

# **DS-0323 Real-time Octave Analysis Software**

**Operation manual**

**Basic Operation Procedure for Data Recording and Offline Analysis**

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This instruction manual describes basic operations for performing offline data analysis to use the DS-0323 Real-time Octave Analysis software to analyze the data recorded in the ORF file format.

The DS-0323 Real-time Octave Analysis software is capable of online real-time octave analysis while recording the target data in the ORF format at the same time. The data recorded in the ORF format can be subjected to offline real-time octave analysis and FFT analysis using the operation procedures similar to the ones used for online analysis.


As data recording operations are to follow a trial measurement for real-time octave analysis, you are advised to first perform a trial test by referring to the basic operation procedures for DS-0323 real-time octave analysis.

For offline analysis, you can also load and use WAV format files besides ORF format files.

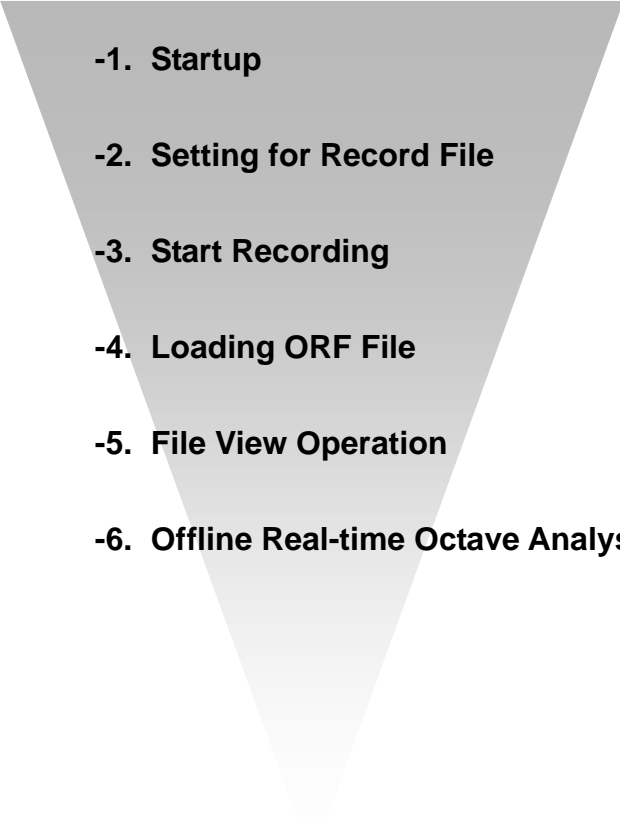
Basic operation procedures required for vibration or noise analysis are not covered in this document. For such procedures, refer to the respective operation manuals ([Operation manual for Vibration Analysis and Operation manual for Noise Analysis](#))

This manual explains functions with the focus on what type of behavior will result from a single operation, thus it is recommended to try various operations with the software.

Basic operations of DS-3000 software are mostly executed in the Configuration window. As the operations in the Configuration window are correspondent with those of the Main menu, the Main menu operations are not included in this manual. For details on the Configuration window operations, refer to the respective procedure manuals ([Basic operation procedure for display of Configuration Window](#) and [Basic operation procedure for Configuration Setting](#)).

In this instruction manual, a series of clicking operations is described, for example, as follows: Click “File” > “Project File” > “New Project” > “”.

## ■ Operation Flow

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- 1. **Startup**
  - 2. **Setting for Record File**
  - 3. **Start Recording**
  - 4. **Loading ORF File**
  - 5. **File View Operation**
  - 6. **Offline Real-time Octave Analysis**

