SpecParser User Guide

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October 17, 2016

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Introduction

1.1 Idea

The SpecParser plug-in enables the user to import WinX12 specification files (spc-files) into JDemetra+ and have the selected options replicated in the JDemetra+ interface. This works for single spc-files in the single-spec mode as well as for metafiles (mta-files) in the multi-spec mode.

The plugin can also translate seasonal adjustment specifications from JDemetra+ back into a WinX12 compatible spc-file.
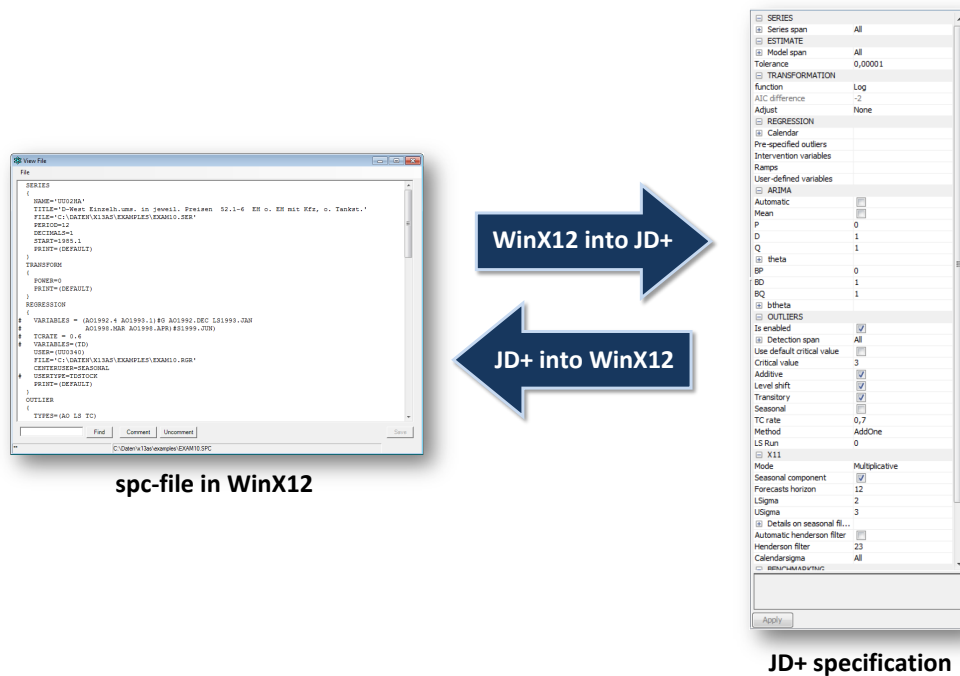

Figure 1.1: Overview

1.2   General remarks

- Spc-files to be translated by the SpecParser must be correct according to X-12-ARIMA syntax rules, as the SpecParser is not made for identifying bugs in the original spec-files.

- The SpecParser does not support SEATS, therefore the "SEATS" spec in WinX13 compatible spc-files is ignored. The other differences between X-12-ARIMA and X-13ARIMA-SEATS refer to output-related options, which are not translated anyway. So in principle, the SpecParser can handle both WinX12 and WinX13 spc-files.

- The SpecParser requires at least JD+ 2.0.0 which includes the calendarsigma function.

- This user guide refers to the current plug-in version 1.2.6.

1.3   Installation

Download the SpecParser plug-in from github.com. To install it select Tools → Plugins → Downloaded → Add Plugins . . . and follow the user dialog. As soon as the plug-in has been successfully installed, the option "Open SpecParser" is visible by right-clicking on a seasonal adjustment document or multi-document.
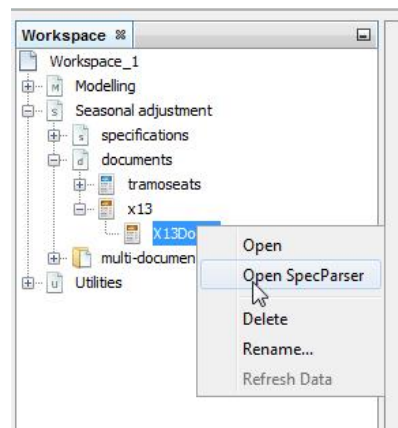

Figure 1.2: SpecParser successfully installed

1.4   How to use this guide

This guide consists of four main sections:

- For first steps in both single- and multi-spec mode, please refer to the chapter **Quick Start**.

