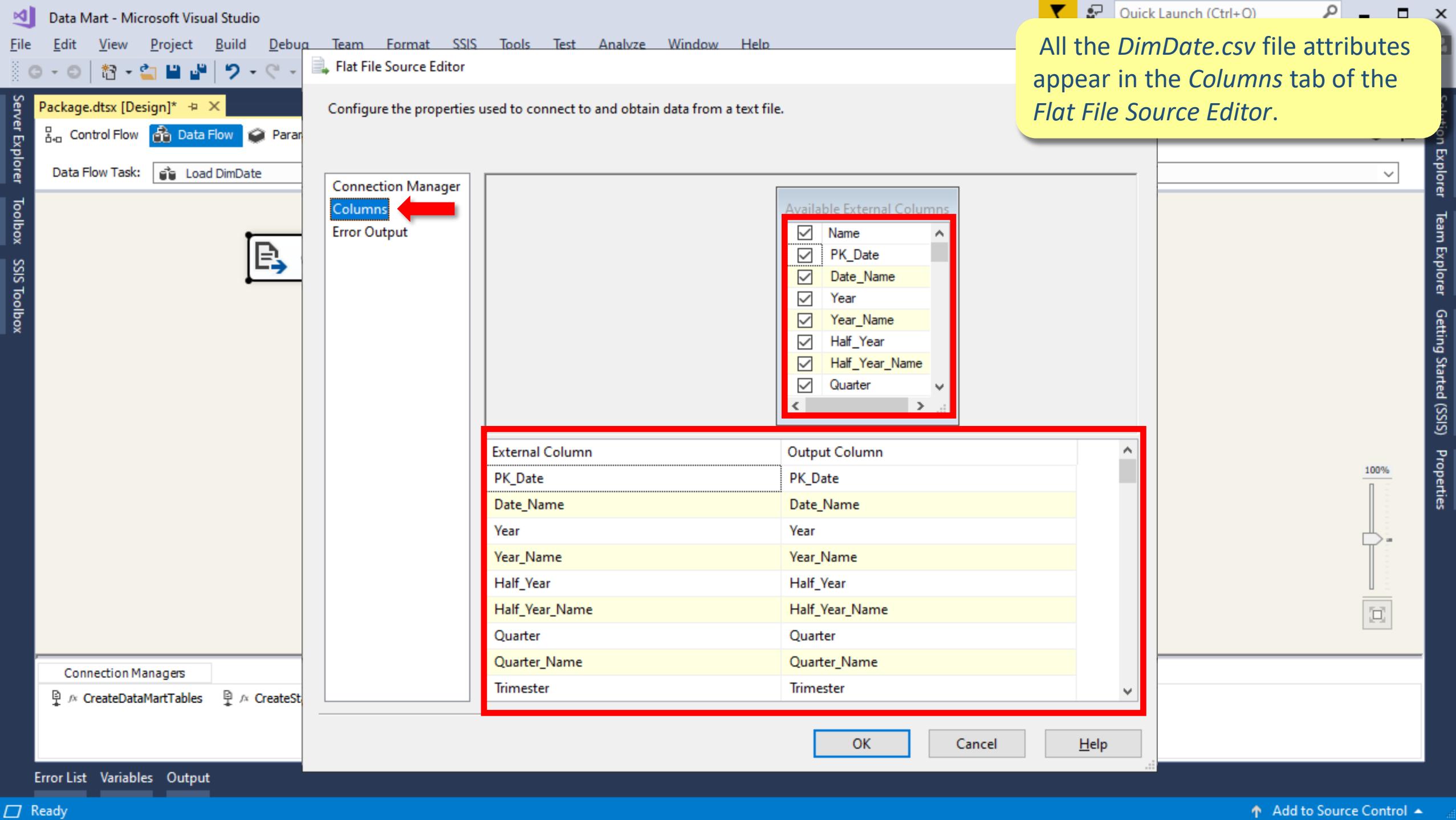
Connection Managers

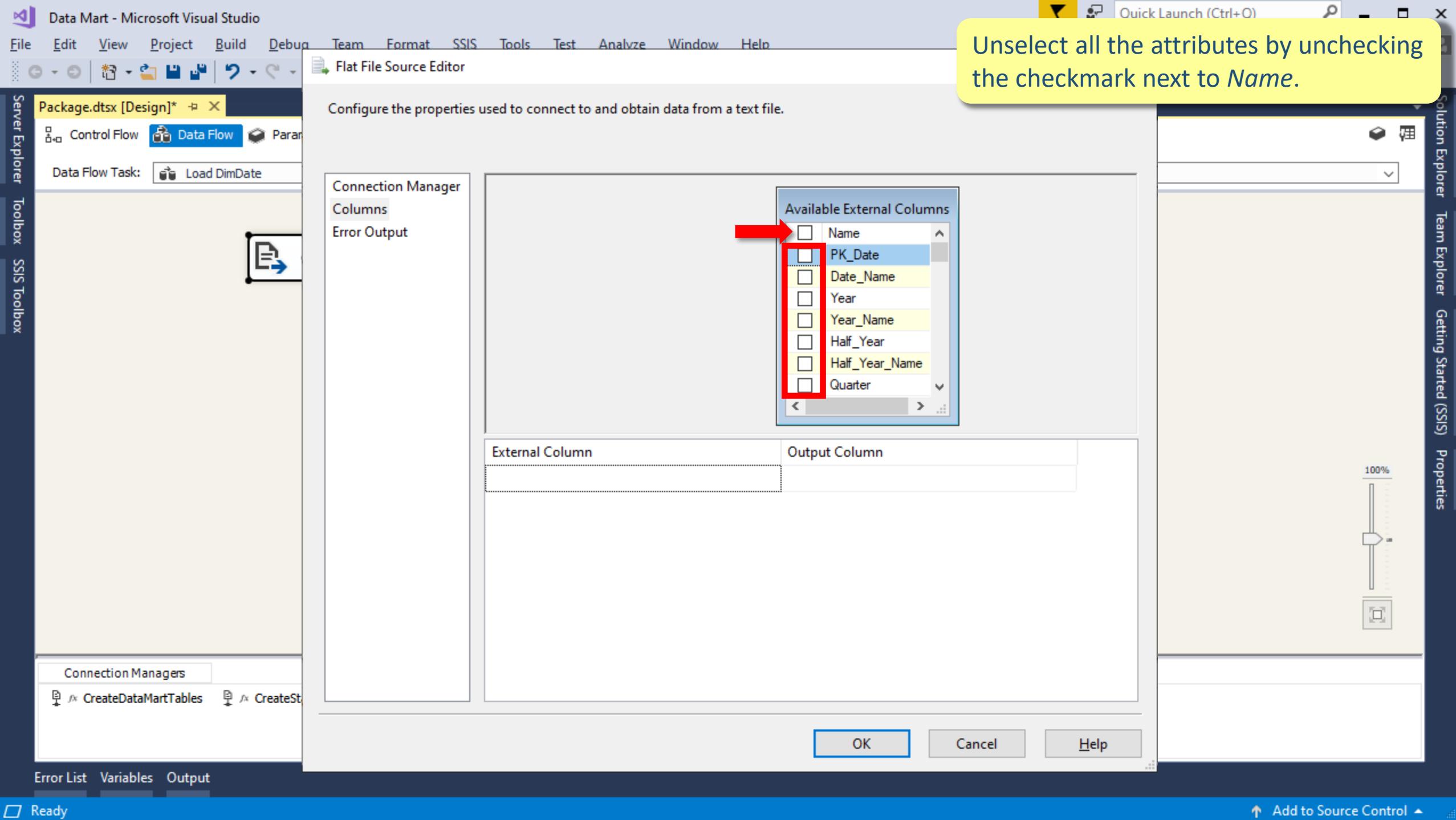
CreateDataMartTables CreateStageTable

Error List Variables Output

Add to Source Control







Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug

Server Explorer Toolbox SSIS Toolbox

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

Flat File Source Editor

Configure the properties used to connect to and obtain data from a text file.

Connection Manager Columns Error Output

Available External

Name
ISO_8601_Day
ISO_8601_Week_Of_Year
ISO_8601_Week_Of_Year_N...
Year (yyyy)
MonthName
DayOfWeek
Weekend

External Column Output Column

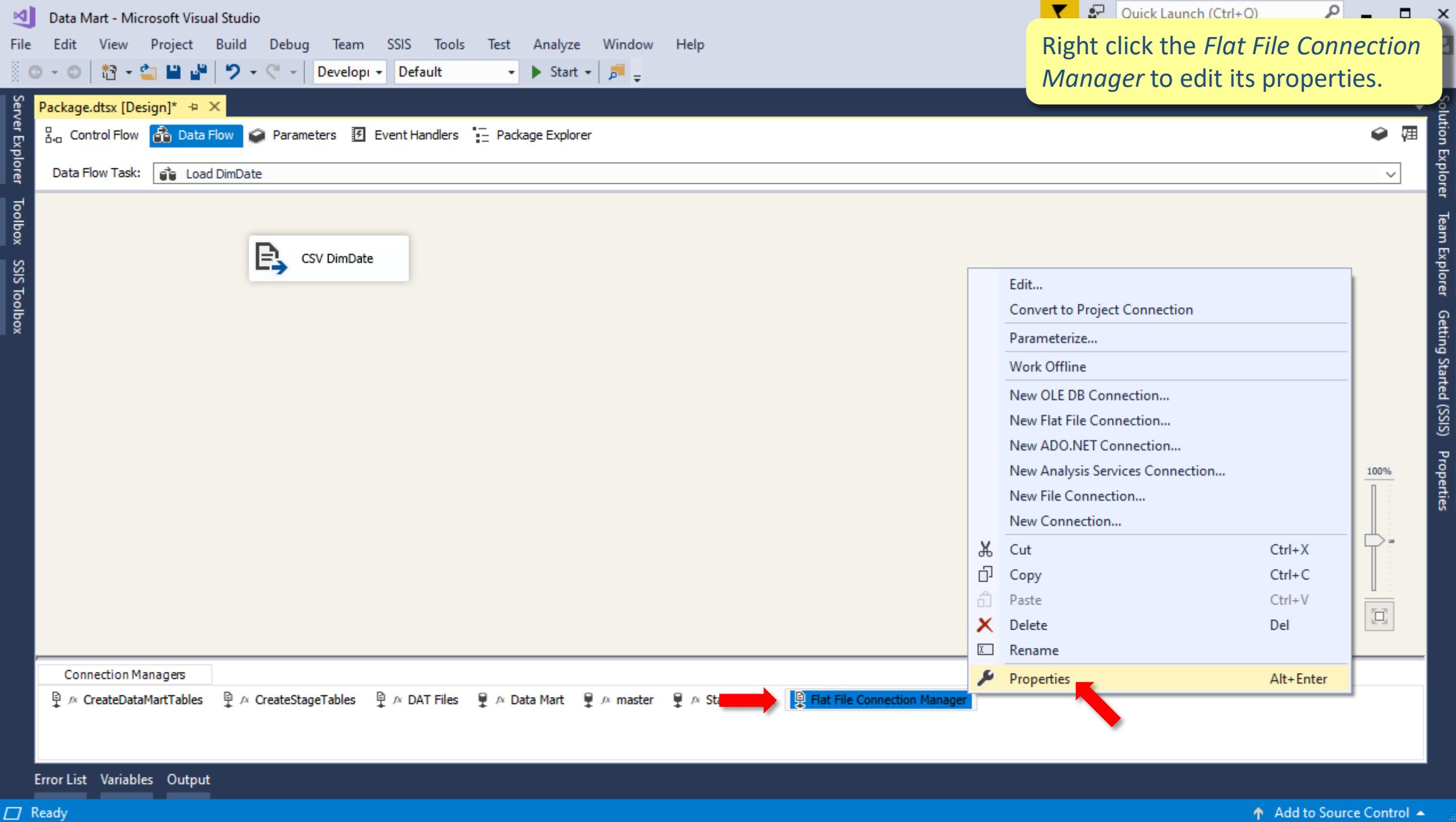
External Column	Output Column
PK_Date	PK_Date
Day_Of_Year	Day_Of_Year
Day_Of_Month	Day_Of_Month
Day_Of_Week	Day_Of_Week
Week_Of_Year	Week_Of_Year
Month_Of_Year	Month_Of_Year
Quarter_Of_Year	Quarter_Of_Year
Half_Year_Of_Year	Half_Year_Of_Year
Year (yyyy)	Year (yyyy)
MonthName	MonthName
DayOfWeek	DayOfWeek
Weekend	Weekend

Select the attributes according to the bottom of the figure, by checking the names of the intended attributes at the top of the figure. We are selecting just the *DimDate* attributes needed for the *Data Mart* example.

OK Cancel Help

Add to Source Control

The screenshot shows the Microsoft Visual Studio interface for an SSIS package named "Package.dtsx". The "Data Flow" tab is selected in the left sidebar. In the center, the "Flat File Source Editor" is open, showing the configuration for connecting to a text file. The "Available External" list on the right contains attributes: ISO\_8601\_Day, ISO\_8601\_Week\_Of\_Year, ISO\_8601\_Week\_Of\_Year\_N..., Year (yyyy), MonthName, DayOfWeek, and Weekend. A red box highlights the "Available External" list. Another red box highlights the "External Column" and "Output Column" mapping table below. The table lists ten columns, all of which are checked (indicated by checked checkboxes in the first column). The last three columns (Year (yyyy), MonthName, and DayOfWeek) are highlighted in yellow. A large yellow callout bubble on the right side of the screen provides instructions: "Select the attributes according to the bottom of the figure, by checking the names of the intended attributes at the top of the figure. We are selecting just the DimDate attributes needed for the Data Mart example." At the bottom right of the editor window, there are "OK", "Cancel", and "Help" buttons. The status bar at the bottom of the screen shows "Ready".



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Develop Default Start

Package.dtsx [Design]\* X

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate CSV DimDate

Connection Managers CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area Flat File Connection Manager

Properties

Flat File Connection Manager Connection

CodePage	1252
ColumnNamesInFirstD	True
Columns	System._ComObject
ConnectByProxy	False
ConnectionString	D:\Temp\ARPAD\Data M
DataRowsToSkip	0
DataSourceID	
DelayValidation	False
Description	
Expressions	
FileUsageType	0
Format	Delimited
HasExpressions	False
HeaderRowDelimiter	{CR}{LF}
HeaderRowsToSkip	0
ID	{6F36B76B-62AB-4BA6-87
LocaleID	Portuguese (Portugal)
Name	Flat File Connection Man
Qualifier	
SupportsDTCTransactio	False
TextQualifier	<none>
Unicode	False

Expressions  
A collection of expressions. The evaluation result of each expression is assigned to a property and replac...

Quick Launch (Ctrl+Q) Add to Source Control

Server Explorer Toolbox SSIS Toolbox

Solution Explorer Team Explorer Getting Started (SSIS) Properties

Ready

A yellow callout bubble in the top right corner says: "Edit the Expressions of the connection manager."

A red arrow points to the "Expressions" row in the Properties grid.

A second red arrow points to the ellipsis button (...) next to the "Expressions" row.

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Edit the *ConnectionString* property.

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate

CSV DimDate

Property Expressions Editor

Property	Expression
ConnectionString	...

Delete OK Cancel

Connection Managers

CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area Flat File Connection Manager

Properties

**Flat File Connection Manager** Connection

CodePage	1252
ColumnNamesInFirstD	True
Columns	System._ComObject
ConnectByProxy	False
ConnectionManagerTy	FLATFILE
ConnectionString	D:\Temp\ARPAD\Data M
DataRowstoSkip	0
DataSourcID	
DelayValidation	False
Description	
Expressions	
FileUsageType	0
Format	Delimited
HasExpressions	False
HeaderRowDelimiter	{CR}{LF}
HeaderRowsToSkip	0
ID	{6F36B76B-62AB-4BA6-87
LocaleID	Portuguese (Portugal)
Name	Flat File Connection Man
Qualifier	
SupportsDTCTransactio	False
TextQualifier	<none>
Unicode	False

Expressions

A collection of expressions. The evaluation result of each expression is assigned to a property and replac...

Error List Variables Output

Add to Source Control

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Develop Default Start

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event

Data Flow Task: Load DimDate

CSV DimDate

Expression Builder

Specify the expression for the property: ConnectionString.

Variables and Parameters

- System Variables
  - \$Project::DataMartDBName
  - \$Project::PackagePath
  - \$Project::ServerName
  - \$Project::StagingAreaDBName
  - User::DATFilename
  - User::DimTimeNrOfRecords
  - User::DMScriptFilename
  - User::SAScriptFilename

Mathematical Functions

Date/Time Functions

NULL Functions

Type Casts

Operators

Description:

Expression:

```
[@$Project::PackagePath] + "\\Files\\DimDate.csv"
```

Evaluated value:

Evaluate Expression OK Cancel

Drag the parameter *PackagePath* to the *Expression* field and concatenate it with the *Files* folder and *CSV Date* dimension filename: "\\\Files\\DimDate.csv"

CodePage 1252

ColumnNamesInFirstD True

Columns System.\_ComObject

ConnectByProxy False

ConnectionManagerTy FLATFILE

ConnectionString D:\Temp\ARPAD\Data M

DataRowsToSkip 0

DataSourceID

DelayValidation False

Description

Expressions

FileUsageType 0

Format Delimited

HasExpressions False

HeaderRowDelimiter {CR}{LF}

HeaderRowsToSkip 0

ID {6F36B76B-62AB-4BA6-87

LocaleID Portuguese (Portugal)

Name Flat File Connection Man

Qualifier

SupportsDTCTransactio False

TextQualifier <none>

Unicode False

Properties

Expressions

A collection of expressions. The evaluation result of each expression is assigned to a property and replac...

Error List Variables Output

Add to Source Control

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+Q) Sign in

Server Explorer Toolbox SSIS Toolbox

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate

CSV DimDate

Property Expressions Editor

Property	Expression
ConnectionString	@[Project::PackagePath] + "\\Files\\DimDate.csv"

OK Cancel

Connection Managers

CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area Flat File Connection Manager

Error List Variables Output

Add to Source Control

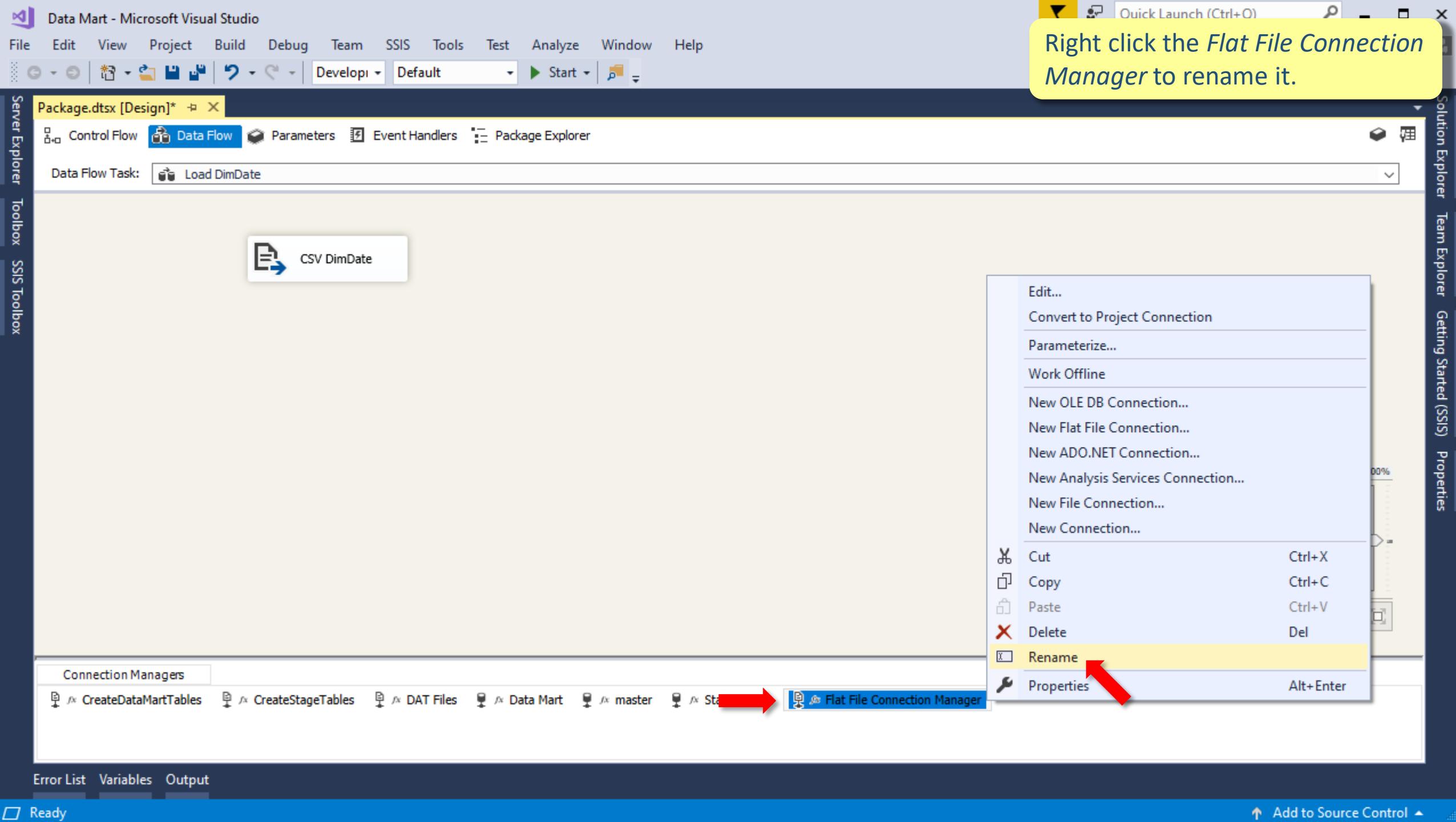
Properties

Flat File Connection Manager Connection

CodePage	1252
ColumnNamesInFirstD	True
Columns	System._ComObject
ConnectByProxy	False
ConnectionManagerTy	FLATFILE
ConnectionString	D:\Temp\ARPAD\Data M
DataRowstoSkip	0
DataSourcesID	
DelayValidation	False
Description	
Expressions	
FileUsageType	0
Format	Delimited
HasExpressions	False
HeaderRowDelimiter	{CR}{LF}
HeaderRowsToSkip	0
ID	{6F36B76B-62AB-4BA6-87
LocaleID	Portuguese (Portugal)
Name	Flat File Connection Man
Qualifier	
SupportsDTCTransactio	False
TextQualifier	<none>
Unicode	False

Expressions

A collection of expressions. The evaluation result of each expression is assigned to a property and replac...