## ■ Operation Procedures

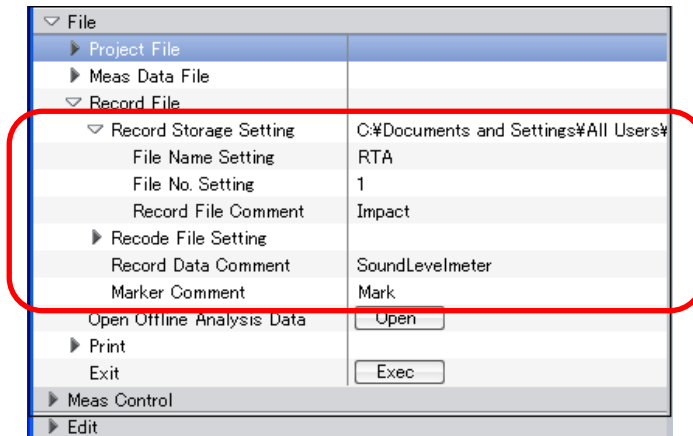
### -1. Startup

- ① Input the target vibration or noise signal to be analyzed to Ch-1 of DS-3000, and turn on the relevant devices to be used for the measurement.
- ② Startup the DS-0323 real-time octave analysis software and perform a trial test to make sure that the system is ready for the measurement.

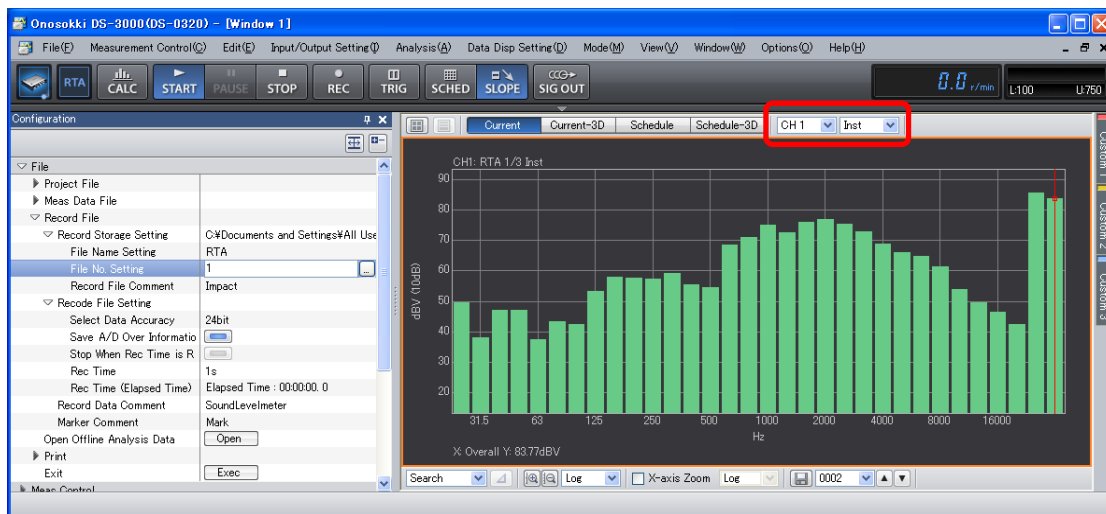
### -2. Setting for Record File

- ① Click the "STOP" button on the main tool bar to turn it on.
- ② In the "Configuration" window, click "File" > "Record File" > "Record Storage Setting" and set the

- ③ parameters as appropriate. By specifying the "File Name" and "File Number", the file will be
- ④ saved in the folder specified by "Record Storage Setting" by the file name ("RTA\_001.orf" in this example). Note that the entry in "Record File Comment" will be displayed in the bottom part of the screen to provide file information.



