



TRANSFORMING DATA IN POWER QUERY

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**International Association Crime Analysts
February 15, 2023**

INSTRUCTOR & COURSE INTRODUCTION

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Power Query

- ✓ Power Query documentation
<https://docs.microsoft.com/en-us/power-query>
- ✓ Power Query M Language documentation
<https://learn.microsoft.com/en-us/powerquery-m/power-query-m-language-specification>



CONTENTS

- ✓ Transforming Data in Power Query
 - Data format
 - Add/remove columns
 - Formatting and extracting time/date
- ✓ Additional Information
- ✓ Conclusion and QA

POWER QUERY – POWER QUERY EDITOR

The screenshot shows the Power Query Editor interface. The ribbon at the top includes tabs for File, Home, Transform, Add Column, and View. The ribbon contains various icons for actions like Refresh, Manage, Choose/Remove Columns, Keep/Remove Rows, Sort, Split/Group, Merge/Append/Combine, and Data source settings. A red circle with the number 1 is placed over the ribbon area.

The Queries list on the left shows a single query named 'Table1'. A red circle with the number 3 is placed over this list.

The Formula Bar at the top center contains the M formula: `= Table.TransformColumnTypes(Source,{{"Names", type text}, {"Scores", Int64.Type}})`. A red circle with the number 4 is placed over the formula bar.

The Data Preview table in the center shows a list of 20 rows with columns for 'Names' and 'Scores'. A red circle with the number 5 is placed over the data preview area.

The Query Settings pane on the right shows the 'PROPERTIES' section with the name 'Table1' and the 'APPLIED STEPS' section showing 'Source' and 'Changed Type'. A red circle with the number 2 is placed over the 'APPLIED STEPS' section.

At the bottom left, it says '2 COLUMNS, 50 ROWS Column profiling based on top 1000 rows'. At the bottom right, it says 'PREVIEW DOWNLOADED AT 2:33 PM'.

1. Ribbon

2. Applied Steps

3. Queries

4. Formula Bar

5. Data Preview

DATABASE SAN FRANCISCO, 2021-2023

Police Department Incident Reports: 2018 to Present

Public Safety

A. SUMMARY

Read the [detailed overview of this dataset](#).

This dataset includes incident reports that have been filed as of January 1, 2018. These reports [More](#)

View Data Visualize Export API ...

Download Police Department Incident Reports: 2018 to Present

Download Police Department Incident Reports: 2018 to Present for offline use in other applications.

CSV KML Shapefile

Additional Formats

[CSV for Excel](#) [KMZ](#) [TSV for Excel](#)
[CSV for Excel \(Europe\)](#) [RDF](#) [XML](#)
[GEOJSON](#) [RSS](#)

Featured Content Using this Data

Public [Map of Police Department Incident Reports: 2018 to Pr...](#)

January 24, 2023 36.7K Views

Public [SFPD Narcan/ Naloxone Deployment Chart & Table](#)

January 24, 2023 209 Views

Public [SFPD Narcan/ Naloxone Deployment](#)

January 24, 2023 175 Views

Incident_Report.xlsx

Police_Department_Incident_Repo							
1	Incident Datetime	Report Datetime	Row ID	Incident ID	Incident Number	CAD Number	Report T
2	1/1/2020 0:00	6/23/2021 15:16	1.04312E+11	1043121	210393732	211742241	II
3	1/1/2020 0:00	6/23/2021 13:49	1.04296E+11	1042957	210392784	211741908	II
4	1/1/2020 0:00	3/15/2022 12:50	1.13107E+11	1131074	220122593	220540832	IS
5	1/1/2020 0:00	12/30/2021 14:00	1.10746E+11	1107459	210863440	213642117	II
6	1/1/2020 0:00	3/23/2022 8:59	1.13332E+11	1133319	220122593	220540832	IS
7	1/1/2020 0:00	5/16/2022 15:17	1.15085E+11	1150849	220319762	221362002	II
8	1/1/2020 0:00	5/17/2022 9:48	1.15115E+11	1151149	220321563	221370811	II
9	1/1/2020 0:00	4/18/2022 18:00	1.14207E+11	1142074	220253665	221082525	II
10	1/1/2020 0:00	4/22/2022 7:28	1.1433E+11	1143304	220253665	221082525	IS
11	1/1/2020 0:00	7/25/2022 10:45	1.17446E+11	1174461	220492192	222061017	II
12	1/1/2020 0:00	7/27/2022 13:20	1.17774E+11	1177735	220319762	221362002	IS
13	1/1/2020 0:00	8/3/2022 9:06	1.17774E+11	1177744	220321563	221370811	IS
14	1/1/2020 0:00	8/8/2022 14:46	1.17935E+11	1179354	220528888	222201975	II
15	1/1/2020 0:00	2/1/2021 11:31	1.00136E+11	1001356	210071251	210321331	II
16	1/1/2020 0:00	3/1/2021 14:23	1.00956E+11	1009558	210136134	210601867	II
17	1/1/2020 0:00	3/3/2020 14:10	90907975030	909079	200160262	200632310	II
18	1/1/2020 0:00	3/17/2020 13:26	91355374000	913553	200194227	200771742	II
19	1/1/2020 0:00	2/19/2020 7:00	90443972000	904439	190629803	192372426	IS
20	1/1/2020 0:00	1/6/2020 12:29	88890871000	888908	206002638		II
21	1/1/2020 0:00	1/1/2020 13:56	88790606374	887906	206000933		II

