Integration test: Run the web tool

2020-10-08

Introduction

This document provides a reproducible example of how to run the so called "web tool". It is based on these instructions. It is useful in three ways:

- To document this repository.
- To onboard contributors.
- As an integration test – to test running this file produces the expected output. We do this both locally and on a continuous integration service (GitHub actions) with multiple platforms and versions of R.

Environment

Packages used in this file:

```
library(tidyverse)
#> -- Attaching packages ---------------------------- tidyverse 1.3.0 --
#> v ggplot2 3.3.2     v purrr   0.3.4
#> v tibble  3.0.3     v dplyr   1.0.2
#> v tidyr   1.1.2     v stringr 1.4.0
#> v readr   1.3.1     v forcats 0.5.0
#> -- Conflicts ------------------------------- tidyverse_conflicts() --
#> x dplyr::filter()  masks stats::filter()
#> x purrr::is_null() masks testthat::is_null()
#> x dplyr::lag()     masks stats::lag()
#> x dplyr::matches() masks tidyr::matches(), testthat::matches()
library(devtools)
library(testthat)
library(config)
#>
#> Attaching package: 'config'
#> The following objects are masked from 'package:base':
#>
#>     get, merge
library(rlang)
#>
#> Attaching package: 'rlang'
#> The following objects are masked from 'package:purrr':
#>
#>     %@%, as_function, flatten, flatten_chr, flatten_dbl,
#>     flatten_int, flatten_lgl, flatten_raw, invoke,
#>     list_along, modify, prepend, splice
#> The following objects are masked from 'package:testthat':
#>
```

```
#>     is_false, is_null, is_true
library(renv)
#>
#> Attaching package: 'renv'
#> The following object is masked from 'package:rlang':
#>
#>     modify
#> The following object is masked from 'package:purrr':
#>
#>     modify
#> The following object is masked from 'package:stats':
#>
#>     update
#> The following objects are masked from 'package:utils':
#>
#>     history, upgrade
#> The following object is masked from 'package:devtools':
#>
#>     install
#> The following objects are masked from 'package:base':
#>
#>     load, remove
library(glue)
#>
#> Attaching package: 'glue'
#> The following object is masked from 'package:dplyr':
#>
#>     collapse
library(fs)
library(here)
#> here() starts at /home/mauro/git/PACTA_analysis
library(conflicted)
conflicted::conflict_prefer("filter", "dplyr")
#> [conflicted] Will prefer dplyr::filter over any other package
conflicted::conflict_prefer("lag", "dplyr")
#> [conflicted] Will prefer dplyr::lag over any other package
```

All packages detected in the directory PACTA_analysis:

```
detect_packages <- function() {
  packages <- renv::dependencies()$Package
  sort(unique(packages))
}

detect_packages()
#> Finding R package dependencies ... Done!
#>  [1] "assertthat"     "base"           "config"
#>  [4] "conflicted"     "countrycode"    "cowplot"
#>  [7] "devtools"       "dplyr"          "extrafont"
#> [10] "fs"             "fst"            "ggforce"
#> [13] "ggmap"          "ggplot2"        "ggrepel"
#> [16] "ggthemes"       "glue"           "grid"
#> [19] "gridExtra"      "here"           "janitor"
```

```
#> [22] "jsonlite"       "knitr"          "lme4"
#> [25] "matrixStats"    "PACTA.analysis" "plyr"
#> [28] "purrr"          "R"              "r2dii.utils"
#> [31] "RColorBrewer"   "readr"          "readxl"
#> [34] "renv"           "reshape2"       "rlang"
#> [37] "rmarkdown"      "rstudioapi"     "rworldmap"
#> [40] "scales"         "sitools"        "stringr"
#> [43] "testthat"       "tidyr"          "tidyselect"
#> [46] "tidyverse"      "tools"          "usethis"
#> [49] "withr"          "xml2"
```

