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INFORMAL MEETING #1

Seasonal adjustment processes in statistical production

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Seasonal Adjustment process

- Seasonal adjustment process requires:
  - storage of data: raw and seasonally adjusted (SA), external regressors
  - storage of specifications
  - updating of the data
  - binding data and specifications
  - processing

Storage

- Workspace (WS):
  - data and specifications together
  - in general one workspace per domain (many time series data and spec. together)
  - WSs created with
    - GUI: link to external sources (e.g. files, db)
    - RJDemetra/rjd3: data embedded in workspaces (☺)
- Production Data Bases
  - records = single time series (not domains)
  - model specifications history: revision checks

DB models for statistical production: concurrent revision – SETTING 1: Domain workspaces

Time series name	Metadata	Values	Domain
FATEXP_10	…	<10, 9.4, 8.9,…>	FAT
C_DEFL	…	<1.2, 3, 2.6,…>	FAT
VATPIA	…	<3.1, 3, 2.8,…>	TUR
VATAIA	…	<1.6, 2.2, 2.7,…>	TUR
…	…	…	…

Domain	T	Workspace (data+spec)
FAT	I	
FAT	2	
FAT	…	
FAT	N	
TUR	I	
TUR	2	
TUR	…	
TUR	N	

1) download data and ws, update_data(), decide specs (with GUI), compare_sa_ts(*, **) to contain revisions

2) upload

3a) check_data()

3b) check_external_regressors()

4) Processing (RJDemetra/rjd3 /cruncher)

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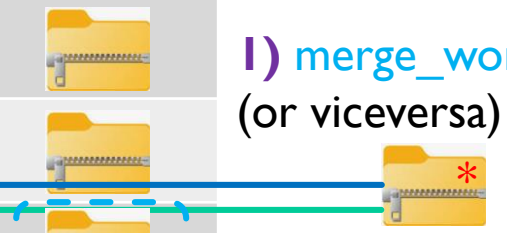
DB models for statistical production: concurrent revision – SETTING 2: Single series workspaces

Time series name	Metadata	Values	Domain
FATEXP_10	…	<10, 9.4, 8.9,…>	FAT
C_DEFL	…	<1.2, 3, 2.6,…>	FAT
VATPIA	…	<3.1, 3, 2.8,…>	TUR

Time series name	T	Workspace (data+spec)
FATEXP_10	1	
FATEXP_10	2	
FATEXP_10	…	
FATEXP_10	N	
C_DEFL	1	
C_DEFL	2	
C_DEFL	…	
C_DEFL	N	
…	…	…



1) merge_workspaces() and downoload (or viceversa)

2) update_data()

3) check_data() and check_external_regressors()

4) Decide new specifications (with GUI)

5) compare_sa_ts(*, **)

6) split_workspace() and upload

6) Processing (RJDemetra/rjd3 /cruncher)

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DB models for statistical production: concurrent revision – SETTING 3: Separate specs and data (single series)

Time series name	Metadata	Values	Domain
FATEXP_10	…	<10, 9.4, 8.9,…>	FAT
C_DEFL	…	<1.2, 3, 2.6,…>	FAT
VATPIA	…	<3.1, 3, 2.8,…>	TUR

Time series name	T	JD_JSON spec
FATEXP_10	1	{…}
FATEXP_10	2	{…}
FATEXP_10	…	{…}
FATEXP_10	N	{…}
C_DEFL	1	{…}
C_DEFL	2	{…}
C_DEFL	…	{…}
C_DEFL	N	{…}
…	…	{…}

6) Processing with RJDProcessor

1) Downoload data and specifications

2) ws_new = JD_JSON_to_workspace(data_t, specifications_t)
ws_old = JD_JSON_to_workspace(data_t-1, specifications_t-1)

3) Decide new specifications (with GUI having ws_new as input), being helped by compare_sa_ts(ws_new, ws_old)

4) JD_JSON_from_workspace(data_t, specifications_t)

5) Upload new JSON specifications

{…}, {…}, {…}, {…}

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Source code

Source code is available on GitHub:

https://github.com/AlessandroPiovani/RJDProcessor

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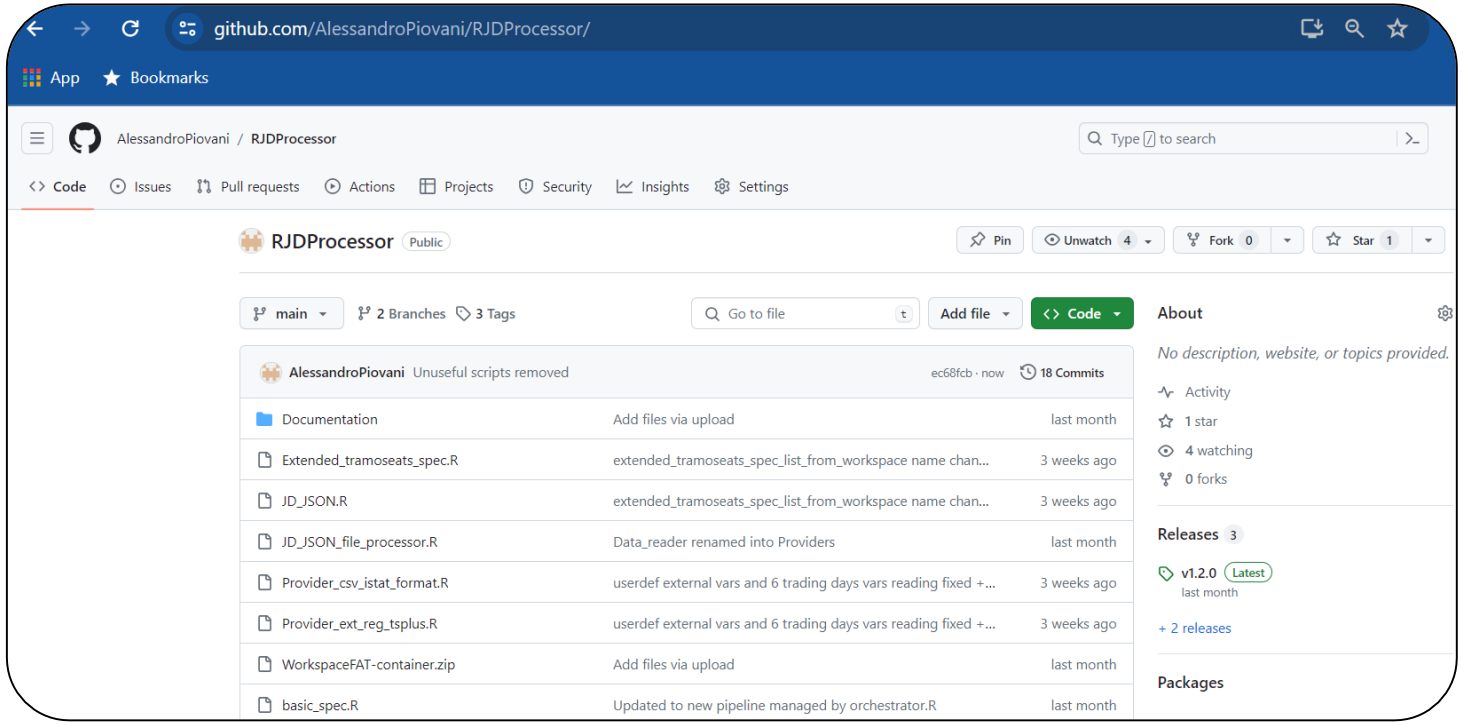

Thanks for your attention!

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