

# CONVERTFROMUTC Function

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Converts Datetime value to corresponding value of the specified time zone. Input can be a column of Datetime values, a literal Datetime value, or a function returning Datetime values.

- input Datetime value is assumed to be in UTC time zone. Inputs with time zone offsets are invalid.
- Specified time zone must be a string literal of one of the support time zone values. For more information, see *Supported Time Zone Values*.

**Wrangle vs. SQL:** This function is part of Wrangle , a proprietary data transformation language. Wrangle is not SQL. For more information, see *Wrangle Language*.

## Basic Usage

### Column reference values:

```
convertfromutc(myUTCtimestamp, 'US/Eastern')
```

**Output:** Returns the values of the `myUTCtimestamp` converted to US Eastern time zone.

## Syntax and Arguments

```
convertfromutc(date, 'enum-timezone')
```

| Argument             | Required? | Data Type | Description  |
|----------------------|-----------|-----------|--|
| date                 | Y         | datetime  | Name of Datetime column, Datetime literal, or function returning a Datetime value. |
| enum-timezone-string | Y         | string    | Case-sensitive string literal value corresponding to the target time zone.         |

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

### date

Name of a column containing Datetime values, a literal Datetime value, or a function returning Datetime values to convert.

**Tip:** Use the DATEFORMAT function to wrap values into acceptable formats. See *DATEFORMAT Function*.

Values are assumed to be in UTC time zone format. **Coordinated Universal Time** is the primary standard time by which clocks are coordinated around the world.

- UTC is also known as Greenwich Mean Time.
- UTC does not change for daylight savings time.
- For more information, see [https://en.wikipedia.org/wiki/Coordinated\\_Universal\\_Time](https://en.wikipedia.org/wiki/Coordinated_Universal_Time).

If an input value is invalid for Datetime data type, a null value is returned.

- Column references with time zone offsets are invalid.
- Missing values for this function in the source data result in missing values in the output.
- Multiple columns and wildcards are not supported.

#### Usage Notes:

| Required? | Data Type   | Example Value |
|-----------|---|---------------|
| Yes       | Datetime (column reference, function, or literal) | sourceTime    |

#### enum-timezone-string

String literal value for the time zone to which to convert.

**NOTE:** These values are case-sensitive.

Example values:

```
'America/Puerto_Rico'
'US/Eastern'
'US/Central'
'US/Mountain'
'US/Pacific'
'US/Alaska'
'US/Hawaii'
```

For more information on supported time formatting strings, see *Supported Data Types*.

#### Examples

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

#### Example - Time zone conversion

This example shows how you can use the following functions to convert Datetime values to different time zones.

- **CONVERTFROMUTC** - Converts valid Datetime values from UTC time zone to a specified time zone. See *CONVERTFROMUTC Function*.
- **CONVERTTOUTC** - Converts valid Datetime values from a specified time zone to UTC time zone. See *CONVERTTOUTC Function*.
- **CONVERTTIMEZONE** - Converts valid Datetime values from one time zone to another. See *CONVERTTIMEZONE Function*.

Source:

| row | datetime |
|-----|----------|
|-----|----------|

|    |                     |
|----|---------------------|
| 1  | 2020-03-15          |
| 2  | 2020-03-15 0:00:00  |
| 3  | 2020-03-15 +08:00   |
| 4  | 2020-03-15 1:02:03  |
| 5  | 2020-03-15 4:02:03  |
| 6  | 2020-03-15 8:02:03  |
| 7  | 2020-03-15 12:02:03 |
| 8  | 2020-03-15 16:02:03 |
| 9  | 2020-03-15 20:02:03 |
| 10 | 2020-03-15 23:02:03 |

**Transformation:**

When you import the above dates, Cloud Dataprep by TRIFACTA INC. may not recognize the column as a set of dates. You can use the column menus to format the date values to the following standardized format:

```
yyyy*mm*dd*HH:MM:SS
```

|                                  |                         |
|----------------------------------|-------------------------|
| <b>Transformation Name</b>       | Change column data type |
| <b>Parameter: Columns</b>        | datetime                |
| <b>Parameter: New type</b>       | Date/Time               |
| <b>Parameter: Date/Time type</b> | yyyy*mm*dd*HH:MM:SS     |

