



MUSEUMS LIBRARIES ARCHIVES
RESEARCH RESOURCES

MLA Partnership Dataset Analyser Creating a Report v1.0

Created by: Amanda Ng
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Table of contents

What is a Report?	3
Creating a report	4
Steps for creating a report	4
Navigating to the Create New Report screen from the Report Index.....	5
Step 1 Report details.....	5
Step 1 Report details.....	6
Step 2 The report grid	7
Step 3 Report descriptions	11
Saving the report	11
Customising the report.....	12
Appendix.....	15
Short names	15
Access levels	15
OLAP Cubes	16
MDX	18

What is a Report?

A Report is a table containing information about similar items. The information may be numerical, such as the percentage of respondents who selected “very good”, or it may be descriptive, such as the most popular response selected. The ‘similar items’ are usually descriptive, such as region or local authority.

Museum/Gallery	Measures	
	Reason: children request %	
	Survey period	
	2004	2005
Total	18.45%	14.49%
North East	23.55%	20.51%
North West	16.55%	15.96%
Yorkshire and The Humber	10.28%	7.08%
East Midlands	26.34%	15.38%
West Midlands	17.03%	11.32%
East of England	18.25%	17.07%
London	21.83%	13.40%
South East	13.35%	11.39%
South West	22.29%	18.79%

This is an example of a Report. It contains percentages of responses from a user survey regarding their main reason for visiting the museum.

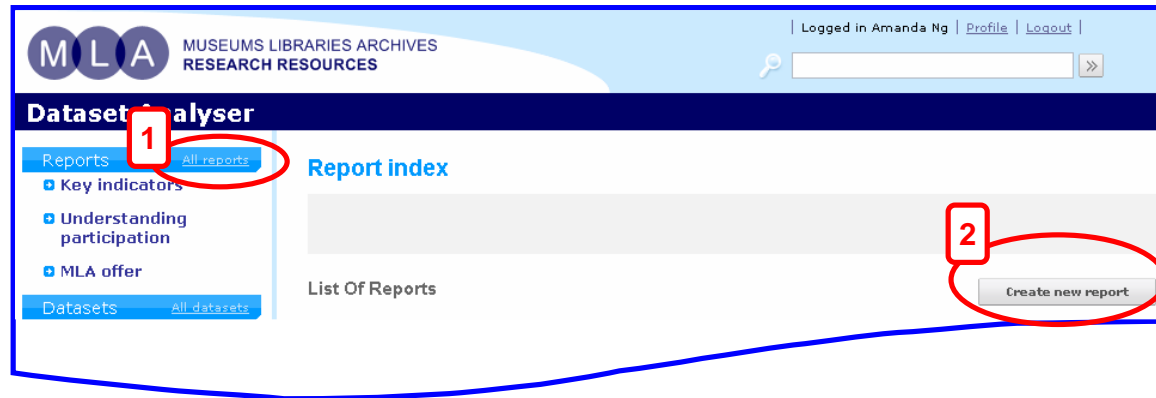
Creating a report

This manual contains instructions and tutorials for creating reports in the Dataset Analyser.