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Rename the *Flat File Connection Manager* to *CSV DimDate*.

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate

CSV DimDate

Connection Managers

CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area CSV DimDate

Error List Variables Output

Ready Add to Source Control

This screenshot shows the Microsoft Visual Studio interface for an SSIS package named "Package.dtsx". The "Data Flow" tab is selected in the ribbon. A single data flow task named "Load DimDate" is visible. In the bottom-left corner of the main workspace, there is a placeholder icon labeled "CSV DimDate". At the bottom of the screen, the "Connection Managers" pane is open, showing a list of connection managers. The "CSV DimDate" connection manager is highlighted with a blue selection bar and has a red arrow pointing to it from the right side of the image. The ribbon also includes tabs for "File", "Edit", "View", "Project", "Build", "Debug", "Team", "SSIS", "Tools", "Test", "Analyze", "Window", and "Help". The status bar at the bottom shows "Ready" and "Add to Source Control".

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

SSIS Toolbox

Search SSIS Toolbox

Event Handlers Package Explorer

Server Explorer

Toolbox

SSIS Toolbox

SSIS Toolbox

OLE DB Destination

ADO NET Source  
CDC Source  
Excel Source  
Flat File Source  
OLE DB Source  
Raw File Source  
XML Source

Other Destinations

ADO NET Destination  
Data Mining Model Training  
DataReader Destination  
Dimension Processing  
Excel Destination  
Flat File Destination  
**OLE DB Destination**   
Partition Processing  
Raw File Destination  
Recordset Destination  
SQL Server Compact Destination  
SQL Server Destination

**OLE DB Destination**

Loads data into an OLE DB-compliant relational database, such as SQL Server. Many types of databases are OLE DB-compliant. With minor reconfiguration, this destination can be used before...

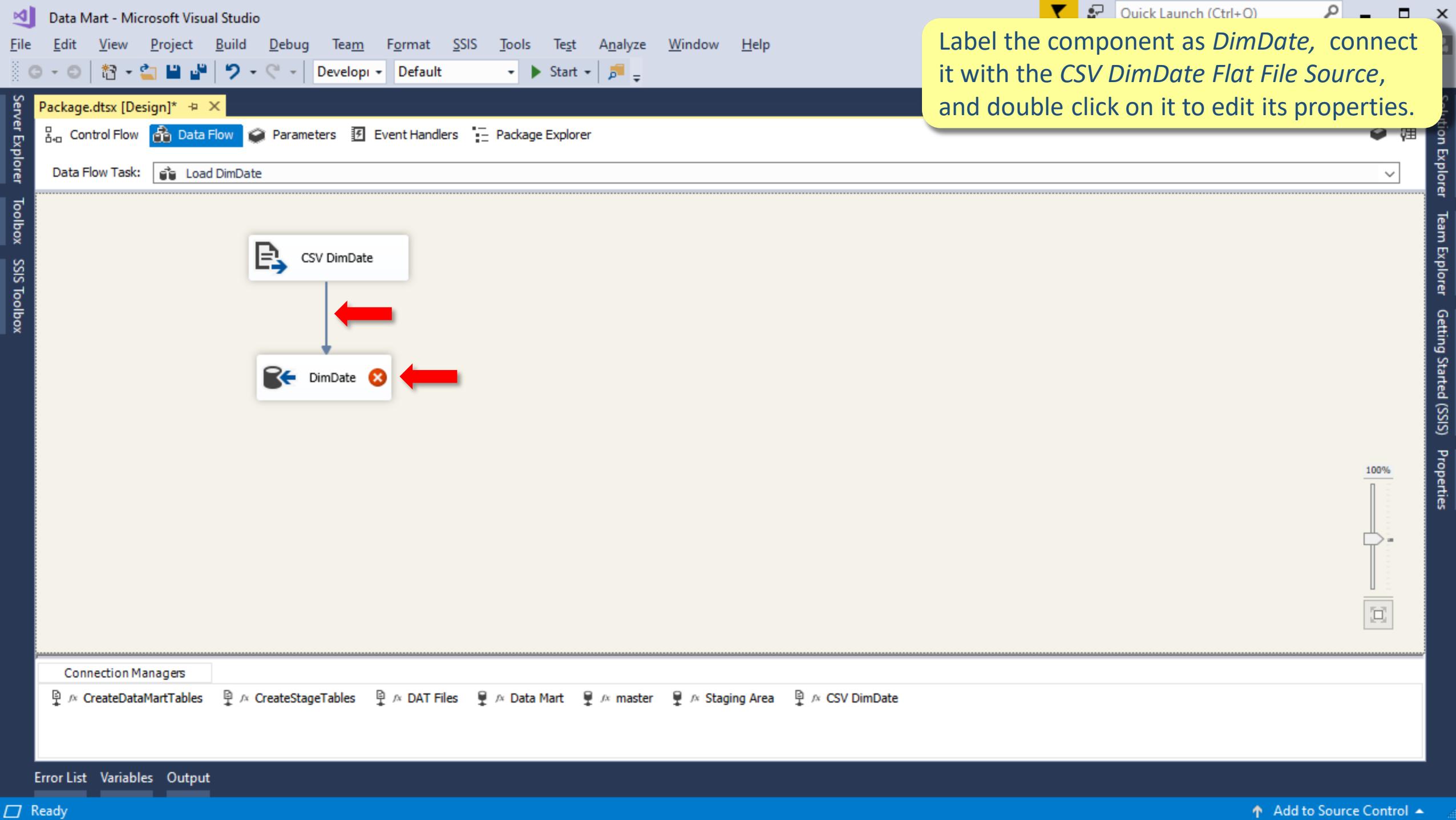
Find Samples

DAT Files Data Mart master Staging Area CSV DimDate

Error List Variables Output

Ready Add to Source Control

Drag an *OLE DB Destination* from the *SSIS Toolbox* onto the *Data Flow* area.



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug

Quick Launch (Ctrl+O)

Server Explorer Solution Explorer Team Explorer Getting Started (SSIS) Properties

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

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: Data Mart

Data access mode: Table or view - fast load

Name of the table or the view: [dbo].[DimDate]

Keep identity  Table lock

Keep nulls  Check constraints

Rows per batch:

Maximum insert commit size: 2147483647

View Existing

Map the columns on the Mappings page.

OK Cancel Help

100%

Add to Source Control ▾

Ready

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

OLE DB Destination Editor

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

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

Connection Manager Mappings Error Output

Available Input Columns

Name
PK_Date
Day_Of_Year
Day_Of_Month
Day_Of_Week
Week_Of_Year
Month_Of_Year
Quarter_Of_Year

Available Destination Columns

Name
DateKey
FullDate
Year
Semester
Quarter
Month
MonthName
Week
DayNumberOfYear

Input Column      Destination Column

Input Column	Destination Column
<ignore>	DateKey
<ignore>	FullDate
<ignore>	Year
<ignore>	Semester
<ignore>	Quarter
MonthName	MonthName
<ignore>	Week
<ignore>	DayNumberOfYear

OK Cancel Help

In the *Mappings* tab (on the left side) it is possible to see the automatically established mappings (based on the same attribute name and data type) between the data flow attributes and the destination table attributes.

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug

Server Explorer Toolbox SSIS Toolbox

Package.dtsx [Design]\* Data Flow Load DimDate

OLE DB Destination Editor

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

Establish the mappings between the CSV DimDate attributes and the DimDate table attributes according to the image.

Available Input Columns (Left):

- Name
- PK\_Date
- Day\_Of\_Year
- Day\_Of\_Month
- Day\_Of\_Week
- Week\_Of\_Year
- Month\_Of\_Year
- Quarter\_Of\_Y...

Available Destination Columns (Right):

- Name
- DateKey
- FullDate
- Year
- Semester
- Quarter
- Month
- Month...

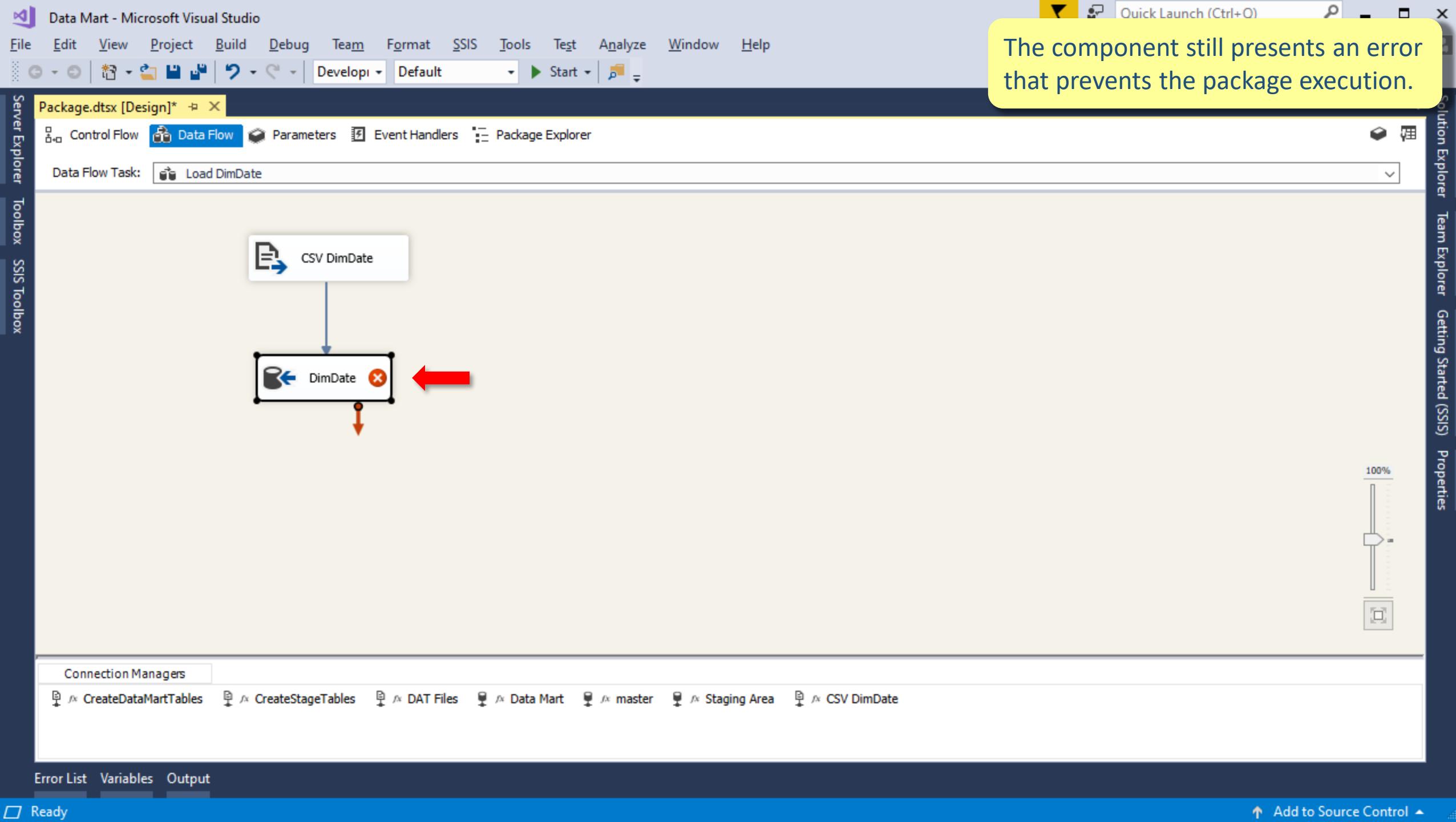
Input Column      Destination Column

<ignore>	DateKey
PK_Date	FullDate
Year (yyyy)	Year
Half_Year_Of_Year	Semester
Quarter_Of_Year	Quarter
Month_Of_Year	Month
MonthName	MonthName
Week_Of_Year	Week
Day_Of_Year	DayNumberOfYear
Day_Of_Month	DayNumberOfMonth
Day_Of_Week	DayNumberOfWeek
DayOfWeek	DayOfWeek
Weekend	Weekend

OK Cancel Help

Add to Source Control

The screenshot shows the 'OLE DB Destination Editor' window within the Microsoft Visual Studio interface. The main area displays a grid for mapping input columns from a source to destination columns in a table named 'DimDate'. A red box highlights the mapping for 'Day\_Of\_Week' to 'DayNumberOfWeek'. A yellow callout bubble contains the instruction: 'Establish the mappings between the CSV DimDate attributes and the DimDate table attributes according to the image.' The 'Available Input Columns' list on the left includes attributes like PK\_Date, Day\_Of\_Year, and Day\_Of\_Week. The 'Available Destination Columns' list on the right includes DateKey, FullDate, and Year. The central grid shows the current mappings, with the highlighted row for 'Day\_Of\_Week' indicating it has been selected for configuration.



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Server Explorer Solution Explorer Team Explorer Getting Started (SSIS) Properties

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate

CSV DimDate

DimDate

Error List

Entire Solution 6 Errors 0 Warnings 0 Messages Build + IntelliSense

Description

Validation error. Load DimDate DimDate [342]: Column "MonthName" cannot convert between unicode and non-unicode string data types.

Validation error. Load DimDate DimDate [342]: Column "Weekend" cannot convert between unicode and non-unicode string data types.

Validation error. Load DimDate: Load DimDate: Column "MonthName" cannot convert between unicode and non-unicode string data types.

Validation error. Load DimDate: Load DimDate: Column "DayOfWeek" cannot convert between unicode and non-unicode string data types.

Validation error. Load DimDate: Load DimDate: Column "Weekend" cannot convert between unicode and non-unicode string data types.

Validation error. Load DimDate DimDate [342]: Column "DayOfWeek" cannot convert between unicode and non-unicode string data types.

Project File Line

Package.dtsx 0

Package.dtsx 0

Package.dtsx 0

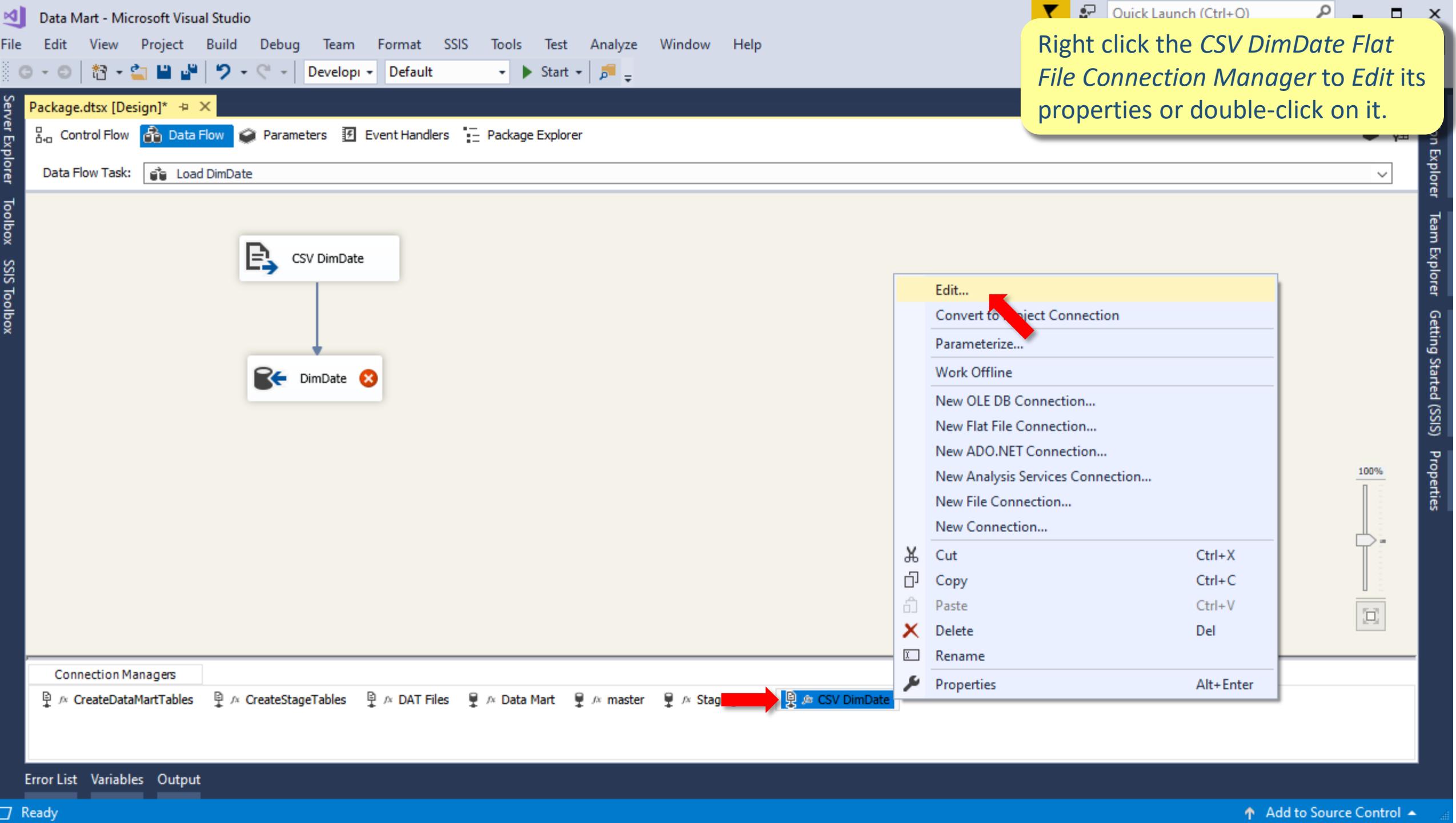
Package.dtsx 0

Package.dtsx 0

Package.dtsx 0

Error List Variables Output

The *ErrorList* allows to see that the problem results from Unicode and non-Unicode errors in three attributes.



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Develop Default Start

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

CSV DimDate

Configure the properties of each column.

General Columns Advanced Preview

MonthName

Misc

Name	MonthName
ColumnDelimiter	Semicolon {;}
ColumnType	Delimited
InputColumnWidth	0
DataPrecision	0
DataScale	0
<b>DataType</b>	<b>Unicode string [DT_WSTR]</b>
OutputColumnWidth	50
TextQualified	True

New Delete Suggest Types... OK Cancel Help

In the **Advanced** tab (on the left side) change the **MonthName** data type to **Unicode string**.

Server Explorer Solution Explorer Team Explorer Getting Started (SSIS) Properties

100%

CreateDataMartTables CreateStage

Error List Variables Output

Add to Source Control

The screenshot shows the 'Flat File Connection Manager Editor' in Microsoft Visual Studio. The 'Advanced' tab is selected on the left sidebar. A red arrow points to the 'MonthName' item in the list of columns. Another red arrow points to the 'MonthName' entry in the 'Misc' properties table, specifically highlighting the 'DataType' field which is set to 'Unicode string [DT\_WSTR]'. The 'MonthName' entry is also highlighted with a blue selection bar.

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Develop Default Start

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

CSV DimDate

Configure the properties of each column.