- The interface, translation details and further functions are explained in the chapter **Function Guide**.

- **Advanced Use** deals with advanced topics such as editing specifications in the SpecParser interface or how to save parsed spc-files.

- If any errors or bugs occur, you'll hopefully find the chapter **Help** supportive.

Quick Start

2.1 From WinX12 to JDemetra+

If you wish to translate a single spc-file into JDemetra+, you should use the single-spec mode, as you can load the spc-files directly. If you wish to translate two or more spc-files at once, the names of these spc-files have to be collected in one mta-file, which serves as input in the multi-spec mode.

Single-spec mode

This mode is designed to import WinX12 compatible spc-files into a JDemetra+ document.

1. Create a new and empty single x13 document (`X13Doc-1`) in JDemetra+.

2. Right click on the name of this document.
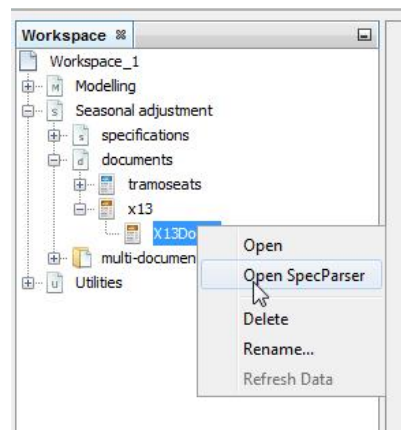   Click on `Open SpecParser`.

Figure 2.1: Open SpecParser in single-spec mode

3. The SpecPaser single-spec mode window opens (more information in section **??**).
   Click on button `Load WinX12Spec` and choose a spc-file from the file manager.
   The SpecParser automatically starts the translation.

4. The translation is carried out. During the translation you can see a green progress bar on the right bottom.

5. You get an information after the translation is completed. Errors, warnings and messages are displayed instantly.

6. You can find your results in the workspace manager in `Seasonal adjustment` →
   `documents` → `x13` → `<Your Document>`. You can now work with the document
   as you are used to.

7. The regression variables are stored in `Utilities` → `Variables` → `reg_SpecParser`.

Multi-spec mode

This mode is designed to import WinX12 compatible mta-files into a JDemetra+ multi-
document. The mta file simply consists of a list of the spc-files that are to be replicated
in JDemetra+.

1. Create a new and empty multi-document (`SaProcessing-1`).

2. Right click on the name of this document.
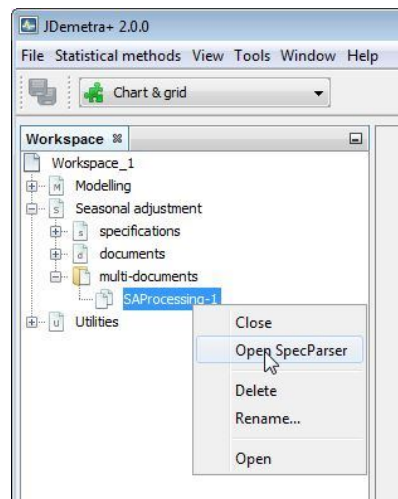   Click on `Open SpecParser`.

Figure 2.2: Open SpecParser in multi-spec mode

3. The SpecPaser multi-spec mode window opens (more information in section **??**).
   Click on button `Load *.mta file` and choose an mta-file from the file manager.
   The SpecParser automatically starts the translation.

4. The translation is carried out. During the translation you can see a green progress
   bar on the right bottom.

5. You get an information after the translation is completed. The colours in which
   the spec-file names are highlighted indicates if any errors (red), warnings (orange)
   or messages (green) occured.

6. The spc-file-specific errors, warnings and messages are displayed by clicking on one
   of the spc-file names.

7. You can find your results in the Workspace manager in `Seasonal adjustment` → `multi-documents` → `<Your Document>`. You can now work with the document as you are used to.

