

POST ANALYZER OCTAVE ANALYSIS GUIDE

Purpose	Description
Document ID	SPT-PA-G-001
OS	Windows 7 or newer
Version	All EDM versions, all Spider Hardware versions

TABLE OF CONTENTS

A. EDM Post Analyzer Octave Analysis Introduction	2
B. Step by Step tutorial	2
B1. Project Creation	2
B2. Analysis Parameters.....	4
C. Digital Resampling	6

A. EDM POST ANALYZER OCTAVE ANALYSIS INTRODUCTION

EDM Post Analyzer Octave Filters allow for 1/1, 1/3, 1/6 and 1/12 octave filters for Octave Spectra and RMS time traces. The Post Analyzer conforms to ANSI std. S1.11:2004 and IEC 61260-1995.

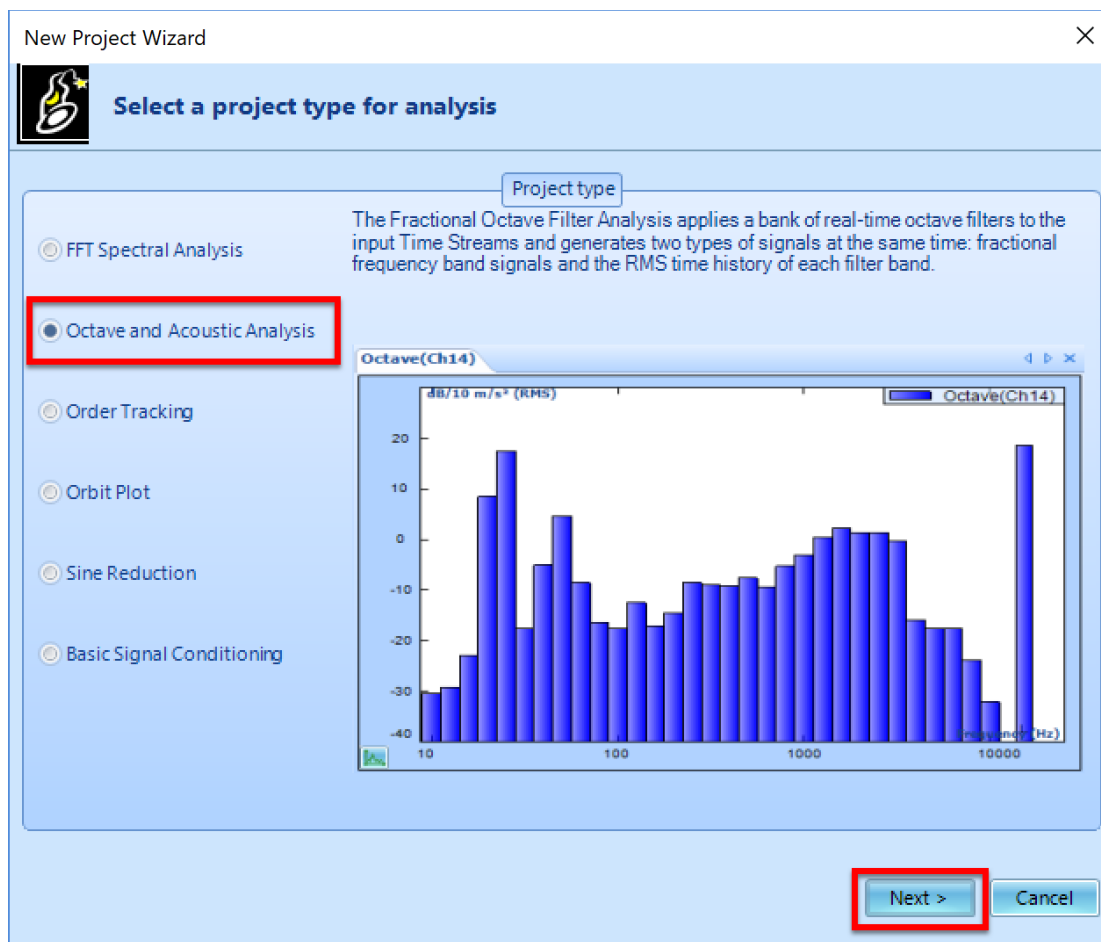
B. STEP BY STEP TUTORIAL

B1. PROJECT CREATION

Open EDM Post Analyzer and open a New Project



This will open the Post Analyzer **New Project Wizard**, Select **Octave and Acoustic Analysis** and **Next**



Post Analyzer uses data in .atfx format. If the data is not in this format, the EDM file converter software can be used to convert the data into the correct format.

Select the **Add Source File** and locate the file of interest from the PC file directory, select **Next**.