General Columns Advanced Preview

Misc

Name	DayOfWeek
ColumnDelimiter	Semicolon {;}
ColumnType	Delimited
InputColumnWidth	0
DataPrecision	0
DataScale	0
DataType	Unicode string [DT_WSTR]
OutputColumnWidth	50
TextQualified	True

DayOfWeek

New Delete Suggest Types... OK Cancel Help

In the **Advanced** tab (on the left side) change the **DayOfWeek** data type to **Unicode string**.

Server Explorer Solution Explorer

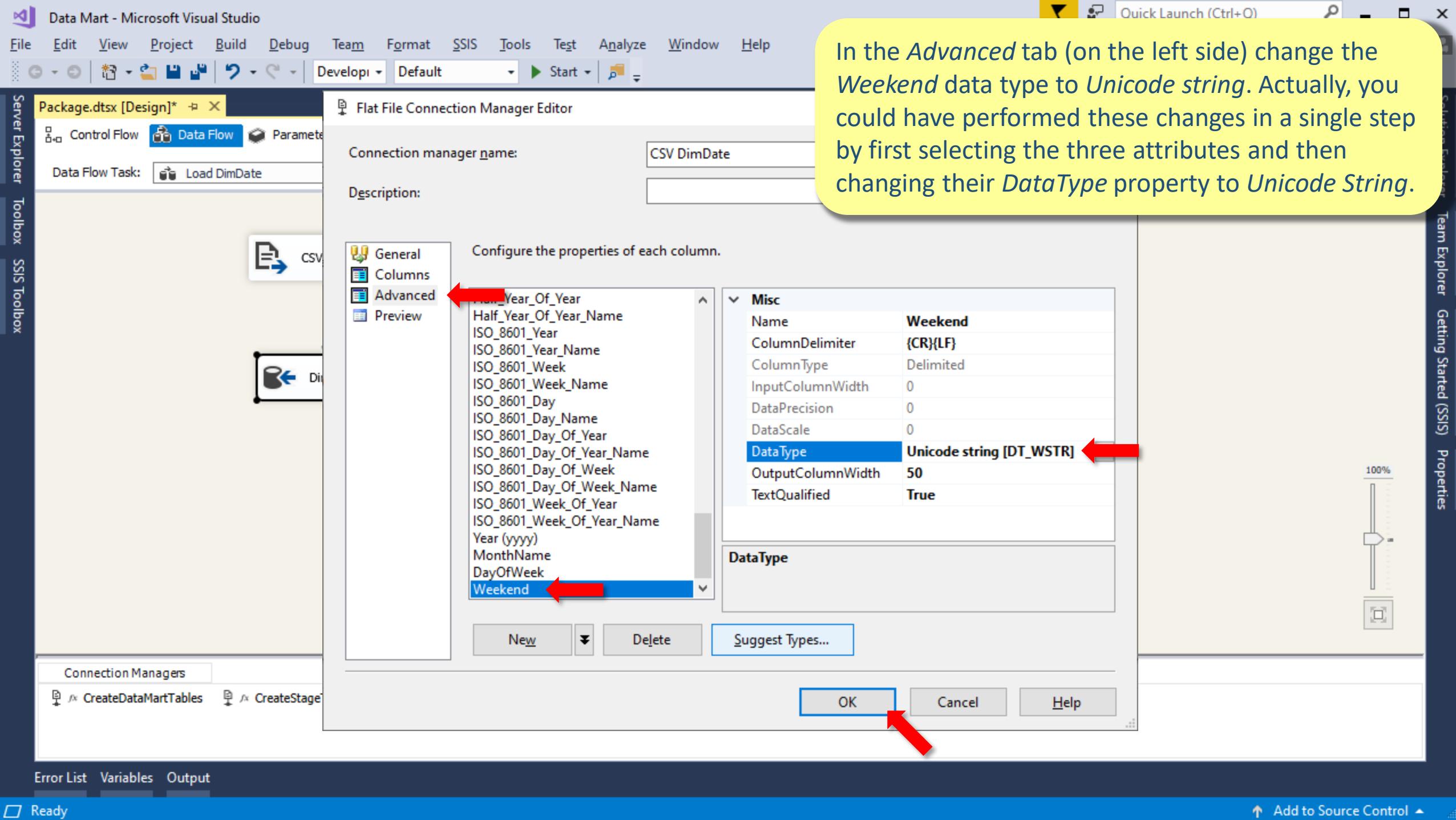
Toolbox Team Explorer

SSIS Toolbox Getting Started (SSIS)

Error List Variables Output

Add to Source Control

100%



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate

CSV DimDate → DimDate

Connection Managers

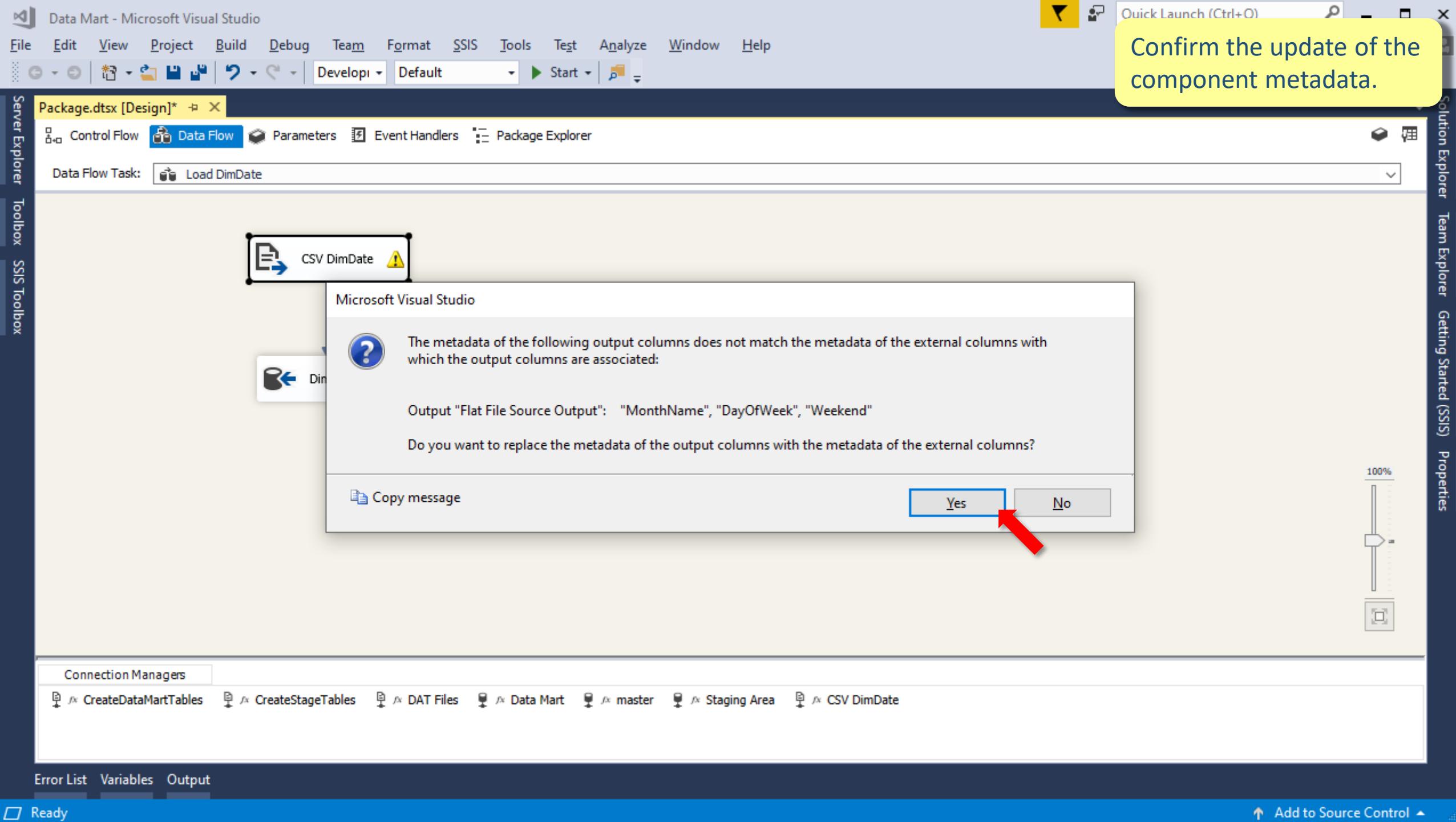
- CreateDataMartTables
- CreateStageTables
- DAT Files
- Data Mart
- master
- Staging Area
- CSV DimDate

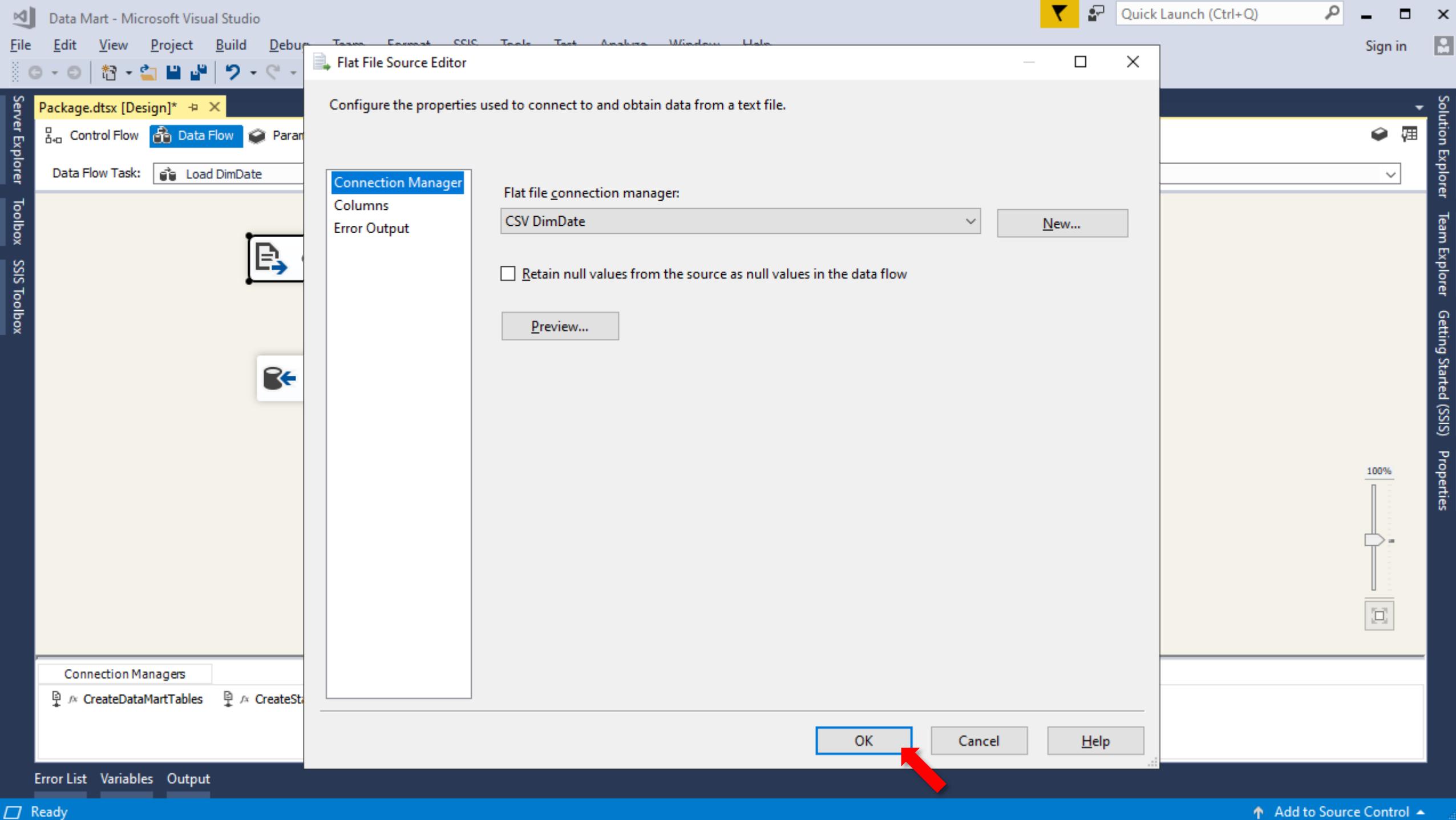
Error List Variables Output

Add to Source Control

Double click the CSV DimDate Flat File Source in order to edit it to update it with the changes made to the CSV DimDate Connection Manager.

```
graph TD; CSV[CSV DimDate] --> DimDate[DimDate]
```





Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate

CSV DimDate

DimDate

The component still presents a warning. Although a warning does not prevent package execution, it should be investigated and corrected.

Server Explorer Solution Explorer

Toolbox Team Explorer

SSIS Toolbox Getting Started (SSIS) Properties

Connection Managers

CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area CSV DimDate

Error List Variables Output

Add to Source Control

```
graph TD; CSV[CSV DimDate] --> DimDate[DimDate]; DimDate --> Right[ ]
```

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Server Explorer Solution Explorer Team Explorer Getting Started (SSIS) Properties

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate

CSV DimDate

DimDate

The *ErrorList* allows to see that the warning results from possible truncations between source and destination attributes in three attributes.

0 Errors 3 Warnings 0 of 3 Messages

Description

Validation warning. Load DimDate: {0BEB3050-FA52-4E4A-B3FF-187E7C54095F}: Truncation may occur due to inserting data from data flow column "Weekend" with a length of 50 to database column "Weekend" with a length of 3.

Validation warning. Load DimDate: {0BEB3050-FA52-4E4A-B3FF-187E7C54095F}: Truncation may occur due to inserting data from data flow column "MonthName" with a length of 50 to database column "MonthName" with a length of 10.

Validation warning. Load DimDate: {0BEB3050-FA52-4E4A-B3FF-187E7C54095F}: Truncation may occur due to inserting data from data flow column "DayOfWeek" with a length of 50 to database column "DayOfWeek" with a length of 10.

Project File Line

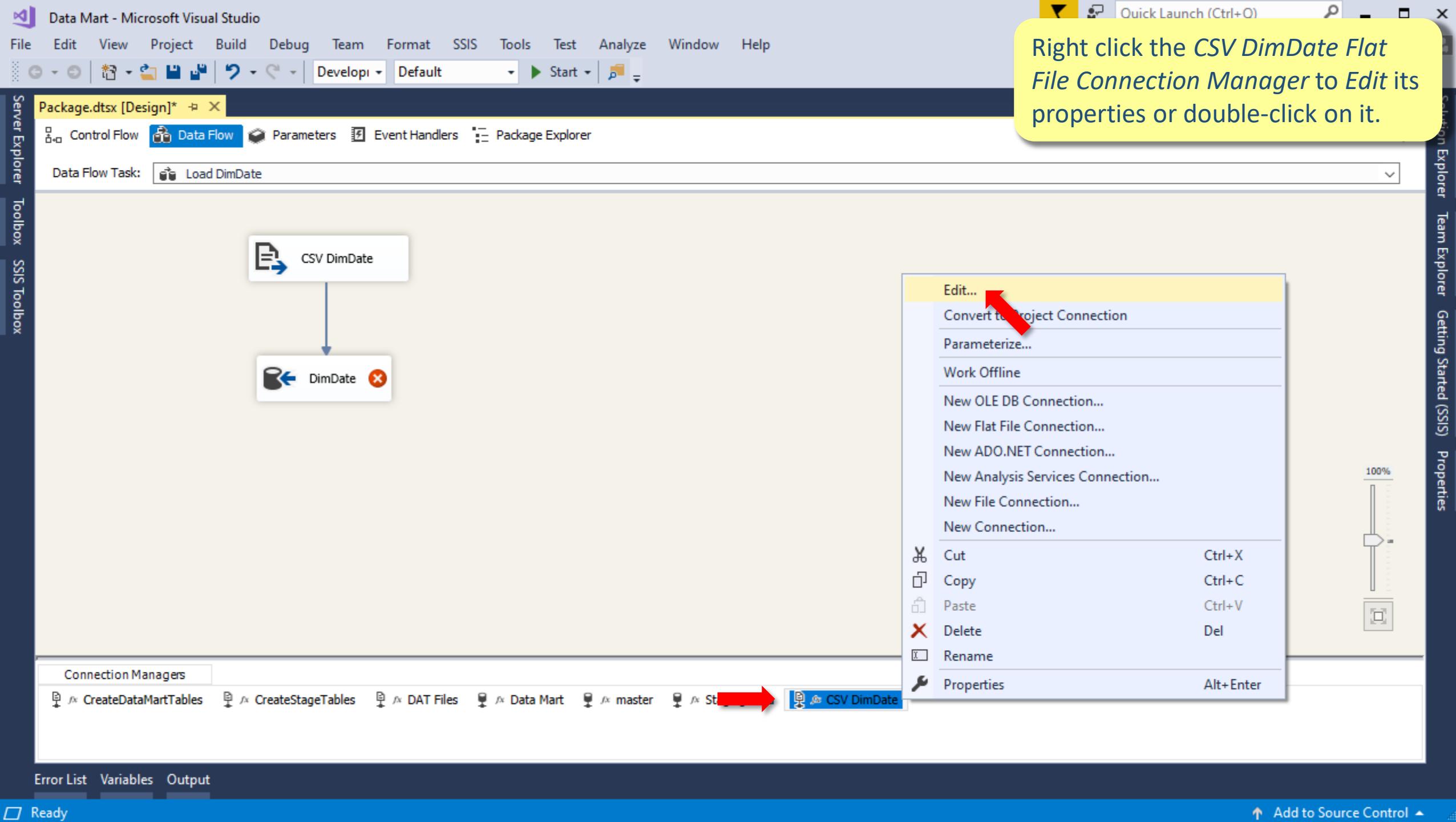
Package.dtsx 0

Package.dtsx 0

Package.dtsx 0

Error List Variables Output

Add to Source Control



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Server Explorer Solution Explorer

Toolbox Team Explorer

SSIS Toolbox Getting Started (SSIS) Properties

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

CSV DimDate → DimDate

Flat File Connection Manager Editor

Connection manager name: CSV DimDate

Description:

Configure the properties of each column.

General Columns Advanced Preview

Misc

Name	MonthName
ColumnDelimiter	Semicolon {;}
ColumnType	Delimited
InputColumnWidth	0
DataPrecision	0
DataScale	0
DataType	Unicode string [DT_WST]
OutputColumnWidth	10
TextQualified	True

OutputColumnWidth  
The width of this column in the data flow,  
given in single characters. Composite charact...

New Delete Suggest Types... OK Cancel Help

In the **Advanced** tab (on the left side) change the **OutputColumnWidth** of the **MonthName** to 10.

100%

Error List Variables Output

Add to Source Control ▾

The screenshot shows the Microsoft Visual Studio interface with the 'Data Mart - Microsoft Visual Studio' title bar. The main window displays a 'Data Flow' task named 'Load DimDate' with a single data flow path from 'CSV DimDate' to 'DimDate'. On the left, the 'Server Explorer' and 'Toolbox' are visible. The 'Flat File Connection Manager Editor' is open, showing the 'Advanced' tab selected. A red arrow points to the 'MonthName' column in the list of columns. Another red arrow points to the 'OutputColumnWidth' property in the 'Misc' section, which is currently set to 10. A yellow callout box at the top right contains the instruction: 'In the Advanced tab (on the left side) change the OutputColumnWidth of the MonthName to 10.' The bottom status bar shows 'Ready'.

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Server Explorer Solution Explorer

Toolbox Team Explorer

SSIS Toolbox Getting Started (SSIS) Properties

Package.dtsx [Design]\*

Control Flow Data Flow Parameters

Data Flow Task: Load DimDate

CSV DimDate → DimDate

Flat File Connection Manager Editor

Connection manager name: CSV DimDate

Description:

Configure the properties of each column.

General Columns Advanced Preview

Misc

Name	DayOfWeek
ColumnDelimiter	Semicolon {;}
ColumnType	Delimited
InputColumnWidth	0
DataPrecision	0
DataScale	0
DataType	Unicode string [DT_WSTI]
OutputColumnWidth	10
TextQualified	True

OutputColumnWidth  
The width of this column in the data flow,  
given in single characters. Composite charact...

New Delete Suggest Types... OK Cancel Help

In the Advanced tab (on the left side) change the OutputColumnWidth of the DayOfWeek to 10.