Steps for creating a report

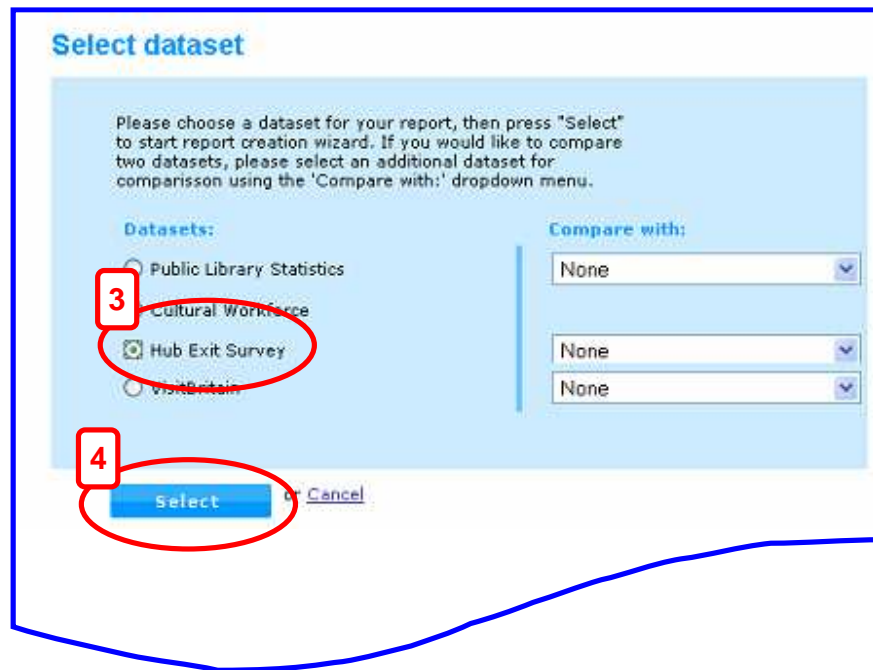
	Task	Example
1	The first step to creating a report is deciding what the report should show.	“What percentage of museum visitors in 2004 and 2005 attended because their children wanted to visit?”
2	Select the dataset that contains data relevant to the report	Hub Exit Survey
3	Select the cube that contains data relevant to the report.	“Hub Exit main reason for visit”
4	Decide what should appear in the column headings.	“Years”
5	Decide what should appear in the row headings.	“Regions”
6	Decide what numerical data should be shown.	“We want to show the percentage of respondents who selected ‘events’”
7	Edit the report grid to reflect the table that is required.	Add Survey Period as a column heading. Add Museum/Gallery as a row heading. Add Measures as a column heading.
8	Add filters as required	Add a region filter.
9	Add warnings and notes in the footnote as required	“If you do not know your site code, please contact MLA Research at research@mla.gov.uk . Note that you will only be provided with the site code of the museum for which you work.”
10	Add a short description	“This report shows the percentage of museum visitors in each region who attended because their children wanted to visit, comparing figures from 2004 and 2005”
11	Add a longer description	“This report answers the question “What percentage of museum visitors in 2004 and 2005 attended because their children wanted to visit?””

Navigating to the Create New Report screen from the Report Index



To navigate to the Report Index, click on **All Reports (1)** in the Reports menu

Click on **Create new report (2)**



Select the **dataset (3)** containing the information the report will require

Click **Select (4)**

Step 1 Report details

Create new report

Step 1 Step 2 Step 3

General

Name 1

Short name for URL 2 Enter a short name to be displayed as the report's URL.

Access level 3 Specify user roles to be allowed to view the report. Please select one

Category 4

<p>Key indicators</p> <p><input type="checkbox"/> Hub Museum key indicators</p> <p><input type="checkbox"/> Library indicators for benchmarking</p> <p><input type="checkbox"/> Accreditation key indicators</p> <p><input type="checkbox"/> Corporate key indicators</p>	<p>Understanding participation</p> <p><input type="checkbox"/> By age</p> <p><input type="checkbox"/> By gender</p> <p><input type="checkbox"/> By social grade</p> <p><input type="checkbox"/> By ethnicity</p> <p><input type="checkbox"/> By households</p> <p><input type="checkbox"/> By qualification</p>	<p>MLA offer</p> <p><input type="checkbox"/> Museums</p> <p><input type="checkbox"/> Libraries</p> <p><input type="checkbox"/> Archives</p>
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Next > or [Cancel](#) 5

Enter a **name (1)** for the report. This name will appear both as the title of the report as well as in the lists of reports.

Enter a **short name (2)** for use as a unique URL. Note that the short name must only contain lower case letters, numbers, hyphen and/or underscore. See Appendix for more information.

Select an **access level (3)**. See Appendix for more information.

Check **categories (4)** that match the report. If a **category** is checked, the report will appear in the relevant report list, navigated to through the Reports menu.

Click **Next (5)** to go to **Step 2**

Step 2 The report grid

The screenshot shows the 'Edit report' interface. At the top, there are three tabs: 'Step 1', 'Step 2' (which is active), and 'Step 3'. Below the tabs is a section titled 'Cubes'. A dropdown menu is open, showing 'Hub Exit Main reason for visit' selected. A red circle labeled '1' is around the dropdown, and another red circle labeled '2' is around the right-pointing arrow button. Below the 'Cubes' section is a 'Report grid' section. It contains a toolbar with icons for MDX, grid, list, refresh, add, minus, bar chart, pie chart, print, and export. Below the toolbar is a table with two columns: 'Museum/Gallery' and 'Measures'. The 'Measures' column has a sub-column 'Count'. The table data is as follows:

Museum/Gallery	Measures
	Count
Total	67,897
North East	10,063
North West	9,875
Yorkshire and The Humber	8,628
East Midlands	6,696
West Midlands	9,039
East of England	5,042
London	5,741
South East	6,250
South West	6,563

Select the **cube (1)** which relates to the report you want to create. See Appendix for more information on cubes.

