

# TODAY Function

Derives the value for the current date in UTC time zone. You can specify a different time zone by optional parameter. For this function, the values that you see in the Transformer grid are generated during the preview. These values will differ from the values that are generated later, when the job is executed.

**NOTE:** Some Datetime functions do not allow the nesting of NOW and TODAY functions. You should create a separate column containing these values.

Other differences:

- If you refresh the page for the Transformer grid, the function is recalculated.
- If you re-open the dataset in the Transformer page, the function is recalculated.
- If you have multiple versions of the function in the same dataset, you are likely to end up with different generated timestamps. The difference in their values cannot be accurately predicted.

**Tip:** If you wish to use the same computed value for this function across your dataset, you should generate a column containing values for the function and then base all of your other calculations off of these column values.

**NOTE:** If no time zone is specified, the default is UTC time zone.

For more information on generating the date and time stamp value for the current time, see *NOW Function*.

## Basic Usage

### Basic Example:

```
derive type:single value:TODAY() as:'nowTime'
```

**Output:** Generates a column of values that contain the Datetime value for the current date in UTC time zone.

### Example with Time Zone:

```
derive type:single value:TODAY('America/New York') as:'nowTime'
```

**Output:** Generates a column of values that contain the Datetime value for the current date based on the time in the Eastern U.S. time zone.

## Syntax and Arguments

```
derive type:single value:TODAY(str_timezone)
```

Argument	Required?	Data Type	Description
str_timezone	N	string	String value for the time zone for which the date value is calculated.

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

### str\_timezone

String value for the time zone to use.

For a list of supported values for time zones, see *Supported Time Zone Values*.

**Usage Notes:**

Required?	Data Type	Example Value
No	String	'America/New York'

**Examples**

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

**Example - Flight Status report**

This example illustrates how the `NOW` and `TODAY` functions operate. Both functions generate outputs of Datetime data type.

- `NOW` - Generates valid Datetime values for the current timestamp in the specified time zone. See *NOW Function*.
- `TODAY` - Generates valid Datetime for the current date in the specified time zone. See *TODAY Function*.
- `DATEDIF` - Calculates the difference between two Datetime values based on a specific unit of measure. See *DATEDIF Function*.

**Source:**

The following table includes flight arrival information for Los Angeles International airport.

FlightNumber	Gate	Arrival
1234	1	2/15/17 11:35
212	2	2/15/17 11:58
510	3	2/15/17 11:21
8401	4	2/15/17 12:08
99	5	2/16/17 12:12
116	6	2/16/17 13:32
876	7	2/15/17 16:43
9494	8	2/15/17 21:00
102	9	2/14/17 19:21
77	10	2/16/17 12:31

**Transform:**

You are interested in generating a status report on today's flights. To assist, you must generate columns with the current date and time values:

**Tip:** You should create separate columns containing static values for `NOW` and `TODAY` functions. Avoid creating multiple instances of each function in your dataset, as the values calculated in them can vary at execution time.

```
derive type:single value: NOW('America\Los_Angeles') as: 'currentTime'
```

```
derive type:single value: TODAY('America\Los_Angeles') as: 'currentDate'
```

Next, you want to identify the flights that are landing today. In this case, you can use the `DATEDIF` function to determine if the `Arrival` value matches the `currentTime` value within one day:

**NOTE:** The `DATEDIF` function computes difference based on the difference from the first date to the second date based on the unit of measure. So, a timestamp that is 23 hours difference from the base timestamp can be within the same unit of day, even though the dates may be different (2/15/2017 vs. 2/14/2017).

```
derive type:single value: datedif(currentDate, Arrival, day) as: 'today'
```

Since you are focusing on today only, you can remove all of the rows that do not apply to today:

```
delete row: today <> 0
```

Now focusing on today's dates, you can calculate the difference between the current time and the arrival time by the minute:

```
derive type:single value: datedif(currentTime, Arrival, minute) as: 'status'
```

Using the numeric values in the `status` column, you can compose the following transform, which identifies status of each flight:

```
set col: status value: if(status < -20, 'arrived', if(status > 20, 'scheduled', if(status <= 0, 'landed', 'arriving')))
```

## Results:

You now have a daily flight status report:

currentDate	currentTime	FlightNumber	Gate	Arrival	status	today
2017-02-15	2017-02-15 11:46:12	1234	1	2/15/17 11:35	landed	0
2017-02-15	2017-02-15 11:46:12	212	2	2/15/17 11:58	arriving	0
2017-02-15	2017-02-15 11:46:12	510	3	2/15/17 11:21	arrived	0
2017-02-15	2017-02-15 11:46:12	8401	4	2/15/17 12:08	scheduled	0
2017-02-15	2017-02-15 11:46:12	876	7	2/15/17 16:43	scheduled	0
2017-02-15	2017-02-15 11:46:12	9494	8	2/15/17 21:00	scheduled	0
2017-02-15	2017-02-15 11:46:12	102	9	2/14/17 19:21	arrived	0

The `currentDate`, `currentTime`, and `today` columns can be deleted.