ADD DATA

The ribbon includes the following options: Show Queries, From Table, Recent Sources, Refresh All, Connections, Properties, Edit Links, Sort, Filter, Clear, Reapply, Advanced, and Text to Columns. The 'From File' dropdown is expanded, showing 'From Excel Workbook' and 'From CSV'. A tooltip for 'From Excel Workbook' is visible, stating: 'Import data from a Microsoft Excel workbook.'

The 'Import Data' dialog box is open, showing the file path: Desktop > 2_Transforming. The search bar contains 'Search 2_Transforming'. The dialog includes navigation arrows and a refresh button.

The File Explorer window shows the 'This PC' location. Under 'This PC', there are links for Dropbox, OneDrive - Personal, and This PC. A file named 'Incident_Report.xlsx' is selected. The 'File name' field is empty.

The Navigator window displays the selected file 'Incident_Report.xlsx [2]'. Underneath, there are two data sources: 'Data' (highlighted) and 'Police_Department_Incident_Repo'. The text 'No item selected for preview' is displayed in the main area. At the bottom, there are buttons for 'Load', 'Transform Data', and 'Cancel'.

TRANSFORM DATA - POWER QUERY EDITOR

File Home Transform Add Column View

Close & Load Refresh Preview Advanced Editor Manage Query

Choose Columns Remove Columns Keep Rows Remove Rows Sort Split Column Group By Data Type: Date/Time Use First Row as Headers Replace Values Merge Queries Append Queries Combine Files Manage Parameters Data source settings New Source Recent Sources

Queries [1]
Data

fx = Table.TransformColumnTypes(Data_Table,{{"Incident Datetime", type datetime}, {"Report

	Incident Datetime	Report Datetime	Row ID	Incident ID	Incident Number	CAD
1	1/1/2020 12:00:00 AM	6/23/2021 3:16:00 PM	1.04312E+11	1043121	210393732	
2	1/1/2020 12:00:00 AM	6/23/2021 1:49:00 PM	1.04296E+11	1042957	210392784	
3	1/1/2020 12:00:00 AM	3/15/2022 12:50:00 PM	1.13107E+11	1131074	220122593	
4	1/1/2020 12:00:00 AM	12/30/2021 2:00:00 PM	1.10746E+11	1107459	210863440	
5	1/1/2020 12:00:00 AM	3/23/2022 8:59:00 AM	1.13332E+11	1133319	220122593	
6	1/1/2020 12:00:00 AM	5/16/2022 3:17:00 PM	1.15085E+11	1150849	220319762	
7	1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	1.15115E+11	1151149	220321563	
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	1.14207E+11	1142074	220253665	
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	1.1433E+11	1143304	220253665	
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	1.17446E+11	1174461	220492192	
11	1/1/2020 12:00:00 AM	7/27/2022 1:20:00 PM	1.17774E+11	1177735	220319762	
12	1/1/2020 12:00:00 AM	8/3/2022 9:06:00 AM	1.17774E+11	1177744	220321563	
13	1/1/2020 12:00:00 AM	8/8/2022 2:46:00 PM	1.17935E+11	1179354	220528888	
14	1/1/2020 12:00:00 AM	2/1/2021 11:31:00 AM	1.00136E+11	1001356	210071251	
15	1/1/2020 12:00:00 AM	3/1/2021 2:23:00 PM	1.00956E+11	1009558	210136134	
16	1/1/2020 12:00:00 AM	3/3/2020 2:10:00 PM	90907975030	909079	200160262	
17	1/1/2020 12:00:00 AM	3/17/2020 1:26:00 PM	91355374000	913553	200194227	
18	1/1/2020 12:00:00 AM	3/18/2020 7:00:00 AM	90443073000	904430	100638803	

