

Chapter 1: Getting Started with Power Query

? x

On-premises data gateway installation

Getting ready to install the on-premises data gateway.

Please review [minimum requirements](#) for installing the On-premises data gateway. Not meeting these requirements may result in performance bottlenecks.

Install to

C:\Program Files\On-premises data gateway

I accept the [terms of use](#) and [privacy statement](#).

Install

Close

? x

On-premises data gateway

Almost done.

Installation was successful!

Email address to use with this gateway:

Next, you need to sign in to register your gateway.

Sign in

Cancel

? x

On-premises data gateway

You are signed in as  and are ready to register the gateway.

- Register a new gateway on this computer.
- Migrate, restore, or takeover an existing gateway.
 - Move a gateway to a new computer
 - Recover a damaged gateway
 - Take ownership of a gatewayThe old gateway will be disconnected.

Next

Cancel

On-premises data gateway



You are signed in as [redacted] and are ready to register the gateway.

New on-premises data gateway name

powerbi-standard-gateway

Add to an existing gateway cluster [Learn more](#)

Recovery key (8 character minimum)

●●●●●●●●

i This key is needed to restore the gateway and can't be changed. Record it in a safe place.

Confirm recovery key

●●●●●●●●

We'll use this region to connect the gateway to cloud services: West Europe [Change Region](#)

[Provide relay details](#) By default, Azure Relays are automatically provisioned

<< Back

Configure

On-premises data gateway



Status

Service Settings

Diagnostics

Network

Connectors

Recovery Keys

✔ The gateway powerbi-standard-gateway is online and ready to be used.

Gateway version number: 3000.72.6 (February 2021)

Help us improve the on-premises data gateway by sending usage information to Microsoft.

[Read the privacy statement online](#)

Logic Apps, Azure Analysis Services

West Central US

[Create a gateway in Azure](#)

Power Apps, Power Automate

West Central US

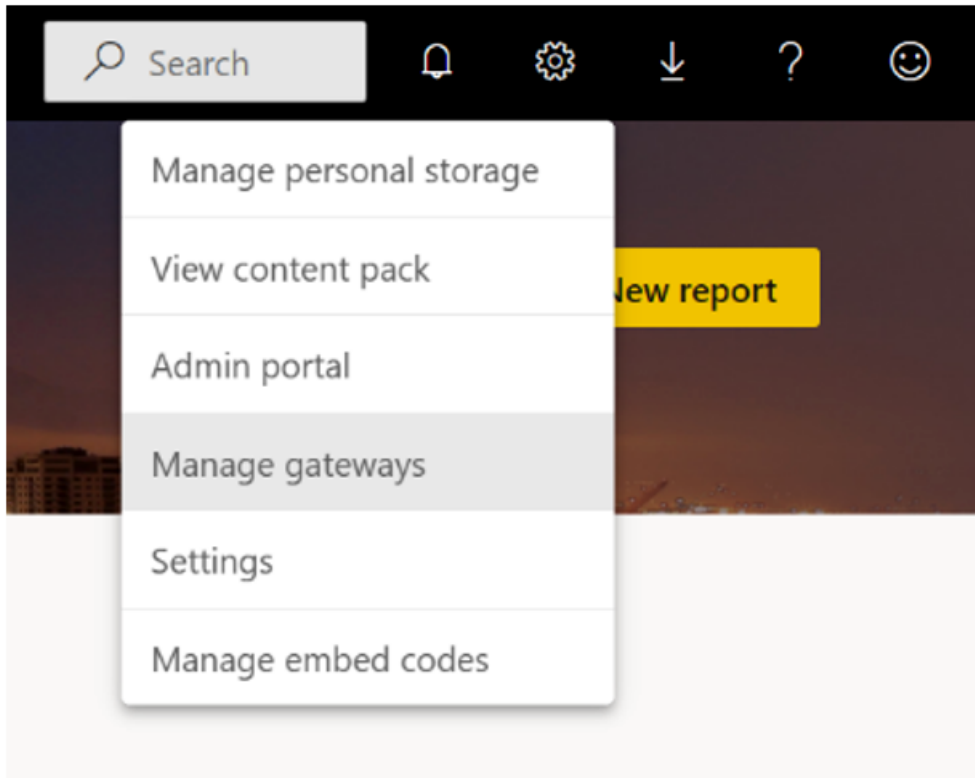
✔ Ready

Power BI

Default environment

✔ Ready

Close



ADD DATA SOURCE

GATEWAY CLUSTERS

powerbi-standard-gateway

Test all connections

Gateway Cluster Settings

Administrators

People who can Administer this gateway

Enter email addresses

Add

[Redacted]

ADD DATA SOURCE

GATEWAY CLUSTERS

powerbi-standard-gateway

Finance-data

Test all connections

powerbi-standard-gateway

✓ Connected

ADD DATA SOURCE

REMOVE

Department

ADD DATA SOURCE

GATEWAY CLUSTERS

▼ powerbi-standard-gateway 

Finance-data

New data source

Test all connections

Data Source Settings

Users

Data Source Name

Sales-data

Data Source Type

Select a data source type ▼

Azure Cosmos DB

Azure Data Explorer (Kusto)

Azure Data Lake Storage Gen2

Azure Databricks

Azure DevOps Server (Boards only)

Spark

Azure Table Storage

BI Connector

Cherwell Data Connector v1.0

Data Virtuality LDW

Denodo Connector

Dremio

Essbase

Exasol

File

Folder

Foundry

From Paxata

Google BigQuery

Hive LLAP

Data Source Name

Sales-data

Data Source Type

File

Full path

C:\Data\FactInternetSales.csv

The credentials are encrypted using the key stored on-premises on the gateway server. [Learn more](#)

Windows username

.....

Windows password

.....

Skip Test Connection

>Advanced settings

Apply

Discard

Data Source Settings

Users

✓ Connection Successful

GATEWAY CLUSTERS

powerbi-standard-gateway

Finance-data

Test all connections

Gateway Cluster Settings Administrators

✓ Online: You are good to go.

Gateway Cluster Name

powerbi-standard-gateway

Department

Description

Contact Information

- Allow user's cloud data sources to refresh through this gateway cluster. These cloud data sources
- Allow user's custom data connectors to refresh through this gateway cluster (preview). [Learn more](#)
- Distribute requests across all active gateways in this cluster. [Learn more](#)

Apply

Discard



Finance Report

Report



Finance Report



Dataset

Analyze in Excel

Create report

Delete

Get quick insights

Security

Rename

Settings

Download the .pbix

Download the .rdl

Manage permissions

View lineage

Settings for Finance Report

[Refresh history](#)

▶ Dataset description

◀ Gateway connection

To use a data gateway, make sure the computer is online and the data source is added in [Manage Gateways](#). If you're using an On-premises data gateway (standard mode), please select the corresponding data sources and then click apply.

Use an On-premises or VNet data gateway

On

Gateway	Department	Contact information	Status	Actions
<input type="radio"/> powerbi-standard...			Running on <input checked="" type="checkbox"/> , select all datasources to use	▼

Data sources included in this dataset:

<input checked="" type="checkbox"/> File{"path": "c:\\data\\finance datasources.xlsx"}	Maps to: <input type="text"/>
--	-------------------------------










Data sources included in this dataset:


<input checked="" type="checkbox"/> File{"path": "c:\\data\\finance datasources.xlsx"}	Maps to: <input type="text"/>
--	-------------------------------

- Finance-data
- Add to gateway

Get data ▾ Excel Power BI datasets SQL Server Enter data

Common data sources

-  Excel
-  Power BI datasets
-  Power BI dataflows
-  SQL Server
-  Analysis Services
-  Text/CSV
-  Web
-  OData feed
-  Blank query

 Power BI Template Apps [↗](#)

More...

Get Data

- All
- File
- Database
- Power Platform
- Azure**
- Online Services
- Other

Azure

- Azure SQL database
- Azure Synapse Analytics (SQL DW)
- Azure Analysis Services database
- Azure Database for PostgreSQL
- Azure Blob Storage
- Azure Table Storage
- Azure Cosmos DB
- Azure Data Explorer (Kusto)
- Azure Data Lake Storage Gen2
- Azure Data Lake Storage Gen1
- Azure HDInsight (HDFS)
- Azure HDInsight Spark
- HDInsight Interactive Query
- Azure Cost Management
- Azure Databricks
- Azure Time Series Insights (Beta)

Certified Connectors | Template Apps

Connect

Cancel

SQL Server database

Server ⓘ

Database (optional)

Data Connectivity mode ⓘ

- Import
- DirectQuery

▶ Advanced options

OK

Cancel

Windows

Database

Microsoft account

SQL Server database

adventureworksprova.database.windows.net

User name: adventureworks

Password: [masked]

Buttons: Back, Connect, Cancel

FactInternetSales

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	Pro
310	20101229	20110110	20110105	21768	
346	20101229	20110110	20110105	28389	
346	20101229	20110110	20110105	25863	
336	20101229	20110110	20110105	14501	
346	20101229	20110110	20110105	11003	
311	20101230	20110111	20110106	27645	
310	20101230	20110111	20110106	16624	
351	20101230	20110111	20110106	11005	
344	20101230	20110111	20110106	11011	
312	20101231	20110112	20110107	27621	
312	20101231	20110112	20110107	27616	
330	20101231	20110112	20110107	20042	
313	20101231	20110112	20110107	16351	
314	20101231	20110112	20110107	16517	

The data in the preview has been truncated due to size limits.

Buttons: Load, Transform Data, Cancel

File Home Transform Add Column View Tools Help

Queries [1]

FactInternetSales

Table.AddColumn("#Renamed Columns", "DaysToShip", each Duration.Days([ShipDate])

	ProductKey	OrderDateKey	DueDateKey	ShipDateKey
1	310	20101229	20110110	20110105
2	346	20101229	20110110	20110105
3	346	20101229	20110110	20110105
4	336	20101229	20110110	20110105
5	346	20101229	20110110	20110105
6	311	20101230	20110111	20110106
7	310	20101230	20110111	20110106
8	351	20101230	20110111	20110106
9	344	20101230	20110111	20110106
10	312	20101231	20110112	20110107
11	312	20101231	20110112	20110107
12	330	20101231	20110112	20110107
13	313	20101231	20110112	20110107
14	314	20101231	20110112	20110107
15	314	2010101	20110113	20110108

Query Settings

PROPERTIES: Name: FactInternetSales

APPLIED STEPS: Source, Navigation, Removed Other Columns, Inserted Subtraction, Renamed Columns, Added Custom

FactInternetSales

Display Options

```
let
Source = Sql.Databases("adventureworksprova.database.windows.net"),
Adventureworks = Source{Name="Adventureworks"}[Data],
dbo_FactInternetSales = Adventureworks{Schema="dbo",Item="FactInternetSales"}[Data],
#"Removed Other Columns" = Table.SelectColumns(dbo_FactInternetSales,{"ProductKey", "OrderDateKey", "DueDateKey", "ShipDateKey", "SalesAmount", "TotalProductCost", "GrossMargin", "DaysToShip"}),
#"Inserted Subtraction" = Table.AddColumn(#"Removed Other Columns", "Subtraction", each [SalesAmount] - [TotalProductCost], C),
#"Renamed Columns" = Table.RenameColumns(#"Inserted Subtraction",{"Subtraction", "GrossMargin"}),
#"Added Custom" = Table.AddColumn(#"Renamed Columns", "DaysToShip", each Duration.Days([ShipDate]-[OrderDate]))
in
#"Added Custom"
```

✓ No syntax errors have been detected.

Done Cancel

Data source settings

Manage settings for data sources that you have connected to using Power BI Desktop.

Data sources in current file Global permissions

Search data source settings

- adventureworksprova.database.windows.net;Adventureworks

Change Source... Export PBIDS Edit Permissions... Clear Permissions

Close

Edit Permissions

adventureworksprova.database.windows.net;Adventureworks

Credentials

Type: Database

Edit... Delete

Encryption

Encrypt connections

Privacy Level

None

Native Database Queries

You haven't approved any Native Database Queries for this source.

Revoke Approvals

OK Cancel

SQL Server database ✕

adventureworksprova.database.windows.net;Adven...

You aren't signed in.

Parquet

Basic Advanced

URL

C:\Data\InternetSales.parquet

InternetSales

```
let
    Source = Parquet.Document(File.Contents("C:\Data\InternetSales.parquet"))
in
    Source
```

FactInternetSales

```
let
    Source = Sql.Databases("adventureworksprova.database.windows.net"),
    Adventureworks = Source{[Name="Adventureworks"]}[Data],
    dbo_FactInternetSales = Adventureworks{[Schema="dbo", Item="FactInternetSales"]}[Data],
    #Changed Type = Table.TransformColumnTypes(dbo_FactInternetSales,{{"ProductKey", Int64.Type}},
    #Removed Other Columns = Table.SelectColumns(#Changed Type,{"ProductKey", "OrderDateKey", "DueDateKey", "ShipDate"},
    #Inserted Subtraction = Table.AddColumn(#Removed Other Columns,"Subtraction",each [SalesAmount]-[TotalProductCost],
    #Renamed Columns = Table.RenameColumns(#Inserted Subtraction,{{"Subtraction", "GrossMargin"}}),
    #Added Custom = Table.AddColumn(#Renamed Columns,"DaysToShip",each Duration.Days([ShipDate]-[OrderDate]))
in
    #Added Custom
```

FactInternetSales

Display Options ?

```
let
    Source = Parquet.Document(File.Contents("C:\Data\InternetSales.parquet")),
    #Changed Type = Table.TransformColumnTypes(Source,{{"UnitPrice", Currency.Type}, {"ExtendedAmount", Currency.Type}, {"ProductStandardCost", Currency.Type}},
    #Removed Other Columns = Table.SelectColumns(#Changed Type,{"ProductKey", "OrderDateKey", "DueDateKey", "ShipDateKey", "CustomerKey", "SalesAmount", "TotalProductCost", "Currency.Type"},
    #Inserted Subtraction = Table.AddColumn(#Removed Other Columns,"Subtraction",each [SalesAmount]-[TotalProductCost],
    #Renamed Columns = Table.RenameColumns(#Inserted Subtraction,{{"Subtraction", "GrossMargin"}}),
    #Added Custom = Table.AddColumn(#Renamed Columns,"DaysToShip",each Duration.Days([ShipDate]-[OrderDate]))
in
    #Added Custom
```

Get Data

Get Data interface showing a list of data sources. On the left, a sidebar contains categories: All, File, Database, Power Platform, Azure, Online Services, and Other. The main area displays a list of connectors under the 'All' category, including Excel, Text/CSV, XML, JSON, Folder, PDF, Parquet, SharePoint folder, SQL Server database, Access database, SQL Server Analysis Services database, Oracle database, IBM Db2 database, IBM Informix database (Beta), IBM Netezza, and MySQL database. At the bottom, there are buttons for 'Certified Connectors', 'Template Apps', 'Connect', and 'Cancel'.

Power BI ribbon showing the 'Transform' tab. The ribbon includes sections for 'Table' (Group By, Use First Row as Headers, Count Rows), 'Any Column' (Data Type: Date, Detect Data Type, Rename), 'Number Column' (Statistics, Trigonometry, Standard, Rounding, Scientific, Information), 'Date & Time Col...' (Date, Time, Duration), and 'Scripts' (Run R script, Run Python script).

Power BI ribbon showing the 'Add Column' tab. The ribbon includes sections for 'General' (Column From Examples, Custom Column, Invoke Custom Function, Duplicate Column), 'From Text' (Format, Merge Columns, Extract, Parse), 'From Number' (Statistics, Trigonometry, Standard, Rounding, Scientific, Information), 'From Date & T...', and 'AI Insights' (Text Analytics, Vision, Azu).

Query Settings ✕

▲ PROPERTIES

Name

FactInternetSales

[All Properties](#)

▲ APPLIED STEPS

- Source ⚙
- Changed Type
- Removed Other Columns ⚙
- Inserted Subtraction ⚙
- Renamed Columns
- ✕ Added Custom** ⚙

Choose Columns ✕

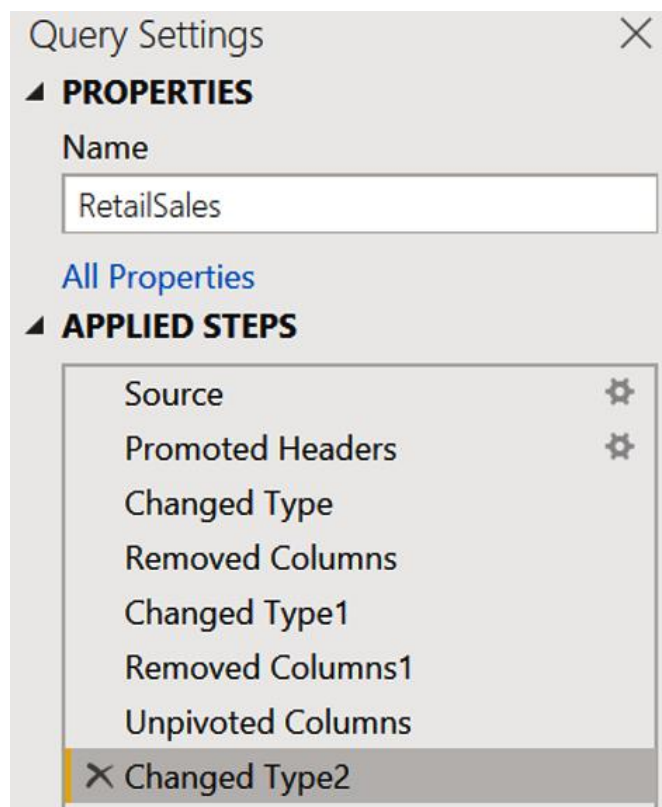
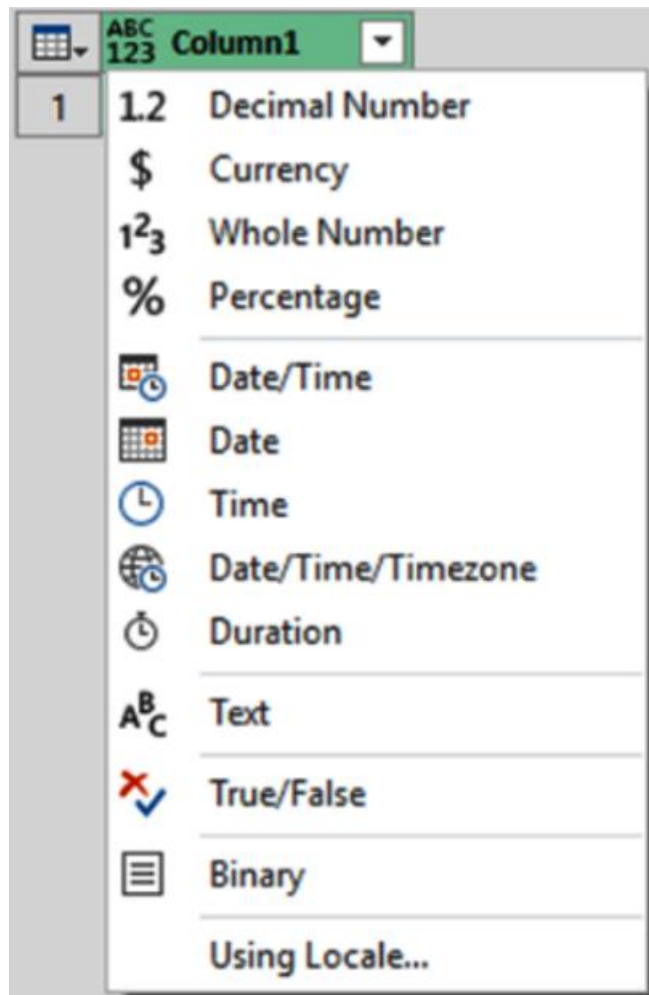
Choose the columns to keep

Search Columns ↕

- (Select All Columns)
- ProductKey
- OrderDateKey
- DueDateKey
- ShipDateKey
- CustomerKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost
- SalesAmount

▲ APPLIED STEPS

- Source ⚙
- Changed Type
- ✕ Removed Other Columns** ⚙
- Inserted Subtraction ⚙
- Renamed Columns
- Added Custom ⚙



Query Settings ✕

▲ **PROPERTIES**

Name

RetailSales

[All Properties](#)

▲ **APPLIED STEPS**

- Source ⚙️
- Promoted Headers ⚙️
- Changed Type
- Removed Columns
- ✕ Unpivoted Columns**

🔔 1 ⚙️

- Manage personal storage
- View content pack
- Admin portal**
- Manage gateways
- Settings
- Manage embed codes

Admin portal

- Usage metrics
- Users
- Premium Per User (preview)
- Audit logs
- Tenant settings
- Capacity settings**
- Refresh summary
- Embed Codes
- Organizational visuals
- Azure connections (preview)
- Workspaces
- Custom branding
- Protection metrics
- Featured content

Power BI Premium Power BI Embedded

V-CORES

8 of 8 used

8 v-cores



■ 0 available

[Learn more about capacity sizes](#)

Set up new capacity

PREMIUM CAPACITIES

CAPACITY NAME	CAPACITY ADMINS	ACTIONS
██████████	██████████, ... + 12 more	⚙️

Management Health

CAPACITY SIZE

[Manage capacity size in Azure](#)

REGION

West Europe

USER PERMISSIONS

- ▶ Contributor permissions
Disabled for the entire organization

MORE OPTIONS

- ▶ Workloads
- ▶ Advanced options
- ▶ Workspaces assigned to this capacity

DATAFLOWS - Active

Your workload is ready to use.

On

Max Memory (%)

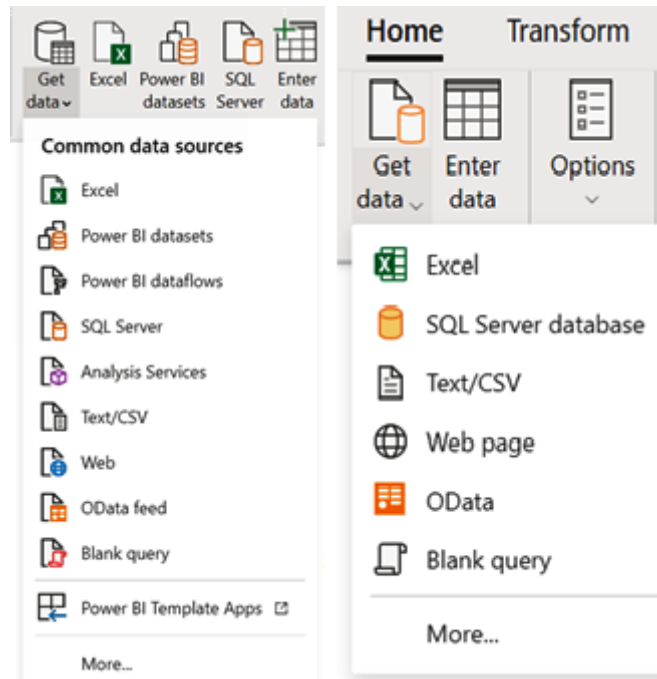
Enhanced Dataflows Compute Engine

Off

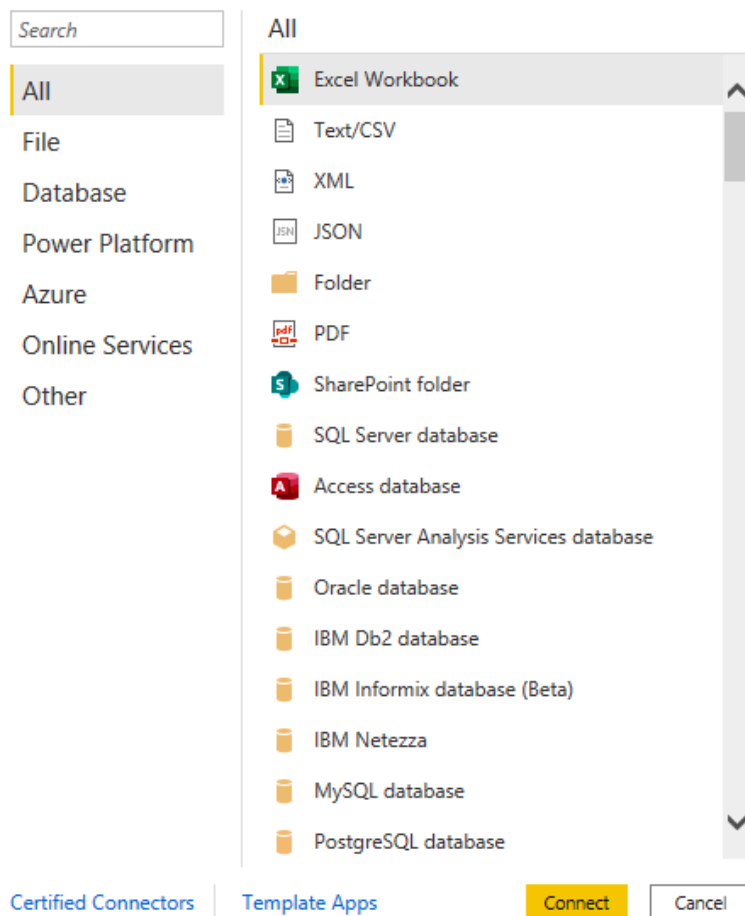
Container Size (Mb)

Compute engine memory (%)

Chapter 2: Connecting to Fetch Data



Get Data



Choose data source

All categories | File | Database | Power Platform | Azure | Online services | Other Search

Data sources

Excel File	Folder File	JSON File	PDF File
Parquet File	SharePoint folder File	Text/CSV File	XML File
Access Database	Amazon Redshift Database	Google BigQuery Database	IBM Db2 database Database
Impala Database	MySQL database Database	Oracle database Database	PostgreSQL database Database
SAP BW Application Server Database	SAP BW Message Server Database	SAP HANA database Database	SQL Server database Database
Snowflake Database	Sybase database Database	Teradata database Database	Vertica Database
Azure Blobs Azure	Azure Data Explorer (Kusto) Azure	Azure Data Lake Storage Gen2 Azure	Azure HDInsight Spark Azure
Azure SQL database Azure	Azure Synapse Analytics (SQL DW) Azure	Azure Tables Azure	Microsoft Exchange Online Online services
Salesforce objects Online services	Salesforce reports Online services	SharePoint Online list Online services	Smartsheet Online services
Active Directory Other	FHIR Other	OData Other	Odbc Other

Cancel

Azure Time Series Insights (Beta) X

Get Data

Search

- All
- File
- Database
- Power Platform
- Azure
- Online Services
- Other

File

- Excel Workbook
- Text/CSV
- XML
- JSON
- Folder
- PDF
- Parquet
- SharePoint folder

Certified Connectors
Template Apps
Connect
Cancel

Get data ▾

Excel workbook

Power BI datasets

SQL Server

Enter data

Common data sources

- Excel workbook
- Power BI datasets
- Power BI dataflows
- Dataverse
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query

Power BI Template Apps [↗](#)

More...

<input type="checkbox"/> Name	Date modified	Type	Size
AdventureWorksSales.xlsx	8/10/2021 7:29 AM	XLSX File	13,988 KB
Finance datasources.xlsx	8/10/2021 7:29 AM	XLSX File	12,175 KB

Navigator

Display Options ▾

- AdventureWorksSales.xlsx [14]
 - Customer
 - Date
 - Product
 - Reseller
 - Sales
 - SalesOrder
 - SalesTerritory
 - Customer_data
 - Date_data
 - Product_data
 - Reseller_data
 - Sales Order_data
 - Sales Territory_data
 - Sales_data

Customer

CustomerKey	Customer ID	Customer	City
-1	[Not Applicable]	[Not Applicable]	[Not Applicable]
11000	AW00011000	Jon Yang	Rockhampton
11001	AW00011001	Eugene Huang	Seaford
11002	AW00011002	Ruben Torres	Hobart
11003	AW00011003	Christy Zhu	North Ryde
11004	AW00011004	Elizabeth Johnson	Wollongong
11005	AW00011005	Julio Ruiz	East Brisbane
11006	AW00011006	Janet Alvarez	Matrville
11007	AW00011007	Marco Mehta	Warrnambool
11008	AW00011008	Rob Verhoff	Bendigo
11009	AW00011009	Shannon Carlson	Hervey Bay
11010	AW00011010	Jacquelyn Suarez	East Brisbane
11011	AW00011011	Curtis Lu	East Brisbane
11012	AW00011012	Lauren Walker	Bremerton
11013	AW00011013	Ian Jenkins	Lebanon
11014	AW00011014	Sydney Bennett	Redmond
11015	AW00011015	Chloe Young	Burbank
11016	AW00011016	Wyatt Hill	Imperial Beach
11017	AW00011017	Shannon Wang	Sunbury
11018	AW00011018	Clarence Rai	Bendigo
11019	AW00011019	Luke Lal	Langley
11020	AW00011020	Jordan King	Metchosin
11021	AW00011021	Destiny Wilson	Beaverton

Load Transform Data Cancel

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Advanced Editor Manage Columns Reduce Rows Sort Split Column Group By Data Type: Whole Number Use First Row as Headers Replace Values Combine Text Analytics Vision Azure Machine Learn All Insights

Queries [3] Customer Date Product

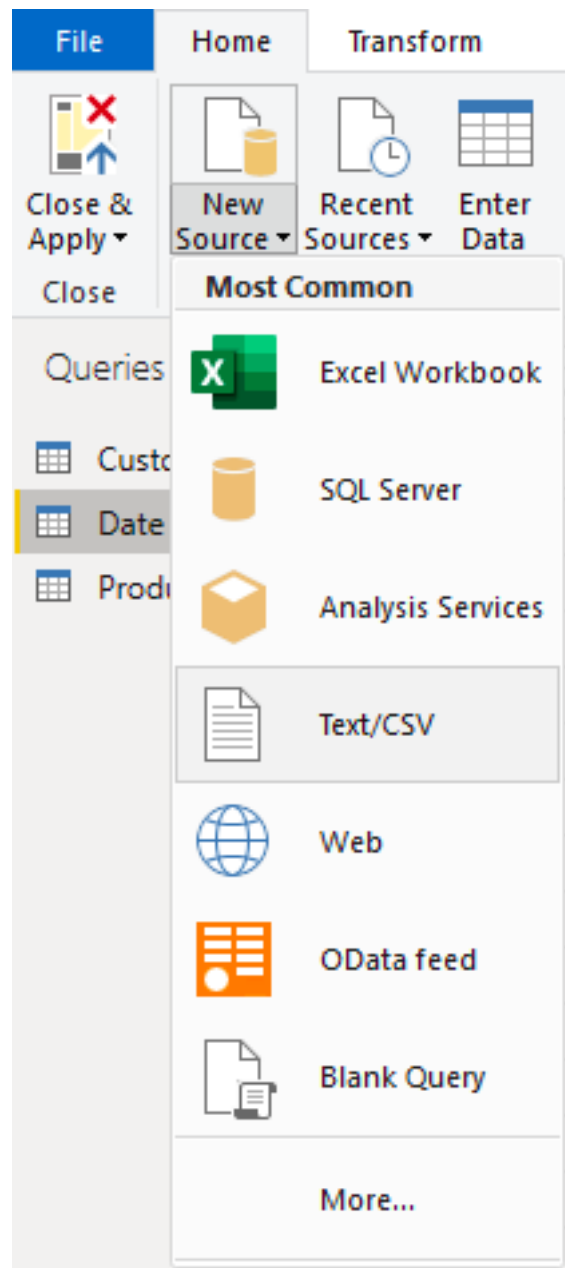
Table.TransformColumnTypes(Date_Table, [{"DateKey", Int64.Type}, {"Date", type}])

	DateKey	Date	Fiscal Year	Fiscal Quarter
1	20170701	7/1/2017	FY2018	FY2018 Q1
2	20170702	7/2/2017	FY2018	FY2018 Q1
3	20170703	7/3/2017	FY2018	FY2018 Q1
4	20170704	7/4/2017	FY2018	FY2018 Q1
5	20170705	7/5/2017	FY2018	FY2018 Q1
6	20170706	7/6/2017	FY2018	FY2018 Q1
7	20170707	7/7/2017	FY2018	FY2018 Q1
8	20170708	7/8/2017	FY2018	FY2018 Q1
9	20170709	7/9/2017	FY2018	FY2018 Q1
10	20170710	7/10/2017	FY2018	FY2018 Q1
11	20170711	7/11/2017	FY2018	FY2018 Q1
12	20170712	7/12/2017	FY2018	FY2018 Q1

Query Settings

PROPERTIES
Name: Date

APPLIED STEPS
Source Navigation Changed Type



FactResellerSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	ResellerKey	EmployeeKey	PromotionKey	CurrencyKey	SalesTerritoryKey
349	20101229	20110110	20110105	676	285	1	100	
350	20101229	20110110	20110105	676	285	1	100	
351	20101229	20110110	20110105	676	285	1	100	
344	20101229	20110110	20110105	676	285	1	100	
345	20101229	20110110	20110105	676	285	1	100	
346	20101229	20110110	20110105	676	285	1	100	
347	20101229	20110110	20110105	676	285	1	100	
229	20101229	20110110	20110105	676	285	1	100	
235	20101229	20110110	20110105	676	285	1	100	
218	20101229	20110110	20110105	676	285	1	100	
223	20101229	20110110	20110105	676	285	1	100	
220	20101229	20110110	20110105	676	285	1	100	
326	20101229	20110110	20110105	117	285	1	100	
319	20101229	20110110	20110105	117	285	1	100	
300	20101229	20110110	20110105	442	288	1	19	
296	20101229	20110110	20110105	442	288	1	19	
304	20101229	20110110	20110105	442	288	1	19	
223	20101229	20110110	20110105	442	288	1	19	
232	20101229	20110110	20110105	442	288	1	19	
293	20101229	20110110	20110105	442	288	1	19	

Extract Table Using Examples OK Cancel

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma

- 437: OEM United States
- 860: Portuguese (DOS)
- 10010: Romanian (Mac)
- 20107: Swedish (IA5)
- 20261: T.61
- 20001: TCA Taiwan
- 20004: TeleText Taiwan
- 10021: Thai (Mac)
- 874: Thai (Windows)
- 857: Turkish (DOS)
- 28599: Turkish (ISO)
- 10081: Turkish (Mac)
- 1254: Turkish (Windows)
- 10017: Ukrainian (Mac)
- 1200: Unicode
- 1201: Unicode (Big-Endian)
- 12001: Unicode (UTF-32 Big-Endian)
- 12000: Unicode (UTF-32)
- 65000: Unicode (UTF-7)
- 65001: Unicode (UTF-8)

Delimiter

Comma	▼
Colon	
Comma	
Equals Sign	
Semicolon	
Space	
Tab	
--Custom--	
--Fixed Width--	

Data Type Detection

Based on first 200 rows	▼
Based on first 200 rows	
Based on entire dataset	
Do not detect data types	

Extract Table Using Examples

Extract Table Using Examples - FactResellerSales.csv

File Origin: File Sample Size:

```
ProductKey,OrderDateKey,DueDateKey,ShipDateKey,ResellerKey,EmployeeKey,PromotionKey,CurrencyKey,SalesTerritoryKey,SalesOrderKey
349,20101229,20110110,20110105,676,285,1,100,5,SO43659,1,1,1,"2024,994","2024,994",0,0,"1898,0944","1898,0944","2024,994",""
350,20101229,20110110,20110105,676,285,1,100,5,SO43659,2,1,3,"2024,994","6074,982",0,0,"1898,0944","5694,2832","6074,982",""
351,20101229,20110110,20110105,676,285,1,100,5,SO43659,3,1,1,"2024,994","2024,994",0,0,"1898,0944","1898,0944","2024,994",""
344,20101229,20110110,20110105,676,285,1,100,5,SO43659,4,1,1,"2039,994","2039,994",0,0,"1912,1544","1912,1544","2039,994",""
345,20101229,20110110,20110105,676,285,1,100,5,SO43659,5,1,1,"2039,994","2039,994",0,0,"1912,1544","1912,1544","2039,994",""
346,20101229,20110110,20110105,676,285,1,100,5,SO43659,6,1,2,"2039,994","4079,988",0,0,"1912,1544","3824,3088","4079,988",""
```

	Column1	+
1		
+		

OK Cancel

	ResellerKey	+	
1	676		
2	A ^B _C 676		
3	A ^B _C 676,285		
4	A ^B _C 676,285,1		
5	A ^B _C 676,285,1,100		
6	A ^B _C 676,285,1,100,5		
7	A ^B _C 676,285,1,100,5,SO		
8	A ^B _C 676,285,1,100,5,SO43659		
9	A ^B _C 676,285,1,100,5,SO43659,1		
10	A ^B _C 676,285,1,100,5,SO43659,1,1		

	ResellerKey	+
1	676	
2	676	
3	676	
4	676	
5	20101229	
6	676	

	ResellerKey	+
1	676	
2	676	
3	676	
4	676	
5	676	
6	676	

	ResellerKey	EmployeeKey	+
1	676	285	
2	676	285	
3	676	285	
4	676	285	
5	676	285	
6	676	285	
7	676	285	
8	676	285	
9	676	285	
10	676	285	
11	676	285	
12	676	285	

The screenshot shows the Microsoft Power BI Desktop interface. The main view displays a data table with the following columns and rows:

	1 ² ResellerKey	1 ² EmployeeKey
1	676	285
2	676	285
3	676	285
4	676	285
5	676	285
6	676	285
7	676	285
8	676	285
9	676	285
10	676	285
11	676	285
12	676	285
13	117	285
14	117	285

The 'Query Settings' pane on the right shows the following configuration:

- PROPERTIES:** Name: FactResellerSales
- APPLIED STEPS:**
 - Source
 - Removed Top Rows
 - Inserted After Delimiter
 - Extracted Text Before Delimiter
 - Extracted Text After Delimiter
 - Extracted Text Before Delimit...
 - Renamed Columns
 - Changed Type** (Selected)

InternetSales20110123	Microsoft Excel Com...	2 KB
InternetSales20110124	Microsoft Excel Com...	3 KB
InternetSales20110125	Microsoft Excel Com...	3 KB
InternetSales20110126	Microsoft Excel Com...	2 KB
InternetSales20110127	Microsoft Excel Com...	2 KB
InternetSales20110128	Microsoft Excel Com...	2 KB
InternetSales20110129	Microsoft Excel Com...	2 KB
InternetSales20110130	Microsoft Excel Com...	1 KB
InternetSales20110131	Microsoft Excel Com...	2 KB
InternetSales20110201	Microsoft Excel Com...	2 KB

FinanceData-OnlineChannel	Microsoft Excel Worksheet	9.268 KB
FinanceData-RetailStoreChannel	Microsoft Excel Worksheet	12.201 KB
FinanceData-TelevisionChannel	Microsoft Excel Worksheet	12.203 KB

Folder

Folder path

C:\Data\CSVFiles

C:\Data\CSVFiles

Content	Name	Extension	Date accessed	Date modified	Date created	Attributes	Folder Path
Binary	InternetSales20110123.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110124.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110125.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110126.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110127.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110128.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110129.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110130.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110131.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\
Binary	InternetSales20110201.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record	C:\Data\CSVFiles\

Combine ▾ Load Transform Data Cancel

Combine & Transform Data
Combine & Load

fx = Folder.Files("C:\Data\CSVFiles")

	Content	Name	Extension	Date accessed	Date modified	Date created	Attribute
1	Binary	InternetSales20110123.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record
2	Binary	InternetSales20110124.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record
3	Binary	InternetSales20110125.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record
4	Binary	InternetSales20110126.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record
5	Binary	InternetSales20110127.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record
6	Binary	InternetSales20110128.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record
7	Binary	InternetSales20110129.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record
8	Binary	InternetSales20110130.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record
9	Binary	InternetSales20110131.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:18 AM	8/10/2021 9:26:44 AM	Record
10	Binary	InternetSales20110201.csv	.csv	8/10/2021 9:26:44 AM	8/10/2021 9:25:17 AM	8/10/2021 9:26:44 AM	Record

Query Settings

PROPERTIES
Name: CSVFiles

APPLIED STEPS
Source

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Advanced Editor Manage Query

Manage Columns Reduce Rows Sort Split Column Group By Replace Values Transform

Queries [2] CSVFiles ExcelFiles

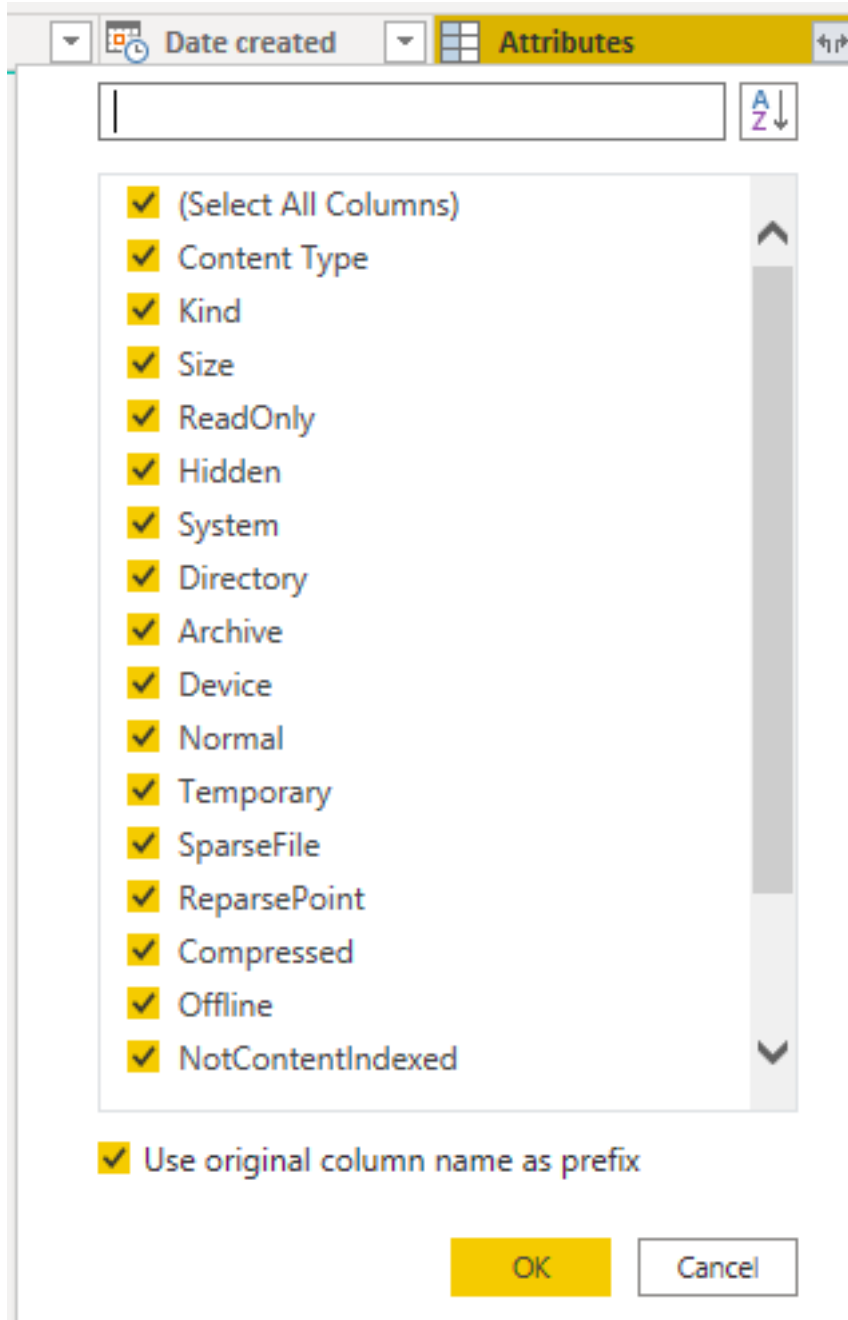
fx = Table.TransformColumnTypes("#Promoted Headers",{

	ProductKey	OrderDateKey	DueDateKey	ShipT
1	312	20110123	20110204	
2	313	20110123	20110204	
3	310	20110123	20110204	
4	345	20110123	20110204	
5	346	20110123	20110204	

Query Settings

PROPERTIES
Name: CSVFiles

APPLIED STEPS
Source Navigation Imported CSV Promoted Headers Changed Type



Queries [2] <

CSVFiles

ExcelFiles

Query Settings X

PROPERTIES

Name

ExcelFiles

All Properties

APPLIED STEPS

Source

fx = Folder.Files("C:\Data\ExcelFiles")

	Content	Name	Extension	Date accessed	Date modified	Date created
1	Binary	FinanceData-OnlineChannel.xlsx	.xlsx	14/03/2021 11:57:03	14/03/2021 11:56:37	14/03/2021 1
2	Binary	FinanceData-RetailStoreChannel.xlsx	.xlsx	14/03/2021 11:57:59	14/03/2021 11:57:36	14/03/2021 1
3	Binary	FinanceData-TelevisionChannel.xlsx	.xlsx	14/03/2021 11:58:49	14/03/2021 11:58:34	14/03/2021 1

Queries [2] ✕ fx = Excel.Workbook("#C:\Data\ExcelFiles\FinanceData-OnlineChannel.xlsx")

AR_C Name	Data	AR_C Item	AR_C Kind	Hidden
1 Sales	Table	Sales	Sheet	FALSE
2 Operating Expenses	Table	Operating Expenses	Sheet	FALSE
3 Country	Table	Country	Sheet	FALSE
4 SalesVsExpense	Table	SalesVsExpense	Sheet	FALSE
5 Travel & Entertainment	Table	Travel & Entertainment	Sheet	FALSE
6 Conflict of Interest	Table	Conflict of Interest	Sheet	FALSE
7 Site Security	Table	Site Security	Sheet	FALSE
8 FP&A	Table	FP&A	Sheet	FALSE
9 VTB (\$) by channel	Table	VTB (\$) by channel	Sheet	FALSE
10 Table2	Table	Table2	Table	FALSE
11 Table1	Table	Table1	Table	FALSE
12 Table3	Table	Table3	Table	FALSE
13 Table5	Table	Table5	Table	FALSE
14 Table79	Table	Table79	Table	FALSE
15 Table4	Table	Table4	Table	FALSE
16 _xlnm_FilterDatabase	Table	FP&A!_xlnm_FilterDatabase	DefinedName	TRUE

Query Settings ✕

PROPERTIES

Name
ExcelFiles

[All Properties](#)

APPLIED STEPS

- Source ✳
- Navigation ✳
- ✕ Imported Excel

Combine Files

Select the object to be extracted from each file. [Learn more](#)

Sample File:

Display Options ✳

- Parameter1 [15]
 - Table1
 - Table2
 - Table3
 - Table4
 - Table5
 - Table79
 - Conflict of Interest
 - Country
 - FP&A
 - Operating Expenses
 - Sales**
 - SalesVsExpense

Sales

















Fiscal Year	Half Yearly	Fiscal Quarter	Fiscal Month	Calendar Month
FY16	H2 Forecast	Q3		8 Feb
FY16	H2 Forecast	Q4		12 Jun
FY16	H1 Actual	Q1		2 Aug
FY16	H2 Forecast	Q3		7 Jan
FY16	H1 Actual	Q2		6 Dec
FY16	H1 Actual	Q1		1 Jul
FY16	H1 Actual	Q2		5 Nov
FY16	H1 Actual	Q1		3 Sep
FY16	H2 Forecast	Q4		10 Apr
FY16	H1 Actual	Q2		4 Oct
FY16	H2 Forecast	Q3		9 Mar
FY16	H2 Forecast	Q4		11 May
FY16	H2 Forecast	Q4		11 May
FY16	H2 Forecast	Q4		12 Jun
FY16	H2 Forecast	Q4		10 Apr
FY16	H1 Actual	Q1		1 Jul
FY16	H1 Actual	Q1		2 Aug
FY16	H2 Forecast	Q4		10 Apr
FY16	H1 Actual	Q1		3 Sep
FY16	H2 Forecast	Q4		11 May

Skip files with errors

Get Data

- All
- File
- Database
- Power Platform
- Azure**
- Online Services
- Other

Azure

-  Azure SQL database
-  Azure Synapse Analytics (SQL DW)
-  Azure Analysis Services database
-  Azure Database for PostgreSQL
-  Azure Blob Storage
-  Azure Table Storage
-  Azure Cosmos DB
-  Azure Data Explorer (Kusto)
-  Azure Data Lake Storage Gen2
-  Azure Data Lake Storage Gen1
-  Azure HDInsight (HDFS)
-  Azure HDInsight Spark
-  HDInsight Interactive Query
- 
-  Azure Databricks
-  Azure Time Series Insights (Beta)

Certified Connectors

Template Apps

Connect

Cancel

SQL Server database

Server ⓘ

dventureworksprova.database.windows.net

Database (optional)

Adventureworks

Data Connectivity mode ⓘ

- Import
- DirectQuery

Advanced options

Command timeout in minutes (optional)

SQL statement (optional, requires database)

```
SELECT s.[ProductKey]
,s.[SalesTerritoryKey]
,s.[SalesOrderNumber]
,s.[SalesOrderLineNumber]
,s.[RevisionNumber]
,s.[OrderQuantity]
```

- Include relationship columns
- Navigate using full hierarchy
- Enable SQL Server Failover support

OK Cancel

SQL Server database

adventureworksprova.database.windows.net

You aren't signed in.

