

Question

Lee Cascio · Jan 5, 2021

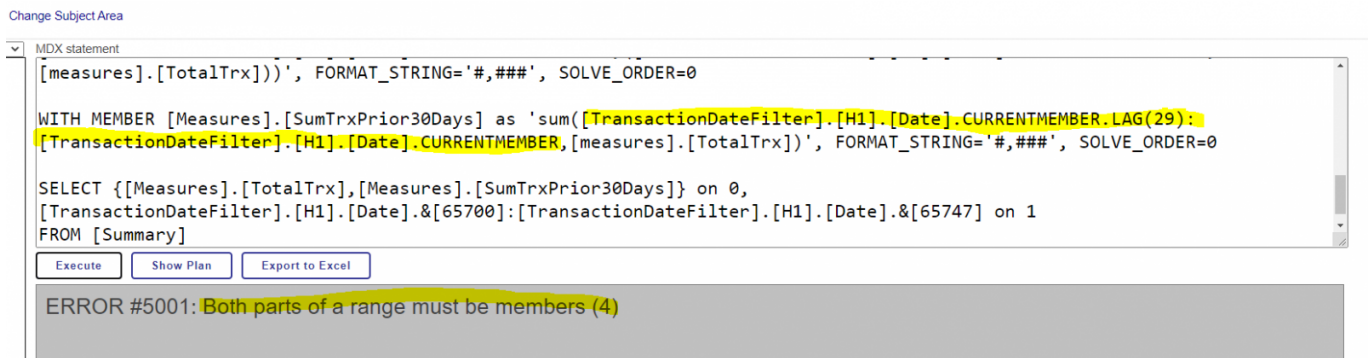
How to define a set range using member functions?

Is it supported to be able to use member functions to define a set, in particular a set defined with a member range in the form:

set = member1:member2?

The docs only show hardcoded values being used for member1 and member2 and I can get it to work if I use hardcoded values. However if I try to use member functions it throws an error:

"ERROR #5001: Both parts of a range must be members"

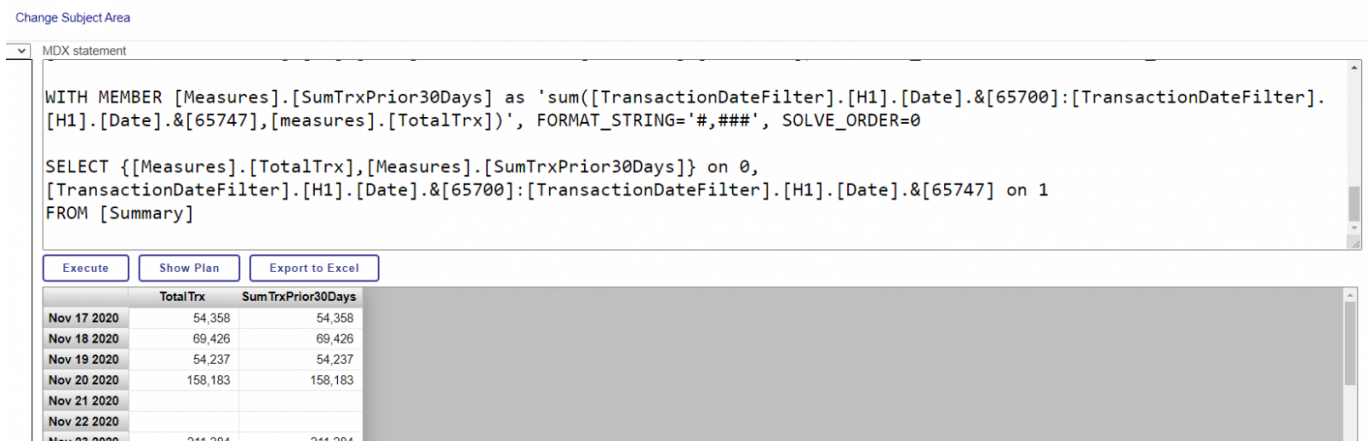


The screenshot shows the MDX editor interface. The MDX statement is as follows:

```
[measures].[TotalTrx]))', FORMAT_STRING='#,###', SOLVE_ORDER=0  
  
WITH MEMBER [Measures].[SumTrxPrior30Days] as 'sum([TransactionDateFilter].[H1].[Date].CURRENTMEMBER.LAG(29):  
[TransactionDateFilter].[H1].[Date].CURRENTMEMBER,[measures].[TotalTrx])', FORMAT_STRING='#,###', SOLVE_ORDER=0  
  
SELECT {[Measures].[TotalTrx],[Measures].[SumTrxPrior30Days]} on 0,  
[TransactionDateFilter].[H1].[Date].&[65700]:[TransactionDateFilter].[H1].[Date].&[65747] on 1  
FROM [Summary]
```

Below the statement are buttons for "Execute", "Show Plan", and "Export to Excel". The error message displayed is: "ERROR #5001: Both parts of a range must be members (4)".

While the below does not give me the correct answers without using the %All function, it does work. It's not workable for a typical application that needs dynamic dates (and/or using the dates on the axis) unless I do some kind of dynamic MDX. I've experimented with other set functions like COUNT, all have the same issue. Is it possible to do?



The screenshot shows the MDX editor interface with a successful query result. The MDX statement is:

```
WITH MEMBER [Measures].[SumTrxPrior30Days] as 'sum([TransactionDateFilter].[H1].[Date].&[65700]:[TransactionDateFilter].  
[H1].[Date].&[65747],[measures].[TotalTrx])', FORMAT_STRING='#,###', SOLVE_ORDER=0  
  
SELECT {[Measures].[TotalTrx],[Measures].[SumTrxPrior30Days]} on 0,  
[TransactionDateFilter].[H1].[Date].&[65700]:[TransactionDateFilter].[H1].[Date].&[65747] on 1  
FROM [Summary]
```

Below the statement are buttons for "Execute", "Show Plan", and "Export to Excel". The result table is:

| | Total Trx | Sum TrxPrior30Days |
|-------------|-----------|--------------------|
| Nov 17 2020 | 54,358 | 54,358 |
| Nov 18 2020 | 69,426 | 69,426 |
| Nov 19 2020 | 54,237 | 54,237 |
| Nov 20 2020 | 158,183 | 158,183 |
| Nov 21 2020 | | |
| Nov 22 2020 | | |
| Nov 23 2020 | 211,284 | 211,284 |

I know that %TIMERANGE can work for some things but that returns only a member that contains a total. It cannot be used to operate on the individual members.

If for each date, I want a count of days in the past 30 days that have [TotalTrx]>0, I would normally handle this with something like:

```
sum(startmember-29:startmember,iif([TotalTrx]>0,1,0)).
```

I can't figure out how something like that could be implemented if set functions can't take a set argument that is a member range based off of member functions (like CURRENTMEMBER).

[#InterSystems IRIS Analytics \(DeepSee\)](#)

Source URL: <https://community.intersystems.com/post/how-define-set-range-using-member-functions>