Query Settings

PROPERTIES

Name: Data

APPLIED STEPS

- Source
- Navigation
- Changed Type

TRANSFORM DATA - SOURCE

Queries [1] <

fx = Excel.Workbook(File.Contents

ABC	Name	Data	ABC	Item	ABC	Kind	Hidden
1	Police_Department_Incident_Repo	Table	Police_Department_Incident_Repo	Sheet			FALSE
2	Data	Table	Data	Table			FALSE

Query Settings

PROPERTIES

Name
Data

All Properties

APPLIED STEPS

- Source
- Navigation
- Changed Type

TRANSFORM DATA - NAVIGATION

Queries [1] <

fx = Source{[Item="Data",Kind="Table"]}[Data]

ABC	Incident Datetime	ABC	Report Datetime	ABC	Row ID	ABC	Incident ID	ABC	Incident Number	ABC	CAD
1	1/1/2020 12:00:00 AM	6/23/2021 3:16:00 PM	1.04312E+11	1043121	210393732						
2	1/1/2020 12:00:00 AM	6/23/2021 1:49:00 PM	1.04296E+11	1042957	210392784						
3	1/1/2020 12:00:00 AM	3/15/2022 12:50:00 PM	1.13107E+11	1131074	220122593						
4	1/1/2020 12:00:00 AM	12/30/2021 2:00:00 PM	1.10746E+11	1107459	210863440						
5	1/1/2020 12:00:00 AM	3/23/2022 8:59:00 AM	1.13332E+11	1133319	220122593						
6	1/1/2020 12:00:00 AM	5/16/2022 3:17:00 PM	1.15085E+11	1150849	220319762						
7	1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	1.15115E+11	1151149	220321563						
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	1.14207E+11	1142074	220253665						
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	1.14333E+11	1143304	220253665						
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	1.17446E+11	1174461	220492192						

Query Settings

PROPERTIES

Name
Data

All Properties

APPLIED STEPS

- Source
- Navigation
- Changed Type

DATA FORMAT (TYPE)

File Home Transform Add Column View

Close & Load Refresh Preview Manage Query

Properties Advanced Editor

Choose Columns Remove Columns Keep Rows Remove Rows Sort Split Column

Data Type: Date/Time

- Decimal Number
- Currency
- Whole Number
- Percentage
- Date/Time
- Date
- Time
- Date/Time/Timezone
- Duration
- Text
- True/False
- Binary

Merge Queries Append Queries Combine Files Manage Parameters Data source settings New Source Recent Sources

Combine Parameters Data Sources New Query

Queries [1] Data

= Table.TransformColumnTypes("#", {"Incident Description.1", type

	Incident Datetime	Report Datetime	Incident ID	Incident Number	CAD
1	1/1/2020 12:00:00 AM	6/23/2021 3:16:00 PM	1043121	210393732	
2	1/1/2020 12:00:00 AM	6/23/2021 1:49:00 PM	1042957	210392784	
3	1/1/2020 12:00:00 AM	3/15/2022 12:50:00 PM	1131074	220122593	
4	1/1/2020 12:00:00 AM	12/30/2021 2:00:00 PM	1107459	210863440	
5	1/1/2020 12:00:00 AM	3/23/2022 8:59:00 AM	1133319	220122593	
6	1/1/2020 12:00:00 AM	5/16/2022 3:17:00 PM	1150849	220319762	
7	1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	1151149	220321563	
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	1.14207E+11	1142074	220253665
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	1.1433E+11	1143304	220253665
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	1.17446E+11	1174461	220492192
11	1/1/2020 12:00:00 AM	7/27/2022 1:20:00 PM	1.17774E+11	1177725	220319762

Query Settings

PROPERTIES

Name: Data

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Split Column by Delimiter
- Changed Type1

ADD COLUMN

File Home Transform **Add Column** View

Column From Examples Custom Column Invoke Function Custom Function General

Conditional Column Index Column Duplicate Column

Format From Text

Merge Columns Extract Parse

Statistics Standard Scientific From Number

Trigonometry Rounding Information

Date Time Duration From Date & Time

Queries [1]

Data

fx = Table.TransformColumnTypes("#Split Column by Delimiter",{"Incident Description.1", type

	3-06-05	Invest In Neighborhoods (IIN) Areas	Current Supervisor Districts	Current Police Districts
1	null	null	null	7
2	null	null	null	7
3	null	null	null	2
4	null	null	null	10
5	null	null	null	11
6	null	null	null	3
7	null	null	null	9
8	null	null	null	1
9	null	null	null	1
10	null	null	null	3
11	null	null	null	3
12	null	null	null	9
13	null	null	null	4
14	null	null	null	9
15	null	null	null	4
16	null	null	null	10
17	3	null	null	5
18	null	null	null	0

