Examples for the datetimeutils package

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convert_date

Convert dates in numeric external formats (e.g. from MATLAB or Excel) to Date.

```
> convert_date(40000, "excel")
```

```
[1] "2009-07-06"
```

```
> convert_date(725935, "matlab")
```

```
[1] "1987-07-17"
```

convert_tz

Convert a timestamp from one timezone to another.

```
> convert_tz("2016-05-10 12:00:00", "Europe/Berlin", "America/Chicago")
```

```
[1] "2016-05-10 05:00:00 CDT"
```

Business days

See ?business_days.

```
> is_weekend(as.Date("2017-1-5"))
```

```
[1] FALSE
```

```
> next_businessday(as.Date("2017-1-5"))   ## there is also 'previous_businessday'
```

```
[1] "2017-01-06"
```

```
> next_businessday(as.Date("2017-1-5"), shift = 2)  ## short-hand: 'next_bday'
```

```
[1] "2017-01-09"
```

Guess Timestamp Format

```
> s <- c(" 1999-08-19 10:00",
         "19.8.1999 10:00",    ## Central-European, e.g. Germany
         "8/19/99 10:00:00")   ## US
> guess_datetime(s)
```

```
[1] "1999-08-19 10:00:00 CEST" "1999-08-19 10:00:00 CEST"
[3] "1999-08-19 10:00:00 CEST"
```

Days of the week (or some other calendar period)

```
> last_weekday(5, as.Date("2017-1-1"))   ## last Friday of Jan 2017
```

```
[1] "2017-01-27"
```

```
> nth_weekday(1, as.Date("2017-1-1"), 2) ## second Monday of Jan 2017
```

```
[1] "2017-01-09"
```

```
> dates <- seq(as.Date("2012-1-1"), as.Date("2013-4-15"), by = "day")
> nth_day(dates, period = "quarter", n = "first")
```

```
[1] "2012-01-01" "2012-04-01" "2012-07-01" "2012-10-01" "2013-01-01"
[6] "2013-04-01"
```

```
> nth_day(dates, period = c("Jan", "April"), n = "first")
```

```
[1] "2012-01-01" "2012-04-01" "2013-01-01" "2013-04-01"
```

```
> nth_day(dates, period = c("Jan", "April"), n = "last")
```

```
[1] "2012-01-31" "2012-04-30" "2013-01-31" "2013-04-15"
```

```
> nth_day(dates, period = c("Jan", "April"), n = c(2, 5))
```

```
[1] "2012-01-02" "2012-01-05" "2012-04-02" "2012-04-05" "2013-01-02"
[6] "2013-01-05" "2013-04-02" "2013-04-05"
```

```
> toLatex(sessionInfo())
```

- R version 4.5.2 (2025-10-31), x86_64-pc-linux-gnu
- Locale: LC_CTYPE=en_US.UTF-8, LC_NUMERIC=C, LC_TIME=en_US.UTF-8, LC_COLLATE=C, LC_MONETARY=en_US.UTF-8, LC_MESSAGES=en_US.UTF-8, LC_PAPER=en_US.UTF-8, LC_NAME=C, LC_ADDRESS=C, LC_TELEPHONE=C, LC_MEASUREMENT=en_US.UTF-8, LC_IDENTIFICATION=C
- Time zone: Europe/Zurich
- TZcode source: system (glibc)
- Running under: Ubuntu 25.04
- Matrix products: default
- BLAS: /usr/lib/x86_64-linux-gnu/openblas-pthread/libblas.so.3
- LAPACK: /usr/lib/x86_64-linux-gnu/openblas-pthread/libopenblasp-r0.3.29.so ; LAPACK version3.12.0
- Base packages: base, datasets, grDevices, graphics, methods, stats, utils
- Other packages: datetimeutils 0.6-6
- Loaded via a namespace (and not attached): compiler 4.5.2, tools 4.5.2