Sign in

Back

Connect Cancel

adventureworksprova.database.windows.net: Adventureworks

ProductKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber	RevisionNumber	OrderQuantity	UnitPrice	ExtendedAmou
469	2	SO788497	6	1	5	22.794	114.37
552	2	SO789266	6	1	5	54.894	274.47
558	2	SO789529	6	1	5	242.994	1214.97
460	2	SO789581	6	1	5	53.994	269.97
555	2	SO789654	6	1	5	63.9	319.5
272	2	SO789924	6	1	5	183.9382	919.69
487	2	SO790341	6	1	5	32.994	164.97
275	2	SO790673	6	1	5	356.898	1784.49
373	2	SO790711	6	1	5	1308.9375	6544.69
353	2	SO790748	6	1	5	1391.994	6959.97
595	2	SO790846	6	1	5	338.994	1694.97
301	2	SO790869	6	1	5	714.7043	3573.52
466	2	SO790914	6	1	5	14.1289	70.64
374	2	SO791782	6	1	5	1466.01	7330.05
454	2	SO792033	6	1	5	35.994	179.97
490	2	SO793107	6	1	5	32.394	161.97
553	2	SO793214	6	1	5	27.654	138.27
299	2	SO793274	6	1	5	809.76	4048.8
227	2	SO793551	6	1	5	28.8404	144.2
228	2	SO793618	6	1	5	29.994	149.97

i The data in the preview has been truncated due to size limits.

OK Cancel

Queries [1] <

✕ ✓ fx = Sql.Database("adventureworksprova.database.windows.net", ▼)

	ProductKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber	RevisionNumber	OrderQuantity	UnitPrice	ExtendedAmount
1	469	2	SO788497	6	1	5	22.794	114.37
2	552	2	SO789266	6	1	5	54.894	274.47
3	558	2	SO789529	6	1	5	242.994	1214.97
4	460	2	SO789581	6	1	5	53.994	269.97
5	555	2	SO789654	6	1	5	63.9	319.5
6	272	2	SO789924	6	1	5	183.9382	919.69
7	487	2	SO790341	6	1	5	32.994	164.97
8	275	2	SO790673	6	1	5	356.898	1784.49

Query Settings ✕

PROPERTIES

Name

[All Properties](#)

APPLIED STEPS

Source ✱

SQL Server database

Server ⓘ

adventureworksprova.database.windows.net

Database (optional)

Data Connectivity mode ⓘ

Import

DirectQuery

▶ Advanced options

OK

Cancel

Navigator

Display Options ▾

- AdventureWorksDWBldVersion
- DatabaseLog
- DimAccount
- DimCurrency
- DimCustomer
- DimDate
- DimDepartmentGroup
- DimEmployee
- DimGeography
- DimOrganization
- DimProduct
- DimProductCategory
- DimProductSubcategory
- DimPromotion
- DimReseller
- DimSalesReason
- DimSalesTerritory
- DimScenario
- FactAdditionalInternationalProductD...
- FactCallCenter

DimDate

DateKey	FullDateAlternateKey	DayNumberOfWeek	EnglishDayNameOfWeek
20050101	1/1/2005	7	Saturday
20050102	1/2/2005	1	Sunday
20050103	1/3/2005	2	Monday
20050104	1/4/2005	3	Tuesday
20050105	1/5/2005	4	Wednesday
20050106	1/6/2005	5	Thursday
20050107	1/7/2005	6	Friday
20050108	1/8/2005	7	Saturday
20050109	1/9/2005	1	Sunday
20050110	1/10/2005	2	Monday
20050111	1/11/2005	3	Tuesday
20050112	1/12/2005	4	Wednesday
20050113	1/13/2005	5	Thursday

i The data in the preview has been truncated due to size limits.

Select Related Tables

Load

Transform Data

Cancel

File					Home					Transform					Add Column					View					Tools					Help																													
Close & Apply					New Source					Recent Sources					Enter Data					Data source settings					Manage Parameters					Refresh Preview					Properties					Advanced Editor					Manage Columns					Reduce Rows					Sort				
Close					New Query					Data Sourc...					Parameters					Query																																							

Queries [4]		= Adventureworks{[Schema="dbo",Item="DimDate"]}[Data]	
SalesData	1 ² 3 DateKey	FullDateAlternateKey	1.2 DayNumberOfWeek
DimDate	1	20050101	1/1/2005 7
DimProduct	2	20050102	1/2/2005 1
DimSalesTerritory	3	20050103	1/3/2005 2
	4	20050104	1/4/2005 3
	5	20050105	1/5/2005 4
	6	20050106	1/6/2005 5
	7	20050107	1/7/2005 6
	8	20050108	1/8/2005 7
	9	20050109	1/9/2005 1
	10	20050110	1/10/2005 2
	11	20050111	1/11/2005 3
	12	20050112	1/12/2005 4
	13	20050113	1/13/2005 5
	14	20050114	1/14/2005 6

SalesData

Display Options ?

```

let
    Source = Sql.Database("adventureworksprova.database.windows.net", "Adventureworks",
        [Query="SELECT s.[ProductKey]#(1f),s.[SalesTerritoryKey]#(1f),s.[SalesOrderNumber]#(1f),s.
        [SalesOrderLineNumber]#(1f),s.[RevisionNumber]#(1f),s.[OrderQuantity]#(1f),s.[UnitPrice]#
        (1f),s.[ExtendedAmount]#(1f),s.[UnitPriceDiscountPct]#(1f),s.[DiscountAmount]#(1f),s.
        [ProductStandardCost]#(1f),s.[TotalProductCost]#(1f),s.[SalesAmount]#(1f)#(1f),s.
        [OrderDate]#(1f),p.[SalesTerritoryRegion]#(1f),p.[SalesTerritoryCountry]#(1f),p.
        [SalesTerritoryGroup]#(1f)FROM [dbo].[FactResellerSalesXL_CCI] s#(1f)LEFT OUTER JOIN [dbo]
        .[DimSalesTerritory] p ON#(1f)s.[SalesTerritoryKey] = p.SalesTerritoryKey")
in
    Source
  
```

✓ No syntax errors have been detected. Done Cancel

DimDate

```

let
    Source = Sql.Databases("adventureworksprova.database.windows.net"),
    Adventureworks = Source{[Name="Adventureworks"]}[Data],
    dbo_DimDate = Adventureworks{[Schema="dbo",Item="DimDate"]}[Data]
in
    dbo_DimDate
  
```

All Products

Showing 1-24 of 9,047 results

1 2 3 4 5 6 7 >

View: 12 24 48

SORT BY: Relevance

Product Type

- Book (5751)
- Video (3296)

Released

- Available (9047)
- Coming soon (108)
- Early Access (1)

Language

Search for other ... X

- Python (1129)
- JavaScript (966)

NEW Expert Python Programming - Fourth Edition **Book**
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NEW Git for Programmers **Book**
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From Web

- Basic
- Advanced

URL

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- Anonymous
- Windows
- Basic
- Web API
- Organizational account

<https://www.packtpub.com/eu/all-products>

Use anonymous access for this Web content.

Select which level to apply these settings to

<https://www.packtpub.com/>

[Back](#) [Connect](#) [Cancel](#)

Navigator

Search:

Display Options

▾ Suggested Tables [7]

- Table 1
- Table 2
- Table 3
- Table 4
- Table 5
- Table 6
- Table 7

Table View Web View

Table 1

Column1	Column2
Expert Python Programming - Fourth Edition	Book
Keycloak - Identity and Access Management for Modern Applications	Book
Git for Programmers	Book
CompTIA Security+: SY0-601 Certification Guide - Second Edition	Book
Polished Ruby Programming	Book
C# 9 and .NET 5 – Modern Cross-Platform Development - Fifth Edition	Book
Python Object-Oriented Programming - Fourth Edition	Book
React - The Complete Guide (includes Hooks, React Router, and Redux) [2]	Video
Flutter Cookbook	Book
Solutions Architect's Handbook	Book
Web Development with Blazor	Book
Software Architecture with C++	Book
Mastering PowerShell Scripting - Fourth Edition	Book
Mastering Linux Administration	Book
React 17 Design Patterns and Best Practices - Third Edition	Book
Modern API Development with Spring and Spring Boot	Book
Angular Projects - Second Edition	Book
Graph Machine Learning	Book
Python Data Analysis - Third Edition	Book
Web Development with Django	Book
Threat Hunting with Elastic Stack	Book

Add Table Using Examples OK Cancel

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Manage Advanced Editor Choose Columns Remove Columns Keep Rows Remove Rows Sort Split Column Group By Data Type: Text Use First Row as Headers Merge Queries Append Queries Combine Files Combine Text Analytics Vision Azure Machine Learning All Insights

Queries [1]

	Column1	Column2	Column3	Column4
1	Expert Python Programming - Fourth Edition	Book	By Michal Jaworski	Attain a deep understanding of building, maintaining, packaging, and s...
2	Keycloak - Identity and Access Management for Modern Applications	Book	By Stian Thorgersen	Learn to leverage the advanced capabilities of Keycloak, an open-sour...
3	Git for Programmers	Book	By Jesse Liberty	Learn to track, branch, merge, and manage code revisions for real-wor...
4	CompTIA Security+: SY0-601 Certification Guide - Second Edition	Book	By Ian Neil	Become well-versed with IT security essentials and exam objectives fo...
5	Polished Ruby Programming	Book	By Jeremy Evans	Become an accomplished Ruby programmer by understanding the des...
6	C# 9 and .NET 5 – Modern Cross-Platform Development - Fifth Edition	Book	By Mark J. Price	A comprehensive guide for beginners to learn the key concepts, real-w...
7	Python Object-Oriented Programming - Fourth Edition	Book	By Steven F. Lott	A comprehensive guide to exploring modern Python through data stru...
8	React - The Complete Guide (includes Hooks, React Router, and Redux...	Video	By Academind GmbH	Learn React.js, Hooks, Redux, React Routing, Animations, Next.js, and...
9	Flutter Cookbook	Book	By Simone Alessandria	Discover how to build, scale, and debug native iOS and Android applic...
10	Solutions Architect's Handbook	Book	By Saurabh Shrivastava	From fundamentals and design patterns to the different strategies for...
11	Web Development with Blazor	Book	By Jimmy Engström	Learn modern web user interface (UI) development with server-side Bl...
12	Software Architecture with C++	Book	By Adrian Ostrowski	Apply business requirements to IT infrastructure and deliver a high-qu...
13	Mastering PowerShell Scripting - Fourth Edition	Book	By Chris Dent	Grasp advanced PowerShell 7.1 functionalities for effective automatio...

Query Settings

PROPERTIES
Name: Table 1
All Properties

APPLIED STEPS
Source: Extracted Table From ...
Changed Type

From Web

Basic Advanced

URL parts ⓘ

`https://www.packtpub.com/all-products?released=Available`

`&tool=Azure`

`&vendor=Microsoft` ...

Add part

URL preview

`https://www.packtpub.com/all-products?released=Available&tool=Azure&ve`

Command timeout in minutes (optional)

HTTP request header parameters (optional) ⓘ

Enter or select a value ▼

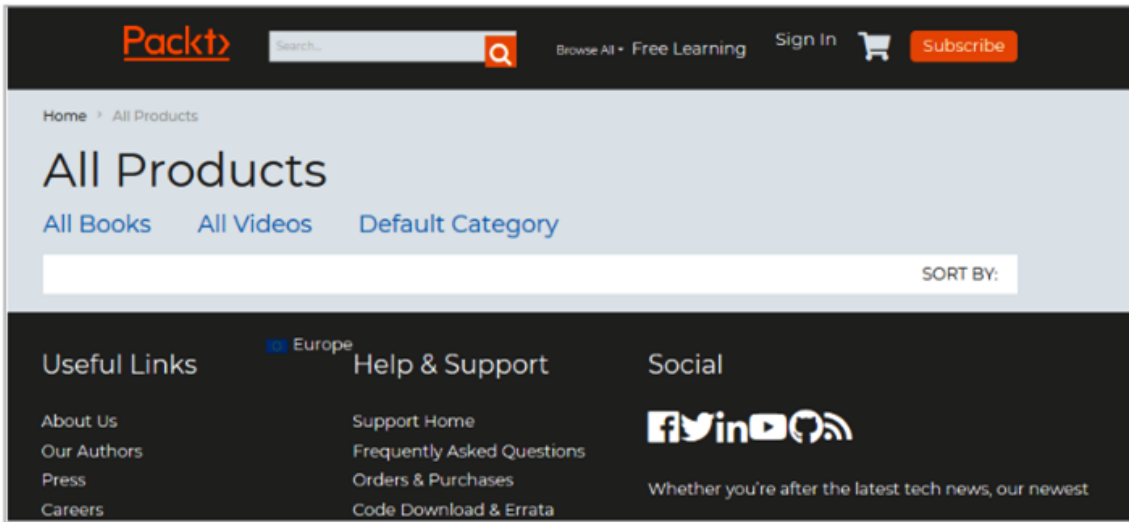
Add header

OK

Cancel

Add Table Using Examples

Add Table Using Examples



	Title	Author	Nr. Pages	Publication Date
1				
2				
3				
4				
5				
6				
7				
8				
9				

OK Cancel

	Title	Author	Nr. Pages	Publication Date
1	Azure for Architects - Second Editi...	By Ritesh Modi	118 pages	Jan 2019
2	Azure PowerShell Quick Start Guide	By Manisha Yadav	212 pages	Mar 2018
3	AZ-204 Developing for Microsoft ...	By Scott Duffy	228 pages	Jul 2018
4	Microsoft Azure Machine Learning	By Henry Been	240 pages	Dec 2018
5	Hands-On Networking with Azure	By Lorenzo Barbieri	262 pages	Jun 2020
6	Mastering Azure Serverless Comp...	By Brett Hargreaves	314 pages	Mar 2018
7	Mastering Azure Security	By Tarun Arora	548 pages	Nov 2019
8				

Navigator

Display Options ▾

▾ Suggested Tables [6]

Table 1

Table 2

Table 3

Table 4

Table 5

Table 6

▾ Custom Tables [1]

Table 8

Table View Web View

Table 8

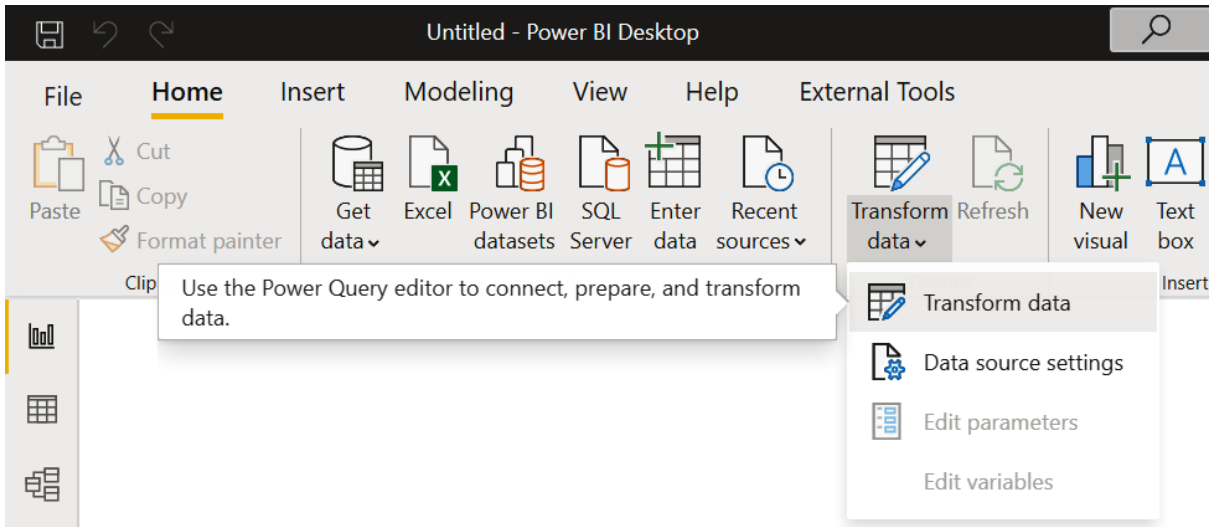
Title	Au
Exam Ref AZ-304 Microsoft Azure Architect Design Certification and Beyor	
Azure Strategy and Implementation Guide - Fourth Edition	
Implementing Microsoft Azure Architect Technologies: AZ-303 Exam Prep	
Azure Networking Cookbook - Second Edition	
Implementing Azure DevOps Solutions	
Mastering Azure Security	
Mastering Azure Machine Learning	
SAP on Azure Implementation Guide	
Microsoft Azure Architect Technologies: Exam Guide AZ-300	
Mastering Azure Serverless Computing	
AZ-204 Developing for Microsoft Azure Exam Prep [Video]	
AZ-303 Azure Architecture Technologies Exam Prep 2021 [Video]	
Azure DevOps Server 2019 Cookbook - Second Edition	

Add Table Using Examples

OK

Cancel

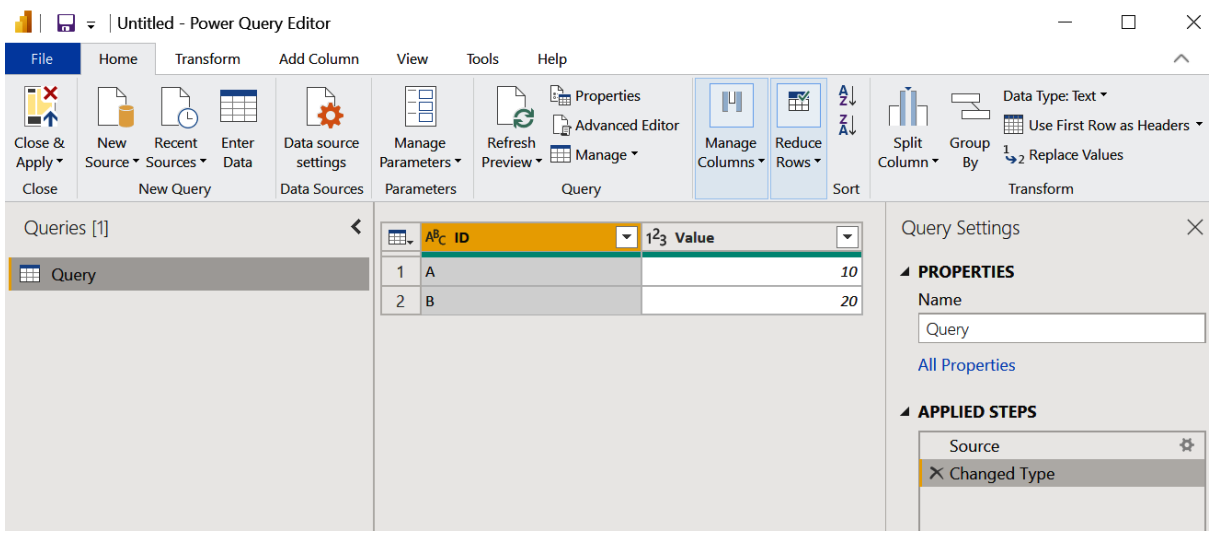
Chapter 3: Data Exploration in Power Query



Create Table

	ID	Value	*
1	A	10	
2	B	20	
*			

Name:



Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Group By Use First Row as Headers Table

Transpose Reverse Rows Count Rows

Data Type: Text Detect Data Type Rename

ABC 123 Text Column

Statistics Standard Scientific Trigonometry Rounding Information

Date Time Duration

Run R script Run Python script

Queries [1]

Query

fx = Table.TransformColumnTypes(Source,{{"ID", type text}},

ABC ID	Value
1 A	10
2 B	20

Query Settings

PROPERTIES

Name

Query

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Column From Examples Custom Column Invoke Custom Function Duplicate Column

Conditional Column Index Column

Format Merge Columns ABC 123 Extract Parse

Statistics Standard Scientific Trigonometry Rounding Information

Date Time Duration

Text Analytics Vision Azure Machine Learning

AI Insights

Queries [1]

Query

fx = Table.TransformColumnTypes(Source,{{"ID", type text}},

ABC ID	Value
1 A	10
2 B	20

Query Settings

PROPERTIES

Name

Query

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Query Settings

Layout

Formula Bar

Monospaced

Show whitespace

Column quality

Column distribution

Column profile

Data Preview

Always allow

Go to Column

Columns

Parameters

Advanced Editor

Advanced

Query Dependencies

Dependencies

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Diagnose Step

Step Diagnostics

Start Diagnostics

Session Diagnostics

Stop Diagnostics

Diagnostic Options

Diagnostic Options

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

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Community









Submit an Idea





Help

Community

Queries [1] <   *fx* = Table.TransformColumnTypes(Source,{{

	ABC ID	123 Value
1	A	
2	B	

-  Copy
-  Remove
- Remove Other Columns
- Duplicate Column
-  Add Column From Examples...
- Remove Duplicates
- Remove Errors
- Change Type >
- Transform >
-  Replace Values...
- Replace Errors...
-  Split Column >
-  Group By...
- Fill >
-  Unpivot Columns
- Unpivot Other Columns
- Unpivot Only Selected Columns
-  Rename...
- Move >
- Drill Down
- Add as New Query

			
Choose Columns ▾	Remove Columns ▾	Choose Columns ▾	Remove Columns ▾
Manage Columns		Manage Columns	



Choose Columns

Choose the columns to keep

- (Select All Columns)
- ProductKey
- OrderDateKey
- DueDateKey
- ShipDateKey
- ResellerKey
- EmployeeKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost

OK

Cancel



Choose Columns

Choose the columns to keep

Sales X AZ

- (Select All Search Results)
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- SalesAmount

Go to Column

AZ

- OrderDateKey
- DueDateKey
- ShipDateKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- SalesAmount
- OrderDate
- DueDate
- ShipDate

Properties
Advanced Editor
Manage ▾

Choose Columns Remove Columns ▾

Choose Columns Remove Columns

Go to Column

File Home Transform Add Column View Tools Help

Close & Apply ▾ New Source ▾ Recent Sources ▾ Enter Data Data source settings Manage Parameters ▾ Refresh Preview ▾ Properties Advanced Editor Manage ▾ Manage Columns ▾ Reduce Rows ▾ Sort Split Column ▾ Group By ▾ Data Type: Whole Number ▾ Use First Row as Headers ▾ Replace Values ▾ Combine ▾

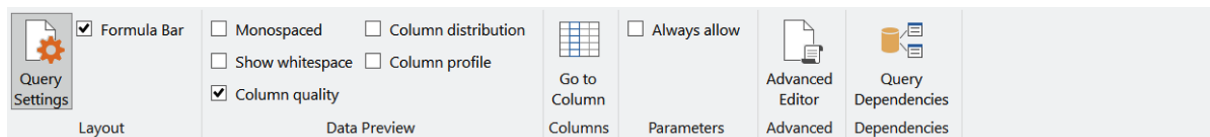
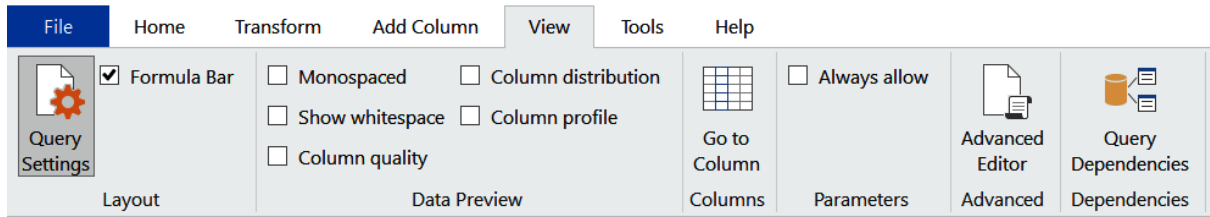
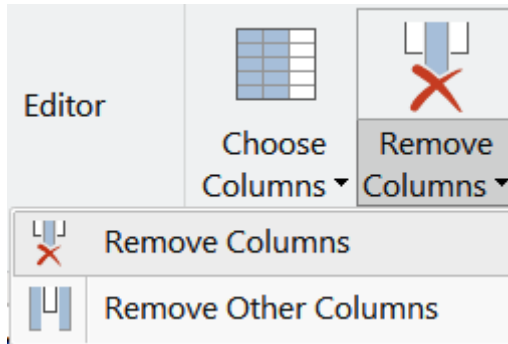
Queries [1] = Table.SelectColumns("#Changed Type", {"OrderDateKey",

	1 ² OrderDateKey	1 ² DueDateKey	1 ² ShipDateKey	1 ² SalesAmount
1	20101229	20110110	20110105	
2	20101229	20110110	20110105	
3	20101229	20110110	20110105	
4	20101229	20110110	20110105	
5	20101229	20110110	20110105	
6	20101229	20110110	20110105	
7	20101229	20110110	20110105	
8	20101229	20110110	20110105	
9	20101229	20110110	20110105	

Query Settings

PROPERTIES
Name: FactResellerSales
All Properties

APPLIED STEPS
Source
Promoted Headers
Changed Type
X Removed Other Columns



Queries [1] = Table.TransformColumnTypes(#"Promoted Headers",{{"ProductKey", Int64.T

	1 ² ProductKey	1 ² OrderDateKey	1 ² DueDateKey	1 ² ShipDateKey
	Valid 100% Error 0% Empty 0%	Valid 100% Error 0% Empty 0%	Valid 100% Error 0% Empty 0%	Valid Error Empty
1	310	20101229	20110110	
2	346	20101229	20110110	
3	346	20101229	20110110	
4	336	20101229	20110110	
5	346	20101229	20110110	
6	311	20101230	20110111	
7	310	20101230	20110111	
8	351	20101230	20110111	
9	344	20101230	20110111	
10	312	20101231	20110112	
11	312	20101231	20110112	
12	330	20101231	20110112	

	36	350
	37	

26 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows

Column profiling based on top 1000 rows
 26 COLUMNS, 999+ ROWS Column profiling based on entire data set

Queries [1] <

FactInternetSales2


	1 ² ₃ ProductKey	1 ² ₃ OrderDateKey	1 ² ₃ DueDateKey	1 ² ₃
	<ul style="list-style-type: none"> Valid - % Error < 1% Empty - % 	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% 	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% 	<ul style="list-style-type: none"> Valid Error Empty
1	310	20101229	20110110	
2	346	20101229	20110110	
3	346	20101229	20110110	
4	336	20101229	20110110	
5	346	20101229	20110110	
6	311	20101230	20110111	
7	310	20101230	20110111	

1 ² ₃ ProductKey	1 ² ₃ OrderD
<ul style="list-style-type: none"> Valid - % Error < 1% Empty - % 	<ul style="list-style-type: none"> Valid Error Empty

ProductKey

1 (< 1%)

Error

 Remove Errors ...

	● Empty	- %	● Empty	0%
				20101229
				20101229
				20101229
				20101229
				20101229
				20101229
				20101229
				20101229
7			310	
8			351	
9			344	
10			312	
11			312	
12			330	
13			313	

ProductKey	
1 (< 1%)	Error



	Remove Errors	...
--	---------------	-----


	Copy
	Keep Duplicates
	Keep Errors
	Remove Duplicates
	Remove Empty
	Remove Errors
	Replace Errors








Queries [1]		Query Settings																				
FactInternetSales2		PROPERTIES Name: FactInternetSales2 All Properties																				
APPLIED STEPS Source Promoted Headers Changed Type Kept Errors		<table border="1"> <thead> <tr> <th>ProductKey</th> <th>OrderDateKey</th> <th>DueDateKey</th> </tr> </thead> <tbody> <tr> <td>Valid - %</td> <td>Valid 100%</td> <td>Valid 100%</td> </tr> <tr> <td>Error 100%</td> <td>Error 0%</td> <td>Error 0%</td> </tr> <tr> <td>Empty - %</td> <td>Empty 0%</td> <td>Empty 0%</td> </tr> </tbody> </table>	ProductKey	OrderDateKey	DueDateKey	Valid - %	Valid 100%	Valid 100%	Error 100%	Error 0%	Error 0%	Empty - %	Empty 0%	Empty 0%	<table border="1"> <thead> <tr> <th>ProductKey</th> <th>OrderDateKey</th> <th>DueDateKey</th> </tr> </thead> <tbody> <tr> <td>1 Error</td> <td>20130724</td> <td>20130805</td> </tr> </tbody> </table>		ProductKey	OrderDateKey	DueDateKey	1 Error	20130724	20130805
ProductKey	OrderDateKey	DueDateKey																				
Valid - %	Valid 100%	Valid 100%																				
Error 100%	Error 0%	Error 0%																				
Empty - %	Empty 0%	Empty 0%																				
ProductKey	OrderDateKey	DueDateKey																				
1 Error	20130724	20130805																				

	fx
= #"Kept Errors"{0}[ProductKey]	
DataFormat.Error: We couldn't convert to Number. Details: 480b	

▲ APPLIED STEPS

- Source 
- Promoted Headers 
- Changed Type
- Kept Errors
- ✕ ProductKey**

	123 ProductKey	123 OrderDateKey
		
	<ul style="list-style-type: none">● Valid● Error● Empty	
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		

-  Copy
-  Remove
- Remove Other Columns
- Duplicate Column
-  Add Column From Examples...
- Remove Duplicates
- Remove Errors
- Change Type ▶
- Transform ▶
-  Replace Values...
- Replace Errors...**
-  Group By...
- Fill ▶
-  Unpivot Columns
- Unpivot Other Columns
- Unpivot Only Selected Columns
-  Rename...
- Move ▶
- Drill Down
- Add as New Query



Replace Errors

Enter the value which will replace errors in the selected columns.

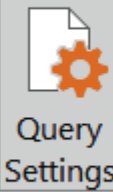
Value

1 ² 3 ProductKey	1 ² 3 OrderD
● Valid 100%	● Valid
● Error 0%	● Error
● Empty 0%	● Empty

ProductKey		
60398 (100%)	0 (0%)	0 (0%)
Valid	Error	Empty

...

File Home Transform Add Column View Tools

 Formula Bar Monospaced Column distribution

Show whitespace Column profile

Column quality

Layout Data Preview

fx = Table.ReplaceErrorValues("#Changed Type", {

	123 ProductKey	123 OrderDateKey	123 DueDateKey
	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>158 distinct, 0 unique</p>	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>1124 distinct, 6 unique</p>	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>1124 distinct, 6 unique</p>
1	310	20101229	2011011
2	346	20101229	2011011
3	346	20101229	2011011
4	336	20101229	2011011
5	346	20101229	2011011
6	311	20101230	2011011

	123 OrderDateKey	123 DueDate
	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>1124 distinct, 6 unique</p>	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>1124 distinct</p>

OrderDateKey

1124 (1%) Distinct	6 (< 1%) Unique
-----------------------	--------------------

💡 Remove Duplicates
...

File Home Transform Add Column View Tools

Query Settings

Layout Data Preview

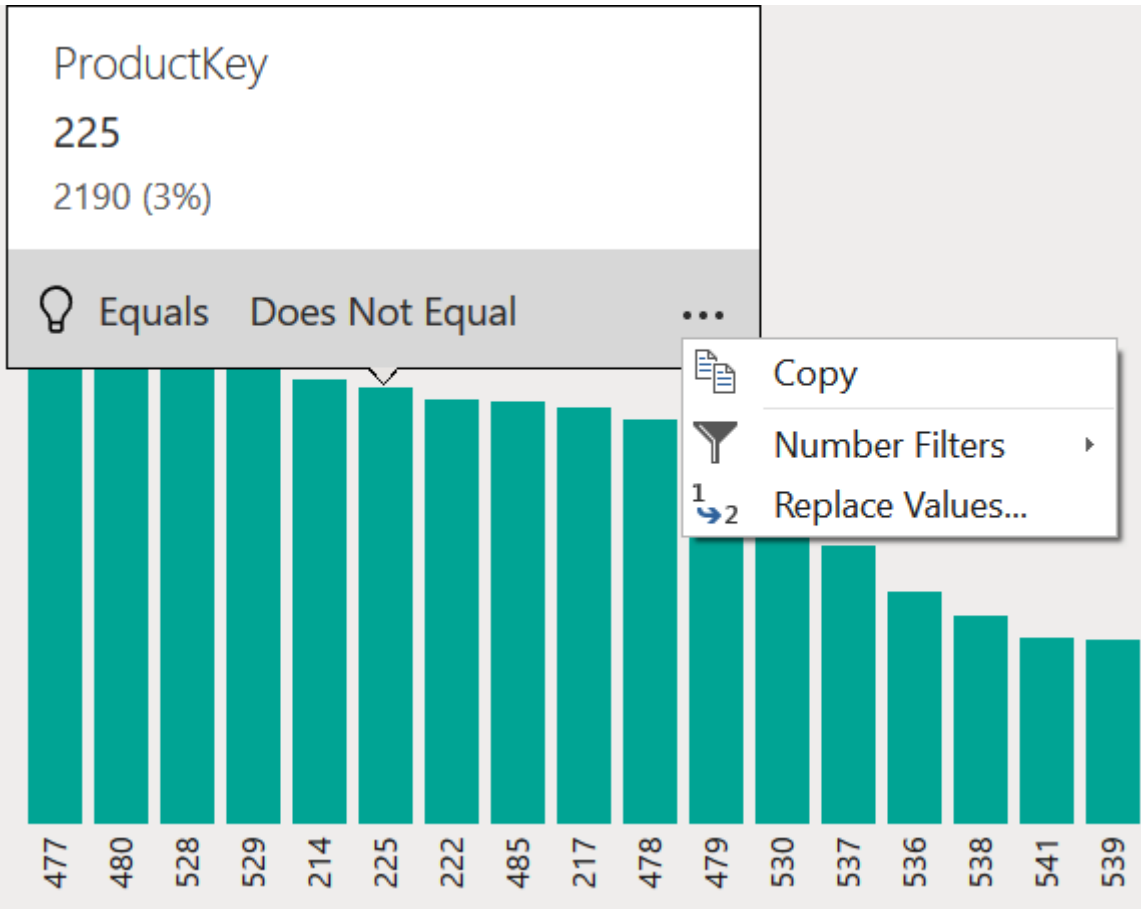
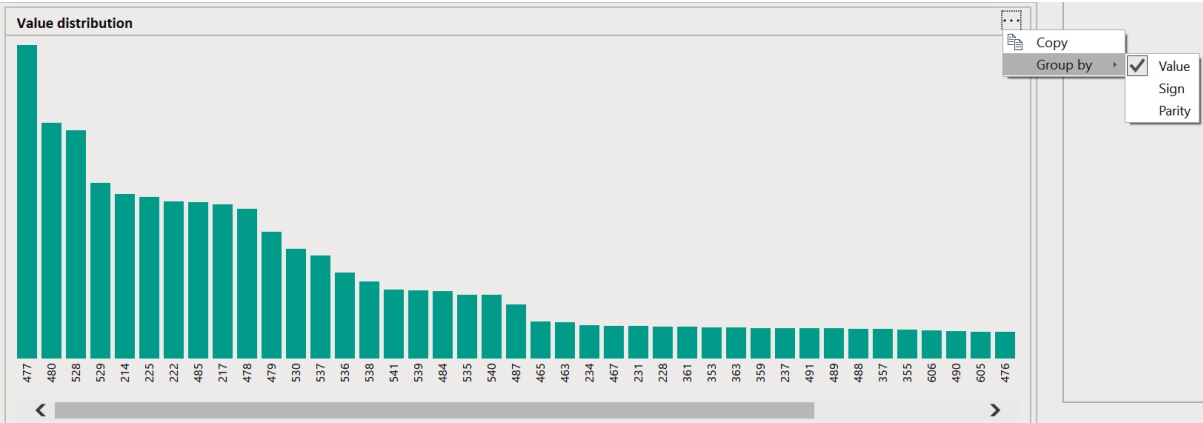
Formula Bar
 Monospaced
 Column distribution

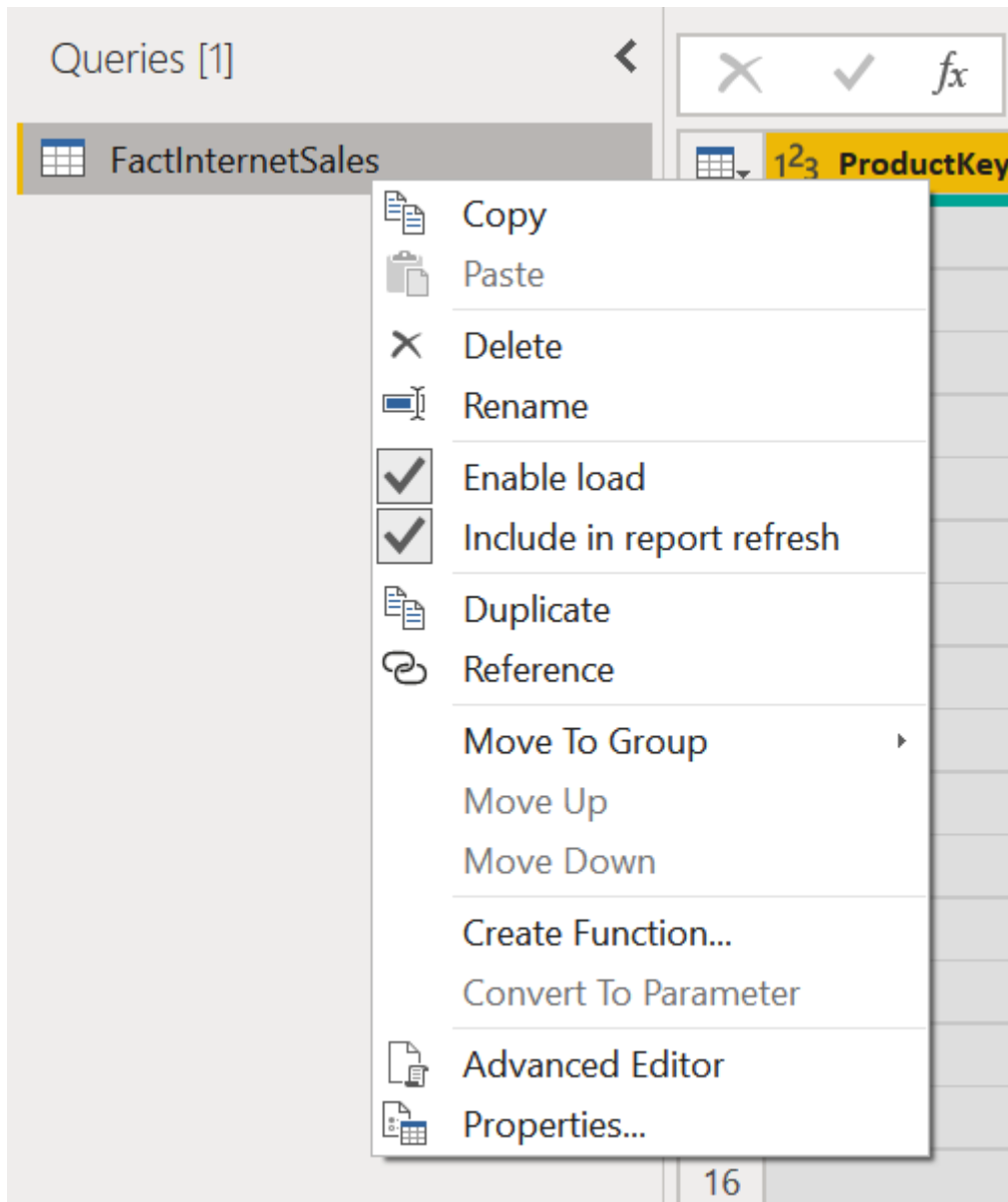
Show whitespace
 Column profile

Column quality

	ProductKey	OrderDateKey	DueDateKey
	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>158 distinct, 0 unique</p>	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>1124 distinct, 6 unique</p>	<ul style="list-style-type: none"> Valid 100% Error 0% Empty 0% <p>1124 distinct, 6 unique</p>
1	310	20101229	20110110
2	346	20101229	20110110
3	346	20101229	20110110
4	336	20101229	20110110
5	346	20101229	20110110
6	311	20101230	20110111
7	310	20101230	20110111
8	351	20101230	20110111
9	344	20101230	20110111
10	312	20101231	20110112
11	312	20101231	20110112
12	330	20101231	20110112
13			

Column statistics	Value distribution
Count: 60398	
Error: 0	
Empty: 0	
Distinct: 158	
Unique: 0	
NaN: 0	
Zero: 0	
Min: 214	
Max: 606	
Average: 437,557...	
Standard deviation: 118.088...	





Query Properties

Name

FactInternetSales

Description

Enable load to report

Include in report refresh ⓘ

OK

Cancel

Sales



123 ProductKey

Sort Ascending

Sort Descending

Clear Sort

Clear Filter

Remove Empty

Number Filters

Search

(Select All)

310

311

312

313

314

320

322

324

326

328

330

332

334

336

338

340

List may be incomplete.

[Load more](#)

OK

Cancel

Query Settings ✕

▲ **PROPERTIES**

Name

FactInternetSales

[All Properties](#)

▲ **APPLIED STEPS**

Source	⚙️
Promoted Headers	⚙️
Changed Type	
✕ Filtered Rows	⚙️



Query Properties

Name

FactInternetSales

Description

- Enable load to report
- Include in report refresh ⓘ

OK

Cancel

APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- Filtered**

- Edit Settings
- Rename
- Delete
- Delete Until End
- Insert Step After
- Move before
- Move after
- Extract Previous
- View Native Query
- Diagnose
- Properties...

- Home
- Favorites >
- Recent >
- Create
- Datasets
- Apps
- Shared with me
- Deployment pipelines
- Learn
- Workspaces >
- PowerQuery Cook...** >

PowerQuery Cookbook

+ New Create a pipeline

- Report
Visualize your data
- Paginated Report
Build a paginated report
- Dashboard
Build a single-page data story
- Dataset
Create a dataset to use in a report
- Dataflow
Prep, clean, and transform data
- Streaming dataset
Build visuals from real-time data
- Upload a file
Open a .pbix, .rdl, .xlsx, or .csv in Po...

View Filters Settings Access Search

Add content to this workspace

Save reports, dashboards, datasets, and workbooks to this workspace by making something new or uploading existing files.

[Add content](#)

Define new tables

Choose a data source to define the tables for your dataflow. You can map your data to [standard Common Data Model](#) tables, or define custom tables instead.

[Learn more](#)

Add new tables

Power Query - Choose data source

All categories

File

Database

...