Query Settings

PROPERTIES

Name: Data

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Split Column by Delimiter
- Changed Type1**

ADD COLUMN – CONDITIONAL COLUMN

Column From Custom Invoke Custom
Examples Column Functions

Conditional Column
Index Column
Duplicate Column

Format Parse
Merge Columns
Extract

Statistics Standard Scientific
Trigonometry
Rounding
Information

Date Time Duration

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 COLUMN – INDEX COLUMN

The screenshot displays the Power BI Desktop interface. The 'Add Column' ribbon is active, and the 'Index Column' dropdown menu is open, showing options: 'From 0', 'From 1', and 'Custom...'. The formula bar contains the DAX formula: `= Table.AddIndexColumn("#Changed Type", "Index", 0, 1, Int64.Type)`. The data table below shows the resulting 'Index' column values from 0 to 9. The 'Query Settings' pane on the right shows the 'Added Index' step.

est In Neighborhoods (IIN) Areas	Current Supervisor Districts	Current Police Districts	Index
1	null	7	0
2	null	7	1
3	null	2	2
4	null	10	3
5	null	11	4
6	null	3	5
7	null	9	6
8	null	1	7
9	null	1	8
10	null	3	9

ADD COLUMN - EXTRACT

File Home Transform Add Column View

Column From Examples Custom Column Invoke Custom Function

Conditional Column Index Column Duplicate

Merge Columns Extract

Statistics Standard Scientific Trigonometry Rounding Information

From Number From Date & Time

Date Time Duration

General

Queries [1] Data

3-06-05

ColumnTypes(Data_Table, {"Incident Datetime", type datetime}, {"Report

s (IIN) Areas Current Supervisor Districts Current Police Districts

1 null 7

2 null 7

3 null 2

4 null 10

5 null 11

6 null 3

7 null 9

8 null 1

9 null 1

10 null 3

11 null 3

12 null 9

13 null 4

14 null 9

15 null 4

16 null 10

17 3 null 5

Query Settings

PROPERTIES

Name

Data

All Properties

APPLIED STEPS

Source

Navigation

Changed Type

ADD COLUMN - SPLIT

The screenshot shows the Power Query Editor interface. The 'Add Column' tab is active, and the 'Split Column' option is selected from the 'Add Column' menu. The background data table has the following columns:

Incident Datetime	Report	Incident ID	Incident Number	CAD
1/1/2020 12:00:00 AM	6/2/2022 7:00:00 AM	1043121	210393732	
1/1/2020 12:00:00 AM	6/2/2022 7:00:00 AM	1042957	210392784	
1/1/2020 12:00:00 AM	3/15/2022 12:00:00 AM	1131074	220122593	
1/1/2020 12:00:00 AM	12/3/2021 12:00:00 AM	1107459	210863440	
1/1/2020 12:00:00 AM	3/23/2022 8:59:00 AM	1.13332E+11	1133319	
1/1/2020 12:00:00 AM	5/16/2022 3:17:00 PM	1.15085E+11	1150849	
1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	1.15115E+11	1151149	
1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	1.14207E+11	1142074	
1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	1.1433E+11	1143304	
1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	1.17446E+11	1174461	
1/1/2020 12:00:00 AM	7/27/2022 1:20:00 PM	1.17774E+11	1177735	
1/1/2020 12:00:00 AM	8/3/2022 9:06:00 AM	1.17774E+11	1177744	
1/1/2020 12:00:00 AM	8/8/2022 2:46:00 PM	1.17935E+11	1179354	
1/1/2020 12:00:00 AM	2/1/2021 11:31:00 AM	1.00136E+11	1001356	
1/1/2020 12:00:00 AM	3/1/2021 2:23:00 PM	1.00956E+11	1009558	
1/1/2020 12:00:00 AM	3/3/2020 2:10:00 PM	90907975030	909079	
1/1/2020 12:00:00 AM	3/17/2020 1:26:00 PM	91355374000	913553	
1/1/2020 12:00:00 AM	3/18/2020 7:00:00 AM	92443073000	924430	

The close-up shows the 'Split Column' menu 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'. Below the menu, the 'Query Settings' pane shows the 'PROPERTIES' section with 'Name' set to 'Data'. The background data table is updated with a new column 'Incident Description'.