Session information

```
devtools::session_info()
#> - Session info ---------------------------------------------------
#>  setting  value
#>  version  R version 4.0.2 (2020-06-22)
#>  os       Ubuntu 18.04.5 LTS
#>  system   x86_64, linux-gnu
#>  ui       RStudio
#>  language en_US:en
#>  collate  en_US.UTF-8
#>  ctype    en_US.UTF-8
#>  tz       America/Chicago
#>  date     2020-10-08
#>
#> - Packages -------------------------------------------------------
#>  package     * version     date       lib
#>  assertthat    0.2.1       2019-03-21 [1]
#>  backports     1.1.10      2020-09-15 [1]
#>  blob          1.2.1       2020-01-20 [1]
#>  broom         0.7.1       2020-10-02 [1]
#>  callr         3.4.4       2020-09-07 [1]
#>  cellranger    1.1.0       2016-07-27 [1]
#>  cli           2.0.2       2020-02-28 [1]
#>  colorspace    1.4-1       2019-03-18 [1]
#>  config      * 0.3         2018-03-27 [1]
#>  conflicted  * 1.0.4       2019-06-21 [1]
#>  crayon        1.3.4.9000  2020-09-03 [1]
#>  DBI           1.1.0       2019-12-15 [1]
#>  dbplyr        1.4.4       2020-05-27 [1]
#>  desc          1.2.0       2018-05-01 [1]
#>  devtools    * 2.3.2       2020-09-18 [1]
#>  digest        0.6.25      2020-02-23 [1]
#>  dplyr       * 1.0.2       2020-08-18 [1]
#>  ellipsis      0.3.1       2020-05-15 [1]
#>  evaluate      0.14        2019-05-28 [1]
#>  fansi         0.4.1       2020-01-08 [1]
#>  forcats     * 0.5.0       2020-03-01 [1]
#>  fs          * 1.5.0       2020-07-31 [1]
#>  generics      0.0.2       2018-11-29 [1]
#>  ggplot2     * 3.3.2       2020-06-19 [1]
#>  git2r         0.27.1.9000 2020-10-08 [1]
```

```
#>  glue         * 1.4.2       2020-08-27 [1]
#>  gtable         0.3.0       2019-03-25 [1]
#>  haven          2.3.1       2020-06-01 [1]
#>  here         * 0.1         2017-05-28 [1]
#>  hms            0.5.3       2020-01-08 [1]
#>  htmltools      0.5.0.9001  2020-10-08 [1]
#>  httr           1.4.2       2020-07-20 [1]
#>  jsonlite       1.7.1       2020-09-07 [1]
#>  knitr          1.30        2020-09-22 [1]
#>  lifecycle      0.2.0       2020-03-06 [1]
#>  lubridate      1.7.9       2020-06-08 [1]
#>  magrittr       1.5.0.9000  2020-09-28 [1]
#>  memoise        1.1.0       2017-04-21 [1]
#>  modelr         0.1.8       2020-05-19 [1]
#>  munsell        0.5.0       2018-06-12 [1]
#>  pak          * 0.1.2       2019-02-19 [1]
#>  pillar         1.4.6       2020-07-10 [1]
#>  pkgbuild       1.1.0       2020-07-13 [1]
#>  pkgconfig      2.0.3       2019-09-22 [1]
#>  pkgdown      * 1.6.1       2020-09-12 [1]
#>  pkgload        1.1.0       2020-05-29 [1]
#>  prettyunits    1.1.1       2020-01-24 [1]
#>  processx       3.4.4       2020-09-03 [1]