Click the **» button (2)**. The **report grid** will update.

Editing the Report grid













The Report grid is the main focus of the report page. It is a table of data that comprises the report.

There are two methods for editing the Report grid: using the OLAP Navigator and editing the MDX. MDX is a computing language and may be useful for advanced users. See the Appendix for further information on MDX.

The screenshot shows a 'Report grid' interface. At the top is a menu bar with various icons. Below the menu bar is a table with the following data:

Museum/Gallery	Measures
	Count
Total	67,897
North East	10,063
North West	9,875
Yorkshire and The Humber	8,628
East Midlands	6,696
West Midlands	9,039
East of England	5,042
London	5,741
South East	6,250
South West	6,563

Report grid menu

-  OLAP navigator
-  MDX editor
-  Show parent members
-  Hide spans
-  Suppress empty rows/columns
-  Swap axes
-  Show expand/collapse buttons
-  Show chart
-  Chart configuration
-  Print configuration settings
-  Print grid via PDF
-  Export grid to Excel

OLAP Navigator



The OLAP Navigator is used to specify what information should show in the report grid. The user can select **dimensions** and/or **measures** and designate whether they should appear as **columns** or **rows** in the report grid.

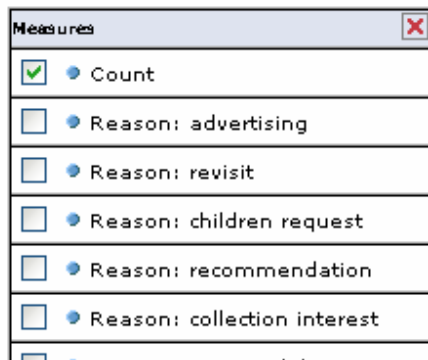
What are dimensions and measures?

Dimensions are identifying features of the data, such as region, museum type, etc.

Measures are the numerical data, such as number of visitors, hours open per week, etc.

Rule #1 Each report must have at least one dimension/measure as a column and at least one dimension/measure as a row.
Rule #2 Measures must be included as a column or a row.

Step 1 Add **Measures** as a column by clicking or as a row by clicking (these buttons appear next to Measure). Usually Measures is added as a column.



Step 2 Click on **Measures** to select which data to display.

Check the measure(s) that should be displayed.

Click the **None** button to deselect all measures. When no measures are selected, an **All** button appears. Click the **All** button to select all measures.

Click **OK** to save the changes, or **Cancel** to abandon the changes.

Step 3 Add or change **dimensions** as required as columns or rows by clicking on the or buttons next to the dimensions. To remove a dimension click (next to the dimension).

Step 4 Click on each dimension and select which data to display.



Check the item(s) that should be displayed.

Click the **None** button to deselect all items. When no measures are selected, an **All** button appears. Click the **All** button to select all measures.

Click the **-** to collapse a list.

Click the **+** to expand a list.

Click **OK** to save the changes, or **Cancel** to abandon the changes

Step 5 After saving selections for the Measures and Dimensions, in the **OLAP Navigator** click **OK** to save changes, or **Cancel** to abandon the changes made.

Step 6 If the report is based on the Hub Exit Survey or the Renaissance Participation raw totals data, you can choose to hide the site names from the user. Click **Hide site name** button to do so.

MDX editor

The MDX editor allows a user to directly edit the MDX code. This is a feature for advanced users. For more information on using MDX, please refer to the Appendix.

Filters

Add filters to the report as required.

Step 1 Select the **filter (1)** from the drop down list

Step 2 Click the **» button (2)**

Step 3 Check the **items (3)** that should be included in the report

Step 4 To allow users of the report to change which items are selected, click **Make adjustable by viewer (4)**

Step 5 Click the **Apply (5)** button to update the grid

To remove a filter, click the **Delete filter (5)** link.

Footnotes

Any instructions for usage, or important notes regarding the data returned or the report should be added here.

Step 3 Report descriptions

Short summary

The short summary appears in the report lists. It should be a concise description of the report and should also indicate which dataset the report is based on.

Description

The description should include specific details of what the report shows and the dataset it is based on.

Saving the report

Click Finish to save the report

Customising the report



Show parent members

Dimension data is often hierarchised.

For example, regions are divided into counties, and counties are divided into local authorities. Counties are ‘parents’ of local authorities, and regions are ‘parents’ of counties. Local authorities are ‘children’ of counties, and counties are ‘children’ of regions.