100%

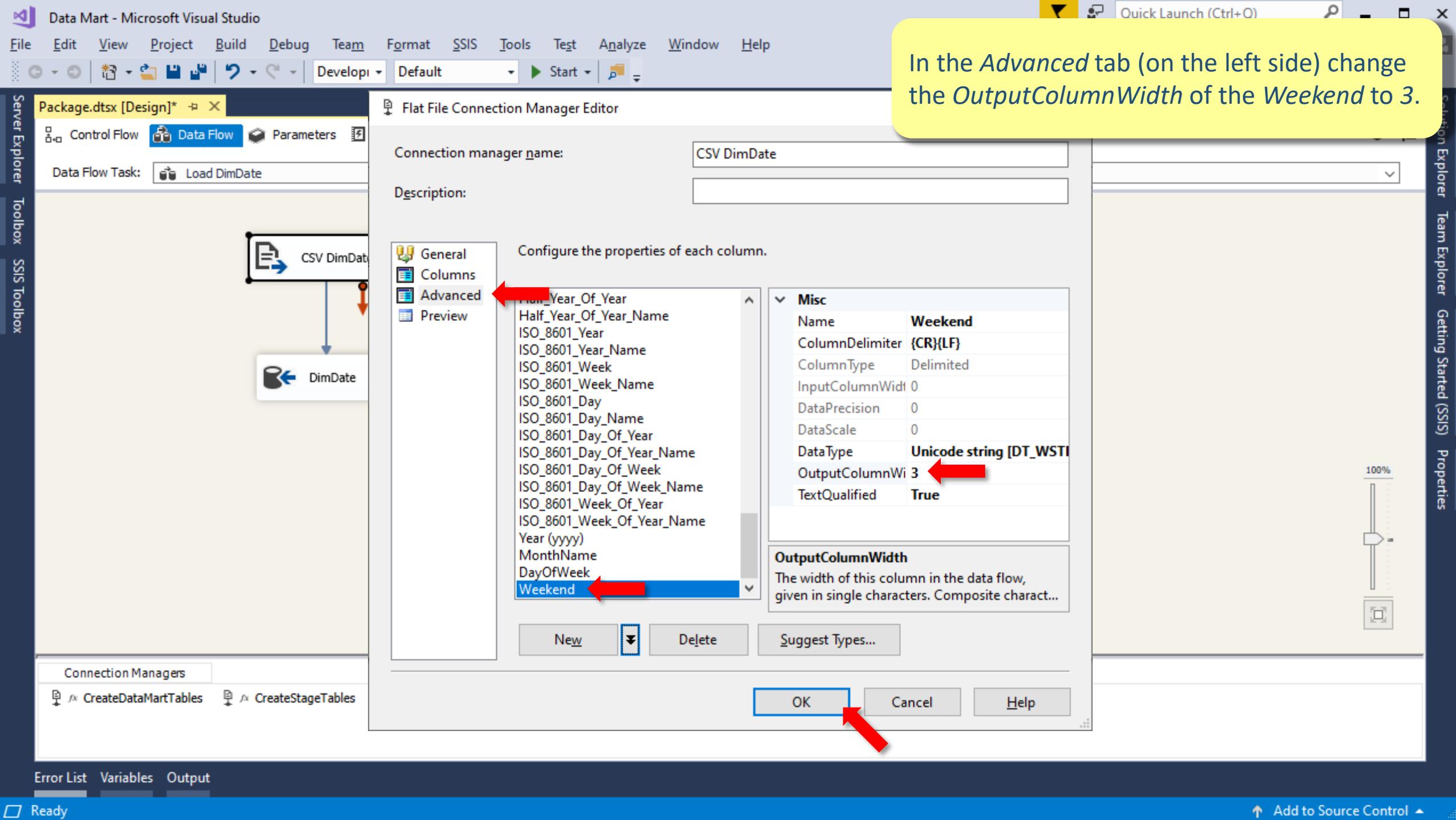
CreateDataMartTables CreateStageTables

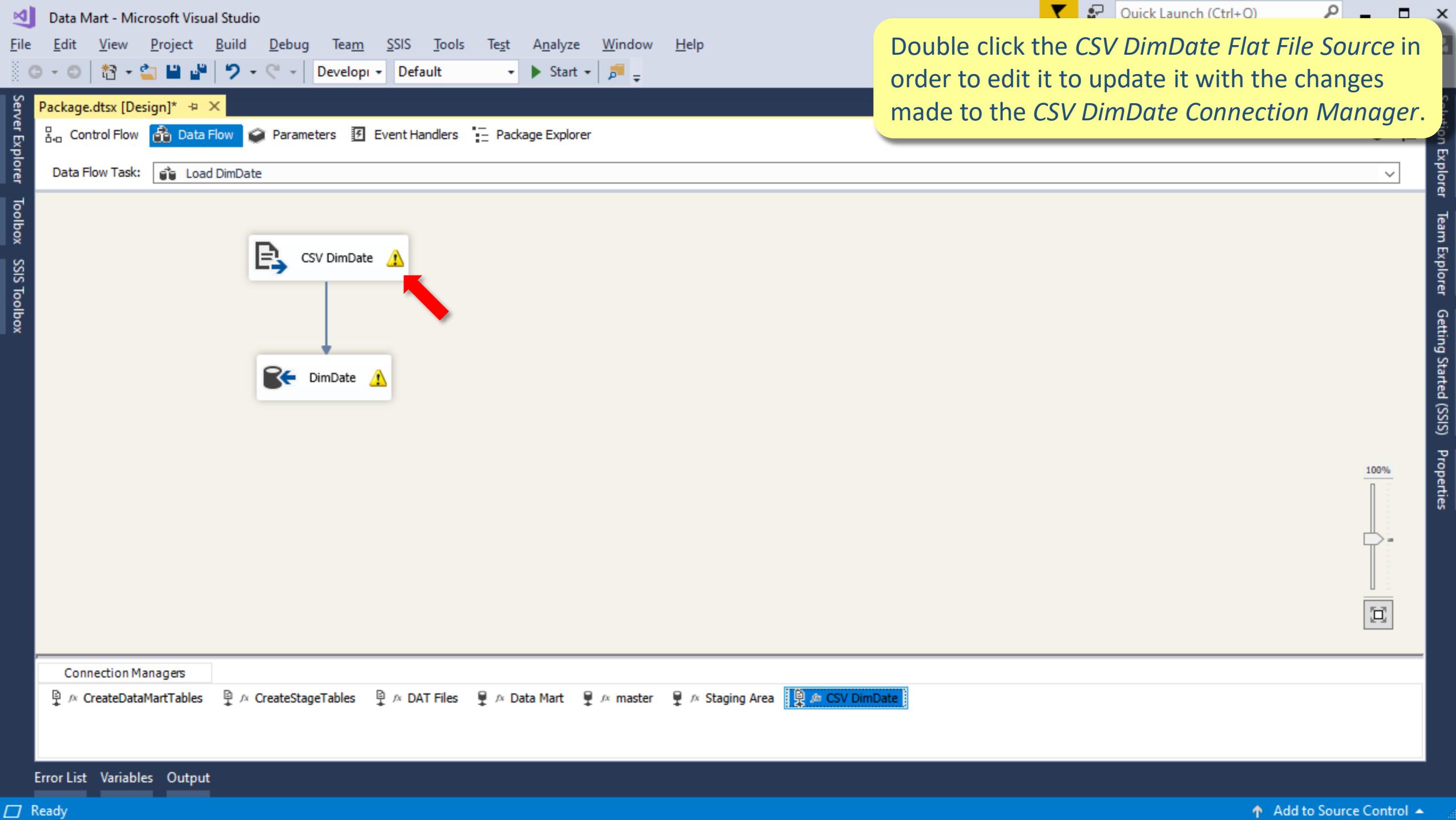
Error List Variables Output

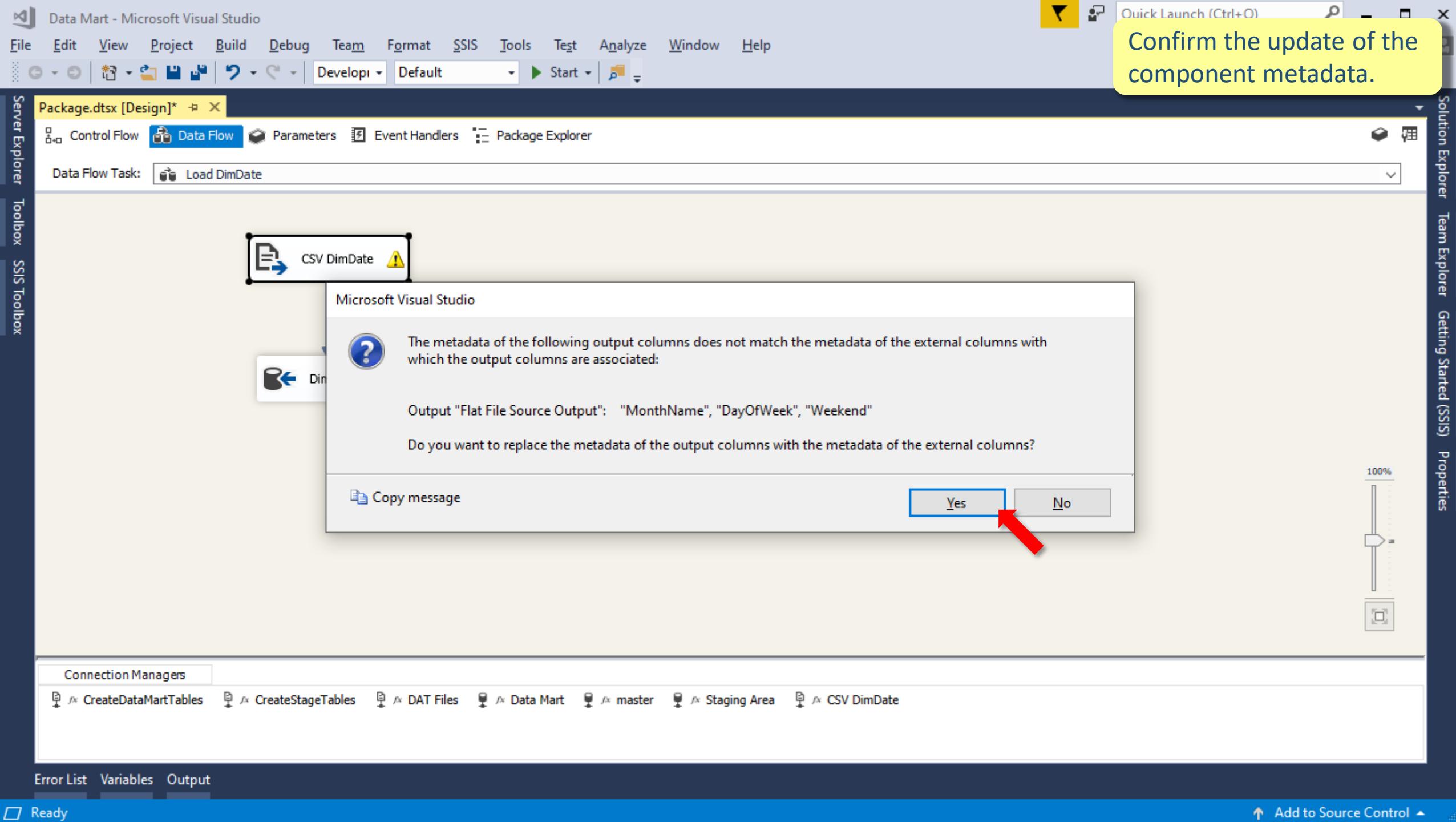
Add to Source Control ▾

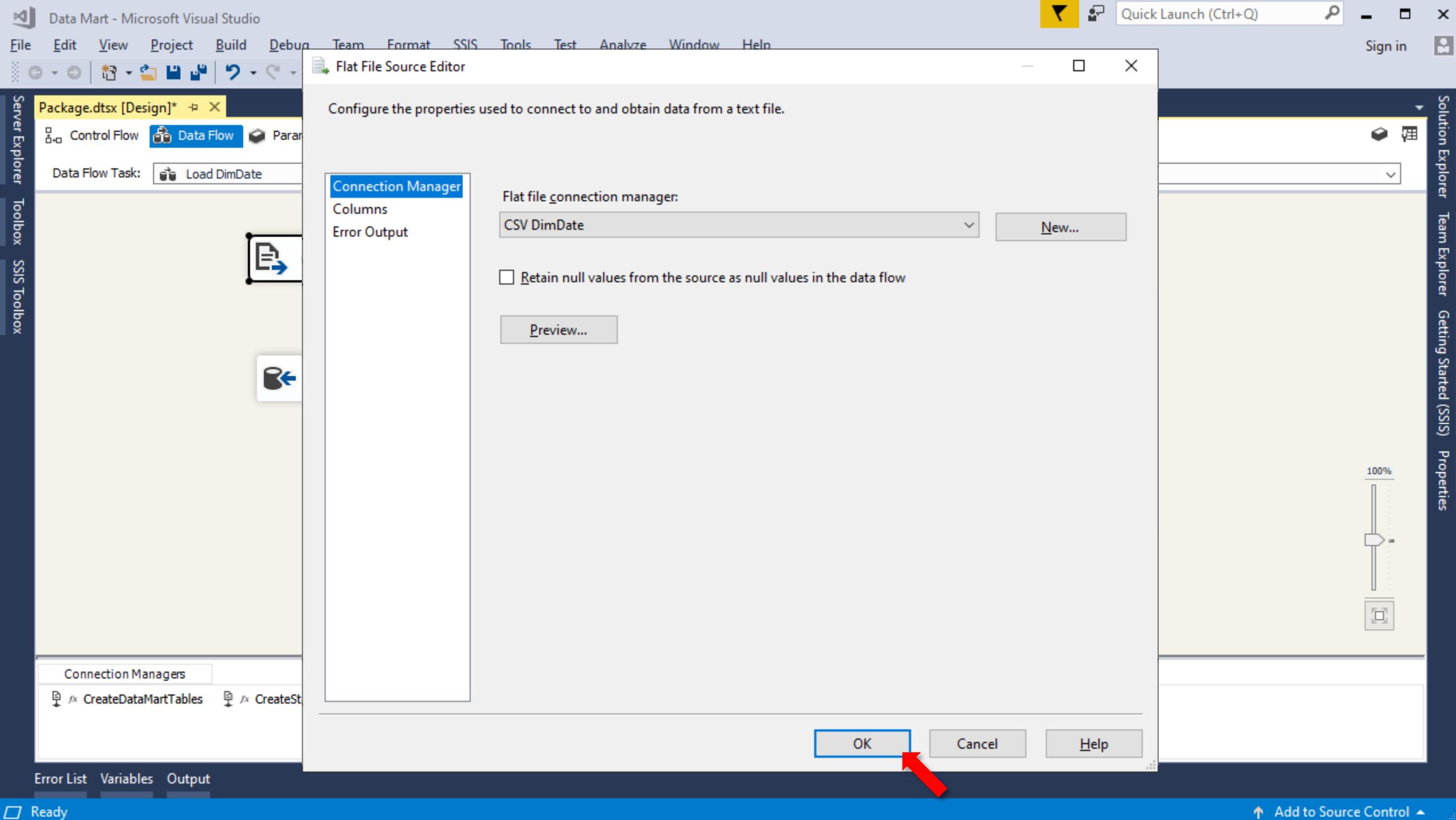
Ready

The screenshot shows the Microsoft Visual Studio interface for an SSIS package named 'Package.dtsx'. In the center, the 'Flat File Connection Manager Editor' is open for a connection named 'CSV DimDate'. On the left, the 'Advanced' tab is highlighted with a red arrow. On the right, the 'Misc' properties panel shows the 'OutputColumnWidth' property set to '10', also highlighted with a red arrow. The 'DayOfWeek' column is selected in the list of columns on the left. The status bar at the bottom indicates 'Ready'.