#>  ps             1.4.0       2020-10-07 [1]
#>  purrr        * 0.3.4       2020-04-17 [1]
#>  R.cache        0.14.0      2019-12-06 [1]
#>  R.methodsS3    1.8.1       2020-08-26 [1]
#>  R.oo           1.24.0      2020-08-26 [1]
#>  R.utils        2.10.1      2020-08-26 [1]
#>  R6             2.4.1       2019-11-12 [1]
#>  Rcpp           1.0.5       2020-07-06 [1]
#>  readr        * 1.3.1       2018-12-21 [1]
#>  readxl         1.3.1       2019-03-13 [1]
#>  remotes        2.2.0       2020-07-21 [1]
#>  renv         * 0.12.0      2020-08-28 [1]
#>  reprex       * 0.3.0       2019-05-16 [1]
#>  rlang        * 0.4.8       2020-10-08 [1]
#>  rmarkdown      2.4         2020-09-30 [1]
#>  rprojroot      1.3-2       2018-01-03 [1]
#>  rsconnect      0.8.16      2019-12-13 [1]
#>  rstudioapi     0.11        2020-02-07 [1]
#>  rvest          0.3.6       2020-07-25 [1]
#>  scales         1.1.1       2020-05-11 [1]
#>  sessioninfo    1.1.1       2018-11-05 [1]
#>  spelling     * 2.1.9000    2020-09-28 [1]
#>  stringi        1.5.3       2020-09-09 [1]
#>  stringr      * 1.4.0       2019-02-10 [1]
#>  styler         1.3.2       2020-02-23 [1]
#>  testthat     * 2.99.0.9000 2020-10-08 [1]
#>  tibble       * 3.0.3       2020-07-10 [1]
#>  tidyr        * 1.1.2       2020-08-27 [1]
#>  tidyselect     1.1.0       2020-05-11 [1]
#>  tidyverse    * 1.3.0       2019-11-21 [1]
```

```
#>  usethis     * 1.6.3       2020-09-17 [1]
#>  vctrs         0.3.4       2020-08-29 [1]
#>  withr         2.3.0       2020-09-22 [1]
#>  xfun          0.18        2020-09-29 [1]
#>  xml2          1.3.2       2020-04-23 [1]
#>  yaml          2.2.1       2020-02-01 [1]
#>  source
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  Github (r-lib/crayon@6b3f0c6)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  Github (ropensci/git2r@1b1ba56)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  Github (rstudio/htmltools@5d42d84)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  Github (tidyverse/magrittr@0221e18)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.2)
#>  CRAN (R 4.0.0)
```

```
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.2)
#>  CRAN (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.2)
#>  CRAN (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  CRAN (R 4.0.0)
#>  Github (ropensci/spelling@593e477)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.0)
#>  Github (r-lib/testthat@8c4b523)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  RSPM (R 4.0.2)
#>  CRAN (R 4.0.0)
#>  RSPM (R 4.0.0)
#>
#> [1] /home/mauro/R/x86_64-pc-linux-gnu-library/4.0
#> [2] /usr/local/lib/R/site-library
#> [3] /usr/lib/R/site-library
#> [4] /usr/lib/R/library
```