This button toggles whether to show parents in separate columns to their children, or to show them in the same column.

Parents and children in the same column

		Measures	
		Opening Hours %	
Local Authority		Very Good	
- 2003-04			
- North East			
Gateshead		37.70%	46.
Newcastle upon Tyne		34.40%	41.
North Tyneside		0.00%	0.
South Tyneside		41.80%	43.
Sunderland		35.70%	40.
Hartlepool		48.70%	42.
Middlesbrough		30.70%	42.

Parents and children in the same column

			Measures	
			Opening Hours %	
Local Authority			Opening Hours	
Year	Region	Authority	Very Good	
- 2003-04				
2003-04	- North East			
	North East	Gateshead	37.70%	46.
		Newcastle upon Tyne	34.40%	41.
		North Tyneside	0.00%	0.
		South Tyneside	41.80%	43.
		Sunderland	35.70%	40.
		Hartlepool	48.70%	42.
Middlesbrough		30.70%	42.	

This option is useful when used in conjunction with the **Hide spans** option for ensuring all relevant data appears in each row when exporting to Excel.

 **Hide spans**

This button shows or hides repeated information, such as “2003-04”, “North East”, “Opening Hours %” and “Opening Hours” in the following example.

“Hide spans” turned off

Local Authority			Measures	
			Opening Hours %	Opening Hours
Year	Region	Authority	Very Good	Good
- 2003-04				
2003-04	- North East			
	North East	Gateshead	37.70%	46.50%
		Newcastle upon Tyne	34.40%	41.20%
		North Tyneside	0.00%	0.00%
		South Tyneside	41.80%	43.20%
		Sunderland	35.70%	40.10%
		Hartlepool	48.70%	42.00%

“Hide spans” turned on

Local Authority			Measures	
			Opening Hours %	Opening Hours %
Year	Region	Authority	Very Good	Good
- 2003-04				
2003-04	- North East			
2003-04	North East	Gateshead	37.70%	46.50%
2003-04	North East	Newcastle upon Tyne	34.40%	41.20%
2003-04	North East	North Tyneside	0.00%	0.00%
2003-04	North East	South Tyneside	41.80%	43.20%
2003-04	North East	Sunderland	35.70%	40.10%
2003-04	North East	Hartlepool	48.70%	42.00%

This option is useful when used in conjunction with the [Show parent members](#) option for ensuring all relevant data appears in each row when exporting to Excel.



Suppress empty rows/columns

This button will hide rows that are blank (ie no data).



Swap axes

This button will swap the fields that appear on the column and row axes.



Drill position

This button will show the expand + and collapse - buttons in the grid. This button is useful for removing the ability for a user to inspect data closely. For example, reports based on the Renaissance and Hub Exit Survey datasets should remove the ability for users to expand the Museum/Gallery hierarchy and identify sites by their museum service.



Show chart

This button inserts a chart of the data in the grid.



Chart configuration

This button brings up a list of settings for the appearance of the chart.



Print configuration settings

This button brings up a list of layout settings for printing.



Print grid via PDF

This button exports the grid and/or chart as a PDF (which can then be printed).



Export grid to Excel

This button exports the grid to Excel

Appendix

Short names

Users will be able to directly access the report (provided they are logged in) by linking to the location

<http://research.mla.gov.uk/data/short-name>

where short-name is the name entered here.

Note that the short name must only contain lower case letters, numbers, hyphen and/or underscore (eg plus_my-report1).

Access levels

Administrator should be used for reports that only administrators can access.

MLA Partnership Staff should be used for reports that can be accessed by MLA Partnership staff, but must not be available to non MLA Partnership users (eg general public, staff in related organisations).

Registered Public should be used for reports that can be accessed by staff of partner organisations, but not to the general public.

Anonymous should be used for reports that can be accessed by the general public.

OLAP Cubes

What is a cube?

Cubes are similar to tables of data.

A table is two-dimensional: it has columns and rows. The important data is contained in cells.

	Apples	Oranges	Bananas
Store A	100	200	300
Store B	40	60	100
Store C	70	30	50

Table of data

This table shows how many of each fruit, each store purchased. **Columns** show the type of fruit purchased, **rows** show which store purchase the fruits, and the **cells** of the table show how many fruits were purchased.

A Cube can add more dimensions, such as months. Therefore a cube could show not just which how many of each fruit each store purchase, but how many of each fruit, each store purchased each month.