Incident Description	Resolution	Incident ID
Burglary, Residence, Unlawful Entry	Open or Active	45TH
False Claims, Presenting to Government	Open or Active	47TH
Access Card, incl. Credit, Phone, ATM, Fraudulent Use of	Open or Active	ANDO
Suspicious Occurrence	Open or Active	04TH
Access Card, incl. Credit, Phone, ATM, Fraudulent Use of	Open or Active	ELLIS
Fraudulent Use Of Automated Teller Card	Open or Active	STOCK
Access Card, incl. Credit, Phone, ATM, Fraudulent Use of	Open or Active	GARLI
False Personation	Open or Active	STANL
False Personation	Open or Active	STANL
False Personation to Receive Money or Property	Open or Active	BROA
Fraudulent Use Of Automated Teller Card	Open or Active	STOCK
Access Card Counterfeiting Machinery, Possession of	Open or Active	GARLI
Embezzlement, Grand Theft By Employee	Open or Active	GEAR
Miscellaneous Investigation	Open or Active	REVER
Suspicious Occurrence	Open or Active	ARGU
Case Closure	Unfounded	BEALE
Missing Adult	Open or Active	SYCAM
Found Property	Open or Active	0285

ADD COLUMN - SPLIT

Split Column by Delimiter

Specify the delimiter used to split the text column.

Select or enter delimiter

- Comma
- Colon
- Comma
- Equals Sign
- Semicolon
- Space
- Tab
- Custom--

Quote Character

"

Split using special characters

Insert special character

Split Column by Delimiter

Specify the delimiter used to split the text column.

Select or enter delimiter

Comma

Split at

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

fx = Table.TransformColumnTypes("#Split Column by Delimiter",{"Incident Description.1", type

	Incident Description.1	Incident Description.2	Incident Description.3	Incident Description.4
1	Burglary	Residence	Unlawful Entry	
2	False Claims	Presenting to Government		null
3	Access Card	incl. Credit	Phone	ATM
4	Suspicious Occurrence		null	null
5	Access Card	incl. Credit	Phone	ATM
6	Fraudulent Use Of Automated Teller Card		null	null
7	Access Card	incl. Credit	Phone	ATM
8	False Personation		null	null
9	False Personation		null	null
10	False Personation to Receive Money or Property		null	null
11	Fraudulent Use Of Automated Teller Card		null	null
12	Access Card Counterfeiting Machinery	Possession of		null
13	Embezzlement	Grand Theft By Employee		null
14	Miscellaneous Investigation		null	null
15	Suspicious Occurrence		null	null
16	Case Closure		null	null

Query Settings

PROPERTIES

Name
Data

All Properties

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Split Column by Delimiter
- Changed Type1

SPLIT - INTO ROWS

Split Column by Delimiter

Specify the delimiter used to split the text column.

Select or enter delimiter

Comma

Split at

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

Advanced options

Split into

- Columns
- Rows

Quote Character

"

Split using special characters

Insert special character

OK Cancel

SPLIT – BY CUSTOM DELIMITER



Split Column by Delimiter

Specify the delimiter used to split the text column.

Select or enter delimiter

--Custom--

http://

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

2

Quote Character

"

Split using special characters

Insert special character

OK

Cancel

REMOVE COLUMN(S)/ROW(S)

File Home Transform Add Column View

Close & Load Close Refresh Preview Query

Properties Advanced Editor Manage

Choose Remove Columns Columns Keep Remove Rows Rows

Sort Split Column Group By Data Type: Date/Time Use First Row as Headers Replace Values Transform

Merge Queries Append Queries Combine Files Combine Parameters Parameters

Data source settings Data Sources New Source Recent Sources New Query

Queries [1] Data

fx = Table.TransformColumnTypes("#Split Column by Delimiter",{{"Incident Description.1", type

	3-06-05	Invest In Neighborhoods (IIN) Areas	Current Supervisor Districts	Current Police Districts
1	null	null	7	7
2	null	null	2	10
3	null	null	11	3
4	null	null	9	1
5	null	null	1	3
6	null	null	3	3
7	null	null	9	9
8	null	null	4	9
9	null	null	4	4
10	null	null	10	10
11	3	null	5	0
12	null	null	0	0
13	null	null	0	0
14	null	null	0	0
15	null	null	0	0
16	null	null	0	0
17	3	null	5	0
18	null	null	0	0

Query Settings

PROPERTIES

Name: Data

[All Properties](#)

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Split Column by Delimiter
- Changed Type1**

COLUMN BY EXAMPLE

File Home Transform Add Column View

Column From Examples Custom Column Invoke Custom Function

From All Columns From Selection

Conditional Column Index Column Duplicate Column

Format Extract Parse From Text

Statistics Standard Scientific From Number

Trigonometry Rounding Information From Date & Time

Date Time Duration

Use examples and the current selection to create a new column in this table. (Ctrl+Shift+E)