New Project Wizard

Enter project information and select data source file

Project information

Project name:

Project description:

☐ Create project by using a template

Templates

Select	Project name	Description
☐		

Select data source file

☒ SIG0216.atfx

- ☒ BLOCK(ch1), Block size = 8192
- ☒ BLOCK(ch2), Block size = 8192
- ☒ BLOCK(ch3), Block size = 8192
- ☒ BLOCK(ch4), Block size = 8192
- ☒ BLOCK(ch5), Block size = 8192
- ☒ BLOCK(ch6), Block size = 8192
- ☒ BLOCK(ch7), Block size = 8192

Select additional signal types to be computed, then press **Finish**

New Project Wizard

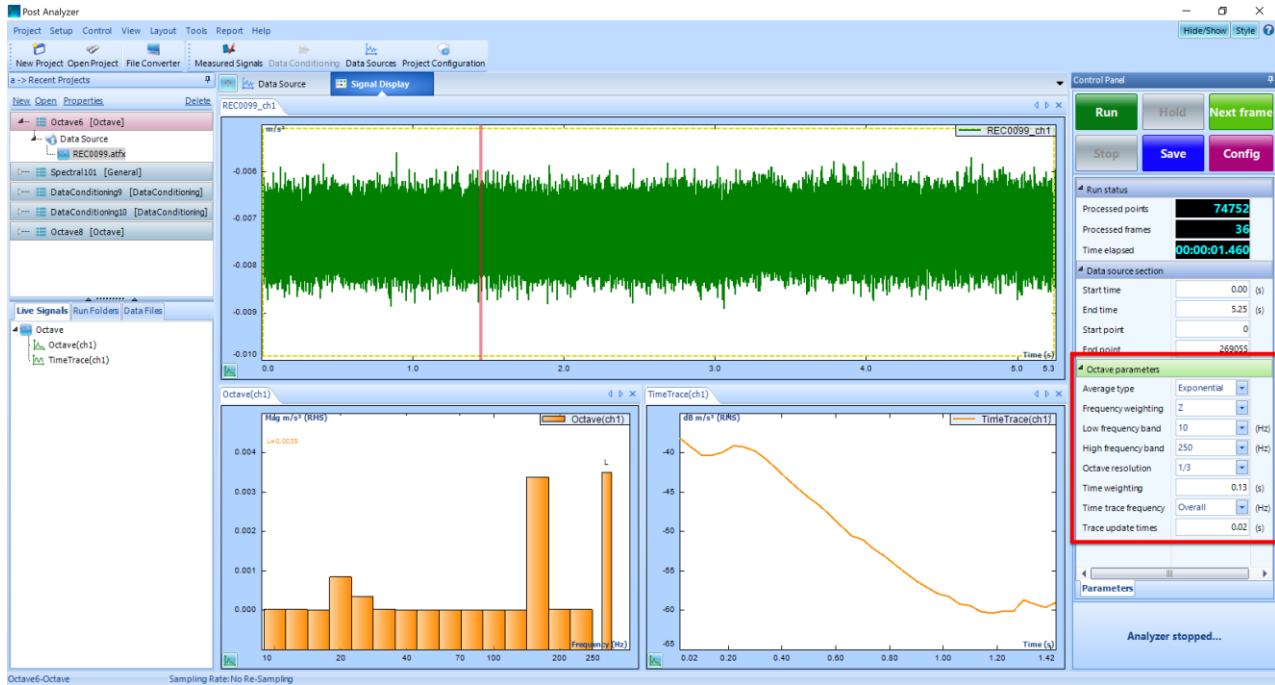
Please check the signal types to be computed

Other Analysis Options

☐ APS: Auto power spectra

☐ SLM: Sound level meter

Post Analyzer will then import the desired file and open into the main analysis page.



B2. ANALYSIS PARAMETERS

All analysis parameters can be set from the main page under **Octave Parameters**

Run status

Processed points: 74752

Processed frames: 36

Time elapsed: 00:00:01.460

Data source section

Start time: 0.00 (s)

End time: 5.25 (s)

Start point: 0

End point: 269055

Octave parameters

Average type: Exponential

Frequency weighting: Z

Low frequency band: 10 (Hz)

High frequency band: 250 (Hz)

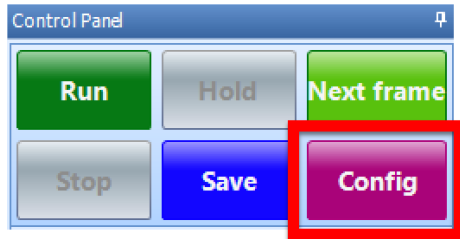
Octave resolution: 1/3

Time weighting: 0.13 (s)

