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RELATED Function (DAX)

Example See Also Send Feedback

Returns a related value from another table.

■ Syntax

RELATED(<column>)

■ Parameters

Term	Definition
column	The column that contains the values you want to retrieve.

■ Return Value

A single value that is related to the current row.

■ Remarks

The RELATED function requires that a relationship exists between the current table and the table with related information. You specify the column that contains the data that you want, and the function follows an existing many-to-one relationship to fetch the value from the specified column in the related table.

If a relationship does not exist, you must create a relationship. For more information, see <u>Create a Relationship Between Two Tables</u>.

When the RELATED function performs a lookup, it examines all values in the specified table regardless of any filters that may have been applied.

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The RELATED function needs a row context; therefore, it can only be used in calculated column expression, where the current row context is unambiguous, or as a nested function in an expression that uses a table scanning function. A table scanning function, such as SUMX, gets the value of the current row value and then scans another table for instances of that value.

■ Example

In the following example, the measure Non USA Internet Sales is created to produce a sales report that excludes sales in the United States. In order to create the measure, the InternetSales_USD table must be filtered to exclude all sales that belong to the United States in the SalesTerritory table. The United States, as a country, appears 5 times in the SalesTerritory table; once for each of the following regions: Northwest, Northeast. Central. Southwest, and Southeast.

The first approach to filter the Internet Sales, in order to create the measure, could be to add a filter expression like the following:

```
FILTER('InternetSales_USD', 'InternetSales_USD'[SalesTerritoryKey]<>1 &&
'InternetSales_USD'[SalesTerritoryKey]<>2 && 'InternetSales_USD'[SalesTerritoryKey]<>3 &&
'InternetSales_USD'[SalesTerritoryKey]<>4 && 'InternetSales_USD'[SalesTerritoryKey]<>5)
```

However, this approach is counterintuitive, prone to typing errors, and might not work if any of the existing regions is split in the future.

A better approach would be to use the existing relationship between InternetSales_USD and SalesTerritory and explicitly state that the country must be different from the United States. To do so, create a filter expression like the following:

```
FILTER( 'InternetSales_USD', RELATED('SalesTerritory'[SalesTerritoryCountry]) <> "United States")
```

This expression uses the RELATED function to lookup the country value in the SalesTerritory table, starting with the value of the key column, SalesTerritoryKey, in the InternetSales_USD table. The result of the lookup is used by the filter function to determine if the InternetSales_USD row is filtered or not.

Note

If the example does not work, you might need to create a relationship between the tables. For more information, see <u>Relationships Between Tables</u>.

```
Copy Code
```

The following table shows only totals for each region, to prove that the filter expression in the measure, Non USA Internet Sales, works as intended.

Row Labels	Internet Sales	Non USA Internet Sales	
Australia	\$4,999,021.84	\$4,999,021.84	
Canada	\$1,343,109.10	\$1,343,109.10	
France	\$2,490,944.57	\$2,490,944.57	
Germany	\$2,775,195.60	\$2,775,195.60	
United Kingdom	\$5,057,076.55	\$5,057,076.55	
United States	\$9,389,479.79		
Grand Total	\$26,054,827.45	\$16,665,347.67	

The following table shows the final report that you might get if you used this measure in a PivotTable:

Non USA Internet Sales	Column Labels			
Row Labels	Accessories	Bikes	Clothing	Grand Total
2001		\$1,526,481.95		\$1,526,481.95
2002		\$3,554,744.04		\$3,554,744.04
2003	\$156,480.18	\$5,640,106.05	\$70,142.77	\$5,866,729.00
2004	\$228,159.45	\$5,386,558.19	\$102,675.04	\$5,717,392.68
Grand Total	\$384,639.63	\$16,107,890.23	\$172,817.81	\$16,665,347.67

■ See Also

Reference

RELATEDTABLE Function (DAX)

Other Resources

<u>Filter Functions (DAX)</u> <u>Relationships Between Tables</u>

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