Intro to R

Data Output

Data Output

While its nice to be able to read in a variety of data formats, it’s equally important to be able to output data somewhere.

The `readr` package provides data exporting functions which have the pattern `write_*`:

- `write_csv()`,
- `write_delim()`, others.

From `write_csv()` documentation:

```
write_csv(x, file,
  na = "NA", append = FALSE,
  col_names = !append, quote_escape = "double",
  eol = "\n", path = deprecated()
)
```

```
Rows: 9794 Columns: 31
── Column specification ────────────────────────────────────────────────────────
Delimiter: ","
chr (24): LocationAbbr, LocationDesc, TopicType, TopicDesc, MeasureDesc, Dat...
dbl  (7): YEAR, Data_Value, Data_Value_Std_Err, Low_Confidence_Limit, High_C...

ℹ Use `spec()` to retrieve the full column specification for this data.
ℹ Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

Data Output

`x`: data frame you want to write

`file`: file path where you want to R object written; it can be:

- an absolute path,
- a relative path (relative to your working directory),
- a file name only (which writes the file to your working directory)

```r
# Examples

write_csv(dat, file = "YouthTobacco_newNames.csv")

write_delim(dat, file = "YouthTobacco_newNames.csv", delim = ",")
```

R binary file

`.rds` is an extension for R native file format.

`write_rds()` and `read_rds()` from `readr` package can be used to write/read a single R object to/from file.

Saving datasets in `.rds` format can save time if you have to read it back in later.

```r
# write an object: a data frame "dat"
write_rds(dat, file = "yts_dataset.rds")

# write an object: vector "x"
x <- c(1, 3, 3)
write_rds(x, file = "my_vector.rds")

# read an object from file and assign to a new object named "y"
x2 <- read_rds(file = "my_vector.rds")
x2
```

```
[1] 1 3 3
```

Summary

- Use `write_csv()` and `write_delim()` from the `readr` package to write your (modified) data
- `.rds` files can be handy for saving intermediate work

Class Website

Data Output Lab

Image by Gerd Altmann from Pixabay