[BITE-SIZED POWER QUERY]

Custom Function for List of Dates

Function: DateList

```
(from as date, to as date, step_function as function) as list =>
let
    endpoint_function
        = (step_function as function) as function => (date as date) as number =>
        let lookup =
            {
            {Date.AddDays, Number.From(date)},
            {Date.AddMonths, Date.Year(date)*12 + Date.Month(date)},
            {Date.AddQuarters, Date.Year(date)*4 + Date.QuarterOfYear(date)},
            {Date.AddWeeks, Date.Year(date)*52 + Date.WeekOfYear(date)},
            {Date.AddYears, Date.Year(date)}
            }
        in List.Select(lookup, each _{0} = step_function){0}{1},

    fn = endpoint_function(step_function),

    Steps = fn(to) - fn(from),

    Transformer = (element as number) => step_function(from,element),

    Result = List.Transform({0..Steps}, Transformer)
in
    Result
```

Pass a start and end date and a "step_function" – one of Date.AddDays, Date.AddMonths, Date.AddQuarters, Date.AddWeeks or Date.AddYears

1

2

endpoint_function is configured by step_function and returns a function that converts a date to a number.

The number serves as an endpoint to the numeric index of the list of dates.

```
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let
    endpoint_function
        = (step_function as function) as function => (date as date) as number =>
        let lookup =
            {
            {Date.AddDays, Number.From(date)},
            {Date.AddMonths, Date.Year(date)*12 + Date.Month(date)},
            {Date.AddQuarters, Date.Year(date)*4 + Date.QuarterOfYear(date)},
            {Date.AddWeeks, Date.Year(date)*52 + Date.WeekOfYear(date)},
            {Date.AddYears, Date.Year(date)}
            }
        in List.Select(lookup, each _{0} = step_function){0}{1},
…
```

3

Define a lookup as a list of lists. For each sub-list, the first element is one of the valid step functions. The second element is a calculation to convert the date to a number.

4

Select from the lookup that sub-list whose first element matches step_function and return the second element (i.e. the date converted to a number)

1 Define fn as an endpoint_function configured with the step function passed to DateList.

2 Calculate the number of steps using the difference between the number representation of the *to* date and the number representation of the *from* date

```
    fn = endpoint_function(step_function),

    Steps = fn(to) - fn(from),

    Transformer = (element as number) => step_function(from,element),

    Result = List.Transform({0..Steps}, Transformer)
in
    Result
```

3 Define a function with which to transform a list of numbers.

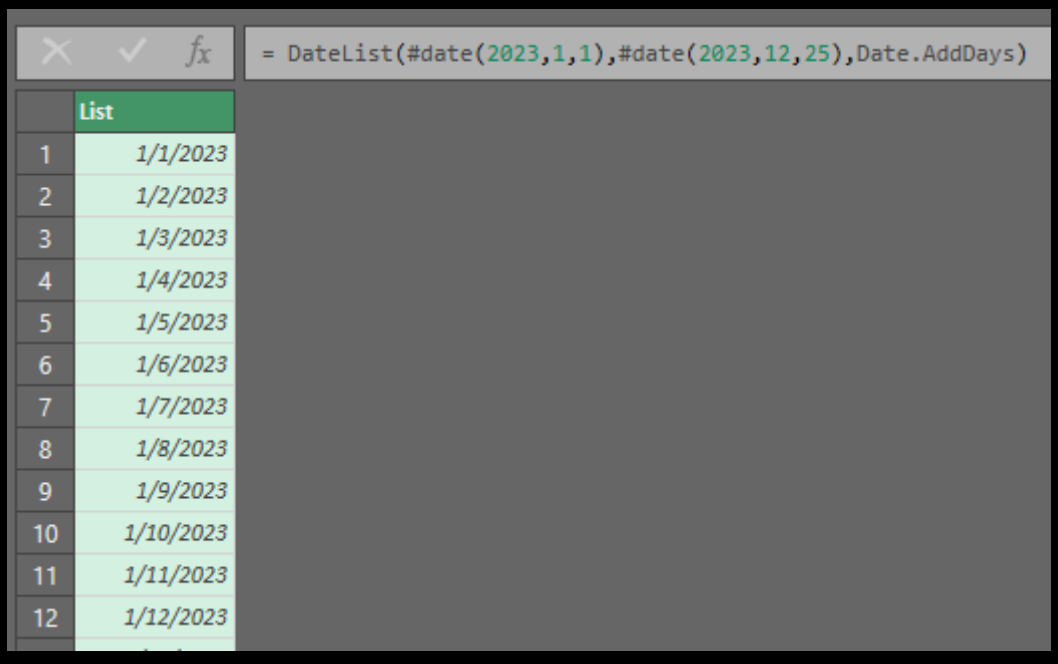
E.g.

In the case of Date.AddMonths, for a list {0,1,2}, add 0, 1 and 2 months respectively to the *from* date.