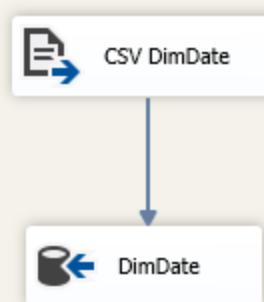




Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer

Data Flow Task: Load DimDate



Solution Explorer Team Explorer Getting Started (SSIS) Properties

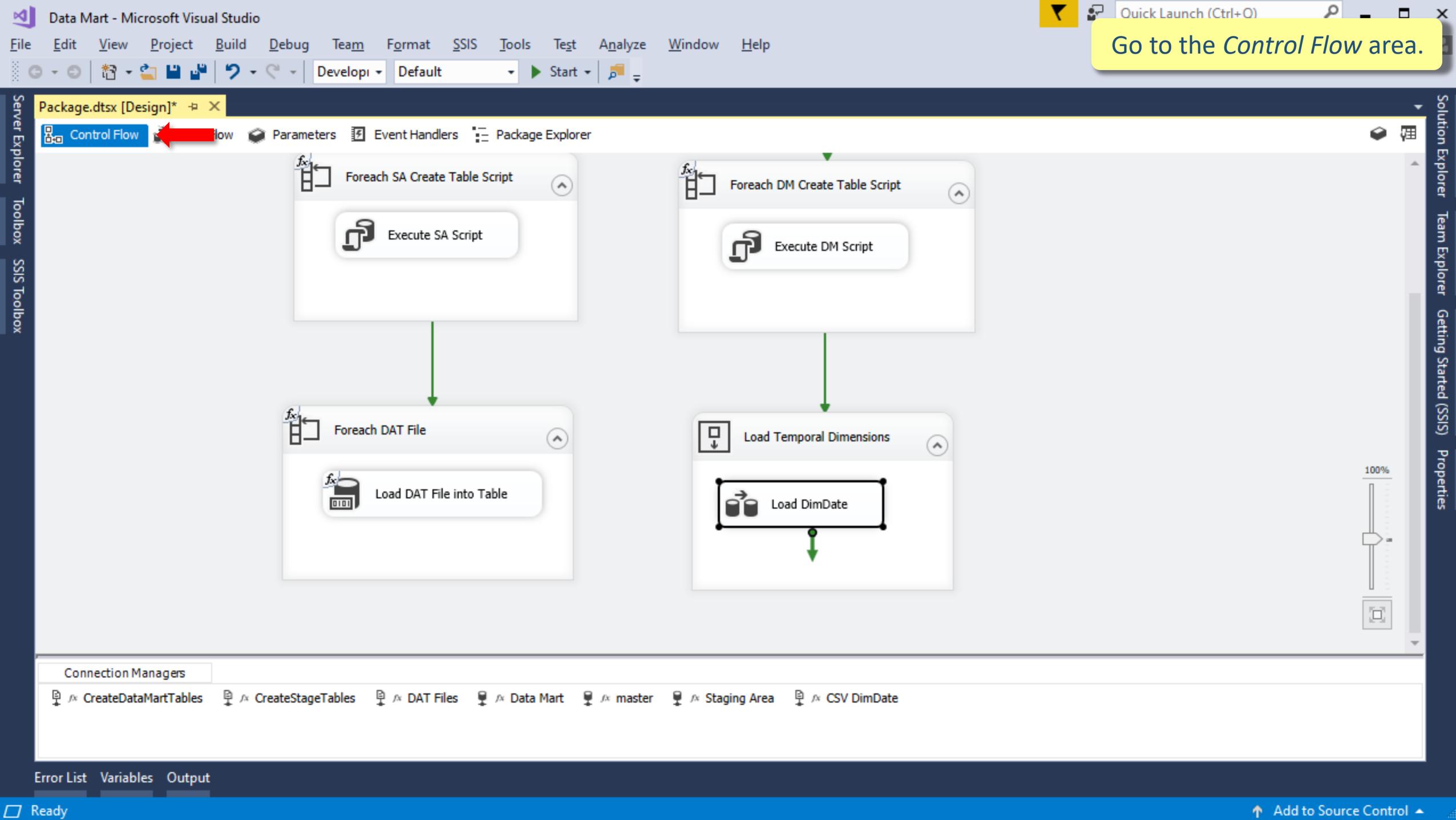
100%

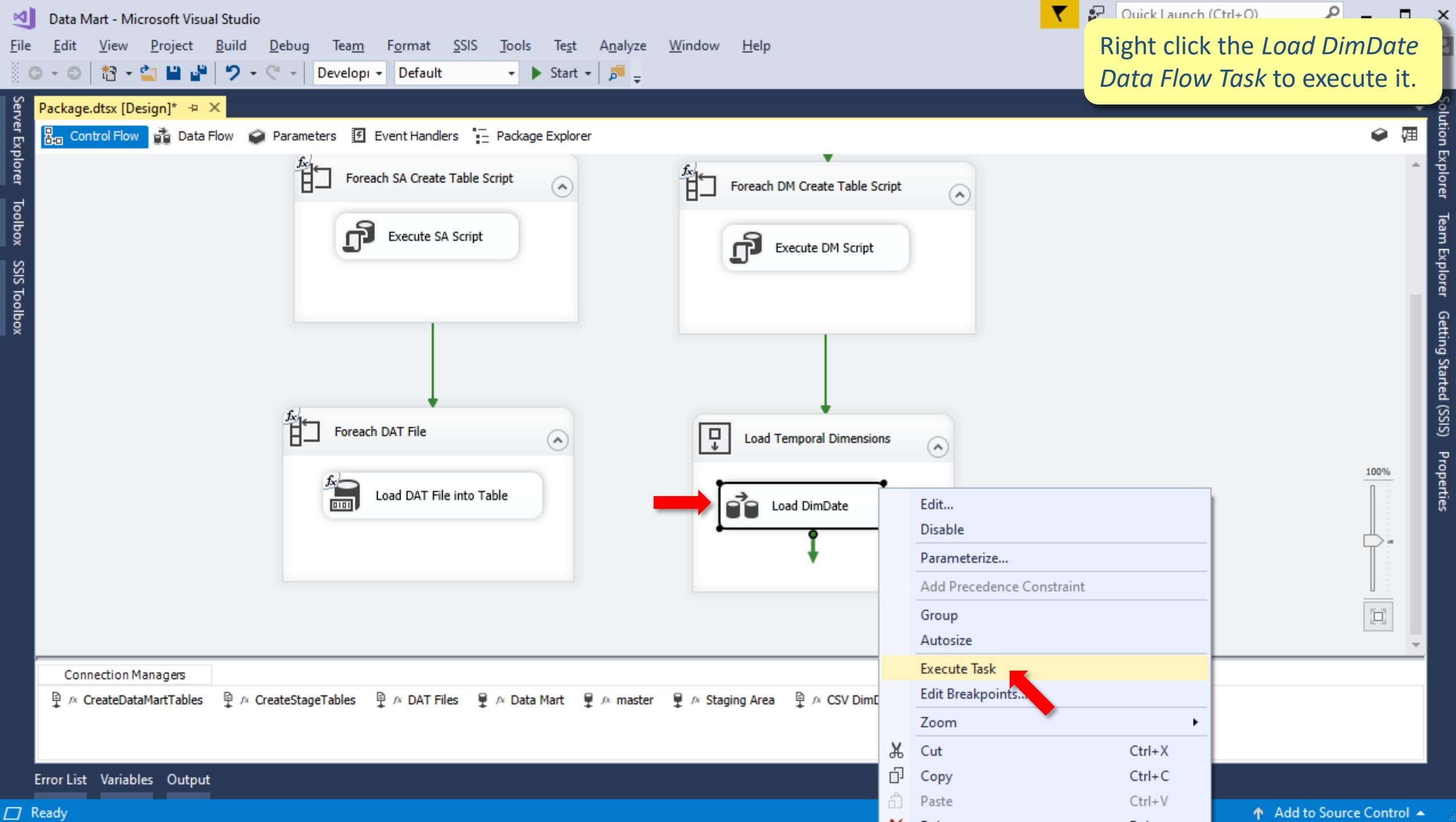


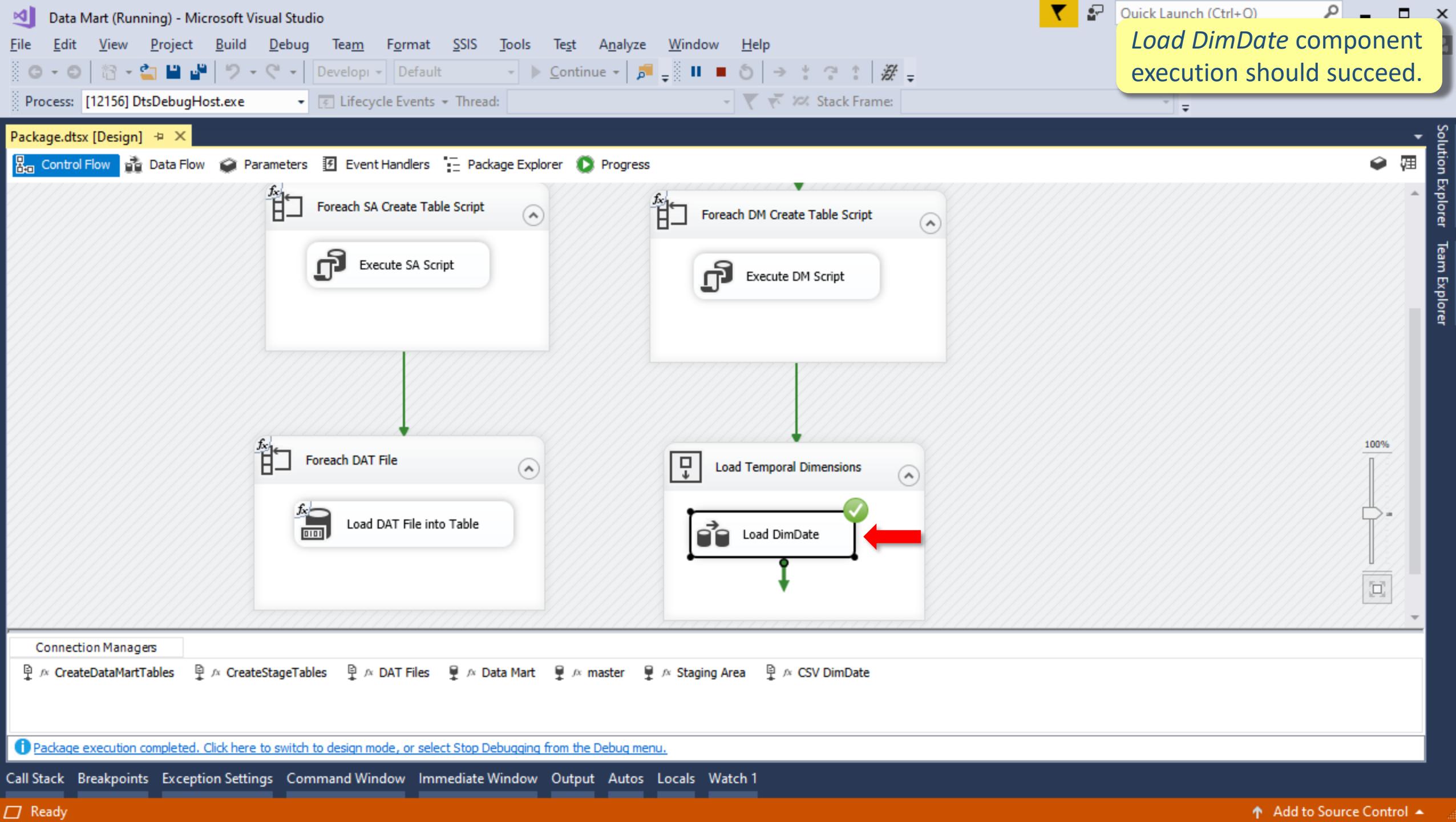
Connection Managers

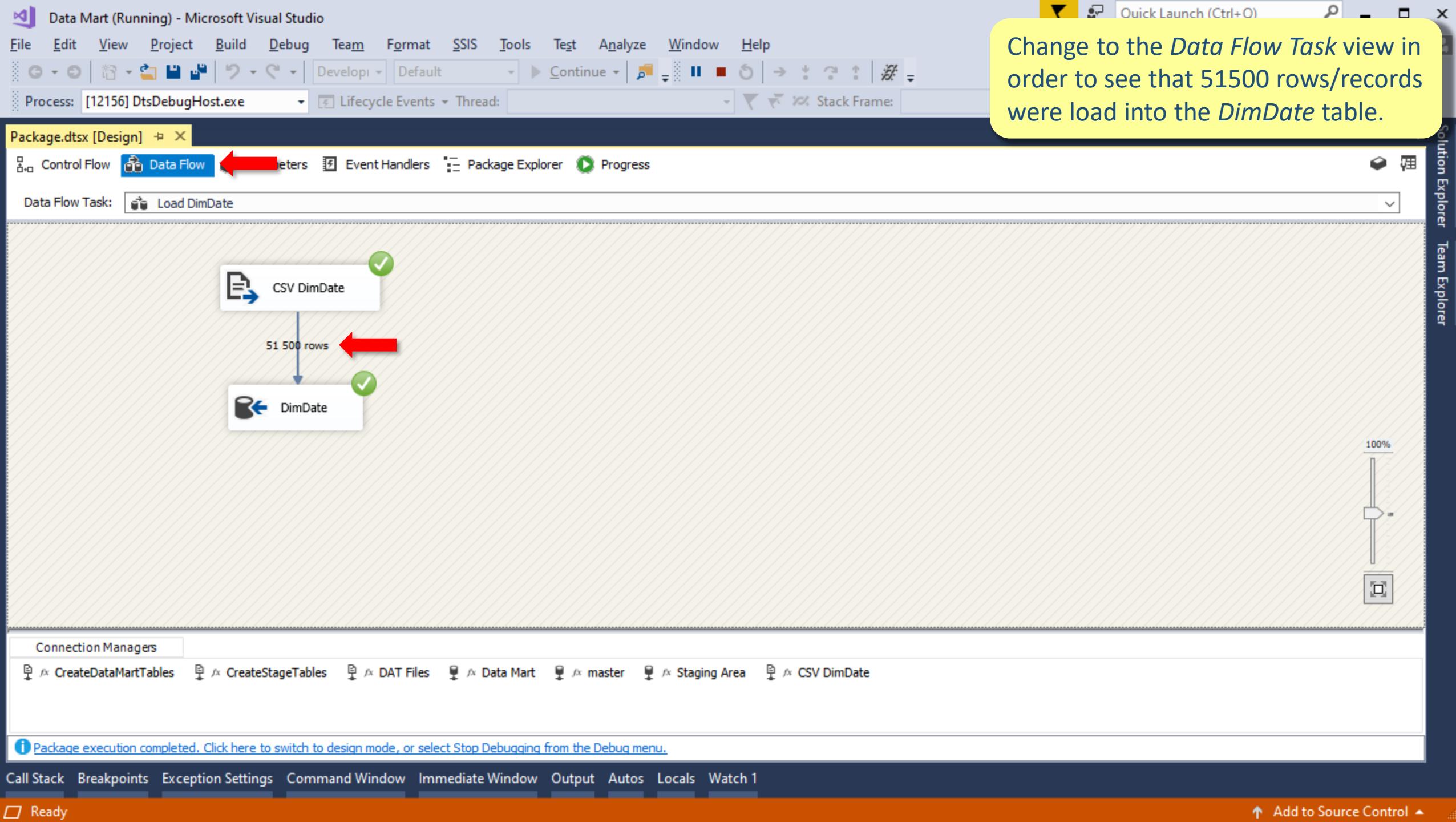
CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area CSV DimDate

Error List Variables Output









SQLQuery1.sql - localhost.ARMDD\_StagingArea (AzureAD\PauloOliveira (64)) - Microsoft SQL Server Management Studio

File Edit View Project Tools Window Help

New Query MDX DMX XMLA DAX Execute

Object Explorer

localhost (SQL Server 16.0.1050.5 - AzureAI) ▾

- Databases 
- System Databases
- Database Snapshots
- AdventureWorksDW2022
- ARMDD\_DataMart 
- Database Diagrams
- Tables 
- System Tables
- FileTables
- External Tables
- Graph Tables
- dbo.DimCard
- dbo.DimDate 
- dbo.DimItem
- dbo.DimPay
- dbo.DimStor
- dbo.DimTime
- dbo.FactSale
- Dropped Led
- Views
- External Resourc
- Synonyms
- Programmability
- Query Store
- Service Broker
- Storage
- Security
- ARMDD\_StagingAre

SQLQuery1.sql - loc...\\PauloOliveira (64)

```
SELECT TOP (1000) [PK_Date]
      ,[Date_Name]
      ,[Year]
      ,[Year_Name]
      ,[Half_Year]
      ,[Half_Year_Name]
      ,[Quarter]
      ,[Quarter_Name]
      ,[Trimester]
      ,[Trimester_Name]
      ,[Month]
      ,[Month_Name]
      ,[Ten_Days]
      ,[Ten_Days_Name]
      ,[Week]
      ,[Week_Name]
      ,[Day_Of_Year]
```

100 %

New Table...

Design

Select Top 1000 Rows 

Edit Top 200 Rows

Script Table as

View Dependencies

Memory Optimization Advisor

Encrypt Columns...

Full-Text index

Storage

Policies

Facets

ISO\_8601\_Day\_Of\_Year\_Name ISO\_8601\_Day\_Of\_Week ISO\_8601\_Day\_Of\_Week\_Name ISO\_8601\_Week\_Of\_Year ISO\_8601\_Week\_Of\_Year\_Name

Day	ISO_8601_Day_Of_Year_Name	ISO_8601_Day_Of_Week	ISO_8601_Day_Of_Week_Name	ISO_8601_Week_Of_Year	ISO_8601_Week_Of_Year_Name
1	Day 1	1	Day 1	1	Week 1
2	Day 2	2	Day 2	1	Week 1
3	Day 3	3	Day 3	1	Week 1
4	Day 4	4	Day 4	1	Week 1
5	Day 5	5	Day 5	1	Week 1
6	Day 6	6	Day 6	1	Week 1
7	Day 7	7	Day 7	1	Week 1
8	Day 8	1	Day 1	2	Week 2
9	Day 9	2	Day 2	2	Week 2
10	Day 10	3	Day 3	2	Week 2

Successfully.

localhost (16.0 RTM) | AzureAD\PauloOliveira ... | ARMDD\_StagingArea | 00:00:01 | 1,000 rows

Ready

Go to SQL Server Management Studio, expand *Databases* and *ARMDD\_DataMart* and then *Tables*. Right-click *DimDate* to select the top 1000 rows and see its data.

SQLQuery2.sql - LYNX.ARPAD\_DataMart (LYNX\Paulo (65)) - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDX DMX XMLA DAX

ARPAD\_DataMart Execute

Object Explorer

localhost (SQL Server 16.0.1050.5 - AzureAI)

- Databases
  - System Databases
  - Database Snapshots
  - AdventureWorksDW2022
- ARMDD\_DataMart
  - Database Diagrams
  - Tables
    - System Tables
    - FileTables
    - External Tables
    - Graph Tables
    - dbo.DimCard
    - dbo.DimDate
    - dbo.DimItem
    - dbo.DimPaymentMethod
    - dbo.DimStore
    - dbo.DimTime
    - dbo.FactSales
    - Dropped Ledger Tables
  - Views
  - External Resources
  - Synonyms
  - Programmability
  - Query Store
  - Service Broker
  - Storage
  - Security
- ARMDD\_StagingArea

SQLQuery2.sql - LY...t (LYNX\Paulo (65))

```
***** Script for SelectTopNRows command from SSMS *****/
SELECT TOP (1000) [DateKey]
      ,[FullDate]
      ,[Year]
      ,[Semester]
      ,[Quarter]
      ,[Month]
      ,[MonthName]
      ,[Week]
      ,[DayNumberOfYear]
      ,[DayNumberOfMonth]
      ,[DayNumberOfWeek]
      ,[DayOfWeek]
      ,[Weekend]
  FROM [ARPAD_DataMart].[dbo].[DimDate]
```

Results

	DateKey	FullDate	Year	Semester	Quarter	Month	MonthName	Week	DayNumberOfYear	DayNumberOfMonth	DayNumberOfWeek	DayOfWeek
1	1	1900-01-01 00:00:00.000	1900	1	1	1	January	1	1	1	2	Monday
2	2	1900-01-02 00:00:00.000	1900	1	1	1	January	1	2	2	3	Tuesday
3	3	1900-01-03 00:00:00.000	1900	1	1	1	January	1	3	3	4	Wednesday
4	4	1900-01-04 00:00:00.000	1900	1	1	1	January	1	4	4	5	Thursday
5	5	1900-01-05 00:00:00.000	1900	1	1	1	January	1	5	5	6	Friday
6	6	1900-01-06 00:00:00.000	1900	1	1	1	January	1	6	6	7	Saturday
7	7	1900-01-07 00:00:00.000	1900	1	1	1	January	2	7	7	1	Sunday
8	8	1900-01-08 00:00:00.000	1900	1	1	1	January	2	8	8	2	Monday
9	9	1900-01-09 00:00:00.000	1900	1	1	1	January	2	9	9	3	Tuesday
10	10	1900-01-10 00:00:00.000	1900	1	1	1	January	2	10	10	4	Wednesday

Query executed successfully.

Quick Launch (Ctrl+O)

DimDate attributes and data of the Data Mart project are now visible. January 1<sup>st</sup> of 1900 is actually the first record loaded into DimDate table.

SQLQuery2.sql - LYNX.ARPAD\_DataMart (LYNX\Paulo (65))\* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDX DMX XHLA DAX Execute

Object Explorer

localhost (SQL Server 16.0.1050) ARMDD\_DataMart Tables

SQLQuery2.sql - LYNX\Paulo (65)\*

```
***** Script for SelectTopNRows command from SSMS *****/
SELECT *
FROM [ARMDD_StagingArea].[dbo].[DimDate]
```

Results Messages

	DateKey	FullDate	Year	Semester	Quarter	Month	MonthName	Week	DayNumberOfYear	DayNumberOfMonth	DayNumberOfWeek	DayOfWeek	Weekend
1	1	1900-01-01 00:00:00.000	1900	1	1	1	January	1	1	1	2	Monday	No
2	2	1900-01-02 00:00:00.000	1900	1	1	1	January	1	2	2	3	Tuesday	No
3	3	1900-01-03 00:00:00.000	1900	1	1	1	January	1	3	3	4	Wednesday	No
4	4	1900-01-04 00:00:00.000	1900	1	1	1	January	1	4	4	5	Thursday	No
5	5	1900-01-05 00:00:00.000	1900	1	1	1	January	1	5	5	6	Friday	No
6	6	1900-01-06 00:00:00.000	1900	1	1	1	January	1	6	6	7	Saturday	Yes
7	7	1900-01-07 00:00:00.000	1900	1	1	1	January	2	7	7	1	Sunday	Yes
8	8	1900-01-08 00:00:00.000	1900	1	1	1	January	2	8	8	2	Monday	No
9	9	1900-01-09 00:00:00.000	1900	1	1	1	January	2	9	9	3	Tuesday	No
10	10	1900-01-10 00:00:00.000	1900	1	1	1	January	2	10	10	4	Wednesday	No
11	11	1900-01-11 00:00:00.000	1900	1	1	1	January	2	11	11	5	Thursday	No

Query executed successfully.

Quick Launch (Ctrl+O)

Change the previous SQL query in order to see all the rows/records and execute it.

