
Question

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Retrieving the absolute last entry from set of members in a level

Hi,

I have a persistent class “ sp.SensorReading ” which has a number of Properties: Date, SensorName, SensorReading. (sometimes multiple readings from the same sensor, on a given day)

```
...
Temp  28 Jan      33.5
Temp  29 Jan      31.2
Temp  30 Jan      33.1
Temp  30 Jan      34.1
Temp  31 Jan      32.1
Temp  31 Jan      33.1
```

Say I built a cube built to analyse data from this persistent class. With a simple date dimension, and SensorName filter, I can show the default COUNT of readings for a given month/year:

```
Jan-2015      94
Feb-2015      54
Mar-2015      78
...
```

I have a date dimension with levels for Year, Quarter, MonthYear, and Date. Instead of the default COUNT measure , I want to get the last value pushed out by a sensor for a given selected period. So let ' s say, the last value for temperature, for each date dimension member: This is what I would want to see if selecting on MonthYear:

```
Jan-2015      33.1
Feb-2015      32.2
Mar-2015      31.8
...
```

My approach is be to define a calculated measure which, returns the reading from the last member of the selected group of readings, using the MDX %LAST function.

Something like the following defined in the cube - Calculated Measure: LastReading:
%LAST([SensorDate].Members,Measures.SensorReading)

However – As in the example for January above, sometimes, I get multiple readings on the same day for the same sensor, and if that happens to be the last day of the month, the reading are added.

```
Jan-2015 65.2
Feb-2015  32.2
Mar-2015  31.8
```

Is it possible to have a pure MDX - based expression to fix this, ie, when %LAST(...Members) actually returns

multiple entries ?

(ie, Can I achieve what I want without introducing a cube dimension that is resolved based on whether a particular reading is the last reading of the month, at data upload or build – because – the period is not always defined as ' month ' , but could be Year, YearQuarter, or even arbitrary dates.

thanks -

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