Azure

Data sources



Azure Blobs
Azure



Azure Data Explorer (Kusto)
Azure



Azure Data Lake Storage Gen2
Azure



Azure HDInsight Spark
Azure



Azure SQL database
Azure



Azure Synapse Analytics (SQL DW)
Azure



Azure Tables
Azure

Power Query - Connect to data source



Azure SQL database
Azure

Connection settings

Server

adventureworksprova.database.windows.net

Database

AdventureWorks

> Advanced options

Connection credentials

On-premises data gateway

(none)

Authentication kind

Basic

Username

adventureworks

Password

.....

Power Query - Choose data

Search

Display options

- DimGeography
- DimOrganization
- DimProduct
- DimProductCategory
- DimProductSubcatego...
- DimPromotion
- DimReseller
- DimSalesReason
- DimSalesTerritory
- DimScenario
- FactAdditionalInternat...
- FactCallCenter
- FactCurrencyRate
- FactFinance
- FactInternetSales

Select related tables

GeographyKey	City	StateProvinceCode	StateProvir
1	Alexandria	NSW	New South
2	Coffs Harbour	NSW	New South
3	Darlinghurst	NSW	New South
4	Goulburn	NSW	New South
5	Lane Cove	NSW	New South
6	Lavender Bay	NSW	New South
7	Malabar	NSW	New South
8	Matraville	NSW	New South
9	Milsons Point	NSW	New South
10	Newcastle	NSW	New South
11	North Ryde	NSW	New South
12	North Sydney	NSW	New South
13	Port Macquarie	NSW	New South
14	Rhodes	NSW	New South
15	Silverwater	NSW	New South
16	Springwood	NSW	New South
17	St. Leonards	NSW	New South
18	Sydney	NSW	New South

Back Cancel Transform data

Home Transform Add column **View** Help

Data view Schema view Script view Diagram view **Query settings** Go to column Always allow Advanced editor

Parameters Advanced

Show a schema-only preview for the currently selected step.

Queries [2] <

- DimGeography
- FactInternetSales

Source{[Schema = "dbo", Item = "DimGeography"]}[Data]

Name	Type	Key	Search
GeographyKey	12/34 Whole number		
City	ab/cd Text		
StateProvinceCode	ab/cd Text		
StateProvinceName	ab/cd Text		
CountryRegionCode	ab/cd Text		
EnglishCountryRegion...	ab/cd Text		
SpanishCountryRegion...	ab/cd Text		
FrenchCountryRegion...	ab/cd Text		
PostalCode	ab/cd Text		
SalesTerritoryKey	12/34 Whole number		
IpAddressLocator	ab/cd Text		
DimCustomer	Table		
DimReseller	Table		
DimSalesTerritory	Record		

Source{[Schema = "dbo", Item = "DimGeography"]}[Data]

Name	Type	Key	Search
GeographyKey	12 34 Whole number		
<input checked="" type="checkbox"/> City	... ab cd Text		
StateProvinceCode	ab cd Text		
StateProvinceName City	ab cd Text ... ab cd Text		
CountryRegionCode	ab cd Text		
EnglishCountryRegion...	ab cd Text		
SpanishCountryRegion...	ab cd Text		
FrenchCountryRegion...	ab cd Text		
PostalCode	ab cd Text		
SalesTerritoryKey	12 34 Whole number		
IpAddressLocator	ab cd Text		
DimCustomer	Table		
DimReseller	Table		
DimSalesTerritory	Record		

Home Transform Add column View Help **Schema tools**

Choose columns
 Go to column
 Remove columns
 Remove other columns
 Manage columns

ABC 123 Data type: Text
 Detect data type
 Mark as key
 Transform

Rename
 Duplicate column
 Move column
 Close schema view
 Close

Home Transform Add column **View**

Data view
 Schema view
 Preview

Script
 Diagram view
 Query settings

Go to column
 Columns

Display the diagram view.

Power Query - Edit queries

Home Transform Add column View Help

Data view Schema view Script Diagram view Query settings Go to column Always allow Advanced editor

Preview Layout Columns Parameters Advanced

Queries [2]

- DimGeography (3 steps)
- FactInternetSales (3 steps)

Table.RemoveColumns("#Navigation 1", Table.ColumnsOfType("#Navigation 1", {type table, type record, type

GeographyKey	City	StateProvinceCode	StateProvinceName	CountryRegionCode	EnglishCountryRegionName
1	Alexandria	NSW	New South Wales	AU	Australia
2	Coffs Harbour	NSW	New South Wales	AU	Australia
3	Darlinghurst	NSW	New South Wales	AU	Australia
4	Goulburn	NSW	New South Wales	AU	Australia
5	Lane Cove	NSW	New South Wales	AU	Australia
6	Lavender Bay	NSW	New South Wales	AU	Australia
7	Malabar	NSW	New South Wales	AU	Australia
8	Matraville	NSW	New South Wales	AU	Australia
9	Milsons Point	NSW	New South Wales	AU	Australia
10					

Completed (1.12 s) Columns: 11 Rows: 99+

Step Save & close

Columns Parameters Expand

DimGeography (2 steps)

DimGeography

SQL Server datab Navigation

FactInt

123

1

2

3

4

5

6

7

8

9

10

11

Search commands

Manage columns

- Choose columns
- Remove columns
- Remove other columns

Reduce rows

- Keep top rows
- Keep bottom rows
- Keep range of rows
- Keep duplicates
- Keep errors
- Remove top rows
- Remove bottom rows
- Remove alternate rows
- Remove duplicates
- Remove blank rows
- Remove errors

Sort

- A |

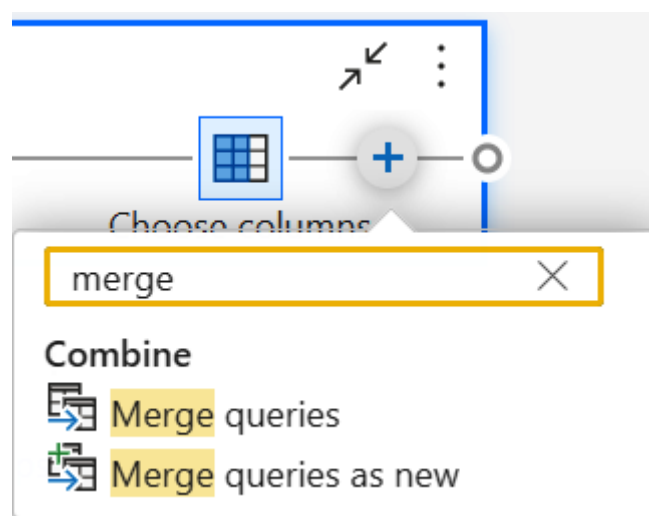
Choose columns ?

Choose the columns to keep.

A Z ↓

- (Select all)
- GeographyKey
- City
- StateProvinceCode
- StateProvinceName
- CountryRegionCode
- EnglishCountryRegionName
- SpanishCountryRegionName
- FrenchCountryRegionName
- PostalCode
- SalesTerritoryKey
- IpAddressLocator
- DimCustomer
- DimReseller
- DimSalesTerritory

OK Cancel



Merge ?

Select tables and matching columns to create a merged table.

Left table for merge

DimGeography ⌵



StateProvinceName	CountryRegionCode	EnglishCountryRegionName	PostalCode	SalesTerritoryKey
South Wales	AU	Australia	2015	9
South Wales	AU	Australia	2450	9
South Wales	AU	Australia	2010	9
South Wales	AU	Australia	2580	9

Right table for merge

FactInternetSales ⌵



OrderKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber
21768	1	19	6	SO43697	
28389	1	39	7	SO43698	
25863	1	100	1	SO43699	
14501	1	100	4	SO43700	

Join kind

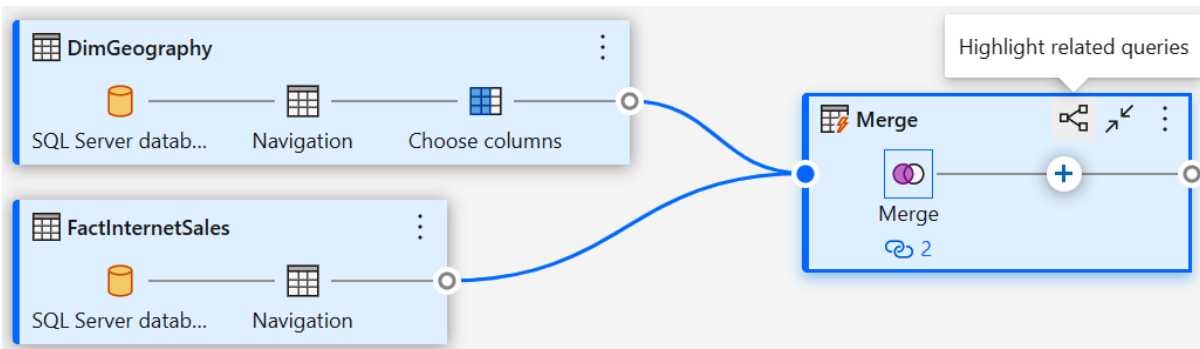
Left outer Right outer Full outer Inner Left anti Right anti

Use fuzzy matching to perform the merge

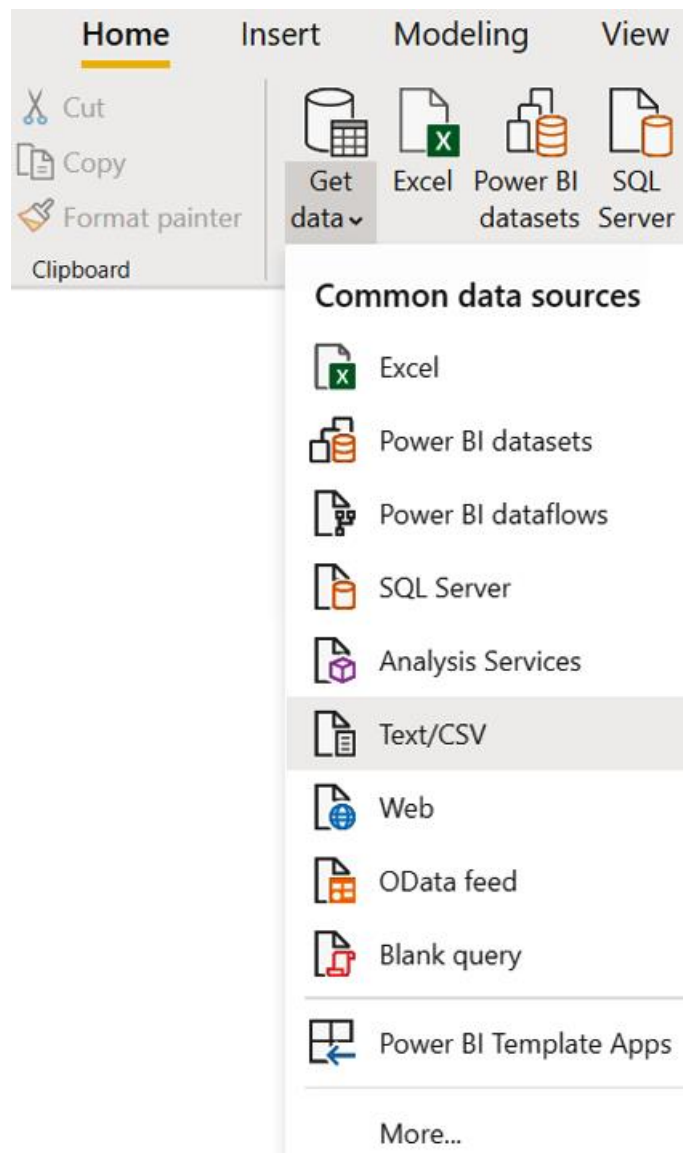
> Fuzzy matching options

The selection matches 655 of 655 rows from the first table

OK Cancel



Chapter 4: Reshaping Your Data



FactInternetSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderKey
310	20101229	20110110	20110105	21768	1	19		6 SO43697
346	20101229	20110110	20110105	28389	1	39		7 SO43698
346	20101229	20110110	20110105	25863	1	100		1 SO43699
336	20101229	20110110	20110105	14501	1	100		4 SO43700
346	20101229	20110110	20110105	11003	1	6		9 SO43701
311	20101230	20110111	20110106	27645	1	100		4 SO43702
310	20101230	20110111	20110106	16624	1	6		9 SO43703
351	20101230	20110111	20110106	11005	1	6		9 SO43704
344	20101230	20110111	20110106	11011	1	6		9 SO43705
312	20101231	20110112	20110107	27621	1	100		4 SO43706
312	20101231	20110112	20110107	27616	1	100		4 SO43707
330	20101231	20110112	20110107	20042	1	98		10 SO43708
313	20101231	20110112	20110107	16351	1	6		9 SO43709
314	20101231	20110112	20110107	16517	1	6		9 SO43710
314	20110101	20110113	20110108	27606	1	100		1 SO43711
311	20110101	20110113	20110108	13513	1	29		8 SO43712
310	20110102	20110114	20110109	27601	1	100		4 SO43713
311	20110102	20110114	20110109	13591	1	98		10 SO43714
314	20110102	20110114	20110109	16483	1	6		9 SO43715
311	20110102	20110114	20110109	16529	1	6		9 SO43716

Buttons: Extract Table Using Examples | Load | Transform Data | Cancel

Power Query Editor Interface

Query: Table.TransformColumnTypes(#"Promoted Headers",{{"ProductKey", ...}}

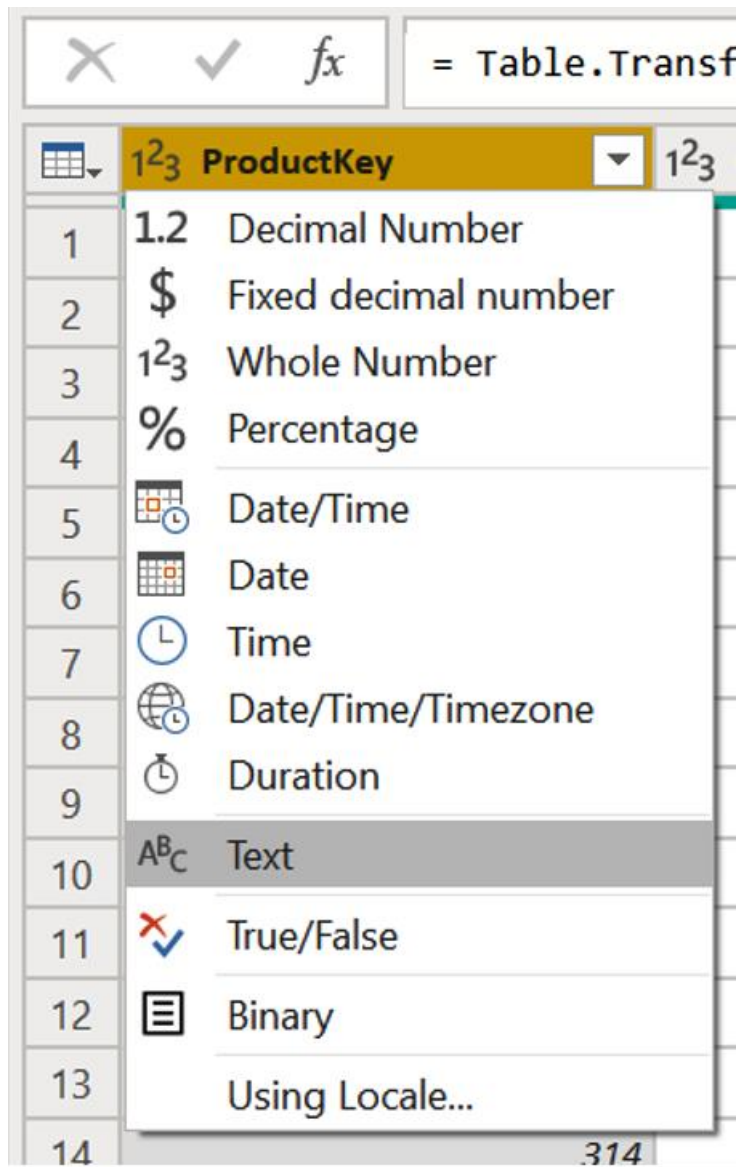
	ProductKey	OrderDateKey	DueDateKey	ShipDateKey
1	310	20101229	20110110	
2	346	20101229	20110110	
3	346	20101229	20110110	
4	336	20101229	20110110	
5	346	20101229	20110110	
6	311	20101230	20110111	
7	310	20101230	20110111	
8	351	20101230	20110111	
9	344	20101230	20110111	
10	312	20101231	20110112	

Properties: Name: FactInternetSales

Applied Steps: Source, Promoted Headers, Changed Type

Column Header: ProductKey

Row 1: 1 | 310



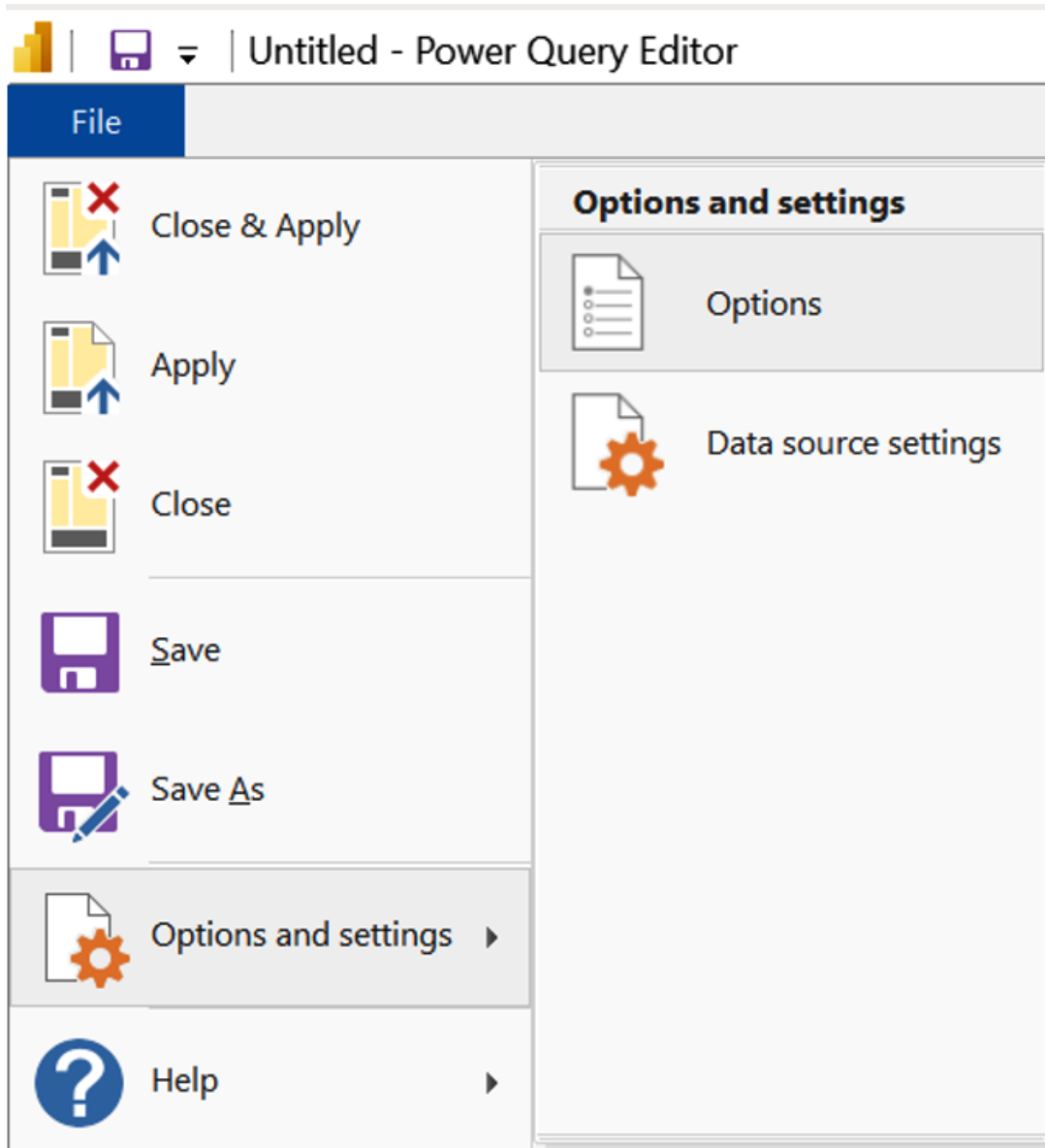
Change Column Type

The selected column has an existing type conversion. Would you like to replace the existing conversion, or preserve the existing conversion and add the new conversion as a separate step?

Replace current

Add new step

Cancel



Options

GLOBAL

Data Load

Power Query Editor

DirectQuery

R scripting

Type Detection

- Always detect column types and headers for unstructured sources
- Detect column types and headers for unstructured sources according to each file's setting
- Never detect column types and headers for unstructured sources

Queries [2] Query Settings ✕

FactInternetSales
FactResellerSales

`= Csv.Document(File.Contents`

	Column1	Column2	Column3
1	ProductKey	OrderDateKey	DueDateKey
2	349	20101229	20110110
3	350	20101229	20110110
4	351	20101229	20110110
5	344	20101229	20110110
6	345	20101229	20110110

PROPERTIES
Name: FactResellerSales
[All Properties](#)

APPLIED STEPS
Source

Caliber | Untitled - Power Query

File Home Transform

Group By Use First Row as Headers

Use First Row as Headers
Use Headers as First Row

Transpose
Reverse Rows
Count Rows

Transform Add Column View

Transpose
Reverse Rows
Count Rows

Data Type: Text
Detect Data Type
Rename

File Home Transform Add Column View Tools Help

Group By Use First Row as Headers Count Rows Table

Transpose Reverse Rows

Data Type: Any Detect Data Type Rename Any Column

Text Column

Statistics Standard Scientific Trigonometry Rounding Information

Date Time Duration Date & Time Column

R Py Run R script Run Python script Scripts

Queries [2] FactInternetSales FactResellerSales

fx = Table.TransformColumnTypes("#Promoted Headers", {

	ProductKey	OrderDateKey	DueDateKey
1	349	20101229	2011011
2	350	20101229	2011011
3	351	20101229	2011011
4	344	20101229	2011011
5	345	20101229	2011011
6	346	20101229	2011011
7	347	20101229	2011011
8	229	20101229	2011011

Query Settings

PROPERTIES Name FactResellerSales All Properties

APPLIED STEPS Source Promoted Headers Changed Type

ProductStandardCost	TotalProductCost	SalesAmount	TaxAmt	Freight
1898,0944	1898,0944	2024,994	161,9995	50,6249
1898,0944	5694,2832	6074,982	485,9986	151,8746
1898,0944	1898,0944	2024,994	161,9995	50,6249
1912,1544	1912,1544	2039,994	163,1995	50,9999
1912,1544	1912,1544	2039,994	163,1995	50,9999
1912,1544	3824,3088	4079,988	326,399	101,9997
1912,1544	1912,1544	2039,994	163,1995	50,9999

ProductStandardCost	TotalProductCost	SalesAmount
1898,0944		2024,994
1898,0944		6074,982
1898,0944		2024,994
1912,1544		2039,994
1912,1544		2039,994
1912,1544		4079,988
1912,1544		2039,994
31,7244		86,5212
31,7244		
3,3963		
5,7052		
12,0278		
413,1463		
884,7083		
699,0928		
617,0281		
617,0281	1234,0562	
5,7052	22,8208	
31,7244	126,8976	
623,8403	1247,6806	
1898,0944	5694,2832	

- Copy
- Remove Columns
- Remove Other Columns
- Add Column From Examples...
- Remove Duplicates
- Remove Errors
- Replace Values...
- Fill
- Change Type**
 - Decimal Number
 - Fixed decimal number
 - Whole Number
 - Percentage
 - Date/Time
 - Date
 - Time
 - Date/Time/Timezone
 - Duration
 - Text
 - True/False
 - Binary
 - Using Locale...
- Transform
- Merge Columns
- Group By...
- Unpivot Columns
- Unpivot Other Columns
- Unpivot Only Selected Columns
- Move



Change Type with Locale

Change the data type and select the locale of origin.

Data Type

Locale

i Sample input values:

- 2.100,50
- 1,50

Query Settings

PROPERTIES

Name: FactResellerSales

APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- Changed Type with Locale

	\$ ProductStandardCost	\$ TotalProductCost	\$ SalesAmount	\$ TaxAmt
1	1.898,09	1.898,09	2.024,99	
2	1.898,09	5.694,28	6.074,98	
3	1.898,09	1.898,09	2.024,99	
4	1.912,15	1.912,15	2.039,99	
5	1.912,15	1.912,15	2.039,99	
6	1.912,15	3.824,31	4.079,99	
7	1.912,15	1.912,15	2.039,99	
8	31,72	95,17	86,52	
9	31,72	31,72	28,84	

Query Settings

PROPERTIES

Name: FactResellerSales2

APPLIED STEPS

- Source
- Changed Type

Queries [1]

FactResellerSales2

	Column1	Column2	Column3
1	Column1	-	-
2	ProductKey	OrderDateKey	DueDateKey
3	349	20101229	20110110
4	350	20101229	20110110
5	351	20101229	20110110
6	344	20101229	20110110
7	345	20101229	20110110

Remove Top Rows

Specify how many rows to remove from the top.

Number of rows

OK Cancel

File Home Transform Add Column View Tools Help

Close & Apply, New Source, Recent Sources, Enter Data, Data source settings, Manage Parameters, Refresh Preview, Properties, Advanced Editor, Manage, Manage Columns, Reduce Rows, Sort, Split Column, Group By, Data Type: Text, Use First Row as Headers, Replace Values, Transform

Queries [1] = Table.Skip("#Changed Type",1)

	APC Column1	APC Column2	APC Column3
1	ProductKey	OrderDateKey	DueDateKey
2	349	20101229	20110110
3	350	20101229	20110110
4	351	20101229	20110110
5	344	20101229	20110110
6	345	20101229	20110110
7	346	20101229	20110110
8	347	20101229	20110110

Query Settings

PROPERTIES
Name: FactResellerSales2

APPLIED STEPS
Source, Changed Type, Removed Top Rows

File Home Transform Add Column View Tools Help

Close & Apply, New Source, Recent Sources, Enter Data, Data source settings, Manage Parameters, Refresh Preview, Properties, Advanced Editor, Manage, Manage Columns, Reduce Rows, Sort, Split Column, Group By, Data Type: Whole Number, Use First Row as Headers, Replace Values, Transform

Queries [1] = Table.TransformColumnTypes("#Promoted Headers",{

	1 ² 3 ProductKey	1 ² 3 OrderDateKey	1 ² 3 DueDateKey
1	349	20101229	20:
2	350	20101229	20:
3	351	20101229	20:
4	344	20101229	20:
5	345	20101229	20:
6	346	20101229	20:
7	347	20101229	20:
8	229	20101229	20:
9	235	20101229	20:
10	218	20101229	20:

Query Settings

PROPERTIES
Name: FactResellerSales2

APPLIED STEPS
Source, Changed Type, Removed Top Rows, Promoted Headers, Changed Type1

Untitled - Power Query Editor

File Home Transform Add Column View Tools Help

Group By, Use First Row as Headers, Transpose, Reverse Rows, Count Rows, Data Type: Whole Number, Replace Values, Detect Data Type, Fill, Pivot Column, Rename

Table Any Column



Group By

Specify the column to group by and the desired output.

Basic Advanced

ProductKey

New column name

SalesAmount

Operation

Sum

Column

SalesAmount

OK

Cancel

The screenshot shows the Power BI Desktop interface with the 'Group By' dialog box open. The dialog is set to 'Basic' mode. The 'Group By' dropdown is set to 'ProductKey', the 'New column name' is 'SalesAmount', the 'Operation' is 'Sum', and the 'Column' is 'SalesAmount'. The 'OK' button is highlighted in yellow. Below the dialog, the 'FactInternetSales' query is shown with the following data:

ProductKey	SalesAmount
310	1202298,72
346	166599,51
336	15380,1604
311	1005493,87
351	192374,43
344	197199,42
312	1205876,99
330	13981,964
313	1080637,54
314	1055589,65
332	12583,7676
350	202499,4
347	122399,64

The 'Query Settings' pane on the right shows the 'APPLIED STEPS' list with 'Grouped Rows' selected.

APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- Grouped Rows**

Group By

Specify the columns to group by and one or more outputs.

Basic Advanced

ProductKey

SalesTerritoryKey

Add grouping

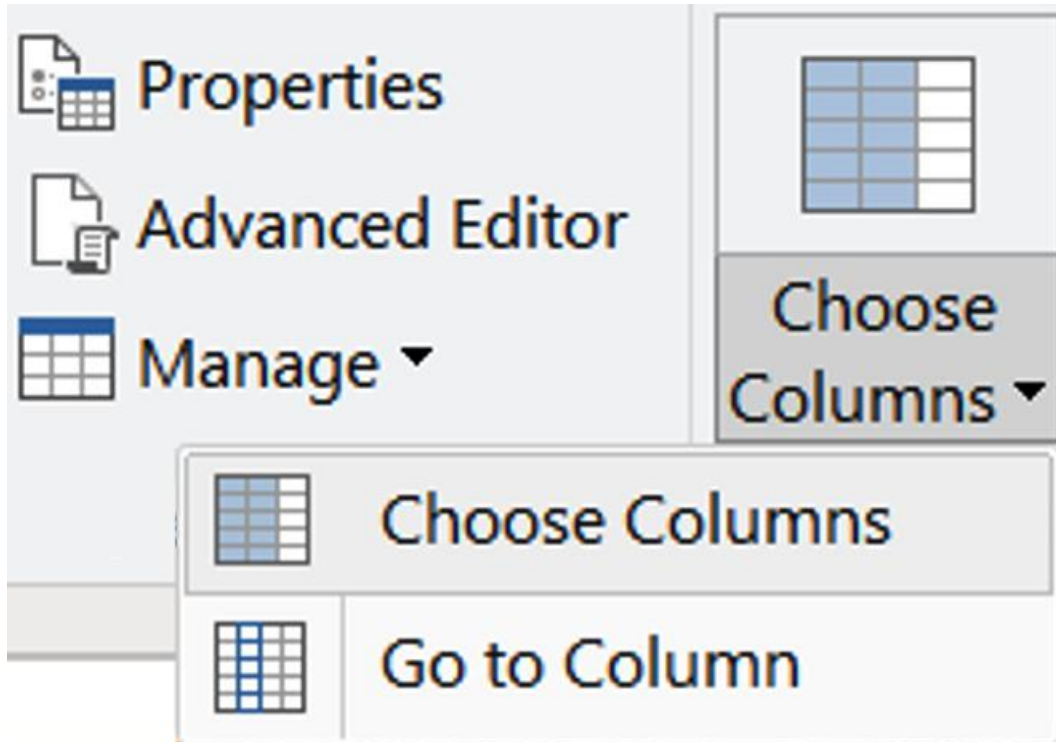
New column name	Operation	Column
SalesAmount	Sum	SalesAmount
SalesAmountAVG	Average	SalesAmount
TotalCost	Sum	TotalProductCost
TotalCostAVG	Average	TotalProductCost

Add aggregation

OK Cancel

Operation

- Sum
- Sum
- Average
- Median
- Min
- Max
- Count Rows
- Count Distinct Rows
- All Rows



File Home Transform Add Column View Tools Help

Group By Use First Row as Headers Count Rows

Table

Transpose Reverse Rows

Data Type: Decimal Number Replace Values Unpivot Columns

Detect Data Type Rename

Unpivot Columns Unpivot Other Columns Unpivot Only Selected Columns

Split Column Format Merge Columns

Text Column

Statistics

Queries [1]

`= Table.SelectColumns(#"Changed Type",{"ProductKey", "TotalProductCost", "SalesAmount`

	ProductKey	TotalProductCost	SalesAmount	TaxAmt
1	310	2171,2942	3578,27	286,2616
2	346	1912,1544	3399,99	271,9992
3	346	1912,1544	3399,99	271,9992

`= Table.Unpivot(#"Removed Other Columns",`

	ProductKey	Attribute	Value
1	310	TotalProductCost	2171,2942
2	310	SalesAmount	3578,27
3	310	TaxAmt	286,2616
4	346	TotalProductCost	1912,1544
5	346	SalesAmount	3399,99
6	346	TaxAmt	271,9992
7	346	TotalProductCost	1912,1544
8	346	SalesAmount	3399,99
9	346	TaxAmt	271,9992
10	336	TotalProductCost	413,1463

Query Settings

PROPERTIES

Name: FactInternetSales

APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- Removed Other Columns
- Unpivoted Only Selected Columns

▲ APPLIED STEPS

Source



Promoted Headers



Changed Type

Removed Other Columns



✕ Unpivoted Only Selected Colu...

Choose Columns



Choose the columns to keep

Search Columns

- CustomerKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost
- SalesAmount
- TaxAmt
- Freight
- CarrierTrackingNumber
- CustomerPONumber
- OrderDate

OK Cancel

OrderDate

- 1.2 Decimal Number
- \$ Fixed decimal number
- 1²₃ Whole Number
- % Percentage
- Date/Time
- Date**
- Time
- Date/Time/Timezone
- Duration
- A^BC Text
- True/False
- Binary
- Using Locale...

Transform Add Column View Tools Help

Transpose Data Type: Date Replace Values Unpivot Columns
 Reverse Rows Detect Data Type Fill Move
 Count Rows Rename Pivot Column Convert to List
 Split Column Format Merge Columns Extract Parse

Any Column Text Column

= Table.TransformColumnTypes("#Removed Other Columns",{"OrderDate

	1 ² ₃ ProductKey	1.2 SalesAmount	OrderDate
1	310	3578,27	29/12/2010
2	346	3399,99	29/12/2010
3	346	3399,99	29/12/2010
4	336	699,0982	29/12/2010
5	346	3399,99	29/12/2010
6	311	3578,27	30/12/2010



Pivot Column

Use the names in column "OrderDate" to create new columns.

Values Column ⓘ

ProductKey
ProductKey
SalesAmount

Aggregate Value Function

Sum

[Learn more about Pivot Column](#)

OK

Cancel

The screenshot shows the Microsoft Excel interface with the Pivot Column dialog box open. The dialog box is configured with 'ProductKey' as the Values Column and 'Sum' as the Aggregate Value Function. Below the dialog box, the PivotTable is displayed with the following data:

	ProductKey	1.2 29/12/2010	1.2 30/12/2010	1.2 31/12/2010	1.2 01/01/2011
1	214	null	null	null	null
2	217	null	null	null	null
3	222	null	null	null	null
4	225	null	null	null	null
5	228	null	null	null	null
6	231	null	null	null	null
7	234	null	null	null	null
8	237	null	null	null	null
9	310	3578,27	3578,27	null	null
10	311	null	3578,27	null	null
11	312	null	null	7156,54	null
12	313	null	null	3578,27	null
13	314	null	null	3578,27	null
14	320	null	null	null	null
15	321	null	null	null	null
16	322	null	null	null	null

Advanced options

Aggregate Value Function

- Sum
- Count (All)
- Count (Not Blank)
- Minimum
- Maximum
- Median
- Average
- Sum
- Don't Aggregate

File Home Transform Add Column View Tools Help

Group By Use First Row as Headers Count Rows

Transpose Reverse Rows

Data Type: Date Replace Values Unpivot Columns

Detect Data Type Fill Move

Rename Pivot Column Convert to List

Split Column Format Merge Columns

Parse Statistics Standard

Table Any Column Text Column

Queries [1]

FactInternetSales2

= Table.TransformColumnTypes("#Promoted Headers",{{"OrderDate", type date}, {"Produ

	OrderDate	ProductKey	UnitPrice	TotalProductCost
1	29/12/2010	310	3578,27	2171,2942
2	null	346	3399,99	1912,1544
3	null	346	3399,99	1912,1544
4	null	336	699,0982	413,1463
5	null	346	3399,99	1912,1544
6	null	311	3578,27	2171,2942
7	null	310	3578,27	2171,2942
8	null	351	3374,99	1898,0944
9	null	344	3399,99	1912,1544
10	23/01/2011	312	3578,27	2171,2942
11	null	312	3578,27	2171,2942
12	null	330	699,0982	413,1463
13	null	313	3578,27	2171,2942
14	null	314	3578,27	2171,2942
15	null	314	3578,27	2171,2942

Transform Add Column View Tools Help

Transpose Reverse Rows Count Rows

Data Type: Date Replace Values

Detect Data Type Fill

Rename Down Up

Column Column

	OrderDate	ProductKey	UnitPrice
1	29/12/2010	310	
2	29/12/2010	346	
3	29/12/2010	346	
4	29/12/2010	336	
5	29/12/2010	346	
6	29/12/2010	311	
7	29/12/2010	310	
8	29/12/2010	351	
9	29/12/2010	344	
10	23/01/2011	312	
11	23/01/2011	312	
12	23/01/2011	330	
13	23/01/2011	313	
14	23/01/2011	314	
15	23/01/2011	314	

Transform Add Column View Tools Help

Transpose
 Reverse Rows
 Count Rows

Data Type: Date/Time
 Detect Data Type
 Rename

Replace Values
 Fill
 Pivot Column

Unpivot Columns
 Move
 Convert to List

Split Column

Merge Columns
 Extract
 Parse

Statistics
 Standard
 Scientific
 Information

Trigonometry
 Rounding

Any Column
 By Delimiter
 By Number of Characters
 By Positions
 By Lowercase to Uppercase
 By Uppercase to Lowercase
 By Digit to Non-Digit
 By Non-Digit to Digit

Text Column
 Number Column

= Table.TransformColumns(rs,{{"ProductKey", Int64.Type}, {"OrderDateKey",

	1.2 Freight	CustomerPONumber	OrderDate	Due
1	286,2616		29/12/2010 00:00:00	
2	271,9992		29/12/2010 00:00:00	
3	271,9992		29/12/2010 00:00:00	
4	55,9279	17,4775	29/12/2010 00:00:00	
5	271,9992	84,9998	29/12/2010 00:00:00	
6	286,2616	89,4568	30/12/2010 00:00:00	
7	286,2616	89,4568	30/12/2010 00:00:00	
8	269,9992	84,3748	30/12/2010 00:00:00	
9	271,9992	84,9998	30/12/2010 00:00:00	



Split Column by Delimiter

Specify the delimiter used to split the text column.

Select or enter delimiter

Split at

- Left-most delimiter
- Right-most delimiter
- Each occurrence of the delimiter

▲ Advanced options

Split into

- Columns
- Rows


Number of columns to split into

Quote Character

Split using special characters

OrderDate.1	OrderDate.2
29/12/2010	00:00:00
29/12/2010	00:00:00
29/12/2010	00:00:00
29/12/2010	00:00:00
29/12/2010	00:00:00
30/12/2010	00:00:00
30/12/2010	00:00:00
30/12/2010	00:00:00
30/12/2010	00:00:00
31/12/2010	00:00:00
31/12/2010	00:00:00
31/12/2010	00:00:00
31/12/2010	00:00:00
31/12/2010	00:00:00

- Unpivot Columns
- Move
- Convert to List



Split Column

Format

ABC 123 Extract

abc Parse

Text Column

\bar{X} σ

Σ

Statistics

- By Delimiter
- By Number of Characters
- By Positions
- By Lowercase to Uppercase
- By Uppercase to Lowercase
- By Digit to Non-Digit
- By Non-Digit to Digit

by Delimiter",{"OrderDate.1",

	ABC SalesOrderNumber
6	SO43697
7	SO43698
1	SO43699
4	SO43700
9	SO43701
4	SO43702
9	SO43703
9	SO43704
9	SO43705

100	
6	
100	
6	
6	
6	
6	



Split Column by Number of Characters

Specify the number of characters used to split the text column.

Number of characters

Split

- Once, as far left as possible
- Once, as far right as possible
- Repeatedly

▲ Advanced options

Split into

- Columns
- Rows

OK

Cancel

ABC SalesOrderNumber.1	123 SalesOrderNumber.2
SO	43697
SO	43698
SO	43699
SO	43700
SO	43701
SO	43702
SO	43703
SO	43704
SO	43705
SO	43706
SO	43707
SO	43708

	ABC SalesOrderNumber	123 S
	6	SO43697
	7	SO43698
100	1	SO43699
100	4	SO43700
6	9	SO43701
100	4	SO43702
6	9	SO43703
6	9	SO43704
6	9	SO43705
100	4	SO43706
100	4	SO43707
98	10	SO43708
6	9	SO43709
6	9	SO43710
100	1	SO43711



Extract Last Characters

Enter how many ending characters to keep.

Count

OK

Cancel

ABC SalesOrderNumber
43697
43698
43699
43700
43701
43702
43703
43704
43705
43706

□ ×

InternetSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

Column1	Column2
ID	SalesData
738a2f8b-2e8f-4d52-8ab7-296a34875d77	{"DueDateKey": 20130828, "ShipDateKey": 20130823,...
59abfabcb-bb07-49d1-8ff6-7af5f99f4f63	{"DueDateKey": 20130828, "ShipDateKey": 20130823,...
aba98b21-37d1-4ae4-9b89-c06eb2bd542e	{"DueDateKey": 20130618, "ShipDateKey": 20130613,...
fa18ad1c-ca9f-4b31-b7fa-146a284db084	{"DueDateKey": 20130924, "ShipDateKey": 20130919,...
8c97c75b-7ce2-480a-bdd3-ec0cacc3e1f	{"DueDateKey": 20130320, "ShipDateKey": 20130315,...
6aaf8700-0ca1-46d5-b0dc-d42c04348916	{"DueDateKey": 20130601, "ShipDateKey": 20130527,...
34c44f7d-97f7-4939-9270-1d1c1e93286e	{"DueDateKey": 20130922, "ShipDateKey": 20130917,...
e6dd93a6-6bcd-436a-ae9e-d92c94b658f9	{"DueDateKey": 20131223, "ShipDateKey": 20131218,...
c6d07366-d766-4114-b50f-5edbab50d7c	{"DueDateKey": 20130609, "ShipDateKey": 20130604,...

Extract Table Using Examples

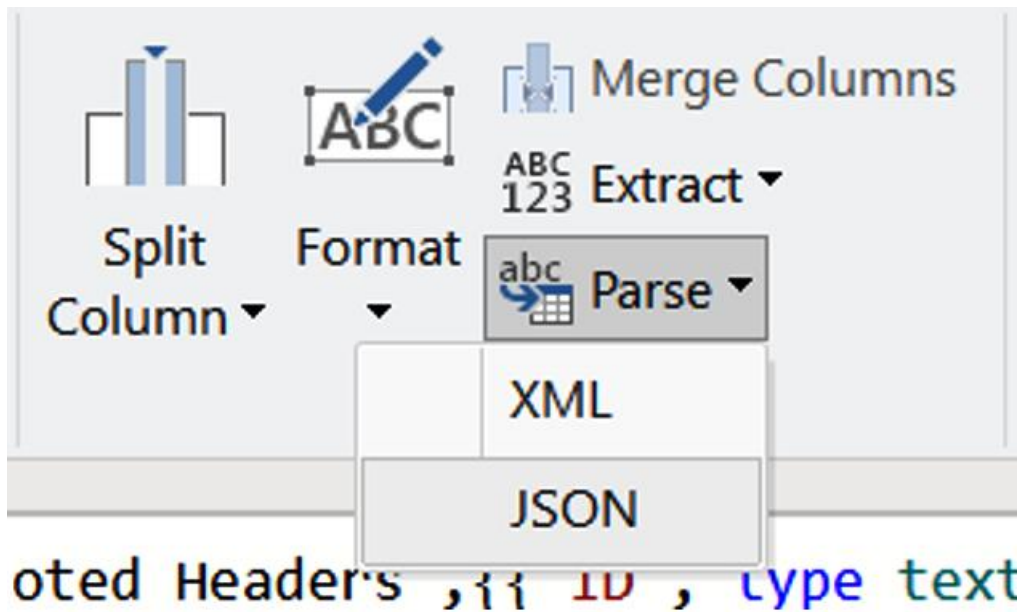
Load

Transform Data

Cancel

Table.TransformColumnTypes("#Promoted Headers",{{"ID", type text}, {"SalesData", type text}})

ARc ID	ARc SalesData
1	738a2f8b-2e8f-4d52-8ab7-296a34875... {"DueDateKey": 20130828, "ShipDateKey": 20130823, "CustomerKey": 16836, "ProductStandardCost": "1265,6195", "ExtendedAmount": "2...
2	59abfabc-bb07-49d1-8ff6-7af5f99f4f63 {"DueDateKey": 20130828, "ShipDateKey": 20130823, "CustomerKey": 14067, "ProductStandardCost": "9,3463", "ExtendedAmount": "24,99...
3	aba98b21-37d1-4ae4-9b89-c06eb2bd... {"DueDateKey": 20130618, "ShipDateKey": 20130613, "CustomerKey": 21515, "ProductStandardCost": "9,1593", "ExtendedAmount": "24,49...
4	fa18ad1c-ca9f-4b31-b7fa-146a284db0... {"DueDateKey": 20130924, "ShipDateKey": 20130919, "CustomerKey": 16567, "ProductStandardCost": "13,09", "ExtendedAmount": "35,00",...
5	8c97c75b-7ce2-480a-bdd3-ec0caccd3... {"DueDateKey": 20130320, "ShipDateKey": 20130315, "CustomerKey": 11506, "ProductStandardCost": "8,2205", "ExtendedAmount": "21,98...
6	6aaf8700-0ca1-46d5-b0dc-d42c04348... {"DueDateKey": 20130601, "ShipDateKey": 20130527, "CustomerKey": 13525, "ProductStandardCost": "1,8663", "ExtendedAmount": "4,99",...
7	34c44f7d-97f7-4939-9270-1d1c1e932... {"DueDateKey": 20130922, "ShipDateKey": 20130917, "CustomerKey": 28395, "ProductStandardCost": "6,9223", "ExtendedAmount": "8,99",...
8	e6dd93a6-6bcd-436a-ae9e-d92c94b6... {"DueDateKey": 20131223, "ShipDateKey": 20131218, "CustomerKey": 24234, "ProductStandardCost": "343,6496", "ExtendedAmount": "53...
9	c6d07366-d766-4114-b50f-5edbab5... {"DueDateKey": 20130609, "ShipDateKey": 20130604, "CustomerKey": 13048, "ProductStandardCost": "1,8663", "ExtendedAmount": "4,99",...



