# How can I convert a string to datetime in R?

Authored by

**stats writer**

May 3, 2024

In order to convert a string to datetime in R, you can use the built-in function "as.POSIXct" which converts a character string to a POSIXct object representing a date and time. This function takes in the string and a format argument, which specifies the expected format of the string. Once converted, the datetime object can be manipulated and used in various operations and analysis in R. It is important to ensure that the string is in a valid date and time format for the conversion to be successful.

## Convert a String to Datetime in R

## You can use the following syntax to convert a string to a datetime in R:

```
as.POSIXct(string_name, format="%Y-%m-%d %H:%M:%S", tz="UTC")
```

## The following examples show how to use this syntax in practice:

### Example 1: Convert One String to Datetime

## The following code shows how to convert a single string in R to a datetime format:

```
#define string variable
string_x <- "2020-01-01 14:45:18"

#convert string variable to datetime variable
datetime_x <- as.POSIXct(string_x, format="%Y-%m-%d
```

%H:%M:%S", tz="UTC")

#view new datetime variable
datetime_x

"2020-01-01 14:45:18 UTC"

#view class of datetime variable
class(datetime_x)

"POSIXct" "POSIXt"

### Example 2: Convert Column of Strings to Datetime

Suppose we have the following data frame with a column that contains a string of datetimes:

```
#define data frame
df <- data.frame(day=c("2020-01-01 14:45:18",
"2020-02-01 14:00:11",
"2020-03-01 12:40:10", "2020-04-01 11:00:00"),
sales=c(13, 18, 22, 19))

#view data frame
df

day sales
```

1 2020-01-01 14:45:18 13
2 2020-02-01 14:00:11 18
3 2020-03-01 12:40:10 22
4 2020-04-01 11:00:00 19

We can convert this column from strings to datetimes using the following syntax:

```
#convert column of strings to datetime
df$day <- as.POSIXct(df$day, format="%Y-%m-%d %H:%M:%S", tz="UTC")

#view class of 'day' column
class(df$day)
```

"POSIXct" "POSIXt"

Note that in these examples we used a specific datetime format. Refer to for a complete documentation of the potential datetime formats you can use.