When the type has been changed, row 1 and row 3 have been identified as invalid. You can use the following transformation to remove these rows:

|                                   |  |
|-----------------------------------|--|
| <b>Transformation Name</b>        | Filter rows  |
| <b>Parameter: Condition</b>       | Custom formula   |
| <b>Parameter: Type of formula</b> | Custom single  |
| <b>Parameter: Condition</b>       | ISMISMATCHED(datetime, ['Datetime', 'yy-mm-dd hh:mm:ss', 'yyyy*mm*dd*HH:MM:SS']) |
| <b>Parameter: Action</b>          | Delete matching rows   |

When the Datetime values are consistently formatted, you can use the following transformations to perform conversions. The following transformation converts the values from UTC to US/Eastern time zone:

|                                |  |
|--------------------------------|--|
| <b>Transformation Name</b>     | New formula                              |
| <b>Parameter: Formula type</b> | Single row formula                       |
| <b>Parameter: Formula</b>      | CONVERTFROMUTC(datetime, 'US\//Eastern') |

|                                   |                       |
|-----------------------------------|-----------------------|
| <b>Parameter: New column name</b> | 'datetimeUTC2Eastern' |
|-----------------------------------|-----------------------|

This transformation now assumes that the date values are in US/Pacific time zone and converts them to UTC:

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| <b>Transformation Name</b>        | New formula                          |
| <b>Parameter: Formula type</b>    | Single row formula                   |
| <b>Parameter: Formula</b>         | CONVERTTOUTC(datetime, 'US\Pacific') |
| <b>Parameter: New column name</b> | 'datetimePacific2UTC'                |

The final transformation converts the date time values between arbitrary time zones. In this case, the values are assumed to be in US/Alaska time zone and are converted to US/Hawaii time zone:

|                                   |   |
|-----------------------------------|---|
| <b>Transformation Name</b>        | New formula   |
| <b>Parameter: Formula type</b>    | Single row formula                                  |
| <b>Parameter: Formula</b>         | CONVERTTIMEZONE(datetime, 'US\Alaska', 'US\Hawaii') |
| <b>Parameter: New column name</b> | 'datetimeAlaska2Hawaii'                             |

### Results:

| row | datetime            | datetimeAlaska2Hawaii | datetimePacific2UTC | datetimeUTC2Eastern |
|-----|---------------------|-----------------------|---------------------|---------------------|
| 2   | 2020-03-15 00:00:00 | 2020-03-14 22:00:00   | 2020-03-15 07:00:00 | 2020-03-14 20:00:00 |
| 4   | 2020-03-15 01:02:03 | 2020-03-14 23:02:03   | 2020-03-15 08:02:03 | 2020-03-14 21:02:03 |
| 5   | 2020-03-15 04:02:03 | 2020-03-15 02:02:03   | 2020-03-15 11:02:03 | 2020-03-15 00:02:03 |
| 6   | 2020-03-15 08:02:03 | 2020-03-15 06:02:03   | 2020-03-15 15:02:03 | 2020-03-15 04:02:03 |
| 7   | 2020-03-15 12:02:03 | 2020-03-15 10:02:03   | 2020-03-15 19:02:03 | 2020-03-15 08:02:03 |
| 8   | 2020-03-15 16:02:03 | 2020-03-15 14:02:03   | 2020-03-15 23:02:03 | 2020-03-15 12:02:03 |
| 9   | 2020-03-15 20:02:03 | 2020-03-15 18:02:03   | 2020-03-16 03:02:03 | 2020-03-15 16:02:03 |
| 10  | 2020-03-15 23:02:03 | 2020-03-15 21:02:03   | 2020-03-16 06:02:03 | 2020-03-15 19:02:03 |