8. The regression variables are stored in `Utilities` → `Variables` → `reg_SpecParser`.

2.2 From JDemetra+ to WinX12

In order to translate an x13 document from JDemetra+ back into a WinX12 compatible spc-file, please follow the steps below. Please note, that the translation in this direction works in single-spec mode only.

1. Open an x13 document and make sure that it actually contains data (empty documents are not supported yet).

2. Right click on the name of this document.
   Click on `Open SpecParser`.

3. The SpecPaser single-spec mode window opens (more information in section **??**).
   Click on button `Refresh WinX12Text`. The SpecParser automatically starts the translation.

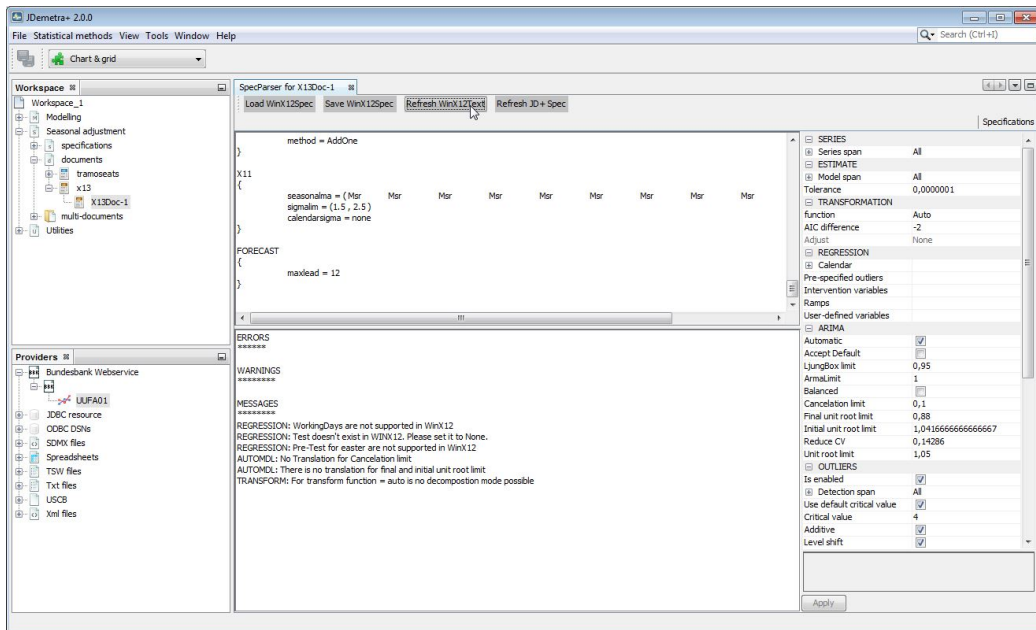4. The resulting WinX12 text as well as errors, warnings and messages are displayed instantly.

Figure 2.3: From JDemetra+ to WinX12

Survey of SpecParser

3.1 Supported X-12-ARIMA specifications

Specification part	Implemented	No requirement
ARIMA	x	
Automdl	x	
Check		x
Composite		x
Estimate	x	
Force		x
Forecast	x	
History		x
Metadata		x
Identify		x
Outlier	x	
Pickmdl		x
Regression	x	
Seats		x
Series	x	
Slidingspans		x
Spectrum		x
Transform	x	
X11	x	
X11Regression		x

3.2 Translation report

There are three kinds of translation report notifications:

errors   no translation possible, e.g. there are no data

warnings   results of JDemetra+ and WinX12 are likely to differ, i.e. excludefcst cannot be translated
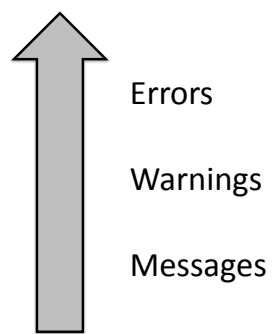
messages   for information only

Errors

Warnings

Messages

Figure 3.1: Influence to the translation results