Functions

```
devtools::load_all()
#> Loading PACTA.analysis
```

Data

Ensure the example data is available.

```
file_name <- "TestPortfolio_Input.csv"
example_dataset <- here("sample_files", "20_input_files", file_name)

expect_true(file_exists(example_dataset))
```

Ensure the example data is copied into the expected directory.

```
expected_dataset <- here("working_dir", "20_Raw_Inputs", file_name)

if (file_exists(expected_dataset)) {
  warn(glue("Removing existing file: {expected_dataset}"))
  file_delete(expected_dataset)
}
#> Warning: Removing existing file: /home/mauro/git/PACTA_analysis/
#> working_dir/20_Raw_Inputs/TestPortfolio_Input.csv

file_copy(example_dataset, expected_dataset)

expect_true(file_exists(expected_dataset))
```

Directories

Ensure the required directories exist, and are empty.

```
ensure_empty_directory <- function(directory) {
  if (dir_exists(directory)) {
    not_hidden <- fs::dir_ls(directory)
    file_delete(not_hidden)
  }

  dir_create(directory)
  file_create(path(directory, ".gitkeep.txt"))

  invisible(directory)
}

children <- c("30_Processed_Inputs", "40_Results", "50_Outputs")
(paths <- here("working_dir", children))
#> [1] "/home/mauro/git/PACTA_analysis/working_dir/30_Processed_Inputs"
#> [2] "/home/mauro/git/PACTA_analysis/working_dir/40_Results"
#> [3] "/home/mauro/git/PACTA_analysis/working_dir/50_Outputs"

walk(paths, ensure_empty_directory)
```

Ensure the following repos are siblings, i.e. they are inside the same parent directory:

- “2DegreesInvesting/pacta-data/”
- “2DegreesInvesting/create_interactive_report/”

- "2DegreesInvesting/PACTA_analysis/"
- "2DegreesInvesting/StressTestingModelDev/"

```
is_sibling <- function(x) {
  parent <- path_dir(here())
  dir_exists(path(parent, x))
}

repos <- c("pacta-data", "create_interactive_report", "PACTA_analysis", "StressTestingModelDev")
all_siblings <- all(map_lgl(repos, is_sibling))

expect_true(all_siblings)
```

NOTE: As of this writing the main line of development is not the standard branch `master` – it is the branch `current_web_functionality`.

Ensure the expected working directory.

```
expect_equal(path_file(here()), "PACTA_analysis")
```

`portfolio_name_ref_all <- "TestPortfolio_Input"`

Ensure `portfolio_name_ref_all` takes the value "TestPortfolio_Input" in the files which name contains "web_tool_scripts".

```
# What value is currently assigned to the variable `portfolio_name_ref_all`?
show_pattern_in_file <- function(file, pattern) {
  grep(pattern, readLines(file), value = TRUE)
}

pattern <- "set_portfolio-name-ref-all_working-location_and_web-parameters.R"
(files <- dir_ls("dry", regexp = pattern))
#> dry/set_portfolio-name-ref-all_working-location_and_web-parameters.R

this_pattern <- "portfolio_name_ref_all.*<-"
matched <- map(files, show_pattern_in_file, pattern = this_pattern)
walk(matched, writeLines)
#>   portfolio_name_ref_all <- get_portfolio_name()
#>   portfolio_name_ref_all <- c("TestPortfolio_Input") # must be the same name as in the _PortfolioPar

script_has_this_pattern <- grepl(this_pattern, matched)
expect_true(any(script_has_this_pattern))
```

NOTE: If the value of `portfolio_name_ref_all` comes from the user, we should provide an interface for the user to supply it – so that the user needs not to change the source code.

Configurations

Ensure this configuration file exists:

```
config_1 <- here(
  "working_dir",
  "10_Parameter_File",
  "TestPortfolio_Input_PortfolioParameters.yml"
)

expect_true(file_exists(config_1))
```

```
look_into <- function(path, n = -1L) {
  lines <- readLines(path, n, encoding = "UTF-8")
  writeLines(lines)
}

look_into(config_1)
#> default:
#>     parameters:
#>         portfolio_name_in: TestPortfolio_Input
#>         investor_name_in: Test
```

Ensure this other configuration file also exists:

```
config_2 <- here("parameter_files", "WebParameters_2dii.yml")
config_2_copy <- tempfile()
fs::file_copy(config_2, config_2_copy)

expect_true(file_exists(config_2))
```

