

# Working with: dates



Data Tidying



date  
objects

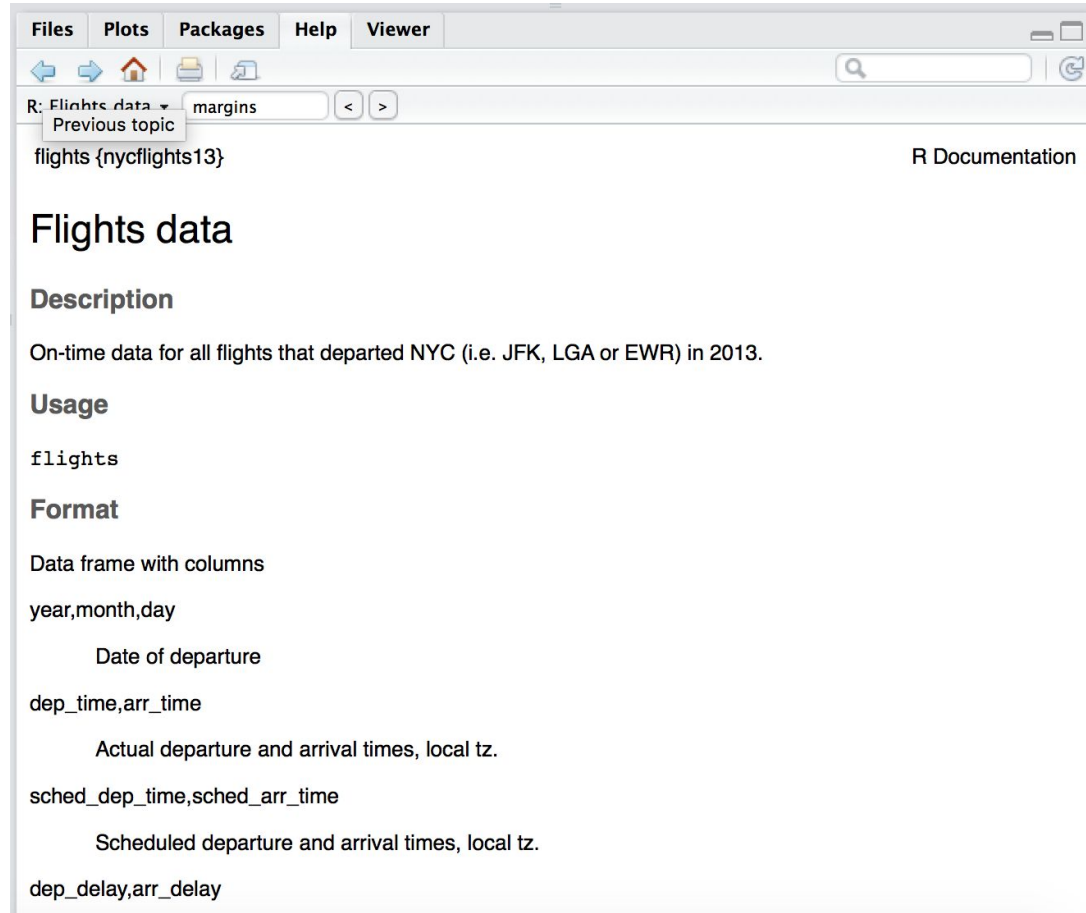
```
> ymd("1988-09-29")  
[1] "1988-09-29"  
>  
> mdy("September 29th, 1988")  
[1] "1988-09-29"  
>  
> dmy("29-Sep-1988")  
[1] "1988-09-29"
```

date-time  
object

```
> ymd_hms("1988-09-29 20:11:59")  
[1] "1988-09-29 20:11:59 UTC"
```



```
install.packages('nycflights13')  
library(nycflights13)
```



The screenshot shows the RStudio interface with the 'R: Flights data' pane active. The pane displays the documentation for the 'nycflights13' package. The title 'Flights data' is prominently displayed. Below it, the 'Description' section states: 'On-time data for all flights that departed NYC (i.e. JFK, LGA or EWR) in 2013.' The 'Usage' section shows the variable 'flights'. The 'Format' section describes the data as a 'Data frame with columns' and lists the columns: 'year, month, day', 'dep\_time, arr\_time', 'sched\_dep\_time, sched\_arr\_time', and 'dep\_delay, arr\_delay'. Each column name is followed by a brief description of its content. The 'R Documentation' link is visible in the top right corner of the pane.

**R: Flights data** margins < >

Previous topic

flights {nycflights13} R Documentation

## Flights data

### Description

On-time data for all flights that departed NYC (i.e. JFK, LGA or EWR) in 2013.

### Usage

```
flights
```

### Format

Data frame with columns

year, month, day

Date of departure

dep\_time, arr\_time

Actual departure and arrival times, local tz.

sched\_dep\_time, sched\_arr\_time

Scheduled departure and arrival times, local tz.

dep\_delay, arr\_delay

```
> ## make_date() creates a date object
> ## from information in separate columns
> flights %>%
+   select(year, month, day) %>%
+   mutate(departure = make_date(year, month, day))
```

```
# A tibble: 336,776 x 4
```

	year	month	day	departure
	<int>	<int>	<int>	<date>
1	2013	1	1	2013-01-01
2	2013	1	1	2013-01-01
3	2013	1	1	2013-01-01
4	2013	1	1	2013-01-01
5	2013	1	1	2013-01-01
6	2013	1	1	2013-01-01
7	2013	1	1	2013-01-01
8	2013	1	1	2013-01-01
9	2013	1	1	2013-01-01
10	2013	1	1	2013-01-01

```
# ... with 336,766 more rows
```

date  
object



```
> ## make_datetime() creates a date-time object
> ## from information in separate columns
> flights %>%
+   select(year, month, day, hour, minute) %>%
+   mutate(departure = make_datetime(year, month, day, hour, minute))
# A tibble: 336,776 x 6
```

	year	month	day	hour	minute	departure
	<int>	<int>	<int>	<dbl>	<dbl>	<dtm>
1	2013	1	1	5.00	15.0	2013-01-01 05:15:00
2	2013	1	1	5.00	29.0	2013-01-01 05:29:00
3	2013	1	1	5.00	40.0	2013-01-01 05:40:00
4	2013	1	1	5.00	45.0	2013-01-01 05:45:00
5	2013	1	1	6.00	0	2013-01-01 06:00:00
6	2013	1	1	5.00	58.0	2013-01-01 05:58:00
7	2013	1	1	6.00	0	2013-01-01 06:00:00
8	2013	1	1	6.00	0	2013-01-01 06:00:00
9	2013	1	1	6.00	0	2013-01-01 06:00:00
10	2013	1	1	6.00	0	2013-01-01 06:00:00

```
# ... with 336,766 more rows
```

date-time  
object



```
> mydate <- ymd("1988-09-29")
>
> ## extract year information
> year(mydate)
[1] 1988
>
> ## extract day of the month
> mday(mydate)
[1] 29
>
> ## extract weekday information
> wday(mydate)
[1] 5
>
> ## label with actual day of the week
> wday(mydate, label = TRUE)
[1] Thu
Levels: Sun < Mon < Tue < Wed < Thu < Fri < Sat
```





```
> ## how old is someone born on Sept 29, 1988
> mydate <- ymd("1988-09-29")
>
> ## subtract birthday from todays date
> age <- today() - mydate
> age
Time difference of 10808 days
>
> ## a duration object can get this information in years
> as.duration(age)
[1] "933811200s (~29.59 years)"
```