ABC 123 SalesData

Record
Record
Record
Record
Record
Record
Record
Record
Record
Record

- (Select All Columns)
- DueDateKey
- ShipDateKey
- CustomerKey
- ProductStandardCost
- ExtendedAmount
- CurrencyKey
- OrderQuantity
- CustomerPONumber
- PromotionKey
- TotalProductCost
- SalesOrderLineNumber
- TaxAmt
- id
- OrderDateKey
- DueDate
- ProductKey

Use original column name as prefix

OK Cancel

PROPERTIES

Name: InternetSales

[All Properties](#)

APPLIED STEPS

- Source
- Changed Type
- Promoted Headers
- Changed Type1
- × Parsed JSON**

SalesData.DueDateKey	SalesData.ShipDateKey	SalesData.CustomerKey	SalesData.ProductStandardCost	SalesData.ExtendedAmount
20130828	20130823	16836	1265,6195	2319,99
20130828	20130823	14067	9,3463	24,99
20130618	20130613	21515	9,1593	24,49
20130924	20130919	16567	13,09	35,00
20130320	20130315	11506	8,2205	21,98
20130601	20130527	13525	1,8663	4,99
20130922	20130917	28395	6,9223	8,99
20131223	20131218	24234	343,6496	539,99
20130609	20130604	13048	1,8663	4,99

IMDB-Dataset.csv

File Origin

--None--

Delimiter

Comma

Data Type Detection

Based on first 200 rows



review	sentiment
One of the other reviewers has mentioned that after w...	positive
A wonderful little production. The filming t...	positive
I thought this was a wonderful way to spend time on a...	positive
Basically there's a family where a little boy (Jake) thinks...	negative
Petter Mattei's "Love in the Time of Money" is a visuall...	positive
Probably my all-time favorite movie, a story of selflessn...	positive
I sure would like to see a resurrection of a up dated Sea...	positive
This show was an amazing, fresh & innovative idea in th...	negative
Encouraged by the positive comments about this film o...	negative
If you like original gut wrenching laughter you will like t...	positive
Phil the Alien is one of those quirky films where the hu...	negative
I saw this movie when I was about 12 when it came out...	negative
So im not a big fan of Boll's work but then again not ma...	negative
The cast played Shakespeare. Shakespeare l...	negative
This a fantastic movie of three prisoners who become f...	positive
Kind of drawn in by the erotic scenes, only to realize thi...	negative
Some films just simply should not be remade. This is on...	positive
This movie made it into one of my top 10 most awful m...	negative
I remember this film,it was the first film i had watched...	positive

i The data in the preview has been truncated due to size limits.

Extract Table Using Examples

Load

Transform Data

Cancel

Text Analytics

Text Analytics [3]

fx Detect language

fx Extract key phrases

fx Score sentiment

Premium capacity used for AI Insights

Detect language

Detect the languages present in your data and get their ISO codes.

[Learn more](#)

Text

OK

Cancel

ABC Detect language.Detected Language Name	ABC Detect language.Detected Language ISO Code
English	en
English	en
English	en
English	en
English	en

□ ×

Text Analytics

Text Analytics [3]

fx Detect language

fx Extract key phrases

fx Score sentiment

Extract key phrases

Sift through text and surface important phrases in your data.

[Learn more](#)

Text

Language ISO code (optional)

A ^B _C Extract key phrases	A ^B _C Extract key phrases.KeyPhrase
br, wonderful little production, sense of realism, little things, entire pi...	Halliwell's murals
br, wonderful little production, sense of realism, little things, entire pi...	surface
br, wonderful little production, sense of realism, little things, entire pi...	life
br, wonderful little production, sense of realism, little things, entire pi...	comforting
br, wonderful little production, sense of realism, little things, entire pi...	fantasy
br, wonderful little production, sense of realism, little things, entire pi...	seamless editing
br, wonderful little production, sense of realism, little things, entire pi...	senses
br, wonderful little production, sense of realism, little things, entire pi...	watching
br, wonderful little production, sense of realism, little things, entire pi...	guard
br, wonderful little production, sense of realism, little things, entire pi...	actors
br, wonderful little production, sense of realism, little things, entire pi...	Michael Sheen
br, wonderful little production, sense of realism, little things, entire pi...	knowledge
br, wonderful little production, sense of realism, little things, entire pi...	polari
br, wonderful little production, sense of realism, little things, entire pi...	voices
great comedy, light-hearted comedy, time, air conditioned theater, dia...	great comedy
great comedy, light-hearted comedy, time, air conditioned theater, dia...	light-hearted comedy
great comedy, light-hearted comedy, time, air conditioned theater, dia...	time

Chapter 5: Combining Queries for Efficiency

FactInternetSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10
ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNu
310	20101229	20110110	20110105	21768	1	19	6	SO43697	1
346	20101229	20110110	20110105	28389	1	39	7	SO43698	1
346	20101229	20110110	20110105	25863	1	100	1	SO43699	1
336	20101229	20110110	20110105	14501	1	100	4	SO43700	1
346	20101229	20110110	20110105	11003	1	6	9	SO43701	1
311	20101230	20110111	20110106	27645	1	100	4	SO43702	1
310	20101230	20110111	20110106	16624	1	6	9	SO43703	1
351	20101230	20110111	20110106	11005	1	6	9	SO43704	1
344	20101230	20110111	20110106	11011	1	6	9	SO43705	1
312	20101231	20110112	20110107	27621	1	100	4	SO43706	1
312	20101231	20110112	20110107	27616	1	100	4	SO43707	1
330	20101231	20110112	20110107	20042	1	98	10	SO43708	1
313	20101231	20110112	20110107	16351	1	6	9	SO43709	1
314	20101231	20110112	20110107	16517	1	6	9	SO43710	1
314	20110101	20110113	20110108	27606	1	100	1	SO43711	1
311	20110101	20110113	20110108	13513	1	29	8	SO43712	1
310	20110102	20110114	20110109	27601	1	100	4	SO43713	1
311	20110102	20110114	20110109	13591	1	98	10	SO43714	1
314	20110102	20110114	20110109	16483	1	6	9	SO43715	1

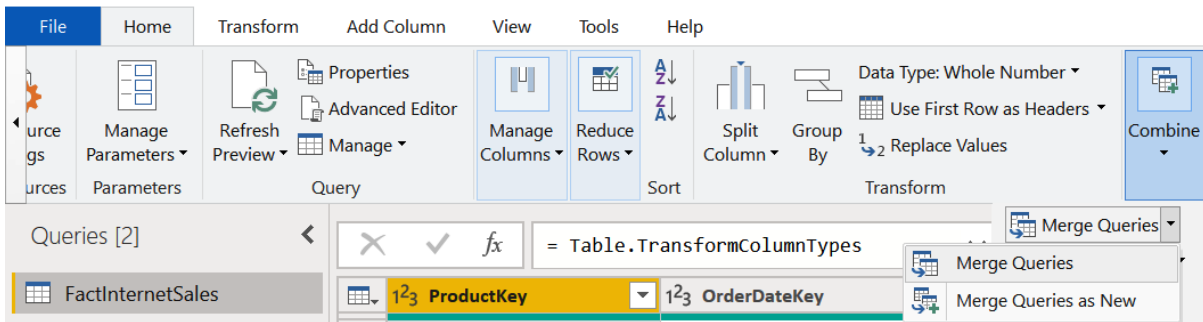
Extract Table Using Examples [Load] [Transform Data] [Cancel]

File Home Transform Add Column View Tools Help

Close & Apply | New Source | Recent Sources | Enter Data | Data source settings | Manage Parameters | Refresh Preview | Properties | Advanced Editor | Manage | Choose Columns | Remove Columns | Keep Rows | Remove Rows

Queries [2] | = Table.TransformColumnTypes("#Promoted Headers", {"ProductKey",

	ProductKey	OrderDateKey	DueDateKey
1	310	20101229	20110110
2	346	20101229	20110110
3	346	20101229	20110110
4	336	20101229	20110110
5	346	20101229	20110110
6	311	20101230	20110111
7	310	20101230	20110111
8	351	20101230	20110111
9	344	20101230	20110111
10	312	20101231	20110112
11	312	20101231	20110112
12	330	20101231	20110112



Merge



Select a table and matching columns to create a merged table.

FactInternetSales



PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber	RevisionNumber
1	19	6	SO43697	1	
1	39	7	SO43698	1	
1	100	1	SO43699	1	
1	100	4	SO43700	1	

▼
DimTerritory

FactInternetSales (Current)

No preview is available

Join Kind

Left Outer (all from first, matching from second) ▼

Use fuzzy matching to perform the merge

▸ Fuzzy matching options

⚠ Select the same number of columns from both visible tables to continue.

OK

Cancel

Merge



Select a table and matching columns to create a merged table.

FactInternetSales



PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber	RevisionNumber
1	19	6	SO43697	1	
1	39	7	SO43698	1	
1	100	1	SO43699	1	
1	100	4	SO43700	1	

DimTerritory



SalesTerritoryKey	SalesTerritoryAlternateKey	SalesTerritoryRegion	SalesTerritoryCountry	SalesTerritoryGroup
1	1	Northwest	United States	North America
2	2	Northeast	United States	North America
3	3	Central	United States	North America
4	4	Southwest	United States	North America

Join Kind

Left Outer (all from first, matching from second)

Use fuzzy matching to perform the merge

▸ Fuzzy matching options

✓ The selection matches 60398 of 60398 rows from the first table.

OK

Cancel

Queries [2]

- FactInternetSales
- DimTerritory

fx = Table.NestedJoin("#Changed Type",

	ShipDate	DimTerritory
1	:00	05/01/2011 00:00:00 Table
2	:00	05/01/2011 00:00:00 Table
3	:00	05/01/2011 00:00:00 Table
4	:00	05/01/2011 00:00:00 Table
5	:00	05/01/2011 00:00:00 Table
6	:00	06/01/2011 00:00:00 Table
7	:00	06/01/2011 00:00:00 Table
8	:00	06/01/2011 00:00:00 Table
9	:00	06/01/2011 00:00:00 Table

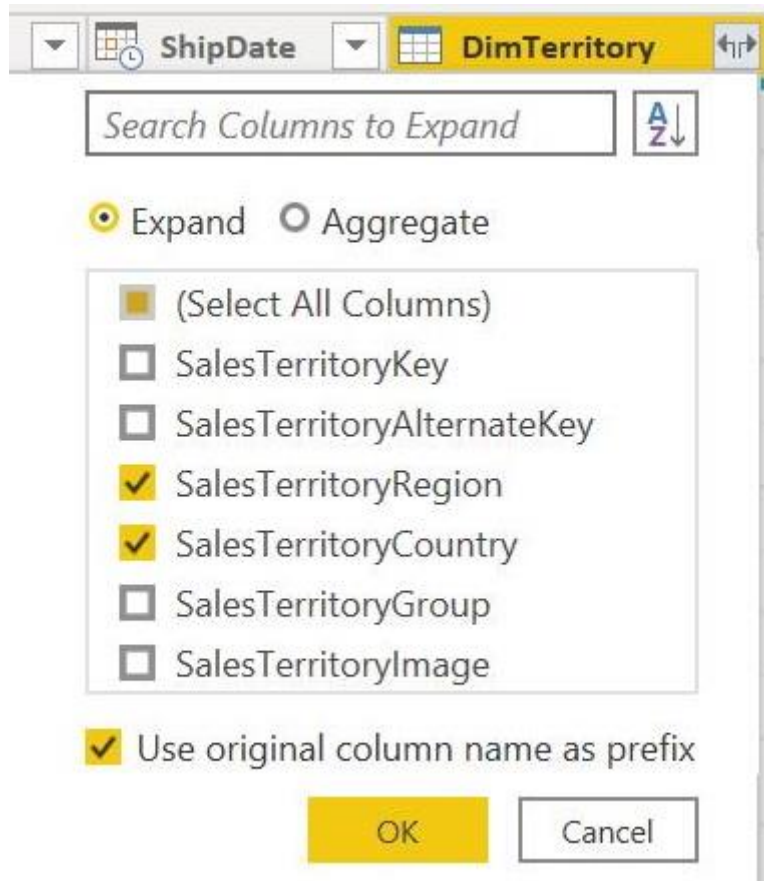
Query Settings

PROPERTIES

Name: FactInternetSales

APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- Merged Queries**



(#"Merged Queries", "DimTerritory", {"SalesTerritoryRegion",

ABC DimTerritory.SalesTerritoryRegion	ABC DimTerritory.SalesTerritoryCountry
Canada	Canada
Northwest	United States
France	France
Southwest	United States
Southwest	United States
Southwest	United States
Southwest	United States
Australia	Australia
Australia	Australia
Australia	Australia
Australia	Australia
United Kingdom	United Kingdom
Australia	Australia
Australia	Australia
Northwest	United States
Germany	Germany
Southwest	United States
United Kingdom	United Kingdom
Australia	Australia
Australia	Australia

Query Settings ×

PROPERTIES

Name: FactInternetSales

[All Properties](#)

APPLIED STEPS

- Source ⚙
- Promoted Headers ⚙
- Changed Type ⚙
- Merged Queries ⚙
- Expanded DimTerritory** ⚙

FactInternetSales.csv



File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10
ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNu
310	20101229	20110110	20110105	21768	1	19	6	SO43697	1
346	20101229	20110110	20110105	28389	1	39	7	SO43698	1
346	20101229	20110110	20110105	25863	1	100	1	SO43699	1
336	20101229	20110110	20110105	14501	1	100	4	SO43700	1
346	20101229	20110110	20110105	11003	1	6	9	SO43701	1
311	20101230	20110111	20110106	27645	1	100	4	SO43702	1
310	20101230	20110111	20110106	16624	1	6	9	SO43703	1
351	20101230	20110111	20110106	11005	1	6	9	SO43704	1
344	20101230	20110111	20110106	11011	1	6	9	SO43705	1
312	20101231	20110112	20110107	27621	1	100	4	SO43706	1
312	20101231	20110112	20110107	27616	1	100	4	SO43707	1
330	20101231	20110112	20110107	20042	1	98	10	SO43708	1
313	20101231	20110112	20110107	16351	1	6	9	SO43709	1
314	20101231	20110112	20110107	16517	1	6	9	SO43710	1
314	20110101	20110113	20110108	27606	1	100	1	SO43711	1
311	20110101	20110113	20110108	13513	1	29	8	SO43712	1
310	20110102	20110114	20110109	27601	1	100	4	SO43713	1
311	20110102	20110114	20110109	13591	1	98	10	SO43714	1
314	20110102	20110114	20110109	16483	1	6	9	SO43715	1

Extract Table Using Examples

Load

Transform Data

Cancel

File Home Transform Add Column View Tools Help

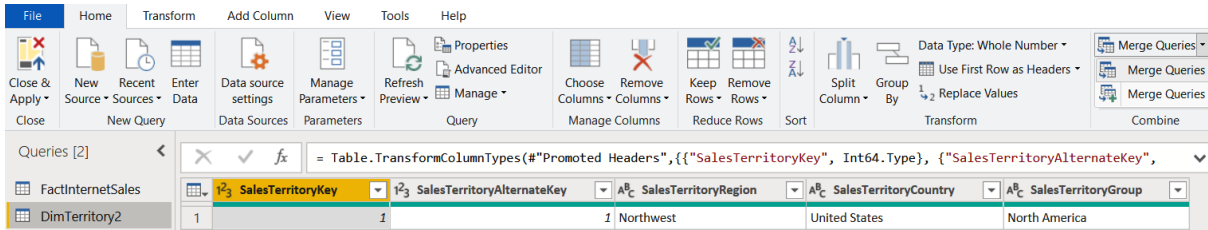
Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Properties Advanced Editor Manage Choose Remove Columns Manage Columns

Queries [2]

- FactInternetSales
- DimTerritory2

`= Table.TransformColumnTypes("#Promoted Headers",`

	1 ² 3 ProductKey	1 ² 3 OrderDateKey	1 ² 3 DueDateKey
1	310	20101229	
2	346	20101229	
3	346	20101229	
4	336	20101229	
5	346	20101229	
6	311	20101230	
7	310	20101230	
8	351	20101230	
9	344	20101230	
10	312	20101231	
11	312	20101231	
12	330	20101231	
13	313	20101231	
14	314	20101231	
15	314	20110101	
16	311	20110101	
17	310	20110102	



Merge

Select a table and matching columns to create a merged table.

DimTerritory2



SalesTerritoryKey	SalesTerritoryAlternateKey	SalesTerritoryRegion	SalesTerritoryCountry	SalesTerritoryGroup
1	1	Northwest	United States	North America
2	2	Northeast	United States	North America
3	3	Central	United States	North America

FactInternetSales

CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber
21768	1	19	6	SO43697	
28389	1	39	7	SO43698	
25863	1	100	1	SO43699	
14501	1	100	4	SO43700	

Join Kind

Right Outer (all from second, matching from first)

Use fuzzy matching to perform the merge

▸ Fuzzy matching options

✓ The selection matches 9040 of 60398 rows from the second table.

OK Cancel

ABC SalesTerritoryGroup FactInternetSales

Search Columns to Aggregate A Z

Expand Aggregate

- Σ Sum of SalesOrderLineNumber
- Σ Sum of RevisionNumber
- Σ Sum of OrderQuantity
- Σ Sum of UnitPrice
- Σ Sum of ExtendedAmount
- Σ Sum of UnitPriceDiscountPct
- Σ Sum of DiscountAmount
- Σ Sum of ProductStandardCost
- Σ Sum of TotalProductCost
- Σ Sum of SalesAmount
- Σ Sum of TaxAmt
- Σ Sum of Freight
- # Count of CarrierTrackingNumber
- # Count of CustomerPONumber
- # Count of OrderDate
- # Count of DueDate
- # Count of ShipDate

Use original column name as prefix

OK Cancel

ABC 123	Sum of TotalProductCost	ABC 123	Sum of SalesAmount
	2130235.255		3649866.551
	15142278.71		25699277.37
	3629.7059		6532.4682
	1649.9092		3000.8296

Merge



Select a table and matching columns to create a merged table.

DimTerritory2



SalesTerritoryKey	SalesTerritoryAlternateKey	SalesTerritoryRegion	SalesTerritoryCountry	SalesTerritoryGroup
1	1	Northwest	United States	North America
2	2	Northeast	United States	North America
3	3	Central	United States	North America

FactInternetSales

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey
310	20101229	20110110	20110105	21768	1	19
346	20101229	20110110	20110105	28389	1	39
346	20101229	20110110	20110105	25863	1	100
336	20101229	20110110	20110105	14501	1	100

Join Kind

Inner (only matching rows)

Use fuzzy matching to perform the merge

▸ Fuzzy matching options

OK

Cancel

ctCost", List.Sum, "Sum of TotalProductCost"}, {"SalesAmount", List.Sum, "Sum

APC SalesTerritoryGroup	ABC 123 Sum of TotalProductCost	ABC 123 Sum of SalesAmount
North America	2130235.255	3649866.551
North America	3629.7059	6532.4682
North America	1649.9092	3000.8296

Query Settings



PROPERTIES

Name

DimTerritory2

[All Properties](#)

APPLIED STEPS

Source



Promoted Headers



Changed Type

Merged Queries



✕ Aggregated FactInternetSales



Merge



Select a table and matching columns to create a merged table.

DimProduct



ProductKey	ProductAlternateKey	EnglishProductName	StandardCost	FinishedGoodsFlag	Color	Safety
1	AR-5381	Adjustable Race	NULL	0	NA	
2	BA-8327	Bearing Ball	NULL	0	NA	
3	BE-2349	BB Ball Bearing	NULL	0	NA	
4	BE-2908	Headset Ball Bearings	NULL	0	NA	

FactInternetSales

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey
310	20101229	20110110	20110105	21768	1	19
346	20101229	20110110	20110105	28389	1	39
346	20101229	20110110	20110105	25863	1	100
336	20101229	20110110	20110105	14501	1	100

Join Kind

Left Anti (rows only in first)

Use fuzzy matching to perform the merge


▸ Fuzzy matching options

✓ The selection excludes 53 of 404 rows from the first table.

OK

Cancel

▼ ABC Status ▼ FactInternetSales

Search Columns to Expand 

Expand Aggregate

- (Select All Columns)
- ProductKey
- OrderDateKey
- DueDateKey
- ShipDateKey
- CustomerKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount

Use original column name as prefix

15 COLUMNS, 351 ROWS

Queries [2] <

✕ ✓ fx = Table.TransformColumnTypes("#Promoted Headers",{

	1 ² 3 ProductKey	1 ² 3 OrderDateKey	1 ² 3 DueDateKey
1	310	20101229	
2	346	20101229	
3	346	20101229	
4	336	20101229	
5	346	20101229	
6	311	20101230	
7	310	20101230	
8	351	20101230	
9	344	20101230	
10	312	20101231	
11	312	20101231	
12	330	20101231	
13	313	20101231	
14	314	20101231	
15	314	201110101	

FactInternetSales
FactResellerSales

File Home Transform Add Column View

Column From Examples ▾ Custom Column Invoke Custom Function

General

- Conditional Column
- Index Column ▾
- Duplicate Column

Queries [2] <

✕ ✓ fx =

FactInternetSales
FactResellerSales

1²3 ProductKey

1

Custom Column



Add a column that is computed from the other columns.

New column name

Channel

Custom column formula ⓘ

= "Internet"

Available columns

ProductKey
OrderDateKey
DueDateKey
ShipDateKey
CustomerKey
PromotionKey
CurrencyKey

<< Insert

[Learn about Power Query formulas](#)

✓ No syntax errors have been detected.

OK

Cancel

Custom Column



Add a column that is computed from the other columns.

New column name

Channel

Custom column formula ⓘ

= "Reseller"

Available columns

ProductKey
OrderDateKey
DueDateKey
ShipDateKey
CustomerKey
PromotionKey
CurrencyKey



<< Insert

[Learn about Power Query formulas](#)

✓ No syntax errors have been detected.

OK

Cancel

 Split Column ▾
  Group By
 Data Type: Whole Number ▾
Merge Queries ▾

Use First Row as Headers ▾
Append Queries ▾

Replace Values
Append Queries

Transform
Append Queries as New

Append

Concatenate rows from two tables into a single table.

- Two tables
 Three or more tables

First table

FactInternetSales ▾

Second table

FactResellerSales ▾

OK

Cancel

Queries [3] Query Settings

=
Table.Combine({FactInternetSales, FactResellerSales})

ate	Channel	ResellerKey	EmployeeKey
05/01/2011 00:00:00	Internet	null	null
05/01/2011 00:00:00	Internet	null	null
05/01/2011 00:00:00	Internet	null	null
05/01/2011 00:00:00	Internet	null	null
05/01/2011 00:00:00	Internet	null	null
06/01/2011 00:00:00	Internet	null	null
06/01/2011 00:00:00	Internet	null	null
06/01/2011 00:00:00	Internet	null	null
06/01/2011 00:00:00	Internet	null	null
07/01/2011 00:00:00	Internet	null	null
07/01/2011 00:00:00	Internet	null	null
07/01/2011 00:00:00	Internet	null	null
07/01/2011 00:00:00	Internet	null	null
07/01/2011 00:00:00	Internet	null	null
07/01/2011 00:00:00	Internet	null	null
08/01/2011 00:00:00	Internet	null	null
08/01/2011 00:00:00	Internet	null	null

PROPERTIES

Name: Append1

[All Properties](#)

APPLIED STEPS

Source

InternetSales20110123	Microsoft Excel Comma Separated Values File	2 KB
InternetSales20110124	Microsoft Excel Comma Separated Values File	3 KB
InternetSales20110125	Microsoft Excel Comma Separated Values File	3 KB
InternetSales20110126	Microsoft Excel Comma Separated Values File	2 KB
InternetSales20110127	Microsoft Excel Comma Separated Values File	2 KB
InternetSales20110128	Microsoft Excel Comma Separated Values File	2 KB
InternetSales20110129	Microsoft Excel Comma Separated Values File	2 KB
InternetSales20110130	Microsoft Excel Comma Separated Values File	1 KB
InternetSales20110131	Microsoft Excel Comma Separated Values File	2 KB
InternetSales20110201	Microsoft Excel Comma Separated Values File	2 KB

C:\Data\CSVFiles

□ ×

Content	Name	Extension	Date accessed	Date modified	Date created	Attributes	Folder Path
Binary	InternetSales20110123.csv	.csv	14/03/2021 11:48:51	14/03/2021 11:48:51	14/03/2021 11:48:51	Record	C:\Data\CSVFiles\
Binary	InternetSales20110124.csv	.csv	14/03/2021 11:49:06	14/03/2021 11:49:06	14/03/2021 11:49:06	Record	C:\Data\CSVFiles\
Binary	InternetSales20110125.csv	.csv	14/03/2021 11:49:24	14/03/2021 11:49:24	14/03/2021 11:49:24	Record	C:\Data\CSVFiles\
Binary	InternetSales20110126.csv	.csv	14/03/2021 11:49:36	14/03/2021 11:49:36	14/03/2021 11:49:36	Record	C:\Data\CSVFiles\
Binary	InternetSales20110127.csv	.csv	14/03/2021 11:49:49	14/03/2021 11:49:49	14/03/2021 11:49:48	Record	C:\Data\CSVFiles\
Binary	InternetSales20110128.csv	.csv	14/03/2021 11:50:00	14/03/2021 11:50:00	14/03/2021 11:50:00	Record	C:\Data\CSVFiles\
Binary	InternetSales20110129.csv	.csv	14/03/2021 11:50:16	14/03/2021 11:50:16	14/03/2021 11:50:16	Record	C:\Data\CSVFiles\
Binary	InternetSales20110130.csv	.csv	14/03/2021 11:50:33	14/03/2021 11:50:33	14/03/2021 11:50:32	Record	C:\Data\CSVFiles\
Binary	InternetSales20110131.csv	.csv	14/03/2021 11:50:44	14/03/2021 11:50:44	14/03/2021 11:50:44	Record	C:\Data\CSVFiles\
Binary	InternetSales20110201.csv	.csv	14/03/2021 11:51:04	14/03/2021 11:51:04	14/03/2021 11:51:04	Record	C:\Data\CSVFiles\

Combine Load Transform Data Cancel

Combine & Transform Data

Combine & Load

File Home Transform Add Column View Tools Help

Close & Apply New Source Recent Sources Enter Data Data source settings Manage Parameters Refresh Preview Advanced Editor Manage Columns Reduce Rows Sort Split Column Group By Data Type: Binary Use First Row as Headers Replace Values Combine

Queries [1] = Folder.Files("C:\Data\CSVFiles")

	Content	AR_C Name	AR_C Extension	Dat
1	Binary	InternetSales20110123.csv	.csv	
2	Binary	InternetSales20110124.csv	.csv	
3	Binary	InternetSales20110125.csv	.csv	
4	Binary	InternetSales20110126.csv	.csv	
5	Binary	InternetSales20110127.csv	.csv	
6	Binary	InternetSales20110128.csv	.csv	
7	Binary	InternetSales20110129.csv	.csv	
8	Binary	InternetSales20110130.csv	.csv	
9	Binary	InternetSales20110131.csv	.csv	
10	Binary	InternetSales20110201.csv	.csv	

Query Settings

PROPERTIES Name CSVFiles All Properties

APPLIED STEPS Source

	Content
1	Binary
2	Binary

Combine Files

Specify the settings for each file. [Learn more](#)

Sample File:

First file

File Origin

65001: Unicode (UTF-8)

Delimiter

Comma

Data Type Detection

Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNu
312	20110123	20110204	20110130	11611	1	39	7	SO43807
313	20110123	20110204	20110130	13259	1	29	8	SO43808
310	20110123	20110204	20110130	16350	1	6	9	SO43809
345	20110123	20110204	20110130	11004	1	6	9	SO43810
346	20110123	20110204	20110130	11026	1	6	9	SO43811

Skip files with errors

OK

Cancel

Queries [5]

- Transform File from...
- Helper Queries [3]
 - Parameter1 (Sam...
 - Sample File
 - Transform File
 - Transform Sample...
- Other Queries [1]
 - CSVFiles

fx = Table.TransformColumnTypes

	Source.Name	ProductKey
1	InternetSales20110123.csv	31.
2	InternetSales20110123.csv	31.
3	InternetSales20110123.csv	31.
4	InternetSales20110123.csv	34.
5	InternetSales20110123.csv	34.
6	InternetSales20110124.csv	31.
7	InternetSales20110124.csv	35.
8	InternetSales20110124.csv	35.
9	InternetSales20110124.csv	31.
10	InternetSales20110124.csv	31.
11	InternetSales20110124.csv	31.
12	InternetSales20110124.csv	31.

Query Settings

PROPERTIES

Name
CSVFiles

[All Properties](#)

APPLIED STEPS

- Source
- Filtered Hidden Files1
- Invoke Custom Function1
- Renamed Columns1
- Removed Other Columns1
- Expanded Table Column1
- Changed Type**

Get data ▾ Excel workbook Power BI datasets SQL Server

Common data sources

- Excel workbook
- Power BI datasets
- Power BI dataflows
- Dataverse
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query
- Power BI Template Apps

More...

Get Data

Search

- All
- File
- Database
- Power Platform
- Azure**
- Online Services
- Other

Azure

- Azure SQL database
- Azure Synapse Analytics (SQL DW)
- Azure Analysis Services database
- Azure Database for PostgreSQL
- Azure Blob Storage
- Azure Table Storage
- Azure Cosmos DB
- Azure Data Explorer (Kusto)
- Azure Data Lake Storage Gen2
- Azure Data Lake Storage Gen1
- Azure HDInsight (HDFS)
- Azure HDInsight Spark



SQL Server database

Server ⓘ

dventureworksprova.database.windows.net

Database (optional)

AdventureWorks

Data Connectivity mode ⓘ


- Import
- DirectQuery

▸ Advanced options

OK

Cancel

SQL Server database ✕

 adventureworksprova.database.windows.net;Adven...

Windows

Database


Microsoft account


User name













Password

Select which level to apply these settings to

Navigator



Display Options 

-  DimEmployee
-  DimGeography
-  DimOrganization
-  DimProduct
-  DimProductCategory
-  DimProductSubcategory
-  DimPromotion
-  DimReseller
-  DimSalesReason
-  DimSalesTerritory
-  DimScenario
-  FactAdditionalInternationalProd...

DimGeography

GeographyKey	City	StateProvinceCode
1	Alexandria	NSW
2	Coffs Harbour	NSW
3	Darlinghurst	NSW
4	Goulburn	NSW
5	Lane Cove	NSW
6	Lavender Bay	NSW
7	Malabar	NSW
8	Matrville	NSW
9	Milsons Point	NSW
10	Newcastle	NSW
11	North Ryde	NSW
12	North Sydney	NSW
13	Port Macquarie	NSW
14	Rhodes	NSW

Choose Columns

Choose the columns to keep

Dim

- (Select All Search Results)
- DimCurrency
- DimCustomer
- DimDate(DueDateKey)
- DimDate(OrderDateKey)
- DimDate(ShipDateKey)
- DimProduct
- DimPromotion
- DimSalesTerritory

OK

Cancel

The image shows a portion of the Power Query ribbon. The 'Append Queries' group is expanded, showing three options: 'Append Queries', 'Append Queries as New', and 'Merge Queries'. Other visible options include 'Keep Rows', 'Remove Rows', 'Split Column', 'Group By', 'Replace Values', 'Use First Row as Headers', and 'Data Type: Whole Number'.

Append

Concatenate rows from two tables into a single table.

- Two tables Three or more tables

First table

FactResellerSales

Second table

DimGeography
FactInternetSales
FactResellerSales

OK

Cancel

Query Settings

PROPERTIES

Name

Append1

All Properties

APPLIED STEPS

Source

Query Settings

PROPERTIES

Name

TotalSales

All Properties

APPLIED STEPS

Source

File Home Transform Add Column View Tools Help

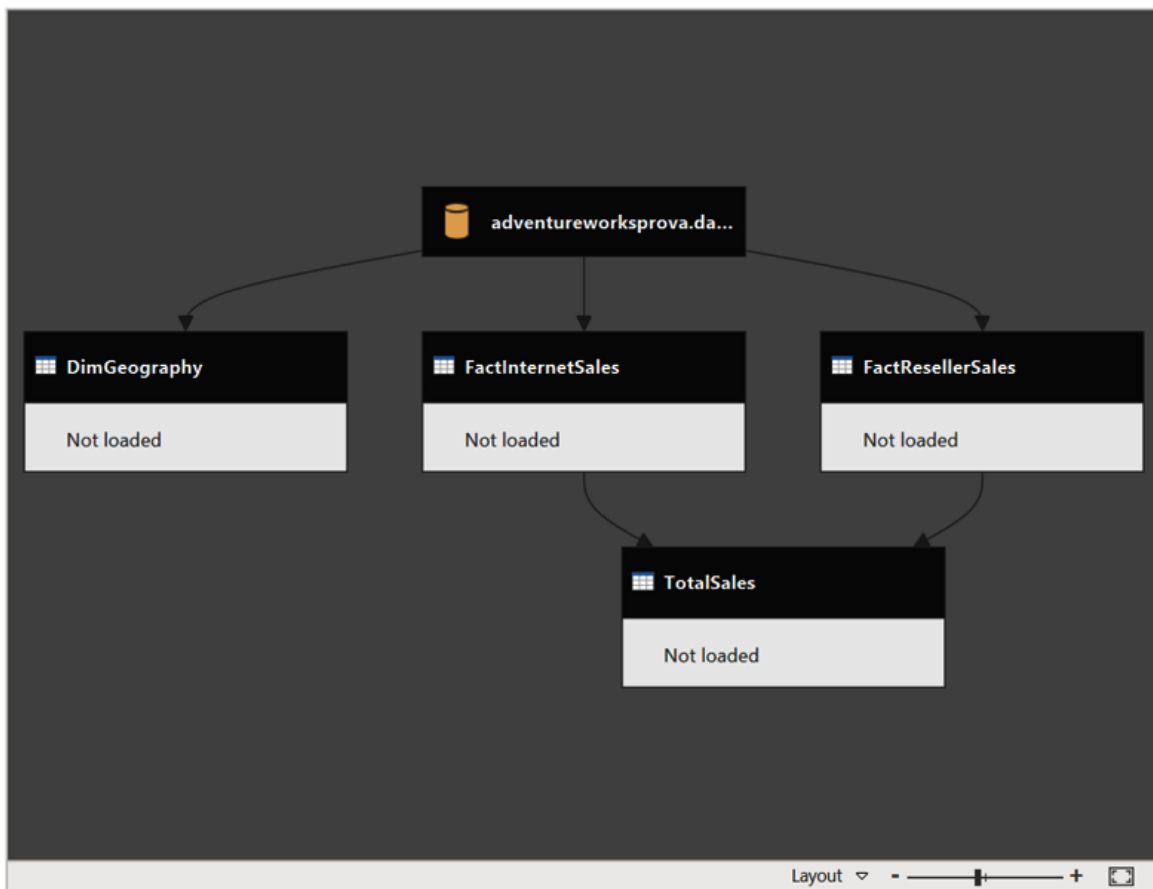
Formula Bar
 Monospaced
 Column distribution
 Always allow

Show whitespace
 Column profile
 Advanced Editor

Column quality
 Query Dependencies

Layout Data Preview Columns Parameters Advanced Dependencies

Query Dependencies



Close

Layout ▾ - ———+ []

- Top to Bottom Layout
- Bottom to Top Layout
- Left to Right Layout
- Right to Left Layout

Close

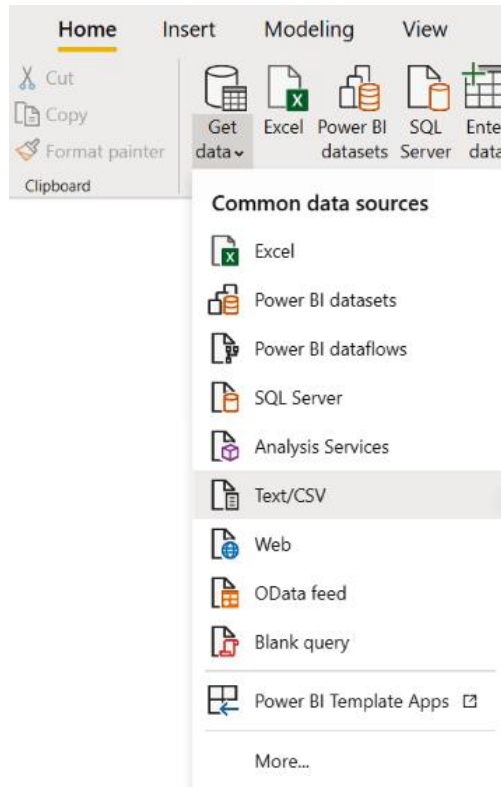
Query Dependencies

□ ×



Close

Chapter 6: Optimizing Power Query Performance

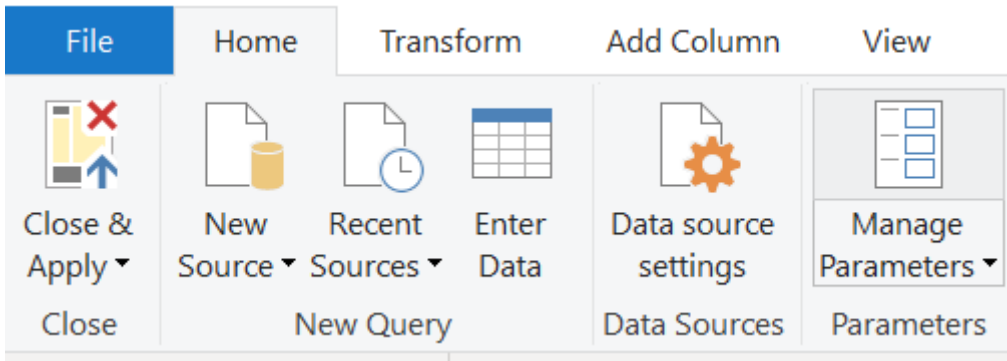


FactInternetSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderKey	SalesOrderID
310	20101229	20110110	20110105	21768	1	19	6	6	SO43697
346	20101229	20110110	20110105	28389	1	39	7	7	SO43698
346	20101229	20110110	20110105	25863	1	100	1	1	SO43699
336	20101229	20110110	20110105	14501	1	100	4	4	SO43700
346	20101229	20110110	20110105	11003	1	6	9	9	SO43701
311	20101230	20110111	20110106	27645	1	100	4	4	SO43702
310	20101230	20110111	20110106	16624	1	6	9	9	SO43703
351	20101230	20110111	20110106	11005	1	6	9	9	SO43704
344	20101230	20110111	20110106	11011	1	6	9	9	SO43705
312	20101231	20110112	20110107	27621	1	100	4	4	SO43706
312	20101231	20110112	20110107	27616	1	100	4	4	SO43707
330	20101231	20110112	20110107	20042	1	98	10	10	SO43708
313	20101231	20110112	20110107	16351	1	6	9	9	SO43709
314	20101231	20110112	20110107	16517	1	6	9	9	SO43710
314	20110101	20110113	20110108	27606	1	100	1	1	SO43711
311	20110101	20110113	20110108	13513	1	29	8	8	SO43712
310	20110102	20110114	20110109	27601	1	100	4	4	SO43713
311	20110102	20110114	20110109	13591	1	98	10	10	SO43714
314	20110102	20110114	20110109	16483	1	6	9	9	SO43715
311	20110102	20110114	20110109	16529	1	6	9	9	SO43716

Extract Table Using Examples | Load | Transform Data | Cancel



Manage Parameters

New

123 Parameter1	Name: Parameter1
123 Parameter2	Description: <input type="text"/>

Required

Type:

Suggested Values:

Current Value:

OK **Cancel**

Manage Parameters

New

123 Parameter1	Name: Parameter2
123 Parameter2	Description: <input type="text"/>

Required

Type:

Suggested Values:

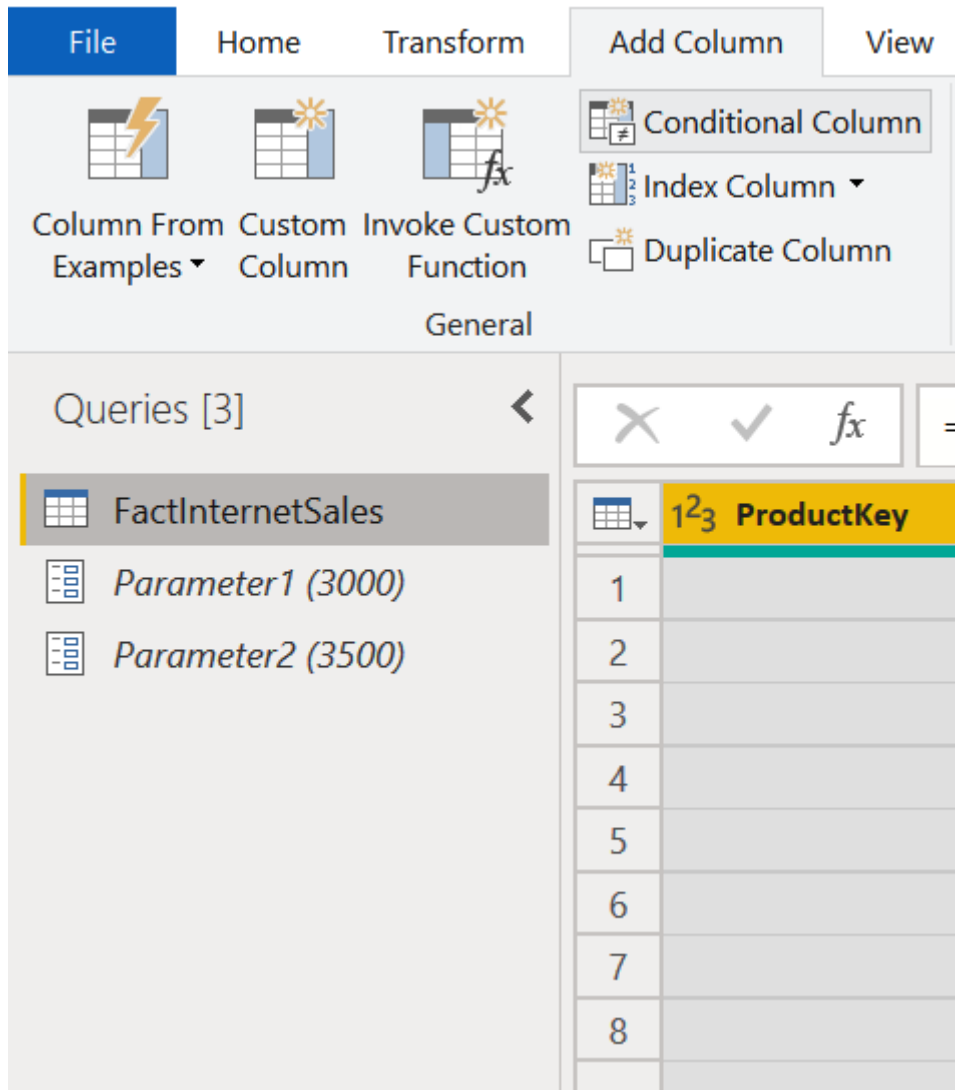
Current Value:

OK **Cancel**

Queries [3] <

- FactInternetSales
- Parameter1 (3000)*
- Parameter2 (3500)*

Current Value



Add Conditional Column



Add a conditional column that is computed from the other columns or values.