June	Apples	Oranges	Bananas
May	Apples	Oranges	Bananas
April	Apples	Oranges	Bananas
March	Apples	Oranges	Bananas
February	Apples	Oranges	Bananas
January	Apples	Oranges	Bananas
Store A	100	200	300
Store B	40	60	100
Store C	70	30	50

Three-dimensional OLAP cube

This example has three **dimensions**: Store, Fruit and Month. The cube **measures** the number of purchases of each fruit by each store in each month.

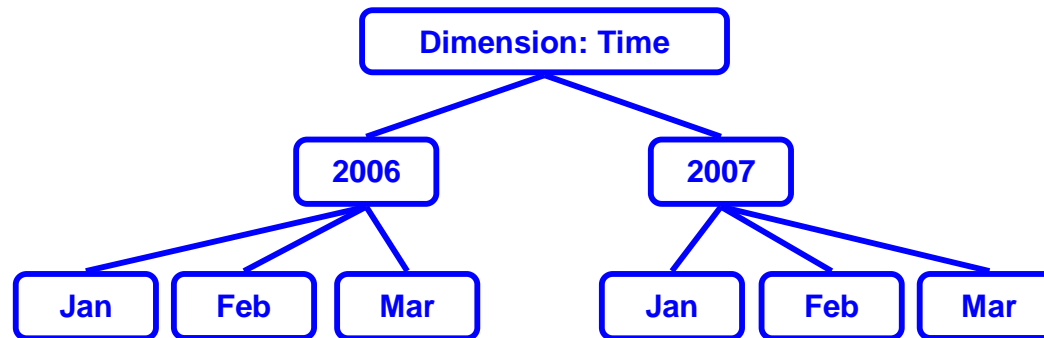
The name “Cube” can be a little misleading. The generic term “cube” refers to an object of three dimensions, however OLAP Cubes can have any number of dimensions.

	June	Apples	Oranges	Bananas
May		Apples	Oranges	Bananas
April		Apples	Oranges	Bananas
March		Apples	Oranges	Bananas
February		Apples	Oranges	Bananas
January		Apples	Oranges	Bananas
Store A		Purchases: 100 Sales: 80	Purchases: 200 Sales: 200	Purchases: 300 Sales: 280
Store B		Purchases: 40 Sales: 40	Purchases: 60 Sales: 60	Purchases: 100 Sales: 80
Store C		Purchases: 70 Sales: 60	Purchases: 30 Sales: 30	Purchases: 50 Sales: 30

Three-dimensional OLAP cube with two measures

Cubes can also have more than one **measure**. For example, a cube could show the number of purchases AND the number of sales of each fruit by each store in each month.

Each group has a hierarchy similar to a family tree. Let's examine a 'time' group.



- The dimension **Time** has two **children**: **2006** and **2007**
- **2006** has three **children**, as does **2007**.
- **2006's parent** is **Time**.
- **2006's child "Jan"** has 3 **siblings** (Jan, Feb, Mar), not 2! Jan is considered a sibling of itself.

MDX

MDX is a computing language used to extract data from cubes.

For those who are interested, an online reference manual for MDX exists here:


<http://msdn2.microsoft.com/en-us/library/ms145506.aspx>

Advanced users may be interested in the following added functionality that is possible through MDX:

- Calculating values (eg summing two columns together)
- Changing how the value is displayed (eg number of decimal places, colour)
- Adding complex filters

The examples in the following information and instructions refer to a report set up as follows:

- **VisitBritain** dataset
- **Measures** as columns, with the following measures selected
 - FT Permanent staff
 - FT Sessional staff
- **Region** as rows, with the following items selected
 - East Midlands
 - East of England
 - London
 - North East
 - North West
 - South East
 - South West
 - West Midlands
 - Yorkshire and the Humber

Click on the  button to view the MDX code.

Basic syntax

A basic MDX statement has two sections:

```
select {[Measures].[FT permanent staff], [Measures].[PT permanent staff]} ON COLUMNS,
    {[Region].[Grand total].[A], [Region].[Grand total].[B], [Region].[Grand total].[D], [Region].[Grand total].[E], [Region].[Grand total].[F], [Region].[Grand total].[G], [Region].[Grand total].[H], [Region].[Grand total].[J], [Region].[Grand total].[K]} ON ROWS
from [VisitBritainAggregation]
```

The **select** section declares what data to include in the report. In this example, the select section declares that:

- Two items should appear as columns:
 - [Measures].[FT permanent staff]
 - [Measures].[PT permanent staff]
- Nine items should appear as rows:
 - [Region].[A]
 - [Region].[B]
 - [Region].[D]
 - [Region].[E]
 - [Region].[F]
 - [Region].[G]
 - [Region].[H]
 - [Region].[J]
 - [Region].[K]

Region	Measures	
	FT permanent staff	PT permanent staff
East Midlands	191	192
East of England	393	270
London	2,284	485
North East	310	184
North West	667	324
South East	286	265
South West	271	216
West Midlands	460	129
Yorkshire and The Humber	339	149

The **from** section declares which cube to retrieve data from.

