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## The expandable seasonal adjustment framework of JDemetra+

Topic 2 – Learning more from what we already know

Keywords: software, seasonal adjustment, model-based method

### Introduction

JDemetra+ is a new tool for seasonal adjustment (SA) developed by the National Bank of Belgium in cooperation with the Deutsche Bundesbank and Eurostat in accordance with the Guidelines of the European Statistical System. It implements the concepts and algorithms used in the two leading SA methods: TRAMO-SEATS and X12-ARIMA. Those methods have been re-engineered using an object-oriented approach that enables easier handling, extensions and modifications. More generally, JDemetra+ provides a framework that fits various SA approaches. Common features, ranging from statistical concepts like REGARIMA modelling or seasonality tests to presentation tools like SI-ratios are designed in a generic way, independently of the original software. So, developers can propose more quickly new solutions or extensions and users can compare and analyse them in a more coherent way. We will outline the main capabilities of the framework and we will illustrate them by a few examples of alternative model-based SA algorithms.