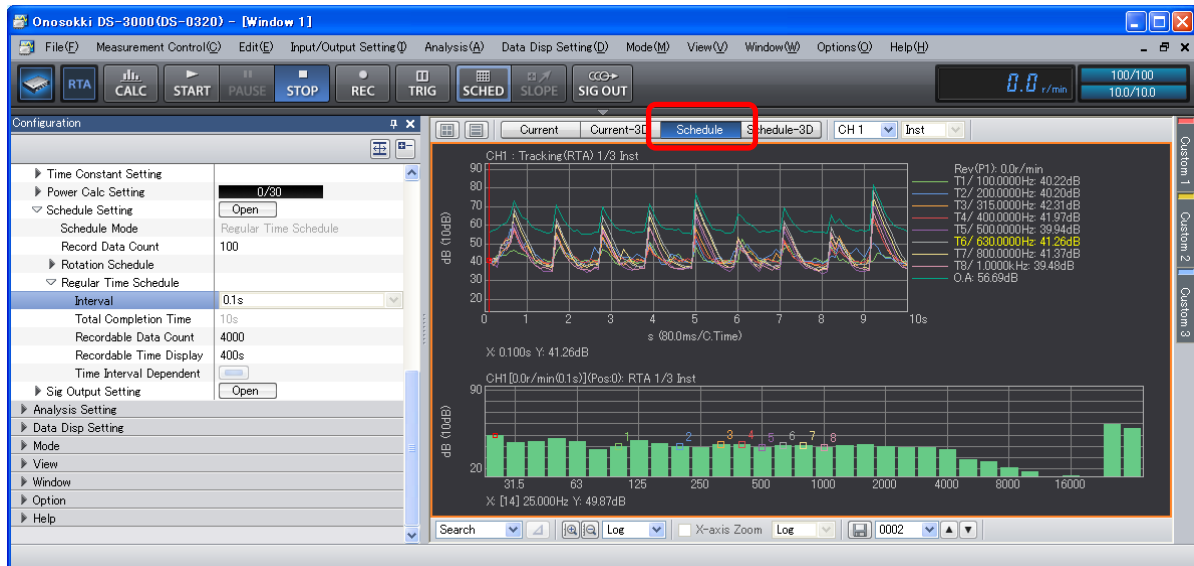
- ⑤ Select "Inst" to display instantaneous values on the screen.



### -3. Start Recording

- ① Click the "REC" button on the main tool bar to turn it on. When the system is ready, it will turn on the button in red.
- ② Click the "START" button on the main tool bar to turn it on. It will start recording the data.
- ③ Click the "STOP" button on the main tool bar to turn it on. It will stop recording the data. The data recorded will be saved as [Record No. 1].
- ④ When the "START" button on the main tool bar is turned on again, the next recording will be performed. The data at this time will be recorded as [Record No. 2].

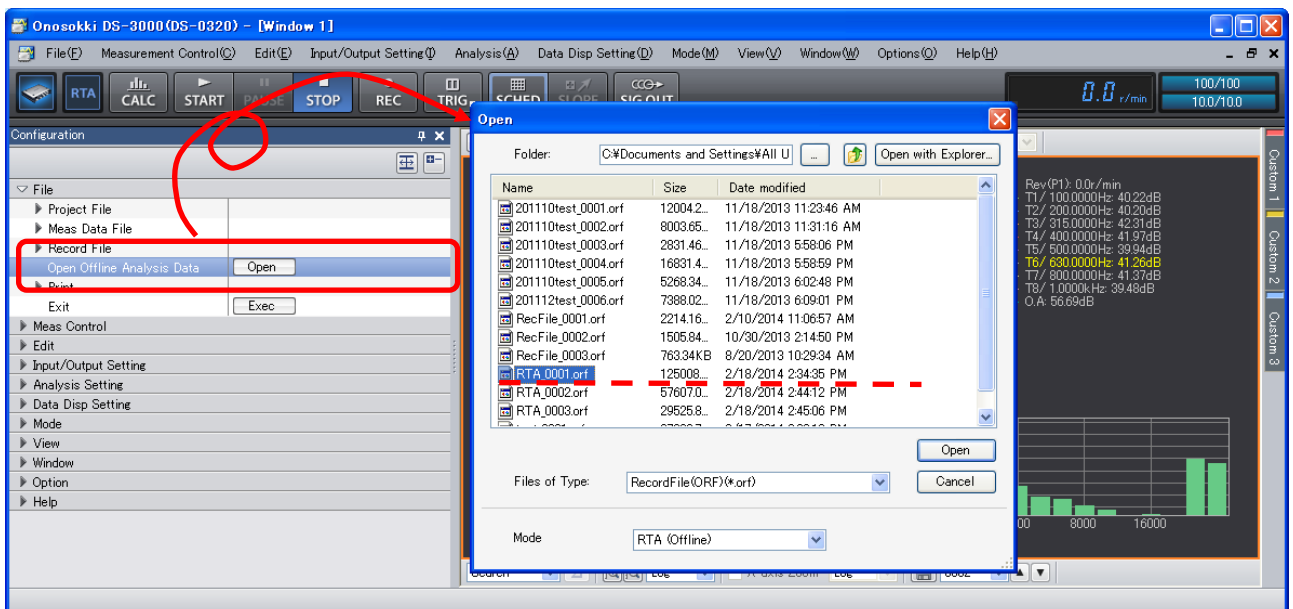
- ⑤ If the DS-0322 tracking analysis software is in place and the analysis is "START"ed for trend measurement with the "Schedule" button on top of the graph window turned on, it will automatically come to "STOP" when the specified time has elapsed. The following figure shows the details of this operation.