SQLQuery2.sql - LYNX.ARPAD\_DataMart (LYNX\Paulo (65))\* - Microsoft SQL Server Management Studio

File Edit View Query Project Tools Window Help

New Query MDX DMX XMLA DAX Execute

ARPAD\_DataMart centro

Object Explorer

Connect

localhost (SQL Server 16.0.1050) Databases System Databases Database Snapshots AdventureWorksDW2019 ARMDD\_DataMart Database Diagrams Tables System Tables FileTables External Tables Graph Tables dbo.DimCard dbo.DimDate dbo.DimItem dbo.DimPayme dbo.DimStore dbo.DimTime dbo.FactSales Dropped Ledger Views External Resources Synonyms Programmability Query Store Service Broker Storage Security ARMDD\_StagingArea

SQLQuery2.sql - LY...t (LYNX\Paulo (65))\* \*\*\*\* Script for SelectTopNRows command from SSMS \*\*\*\* SELECT \* FROM [ARMDD\_StagingArea].[dbo].[DimDate]

Results Messages

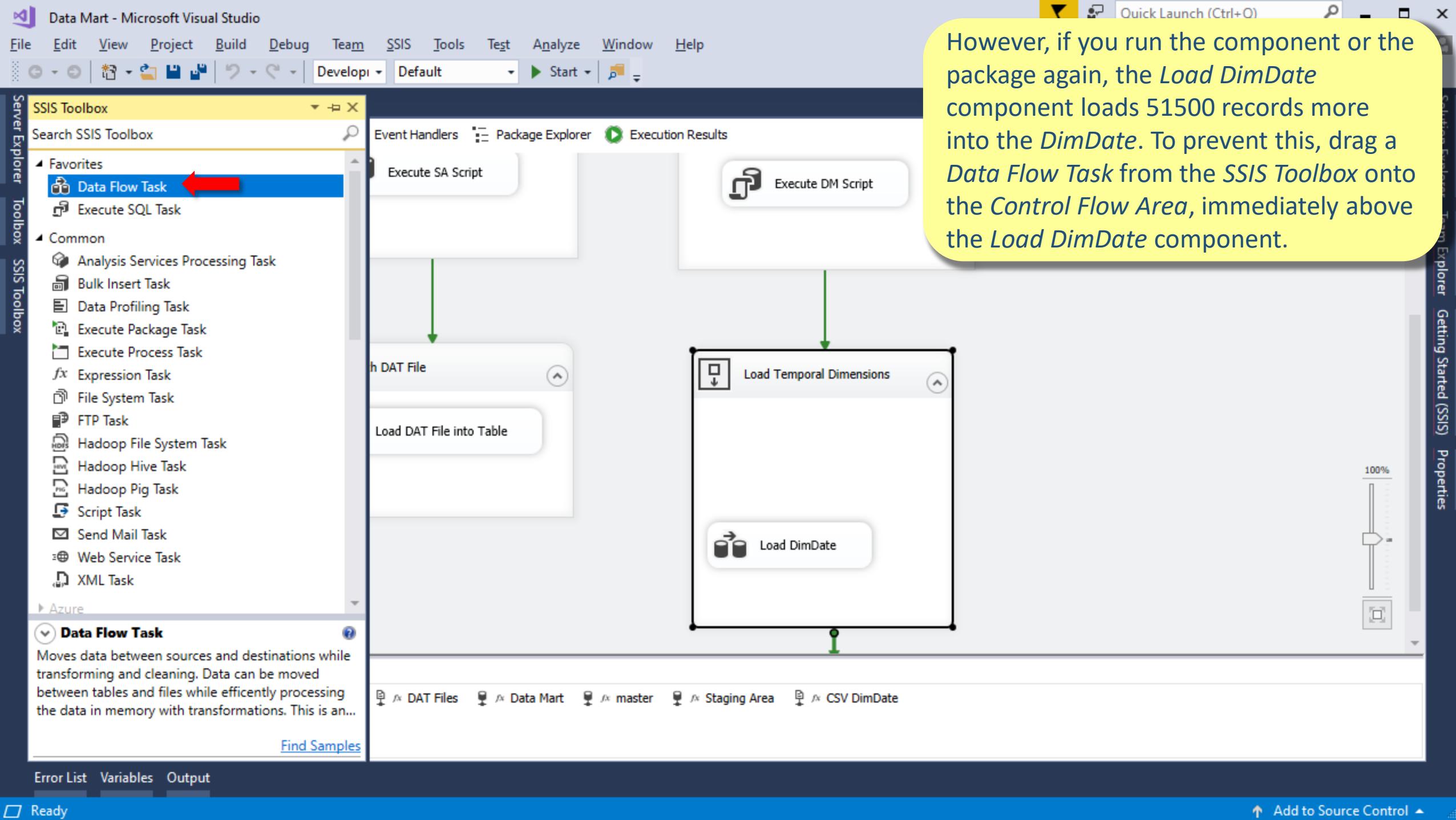
	DateKey	FullDate	Year	Semester	Quarter	Month	MonthName	Week	DayNumberOfYear	DayNumberOfMonth	DayNumberOfWeek	DayOfWeek	Weekend
5...	51491	2040-12-22 00:00:00.000	2040	2	4	12	December	51	357	22	7	Saturday	Yes
5...	51492	2040-12-23 00:00:00.000	2040	2	4	12	December	52	358	23	1	Sunday	Yes
5...	51493	2040-12-24 00:00:00.000	2040	2	4	12	December	52	359	24	2	Monday	No
5...	51494	2040-12-25 00:00:00.000	2040	2	4	12	December	52	360	25	3	Tuesday	No
5...	51495	2040-12-26 00:00:00.000	2040	2	4	12	December	52	361	26	4	Wednesday	No
5...	51496	2040-12-27 00:00:00.000	2040	2	4	12	December	52	362	27	5	Thursday	No
5...	51497	2040-12-28 00:00:00.000	2040	2	4	12	December	52	363	28	6	Friday	No
5...	51498	2040-12-29 00:00:00.000	2040	2	4	12	December	52	364	29	7	Saturday	Yes
5...	51499	2040-12-30 00:00:00.000	2040	2	4	12	December	53	365	30	1	Sunday	Yes
5...	51500	2040-12-31 00:00:00.000	2040	2	4	12	December	53	366	31	2	Monday	No

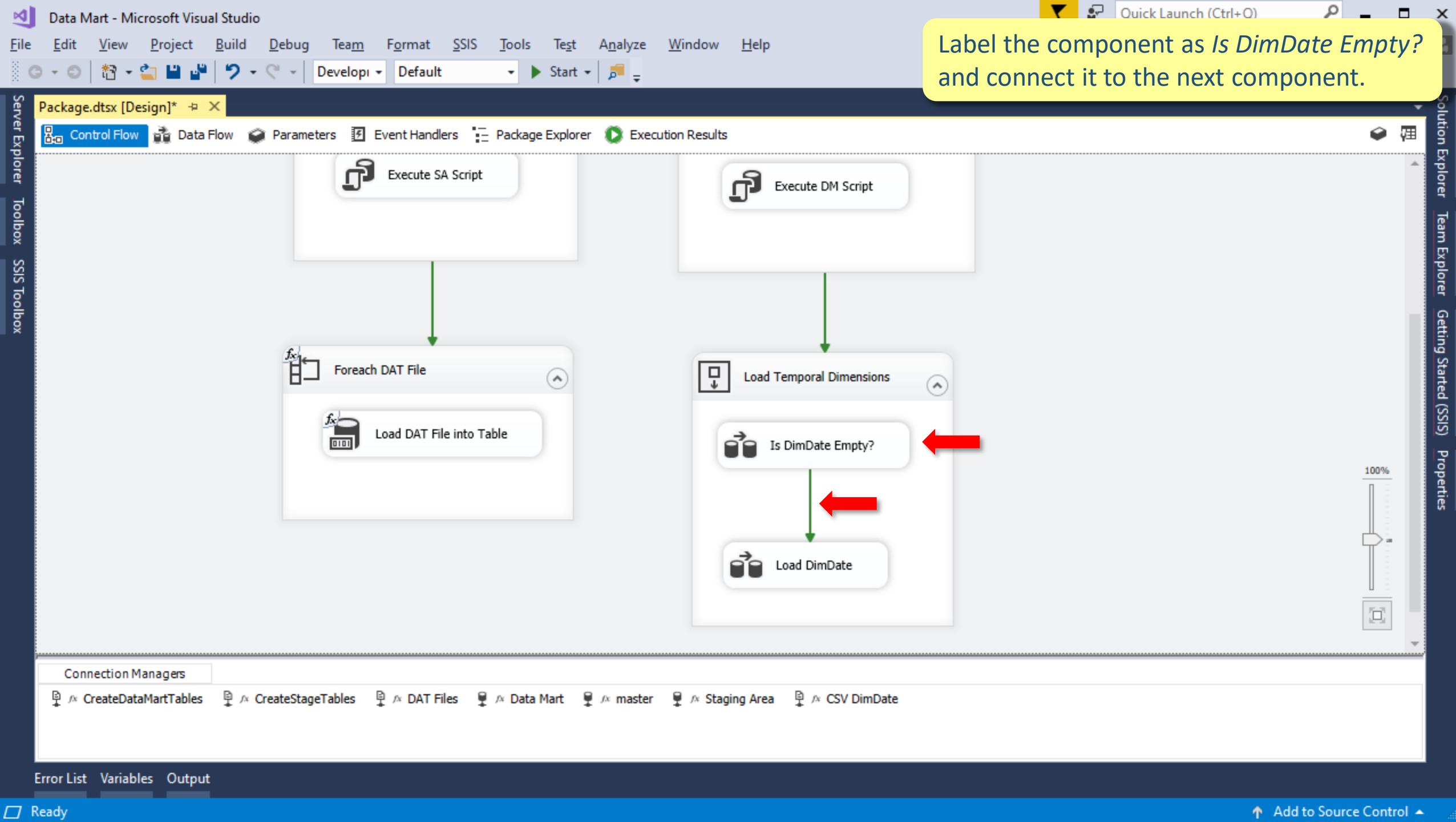
Query executed successfully.

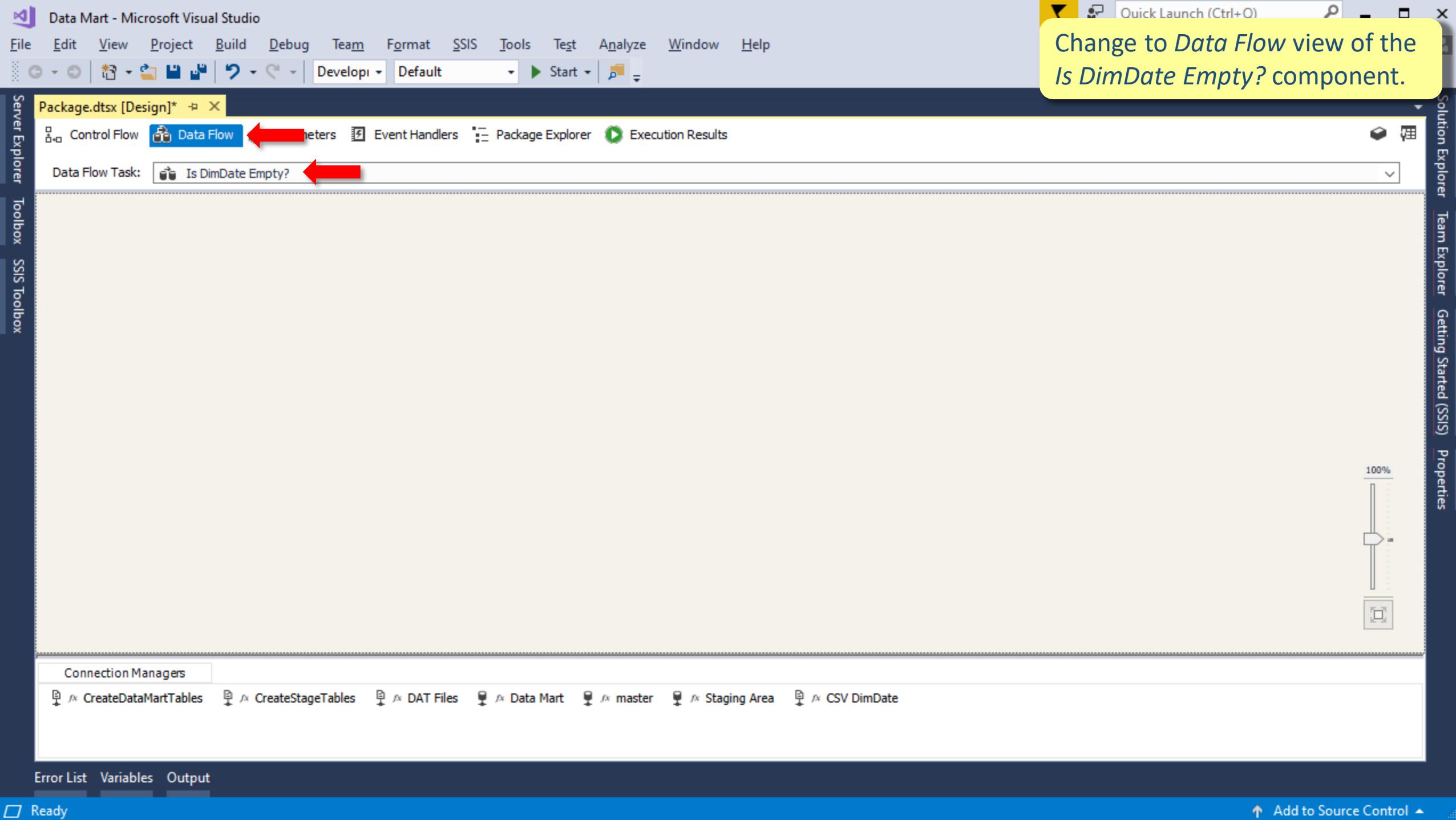
LYNX (15.0 RTM) | LYNX\Paulo (65) | ARPAD\_DataMart | 00:00:01 | 51 500 rows

Quick Launch (Ctrl+O)

51500 rows/records were actually loaded into the DimDate table, being December 31<sup>st</sup> of 2040 the last record.







Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

SSIS Toolbox

Search SSIS Toolbox

Event Handlers Package Explorer Execution Results

Server Explorer

Toolbox

SSIS Toolbox

Sort

Union All

▶ Azure

▶ Other Transforms

▲ Other Sources

- ADO NET Source
- CDC Source
- Excel Source
- Flat File Source
- OLE DB Source** (highlighted with a red arrow)
- Raw File Source
- XML Source

▲ Other Destinations

- ADO NET Destination
- Data Mining Model Training
- DataReader Destination
- Dimension Processing
- Excel Destination
- Flat File Destination

**OLE DB Source**

Extracts data from an OLE DB-compliant relational database. Extract from a database table or view, or use a SQL command. For example, extract data from tables in Microsoft Office Access or SQL Server...

Find Samples

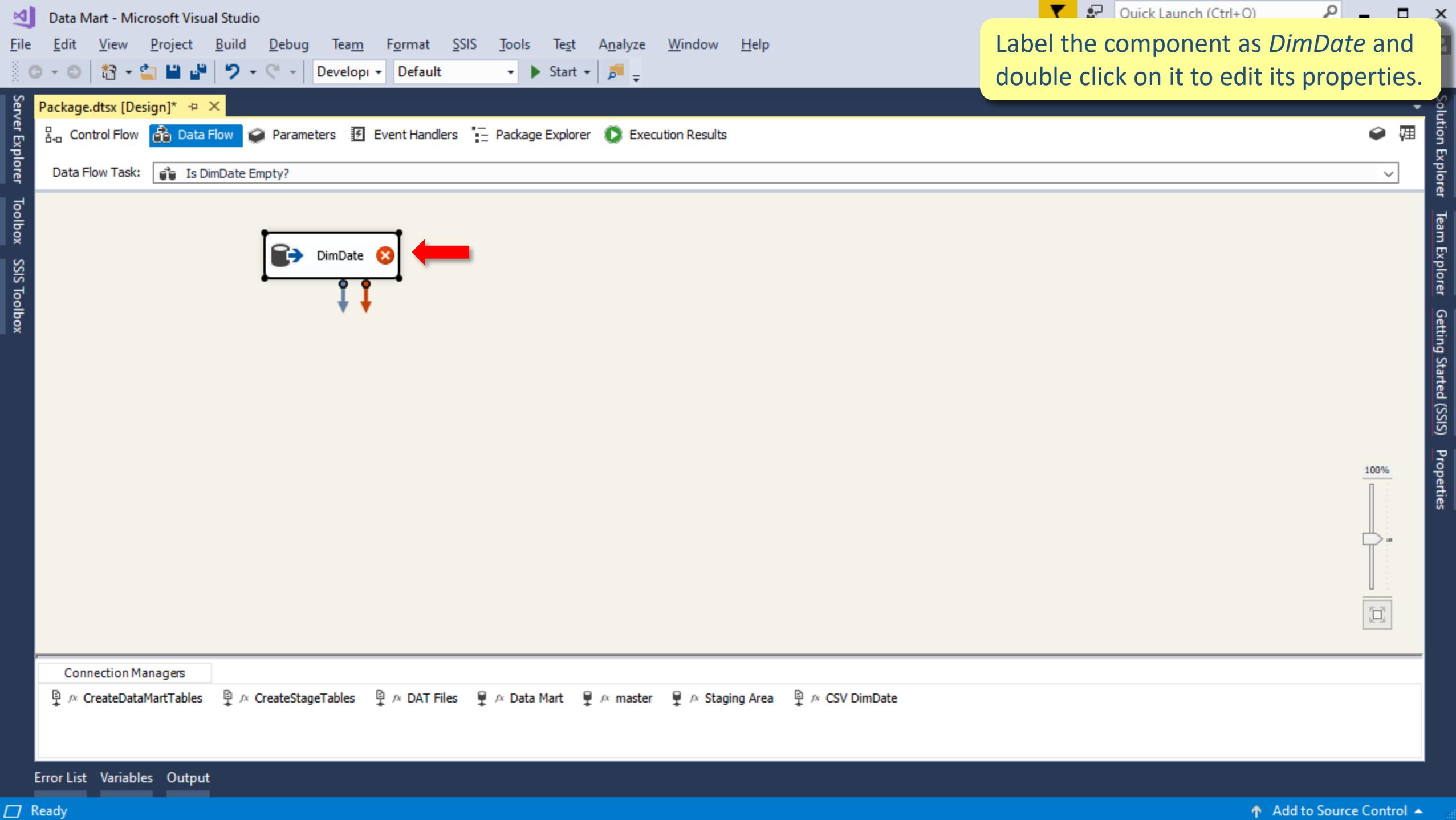
DAT Files Data Mart master Staging Area CSV DimDate

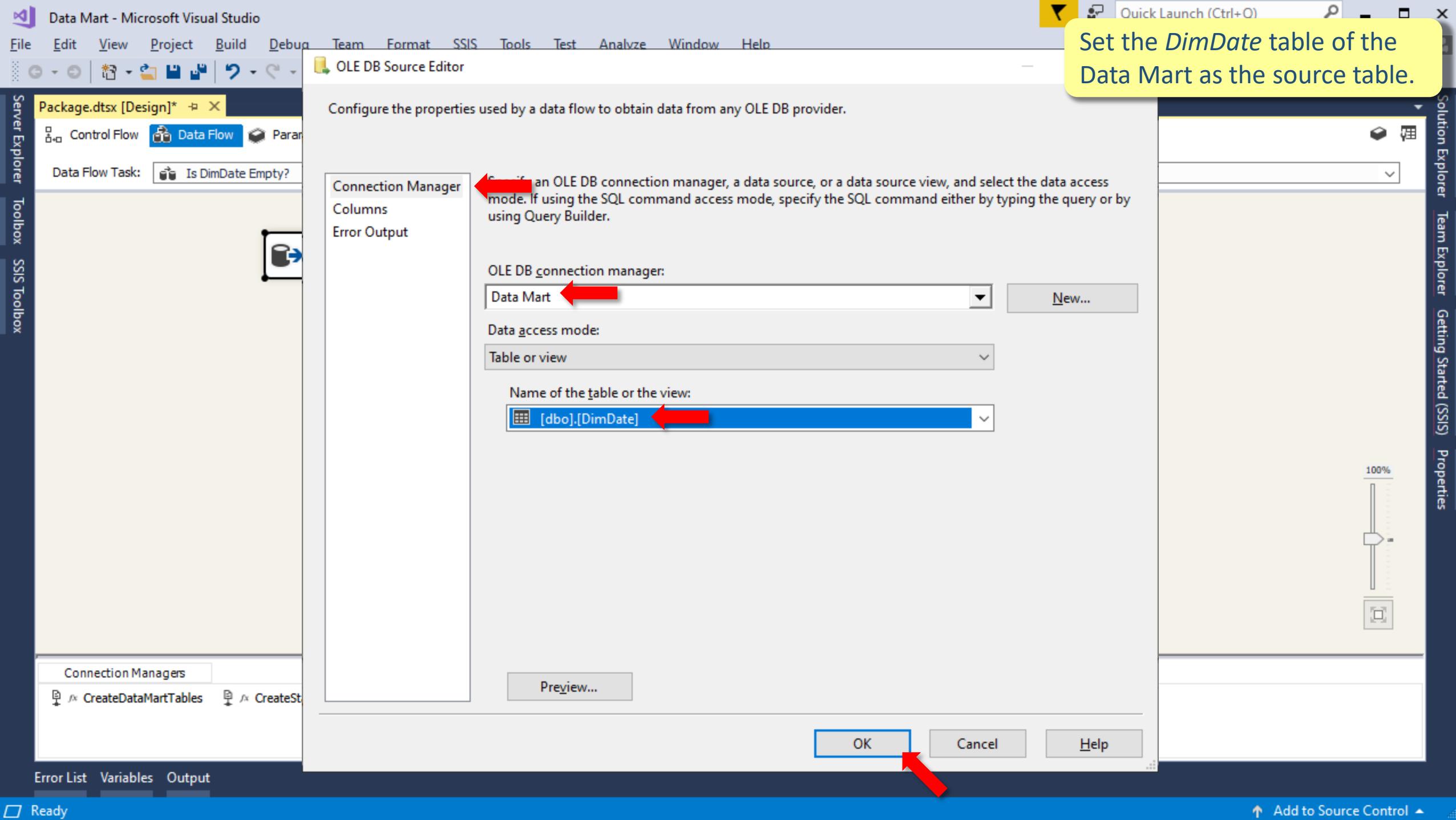
Error List Variables Output

Ready Add to Source Control

Drag an *OLE DB Source* from the *SSIS Toolbox* onto the *Control Flow* area.

Solution Explorer Team Explorer Getting Started (SSIS) Properties





Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Developer Default Start

SSIS Toolbox

Search SSIS Toolbox

Conditional Split  
Data Conversion  
Data Streaming Destination  
Derived Column  
HDFS File Destination  
HDFS File Source  
Lookup  
Merge  
Merge Join  
Multicast  
OData Source  
ODBC Destination  
ODBC Source  
OLE DB Command  
**Row Count**   
Script Component  
Slowly Changing Dimension  
Sort  
Union All

Row Count

Counts rows as they pass through a data flow. For example, use the number of rows processed to determine whether or not to perform cleanup operations, or update text in an e-mail message to...

Find Samples

DAT Files Data Mart master Staging Area CSV DimDate

Error List Variables Output

Quick Launch (Ctrl+O)

Drag a Row Count component from the SSIS Toolbox onto the Data Flow area, underneath the DimDate OLE DB Source component.

Server Explorer  
Toolbox  
SSIS Toolbox  
Solution Explorer  
Team Explorer  
Getting Started (SSIS)  
Properties

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer Execution Results

Data Flow Task: Is DimDate Empty?