New column name

SalesLevel

	Column Name	Operator	Value	Then	Output
If	SalesAmount	is greater than	Parameter2	Then	High
Else If	SalesAmount	is greater than	Parameter1	Then	Medium

Add Clause

Else

Low

OK Cancel

Queries [3] ✕ ✓ fx = Table.AddColumn("#Changed Type", ▼

FactInternetSales
Parameter1 (3000)
Parameter2 (3500)

		ShipDate	SalesLevel
1	/2011 00:00:00	05/01/2011 00:00:00	High
2	/2011 00:00:00	05/01/2011 00:00:00	Medium
3	/2011 00:00:00	05/01/2011 00:00:00	Medium
4	/2011 00:00:00	05/01/2011 00:00:00	Low
5	/2011 00:00:00	05/01/2011 00:00:00	Medium
6	/2011 00:00:00	06/01/2011 00:00:00	High
7	/2011 00:00:00	06/01/2011 00:00:00	High
8	/2011 00:00:00	06/01/2011 00:00:00	Medium
9	/2011 00:00:00	06/01/2011 00:00:00	Medium
10	/2011 00:00:00	07/01/2011 00:00:00	High
11	/2011 00:00:00	07/01/2011 00:00:00	High
12	/2011 00:00:00	07/01/2011 00:00:00	Low
13	/2011 00:00:00	07/01/2011 00:00:00	High
14	/2011 00:00:00	07/01/2011 00:00:00	High
15	/2011 00:00:00	08/01/2011 00:00:00	High

27 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 17:05

Query Settings ✕

PROPERTIES

Name
FactInternetSales

[All Properties](#)

APPLIED STEPS

- Source ✖
- Promoted Headers ✖
- Changed Type
- ✕ Added Conditional Column** ✖

Queries [3] ✕

FactInternetSales
Parameter1 (3000)
Parameter2 (3350)

Current Value
3350

Manage Parameter

Queries [3] ✕ ✓ fx = Table.AddColumn("#Changed Type", ▼

FactInternetSales
Parameter1 (3000)
Parameter2 (3350)

		ShipDate	SalesLevel
1	/2011 00:00:00	05/01/2011 00:00:00	High
2	/2011 00:00:00	05/01/2011 00:00:00	High
3	/2011 00:00:00	05/01/2011 00:00:00	High
4	/2011 00:00:00	05/01/2011 00:00:00	Low
5	/2011 00:00:00	05/01/2011 00:00:00	High
6	/2011 00:00:00	06/01/2011 00:00:00	High
7	/2011 00:00:00	06/01/2011 00:00:00	High
8	/2011 00:00:00	06/01/2011 00:00:00	High
9	/2011 00:00:00	06/01/2011 00:00:00	High
10	/2011 00:00:00	07/01/2011 00:00:00	High
11	/2011 00:00:00	07/01/2011 00:00:00	High
12	/2011 00:00:00	07/01/2011 00:00:00	Low
13	/2011 00:00:00	07/01/2011 00:00:00	High
14	/2011 00:00:00	07/01/2011 00:00:00	High
15	/2011 00:00:00	08/01/2011 00:00:00	High

27 COLUMNS, 999+ ROWS Column profiling based on top 1000 rows PREVIEW DOWNLOADED AT 17:20

Query Settings ✕

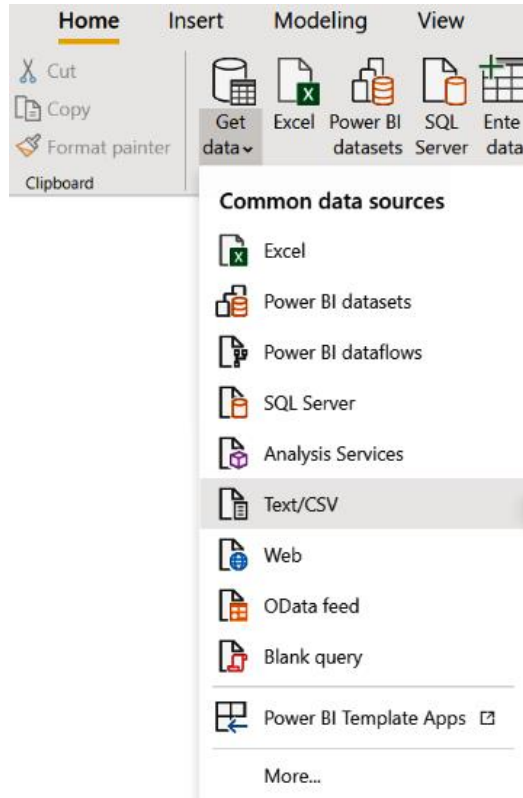
PROPERTIES

Name
FactInternetSales

[All Properties](#)

APPLIED STEPS

- Source ✖
- Promoted Headers ✖
- Changed Type
- ✕ Added Conditional Column** ✖

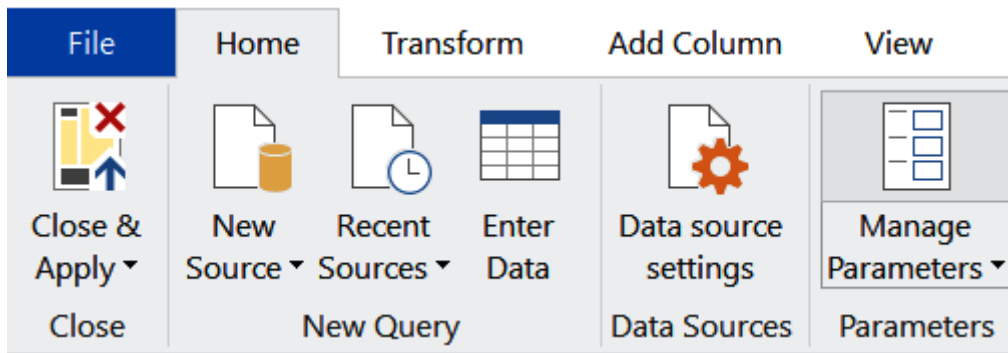


FactInternetSales.csv



File Origin: Delimiter: Data Type Detection:

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderKey
310	20101229	20110110	20110105	21768	1	19	6	SO43697
346	20101229	20110110	20110105	28389	1	39	7	SO43698
346	20101229	20110110	20110105	25863	1	100	1	SO43699
336	20101229	20110110	20110105	14501	1	100	4	SO43700
346	20101229	20110110	20110105	11003	1	6	9	SO43701
311	20101230	20110111	20110106	27645	1	100	4	SO43702
310	20101230	20110111	20110106	16624	1	6	9	SO43703
351	20101230	20110111	20110106	11005	1	6	9	SO43704
344	20101230	20110111	20110106	11011	1	6	9	SO43705
312	20101231	20110112	20110107	27621	1	100	4	SO43706
312	20101231	20110112	20110107	27616	1	100	4	SO43707
330	20101231	20110112	20110107	20042	1	98	10	SO43708
313	20101231	20110112	20110107	16351	1	6	9	SO43709
314	20101231	20110112	20110107	16517	1	6	9	SO43710
314	20110101	20110113	20110108	27606	1	100	1	SO43711
311	20110101	20110113	20110108	13513	1	29	8	SO43712
310	20110102	20110114	20110109	27601	1	100	4	SO43713
311	20110102	20110114	20110109	13591	1	98	10	SO43714
314	20110102	20110114	20110109	16483	1	6	9	SO43715
311	20110102	20110114	20110109	16529	1	6	9	SO43716



Manage Parameters

New

ProductKey

Name: ProductKey

Description:

Required

Type: Decimal Number

Suggested Values: List of values

1	310
2	346
3	336
*	

Default Value:

Current Value: Enter or select a value

OK Cancel

Default Value

Current Value

OK

Cancel

Queries [2] <

- FactInternetSales
- ProductKey (310)**

Current Value

- 310
- 346
- 336

Queries [2] < = Table.TransformColumnTypes("#Promoted

FactInternetSales ProductKey OrderDateKey

- Sort Ascending
- Sort Descending
- Clear Sort
- Clear Filter
- Remove Empty
- Number Filters

Search

- (Select All)
- 310
- 311
- 312
- 313
- 314
- 320

20101229	
20101229	
20101229	
20101229	
20101229	
20101230	

- Equals...
- Does Not Equal...
- Greater Than...
- Greater Than Or Equal To...
- Less Than...
- Less Than Or Equal To...
- Between...

Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'ProductKey'

equals ▾

And Or

▾

1.2 ▾ Enter or select a value ▾

- 1.2 Decimal Number
- Parameter**
- New Parameter...



Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'ProductKey'

equals ▾

And Or

▾

1.2 ▾ Enter or select a value ▾

▾

ProductKey ▾

OK

Cancel

Queries [2] <

FactInternetSales
ProductKey (310)

123 ProductKey

	ProductKey
1	310
2	310
3	310
4	310
5	310
6	310
7	310
8	310
9	310
10	310
11	310
12	310
13	310
14	310
15	310
16	310
17	310
18	310

Queries [2] <

FactInternetSales
ProductKey (310)

Current Value

310
310
346
336

Queries [2] <

FactInternetSales

ProductKey (346)

1²³ ProductKey

	ProductKey
1	346
2	346
3	346
4	346
5	346
6	346
7	346
8	346
9	346
10	346
11	346
12	346
13	346

= Table.Sel

▲ PROPERTIES

Name

FactInternetSales

[All Properties](#)

▲ APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- ✖ Filtered Rows**

Queries [2] ✕ ✓ fx = Table.TransformColumnTypes("#Promot

FactInternetSales

ProductKey (346)

ProductKey

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

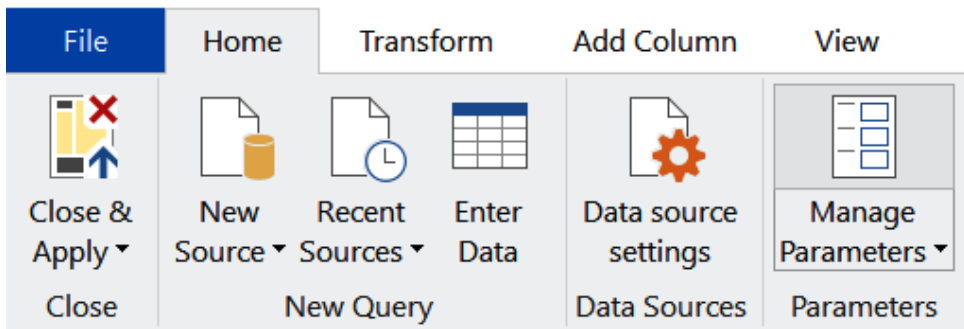
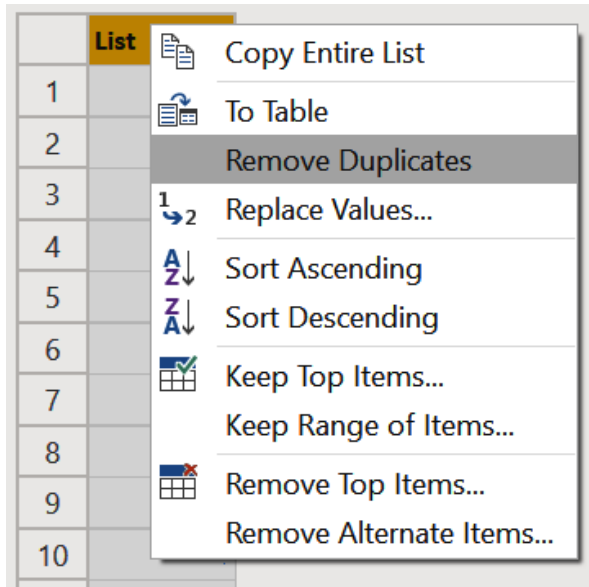
- Copy
- Remove
- Remove Other Columns
- Duplicate Column
- Add Column From Examples...
- Remove Duplicates
- Remove Errors
- Change Type
- Transform
- Replace Values...
- Replace Errors...
- Group By...
- Fill
- Unpivot Columns
- Unpivot Other Columns
- Unpivot Only Selected Columns
- Rename...
- Move
- Drill Down
- Add as New Query

FactInternetSales

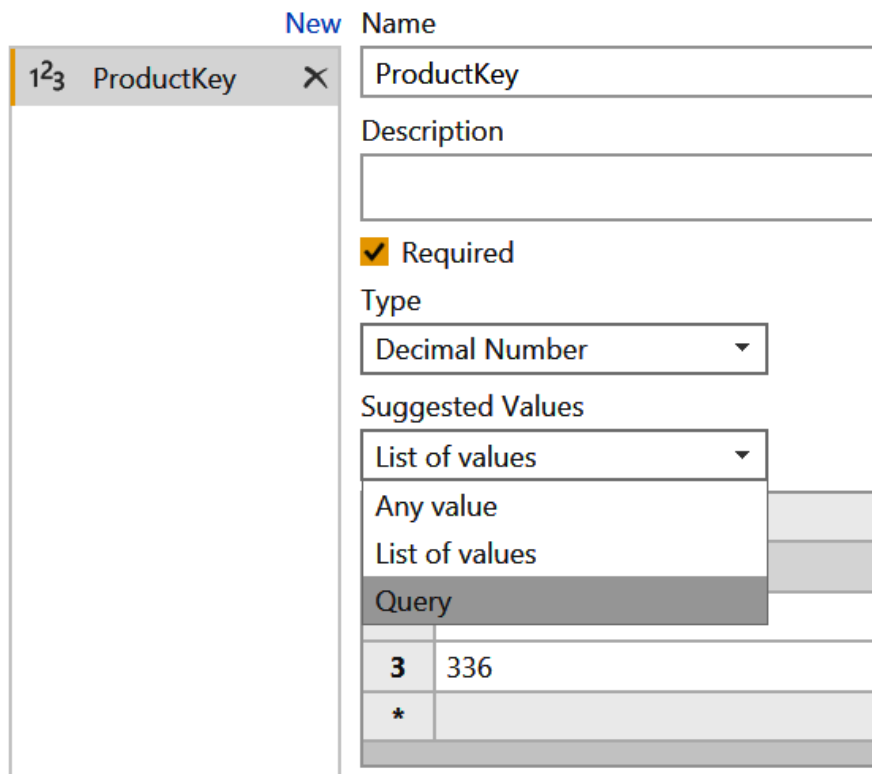
ProductKey (346)

ProductKeyList

	List
1	310
2	346
3	346
4	336
5	346
6	311
7	310
8	351
9	344
10	312
11	312
12	330



Manage Parameters



Manage Parameters

New

123 ProductKey
✕

Name

Description

Required

Type

Suggested Values

Query ⓘ

Queries [2] ✕ ✓ fx = Table.TransformColumnTypes("#Promoted

	123 ProductKey	123 OrderDateKey	123
		20101229	
		20101229	
		20101229	
		20101229	
		20101229	
		20101230	

- Sort Ascending
- Sort Descending
- Clear Sort

- Clear Filter
- Remove Empty
- Number Filters ▶

Search

- (Select All)
- 310
- 311
- 312
- 313
- 314
- 320

- Equals...
- Does Not Equal...

- Greater Than...
- Greater Than Or Equal To...
- Less Than...
- Less Than Or Equal To...
- Between...

Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'ProductKey'

equals ▼ 1.2 ▼ Enter or select a value ▼

And Or

▼ 1.2 Decimal Number
Parameter
New Parameter... ▼



Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'ProductKey'

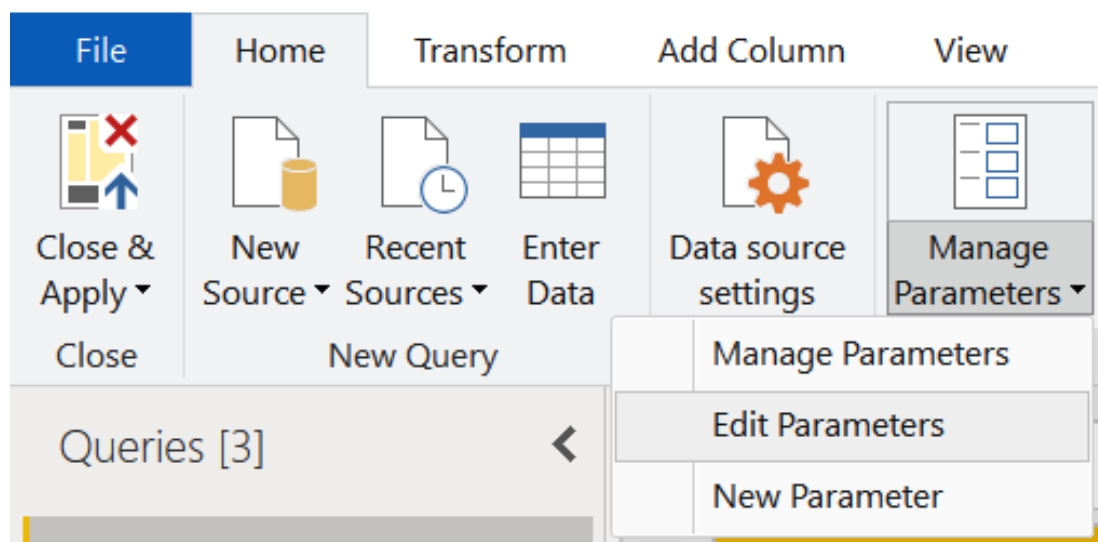
equals ▼ ▼ ProductKey ▼

And Or

▼ 1.2 ▼ Enter or select a value ▼

OK

Cancel



Edit Parameters



ProductKey

	346			
	310			
	346			
	336			
	311			
	351			
2011	344	110	27668	1
2011	312	110	27612	1
2011	330	110	13264	1
2011	313	110	13590	1
2011	314	111	13581	1
2011	332	111	14520	1
2011	350	111	16520	1
2011	347	112	13258	1
2011	345	112	14560	1
2011	326	112	16607	1
2011	342	113	27666	1
2011	328	113	11238	1
2011	338	113	25861	1
2011	348			
2011	349	113	16629	1

OK Cancel

File **Home** Insert Modeling View

Paste Cut Copy Format painter
Clipboard

Get data Excel Power BI datasets SQL Server Enter data

Common data sources

- Excel
- Power BI datasets
- Power BI dataflows
- Dataverse
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query

Power BI Template Apps [↗](#)

More...

Get Data



Search

- All
- File
- Database
- Power Platform
- Azure**
- Online Services
- Other

Azure

- Azure SQL database
- Import data from an Azure SQL database.**
- Azure Analysis Services database
- Azure Database for PostgreSQL
- Azure Blob Storage
- Azure Table Storage
- Azure Cosmos DB
- Azure Data Explorer (Kusto)
- Azure Data Lake Storage Gen2
- Azure Data Lake Storage Gen1
- Azure HDInsight (HDFS)
- Azure HDInsight Spark
- HDInsight Interactive Query
- Azure Cost Management
- Azure Databricks
- Azure Time Series Insights (Beta)

[Certified Connectors](#)

[Template Apps](#)

Connect

Cancel

SQL Server database



Server ⓘ

ABC ▾ adventureworksprova.database.windows.n

Database (optional)

ABC ▾ Adventureworks

Data Connectivity mode ⓘ

Import

DirectQuery

▸ Advanced options

OK

Cancel

Windows

Database

Microsoft account

SQL Server database



📁 adventureworksprova.database.windows.net

You're already signed in.

Sign in as different user

Save

Cancel

Navigator



Display Options ▾

- DimPromotion
- DimReseller
- DimSalesReason
- DimSalesTerritory
- DimScenario
- FactAdditionalInternationalProduc...
- FactCallCenter
- FactCurrencyRate
- FactFinance
- FactInternetSales
- FactInternetSalesReason
- FactProductInventory
- FactResellerSales
- FactResellerSalesXL_CCI
- FactResellerSalesXL_PageCompres...
- FactSalesQuota
- FactSurveyResponse
- NewFactCurrencyRate
- ProspectiveBuyer
- sysdiagrams

Select Related Tables

FactInternetSales



Preview downloaded on Sunday, 4 April 2021

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	Promot
310	20101229	20110110	20110105	21768	
346	20101229	20110110	20110105	28389	
346	20101229	20110110	20110105	25863	
336	20101229	20110110	20110105	14501	
346	20101229	20110110	20110105	11003	
311	20101230	20110111	20110106	27645	
310	20101230	20110111	20110106	16624	
351	20101230	20110111	20110106	11005	
344	20101230	20110111	20110106	11011	
312	20101231	20110112	20110107	27621	
312	20101231	20110112	20110107	27616	
330	20101231	20110112	20110107	20042	
313	20101231	20110112	20110107	16351	
314	20101231	20110112	20110107	16517	

The data in the preview has been truncated due to size limits.



Load

Transform Data

Cancel

Query Settings



▲ **PROPERTIES**

Name

FactInternetSales

[All Properties](#)

▲ **APPLIED STEPS**

Source



✕ Navigation



- Edit Settings
- Rename
- Delete
- Delete Until End
- Insert Step After
- Move before
- Move after
- Extract Previous
- View Native Query
- Diagnose
- Properties...

Queries [1] < ✕ ✓ fx = Adventureworks{[Schema="dbo", Iter

FactInternetSales 1²3 ProductKey 1²3 OrderDateKey

Sort Ascending
 Sort Descending
 Clear Sort

 Clear Filter
 Remove Empty
Number Filters ▶

Search

- (Select All)
- 310
- 311
- 312
- 313
- 314
- 320
- 322
- 324
- 326
- 328
- 330
- 332
- 334
- 336
- 338
- 340
- 342

⚠ List may be incomplete. [Load more](#)

OK Cancel

20101229
20101229
20101229
20101229
20101229
20101230
20101230
20101230
20101230
20101230
20101230
20101231
20101231
20101231
20101231
20101231
20101231
20101231
20110101
20110101
20110102
20110102
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20110102
20110102
20110102
20110102
20110102
20110102
20110103
20110103
20110103
20110103
20110103
20110104
20110104
20110104
20110105

Native Query



```

select [_].[ProductKey],
       [_].[OrderDateKey],
       [_].[DueDateKey],
       [_].[ShipDateKey],
       [_].[CustomerKey],
       [_].[PromotionKey],
       [_].[CurrencyKey],
       [_].[SalesTerritoryKey],
       [_].[SalesOrderNumber],
       [_].[SalesOrderLineNumber],
       [_].[RevisionNumber],
       [_].[OrderQuantity],
       [_].[UnitPrice],
       [_].[ExtendedAmount],
       [_].[UnitPriceDiscountPct],
       [_].[DiscountAmount],
       [_].[ProductStandardCost],
       [_].[TotalProductCost],
       [_].[SalesAmount],
       [_].[TaxAmt],
       [_].[Freight],
       [_].[CarrierTrackingNumber],
       [_].[CustomerPONumber],
       [_].[OrderDate],
       [_].[DueDate],
       [_].[ShipDate]
from [dbo].[FactInternetSales] as [_]
where ([_].[ProductKey] = 310 or [_].[ProductKey] = 311) or ([_].[ProductKey] = 312 or [_].[ProductKey] = 313)
    
```

OK

The screenshot shows the Microsoft Power Query Editor interface. The ribbon includes 'File', 'Home', 'Transform', 'Add Column', 'View', 'Tools', and 'Help'. The 'Transform' ribbon is active, showing options like 'Transpose', 'Reverse Rows', 'Count Rows', 'Data Type: Whole Number', 'Replace Values', 'Unpivot Columns', 'Detect Data Type', 'Fill', 'Move', 'Rename', 'Pivot Column', and 'Convert to List'. A 'Split Column' button is highlighted, with a context menu open showing options: 'By Delimiter', 'By Number of Characters', 'By Positions', 'By Lowercase to Uppercase', 'By Uppercase to Lowercase', 'By Digit to Non-Digit', and 'By Non-Digit to Digit'. The 'Queries [1]' pane on the left shows 'FactInternetSales' selected. The main area displays a table with columns 'ProductKey' and 'OrderD'. The formula bar shows '= Table.SelectRows('.

	ProductKey	OrderD
1	310	
2	311	
3	310	



Split Column by Number of Characters

Specify the number of characters used to split the text column.

Number of characters

Split

- Once, as far left as possible
- Once, as far right as possible
- Repeatedly

▷ Advanced options

OK

Cancel

APPLIED STEPS

- Source
- Navigation
- Filtered Rows
- Split Column by Position
- Changed Type**

Context menu for 'Changed Type':

- Edit Settings
- Rename
- Delete
- Delete Until End
- Insert Step After
- Move before
- Move after
- Extract Previous
- View Native Query
- Diagnose
- Properties...

File Home Insert Modeling View

Paste Cut Copy Format painter Clipboard

Get data Excel Power BI datasets SQL Server Enter data

Common data sources

- Excel
- Power BI datasets
- Power BI dataflows
- Dataverse
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query

Power BI Template Apps

More...

Get Data



Search

- All
- File
- Database
- Power Platform
- Azure**
- Online Services
- Other

Azure

- Azure SQL database
- Import data from an Azure SQL database.**
- Azure Analysis Services database
- Azure Database for PostgreSQL
- Azure Blob Storage
- Azure Table Storage
- Azure Cosmos DB
- Azure Data Explorer (Kusto)
- Azure Data Lake Storage Gen2
- Azure Data Lake Storage Gen1
- Azure HDInsight (HDFS)
- Azure HDInsight Spark
- HDInsight Interactive Query
- Azure Cost Management
- Azure Databricks
- Azure Time Series Insights (Beta)

Certified Connectors

Template Apps

Connect

Cancel

SQL Server database



Server ⓘ

ABC ▾ adventureworksprova.database.windows.n

Database (optional)

ABC ▾ Adventureworks

Data Connectivity mode ⓘ

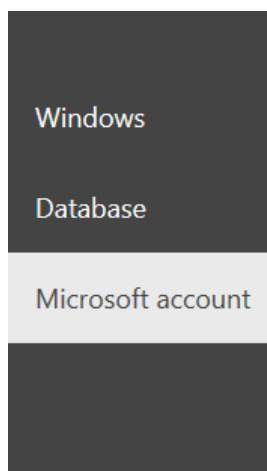
Import

DirectQuery

▷ Advanced options

OK

Cancel



SQL Server database



adventureworksprova.database.windows.net

You're already signed in.

Sign in as different user

Save

Cancel

Navigator



Display Options ▾

- DimPromotion
- DimReseller
- DimSalesReason
- DimSalesTerritory
- DimScenario
- FactAdditionalInternationalProduc...
- FactCallCenter
- FactCurrencyRate
- FactFinance
- FactInternetSales
- FactInternetSalesReason
- FactProductInventory
- FactResellerSales
- FactResellerSalesXL_CCI
- FactResellerSalesXL_PageCompres...
- FactSalesQuota
- FactSurveyResponse
- NewFactCurrencyRate
- ProspectiveBuyer
- sysdiagrams

FactInternetSales



Preview downloaded on Sunday, 4 April 2021

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	Promot
310	20101229	20110110	20110105	21768	
346	20101229	20110110	20110105	28389	
346	20101229	20110110	20110105	25863	
336	20101229	20110110	20110105	14501	
346	20101229	20110110	20110105	11003	
311	20101230	20110111	20110106	27645	
310	20101230	20110111	20110106	16624	
351	20101230	20110111	20110106	11005	
344	20101230	20110111	20110106	11011	
312	20101231	20110112	20110107	27621	
312	20101231	20110112	20110107	27616	
330	20101231	20110112	20110107	20042	
313	20101231	20110112	20110107	16351	
314	20101231	20110112	20110107	16517	

i The data in the preview has been truncated due to size limits.

Select Related Tables

Load

Transform Data

Cancel

File
Home
Transform
Add Column
View
Tools

Close & Apply ▾
Close

New Source ▾
New Query

Recent Sources ▾

Enter Data

Data source settings
Data Sources

Manage Parameters ▾
Parameters

Refresh Preview ▾

Manage Parameters



New

RangeStart

Name: RangeStart

Description:

Required

Type: Date/Time

Suggested Values: Any value

Current Value: 29/12/2010 00:00:00

Manage Parameters



New

RangeStart

RangeEnd

Name: RangeEnd

Description:

Required

Type: Date/Time

Suggested Values: Any value

Current Value: 05/01/2011 00:00:00

OK Cancel

ABC CustomerPONumber	OrderDate	DueDate
		10/01/2011 00:00:00
		10/01/2011 00:00:00
		10/01/2011 00:00:00
		10/01/2011 00:00:00
		10/01/2011 00:00:00
		11/01/2011 00:00:00

Sort Ascending
 Sort Descending
 Clear Sort

Clear Filter
 Remove Empty
 Date/Time Filters ▶

- (Select All)
- 29/12/2010 00:00:00
- 30/12/2010 00:00:00
- 31/12/2010 00:00:00
- 01/01/2011 00:00:00
- 02/01/2011 00:00:00
- 03/01/2011 00:00:00
- 04/01/2011 00:00:00
- 05/01/2011 00:00:00
- 06/01/2011 00:00:00
- 07/01/2011 00:00:00
- 08/01/2011 00:00:00
- 09/01/2011 00:00:00
- 10/01/2011 00:00:00
- 11/01/2011 00:00:00
- 12/01/2011 00:00:00
- 13/01/2011 00:00:00

List may be incomplete. [Load more](#)

Equals...

Before...

After...

Between...

In the Next...

In the Previous...

Is Earliest

Is Latest

Is Not Earliest

Is Not Latest

Year ▶

Quarter ▶

Month ▶

Week ▶

Day ▶

Hour ▶

Minute ▶

Second ▶

Custom Filter...



Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'OrderDate'

is after or equal to RangeStart

And Or

is before RangeEnd
RangeStart
RangeEnd


OK


Cancel

File	Home	Transform	
Close & Apply	New Source	Recent Sources	Enter Data
Close	New Query		

Fields



 Search

>  FactInt

New measure

New column

New quick measure

Refresh data

Edit query

Manage relationships

Incremental refresh

Manage aggregations

Rename

Delete from model

Hide

Mark as date table >

View hidden

Unhide all

Collapse all

Expand all

Incremental refresh



You can improve the speed of refresh for large tables by using incremental refresh. This setting will apply once you've published a report to the Power BI service.

i Once you've deployed this table to the Power BI service, you won't be able to download it back to Power BI Desktop. [Learn more](#)

Table Incremental refresh

FactInternetSales On

Store rows where column "OrderDate" is in the last:

15 Years

Refresh rows where column "OrderDate" is in the last:

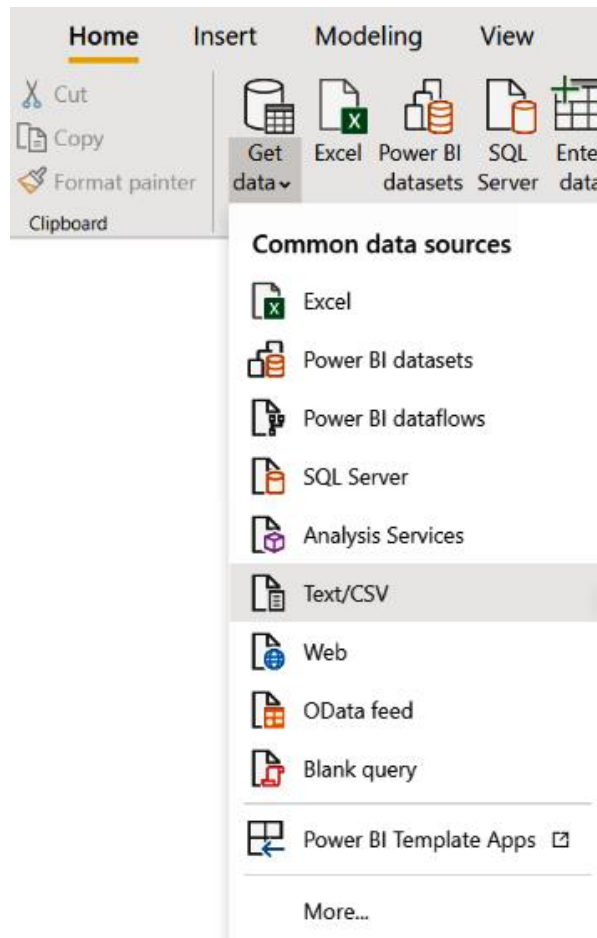
2 Months

Detect data changes [Learn more](#)

Only refresh complete months [Learn more](#)

Apply all

Cancel



FactInternetSales.csv



File Origin

Delimiter

Data Type Detection

65001: Unicode (UTF-8)

Comma

Based on first 200 rows



ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderKey
310	20101229	20110110	20110105	21768	1	19	6	SO43697
346	20101229	20110110	20110105	28389	1	39	7	SO43698
346	20101229	20110110	20110105	25863	1	100	1	SO43699
336	20101229	20110110	20110105	14501	1	100	4	SO43700
346	20101229	20110110	20110105	11003	1	6	9	SO43701
311	20101230	20110111	20110106	27645	1	100	4	SO43702
310	20101230	20110111	20110106	16624	1	6	9	SO43703
351	20101230	20110111	20110106	11005	1	6	9	SO43704
344	20101230	20110111	20110106	11011	1	6	9	SO43705
312	20101231	20110112	20110107	27621	1	100	4	SO43706
312	20101231	20110112	20110107	27616	1	100	4	SO43707
330	20101231	20110112	20110107	20042	1	98	10	SO43708
313	20101231	20110112	20110107	16351	1	6	9	SO43709
314	20101231	20110112	20110107	16517	1	6	9	SO43710
314	20110101	20110113	20110108	27606	1	100	1	SO43711
311	20110101	20110113	20110108	13513	1	29	8	SO43712
310	20110102	20110114	20110109	27601	1	100	4	SO43713
311	20110102	20110114	20110109	13591	1	98	10	SO43714
314	20110102	20110114	20110109	16483	1	6	9	SO43715
311	20110102	20110114	20110109	16529	1	6	9	SO43716



Extract Table Using Examples

Load

Transform Data

Cancel

Keep Rows

Remove Rows

Sort

Split Column

Group By

Data Type: Whole Number

Use First Row as

Replace Values

Merge Queries

Merge Queries

Merge Queries as New

Transform

Combine

Merge



Select a table and matching columns to create a merged table.

DimTerritory



SalesTerritoryKey	SalesTerritoryAlternateKey	SalesTerritoryRegion	SalesTerritoryCountry	SalesTerritoryGroup
1	1	Northwest	United States	North America
2	2	Northeast	United States	North America
3	3	Central	United States	North America
4	4	Southwest	United States	North America

FactInternetSales



PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber	RevisionNumber
1	19	6	SO43697	1	
1	39	7	SO43698	1	
1	100	1	SO43699	1	
1	100	4	SO43700	1	

Join Kind

Left Outer (all from first, matching from second)

Use fuzzy matching to perform the merge

▸ Fuzzy matching options

✓ The selection matches 10 of 11 rows from the first table.

OK

Cancel

ABC SalesTerritoryGroup FactInternetSales

Search Columns to Aggregate

Expand Aggregate

- Σ Sum of CurrencyKey
- Σ Sum of SalesTerritoryKey
- # Count of SalesOrderNumber
- Σ Sum of SalesOrderLineNumber
- Σ Sum of RevisionNumber
- Σ Sum of OrderQuantity
- Σ Sum of UnitPrice
- Σ Sum of ExtendedAmount
- Σ Sum of UnitPriceDiscountPct
- Σ Sum of DiscountAmount
- Σ Sum of ProductStandardCost
- Σ Sum of TotalProductCost
- Σ Sum of SalesAmount
- Σ Sum of TaxAmt
- Σ Sum of Freight
- # Count of CarrierTrackingNumber
- # Count of CustomerPONumber

Use original column name as prefix

OK Cancel

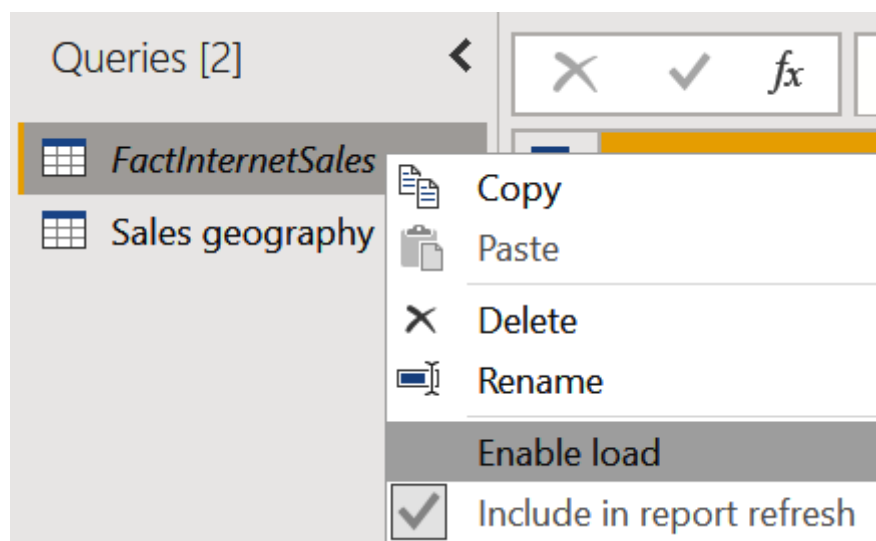
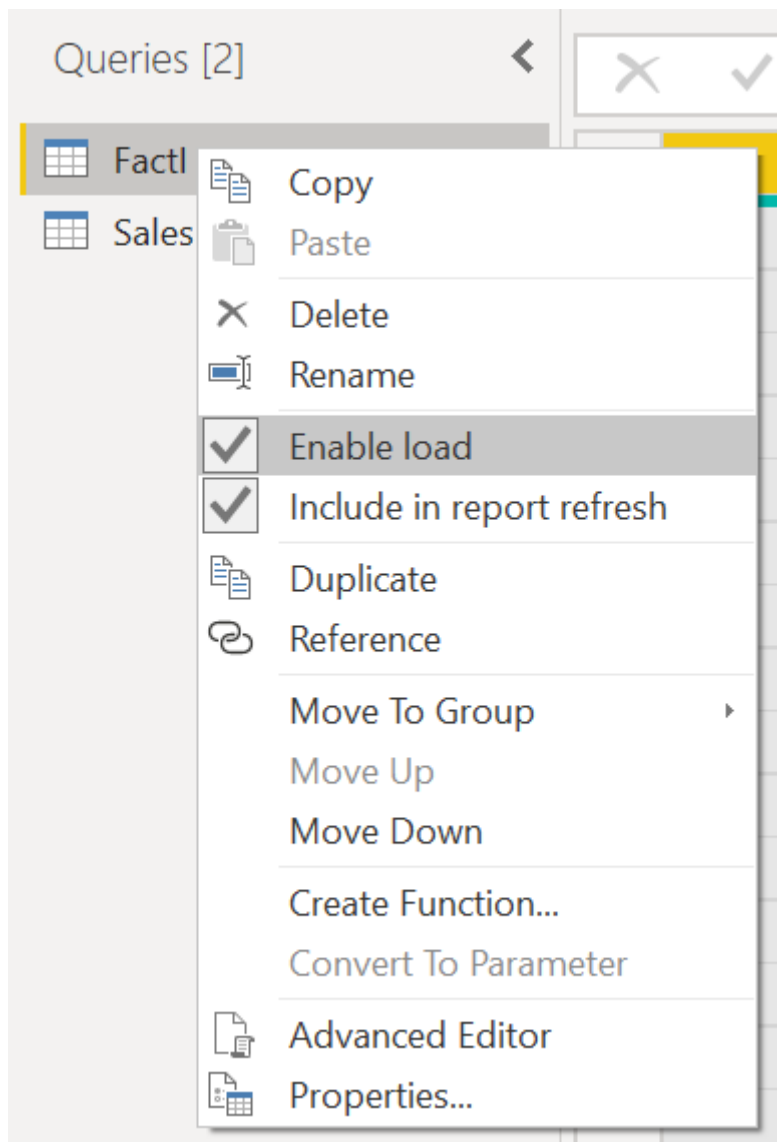
ABC 123	Sum of TotalProductCost	ABC 123	Sum of SalesAmount
	2130235,255		3649866,551
	3629,7059		6532,4682
	1649,9092		3000,8296
	3346387,415		5718150,812
	6906,4234		12238,8496
	1147923,361		1977844,862
	1557752,993		2644017,714
	1706941,573		2894312,338
	5375145,508		9061000,584
	2001221,433		3391712,211
	<i>null</i>		<i>null</i>

Query Settings ✕

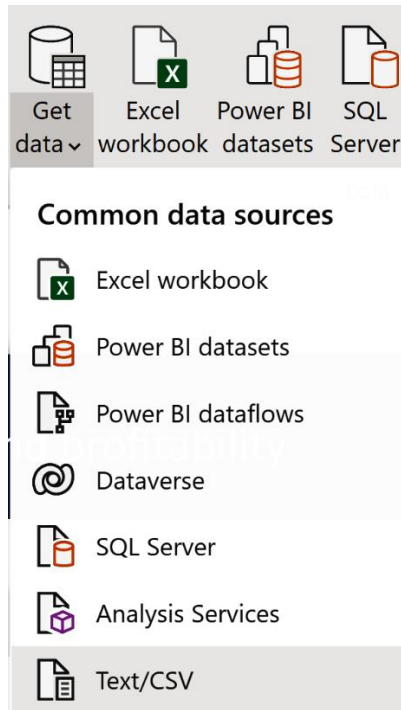
▲ **PROPERTIES**

Name

Sales geography



Chapter 7: Leveraging the M Language

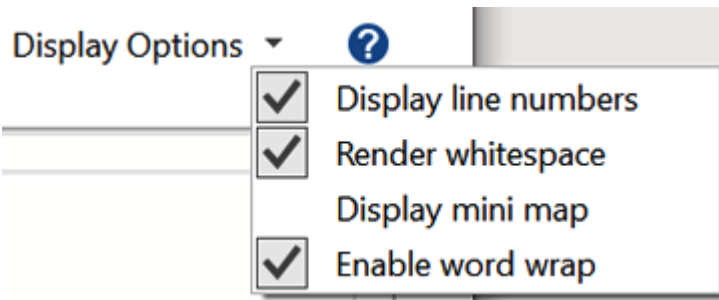


FactInternetSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderKey
310	20101229	20110110	20110105	21768	1	19	6	SO43697
346	20101229	20110110	20110105	28389	1	39	7	SO43698
346	20101229	20110110	20110105	25863	1	100	1	SO43699
336	20101229	20110110	20110105	14501	1	100	4	SO43700
346	20101229	20110110	20110105	11003	1	6	9	SO43701
311	20101230	20110111	20110106	27645	1	100	4	SO43702
310	20101230	20110111	20110106	16624	1	6	9	SO43703
351	20101230	20110111	20110106	11005	1	6	9	SO43704
344	20101230	20110111	20110106	11011	1	6	9	SO43705
312	20101231	20110112	20110107	27621	1	100	4	SO43706
312	20101231	20110112	20110107	27616	1	100	4	SO43707
330	20101231	20110112	20110107	20042	1	98	10	SO43708
313	20101231	20110112	20110107	16351	1	6	9	SO43709
314	20101231	20110112	20110107	16517	1	6	9	SO43710
314	20110101	20110113	20110108	27606	1	100	1	SO43711
311	20110101	20110113	20110108	13513	1	29	8	SO43712
310	20110102	20110114	20110109	27601	1	100	4	SO43713
311	20110102	20110114	20110109	13591	1	98	10	SO43714
314	20110102	20110114	20110109	16483	1	6	9	SO43715
311	20110102	20110114	20110109	16529	1	6	9	SO43716

Extract Table Using Examples [Load] Transform Data Cancel



```

1 let
2   Source = Csv.Document(File.Contents("C:\Data\FactInternetSales.csv"),[Delimiter=
      QuoteStyle=QuoteStyle.None]),
3   #Promoted Headers = Table.PromoteHeaders(Source, [PromoteAllScalars=true]),
4   #Changed Type = Table.TransformColumnTypes(#Promoted Headers,{{"ProductKey",
      Int64.Type}, {"DueDateKey", Int64.Type}, {"ShipDateKey", Int64.Type}, {"Cust
      {"PromotionKey", Int64.Type}, {"CurrencyKey", Int64.Type}, {"SalesTerritoryK
      {"SalesOrderNumber", type text}, {"SalesOrderLineNumber", Int64.Type}, {"Rev
      {"OrderQuantity", Int64.Type}, {"UnitPrice", type number}, {"ExtendedAmount"
      {"UnitPriceDiscountPct", Int64.Type}, {"DiscountAmount", Int64.Type}, {"Prod
      {"TotalProductCost", type number}, {"SalesAmount", type number}, {"TaxAmt",
      number}, {"CarrierTrackingNumber", type text}, {"CustomerPONumber", type tex
      , {"DueDate", type datetime}, {"ShipDate", type datetime}}})
5 in
6   #Changed Type

4   #Changed Type = Table.TransformColumnTypes(#Promoted Headers,{{"ProductKey", Int64.Type}, {"OrderDateKey",
      Int64.Type}, {"DueDateKey", Int64.Type}, {"ShipDateKey", Int64.Type}, {"CustomerKey", Int64.Type},
      {"PromotionKey", Int64.Type}, {"CurrencyKey", Int64.Type}, {"SalesTerritoryKey", Int64.Type},
      {"SalesOrderNumber", type text}, {"SalesOrderLineNumber", Int64.Type}, {"RevisionNumber", Int64.Type},
      {"OrderQuantity", Int64.Type}, {"UnitPrice", type number}, {"ExtendedAmount", type number},
      {"UnitPriceDiscountPct", Int64.Type}, {"DiscountAmount", Int64.Type}, {"ProductStandardCost", type number},
      {"TotalProductCost", type number}, {"SalesAmount", type number}, {"TaxAmt", type number}, {"Freight", type
      number}, {"CarrierTrackingNumber", type text}, {"CustomerPONumber", type text}, {"OrderDate", type datetime}
      , {"DueDate", type datetime}, {"ShipDate", type datetime}}})
5 in
6   #Changed Type

4   #Changed Type = Table.TransformColumnTypes(#Promoted Headers,{{"ProductKey", type text}, {"OrderDateKey",
      Int64.Type}, {"DueDateKey", Int64.Type}, {"ShipDateKey", Int64.Type}, {"CustomerKey", Int64.Type},
      {"PromotionKey", Int64.Type}, {"CurrencyKey", Int64.Type}, {"SalesTerritoryKey", Int64.Type},
      {"SalesOrderNumber", type text}, {"SalesOrderLineNumber", Int64.Type}, {"RevisionNumber", Int64.Type},
      {"OrderQuantity", Int64.Type}, {"UnitPrice", type number}, {"ExtendedAmount", type number},
      {"UnitPriceDiscountPct", Int64.Type}, {"DiscountAmount", Int64.Type}, {"ProductStandardCost", type number},
      {"TotalProductCost", type number}, {"SalesAmount", type number}, {"TaxAmt", type number}, {"Freight", type
      number}, {"CarrierTrackingNumber", type text}, {"CustomerPONumber", type text}, {"OrderDate", type datetime}
      , {"DueDate", type datetime}, {"ShipDate", type datetime}}})
5 in
6   #Changed Type

```

✓ No syntax errors have been detected.