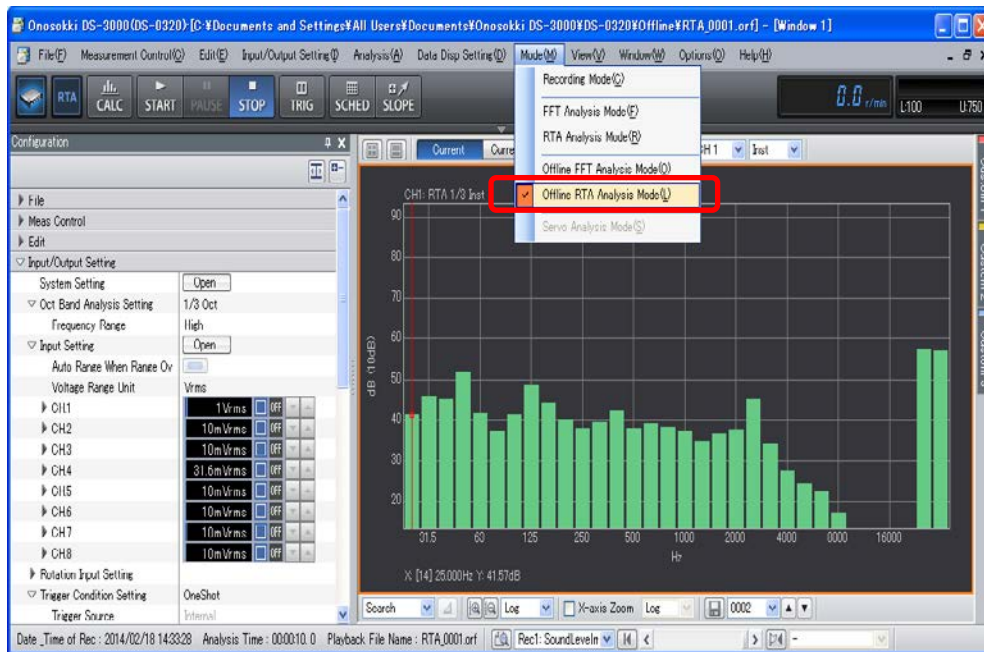
- ⑥ To stop recording, click to turn off the [REC] button on the main tool bar. The recorded data will be automatically stored in the folder specified in the above Operation Item -2.
- ⑦ If a new file name is to be used for the recording, repeat the step from Operation Item -2 "Setting for Record File".

#### -4. Loading ORF File

- ① From the main menu, click "View" > "Configuration" to open the "Configuration" window.
- ② In the "Configuration" window, click "File" > "Record File" > "Open Offline Analysis Data" > "Open", and open the "Open File" dialog box. In the "Open File" dialog box, specify the ORF file to be analyzed.



