

# Date and Time Formatting Patterns

The following Date and Time formatting patterns are supported by the Designer:

Pattern	Description	Example	Remark
%a	Abbreviated weekday name	Mon	
%A	Full weekday name	Monday	
%b	Abbreviated month name	Feb	
%B	Full month name	February	
%C	Year / 100 as decimal number [00,99]	20	
%d	Day of the month as decimal number [01,31]	12	
%D	Equivalent to %m/%d/%Y	02/12/18	
%e	Day of the month, single digits with leading space [1,31]	12	
%F	Equivalent to %Y-%m-%d (ISO 8601:2000 standard date format)	2018-02-13	
%h	Equivalent to %b	Feb	
%H	Hour (24-hour clock) as decimal number [00,23]	15	
%i	Microseconds as decimal number [000000,999999]	123456	
%I	Hour (12-hour clock) as decimal number [01,12]	03	
%j	Day of the year as decimal number [001,366]	043	Conflicts with %u, %w, %U, %V, and %W.
%m	Month as a decimal number [01,12]	02	
%M	Minute as a decimal number [00,59]	20	
%n	<newline>	\n	
%o	Offset from UTC as +HH:MM	+00:00	Only for DateTime composing /printing.
%P	am or pm (12-hour clock)	pm	
%r	Time in am/pm notation, equivalent to %I:%M:%S %P	03:20:12 pm	
%R	Time in 24-hour notation, equivalent to %H:%M	15:20	
%S	Second as decimal number [00,59]	12	
%t	<tab>	\t	
%T	Time in 24-hour notation, equivalent to %H:%M:%S	15:20:12	
%u	Weekday as decimal number [1,7], with 1 representing Monday	1	
%U	Week number of the year as decimal number [01,53]. The first Sunday of January is the first day of week 1; days in the new year before this are in week 0.	06	
%v	Equivalent to %e-%b-%Y	12-Feb-2018	
%V	Week number of the year as decimal number [01,53]. If the week containing 1 January has four or more days in the new year, then it is considered week 1. Otherwise, is the last week of the previous year, and the next week is week 1. Both January 4 <sup>th</sup> and the first Thursday of January are always in week 1.	07	
%w	Weekday as a decimal number [0,6], with 0 representing Sunday	1	
%W	Week number of the year as decimal number [01,53]. The first Monday in January is the first day of week 1; days in the new year before this are in week 0.	07	
%y	Last two digits of the year as decimal number [00, 99]	18	
%Y	Year as decimal number [0000,9999]	2018	
%z	Locale time zone as offset from UTC in ISO 8601:2001 standard format (+hhmm or -hhmm).	+0100	

## On this Page:

- [Standard Patterns](#)
- [Unsupported Patterns](#)

## Related Pages:

- [parseDateTimeExpression\(\) Operation](#)
- [parseLocalDateTimeExpression\(\) Operation](#)
- [parseFloatExpression\(\) Operation](#)
- [parseIntegerExpression\(\) Operation](#)
- [printDateTimeExpression\(\) Operation](#)
- [printLocalDateTimeExpression\(\) Operation](#)
- [printFloatExpression\(\) Operation](#)
- [printIntegerExpression\(\) Operation](#)
- [xmlToClass\(\)](#)

%+	Equivalent to %a, %d %b %Y %H:%M:%S %z (see also <b>rfc2822</b> below)	Mon, 12 Feb 2018 15:20:12 +0000	Only for DateTime composing /printing.
%%	Percent sign	%	Only for DateTime parsing.

## Standard Patterns

Some very common patterns can be directly abbreviated:

Constant	Equivalent Placeholder Expression	Example	Remark
<b>rfc822</b>	%a, %d %b %Y %H:%M:%S %z	Mon, 12 Feb 2018 15:20:12 +0000	Not fully compatible, because %z accepts only the ((+ -) hhmm) format and %y counts year differently.
<b>rfc850</b>	%A, %Y-%m-%d %H:%M:%S GMT	Monday, 2018-02-12 15:20:12 GMT	
<b>rfc1123</b>	%a, %d %b %Y %H:%M:%S GMT	Mon, 12 Feb 2018 15:20:12 GMT	
<b>rfc2822</b>	%a, %d %b %Y %H:%M:%S %z	Mon, 12 Feb 2018 15:20:12 +0000	Not fully compatible because %z accepts only the ((+ -) hhmm) format and %y counts year differently. (See also %+ above.)
<b>sap-idoc-dats</b>	%Y%m%d	20180212	
<b>sap-idoc-tims</b>	%H%M%S	152012	
Constant	Parsed Expression	Example	Remark
<b>xsd:date</b>	CCYY-MM-DD[Z  [+ \   - ]hh:mm]	2018-02-12Z	
<b>xsd:dateTime</b>	CCYY-MM-DDThh:mm:ss[.sss][Z  [+ \   - ]hh:mm]	2018-02-12T15:20:12.153688Z	Microseconds are skipped if 0: 2018-02-12T15:20:12Z
<b>xsd:time</b>	hh:mm:ss[.sss][Z  [+ \   - ]hh:mm]	15:20:12.224376Z	Microseconds are skipped if 0: 15:20:12Z

## Unsupported Patterns

The following patterns are not supported - neither for parsing nor composing:

%c, %g, %G, %k, %l, %x, %X, %Z.