Done Cancel

Queries [1] Query Settings

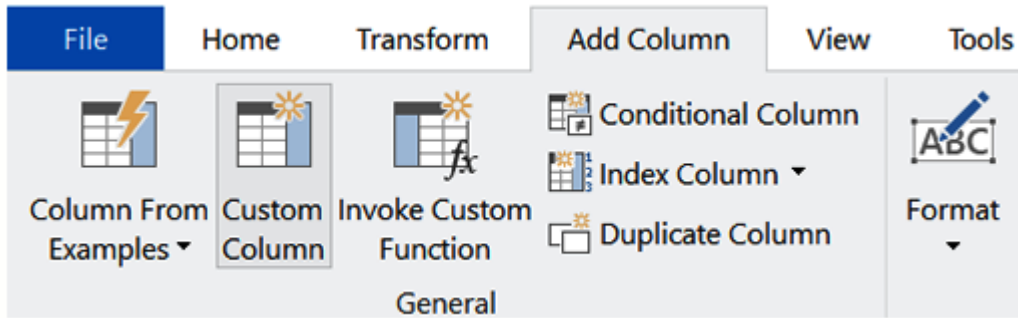
FactInternetSales

Table.TransformColumnTypes(#"Promoted Headers",{{"ProductKey", type text},

	ProductKey	OrderDateKey	DueDateKey	ShipDateKey
1	310	20101229	20110110	20110105
2	346	20101229	20110110	20110105
3	346	20101229	20110110	20110105
4	336	20101229	20110110	20110105
5	346	20101229	20110110	20110105
6	311	20101230	20110111	20110106
7	310	20101230	20110111	20110106
8	351	20101230	20110111	20110106
9	344	20101230	20110111	20110106
10	312	20101231	20110112	20110107

PROPERTIES
Name: FactInternetSales

APPLIED STEPS
Source, Promoted Headers, **Changed Type**



Custom Column

Add a column that is computed from the other columns.

New column name

Gross Margin

Custom column formula

= [SalesAmount] - [TotalProductCost]

Available columns

- ProductStandardCost
- TotalProductCost
- SalesAmount
- TaxAmt
- Freight
- CarrierTrackingNumber
- CustomerPONumber

<< Insert

[Learn about Power Query formulas](#)

✓ No syntax errors have been detected.

OK

Cancel

ABC 123 **Gross Margin** ▼

- 1.2 Decimal Number
- \$ Fixed decimal number
- 123 Whole Number
- % Percentage
- Date/Time
- Date
- Time
- Date/Time/Timezone
- Duration
- ABC Text
- True/False
- Binary
- Using Locale...

Queries [1] = Table.TransformColumnTypes("#Added Custom",{"Gross Margin", type number})

	OrderDate	DueDate	ShipDate	1.2 Gross Margin
1	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	1406,9758
2	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	1487,8356
3	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	1487,8356
4	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	285,9519
5	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	1487,8356
6	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	1406,9758
7	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	1406,9758
8	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	1476,8956
9	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	1487,8356
10	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	1406,9758
11	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	1406,9758
12	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	285,9519
13	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	1406,9758
14	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	1406,9758
15	01/01/2011 00:00:00	13/01/2011 00:00:00	08/01/2011 00:00:00	1406,9758

Query Settings

PROPERTIES
Name: FactInternetSales

APPLIED STEPS
Source
Promoted Headers
Changed Type
Added Custom
X Changed Type1

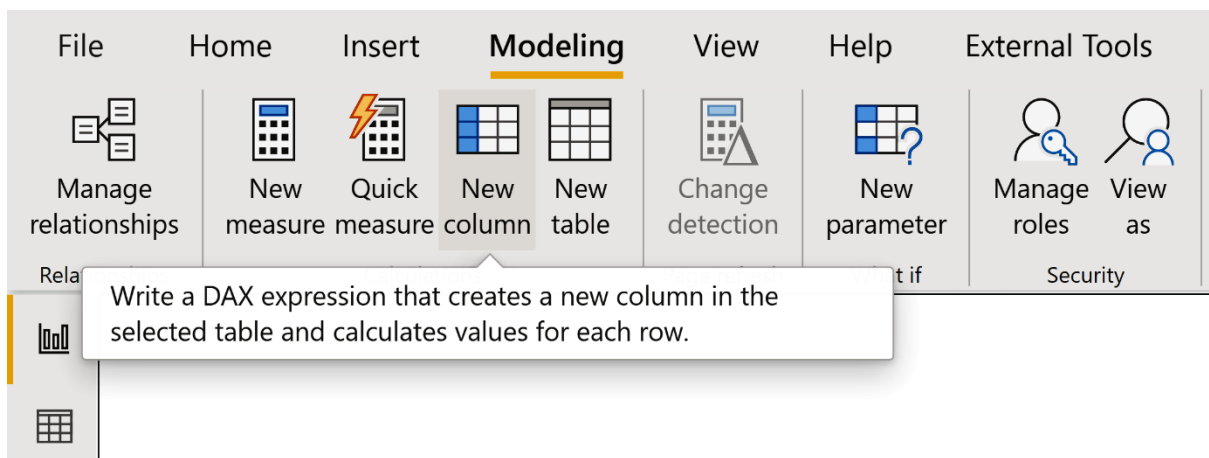
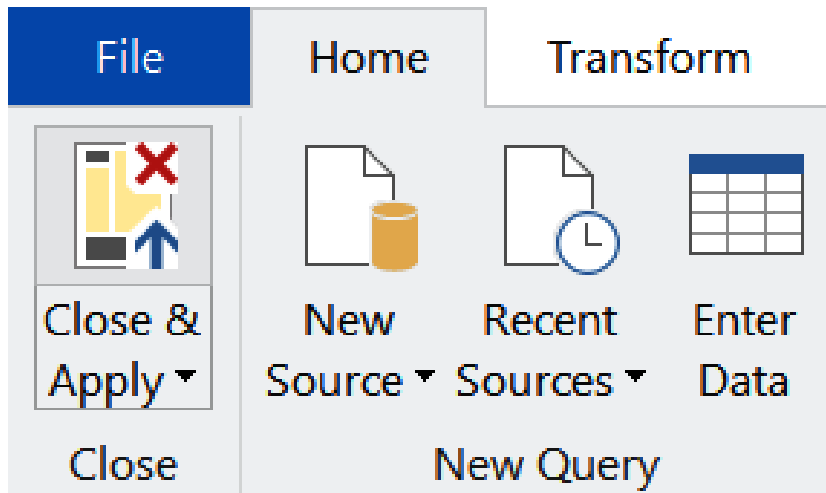
FactInternetSales

Display Options

```

1 let
2     Source = Csv.Document(File.Contents("C:\Data\FactInternetSales.csv"),[Delimiter=";", Columns=26, Encoding=65001,
3     QuoteStyle=QuoteStyle.None]),
4     #Promoted Headers = Table.PromoteHeaders(Source, [PromoteAllScalars=true]),
5     #Changed Type = Table.TransformColumnTypes("#Promoted Headers",{"ProductKey", Int64.Type}, {"OrderDateKey", Int64.Type}, {"
6     DueDateKey", Int64.Type}, {"ShipDateKey", Int64.Type}, {"CustomerKey", Int64.Type}, {"PromotionKey", Int64.Type}, {"
7     CurrencyKey", Int64.Type}, {"SalesTerritoryKey", Int64.Type}, {"SalesOrderNumber", type text}, {"SalesOrderLineNumber",
8     Int64.Type}, {"RevisionNumber", Int64.Type}, {"OrderQuantity", Int64.Type}, {"UnitPrice", type number}, {"ExtendedAmount",
9     type number}, {"UnitPriceDiscountPct", Int64.Type}, {"DiscountAmount", Int64.Type}, {"ProductStandardCost", type number}, {"
10    TotalProductCost", type number}, {"SalesAmount", type number}, {"TaxAmt", type number}, {"Freight", type number}, {"
11    CarrierTrackingNumber", type text}, {"CustomerPONumber", type text}, {"OrderDate", type datetime}, {"DueDate", type
12    datetime}, {"ShipDate", type datetime})),
13    #Added Custom = Table.AddColumn("#Changed Type", "Gross Margin", each [SalesAmount]-[TotalProductCost]),
14    #Changed Type1 = Table.TransformColumnTypes("#Added Custom",{"Gross Margin", type number})
15 in
16 #Changed Type1

```



The image shows a data table with a dropdown menu. The dropdown menu is open, showing the text 'tCost' and a downward arrow. The table contains three rows, each with the value '1,8663'.

	tCost
	1,8663
	1,8663
	1,8663

File Home Insert Modeling View

Paste Cut Copy Format painter
Clipboard

Get data Excel Power BI datasets SQL Server

Common data sources

- Excel
- Power BI datasets
- Power BI dataflows
- Dataverse
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query

Power BI Template Apps

More...

Get Data



Search

- All
- File
- Database
- Power Platform
- Azure**
- Online Services
- Other

Azure

- Azure SQL database
- Import data from an Azure SQL database.**
- Azure Synapse Analytics (SQL DW)
- Azure Analysis Services database
- Azure Database for PostgreSQL
- Azure Blob Storage
- Azure Table Storage
- Azure Cosmos DB
- Azure Data Explorer (Kusto)
- Azure Data Lake Storage Gen2
- Azure Data Lake Storage Gen1
- Azure HDInsight (HDFS)
- Azure HDInsight Spark
- HDInsight Interactive Query
- Azure Cost Management
- Azure Databricks
- Azure Time Series Insights (Beta)

Certified Connectors

Template Apps

Connect

Cancel

SQL Server database



Server ⓘ

ABC adventureworksprova.database.windows.net

Database (optional)

ABC Adventureworks

Data Connectivity mode ⓘ

Import

DirectQuery

▶ Advanced options

OK

Cancel

Windows

Database

Microsoft account

SQL Server database



adventureworksprova.database.windows.net

You're already signed in.

Sign in as different user

Save

Cancel

Navigator



Display Options ▾

- DimPromotion
- DimReseller
- DimSalesReason
- DimSalesTerritory
- DimScenario
- FactAdditionalInternationalProduc...
- FactCallCenter
- FactCurrencyRate
- FactFinance
- FactInternetSales
- FactInternetSalesReason
- FactProductInventory
- FactResellerSales
- FactResellerSalesXL_CCI
- FactResellerSalesXL_PageCompres...
- FactSalesQuota
- FactSurveyResponse
- NewFactCurrencyRate
- ProspectiveBuyer
- sysdiagrams

FactInternetSales



Preview downloaded on Sunday, 4 April 2021

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey
310	20101229	20110110	20110105	21768
346	20101229	20110110	20110105	28389
346	20101229	20110110	20110105	25863
336	20101229	20110110	20110105	14501
346	20101229	20110110	20110105	11003
311	20101230	20110111	20110106	27645
310	20101230	20110111	20110106	16624
351	20101230	20110111	20110106	11005
344	20101230	20110111	20110106	11011
312	20101231	20110112	20110107	27621
312	20101231	20110112	20110107	27616
330	20101231	20110112	20110107	20042
313	20101231	20110112	20110107	16351
314	20101231	20110112	20110107	16517

i The data in the preview has been truncated due to size limits.

Select Related Tables

Load

Transform Data

Cancel

Choose Columns

Choose the columns to keep

Search Columns

- (Select All Columns)
- ProductKey
- OrderDateKey
- DueDateKey
- ShipDateKey
- CustomerKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost
- SalesAmount

Query Settings

PROPERTIES
Name: FactInternetSales

APPLIED STEPS
Source
Promoted Headers
Changed Type
Removed Other Columns

	ProductKey	SalesTerritoryKey	TotalProductCost	SalesAmount
1	310	6	2171,2942	
2	346	7	1912,1544	
3	346	1	1912,1544	
4	336	4	413,1463	
5	346	9	1912,1544	
6	311	4	2171,2942	
7	310	9	2171,2942	
8	351	9	1898,0944	
9	344	9	1912,1544	

Query Settings

Table.SelectColumns(table as table, **columns** as any)

any

Returns a table with only the specified columns.

sTerritoryKey", "TotalProductCost", "SalesAmount", "OrderDate", "DueDate"}))

1.2 SalesAmount	OrderDate	DueDate
3578,27	29/12/2010 00:00:00	10/01/2011 00:00:00
3399,99	29/12/2010 00:00:00	10/01/2011 00:00:00
3399,99	29/12/2010 00:00:00	10/01/2011 00:00:00
699,0982	29/12/2010 00:00:00	10/01/2011 00:00:00
3399,99	29/12/2010 00:00:00	10/01/2011 00:00:00

sTerritoryKey", "TotalProductCost", "SalesAmount", "OrderDate", "DueDate"}))

1.2 SalesAmount	OrderDate	DueDate
3578.27	29/12/2010 00:00:00	10/01/2011 00:00:00
3399.99	29/12/2010 00:00:00	10/01/2011 00:00:00
3399.99	29/12/2010 00:00:00	10/01/2011 00:00:00
699.0982	29/12/2010 00:00:00	10/01/2011 00:00:00
3399.99	29/12/2010 00:00:00	10/01/2011 00:00:00
3578.27	30/12/2010 00:00:00	11/01/2011 00:00:00
3578.27	30/12/2010 00:00:00	11/01/2011 00:00:00
3374.99	30/12/2010 00:00:00	11/01/2011 00:00:00
3399.99	30/12/2010 00:00:00	11/01/2011 00:00:00
3578.27	31/12/2010 00:00:00	12/01/2011 00:00:00
3578.27	31/12/2010 00:00:00	12/01/2011 00:00:00
699.0982	31/12/2010 00:00:00	12/01/2011 00:00:00
3578.27	31/12/2010 00:00:00	12/01/2011 00:00:00

Custom Column



Add a column that is computed from the other columns.

New column name

Custom column formula ⓘ

```
= if ([SalesAmount]-[TotalProductCost]) > 1000 then "Apply discount" else "Don't apply discount"
```

Available columns

- SalesTerritoryKey
- ProductKey
- SalesAmount
- TotalProductCost
- DueDate
- OrderDate
- Subtraction

<< Insert

[Learn about Power Query formulas](#)

✓ No syntax errors have been detected.

OK

Cancel

totalProductCost]) > 1000 then "Apply discount" else "Don't apply" ▼

OrderDate	1.2 Subtraction	Discount status
29/12/2010 00:00:00	1406.9758	Apply discount
29/12/2010 00:00:00	1487.8356	Apply discount
29/12/2010 00:00:00	1487.8356	Apply discount
29/12/2010 00:00:00	285.9519	Don't apply discount
29/12/2010 00:00:00	1487.8356	Apply discount
30/12/2010 00:00:00	1406.9758	Apply discount
30/12/2010 00:00:00	1406.9758	Apply discount
30/12/2010 00:00:00	1476.8956	Apply discount
30/12/2010 00:00:00	1487.8356	Apply discount
31/12/2010 00:00:00	1406.9758	Apply discount
31/12/2010 00:00:00	1406.9758	Apply discount
31/12/2010 00:00:00	285.9519	Don't apply discount

Home Insert Modeling View

Cut
Copy
Format painter
Clipboard

Get data ▼ Excel Power BI datasets SQL Server Enter data

Common data sources

- Excel
- Power BI datasets
- Power BI dataflows
- Dataverse
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank query

Power BI Template Apps ↗

More...

Queries [1] < [X ✓ fx |]

ABC Query1

Query1

```
1 let  
2   ... Source = ...  
3 in  
4   ... Source
```

Query1

Display Options ▾



```
1 let  
2   → a=1,  
3   → b=2,  
4   → sum= a+b  
5 in  
6   → sum
```

✓ No syntax errors have been detected.

Done

Cancel

Queries [1] <

= a+b

1²₃ Query1

3

Query Settings ✕

▲ **PROPERTIES**

Name

[All Properties](#)

▲ **APPLIED STEPS**

a
b
<input type="button" value="✕"/> sum <input type="button" value="⚙"/>

Queries [1] <

2

1²₃ Query1

2

Query Settings ✕

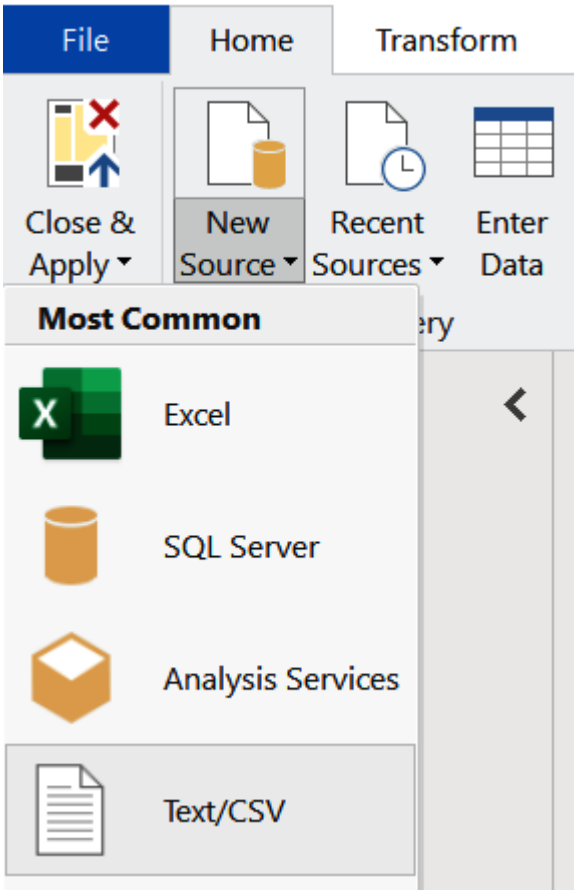
▲ **PROPERTIES**

Name

[All Properties](#)


▲ **APPLIED STEPS**

a
<input type="button" value="✕"/> b
sum <input type="button" value="⚙"/>





Choose Columns

Choose the columns to keep

Search Columns 

- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost
- SalesAmount
- TaxAmt
- Freight
- CarrierTrackingNumber
- CustomerPONumber
- OrderDate
- DueDate
- ShipDate

File Home Transform Add Column View Tools Help

Group By Use First Row as Headers Count Rows Table

Transpose Reverse Rows

Data Type: Decimal Number 1 2 Replace Values Unpivot Columns

Detect Data Type Fill Move

Rename Pivot Column Convert to List

Split Column Format Text

Merge Columns Extract Parse Statistics

Queries [2]

Query1

FactInternetSales

1.2 SalesAmount

1	3578,27
2	3399,99
3	3399,99
4	699,0982
5	3399,99
6	3578,27
7	3578,27
8	3374,99
9	3399,99
10	3578,27

= Table.SelectColumns("#Changed Type",{"SalesAmount"})

Sum

- Minimum
- Maximum
- Median
- Average
- Standard Deviation
- Count Values
- Count Distinct Values

Queries [2]

Query1

FactInternetSales

29358677,220650408

= List.Sum("#Removed Other Columns"[SalesAmount])

Queries [3]

Query1

SalesAmount

TotalProductSales

17277793,575699065

= List.Sum("#Removed Other Columns"[TotalProductCost])

Query1

Display Options ?

```

1 let
2   → Discount=0.2,
3   → NetSales=SalesAmount - TotalProductSales,
4   → NetSales_discounted=NetSales - NetSales * Discount
5 in
6   → NetSales_discounted

```

✓ No syntax errors have been detected.

Done Cancel

Queries [3]			= NetSales - NetSales * Discount
1 ² 3	NetSales_discounted		9664706,9159610756
1 ² 3	SalesAmount		
1 ² 3	TotalProductSales		

File Home

Close & Apply ▾ New Source ▾ Recent Sources

Most Common

- Excel
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank Query

More...

File Home Transform Add Column View Tools Help Transform

To Table Convert
 Keep Items Manage Items
 Remove Items
 Remove Duplicates
 Reverse Items
 Sort
 Statistics Numeric List

Queries [4] <

= {1,2,3}

1²3 NetSales_discounted
 1²3 SalesAmount
 1²3 TotalProductSales
 Query1

	List	
1		1
2		2
3		3

Queries [1] <

|

ABC Query1

File Home Transform Add Column View Tools Help Transform

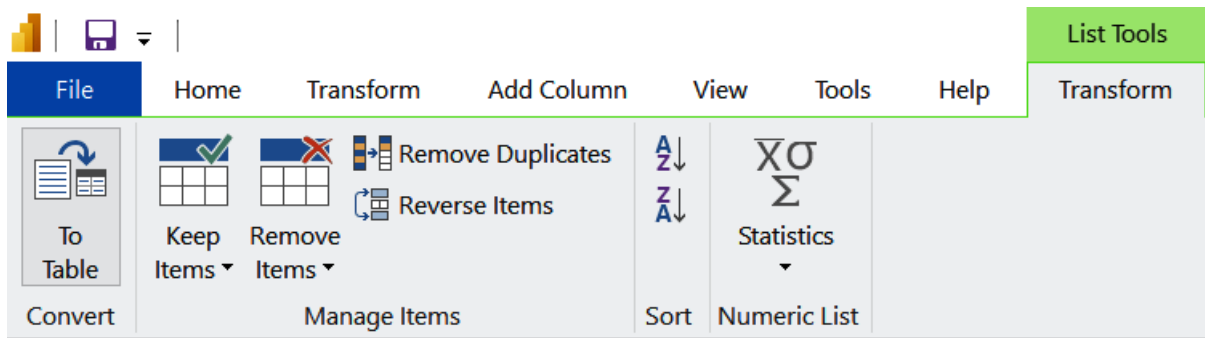
To Table Convert
 Keep Items Manage Items
 Remove Items
 Remove Duplicates
 Reverse Items
 Sort
 Statistics Numeric List

Queries [1] <

= List.Dates(#date(2011,01,01))

Query1

	List	
1		01/01/2011
2		02/01/2011
3		03/01/2011
4		04/01/2011
5		05/01/2011
6		06/01/2011
7		07/01/2011
8		08/01/2011
9		09/01/2011



To Table

Create a table from a list of values.

Select or enter delimiter

How to handle extra columns

OK

Cancel

The image shows a screenshot of an Excel spreadsheet. The formula bar at the top displays the formula `= Table.TransformColumn`. The spreadsheet contains a table with 8 rows and 2 columns. The first column contains integers from 1 to 8, and the second column contains dates from 01/01/2011 to 08/01/2011. The 'Date' column header is highlighted in blue.

	Date
1	01/01/2011
2	02/01/2011
3	03/01/2011
4	04/01/2011
5	05/01/2011
6	06/01/2011
7	07/01/2011
8	08/01/2011

File Home Transform Add Column View Tools Help

Column From Examples Custom Column Invoke Custom Function

Conditional Column Index Column Duplicate Column

Format Merge Columns Extract Parse

Statistics Standard Scientific

Trigonometry Rounding Information

Age Date Only Parse Year Month Quarter Week Day Subtract Days Combine Date and Time Earliest Latest

Queries [1]

Query1

fx = Table.RenameColumns("#Changed Type",{"

	Date
1	01/01/2011
2	02/01/2011
3	03/01/2011
4	04/01/2011
5	05/01/2011
6	06/01/2011
7	07/01/2011
8	08/01/2011
9	09/01/2011
10	10/01/2011

fx = Table.TransformCol

	ProductKey	OrderDa
1		310
2		346
3		346

Choose Columns

Choose the columns to keep

- (Select All Columns)
- ProductKeyCode
- OrderDateKey
- DueDateKey
- ShipDateKey
- CustomerKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost
- SalesAmount

```
1 let
2     Source = Csv.Document(File.Contents("C:\Data\FactInternetSales.csv"),[Delimiter=",",Columns=26,Encoding=65001,QuoteStyle=QuoteStyle.None]),
3     #Promoted-Headers = Table.PromoteHeaders(Source,[PromoteAllScalars=true]),
4     #Changed-Type = Table.TransformColumnTypes(#Promoted-Headers,{{"ProductKey",Int64.Type}, {"OrderDateKey",Int64.Type}, {"DueDateKey",Int64.Type}, {"ShipDateKey",Int64.Type}, {"CustomerKey",Int64.Type}, {"PromotionKey",Int64.Type}, {"CurrencyKey",Int64.Type}, {"SalesTerritoryKey",Int64.Type}, {"SalesOrderNumber",type-text}, {"SalesOrderLineNumber",Int64.Type}, {"RevisionNumber",Int64.Type}, {"OrderQuantity",Int64.Type}, {"UnitPrice",type-number}, {"ExtendedAmount",type-number}, {"UnitPriceDiscountPct",Int64.Type}, {"DiscountAmount",Int64.Type}, {"ProductStandardCost",type-number}, {"TotalProductCost",type-number}, {"SalesAmount",type-number}, {"TaxAmt",type-number}, {"Freight",type-number}, {"CarrierTrackingNumber",type-text}, {"CustomerPONumber",type-text}, {"OrderDate",type-datetime}, {"DueDate",type-datetime}, {"ShipDate",type-datetime}}),
5     #Renamed-Columns = Table.RenameColumns(#Changed-Type,{{"ProductKey","ProductKeyCode"}}),
6     #Removed-Other-Columns = Table.SelectColumns(#Renamed-Columns,{"ProductKeyCode","OrderQuantity","SalesAmount","OrderDate"})
7 in
8     #Removed-Other-Columns
```

Queries [1] < ✕ ✓ *fx* = Table.SelectColumns("#Renamed Columns",{"Product

! FactInternetSales

! Expression.Error: The column 'ProductKeyCode' of the table wasn't found.
 Details:
 ProductKeyCode

```

5 | ...#"Renamed Columns" := Table.RenameColumns("#Changed Type",{"ProductKey", "ProductKey_Code"}),
6 | ...#"Removed Other Columns" := Table.SelectColumns("#Renamed Columns",{"ProductKey_Code", "OrderQuantity", "SalesAmount",
  | "OrderDate"})
7 | in
8 | ...#"Removed Other Columns"
  
```

✓ No syntax errors have been detected. Done Cancel

Queries [1] < ✕ ✓ *fx* = Table.SelectColumns("#Renamed Col

	1 ² 3 ProductKey_Code	1 ² 3 OrderQuantity
1	310	1
2	346	1
3	346	1
4	336	1
5	346	1
6	311	1
7	310	1
8	351	1
9	344	1
10	312	1

Chapter 8: Adding Value to Your Data

FactInternetSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrder
310	20101229	20110110	20110105	21768	1	19	6	SO43697
346	20101229	20110110	20110105	28389	1	39	7	SO43698
346	20101229	20110110	20110105	25863	1	100	1	SO43699
336	20101229	20110110	20110105	14501	1	100	4	SO43700
346	20101229	20110110	20110105	11003	1	6	9	SO43701
311	20101230	20110111	20110106	27645	1	100	4	SO43702
310	20101230	20110111	20110106	16624	1	6	9	SO43703
351	20101230	20110111	20110106	11005	1	6	9	SO43704
344	20101230	20110111	20110106	11011	1	6	9	SO43705
312	20101231	20110112	20110107	27621	1	100	4	SO43706
312	20101231	20110112	20110107	27616	1	100	4	SO43707
330	20101231	20110112	20110107	20042	1	98	10	SO43708
313	20101231	20110112	20110107	16351	1	6	9	SO43709
314	20101231	20110112	20110107	16517	1	6	9	SO43710
314	20110101	20110113	20110108	27606	1	100	1	SO43711
311	20110101	20110113	20110108	13513	1	29	8	SO43712
310	20110102	20110114	20110109	27601	1	100	4	SO43713
311	20110102	20110114	20110109	13591	1	98	10	SO43714
314	20110102	20110114	20110109	16483	1	6	9	SO43715
311	20110102	20110114	20110109	16529	1	6	9	SO43716

Extract Table Using Examples

Load Transform Data Cancel

Table.TransformColumnTypes("#Promoted Headers",{{"ProductKey", Int64.Type}, {"OrderDateKey", Int64.Type},

	TaxAmt	Freight	CarrierTrackingNumber	CustomerPONumber	OrderDate
1	286,2616	89,4568	NULL	NULL	29/12/2010 00:00:00
2	271,9992	84,9998	NULL	NULL	29/12/2010 00:00:00
3	271,9992	84,9998	NULL	NULL	29/12/2010 00:00:00
4	55,9279	17,4775	NULL	NULL	29/12/2010 00:00:00
5	271,9992	84,9998	NULL	NULL	29/12/2010 00:00:00
6	286,2616	89,4568	NULL	NULL	30/12/2010 00:00:00
7	286,2616	89,4568	NULL	NULL	30/12/2010 00:00:00
8	269,9992	84,3748	NULL	NULL	30/12/2010 00:00:00
9	271,9992	84,9998	NULL	NULL	30/12/2010 00:00:00



Add Column From Examples



Enter sample values to create a new column (Ctrl+Enter to apply).

OK



Cancel




	OrderingNumber	ABC CustomerPONumber	OrderDate	Column1
1		NULL	29/12/2010 00:00:00	
2		NULL	29/12/2010 00:00:00	
3		NULL	29/12/2010 00:00:00	
4		NULL	29/12/2010 00:00:00	
5		NULL	29/12/2010 00:00:00	
6		NULL	30/12/2010 00:00:00	
7		NULL	30/12/2010 00:00:00	
8		NULL	30/12/2010 00:00:00	
9		NULL	30/12/2010 00:00:00	
10		NULL	31/12/2010 00:00:00	
11		NULL	31/12/2010 00:00:00	

OrderDate	Column1
29/12/2010 00:00:00	
29/12/2010 00:00:00	
29/12/2010 00:00:00	
29/12/2010 00:00:00	
30/12/2010 00:00:00	
30/12/2010 00:00:00	
30/12/2010 00:00:00	
30/12/2010 00:00:00	
30/12/2010 00:00:00	
31/12/2010 00:00:00	
31/12/2010 00:00:00	
31/12/2010 00:00:00	
31/12/2010 00:00:00	
31/12/2010 00:00:00	
31/12/2010 00:00:00	
01/01/2011 00:00:00	
01/01/2011 00:00:00	
02/01/2011 00:00:00	
02/01/2011 00:00:00	
02/01/2011 00:00:00	
02/01/2011 00:00:00	

All Properties

- 29/12/2010 00:00:00 (OrderDate)
- 3823.00:00:00 (Age from OrderDate)
- 29/12/2010 (Date from OrderDate)
- 29 (Day from OrderDate)
- 2 (Day of Week from OrderDate)
- Wednesday (Day of Week Name from OrderDate)
- 363 (Day of Year from OrderDate)
- 31 (Days in Month from OrderDate)
- 2010-12-29T23:59:59.9999999 (End of Day from OrderDate)
- 2010-12-31T23:59:59.9999999 (End of Month from OrderDate)
- 2010-12-31T23:59:59.9999999 (End of Quarter from OrderDate)
- 2011-01-02T23:59:59.9999999 (End of Week from OrderDate)
- 2010-12-31T23:59:59.9999999 (End of Year from OrderDate)
- 12 (Month from OrderDate)
- December (Month Name from OrderDate)
- 4 (Quarter of Year from OrderDate)
- 01/12/2010 00:00:00 (Start of Month from OrderDate)
- 01/10/2010 00:00:00 (Start of Quarter from OrderDate)
- 27/12/2010 00:00:00 (Start of Week from OrderDate)
- 01/01/2010 00:00:00 (Start of Year from OrderDate)

 OrderDate <input checked="" type="checkbox"/>	 DueDate	Column1
29/12/2010 00:00:00	10/01/2011	December-2010
29/12/2010 00:00:00	10/01/2011	
29/12/2010 00:00:00	10/01/2011	
29/12/2010 00:00:00	10/01/2011	
29/12/2010 00:00:00	10/01/2011	
30/12/2010 00:00:00	11/01/2011	

	<input type="checkbox"/> ABC CustomerPONumber	 OrderDate <input checked="" type="checkbox"/>	 DueDate	Column1
1	NULL	29/12/2010 00:00:00	10/01/2011	December-2010
2	NULL	29/12/2010 00:00:00	10/01/2011	
3	NULL	29/12/2010 00:00:00	10/01/2011	
4	NULL	29/12/2010 00:00:00	10/01/2011	
5	NULL	29/12/2010 00:00:00	10/01/2011	
6	NULL	30/12/2010 00:00:00	11/01/2011	
7	NULL	30/12/2010 00:00:00	11/01/2011	
8	NULL	30/12/2010 00:00:00	11/01/2011	
9	NULL	30/12/2010 00:00:00	11/01/2011	
10	NULL	31/12/2010 00:00:00	12/01/2011	
11	NULL	31/12/2010 00:00:00	12/01/2011	
12	NULL	31/12/2010 00:00:00	12/01/2011	
13	NULL	31/12/2010 00:00:00	12/01/2011	
14	NULL	31/12/2010 00:00:00	12/01/2011	
15	NULL	01/01/2011 00:00:00	13/01/2011	January-2011
16	NULL	01/01/2011 00:00:00	13/01/2011	



Add Column From Examples



Enter sample values to create a new column (Ctrl+Enter to apply).

Transform: `Text.Combine({DateTime.ToText({OrderDate}, "MMMM"), "-", DateTime.ToText({OrderDate}, "yyyy")})`

OK

Cancel

	<input type="checkbox"/> ABC CustomerPONumber	<input checked="" type="checkbox"/> OrderDate	<input type="checkbox"/> DueDate	Custom
1	NULL	29/12/2010 00:00:00	10/01/2011 00:00:00	December-2010
2	NULL	29/12/2010 00:00:00	10/01/2011 00:00:00	December-2010
3	NULL	29/12/2010 00:00:00	10/01/2011 00:00:00	December-2010
4	NULL	29/12/2010 00:00:00	10/01/2011 00:00:00	December-2010
5	NULL	29/12/2010 00:00:00	10/01/2011 00:00:00	December-2010
6	NULL	30/12/2010 00:00:00	11/01/2011 00:00:00	December-2010
7	NULL	30/12/2010 00:00:00	11/01/2011 00:00:00	December-2010
8	NULL	30/12/2010 00:00:00	11/01/2011 00:00:00	December-2010
9	NULL	30/12/2010 00:00:00	11/01/2011 00:00:00	December-2010
10	NULL	31/12/2010 00:00:00	12/01/2011 00:00:00	December-2010
11	NULL	31/12/2010 00:00:00	12/01/2011 00:00:00	December-2010
12	NULL	31/12/2010 00:00:00	12/01/2011 00:00:00	December-2010
13	NULL	31/12/2010 00:00:00	12/01/2011 00:00:00	December-2010
14	NULL	31/12/2010 00:00:00	12/01/2011 00:00:00	December-2010
15	NULL	01/01/2011 00:00:00	13/01/2011 00:00:00	January-2011
16	NULL	01/01/2011 00:00:00	13/01/2011 00:00:00	January-2011
17	NULL	02/01/2011 00:00:00	14/01/2011 00:00:00	January-2011
18	NULL	02/01/2011 00:00:00	14/01/2011 00:00:00	January-2011
19	NULL	02/01/2011 00:00:00	14/01/2011 00:00:00	January-2011
20	NULL	02/01/2011 00:00:00	14/01/2011 00:00:00	January-2011
21	NULL	02/01/2011 00:00:00	14/01/2011 00:00:00	January-2011
22	NULL	03/01/2011 00:00:00	15/01/2011 00:00:00	January-2011

OrderDate-MthYear
11/2010 December-2010



Add Column From Examples



Enter sample values to create a new column (Ctrl+Enter to apply).

Transform: `Text.Combine({DateTime.ToText({OrderDate}, "MMMM"), "-", DateTime.ToText({OrderDate}, "yyyy")})`

OK

Cancel

OrderDate	DueDate	ShipDate	OrderDate-MthYear
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	December-2010
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	December-2010
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	December-2010
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	December-2010
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	December-2010
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	December-2010
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	December-2010
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	December-2010
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	December-2010
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	December-2010
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	December-2010
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	December-2010
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	December-2010
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	December-2010
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	December-2010
01/01/2011 00:00:00	13/01/2011 00:00:00	08/01/2011 00:00:00	January-2011
01/01/2011 00:00:00	13/01/2011 00:00:00	08/01/2011 00:00:00	January-2011
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	January-2011
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	January-2011
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	January-2011
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	January-2011
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	January-2011
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	January-2011
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	January-2011
03/01/2011 00:00:00	15/01/2011 00:00:00	10/01/2011 00:00:00	January-2011

PROPERTIES

Name
FactInternetSales

[All Properties](#)

APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- Added Custom Column**

Column From Examples | Custom Column | Invoke Custom Function | Conditional Column | Index Column | Duplicate Column | Merge Columns | Extract | Parse | Statistics | Standard | Scientific | Trigonometry | Rounding | Information | Date | Time | Duration

From All Columns | General | From Selection | From Text | From Number | From Date & Time

fx = Table.AddColumn("#Changed Type", "OrderDate-MthYear", each Text.Combine({DateTim

CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNumber
1	19	6 SO43697	1
2	39	7 SO43698	1
3	100	1 SO43699	1
4	100	4 SO43700	1
5	6	9 SO43701	1
6	100	4 SO43702	1
7	6	9 SO43703	1
8	6	9 SO43704	1

^{ABC} SalesOrderNumber	¹²³ SalesOrderLineNumber	Column1	All Properties
SO43697	1		
SO43698	1	1 (SalesOrderLineNumber)	
SO43699	1	SO43697 (SalesOrderNumber)	
SO43700	1	1.2 0 (Arccosine of SalesOrderLineNumber)	
SO43701	1	1.2 1,5707963267948966 (Arcsine of SalesOrderLineNumber)	
SO43702	1	1.2 0,78539816339744828 (Arctangent of SalesOrderLineNumber)	
SO43703	1	1.2 0 (Base-10 Logarithm of SalesOrderLineNumber)	
SO43704	1	1.2 0,54030230586813977 (Cosine of SalesOrderLineNumber)	
SO43705	1	1.2 2,7182818284590451 (Exponent of SalesOrderLineNumber)	
SO43706	1	1.2 0 (Natural Logarithm of SalesOrderLineNumber)	
SO43707	1	1.2 FALSE (SalesOrderLineNumber Is Even)	
SO43707	1	1.2 TRUE (SalesOrderLineNumber Is Odd)	
SO43708	1	1.2 0,8414709848078965 (Sine of SalesOrderLineNumber)	
SO43709	1	1.2 1,5574077246549023 (Tangent of SalesOrderLineNumber)	
SO43710	1	^{ABC} 1 (Length of SalesOrderLineNumber)	
SO43711	1	^{ABC} 7 (Length of SalesOrderNumber)	

^{ABC} SalesOrderNumber	¹²³ SalesOrderLineNumber	SalesOrderNumber - Copy
SO43697	1	SO43697
SO43698	1	SO43698
SO43699	1	SO43699
SO43700	1	SO43700
SO43701	1	SO43701
SO43702	1	SO43702
SO43703	1	SO43703
SO43704	1	SO43704
SO43705	1	SO43705
SO43706	1	SO43706
SO43707	1	SO43707
SO43708	1	SO43708
SO43709	1	SO43709
SO43710	1	SO43710

ABC SalesOrderNumber	123 SalesOrderLineNumber	14	Merged
SO43697		1	SO43697-SOLN1
SO43698		1	SO43698-SOLN1
SO43699		1	SO43699-SOLN1
SO43700		1	SO43700-SOLN1
SO43701		1	SO43701-SOLN1
SO43702		1	SO43702-SOLN1
SO43703		1	SO43703-SOLN1
SO43704		1	SO43704-SOLN1
SO43705		1	SO43705-SOLN1
SO43706		1	SO43706-SOLN1
SO43707		1	SO43707-SOLN1
SO43708		1	SO43708-SOLN1
SO43709		1	SO43709-SOLN1
SO43710		1	SO43710-SOLN1
SO43711		1	SO43711-SOLN1
SO43712		1	SO43712-SOLN1
SO43713		1	SO43713-SOLN1
SO43714		1	SO43714-SOLN1
SO43715		1	SO43715-SOLN1
SO43716		1	SO43716-SOLN1
SO43717		1	SO43717-SOLN1
SO43718		1	SO43718-SOLN1
SO43719		1	SO43719-SOLN1



Add Column From Examples



Enter sample values to create a new column (Ctrl+Enter to apply).

Transform: `Text.Combine({{SalesOrderNumber}, "-SOLN", Text.From({SalesOrderLineNumber}, "en-CH")})`

OK

Cancel

ABC SalesOrderFullCode
SO43697-SOLN1
SO43698-SOLN1
SO43699-SOLN1
SO43700-SOLN1
SO43701-SOLN1
SO43702-SOLN1
SO43703-SOLN1

□ ×

FactInternetSales.csv

File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrder
310	20101229	20110110	20110105	21768	1	19	6	SO43697
346	20101229	20110110	20110105	28389	1	39	7	SO43698
346	20101229	20110110	20110105	25863	1	100	1	SO43699
336	20101229	20110110	20110105	14501	1	100	4	SO43700
346	20101229	20110110	20110105	11003	1	6	9	SO43701
311	20101230	20110111	20110106	27645	1	100	4	SO43702
310	20101230	20110111	20110106	16624	1	6	9	SO43703
351	20101230	20110111	20110106	11005	1	6	9	SO43704
344	20101230	20110111	20110106	11011	1	6	9	SO43705
312	20101231	20110112	20110107	27621	1	100	4	SO43706
312	20101231	20110112	20110107	27616	1	100	4	SO43707
330	20101231	20110112	20110107	20042	1	98	10	SO43708
313	20101231	20110112	20110107	16351	1	6	9	SO43709
314	20101231	20110112	20110107	16517	1	6	9	SO43710
314	20110101	20110113	20110108	27606	1	100	1	SO43711
311	20110101	20110113	20110108	13513	1	29	8	SO43712
310	20110102	20110114	20110109	27601	1	100	4	SO43713
311	20110102	20110114	20110109	13591	1	98	10	SO43714
314	20110102	20110114	20110109	16483	1	6	9	SO43715
311	20110102	20110114	20110109	16529	1	6	9	SO43716

Extract Table Using Examples | Load | Transform Data | Cancel

File Home Transform Add Column View Tools Help

Column From Examples Custom Column Invoke Custom Function General

Conditional Column Index Column Duplicate Column

Format From Text Merge Columns Extract Parse



Add Conditional Column

Add a conditional column that is computed from the other columns or values.

New column name

Custom

	Column Name	Operator	Value		Output
If			ABC 123	Then	ABC 123

Add Clause

Else

ABC 123

OK Cancel

Add Conditional Column

Add a conditional column that is computed from

New column name

PriceLevel

	Column Name	Operator
If	UnitPrice	equals
Add Clause	ProductKey	
	OrderDateKey	
	DueDateKey	
	ShipDateKey	
	CustomerKey	
	PromotionKey	
	CurrencyKey	
	SalesTerritoryKey	
	SalesOrderNumber	
	SalesOrderLineNumber	
	RevisionNumber	
	OrderQuantity	
	UnitPrice	
	ExtendedAmount	

	Column Name	Operator	Value		Output
If	UnitPrice	is greater than	ABC 123 3000	Then	ABC 123 High

Add Conditional Column

Add a conditional column that is computed from the other columns or values.

New column name

	Column Name	Operator	Value		Output
If	UnitPrice	is greater than	3000	Then	High
Else If	UnitPrice	is greater than	2000	Then	Medium-High
Else If	UnitPrice	is greater than	1000	Then	Medium

Else

ABC 123 PriceLevel
High
High
High
Low
High
High
High
High
High
High
High
Low
High
High
High
High

Add Conditional Column

Add a conditional column that is computed from the other columns or values.

New column name

PriceLevel

	Column Name	Operator	Value ⓘ		Output ⓘ	
If	UnitPrice	is less than	ABC 123 1000	Then	ABC 123 Low	...
Else If	UnitPrice	is less than	ABC 123 2000	Then	ABC 123 Medium	
Else If	UnitPrice	is less than	ABC 123 3000	Then	ABC 123 Medium-High	

Add Clause

Else ⓘ

ABC 123 High

OK Cancel

Value ⓘ

ABC 123

- ABC 123 Enter a value
- Select a column
- Parameter

FactInternetSales.csv



File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderKey
310	20101229	20110110	20110105	21768	1	19	6	SO43697
346	20101229	20110110	20110105	28389	1	39	7	SO43698
346	20101229	20110110	20110105	25863	1	100	1	SO43699
336	20101229	20110110	20110105	14501	1	100	4	SO43700
346	20101229	20110110	20110105	11003	1	6	9	SO43701
311	20101230	20110111	20110106	27645	1	100	4	SO43702
310	20101230	20110111	20110106	16624	1	6	9	SO43703
351	20101230	20110111	20110106	11005	1	6	9	SO43704
344	20101230	20110111	20110106	11011	1	6	9	SO43705
312	20101231	20110112	20110107	27621	1	100	4	SO43706
312	20101231	20110112	20110107	27616	1	100	4	SO43707
330	20101231	20110112	20110107	20042	1	98	10	SO43708
313	20101231	20110112	20110107	16351	1	6	9	SO43709
314	20101231	20110112	20110107	16517	1	6	9	SO43710
314	20110101	20110113	20110108	27606	1	100	1	SO43711
311	20110101	20110113	20110108	13513	1	29	8	SO43712
310	20110102	20110114	20110109	27601	1	100	4	SO43713
311	20110102	20110114	20110109	13591	1	98	10	SO43714
314	20110102	20110114	20110109	16483	1	6	9	SO43715
311	20110102	20110114	20110109	16529	1	6	9	SO43716

Extract Table Using Examples Load Transform Data Cancel

File Home Transform **Add Column** View Tools Help

- Column From Examples
- Custom Column
- Invoke Custom Function
- General
 - Conditional Column
 - Index Column
 - Duplicate Column
- Format
- From Text
 - Merge Columns
 - Extract
 - Parse

Custom Column

Add a column that...

New column name:

Custom column formula:

Duration.Days(duration as nullable duration)
nullable duration
Returns the days part of this duration.

Available columns:
TaxAmt
Freight
CarrierTrackingNumber
CustomerPONumber
OrderDate
DueDate
ShipDate

<< Insert

[Learn about Power Query formulas](#)

New column name

Custom column formula ⓘ

[Learn about Power Query formulas](#)

! Token RightParen expected. [Show error](#)

Custom Column

Add a column that is computed from the other columns.

New column name

NrShippingDays

Custom column formula ⓘ

= Duration.Days([ShipDate]-[OrderDate])

Available columns

TaxAmt
Freight
CarrierTrackingNumber
CustomerPONumber
OrderDate
DueDate
ShipDate

<< Insert

[Learn about Power Query formulas](#)

✓ No syntax errors have been detected.

