

# FILL Function

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Fills any missing or null values in the specified column with the most recent non-blank value, as determined by the specified sort order and optional grouping.

- The row from which to extract a value is determined by the order in which the rows are organized at the time that the transform is executed. If you are working on a randomly generated sample of your dataset, the values that you see for this function might not correspond to the values that are generated on the full dataset during job execution.
- The function accepts a second Integer parameter because it is a *window transform function*. However, this parameter is not used.
- You can use the `group` and `order` parameters to define the groups of records and the order of those records to which this transform is applied.
- This function works with the following transforms:
  - *Window Transform*
  - *Set Transform*
  - *Derive Transform*


## Basic Usage

```
window value:FILL(myNumber) order:'Date'
```

**Output:** Generates a new column, which contains all values from the `myNumber` column with any null cells filled by the most recent non-blank value, as determined by the `Date` column.

## Syntax and Arguments

```
window value:FILL(col_ref, [k_integer]) order: order_col [group: group_col]
```

Argument	Required?	Data Type	Description
<code>col_ref</code>	Y	string	Name of column whose values are applied to the function
<code>k_integer</code>	N	integer (positive)	 <b>NOTE:</b> Unused by this function.

For more information on the `order` and `group` parameters, see *Window Transform*.

For more information on syntax standards, see *Language Documentation Syntax Notes*.

### **col\_ref**


Name of the column whose values are filled when null.

- Multiple columns and wildcards are not supported.

#### Usage Notes:

Required?	Data Type	Example Value
Yes	String (column reference)	myColumn

#### k\_integer

 **NOTE:** While accepted by the function, this parameter is not used by the function. If specified, it must be a positive integer.

#### Usage Notes:

Required?	Data Type	Example Value
No. Unused.	Integer	1

#### Examples

 **Tip:** For additional examples, see *Common Tasks*.

#### Example - Fill with quarterly forecast values

Your monthly sales data includes amount sold for each month. However, the source system only provides the quarterly forecast as part of the data for the first month of each quarter. You can use the `FILL` function to add the prior forecast to each month's data.

#### Source:

Date	Amount	Forecast_Qtr
1/31/15	523	1400
2/28/15	135	
3/31/15	824	
4/30/15	305	1500
5/31/15	763	
6/30/15	421	
7/31/15	606	1600
8/31/15	477	
9/30/15	785	
10/31/15	443	1700
11/30/15	622	
12/31/15	518	

#### Transform:

You can use the following transform to fill the prior forecast value for each blank month in the `Forecast_Qtr` column. Note that the `order` parameter must be set to `Date` to establish the proper sorting:

```
window value: FILL(Forecast_Qtr) order: Date
```

You can now drop the `Forecast_Qtr` column and rename the generated `window` column to the dropped name.

To see how you are progressing each month, you might use the following transform, which computes the average forecast for each month:

```
derive type:single value:NUMFORMAT((Forecast_Qtr/3),'####.##') as:'Forecast_Month_Avg'
```

You can then compare this value to the actual `Amount` value for each month:

```
derive type:single value:NUMFORMAT(((Amount - Forecast_Month_Avg)/Forecast_Month_Avg)*100,'##.00') as:'MonthActualVForecast_Pct'
```

### Results:

Date	Amount	Forecast_Qtr	Forecast_Month_Avg	MonthActualVForecast_Pct
1/31/15	523	1400	466.67	12.07
2/28/15	135	1400	466.67	-71.07
3/31/15	824	1400	466.67	76.57
4/30/15	305	1500	500	-39.00
5/31/15	763	1500	500	52.60
6/30/15	421	1500	500	-15.80
7/31/15	606	1600	533.33	13.63
8/31/15	477	1600	533.33	-10.56
9/30/15	785	1600	533.33	47.19
10/31/15	443	1700	566.67	-21.82
11/30/15	622	1700	566.67	9.76
12/31/15	518	1700	566.67	-8.59