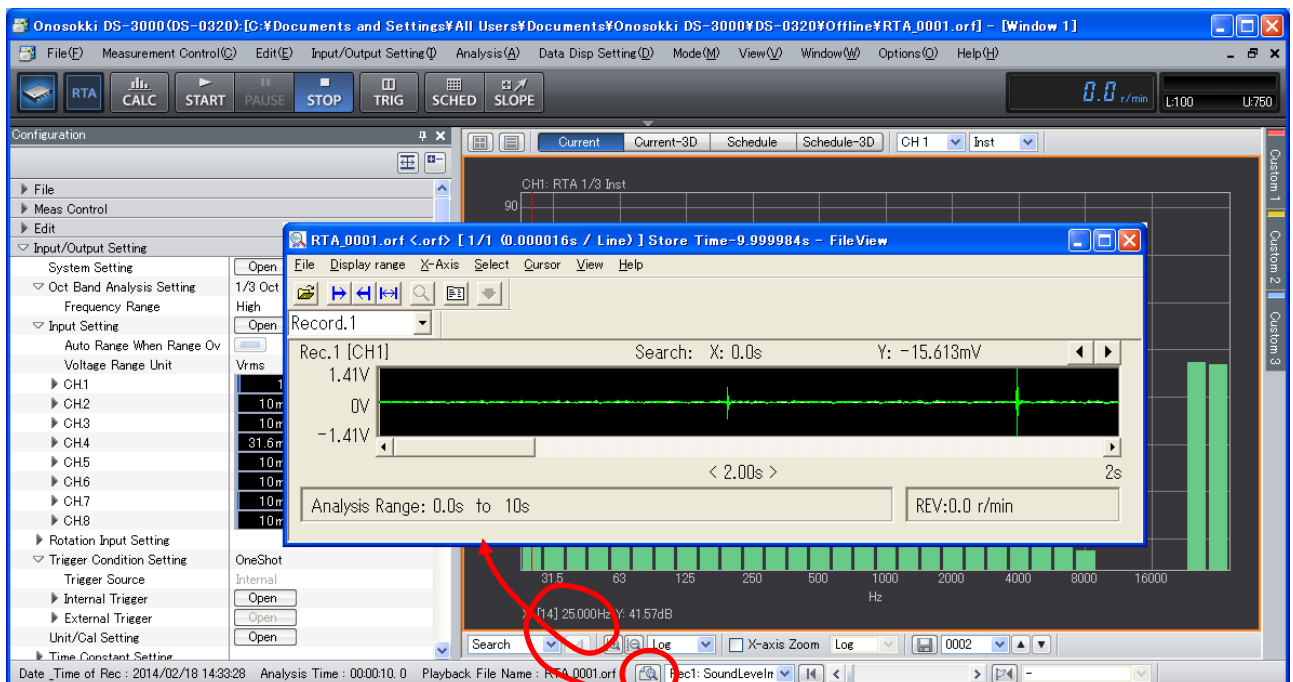
- ③ In the main menu, click "Mode" > "Offline RTA Analysis Mode". The RTA analysis window will be



## -5. File View Operation

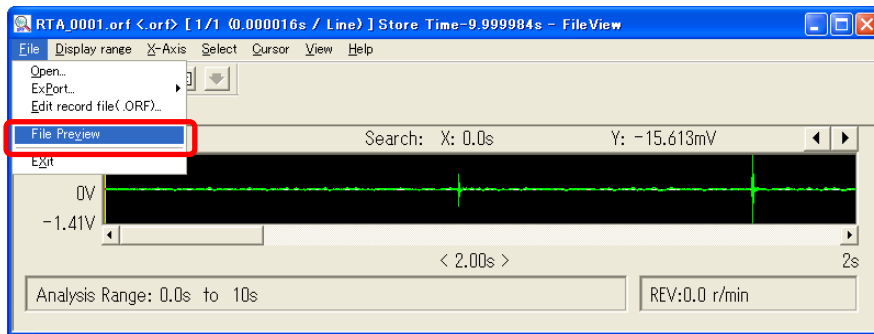
In the file view, the entire waveform can be checked for the data recorded in the ORF format. In addition, the analysis range may be specified to analyze only within the range.

- ① Click the "Start File View" button to open the "File View" window.