DimDate

Row Count

100%

Connection Managers

CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area CSV DimDate

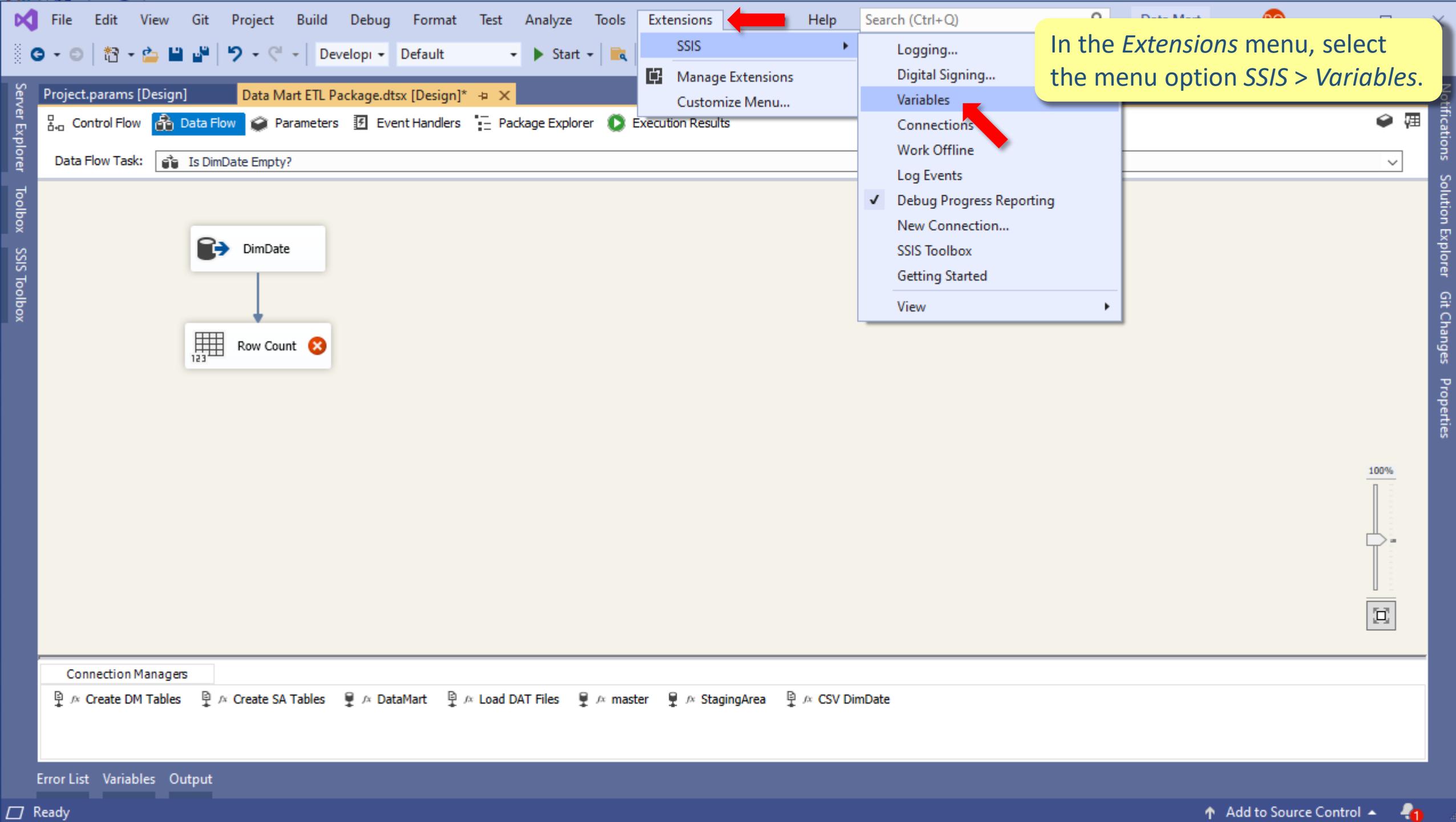
Error List Variables Output

Ready Add to Source Control

Server Explorer Solution Explorer Team Explorer Getting Started (SSIS) Properties

Connect the previous component with the Row Count component.

```
graph TD; DimDate[DimDate] --> RowCount[RowCount];
```



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Create a new variable by clicking in the top left icon of the *Variables* panel (as shown in the figure).

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer Execution Results

Data Flow Task: Is DimDate Empty?

DimDate → Row Count

Variables

Name	Scope	Data type	Value	Expression
DATFilename	Package	String		...
DMScriptFilename	Package	String		...
SAScriptFilename	Package	String		...

Error List Variables Output

Add to Source Control

```
graph TD; DimDate[DimDate] --> RowCount[RowCount]
```

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Create the integer DimDateNrofRecords variable.

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer Execution Results

Data Flow Task: Is DimDate Empty?

DimDate

Row Count

Variables

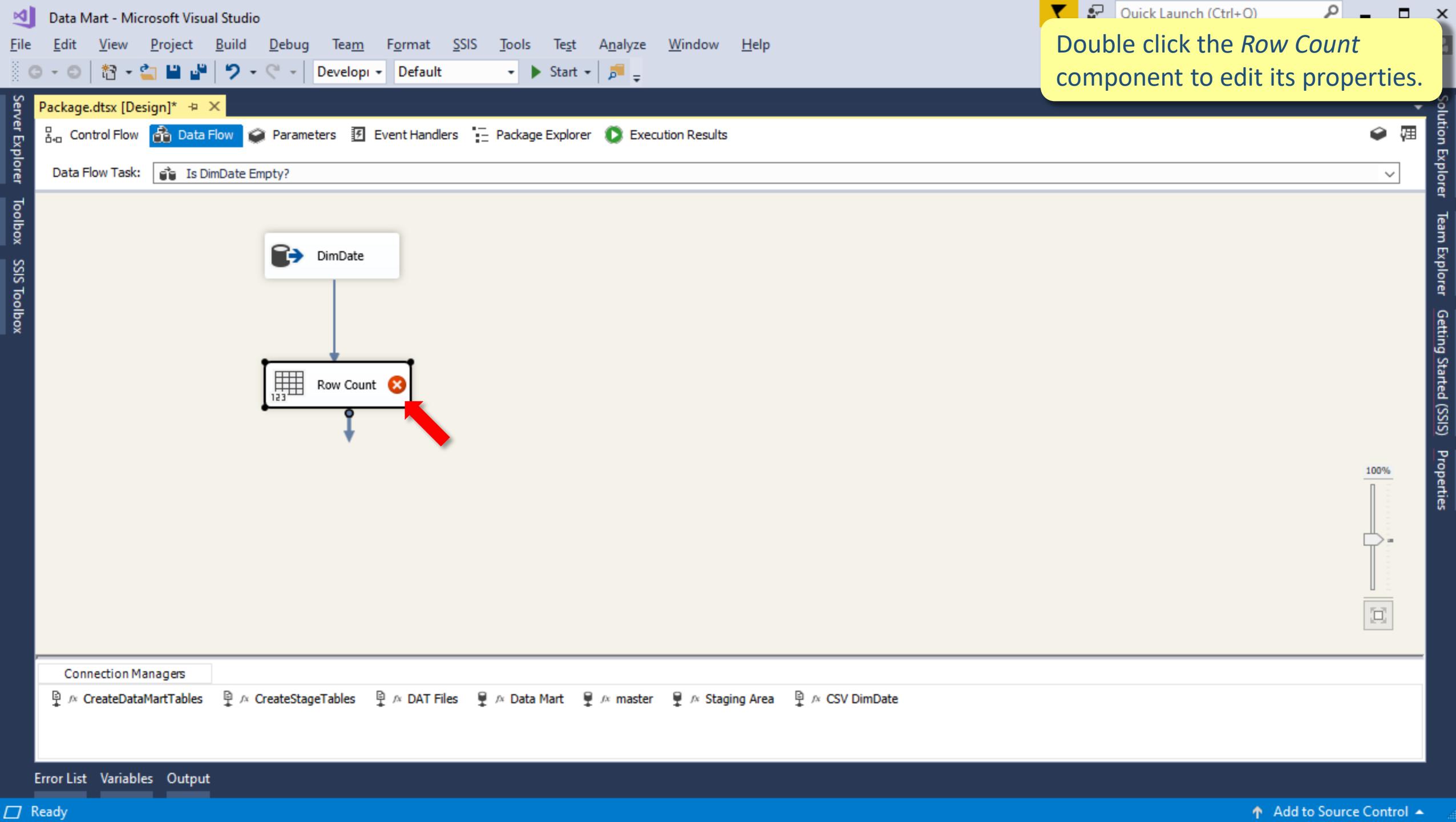
Name	Scope	Data type	Value	Expression
DATFilename	Package	String		
DMScriptFilename	Package	String		
SAScriptFilename	Package	String		
DimDateNrofRecords	Package	Int32	0	

Error List Variables Output

Add to Source Control

```
graph TD; DimDate[DimDate] --> RowCount[RowCount];
```

Name	Scope	Data type	Value	Expression
DATFilename	Package	String		
DMScriptFilename	Package	String		
SAScriptFilename	Package	String		
DimDateNrofRecords	Package	Int32	0	



Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer Execution Results

Data Flow Task: Is DimDate Empty?

DimDate

RowCount

Row Count

Variable: User:DimDateNrofRecords

OK Cancel

Select the variable *DimDateNrofRecords* to store the *DimDate* records count.

Server Explorer Solution Explorer

Toolbox Team Explorer

SSIS Toolbox Getting Started (SSIS) Properties

Connection Managers

CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area CSV DimDate

Error List Variables Output

Add to Source Control

```
graph TD; DimDate[DimDate] --> RowCount[RowCount]; RowCount --> Next[ ];
```

Data Mart - Microsoft Visual Studio

File Edit View Project Build Debug Team Format SSIS Tools Test Analyze Window Help

Quick Launch (Ctrl+O)

Row Count component is now properly configured.

Package.dtsx [Design]\*

Control Flow Data Flow Parameters Event Handlers Package Explorer Execution Results

Data Flow Task: Is DimDate Empty?

DimDate

Row Count

123

100%

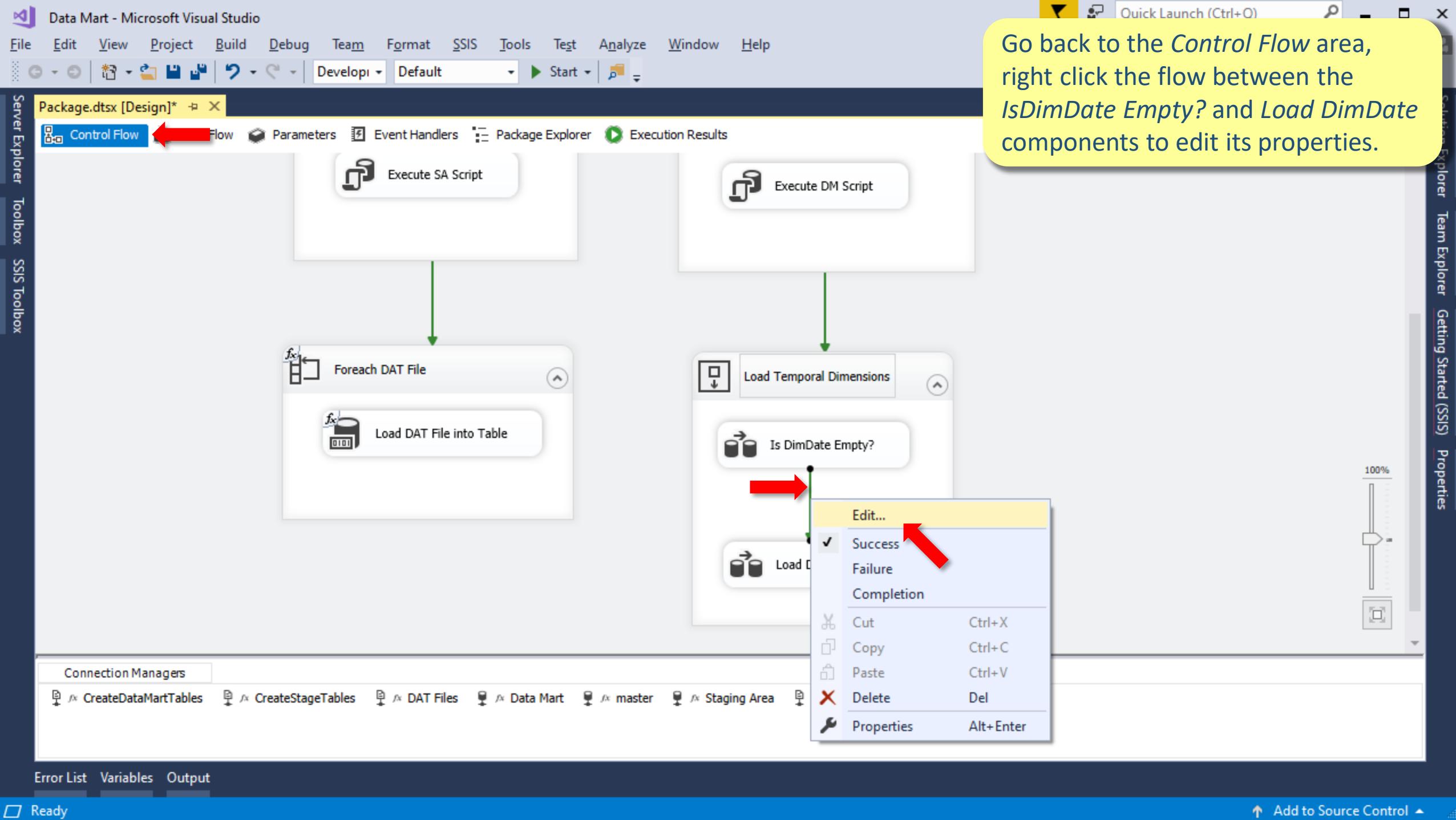
Connection Managers

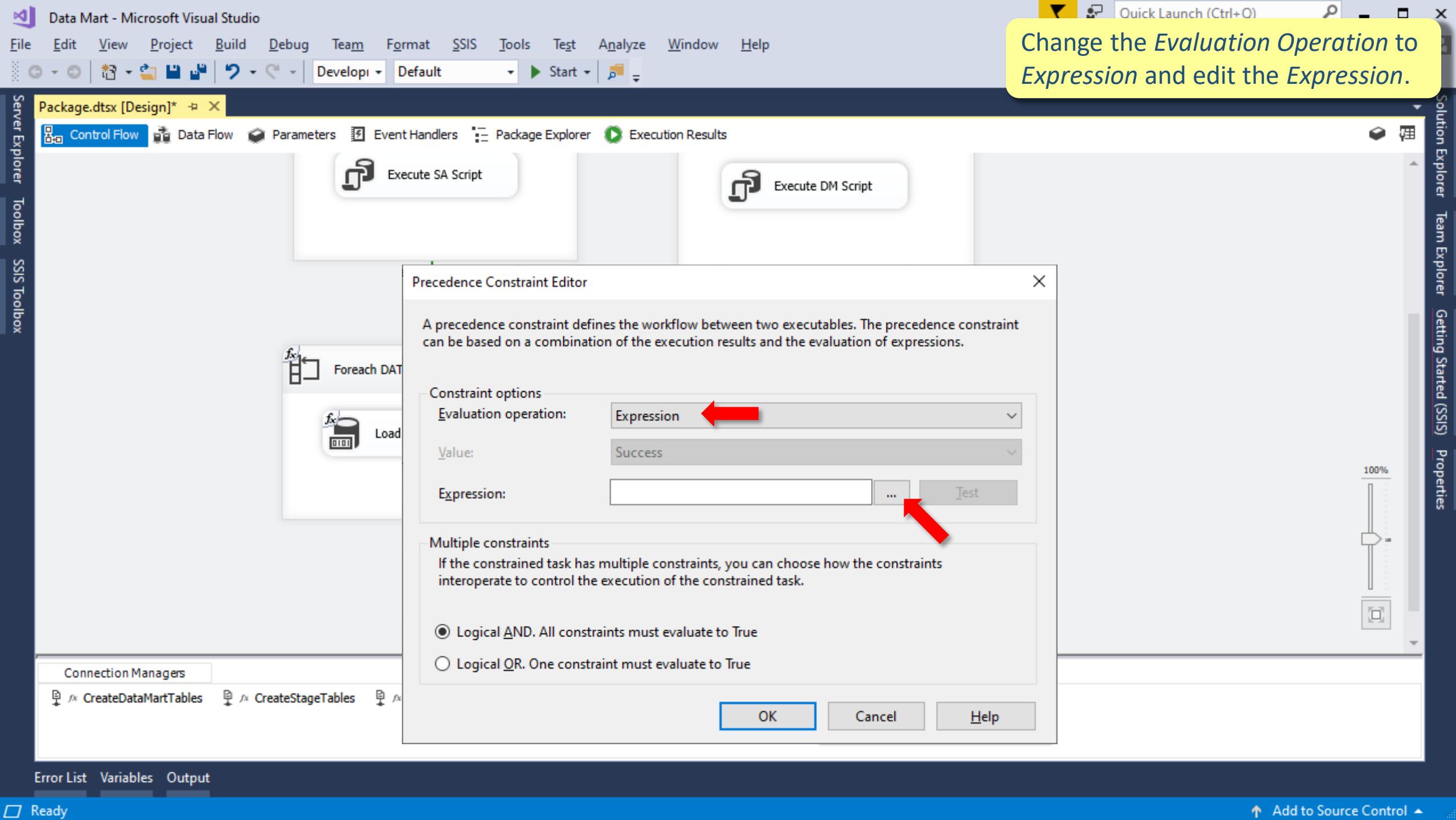
CreateDataMartTables CreateStageTables DAT Files Data Mart master Staging Area CSV DimDate