OK

Cancel

OrderDate	DueDate	ShipDate	ABC 123 NrShippingDays
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	7
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	7
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	7
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	7
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	7
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	7
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	7
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	7
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	7
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	7
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	7
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	7

Custom Column

Add a column that is computed from the other columns.

New column name

NrShippingDays

Custom column formula ⓘ

= Duration.Days(DateTime.LocalNow()-[OrderDate])

Available columns

ProductKey
OrderDateKey
DueDateKey
ShipDateKey
CustomerKey
PromotionKey
CurrencyKey

<< Insert

[Learn about Power Query formulas](#)

✓ No syntax errors have been detected.

OK

Cancel

OrderDate	DueDate	ShipDate	ABC 123 DaysFromCurrentDate
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	3824
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	3824
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	3824
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	3824
29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00	3824
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	3823
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	3823
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	3823
30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00	3823
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	3822
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	3822
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	3822
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	3822
31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00	3822
01/01/2011 00:00:00	13/01/2011 00:00:00	08/01/2011 00:00:00	3821
01/01/2011 00:00:00	13/01/2011 00:00:00	08/01/2011 00:00:00	3821
02/01/2011 00:00:00	14/01/2011 00:00:00	09/01/2011 00:00:00	3820

FactResellerSales.csv



File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

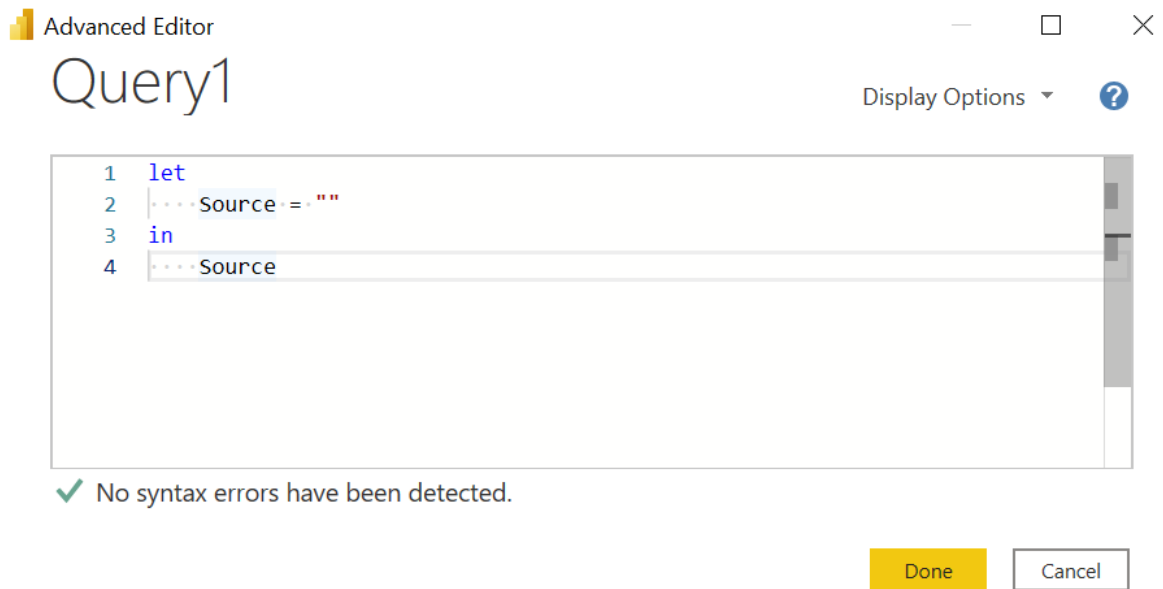
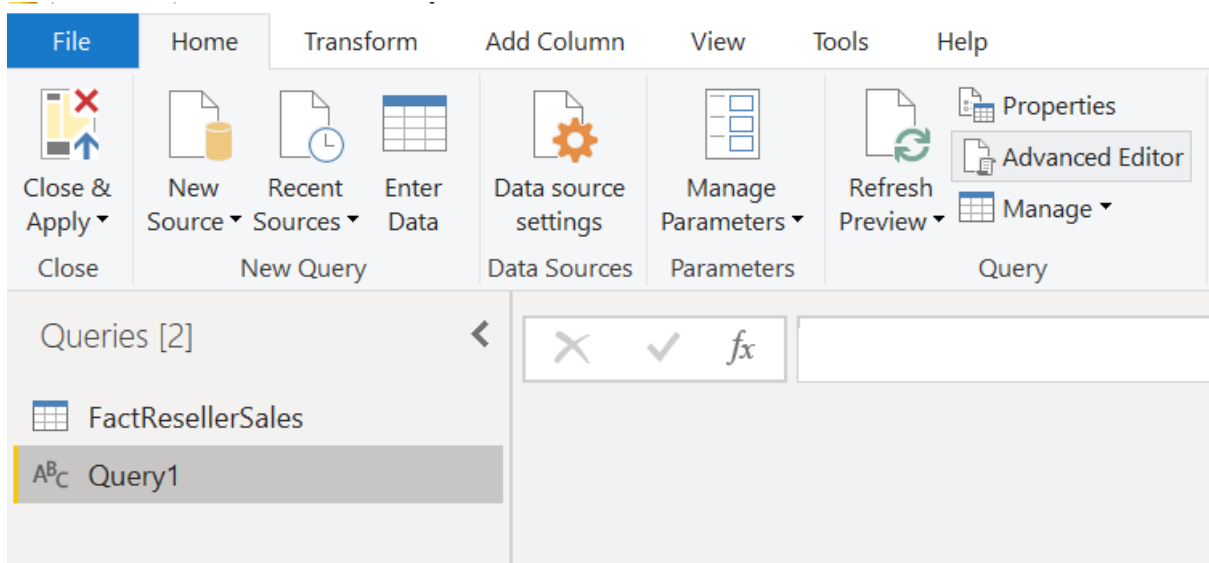
ProductKey	OrderDateKey	DueDateKey	ShipDateKey	ResellerKey	EmployeeKey	PromotionKey	CurrencyKey	SalesTerritoryKey
349	20101229	20110110	20110105	676	285	1	100	
350	20101229	20110110	20110105	676	285	1	100	
351	20101229	20110110	20110105	676	285	1	100	
344	20101229	20110110	20110105	676	285	1	100	
345	20101229	20110110	20110105	676	285	1	100	
346	20101229	20110110	20110105	676	285	1	100	
347	20101229	20110110	20110105	676	285	1	100	
229	20101229	20110110	20110105	676	285	1	100	
235	20101229	20110110	20110105	676	285	1	100	
218	20101229	20110110	20110105	676	285	1	100	
223	20101229	20110110	20110105	676	285	1	100	
220	20101229	20110110	20110105	676	285	1	100	
326	20101229	20110110	20110105	117	285	1	100	
319	20101229	20110110	20110105	117	285	1	100	
300	20101229	20110110	20110105	442	288	1	19	
296	20101229	20110110	20110105	442	288	1	19	
304	20101229	20110110	20110105	442	288	1	19	
223	20101229	20110110	20110105	442	288	1	19	
232	20101229	20110110	20110105	442	288	1	19	
293	20101229	20110110	20110105	442	288	1	19	

Extract Table Using Examples | Load | Transform Data | Cancel

Queries [1] <

FactResellerSales

- Paste
- New Query
 - Excel
 - SQL Server
 - Analysis Services
 - Text/CSV
 - Web
 - OData feed
 - Blank Query
 - More...
 - Combine
 - Recent Sources
- New Parameter...
- New Group...
- Expand All
- Collapse All



Queries [2] <

FactResellerSales

fx Query1

fx = (OldSalesAmount as number, Discount as number, TotalCosts as number) =>

Enter Parameters

OldSalesAmount
Example: 123

Discount
Example: 123

TotalCosts
Example: 123

Invoke Clear

function (OldSalesAmount as number, Discount as number, TotalCosts as number) as any

Enter Parameters

OldSalesAmount
5

Discount
0,1

TotalCosts
3

Invoke Clear

Queries [3] <

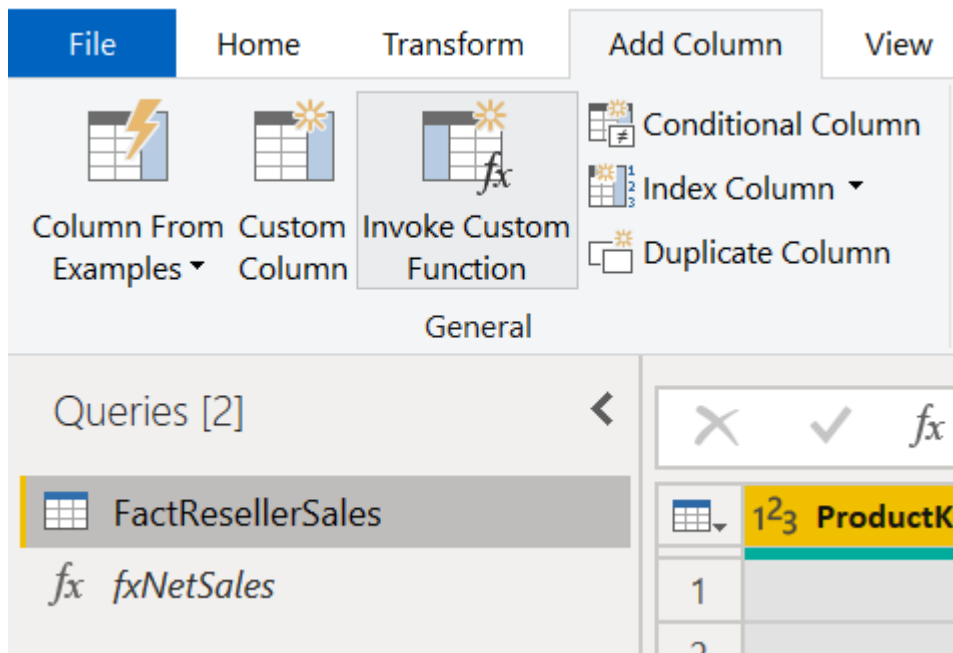
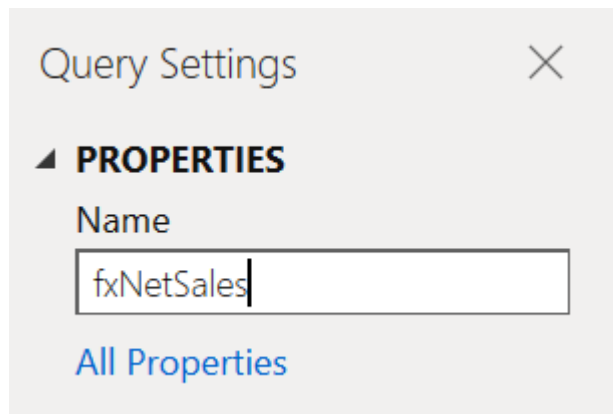
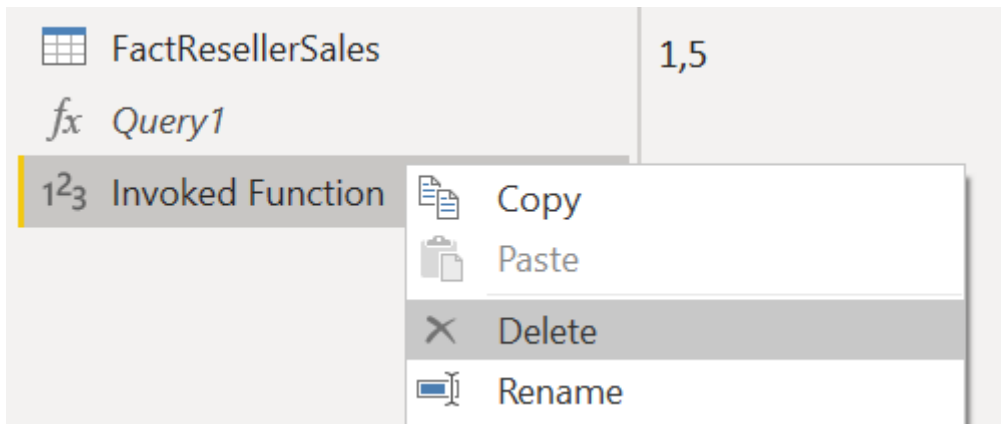
FactResellerSales

fx Query1

123 Invoked Function

fx = Query1(5, 0.1, 3)

1,5



Invoke Custom Function



Invoke a custom function defined in this file for each row.

New column name

Function query

OK

Cancel

Invoke Custom Function



Invoke a custom function defined in this file for each row.

New column name

Function query

OldSalesAmount

Discount

TotalCosts

1.2 Decimal Number

Column Name

OK

Cancel

TotalCosts

- TotalProductCost
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost



Invoke Custom Function

Invoke a custom function defined in this file for each row.

New column name

Function query

OldSalesAmount

Discount

TotalCosts

	ShipDate	NetSales
01/2011 00:00:00	05/01/2011 00:00:00	1049,1488
01/2011 00:00:00	05/01/2011 00:00:00	1147,8366
01/2011 00:00:00	05/01/2011 00:00:00	1147,8366
01/2011 00:00:00	05/01/2011 00:00:00	216,04208
01/2011 00:00:00	05/01/2011 00:00:00	1147,8366
01/2011 00:00:00	06/01/2011 00:00:00	1049,1488
01/2011 00:00:00	06/01/2011 00:00:00	1049,1488
01/2011 00:00:00	06/01/2011 00:00:00	1139,3966
01/2011 00:00:00	06/01/2011 00:00:00	1147,8366
01/2011 00:00:00	07/01/2011 00:00:00	1049,1488
01/2011 00:00:00	07/01/2011 00:00:00	1049,1488
01/2011 00:00:00	07/01/2011 00:00:00	216,04208

Query Settings

PROPERTIES

Name: FactInternetSales

[All Properties](#)

APPLIED STEPS

- Source
- Promoted Headers
- Changed Type
- Invoked Custom Function**

- ☰
- 🏠 Home
- ☆ Favorites >
- 🕒 Recent >
- + Create
- 📁 Datasets
- 🗃️ Apps
- 👤 Shared with me
- 🚀 Deployment pipelines
- 📖 Learn
- 📄 Workspaces >
- 👤 PowerQuery Cook... ▾



PowerQuery Cookbook

+ New ▾

🚀 Create a pipeline

- 📊 Report
Visualize your data
- 📄 Paginated Report
Build a paginated report
- 🕒 Dashboard
Build a single-page data story
- 📁 Dataset
Create a dataset to use in a report
- 🔗 Dataflow
Prep, clean, and transform data
- 📄 Streaming dataset
Build visuals from real-time data
- 📄 Upload a file
Open a .pbix, .rdl, .xlsx, or .csv in Po...

Define new tables

Choose a data source to define the tables for your dataflow. You can map your data to [standard Common Data Model](#) tables, or define custom tables instead. [Learn more](#)

Add new tables

Power Query - Connect to data source

Web API
Other
[Learn more](#)

Connection settings

URL *

Query-Cookbook-/main/Chapter08/SalesData.csv

Connection credentials

Data gateway

(none)

Authentication kind

Anonymous

Back

Cancel

Next

Power Query - Preview file data

https://raw.githubusercontent.com/andreajanicijevic/Power-Query-Cookbook-/main/Chapter08/SalesData.csv

File origin

65001: Unicode (UTF-8)

Delimiter

Comma

Data type detection

Based on first 200 rows

ABC SalesID	123 Amount	ABC Country
402A	20000	United States
403A	40000	Spain
404B	12000	spain
405A	5000	United States
310A	1200	italiy
250B	15000	germani
295C	11000	Italy
349B	9000	United Stated of America
271A	2500	Germany
302A	20000	United States
473A	40000	Spain
404C	12000	spainn
455A	5000	United States of america
710A	1200	Italy
255B	15000	Germany
895C	11000	Italy
347B	9000	unitedd states of Ameri...
271C	2500	Germany

Back

Cancel

Transform data

Home Transform **Add column** View Help

Column from examples Custom column Invoke custom function Conditional column Index column Duplicate column Format Merge columns Cluster values Statistics Standard Scientific

Queries [1]

Query

ABC SalesID	123 Amount	ABC Country

Create a new column that contains canonical values clustering similar values in the selected column.

Cluster values



Specify the column to create the clusters from.

Column

New column name

✓ Fuzzy cluster options

Similarity threshold (optional) ⓘ

- Ignore case
- Group by combining text parts ⓘ
- Show similarity scores ⓘ

Transformation table (optional) ⓘ

OK

Cancel

	ABC SalesID	123 Amount	ABC Country	ABC Country_corrected	1.2 Country_Country_corrected_Similarity
1	402A	20000	United States	United States	1
2	403A	40000	Spain	Spain	1
3	404B	12000	spain	Spain	1
4	405A	5000	United States	United States	1
5	310A	1200	italiy	Italy	0.94
6	250B	15000	germani	Germany	0.95
7	295C	11000	Italy	Italy	1
8	349B	9000	United State of America	United States	0.77
9	271A	2500	Germany	Germany	1
10	302A	20000	United States	United States	1
11	473A	40000	Spain	Spain	1
12	404C	12000	spainn	Spain	0.93
13	455A	5000	United States of america	United States	0.77
14	710A	1200	Italy	Italy	1
15	255B	15000	Germany	Germany	1
16	895C	11000	Italy	Italy	1
17	347B	9000	unitedd states of Ameri...	United States	0.77
18	271C	2500	Germany	Germany	1

Query settings >

Properties










Name

Query

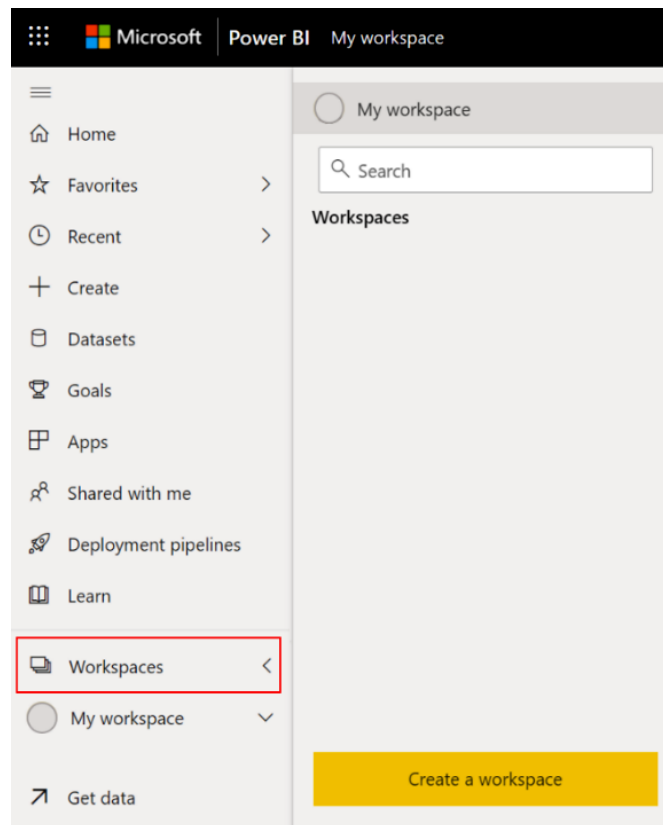
Entity type ⓘ

Custom

Applied steps


-  Source 
-  Promoted he... 
-  ABC 123 Changed colu... 
-  Clustered val...  

Chapter 9: Performance Tuning with Power BI Dataflows



Create a workspace

Workspace image

 Upload
Delete

Workspace name

Power Query Cookbook

Available

Description

Describe this workspace

[Learn more about workspace settings](#)

Advanced ▾

Save Cancel

Advanced ^

Contact list

Workspace admins

Specific users and groups

Enter users and groups

Workspace OneDrive

(Optional)

License mode ⓘ

Pro

Premium per user

Premium per capacity

Embedded ⓘ


Microsoft | Power BI | Power Query Cookbook

Search

Power Query Cookbook

Create app

+ New | Create a pipeline | View | Filters | Settings | Access | Search



Add content to this workspace

Save reports, dashboards, datasets, and workbooks to this workspace by making something new or uploading existing files.


Add content

- Home
- Favorites
- Recent
- Create
- Datasets
- Goals
- Apps
- Shared with me
- Deployment pipelines
- Learn
- Workspaces
- Power Query Cook...
- Get data



Power Query Cookbook

+ New ▾

 Create a pipeline



Report
Visualize your data



Paginated Report
Build a paginated report



Dashboard
Build a single-page data story



Dataset
Create a dataset to use in a report



Dataflow
Prep, clean, and transform data



Streaming dataset
Build visuals from real-time data



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Attach a Common Data Model folder from your Azure Data Lake Storage Gen2 account to a new dataflow, so you can use it in Power BI. [Learn more](#)

Create and attach

Power Query - Connect to data source

Web API
Other
[Learn more](#)

Connection settings

URL *

book-/blob/main/Chapter09/FactInternetSales.csv

Connection credentials

Data gateway

(none)

Authentication kind

Anonymous

Back

Cancel

Next

Power Query - Preview file data

https://raw.githubusercontent.com/andreajanicijevic/Power-Query-Cookbook-/main/Chapter09/FactInternetSales.csv

File origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data type detection: Based on first 200 rows

ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNu
310	20101229	20110110	20110105	21768	1	19	6	SO43697	
346	20101229	20110110	20110105	28389	1	39	7	SO43698	
346	20101229	20110110	20110105	25863	1	100	7	SO43699	
336	20101229	20110110	20110105	14501	1	100	4	SO43700	
346	20101229	20110110	20110105	11003	1	6	9	SO43701	
311	20101230	20110111	20110106	27645	1	100	4	SO43702	
310	20101230	20110111	20110106	16624	1	6	9	SO43703	
351	20101230	20110111	20110106	11005	1	6	9	SO43704	
344	20101230	20110111	20110106	11011	1	6	9	SO43705	
312	20101231	20110112	20110107	27621	1	100	4	SO43706	
312	20101231	20110112	20110107	27616	1	100	4	SO43707	
330	20101231	20110112	20110107	20042	1	98	10	SO43708	
313	20101231	20110112	20110107	16351	1	6	9	SO43709	

Back

Cancel

Transform data

Power Query - Edit queries

Home Transform Add column View Help

Get data Enter data Options Manage parameters Refresh Properties Advanced editor Choose columns Remove columns Keep rows Remove rows Sort Transform Combine Map to entity AI insights

Queries [1] Query

Table.TransformColumnTypes(#"Promoted headers", {"ProductKey", Int64.Type}, {"OrderDateKey", ...})

	ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey
1	310	20101229	20110110	20110105	21768	1	19
2	346	20101229	20110110	20110105	28389	1	39
3	346	20101229	20110110	20110105	25863	1	100
4	336	20101229	20110110	20110105	14501	1	100
5	346	20101229	20110110	20110105	11003	1	6
6	311	20101230	20110111	20110106	27645	1	100
7	310	20101230	20110111	20110106	16624	1	6
8	351	20101230	20110111	20110106	11005	1	6
9	344	20101230	20110111	20110106	11011	1	6
10	312	20101231	20110112	20110107	27621	1	100
11	312	20101231	20110112	20110107	27616	1	100
12	330	20101231	20110112	20110107	20042	1	98
13	313	20101231	20110112	20110107	16351	1	6
14	314	20101231	20110112	20110107	16517	1	6
15	314	20110101	20110113	20110108	27606	1	6
16	311	20110101	20110113	20110108	13513	1	6
17	310	20110102	20110114	20110109	27601	1	6
18							

Completed (1.28 s) Columns: 26 Rows: 99+

Cancel Save & close

Query settings >

Properties

Name

SalesData

Entity type ⓘ

Custom

Applied steps

- Source
- Promoted he...
- Changed colu...

Step

Cancel Save & close

Save your dataflow

Name *




Sales

Description

Save

Cancel

Tables Machine learning models Edit tables Add tables Close

TABLE NAME	TABLE TYPE	ACTIONS
SalesData	Custom	   

Edit tables Add tables Close



Power Query Cookbook

Create app




+ New Create a pipeline View Filters Settings Access Search

All Content Datasets + dataflows

Name	Type	Owner	Refreshed	Next refresh
Sales	Dataflow	Andrea Janicijevic	—	N/A

Name	Type
Sales	Dataflow

Query settings >

- Properties
 - Name
 - Entity type ⓘ
 - Custom
- Applied steps
 - Source 
 - Promoted he... 
 - Changed colu... 

Home Transform Add column View Help

Get data Enter data Options Manage parameters Refresh Properties Advanced editor Manage Choose columns Remove columns Keep rows

New query Options Parameters Query Keep or remove columns from this table. Redu

Cost 1.2 SalesAmount OrderDate

- 1.2 Decimal number
- \$ Currency
- 1²/₃ Whole number
- % Percentage
- Date/Time
- Date
- Time
- Date/Time/Zone

Step

Cancel Save & close

Edit tables Add tables Close



Power Query Cookbook

+ New ∨ Create a pipeline

All Content Datasets + dataflows

	Name		Type
	Sales		Dataflow

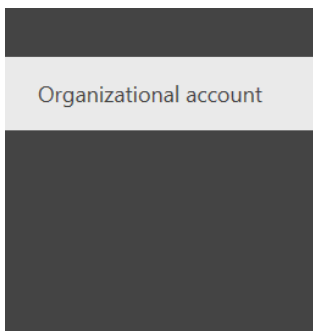
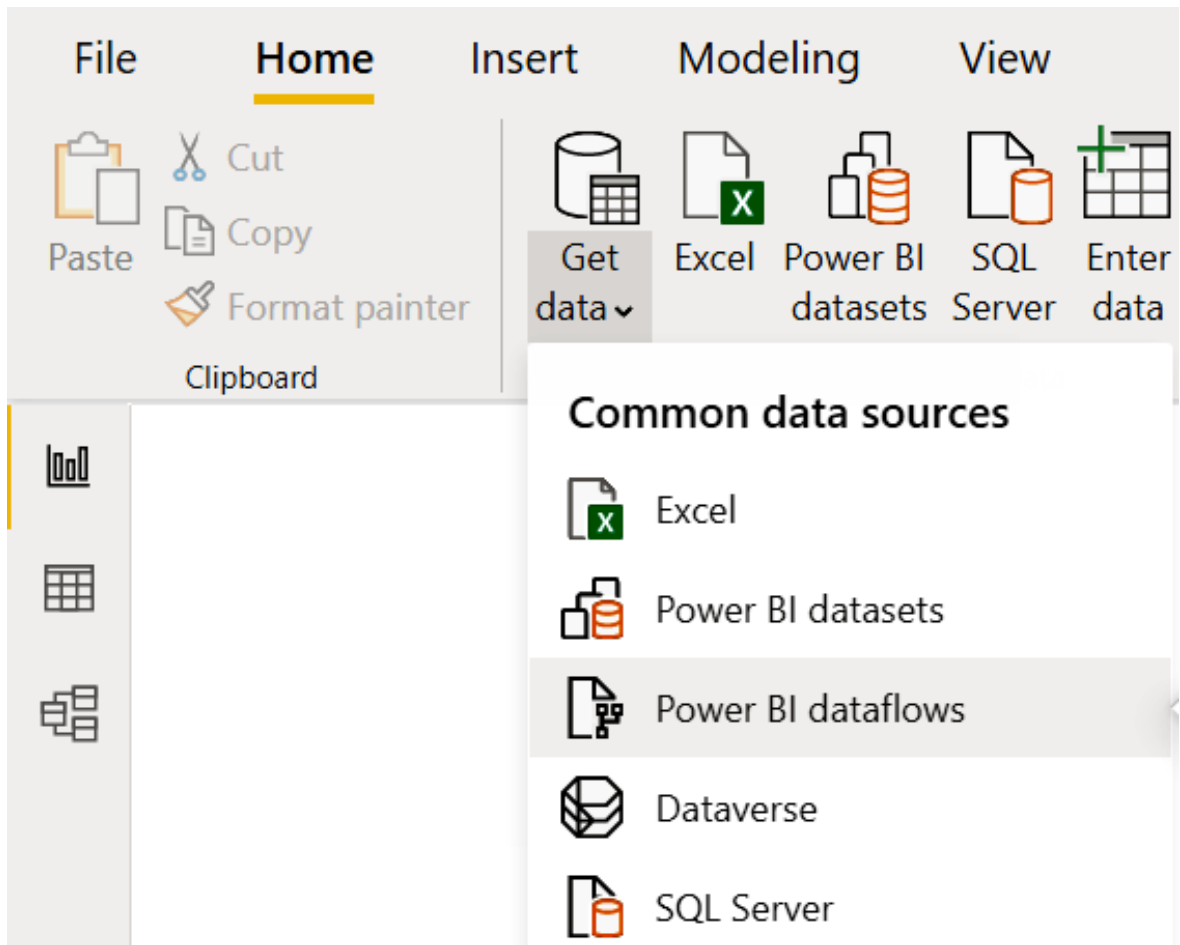


Power Query Cookbook


+ New ∨ Create a pipeline

All Content Datasets + dataflows

	Name	Type
	DimProduct	Dataflow
	DimTerritory	Dataflow
	Sales	Dataflow



Power BI dataflows ✕

 Power BI dataflows

You aren't signed in.

Navigator



Display Options ▾

- ▲ Power BI dataflows [18]
 - AI in Power BI
 - AJ2
 - [Redacted]
 - [Redacted]
 - [Redacted]
 - [Redacted]
 - [Redacted]
 - [Redacted]
 - [Redacted]
 - [Redacted]
 - [Redacted]
 - [Redacted]
- ▲ Power Query Cookbook [3]
 - ▲ DimProduct [1]
 - DimProduct
 - ▲ DimTerritory [1]
 - DimTerritory
 - ▲ Sales [1]
 - InternetSales
 - [Redacted]
 - [Redacted]

InternetSales



ProductKey	OrderDateKey	SalesTerritoryKey	OrderQuantity	TotalProductCost
310	20101229		6	1
346	20101229		7	1
346	20101229		1	1
336	20101229		4	1
346	20101229		9	1
311	20101230		4	1
310	20101230		9	1
351	20101230		9	1
344	20101230		9	1
312	20101231		4	1
312	20101231		4	1
330	20101231		10	1
313	20101231		9	1
314	20101231		9	1
314	20110101		1	1
311	20110101		8	1
310	20110102		4	1
311	20110102		10	1
314	20110102		9	1
311	20110102		9	1
336	20110102		9	1
311	20110103		1	1
312	20110103		4	1

File
Home

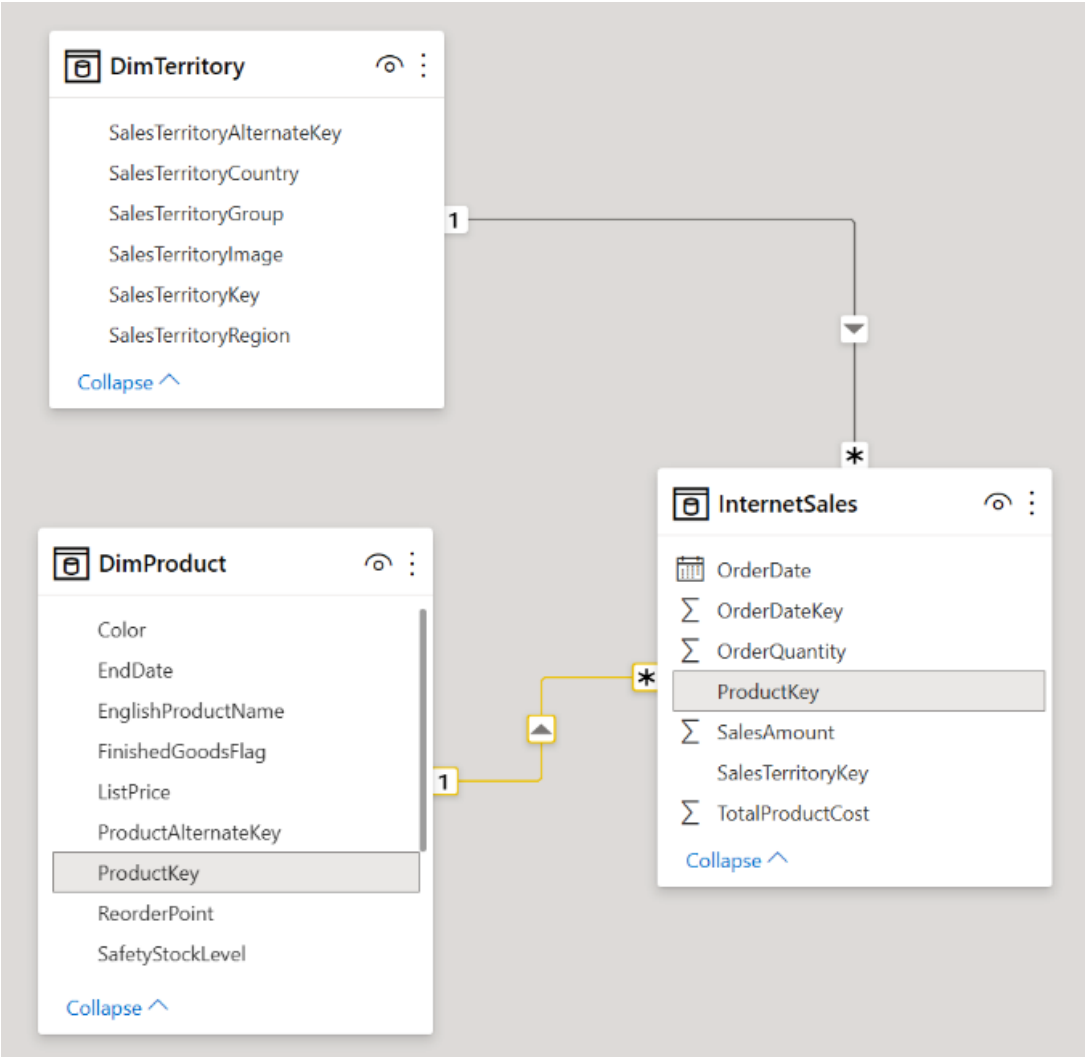
Paste

Cut

Copy

Get data ▾

Clipboard



SalesTerritoryCountry	SalesAmount
Australia	177,537.50
Canada	14,313.08
France	36,100.24
Germany	32,026.15
United Kingdom	33,221.07
United States	102,745.65
Total	395,943.68

Visualizations

Filters

Values

- SalesTerritoryCountry
- SalesAmount

Drill through

Cross-report

Off

Keep all filters

On

Add drill-through fields here

Fields

Search

- DimProduct
- DimTerritory
 - SalesTerritoryAlternateKey
 - SalesTerritoryCountry
 - SalesTerritoryGroup
 - SalesTerritoryImage
 - SalesTerritoryKey
 - SalesTerritoryRegion
- InternetSales
 - OrderDate
 - OrderDateKey
 - OrderQuantity
 - ProductKey
 - SalesAmount
 - SalesTerritoryKey
 - TotalProductCost

Sensitivity (preview)

- Non-Business
- Public
- General
- Confidential >
- Highly Confidential >
- [Learn more](#)

Publish

Quick measure

Sensitivity (preview)

Publish

Publish this report online in the Power BI service.



Publish to Power BI

Select a destination

Power Query Cookbook

Select Cancel

- Home
- Favorites
- Recent
- Create
- Datasets
- Goals
- Apps
- Shared with me
- Deployment pipelines
- Learn
- Workspaces
- Power Query Cook...

Power Query Cookbook

+ New Create a pipeline

All Content Datasets + dataflows

Name	Type
DimProduct	Dataflow
DimTerritory	Dataflow
Power Query Cookbook CH9	Report
Power Query Cookbook CH9	Dataset
Sales	Dataflow

- Home
- Favorites
- Recent
- Create

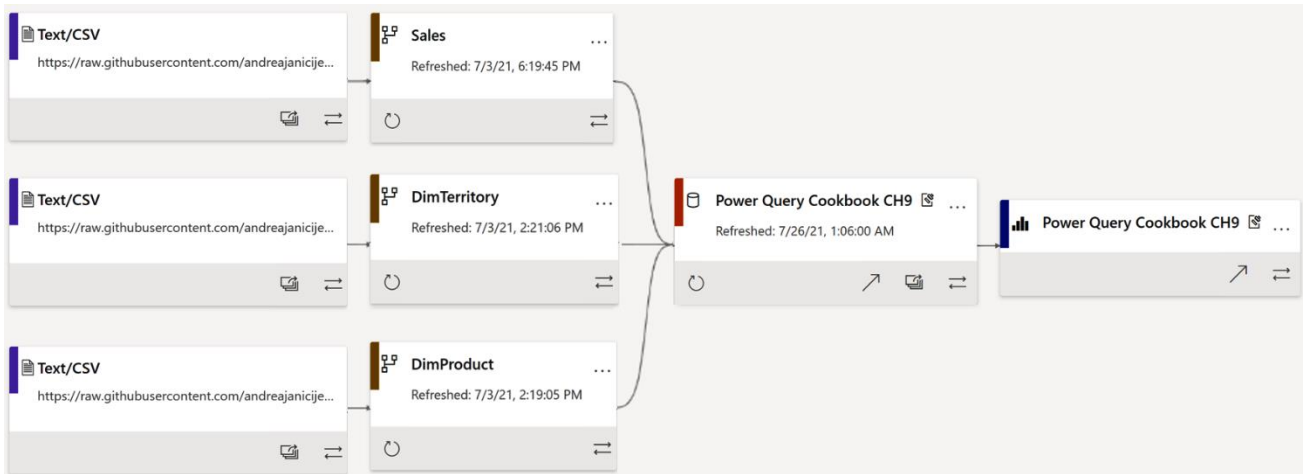
Power Query Cookbook


+ New Create a pipeline


All Content Datasets + dataflows

View Filters





- List
- Lineage





 **Power Query Cookbook**




+ New  Create a pipeline

All Content Datasets + dataflows

	Name	Type
	DimProduct	Dataflow
	DimTerritory	Dataflow
	Sales	Dataflow

 **Power Query Cookbook**

+ New  Create a pipeline

≡ View  Filters  Settings  Access

Settings

Power Query Cookbook

About

Premium

Azure connections

License mode ⓘ

- Pro
- Premium per user
- Premium per capacity
- Embedded ⓘ

Default storage format

Small dataset storage format ▾

[Learn more about dataset storage formats](#)

Workspace Connection

powerbi://api.powerbi.com/v1.0/myorg/Power Query Cookbook

Copy

Delete workspace

Save

Cancel

BI Power Query Cookbook

Power BI Premium Per User content



Power Query Cookbook

+ New ▾ Create a pipeline

+ New ∨  Create a pipeline

All Content Datasets + dataflc



Name



DimProduct



DimTerritory

Sales














Sales

Tables Machine learning models Edit tables Add tables ∨ Close

TABLE NAME	TABLE TYPE	ACTIONS
 InternetSales	Custom	   

Home Transform Add column View Help

 Get data ∨  Enter data ∨  Options ∨  Manage parameters ∨  Refresh ∨  Properties  Advanced editor  Manage ∨  Choose columns ∨  Remove columns ∨  Keep rows ∨

New query Options Parameters Query Keep or remove columns from this table.

Cost	SalesAmount	OrderDate
1.2	Decimal number	12/2010
\$	Currency	12/2010
1 ² ₃	Whole number	12/2010
%	Percentage	12/2010
	Date/Time	12/2010
	Date	12/2010
	Time	12/2010
	Date/Time/Zone	12/2010
	Duration	12/2010
ABC	Text	12/2010
	True/False	12/2010
010 101	Binary	12/2010
ABC 123	Any	01/2011
ABC 123	Using locale...	01/2011
12340562	14294086	02/01/2011

Change column type with locale

Change the data type and select the locale of origin.

Data type

Date

Locale

English (United Kingdom)

Sample input values:

29/03/2020

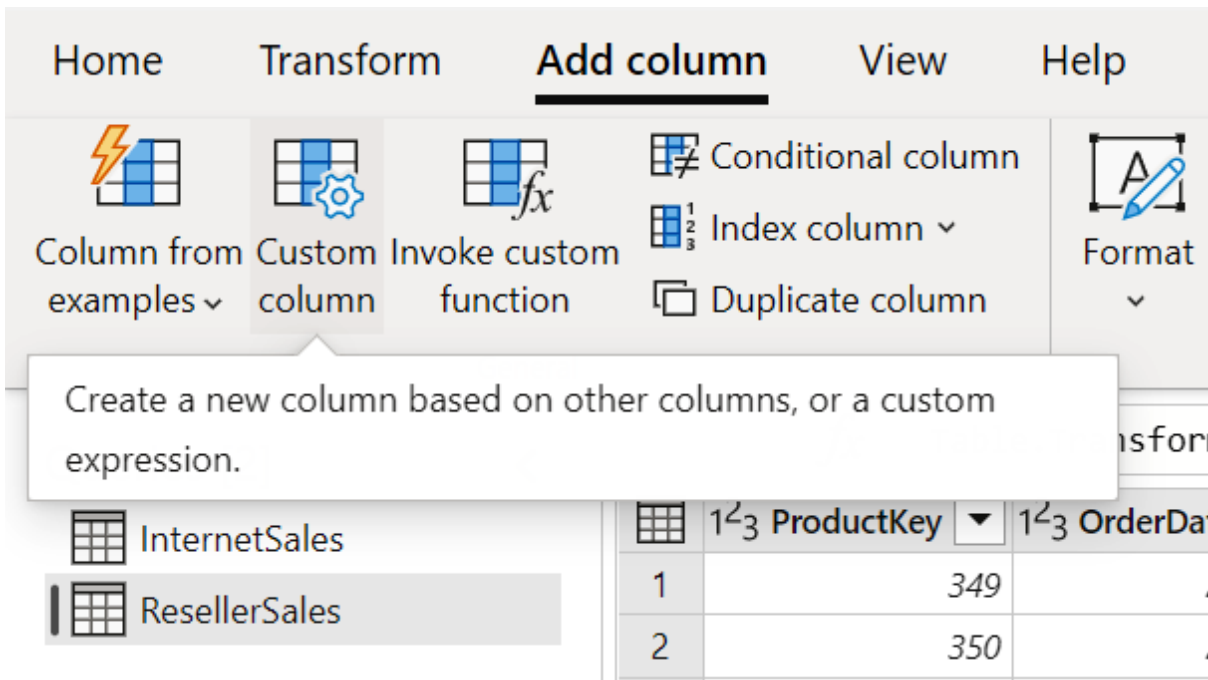
29 March 2020

29 March

March 2020

OK

Cancel



Custom column ?

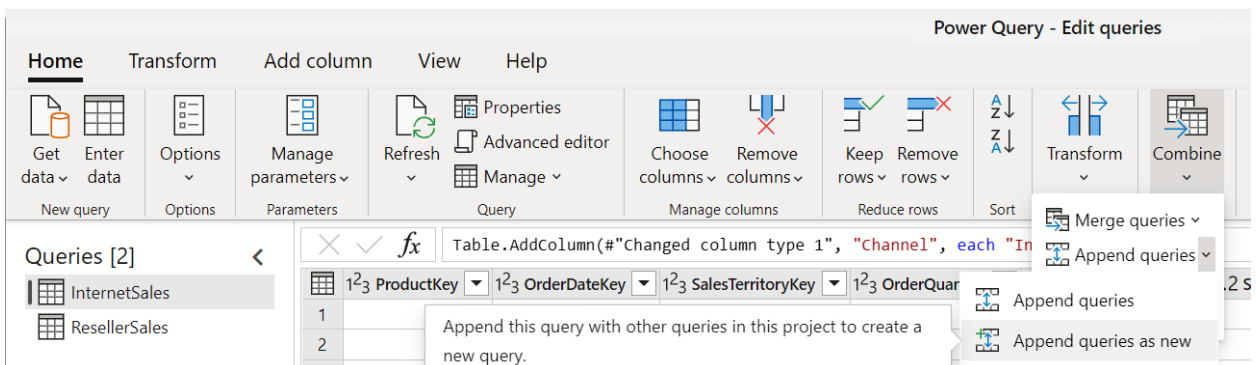
Add a column that is computed from other columns or values.

New column name

Custom column formula ⓘ

Available column(s)
 ProductKey
 OrderDateKey
 SalesTerritoryKey
 OrderQuantity
 TotalProductCost
 SalesAmount

[Learn more about Power Query formulas](#)



Append



Concatenate rows from two tables into a single table.

Two tables Three or more tables

First table

Second table

OK

Cancel

Queries [3] <

- InternetSales
- ResellerSales
- Append

Table.Combine({InternetSales, ResellerSales})

⚠ The evaluation was cancelled because combining data from multiple sources may reveal data from one source to another. Click Continue if the possibility of revealing data is okay.

Continue








Queries [3] <

- InternetSales
- ResellerSales
- Append



Power Query Cookbook

+ New ▾  Create a pipeline

-  **Report**
Visualize your data
-  **Paginated Report**
Build a paginated report
-  **Scorecard**
Track related goals together
-  **Dashboard**
Build a single-page data story
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Create and attach

Power Query - Connect to data source

Power BI dataflows
Power Platform

Connection credentials

Data gateway
(none)

Authentication kind
Organizational account

You are not signed in. Please sign in.

Sign in

Back Cancel Next

Power Query - Choose data

Search

Display options

- Power Query Cookbook [3]
 - DimProduct
 - DimTerritory [1]
 - DimTerritory
 - Sales [3]
 - InternetSales
 - ResellerSales
 - TotalSales

TotalSales

1 ² 3 ProductKey	1 ² 3 OrderDateKey	1 ² 3 SalesTerritoryKey	1 ² 3 OrderQuantity	1.2 TotalProductCost	1.2 Sale
310	20101229	6	1	2171.294	
346	20101229	7	1	1912.154	
346	20101229	1	1	1912.154	
336	20101229	4	1	413.146	
346	20101229	9	1	1912.154	
311	20101230	4	1	2171.294	
310	20101230	9	1	2171.294	
351	20101230	9	1	1898.094	
344	20101230	9	1	1912.154	
312	20101231	4	1	2171.294	
312	20101231	4	1	2171.294	
330	20101231	10	1	413.146	
313	20101231	9	1	2171.294	
314	20101231	9	1	2171.294	

Back Cancel Transform data

Queries [2] <

- DimTerritory
- TotalSales

Keep Remove Sort Split Group Data type: Whole number Merge queries

Merge queries Merge queries as new

Merge this query into another query in this project to create a new query.