Calculating values

Calculated values can be added to the statement by adding a **with** section. The following calculates the total number of permanent staff by adding the number of full time permanent staff to the number of part time permanent staff.

```
with member [Measures].[Permanent staff] as '([Measures].[FT permanent staff] + [Measures].[PT permanent staff])'
select {[Measures].[FT permanent staff], [Measures].[PT permanent staff], [Measures].[Permanent staff]} ON COLUMNS,
    {[Region].[Grand total].[A], [Region].[Grand total].[B], [Region].[Grand total].[D], [Region].[Grand total].[E], [Region].[Grand total].[F], [Region].[Grand total].[G], [Region].[Grand total].[H], [Region].[Grand total].[J], [Region].[Grand total].[K]} ON ROWS
from [VisitBritainAggregation]
```

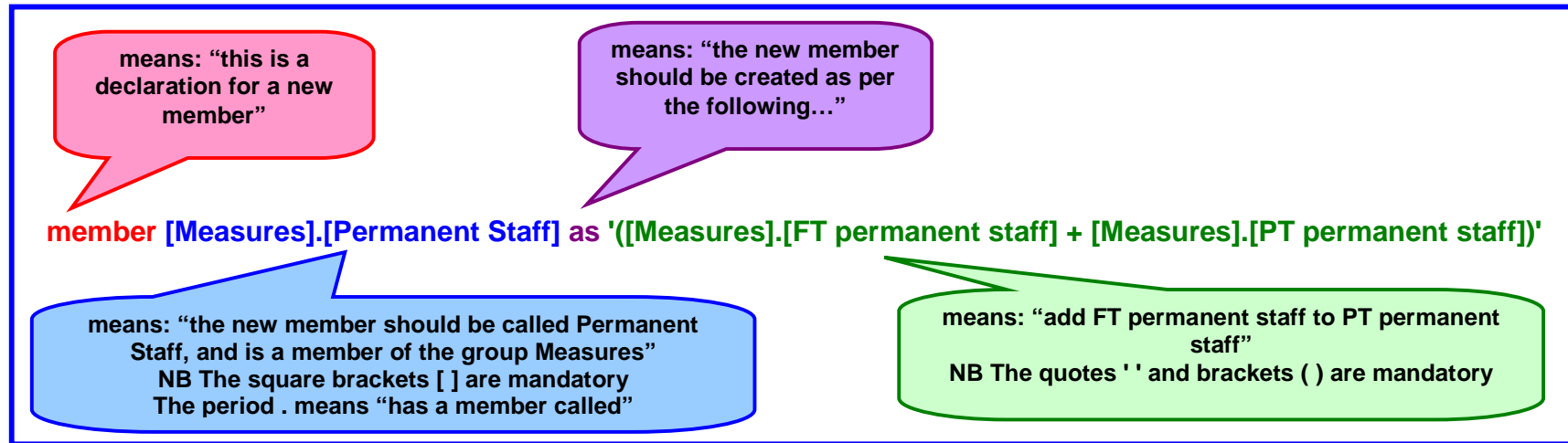
The **with** section declares new members (see Olap Cubes for a definition of ‘members’).

In the **select** section, the new member is added to indicate that it should be shown as a column.

Region	Measures		
	FT permanent staff	PT permanent staff	Permanent staff
North East	310	184	494
North West	667	324	991
Yorkshire and The Humber	339	149	488
East Midlands	191	192	383
West Midlands	460	129	589
East of England	393	270	663
London	2,284	485	2,769
South East	286	265	551
South West	271	216	487

Breakdown of the declaration

This example declares a new member of **Measures** called **Permanent Staff**, and defines the new measure as the **addition** of **[FT permanent staff]** and **[PT permanent staff]**.



Basic calculations

Calculation	Example
Addition	[Measures].[FT permanent staff] + [Measures].[PT permanent staff] means: add together the number of full time permanent staff and the number of part time permanent staff
Subtraction	[Measures].[Visitors (current year)] - [Measures].[Visitors (previous year)] means: subtract the number of visitors in the current year from the number of visitors in the previous year (ie what's the difference in visitor numbers from last year to this year?)
Multiplication	[Measures].[FT permanent staff] * 2 means: multiply the number of full time permanent staff by 2
Division	[Measures].[Visitors (current year)] / [Measures].[FT permanent staff] means: divide the number of visitors by the number of full time permanent staff (ie how many visitors are there per full time staff member?)