4 Transform the list of numbers from 0 to Steps using the Transformer function

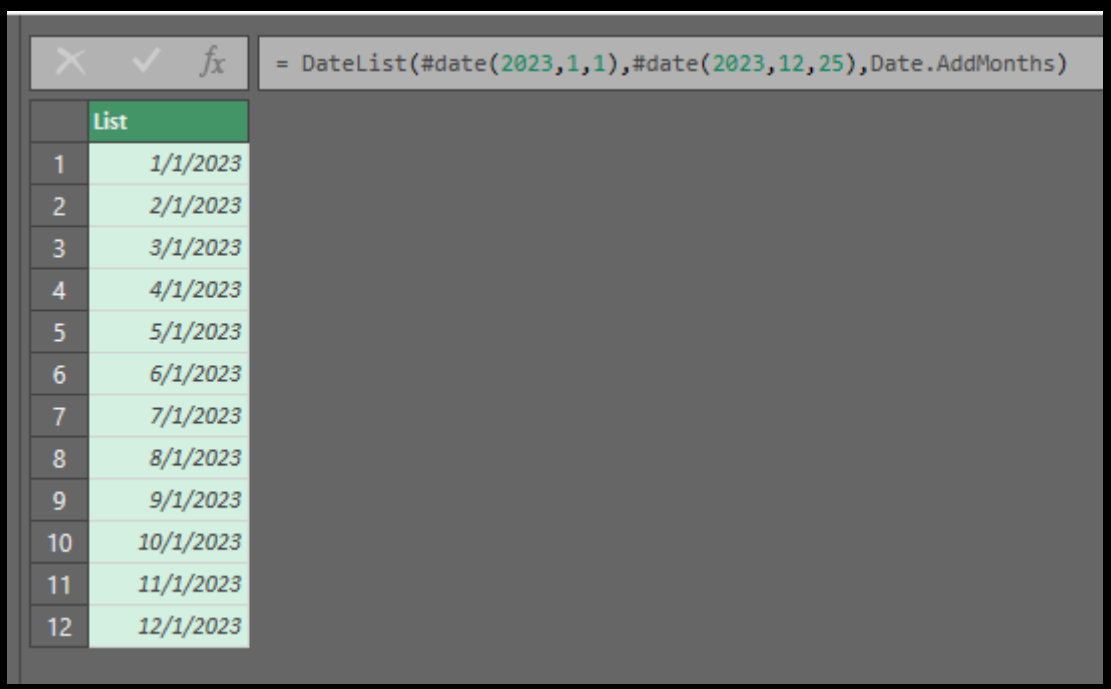
Usage

Incremented by days



	List
1	1/1/2023
2	1/2/2023
3	1/3/2023
4	1/4/2023
5	1/5/2023
6	1/6/2023
7	1/7/2023
8	1/8/2023
9	1/9/2023
10	1/10/2023
11	1/11/2023
12	1/12/2023

Incremented by months



	List
1	1/1/2023
2	2/1/2023
3	3/1/2023
4	4/1/2023
5	5/1/2023
6	6/1/2023
7	7/1/2023
8	8/1/2023
9	9/1/2023
10	10/1/2023
11	11/1/2023
12	12/1/2023

Incremented by quarters

```
= DateList(#date(2023,1,1),#date(2023,12,25),Date.AddQuarters)
```

	List
1	1/1/2023
2	4/1/2023
3	7/1/2023
4	10/1/2023

Incremented by weeks

```
= DateList(#date(2023,1,1),#date(2023,12,25),Date.AddWeeks)
```

	List
1	1/1/2023
2	1/8/2023
3	1/15/2023
4	1/22/2023
5	1/29/2023
6	2/5/2023
7	2/12/2023
8	2/19/2023
9	2/26/2023

Incremented by years

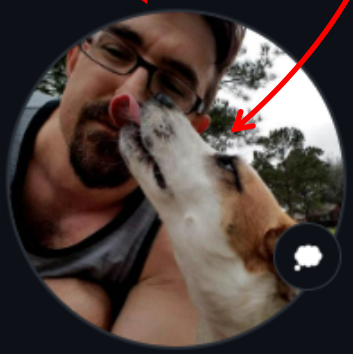
```
= DateList(#date(2023,1,1),#date(2025,12,25),Date.AddYears)
```

	List
1	1/1/2023
2	1/1/2024
3	1/1/2025

For the code:
https://gist.github.com/ncalm

Me

Lola



Owen Price
ncalm

Data guy. Interested in Excel, Python, Tableau, DAX, M, R, SQL and any other way to squeeze value out of data.

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https://gist.github.com/ncalm

https://www.flexyourdata.com

@flexyourdata

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```
(from as date, to as date, step_function as function) as list =>
let
    endpoint_function
        = (step_function as function) as function =>
            (date as date) as number =>
                let lookup =
                    {
                        {Date.AddDays, Number.From(date)},
                        {Date.AddMonths, Date.Year(date)*12 + Date.Month(date)},
                        {Date.AddQuarters, Date.Year(date)*4 + Date.QuarterOfYear(date
```

ncalm / **powerquery-simplejoin.m**
Created last week
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```
(LeftTable as table, JoinColumns as list, RightTable as table, optional JoinColumnsRig
optional DuplicateColumnPrefix as text, optional JoinKind as number) =>
let

    //a function to handle null (optional) parameters
```