Ensure the paths in the configuration file work both locally and on GitHub actions:

```
make_config_portable <- function(config) {
  lines <- readLines(config, encoding = "UTF-8")
  lines <- make_paths_portable(lines)
  writeLines(lines, config)

  invisible(config)
}

make_paths_portable <- function(x) {
  x %>%
    root_field_path("project_location_ext", pattern = "PACTA_analysis") %>%
    root_field_path("data_location_ext", pattern = "pacta-data") %>%
    root_field_path("template_location", pattern = "create_interactive_report") %>%
    root_field_path("stress_test_location", pattern = "StressTestingModelDev")
}

root_field_path <- function(x, field, pattern) {
  parent <- path_dir(here())
  value <- path(parent, extract_from(x, pattern))
  sub(glue("({field}:[ ]?).*"), glue("\\1{value}/"), x)
}

extract_from <- function(x, pattern) {
```

```
  line <- grep(pattern, x, value = TRUE)
  sub(glue(".*({pattern}.*)"), "\\1", line)
}

make_config_portable(config_2)
```

```
config_paths <- config::get(file = config_2)$paths
all_paths_exist <- all(map_lgl(config_paths, dir_exists))

expect_true(all_paths_exist)
```

```
look_into(config_2)
#> default:
#>     paths:
#>         project_location_ext: /home/mauro/git/PACTA_analysis/
#>         data_location_ext: /home/mauro/git/pacta-data/2019Q4/
#>         template_location: /home/mauro/git/create_interactive_report/
#>         stress_test_location: /home/mauro/git/StressTestingModelDev/
#>     parameters:
#>         project_name: working_dir
#>         twodii_internal: FALSE
#>         new_data: FALSE
```

Scripts

Populate the directory for processed inputs:

```
dir_has_files <- function(path) {
  stopifnot(is_dir(path))

  contents <- dir_ls(path, recurse = TRUE)
  has_files <- any(map_lgl(contents, is_file))
  has_files
}

out_1 <- path("working_dir", "30_Processed_Inputs")

expect_false(dir_has_files(out_1))
source("web_tool_script_1.R")
#> Warning: The `path` does not exist: {path}
#> [1] "No Equity in portfolio"
expect_true(dir_has_files(out_1))
```

Populate the directory for results:

```
out_2 <- path("working_dir", "40_Results")

expect_false(dir_has_files(out_2))
source("web_tool_script_2.R")
#> Warning in dir.create(.x): '/home/mauro/git/PACTA_analysis/
#> working_dir//30_Processed_Inputs/TestPortfolio_Input' already exists
```

```
#> Warning in dir.create(.x): '/home/mauro/git/PACTA_analysis/
#> working_dir//40_Results/TestPortfolio_Input' already exists
#> Warning in dir.create(.x): '/home/mauro/git/PACTA_analysis/
#> working_dir//50_Outputs/TestPortfolio_Input' already exists
#> [1] "1: Test"
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> [1] "Autmotive scenario values for 2035 and 2040 are recalculated as there was an error in the scena
#> Warning: `data_frame()` is deprecated as of tibble 1.1.0.
#> Please use `tibble()` instead.
#> This warning is displayed once every 8 hours.
#> Call `lifecycle::last_warnings()` to see where this warning was generated.
#> [1] "No Equity Portfolio Data available. Skipping!"
#> [1] "Calculate Stress Test for Bonds Portfolio"
#> [1] "Integral method selected for calculation of late&sudden production scenarios. \n          Produ
#> [1] TRUE
#> Warning in data.table::dcast(., investor_name + portfolio_name + id
#> + company_name + : The dcast generic in data.table has been passed
#> a grouped_df and will attempt to redirect to the reshape2::dcast;
#> please note that reshape2 is deprecated, and this redirection is
#> now deprecated as well. Please do this redirection yourself like
#> reshape2::dcast(.). In the next version, this warning will become an
#> error.
#> Warning: `mutate_()` is deprecated as of dplyr 0.7.0.
#> Please use `mutate()` instead.
#> See vignette('programming') for more help
#> This warning is displayed once every 8 hours.
#> Call `lifecycle::last_warnings()` to see where this warning was generated.
#> Warning in data.table::melt(., id.vars = c("scenario_name",
#> "year_of_shock", : The melt generic in data.table has been passed a
#> tbl_df and will attempt to redirect to the relevant reshape2 method;
#> please note that reshape2 is deprecated, and this redirection is
#> now deprecated as well. To continue using melt methods from reshape2
#> while both libraries are attached, e.g. melt.list, you can prepend
#> the namespace like reshape2::melt(.). In the next version, this
#> warning will become an error.
#> [1] "Integral method selected for calculation of late&sudden production scenarios. \n          Produ
#> [1] TRUE
#> Warning in data.table::dcast(., investor_name + portfolio_name + id
#> + company_name + : The dcast generic in data.table has been passed
#> a grouped_df and will attempt to redirect to the reshape2::dcast;
#> please note that reshape2 is deprecated, and this redirection is
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#> the namespace like reshape2::melt(.). In the next version, this
#> warning will become an error.
expect_true(dir_has_files(out_2))
```