`= Table.TransformColumnTypes(Data_Table,{{"Incident Datetime", type datetime}, {"Report`

	Incident Description	Resolution	Intersection	CNN
1	Burglary, Residence, Unlawful Entry	Open or Active	45TH AVE \ LAWTON ST	2793:
2	False Claims, Presenting to Government	Open or Active	47TH AVE \ WAWONA ST	2349:

Query Settings

PROPERTIES

Name

File Home Transform Add Column View

Column From Examples Custom Column Invoke Custom Function

From All Columns From Selection

Conditional Column Index Column Duplicate Column

Format Extract Parse From Text

Statistics Standard Scientific From Number

Trigonometry Rounding Information From Date & Time

Date Time Duration

Enter sample values to create a new column (Ctrl+Enter to apply).
 Transform: `Text.BeforeDelimiter([Resolution], "p")`

OK Cancel

	Incident Description	Resolution	Intersection	Text Before Delimiter
1	Burglary, Residence, Unlawful Entry	Open or Active	45TH AVE \ LAWTON ST	O
2	False Claims, Presenting to Government	Open or Active	47TH AVE \ WAWONA ST	O

Query Settings

PROPERTIES

Name

Data

File Home Transform Add Column View

Column From Examples Custom Column Invoke Custom Function

From All Columns From Selection

Conditional Column Index Column Duplicate Column

Format Extract Parse From Text

Statistics Standard Scientific From Number

Trigonometry Rounding Information From Date & Time

Date Time Duration

`= Table.AddColumn("#Changed Type", "First Characters", each Text.Start([Resolution], 1),`

	Neighborhoods (IIN) Areas	Current Supervisor Districts	Current Police Districts	First Characters
1		7	10	O
2		7	10	O
3		2	9	O
4		10	1	O
5		11	4	O

Query Settings

PROPERTIES

Name

Data

APPLIED STEPS

GROUPING

File Home Transform Add Column View

Group By Use First Row as Headers Count Rows

Table

Queries [1] Data

Group By dialog box:

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

Basic Advanced

Police District

Incident Category

Add grouping

New column name: Count Operation: Count Rows Column: []

Add aggregation

OK Cancel

Query Settings

PROPERTIES

Name: Data

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Grouped Rows

File Home Transform Add Column View

Group By Use First Row as Headers Count Rows

Table

Any Column

Text Column

Number Column

Date & Time Column

Structured Column

Formula Bar: = Table.Sort("#Grouped Rows",{"Police District", Order.Ascending})

	Police District	Incident Category	Count
1	Bayview	Suspicious	4
2	Bayview		100
3	Bayview	Vehicle Impounded	84
4	Bayview	Lost Property	483
5	Bayview	Suspicious Occ	980
6	Bayview	Other	242
7	Bayview	Suicide	10
8	Bayview	Missing Person	682
9	Bayview	Arson	192
10	Bayview	Malicious Mischief	2641
11	Bayview	Burglary	1895

Query Settings

PROPERTIES

Name: Data

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Grouped Rows
- Sorted Rows

DATE/TIME

File Home Transform Add Column View

Column From Examples
Custom Column
Invoke Custom Function
General
Conditional Column
Index Column
Duplicate Column
Format
Merge Columns
Extract
Parse
Statistics
Standard
Scientific
From Text
Trigonometry
Rounding
Information
From Number
Date
Time
Duration
From Date & Time

Queries [1]

Data

`= Table.TransformColumnTypes("#Split Column by Delimiter",{"Incident Description.1", type`

	Incident Datetime	Report Datetime	Row ID	Incident ID	Incident Number	CAD
1	1/1/2020 12:00:00 AM	6/23/2021 3:16:00 PM	1.04312E+11	1043121	210393732	
2	1/1/2020 12:00:00 AM	6/23/2021 1:49:00 PM	1.04296E+11	1042957	210392784	
3	1/1/2020 12:00:00 AM	3/15/2022 12:50:00 PM	1.13107E+11	1131074	220122593	
4	1/1/2020 12:00:00 AM	12/30/2021 2:00:00 PM	1.10746E+11	1107459	210863440	
5	1/1/2020 12:00:00 AM	3/23/2022 8:59:00 AM	1.13332E+11	1133319	220122593	
6	1/1/2020 12:00:00 AM	5/16/2022 3:17:00 PM	1.15085E+11	1150849	220319762	
7	1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	1.15115E+11	1151149	220321563	
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	1.14207E+11	1142074	220253665	
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	1.1433E+11	1143304	220253665	
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	1.17446E+11	1174461	220492192	
11	1/1/2020 12:00:00 AM	7/27/2022 1:20:00 PM	1.17774E+11	1177735	220319762	