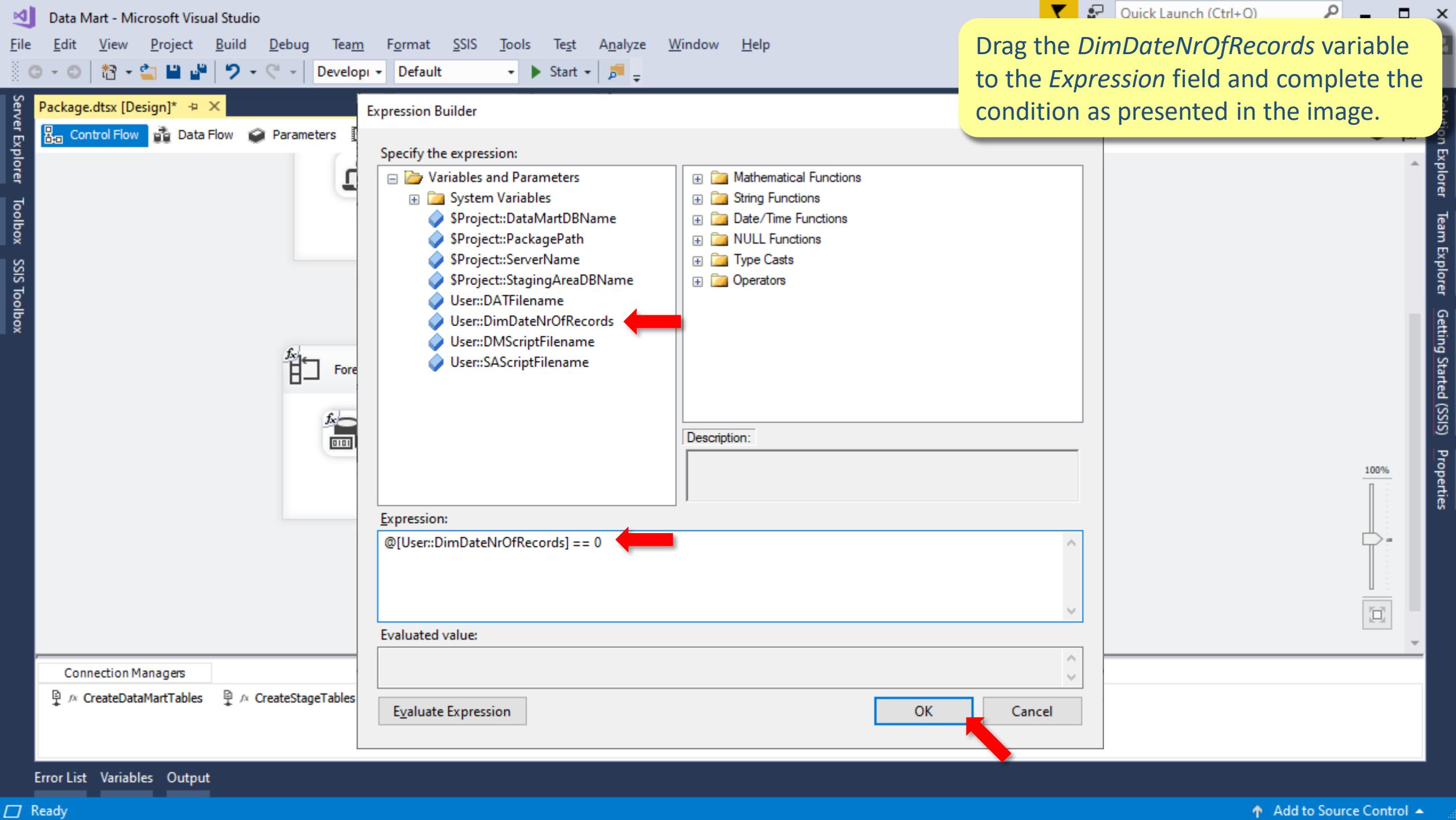
Error List Variables Output

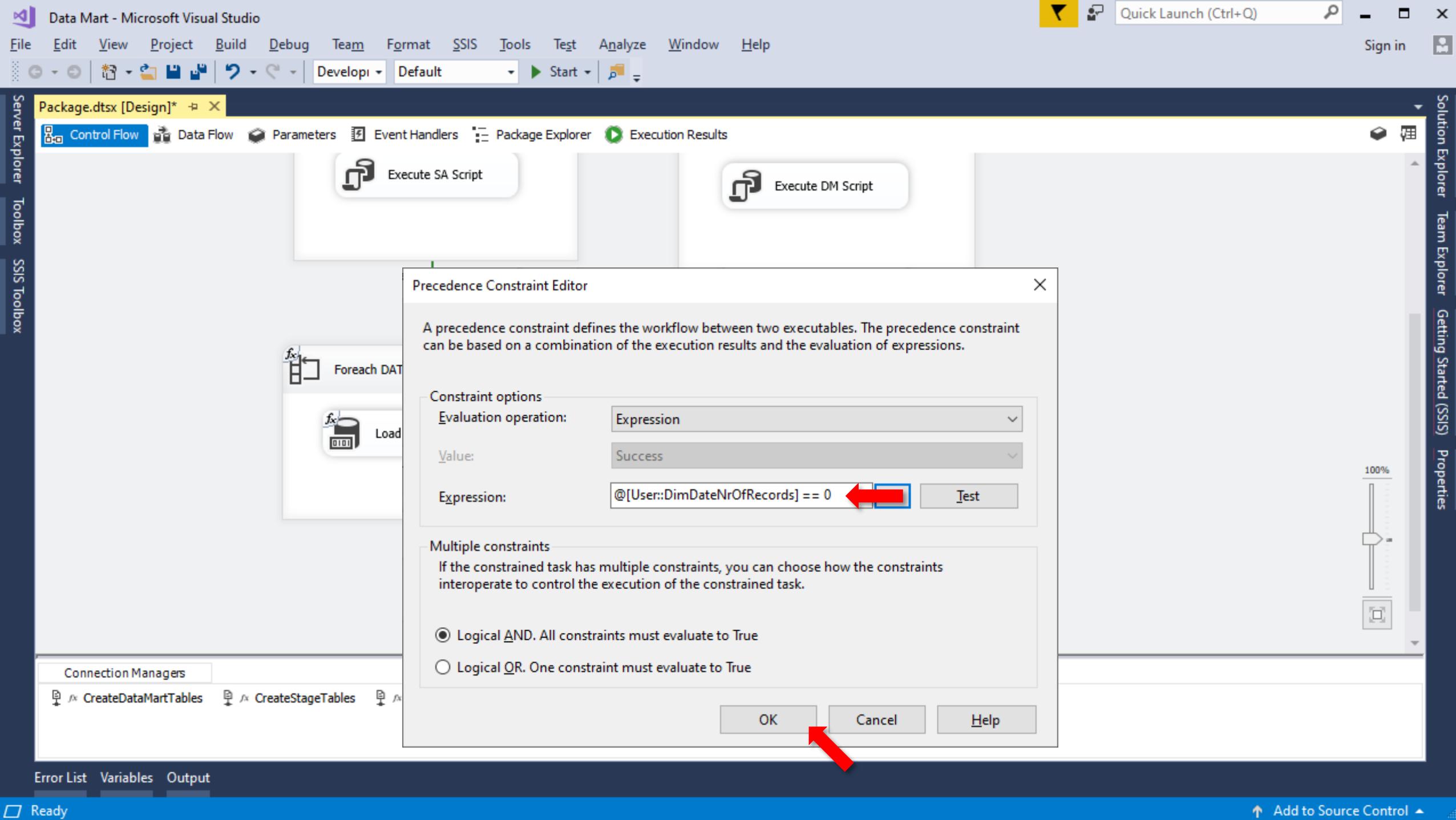
Ready Add to Source Control

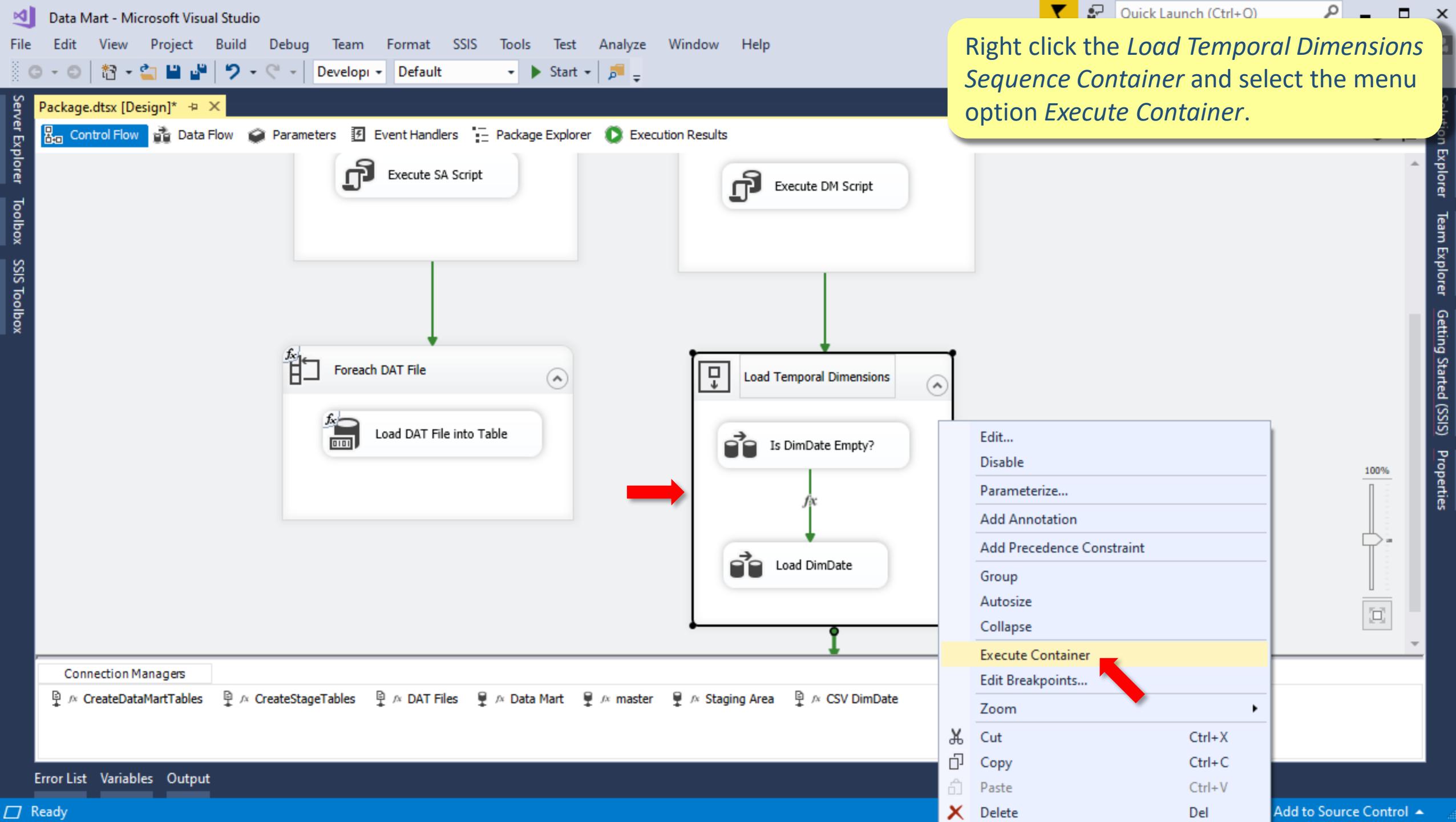
The screenshot shows the Microsoft Visual Studio interface for an SSIS package named 'Package.dtsx'. The 'Data Flow' tab is selected in the ribbon. A data flow task named 'Is DimDate Empty?' is currently active. The data flow diagram consists of two components: a 'DimDate' source and a 'Row Count' transformation. The 'DimDate' source has a single output arrow pointing to the 'Row Count' transformation. The 'Row Count' transformation has a single output arrow pointing downwards. A red arrow points to the 'Row Count' transformation. The 'Properties' pane on the right is visible, showing the '100%' value for the 'Row Count' component.

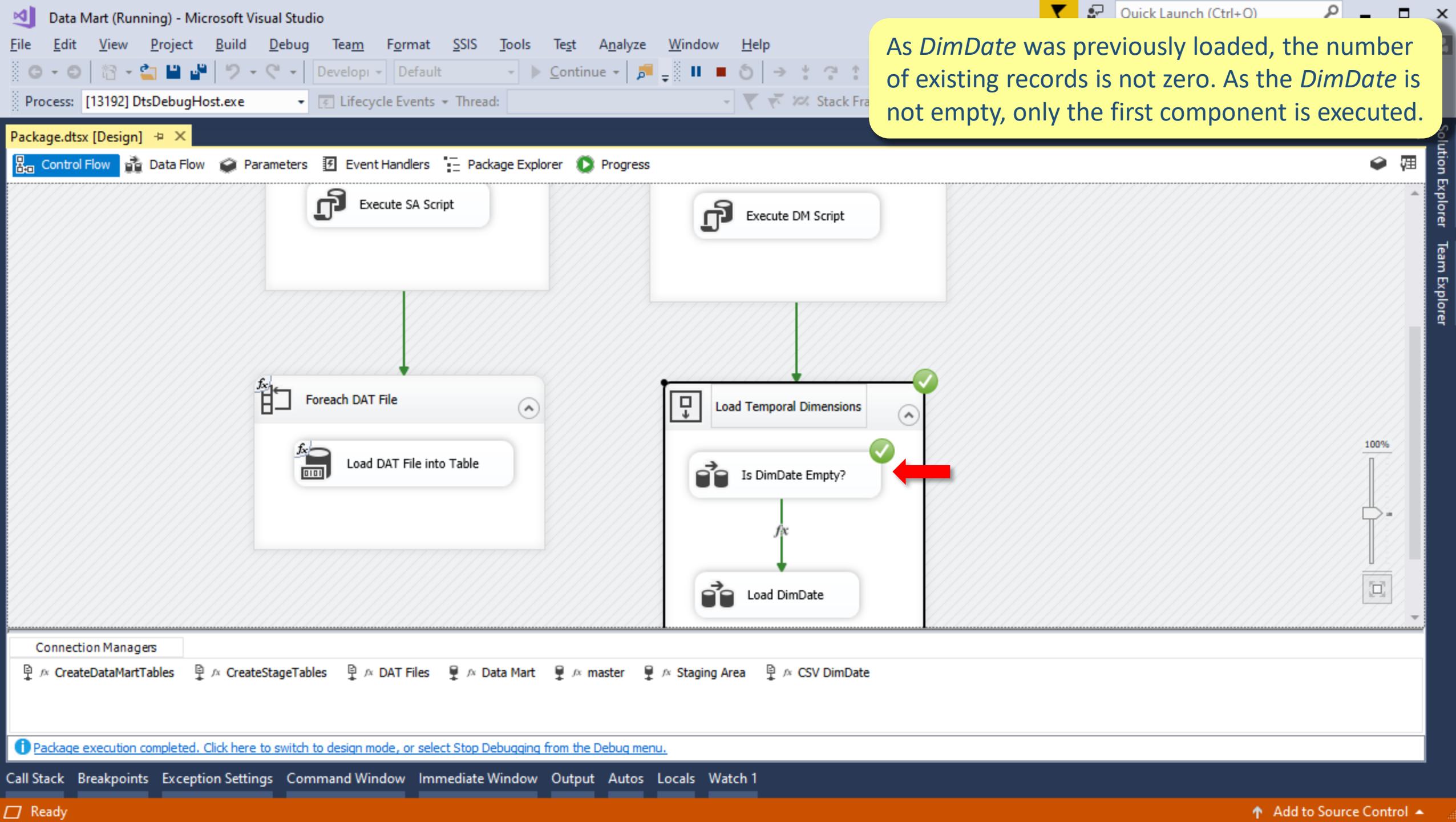


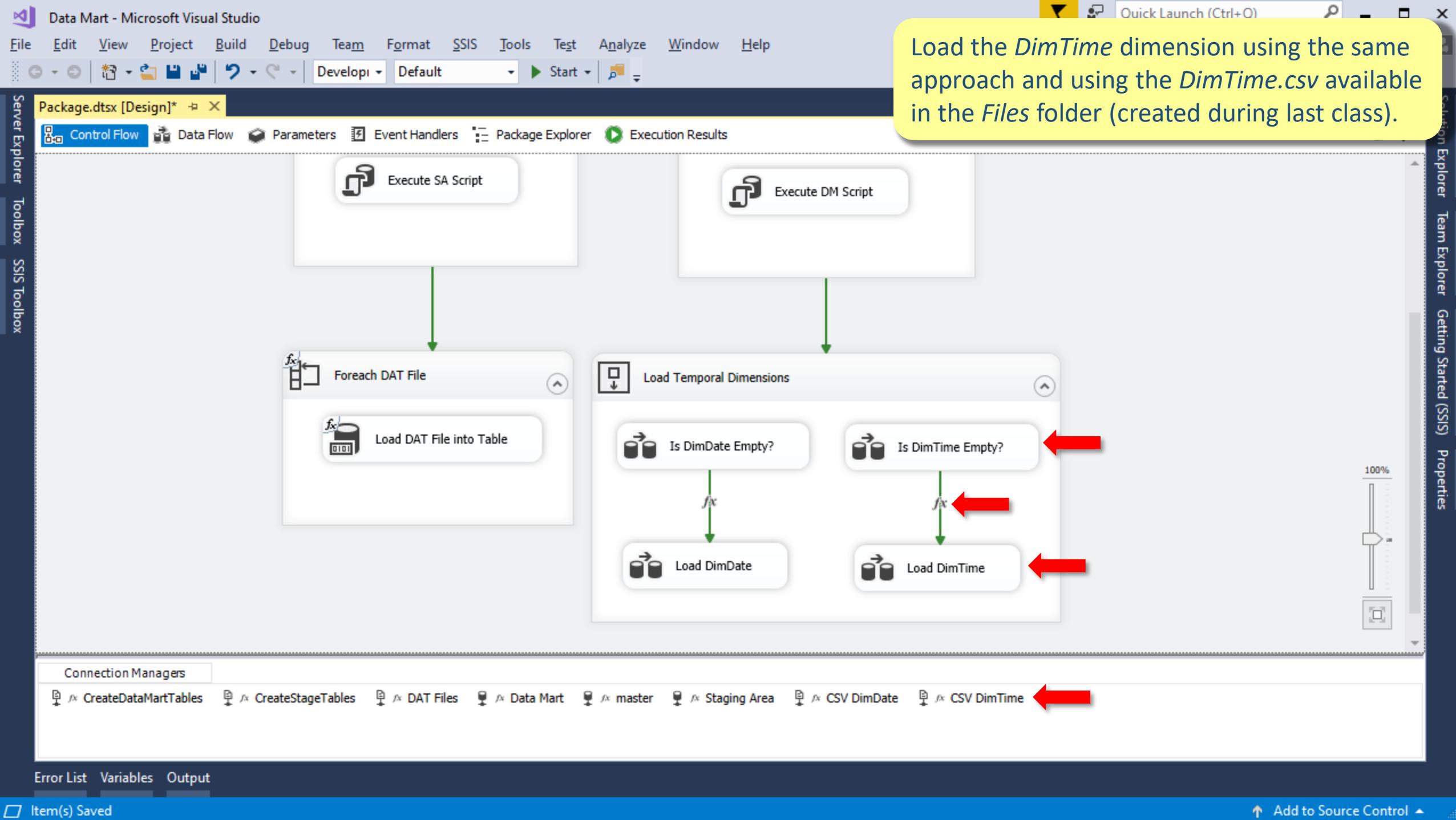


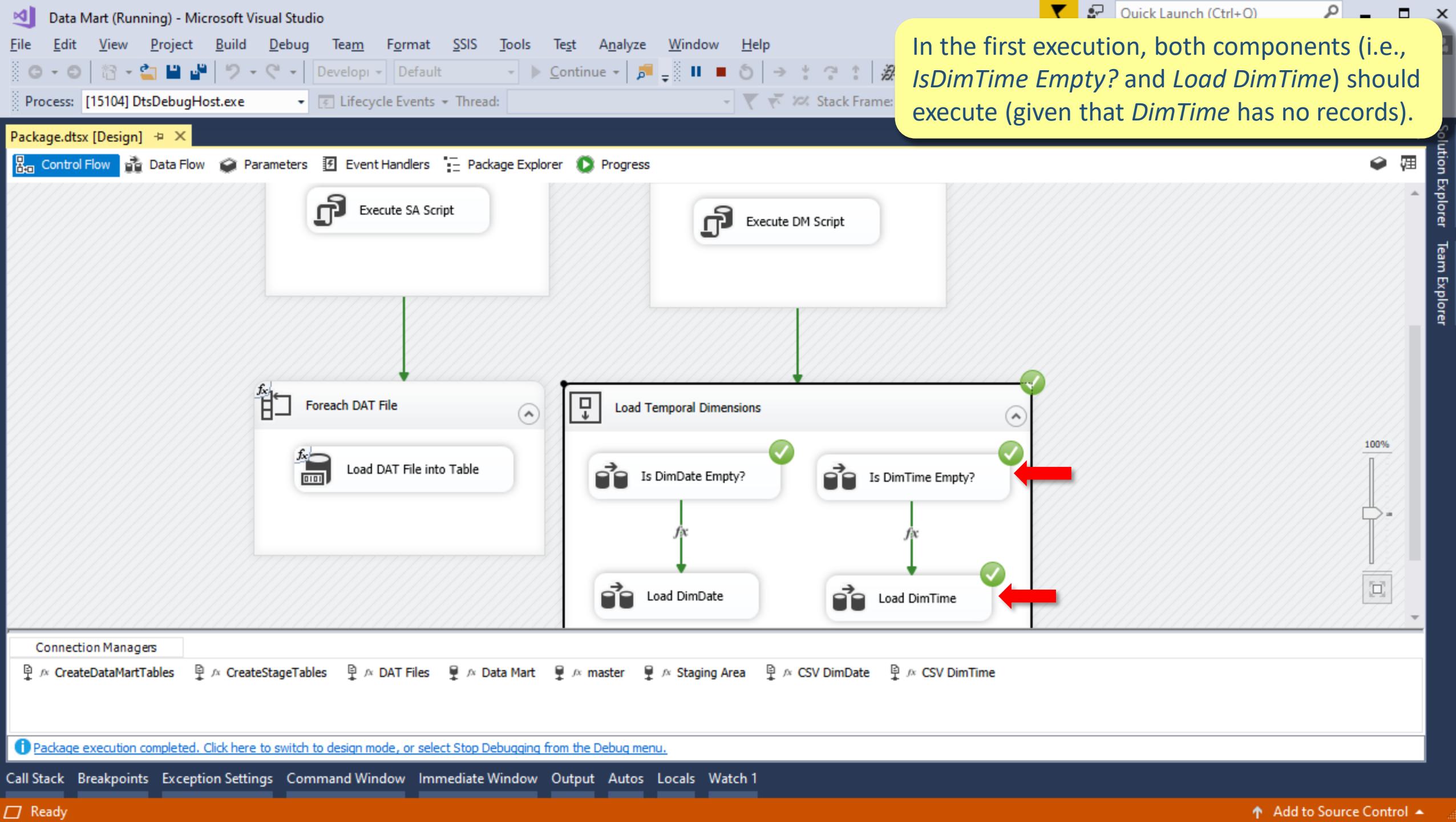


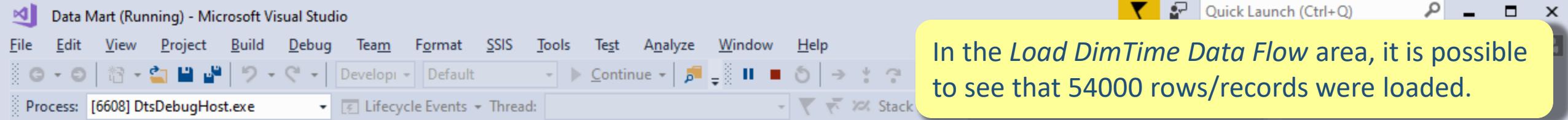












In the *Load DimTime Data Flow* area, it is possible to see that 54000 rows/records were loaded.