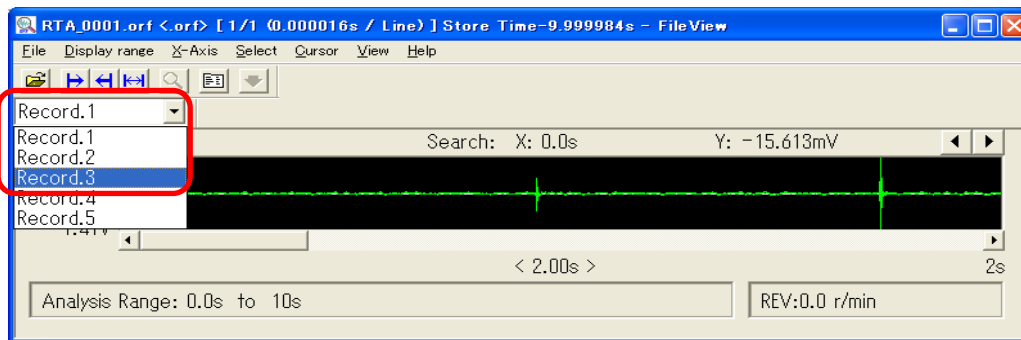


"Start File View" button

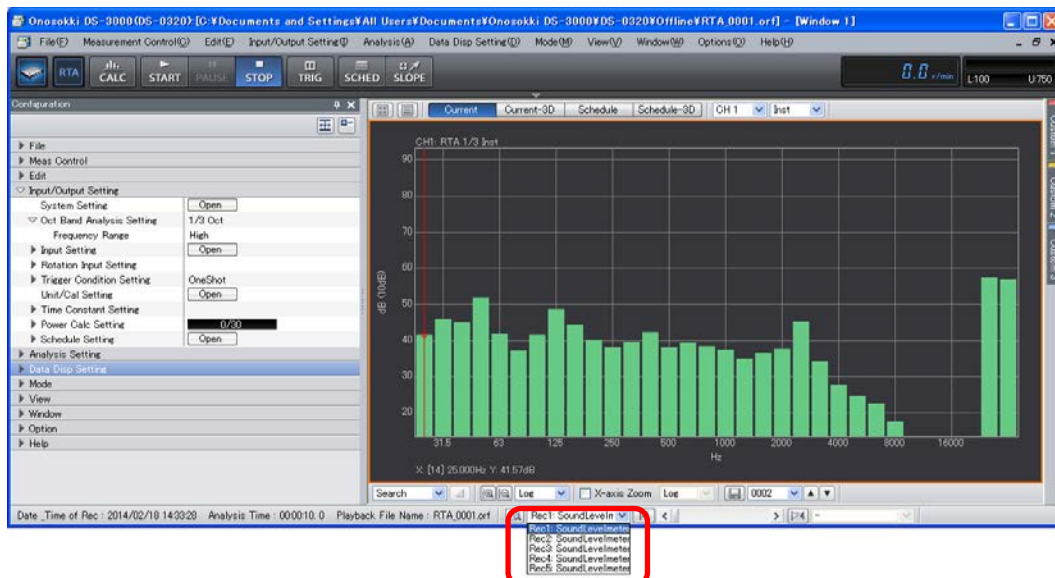
- ② From the menu in the "File View" window, click "File" > "File Preview". The entire data record will be displayed.



- ③ Select the record number of the data to be replayed and analyzed.

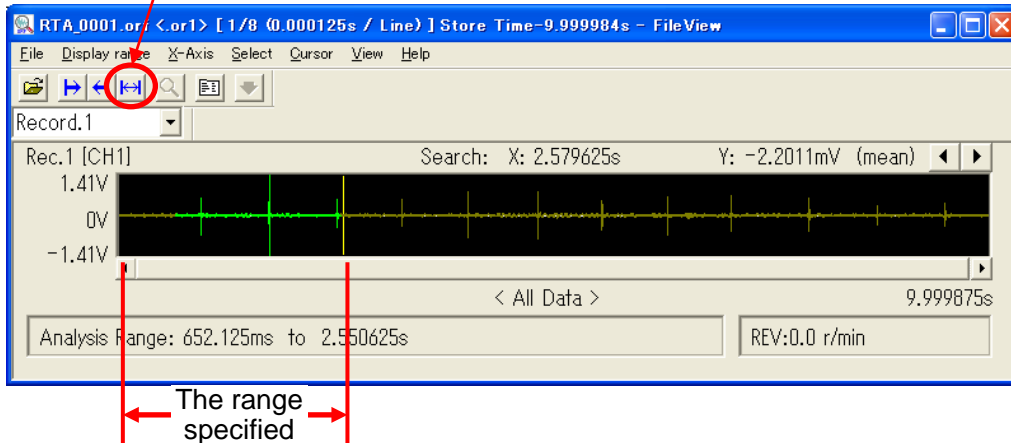


This selection can also be made by selecting the record number on DS-0323.