Advanced calculations

Calculation	Example
Average	Avg ({[County].children},[Measures].[FT permanent staff]) means: average of the total number of full time permanent staff in each county note the mandatory brackets () and curly brackets { }
Count	Count ({[County].children}) means: number of counties note the mandatory brackets () and curly brackets { }
Median	Median ({[County].children}, [Measures].[FT permanent staff]) Means: median (most common) of the total number of full time permanent staff in each county
Minimum	Min ({[County].children}, [Measures].[FT permanent staff]) Means: minimum (smallest) of the total number of full time permanent staff in each county
Maximum	Max ({[County].children}, [Measures].[FT permanent staff]) Means: median (most common) of the total number of full time permanent staff in each county
Sum	Sum ({[County].children}, [Measures].[FT permanent staff]) Means: median (most common) of the total number of full time permanent staff in each county

Calculating percentages

The formula for calculating **A** as a percentage of **B** is

$$A / B * 100$$

Examples:

To calculate the **number of full time permanent staff** as a percentage of the **total number of permanent staff**:

$$[Measures].[FT permanent staff] / [Measures].[Permanent staff] * 100$$

To calculate the **number of permanent staff** as a percentage of the **total number of permanent staff in all regions** (ie England)

$$[Measures].[Permanent staff] / \text{Sum}(\{[Region].siblings\}, [Measures].[Permanent staff]) * 100$$

with

member [Measures].[Permanent staff] as '[FT permanent staff] + [PT permanent staff]'

member [Measures].[Permanent staff %] as '**[Measures].[Permanent staff] / Sum({[Region].siblings}, [Measures].[Permanent staff]) * 100'**

select {[Measures].[FT permanent staff], [Measures].[PT permanent staff], [Measures].[Permanent staff], [Measures].[Permanent staff %]} ON COLUMNS,
 {[Region].Members} ON ROWS

from [VisitBritainAggregation]

Region	Measures			
	FT permanent staff	PT permanent staff	Permanent staff	Permanent staff %
Grand total	5,201	2,214	7,415	100
North East	310	184	494	6.662
North West	667	324	991	13.365
Yorkshire and The Humber	339	149	488	6.581
East Midlands	191	192	383	5.165
West Midlands	460	129	589	7.943
East of England	393	270	663	8.941
London	2,284	485	2,769	37.343
South East	286	265	551	7.431
South West	271	216	487	6.568

Changing how values are displayed

The way a value is displayed is called formatting. MDX can be used to specify formatting of values.

The following code displays our calculated Permanent staff % **to one decimal place**.

```
with member [Measures].[Permanent staff] as '([Measures].[FT permanent staff] + [Measures].[PT permanent staff])'
  member [Measures].[Permanent staff %] as '((([Measures].[Permanent staff] / Sum({[Region].Siblings}, [Measures].[Permanent staff])) * 100.0)', FORMAT_STRING = '#0.0'
select {[Measures].[FT permanent staff], [Measures].[PT permanent staff], [Measures].[Permanent staff],
[Measures].[Permanent staff %]} ON COLUMNS,
  {[Region].Members} ON ROWS
from [VisitBritainAggregation]
```

Region	Measures			
	FT permanent staff	PT permanent staff	Permanent staff	Permanent staff %
Grand total	5,201	2,214	7,415	100.0
North East	310	184	494	6.7
North West	667	324	991	13.4
Yorkshire and The Humber	339	149	488	6.6
East Midlands	191	192	383	5.2
West Midlands	460	129	589	7.9
East of England	393	270	663	8.9
London	2,284	485	2,769	37.3
South East	286	265	551	7.4
South West	271	216	487	6.6

The following code displays our calculated Permanent staff % to **one decimal and highlighted yellow.**