Query Settings

PROPERTIES

Name
Data

All Properties

APPLIED STEPS

- Source
- Navigation
- Changed Type
- Split Column by Delimiter
- Changed Type1

YEAR/ MONTH

File Home Transform Add Column View

Column From Custom Invoke Custom Examples Column Function

General

Conditional Column Index Column Duplicate Column

Format Extract Parse

Merge Columns

Statistics Standard Scientific

Trigonometry Rounding Information

Date Time Duration

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

From Text From I

fx = Table.TransformColumnTypes("#Split Column

	Incident Datetime	Report Datetime	Year	Month	Quarter	Week	Day	Subtract Days	Combine Date and Time	Earliest	Latest
1	1/1/2020 12:00:00 AM	6/23/2021 3:1	2020	1	1	1	1				
2	1/1/2020 12:00:00 AM	6/23/2021 1:4	2020	1	1	1	1				
3	1/1/2020 12:00:00 AM	3/15/2022 12:5	2022	3	1	1	1				
4	1/1/2020 12:00:00 AM	12/30/2021 2:00:00 PM	2021	12	4	52	31	1.1074			
5	1/1/2020 12:00:00 AM	3/23/2022 8:59:00 AM	2022	3	1	1	1	1.1333			
6	1/1/2020 12:00:00 AM	5/16/2022 3:17:00 PM	2022	5	2	2	1	1.1508			
7	1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	2022	5	2	2	1	1.1511			
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	2022	4	2	1	1	1.1420			
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	2022	4	2	1	1	1.143			
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	2022	7	3	3	1	1.1744			
11	1/1/2020 12:00:00 AM	7/27/2022 1:20:00 PM	2022	7	3	3	1	1.1774			

Queries [1] Data

Description.1", type

Incident Number Incident Number CAD

210393732

210392784

220122593

210863440

220122593

220319762

220321563

220253665

220253665

220492192

220319762

Query Settings

PROPERTIES

Name

Data

All Properties

APPLIED STEPS

Source

Navigation

Changed Type

Split Column by Delimiter

Changed Type1

File Home Transform Add Column View

Column From Custom Invoke Custom Examples Column Function

General

Conditional Column Index Column Duplicate Column

Format Extract Parse

Merge Columns

Statistics Standard Scientific

Trigonometry Rounding Information

Date Time Duration

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

From Text From I

fx = Table.TransformColumnTypes("#Split Column

	Incident Datetime	Report Datetime	Row ID	Month	Quarter	Week	Day	Subtract Days	Combine Date and Time	Earliest	Latest
1	1/1/2020 12:00:00 AM	6/23/2021	1	1	1	1	1				
2	1/1/2020 12:00:00 AM	6/23/2021	2	1	1	1	1				
3	1/1/2020 12:00:00 AM	3/15/2022	3	3	1	1	1				
4	1/1/2020 12:00:00 AM	12/30/2021	4	12	4	52	31				
5	1/1/2020 12:00:00 AM	3/23/2022	5	3	1	1	1				
6	1/1/2020 12:00:00 AM	5/16/2022	6	5	2	2	1				
7	1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	7	5	2	2	1	1.1511			
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	8	4	2	1	1	1.1420			
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	9	4	2	1	1	1.143			
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	10	7	3	3	1	1.1744			

Queries [1] Data

Description.1", type

Incident Number Incident Number CAD

210393732

210392784

220122593

210863440

220122593

220319762

220321563

220253665

220253665

220492192

Query Settings

PROPERTIES

Name

Data

All Properties

APPLIED STEPS

Source

Navigation

Changed Type

Split Column by Delimiter

Changed Type1

WEEK/ DAY

Column From Custom Invoke Custom
Examples Column Function

General

Conditional Column
Index Column
Duplicate Column

Format
Merge Columns
Extract
Parse
From Text

Statistics Standard Scientific
Trigonometry
Rounding
Information

Date
Time
Duration

Date & Time

Queries [1]
Data

fx = Table.TransformColumnTypes("#Split Column", type)

	Incident Datetime	Report Datetime	Row ID
1	1/1/2020 12:00:00 AM	6/23/2021 3:16:00 PM	1.0431
2	1/1/2020 12:00:00 AM	6/23/2021 1:49:00 PM	1.0429
3	1/1/2020 12:00:00 AM	3/15/2022 12:50:00 PM	1.1310
4	1/1/2020 12:00:00 AM	12/30/2021	
5	1/1/2020 12:00:00 AM	3/23/2022	
6	1/1/2020 12:00:00 AM	5/16/2022	
7	1/1/2020 12:00:00 AM	5/17/2022	
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	1.1420
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	1.143
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	1.1744