Merge



Select tables and matching columns to create a merged table.

Left table for merge



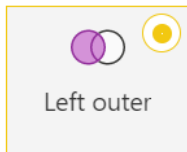
1 ² 3 SalesTerritoryKey	1 ² 3 SalesTerritoryAlternateKey	A ^B C SalesTerritoryRegion	A ^B C SalesTerritoryCountry	A ^B C SalesTerritory
1		Northwest	United States	North An
2		Northeast	United States	North An
3		Central	United States	North An
4		Southwest	United States	North An

Right table for merge



1 ² 3 ProductKey	1 ² 3 OrderDateKey	1 ² 3 SalesTerritoryKey	1 ² 3 OrderQuantity	1.2 TotalProductCost	1.2 SalesAmount
310	20101229	6	1	2171.294	3578.4
346	20101229	7	1	1912.154	3399.1
346	20101229	1	1	1912.154	3399.1
336	20101229	4	1	413.146	699.0

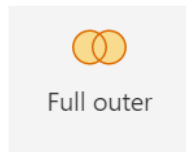
Join kind



Left outer



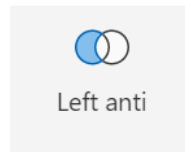
Right outer



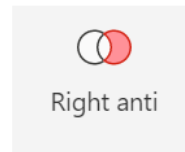
Full outer



Inner



Left anti



Right anti

Use fuzzy matching to perform the merge

> Fuzzy matching options

Estimating matches based on data previews

OK

Cancel

Queries [3]



DimTerritory



TotalSales



Merge

TerritoryCountry ▾ A^BC SalesTerritoryGroup ▾ TotalSales

🔍 Search

- (Select all)
- ProductKey
- OrderDateKey
- SalesTerritoryKey
- OrderQuantity
- TotalProductCost
- SalesAmount
- OrderDate
- Channel

Use original column name as prefix

OK

Queries [3] <

- DimTerritory
- TotalSales
- Merge

Table.RemoveColumns(#"Expanded Totalsales", {"SalesTerritoryImage"})

yRegion	A ^B C SalesTerritoryCountry	A ^B C SalesTerritoryGroup	1.2 TotalProductCost	1.2 SalesAmount
1	United States	North America	1912.154	3399.99
2	Canada	North America	2171.294	3578.27
3	France	Europe	1912.154	3399.99
4	United States	North America	413.146	699.098
5	United States	North America	2171.294	3578.27
6	United States	North America	2171.294	3578.27
7	United States	North America	2171.294	3578.27
8	Australia	Pacific	1912.154	3399.99

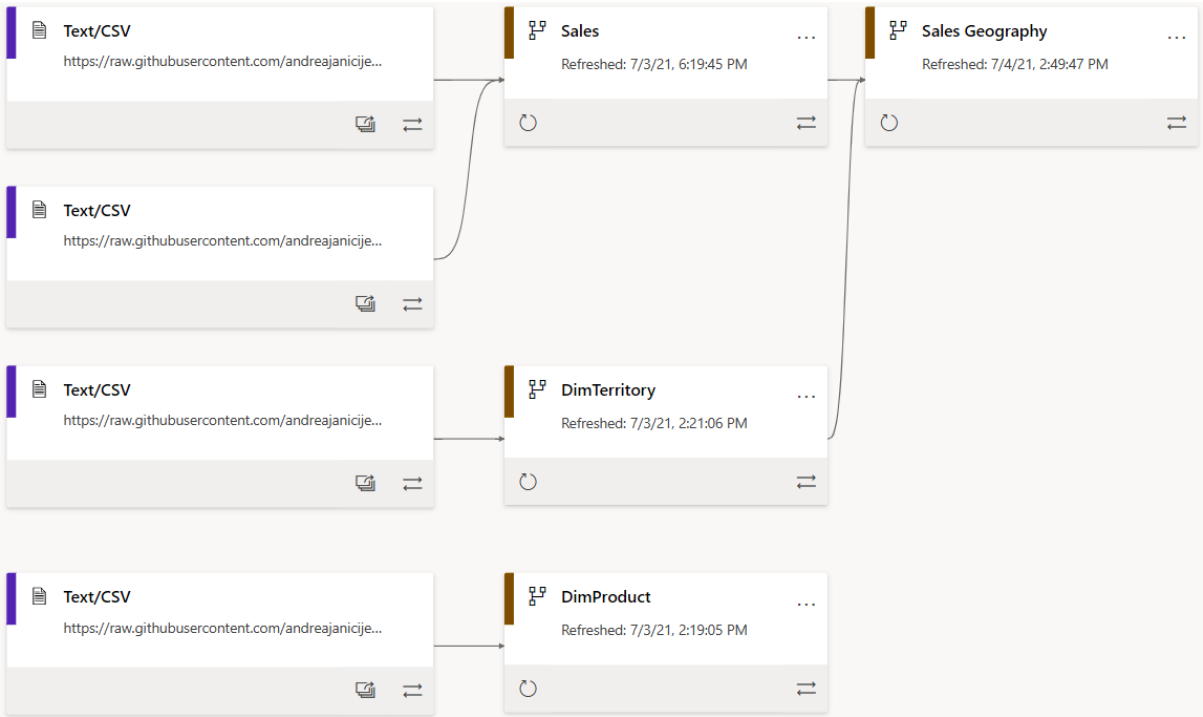
Query settings >

- Properties
 - Name: Merge
 - Entity type: Custom
- Applied steps
 - Source
 - Expanded Tot...

Edit tables | Add tables | Close

View ▾ Filters

- List
- Lineage



PowerQuery Cookbook

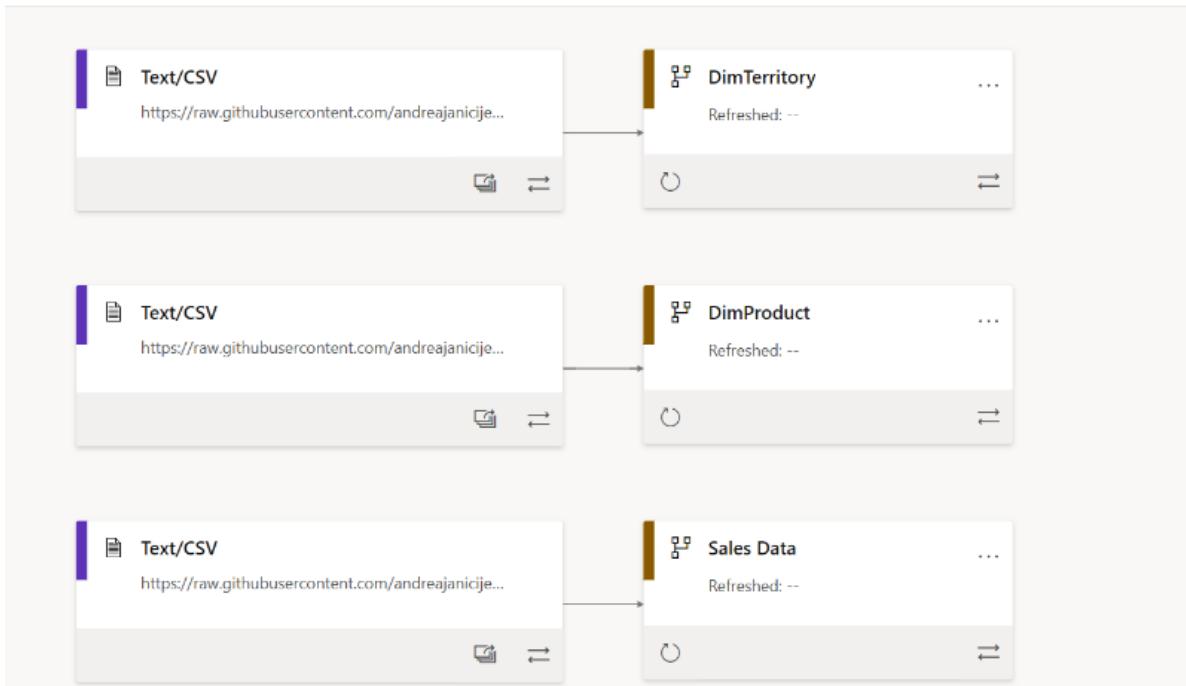
+ New ▼ Create a pipeline

View ▼

Settings

Access

Search





+ New ▼ Create a pipeline

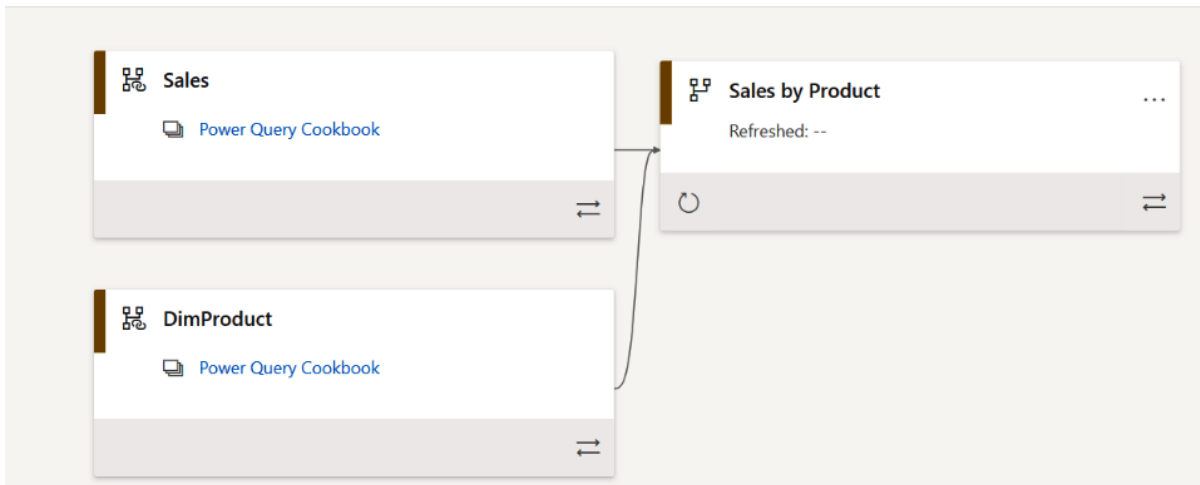


TABLE NAME	TABLE TYPE	ACTIONS
InternetSales	Custom	
TotalSales	Custom	

Incremental refresh settings

InternetSales

Incremental refresh updates only data that's changed, to speed refresh, reduce capacity usage, and store historic data. [Learn more](#)

On

Choose a DateTime column to filter by *

OrderDate ▼

Store rows from the past *

2 Years ▼

Refresh rows from the past *

1 Month ▼

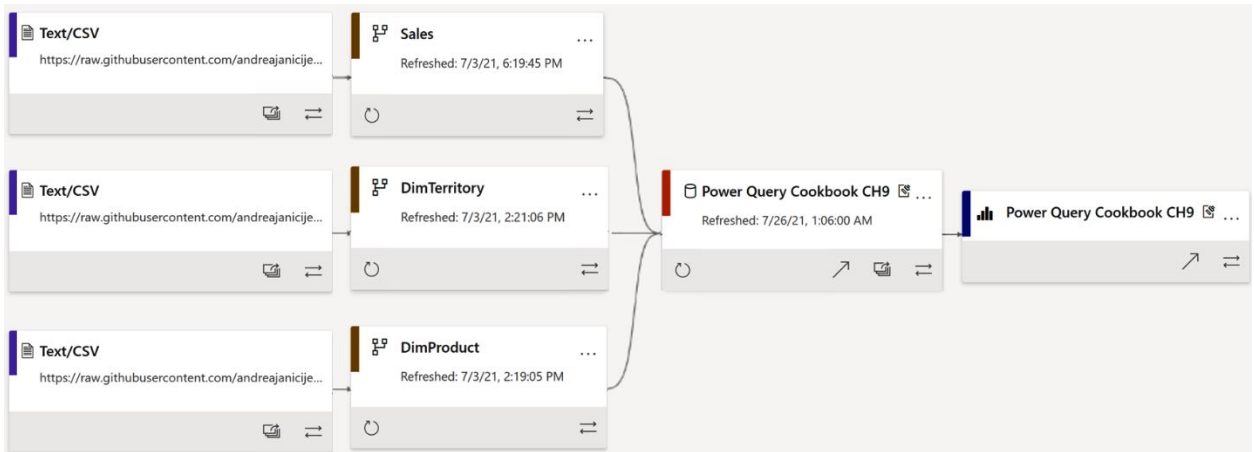
Detect data changes [Learn more](#)

Only refresh data if the maximum value in this column changes

Choose a column ▼

Only refresh complete months [Learn more](#)

When you save these settings, data from the past 2 years will be loaded to your dataflow storage the next time this dataflow is refreshed. Subsequent refreshes will update only data that's changed in the past 1 month.



Power BI Admin portal

Search [] [] [] []

Admin portal

- Tenant settings
- Usage metrics
- Users
- Premium Per User
- Audit logs
- Capacity settings
 - Refresh summary
- Embed Codes
- Organizational visuals
- Azure connections**
- Workspaces
- Custom branding
- Protection metrics
- Featured content

Connect to Azure resources (preview)

- ▶ Tenant-level storage (preview)
- ▶ Workspace-level storage permissions (preview)
- ▶ Workspace-level Log Analytics permissions (preview)

- Manage personal storage
- View content pack
- Admin portal
- Manage gateways
- Settings
- Manage embed codes

Power Query Cookbook

+ New Create a pipeline

All Content Datasets + data

Name
DimProduct
DimTerritory
Sales
Sales Geography

Settings

Power Query Cookbook

About Premium **Azure connections**

Storage

Connect an Azure Data Lake Gen2 storage account. [Learn more](#)

Connect to Azure

Log Analytics

Delete workspace Save Cancel

Merge queries ▾

Append queries ▾

Combine files

CDM

Map to entity

AI insights

Map the columns from your query output to attributes of a standard Common Data Model (CDM) entity.

Map to CDM entity

Map the columns from your query output to attributes of a standard Common Data Model (CDM) entity. [Learn more](#)

☰ Auto map ⊗ Clear all mappings

(none)	packageContainer	Not mapped
(none)	parentProductId	Not mapped
(none)	price	Not mapped
(none)	priceBase	Not mapped
(none)	priceLevelId	Not mapped
(none)	processId	Not mapped
(none)	productId	Not mapped
(none)	productNumber	Not mapped
(none)	productStructure	Not mapped
(none)	productStructure_display	Not mapped
(none)	productTypeCode	Not mapped
(none)	productTypeCode_display	Not mapped
(none)	productUrl	Not mapped
(none)	quantityDecimal	Not mapped
(none)	quantityOnHand	Not mapped
(none)	size	Not mapped
(none)	stageId	Not mapped

Entity description

Information about products and their pricing information.

Product

Channel

OrderDate

OrderDateKey

OrderQuantity









ProductKey

SalesAmount

SalesTerritoryKey

TotalProductCost

OK
Cancel

- ▼  Power Query Cookbook
 - ▼  Sales Data
 -  model.json
 -  model.json.snapshots
 - ▼  InternetSales
 - ▼  InternetSales.csv.snapshots
 -  InternetSales.csv.snapshots/InternetSales.csv@snapshot=2020-10-27T14:40:43.6798252Z
- >  DimTerritory
- >  DimProduct

Start creating your dataflow

Define new tables

Choose a data source to define the tables for your dataflow. You can map your data to [standard Common Data Model](#) tables, or define custom tables instead. [Learn more](#)

Add new tables

Link tables from other dataflows

Linking to tables from other dataflows reduces duplication and helps maintain consistency across your organization. [Learn more](#)

Add linked tables

Import Model

Choose a dataflow model to import into your workspace. [Learn more](#)

Import model

Attach a Common Data Model folder (preview)

Attach a Common Data Model folder from your Azure Data Lake Storage Gen2 account to a new dataflow, so you can use it in Power BI. [Learn more](#)

Create and attach

Chapter 10: Implementing Query Diagnostics

FactInternetSales.csv




File Origin: 65001: Unicode (UTF-8) | Delimiter: Comma | Data Type Detection: Based on first 200 rows

Column1	Column2	Column3	Column4	Column5	Column6	Column7	Column8	Column9	Column10
ProductKey	OrderDateKey	DueDateKey	ShipDateKey	CustomerKey	PromotionKey	CurrencyKey	SalesTerritoryKey	SalesOrderNumber	SalesOrderLineNu
310	20101229	20110110	20110105	21768	1	19	6	SO43697	1
346	20101229	20110110	20110105	28389	1	39	7	SO43698	1
346	20101229	20110110	20110105	25863	1	100	1	SO43699	1
336	20101229	20110110	20110105	14501	1	100	4	SO43700	1
346	20101229	20110110	20110105	11003	1	6	9	SO43701	1
311	20101230	20110111	20110106	27645	1	100	4	SO43702	1
310	20101230	20110111	20110106	16624	1	6	9	SO43703	1
351	20101230	20110111	20110106	11005	1	6	9	SO43704	1
344	20101230	20110111	20110106	11011	1	6	9	SO43705	1
312	20101231	20110112	20110107	27621	1	100	4	SO43706	1
312	20101231	20110112	20110107	27616	1	100	4	SO43707	1
330	20101231	20110112	20110107	20042	1	98	10	SO43708	1
313	20101231	20110112	20110107	16351	1	6	9	SO43709	1
314	20101231	20110112	20110107	16517	1	6	9	SO43710	1
314	20110101	20110113	20110108	27606	1	100	1	SO43711	1
311	20110101	20110113	20110108	13513	1	29	8	SO43712	1
310	20110102	20110114	20110109	27601	1	100	4	SO43713	1
311	20110102	20110114	20110109	13591	1	98	10	SO43714	1
314	20110102	20110114	20110109	16483	1	6	9	SO43715	1

Extract Table Using Examples Load Transform Data Cancel


File

Home
Transform
Add Column
View
Tools
Help




Diagnose Step

Step Diagnostics




Start Diagnostics

Session Diagnostics



Stop Diagnostics



Diagnostic Options

Diagnostic Options

Options

GLOBAL

- Data Load
- Power Query Editor
- DirectQuery
- R scripting
- Python scripting
- Security
- Privacy
- Regional Settings
- Updates
- Usage Data
- Diagnostics**
- Preview features
- Auto recovery
- Report settings

CURRENT FILE

- Data Load
- Regional Settings
- Privacy
- Auto recovery

Diagnostics Options ⓘ

- Enable tracing
- Bypass geocoding cache

Crash Dump Collection

Crash dump collection for the Mashup Engine process is currently not enabled.

[Enable Now](#)

[Open crash dump/traces folder](#)

[Clear Traces folder](#)

[Collect diagnostic information](#)

Version

2.93.641.0 64-bit (May 2021)

Query Diagnostics

- Enable in Report and Query Editor (may require running as admin)
- Enable in Query Editor (does not require running as admin)

Diagnostics Level

- Aggregated ⓘ
- Detailed ⓘ

OK

Cancel

Query Diagnostics

- Enable in Report and Query Editor (may require running as admin)
- Enable in Query Editor (does not require running as admin)

Diagnostics Level


- Aggregated ⓘ
- Detailed ⓘ

Additional Diagnostics



- Performance counters ⓘ
- Data privacy partitions ⓘ








Choose Columns

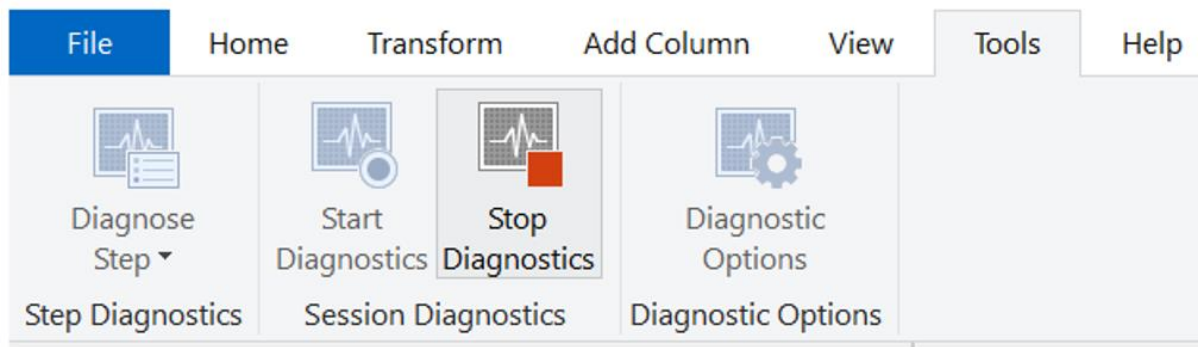
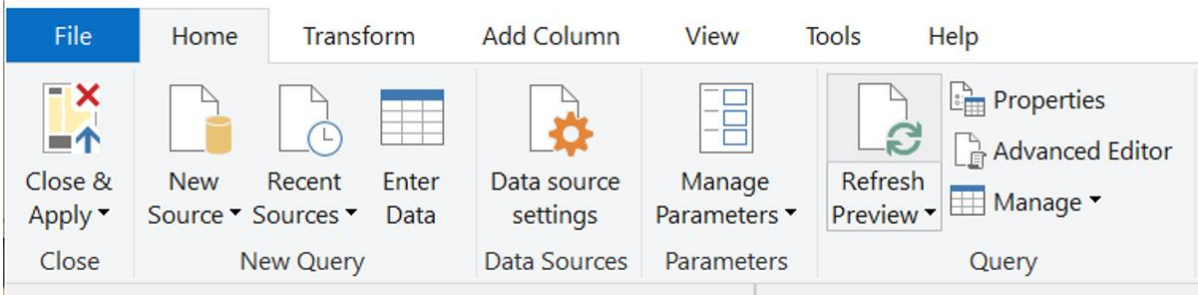
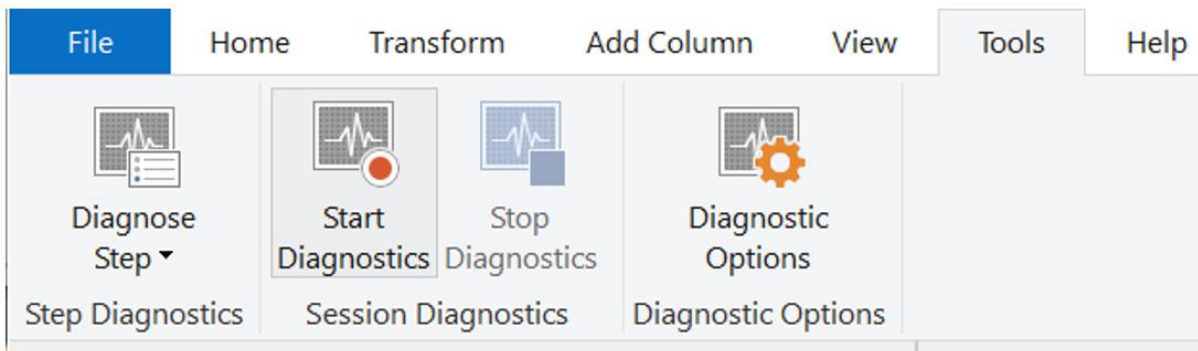
Choose the columns to keep

Search Columns 

- (Select All Columns)
- ProductKey
- OrderDateKey
- DueDateKey
- ShipDateKey
- CustomerKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost
- SalesAmount

 1²₃ ProductKey  1²₃

1	1.2	Decimal Number
2	\$	Fixed decimal number
3	1 ² ₃	Whole Number
4	%	Percentage
5		Date/Time
6		Date
7		Time
8		Date/Time/Timezone
9		Duration
10	A ^B _C	Text
11		True/False
12		Binary
13		Using Locale...



	APC Id	APC Query	APC Step	APC Category	APC Data Source Kind	APC Operation	Start Time
1	1.14	FactInternetSales	Changed Type1	Evaluation	null	Evaluation	18/07/2021 21:44:5
2	1.14	FactInternetSales	Changed Type1	Document Evaluator	null	GetResult	18/07/2021 21:44:5
3	1.14	FactInternetSales	Changed Type1	Evaluator	null	GetResult	18/07/2021 21:44:5
4	1.14	FactInternetSales	Changed Type1	Evaluator	null	Service: OnBeginGetResult	18/07/2021 21:44:5
5	1.14	FactInternetSales	Changed Type1	Evaluator	null	GetResult	18/07/2021 21:44:5
6	1.14	FactInternetSales	Changed Type1	Evaluator	null	GetResult	18/07/2021 21:44:5
7	1.14	FactInternetSales	Changed Type1	Evaluator	null	GetResult: Compile	18/07/2021 21:44:5
8	1.14	FactInternetSales	Changed Type1	Evaluator	null	GetResult: Evaluate	18/07/2021 21:44:5
9	1.14	FactInternetSales	Changed Type1	Data Source	File	Read file	18/07/2021 21:44:5
10	1.14	FactInternetSales	Changed Type1	Preview	null	Generate preview	18/07/2021 21:44:5
11	1.14	FactInternetSales	Changed Type1	Other	null	HandlersQuery: ReportFoldingFailure	18/07/2021 21:44:5
12	1.14	FactInternetSales	Changed Type1	Other	null	HandlersQuery: ReportFoldingFailure	18/07/2021 21:44:5
13	2.15	FactInternetSales	Changed Type1	Evaluation	null	Evaluation	18/07/2021 21:44:5
14	2.15	FactInternetSales	Changed Type1	Document Evaluator	null	GetResult	18/07/2021 21:44:5
15	2.15	FactInternetSales	Changed Type1	Evaluator	null	GetResult	18/07/2021 21:44:5
16	2.15	FactInternetSales	Changed Type1	Evaluator	null	Service: OnBeginGetResult	18/07/2021 21:44:5
17	2.15	FactInternetSales	Changed Type1	Evaluator	null	GetResult	18/07/2021 21:44:5
18	2.15	FactInternetSales	Changed Type1	Evaluator	null	GetResult	18/07/2021 21:44:5

File Home Transform Add Column View Tools Help

Close & Apply Close New Source New Query Recent Sources Enter Data Data sources settings Data Sources Manage Parameters Parameters Refresh Preview Query Properties Advanced Editor Manage Choose Columns Manage

Queries [2]	1 ² ProductKey	1 ² OrderDateKey	
FactInternetSales	1	310	20101229
FactInternetSales (2)	2	346	20101229
	3	346	20101229
	4	336	20101229
	5	346	20101229
	6	311	20101230
	7	310	20101230
	8	351	20101230
	9	344	20101230
	10	312	20101231
	11	312	20101231

Queries [2]

FactInternetSales-example1

FactInternetSales-example2

File Home Transform Add Column View Tools Help

Close & Apply Close New Source New Query Recent Sources Enter Data Data source settings Data Sources Manage Parameters Parameters Refresh Preview Query Properties Advanced Editor Manage Manage Columns Remove Columns Manage Columns

Queries [2]

- FactInternetSales-example1
- FactInternetSales-example2

	1 ² ₃ ProductKey	1 ² ₃ OrderDateKey	1 ² ₃ DueDate
1	310	20101229	
2	346	20101229	
3	346	20101229	
4	336	20101229	
5	346	20101229	
6	311	20101230	
7	310	20101230	
8	351	20101230	

1²₃ ProductKey 1²₃

1	1.2	Decimal Number
2	\$	Fixed decimal number
3	1 ² ₃	Whole Number
4	%	Percentage
5		Date/Time
6		Date
7		Time
8		Date/Time/Timezone
9		Duration
10	ABC	Text
11		True/False
12		Binary
13		Using Locale...

Refresh Preview ▾
 Properties
 Advanced Editor
 Manage ▾
 Choose Columns ▾
 Remove Columns ▾
 Keep Rows ▾
 Remove Rows ▾
 Sort
 Split Column ▾

Query
 Manage Columns
Reduce Rows
Sort

ProductKey	DueDateKey	ShipDateKey
	20110110	20110105
	20110110	20110105
	20110110	20110105
	20110110	20110105
	20110110	20110105
	20110110	20110105
	20110111	20110106
	20110111	20110106
	20110111	20110106
	20110111	20110106
	20110111	20110106
	20110112	20110107
	20110112	20110107
	20110112	20110107
	20110112	20110107

	ProductKey	DueDateKey
1	310	1.2
2	346	\$
3	346	1 ² ₃
4	336	%
5	346	Date/Time
6	311	Date
7	310	Time
8	351	Date/Time/Timezone
9	344	Duration
10	312	Text
11	312	True/False
12	330	Binary
13	313	Using Locale...

	OrderDate	DueDate	ShipDate
	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00
	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00
	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00
	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00
	29/12/2010 00:00:00	10/01/2011 00:00:00	05/01/2011 00:00:00
	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00
	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00
	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00
	30/12/2010 00:00:00	11/01/2011 00:00:00	06/01/2011 00:00:00
	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00
	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00
	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00
	31/12/2010 00:00:00	12/01/2011 00:00:00	07/01/2011 00:00:00

ProductKey	DueDateKey
20110110	
20110110	
20110110	
20110110	
20110110	
20110111	
20110114	

Sort Ascending
 Sort Descending
 Clear Sort

Clear Filter
 Remove Empty

Text Filters

Search

- (Select All)
- 310
- 311
- 312
- 313
- 314
- 320
- 322
- 324

Equals...
 Does Not Equal...
Begins With...
 Does Not Begin With...
 Ends With...
 Does Not End With...
 Contains...
 Does Not Contain...

Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'ProductKey'

And Or

Query Settings ✕

▲ PROPERTIES

Name

[All Properties](#)

▲ APPLIED STEPS

- Source ⚙
- Promoted Headers ⚙
- Changed Type
- Removed Columns
- Changed Type1
- Removed Columns1
- Changed Type2
- Removed Columns2
- ✕ Filtered Rows** ⚙

File		Home		Transform		Add Column		View		Tools		Help	
Close & Apply	New Source	Recent Sources	Enter Data	Data source settings	Manage Parameters	Refresh Preview	Properties	Advanced Editor	Choose Columns	Remove Columns			
Close	New Query			Data Sources	Parameters	Query	Manage	Manage	Manage Columns	Manage Columns			

Queries [2]	ProductKey	OrderDateKey
FactInternetSales-example1		
FactInternetSales-example2		

	ProductKey	OrderDateKey
1	310	20101229
2	346	20101229
3	346	20101229
4	336	20101229
5	346	20101229
6	311	20101230
7	310	20101230
8	351	20101230
9	344	20101230
10	312	20101231

Choose Columns

Choose the columns to keep

A-Z

- (Select All Columns)
- ProductKey
- OrderDateKey
- DueDateKey
- ShipDateKey
- CustomerKey
- PromotionKey
- CurrencyKey
- SalesTerritoryKey
- SalesOrderNumber
- SalesOrderLineNumber
- RevisionNumber
- OrderQuantity
- UnitPrice
- ExtendedAmount
- UnitPriceDiscountPct
- DiscountAmount
- ProductStandardCost
- TotalProductCost
- SalesAmount

Queries [2] <

- FactInternetSales-example1
- FactInternetSales-example2

	ProductKey	DueDateKey
1	310	20110110
2	346	20110110
3	346	20110110
4	336	20110110
5	346	20110110
6	311	20110111
7	310	20110111
8	351	20110111
9	344	20110111
10	312	20110112
11	312	20110112

	ProductKey	DueDateKey	CustomerKey
1			21768
2			28389
3			25863
4			14501
5			11003
6			27645
7			16624
8			11005
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19	314	20110114	
20	311	20110114	
21	336	20110114	

- Copy
- Remove Columns
- Remove Other Columns
- Add Column From Examples...
- Remove Duplicates
- Remove Errors
- Replace Values...
- Fill
- Change Type
 - Decimal Number
 - Fixed decimal number
 - Whole Number
 - Percentage
 - Date/Time
 - Date
 - Time
 - Date/Time/Timezone
 - Duration
 - Text**
 - True/False
 - Binary
 - Using Locale...
- Transform
- Merge Columns
- Sum
- Product
- Group By...
- Unpivot Columns
- Unpivot Other Columns
- Unpivot Only Selected Columns
- Move

Query Settings ✕

▲ PROPERTIES

Name

FactInternetSales-example2

[All Properties](#)

▲ APPLIED STEPS

- Source ⚙
- Promoted Headers ⚙
- Changed Type
- Removed Other Columns ⚙
- ✕ Changed Type1**

Queries [6] ◀

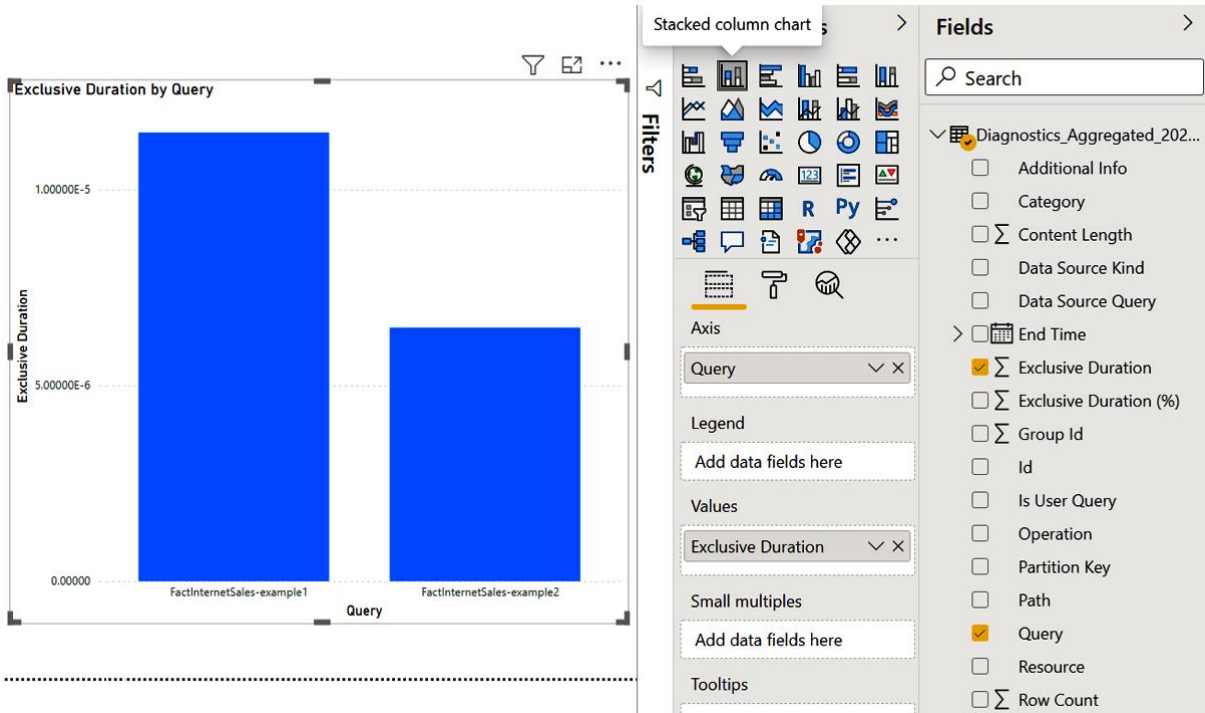
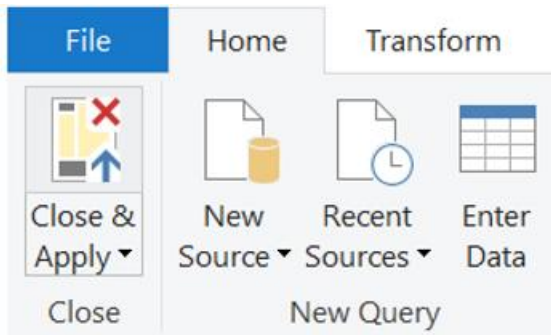
- ▲ **Diagnosics [4]**
 - Diagnostics_Counters_2021-07-19_18:50*
 - Diagnostics_Detailed_2021-07-19_18:50*
 - Diagnostics_Aggregated_2021-07-19_18:50*
 - Diagnostics_Partitions_2021-07-19_18:50*
- ▲ **Other Queries [2]**
 - FactInternetSales-example1
 - FactInternetSales-example2

Queries [6] ◀

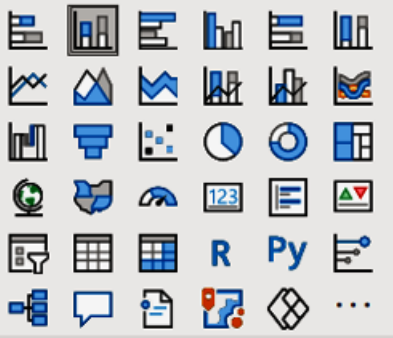
	AB ^C Pro
1	310
2	346
3	346
4	336

- ▲ **Diagnosics [4]**
 - Diagnostics_Counters_2021-07-19_18:50*
 - Diagnostics_Detailed_2021-07-19_18:50*
 - Diagnostics_Aggregated_2021-07-19_18:50*
 - Diagnostics_Partitions_2021-07-19_18:50*
- ▲ **Other Queries [2]**
 - FactInternetSales-example1
 - FactInternetSales-example2

- Copy
- Paste
- Delete
- Rename
- Enable load**
- Include in report refresh
- Duplicate
- Reference
- Move To Group ▶
- Move Up
- Move Down
- Create Function...
- Convert To Parameter
- Advanced Editor
- Properties...



Visualizations >



Axis

Query

Legend

Category

Values

Exclusive Duration

Small multiples

Add data fields here

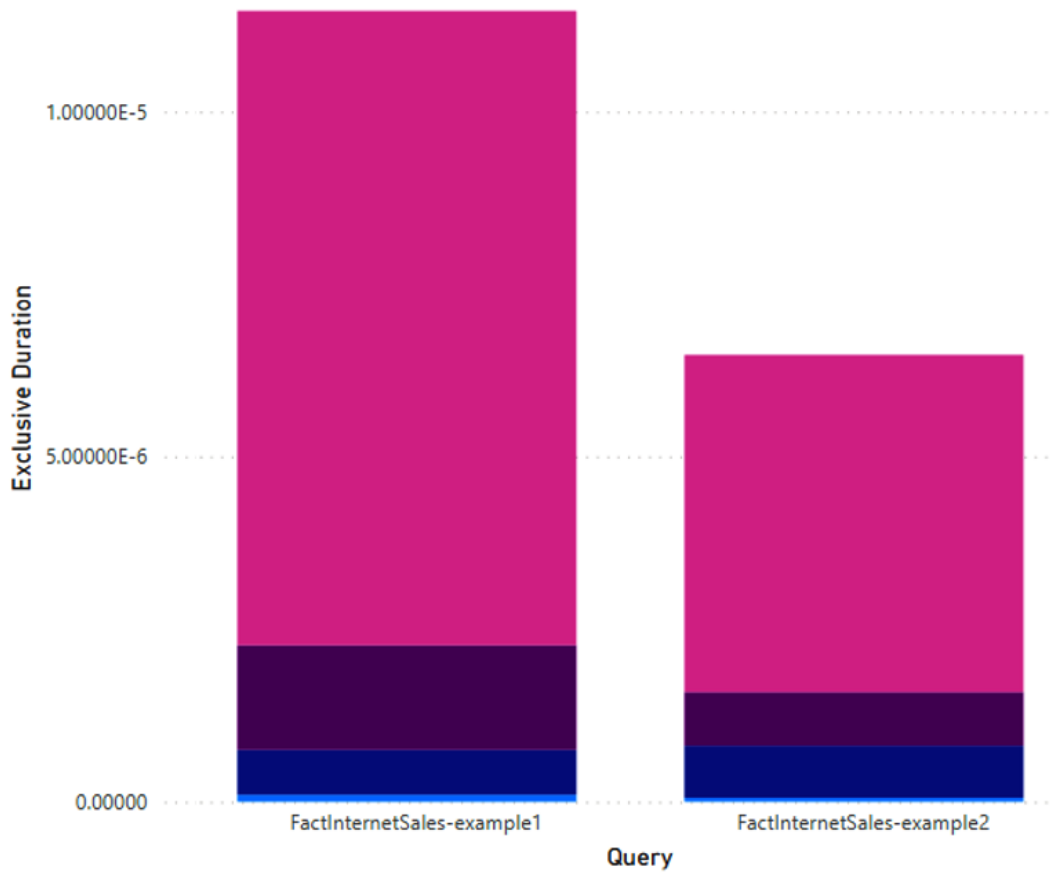
Fields >

▼ Diagnostics_Aggregated_202...

- Additional Info
- Category
- Σ Content Length
- Data Source Kind
- Data Source Query
- End Time
- Σ Exclusive Duration
- Σ Exclusive Duration (%)
- Σ Group Id
- Id
- Is User Query
- Operation
- Partition Key
- Path
- Query

Exclusive Duration by Query and Category

Category ● Data Source ● Document Evaluator ● Evaluation ● Evaluator ● Preview



Query	Start Time	Step	Exclusive Duration	Category
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.00	Data Source
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.00	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.00	Evaluation
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.00	Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.00	Preview
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.00	Data Source
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.00	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.00	Evaluation
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.00	Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.00	Preview
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.00	Data Source
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.00	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.00	Evaluation
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.00	Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.00	Preview
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.00	Data Source
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.00	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.00	Evaluation
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.00	Evaluator
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.00	Preview
FactInternetSales-example1	7/25/2021 6:50:56 PM	Promoted Headers	0.00	Data Source
Total			0.00	

Filters

Search

▼ Diagnostics_Aggregated_202...

- Additional Info
- Category
- Content Length
- Data Source Kind
- Data Source Query
- > End Time
- Exclusive Duration
- Exclusive Duration (%)
- Group Id
- Id
- Is User Query
- Operation
- Partition Key
- Path
- Query
- Resource
- Row Count
- > Start Time
- Step
- > FactInternetSales-example1
- > FactInternetSales-example2

Values

Query

Start Time

Step

Exclusive Duration

Category

Drill through

Cross-report

Off

Keep all filters

On

Add drill-through fields here

Fields >

- v
📊
✓
Diagnostics_Aggregated_202...
 - Additional Info
 - ✓ Category
 - Σ Content Length
 - Data Source Kind
 - Data Source Query
 - > 📅 End Time
 - ✓ Σ Exclusive Duration 🔍 ...

File	Home	Insert	Modeling	View	Help	External Tools	Format	Data / Drill	Table tools	Column tools	
🔗 Name <input style="width: 100%;" type="text" value="Exclusive Duration"/>		\$% Format <input style="width: 100%;" type="text" value="Decimal number"/>		Σ Summarization <input style="width: 100%;" type="text" value="Sum"/>		📊 Data category <input style="width: 100%;" type="text" value="Uncategorized"/>		📊 Sort by column v Sort	📊 Data groups v Groups	📊 Manage relationships Relationships	📊 New column Calculations
Structure		Formatting		Properties				Sort	Groups	Relationships	Calculations

Query	Start Time	Step	Exclusive Duration	Category
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.000000149	Data Source
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.000000445	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.000000000	Evaluation
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.0000001679	Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type	0.0000011653	Preview
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.0000000105	Data Source
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.0000000463	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.000000000	Evaluation
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.0000000306	Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.0000003136	Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type1	0.0000011197	Preview
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.0000000105	Data Source
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.0000000416	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.000000000	Evaluation
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.0000001071	Evaluator
FactInternetSales-example1	7/25/2021 6:50:56 PM	Changed Type2	0.0000012885	Preview
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.0000000080	Data Source
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.0000002803	Document Evaluator
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.000000000	Evaluation
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.0000000224	Evaluator
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.0000001578	Evaluator
FactInternetSales-example1	7/25/2021 6:50:55 PM	Filtered Rows	0.0000009020	Preview
FactInternetSales-example1	7/25/2021 6:50:56 PM	Promoted Headers	0.0000000161	Data Source
Total			0.0000179342	

Queries [1] < 123 ProductKey 123 OrderDateKey 123 Du

Sort Ascending
 Sort Descending
 Clear Sort
 Clear Filter
 Remove Empty
 Number Filters

Search

- (Select All)
- 310
- 311
- 312
- 313
- 314
- 320

Equals...
 Does Not Equal...
 Greater Than...
 Greater Than Or Equal To...
 Less Than...
 Less Than Or Equal To...
 Between...

20101229	
20101229	
20101229	
20101229	
20101229	
20101230	
20110101	
20110101	

Filter Rows

Apply one or more filter conditions to the rows in this table.

Basic Advanced

Keep rows where 'ProductKey'

And Or


APPLIED STEPS


- Source
- Promoted Headers
- Changed Type
- Filtered Rows**


Context menu for Filtered Rows:


- Edit Settings
- Rename
- Delete
- Delete Until End
- Insert Step After
- Move before
- Move after
- Extract Previous
- View Native Query
- Diagnose**
- Properties...

File Home Transform Add Column View Tools Help


Diagnose Step
 Step Diagnostics


Start Diagnostics
 Session Diagnostics


Stop Diagnostics


Diagnostic Options
 Diagnostic Options

Queries [4]

- Diagnosics [3]
 - FactInternetSales_Filtered Rows_Detai...
 - FactInternetSales_Filtered Rows_Aggre...
 - FactInternetSales_Filtered Rows_Partit...
- Other Queries [1]
 - FactInternetSales

	ABC Step	ABC Category	ABC Data Source Kind	ABC Operation
1	Filtered Rows	Evaluation	null	Evaluation
2	Filtered Rows	Document Evaluator	null	Document evaluation
3	Filtered Rows	Evaluator	null	Query evaluation
4	Filtered Rows	Evaluator	null	Query evaluation
5	Filtered Rows	Data Source	File	Read file
6	Filtered Rows	Preview	null	Generate preview