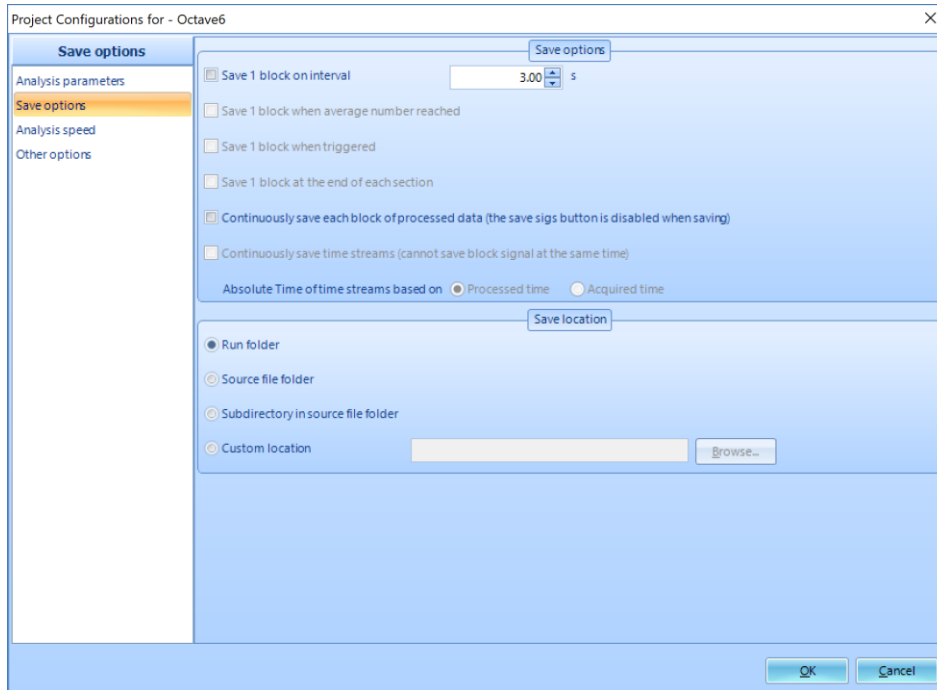
Time trace frequency: Overall (Hz)

Trace update times: 0.02 (s)

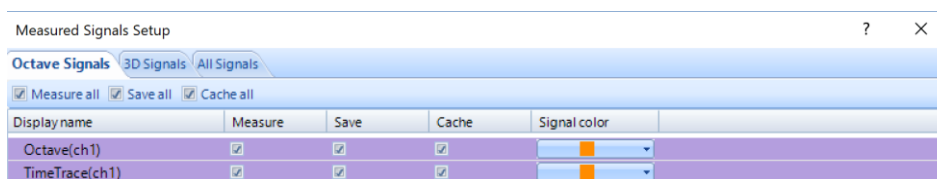
Project Configuration parameters can be configured by selecting the **Config button** in the control panel



The project configuration menu allows the user to set the analysis speed, choose **Save/recording** options among other useful options.



Signals can be selected and deselected in the **Measured Signals Tab**

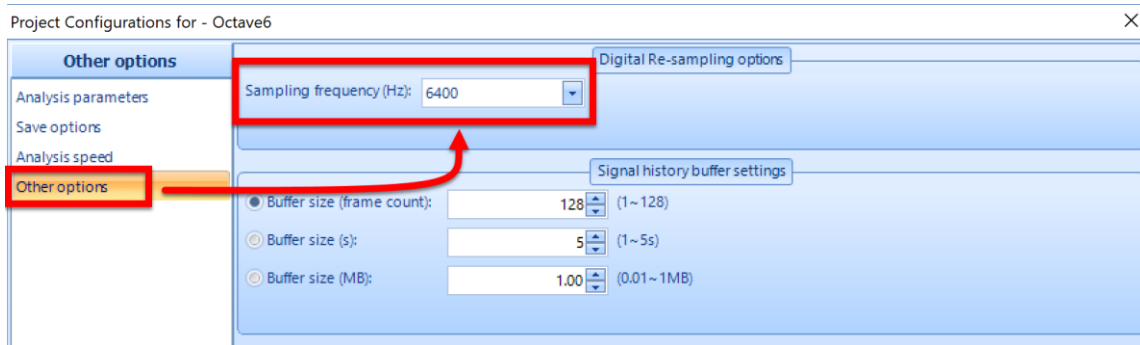


To run the analysis, click the **Run button** in Control Panel.



C. DIGITAL RESAMPLING

Sometimes it may be necessary to resample the data. The **Config** menu contains numerous sampling rate options for Digital Re-sampling. Select a desired sampling rate, and then press the **Run** button to resample the data.



The re-sampling frequency must be set correctly. If the sampling frequency is not corrected, it might result in inconsistent data (such as false peaks). This is a mathematical phenomenon, not a symptom of defective software. As a general guideline, set the re-sampling frequency to 6400 Hz when your analysis parameters are configured as follows: *(may varies depends on your application)*

Octave Resolution	High Frequency	Digital Re-Sampling in PA
1/1	< 1000	6400 Hz
1/3	< 1000	6400 Hz
1/6	< 1883.27	6400 Hz
1/12	< 1983.46	6400 Hz