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**INFORMAL MEETING #1**

# Seasonal adjustment processes in statistical production

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# Seasonal Adjustment process

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- 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

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## ○ 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_I0	...	<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	1	
FAT	2	
FAT	...	
FAT	N	
TUR	1	
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)

# DB models for statistical production: concurrent revision

## – SETTING 2: Single series workspaces

Time series name	Metadata	Values	Domain
FATEXP_I0	...	<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_I0	1	
FATEXP_I0	2	
FATEXP_I0	...	
FATEXP_I0	N	
C_DEFL	1	
C_DEFL	2	
C_DEFL	...	
C_DEFL	N	
...	...	...

1) `merge_workspaces()` and download (or viceversa)

2) `update_data()`

3) `check_data()` and `check_external_regressors()`

4) Decide new specifications (with GUI)

5) `compare_sa_ts(*, **)`

6) `get_single_ts_workspaces()` and upload

6) Processing  
(RJDemetra/rjd3  
/cruncher)



# DB models for statistical production: concurrent revision

## – SETTING 3: Separate specs and data (single series)

Time series name	Metadata	Values	Domain
FATEXP_I0	...	<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_I0	1	{...}
FATEXP_I0	2	{...}
FATEXP_I0	...	{...}
FATEXP_I0	N	{...}
C_DEFL	1	{...}
C_DEFL	2	{...}
C_DEFL	...	{...}
C_DEFL	N	{...}
...	...	{...}

6) Processing with RJDProcessor



1) Download data and specifications

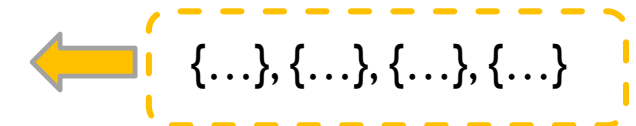
2) ws\_new =  
JD\_JSON\_to\_workspace(data\_t,  
specifications\_t)

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



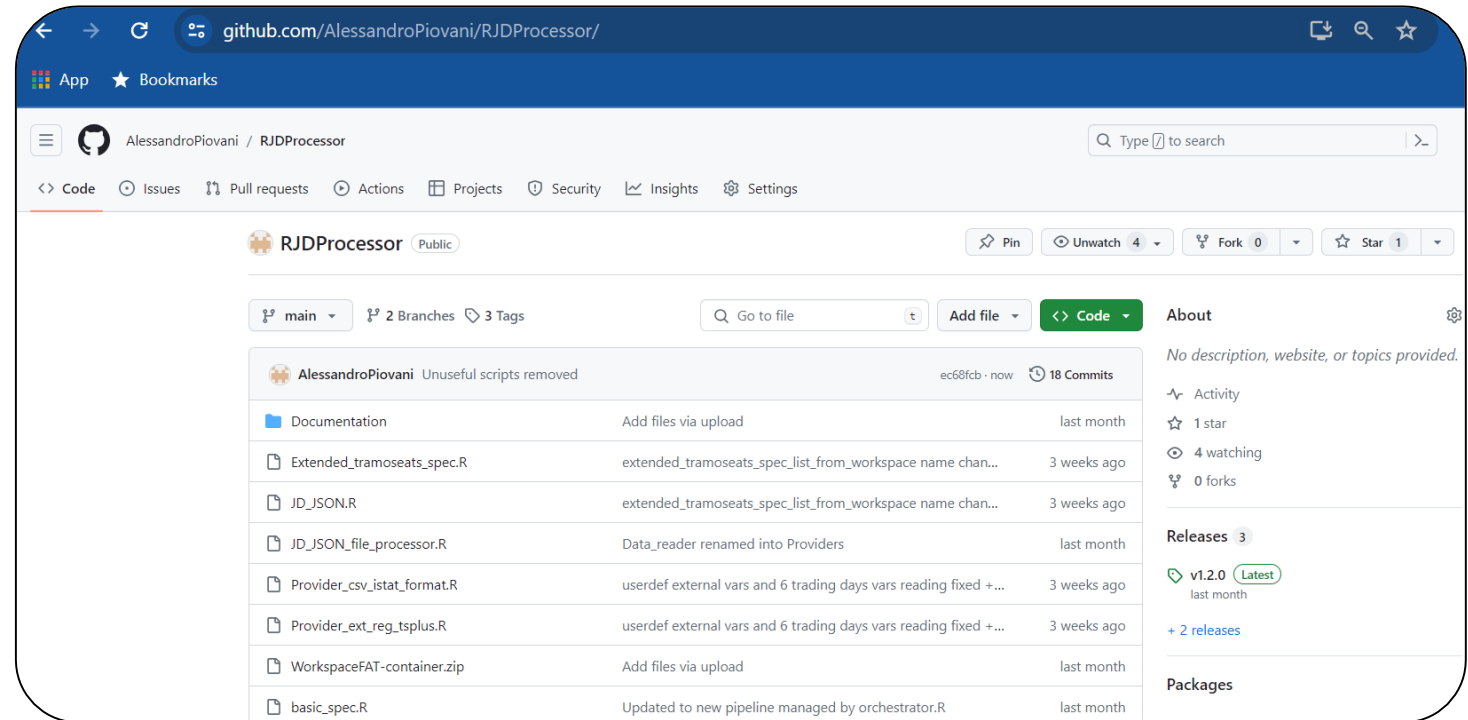
# Source code

Source code is available on GitHub:

<https://github.com/AlessandroPiovani/RJDProcessor>

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# Thanks for your attention!

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