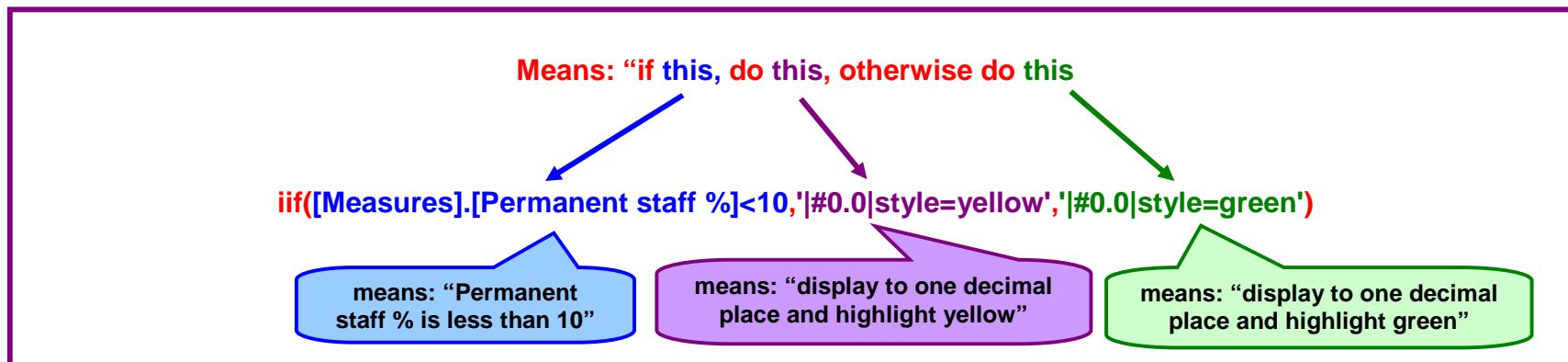
```
with member [Measures].[Permanent staff] as '([Measures].[FT permanent staff] + [Measures].[PT permanent staff])'
member [Measures].[Permanent staff %] as '((([Measures].[Permanent staff] / Sum({[Region].Siblings}, [Measures].[Permanent staff])) * 100.0)', FORMAT_STRING = '#0.0|style=yellow'
select {[Measures].[FT permanent staff], [Measures].[PT permanent staff], [Measures].[Permanent staff], [Measures].[Permanent staff %]} ON COLUMNS,
{[Region].Members} ON ROWS
from [VisitBritainAggregation]
```

Region	Measures			
	FT permanent staff	PT permanent staff	Permanent staff	Permanent staff %
Grand total	5,201	2,214	7,415	100.0
North East	310	184	494	6.7
North West	667	324	991	13.4
Yorkshire and The Humber	339	149	488	6.6
East Midlands	191	192	383	5.2
West Midlands	460	129	589	7.9
East of England	393	270	663	8.9
London	2,284	485	2,769	37.3
South East	286	265	551	7.4
South West	271	216	487	6.6

The following code displays our calculated Permanent staff % to **one decimal and highlighted yellow if below 10% or green if above 10%.**

```
with member [Measures].[Permanent staff] as '([Measures].[FT permanent staff] + [Measures].[PT permanent staff])'
member [Measures].[Permanent staff %] as '((([Measures].[Permanent staff] / Sum({[Region].Siblings}, [Measures].[Permanent staff])) * 100.0)', FORMAT_STRING = iif([Measures].[Permanent staff %]<10,'#0.0|style=yellow','#0.0|style=green')
select {[Measures].[FT permanent staff], [Measures].[PT permanent staff], [Measures].[Permanent staff], [Measures].[Permanent staff %]} ON COLUMNS,
{[Region].Members} ON ROWS
from [VisitBritainAggregation]
```

Region	Measures			
	FT permanent staff	PT permanent staff	Permanent staff	Permanent staff %
Grand total	5,201	2,214	7,415	100.0
North East	310	184	494	6.7
North West	667	324	991	13.4
Yorkshire and The Humber	339	149	488	6.6
East Midlands	191	192	383	5.2
West Midlands	460	129	589	7.9
East of England	393	270	663	8.9
London	2,284	485	2,769	37.3
South East	286	265	551	7.4
South West	271	216	487	6.6



Custom formatting numbers and dates

Example number: 1234.567

Format	Code	Example
No decimal places	#	1234
One decimal place	#.0	1234.6
Two decimal places	#.00	1234.57
Three decimal places	#.000	1234.567
Use a comma to separate the thousands	#,##0	1,234
Use a comma to separate the thousands and 2 decimal places	#,##0.00	1,234.57

Example date: Tuesday, 1 January 2008

Example	Code
1/1/07	d/m/yy
01/01/2007	dd/mm/yyyy
1 Jan 2008	d mmm yyyy
1 January 2008	d mmmm yyyy
Tue, 1 January 2008	ddd, d mmmm yyyy
Tuesday, 1 January 2008	dddd, d mmmm yyyy