

# EXAMPLE - DATE and TIME Functions

This example illustrates how the DATE and TIME functions operate. Both functions require that their outputs be formatted properly using the DATEFORMAT function.

- DATE - Generates valid Datetime values from three integer inputs: year, month, and day. See *DATE Function*.
- TIME - Generates valid Datetime values from three integer inputs: hour, minute, and second. See *TIME Function*.
- DATETIME - Generates valid Datetime values from six integer inputs: year, month, day, hour, minute, and second. See *DATETIME Function*.
- DATEFORMAT - Formats valid Datetime values according to the provided formatting string. See *DATEFORMAT Function*.

## Source:

year	month	day	hour	minute	second
2016	10	11	2	3	0
2015	11	20	15	22	30
2014	12	25	18	30	45

## Transformation:

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	DATEFORMAT(DATE (year, month, day), 'yyyy-MM-dd')
<b>Parameter: New column name</b>	'fctn_date'

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	DATEFORMAT(TIME (hour, minute, second), 'HH-mm-ss')
<b>Parameter: New column name</b>	'fctn_time'

<b>Transformation Name</b>	New formula
<b>Parameter: Formula type</b>	Single row formula
<b>Parameter: Formula</b>	DATEFORMAT(DATETIME (year, month, day, hour, minute, second), 'yyyy-MM-dd-HH:mm:ss')
<b>Parameter: New column name</b>	'fctn_datetime'

## Results:

**NOTE:** All inputs must be inferred as Integer type and must be valid values for the specified input. For example, month values must be integers between 1 and 12, inclusive.

year	month	day	hour	minute	second	fctn_date	fctn_time	fctn_datetime
2016	10	11	2	3	0	2016-10-11	02-03-00	2016-10-11-02:03:00
2015	11	20	15	22	30	2015-11-20	15-22-30	2015-11-20-15:22:30
2014	12	25	18	30	45	2014-12-25	18-30-45	2014-12-25-18:30:45

You can apply other date and time functions to the generated columns. For an example, see *YEAR Function*.