



# **Splunk® Cloud Services SPL2 Search Manual current**

## **Using time variables**

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## Using time variables

You can use variables in several different ways:

- To define date and time formats using the `strftime()` and `strptime()` evaluation functions.
- To describe timestamps in event data.
- As arguments to the `relative_time()` and `now()` evaluation functions.

There are variables that produce dates, variables that produce times, and variables that produce both dates and times.

### Date and time variables

The following table lists variables that produce both a date and a time.

Variable	Description
%C	The date and time in the current locale's format as defined by the server's operating system. For example, <code>Thu Jul 18 09:30:00 2022</code> for US English on Linux.
%+	The date and time with time zone in the current locale's format as defined by the server's operating system. For example, <code>Thu Jul 18 09:30:00 PDT 2022</code> for US English on Linux.

### Time variables

The following table lists variables that produce a time.

Variable	Description
%Ez	Splunk-specific, timezone in minutes.
%H	Hour (24-hour clock) as a decimal number. Hours are represented by the values 00 to 23. Leading zeros are accepted but not required.
%I	Uppercase "I". Hour (12-hour clock) with the hours represented by the values 01 to 12. Leading zeros are accepted but not required. Use with %p to specify AM or PM for the 12-hour clock.
%k	Like %H, the hour (24-hour clock) as a decimal number. Leading zeros are replaced by a space, for example 0 to 23.
%M	Minute as a decimal number. Minutes are represented by the values 00 to 59. Leading zeros are accepted but not required.
%N	The number of subsecond digits. The default is %9N. You can specify %3N = milliseconds, %6N = microseconds, %9N = nanoseconds.
%p	AM or PM.
%Q	The subsecond component of a UTC timestamp. The default is milliseconds, %3Q. Valid values are: <ul style="list-style-type: none"><li>• %3Q = milliseconds, with values of 000-999</li><li>• %6Q = microseconds, with values of 000000-999999</li><li>• %9Q = nanoseconds, with values of 000000000-999999999</li></ul>
%S	Second as a decimal number, for example 00 to 59.
%s	The Unix Epoch Time timestamp, or the number of seconds since the Epoch: 1970-01-01 00:00:00 +0000 (UTC). (1484993700 is Tue Jan 21 10:15:00 2022)
%T	The time in 24-hour notation (%H:%M:%S). For example 23:59:59.

Variable	Description
%X	The time in the format for the current locale. For US English the format for 9:30 AM is 9:30:00.
%Z	The timezone abbreviation. For example EST for US Eastern Standard Time.
%z	<p>The timezone offset from UTC, in hour and minute: +hhmm or -hhmm. For example, for 5 hours before UTC the value is -0500 which is US Eastern Standard Time.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• Use %z to specify hour and minute, for example -0500</li> <li>• Use %:z to specify hour and minute separated by a colon, for example -5:00</li> <li>• Use %::z to specify hour minute and second separated with colons, for example -05:00:00</li> <li>• Use %:::z to specify hour only, for example -05</li> </ul>
%%	A literal "%" character.

## Date variables

The following table lists variables that produce a date.

Variable	Description
%F	Equivalent to %Y-%m-%d (the ISO 8601 date format).
%x	The date in the format of the current locale. For example, 7/13/2022 for US English.

## Specifying days and weeks

The following table lists variables that produce values for days and weeks.

Variable	Description
%A	Full weekday name. (Sunday, ..., Saturday)
%a	Abbreviated weekday name. (Sun, ..., Sat)
%d	Day of the month as a decimal number, includes a leading zero. (01 to 31)
%e	Like %d, the day of the month as a decimal number, but a leading zero is replaced by a space. (1 to 31)
%j	Day of year as a decimal number, includes a leading zero. (001 to 366)
%V	Week of the year. (1 to 52)
%w	Weekday as a decimal number. (0 = Sunday, ..., 6 = Saturday)

## Specifying months

The following table lists variables that produce values for months.

Variable	Description
%b	Abbreviated month name. (Jan, Feb, etc.)
%B	Full month name. (January, February, etc.)
%m	Month as a decimal number. (01 to 12). Leading zeros are accepted but not required.

Variable	Description

### Specifying year

The following table lists variables that produce values for years.

Variable	Description
%y	Year as a decimal number, without the century. (00 to 99). Leading zeros are accepted but not required.
%Y	Year as a decimal number with century. For example, 2022.

### Examples

The following table shows the results of some time format strings:

Time format string	Result
%Y-%m-%d	2021-12-31
%y-%m-%d	21-12-31
%b %d, %Y	Feb 11, 2022
%d%b '%y = %Y-%m-%d	23 Apr '22 = 2022-04-23

The following table shows the results of searches that use time variables:

Sample search	Result
host="www1"   eval WeekNo = strftime(_time, "%V")	Creates a field called <code>WeekNo</code> and returns the values for the week numbers that correspond to the dates in the <code>_time</code> field.
...   eval mytime=strftime(_time, "%Y-%m-%dT%H:%M:%S.%Q")	Creates a field called <code>mytime</code> and returns the converted timestamp values in the <code>_time</code> field. The values are stored in UNIX format and converted using the format specified, which is the ISO 8601 format. For example: 2022-04-13T14:00:15.000.

### See also

Related information

- Timestamps and time ranges
- Time modifiers
- Specifying relative time
- Time zones