

Dates and times

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All date-time values are **numeric** values representing the number of **milliseconds** elapsed since **January 1, 1970, 00:00:00 GMT**.

JWT for Jira Cloud offers various ways of displaying or calculating with date-time values.

General information

Time values can be manipulated and might depend on certain factors. See the lists below.

Time Constants

While the number of milliseconds might be useful in some cases, usually you want to retrieve values that are more readable.

Constants are **aliases for fixed values**. They are often used to convert milliseconds to a more accessible value.

Constant	Equivalent value
SECOND	1000
MINUTE	1000 * 60
HOURL	1000 * 60 * 60
DAY	1000 * 60 * 60 * 24
WEEK	1000 * 60 * 60 * 24 * 7
MONTH	1000 * 60 * 60 * 24 * 30
YEAR	1000 * 60 * 60 * 24 * 365

The following constants return the **day** of the **week**:

Constant	Equivalent value
SUNDAY	1
MONDAY	2
TUESDAY	3
WEDNESDAY	4
THURSDAY	5
FRIDAY	6
SATURDAY	7

Use these constants for instance with the following functions:

[dayOfTheWeek\(\)](#)

[dayOfTheMonth\(\)](#)

The following constants return the **month**:

Constant	Equivalent value
JANUARY	1
FEBRUARY	2
MARCH	3
APRIL	4
MAY	5
JUNE	6
JULY	7
AUGUST	8
SEPTEMBER	9
OCTOBER	10
NOVEMBER	11
DECEMBER	12

Use these constants for instance with the following functions:

[dayOfTheMonth\(\)](#)

Date and Time Literals

Explicit time and date values can also be used as constants. Time literals have the form HH:MM, e.g. **09:15** or **23:30**. Date literals are available in the form YYYY-MM-DD or YYYY/MM/DD (optionally extended by a time literal like **2020-03-22 14:45**). Those values are internally interpreted as numbers representing the denoted date/time value in milliseconds.

Time zones

Fields of type **date** and **date-time** contain a **numeric value** with the **milliseconds elapsed since January 1, 1970, 00:00:00 GMT**.

The **number** that will be returned by any function using a **date** or **date-time timestamp** depends on a time zone.

The following time zone constant is currently available in JWT for Jira Cloud:

Time zone constant	Output
RUN_AS_LOCAL	Returns the time zone of the selected Run as user.

In addition to the time zone constant above, you can specify a timezone directly as text.
Valid timezones are the ones listed in column "TZ Database Name" in [List of tz database time zones](#), e.g. "Pacific/Auckland"

Languages

When dealing with **times** and **time zones** sometimes you need to convert them to text. The text returned depends on the selected language.

Currently JWT for Jira Cloud offers the following language constant:

Language constant	Output
RUN_AS_LANG	Returns the language of the selected Run as user.

In addition to the language constant above, you can specify a language directly as text.

The most common [ISO 639-1 Code](#) locales like the two-letter version "en", or the four-letter version "en-gb" etc. are supported. The string is not case sensitive, so "EN" is valid as well. You don't have to use the hyphen(-), an underscore will work as well, i.e. "en-gb" is equivalent to "en_GB". If the language is not available (e.g. "english"), an error is returned.



Available functions

Function	Short description	Output
addDays()	Adds or subtracts days to or from any given date .	NUMBER
datePart()	Returns the date part of any given date.	NUMBER
dateTimeToString()	Returns the timestamp of any given date in text form .	TEXT
dateToString()	Converts any given date to a text .	TEXT
dayOfTheMonth()	Returns the day of the month of any given timestamp .	NUMBER
dayOfTheWeek()	Returns the day of the week of any given timestamp.	NUMBER
hour()	Returns the hour part of any given timestamp .	NUMBER
minute()	Returns the minutes part of a given timestamp.	NUMBER
month()	Returns the month part of a given timestamp.	NUMBER
second()	Returns the second part of a given timestamp .	NUMBER
stringToDate()	Converts a text into a date .	NUMBER
timePart()	Returns the time part of any given date.	NUMBER
year()	Returns the year part of a timestamp.	NUMBER

If you still have questions, feel free to refer to our [support](#) team.