



## CPS Paper

### **JDemetra+ 3.0: a versatile time series analysis software.**

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#### **Presentation File**

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#### **Brief Description**

JDemetra+ is an open source software for time series analysis.

It has been officially recommended by Eurostat to the European Statistical System members since 2015.

Its latest version, 3.0, to be released in December 2022, fills several critical gaps in the tool box of a time series analyst providing extended features for seasonal adjustment and trend estimation, including high frequency data and production tools.

A state-space framework gives access to Basic Structural Models, offering a seasonal adjustment procedure with explicit decomposition and time varying trading day correction.

This open source software is unique in its combination of very fast java routines, a graphical user interface and a family of R packages.

The graphical interface offers a structured and visual feedback, suitable for refined analysis and training, whereas R tools allow the user to mix the capabilities of JDemetra+ with the versatility of the R world, be it for mathematical functions or data wrangling.

Our paper aims at describing and illustrating the new capabilities of JDemetra+ 3.0 as well as the R packages allowing to access them.

In this abstract we highlight three categories of features which seem to be much sought-after by users: seasonal adjustment of high frequency data, trend estimation and tools for building seasonal adjustment production chains entirely in R.

#### **Abstract**

JDemetra+ is an open source software for time series analysis. It has been officially recommended by Eurostat to the European Statistical System members since 2015. Its latest version, 3.0, to be released in December 2022, fills several critical gaps in the tool box of a time series analyst providing extended features for seasonal adjustment and trend estimation, including high frequency data and production tools. A state-space framework gives access to Basic Structural Models, offering a seasonal adjustment procedure with explicit decomposition and time varying trading day correction. This open source software is unique in its combination of very fast java routines, a graphical user interface and a family of R packages. The graphical interface offers a structured and visual feedback, suitable for refined analysis and training, whereas R tools allow the user to mix the capabilities of JDemetra+ with the versatility of the R world, be it for mathematical functions or data wrangling. Our paper aims at describing and illustrating the new capabilities of JDemetra+ 3.0 as well as the R packages allowing to access them. In this abstract we highlight three categories of features which seem to be much sought-after by users: seasonal adjustment of high frequency data, trend estimation and tools for building seasonal adjustment production chains entirely in R.