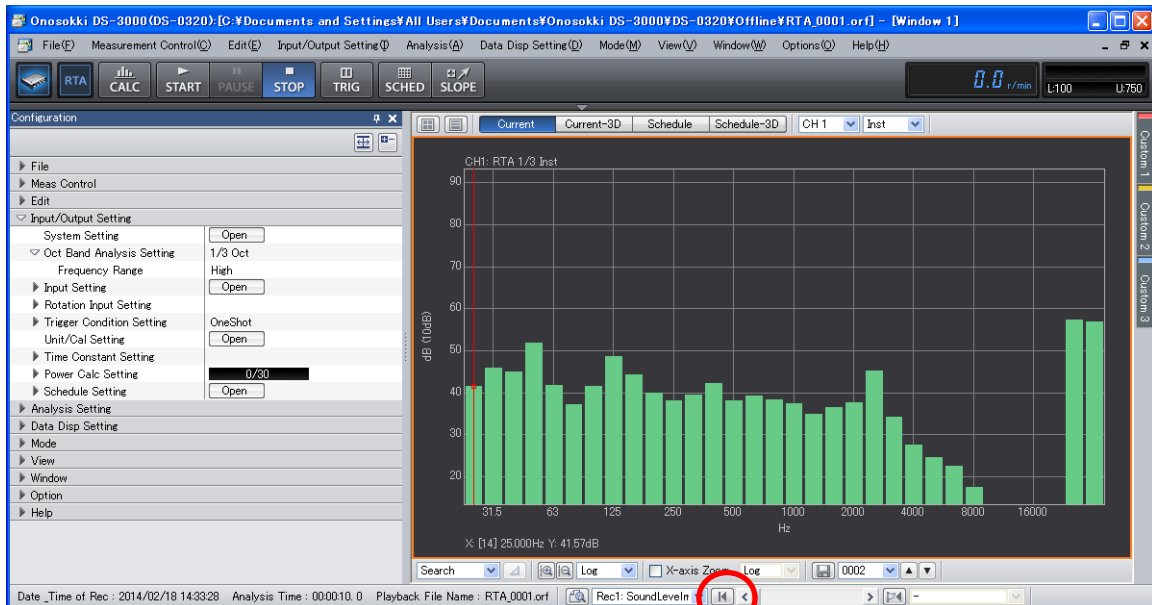


- ④ Drag the cursors to define the range of analysis for the data. The range specified by dragging the cursors will change the color to blue. Click the "Specify Display Range" tool icon on the file viewer. The specified range will be shown in green. The analysis will be performed within the range specified here.

"Specify Display Range" tool



⑤ Return to the point to start the measurement.