Populate the directory for outputs:

```
out_3 <- path("working_dir", "50_Outputs")

expect_false(dir_has_files(out_3))
source("web_tool_script_3.R")
expect_true(dir_has_files(out_3))
```

Ensure the output includes specific types of files:

```
outputs <- path("working_dir", "50_Outputs")

css <- dir_ls(outputs, recurse = TRUE, regexp = "[.]css")
expect_true(length(css) > 0L)

js <- dir_ls(outputs, recurse = TRUE, regexp = "[.]js")
expect_true(length(js) > 0L)

index <- dir_ls(outputs, recurse = TRUE, regexp = "index[.]html")
expect_true(length(index) > 0L)

zip <- dir_ls(outputs, recurse = TRUE, regexp = "[.]zip")
expect_true(length(zip) > 0L)
```

Output

```
look_into(index, n = 20L)
#> <!DOCTYPE html>
#> <html lang="" xml:lang="">
#> <head>
#>
#>   <meta charset="utf-8" />
#>   <meta http-equiv="X-UA-Compatible" content="IE=edge" />
#>   <title>1 Introduction: What to get out of this report and how to read it | Interactive Portfolio R
#>   <meta name="description" content="" />
#>   <meta name="generator" content="bookdown 0.20 and GitBook 2.6.7" />
#>
#>   <meta property="og:title" content="1 Introduction: What to get out of this report and how to read
#>   <meta property="og:type" content="book" />
#>
```

```
#>
#>
#>
#>
#>   <meta name="twitter:card" content="summary" />
#>   <meta name="twitter:title" content="1 Introduction: What to get out of this report and how to read
#>
```

```
dir_tree(path(outputs, "TestPortfolio_Input"), recurse = FALSE)
#> working_dir/50_Outputs/TestPortfolio_Input
#> +-- 2dii_gitbook_style.css
#> +-- TestPortfolio_Input_results.zip
#> +-- company_charts
#> +-- css
#> +-- data
#> +-- export
#> +-- img
#> +-- index.html
#> +-- js
#> +-- libs
#> \-- search_index.json
```

TODO

- Some warnings may be avoided if required directories are created only if they don't already exist.

```
Warning message:
In read_file(paste0(file_location, "/fund_data.fst")) :
  ~/git/pacta-data/2019Q4/cleaned_files/fund_data.fst does not exist
```

- I'm not sure if this dataset is crucial, but it's missing from my clone of pacta-data/:

```
dir_ls(path("..", "pacta-data", "2019Q4", "cleaned_files"))
#> ../pacta-data/2019Q4/cleaned_files/average_sector_intensity.fst
#> ../pacta-data/2019Q4/cleaned_files/comp_fin_data.fst
#> ../pacta-data/2019Q4/cleaned_files/company_emissions.fst
#> ../pacta-data/2019Q4/cleaned_files/currencies.fst
#> ../pacta-data/2019Q4/cleaned_files/debt_fin_data.fst
#> ../pacta-data/2019Q4/cleaned_files/fin_data.fst
```

Cleanup

Restore configuration file.

```
fs::file_copy(config_2_copy, config_2, overwrite = TRUE)
```