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

Description.1", type	Incident Number	CAD
	210393732	
	210392784	
	220122593	
	210863440	
	220122593	
	220319762	
	220321563	
	220253665	
	220253665	
	220492192	
	220319762	

Query Settings

PROPERTIES
Name
Data

APPLIED STEPS
Source
Navigation
Changed Type
Split Column by Delimiter
Changed Type1

Data - Power Query Editor

File Home Transform Add Column View

Column From Custom Invoke Custom
Examples Column Function

General

Conditional Column
Index Column
Duplicate Column

Format
Merge Columns
Extract
Parse
From Text

Statistics Standard Scientific
Trigonometry
Rounding
Information

Date
Time
Duration

Date & Time

Queries [1]
Data

fx = Table.TransformColumnTypes("#Split Column", type)

	Incident Datetime	Report Datetime	Row ID
1	1/1/2020 12:00:00 AM	6/23/2021 3:16:00 PM	1.0431
2	1/1/2020 12:00:00 AM	6/23/2021 1:49:00 PM	1.0429
3	1/1/2020 12:00:00 AM	3/15/2022 12:50:00 PM	1.1310
4	1/1/2020 12:00:00 AM	12/30/2021 2:00:00 PM	1.1074
5	1/1/2020 12:00:00 AM	3/23/2022 8:00:00 AM	
6	1/1/2020 12:00:00 AM	5/16/2022 3:00:00 PM	
7	1/1/2020 12:00:00 AM	5/17/2022 9:00:00 AM	
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	
9	1/1/2020 12:00:00 AM	4/22/2022 7:00:00 AM	
10	1/1/2020 12:00:00 AM	7/25/2022 10:00:00 AM	

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

Description.1", type	Incident Number	CAD
	210393732	
	210392784	
	220122593	
	210863440	
	220122593	
	220319762	
	220321563	
	220253665	
	220253665	
	220492192	
	220319762	

Query Settings

PROPERTIES
Name
Data

APPLIED STEPS
Source
Navigation
Changed Type
Split Column by Delimiter

Hour

File Home Transform Add Column View

Column From Examples Custom Column Invoke Custom Function

Conditional Column Index Column Duplicate Column

Format Extract Parse

Merge Columns

Statistics Standard Scientific

Trigonometry Rounding Information

Date Time Duration

General From Text From Number

Queries [1]

Data

fx = Table.TransformColumnTypes("#Split Column by De

	Incident Datetime	Report Datetime			
1	1/1/2020 12:00:00 AM	6/23/2021 3:16:00 PM			
2	1/1/2020 12:00:00 AM	6/23/2021 1:49:00 PM			
3	1/1/2020 12:00:00 AM	3/15/2022 12:50:00 PM			
4	1/1/2020 12:00:00 AM	12/30/2021 2:00:00 PM	1.10746E+11		
5	1/1/2020 12:00:00 AM	3/23/2022 8:59:00 AM	1.13332E+11		
6	1/1/2020 12:00:00 AM	5/16/2022 3:17:00 PM	1.15085E+11		
7	1/1/2020 12:00:00 AM	5/17/2022 9:48:00 AM	1.15115E+11		
8	1/1/2020 12:00:00 AM	4/18/2022 6:00:00 PM	1.14207E+11	1142074	220253665
9	1/1/2020 12:00:00 AM	4/22/2022 7:28:00 AM	1.1433E+11	1143304	220253665
10	1/1/2020 12:00:00 AM	7/25/2022 10:45:00 AM	1.17446E+11	1174461	220492192
11	1/1/2020 12:00:00 AM	7/27/2022 1:20:00 PM	1.17774E+11	1177735	220319762

Time Only

Local Time

Parse

Hour

Minute

Second

Subtract

Combine Date and Time

Earliest

Latest

Hour

Start of Hour

End of Hour

Query Settings

PROPERTIES

Name

Data

All Properties

APPLIED STEPS

Source

Navigation

Changed Type

Split Column by Delimiter

Changed Type1

ADDITIONAL INFORMATION

✓ **Power Query**

✓ *Collect, Combine, and Transform Data Using Power Query in Excel and Power BI (2018) by Gil Raviv*

NEXT WEBINAR

Cleaning Data in Power Query

- ✓ *Time/date cleaning*
- ✓ *Text cleaning*
- ✓ *Number cleaning*

CONCLUSIONS & QUESTIONS

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