Returns to the start point of recording

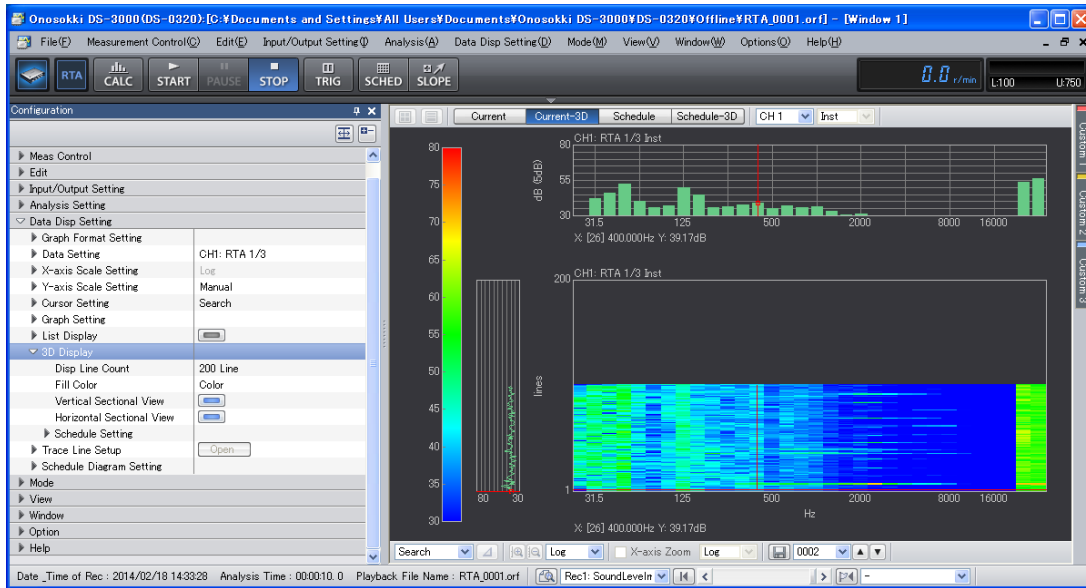
## -6. Offline Real-time Octave Analysis

First, the measurement conditions for the offline real-time octave analysis shall be specified. For details, refer to the basic operation procedures for real-time octave analysis.

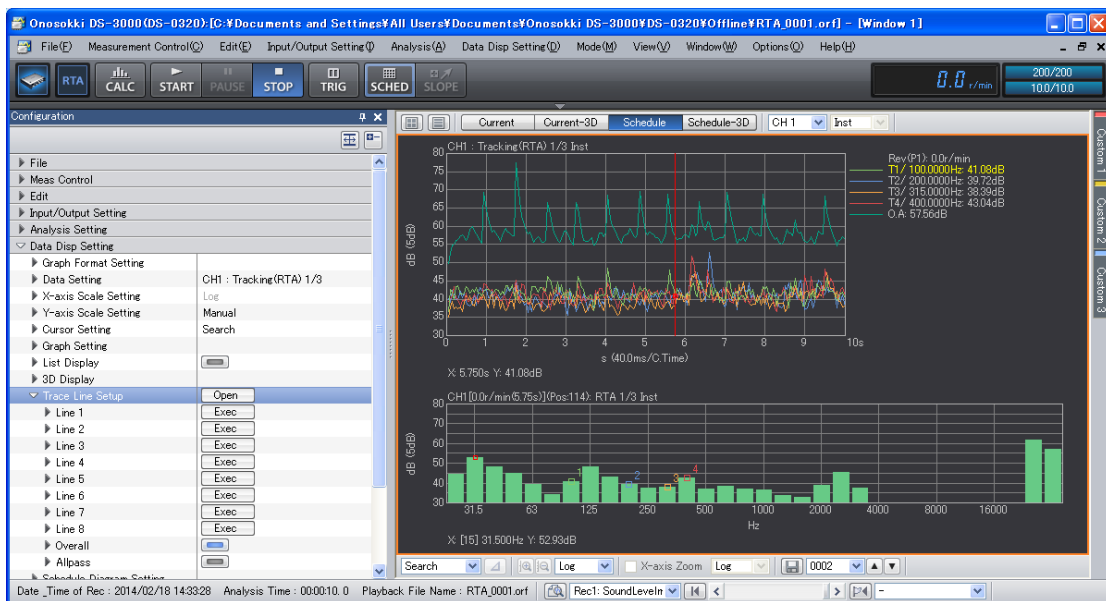
Using the offline analysis function is convenient when you wish to perform measurements by changing the analysis condition for the same data.

The figure below shows the case with the time constant of 10 ms and "Current 3D" setup.





The figure below shows the case of using the DS-0322 tracking analysis software where the "Schedule" tab is clicked to perform trend measurement.



- When this window is opened, the data will be replayed with the sampling condition at the time of recording. Accordingly, some unchangeable "Input/Output Setting" parameters will be grayed out.
- Any data recorded after unit conversion will be replayed in the unit after the conversion.

End