

CONVERTTIMEZONE Function

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

- 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:

```
converttimezone(myTimestamp, 'US/Mountain', 'US/Pacific')
```

Output: Returns the UTC values of the `myTimestamp` converted from US Mountain time zone to US Pacific time zone.

Syntax and Arguments

```
converttimezone(date, 'enum-timezone1', 'enum-timezone2')
```

| Argument | Required? | Data Type | Description |
|--|-----------|-----------|--|
| date | Y | datetime | Name of Datetime column, Datetime literal, or function returning a Datetime value. |
| enum-timezone-string1, enum-timezone-string2 | Y | string | Case-sensitive string literal value corresponding to the source or 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*.

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-string1, enum-timezone-string2

String literal value for the time zone 1) to convert from and 2) to convert to.

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, Trifacta Self-Managed Enterprise Edition 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
```

| | |
|----------------------------------|-------------------------|
| Transformation Name | Change column data type |
| Parameter: Columns | datetime |
| Parameter: New type | Date/Time |
| Parameter: Date/Time type | 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:

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

| | |
|-----------------------------------|--|
| Transformation Name | New formula |
| Parameter: Formula type | Single row formula |
| Parameter: Formula | CONVERTFROMUTC(datetime, 'US\Eastern') |
| Parameter: New column name | 'datetimeUTC2Eastern' |

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

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

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