How to install and setup PACTA as first-time user

Overview

This how-to describes running a test PACTA analysis for a first-time user.

Keywords:

Before you start:

System requirements:

	Recommended	Minimum
RAM	16 GB or more	8 GB
Windows	64-bit	32-bit
Mac OS		
Linux		
R version	3.6.1	no earlier than 3.4.3

Software Requirements:

- GitHub (ex. GitHub Desktop)
- A GitHub account added to the 2DegreesInvesting GitHub organization
- RStudio (recommended version 1.1.456)
- MikTeX- a distribution of the LaTeX typesetting system; includes TeXworks (preferably version 2.9)

Required libraries and packages:

—command for installing binaries— Please review and consolidate. Current documentation states:

> "Necessary packages are: tidyr, dplyr, scales, reshape2, tidyverse, readxl, tidyselect (and dependencies). Further R packages needed: grid, ggplot2, ggthemes, dplyr, reshape2, gridExtra, scales, stringr, extrafont, tidyr, knitr, RColorBrewer, matrixStats, rworldmap, ggmap, cowplot, ggrepel, readxl, tidyverse, ggforce, sitools , countrycode."

How to run a PACTA analysis with a test portfolio

Step 1 — Create a local copy of the repositories

It is recommended to clone both repositories into the **same local directory**.

To create a local copy: 1. Fork the PACTA_analysis repository 2. Fork the PACTA-data repository 3. From your Git software clone the public PACTA_analysis repository 4. Clone the PACTA_data private repository

> Every time you work with the local copy, pull updates through your method of Git to ensure you're working with the most recent version. Check that the branch you're working on is the master branch—unless otherwise required.

Step 2 — Launch RStudio

To launch RStudio with the PACTA_analysis files: * From your local directory open PACTA_analysis > R > PACTA_analysis.rproj

Step 3 — Running web_tool_script1 and web_tool_script2

The scripts use the following example files located in `working_directory`: * `20_Raw_Inputs > TestPortolio_Input.csv` * `10_Parameter_File > TestPortfolio_Input_PortfolioParameters.yml` * The `portfolio_name_in` input must match the `.csv` file name

To run web_tool_script_1.r:

1. Open `web_tool_script_1.r` in RStudio
2. Click Source to run the script

3. To confirm that the script was successful, navigate to: `working_directory > 30_Processed_Inputs > TestPortfolio_Input` . The folder should contain new data and objects
4. Inspect these two files before moving on:
    - `audit_file.csv`
    - `invalidsecurities.csv`

> These files are your first indication if something has gone wrong with a portfolio. They identify what data is valid or invalid for the analysis.

To run web_tool_script_2.r:

1. Open `web_tool_script_2.r` in RStudio
2. Click Source to run the script.
3. To confirm that the script was successful, navigate to: `working directory > 40_Results > TestPortfolio_Inputs` > the 6 following files:
    - `Bonds_results_company.rda`
    - `Bonds_results_map.rda`
    - `Bonds_results_portfolio.rda`
    - `Equity_results_company.rda`
    - `Equity_results_map.rda`
    - `Equity_results_portfolio.rda`

> To open the `.rda` files: `R> readRDS("")` **This is a specific method to this case only `.rda` files are normally click to open in all other cases.

Next Steps:

If the scripts were successful, you are ready to run the analysis using your own files and generate interactive reports.

Running an analysis with your own data

Step 1 — Reset the environment:

1. Restart R.
2. Manually remove the `TestPortfolio_Input` folders from the `working_directory`. It is recommended to keep one copy for reference.

Step 2 — Load your portfolio files

1. Copy your working portfolio into `20_Raw_Inputs` .
2. Go to `10_Parameter_Files` . Make a copy of `Portfolio_Input_PortfolioParamaters.yml` . Rename the file to `YOURPORTFOLIONAME_PortfolioParameters.yml.`
3. View the file in RStudio and edit the following:
    - `portfolio_name_in` : your file name without `.csv`
    - `investor_name_in:` anything
    - `peergroup:` anything
    - `language:` available languages?
    - `project_code:` GENERAL
    - — placeholder for upcoming feautre— `holdings_date:`
4. Save your changes

Step 3 — Run `web_tool_script1.r` and `web_tool_script2.r`

To run `web_tool_script1.r` :

1. Open `web_tool_script_1.r` in RStudio
2. Edit line 12 `{portfolio_name_ref_all "PORTFOLIONAME"}`
3. Click save
4. Click Source to run the script
5. Check the results in `working_directory > 30_Processed_Inputs`

To run `web_tool_script2.r` :

1. Open `web_tool_script_2.r` in RStudio
2. Edit line line 14 `{portfolio_name_ref_all "PORTFOLIONAME"}`
3. Click save
4. Click Source to run the script
5. Check the results in `working_directory > 40_Outputs`

> To Note: The `web_tools_scripts` cannot be run out of order, i.e., you can't run #3 before you run #2. They must be run successively and depend on the files each script generates.

Generating an Interactive Report